ACT/015/025
Wild Horse Ridge
Informal Conference

AFFIDAVIT OF PUBLICATION

STATE OF UTAH)

ss.

County of Carbon,)

I, Kevin Ashby, on oath, say that I am the Publisher of the Sun Advocate, a twice-weekly newspaper of general circulation, published at Price, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue of such newspaper for 1 (One) consecutive issues, and that the first publication was on the 8th day of February 2000, and that the last publication of such notice was in the issue of such newspaper dated the 8th day of February, 2000.

Kevin Ashby

Kevin Ashby - Publisher

Subscribed and sworn to before me this 8th day of February, 2000.

Linda Thayn

Notary Public My commission expries January 10, 2003 Residing at Price, Utah

Publication fee, $ 79.75

LINDA THAYN
NOTARY PUBLIC • STATE of UTAH
845 EAST MAIN
PRICE, UTAH 84501
COMM. EXP. 1-10-2003

NOTICE OF INFORMAL CONFERENCE
CAUSE NO. ACT/015/025

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF
CO-OP MINING COMPANY TO MINE THE
WILD HORSE RIDGE ADDITION AT THE
BEAR CANYON MINE, EMERY COUNTY, UTAH

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given, that the Division of Oil, Gas and Mining ("Division") will conduct an informal conference on February 22, 2000, beginning at 10:00 a.m., at the Department of Natural Resources, Room 1040, 1594 West North Temple, Salt Lake City, Utah. The informal conference will be conducted in accordance with the Utah Code Ann. § 40-10-13 (1953, as amended) and Utah Admin. R. 645-300-112 and R. 645-300-123. Objections to Co-Op Mining Company's application to mine the Wild Horse Ridge Addition and request for an informal conference were received, and an informal conference will be conducted to accept written or oral statements and any relevant information pertaining to this permitting action from any party to the conference.

Persons interested in this matter may participate pursuant to Utah Admin. R. 645-300-123. The application, subsequent public comments, and request for informal conference may be inspected in the office of the undersigned, 1594 West North Temple, Suite 1210, Salt Lake City, Utah.

Pursuant to the Americans with Disabilities Act, persons requiring auxiliary communicative aids and services to enable them to participate in this conference should call Tiffini Moss at (801) 538-5304, at least three working days prior to the hearing date.

DATED this 3 day of February, 2000.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
-s-Lowell P. Braxton, Director

Published in the Sun Advocate February 8, 2000.

ACT/015/025
Wild Horse Ridge
Informal Conference

AFFIDAVIT OF PUBLICATION

STATE OF UTAH)

ss.

County of Emery,)

I, Kevin Ashby, on oath, say that I am the Publisher of the Emery County Progress, a weekly newspaper of general circulation, published at Castle Dale, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue of such newspaper for 1 (One) consecutive issues, and that the first publication was on the 8th day of February, 2000 and that the last publication of such notice was in the issue of such newspaper dated the 8th day of February, 2000.

Kevin Ashby

Kevin Ashby - Publisher

Subscribed and sworn to before me this 8th day of February, 2000.

Linda Thayn

Notary Public My commission expries January 10, 2003 Residing at Price, Utah

Publication fee, $ 57.20

LINDA THAYN
NOTARY PUBLIC • STATE of UTAH
845 EAST MAIN
PRICE, UTAH 84501
COMM. EXP. 1-10-2003

NOTICE OF INFORMAL CONFERENCE
CAUSE NO. ACT/015/025

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF CO-OP MINING COMPANY TO MINE THE WILD HORSE RIDGE ADDITION AT THE BEAR CANYON MINE, EMERY COUNTY, UTAH

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DATED this 3 day of February, 2000.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
-s-Lowell P. Braxton, Director

Published in the Emery County Progress February 8, 2000.

ORIGINAL

BEFORE THE DIVISION OF OIL, GAS AND MINING

DEPARTMENT OF NATURAL RESOURCES

STATE OF UTAH

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IN THE MATTER OF THE APPLICATION OF CO-OP MINING COMPANY TO MINE THE WILD HORSE RIDGE ADDITION AT THE BEAR CANYON MINE, EMERY COUNTY, UTAH	: INFORMAL CONFERENCE : CAUSE NO. ACT/015/025 : :

-o-

Place: DEPARTMENT OF NATURAL RESOURCES
1594 West North Temple
Room 1040
Salt Lake City, Utah 84114

Date: February 22, 2000
10:00 a.m.

Reporter: Kerry J. Sorensen, CSR/RPR

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OIL, GAS AND MINING

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2

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(801) 517-3530
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For Huntington-Cleveland Irrigation Company:
6 Mr. J. Craig Smith
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8 Salt Lake City, Utah 84111
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The Hearing Officer:
10 Mr. Lowell Braxton

11 Division Members:
Ms. Tiffany Moss
12 Ms. Vicki Bailey

13

14

15 -oOo-

16

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February 22, 2000 10:00 a.m.

P R O C E E D I N G S

THE HEARING OFFICER: Let's go on the record now.

We're here today to have an informal conference in the matter of the addition of the Wild Horse Ridge leases to Co-op Mining's Bear Canyon Mine, and that mine number is ACT/015/025.

This conference is being held under the provisions of Utah Rule 645-300-123. The intent of this conference is to hear matters relevant to the permit application that, as I said before, is seeking to add the Wild Horse Ridge leases to the Bear Canyon permit.

In matters like this the applicant for the permit bears the burden of proof. In other words, what we've got to have before the Division can -- can approve a permit application is a complete and accurate application.

Two parties have objections to the permit application that has been submitted, Huntington-Cleveland Irrigation Company and Castle Valley Special Services District. They've requested a conference that we're having right now.

At this juncture I'd like to ask: Are there other people that would like to be heard in this matter? I'm presuming Co-op will have some things that they would like to say, also.

As we begin, I'd like to focus the discussion on the permit modification that's before us. In other words, let's comment about the permit action that -- that precipitated this conference. I know there's a lot of history in the area, but this hearing is designed to accommodate the application that -- that resulted in the notice which resulted in this conference, so I hope we don't have to delve too far into ancient history in order to resolve the issues that are before us today.

There's a sign-in sheet. I hope everybody will sign in before the day's over. Again, this is supposed to be informal. There's some coffee and some drinking water available back there.

A transcript is being made today, as you can see, so when you're -- when your testifying, please speak slowly. Bear in mind that what you're saying is being recorded, and I'd like to get a good record out of this.

If you have information that you're going to be quoting from, I think it would be a great help

1 to our reporter if you could provide him with a copy
2 of that. It just makes his job a lot easier.
3 So with that bit of housekeeping, I guess
4 I'd like to begin. And I'm not sure who would like to
5 go first. Mr. Smith, would you like to?
6 MR. SMITH: I'd be pleased to,
7 Mr. Braxton.
8 My name is Craig Smith. With me is
9 Mr. Scott Ellsworth. We're here on behalf of the
10 Huntington-Cleveland Irrigation Company.
11 Just -- I'll be very brief on who we are.
12 I think everybody knows who we are, but just for the
13 purposes of the record, Huntington-Cleveland
14 Irrigation Company is a nonprofit mutual irrigation
15 company that holds numerous water rights in the
16 Huntington Creek drainage, the area that we're talking
17 about here, as far as water.
18 And we appreciate the opportunity to
19 participate in the conference. We will focus our
20 comments and questions -- and we do have many
21 questions -- on the substantial revision. We don't
22 want to go through the history. We think that's, so
23 to speak, water under the bridge of what's happened in
24 the past. Those things have been heard, they've been
25 decided, and we're not here to try to rehear,

1 resurrect, or retry any -- any previously heard
2 issue. However, the permit revision does anticipate
3 going into new area, and we want to focus attention
4 on -- on that, new area.
5 And it's our goal, which I think is similar
6 to the goal of everyone here -- and I know that may
7 sound strange in a -- in a informal conference where
8 we have mining companies, water companies, and the
9 regulatory agency here, but I really do think we all
10 have the same goal, even though I think we've maybe
11 gone about this ways that, as I look back at the
12 past -- and I'll delve just briefly into the past
13 here -- may not have been as effective or as smart,
14 now I've learned and grown, and as we've been through
15 these issue for now about six years of -- of having
16 concern about the water in the area. And that's
17 really why we're here, and everybody knows that's why
18 we're here. We're water users, we're water right
19 holders, we are concerned about the water.
20 There's been, I guess -- you know, there's
21 obviously many ways to try to achieve a goal, and --
22 and at times we've been -- I think we've tried ways
23 that, as I look back, probably weren't as effective,
24 probably could have been more effective if we would
25 have taken a more cooperative approach. And that's

1 the kind of approach we want to take today, because
2 we feel that everybody really does have the same
3 goal, i.e., to understand the hydrology of the area.
4 We're going to focus our comments on the
5 hydrological portions of the permit revision, for
6 obvious reasons, to understand the hydrology of the
7 area and to know whether or not the mining activity is
8 affecting the hydrology of the area. That's not a
9 goal that's different for my client, for
10 Huntington-Cleveland Irrigation, than for Co-op, or,
11 for that matter, for the Division of Oil, Gas &
12 Mining. That's precisely why we have the regulations
13 we have.
14 So it's my hope today to try to engender
15 that kind of cooperative approach in determining
16 whether or not we have the type of information that we
17 need to have, so that we will know if something
18 happens in the mining activities that will affect the
19 hydrology, affect the springs, affect the water in the
20 area. And I -- and so we feel that's the approach
21 we're going to take.
22 The resource is the water. The resource
23 has been there before mining, and we want it to be
24 there after the -- after the mining. We all depend on
25 the same watershed in that area, and so we -- we want

1 to take that sort of approach.
2 And with that approach we just have some
3 questions, and I don't know if Co-op has a designated
4 person they would like to have answer questions. We
5 have some questions about the -- this is the PHC that
6 I'm going to be asking questions from, if that's
7 okay. And I don't know if Co-op has someone they have
8 designated they'd like to answer questions. I don't
9 want this to be formal. If they have a map or if they
10 have something they wanted to show, and please feel
11 free to do that. I want to make it as informative as
12 possible. This is not a situation where, you know,
13 you see on TV with attorneys that have trick questions
14 to try to elicit certain answers. It really is simply
15 to help us understand what the situation has been and
16 what studies have been done and what's known about the
17 hydrology.
18 So it's our hope that at the end of this
19 process that we can have a study or a document that
20 will allow DOGM to understand sufficiently the
21 hydrology of this area; that if there is a spring that
22 dries up, or if there is water -- water that comes out
23 of the mine that's not expected, that we'll be able
24 to -- to determine what that -- where that's draining
25 from, what spring -- why that spring dried up, you

1 know, what's happened in that area, so that if
2 replacement water needs to be found we don't have to
3 come back and have another hearing, we don't have to
4 come back and do another study, that the studies and
5 everything is in place so we understand the hydrology
6 well enough that even if the predicted consequences
7 don't take place and something unpredicted takes
8 place, that we will understand the hydrology enough
9 that DOGM can just take action, as it should. And
10 that's -- that's our -- our question. That's our
11 quest today, I should say.
12 THE HEARING OFFICER: Might I interrupt for
13 a minute? Is that an acceptable approach to you, or
14 would you like to get through the entire litany of
15 questions that -- that Mr. Smith has, and then respond
16 to those? What's the most efficient manner to do
17 this, from Co-op's perspective?
18 MR. REYNOLDS: I -- I appreciate
19 Mr. Smith's approach, and I think that would be fine;
20 if there are concerns, that we certainly would like to
21 address those.
22 MR. SMITH: Should I just proceed, then?
23 THE HEARING OFFICER: Please do.
24 MR. SMITH: And I don't know if Castle
25 Valley wants to say something, before I proceed to my

1 questions.

2 MR. VAL PAYNE: No. Go ahead.

3 MR. SMITH: I want to give everybody an

4 opportunity to say what they want to say.

5 The first -- and it was hard, and we've

6 have -- and please forgive me, I'm not a hydrologist,

7 and neither is Mr. Ellsworth. In reading through the

8 documents, and we got copies of everything that was

9 provided, if it's something that's in the document,

10 please just refer us to the document. We're not

11 trying to just take time, we're not trying to make

12 this any more difficult than answering questions.

13 But the first thing I guess we'd like to

14 have discussed and have Co-op respond to, is the kind

15 of -- what kind of field studies were conducted. And

16 we'll just limit this to the Wild Horse Ridge area.

17 We really don't need to know about other areas.

18 Within this expanded area -- and we'll call it the

19 Wild Horse Ridge area, I think everybody knows what

20 we're talking about; that's the area that's being

21 proposed to be added to the permit -- what kind of

22 field studies were conducted in the Wild Horse Ridge

23 area in preparation of the PHC.

24 MR. REYNOLDS: Perhaps a lot of questions

25 regarding -- I'll go ahead and defer to Mr. Kelly

1 Payne and Mr. Erik Petersen, who have helped in
2 offering the PHC.
3 MR. KELLY PAYNE: I can at least relate the
4 things that we've done in the area. My name's Kelly
5 Payne. I work for Mayo and Associates, M-a-y-o.
6 Do you want me to sit up there?
7 MR. SMITH: You might as well come up, if
8 it'll make it easier.
9 THE HEARING OFFICER: Thank you.
10 MR. KELLY PAYNE: We've undertaken, if
11 you've seen Appendix 7-J of the permit, this report
12 here, it's, you know, quite voluminous. We've done a
13 number of sampling events, we've looked at the
14 isotopic compositions of groundwaters and surface
15 waters in the area.
16 MR. SMITH: If I could stop you there.
17 Could you tell us where you took samples from in the
18 Wild Horse Ridge area.
19 MR. KELLY PAYNE: They will be enumerated
20 in the --
21 MR. SMITH: Okay.
22 MR. KELLY PAYNE: -- in the permit or in
23 this document itself, you can go to.
24 THE HEARING OFFICER: Is there a map that
25 we could post that would be helpful to us? This might

1 be a good suggestion.
2 MR. SMITH: If we had one that showed --
3 obviously that's, I think, too small of scale or, you
4 know, too much is shown. If you have one that shows
5 just the -- if we have an overhead projector, I've got
6 an overhead. I don't know if one is available.
7 THE HEARING OFFICER: As Captain Kirk would
8 say, we'll make it so.
9 MR. SMITH: Just so I know, we got this
10 copy here. Is this -- the report here (indicating),
11 is that the same thing as this (indicating)?
12 MR. KELLY PAYNE: Yes. You're missing a
13 cover, but --
14 MR. SMITH: Okay.
15 MR. KELLY PAYNE: I'll assume that we have
16 all the same pages.
17 MR. ELLSWORTH: Hope so.
18 MR. KELLY PAYNE: Specifically, Table 4,
19 Craig, will enumerate all of the samples we've
20 collected in not only the existing Co-op lease, but,
21 also, the Wild Horse Ridge. That's on Page 83.
22 And -- and future expansion into the northern area,
23 the area north of the existing lease and the
24 geomountain area. Do you want to post that map,
25 Charles, or -- my map isn't that good, but --

MS. BAILEY: Do you want to put out our map here (indicating)? Does anybody need to use it?

MR. PAYNE: Yeah. The only problem is we don't have any --

MR. BRAXTON: We're going to get a better map.

MR. KELLY PAYNE: -- water points plotted on that map.

MS. BAILEY: Just so people know, it has Big Bear and it has the --

MR. KELLY PAYNE: Yeah.

MS. BAILEY: -- and has the entire geo area outlined, as well as the proposed permit area, so if anybody needs to refer to that map, they're welcome to.

MR. REYNOLDS: I might reference some of the specific names or numbers that we've given the springs within this area that are referred to in this document, WHR-4, -5, and -6. WHR-4, WHR-5, and WHR-6 are all located within the expansion area, as well as springs that are labeled 16-7-24-4 and 16-7-24- -- and dash -3.

MR. KELLY PAYNE: I think it's -5.

MR. REYNOLDS: Dash 5. Okay.

MR. KELLY PAYNE: Oh, it is -3. I'm sorry.

1 MR. REYNOLDS: 16-7-24-3.
2 And then, in addition, we've got several
3 springs that are outside of the expansion area but are
4 near the area, and we've looked at those. They are
5 referred to in the PHC as WHR-2, WHR-3, LF-1, and then
6 also we've got a well -- actually, three wells,
7 MW-114, MW-116 and MWD-117. So those are specific --
8 MR. KELLY PAYNE: Not all of those sites
9 were sampled for isotopic composition, but a
10 representative sample was taken.
11 MR. SMITH: So to make sure I understand,
12 you sampled springs and seeps that are within the Wild
13 Horse Ridge area?
14 MR. KELLY PAYNE: Correct.
15 MR. SMITH: Any wells within that expansion
16 area, or are they all outside of the expansion area?
17 MR. REYNOLDS: They're all -- all of the
18 wells are just north of the expansion.
19 MR. SMITH: Those are the Cypress Plateau
20 wells --
21 MR. REYNOLDS: Yes.
22 MR. SMITH: -- that were, I guess, drilled
23 for this Cypress Plateau purpose?
24 Any wells within the expansion area?
25 MR. REYNOLDS: No. Due to the -- the

steepness of the slopes within Wild Horse Ridge and the limited access, there's -- there's none directly on it.

MR. SMITH: Okay. How about any core samples that were taken?

MR. REYNOLDS: There are geologic core samples of holes that were drilled by Arco. I believe it was either 1981 or 1982 when some of that area was drilled.

MR. SMITH: And how many were drilled -- core samples were drilled in the Wild Horse Ridge area?

MR. REYNOLDS: Let me pull that information out.

MR. SMITH: While he's doing that, Kelly, maybe you could just go ahead and talk about other field analysis you did besides what we've talked about.

MR. KELLY PAYNE: In terms of actual field work we've done, in addition to collecting the samples, we have visited the site, we did a gain-loss study on Bear Creek, we hiked the creek and measured the flow in the creek at certain points and geologic formations, and looked that for gains and losses in the area.

1 MR. SMITH: Let me turn this off.
2 MR. KELLY PAYNE: This is informal, Craig.
3 (Telephone interruption).
4 MR. SMITH: I'm sorry. I didn't get this
5 turned off before. I neglected to do that.
6 MR. KELLY PAYNE: Let me finish before we
7 get back to Charles.
8 MR. SMITH: Okay.
9 MR. KELLY PAYNE: Co-op's collected quite a
10 bit of the baseline data, and although we weren't
11 directly involved in that, we tabulated it and
12 compiled it and analyzed it extensively, the water
13 quality data and the water discharge data from all the
14 springs and creeks in that area. So that would be
15 what -- what we've done.
16 MR. SMITH: Okay. So did you -- so when
17 you say -- just so I understand, so they provided you
18 with the data --
19 MR. KELLY PAYNE: That's correct.
20 MR. SMITH: -- and you tabulated that?
21 MR. KELLY PAYNE: Yes.
22 MR. SMITH: Did you do any kind of quality
23 or qualify assurance on the data or verification of
24 the data by -- by Mayo and Associates?
25 MR. KELLY PAYNE: We did look at the --

1 cad-ion and ion balance on all of the soluble data,
2 anything with a -- I believe it was 15 percent air
3 balance, which was kind of high. But we rejected
4 anything with large air balances. So we looked at
5 the -- you know, how well the cad-ions' balance out.
6 MR. SMITH: How about any verification
7 saying if you've got a sample of water, to verify
8 where that sample came from?
9 MR. KELLY PAYNE: That -- we wouldn't have
10 been able to do that. These data were collected in
11 the past over past -- years prior to -- to our
12 becoming involved with this, so --
13 MR. REYNOLDS: I might mention, in regard
14 to that, that most of the samples were collected
15 directly by me, personally. They were -- there were
16 also some samples that were taken by Intermountain
17 Power Agency in the area, that the -- that information
18 was provided to us by them. Copies of all of the
19 certified lab reports and all of the field information
20 collected are provided in Appendix 7-M of the permit.
21 MR. SMITH: In other words, is it your
22 position that the mine was responsible for providing
23 and gathering that kind of data?
24 MR. REYNOLDS: Yes.
25 MR. SMITH: How about reporting accidents?

1 Are you responsible to report accidents?
2 MR. REYNOLDS: No, I'm not involved in that
3 part of it.
4 MR. SMITH: I see. So if there is an
5 accident at the mine, you don't have any
6 responsibility to notify DOGM or any other regulatory
7 agency?
8 MR. REYNOLDS: The responsibility for that
9 falls on our safety director.
10 MR. SMITH: And who's that?
11 MR. REYNOLDS: The person I think would be
12 responsibility for that is Ken DeFaye.
13 MR. SMITH: Okay. And, to the best of your
14 knowledge, has he always reported every accident
15 that's occurred at the mine?
16 MR. REYNOLDS: To the best of my knowledge.
17 MR. SMITH: Okay. Why don't go ahead and
18 tell us what other studies you did. We've pretty much
19 covered that?
20 MR. KELLY PAYNE: Yes, we've -- we've
21 covered that.
22 That's the approach that we've employed
23 successfully, we believe, in a lot of the Wasatch
24 Plateau, is looking at discharge data of creeks and
25 the springs, as well as the solute data, and looking

1 at those not only as averages, but -- but time
2 dependent. And you'll find in our report both graphs
3 of time-dependent chemistry and -- and water discharge
4 data, as well as mean chemistry, and incorporating
5 that with solute data and our knowledge of the rocks
6 and how those rocks support groundwater.
7 MR. SMITH: Now, for us to understand the
8 hydrology of that area, what are the factors -- what
9 are the factors we need to understand to be able to
10 understand the groundwater and whether putting a mine
11 in an area will effect the hydrologic balance?
12 MR. KELLY PAYNE: The -- the approach that
13 we take anywhere when we look at groundwater is to
14 look at where is water recharging, what are the flow
15 path locations, where, physically, are they, what
16 rocks are they in, what geologic characters are they
17 in, and where is water discharged? And we've done our
18 best to look at that here. We don't know for
19 certain. Some recharge locations we haven't been able
20 to pinpoint them, but we have a fairly good idea of
21 what is not a recharge area or what is not supporting
22 ground water.
23 MR. SMITH: Now, how many springs are there
24 in the Wild Horse Ridge area?
25 MR. KELLY PAYNE: The Wild Horse Ridge area

is surprisingly dry -- well, not surprisingly. It's quite dry and, you know, for good reason. It's got some steep slopes and not a lot of access to groundwater recharge. The water runs off the slopes quickly.

Charles could give you a better count. He has the map in front of him.

MR. REYNOLDS: Those springs that I named are basically the extent of the springs.

MR. SMITH: And how many were there, four springs? Do you count four?

MR. REYNOLDS: That are a total of five springs within the expansion area. We monitored an additional two springs, and then also a sample in Fish Creek, which is a surface stream in the area, that were outside and adjacent to the expansion area.

And then we do have the -- the -- the plateau monitoring that we monitored, and, in addition, we've got several of our existing water monitoring points adjacent to the expansion area.

MR. SMITH: Of these five springs, which -- which formation do they issue from?

MR. REYNOLDS: The -- let's see. There's one of them that issues --

MR. KELLY PAYNE: From the Spring Canyon

sandstone.

MR. REYNOLDS: Spring Canyon sandstone, the Star Point, there were two springs in the Blackhawk formation, and then the remainder of the springs were all up in the upper --

MR. KELLY PAYNE: North Fork Flagstaff.

MR. REYNOLDS: Yeah.

MR. SMITH: Have we -- what's the period of time we have measurements of these springs?

MR. KELLY PAYNE: There's a table -- Table 1 in our report, on Page 21. It'll show you the number of measurements up through the middle of last year, when we completed this report. You would see that the table will tell you the period of record and the number of flow measurements for each of those springs, as well as the geology and the general description of where they're located.

So while this is comprehensive for this area, you can go find those specific springs we mentioned within this table.

THE HEARING OFFICER: Are you continuing to sample those now?

MR. REYNOLDS: They -- there will be -- additional baseline samples will be collected in the year 2000, to give us additional current information,

prior to the mining.

MR. SMITH: What methodology was used to -- to measure -- measure the flow of these springs?

MR. REYNOLDS: It was -- the -- the flow measurements that we took was primarily trying to channel the water into the bucket -- measure bucket.

MR. SMITH: And who conducted those measurements?

MR. REYNOLDS: The samples that we took, I conducted those. But the springs were monitored by Intermountain Power Agency. The samples were collected primarily by Earthfax Engineering. I understand there was one -- one set that was collected by Gary Gray, who at the time was working for us, collecting for IPA. He currently works for General Resources.

MR. SMITH: It appears that some of these springs -- I can't tell from this table how many times these springs were measured. Do you know how many times, Kelly, those springs were measured?

MR. KELLY PAYNE: You can look at the flow measurement right here, this number. And maybe that's not always intuitive, but in science that's what we use for a number, in terms of count.

So if you look down this column, for

1 instance, if we take the first -- 16-8, 18-5, under
2 "Springs," look over and under the column "End of 7,"
3 so we have seven flow measurements, and, generally,
4 when there's flow measurements there's been solute
5 measurements. And, specifically, if you wanted to
6 verify the number of solute measurements, you could go
7 to Table A-1, and there's the whole -- the whole
8 database.
9 MR. SMITH: Okay. Going to Page 7-2, it
10 says, "Our studies indicate, however, that within the
11 areas of in-line wells, separate and distinct aquifers
12 exist in the Spring Canyon stores of Panther tongues,
13 and Star Point sandstone, rather than one single
14 aquifer." Is this true to the north of the Wild Horse
15 Ridge, as well?
16 MR. KELLY PAYNE: No. I believe there's
17 only water in --
18 MR. SMITH: I guess my question is, really,
19 are there three separate aquifers, three separate
20 and distinct aquifers in the Wild Horse Ridge area, in
21 the -- I guess the Spring Canyon, Stores, and Panther
22 tongues and Star Point sandstone.
23 MR. REYNOLDS: The only -- the only
24 formation that we see any water coming out of is the
25 Spring Canyon formation. There are no springs in the

1 area coming out of either the Stores or the --
2 MR. SMITH: Okay. I guess -- but do we
3 know whether there are three separate tongues in the
4 Wild Horse Ridge area?
5 MR. REYNOLDS: Yes.
6 MR. KELLY PAYNE: There are three separate
7 tongues.
8 MR. SMITH: How about besides what's
9 supposedly the cliff? How about where the area is
10 going to be mined? Any bore holes that have verified
11 that?
12 MR. REYNOLDS: There haven't been any.
13 MR. KELLY PAYNE: Yeah. They've only
14 drilled --
15 MR. REYNOLDS: On the Spring Canyon.
16 MR. SMITH: So this conclusion, then,
17 wouldn't it be better if we had some bore holes that
18 told us that there are these -- that gave us that
19 data, instead of just extrapolating it from where we
20 do have bore holes?
21 MR. KELLY PAYNE: Well --
22 MR. HANSEN: I don't think that's what they
23 have done, just extrapolate. They've looked at other
24 factors here.
25 MR. KELLY PAYNE: Tell me what they're

1 extrapolating.
2 MR. SMITH: I'll read your conclusion
3 again, and I'm trying to see what you base your
4 conclusion on. That's really all I'm really trying to
5 do. It says "our studies," and you have to realize
6 there's not any backup. Your studies indicate a
7 different conclusion than the USGS studies for the
8 general area for this specific location.
9 MR. KELLY PAYNE: That's probably true.
10 MR. SMITH: And it goes -- let me read the
11 whole thing so we can get it all in context.
12 "According to this report" -- and this is referring
13 to the Danielson, which I'm sure you're familiar with
14 it -- "Available data from the study area, which
15 includes the permits area, concludes that the Star
16 Point sandstone and the lower part of the Blackhawk
17 formation are an extensive aquifer with many large
18 springs in the Cottonwood-Huntington area, including
19 various springs issuing from fault displacements in
20 this aquifer. Our studies indicate, however, that
21 within the areas of in-mine wells DH-81A, DH-2, and
22 DH-3, separate and distinct aquifers exist in the
23 Spring Canyon stores and Panther tongues of Star Point
24 sandstone, rather than one single aquifer within the
25 Star Point sandstone and Blackhawk formation."

1 My question is: Is this same conclusion
2 true -- your conclusion, not the Danielson
3 conclusion -- true for the Wild Horse Ridge area?
4 That's the first question.
5 MR. KELLY PAYNE: Data are not available to
6 substantiate that conclusion.
7 MR. SMITH: Okay. That's the -- that's
8 answer I was wondering about, and that's what I would
9 suggest, Mr. Braxton, is that -- that we need to have
10 to data to substantiate this. If not, then I think we
11 have to go back to the Danielson study as being the
12 authoritative study on the hydrology of this area --
13 MR. KELLY PAYNE: No.
14 MR. SMITH: Well, let me finish.
15 MR. KELLY PAYNE: Okay.
16 MR. SMITH: -- rather than -- because we
17 don't have any data to construct the Danielson study,
18 which was an area-wide study -- and I understand it,
19 was a general study. And I would -- I would ask that
20 that this be required to be -- that Co-op be required
21 to provide additional -- do additional studying to
22 tell us whether or not we have one aquifer -- one
23 regional aquifer or separate and distinct aquifers in
24 the Wild Horse Ridge area.
25 THE HEARING OFFICER: I hear your request.

1 MR. SMITH: Okay.
2 MR. LEAMASTER: Well, let me answer, and I
3 wonder if I could ask a related question.
4 MR. KELLY PAYNE: Okay. If I may respond,
5 Danielson wrote this study without the benefit of the
6 data that we have now, and that is common with a lot
7 of USGS reports; they're written before there was a
8 lot of coal mining in the region, before there was a
9 lot of hydrologic data. They did the best job they
10 could.
11 MR. SMITH: Sure. You've done the best you
12 could, as well.
13 MR. KELLY PAYNE: Let me finish.
14 MR. SMITH: I'll be happy to let you
15 finish.
16 MR. KELLY PAYNE: Not only at this -- at
17 this location, but we've looked at, and other people
18 looked, in other locations such as in Trail Mountain,
19 and there is no such thing as a regional Star
20 Point/Blackhawk aquifer. It just simply doesn't
21 exist. It was the best interpretation of the data
22 they could make at the time.
23 To -- I don't think it's big jump to
24 suggest that, knowing the geology, knowing that these
25 rocks do not communicate vertically with one another,

1 that within the Wild Horse Ridge area it -- there
2 is -- there is water in the Stores and Panther
3 sandstone that is separate and distinct from water in
4 the Spring Canyon.
5 Additionally, I believe it may be correct
6 here that this Board -- a coal mine permit was
7 required to characterize the aquifer immediately below
8 and all the aquifers above. And so if this is a
9 separate and distinct aquifer in Spring Canyon, we've
10 done our job in characterizing the Spring Canyon
11 sandstones immediately below the mine.
12 MR. SMITH: You say you don't think this is
13 a big leap, but it's a leap. You don't have the data
14 to make that conclusion on.
15 MR. KELLY PAYNE: No, we don't --
16 MR. SMITH: You're extrapolating from
17 areas, not the expansion area; is that right, Kelly?
18 MR. KELLY PAYNE: Well, yes, we are
19 extrapolating, but that is --
20 MR. SMITH: All we ask is that we get the
21 data. That's all we're asking.
22 MR. KELLY PAYNE: But I don't think that
23 that data is necessary. I think that the
24 extrapolation is valid and would be valid -- I think
25 if Mr. Danielson were here with us, he would agree

1 that, viewing this data, this was okay, and he would
2 be probably be comfortable extrapolating it, as well.
3 MR. SMITH: You know --
4 MR. KELLY PAYNE: He made the statement
5 without ever being at the Wild Horse Ridge, and so
6 that, in itself, is also an extrapolation.
7 Mr. Danielson extrapolated what he saw in a few
8 locations in the plateau, to come up with an area-wide
9 regional groundwater system. So, you know, that's the
10 fundamentals of science, we don't always have the data
11 where we need it, but we can make from the data
12 several scientifically sound extrapolations that are
13 valid.
14 MR. SMITH: But the data's available. You
15 could go get the data.
16 MR. KELLY PAYNE: The data aren't available
17 without drilling a hole.
18 MR. SMITH: That's all you have to do, is
19 drill holes, isn't it? Isn't that what Plateau did in
20 the area? Didn't they drill holes?
21 MR. HANSEN: If I may make a comment, I
22 think the central issue before this conference is to
23 determine whether the permit contains adequate
24 information to satisfy DOGM that mining in the Wild
25 Horse expansion area will not have a significant

1 hydrological impact on Big Bear Spring. That's the
2 central question.
3 MR. SMITH: No, no, no, no. Not at all.
4 Big Bear Spring has nothing to do with why I'm here,
5 Mr. Hansen.
6 THE HEARING OFFICER: Could you identify
7 yourself for the record, please.
8 MR. HANSEN: My name is Mark Hansen. I'm
9 the attorney for C.W. Mining Company.
10 What -- if -- if you may, just to enlighten
11 me, what -- what water does -- is your client claiming
12 in the area that is going to be significantly impacted
13 by the mining?
14 MR. SMITH: We have numerous water rights
15 in the area. They're of record. You can go find
16 those out, if you'd like to know --
17 MR. HANSEN: Well, they were --
18 MR. SMITH: Let me finish.
19 MR. HANSEN: Yeah.
20 MR. SMITH: What we're trying to determine
21 today -- and, again, we don't think we're in an
22 adverse position. We think that if everybody does the
23 job we are supposed to do, we can all hold hands and
24 walk out of this room together on this, because what
25 we want to make sure and what we are asking the

1 Division to do is to make sure we have sufficient
2 information, the data upon which we can understand the
3 hydrology of the area, so if mining starts and a
4 spring dries up in the area, we can know whether or
5 not that mining caused the spring to dry up in the
6 area. And that's -- that's what we're here for, and
7 we're just trying to find out how much data we have
8 and how much we're basing it on projections and not
9 having the data.
10 I believe that we had a question.
11 MR. LEAMASTER: Yeah, I did. My name is
12 Darrel Leamaster, Castle Valley Special Services.
13 In the PHC you had a cross-section drawn,
14 an east-west cross-section, hydrologic information
15 through the drop in -- yeah, that's it. And you
16 identified an angiometric service over the surface in
17 the Spring Canyon member over on the Wild Horse Ridge
18 site. And I'm wondering where you got the information
19 to draw that, where you got the information of that.
20 What page was that on?
21 MR. KELLY PAYNE: Page 63.
22 MR. REYNOLDS: The information came from
23 well levels of the plateau wells, collected by
24 Earthfax Engineering.
25 MR. SMITH: But none of those wells are

1 within the Wild Horse Ridge area; isn't that correct,
2 Charles?
3 MR. REYNOLDS: Yes. They're -- they are
4 all north of it.
5 MR. SMITH: Why did -- why was Plateau
6 drilling wells?
7 MR. REYNOLDS: We're looking at the
8 property immediately north of Wild Horse.
9 MR. SMITH: So -- okay. Does that answer
10 your question?
11 MR. LEAMASTER: Yeah. That's what I
12 wondered, if you had any information, actually, that
13 this was the Wild Horse area that you're planning on
14 mining, or if this was all north of where we --
15 MR. REYNOLDS: The wells were north and --
16 and -- let's see. The -- the information further
17 south, I believe Earthfax, they were looking at Wild
18 Horse Ridge, and also basing it on the springs or lack
19 of springs within the Wild Horse Ridge area.
20 MR. SMITH: You believe that's what they
21 were doing, or do you know that's what they were
22 doing.
23 MR. REYNOLDS: I know that's what they were
24 doing.
25 MR. SMITH: Well, I would suggest that if

1 they wanted to have Earthfax' expertise here, they
2 could have Earthfax here at the table explaining what
3 they were doing and why they were doing it.
4 So, again, this -- this table, this chart,
5 you had nothing to do with preparing?
6 MR. KELLY PAYNE: This chart?
7 MR. SMITH: Yes.
8 MR. KELLY PAYNE: No, I did not prepare
9 this chart.
10 MR. SMITH: Or anyone at Mayo and
11 Associates?
12 MR. KELLY PAYNE: No. No one at Mayo and
13 Associates prepared this chart.
14 MR. SMITH: And it's not based on any
15 information data gathered from the Wild Horse Ridge
16 area itself?
17 MR. KELLY PAYNE: It's from data
18 immediately adjacent to the Wild Horse Ridge.
19 MR. SMITH: So I guess the answer is no,
20 there's no data from the Wild Horse Ridge area that
21 comes off of that chart?
22 MR. KELLY PAYNE: No, there are none.
23 MR. SMITH: Thank you.
24 MR. KELLY PAYNE: But if we were to draw
25 the border just a little bit to the north, then would

1 you be -- would it be all of a sudden, magically, from
2 the Wild Horse Ridge area?
3 MR. SMITH: What we want to know is what
4 we're getting into -- we're getting into a new area
5 that hasn't been mined, as I understand it. What we
6 want to know is do we have enough data that we can be
7 confident that there's not going to be an impact in
8 the springs in the area and the hydrologic balance, or
9 do we need to gather more information before we --
10 again, my goal is that we end up -- and I hope it's
11 the same goal as everybody else here -- we end up with
12 a document, PHC, that will tell us, "If this happens,
13 this means that we have affected the hydrologic
14 balance." Even if they don't expect this spring to
15 dry up, that we know enough that we don't have to come
16 back and do another hearing, you won't have to go back
17 and do another round of studies, because we understand
18 the hydrology well enough that this can be a
19 self-executing document, this PHC.
20 THE HEARING OFFICER: I understand what
21 you're asking for.
22 MR. HANSEN: I believe that what Craig is
23 asking for goes too far. What Mr. Smith, or Craig, is
24 asking for goes far, far beyond what the regs require
25 in a permit application. I think what we ought to be

1 asking here is what do we know about the area and what
2 reasonable conclusions can we draw about what we do
3 know, as far as the impact on mining to springs and
4 the underwater resources in or adjacent to the area?
5 That's really the question that needs to be asked, and
6 it hasn't been asked yet.
7 I understood this to be an informal
8 conference. It's turning into a fairly narrowly
9 tailored form of deposition, and I think is not what
10 we're here for. And I think if Craig would focus his
11 questions on what do we actually know and what could
12 we reasonably conclude from what we do know, as far
13 the impacts on mining to the water resources in the
14 area.
15 THE HEARING OFFICER: I would like to
16 continue, if that's acceptable, Craig.
17 MR. SMITH: I'm sorry.
18 THE HEARING OFFICER: In other words, I
19 would like to keep -- to keep moving. I understand
20 the point that you made.
21 MR. SMITH: Okay. I'm ready to move on
22 into another point. I'm heading to another point. I
23 think I've exhausted that --
24 THE HEARING OFFICER: I believe you have.
25 MR. SMITH: -- thoroughly.

The next point I think we've already covered. That's the hydrologic cross-sections. Isn't that what we were just talking about? It says, Illustrates projected services within the permit areas."

I'm on Page 75. I'm sorry.

"Potential methods." We've already covered that, right?

MR. KELLY PAYNE: Yes.

MR. SMITH: We've covered the fact that we don't have the data from that area, okay?

It says "Field measurements." We've talked about all the field measurements that you've done.

I'm on Page 7-6 of the PHC. Any other field measurements that we haven't talked about? I'm on 7-6 of the PHC.

MR. KELLY PAYNE: Of the permit itself?

MR. SMITH: Isn't that what this is?

I just want to make sure we've covered it. I want to give you a chance to say everything that you did as far as gathering field data, any other wells you drilled, anything else. I don't want to try to leave a misimpression you have done things that you have. So is there anything else you want to talk about? If not, we can move on to my next point. I

1 just want to give you a chance to do that.
2 MR. REYNOLDS: The field measurements and
3 the drill hole data that we've done are all included
4 in the PHC in Appendix 7-M. The geology is presented
5 in Chapter 6.
6 MR. SMITH: Okay. Unless there's something
7 else you'd like to say, I'm ready to move on to
8 another point.
9 MR. KELLY PAYNE: Let's move on.
10 MR. SMITH: I'm looking at the aquifer
11 storage part of the permit, where it talks about
12 that. It says, "Quantitative data and published
13 estimates" --
14 MR. KELLY PAYNE: Page?
15 MR. SMITH: I'm sorry. 7-9.
16 MR. KELLY PAYNE: Okay.
17 MR. SMITH: -- "published estimates are not
18 available on the amount of water stored in the rock
19 units in the permit area." What would have to be done
20 to obtain that quantitative data?
21 MR. REYNOLDS: Some of that data has been
22 obtained and included in the PHC. That statement is a
23 statement that's in the original application. It's
24 not been changed, and it probably isn't sufficient.
25 That statement would need to be revised.

MR. SMITH: Okay. So that's not a correct statement.

Can you tell us what the estimates are.

MR. KELLY PAYNE: We've -- we have what -- what would be required to assess the amount of water in storage would be the thickness, the lateral extent, in both X and Y directions, to the area, the thickness of the area, and porosity -- effective porosity for this unit. There's only one real aquifer, if you might want to call it that, that we've -- that we've identified with that, and that was the sandstone channel that fills water to the mine currently. And we've made some estimates of water flow in that channel that's responsible for those estimates.

MR. HANSEN: That's the reason for that existing mining.

MR. KELLY PAYNE: That is true of the existing mine.

MR. SMITH: I just want to hear about -- you know, not to cut anybody off, I want to give everybody a chance to say whatever they want to say, but, again, I'm trying to focus on the Wild Horse Ridge area, not on the existing mines. Like I said, we've plowed the ground with the existing mines many times, and I'm not here to plow it again.

MR. KELLY PAYNE: If you want to speak to the existing area, we've not had any quantitative determinations of the amount of water in storage. We don't believe there is a lot of water in storage. It is a dry area. We've noticed -- we've noted there are no springs which discharge -- the down dip end of these rocks is towards the south and east, so it would be part of Huntington Canyon and part of the Fish Creek Canyon. There are no springs in the Blackhawk formation in that area. So we don't think there's a lot of groundwater, though there may be groundwater in the rocks, but not significant volumes.

MR. SMITH: How about in the expanded area? One of the springs I was told issues from the Blackhawk formation.

MR. KELLY PAYNE: It does from the Blackhawk formation in Bear Canyon itself on the east side of Bear Canyon. It comes out of the sandstone channel. We don't know the lateral extents of that.

MR. SMITH: That's -- that's in the new Wild Horse Ridge area?

MR. KELLY PAYNE: The border, yes.

MR. SMITH: So do you know the extent of the recharge for that spring in the Blackhawk formation?

1 MR. KELLY PAYNE: I -- I do not know. I
2 know that it is hydraulically isolated from many of
3 the other springs in the creek itself, but we have not
4 characterized the recharge to it. So it's -- it's a
5 small discharge spring. It's not a large discharge
6 spring at all.
7 MR. SMITH: Okay. There's a statement in
8 here I didn't understand, "About" -- I'm reading from
9 Page 7-9. "About one third of the Blackhawk has been
10 removed by drainage development in the permit area."
11 Is that mining? Is that what we're talking about?
12 MR. REYNOLDS: No.
13 MR. SMITH: What's that in there?
14 MR. REYNOLDS: "Drainage development"
15 simply indicates erosion. In other words, you've got
16 Bear Canyon. Within Bear Canyon, the canyon itself is
17 a result of erosion of formations being removed.
18 That's what that's referring to.
19 MR. KELLY PAYNE: The rocks really carried
20 away by the creek.
21 MR. SMITH: Okay. Thank you. I didn't
22 understand -- when it says "removed," I didn't realize
23 it was removed -- you're talking about natural
24 erosion.
25 The next paragraph -- next paragraph on

1 that same 7-9, it says, "Assuming a dry to increasing
2 saturation with depth of these sandstone lenses." Is
3 his the three tongues we've talked about before?
4 MR. REYNOLDS: Okay. What that is
5 referring to is the lens -- actually, just reading
6 that, it's referring to sandstone lenses within the
7 Blackhawk formation. So throughout the Blackhawk
8 formation you get bedded sandstone, silt stone, and
9 mud stone layers. And that's what it's talking about,
10 as you continue on in the sentence, is describing the
11 Blackhawk formation.
12 MR. SMITH: Okay. Is that characteristic
13 true in the area of the Wild Horse Ridge in the
14 Blackhawk formation?
15 MR. KELLY PAYNE: Yes. The entire
16 Blackhawk formation.
17 MR. SMITH: We do not know how many lenses
18 or how thick they are or anything like that?
19 MR. REYNOLDS: We do, actually, have a lot
20 of that information in the core samples, the three
21 core samples that you asked about.
22 MR. SMITH: Okay. Tell me where those core
23 samples were taken. Maybe you could point them out on
24 the map.
25 MR. REYNOLDS: Okay. The three of them are

all located within the Wild Horse Ridge area. They're referred to as WHR-1, WHR-5, and WHR-8.

MR. SMITH: Can you just describe what -- how deep they went, the formations they've found, that sort of thing.

MR. REYNOLDS: Yes. They went down to the the top of the Star Point sample and the top of the Spring Canyon member. They basically went through the Cold Springs end of the top, Star Point.

MR. SMITH: And did they -- it says -- it says -- in here it says, "Assuming relatively impervious remaining intervening silt and mud stone layers in the Blackhawk formation." Did you find that?

MR. KELLY PAYNE: Yes.

MR. SMITH: And why don't -- maybe somebody could just draw or just explain what the -- what was found in the -- in the core sample.

THE HEARING OFFICER: I believe they've explained what was found in the core samples.

MR. SMITH: You're satisfied --

THE HEARING OFFICER: Yeah, I am. I think they've described the geology that's -- that exists in the area. You can go back and look at the core in a lot of detail, if you want to. I think that's a

1 pretty fair sample of what the Blackhawk would be
2 expected to have.
3 MR. SMITH: Okay. I'll move ahead. If
4 you're -- if you've got the information you need, I'll
5 move ahead.
6 THE HEARING OFFICER: Well, I can answer
7 your question.
8 MR. SMITH: Okay. Moving on, there's a
9 discussion about the sandstone channel on Page 7-10.
10 Does that sandstone channel also extend to the Wild
11 Horse Ridge area?
12 MR. KELLY PAYNE: We don't have any
13 information pertaining to that channel. That -- if
14 you were to extrapolate that across, it would actually
15 be north of the Wild Horse Ridge area.
16 MR. SMITH: Do we know whether we ran into
17 that channel through our core samples?
18 MR. REYNOLDS: Not that specific channel.
19 We do have information of significant scouring from
20 some of the whole -- U.S. Fuel has north of this. The
21 IPH should have all that geologic information that
22 kind of illustrates what the geology is in the area.
23 MR. SMITH: Now, my understanding is this
24 channel was the main source of water currently in the
25 mine that you've encountered?

1 MR. REYNOLDS: In -- with the existing
2 mine, that is correct.
3 SMITH: In the Wild Horse Ridge area, are
4 you anticipating encountering similar amounts of water
5 or not?
6 MR. REYNOLDS: No.
7 MR. KELLY PAYNE: Well, I should say it's
8 possible if a sandstone channel were encountered it
9 could contain a large volume of water. If this
10 particular sandstone channel were encountered by
11 mining, it is disconnected by flow along the Bear
12 Canyon fault from anything from the other side of the
13 fault. So it's -- it won't be the same water. So
14 there -- there is a possibility of encountering the
15 water in some channels in the region.
16 Some sandstones channels are dry, some
17 wet. If they have a -- a method of being recharged or
18 a conduit for recharge, and it's not readily
19 predictable -- whether they exist isn't even readily
20 predictable. They take turns. You can map them out
21 as you like. But the drill hole data is -- it's
22 difficult to assess the number, the extent, the
23 direction they're going. That's just not possible
24 with this kind of resolution of drill holes.
25 MR. HANSEN: The coal mine didn't find any

1 such channels in the existing mine until they hit the
2 north end of the permit area, did they?
3 MR. REYNOLDS: Yeah. We did encounter
4 channels -- other channels in the area, but they were
5 small and contained water.
6 MR. HANSEN: And that -- that area where
7 the sandstone channels exist did contain water, is
8 well to the north of the Wild Horse expansion area.
9 MR. SMITH: You anticipate -- so you
10 don't -- you're -- you're not anticipating -- let me
11 back up and ask the question this way: How much water
12 do you anticipate will be encountered in the Wild
13 Horse Ridge area through the mining activity there?
14 MR. KELLY PAYNE: Unless a large sandstone
15 channel is well connected with other sandstone
16 channels that have water or a good recharge source,
17 none.
18 MR. SMITH: Okay. So --
19 MR. KELLY PAYNE: And we've -- and that
20 statement is in our document. We make that very
21 statement.
22 MR. SMITH: Okay. If -- and so you don't
23 anticipate having any impact on any spring --
24 MR. KELLY PAYNE: We do not.
25 MR. SMITH: -- within the Wild Horse Ridge

1 area by mining that area?
2 MR. KELLY PAYNE: If those sandstone
3 channels were contributing significant volumes of
4 water to a spring, we would see a spring. We do not
5 see any springs along the outcrop, with the exception
6 of the one spring that -- or the two springs in the
7 Blackhawk formation that we've noted, and there are no
8 other springs in the Blackhawk area or adjacent areas.
9 MR. SMITH: Are any of the springs in the
10 permit or adjacent areas hydrologically connected with
11 the Blackhawk formation where you'll be mining?
12 MR. KELLY PAYNE: If there are no springs
13 there, how could the springs be connected?
14 MR. SMITH: Well, there's five springs. I
15 was told there were five springs in the Wild Horse
16 Ridge area, itself.
17 MR. KELLY PAYNE: One's in the -- two are
18 in the Blackhawk, one's is down in the Star Point
19 sandstone. We'll assume -- or we assume there's a
20 good basis that the springs in the Star Point
21 sandstone are not connected to the Blackhawk
22 formation. The remainder of formations, the higher
23 elevations north of Flagstaff formation, are also
24 disconnected from anything in the Blackhawk
25 formation. So the only real impact -- potential

1 impact, as it's stated in there, are those two springs
2 in the Blackhawk formation. That's the only impact --
3 only probable impact we could ever find.
4 MR. SMITH: Okay. So if there's -- there's
5 only two springs in the Blackhawk formation that
6 probably -- possibility, I'll say that --
7 MR. KELLY PAYNE: Possibility.
8 MR. SMITH: -- that would be impacted by
9 mining, how do they know it will be impacted by
10 mining?
11 MR. REYNOLDS: They're part of our --
12 they're proposed in the application as part of our
13 regular monitoring. It will be monitored.
14 MR. SMITH: So if -- if the --
15 MR. KELLY PAYNE: Diminution in flow.
16 MR. SMITH: -- there's diminution in flow,
17 you would agree that those things have to be
18 impacted?
19 MR. KELLY PAYNE: We'd have to look at
20 climatic conditions which possibly could contribute,
21 and that's something --
22 MR. SMITH: Could you give us a formula
23 or -- I would ask that the -- the Co-op be required
24 to -- to put something in their PHC, and you can
25 account for all the variables, i.e., a change of

1 precipitation, but would give some triggerpoint
2 based -- let me ask the question this way: We know
3 what the -- we know what the precipitation is in the
4 area, correct?
5 MR. KELLY PAYNE: Correct.
6 MR. SMITH: There's meteorological
7 stations in the area that can measure the
8 precipitation, so that that's a known, that's a given,
9 at any one time. Couldn't you come up with a formula
10 that would say, "Taking into account the variables, if
11 there's diminution in flow of this spring in the
12 Blackhawk formation, that that's been impacted by
13 mining"?
14 THE HEARING OFFICER: Now, let me ask what
15 you're asking for, Craig. You're putting a commitment
16 in the PHC that does that; am I correct?
17 MR. SMITH: Exactly.
18 THE HEARING OFFICER: That was a protracted
19 sentence you have there.
20 MR. SMITH: Let me try to explain what I
21 would like the PHC -- I'd like the -- and I'll be
22 happy at the end to point out where I -- I think the
23 rules require this. I think the PHC is more than just
24 a document that is used to explain things, I think
25 it's a document that is also used in describing the

1 hydrologic balance, to say, "If this springs dries up
2 and we can't explain it through changes in
3 precipitation or some other external thing, then
4 there's been a -- an impact on the spring, and under
5 law and regulation, there needs to be a replacement of
6 water."
7 THE HEARING OFFICER: Well, I would submit
8 to you that's what the monitoring program that's done
9 throughout the whole mining cycle is designed to do,
10 and that commitment isn't necessarily mandated in the
11 PHC.
12 MR. SMITH: Well, I guess where we break
13 down, though, is on this -- where it breaks down is
14 what happens if -- I understand there have to be
15 monitors. Let's say a spring is flowing ten gallons a
16 minute, and then it's monitored and it drops to one
17 gallon a minute. There's nothing in the PHC that
18 explains what -- what caused that, what could be the
19 causes of that drop.
20 THE HEARING OFFICER: Well, the PHC can't
21 really reflect the future, I don't think.
22 MR. SMITH: Well, it's got to predict the
23 probable hydrological consequences.
24 So I guess my question is what happens --
25 let's say they send in a sample, and all of a sudden

1 it's gone from ten -- and the precipitation has stayed
2 constant; we'll just assume that for purposes of
3 flushing out my point. Precipitation has stayed
4 constant. There's no other external factor that can
5 explain it. They send in a sample, and all of a
6 sudden from ten gallons a minute it's been flowing for
7 ten years, it's dropped to one gallon a minute. What
8 happens then?
9 THE HEARING OFFICER: Well, I think you
10 have to look at the -- the mining operations and you
11 have to look the -- the geology, you have to look at
12 what you know about the hydrology in the area, and
13 then you can begin to come up with an answer.
14 The PHC is designed to I think adequately
15 characterize the hydrologic situation before you go to
16 mining, but I'm not sure that the PHC can actually
17 predict what will happen if -- if subsidence
18 influences the spring. I think if the spring actually
19 declines in flow, then we'll have to deal with that.
20 We have got a regulatory matter before us, but I'm not
21 sure that -- that the commitment that you're asking
22 for in the PHC is a practical commitment, because
23 there are a lot of different parameters that would
24 have to be established in the case.
25 MR. KELLY PAYNE: I would agree. I think

it could be difficult to come up with formula and say, "Well, given the precipitation's at 70 percent and the flow decreases by 30 percent" -- I -- I don't know what basis we would -- we would have for that. It would be almost be an extrapolation, as you've --

MR. SMITH: Tell me the basis you have for saying -- for saying there will be no impact.

MR. KELLY PAYNE: I didn't say there would be no impact.

MR. SMITH: Well, that's the -- I think the dilemma I'm facing here is, while it's impossible to say what the impact would be, yet it's possible, in this document, to say there's obviously going to be no impact.

MR. HANSEN: Is there a particular spring that Huntington-Cleveland Irrigation Company has a water right in that you're concerned about, so we can address the particulars, Craig?

MR. SMITH: Our water rights are within the whole drainage.

MR. HANSEN: What particular water rights are they?

MR. SMITH: For the whole river.

MR. HANSEN: The Huntington River?

MR. SMITH: You bet, and other -- other

1 drainages as well, including Cedar Creek and other --
2 other rivers.
3 MR. HANSEN: Until the water gets into the
4 river, do you have an interest in it?
5 MR. SMITH: We do.
6 MR. HANSEN: If someone else has the water
7 right to Fish Creek, for example, and if they choose
8 to use up all of that water, so it never reaches the
9 Huntington River, do you have an interest?
10 MR. SMITH: The Utah Supreme Court has
11 recently affirmed in the Silver Fork case, in January
12 of this year, we have a right to all of the water in a
13 drainage. If you have a water right in a drainage,
14 you have the right to look to the furthest reaches of
15 that drainage to satisfy your water right. And that's
16 Utah law, and they -- you know, if you want to look it
17 up, that's the case that just came out.
18 THE HEARING OFFICER: I'd like to focus
19 back on the permit itself, if we could.
20 Darrel?
21 MR. LEAMASTER: May I ask one more question
22 related to that, as well? Assuming this scenario
23 takes place, where the flow is impacted to the spring,
24 is there any requirement for anyone to advise us? And
25 this could happen, that Huntington-Cleveland

1 Irrigation Company could go for a couple of years
2 without even knowing that they'd been impacted.
3 THE HEARING OFFICER: Well, I think we've
4 talked to you about this before in some of the Emery
5 County public land meetings, we have a protocol inside
6 the Division that -- that requires that we monitor the
7 springs, and if we believe that something is -- has
8 affected the flow, and it's an anomalous effect, we
9 notify the mining company. And I believe we've
10 committed to notifying you. That's an internal
11 Division protocol, and I believe we've talked to you
12 about that before.
13 MR. LEAMASTER: The -- the mining company
14 itself, does it have any obligation to notify us?
15 THE HEARING OFFICER: No, they don't, not
16 to my knowledge. I'd have to check the regulations,
17 but I'm not aware of a requirement on their part.
18 MR. SMITH: Just -- I have just a few more
19 questions.
20 Can you tell me, for each spring that's in
21 the -- in the Wild Horse Ridge area, can you tell me
22 what the recharge area for that spring is. Where
23 does -- where does each spring draw its water from,
24 and does the mining intersect with any of the recharge
25 areas; or the prospected mining, will it intersect

1 with any of those recharge areas?
2 MR. KELLY PAYNE: Starting the top of the
3 hill, we've identified DWH-4 and -5; is that correct?
4 These streams discharged, again, near the top of the
5 plateau, the good section of interburden between
6 them. Time and again, I think within the entire
7 plateau, we've seen that with that thick of a section
8 the springs just aren't impacted.
9 MR. SMITH: How thick are the sections?
10 MR. KELLY PAYNE: I'm not sure what the
11 overburden is there, but it's over a thousand feet.
12 So, no, those springs will not -- I do not believe
13 will be impacted under any circumstances through
14 mining.
15 We -- we -- we've made a statement that
16 that there is a probability, and I'm not sure what --
17 at what level. It depends on, you know, where the
18 recharge area is, for the two springs in the Blackhawk
19 to be impacted. I do not know where the recharge area
20 is. I don't know where the impact locations are,
21 except in that sandstone channel which outcrops in the
22 canyon, which those springs discharge from, and I
23 don't know which direction that sandstone channel
24 goes, as we have discussed that those things are not
25 readily predictable.

1 And then if you -- the last spring, WHR-6,
2 was discharged from the Star Point sandstone. We
3 believe it's locally influenced, it's easily
4 influenced by climate, very quick responses in the
5 discharge of the spring due to precipitation into
6 local climatic cycles. So it's recharged locally in
7 that area, in that region, perhaps through some
8 fracture in the Star Point sandstone outcrop itself.
9 But it's not an extensive groundwater system, it's a
10 local system, so there's not a lot of water, so that
11 should not be impacted.
12 THE HEARING OFFICER: Kelly, is there a
13 regional strike to those sandstone channels of the
14 Blackhawk, just generally accepted as for those
15 things?
16 MR. KELLY PAYNE: There is.
17 THE HEARING OFFICER: What is the source
18 area for the --
19 MR. KELLY PAYNE: It would be the highlands
20 to the west. The highlands would have been to the
21 west, and the sea would have been to the east, and
22 there had been local preservations that center
23 southeast or south --
24 THE HEARING OFFICER: So it sort of
25 meanders?

1 MR. KELLY PAYNE: Yeah, there's meanders.
2 Some of them feed into larger sets. The best thing,
3 if you want -- Energy West has mapped out quite an
4 extensive channel system, and it tends to flow
5 generally to the east, but then there's a lot of
6 smaller channels that come in almost north and south,
7 coming into that --
8 THE HEARING OFFICER: Tributary channels?
9 MR. KELLY PAYNE: Yes. And then the larger
10 channel heads off to the east.
11 THE HEARING OFFICER: Thanks.
12 MR. SMITH: Are you done?
13 MR. KELLY PAYNE: Yeah.
14 MR. SMITH: So I guess it's impossible at
15 this point to say whether the mining's going to affect
16 some of these things?
17 MR. KELLY PAYNE: No, it's not impossible.
18 We've -- of the five springs we said three, with a
19 high degree of probability, should not be impacted.
20 Two there is some probability, and I'm not even going
21 to venture a guess as to what that would be.
22 MR. SMITH: Okay. Is that detailed in your
23 PHC probability?
24 MR. KELLY PAYNE: No, the probability is
25 not.

1 MR. SMITH: Has there been any --
2 MR. KELLY PAYNE: The probability has not
3 been quantified --
4 MR. SMITH: Okay.
5 MR. KELLY PAYNE: -- with the exception
6 that we do speak to the springs that are in the higher
7 sections there will not an effect.
8 MR. SMITH: Because they're up above the
9 mining area?
10 MR. KELLY PAYNE: They're above the mining
11 area, they're recharged locally on top of the plateau,
12 on top of the rocks at the very top of the plateau.
13 Subsidence doesn't affect that.
14 MR. SMITH: If you were to have the ability
15 to collect more data in the field, do more studies,
16 drill more wells, what would you -- what would you
17 do?
18 MR. HANSEN: I think that depends on the
19 budget.
20 MR. KELLY PAYNE: You know, budgetary
21 limitations aside, I do not think that in order to
22 characterize the hydrology of the Wild Horse Ridge
23 area we need more down-hole data, hydrologic data. I
24 think we've got a good handle on what water looks like
25 in the Spring Canyon sandstone and all of the

formations above the mine hole seam, which is what the regulatory requirements are. I think there's good baseline data.

MR. SMITH: You can't say there is good baseline data?

MR. KELLY PAYNE: There's adequate baseline data. It goes back far enough in time that we are seeing -- in the discharge rate of springs, we are seeing the effects of seasons, you know, high flow in spring, low flow in the fall, and climate changes, your drought cycles, and the wet cycles. We've seen that in the spring and established, you know, that they -- they respond in that manner.

MR. SMITH: But you have no data on the Wild Horse Ridge, however. I'm talking just about the Wild Horse Ridge area, not the permit area as a whole.

MR. KELLY PAYNE: I'm speaking of the Wild Horse Ridge area.

MR. SMITH: You have no hydrologic data in that area?

MR. KELLY PAYNE: It's -- that's not -- not correct. There's springs in there, and hydrologic data includes spring discharge data. There's surface data, and that, again, is hydrologic data. So there are hydrologic data from the Wild Horse Ridge area.

1 There are not the very specific data that
2 you were looking for, in terms of a drill hole right
3 in the middle of the proposed lease saying there is
4 water in these horizons. That data does not exist.
5 But I would feel -- I feel comfortable with the amount
6 of data that we have and making the statements that we
7 have made. I would not have made the statements we've
8 made without having data to back them up.
9 MR. SMITH: So if you had the ability to do
10 another well, you wouldn't do another well?
11 MR. KELLY PAYNE: I don't think it would
12 tell us anything more. I don't think it would change
13 the conclusions or what we have assigned as a probable
14 hydrologic consequence. I do not think those would
15 change if another well were installed.
16 MR. SMITH: What if you encounter water in
17 the mine that you weren't expecting now? What would
18 you do to determine where that water is coming from?
19 What additional studies would you do, if any? Maybe
20 none?
21 MR. KELLY PAYNE: Generally, when a mine
22 encounters water, a large inflow of water, we
23 encourage them to make a solute sample to collect
24 carbon atrinium data and monitor the flow reception;
25 what is the initial flow rate, what is the flow rate,

1 how does the flow rate change over time? We encourage
2 that, and some follow it and some don't. And that
3 would be up to the operator here to take that
4 commitment, but that's what I would encourage if a
5 large inflow were encountered.
6 MR. SMITH: And what would you -- what kind
7 of study would you encourage to be done if you have a
8 diminution or stop flow in one of the springs in the
9 Wild Horse Ridge area?
10 MR. KELLY PAYNE: Take into -- we would
11 take into account where water -- or how the flow path
12 of that spring may have been affected by mining,
13 whether mining directly intercepts the flow path or --
14 MR. SMITH: How would you know that?
15 MR. KELLY PAYNE: We'd get out and map some
16 geology, we'd look at where subsidence has occurred,
17 the angle of draw, we'd look to see if water was
18 coming into the mine, and look at those kind of
19 factors. We'd compare -- we'd look the climatic data,
20 we'd look to responses of springs in the neighborhood
21 that, you know, are on the perimeter and have not been
22 affected, that there's a good probability have not
23 been affected by mining, so they're responding in the
24 same fashion. But it would be -- it would be almost a
25 case-by-case basis. I don't think we could spell out

1 a formula at this point, because in geology there's no
2 straightforward answers.
3 MR. SMITH: I think I'm about done. Let me
4 see if I have any more questions. (Pause)
5 MR. HANSEN: Craig, before you conclude, is
6 there any specific part of the regulations that you
7 feel are not adequately addressed? We can't answer
8 your question unless we know what the question is.
9 Well, it really comes down to whether the application
10 satisfies the regulations, and so I'd just like to
11 know if there's any specific part of the regulations
12 that you feel the application doesn't satisfy, and, if
13 so, why, so that we can look into these things and
14 address them.
15 MR. SMITH: Yeah. I'd be happy to answer
16 that question. Yeah.
17 In my review -- and I'll tell you my review
18 of this. In my review of what that's been done, we've
19 done a lot, and I think a very admirable job with
20 information outside of the Wild Horse Ridge area, but
21 we really haven't gotten really any information inside
22 the Wild Horse Ridge area. So it's like looking into
23 a box and looking at what's all around the box, but
24 not looking into the box itself to see what we're
25 going to find in the box. That's probably my biggest

1 concern. We extrapolate lot of information from what
2 we've found in the mine, what other people, when they
3 drilled the wells, have found, but very little, except
4 for a few bore holes, in the -- in the permit area.
5 There seems to be a lot -- in my view, a lot of
6 unanswered questions.
7 THE HEARING OFFICER: You do accept the --
8 the spring data that's inside the permit area as valid
9 data?
10 MR. SMITH: Well --
11 THE HEARING OFFICER: I mean, I heard you
12 say a minute ago that there's positive information
13 inside the permit area, but yet I think we've heard
14 some evidence today, and I think it's in the PHC and
15 the record, that we have collected data inside the
16 permit area -- or the applicant has, I should say.
17 MR. SMITH: Well, the applicant has, but
18 the people here testifying, they have just relied on
19 the information that has been provided to them. They
20 haven't verified any of that information.
21 THE HEARING OFFICER: I thought -- I
22 understood that there was some spring sampling that
23 had been done by the applicants. Am I mistaken about
24 that?
25 MR. SMITH: No. I'm saying the applicants

1 has, but not Mayo and Associates, is what I'm saying,
2 haven't verified any of the information.
3 MR. KELLY PAYNE: Do you question the
4 data?
5 MR. SMITH: Well, you know, I hesitate to
6 say this, but I guess I have a real concern about --
7 and I don't want to dredge up the whole hearing about
8 how --
9 THE HEARING OFFICER: Let's not, then.
10 MR. SMITH: Fine.
11 THE HEARING OFFICER: Not today.
12 MR. SMITH: I'll just leave it my answer is
13 yes, I have a question about the veracity of the data
14 that's been provided to Mayo and Associates. I'll
15 just leave it at that.
16 MR. KELLY PAYNE: If I might speak a
17 little bit in defense. There are no wild fluctuations
18 that we would attribute to a bottle being mixed up or
19 mislabeled or a source being contaminated or wrong,
20 a substitute sample of any sort. The discharge data
21 looks like it should. There are the expected seasonal
22 and climatic fluctuations.
23 And I have been to the sites that Charles
24 has identified here. I have been to all of these
25 sites that -- so I've seen these springs. And I've

1 seen them label the bottle when I was there, the two
2 particular times I was at each of those sites.
3 Personally, I have no -- no -- what's the word I'm
4 looking for -- mistrust of the data that we've been
5 provided. If I did have distrust, I would not have
6 made the statements that I've made based on that data.
7 MR. SMITH: If you're happy to base your
8 professional reputation on this, I'll leave it at
9 that.
10 Just a couple more questions.
11 MR. KELLY PAYNE: That's about the fourth
12 time we've heard "a couple more questions."
13 MR. SMITH: Well, I'm a lawyer.
14 7-24, on that page it says, "Currently no
15 water is discharged from the tank seam due to lack of
16 mine water in-flow. Similar conditions are expected
17 in both seams within the Wild Horse Ridge." Can you
18 tell me what you base that conclusion on.
19 MR. REYNOLDS: That statement was based on
20 the information that was collected and put together in
21 the PHC, and based on the angiometric surfaces and
22 based on the -- the lack of water and lack of springs
23 that are encountered within the Blackhawk formation.
24 MR. SMITH: But there are springs in that
25 formation and --

1 MR. REYNOLDS: There are the two minor
2 springs, and the PHC has -- has referred to it. In
3 fact, if you look at the statement, it says, "Expected
4 mine water is further discussed in the probable
5 hydrologic consequences."
6 MR. SMITH: Do we have -- we have any
7 empirical data on how much water is within those seams
8 within the Wild Horse Ridge?
9 MR. REYNOLDS: The only information we have
10 is the flows, all the springs in the Blackhawk
11 formation.
12 MR. SMITH: But isn't it true you can have
13 water in rock strata and not have springs, because
14 there may not be the outlets for the springs to issue;
15 isn't that correct?
16 MR. REYNOLDS: That is correct.
17 MR. SMITH: So -- but if we drill down into
18 the Blackhawk formation, we could measure how much
19 water is in that formation in the Wild Horse Ridge
20 area?
21 MR. KELLY PAYNE: The problem with that,
22 Craig, is water in the Blackhawk formation is almost
23 entirely and exclusively within permeable tangible
24 terrain. If we go and drill and we miss it by ten
25 feet, we won't see water. And so, you know, I'm not

sure what the point to your question is.

MR. HANSEN: You'd have to drill holes on a ten-foot-square grid.

MR. KELLY PAYNE: We don't see water in coal seams. I've yet to see water in -- anywhere in the plateau of the Book Cliffs, water stored in the coal seam itself. Where water's coming out of the roof or the floor in the sandstone associated with the sandstone, the roof or the floor or some geologic structure is, again, associated with the sandstone.

MR. SMITH: So water isn't in the coal seam itself?

MR. KELLY PAYNE: No. That -- the -- the regional Blackhawk Star Point aquifer of Danielson, if it existed, there would be water in the core samples, because many of the coal seams run underneath it. What he identified as the potentiometric surface in that aquifer, is -- there's just simply not water there.

MR. SMITH: Again, I guess maybe I just missed your point, but you don't think that you could do anything more to determine what -- the amount of the water in the seams in this Wild Horse Ridge area?

THE HEARING OFFICER: Craig, are you asking specifically about the coal seams right now? That's

what -- I heard you you say "seam." Is that what you're --

MR. SMITH: Well, I'm -- I'm reading from the PHC, and that's what they call it.

THE HEARING OFFICER: Your question came from something on Page 7-24 with respect to the Tanks seam; is that right?

MR. SMITH: Well, they extrapolate from the Tanks seam to this the coal seam from the Wild Horse Ridge. I'm just trying to find out what the basis for that extrapolation is.

THE HEARING OFFICER: And I thought Kelly gave an explanation that says that the coal seams are not water bearing in the Wasatch Plateau in general. It's not to say they weren't elsewhere in the world, but --

MR. KELLY PAYNE: In general, I think that Tank seam is -- the Blind Canyon seam will be inherently dry. Water will only in-flow into the workings if it is encountered in the sandstone channel above the roof. I doubt there is any water below except -- yeah, because the Blind Canyon is above the Star Point sandstone, so there will be no contact with the Blind Canyon seam through the Star Point sandstone. So there's no water -- no water can come

1 from the Star Point channel, which may be encountered,
2 but it cannot be quantified -- that is a statement
3 that can be made, but I do not think we can quantify
4 the amount of water that's in there.
5 And I'm not sure what the purpose would be
6 to quantify the water in the sandstone channel, to
7 what end? What would you do with the information if
8 you had it? There are ten billion -- there are ten
9 million gallons of water in the Sandstone Canyon.
10 What would we do that with information, other than put
11 it in a report? I don't know how it would change the
12 outcome --
13 MR. SMITH: I guess --
14 MR. KELLY PAYNE: -- of what we're doing
15 here.
16 MR. SMITH: I guess all I'm saying is you
17 put it in the report, you do an extrapolation, and now
18 you're telling me it didn't meaning anything. Why did
19 you put it in the report in the first place, if it
20 didn't mean anything?
21 MR. KELLY PAYNE: What it means -- this
22 sentence is operative. I'm -- I'm saying that if
23 you're asking us to quantity potential volumes of
24 water that may be encountered or potential volumes of
25 water in storage, to what end could we gather that

information?

MR. SMITH: You'd gather it to help identify the movement of groundwater and whether groundwater is moving in that seam, and those seams are connected with the stream. That's the end.

MR. KELLY PAYNE: But there are no springs.

MR. SMITH: Well, that -- that --

THE WITNESS: There are no large --

MR. SMITH: I guess I'm very confused. We keep talking about two springs, then you keep saying there are no springs. There are either two springs or there are no springs. If we can't even agree on that basis point --

MR. KELLY PAYNE: Craig, I'm -- Craig -- Craig, I'm backing off. I'm backing off.

MR. SMITH: Let me ask this question. I'm trying to get this thing done. No hydraulic information is available in the Wild Horse Ridge, drill holes. Why not?

MR. REYNOLDS: When Arco drilled those they did not collect any hydraulic information. The holes are still backed up.

MR. SMITH: So all you have is Arco's information?

MR. REYNOLDS: That's correct. We've got

1 their electronic drill logs, and we've got --
2 THE HEARING OFFICER: Those were
3 exploration holes. There's plenty of requirements.
4 They plugged those things fairly shortly after they
5 were drilled.
6 MR. SMITH: And I'm not faulting that, but
7 what I'm trying to say is that we should have more
8 empirical data.
9 THE HEARING OFFICER: I understand that.
10 MR. SMITH: And that's -- that's my point.
11 Okay. It says, "Mining effects on water
12 quantities consist of interception of local birch
13 stones and the interception of a larger first aquifer
14 at the north end of the Blind Canyon on seam
15 workings. Investigations have shown that this aquifer
16 is not hydraulically connected to Big Bear Birch
17 Spring." Is the aquifer connected to any other
18 springs?
19 MR. KELLY PAYNE: What page are you reading
20 from?
21 MR. SMITH: 7-25.
22 MR. KELLY PAYNE: Does this not deal
23 with --
24 MR. REYNOLDS: That entire statement deals
25 with the existing mine, part of the existing mine.

1 MR. SMITH: Has there been a similar
2 statement that deals with the Wild Horse Ridge area?
3 MR. REYNOLDS: Now, which statement were
4 you reading? Which sentence?
5 MR. SMITH: The first paragraph on 7-25.
6 MR. REYNOLDS: Okay.
7 MR. KELLY PAYNE: Okay. You're asking --
8 you're making -- or you're addressing the question, is
9 there -- I think you're asking the same question: Is
10 there -- is there a connection between any water that
11 may be encountered and any springs? Is that the
12 question you're asking?
13 MR. SMITH: I think that's the question I'm
14 asking.
15 MR. KELLY PAYNE: Okay. I think we've
16 answered that question. There's a probability that
17 the two Blackhawk springs may be connected to water
18 that may be encountered in the mine. Other than that,
19 no, there is no connection to any other springs.
20 MR. SMITH: Do --
21 MR. KELLY PAYNE: That is stated.
22 MR. SMITH: Is it accurate to characterize
23 a regional aquifer in the area of the Wild Horse
24 Ridge? Is there a regional aquifer in that area?
25 MR. KELLY PAYNE: No.

1 MR. SMITH: There's none?
2 MR. KELLY PAYNE: I don't believe there's
3 any regional aquifers in the plateau. I guess you
4 need to define "region" looking at -- the USGS talks
5 about a regional -- they talk about a regional aquifer
6 for most of the plateau, and there simply isn't.
7 There are local birch stones and there's water in
8 fractured old systems in the Star Point sandstone, but
9 we do not believe any of the birch stones are regional
10 in extent.
11 THE HEARING OFFICER: Kelly, do you think
12 the closest thing to a regional aquifer is a Star
13 Point?
14 MR. KELLY PAYNE: Yes, that would be the
15 closest thing to an aquifer. I think that -- we've
16 looked at that, and there's been a Master's thesis
17 done at BYU trying to look at where the Star Point is
18 recharged. And I think this is some distance from the
19 area which would make it a regional system.
20 THE HEARING OFFICER: But there's nothing
21 above the Star Point or in the Blackhawk area or
22 anything like that?
23 MR. KELLY PAYNE: No. The rocks are just
24 too discontinuous and heterogenous to support any kind
25 of a regional system.

1 THE HEARING OFFICER: Thank you.
2 MR. SMITH: That's all the questions I have
3 for Co-op. I do have a question for the Division,
4 which is we were given a copy of the -- it says "Coal
5 Regulatory Program." It appears to be a critique of
6 the permit application, Technical Analysis. This
7 thing (indicating).
8 THE HEARING OFFICER: Okay.
9 MR. SMITH: It describes a lot more
10 information was needed. And I guess we were
11 confused. Is that -- even if the permit is considered
12 to be complete by the Division, obviously it's not
13 considered complete in this sense. Can you explain
14 how these work together?
15 THE HEARING OFFICER: Sure. There are two
16 stations on the cross, if you want to use that
17 analogy, in permitting, and one of those is a
18 technical adequacy and the other is an administrative
19 completeness determination. And I believe what we've
20 done right here is made a finding that this permit is
21 administratively complete, which means that the basics
22 have generally been tagged in terms of the specific
23 parts of the regs being addressed. However, it's not
24 unusual for us to ask for additional technical
25 information in the course of making a finding of

technical accuracy. Those are the questions which you're seeing in the TA right here. And correct me, somebody from the Division, if you'd rather speak to that in a bit more detail.

MS. GRUBAUGH-LITTIG: Yeah. This was a technical deficiency document that was sent out on January 24th, and we sent you a copy of it.

MR. SMITH: That was our question.

I have kind of a wrap-up thing, but I don't know if Co-op or anybody else wants to make their statements. I've gone through my questions. I appreciate the answers to my questions.

THE HEARING OFFICER: Would anybody else like to speak before Craig does his wrap-up?

MR. LEAMASTER: I want to at some point.

MR. SMITH: Why don't you go ahead.

THE HEARING OFFICER: Please proceed.

MR. LEAMASTER: Yeah. My name is Darrel Leamaster. I reside in Huntington, and I'm here today representing the Castle Valley Special Service District, Huntington City, Cleveland town, and Elmo town.

And our main concerns are those issues associated with Big Bear Spring. Big Bear Spring is a spring that has been used for well over 70 years by

1 Huntington, and now by Cleveland, to supply water to
2 about 2,800 people. And I'm one of those people; so
3 is my wife and my kids and my grandkids, and so is
4 Val. We are just concerned that we're going to end
5 up having no drinking water.
6 Question of clarification -- and I don't
7 want to delve back into past things, either, but is
8 this a permit also -- a renewal of the permit for the
9 existing mines, or is it strictly the Wild Horse Ridge
10 portion?
11 THE HEARING OFFICER: My understanding is
12 that the -- that the matter that's before us right now
13 has to do with the permit change that would propose to
14 incorporate the Wild Horse Ridge into the Bear Canyon
15 permit, so this is not permit renewal action.
16 MR. SMITH: So that would be coming up like
17 in one more year?
18 THE HEARING OFFICER: I'd have to check the
19 record on that.
20 MR. REYNOLDS: Yes, we do have a permit
21 renewal coming up on November 2nd of this year, and we
22 will be doing that this year.
23 MR. LEAMASTER: Well, that changes a little
24 bit some of the things I wanted to say. But we still
25 have some concerns. I'd like to talk about those for

1 just a minute.
2 The first thing I guess I'd like to address
3 is replacement. In the PHC it makes some statements
4 about not knowing exactly what the source of our Big
5 Bear Spring is. We've been through all these hearings
6 and all this seeping of information we've talked about
7 in the past, and basically I don't think any of us can
8 say for sure what the source of the Big Bear Spring is
9 and exactly where it discharges, and that bothers me.
10 If we don't know, you know, where the spring comes
11 from, how the water travels to get there, it seems to
12 me it's very difficult to say that mining either will
13 or will not impact that spring. And I guess we're
14 concerned about what would happen if in the mining
15 operation the spring was impacted, either with the
16 flow or with the quality of water that's coming out of
17 that spring.
18 In the -- in the permit, on Page 18, Co-op
19 states this, and I'm quoting: "In the event a spring
20 is affected by subsidence, the water will be replaced
21 at the source." There's no mention of what would
22 happen if water that was encountered during normal
23 mining operations would impact the spring, and there's
24 no mention of how that replacement would take place.
25 And we're really concerned about that. We have 2800

1 people drinking this water, and if it's impacted it's
2 lost. What do we do to get those people a drink of
3 water, and how quickly are we going to be able to
4 respond to this?
5 And there's just all kinds of questions
6 associated with that. Where's the water going to come
7 from? We've looked the area over a lot, and there
8 currently aren't any other big springs readily
9 available that could be tapped on and put into the
10 system. If we are going to treat surface water and
11 put it into the system, that's going to take a lot of
12 time, it's going to take a lot of money. Who's going
13 to pay for all those things? Who's going to provide
14 water rights? There's a whole list of questions that
15 we see when we start talking about replacement of the
16 water. And we're concerned about that, and we would
17 like to see more details presented on how they might
18 propose to replace that water. Right now it's really
19 pretty open. They've basically stated they don't
20 think they'll impact it, and there's nothing, no plans
21 at all, about any kind of replacement.
22 So that's one point. Another point is
23 reclamation. And there's large section of the permit
24 that talks about reclamation. There's nothing ever
25 addressed about how groundwater sources would be

1 reclaimed; if we hit groundwater what do we do to
2 return it back to the flows and the condition that it
3 was prior to mining? If the -- if the spring is
4 impacted, what can we do to return those groundwaters
5 back to the spring? There's no mention of any of
6 those kind of things in there. And, again, it brings
7 big questions to our mind on what will be the
8 condition when the mine is closed up and they walk
9 away from that? Where will that water go? Where will
10 it exit? Will it still be usable to
11 Huntington-Cleveland Irrigation Company, to Castle
12 Valley Special Service District? What's going to
13 happen with all those kind of things? We don't know.
14 I want to go back into past history just a
15 little bit. It's our -- still our belief that past
16 mining activities have had an influence upon that Big
17 Bear Spring. And we've prepared a very little simple
18 graph that I'd like to present, and I've only got
19 three or four copies, so I'll give you guys one.
20 THE HEARING OFFICER: I'd be glad to -- I'd
21 be glad to look at your graph, Mr. Leamaster, but if
22 this does not have a direct bearing on -- on the Wild
23 Horse Ridge application, I wonder about why we want to
24 take the time to do that right now. I appreciate what
25 you have, and I'm sure it's a fine piece of work, and

if you'd like to talk about it, that's fine, but I'd like you to tell me how you think it relates to the Wild Horse Ridge application that's before us, if you're going to do that, because that's what we're here for.

MR. LEAMASTER: Okay. Maybe what I should do on this is make a request to DOGM to go back and take a look at -- we think we have problems. If you think they've really been satisfactorily addressed, maybe we need to make an official request to DOGM to go back. And why don't you hand those back.

THE HEARING OFFICER: That opportunity is available to you at any time, actually.

MR. LEAMASTER: Okay. Maybe that's the way we should do that.

Okay. In the PHC they talk a lot about the -- the locations of the mancos shale tongues that are located between the members of the Star Point sandstone -- and I'm trying to find my notes here. Just a minute. Hang on. If I understand what -- what they're saying there, basically they're saying that the main members of the Star Point Sandstone, the Spring Canyon, the Stores, and the Panther, are each separated by mancos shell layers that are like 50- to 80-foot thick. And what they're claiming is that

1 those layers become an impervious layer that does not
2 permit any hydraulic connection from the Blackhawk
3 formation into the lower members, and each of those
4 members don't transmit any water downgrading to the
5 other members.
6 Hydraulic conductivity of the mancos shell
7 members are really low, like 10 to the 11th or ten to
8 the 12th centimeters per second, which doesn't
9 transmit much water. We recognize that. I think
10 where we disagree is that -- is that the thing that
11 hasn't been considered and hasn't been looked at is
12 that those mancos shell members can transmit water.
13 And we see this all the time down in the
14 valley. Down in the valley we live right in the main
15 mancos shell formation, which is 3- to 4,000 feet
16 thick. And we've had a lot of experience dealing with
17 mancos shale. Our houses are built on it, the
18 structures that we built with Castle Valley Special
19 District are built on it, all the irrigation ditches
20 and canals -- or not all of them, but most of them are
21 built in the mancos shell.
22 And I'd like to just cite a couple of
23 experiences we've had that demonstrate how the water
24 does move through the mancos shell. The first one I'd
25 like to talk about is -- is an experience that we had,

1 Castle Valley Special Service District. In the town
2 of Clawson, about three or four years ago, we put a
3 new sewer system into the town of Clawson. This
4 included all new collections system and a new lagoon,
5 and it's the lagoon I want to talk about.
6 We purchased a piece of property east of
7 Clawson that was being used as a field, it was growing
8 hay. And on the north edge of this field there was a
9 mancos shale hill, which wasn't a real high hill,
10 probably 30 foot high. As we began construction on
11 the lagoon everything went well, except right along
12 the north edge of the first sell we encountered mancos
13 shell formation, and when we saw this we knew we had
14 trouble. We talked it over with the engineer and
15 decided what we would do is over excavate that by a
16 foot or two and then put a clay liner back in. Well,
17 that information didn't get communicated properly to
18 the contractor, to our inspector, and it didn't get
19 done, so the lagoon was built with the -- about a
20 third of the sell exposed to the mancos shell at a
21 depth of about ten feet. And it was hard shell. The
22 rock riff raff was put back in place. The sell was
23 tested for permeability on the floors. That wall,
24 that face of the north side of the sell was never
25 tested. And we put water in it. We filled it clear

1 up with irrigation water. We went back to check it in
2 about three days, and half the water was gone out of
3 the sell. Well, it didn't take us long to figure out
4 what happened. We filled it again, the same thing
5 happened.
6 We saw some of the water appear in the
7 third sell, which was the located just immediately
8 east of that first sell, but not very much, and we
9 started looking to see where the rest of the water
10 went. And what it had done, it had traveled through
11 that mancos shell hill and had gone about 2,000 feet
12 to the north and came out about 20 foot lower than the
13 lagoons, through that mancos shell hill. And we dug
14 some trenches in there and we found the shell was so
15 tight that we couldn't dig it out with a backhoe. And
16 I'm convinced that if we went in and drilled it and
17 took some cores out and tested that shell, we'd find
18 the same kind of permeability that we found up on the
19 mine. It wouldn't be permeable, yet the water went
20 right through it.
21 And it cost me about $70,000 to fix it.
22 We had to empty the sell. We had to go back in and
23 dig all that shell out and replace it with bentonite
24 and clay to prevent it from leaking. That's how that
25 was solved. It cost me about $70,000. If would have

1 read this PHC and known that mancos shell doesn't
2 transmit any water, then we wouldn't have had to spend
3 that $70,000. But as it actually turned out, it
4 does. We had to spend that money.
5 Another similar experience that we have had
6 at Elmo -- and we've had several of those experiences
7 in the valley. In the town of Elmo, in the early
8 1980's, we put a sewer system in. Elmo is located so
9 that there is a little hill on the north side of town,
10 and right across the top of this hill they built an
11 irrigation ditch so that it could provide water both
12 to the north and the south of the irrigation ditch.
13 As we were installing sewer lines in the town, we were
14 digging trenches in town, and on the 200 -- on 100
15 South, which is about 2,000 feet away from this canal,
16 we were digging at a depth of about ten feet, and,
17 again, we were in very hard shell, which it was all
18 the backhoes could do to rip it out. In fact, we had
19 to raise the grade and bring them up about -- about
20 nine foot so we could even dig through there. As we
21 as started digging, the hole was completely dry, and
22 as we dug to the west we came on an area where we got
23 wet, and before we could get through there the
24 contractor had two sump pumps running to pump that
25 water out of the trench. And as you looked at the

1 trench, the water was coming from the north side of
2 the trench, coming right into the trench. It looked
3 like a waterfall that was coming off the sides of the
4 trench, directly from the canal. And if you look over
5 to the south, you can see areas where Elmo's basically
6 gone swampy. There's swamp grass growing, cattails,
7 and all those sorts of things. We know that water's
8 leaving the canal, following the mancos shell and
9 going down to those areas.
10 So I could give you other examples. The
11 canals that you see all through the valley are good
12 examples. When the pioneers built those canals, they
13 put them around the mancos shell hills, built them
14 right into the mancos shell. And you go look at them
15 now, 100 years later, you'll see that almost every one
16 of them have leaked, and you have grass and vegetation
17 growing almost right back up to the canals. It is so
18 bad that the canal companies from Emery over to
19 Huntington-Cleveland have what they call a "shrink
20 factor," which is basically a measure of the
21 evaporation and seepage that occurs in those canals,
22 and they use a number from ten to 20 percent for
23 shrink, which means if you put 10-acre-foot in the top
24 of the canal you're going to get 80-acre-foot out of
25 the bottom of the canal, and most of the rest of that

1 is going to seepage through the mancos shell.
2 THE HEARING OFFICER: Can you tell me how
3 this relates to the permit that is before us,
4 specifically.
5 MR. LEAMASTER: Yeah. What I'm trying to
6 show is that they have assumed that the mancos shell
7 will not transmit any water, and it's our contention
8 that that assumption in the PHC is incorrect. The
9 mancos shell will transmit water, it is possible to
10 transmit water.
11 THE HEARING OFFICER: So would a statement
12 to that effect in the PHC satisfy you?
13 MR. LEAMASTER: Yeah. It would help.
14 THE HEARING OFFICER: Okay. I think
15 anybody will recognize that shales do transmit water,
16 generally.
17 MR. LEAMASTER: That's not what it says.
18 It states that they're impervious.
19 THE HEARING OFFICER: Well, relatively
20 impervious with respect to the sandstones or --
21 MR. LEAMASTER: If you just look at the
22 shell. But if you consider fractures and breaks --
23 THE HEARING OFFICER: There may well be
24 lenses in those sandstone shales that may transmit
25 water, too.

1 MR. LEAMASTER: I think our objection is
2 there's a statement that there's no interrelation,
3 there's no way that the water can get from one to the
4 other. And, frankly, we don't believe that's the
5 case, and the statement in the PHC that states that,
6 we don't agree with.
7 I'll leave that for you.
8 MR. HANSEN: Can I ask you a quick couple
9 of questions about that? I just want to clear up
10 something.
11 MR. LEAMASTER: Okay.
12 MR. HANSEN: The lagoon was built on the
13 top of the mancos shell?
14 MR. LEAMASTER: It was built into the
15 topsoil that was there in the field, and on the north
16 side of it, as we were excavating that out, we
17 encountered hard parts of mancos shell.
18 MR. HANSEN: So it was excavated down
19 through the topsoil, and over about a third of that
20 area that were actually on the mancos shell bed?
21 MR. LEAMASTER: The bottom part of the
22 lagoon just encountered it. The north slope of the
23 lagoon that was dug down into the hill encountered
24 real hard shell.
25 MR. HANSEN: So that's how the lagoon

1 itself was constructed. And you filled it up and it
2 leaked, and you came to find out later, part of it --
3 a good deal of the leak was encountered by water that
4 was to the north out of the --
5 MR. LEAMASTER: Yes.
6 MR. HANSEN: It had traveled to the north
7 out of the --
8 MR. LEAMASTER: Yes. That's correct. So
9 it traveled out of the north side of the lagoon,
10 through that mancos shell hill, and over about 2,000
11 feet.
12 MR. HANSEN: What was the inclination of
13 the shell in that area; in the direction of water flow
14 or opposite to the water flow, or horizontally,
15 basically?
16 MR. LEAMASTER: You mean as far as the
17 slope of the layers?
18 MR. HANSEN: Yes.
19 MR. LEAMASTER: Basically flat.
20 MR. HANSEN: Was the water actually --
21 THE HEARING OFFICER: Can we speak to the
22 permit action before us, please. We can tell our war
23 stories all afternoon, if we want, but I'd like to
24 address the permit.
25 MR. HANSEN: My other question was Darrel

1 was saying, based on this information, that he had
2 concluded that the mancos shell is not impervious, and
3 I am trying to explore what facts and evidence would
4 lead to that conclusion.
5 THE HEARING OFFICER: I would prefer to not
6 deal with the abstracts of sewage lagoons and things
7 like that, and talk about the problems that we have
8 with the permit application we have in front of us.
9 And I appreciate the example that you've
10 given, and I've noted that.
11 MR. LEAMASTER: Okay. As far as Wild Horse
12 Ridge impacts are concerned, we are not really sure if
13 they might have impact on our springs or not, because
14 we simply don't know the source of the spring. In the
15 PHC Mayo has put a new theory that the source of the
16 water for the spring is farther to the north where the
17 Panther sandstone is exposed to the surface, which
18 would maybe be in Tie Fork Canyon or father to the
19 north in Nut Wittard Canyon. And the water basically
20 does not move vertically to the spring, but, instead,
21 travels horizontally from those areas and down in the
22 spring. It may and it may not. We don't know.
23 It also opens up the possibility if the
24 water is flowing horizontally from the Big Bear fault,
25 that there is water in the Big Bear fault that moves

1 horizontally over to our spring and discharges. If
2 that's the case, then we become concerned about how
3 mining under the Wild Horse Ridge might impact Big
4 Bear Fault from the water that might be adjacent to
5 it.
6 They presented information in the Hiawatha
7 mine they encountered a large flow when they got close
8 to the Bear Canyon fault, and I'm wondering whether
9 they know what the source of that flow was, that was
10 encountered over in the Hiawatha mine, and whether
11 that subtracted from the flow of our spring.
12 I guess, you know, basically our problem is
13 that we don't know what impact it may have on us.
14 They've stated in the PHC that they don't anticipate
15 any impact. We don't see how they can make that
16 statement when they don't know what the source of the
17 spring is, where it comes from. And that is our --
18 our main concern, what happens if it is impacted, and
19 what do they do to remedy it?
20 And I think that's all the comments I want
21 to make.
22 THE HEARING OFFICER: So you'd like to see
23 more -- more information as to the relationship
24 between mining at Wild Horse Ridge and conceivable
25 impacts to Big Bear Spring; is that the thing that

1 you're asking for?

2 MR. LEAMASTER: Yeah, and more information

3 on what would be done for replacement in the event

4 that they should impact the spring.

5 THE HEARING OFFICER: Okay. Who wants to

6 go next?

7 MR. KELLY PAYNE: Well, we'd be happy to

8 respond.

9 We agree with -- with Darrel that maybe we

10 have not pinpointed the exact recharge location of Big

11 Bear Spring. There's a number of ideas out there. I

12 think some have more merit than others. But the data

13 to this point do not tell us with any certainty which

14 of those ideas may or may not be correct, or may be

15 correct. The data do tell us which -- or they do help

16 us to understand what geologic formations and what

17 areas and what geologic structures are not either the

18 flow path -- or either the recharge location or

19 location flow path to Big Bear Spring. We feel fairly

20 certain that any area east of the Bear Canyon Fault,

21 which would be the entire Wild Horse Ridge area, is

22 in -- is not in hydraulic communication with Big Bear

23 Spring, for a number of reasons.

24 Darrel has -- you know, first, let me say I

25 appreciate Darrel's concerns. I drink spring water

1 myself, so I -- I know what -- what this is like. But
2 if we look at the Bear Canyon fault, we view, based on
3 our experience, that Bear Canyon fault has a barrier
4 to flow, both down the fault virtually, laterally
5 along the faults and perpendicularly across the
6 fault.
7 I think, if I may dredge up a little bit of
8 past history, we talked about the Blind Canyon fault
9 in the last round, and how it was built with fault
10 damage that was fairly dry, and we don't believe water
11 was moving across the Blind Canyon fault from the area
12 west of the current permit area or Birch Spring, and
13 located to the area east from where the mine has
14 impacted -- or has encountered water.
15 Similarly, we think that the Bear Canyon
16 Fault is -- is filled with the similar type fault
17 gouges, 230 feet of offset of the fault, a lot of
18 clay, a lot of shale along that plain, and you've
19 probably got a good -- good section of fault gouges.
20 If you hike up -- if you hike up Bear
21 Canyon to the top, you can see where the Blackhawk
22 formation is juxtaposed against the Castle Gate, and
23 there's quite a bit of gouge. As you try to walk
24 through that -- that creek bed, it's muddy, and you
25 sink down to your ankles pretty quick. And that's the

1 kinds of material we follow all the way down. We
2 don't think the water's being transmitted across the
3 fault. So if there is water in the Bear Canyon Fault,
4 which for other reasons I'll bring up I don't think
5 there is, water on the east side of Bear Canyon Fault,
6 the fractures that are associated with the fault,
7 there's not going to be communication with anything
8 west of the fault, so mining east of the fault should
9 have no impact on Big Bear Spring, which is located
10 west of the fault.
11 THE HEARING OFFICER: Is that stated in
12 the -- in the permit application?
13 MR. KELLY PAYNE: That may not be stated
14 explicitly. We can prepare a letter, if you want, a
15 response which we'll give you a copy of today, that's
16 exactly what information is there. And maybe the
17 interpretation wasn't explicit.
18 MR. SMITH: May I ask a question there?
19 I'm not trying to get into another long question, one
20 question. Would the same conclusions be true about
21 Birch Spring?
22 MR. KELLY PAYNE: They would be true --
23 MR. SMITH: Okay.
24 MR. KELLY PAYNE: -- yes.
25 MR. LEAMASTER: One other question?

1 MR. KELLY PAYNE: Okay.
2 MR. LEAMASTER: When -- I wondered about
3 the water on the Bear Canyon Fault line. The
4 old-timers, the cowboys that took cattle and
5 everything up Bear Canyon hill, said there's a large
6 spring in Bear Canyon that went right -- which was
7 above our spring, which was above your mine and that's
8 on the other side of the fault.
9 MR. KELLY PAYNE: On the east side?
10 MR. LEAMASTER: I think it was on the west
11 side of the fault.
12 MR. KELLY PAYNE: I can't comment on what
13 you're saying. That's the first time I've heard that
14 anecdote. We don't know, and we've tried to find out
15 exactly how the water in the Hiawatha complex occurs,
16 whether it was from the fault in the plain itself, the
17 water was leaking -- the water was leaking into a
18 fracture associated with the fault or -- it's been our
19 experience that all almost large inflows like that are
20 associated with sandstone channel that acts as a
21 reservoir and may be truncated by a fault, and that's
22 what we we suspect may be happening here.
23 Regardless of mode of occurrence, that
24 water is discharged from a portal which is in excess
25 of 9,000 years old, because we've determined, from

1 carbon dating, water from Big Bear Spring has a mixed
2 component, and possibly mixed as old as 3500 years,
3 and any water found in the mine ranges from 500 to
4 3500 years, as well. So water cannot -- that same
5 water cannot be moving down the fault and end up
6 younger at Bear Canyon. So we don't think that that
7 water is at all related to any water that is
8 discharged from there.
9 I don't know how to respond to Darrel's
10 experience with the old-timers.
11 So we don't think that water's moving down
12 the fault. We don't think there's a considerable mode
13 to convey water along the fault through some fractures
14 that are associated on either side of the fault. And,
15 then again, those fractures on either side are going
16 to be hydrologically isolated from each other.
17 MR. LEAMASTER: Do you anticipate drilling
18 holes along the fault?
19 MR. KELLY PAYNE: If there is a large
20 reservoir, such as a sandstone channel that is
21 truncated by that fault, there would be large
22 inflows.
23 If I may mention one more time -- and I'm
24 going to put up this graphic to help me illustrate
25 that.

1 MR. REYNOLDS: While you're putting that
2 up, one thing I may mention in regard to the Wild
3 Horse Ridge and along Bear Canyon, is nearly the
4 entire expansion area outcrops in Bear Canyon, and
5 there's only about a -- maybe a 300-foot segment that
6 we anticipate possibly encountering. Other than that,
7 the majority of the -- what's on the north -- up on
8 the very north end, other than that, the entire
9 expansion area is actually isolated from the fault
10 where the Blackhawk outcrops.
11 MR. LEAMASTER: How close do you anticipate
12 mining to the fault, just approximately?
13 MR. REYNOLDS: Probably -- within that
14 area, it would probably be about 2- or 300 feet away
15 from it.
16 MR. KELLY PAYNE: This is a diagram map.
17 For those not familiar with this diagram, this diagram
18 tells us, by its size, the approximate solute
19 concentration of the water; by its shape, the -- the
20 ions and -- or the ions and anions that make up that
21 water. So without going into a lot of detail, the
22 different shaped diagrams -- for instance, WHR-6 here,
23 versus WHR-5, you can see that WHR-6 is a water with
24 different makeup, chemical makeup. There are four
25 waters with -- five waters we've sampled -- no, three,

1 sorry, three waters we've sampled on the east side of
2 Bear Canyon Fault, all the waters we could find in the
3 Bear Canyon Fault associated, possibly, with the
4 fault. So the Wild Horse range includes --
5 MR. SMITH: Could you point where the fault
6 is there, so we can see where --
7 MR. KELLY PAYNE: Okay. The fault is
8 going to roughly parallel the canyon right near the
9 creek along this area, and then it continues in a
10 straight -- straight -- a pointer. Sorry about this.
11 Roughly parallels this creek here, and then it takes
12 off through this hill.
13 MR. SMITH: Okay. Thank you.
14 MR. HANSEN: Can you make that stand up?
15 The bottom part is --
16 MR. KELLY PAYNE: Three waters. We have
17 discussed the two Blackhawk springs with Craig.
18 The 16-7-24-4 and 16-7-24-3 and WHR-6, you can see
19 those waters are very distinct in there, their shape.
20 The bottom two legs of this diagram, you
21 can see these waters are magnesium sulfate water,
22 something we rarely see in a plateau or rarely see
23 naturally, anyway.
24 Your water, Big Bear Spring, right up here
25 is a lot better water. I'd rather be drinking Big

1 Bear Spring than any of the stuff on the east side of
2 the fault. We can't take a water that looks like this
3 (indicating) and make it look like this (indicating).
4 There's no natural mechanism that's known in these
5 rocks.
6 So we just don't think that any water on
7 this side of the Bear Canyon Fault, east side of Bear
8 Canyon Fault, is communicating with the west side at
9 all. These signatures, these groundwater signatures,
10 aren't seen on the west anywhere that we've looked.
11 So that is another reason we believe that.
12 MR. SMITH: Before you sit down, can I ask
13 you a couple questions about that --
14 MR. KELLY PAYNE: Geologic map.
15 MR. SMITH: Based on that sample, it
16 appears -- would Big Bear and Birch Spring be
17 different sources of water, based on your study
18 there?
19 MR. KELLY PAYNE: They're not significantly
20 different, but it's a type of water that, as you can
21 see, is common throughout the whole region. These
22 kind of rocks produce that kind of a solute chemistry,
23 with the exception of those we were just looking at,
24 which were unique, and I'm at a loss to explain why
25 the chemistry is such as it is. Anyway --

MR. SMITH: Okay.

MR. KELLY PAYNE: Bear Canyon Fault is mapped at a different scale. You can see this is Bear Canyon Fault, this red line here on the east. I think it's -- Charles, did you want to put out about the Blackhawk being separated, or point that out on this?

MR. REYNOLDS: I've -- maybe if you could put out where Section 24 is.

MR. KELLY PAYNE: Right there.

MR. LEAMASTER: What color is what?

MR. KELLY PAYNE: Oh, I'm sorry. Purple color is going to be Blackhawk formation. The brown is the Star Point sandstone. Red is the fault.

MR. REYNOLDS: The expansion area does not include anything north of Section 24?

MR. KELLY PAYNE: No. This section right here (indicating) is the expansion.

MR. SMITH: Is this the northern boundary?

MR. LEAMASTER: It is.

Are we done with this?

THE HEARING OFFICER: Okay. All right. Do we want to take a ten-minute break, or are we close enough to the end that we want to forge ahead? What's the pleasure of the --

MR. SMITH: I could do either one. I don't

1 know how much -- do they have anything more to
2 present?
3 MR. HANSEN: Not a big deal.
4 MR. LEAMASTER: I want to -- I'd say forge
5 ahead.
6 THE HEARING OFFICER: Okay. Is that
7 satisfactory to everyone else?
8 Go ahead.
9 MR. LEAMASTER: I'd just like to make a
10 comment. Craig made a comment today, he talked about
11 cooperation. And we certainly would want to agree
12 with the comments he made. The last thing we want to
13 do is got involved in another big long hearing and
14 court case, like we did last time. Our district has
15 spent over $200,000 in all this stuff that we've done
16 so far, and as we look back at it we certainly would
17 have been much better off to take that money and put
18 it towards development of some other water source, and
19 probably if we could have done something in
20 cooperation, and Co-op could do the same thing with
21 the amount of money they've spent. They could have
22 done something else and not had these problems. We've
23 been able to do that in the past with Plateau --
24 Cypress Plateau. And North Emery has done that with
25 Pacificorp, as. Well, and we certainly offer it --

1 that's a better way to solve this than what we've done
2 in the past, and certainly indicate that we would be
3 willing to pursue things like that, if it were at all
4 possible.
5 THE HEARING OFFICER: All right.
6 MR. LEAMASTER: Thank you.
7 THE HEARING OFFICER: Thank you.
8 Craig.
9 MR. SMITH: Thank you. I'll just -- I
10 think I have just a few brief concluding comments.
11 As I, you know, spent some time over the
12 weekend thinking about this issue -- that whole issue,
13 we got started on these hydrological issues, at least
14 in this area, by some unexplained drop-offs in the
15 flow of two springs. One was the one in Castle Valley
16 Special Services District; that's the Big Bear
17 Spring. The other one was one North Emery water
18 users. And Huntington-Cleveland has water rights to
19 both those springs. And despite a lot of effort, a
20 lot of time, a lot of hearings, a lot of experts, to
21 this day we don't know why those are -- at least there
22 has been never a determination as to why those springs
23 have dropped. Maybe there never will be. And that's
24 why when we came this afternoon I said we didn't want
25 to start over, because, obviously, whatever has

1 happened has happened, and we're not talking about
2 those springs per se, except for the impact that the
3 Wild Horse Ridge area may have on those and other
4 springs. And so what we're here to talk about today
5 is whether we know enough to -- to allow the permit to
6 extend to a new area. Do we know enough about the
7 hydrology of this new Wild Horse Ridge area to be able
8 to know whether or not there's going to be some sort
9 of adverse hydrological impact?
10 I would submit that with the questions --
11 and I appreciate everyone's patience and everybody's
12 taking the time to answer questions. What we found
13 out is that we just don't quite yet know enough. And
14 it's not because Co-op doesn't have good experts. I
15 think Mayo and Associates have done an admirable job.
16 I think they're well qualified people and they're
17 smart, they work hard. But your expert opinions --
18 and I've ordered more than my share of experts as a
19 lawyer. Your expert opinions can only be as good as
20 the data which they base those opinions on. And they
21 can say, "Well, we have sufficient data to make an
22 opinion," and that's fine. But let's look at the data
23 that we really have for the Wild Horse Ridge area. We
24 have samples that were taken from springs. Even
25 though it's been admitted that you could have --

springs only issue where they issue. We have Birch Spring. It may draw on a large area. We don't know. Other areas could have -- you could have saturated rock and not have -- no springs because there just isn't the fault or something that acts as the outlet, so the spring isn't an issue.

We have no wells at all in the area. We have drill holes that were done by someone else, and I'm sure they provide some helpful information, but they're not in the area. It's a very large area. We're not talking about a, you know, small area. As I mapped out this area that's being added to the permit, it's several sections, an extremely large area of land.

We have some bore holes that were done by Arco, I guess, but we have no hydrological information, and those bore holes have been sealed up. They weren't done for this.

There's been some extrapolation, I guess is the -- the best way to put it, I think, as to what we think we'll find in this area, but that's all it is, is extrapolation. And when I asked the question, "Do you have any data," for example -- and Darrel talked about this, and I'll just talk about it -- I don't have -- one of the key -- key points has been that

there's these three tongues, that they're disconnected. That's been a key premise throughout all these hearings, and it's being urged to -- that the same premise exists in the Wild Horse Ridge area, even though we have no data to show that.

Anyway, unless you have something you want to say, as I look at the regulations I believe they require some pretty detailed information, information that can't be just gathered under extrapolation from other areas.

It talks about the proposed operation and potential impact to the hydrologic balance. It's been admitted there may be some potential impacts on these two springs; how much or probability of that, we don't know.

It also says that to determine the probable hydrological consequences you're required to have findings on the groundwater and surface water availability, whether they were proximate results of contamination, diminution, or interruption of underground or surface source. My reading of this is that the findings that were -- should be in the PHC -- and I know it's just a projection, but we should know enough to say if there's problems with this spring quits flowing or this spring diminishes or this spring

is contaminated, we'll have some idea where it came from, and not just have to go back and do another study.

I think, again, I'd like to see a situation where we have PHC's that answer the questions and that it's a dynamic process, that as mining goes on those are updated regularly. The Division I think has all of the authority, I think, that it needs to require that, so that when there's a problem, when there's a diminution, we're not just scratching our heads, like we have been for the last six years on Birch and Big Bear springs. We're still scratching our heads on that. No information has ever explained why those springs used to flow more than they do now.

I think if we do that, we'll have an opportunity, as I said earlier, to work together to be able to cooperate on things, if we can get the -- the information at that level.

We'll leave it to the Division on this one to -- to look at this and say, "Does this PHC have the kind of information that we've required other places, from other mines," because I'm told that other mines have gone out and had to do the bore holes, they've had to do the test wells, and that -- that kind of thing is continuously required for mining companies.

We're not trying to say anything different, unique, we are just saying let's follow the regulations. We have a resource that's so valuable we can't just give up on. And we think we have a method to -- to address that, and that's what we are asking the Division to do.

That's basically all I have. Thank you for your patience and time in listening to us today.

THE HEARING OFFICER: Thank you very much.

Co-op?

MR. HANSEN: I have just a couple of comments I would like to make. If there's any questions that we haven't put forward by the Huntington people talking about it, you can flush that out and you can let me know.

I haven't personally seen the document evaluation that Craig was pointing out, so I don't know what's in it, and perhaps that evaluation already addresses all of the issues that need to be raised here, and, if so, I wanted to make a comment without resort to having seen that.

More particularly regarding Big Bear Spring than the area in general, because it's easier to address Big Bear Spring, the permit application -- while we don't know exactly where the recharge and the

1 flow does go into Big Bear Spring, we do know a few
2 things that it does not do, and it's not based only
3 solely on data, but partially on the data that have
4 been represented, but also on other factual
5 information that doesn't reduce to raw numerical
6 data.
7 The entire Wild Horse Ridge area, with the
8 exception of the small area towards the north, is
9 the -- it consists of cliffs. The coal can be mined
10 on actually outcrops of the entire area, so we
11 actually have a visual observation along the entire
12 expansion area of exactly what the geology consists
13 of. You can look at the cliff faces and see where the
14 coal seams are and see where the sandstone is and see
15 where the shale is. So we don't need test holes to
16 obtain that kind of geological data. We've got that
17 data through the entire area, data as far as outcrops
18 and outcrops virtually through the entire expansion
19 area, so we can see what's there. If there is water,
20 either above or below those mine seams, because of the
21 outcrops we know one of two things, either it flows
22 through, and, therefore, comes out as springs or
23 acquiesces from where we see surface indicia of water,
24 or it doesn't come out at all, in which case there has
25 to be a first aquifer.

1 If you look at the first aquifer, it
2 doesn't appear on the surface anywhere, and clearly
3 isn't impacting Bear Creek Spring, and likely isn't
4 impacting any other waters in the area. And those
5 first aquifers are the only water that the mine is
6 likely to encounter as it mines into the Wild Horse
7 expansion area.
8 We -- we know the general flow inclinations
9 of the straight in the area, that the straight -- or
10 incline is south and east away from Big Bear Spring.
11 Unless there is something really anomalous about the
12 geology, if there is any water in the area and if it's
13 flowing, it's going to flow more or less along the
14 incline, which would be flowing away from the spring.
15 That, coupled with the chemical information of the
16 spring we do have, that do outcrop in the area, which
17 are completely similar to Big Bear Spring, and the
18 existence of the Bear Canyon fault, which has
19 a 230-foot displacement, which where it's visible is
20 filled with gouge, are indicia that there isn't a
21 hydraulic conductivity between the east and west,
22 providing us with a fairly good comfort level that
23 wherever the water in Big Bear Spring is coming from,
24 it's not coming from this expansion area.
25 And because of these things, additional

1 bore holes in the area are not really going to be
2 additional help in narrowing that down, because the
3 information that we already have certainly adequately
4 fills Co-op mine's burden of showing there is high
5 probability of no significant adverse impact on Big
6 Bear Spring from mining in the expansion area.
7 With somewhat lesser degree of certainty,
8 but still within the level of comfort, we think that
9 the information in the permit adequately addresses the
10 general hydrology of the area and gives satisfactory
11 evidence to support being able to say, with comfort,
12 that the likelihood of mining in that expansion area
13 is not likely to cause a significant adverse impact to
14 the area's hydrology. And because of that, we -- we
15 are able to make that statement, and because we're
16 able to make that statement, the regulations do not
17 require us to speculate on, "Oh, my, if we should
18 impact where are we going to get displacement of
19 water, who's going to pay for it," all of those kind
20 of things. That was a matter that was already
21 addressed in the previous issue by the Utah Supreme
22 Court, and the Utah Supreme Court made the ruling that
23 unless there is an adverse impact there -- there is no
24 need to disclose that information.
25 And since then the rules have been

1 amended. Rule 645-301-727 does require such
2 information if the probable hydrological
3 concentrations determination indicates that the
4 proposed activity may proximately result in
5 contamination, diminution, or interruption of the
6 waters within the permit and adjacent areas. Because
7 we are satisfied that that will not occur, this
8 Section -727 is not triggered, and the information in
9 the permit, those issues, does satisfy the
10 regulations. And, of course, the mine is going to be
11 happy to revise the permit, as needed, to satisfy
12 whatever is required by the Division, to comply with
13 the regulations.
14 I believe that's about it.
15 Do you have anything to add my comments?
16 Thank you.
17 THE HEARING OFFICER: Thank you.
18 MR. SMITH: I just -- if if I can make one
19 response to that, because I think since we went first
20 we have the chance to go last.
21 I think we heard today there's a
22 probability that at least or two of those springs will
23 be interrupted. That's the testimony I heard. It was
24 different from what I just heard in argument. And
25 based on that and based on this -- on the regulation,

1 I think that they do have to identify replacement
2 water for that spring.
3 THE HEARING OFFICER: Anything else?
4 MR. SMITH: And all I'd say is -- is
5 that -- that the applicant has chosen not to assign --
6 I asked him what the probabilities were, and he said
7 no, it's just probable. We don't know what the
8 percentages are. That's the basis of the information
9 that's before the Division. Based on that, I think
10 that there's got to be -- that needs to be -- exactly
11 what Mr. Hansen just read out of the regulation,
12 require that they identify where their replacement
13 water is and how they're going to make that
14 replacement.
15 THE HEARING OFFICER: Do you know if that
16 rule that you're citing is in effect right now or
17 not?
18 MR. SMITH: I believe it is.
19 THE HEARING OFFICER: Actually, I'm not
20 positive --
21 MR. SMITH: Those rules have been adopted.
22 I know there's a challenge to the rules, but --
23 THE HEARING OFFICER: That's my point.
24 MR. SMITH: I know that's your point. My
25 point is, at least as I understand the law, and you'll

1 have to talk to a legal advisor, is even though the
2 rule is challenged, it does not keep the rule from
3 going into effect. The rule is still in affect, even
4 though it's challenged.
5 THE HEARING OFFICER: There may be some
6 difference of opinion on that, but I still hear the
7 point you're making.
8 Pam?
9 MS. GRUBAUGH-LITTIG: Excuse me. I think
10 that Mr. Hansen was referring to Article 25-01-727.
11 It's called "Alternative water source information,"
12 and says, "If the probable hydrologic consequences
13 determination required by 301-728 indicate the
14 proposed surface coal mining and reclamation
15 activities." That's referring to -- just to surface
16 mining. It doesn't refer to surface impacts related
17 to underground coal mining, so it's not applicable
18 here.
19 MR. HANSEN: I thought the definition
20 included that --
21 MR. SMITH: I think that's the wrong
22 citation. I think there's a similar rule that we can
23 cite.
24 THE HEARING OFFICER: And that may be the
25 one that's being appealed right now. And I won't

1 argue with you on your legal interpretation, because
2 I'm not an attorney.
3 MR. SMITH: Well, I'm not going to argue
4 with you, either.
5 Go ahead, Scott. What's the number?
6 MR. ELLSWORTH: 728-350.
7 MR. HANSEN: That's I guess the citation.
8 MR. SMITH: The one that requires
9 definition of replacement water?
10 THE HEARING OFFICER: Well, we'll
11 investigate that part of it.
12 MR. SMITH: Whatever the rule is. Thank
13 you.
14 MR. HANSEN: The only other point that I
15 would make is that perhaps the mine and DOGM take a
16 look at whether the application, as to those two
17 specific springs, adequately addresses those springs,
18 as far as the PHC determination.
19 THE HEARING OFFICER: We'll -- we'll
20 certainly take a hard look at that.
21 MR. HANSEN: And if the permit does
22 adequately address those two springs as part of the
23 PHC determination, that satisfies the regulatory
24 requirement.
25 THE HEARING OFFICER: Thank you.

1 Val, do you want to say anything, or are
2 you hoping to get out of here?
3 MR. VAL PAYNE: Oh. If I may make a brief
4 statement on behalf of Emery County, but it doesn't
5 have to do with water, but it has to that with surface
6 distribution.
7 THE HEARING OFFICER: Please.
8 MR. VAL PAYNE: But, with your permission,
9 I'd like to do it here standing. That's how brief I
10 intend it to be.
11 My name is Val Payne. I'm a public lands
12 director for Emery County, and in such capacity, part
13 of my responsibility includes serving as staff to the
14 planning commission. In my review of the -- of the
15 application for the Wild Horse Ridge addition, it came
16 to my attention that the proposed surface facilities
17 are located on private property owned by COP
18 Development. And I concluded from that, then, they
19 would fall within the purview of the zoning ordinance,
20 and I transmitted that information to the county
21 zoning administrator, as well as the county planning
22 commission chairman.
23 And in particular reference to Page 4-2 in
24 the permit information, it states, "Site plan approval
25 has been issued by Emery County to approve mining." I

1 think that's accurate from the context of the overall
2 zoning of that area which accommodates mining, but as
3 far as the actual permitting process associated with
4 surface facilities, Mr. Reynolds acknowledges receipt
5 of a letter from the zoning administrator indicating
6 that there is a process through which they need to go
7 to actually permit the surface facilities. And
8 Mr. Reynolds has already made contact with that office
9 to accomplish that.
10 THE HEARING OFFICER: And I've received a
11 copy of that letter, and passed it on to our probative
12 folks, too.
13 MR. VAL PAYNE: Thank you very much.
14 THE HEARING OFFICER: Well, if there's
15 nobody else that like to be heard, let's conclude this
16 hearing, then.
17 MR. KELLY PAYNE: Just -- I do want to --
18 just in response to Craig, I think he -- he's
19 leading -- or he interpreting what I said as there's a
20 high degree of probability those streams will be
21 impacted. We have never said such. Although there's
22 a probability, we have not assigned a numerical value
23 to that.
24 It's -- it's not -- no one has never
25 stated those springs will dry up, and that's nothing

1 that -- that's not something that we are proposing,
2 and it's not something that that PHC has evaluated in
3 that context. It's not a certainty or a high
4 probability.
5 THE HEARING OFFICER: We'll certainly look
6 the at permit application in light of what we've heard
7 today.
8 Charles?
9 MR. REYNOLDS: One final thing I wanted --
10 I might mention with regard to these springs, and it's
11 referenced to the Section -728 in the regulations:
12 There is no state-appropriated right on either of
13 those springs.
14 MR. SMITH: Well, again, we have the
15 right to look to all the sources that meet
16 Huntington-Cleveland, so we don't have to have a right
17 on each spring. If you want the case, I'll send it to
18 you. If you don't need the case, I won't send it to
19 you.
20 THE HEARING OFFICER: I'd say from the
21 level that we're in right now, let's avoid that.
22 MR. SMITH: Okay. That's -- that's
23 bluebook, or whatever you want to call the water law
24 in Utah.
25 So the fact that we don't have a point of

diversion on every single spring in a drainage doesn't mean anything. We have the right to take the water when it gets to our point of diversion. We have the right to look at all of the sources in the drainage.

THE HEARING OFFICER: I hear you.

MR. SMITH: Thank you.

THE HEARING OFFICER: Thank you, everybody, for coming.

(The hearing was concluded at 12:30 p.m.)

* * *

1 C E R T I F I C A T E

2 STATE OF UTAH)
: ss.
3 COUNTY OF SALT LAKE)

4

THIS IS TO CERTIFY that the informal
5 hearing fevor the Division of Oil, Gas and Mining was taken before me, KERRY SORENSEN, a Certified Shorthand
6 Reporter and Notary Public in and for the State of Utah, residing at Salt Lake City, Utah.

7

That the hearing was reported by me in
8 Stenotype and thereafter caused by me to be transcribed into typewriting, and that a full, true
9 and correct transcription of said testimony so taken and transcribed is set forth in the foregoing pages
10 numbered from 1 to 117, inclusive.

11 I further certify that after the said hearing was transcribed, the original of same was
12 delivered to TIFFANY MOSS at the Division of Oil, Gas & Mining.

13

I further certify that I am not of kin or
14 otherwise associated with any of the parties to said cause of action, and that I am not interested in the
15 event thereof.

16 WITNESS MY HAND and official seal of Salt Lake City, Utah, this 1st day of March, 2000.

17

18

19 KERRY SORENSEN CSR/RPR

20 My Commission Expires:
June 21, 2001

21

22

23

24

25

NOTARY PUBLIC
KERRY SORENSEN
1111 E. Waters Lane
Sandy, UT 84093
My Commission Expires
June 21, 2001
STATE OF UTAH

IN THE MATTER RE

FIVE-YEAR PERMIT RENEWAL FOR BEAR CANYON MINE,
CO-OP MINING COMPANY,
EMERY COUNTY, UTAH
No. ACC/015/025

VOLUME I

Transcript of informal hearing held in the above-entitled matter, taken before REBECCA J. GARNER, Registered Professional Reporter and Notary Public in and for the State of Utah, at the Emery County Courthouse, 95 East Main Street, Commission Chamber, Castle Dale, Utah, on the 17th day of October, 1996, commencing at 8:36 a.m.

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ALSO PRESENT FOR MINING COMPANIES:

CHARLES REYNOLDS
WENDELL OWEN
KIMLY MANGUM

INDEX

WITNESSES	PAGE
DARRELL LEAMASTER	
Examination by Mr. Appel	15
Examination by Mr. Smith	28
Examination by Mr. Appel	30
Examination by Mr. Hansen	40
Examination by Mr. Smith	49
JAN STOYANOFF	
Examination by Mr. Smith	53
Examination by Mr. Hansen	62
Examination by Mr. Smith	64
Examination by Mr. Hansen	67
KAY JENSEN	
Examination by Mr. Smith	69
PETER NIELSEN	
Examination by Mr. Appel	73

EXHIBITS

EXHIBIT NO.		PAGE
1	Wider shot photos of icicles (not attached)	52
2	Close-up photos of icicles (not attached)	52
3	Maps, Plate 1 and Plate 2 (not attached)	78
4	Series of charts and graphs (not attached)	78

PROCEEDINGS

MR. CARTER: Good morning. For those of you I haven't met, I'm Jim Carter. I'm the director of the Division of Oil, Gas and Mining which is a division of the Department of Natural Resources. We are here this morning on an informal conference, and I'll read that into the record. But preliminarily I wanted to say that the conduct of informal conferences under the Administrative Procedures Act and the way the division has generally done these is we -- it's very informal. Although all the parties this morning are represented by counsel, I recommend and suggest that to the extent you can have your witnesses put on testimony in a narrative fashion we do that.

The hearings before the board as you know are formal hearings with examination, cross-examination and most of the protocols you see in court. And this is an informal conference, so we don't need to observe all of those. We will for the purposes of clarity so that we don't get too confused. But again I encourage you to proceed as informally as you can so that we can get through all the material we need to.

This is in the matter of the five-year permit

renewal for the Bear Canyon Mine, Co-op Mining Company, Emery County, Utah, No. ACC/015/025. This is a matter that is here for division consideration on a remand from the Board of Oil, Gas and Mining. A very brief history.

There are of course differences of opinion about what should have happened and so forth. The division did approve Co-op Mining's five-year permit renewal. That approval was appealed to the Board of Oil, Gas and Mining.

The board determined that the informal conference which is contemplated in the rules on all division actions take place prior to the board making any further ruling on it, and my understanding, and I'll -- I stand to be corrected by counsel if they have a different perception, is that the board has essentially handed this back to the division to resolve.

Whatever the division does would result I think in a new reappealable order. I don't believe that the board is expecting a report from the division. I think the board expected the division to just make a determination and decide how to proceed.

So having said that, something else that's happening this morning that's unusual for this informal conference is that we are making a transcript. As you can see we have a reporter making a transcript of the proceedings. That's not as my mother would say, we're not

trying to borrow trouble here, but we wanted to make sure we got everything in the record in the event there needs to be additional review or discussion about what all we do here.

So having said that, perhaps we ought to, since we have a record, we ought to have counsel enter their appearances for the record.

MR. APPEL: Jeffrey Appel on behalf of the Castle Valley Special Services District, objectors.

MR. SMITH: Craig Smith on behalf of objectors Huntington-Cleveland Irrigation Company and North Emery Water Users Association.

MR. HANSEN: Mark Hansen on behalf of CWM Company.

MR. CARTER: All right. One other note, and that is that as you can see from the notice of the informal conference, we're contemplating and planning on in fact a field portion of the informal conference. The objectors felt that it's important, feel it's important for me, and Pete has as well, who I'm sure Pete has seen these features before, to go out to the vicinity of the features of concern, the springs and seams, and the objectors would like me to see the geologic features that they think support their contentions.

Having said that, I think it's most important we give everyone an opportunity to make a complete record here in the informal conference, we get everything said and

Page 9

1 allow for the field trip. So we don't want the field trip
2 to be missed because that would defeat the whole purpose of
3 people driving down here and the extra expense that all
4 parties have gone through to have counsel, which I think is
5 all based in Salt Lake, to come down here.
6 MR. CARTER: Let's see how we do.
7 MR. APPEL: Okay.
8 MR. CARTER: With that let's proceed.
9 MR. APPEL: By way of opening statement, what we
10 intend to show today, we being Castle Valley Special Service
11 District together with the other objectors is that the
12 geologic data supplied by Co-op, CW Mining, I'll refer to
13 them as one and the same because they used to be one thing
14 and now they appear to be another, is inadequate and
15 misleading; that they have relied on faulty information;
16 that their conclusions are wrong concerning impact on
17 hydrologic consequences and the springs of objectors; and
18 that they have narrowed that inquiry substantially for their
19 own purposes.
20 Additionally there is no viable replacement
21 source identified, or any other materials, which according
22 to PHC, they should provide that as a precondition to
23 renewal, we believe. We also believe that in violation of
24 the terms and conditions of the existing permit the mining
25 operation has moved water around, has bypassed meters, has

Page 10

1 put it into other drainages, subdrainages, actually, and has
2 put it into various areas absent the right to do so under
3 the permit and based upon a right from the state engineer.
4 They have in fact impacted the flow of springs of the
5 objectors, specifically in this case Birch and Big Bear in
6 the past and continue to do so now.
7 Because of the mining in the area, these
8 springs have not recovered at a rate that the rest of the
9 water sources, spring sources and others have in the area,
10 and it is our expert's conclusion that they have
11 irretrievably altered the historic recharge patterns in this
12 stratigraphy that feeds this spring.
13 Also their baseline monitoring is insufficient
14 and inadequate. They have not drilled enough monitoring
15 wells to create a viable baseline, much less to determine
16 the actual impacts nor have they maintained and adequately
17 operated the wells that they have in place at this time.
18 We are asking that the permit be denied or if
19 approved that additional conditions be in place to safeguard
20 the interests of the objectors and their water sources. We
21 don't believe that the terms and conditions of the existing
22 permit are being met, and we don't believe that the present
23 mining operations are in compliance with the standards of
24 the state program. Therefore we ask that the CMPHA be
25 revisited and revised pursuant to the testimony today.

Page 11

1 MR. CARTER: Mr. Smith?
2 MR. SMITH: Thank you, Mr. Carter. Just to add to the
3 thing of Mr. Appel, we have attempted and are attempting to
4 coordinate our presentation so you don't hear things twice.
5 We'll just say things once. So we'll be doing that
6 throughout the day. So I'm not going to sit here and repeat
7 all the things that Mr. Appel has just said. I'm just going
8 to maybe in the way of adding a couple matters to that.
9 I know this is a familiar issue to the
10 division. It's been an issue of concern for the water users
11 for some time. We have worked very hard to bring new
12 information to this informal conference today to help the
13 division better understand the hydrology of the area and the
14 impact that mining is having on Birch and Big Bear Springs
15 which are two very critical drinking water sources for
16 Castle Valley Special Services District and North Emery
17 Water Users, and we believe that from the new information
18 that we have that we're going to present today that it
19 becomes very, very clear that the mining operations of Co-op
20 have intercepted the same water that feeds these springs and
21 is responsible for the diminution of flows and in water
22 quality in these springs.
23 We have no -- we are not against mining. We
24 are not against Co-op. We are simply trying to protect
25 critical water sources and ask the division to aid us under

Page 12

1 the laws and regulations that are in effect to protect these
2 water sources from the adverse impacts of mining. And
3 that's the sole reason we're here today.
4 MR. HANSEN: Well, Mr. Carter, it sounds like what the
5 water users intend is to go over old ground that has already
6 been covered both before the division and the board, and in
7 the interests of developing a full record, I'm not going to
8 sit back here and object at every single point that they
9 intend to raise, and if they want to bring in information we
10 can look at that information point by point.
11 But the simple fact is that the division has
12 already found once and the board found on appeal after a
13 full evidentiary hearing where Co-op, not the water users,
14 bore the burden of proof that the entire permit area is
15 hydrologically isolated from these two springs. And because
16 of that fact, the underground effects of mining within
17 forest permitted area do not, have not and cannot affect the
18 water flow, either quality or quantity, at Birch and Big
19 Bear Springs.
20 And we are not going to completely go through
21 our entire permit. We're not going to completely go through
22 our entire hydrology portion of the permit. We would submit
23 that it is already in the record and we stand here ready to
24 respond to any of the allegations that the water users seek
25 to raise today.

1 MR. CARTER: Okay. I don't want to make a specific
2 ruling on legal matters such as burden of proof and those
3 kinds of things. What I'm going to have to do is consult
4 with my legal advisers before I make a complete
5 determination. But I'll say this: My understanding is the
6 primary purpose today would be for the objectors to present
7 evidence or interpretations of information that the board --
8 or excuse me, the division has either overlooked or
9 misinterpreted or new evidence that has not been included;
10 that we do have, as you pointed out, a decision by the
11 division and another decision by the board that has made
12 some conclusions.
13 Now the way the coal program works, at least my
14 understanding of the coal program is that any time new
15 information is presented that might tend to undermine or
16 contradict a conclusion we've made administratively, we have
17 the ability to take a look at that and make a call.
18 Something new happens or something new comes to light that
19 we're aware of to try and see if that changes our conclusion
20 about how things are working.
21 But there's a balance here. You're correct in
22 pointing out that decisions have been made and findings have
23 been made based upon bodies of evidence already in front of
24 us. So I think having said -- my purpose in saying this is
25 to say that I do believe that the objectors have the burden

1 of proceeding, and the burden of proof is a legal term.
2 I'll make a determination with regard to that, that part of
3 the order. All right. Go ahead.
4 MR. SMITH: Our first witness is Darrel Leamaster.
5 MR. CARTER: Yeah. Here's a question for you. Do you
6 think we need to have witnesses sworn? In an informal --
7 MR. APPEL: Does it ever hurt?
8 MR. CARTER: In an informal hearing according to the
9 Administrative Procedures Act we're not really relying on
10 sworn testimony, but I'll refer to the wishes. We have a
11 reporter here and this is looking, walking and talking more
12 like a formal proceeding, although it's not. You tell me
13 what you think.
14 MR. SMITH: It will take six seconds.
15 MR. CARTER: Great.
16 MR. HANSEN: If they want to that's fine. I don't
17 see. I'll be happy to keep this as informal as possible.
18 MR. CARTER: Okay. Since it will only take a minute
19 or two, let's do that. Since we're going to do that, let's
20 have Mr. Leamaster sworn.
21
22 DARRELL LEAMASTER
23 called as a witness, for and on behalf of the
24 Objectors, being duly sworn, was examined and
25 testified as follows:

1
2 EXAMINATION
3
4 BY MR. APPEL:
5 Q. Would you state your name, please, sir?
6 A. Yes, my name is Darrel Leamaster.
7 Q. And where are you currently employed?
8 A. I'm the district manager for the Castle Valley
9 Special Service District.
10 Q. What is your professional background?
11 A. I'm a registered professional civil engineer
12 and I've been with Castle Valley Special Service District
13 for 19 years.
14 Q. Can you describe the service area of Castle
15 Valley Special Service District?
16 A. Yes, Castle Valley Special Service District
17 operates the western portion of Emery County. We provide
18 services for eight different communities. We provide
19 drinking water, irrigation water, sewer, drainage and roads
20 for those eight communities.
21 Q. Do you rely on any water sources that are near
22 or adjacent to the permit area of the Co-op mine?
23 A. Yes, we do. Specifically we rely on the Big
24 Bear Spring which provides water for -- excuse me, provides
25 water for the communities of Huntington and Cleveland and

1 Elmo.
2 Q. Where is Big Bear Spring located?
3 A. Big Bear Spring is located in the mouth of Bear
4 Canyon approximately 1500 feet down from the Co-op mine,
5 down the canyon.
6 Q. How important is that source to the service of
7 your customers?
8 A. It's an extremely important source. According
9 to the records we've been able to find, it was developed in
10 about 1930, so it's been used for some 66 years by the
11 community of Huntington. It runs continuously day and
12 night. It's been very reliable and very good quality water
13 for our community for all those 66 years. It's extremely
14 important to us.
15 Q. Are you familiar with the available water
16 resources or water resources available to you to serve
17 people in this area?
18 A. Yes. We look at that all the time. Are
19 looking for other sources and other places where we might
20 augment our water supplies.
21 Q. Are there any natural sources that are
22 available for replacement if you were to lose Big Bear?
23 A. There's nothing that is close that we're aware
24 of. We've looked in all the adjacent canyons. The latest
25 things we developed were in Tie Fork Canyon, which is

Page 17

1 somewhere approximately 10 miles away from this source. We
2 don't know of any other sources close by.
3 Q. Are you aware of the replacement source that
4 the Co-op has suggested would be used in their documents
5 filed for their permit?
6 A. I don't know that they've suggested a
7 replacement source.
8 Q. Have they suggested any replacement water?
9 A. Not to us.
10 Q. Okay. Have you had any problems over the past
11 six or seven years at Big Bear Springs?
12 A. Yes, we have.
13 Q. What are those?
14 A. We've had problems. In our opinion we've lost
15 the flow; the full quantity has been greatly reduced.
16 MR. HANSEN: Mr. Carter --
17 MR. CARTER: Hold on just a minute.
18 MR. HANSEN: Although this not a formal, it is
19 transcribed, and I want to make a formal objection for the
20 record. If someone's seeking covered material that has
21 already been adjudicated and resolved against the water
22 users, I'm not saying he can't go forward. I realize this
23 is informal, but I do make that objection.
24 MR. CARTER: Okay. Thank you. Go ahead, Mr.
25 Leamaster.

Page 18

1 THE WITNESS: And also we have seen the quality of our
2 water impacted, particularly during the period of December
3 1990 through 1991 when we saw spikes in sulfate calcium,
4 TDS's, other quantities in our flow. Qualities, I should
5 say. Not quantities.
6 Q. BY MR. APPEL: Was that out of the ordinary?
7 A. Yes, it was. We haven't seen anything like
8 that before nor since.
9 Q. Do the flows appear to be impacted now at that
10 spring?
11 A. In my opinion, yes, they are. We have not had
12 the recoveries. Since we've had more normal precipitation
13 the last couple years, our spring has not recovered and has
14 not returned to the flow patterns that it had prior to
15 mining.
16 Q. Okay. And you refer to normal precipitation as
17 compared to what?
18 A. Compared to the period of time when we had a
19 drought in the area and precipitation amounts were lower
20 than normal.
21 Q. Have your other sources come back?
22 A. Yes, they have.
23 Q. Okay. But Big Bear has not?
24 A. Big Bear has not.
25 Q. Have you had a chance to walk the perimeter of

Page 19

1 the coal permit area --
2 A. Yes, I have.
3 Q. -- from time to time?
4 A. Yes, I have.
5 Q. Have you noticed any problems with subsidence?
6 A. Yes. We've observed subsidence problems in the
7 Dry Canyon area. We have photographs that we obtained from
8 DOGM, and we also have photographs that we obtained where
9 we've seen considerable subsidence in the bottom of the Dry
10 Canyon area.
11 Q. Have you noticed any breakouts?
12 A. Yes, we have. There are breakouts in those
13 areas.
14 Q. How would you define a breakout for those lay
15 people in the audience, of which there are probably none.
16 MR. CARTER: Only me.
17 THE WITNESS: Basically it's a big sinkhole. It's a
18 sinkhole in the bottom of the canyon. There's a large
19 opening opened up down to the coal seam. The whole bottom
20 of the canyon is -- I guess you could say it looks like a
21 disaster area. There are several holes there.
22 Q. BY MR. APPEL: In your experience do you
23 understand the regulations of DOGM to protect against
24 subsidence and events like that?
25 A. I don't know if I understand it completely, but

Page 20

1 I think there are regulations that prevent that. There are
2 also subsidence cracks that we have observed up on the
3 ridges up above the mining operation. Not as severe as
4 those sinkholes that we've seen.
5 Q. As you sit here today, why don't you tell us
6 about some of the other problems you can remember that
7 you've witnessed that may be created by mining?
8 A. I'm not sure which direction to go here. Do
9 you want me to talk about the problems that we've seen with
10 the water levels --
11 Q. Yes.
12 A. -- of the Co-op mine? In previous information
13 that they've submitted that is on the record in their
14 hydraulic reports recorded, and I'm going to quote part of
15 this. This is from the hydrologic evaluations dated March
16 11th, 1991. They reported the east mains inflow remained
17 constant until the summer of 1989 when water was encountered
18 in the northern end of the north main entrance that,
19 according to Wendell Owen, the mine intercepted a flow of
20 about 110 gallons per minute. So they acknowledge here that
21 at that point in time they encountered around 110 gallons
22 per minute in the mine.
23 Now I want to talk about that for a minute.
24 110 gallons per minute represents 158,400 gallons per day,
25 or 4,752,000 gallons per month. Now we've examined the

Page 21

1 records from the Co-op, and their first reported discharge
2 from the mine occurred in April of 1991. So from the summer
3 of 1989 until April of 1991 they recorded no discharges.
4 There's approximately 21 months of time elapsed from that
5 time period. That 21 months represents 99,792,000 gallons
6 of water or about 300 acre feet of water.
7 We would like to consider what happened to that
8 water, where that water went. We have information that
9 we've received, and I think we'll have more testimony on
10 that later today, that beginning in 1989 the Co-op
11 discharged water into the Dry Canyon area. This water
12 flowed down Dry Canyon area and we're not exactly sure where
13 it all went. We believe that it impacted the Birch Spring.
14 Previously on the record we have made note of
15 an extremely high flow pattern that occurred on Birch
16 Spring. It started on October 17th, 1989, and that
17 continued for two or three months. We in previous hearings
18 talked about the fact that some unknown occurrence had
19 happened which had caused a tremendous unnatural high flow
20 to go into Birch Spring. During that time period as we have
21 on the record already shown, we had oil and grease, fecal
22 coliform, and we had other contaminants in the spring.
23 MR. CARTER: Is Birch Spring in the same canyon as Dry
24 Canyon?
25 THE WITNESS: Birch Spring is slightly over the ridge,

Page 22

1 and I think our expert will testify the fault that feeds
2 that spring trends to the north and up through the bottom of
3 Dry Canyon. It's our opinion, at least my opinion, that the
4 flow that was being discharged from the Co-op mine was able
5 to work its way into that fault, break through, and account
6 for the high flow that occurred in Birch Spring. When this
7 happened, we believe that the Co-op then quit discharging
8 into Dry Creek. And at that point in time we think that
9 they began discharging into the abandoned mine workings on
10 the south end of the mine.
11 In December of 1990 and January of 1991, we
12 then observed large icicles on the cliffs above our
13 springs. We had photographs of those that we previously
14 submitted as evidence and we also observed the high peaks in
15 flow or in quality parameters on our Big Bear Spring. We
16 also observed an increase in flow in our Big Bear Spring at
17 that time period.
18 We have since found out that the information
19 that the Co-op was discharging into that abandoned well was
20 available. It wasn't owned to DOGM, and there are letters
21 available that show that they were aware of that.
22 Q. BY MR. APPEL: Let's start at this point and
23 mark an exhibit, if we could.
24 MR. CARTER: Sure. If this is something that's in the
25 record, we can just take administrative notice of it.

Page 23

1 MR. APPEL: I don't know if it's in the record.
2 MR. CARTER: If it's in our files, then we can just
3 make an administrative note of it and we don't have to
4 introduce it.
5 MR. APPEL: All right. Let's proceed that way.
6 MR. CARTER: All right.
7 MR. APPEL: I know. We're struggling to turn into
8 something more formal.
9 MR. CARTER: We are.
10 Q. BY MR. APPEL: What correspondence are you
11 referring to?
12 A. This is an interoffice memo from Tom Munson,
13 senior reclamation hydrologist addressed to Pamela
14 Grubaugh-Littig, permit supervisor, dated May 17th, 1991.
15 Q. And how did that come into your possession?
16 A. I obtained that from the DOGM files in Salt
17 Lake City.
18 Q. When was that?
19 A. I'm not sure of the exact date. Three weeks
20 ago or so. Three or four weeks ago.
21 Q. And this is the first time this information has
22 come into your possession, isn't it?
23 A. Yes, it is.
24 Q. So it's new information?
25 A. Yes.

Page 24

1 Q. Read to us the important portions of the May
2 17th, 1991 memo.
3 A. Okay. I'd like to read first the synopsis. It
4 says:
5 "My previous memo of March 14th, 1991
6 regarding the response from Co-op Mining
7 Company and their consultant, Earthfax
8 Engineering, to the objections raised by
9 Castle Valley Special Services District, North
10 Emery Water Users and Huntington-Cleveland
11 Irrigation District discussed point-by-point
12 the conclusions of the Earthfax report. Based
13 on new information provided by Co-op Mining
14 Company in response to a Division order dated
15 November 27th, 1990 as well as an hydrologic
16 investigation by Paul Anderson, Consultant to
17 the Division, the groundwater impacts
18 associated with the present workings at Bear
19 Canyon Mine have been reevaluated. An updated
20 analysis is provided below."
21 Then he talks about several things, and I'd
22 like to refer to item No. 3. "Water intercepted within the
23 mine workings of the Bear Canyon Mine have not had any
24 identifiable impact on the spring flows of Big Bear or Birch
25 Springs."

Page 25

1 Q. Now that's a conclusion of whom?
2 A. That was the conclusion from the Earthfax
3 report. And he's responding now to that.
4 Q. And that's from the hydrogeologic evaluation?
5 A. Yes.
6 Q. For the permit.
7 A. Right.
8 Q. Okay. So that's Co-op's conclusion?
9 A. Right. He says, "It has been discovered that
10 mine water was pumped into old workings in the south end of
11 the mine via a pressure relief valve set up on the in-mine
12 pumping system."
13 Then down in the next paragraph:
14 "Based on the information the Division
15 has received from Co-op in response to its
16 November 27th, 1990 Division Order, and a
17 verification that the pumping system and
18 set-up, conducted on May 16th, 1991 by Jesse
19 Kelley, the Division has made the following
20 observations:
21 "Pumping water into the old workings
22 via the old pumping and piping system most
23 probably had an effect on the water balance in
24 the old workings causing a discharge to occur
25 at the outcrop, potentially affecting Big Bear

Page 26

1 Spring."
2 MR. CARTER: Is that ongoing? Maybe I ought to just
3 ask Co-op. Since this is informal I get to jump in.
4 THE WITNESS: In the letter he says that they have
5 corrected the problem, that they have put a meter on that
6 discharge that went into the old abandoned mine workings and
7 are monitoring that. Now we have no information to know
8 whether they were actually doing that or not.
9 MR. CARTER: Let me just ask Charles. This is kind of
10 a mixed thing but generally the informals I get to ask
11 questions whenever something pops up. So let me ask
12 Charles. This is Charles Reynolds, for the record.
13 MR. REYNOLDS: That water at the time was discharged
14 into the old workings. After looking at it and evaluating
15 it, as a result of comments and recommendation, that was
16 discontinued back at that time; that is where the water went
17 prior to being discharged in '91 was coming into the mine.
18 It was put into the old workings, and at the time it
19 appeared there may be a potential, in fact the Division
20 requested that cease and that was discontinued.
21 THE WITNESS: There is one more sentence here that he
22 writes that maybe I should read.
23 MR. CARTER: Okay.
24 THE WITNESS: He says in "Final Analysis and
25 Recommendation," "Based on the discovery of the pumping of

Page 27

1 water into the old workings and the documented increase in
2 the flow in Big Bear Spring, the termination of pumping
3 water into the old workings will hopefully solve the current
4 quantity and quality abnormalities at Big Bear Spring."
5 MR. CARTER: Okay.
6 Q. BY MR. APPEL: And when you came into
7 possession of this information, did it square with the
8 language of the permit at the time it was given to Co-op in
9 1991?
10 A. No, I don't think so. I don't think that they
11 were allowed to discharge into that area, and I think that
12 it also shows that they did impact our spring.
13 Q. Which they had denied in the past?
14 A. Which they had denied, which we talked about in
15 previous hearings, and it was never admitted that they were
16 pumping water into that area. There was never anything said
17 about where the icicles on the ledges were coming from. We
18 think that was information that was available in previous
19 hearings that was never brought out.
20 Q. Just for the record, the hearing in the last
21 permit renewal was held February 5th, 1991. The order was
22 issued May 20th, 1991, and this memo is dated May 17th,
23 1991. Hence the concern with not being in the order. It
24 was known to the Division.
25 Do you have any concerns in the future about

Page 28

1 this particular problem with the obvious connection between
2 the mine workings in that area and the spring?
3 A. Yes. I think the biggest concern we have is
4 what's going to happen when mining is discontinued and they
5 discontinue pumping out of the mine. As those sections of
6 the mine fill back up with water, what's going to prevent
7 that from again impacting our spring and causing the same
8 kind of abnormalities in quantity and quality of our water?
9 Q. Those spike flows or abnormal flows in Big Bear
10 Spring, did they occur during this period of time?
11 A. Yes, they did.
12 Q. So that's what you're referring to?
13 A. Yes.
14 Q. And your suspicions have proven to be correct
15 from this report?
16 A. Yes.
17 Q. I have nothing further.
18 MR. CARTER: Okay. It's --
19 MR. SMITH: I have just a couple questions.
20 MR. CARTER: Go ahead, Mr. Smith. This is informal;
21 right? I'm confused.
22
23 EXAMINATION
24 BY MR. SMITH:
25 Q. Mr. Leamaster, who is the holder of the water

Page 29

1 rights that Castle Valley Special Services District uses?
2 A. The Castle Valley Special Services District has
3 the rights to the Big Bear Spring. Of course the Huntington
4 Irrigation Company owns all the water rights and we have --
5 we own shares in Huntington-Cleveland Irrigation Company,
6 and we have a point of discharge that allows us to collect
7 that water at the spring.
8 Q. Okay. And I take it the spring is second to
9 Castle Valley Special Services District?
10 A. Yes, it is.
11 Q. And so if contamination were to come into that
12 spring, what would happen?
13 A. It would be very difficult for us to pick that
14 up. We have no continuous monitoring on the spring. We
15 sample it throughout the year, but it's not continuously
16 monitored, so it could be contaminated. It would get into
17 the system and the first indication we would have would
18 probably be if we received complaints from our customers.
19 Q. So it actually would get straight through to
20 the users in the cities that you serve because it is
21 connected to your system?
22 A. That's correct. The only treatment that it
23 receives is we do chlorinate it prior to it reaching any of
24 our customers. But it doesn't receive any other treatment
25 and it goes directly from the spring into our system and to

Page 30

1 our customers.
2 Q. So I take it since at least from the reports
3 you've read about the interconnection between the mine
4 workings and Big Bear Spring, if something were put into the
5 mine, it could then get into your spring and then to the
6 customers; is that correct?
7 A. That could possibly happen, yes.
8 Q. Okay. That's all the questions I have.
9 MR. APPEL: May I ask one more or shall I wait for
10 him?
11 MR. HANSEN: It's informal.
12 MR. CARTER: Yeah. We keep saying that. Go ahead.
13
14 FURTHER EXAMINATION
15 BY MR. APPEL:
16 Q. We were discussing early in your testimony the
17 availability of replacement sources. How much water per
18 year on average comes from Big Bear Spring?
19 A. I can't remember exactly the total. Right now
20 we're running about 148 gallons per minute. It's gotten as
21 low as 76. Prior to mining we had times when we were up to
22 close to 300 gallons a minute coming from the spring.
23 Q. So if you had to -- this may be unfair and it
24 may take you a minute to do, if you had to quantify that
25 into acre feet, how much water would have to be replaced if

Page 31

1 you were to lose Big Bear Spring to make your system whole?
2 A. I'd have to calculate that to get an accurate
3 figure. Like I said it's a lot of water when you think
4 about say 140 gallons a minute running 24 hours a day for a
5 full year. It's a lot of water.
6 Q. Between a hundred and two hundred acre feet
7 you'd guess without calculating?
8 A. Yeah, at least that much. Let's see if we use
9 140 gallons per minute here, yeah. It's about 73 million
10 gallons a year, which would be approximately 43, about 43
11 acre feet. Let's see 43, 4300 acre feet. Does that sound
12 right? 43,000 acre feet roughly.
13 MR. HANSEN: I have a question for you, Mr. Carter.
14 MR. CARTER: Sure.
15 MR. HANSEN: Are the proceedings in the record that
16 was made during Co-op's -- the hearing on Co-op's request
17 for the permit revision part of the record? Are we able to
18 refer to those?
19 MR. CARTER: Yes.
20 MR. HANSEN: They're all before the Division.
21 MR. CARTER: Everything in the Division files that
22 bears on this matter is part of the record and I'm
23 telegraphing a little bit here, but the process I plan to
24 apply is to take whatever testimony and argument and
25 interpretation is presented here and compare that with where

Page 32

1 we've -- what conclusions we've made in order to determine
2 whether or not the Division has announced the correct view
3 of the world or not. So the whole record in my view is part
4 of this proceeding.
5 MR. APPEL: And you understand that from our
6 perspective that was an entirely different purpose; that
7 time that being the impact of the mining tank seam.
8 MR. CARTER: I knew we'd --
9 MR. APPEL: which is now currently on appeal before
10 the Utah Supreme Court.
11 MR. CARTER: I think as an administrative matter, and
12 it sounds kind of simpleminded or simplistic, but I think my
13 view of the Division's responsibilities as well as what the
14 Division's opportunity is to avail all the factual evidence
15 that has ever been presented to the Division, and then to
16 draw conclusions as to whether or not the conclusions that
17 currently are standing, the conclusions that we've
18 previously remained drawn are valid or whether we overlooked
19 something or whether there's new evidence or information
20 that would tend to change our minds about some conclusion we
21 made.
22 So without being -- and that's I guess part of
23 the difficulty that this is appearing to be a formal
24 proceeding, almost court proceeding when in fact it's an
25 informal proceeding in which I'm making myself available for

Page 33

1 new information that we may have overlooked or new
2 interpretations that we didn't apply. But I feel that I'm
3 not constrained to look only at a portion of the record. I
4 think I can consider all the facts that have ever been
5 presented or offered to the Division in any context, whether
6 through Board order or whatever, and make some conclusions.
7 I think there's -- the reason that this has
8 formal aspects is that at the conclusion here you may well
9 want to make argument about -- counsel may well want to
10 make argument about what facts -- you may argue that
11 there's a realm of the facts that the Division cannot
12 reconsider because they've been determined on appeal to be
13 the facts, so that I couldn't simply substitute my judgment
14 or Division's judgment for the Board's judgment on something
15 without a basis, without tying that to a new fact.
16 I think the Division is free on presentation of
17 new evidence to say, well, the Board knew what it knew six
18 months ago, but it didn't know something that I now know,
19 and so I'm now free to make a new determination based on the
20 new evidence as an administrative matter.
21 MR. APPEL: Just so our point is clear, the subject
22 matter before the Division and the Board in the proceeding
23 you're referring to was the tank seam, and the
24 cross-examination evidence submitted, the evidence you'll
25 see today wasn't relevant and determined not relevant

Page 34

1 before. So if you're going to apply conclusions of the
2 Board and apply conclusions suggested by the experts of
3 Co-op, you need to bear in mind that we had no reason to
4 object because we weren't doing this renewal proceeding.
5 So what I'm suggesting to you is lifting or --
6 don't take this the wrong way -- cutting this and pasting
7 from that to this would basically violate our rights to due
8 process.
9 MR. CARTER: Okay. Let me see if this helps.
10 Typically what I do in an informal conference is -- see, I
11 forget that I'm no longer on the Board. This feels like I'm
12 on the Board. So since I'm not on the Board, I'm not going
13 to be making any conclusions of law. I'm going to refer to
14 the assistant attorneys general to tell me what the
15 conclusions of law are. I think I'm only a fact-finder.
16 So typically what I do in these informal
17 conferences is everyone makes the argument, legal arguments
18 as well to me. I dutifully make notes. I record my
19 thoughts and impressions and I go away and make conclusions
20 or findings of fact or proposed findings of fact. And then
21 I talk to my assistant AGs about whether I can do that and
22 is there a problem as an agency, can we make those findings.
23 And in terms of legal arguments I'll have to defer entirely
24 to the advice of the AGs.
25 So I'm not -- this is really somewhat awkward

Page 35

1 because I can't make a legal ruling or legal determination
2 on what's admissible or not admissible on what the entire
3 record is. I can take your arguments about what the record
4 should be or shouldn't be, note those clearly and then just
5 have to ask my attorneys what their advice is for me.
6 This is somewhat awkward. And I think I'm
7 going to try to carefully craft an order of the Division
8 that doesn't do any violence to due process rights or
9 overturn, inappropriately overturn or upset findings of the
10 Board or previous findings of the Division.
11 But I think -- maybe I'm making this more
12 complicated than it is, or maybe it's really this
13 complicated. But I think I need to just take all this in
14 without making any determinations about what I will consider
15 or won't consider. And I understand Mr. Hansen's argument
16 to be that we should consider the entire record, all the
17 facts.
18 MR. HANSEN: That is my question, because I don't want
19 to have to go back and resubmit evidence at this informal
20 conference that was already formally submitted under oath in
21 the previous proceeding and is available to the Division. I
22 would like to be able to just comment on that evidence and
23 point it out to you so that you can go back and refer to it
24 rather than putting it in all over again.
25 MR. CARTER: I think that's appropriate, and I think

Page 36

1 if you want to then caution me and say -- you can tell me
2 whatever you want to tell me.
3 MR. APPEL: I think Mr. Hansen does that at his peril
4 because the purpose of that particular proceeding was vastly
5 different than the purpose of this. So if he wants to rely
6 on that prior testimony, it may be that it is all stricken
7 as irrelevant because of the Supreme Court ruling. If he
8 wants to put on evidence concerning this renewal and if he
9 wants to rely on incorporation of old evidence, I suppose
10 that he can do that. But I'm just telling you what our
11 position will be is if he doesn't put his evidence on here
12 then he may well find it's barred. I'm not asking for a
13 real ruling either. I'm just telling Mr. Hansen where I'm
14 coming from.
15 MR. HANSEN: And regarding that argument, assuming the
16 water users prevail at this informal conference, my
17 understanding -- correct me if I'm wrong, please -- is that
18 this would then have its own right to appeal. Then we would
19 be in an informal evidentiary hearing before the Board and
20 formally put all that evidence under oath in any case.
21 MR. CARTER: The purpose of -- the Board would review
22 this matter de novo. That makes it the Division makes some
23 mistake of fact or law, no one's bound by that. And I think
24 that the informal conference is exactly that.
25 I don't think that a failure by a party, the

Page 37

1 onus, if Co-op were to fail to introduce some evidence or
2 argument and the ruling went against them, I don't think
3 they're prejudiced. I think they say, well, we tried to
4 convince the director to do the right thing and he didn't,
5 so now we're going to appeal it to the Board.
6 And I think when you go to the Board you start
7 from scratch. And then the Board will turn to its counsel.
8 The Board then is able to make findings of fact and
9 conclusions of law. So the Board will turn to its counsel
10 and decide what can come in and what can't come in.
11 I think the advantage of the informal
12 conference is that we don't need to take in the entire
13 universe of evidence for fear that you'll then be barred in
14 subsequent proceedings because this really is sort of the
15 Division's last clear chance to do the right thing before
16 its determinations end up in front of the Board. And that's
17 kind of the way I view it. So --
18 MR. APPEL: A new application of the last clear chance
19 doctrine.
20 MR. HANSEN: That's right.
21 MR. CARTER: That's right. And I appreciate it when
22 we're asked to conduct informals because it allows me to
23 review it and obtain the advice of AGs whether I want to
24 change the Division's mind or whether we want to stand pat
25 and let the Board review it just the way we've done this.

Page 38

1 MR. APPEL: I appreciate that, Mr. Carter.
2 MR. NIELSEN: I did the calculation. 220 acre feet.
3 It represents 140 gallons a minute.
4 Q. BY MR. APPEL: And as far as you're aware the
5 Castle Valley Special Services District portion is 15
6 shares?
7 A. 15 shares.
8 Q. Which is how many acre feet?
9 A. That's about five.
10 Q. And that's in the Huntington-Cleveland
11 Irrigation District?
12 A. Yeah.
13 Q. Which relies on what sources?
14 A. I don't know.
15 Q. Okay. If you had to replace 220 acre feet,
16 where would you go? What would be required to supply that?
17 A. Probably -- we would probably have to rely on
18 surface water treatment. I don't know of any other springs
19 close enough that we could nominally develop one. I think
20 we'd have to rely on surface water treatment.
21 Q. Do you currently have a surface water treatment
22 plant that would be capable of doing that?
23 A. Huntington owns a surface water treatment plant
24 in the mouth of the canyon. It's not operable. It would
25 take considerable expense to bring that on line and put it

Page 39

1 in use.
2 Q. And you would need a new water right to do so
3 or at least a change application?
4 A. We would need a change -- yes, we'd need a
5 change.
6 Q. And that's not in place at this time?
7 A. No, it isn't.
8 MR. CARTER: Just for clarification, the water
9 treatment facility is set up to take water out of the
10 streams, so you would just have to change your point of
11 division? Is that what you're talking about?
12 THE WITNESS: It's set up to discharge out of
13 Huntington Creek.
14 MR. CARTER: Okay.
15 THE WITNESS: It has some problems with the division
16 of drinking water in the fact that it's what we called a
17 single-pass plant. It only has one flash mixer, one
18 flocculator, one clarifier, one filter. So it has some
19 problems. They like to have dual standby on all of those
20 things. So it would take some expense to bring that on line
21 and usable.
22 Q. BY MR. APPEL: So is it your conclusion as you
23 sit here today that there is no viable replacement water
24 source being provided by the Co-op?
25 A. That's correct.

Page 40

1 Q. Okay. Thank you.
2 MR. CARTER: Mr. Hansen.
3 MR. HANSEN: I have a couple of questions. If this is
4 informal, if I could just make some comments on some things
5 that he said.
6 MR. CARTER: Certainly. And that's perfectly okay.
7 You don't need to cross-examine. That's fine.
8
9 EXAMINATION
10 BY MR. HANSEN:
11 Q. Mr. Leamaster, you pointed out this one
12 incident in late 1990, early 1991, where there was
13 apparently a large increase in the water flow together with
14 some contamination of the water; is that right?
15 A. Yes.
16 Q. I'd point out that in previous proceedings that
17 the details as to the changing of the water flow as to the
18 subsidence and quantities of contamination have already been
19 put into the record. Other than that single incident, has
20 there ever been any incident to your knowledge where the
21 quality of water coming from either Birch Spring or Big Bear
22 Spring has been adversely affected?
23 A. I probably shouldn't comment on Birch Spring
24 because I'm not familiar with all their records.
25 Q. I asked to your knowledge.

Page 41

A. The incident that I mentioned in October of 1989, and other than that I don't know of any incidents on Birch Spring.

Q. Okay. During that incident did the water quality decrease enough to require you to take that spring off line?

A. Again North Emery should answer that. But it's my understanding that North Emery did have to take that spring off line. They had oil and grease. They had complaints from their customers and they had to remove that spring from their system.

Q. Do you have any personal knowledge if that happened? Do you know for yourself if it happened?

MR. APPEL: One question at a time, Mr. Hansen.

MR. HANSEN: It's repeating the same question. This is informal. Let's not get caught up in those technical form of objections.

MR. APPEL: And let's not badger witnesses. You asked him a question.

MR. CARTER: This is getting way too formal.

MR. APPEL: You asked him a question. Give him a chance to answer.

THE WITNESS: I was not personally there when that happened. I've been advised by the authorities from North Emery about the incident. I've read about it. I wasn't

Page 42

personally there.

Q. BY MR. HANSEN: You testified that at one time Birch Spring flow got as low as 76 gallons a minute?

A. Big Bear.

Q. Big Bear. I'm sorry. When did that happen?

A. That happened in May of 1995.

Q. And in the 17 months since then the spring flow has increased to 148 gallons per minute?

A. That's correct.

MR. HANSEN: Mr. Carter, that is really the only piece of new evidence that I heard throughout the entire course of Mr. Leamaster's testimony. I would like to make a few comments of what I did hear him say. I did hear him say that Castle Valley right now does have a water treatment plant already constructed that they're not using because they don't need it at this point, suggesting that the need isn't as great as what they say.

We've pretty well established that as far as water quality there's only been one single incident, and it's still not been clearly established as to the cause of that incident. And again that is the water users, not the Co-op Mine, that bears the burden. And anyway that incident was already before the Division and it made its ruling. We've heard nothing to suggest that there's anything new about that incident that's changed the Division's decision.

Page 43

Subsidence problems, breakout sinkholes, there's been no suggestion that any of those things to the extent that it's new information has had any impact on spring flow.

And again there's been no suggestion to discount the new information that this May 21, 1991 letter suggested, that the recommendation was made that further groundwater studies will need to be conducted to ascertain impacts associated with additional coal seams within the existing permit area. Those additional groundwater studies have been done. The information on tridium studies in particular as to Big Bear Springs is in the record.

We've heard nothing to demonstrate any different conclusion than what came from that information which shows that Big Bear Spring is new water; i.e., water that has come since the air atomic testing has begun, and all of the studies established that all of the waters encountered is old water.

MR. CARTER: There were some studies, and I'm sure we're going to get to those, in which underground samples were taken prior to that.

MR. HANSEN: Mr. Leamaster mentioned icicles on the cliff in January 1991. The information is already in the record established during the tank seam hearings that those icicles existed, have always existed. They've existed

Page 44

before the mines began operating. They continue to exist. The source of the water that comes from those icicles is water that seeps out from the cliff face naturally through Birch or otherwise. They come about as a result of the natural water flow in the area and not as a result of anything that the mine does. That's already entered in the record.

Mr. Charles responded and it was also on the record, whatever the facts and circumstances were that were outlined in this May 17th, 1991 letter as to discharging the old workings has been corrected. It's been corrected for some time, and as Mr. Leamaster admitted himself, there's been no subsequent incidents, nothing there to suggest any change in the Division's decision regarding the permitting rule.

That's pretty much the comments I have on Mr. Leamaster's testimony. Except for his admission that the spring flows have doubled in the last year and a little bit more, there's really nothing new to the information that was not already before the Division. I think Mr. Reynolds has something he'd like to say.

MR. CARTER: Sure.

MR. REYNOLDS: I just draw one conclusion and it was the conclusions that Earthfax drew of which Tom Munson was referring to were based on the fact that at the time that

Page 45

that spike in TDS occurred in Big Bear Spring, we had been discharging in the old workings for some time, approximately a year and a half. And that discharging in the old workings was not discontinued until subsequent to this memo by Tom Munson in which the Division requested us to discontinue that.

Now the quality in Big Bear Spring, according to our monitoring, by February of '91 it had recovered to its normal quality in the sample that we took in our regular water monitors. So Earthfax's conclusions to my knowledge is it hadn't been the mine were based on that fact that throughout that whole time when the spike improved, the discharging of the old workings was continuous. It was being done. It did not discontinue until several months after the quality of water had already had been returned to normal.

MR. CARTER: Let me -- I'm going to recap and see if I grasp this, and certainly, Mr. Leamaster, certainly the significance of this discussion with regard to the discharging of the water into the old mine workings and the icicles and the spike inflow and the quality problems at Big Bear Spring all relate to the question as to whether or not there's a hydrologic connection between the mine and Big Bear Spring, and the determinations of the Division to date had been that there is not one.

Page 46

I mean the expression and concern that I think I'm hearing, if we accept for a minute that the spike has gone away and the water quality has cleared up, so there's not a present problem at the spring, the concern is if there is a connection, what happens when the mine is abandoned, and if the works flood. I don't know that they would. But the concern would be then what happens if the discharge commences again at the cessation of mining operations.

MR. APPEL: That's part of it. There is a connection. They said that they have been putting water in there for a year and a half. I think the testimony if you were to go back to 1991 was that they had not done that and that the icicles in the cliff which Mr. Smith will get to in a moment happens every year and it wasn't the result of any turning of water. If you heard Mr. Munson, we went kind of quickly through that, but Mr. Munson's conclusion was most probably, and I think Dianne Nielson's conclusion in the order was it came out in the outcroppings.

Our conclusion does not include Mr. Munson's conclusion it most probably affected Big Bear Springs. I heard Mr. Reynolds to say, well, yeah, we probably did that but we haven't done it since then. Yes, you're right. You haven't. The core issue is there is an interconnection between the two.

This also will speak -- when we get to

Page 47

experts -- speak volumes as to how water is transmitted through the topography in that area, and it will become quite clear if it's different than was suggested to the Board, the conduit being the three tongues of the Star Point sandstone that starts way up here on Gentry Mountain and goes underneath all the mining. This particular evidence becomes very important because it disabuses us of that conclusion.

MR. CARTER: Am I correct in characterizing the disagreement here, at least the actual disagreement?

MR. HANSEN: I believe so.

MR. CARTER: Make sure I grasp it.

THE WITNESS: Could I add one more comment too, Mr. Carter? You talked about the water treatment fact and the fact that, the fact that we have excess capacity in the plant. I'd like to point out that in about 1980 we spent considerable amount of money in upgrading all the lines to those spring boxes. In 1977 those spring boxes themselves were updated. We've spent several million dollars in upgrading that system so that we could utilize those springs.

Now the advantage is, as I testified early, all we do to treat that is chlorinate those and they go into the system. When we start taking water from the river then we're completely involved in all of the surface treatment

Page 48

rules, chemical treatment, all of the expenses of that treatment. So it's a much more expensive process. And for that reason we spent all the money to develop these springs so that we didn't have to operate that plant. And it hasn't operated for several years.

MR. CARTER: Let me -- I may have skipped over something and I want to make sure. I'll characterize this as a legal argument, and that is I take it that the water users' assertion is that the permit should contain an identified replacement source in the event replacement is warranted. I won't get into the new policy act. But my understanding is that there are replacement requirements in Forest Service, attached stipulations to, at least to federal leases. We won't get into that.

But let me just clarify. You're making an assertion that there should be an identified replacement method and source that's part of the permit, and there's not one in there. And I think there's a legal question.

MR. SMITH: Yes, that's right. That's exactly our assertion, that under all the laws you talked about that's required. And we pointed out that that's an argument that's also before the Supreme Court and it's also the subject of a noncompliance letter that's currently been issued by the Office of Surface Mining to DOGM that has not as I'm aware of been resolved at this point. Maybe --

Page 49

1 MR. CARTER: Yeah. The 732 letter. We won't get into
2 that too far. I guess there's some -- there could be
3 differences of opinion about what that letter has directed
4 us to do. But the Division is interpreting that letter as
5 directing us to incorporate into the statute of the State of
6 Utah and into the rules of the Board provisions which would
7 implement the energy policy act amendments requiring water
8 replacement.
9 MR. SMITH: Yeah. And that's a --
10 MR. CARTER: That means in the large --
11 MR. SMITH: Right. And we think that means they have
12 to identify it because it's like waiting till the fire's
13 burned the house down and then saying where's the nearest
14 fire plug. You've got to have the fire plug there so that
15 when the fire starts you can put out the fire. That's our
16 little analogy that we'll give to the Division here.
17 MR. CARTER: Okay. I just want to make sure I
18 understand the argument.
19 MR. SMITH: I have a couple more. I think something
20 was brought up in the response by Co-op that we'd like to
21 have clarified by this witness.
22
23 EXAMINATION
24 BY MR. SMITH:
25 Q. I'm showing the witness two photographs, two

Page 50

1 copies of photographs that were taken of the -- this is the
2 icicle event. To try not to make this real formal, I'll
3 have him do them at the same time instead of one of them.
4 We'll save some time and ask if you can identify these
5 photographs?
6 A. Yes. These photos are in the localities of the
7 Big Bear Spring in the ledges above the spring, and they
8 show the icicle formation that we've referred to.
9 Q. And I take it one's a close-up and one's a
10 wider shot --
11 A. Yes, yes, that's right.
12 Q. -- of the same formation?
13 A. Same general area.
14 Q. Were you there when these photographs were
15 taken?
16 A. Yes, I was. These were taken by our
17 hydrologist Bryce Montgomery, and I was with him at the time
18 these were taken.
19 Q. What year were those taken?
20 A. They were taken in 1991. I think it was
21 January of 1991.
22 Q. That's the area of the event that we've been
23 talking about?
24 A. Yes.
25 Q. Is icicles that are shown here, is that a

Page 51

1 common -- let me back up. I take it you're familiar with
2 this area of Huntington Canyon?
3 A. Yes, I am.
4 Q. Have you had opportunities to visit that
5 frequently during winter months?
6 A. Yes.
7 Q. Over what period?
8 A. Ever since I've been with the District and
9 we've been operating those springs. And it's been close to
10 19 years.
11 Q. And are icicles similar to what are depicted on
12 the photographs, is that a common occurrence in that
13 location in Huntington Canyon?
14 A. It is not. That's the only time we've seen it,
15 and that's what drew our attention to it and why we took the
16 pictures. We've never seen it before and we've never seen
17 it since.
18 Q. Okay. If you'd like I can offer these into
19 whatever evidence thing we are doing. I'll submit those.
20 MR. CARTER: The Division looks at these things I
21 think at the Division's peril, not to any prejudice to the
22 parties.
23 MR. SMITH: I'll go ahead and submit them.
24 MR. APPEL: We should probably mark them as something.
25 MR. SMITH: You can mark them as whatever you want to

Page 52

1 do to identify them.
2 MR. CARTER: I guess since we're keeping a record, did
3 you --
4 MR. HANSEN: I don't need to see them.
5 MR. CARTER: Okay.
6 MR. HANSEN: I would point out that there is an
7 evidentiary dispute already in the record as to whether or
8 not that's an isolated incident. We've put on evidence and
9 we can tell Charles or Kim or Wendell to testify that that
10 is a regular occurrence in the area.
11 MR. CARTER: If you can refer me to, if that's part of
12 the record that's already been made, if you can just refer
13 me to it.
14 MR. HANSEN: It was in the tank seam hearing. I
15 couldn't give you page and line right now.
16 MR. CARTER: What I'll do, I'll mark these No. 1 and
17 No. 2. Just so that the record -- just so the record's
18 clear, why don't you mark the wider shot as No. 1, and the
19 more close-up one as No. 2, and that way we'll be able to
20 keep track of them.
21 Okay. What I'll do is make a note to myself to
22 examine the records that we've got to see what discussion
23 there's been and what testimony there's been with regard to
24 the icicles, their origin and significance. Okay. Thank
25 you.

Page 53

1 Anything else from Mr. Leamaster? Again this
2 is not a call, recall, we just -- you have a series of
3 points that you'd like to establish and you're going to use
4 your witnesses to do that.
5 MR. SMITH: Right.
6 MR. CARTER: I'll allow the Co-op to respond as those
7 come forward and then certainly allow Co-op to put on
8 whatever witnesses it would like to in rebuttal. Okay.
9 Thanks.
10 MR. SMITH: Thank you. At this time we'd like to call
11 or ask -- I shouldn't say call -- ask Mr. Jack Stoyanoff to
12 come up to the table.
13 MR. CARTER: Since we are swearing these witnesses,
14 let's go ahead and do that.
15
16 JAN STOYANOFF,
17 called as a witness, for and on behalf of the
18 Objectors, being duly sworn, was examined and
19 testified as follows:
20
21 EXAMINATION
22 BY MR. SMITH:
23 Q. To make sure we have a clear record, could you
24 just state your name and address for the record, and you
25 better spell your name for the court reporter.

Page 54

1 A. Okay. My name is Jan Stoyanoff.
2 S-t-o-y-a-n-o-f-f. And I live at 235 East Highway 155 in
3 Huntington, Utah.
4 Q. And are you employed at the current time?
5 A. Yes, I am.
6 Q. And what employment is that?
7 A. I work for North Emery Water Users.
8 Q. And what's your position with North Emery Water
9 Users?
10 A. I'm the operator/manager.
11 Q. And how long have you been employed within that
12 capacity?
13 A. For about 12 years now.
14 Q. Okay. So back to about 1979, 78?
15 A. About '84.
16 Q. Oh, '84. Oh, that's right. I'm having a hard
17 time with my years.
18 MR. APPEL: It will get worse.
19 MR. SMITH: I did turn 40 this year, so I -- enough
20 of that.
21 Q. And what's your duties with North Emery Water
22 Users Association?
23 A. Well, mainly just to maintain the system and
24 make sure it operates and that we're in compliance with all
25 the rules and regulations.

Page 55

1 Q. Tell me what North Emery -- what does it do?
2 A. We provide culinary water for approximately,
3 oh, 300 -- between 300 and 320 connections, and then we
4 also provide livestock water to another 100 or so
5 connections. And then we have probably about 10 or 15
6 industrial connections on our system.
7 Q. And what area of the Emery County do you serve
8 culinary water?
9 A. We serve all the outlying areas around the
10 towns and cities in the northern part of Emery County.
11 Q. So that would be the areas around Cleveland and
12 Elmo and outside of Huntington?
13 A. Yes, mm-hmm.
14 Q. So if they're not in the cities and served by
15 the Special Services District, they're served by you?
16 A. Right.
17 Q. Are there any other providers for culinary
18 water in that area?
19 A. No.
20 Q. So these people rely solely on North Emery
21 Water Users Association?
22 A. Yes.
23 Q. And I take it that you're a nonprofit
24 corporation?
25 A. Yes.

Page 56

1 Q. That's supported by the people who you serve?
2 A. That's correct.
3 Q. And do you have any water sources near the
4 Co-op mine that we've been discussing?
5 A. Yes, we do.
6 Q. And what source is that?
7 A. The Birch Springs. We also have Rilda Canyon
8 Springs across the river on the other side, right across
9 from Birch Spring.
10 Q. Okay. And can you just kind of -- I know
11 we're going to take a field trip and go look at that this
12 afternoon, but can you just for the record kind of explain
13 where Birch Spring is.
14 A. Well, it sits between the old workings of the
15 Co-op mine and the new workings, both those canyons up
16 there. It kind of sits in between them.
17 Q. Kind of right on a point in Huntington Canyon?
18 A. Mm-hmm.
19 Q. Okay. And for the record we will go look at
20 that today, and I'm sure we'll also be pointing at maps.
21 And Birch Spring, is that -- how important of a water
22 source is that to North Emery Water Users Association?
23 A. Oh, it's very important. All our springs are
24 really important to us. We're, for an example here, this
25 year if we hadn't had that new treatment plant and tank up

Page 57

1 the canyon, we would have, you know, had to ration our
2 water, because this year was a real dry, dry summer, and hot
3 summer, and so our big producing spring, Rilda Canyon
4 Spring, never came up to its peak, you know. It come up to
5 about 300 gallons a minute and just leveled out. So there
6 was through the hot months of the summer, July and August,
7 there was a time we were using all our water to keep our
8 customers in water.
9 Q. I see. When you first began working with North
10 Emery Water Users, what kind of production did you see
11 coming out of Birch Spring as far as how much water it was
12 providing to the North Emery Water Users Association?
13 A. 70 gallons a minute is what it was producing.
14 Q. And while you've been working for North Emery
15 Water, has work been done to develop that spring?
16 A. Yes, mm-hmm. The major work was done just
17 before I started to work for them, and they went in there
18 and developed it. And at that time they weren't able to
19 capture all the water. And so they never turned it into the
20 system. And then right after I started to work for them we
21 hired a contractor and went back up there and went down to
22 try to capture that water. And when we got down we couldn't
23 find it. It wasn't there any longer. And so we went ahead
24 and closed things up, and then went through the procedures
25 and turned it into the system.

Page 58

1 Q. Okay. And we've been talking about this event
2 that occurred right around 1990. You heard Mr. Leamaster
3 talk about it. Are you familiar with that event that we've
4 been talking about, the high flow spike event?
5 A. Yes, I am.
6 Q. And can you just take a minute and describe
7 what happened from your perspective at that time?
8 A. Well, we started getting phone calls from our
9 customers up the canyon that water was really dirty and
10 contaminated, so at that time I went up the canyon and I
11 started looking for potential problems, and the road
12 department had been up there and they'd broken one of our
13 air vacs, and so we thought that was the problem. But it
14 didn't clear up.
15 And so it wasn't until the next day that I
16 discovered that the Birch Springs area was -- the whole
17 area, even the cliffs, you know, where there wasn't any
18 water coming out before, there was flowing quite a bit of
19 water. We measured that, and it was about 120 gallons a
20 minute flowing down the stream there at Birch Springs. And
21 then our spring had gone from 40 gallons a minute to about
22 110 gallons a minute.
23 And we had to turn the spring out because it
24 was -- the whole bottom of the collection box was full of
25 sediment, sand, from the dirty water.

Page 59

1 And it was out -- it was a good thing it
2 occurred in October because if it would have occurred in the
3 summer it would have run people out of water. Because it
4 was that time of the year we were able to turn it out, and
5 it took I think about three months for it to -- the flow to
6 finally drop back down to normal, and then it was probably
7 another three months before we were able to turn it in back
8 to the system.
9 Q. So you were unable to use that spring for about
10 six months?
11 A. Correct.
12 Q. And that's because of water quality problems?
13 A. Yes, mm-hmm.
14 Q. Besides the dirtiness, did you do any tests or
15 any other tests on the water to see what was in the water at
16 that time?
17 A. Yes, we did.
18 Q. And what did that -- those tests reveal?
19 A. There was both oil and grease and fecal
20 coliform in it.
21 Q. Okay. Now since that event you've been able to
22 put Birch Springs back into your system?
23 A. Yes, uh-huh.
24 Q. And at the current time how much is Birch
25 Spring producing?

Page 60

1 A. 21 gallons a minute.
2 Q. So that's approximately half or less than half
3 of what it was doing -- let's see, let me back up. It was
4 doing about 70 gallons a minute when you first started
5 working with North Emery Water Users?
6 A. Mm-hmm.
7 Q. And now it's down to 21 gallons a minute.
8 A. Mm-hmm.
9 Q. This last year was a pretty good precipitation
10 year, wasn't it?
11 A. Mm-hmm.
12 Q. Did the spring come up?
13 A. No, it hasn't come up at all.
14 Q. It's just stayed down?
15 A. Yes, mm-hmm.
16 Q. Now I would assume that you're fairly familiar
17 with Huntington Canyon.
18 A. Yes, mm-hmm.
19 Q. Do you have opportunities to go up there
20 oftentimes during the winter?
21 A. Mm-hmm.
22 Q. I want to show you what we've marked as
23 Exhibits 1 and 2. These are the same photographs that's
24 been given to the Division. Do you recall seeing the
25 icicles during 1990, 91, when these photographs were taken?

Page 61

A. Yes, mm-hmm.
Q. Was that an unusual sight?
A. Yes.
Q. Why so?
A. Never seen it before.
Q. How about since?
A. No. Never seen it since either.
Q. So that was the only year you saw icicles like this that's depicted on these photographs?
A. Yes, mm-hmm.
Q. If there was another water quality problem with Birch Spring, how would that first be discovered if it wasn't at this time you're doing one of your regular samples?
A. Through complaints to our customers.
Q. So it would be after the customers actually got it and maybe drank that water?
A. Mm-hmm.
Q. And then you'd have to go and manually disconnect that from your system?
A. Yes.
MR. SMITH: I believe that's all the questions I have. I don't know if Mr. Appel may have some questions for this witness.
MR. APPEL: No, I don't.

Page 62

MR. CARTER: Anything, Mr. Hansen?

EXAMINATION

BY MR. HANSEN:
Q. Okay. Mr. Stoyanoff?
A. Yes.
Q. You said regarding this 1991 incident you found three forms of contaminants in the spring box; is that correct?
A. Yes.
Q. It was oil, grease and fecal coliform? Can you tell me what that third one is?
A. It's human or animal waste.
Q. Okay. To your knowledge does coal mining generate that waste?
A. I don't know. I've never been a coal miner.
Q. Were you able to determine whether it was human waste or animal waste?
A. No.
Q. Did you do any studies to try to find out?
A. No.
Q. You said that this year that your Rilda Spring didn't come up to peak; is that correct?
A. Correct.
Q. And that's despite your testimony that we had

Page 63

good precipitation this year?
A. Yes.
Q. Are you making any claim that Co-op's mining affected Rilda Spring?
A. No.
Q. You also talked about regarding this 1990, 91 incident that the department had broke an air vac. Did I hear that right? I didn't understand what you said there.
A. An air vac, yes.
Q. What is that?
A. It's a device that lets air in or out of the water system as needed.
Q. Okay. How long did it take between the time they broke that device and the time it was repaired?
A. Oh, just a matter of a couple hours.
Q. I don't have anything else.
MR. CARTER: Okay. Just let me – oh, I'm sorry.
MR. HANSEN: This is informal. Do any of you have anything you need to ask him?
THE WITNESS: May I make a comment about our Rilda Springs?
MR. CARTER: Certainly.
THE WITNESS: Our Rilda Springs are affected by runoff. They're what – they're called shallow springs, and so depending on how, you know, the weather is and stuff like

Page 64

that, our Rilda Springs vary from 60 gallons a minute to 500 gallons a minute every year. Their low is about 60 and their high is about 500. And all our other springs on the system are what are called deep springs, and so they're not affected immediately by runoff. It takes a little while, so –
MR. CARTER: Maybe this is inappropriate to ask, but I'll just go ahead and ask and we'll go look at it. Is Birch Spring, you were saying Birch Spring you deemed to be a deep spring. It seems to me we've had some discussion at some point or there's been evidence on the record about whether the source of water for that spring is primarily colluvial or alluvial flow or whether it's bedrock flow. And maybe there's going to be discussion of that later on. But your understanding is that it's a deep spring rather than a shallow alluvial spring?
THE WITNESS: Yeah. Just because we don't see the dramatic increase during the runoff.
MR. CARTER: Changes in flows. Okay.
MR. SMITH: I have a couple questions on Rilda Springs.
MR. CARTER: Sure.

FURTHER EXAMINATION

BY MR. SMITH:

Page 65

Q. My understanding there was a potential Energy West -- let me back up. Rilda Springs are across the canyon on the other side of Huntington Canyon?
A. Yes, uh-huh.
Q. So they're not close to the Co-op mining operations?
A. No.
Q. But they are adjacent to mining operations by Energy West; isn't that right?
A. Yes, uh-huh.
Q. There was a concern that Energy West's mining operations were going to affect Rilda Spring. Wasn't that a concern a few years ago?
A. Yes, it was.
Q. And what did Energy West do to address that concern?
A. Well, they came to us and asked if they could start sitting in our board meetings and mitigating our water replacement for that area. First they wanted to run tests, and so they spend several thousand dollars doing a draw down test on that area, drilled wells up and down there and pumped the alluvial down to determine how much they would affect the springs and stuff. And at that time they determined that they might affect, take about 20 percent of the water, but they were more concerned about contamination

Page 66

and such.
And so over the years we came up with a plan, and what they've done is they built us that slow sand filter plant in Huntington Canyon and that water tank for mitigation for that water replacement, so --
Q. Okay. Just another kind of clarification question, so I guess just to follow up, so if Rilda Canyon Springs had been affected, then that's the mitigation in place for that, if it's been affected by Energy West mining?
A. Yes, mm-hmm.
Q. When you mentioned that the air vac had been knocked over, knocked over, was that upstream or downstream on your system from Birch Spring?
A. Downstream.
Q. So the contamination you saw up at Birch Spring could not have been affected by that air vac?
A. No. Even if it was upstream it couldn't have been affected because, you know, that spring doesn't enter the main pipeline until it got downstream from the spring, so --
Q. So you were able to determine that the contamination was actually at the spring?
A. Oh, definitely.
Q. And not in your line somewhere?
A. Yeah. As soon as I turned that spring out then

Page 67

things started clearing up. And when you turned it out the overflow, you know, it was just dirty water coming out of there. It had a lot of sand in it.
Q. Okay. That's all the questions I have.

FURTHER EXAMINATION

BY MR. HANSEN:
Q. Mr. Stoyanoff, you said that Birch Spring once produced about 70 gallons per minute; that North Emery went in and developed the spring in early 1980s; and that when it was developed it dropped down into the 20s in terms of gallons per minute, below 30 gallons per minute?
A. No, I didn't say that.
Q. That's what I understood you to say. Could you clarify what you said then?
A. Birch Spring was developed before I started to work for them, and we went in to redevelop it because there was -- when they developed it they couldn't capture all the water. There was a good stream of water that was still flowing through the limestone down underneath, and so they wanted to go ahead and capture it all. So we hired a contractor, went back up there and dug down. And when we got there that water wasn't there anymore. So we went ahead and covered it up and went through the procedures to get it turned into the system. And at the time we turned it in it

Page 68

was 70 gallons a minute.
MR. CARTER: So that was after the development work was done it was 70 gallons.
THE WITNESS: After, mm-hmm.
MR. CARTER: When was that, just roughly, in terms of time? Read the hydrographic chart?
THE WITNESS: In the early 80's.
MR. CARTER: Okay. Before -- never mind. I was working elsewhere at the time and we had water problems too.
MR. HANSEN: Mr. Carter, I think -- again I can't refer you to page and line at the Board hearing testimony, but what Mr. Stoyanoff just said contradicts the evidence that the water users put on in that hearing when they stated that as a result of the development they did lose a considerable amount of water coming out of Birch Spring. And I'd ask you to go back in and find that information in the record.
MR. CARTER: I will do that.
MR. HANSEN: Thank you.
MR. APPEL: My memory of that proceeding just for the record is that the reference to worse flows after development was in relationship to Rilda Springs not Birch Spring. But the record will tell us that.
MR. SMITH: Yeah, the record will show what it says. I certainly don't have that same recollection Mr. Hansen has

Page 69

1 of it. I believe Mr. Stoyanoff testified at the last
2 hearing and said basically the same thing. And we're just
3 trying to put on our background information.
4 MR. CARTER: Okay. I will take a look, though, and
5 dig out and see what previously had been told us and see if
6 this is new or different or not.
7 MR. SMITH: You know, I don't know if it's my place to
8 suggest this. I suggest it's 10:00 o'clock. I think it's
9 time for a ten-minute break.
10 MR. CARTER: I think our reporter would like a break.
11 I think that's fine. Let's do that. We'll reconvene at ten
12 after.
13 (Recess taken.)
14 MR. CARTER: Let's return to the record. I think
15 Craig Smith was going to present another witness.
16 MR. SMITH: Yeah. This time we'd like to call -- we'd
17 like to call our next witness, and his name is Kay Jensen,
18 if he could come forward.
19
20 KAY JENSEN,
21 called as a witness, for and on behalf of the
22 Objectors, being duly sworn, was examined and
23 testified as follows:
24
25 EXAMINATION

Page 70

1 BY MR. SMITH:
2 Q. Mr. Jensen, could you state your name and
3 address for the record?
4 A. I'm Kay Jensen, and I live in Cleveland at 1055
5 North Highway 155.
6 Q. And are you employed?
7 A. I'm self-employed at this time. I formerly
8 taught school, but I've retired from that.
9 Q. And do you have any position with the
10 Huntington-Cleveland Irrigation Company?
11 A. I'm the president of the Huntington-Cleveland
12 Irrigation Company at this time.
13 Q. And do you have any position with North Emery
14 Water Users Association?
15 A. I'm on the North Emery Water Association Board
16 at this time also.
17 Q. So I take it you get your culinary water from
18 North Emery Water Users Association; is that correct?
19 A. Yes, being in the outlying area, we -- that's
20 where we receive our water.
21 Q. And you get your irrigation water from
22 Huntington-Cleveland Irrigation Company, I take it?
23 A. Yes.
24 Q. And does Huntington-Cleveland, the water that
25 we're talking about by Castle Valley Special Services

Page 71

1 District, North Emery Water Users, who owns those water
2 rights or holds those -- I should say correctly -- holds
3 those water rights?
4 A. Huntington-Cleveland Irrigation Company would
5 hold those rights.
6 Q. So its interests in this proceeding is through
7 its holding of the water rights of the sources Birch Spring
8 and Big Bear Spring; is that correct?
9 A. Yes. The sources of those springs are the
10 sources for those water companies, North Emery and Castle
11 Valley.
12 Q. Okay. And if you have a share of stock in
13 Huntington-Cleveland Irrigation Company, how much water does
14 that share of stock entitle you to take?
15 A. Primary stock in class A stock is approximately
16 one third of an acre foot in normal years.
17 Q. So you have -- if you had three shares, you
18 could in a normal year take an acre foot of water?
19 A. That's correct.
20 Q. When we say normal years, is it typical for
21 that whole share to be recognized by delivery of a third of
22 an acre foot of water?
23 A. That's typically correct.
24 Q. How about the last few years? Have you been
25 able to provide all the water users with all their full

Page 72

1 allotments to their shares?
2 A. We've had problems providing all the shares.
3 Even this year we've had some problems. In fact we -- with
4 what was allocated we thought we would end up possibly 4,000
5 acre feet short.
6 Q. So it's not --
7 A. It may still end up that short if everyone
8 calls for their water.
9 Q. So there isn't any unallocated water in
10 Huntington Canyon that you're aware of?
11 A. No, there is no water that isn't allocated.
12 Q. And all water that's there is being put to
13 beneficial use that the company has the right to use?
14 A. That's correct.
15 Q. And even with that you're still short of water?
16 A. That's right.
17 Q. And you're not aware of any new springs or
18 water sources that is in the area of Huntington Canyon that
19 someone doesn't have a water right on?
20 A. No, not aware of any.
21 Q. Okay. That's all the questions I have for
22 Mr. Jensen.
23 THE WITNESS: Thank you.
24 MR. CARTER: Okay. Mr. Hansen, does Co-op have
25 anything?

Page 73

1 MR. HANSEN: I don't.
2 MR. CARTER: All right. Thank you.
3 THE WITNESS: Thank you.
4 MR. APPEL: For our next witness we would call Peter
5 Nielsen.
6
7 PETER NIELSEN,
8 called as a witness, for and on behalf of the
9 Objectors, being duly sworn, was examined and
10 testified as follows:
11
12 EXAMINATION
13 BY MR. APPEL:
14 Q. Could you spell your name, please, sir?
15 A. Peter Nielsen, N-i-e-l-s-e-n.
16 Q. With whom are you employed?
17 A. I currently work with SECOR, International,
18 Incorporated in Salt Lake City.
19 Q. How long have you worked with them?
20 A. Three years.
21 Q. In what capacity do you work for them?
22 A. I work as a principal hydrogeologist in various
23 hydrology related jobs, groundwater studies.
24 Q. And before that where did you work?
25 A. I worked at the Cypress Plateau Mine.

Page 74

1 Q. Where is that located?
2 A. It's located in the old town of Wattis north of
3 the area that we're looking at right now.
4 Q. And what were your responsibilities and duties
5 in that employment?
6 A. Duties there was to do hydrogeology, mine
7 permit maintenance, assist in all environmental aspects of
8 the mine.
9 Q. And before that where did you work?
10 A. I worked in Los Angeles with the different
11 environmental company, Montgomery Watson, doing groundwater
12 studies.
13 Q. Have you ever had any other experience working
14 in the federal and state permitting process with respect to
15 coal mines?
16 A. Yeah. I permitted a coal mine in northwestern
17 Colorado, generated the hydrologic description and the
18 probably hydrologic consequences for an underground coal
19 mine that was to be developed.
20 Q. Is that the same process that the Co-op was
21 required to go through for their renewal?
22 A. Yes.
23 Q. And that's a PHC?
24 A. Yeah. Probable hydrological consequences,
25 yeah.

Page 75

1 Q. And a CHEA?
2 A. The CHEA.
3 Q. Have you ever heard of a CHEA?
4 A. I've heard of it. I'm not exactly sure what it
5 stands for.
6 MR. CARTER: A cumulative hydrologic environmental
7 assessment. And that's something the Division does with the
8 PHC.
9 THE WITNESS: With the PHC.
10 Q. BY MR. APPEL: What was the name of that mine?
11 A. The Colorado? It is the Dry Creek Underground
12 Mine affiliated with the Seneca 2 Mine and the Peabody Coal
13 Company.
14 Q. And in the course of putting together the
15 hydrologic information, what did you do in Colorado?
16 A. We assembled a year's worth of baseline data
17 from eight different wells in the area that was to be mined
18 based on the mine plan, analyzed surface flows, recharge
19 patterns, precipitation, and then attempted to predict based
20 on those the groundwater flow based on the different
21 information we related to mining.
22 Q. Have you had a similar experience in – this is
23 the Wasatch Plateau above us?
24 A. Yes.
25 Q. Have you had a similar experience in the

Page 76

1 Wasatch Plateau?
2 A. That's also what I did in Cypress was to help
3 with this job permit maintenance, did groundwater sampling,
4 looked at analytical results from samples, fracture mapping,
5 handled permits.
6 Q. And that was so that Cypress could mine?
7 A. Yes. That was so we could keep mining coal,
8 yeah.
9 Q. Under DOGM's scrutiny?
10 A. Yes.
11 Q. Okay. Do you have a bachelor's degree?
12 A. I have a bachelor's degree in geology from
13 Brigham Young University.
14 Q. When did you receive that?
15 A. 1987.
16 Q. Any further education?
17 A. I have a masters in geology in the same school
18 that I received in 1992.
19 Q. How many years of experience do you have
20 working in the stratigraphy of the Wasatch Plateau?
21 A. Beginning with my undergraduate work probably 8
22 to 10 years now plus my experience at the coal mine.
23 Q. And how many years were you working at the coal
24 mine?
25 A. Just under two years.

Page 77

Q. Tell us a little bit specifically about what you were required to do in the permitting process for the Cypress Mine?

A. When I was there, the permit for the area we were mining in, Gentry Ridge, was already established, so we were doing maintenance, meaning we had to develop a hydrologic budget for water flowing into the mine, how much we discharged, how much we used. We attempted to do that. Plus we were in the process of permitting what we call the northern area to get that so we could get the permit to finish longwalling up there after we had longwalled down Gentry Ridge.

Q. Where is that mine located in relationship to the Co-op mine?

A. That mine is located on Gentry Ridge, which is about, oh, three, four miles north, almost exactly north of the Co-op mine.

Q. So you have a working familiarity with the stratigraphy of this area?

A. Yes.

Q. At any time that you want to move to maps or whatever, please feel free to do that.

A. Okay.

Q. Keep reminding myself this is informal. Maybe I'll even loosen my tie some more. For that purpose, maybe

Page 78

what we should do is mark some additional exhibits, and then he will be moving back and forth between them. But for purposes of identification, maybe what we should do first is mark the large map of the area.

MR. CARTER: These maps are not part of the Division's records currently?

THE WITNESS: No. These are new maps.

MR. CARTER: This is fine. I just wanted to find out.

MR. APPEL: This is new information.

MR. CARTER: All right.

THE WITNESS: I don't know how we best do this, but --

Q. BY MR. APPEL: Let's mark the map as exhibit -- how many maps do you have?

A. Well, I've got two new ones, Plate 1 and Plate 2 here. And then an existing one from the Co-op permit that we'll use.

Q. Why don't we refer to the maps as Exhibit 3 and then subdivide them as Plate 1 and Plate 2.

MR. CARTER: All right. It looks like you can put them up over here. You'll have to speak loudly so that we can get everything on the record.

MR. APPEL: The next exhibit I think -- let's just get this all done now, if it's okay with you.

MR. CARTER: All right.

Q. BY MR. APPEL: Will be some series of charts

Page 79

and graphs. Let's make that Exhibit 4. The first page of it is a Stiff Diagram.

A. Is this Exhibit 4?

Q. Yeah. I think I'll have you do that, rather than me doing it. All right. Let's go back to the map. Jim, I think you're going to want to take a look.

A. The co-op mine is located down here near Huntington Canyon. The mine I worked at was the Cypress Plateau. Star Point Mine is located right up here at Gentry Ridge just at the top of this map. It's up in this area, right here more. Unfortunately this map didn't cover it, but it's located at the top of the map.

Q. There's a fracture zone in there somewhere. Can you tell me where this is?

A. That is the fracture zone. This area right here is what is called Pleasant Valley Fault Zone. It was a large continuous series of normal faults that begin way up in the area near Scofield Lake continuing down through Huntington Canyon and finally discontinued down in Menko shale on the other side of East Mountain.

This right here is the Pleasant Valley Fault. This one here is what we call the Bear Canyon Fault, and then there's a whole series of normal faults inside of that, that fault zone.

Q. BY MR. APPEL: Where is the Co-op Mine?

Page 80

A. The Co-op Mine permit boundary is right here now, that little shading I've got around there.

Q. And the springs?

A. And the springs, Big Bear is located right here and Birch is located right there.

Q. Are there any other springs you want to show us the location of?

A. Yeah, the other springs that we sampled as part of this investigation is Upper Tie Fork Spring owned by Castle Valley Special Services right here, the Lower Tie Fork Springs, this one right over here called Little Bear Springs on the other side of Huntington Canyon. We sampled Birch and Big Bear and then we sampled three springs up on top of Gentry Mountain along this fault zone over here, the Bear Canyon Fault, that come out of the northern formation on top this one as well as coming out of the North Horn right on the top of Bear Canyon.

Q. You were retained by the objectors to do what?

A. To investigate the groundwater flow patterns in this area and determine if underground mining in this region has impacted these two springs.

Q. Tell us a little bit about the methodology you employed including site visits. What did you do to --

A. What we did as part of the study is we visited all the springs and determined the geologic setting for

Page 81

1 discharge, fault-related bedding, fault-related, something
2 like that; where its location was in reference to the mine.
3 We also collected water samples for major ions as well as
4 for stable and radiometric isotopes.
5 Q. Okay. Let's talk a little bit about the area
6 of geology.
7 A. On the Wasatch Plateau, and this line I have
8 right here on this map, this heavy line, this is the top of
9 Star Point sandstone. It's considered sort of a marker bed
10 for this area because it's easy to recognize and it's fairly
11 consistent throughout the area. The only thing that really
12 changes in Star Point sandstone is the lower two tongue
13 members, Storrs, and the other one, they become
14 progressively more silting and eventually perch out. But
15 Spring Canyon is consistent all the way from Price Canyon
16 down south. It's there.
17 So that's the one that is generally mapped by
18 all the people that have done investigations in this area is
19 the top Star Point sandstone. The area is relatively flat.
20 It has a dip in the whole ranging anywhere from two to four
21 degrees slightly from the southeast. The stratigraphy
22 begins about the Menko shale down at the bottom. It forms
23 the hills. At the base of the canyon you typically see the
24 bluish shaley hills.
25 The next unit is the three members of Star

Page 82

1 Point sandstone, the Panther, the Storrs, and the Spring
2 Canyon. They form cliffs with interbedded shaley tongues of
3 Masuk shale.
4 Right on top of the Star Point sandstone is the
5 Black Hawk formation. And in the lower Black Hawk formation
6 is where the Hiawatha is, and tank seams are located in the
7 lower 300 feet. That's pretty common throughout the whole
8 area. Most of the mineable coal comes out of the bottom
9 half of the Black Hawk formation.
10 On top of the Black Hawk formation is the Price
11 River formation and Castlegate sandstone. The Price River
12 is a course grain sandstone typically with sandstone beds
13 that perch in and perch out so it has the potential to
14 create perched aquifers.
15 The next unit above that is the North Horn
16 formation, which consists of sandstones and shells and
17 limestones. And it also is considered a perched aquifer
18 formation in this area.
19 Now studies by Lines from the USGS down in this
20 area over here in 1985 and by Danielson in the Huntington
21 Creek drainage and down in the Cottonwood drainage and by
22 Waddell which studied the whole area all concluded that the
23 Star Point sandstone and the lower Black Hawk formation is
24 the regional big aquifer in this area. Everything moves
25 vertically down to that. That's where its recharge comes

Page 83

1 from is vertically down through this area.
2 Lines in this area concluded that the North
3 Horn aquifer, the North Horn formation has a perched aquifer
4 that typically the springs in North Horn have high
5 discharges in the spring and either become seeps or have
6 small flows or dry towards the later month. That's typical
7 of a perched aquifer. It just doesn't have the drainage
8 area to maintain it.
9 The springs that we sampled that have high
10 flows, like Big Bear, Birch, Little Bear and Lower Tie Fork,
11 all issue out of the Star Point sandstone right at the
12 contact with the Menko shale, and typically they're
13 associated with a predominant fracture, a fracture zone or a
14 major fault. And it's usually where the fault intercepts
15 the Menko shale in this area. Right here you can see it's
16 been faulted out. It intercepts. You've got a big
17 fracture, huge fracture. Big Bear's got a predominant
18 fracture. Same with these springs here. They issue along
19 the fault.
20 Now the people that investigated that in this
21 area and in the Wasatch Plateau in general state that that
22 vertical unsaturated flow is a primary recharge to the Star
23 Point sandstone in Lower Black Hawk.
24 Q. What does that mean, vertical unsaturated?
25 A. That means that you've got a perched aquifer up

Page 84

1 here to the North Horn formation that saturates with water
2 during the spring runoff period, and you get both horizontal
3 flow which issues out of springs, but you also get vertical
4 flow down through the fracturing. That's the definition of
5 a perched aquifer. It's a water elevated above an
6 unsaturated zone. That's the only thing it means.
7 Q. But it doesn't just sit there. It's moving?
8 A. No, it's moving. It only means it's elevated
9 by some confining layer. The confining layer. It's not
10 unusual for a confining layer to have some sort of vertical
11 leakage factor. In this area it's just the fractures.
12 We did a fracture measurement survey down here
13 as well. We measured a whole set of orientation fractures
14 over here at Little Bear. We measured fractures at Dry
15 Canyon just above Birch Springs and we also measured them up
16 at the top of Bear Canyon. And you can see that they all
17 have a consistent predominant direction of slightly off of
18 north.
19 And the one thing that you can see is with that
20 orientation these fractures were measured throughout the
21 formation thickness. I measured fractures in the Star
22 Point, I measured them in the Black Hawk, and I measured
23 them in the North Horn. And that indicates that the units
24 fractured similarly during this event. The North Horn did
25 not fracture separately or have any other features besides

Page 85

1 what happened all the way through the unit. Now if you go
2 out to these outcrops you'll notice that there are very
3 predominant fracture zones that continue all the way from
4 the Star Point up through the units, up through the Black
5 Hawk unit and up through the North Horn formation.
6 Q. What you're telling us is that cracks on top of
7 the North Horn will find expression vertically all the way
8 down to the Menko shale?
9 A. It's possible they could. Or it can drop water
10 down several hundred feet to another confined layer and move
11 horizontal until it intercepts another fracture.
12 Q. And you testified that the North Horn is a
13 perched aquifer system?
14 A. Yes.
15 Q. But those -- maybe I'm mischaracterizing this,
16 so clarify it. I have really it would only slow the water
17 up. It wouldn't stop it from going down; correct?
18 A. It will stop -- it will stop water from going
19 down, unless it finds an avenue to go down. Either the
20 perched system discontinues or intercepts a fracture, an
21 opening. The reason it's perched is because it's
22 intercepted a clay layer or a shaley zone or a zone of lower
23 permeability. Now if that zone discontinues which is
24 typical in these rocks because near fluvial systems you may
25 see zones that are two or three hundred feet wide and then

Page 86

1 it ends and you have vertical flow again. That water goes
2 somewhere.
3 MR. CARTER: Can I ask a question?
4 THE WITNESS: Sure.
5 MR. CARTER: Here's the orientation of the fault, and
6 here are the primary orientations of the fracturing, and
7 they're not coincident. Is your theory that the fracturing
8 and the faulting, and I don't -- well, it's been a while,
9 but I don't see that they relate to one another.
10 THE WITNESS: They don't relate to one another. The
11 fracturing is regional. And we also pulled in fracture
12 orientations on a study that was done in Woodward Canyon
13 here just off the fault, and you can see they're the same.
14 What the implication is is that the whole area inside and
15 outside this fault zone is equally fractured.
16 MR. CARTER: So it's not contemporaneous with the
17 fault?
18 THE WITNESS: No, no. It's equal everywhere. We
19 also -- I also looked at a study done by Hucka of the Utah
20 Geological Survey and she measured fracturing orientations
21 both on the surface and on the cleat faces inside of coal
22 and coal seams off of, well, all the way around this area,
23 and it's pretty typical to find this same orientation of
24 fractures. The fracturing is intense and it follows an
25 original pattern which is probably quite separate from a

Page 87

1 normal faulting that occurred through here.
2 MR. CARTER: Predates or postdates the faulting?
3 THE WITNESS: Predates the faulting. This faulting
4 there's several ideas about what causes this faulting. This
5 is kind of unusual. If you compare this intense normal
6 faulting with the normal faults that have developed as part
7 of the basin range in Nevada, you don't see any rotation on
8 this, meaning the beds inside the fault will rotate a
9 hundred, 180 degrees and you'll find vertical beds, you'll
10 find 45 degree dipping beds.
11 In this area here they all dip the same. The
12 idea is that salt in the lower formations has moved out or
13 flowed and this is actually the void that's just dropped
14 down and filled in. So this is kind of an unusual fault.
15 zone in that you've got displacements of anywheres up to
16 some zero to 450 feet and they've dropped down but you
17 haven't had any rotation on the faults. They all dip the
18 same direction, about two to four degrees inside and outside
19 the fault zone.
20 Q. BY MR. APPEL: Following up on Mr. Carter's
21 question, we have, the region is fractured and the same,
22 yes?
23 A. Yes.
24 Q. And outside the fault?
25 A. And inside. It doesn't mean anything.

Page 88

1 Q. And that's where I'm headed. There's an area
2 called shattered zone. Did you measure any difference
3 between the shattered zone faulting and jointing and the
4 area above the permit for the mine?
5 A. Now we actually -- I didn't collect any in this
6 area, but I've been up there several times and I've looked
7 at the fractures, and they do have the same orientation as
8 down here. There's no difference.
9 This base map comes from a study done by Brown
10 from the USGS to contour the top of the Star Point
11 formation. And he put shattered zone inside this fault zone
12 right here, right on top of Gentry Mountain.
13 You'll also notice it has another shattered
14 zone right over here inside the Joes Valley graben. And
15 having looked at the area up here, looked at the area up
16 here, seen this one underground and seen this area right
17 here, the interpretation of shattered zone, I don't think
18 it's limited to this area right here. It intimates intense
19 fracturing throughout the whole system.
20 The mapping done by a geologist up here at the
21 Star Point or in the mine here identifies a graben system
22 right here with a whole series of normal faults. And if you
23 look at the geology and topography, you can continue that
24 graben structure at least down to the top of Bear Canyon.
25 To me that's the interpretation of what

Page 89

1 shattered zone is, intensely faulted, intensely fractured,
2 because you've got the same interpretation over in here.
3 There's no reason to interpret that shattered zone. It only
4 implicates the Joes Valley, inside the Joes Valley graben.
5 What he's done, he's got the Joes Valley graben and
6 shattering inside the Pleasant Valley fault zone.
7 Q. Is there any difference in the water recharge
8 pattern between the area identified as shattered zone and
9 the area, the rest of the area within the two faults,
10 including the permit area, the area above the permit of
11 Co-op?
12 A. What do you mean by recharge?
13 Q. Water recharge. How would the water move?
14 A. The water in this whole area -- let's step
15 back. The recharge in this whole area in the Wasatch
16 Plateau typically comes from snow melt. That's 95 percent
17 of where the water comes from. That recharges these rocks.
18 Q. So wherever the snow falls it will recharge
19 from that point?
20 A. That's where the recharge comes from.
21 Typically you get snowfall on top of this area right here,
22 but any elevation where the North Horn sits is usually flat
23 and it's going to receive recharge. There's no particular
24 reason to say based on my experience that the recharge is
25 going to be different here than different here. It may be

Page 90

1 different amounts because based on the amount of snow that's
2 available when it melts, storms, there's no reason to say
3 that recharge, vertical downward flow is any different here
4 than it is right here in this area, for that matter anywhere
5 here in this fault zone.
6 Q. The shatter zone, the official expression of
7 the shatter zone is the North Horn formation, isn't it?
8 A. Yeah. You can't walk up in here and see it
9 physically any different than you can down here in any of
10 these other spots.
11 Q. So any water that would land on the shatter
12 zone would --
13 MR. OWEN: There's no difference in the recharge in
14 the ledge and peak area than there is in the McCadden
15 Hollow?
16 THE WITNESS: Not as a physical flow. Now there may
17 be differences in amount because of the amount of snow
18 that's available, but not physical movement of water
19 downwards or outward.
20 MR. CARTER: Let's -- that was Wendell Owen, in case
21 you hadn't been introduced.
22 THE WITNESS: The amount may be different. You may
23 get slightly less recharge here, but the physical property
24 of the water moving down, could be found, or moving down
25 vertical fractures into the Star Point is the seam.

Page 91

1 Q. BY MR. APPEL: Are we in a fracture zone you're
2 talking about?
3 A. Yeah, the fracture zone I believe is.
4 Q. We are in a fracture zone?
5 A. Yeah. You're right between the two major
6 faults.
7 Q. And back to my question before Mr. Owen spoke,
8 there's no difference in the way the North Horn formation is
9 going to respond to water recharge throughout the entire
10 faulted area, is there?
11 A. No. In fact there's no difference inside the
12 fault as Lines observed and as Danielson, Waddell observed
13 at the other locations. It typically behaves as a perched
14 aquifer. Springs dry up.
15 But you know the interesting thing is they
16 noted that the volume of water had on springs cannot be
17 accounted for by the volume of recharge you would expect,
18 recharging 20 to 25 inches over the area in question right
19 here. So there has to be some downward movement to account
20 for that volume of water.
21 Q. Okay. You may want to make a drawing. And I
22 guess the only thing we have is a chalkboard over here. I'd
23 like you to show us a vertical expression. Sorry.
24 (Pause in the proceedings.)
25 Q. BY MR. APPEL: Okay. What are we showing here?

Page 92

1 A. This is a cross-section that goes from
2 essentially Upper Tie Fork through the top of Gentry
3 Mountain, through McCadden Hollow and down into Huntington
4 Canyon.
5 Q. We're going to stop and see McCadden Hollow
6 today, aren't we?
7 A. Yeah.
8 Q. Where would the springs be located?
9 A. Big Bear would be located about right here.
10 Right in the point of the Star Point sandstone essentially.
11 Q. Okay. Now describe how water recharges through
12 this stratigraphy.
13 A. Well, this unit right here, I don't know how
14 well it shows up, being the North Horn formation, if you've
15 got water entering the system there, now let's make that a
16 little bit here. This is just -- it's not to scale or
17 anything. This is just to show what we think is going on
18 there.
19 Q. Is the dip intentional?
20 A. It may be slightly exaggerated.
21 Q. In any event --
22 A. It's not dipping that much, but it is slightly
23 that way.
24 Q. Water is going to move generally in that
25 direction?

Page 93

A. Water will follow the dip of the rocks. That's typical. If recharge enters the system anywhere along here, it percolates down through the system until it intercepts an impermeable layer. Once it intercepts this permeable layer and there's an unsaturated zone between it, that's defined as perched.

Now the water will still be moving at various directions. Now it may move that direction and it may move this direction, but it's going to roll off that perched area. But the length of this can be miles or it can be a few feet or several hundred feet, depending on what the fluvial pattern was that deposited that shale or that clay that's causing that perch zone.

But once that ends that water will move back into the sandstones and move again. Now it's also possible that we've got -- all this intense fracturing that we show that you've got a fracture zone down in through here that cuts through that. Maybe it's slightly displaced. And if water encounters that, there's no reason to think that water won't flow down there and that's just a leaky confining layer.

Q. So all the clay fractures, sorry, clay layers within this will fracture as well?

A. Yes, they will fracture as well because typically they're on the order of several feet thick and

Page 94

they will fracture.

Q. Is that true with respect to the Star Point as well?

A. Yes, the Star Point will fracture as well.

Q. Okay. So water will move between the three tongues of the Star Point?

A. Yeah. There's no reason to think it won't move between the three tongues. Especially as you move further north in the Gentry area and the lower sandstones become more, well, become less shaley and the interbedded sequences become thinner. The shaley tongues of the Menkos that interbed in the Star Point sandstone thin as you move north and become thicker as you move south. And there's no reason to think that you won't get fracturing down there through there and get vertical water movement between those. That's not to say that if certain portions, if you were to measure water in here, especially inside the Star Point sandstone, that may be confined when you measure it.

Q. But upgradient, it may not be --

A. Upgradient, it may not be or upgradient, it may be fractured and moving down from a different horizontal, yeah. That's typical of an intensely fractured system to have this kind of vertical movement of water. It's typical of stratigraphy where you have open fractures. It's typical granitic terrain which are heavily fractured. You get

Page 95

downward movement of water and it's typical of these kind of sandstones as well that you've got water moving in and out of perch zones, water moving confined and unconfined and finally discharge where it intercepts the Menko shale and the canyon.

Q. Okay. Show us where the coal seams are.

A. Well, they'd be in this area right here.

Q. In this case let's stick with the blind canyon.

A. The blind canyon.

Q. Since that's at issue.

A. Something like that.

MR. CARTER: Isn't the tank seam over the blind canyon?

THE WITNESS: Yeah. The tank seam would be here. Here's the tank.

Q. BY MR. APPEL: You may show us the Hiawatha.

A. The Hiawatha would be right on top or separated by a few feet of material on top of the Star Point.

Q. Okay.

A. Roughly.

Q. And the springs are at the toe of your diagram?

A. Yeah. They're down here.

Q. Okay. Are you familiar with the term potentiometric surface?

Page 96

A. Yeah.

Q. Can you show us roughly where this was before mining began in your best estimation?

A. Our best estimation using the springs at Bear Canyon and several of the wells by Co-op in the Star Point sandstone plus wells they've done in Star Point sandstone in about this region and Upper Tie Fork Spring, the potentiometric surface, something like this (indicating). In fact I got the potentiometric surface over there on that next map that I generated, that one right there, showing groundwater flow based on the wells that Co-op has at the mine, above the mine and from the ones up on Gentry Ridge. That's what that's based on.

Q. Okay.

A. So we've got 10 data points, I guess.

Q. Okay. So explain the water recharge pattern from precipitation. You testified that 95 percent of the water comes from precipitation?

A. Yeah. The water enters the system through snow melt right up here. It will move down and either intercept --

Q. When you say right up here, you mean --

A. Gentry Mountain.

Q. -- the entire area?

A. The entire area.

Page 97

Q. You're not pointing to just a specific point?
A. Either here or here. It doesn't make any difference.
Water enters the system, goes through the soils zones, enters the system, moves through either the natural porosity of the rocks or through a fracture. It may not intercept a perch zone or it may. If it does it becomes perched and either moves some direction based on what the hydrologic radiants are on that perched area, and eventually it may discharge at this point right here. It may come out as a spring up in the North Horn or it may continue down as vertical flow down into the lower units. It may intercept a confining layer here in the upper Black Hawk portion or in the Price River and behave the same way. But eventually along here water will enter into the Star Point sandstone and Lower Black Hawk. And the reason it can't go any further is because you've got the Menko shale which is the regional aquitard in the area. It may be saturated but permeabilities are so low that water for all intents and purposes does not move through the Menko shale. So it has to come through the Star Point sandstone.
Q. What's the definition of an aquitard?
A. An aquitard is a layer that may have -- it may have some flow to it, some vertical flow, horizontal flow, but the flow rates and the permeabilities are 10 to the

Page 98

minus 17, 18.
MR. CARTER: Isn't Menkos also fractured?
THE WITNESS: Menkos is also fractured and faulted.
MR. CARTER: And faulted?
THE WITNESS: Especially in Huntington Canyon where it gets buried in alluvium, but they do crease (phonetic). So the Menko would be fractured and offset in Huntington Canyon. So it will fracture and break.
Q. BY MR. APPEL: So drops of water that fall on Gentry Mountain, whether it be rain, snow, or anything in between, would move down the same way throughout this entire area?
A. Yeah. No difference. No difference whether it's inside the Pleasant Valley Fault Zone or on either side of it. It may be more fractured inside the zone, but that's still a typical groundwater flow pattern. It either intercepts a perch zone and it may discharge or it's going to move down to the fracture zones.
Q. Okay. Is it going to assist you to go back to Plate 2 at the risk of offending everyone else in the room? Would you like to talk a little more about the potentiometric surface?
A. Well, we can, yeah.
Q. I'd like to make sure we get some more details on that plate. We could move it over here.

Page 99

(Pause in the proceedings.)
Q. BY MR. APPEL: Now this is Plate 2. All of your testimony with the exception of the drawing referred to Plate 1?
A. Yeah. Now just for the record, this drawing is not to scale. This is just one I made on -- the drawing on the board is just for general purposes.
Q. Okay.
A. Now --
Q. This is a more accurate depiction of it?
A. This is more accurate. We took the water levels from both springs.
Q. I wanted to add something else. This is a more accurate depiction of the groundwater elevation?
A. Correct. The groundwater on Star Point over Black Hawk.
Q. You're talking about Plate 2?
A. Plate 2. Actually I've got another Plate 2 over there, so this is the big Plate 2.
Q. Big plate 2, Exhibit 4.
A. To reiterate, the springs discharge from the Panther member of the Star Point sandstone as well as one on the end of Gentry Ridge from Star Point mine permit. So we generated all the way down through the Pleasant Valley Fault Zone. Two major faults right here. That's what we did.

Page 100

And you can see it moves from high potential to low potential from what we would expect. This fits in the pattern of it moving in this direction and flow coming in this direction. Right in this area right here is the layout of the blind canyon seam showing their mining.
As of current I believe this year has been mined in for -- I'm not real sure when they mined their last. But I think this was current, your current layout, the water table at 7500 feet and at 7550 feet intercepts according to this potentiometric surface right here. They have intercepted the water table for the Star Point sandstone in that area right there. So they've now mined into it based on elevations here and elevations inside the mine in the blind canyon.
So that leads to the conclusion that any mining in the Hiawatha seam north will also intercept the water table at a higher point because it's about a hundred feet lower, so you're going to be moving down intercepts quicker. The tank seam probably never intercepts the water table. It's just too low.
Q. The water table is too low along the canyon?
A. The surface is.
Q. How many feet of potentiometric surface has the Co-op mined in the blind canyon?
A. I would guess they've mined several hundred

Page 101

1 feet. I'm not sure of the exact intercept. Somewhere
2 between 7500 and 7550. Probably where DH-2 is
3 approximately. So they're several hundred feet into the
4 water, potentiometric surface right there.
5 Q. Right now?
6 A. Right now. As it sits now, yes. So anything
7 further north will continue to be in the water table.
8 Q. You've reviewed the documents concerning water
9 flow from the Co-op, haven't you?
10 A. Mm-hmm. Yes, I have.
11 Q. Is the water flow that they've encountered
12 consistent with your theory?
13 A. I think so. Most of their water is now coming
14 out of the northern part of the mine in this area.
15 Q. Okay. Why is it consistent with your theory?
16 Explain that to me.
17 A. When I worked at the mine at Star Point Mine,
18 we calculated a similar occurrence. You were here north.
19 We calculated where this potentiometric surface would
20 intercept a third seam that we were mining at the time. And
21 I think roughly within a couple hundred feet of where we
22 calculated we intercepted water and flows would be
23 intercepted in a fracture. They'd flow at several hundred
24 gallons a minute and finally lead off to a dripper or
25 quitter or small flow.

Page 102

1 But from that point on the mine was wet. You
2 had ponded water all the time, you intercepted a lot of
3 water in fractures, and it was wet. Even though fractures
4 may have a lot of water and discontinue at some point,
5 others would continue all the time. It was wet.
6 And the same occurrence is happening here.
7 Intercepting fractures where water's coming in, but as you
8 move into the water table that's what you would expect.
9 Q. Okay. When do you think they first -- we need
10 a year date at this point. When do you think they first
11 encountered the potentiometric surface? Let me back up.
12 You're aware of the event in 1990, 1991 as we talked about
13 it this morning?
14 A. At Big Bear Spring.
15 Q. Found a large amount of water that went into
16 the old workings?
17 A. Yes. They intercepted that water in this area
18 here when they were mining.
19 Q. So they ended the potentiometric surface?
20 A. They were getting close to the potentiometric
21 surface, yes.
22 Q. Now you've referred to some of Earthfax
23 testimony, haven't you?
24 A. Yes, I have.
25 Q. And their conclusion is that what has been

Page 103

1 encountered since 1990 and 1 are a series of perched
2 aquifers in the Black Hawk formation; is that correct?
3 A. Yes, yes.
4 Q. Does that make any sense to you?
5 A. Well, it's possible it's perched aquifers in
6 the Black Hawk system, but that does not mean that it's not
7 moving down to Star Point once again. So you're
8 interchanging the recharge to the Star Point sandstone only
9 it may be following a sandstone channel in the Black Hawk
10 formation.
11 Q. How do you differentiate the perched aquifer
12 from the potentiometric surface, or do you?
13 A. Yes, you do. This is the potentiometric
14 surface in the Star Point sandstone here. A perched system
15 has an unsaturated zone above the potentiometric surface so
16 it's elevated above it.
17 MR. CARTER: So you have dripping water instead of
18 standing water.
19 THE WITNESS: Exactly. Exactly. Exactly.
20 Q. BY MR. APPEL: But perched water or
21 potentiometric surface, was that part of the natural
22 recharge pattern for these two springs?
23 A. Yes.
24 Q. Why do you say that?
25 A. Because if you've got water moving through a

Page 104

1 perched system intercepting fractures and moving downward,
2 that's the recharge to the larger regional aquifer. There's
3 not a particular point along here where you can say, yes, a
4 stream is going in to the Star Point sandstone or something
5 else is occurring. This whole area is recharging the Star
6 Point sandstone. The water goes in at the top of the system
7 up in the North Horn. It moves down, moves vertically,
8 moves horizontally and finally ends up recharging the Star
9 Point sandstone and the lower Black Hawk.
10 Q. Okay. So the mining has affected historic
11 recharge to the springs?
12 A. Yes.
13 Q. And that's your conclusion?
14 A. Yes.
15 Q. Based upon the geologic --
16 A. Based on the geology. Now the other idea
17 you've got to put in here is mining induces subsidence in
18 the overburdened rocks, based on a USGS report that Dunrod
19 did in this area. He also says that to a lesser degree,
20 subsidence or altering of the rocks occurs below the mine.
21 That's why you get floor seeps. You get
22 compression zones that develop over a mined area and you get
23 a compression zone that develops underneath it where you get
24 relief of stress.
25 And it is my opinion that as you relieve the

Page 105

1 stress you're altering the fracture zone. You alter the
2 porosity and permeability of the rocks at least above and
3 potentially the rocks below.
4 Q. And the impact on that -- on water recharge is
5 what?
6 A. And you may -- you may be diverting water from
7 a natural existing flow path or you may be captured into the
8 mine; you may be diverting it away from the natural flow
9 path. And that's just because of subsidence. And that's
10 not necessarily caving, the subsidence. It's just moving of
11 a stress zone upward and altering the opening of fractures,
12 closing some, opening some, changing the permeability and
13 the porosity of the unit on the whole.
14 Q. And you've been in the mine?
15 A. Yes.
16 Q. And taken all the samples you thought were
17 necessary?
18 A. Yes.
19 Q. And looked at almost all the areas you wanted
20 to?
21 A. Yes.
22 Q. What is your conclusion concerning the
23 interception of water that was naturally tributary to Birch
24 and Big Bear Spring?
25 A. I think if you look at their mine pattern, and

Page 106

1 it was the same mine pattern we had up here, they've got a
2 lot of sumps developed all here in the blind canyon seams.
3 That indicates there was a fair amount of water coming into
4 the mine or you wouldn't need sumps to pump it out, which
5 means you were intercepting water and you had to store it
6 for usage or dust control or whatever else and moving it
7 out.
8 So they were intercepting water as they were
9 mining north because they've got the sumps in there to
10 develop that. And they've got water coming in there
11 currently as it is.
12 Q. So but for the water that would have flowed in
13 your opinion to feed the springs that --
14 A. Would have at some time fed the springs or
15 flowed down through that system there. The spring being
16 the --
17 Q. Where does it go there?
18 A. It's probably either diverted out of the mine.
19 Q. Where does that go?
20 A. It goes out currently right now into Bear
21 Canyon right through into the portals and discharged into
22 Bear Creek, or it's going down the fracture zones and may be
23 discharging into Huntington Canyon right now, but it's the
24 recharge that's probably been diverted away from the
25 spring. And I think we can show that on the flow pass for

Page 107

1 these flow documents.
2 MR. APPEL: Okay. At this point I should probably
3 make a time note. Mr. Hansen as I indicated to you
4 previously needs to be back leaving for Salt Lake City by
5 3:00 or 3:30. We should probably -- this is a reasonable
6 place in his testimony to stop because we've done the
7 geologic aspect, and the rest is some other tests that we've
8 accomplished, and it would be appropriate for us to go up on
9 the field trip, and this is a reasonable time to do that.
10 We will need at least four hours to do that by
11 my calculations. If we were to stop at Subway and get a sub
12 that we could take with us, we could meet Mr. Hansen's
13 schedule if we leave shortly.
14 MR. CARTER: I think we ought to follow up, allow you
15 to examine.
16 MR. HANSEN: They are certainly entitled to put their
17 entire testimony and I don't want to do anything to preclude
18 that. It may be possible that I can cut out early from the
19 site inspection and that you can continue without me. It
20 all depends on how it goes out there. My main involvement
21 there would be to take notes if we're taking -- are we going
22 to be able to transcribe out there or not?
23 MR. CARTER: We won't.
24 MR. HANSEN: If I have to leave early, I would rely on
25 my fellows here to take good enough notes to get me up to

Page 108

1 speed on what was said.
2 MR. CARTER: I see the purpose of the field trip to be
3 illustrative of the testimony that is being presented; that
4 is, we'll go look at the spring, we'll go look at the Star
5 Point, we'll go wave our arms in the field the way
6 geologists like to. But it would be simply illustrative of
7 the issues or the factual assertions that are being made in
8 the context of the transcript.
9 MR. HANSEN: I do not wish to have my schedule
10 interfere with what's going on here.
11 MR. APPEL: Oh, it's the length of the trip that's
12 really causing the problem here. It's easy to meet your
13 schedule by doing -- this is a logical breaking point and
14 what I've tried to do is get us prepared in the geology.
15 Mr. Smith may have a couple follow-up geology
16 questions which we should take and make sure that portion is
17 done.
18 MR. CARTER: All right. What other testimony?
19 MR. SMITH: I have some chemical, the ice topic,
20 hydrologic conductivity and flow rates. There's quite a
21 bit.
22 MR. CARTER: And all that testimony would be
23 introduced by whom?
24 MR. APPEL: This witness. And then we have at least
25 another witness to go; hence my recommendation that we take

1 a break now and do the field trip.
2 MR. CARTER: I guess my only concern here is if --
3 I'm just thinking out loud, but it should be on the record.
4 It would be logical to break after the opponents have made
5 their case on the record. It would allow Co-op time to
6 prepare a response and some short period of time we'd
7 reschedule the hearing.
8 I think my preference would be to get as much
9 of your case into the record today as we're able to and
10 begin, and then go into the field and see as much as
11 Mr. Hansen's able to stay with us to see to get all of your
12 case into the record if we're able to today.
13 MR. APPEL: We won't be able to.
14 MR. CARTER: You can tell by the way this is going?
15 MR. APPEL: I know. I can tell by the way it's going
16 now.
17 MR. CARTER: Do you have a preference here? I have no
18 difficulty breaking here and moving to the field and
19 reconvening and taking the ice topic.
20 MR. HANSEN: I have no preference. As I said, I'd be
21 happy to let the water users put on their full case. I
22 don't anticipate getting to the point where I'll be able to
23 cross-examine their expert today based on what has been said
24 about the length of their case.
25 MR. CARTER: All right. Then let's do that. Let's

1 break at this point. Perhaps we should identify a
2 continuation date right while we're all here. Let's get our
3 calendars. And can we conclude the transcribed record at
4 this point. I think the rest of this is scheduling and
5 logistics.
6 MR. HANSEN: That's fine with me.
7 MR. APPEL: I believe so.
8 MR. CARTER: All right. Then that will be the
9 conclusion of the hearing today, and we'll return to the
10 record to tell you when the continuation will be. Thank
11 you.
12 (The hearing was adjourned at 11:14 a.m.)
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1 CERTIFICATE
2
STATE OF UTAH)
3 : ss.
COUNTY OF SALT LAKE)
4
5 THIS IS TO CERTIFY that the foregoing hearing
was taken before me, REBECCA J. GARNER, a Certified
6 Shorthand Reporter and Notary Public in and for the State of
Utah, residing at Orem, Utah.
7
That the witnesses were by me, before
8 examination duly sworn to testify the truth, the whole truth
and nothing but the truth in said cause.
9
That the testimony in the aforementioned
10 hearing, including the testimony of said witnesses, was
reported by me in Stenotype and thereafter caused by me to
11 be transcribed into typewriting, and that a full, true and
correct transcription of said testimony so taken and
12 transcribed is set forth in the foregoing pages numbered
from 1 to 110, inclusive.
13
I further certify that I am not of kin or
14 otherwise associated with any of the parties to said cause
of action, and that I am not interested in the event
15 thereof.
16 WITNESS MY HAND and official seal of Orem,
Utah, this 28th day of October, 1996.
17
18
19 REBECCA J. GARNER, RPR
Utah License No. 328
20 California CSR No. 9823
My Commission Expires:
21 October 2, 2000
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23
24
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'84 [2] 54:15 54:16
'91 [2] 26:17 45:8
00 [3] 8:3 69:8 107:5
1 [10] 4:3 4:6 52:16 52:18 60:23 78:14 78:18 99:4 103:1 111:12
10 [6] 17:1 55:5 69:8 76:22 96:15 97:25
100 [1] 55:4
1055 [1] 70:4
11 [1] 110:12
110 [5] 20:20 20:21 20:24 58:22 111:12
1100 [2] 2:13 2:18
11th [1] 20:16
12 [5] 8:2 8:3 8:3 8:11 54:13
120 [1] 58:19
1210 [1] 2:5
14 [1] 110:12
140 [3] 31:4 31:9 38:3
148 [2] 30:20 42:8
14th [1] 24:5
15 [4] 3:4 38:5 38:7 55:5
1500 [1] 16:4
155 [2] 54:2 70:5
158,400 [1] 20:24
1594 [1] 2:5
16th [1] 25:18
17 [2] 42:7 98:1
17th [6] 1:22 21:16 23:14 24:2 27:22 44:10
18 [1] 98:1
180 [1] 87:9
19 [2] 15:13 51:10
1930 [1] 16:10
1977 [1] 47:18
1979 [1] 54:14
1980 [1] 47:16
1980s [1] 67:10
1985 [1] 82:20
1987 [1] 76:15
1989 [5] 20:17 21:3 21:10 21:16 41:2
1990 [10] 18:3 22:11 24:15 25:16 40:12 58:2 60:25 63:6 102:12 103:1
1991 [22] 18:3 20:16 21:2 21:3 22:11 23:14 24:2 24:5 25:18 27:9 27:21 27:22 27:23 40:12 43:6 43:23 44:10 46:12 50:20 50:21 62:7 102:12
1992 [1] 76:18
1995 [1] 42:6
1996 [2] 1:22 111:16
2 [16] 4:5 4:6 52:17 52:19 60:23 75:12 78:15 78:18 98:20 99:2 99:17 99:18 99:18 99:19 99:20 111:21
20 [2] 65:24 91:18
200 [1] 2:9
2000 [1] 111:21
20s [1] 67:11
20th [1] 27:22
21 [5] 21:4 21:5 43:6 60:1 60:7
220 [2] 38:2 38:15
235 [1] 54:2
24 [1] 31:4
25 [1] 91:18
27th [2] 24:15 25:16
28 [1] 3:4
28th [1] 111:16
3 [5] 4:6 24:22 78:17 107:5 107:5
30 [6] 3:5 8:2 8:3 8:11 67:12 107:5
300 [7] 2:9 21:6 30:22 55:3 55:3 57:5 82:7
320 [1] 55:3
328 [1] 111:19
36 [1] 1:22
4 [4] 4:8 79:1 79:3 99:20
4,000 [1] 72:4
4,752,000 [1] 20:25
40 [3] 3:5 54:19 58:21
43 [3] 31:10 31:10 31:11
43,000 [1] 31:12
4300 [1] 31:11
45 [1] 87:10
450 [1] 87:16
49 [1] 3:6
500 [2] 64:1 64:3
52 [2] 4:3 4:5
53 [1] 3:7
5th [1] 27:21
60 [3] 2:18 64:1 64:2
62 [1] 3:8
624 [1] 2:9
64 [1] 3:8
66 [2] 16:10 16:13
67 [1] 3:9
69 [1] 3:10
70 [5] 57:13 60:4 67:9 68:1 68:3
73 [2] 3:12 31:9
732 [1] 49:1
7500 [2] 100:9 101:2
7550 [2] 100:9 101:2
76 [2] 30:21 42:3
78 [3] 4:6 4:8 54:14
8 [2] 1:22 76:21
80's [1] 68:7
84103 [2] 2:10 2:14
84111 [1] 2:19
84114-5801 [1] 2:6
9 [1] 2:14
91 [2] 60:25 63:6
95 [3] 1:20 89:16 96:17
9823 [1] 111:20
99,792,000 [1] 21:5
a.m [2] 1:22 110:12
abandoned [4] 22:9 22:19 26:6 46:5
ability [1] 13:17
able [19] 16:9 22:4 31:17 35:22 37:8 52:19 57:18 59:4 59:7 59:21 62:17 66:21 71:25 107:22 109:9 109:11 109:12 109:13 109:22
abnormal [1] 28:9
abnormalities [2] 27:4 28:8
above [13] 20:3 22:12 50:7 75:23 82:15 84:5 84:15 88:4 89:10 96:12 103:15 103:16 105:2
above-entitled [1] 1:18
absent [1] 10:2
ACC/015/025 [2] 1:8 6:1
accept [1] 46:2
accomplish [1] 8:7
accomplished [1] 107:8
according [6] 9:21 14:8 16:8 20:19 45:7 100:10
account [2] 22:5 91:19
accounted [1] 91:17
accurate [4] 31:2 99:10 99:11 99:14
acknowledge [1] 20:20
acre [13] 21:6 30:25 31:6 31:11 31:11 31:12 38:2 38:8 38:15 71:16 71:18 71:22 72:5
act [4] 5:10 14:9 48:11 49:7
action [1] 111:14
actions [1] 6:10
actual [2] 10:16 47:10
add [3] 11:2 47:13 99:13
adding [1] 11:8
additional [5] 7:2 10:19 43:9 43:10 78:1
Additionally [1] 9:20
address [3] 53:24 65:15 70:3
addressed [1] 23:13
adequately [1] 10:16
adjacent [3] 15:22 16:24 65:8
adjourned [1] 110:12
adjudicated [1] 17:21
administrative [6] 5:10 14:9 22:25 23:3 32:11 33:20
administratively [1] 13:16
admissible [2] 35:2 35:2
admission [1] 44:17
admitted [2] 27:15 44:12
advantage [2] 37:11 47:22
adverse [1] 12:2
adversely [1] 40:22
advice [3] 34:24 35:5 37:23
advised [1] 41:24
advisers [1] 13:4
affect [4] 12:17 65:12 65:23 65:24
affected [10] 40:22 46:20 63:4 63:23 64:5 66:8 66:9 66:16 66:18 104:10
affecting [1] 25:25
affiliated [1] 75:12
aforementioned [1] 111:9
afternoon [1] 56:12
again [12] 5:21 28:7 35:24 41:7 42:21 43:5 46:8 53:1 68:10 86:1 93:15 103:7
against [5] 11:23 11:24 17:21 19:23 37:2
agency [1] 34:22
ago [4] 23:20 23:20 33:18 65:13
AGs [3] 34:21 34:24 37:23
ahead [10] 14:3 17:24 28:20 30:12 51:23 53:14 57:23 64:8 67:21 67:23
aid [1] 11:25
air [7] 43:16 58:13 63:7 63:9 63:11 66:11 66:16
allegations [1] 12:24
allocated [2] 72:4 72:11
allotments [1] 72:1
allow [5] 9:1 53:6 53:7 107:14 109:5
allowed [1] 27:11
allows [2] 29:6 37:22
alluvial [3] 64:13 64:16 65:22
alluvium [1] 98:6
almost [3] 32:24 77:16 105:19
along [6] 80:14 83:18 93:2 97:15 100:21 104:3
alter [1] 105:1
altered [1] 10:11
altering [3] 104:20 105:1 105:11
always [1] 43:25
amendments [1] 49:7
amount [8] 47:17 68:15 90:1 90:17 90:17 90:22 102:15 106:3
amounts [2] 18:19 90:1
analogy [1] 49:16
analysis [2] 24:20 26:24
analytical [1] 76:4
analyzed [1] 75:18
Anderson [1] 24:16
Angeles [1] 74:10
animal [2] 62:13 62:18
announced [1] 32:2
answer [2] 41:7 41:22
anticipate [1] 109:22
anyway [1] 42:22
anywheres [1] 87:15
appeal [5] 12:12 32:9 33:12 36:18 37:5
appealed [1] 6:7
appear [2] 9:14 18:9
appearances [2] 2:1 7:5
appeared [1] 26:19
appearing [1] 32:23
Appel [64] 2:12 2:12 3:4 3:5 3:12 7:6 7:6 8:8 8:9 8:22 9:7 9:9 11:3 11:7 14:7 15:4 18:6 19:22 22:22

23:1 23:5 23:7 23:10 27:6 30:9 30:15 32:5 32:9 33:21 36:3 37:18 38:1 38:4 39:22 41:14 41:18 41:21 46:9 51:24 54:18 61:23 61:25 68:20 73:4 73:13 75:10 78:9 78:12 78:22 78:25 79:25 87:20 91:1 91:25 95:17 98:9 99:2 103:20 107:2 108:11 108:24 109:13 109:15 110:7
application [2] 37:18 39:3
apply [4] 31:24 33:2 34:1 34:2
appreciate [2] 37:21 38:1
appropriate [2] 35:25 107:8
approval [1] 6:7
approve [1] 6:6
approved [1] 10:19
April [2] 21:2 21:3
aquifer [11] 82:17 82:24 83:3 83:3 83:7 83:25 84:5 85:13 91:14 103:11 104:2
aquifers [3] 82:14 103:2 103:5
aquitard [3] 97:18 97:22 97:23
area [96] 10:7 10:9 11:13 12:14 12:17 15:14 15:22 16:17 18:19 19:1 19:7 19:10 19:21 21:11 21:12 27:11 27:16 28:2 43:10 44:5 47:2 50:13 50:22 51:2 52:10 55:7 55:18 58:16 58:17 65:19 65:21 70:19 72:18 74:3 75:17 77:4 77:10 77:19 78:4 79:10 79:15 79:18 80:20 81:5 81:10 81:11 81:18 81:19 82:8 82:18 82:20 82:22 82:24 83:1 83:2 83:8 83:15 83:21 84:11 86:14 86:22 87:11 88:1 88:4 88:6 88:15 88:15 88:16 88:18 89:8 89:9 89:9 89:10 89:10 89:14 89:15 89:21 90:4 90:14 91:10 91:18 93:10 94:9 95:7 96:24 96:25 97:9 97:18 98:12 100:4 100:12 101:14 102:17 104:5 104:19 104:22
areas [5] 10:2 19:13 55:9 55:11 105:19
argue [1] 33:10
argument [11] 8:21 31:24 33:9 33:10 34:17 35:15 36:15 37:2 48:8 48:21 49:18
arguments [3] 34:17 34:23 35:3
arms [1] 108:5
ascertain [1] 43:8
aspect [1] 107:7
aspects [2] 33:8 74:7
assembled [1] 75:16
assertion [3] 48:9 48:16 48:20
assertions [1] 108:7
assessment [1] 75:7
assist [2] 74:7 98:19
assistant [2] 34:14 34:21
associated [4] 24:18 43:9 83:13 111:14
Association [9] 2:16 7:10 54:22 55:21 56:22 57:12 70:14 70:15 70:18
assume [1] 60:16
assuming [1] 36:15
atomic [1] 43:16
attached [5] 4:4 4:5 4:7 4:8 48:13
attempted [3] 11:3 75:19 77:8
attempting [1] 11:3
attention [1] 51:15
Attorney [1] 2:9
attorneys [4] 2:13 2:18 34:14 35:5
audience [1] 19:15
augment [1] 16:20
August [1] 57:6
authorities [1] 41:24
avail [1] 32:14
availability [1] 30:17
available [10] 16:15 16:16 16:22 22:20 22:21 27:18 32:25 35:21 90:2 90:18
avenue [1] 85:19
average [1] 30:18
avoid [1] 8:20
aware [10] 13:19 16:23 17:3 22:21 38:4 48:24 72:10 72:17 72:20 102:12
away [5] 17:1 34:19 46:3 105:8 106:24
awkward [2] 34:25 35:6
B [1] 4:1
bachelor's [2] 76:11 76:12
background [2] 15:10 69:3
badger [1] 41:18
balance [2] 13:21 25:23
barred [2] 36:12 37:13
base [2] 81:23 88:9
based [22] 9:5 10:3 13:23 24:12 25:14 26:25 33:19 44:25 45:11 75:18 75:19 75:20 89:24 90:1 96:11 96:13 97:8 100:13 104:15 104:16 104:18 109:23
baseline [3] 10:13 10:15 75:16
basin [1] 87:7
basis [1] 33:15
bear [56] 1:4 5:25 10:5 11:14 12:19 15:24 16:2 16:3 16:3 16:22 17:11 18:23 18:24 22:15 22:16 24:18 24:23 24:24 25:25 27:2 27:4 28:9 29:3 30:4 30:18 31:1 34:3 40:21 42:4 42:5 43:12 43:15 45:1 45:7 45:22 45:24 46:20 50:7 71:8 79:22 80:4 80:11 80:13 80:15 80:17 83:10 83:10 84:14 84:16 88:24 92:9 96:4 102:14 105:24 106:20 106:22
Bear's [1] 83:17
bears [2] 31:22 42:22
become [7] 47:2 81:13 83:5 94:9 94:10 94:11 94:13
becomes [3] 11:19 47:7 97:7
bed [1] 81:9
bedding [1] 81:1
bedrock [1] 64:13
beds [4] 82:12 87:8 87:9 87:10
began [4] 22:9 44:1 57:9 96:3
begin [2] 79:17 109:10
beginning [2] 21:10 76:21
begins [1] 81:22
begun [1] 43:16
behalf [7] 7:6 7:8 7:11 14:23 53:17 69:21 73:8
behave [1] 97:14
behaves [1] 91:13
below [4] 24:20 67:12 104:20 105:3
beneficial [1] 72:13
best [3] 78:11 96:3 96:4
better [2] 11:13 53:25
between [19] 28:1 30:3 31:6 45:23 46:24 55:3 56:14 56:16 63:13 78:2 88:3 89:8 91:5 93:5 94:5 94:8 94:15 98:11 101:2
big [46] 10:5 11:14 12:18 15:23 16:2 16:3 16:22 17:11 18:23 18:24 19:17 22:15 22:16 24:24 25:25 27:2 27:4 28:9 29:3 30:4 30:18 31:1 40:21 42:4 42:5 43:12 43:15 45:1 45:7 45:21 45:23 46:20 50:7 57:3 71:8 80:4 80:13 82:24 83:10 83:16 83:17 92:9 99:19 99:20 102:14 105:24
biggest [1] 28:3
Birch [39] 10:5 11:14 12:18 21:13 21:15 21:20 21:23 21:25 22:6 24:24 40:21 40:23 41:3 42:3 44:4 56:7 56:9 56:13 56:21 57:11 58:16 58:20 59:22 59:24 61:12 64:9 64:9 66:13 66:15 67:8 67:16 68:15 68:22 71:7 80:5 80:13 83:10 84:15 105:23
bit [8] 31:23 44:19 58:18 77:1 80:22 81:5 92:16 108:21
Black [15] 82:5 82:5 82:9 82:10 82:23 83:23 84:22 85:4 97:13 97:16 99:16 103:2 103:6 103:9 104:9
blind [7] 95:8 95:10 95:13 100:5 100:14 100:24 106:2
bluish [1] 81:24
board [35] 5:16 6:2 6:7 6:8 6:10 6:13 6:16 6:17 12:6 12:12 13:7 13:11 33:6 33:17 33:22 34:2 34:11 34:12 34:12 35:10 36:19 36:21 37:5 37:6 37:7 37:8 37:9 37:16 37:25 47:4 49:6 65:18 68:11 70:15 99:7
Board's [1] 33:14
bodies [1] 13:23
bore [1] 12:14
borrow [1] 6:25
Boston [1] 2:13
bottom [7] 19:9 19:18 19:19 22:2 58:24 81:22 82:8
bound [1] 36:23
boundary [1] 80:1
box [2] 58:24 62:8
boxes [2] 47:18 47:18
break [7] 22:5 69:9 69:10 98:8 109:1 109:4 110:1
breaking [2] 108:13 109:18
breakout [2] 19:14 43:1
breakouts [2] 19:11 19:12
brief [1] 6:3
Brigham [1] 76:13
bring [4] 11:11 12:9 38:25 39:20
broke [2] 63:7 63:14
broken [1] 58:12
brought [2] 27:19 49:20
Brown [1] 88:9
Bryce [1] 50:17
budget [1] 77:7
Building [1] 2:13
built [1] 66:3
burden [5] 12:14 13:2 13:25 14:1 42:22
buried [1] 98:6
burned [1] 49:13
bypassed [1] 9:25
C [3] 5:2 111:1 111:1
calcium [1] 18:3
calculate [1] 31:2
calculated [3] 101:18 101:19 101:22
calculating [1] 31:7
calculation [1] 38:2
calculations [1] 107:11
calendars [1] 110:3
California [1] 111:20
calls [2] 58:8 72:8
cannot [3] 12:17 33:11 91:16
canyon [61] 1:4 5:25 16:4 16:5 16:25 19:7 19:10 19:18 19:20 21:11 21:12 21:23 21:24 22:3 24:19 24:23 38:24 51:2 51:13 56:7 56:17 57:1

57:3 58:9 58:10 60:17 65:2 65:3 66:4 66:7 72:10 72:18 79:8 79:19 79:22 80:12 80:15 80:17 81:15 81:15 81:23 82:2 84:15 84:16 86:12 88:24 92:4 95:5 95:9 95:10 95:14 96:5 98:5 98:8 100:5 100:14 100:21 100:24 106:2 106:21 106:23
canyons [2] 16:24 56:15
capable [1] 38:22
capacity [3] 47:15 54:12 73:21
capture [4] 57:19 57:22 67:18 67:21
captured [1] 105:7
carefully [1] 35:7
Carter [107] 2:4 5:4 5:5 7:12 8:4 8:20 9:6 9:8 11:1 11:2 12:4 13:1 14:5 14:8 14:15 14:18 17:16 17:17 17:24 19:16 21:23 22:24 23:2 23:6 23:9 26:2 26:9 26:23 27:5 28:18 28:20 30:12 31:13 31:14 31:19 31:21 32:8 32:11 34:9 35:25 36:21 37:21 38:1 39:8 39:14 40:2 40:6 41:20 42:10 43:19 44:22 45:17 47:9 47:12 47:14 48:6 49:1 49:10 49:17 51:20 52:2 52:5 52:11 52:16 53:6 53:13 62:1 63:17 63:22 64:7 64:19 64:22 68:2 68:5 68:8 68:10 68:18 69:4 69:10 69:14 72:24 73:2 75:6 78:5 78:8 78:10 78:19 78:24 86:3 86:5 86:16 87:2 90:20 95:13 98:2 98:4 103:17 107:14 107:23 108:2 108:18 108:22 109:2 109:14 109:17 109:25 110:8
Carter's [1] 87:20
case [9] 10:5 36:20 90:20 95:8 109:5 109:9 109:12 109:21 109:24
Castle [19] 1:7 1:21 2:11 7:6 9:10 11:16 15:8 15:12 15:14 15:16 24:9 29:1 29:2 29:9 38:5 42:14 70:25 71:10 80:10
Castlegate [1] 82:11
caught [1] 41:16
caused [2] 21:19 111:10
causes [1] 87:4
causing [4] 25:24 28:7 93:13 108:12
caution [1] 36:1
caving [1] 105:10
cease [1] 26:20
certain [1] 94:16
certainly [7] 40:6 45:18 45:18 53:7 63:22 68:25 107:16
Certified [1] 111:5
certify [2] 111:5 111:13
cessation [1] 46:8
chalkboard [1] 91:22
Chamber [1] 1:21
chance [4] 18:25 37:15 37:18 41:22
change [7] 32:20 37:24 39:3 39:4 39:5 39:10 44:14
changed [1] 42:25
changes [3] 13:19 64:19 81:12
changing [2] 40:17 105:12
channel [1] 103:9
characterize [1] 48:7
characterizing [1] 47:9
Charles [6] 2:24 26:9 26:12 26:12 44:8 52:9
chart [1] 68:6
charts [2] 4:8 78:25
CHEA [3] 75:1 75:2 75:3
chemical [2] 48:1 108:19
chlorinate [2] 29:23 47:23
circumstances [1] 44:9
cities [3] 29:20 55:10 55:14
City [7] 2:6 2:10 2:14 2:19 23:17 73:18 107:4
civil [1] 15:11
claim [1] 63:3
clarification [2] 39:8 66:6
clarified [1] 49:21
clarifier [1] 39:18
clarify [3] 48:15 67:15 85:16
clarity [1] 5:20
class [1] 71:15
clay [4] 85:22 93:12 93:22 93:22
clear [8] 11:19 33:21 37:15 37:18 47:3 52:18 53:23 58:14
cleared [1] 46:3
clearing [1] 67:1
clearly [2] 35:4 42:20
cleat [1] 86:21
Cleveland [3] 15:25 55:11 70:4
cliff [3] 43:23 44:3 46:13
cliffs [3] 22:12 58:17 82:2
close [7] 16:23 17:2 30:22 38:19 51:9 65:5 102:20
close-up [3] 4:5 50:9 52:19
closed [1] 57:24
closing [1] 105:12
CMPHA [1] 10:24
co-op [46] 2:7 5:25 6:6 8:14 9:12 11:19 11:24 12:13 15:22 16:4 17:4 20:12 21:1 21:10 22:4 22:7 22:19 24:6 24:13 25:15 26:3 27:8 34:3 37:1 39:24 42:22 49:20 53:6 53:7 56:4 56:15 65:5 72:24 74:20 77:14 77:17 78:15 79:7 79:25 80:1 89:11 96:5 96:11 100:24 101:9 109:5
Co-op's [4] 25:8 31:16 31:16 63:3
coal [18] 13:13 13:14 19:1 19:19 43:9 62:14 62:16 74:15 74:16 74:18 75:12 76:7 76:22 76:23 82:8 86:21 86:22 95:6
coincident [1] 86:7
coliform [3] 21:22 59:20 62:11
collect [2] 29:6 88:5
collected [1] 81:3
collection [1] 58:24
colluvial [1] 64:13
Colorado [3] 74:17 75:11 75:15
coming [15] 26:17 27:17 30:22 36:14 40:21 57:11 58:18 67:2 68:15 80:16 100:3 101:13 102:7 106:3 106:10
commences [1] 46:8
commencing [1] 1:22
comment [4] 35:22 40:23 47:13 63:20
comments [4] 26:15 40:4 42:13 44:16
Commission [2] 1:21 111:20
common [3] 51:1 51:12 82:7
communities [3] 15:18 15:20 15:25
community [2] 16:11 16:13
companies [2] 2:23 71:10
company [18] 1:11 2:7 2:15 5:25 7:9 7:11 24:7 24:14 29:4 29:5 70:10 70:12 70:22 71:4 71:13 72:13 74:11 75:13
compare [2] 31:25 87:5
compared [2] 18:17 18:18
complaints [3] 29:18 41:10 61:15
complete [2] 7:23 13:4
completely [4] 12:20 12:21 19:25 47:25
completion [1] 8:2
compliance [2] 10:23 54:24
complicated [2] 35:12 35:13
compression [2] 104:22 104:23
concern [11] 7:19 11:10 27:23 28:3 46:1 46:4 46:7 65:11 65:13 65:16 109:2
concerned [1] 65:25
concerning [4] 9:16 36:8 101:8 105:22
concerns [1] 27:25
conclude [1] 110:3
concluded [2] 82:22 83:2
conclusion [21] 10:10 13:16 13:19 25:1 25:2 25:8 32:20 33:8 39:22 43:14 44:23 46:16 46:17 46:19 46:20 47:8 100:15 102:25 104:13 105:22 110:9
conclusions [16] 9:16 13:12 24:12 32:1 32:16 32:16 32:17 33:6 34:1 34:2 34:13 34:15 34:19 37:9 44:24 45:10
conditions [3] 9:24 10:19 10:21
conduct [2] 5:9 37:22
conducted [2] 25:18 43:8
conductivity [1] 108:20
conduit [1] 47:4
conference [13] 5:8 5:19 6:9 6:22 7:14 7:15 7:24 11:12 34:10 35:20 36:16 36:24 37:12
conferences [2] 5:10 34:17
confined [3] 85:10 94:18 95:3
confining [5] 84:9 84:9 84:10 93:20 97:13
confused [2] 5:21 28:21
connected [1] 29:21
connection [4] 28:1 45:23 46:5 46:10
connections [3] 55:3 55:5 55:6
consequences [3] 9:17 74:18 74:24
consider [5] 21:7 33:4 35:14 35:15 35:16
considerable [4] 19:9 38:25 47:17 68:15
consideration [2] 6:2 7:25
considered [2] 81:9 82:17
consistent [5] 81:11 81:15 84:17 101:12 101:15
consists [1] 82:16
constant [1] 20:17
constrained [1] 33:3
constructed [1] 42:15
consult [1] 13:3
consultant [2] 24:7 24:16
contact [1] 83:12
contain [1] 48:9
contaminants [2] 21:22 62:8
contaminated [2] 29:16 58:10
contamination [6] 29:11 40:14 40:18 65:25 66:15 66:22
contemplated [1] 6:9
contemplating [1] 7:14
contemporaneous [1] 86:16
contentions [1] 7:21
context [2] 33:5 108:8

continuation [2] 110:2 110:10
continue [8] 10:6 44:1 85:3 88:23 97:11 101:7 102:5 107:19
continued [1] 21:17
continuing [1] 79:18
continuous [3] 29:14 45:13 79:17
continuously [2] 16:11 29:15
contour [1] 88:10
contractor [2] 57:21 67:22
contradict [1] 13:16
contradicts [1] 68:12
control [1] 106:6
convenient [1] 8:17
convince [1] 37:4
coordinate [1] 11:4
copies [1] 50:1
core [1] 46:23
corporation [1] 55:24
correct [23] 13:21 28:14 29:22 30:6 32:2 36:17 39:25 42:9 47:9 56:2 59:11 62:9 62:23 62:24 70:18 71:8 71:19 71:23 72:14 85:17 99:15 103:2 111:11
corrected [4] 6:12 26:5 44:11 44:11
correctly [1] 71:2
correspondence [1] 23:10
Cottonwood [1] 82:21
counsel [8] 5:13 6:12 7:4 8:17 9:4 33:9 37:7 37:9
County [8] 1:8 1:20 2:16 6:1 15:17 55:7 55:10 111:3
couple [9] 11:8 18:13 28:19 40:3 49:19 63:15 64:20 101:21 108:15
course [5] 6:4 29:3 42:11 75:14 82:12
court [6] 5:18 32:10 32:24 36:7 48:22 53:25
Courthouse [1] 1:20
cover [1] 79:11
covered [3] 12:6 17:20 67:24
cracks [2] 20:2 85:6
craft [1] 35:7
Craig [3] 2:17 7:8 69:15
crease [1] 98:6
create [2] 10:15 82:14
created [1] 20:7
Creek [5] 22:8 39:13 75:11 82:21 106:22
critical [2] 11:15 11:25
cross-examination [2] 5:17 33:24
cross-examine [2] 40:7 109:23
cross-section [1] 92:1
CSR [1] 111:20
culinary [4] 55:2 55:8 55:17 70:17
cumulative [1] 75:6
current [6] 27:3 54:4 59:24 100:6 100:8 100:8
customers [10] 16:7 29:18 29:24 30:1 30:6 41:10 57:8 58:9 61:15 61:16
cut [1] 107:18
cuts [1] 93:18
cutting [1] 34:6
CW [2] 8:13 9:12
CWM [2] 1:11 7:11
Cypress [5] 73:25 76:2 76:6 77:3 79:8
D [2] 3:1 5:2
Dale [1] 1:21
Danielson [2] 82:20 91:12
Darrel [3] 2:21 14:4 15:6
DARRELL [2] 3:3 14:22
data [3] 9:12 75:16 96:15
date [4] 23:19 45:24 102:10 110:2
dated [4] 20:15 23:14 24:14 27:22
de [1] 36:22
December [2] 18:2 22:11
decide [2] 6:19 37:10
decision [4] 13:10 13:11 42:25 44:14
decisions [1] 13:22
decrease [1] 41:5
deemed [1] 64:9
deep [3] 64:4 64:10 64:15
defeat [1] 9:2
defer [1] 34:23
define [1] 19:14
defined [1] 93:5
definitely [1] 66:23
definition [2] 84:4 97:22
degree [4] 76:11 76:12 87:10 104:19
degrees [3] 81:21 87:9 87:18
delivery [1] 71:21
demonstrate [1] 43:13
denied [3] 10:18 27:13 27:14
department [4] 2:4 5:6 58:12 63:7
depending [2] 63:25 93:11
depicted [2] 51:11 61:9
depiction [2] 99:10 99:14
deposited [1] 93:12
describe [3] 15:14 58:6 92:11
description [1] 74:17
despite [1] 62:25
details [2] 40:17 98:24
determination [5] 6:18 13:5 14:2 33:19 35:1
determinations [3] 35:14 37:16 45:24
determine [6] 10:15 32:1 62:17 65:22 66:21 80:20
determined [5] 6:8 33:12 33:25 65:24 80:25
develop [6] 38:19 48:3 57:15 77:6 104:22 106:10
developed [10] 16:9 16:25 57:18 67:10 67:11 67:16 67:18 74:19 87:6 106:2
developing [1] 12:7
development [3] 68:2 68:14 68:22
develops [1] 104:23
device [2] 63:11 63:14
DH-2 [1] 101:2
diagram [2] 79:2 95:22
Dianne [1] 46:17
difference [9] 88:2 88:8 89:7 90:13 91:8 91:11 97:3 98:13 98:13
differences [3] 6:4 49:3 90:17
different [17] 6:12 15:18 32:6 36:5 43:14 47:3 69:6 74:10 75:17 75:20 89:25 89:25 90:1 90:3 90:9 90:22 94:21
differentiate [1] 103:11
difficult [1] 29:13
difficulty [2] 32:23 109:18
dig [1] 69:5
diminution [1] 11:21
dip [5] 81:20 87:11 87:17 92:19 93:1
dipping [2] 87:10 92:22
directed [1] 49:3
directing [1] 49:5
direction [9] 20:8 84:17 87:18 92:25 93:8 93:9 97:8 100:3 100:4
directions [1] 93:8
directly [1] 29:25
director [2] 5:5 37:4
dirtiness [1] 59:14
dirty [3] 58:9 58:25 67:2
disabuses [1] 47:7
disagreement [2] 47:10 47:10
disaster [1] 19:21
discharge [12] 21:1 25:24 26:6 27:11 29:6 39:12 46:7 81:1 95:4 97:10 98:17 99:21
discharged [6] 21:11 22:4 26:13 26:17 77:8 106:21
discharges [2] 21:3 83:5
discharging [9] 22:7 22:9 22:19 44:10 45:2 45:3 45:13 45:20 106:23
disconnect [1] 61:20
discontinue [4] 28:5 45:5 45:14 102:4
discontinued [5] 26:16 26:20 28:4 45:4 79:19
discontinues [2] 85:20 85:23
discount [1] 43:6
discovered [3] 25:9 58:16 61:12
discovery [1] 26:25
discussed [1] 24:11
discussing [2] 30:16 56:4
discussion [5] 7:2 45:19 52:22 64:10 64:14
displaced [1] 93:18
displacements [1] 87:15
dispute [1] 52:7
district [20] 1:7 2:11 7:7 9:11 11:16 15:8 15:9 15:12 15:15 15:16 24:9 24:11 29:1 29:2 29:9 38:5 38:11 51:8 55:15 71:1
diverted [2] 106:18 106:24
diverting [2] 105:6 105:8
division [48] 2:5 5:5 5:6 5:11 6:2 6:5 6:10 6:14 6:15 6:17 6:18 11:10 11:13 11:25 12:6 12:11 13:8 13:11 24:14 24:17 25:14 25:16 25:19 26:19 27:24 31:20 31:21 32:2 32:15 33:5 33:11 33:16 33:22 35:7 35:10 35:21 36:22 39:11 39:15 42:23 44:20 45:5 45:24 49:4 49:16 51:20 60:24 75:7
Division's [9] 32:13 32:14 33:14 37:15 37:24 42:25 44:14 51:21 78:5
doctrine [1] 37:19
documented [1] 27:1
documents [3] 17:4 101:8 107:1
doesn't [9] 29:24 35:8 36:11 66:18 72:19 83:7 84:7 87:25 97:2
DOGM [5] 19:8 19:23 22:20 23:16 48:24
DOGM's [1] 76:9
dollars [2] 47:19 65:20
done [21] 5:11 8:22 37:25 43:11 45:14 46:12 46:22 57:15 57:16 66:3 68:3 78:23 81:18 86:12 86:19 88:9 88:20 89:5 96:6 107:6 108:17
doubled [1] 44:18
down [64] 8:9 8:23 9:3 9:5 16:4 16:5 19:19 21:12 25:13 49:13 57:21 57:22 58:20 59:6 60:7 60:14 65:20 65:21 65:22 67:11 67:20 67:22 77:11 79:7 79:18 79:19 81:16 81:22 82:19 82:21 82:25

83:1 84:4 84:12 85:8 85:10 85:17 85:19 85:19 87:14 87:16 88:8 88:24 90:9 90:24 90:24 92:3 93:3 93:17 93:20 94:14 94:21 95:23 96:20 97:11 97:12 98:11 98:18 99:24 100:18 103:7 104:7 106:15 106:22
downstream [3] 66:12 66:14 66:19
downward [4] 90:3 91:19 95:1 104:1
downwards [1] 90:19
drainage [4] 15:19 82:21 82:21 83:7
drainages [1] 10:1
dramatic [1] 64:18
drank [1] 61:17
draw [3] 32:16 44:23 65:20
drawing [4] 91:21 99:3 99:5 99:6
drawn [1] 32:18
drew [2] 44:24 51:15
drilled [2] 10:14 65:21
drinking [3] 11:15 15:19 39:16
dripper [1] 101:24
dripping [1] 103:17
driving [1] 9:3
drop [2] 59:6 85:9
dropped [3] 67:11 87:13 87:16
drops [1] 98:9
drought [1] 18:19
dry [13] 19:7 19:9 21:11 21:12 21:23 22:3 22:8 57:2 57:2 75:11 83:6 84:14 91:14
dual [1] 39:19
due [2] 34:7 35:8
dug [1] 67:22
duly [5] 14:24 53:18 69:22 73:9 111:8
Dunrod [1] 104:18
during [12] 18:2 21:20 28:10 31:16 41:4 43:24 51:5 60:20 60:25 64:18 84:2 84:24
dust [1] 106:6
duties [3] 54:21 74:4 74:6
dutifully [1] 34:18
E [6] 3:1 4:1 5:2 5:2 111:1 111:1
Eagle [1] 2:19
early [7] 30:16 40:12 47:22 67:10 68:7 107:18 107:24
Earthfax [5] 24:7 24:12 25:2 44:24 102:22
Earthfax's [1] 45:10
east [5] 1:21 2:18 20:16 54:2 79:20
easy [2] 81:10 108:12
education [1] 76:16
effect [2] 12:1 25:23
effects [1] 12:16
eight [3] 15:18 15:20 75:17
either [14] 12:18 13:8 36:13 40:21 61:7 83:5 85:19 96:20 97:2 97:5 97:8 98:14 98:16 106:18
elapsed [1] 21:4
elevated [3] 84:5 84:8 103:16
elevation [2] 89:22 99:14
elevations [2] 100:13 100:13
Elmo [2] 16:1 55:12
elsewhere [1] 68:9
Emery [29] 1:8 1:20 2:16 6:1 7:9 11:16 15:17 24:10 41:7 41:8 41:25 54:7 54:8 54:21 55:1 55:7 55:10 55:20 56:22 57:10 57:12 57:14 60:5 67:9 70:13 70:15 70:18 71:1 71:10
employed [6] 15:7 54:4 54:11 70:6 73:16 80:23
employment [2] 54:6 74:5
encountered [6] 20:17 20:21 43:18 101:11 102:11 103:1
encounters [1] 93:19
encourage [1] 5:21
end [7] 20:18 22:10 25:10 37:16 72:4 72:7 99:23
ended [1] 102:19
ends [3] 86:1 93:14 104:8
energy [6] 49:7 65:1 65:9 65:11 65:15 66:9
engineer [2] 10:3 15:11
Engineering [1] 24:8
enter [3] 7:4 66:18 97:15
entered [1] 44:6
entering [1] 92:15
enters [4] 93:2 96:19 97:4 97:5
entire [12] 12:14 12:21 12:22 35:2 35:16 37:12 42:11 91:9 96:24 96:25 98:11 107:17
entirely [2] 32:6 34:23
entitle [1] 71:14
entitled [1] 107:16
entrance [1] 20:18
environmental [3] 74:7 74:11 75:6
equal [1] 86:18
equally [1] 86:15
especially [3] 94:8 94:17 98:5
essentially [3] 6:13 92:2 92:10
establish [1] 53:3
established [5] 42:18 42:20 43:17 43:24 77:5
estimation [2] 96:3 96:4
evaluating [1] 26:14
evaluation [1] 25:4
evaluations [1] 20:15
event [12] 7:1 48:10 50:2 50:22 58:1 58:3 58:4 59:21 84:24 92:21 102:12 111:14
events [1] 19:24
eventually [3] 81:14 97:9 97:14
everywhere [1] 86:18
evidence [24] 13:7 13:9 13:23 22:14 32:14 32:19 33:17 33:20 33:24 33:24 35:19 35:22 36:8 36:9 36:11 36:20 37:1 37:13 42:11 47:6 51:19 52:8 64:11 68:12
evidentiary [3] 12:13 36:19 52:7
exact [2] 23:19 101:1
exactly [9] 21:12 30:19 36:24 48:19 75:4 77:16 103:19 103:19 103:19
exaggerated [1] 92:20
examination [24] 3:4 3:4 3:5 3:5 3:6 3:7 3:8 3:8 3:9 3:10 3:12 5:17 15:2 28:23 30:14 40:9 49:23 53:21 62:3 64:24 67:6 69:25 73:12 111:8
examine [2] 52:22 107:15
examined [5] 14:24 20:25 53:18 69:22 73:9
example [1] 56:24
Except [1] 44:17
exception [1] 99:3
excess [1] 47:15
Exchange [1] 2:14
excuse [2] 13:8 15:24
exhibit [8] 4:2 22:23 78:13 78:17 78:22 79:1 79:3 99:20
exhibits [2] 60:23 78:1
exist [1] 44:1
existed [3] 43:25 43:25 43:25
existing [5] 9:24 10:21 43:10 78:15 105:7
expect [3] 91:17 100:2 102:8
expected [1] 6:18
expecting [1] 6:17
expense [3] 9:3 38:25 39:20
expenses [1] 48:1
expensive [1] 48:2
experience [7] 19:22 74:13 75:22 75:25 76:19 76:22 89:24
expert [2] 22:1 109:23
expert's [1] 10:10
experts [2] 34:2 47:1
Expires [1] 111:20
explain [3] 56:12 96:16 101:16
expression [4] 46:1 85:7 90:6 91:23
extent [2] 5:14 43:3
extra [1] 9:3
extremely [3] 16:8 16:13 21:15
F [3] 2:8 2:8 111:1
face [1] 44:3
faces [1] 86:21
facility [1] 39:9
fact [21] 7:14 10:4 12:11 12:16 21:18 26:19 32:24 33:15 34:20 34:20 36:23 37:8 39:16 44:25 45:11 47:14 47:15 47:15 72:3 91:11 96:9
fact-finder [1] 34:15
factor [1] 84:11
facts [6] 33:4 33:10 33:11 33:13 35:17 44:9
factual [2] 32:14 108:7
fail [1] 37:1
failure [1] 36:25
fair [1] 106:3
fairly [2] 60:16 81:10
fall [1] 98:9
falls [1] 89:18
familiar [7] 11:9 16:15 40:24 51:1 58:3 60:16 95:24
familiarity [1] 77:18
far [4] 38:4 42:18 49:2 57:11
fashion [1] 5:15
fault [25] 22:1 22:5 79:16 79:21 79:22 79:24 80:14 80:15 83:14 83:14 83:19 86:5 86:13 86:15 86:17 87:8 87:14 87:19 87:24 88:11 89:6 90:5 91:12 98:14 99:24
fault-related [2] 81:1 81:1
faulted [5] 83:16 89:1 91:10 98:3 98:4
faulting [8] 86:8 87:1 87:2 87:3 87:3 87:4 87:6 88:3
faults [8] 79:17 79:23 87:6 87:17 88:22 89:9 91:6 99:25
faulty [1] 9:15
fear [1] 37:13
features [4] 7:17 7:18 7:20 84:25
February [2] 27:21 45:8
fecal [3] 21:21 59:19 62:11
fed [1] 106:14
federal [2] 48:14 74:14
feed [1] 106:13
feeds [3] 10:12 11:20 22:1
feels [1] 34:11
feet [26] 16:4 21:6 30:25 31:6 31:11 31:11 31:12 38:2 38:8 38:15 72:5 82:7 85:10 85:25 87:16 93:11 93:11 93:25 95:19 100:9 100:9 100:17 100:23 101:1 101:3 101:21
fellows [1] 107:25
felt [1] 7:16
few [5] 42:12 65:13 71:24 93:11 95:19

field [10] 7:15 9:1 9:1 56:11 107:9 108:2 108:5 109:1 109:10 109:18
figure [1] 31:3
filed [1] 17:5
files [3] 23:2 23:16 31:21
fill [1] 28:6
filled [1] 87:14
filter [2] 39:18 66:3
Final [1] 26:24
finally [5] 59:6 79:19 95:4 101:24 104:8
findings [7] 13:22 34:20 34:20 34:22 35:9 35:10 37:8
finds [1] 85:19
fine [6] 8:23 14:16 40:7 69:11 78:8 110:6
finish [2] 8:18 77:11
fire [4] 49:14 49:14 49:15 49:15
fire's [1] 49:12
FIRM [1] 2:8
first [14] 8:12 14:4 21:1 23:21 24:3 29:17 57:9 60:4 61:12 65:19 78:3 79:1 102:9 102:10
fits [1] 100:2
five [1] 38:9
five-year [3] 1:4 5:24 6:6
flash [1] 39:17
flat [2] 81:19 89:22
flocculator [1] 39:18
flood [1] 46:6
floor [1] 104:21
flow [49] 10:4 12:18 17:15 18:4 18:14 20:19 21:15 21:19 22:4 22:6 22:15 22:16 27:2 40:13 40:17 42:3 42:7 43:4 44:5 58:4 59:5 64:13 64:13 75:20 80:19 83:22 84:3 84:4 86:1 90:3 90:16 93:20 96:11 97:12 97:24 97:24 97:24 97:25 98:16 100:3 101:9 101:11 101:23 101:25 105:7 105:8 106:25 107:1 108:20
flowed [4] 21:12 87:13 106:12 106:15
flowing [4] 58:18 58:20 67:20 77:7
flows [12] 11:21 18:9 24:24 28:9 28:9 44:18 64:19 68:21 75:18 83:6 83:10 101:22
fluvial [2] 85:24 93:12
folks [1] 8:24
follow [3] 66:7 93:1 107:14
follow-up [1] 108:15
following [3] 25:19 87:20 103:9
follows [5] 14:25 53:19 69:23 73:10 86:24
foot [3] 71:16 71:18 71:22
foreclose [1] 8:13
foregoing [2] 111:5 111:12
foreshorten [1] 8:5
forest [2] 12:17 48:13
forget [1] 34:11
Fork [6] 16:25 80:9 80:11 83:10 92:2 96:7
form [2] 41:17 82:2
formal [9] 5:17 14:12 17:18 17:19 23:8 32:23 33:8 41:20 50:2
formally [2] 35:20 36:20
formation [21] 50:8 50:12 80:15 82:5 82:5 82:9 82:10 82:11 82:16 82:18 82:23 83:3 84:1 84:21 85:5 88:11 90:7 91:8 92:14 103:2 103:10
formations [1] 87:12
formerly [1] 70:7
forms [2] 62:8 81:22
forth [3] 6:5 78:2 111:12
forward [3] 17:22 53:7 69:18
found [6] 12:12 12:12 22:18 62:7 90:24 102:15
four [5] 23:20 77:16 81:20 87:18 107:10
fracture [28] 76:4 79:13 79:15 83:13 83:13 83:17 83:17 83:18 84:12 84:25 85:3 85:11 85:20 86:11 91:1 91:3 91:4 93:17 93:23 93:24 94:1 94:4 97:6 98:8 98:18 101:23 105:1 106:22
fractured [11] 84:24 86:15 87:21 89:1 94:21 94:22 94:25 98:2 98:3 98:7 98:15
fractures [15] 84:11 84:13 84:14 84:20 84:21 86:24 88:7 90:25 93:22 94:24 102:3 102:3 102:7 104:1 105:11
fracturing [9] 84:4 86:6 86:7 86:11 86:20 86:24 88:19 93:16 94:14
free [3] 33:16 33:19 77:22
frequently [1] 51:5
front [2] 13:23 37:16
full [8] 12:7 12:13 17:15 31:5 58:24 71:25 109:21 111:11
future [1] 27:25
G [1] 5:2
gallons [30] 20:20 20:21 20:24 20:24 20:25 21:5 30:20 30:22 31:4 31:9 31:10 38:3 42:3 42:8 57:5 57:13 58:19 58:21 58:22 60:1 60:4 60:7 64:1 64:2 67:9 67:12 67:12 68:1 68:3 101:24
GARNER [3] 1:18 111:5 111:19
Gas [4] 2:5 5:6 6:3 6:7
Gate [1] 2:19
general [4] 34:14 50:13 83:21 99:7
generally [4] 5:11 26:10 81:17 92:24
generate [1] 62:15
generated [3] 74:17 96:10 99:24
Gentry [13] 47:5 77:5 77:12 77:15 79:9 80:14 88:12 92:2 94:9 96:12 96:23 98:10 99:23
geography [1] 8:9
geologic [5] 7:20 9:12 80:25 104:15 107:7
Geological [1] 86:20
geologist [1] 88:20
geologists [1] 108:6
geology [7] 76:12 76:17 81:6 88:23 104:16 108:14 108:15
given [2] 27:8 60:24
goes [9] 8:6 29:25 47:6 86:1 92:1 97:4 104:6 106:20 107:20
gone [3] 9:4 46:3 58:21
good [7] 5:4 16:12 59:1 60:9 63:1 67:19 107:25
graben [5] 88:14 88:21 88:24 89:4 89:5
grain [1] 82:12
granitic [1] 94:25
graphs [2] 4:8 79:1
grasp [2] 45:18 47:12
grease [4] 21:21 41:9 59:19 62:11
great [2] 14:15 42:17
greatly [1] 17:15
ground [1] 12:5
groundwater [12] 24:17 43:8 43:10 73:23 74:11 75:20 76:3 80:19 96:11 98:16 99:14 99:15
Grubaugh-Littig [1] 23:14
guess [10] 19:20 31:7 32:22 49:2 52:2 66:7 91:22 96:15 100:25 109:2
H [1] 4:1
half [5] 45:3 46:11 60:2 60:2 82:9
HAND [1] 111:16
handed [1] 6:13
handled [1] 76:5
Hansen [47] 2:8 2:8 3:5 3:8 3:9 7:11 7:11 12:4 14:16 17:16 17:18 30:11 31:13 31:15 31:20 35:18 36:3 36:13 36:15 37:20 40:2 40:3 40:10 41:14 41:15 42:2 42:10 43:22 47:11 52:4 52:6 52:14 62:1 62:4 63:18 67:7 68:10 68:19 68:25 72:24 73:1 107:3 107:16 107:24 108:9 109:20 110:6
Hansen's [3] 35:15 107:12 109:11
happening [2] 6:21 102:6
happy [2] 14:17 109:21
hard [2] 11:11 54:16
Hawk [15] 82:5 82:5 82:9 82:10 82:23 83:23 84:22 85:5 97:13 97:16 99:16 103:2 103:6 103:9 104:9
he'd [1] 44:21
headed [1] 88:1
hear [4] 11:4 42:13 42:13 63:8
heard [8] 42:11 42:24 43:13 46:15 46:21 58:2 75:3 75:4
hearing [16] 1:17 12:13 14:8 27:20 31:16 36:19 46:2 52:14 68:11 68:13 69:2 109:7 110:9 110:12 111:5 111:10
hearings [6] 5:16 5:17 21:17 27:15 27:19 43:24
heavily [1] 94:25
heavy [1] 81:8
held [3] 1:17 8:25 27:21
help [2] 11:12 76:2
helps [1] 34:9
hence [2] 27:23 108:25
Hiawatha [4] 82:6 95:17 95:18 100:16
high [9] 21:15 21:19 22:6 22:14 58:4 64:3 83:4 83:9 100:1
higher [1] 100:17
Highway [2] 54:2 70:5
hills [2] 81:23 81:24
himself [1] 44:12
hired [2] 57:21 67:21
historic [2] 10:11 104:10
history [1] 6:3
hold [2] 17:17 71:5
holder [1] 28:25
holding [2] 8:24 71:7
holds [2] 71:2 71:2
holes [1] 19:21
Hollow [3] 90:15 92:3 92:5
hopefully [1] 27:3
horizontal [4] 84:2 85:11 94:21 97:24
horizontally [1] 104:8
Horn [17] 80:16 82:15 83:3 83:3 83:4 84:1 84:23 84:24 85:5 85:7 85:12 89:22 90:7 91:8 92:14 97:11 104:7
hot [2] 57:2 57:6
hours [3] 31:4 63:15 107:10
house [1] 49:13
Hucka [1] 86:19
huge [1] 83:17
human [2] 62:13 62:17
hundred [11] 31:6

31:6 85:10 85:25 87:9 93:11 100:17 100:25 101:3 101:21 101:23
Huntington [23] 15:25 16:11 29:3 38:23 39:13 51:2 51:13 54:3 55:12 56:17 60:17 65:3 66:4 72:10 72:18 79:8 79:19 80:12 82:20 92:3 98:5 98:7 106:23
Huntington-Cleveland [11] 2:15 7:9 24:10 29:5 38:10 70:10 70:11 70:22 70:24 71:4 71:13
hurt [1] 14:7
hydraulic [1] 20:14
hydrogeologic [1] 25:4
hydrogeologist [1] 73:22
hydrogeology [1] 74:6
hydrographic [1] 68:6
hydrologic [11] 9:17 20:15 24:15 45:23 74:17 74:18 75:6 75:15 77:7 97:9 108:20
hydrological [1] 74:24
hydrologically [1] 12:15
hydrologist [2] 23:13 50:17
hydrology [3] 11:13 12:22 73:23
i.e [1] 43:15
ice [2] 108:19 109:19
icicle [2] 50:2 50:8
icicles [14] 4:3 4:5 22:12 27:17 43:22 43:25 44:2 45:21 46:13 50:25 51:11 52:24 60:25 61:8
idea [2] 87:12 104:16
ideas [1] 87:4
identifiable [1] 24:24
identification [1] 78:3
identified [4] 9:21 48:10 48:16 89:8
identifies [1] 88:21
identify [4] 49:12 50:4 52:1 110:1
illustrative [2] 108:3 108:6
immediately [1] 64:5
impact [7] 9:16 11:14 24:24 27:12 32:7 43:3 105:4
impacted [5] 10:4 18:2 18:9 21:13 80:21
impacting [1] 28:7
impacts [4] 10:16 12:2 24:17 43:9
impermeable [1] 93:4
implement [1] 49:7
implicates [1] 89:4
implication [1] 86:14
important [13] 7:16 7:16 7:22 8:1 8:11 16:6 16:8 16:14 24:1 47:7 56:21 56:23 56:24
impressions [1] 34:19
improved [1] 45:12
in-mine [1] 25:11
inadequate [2] 9:14 10:14
inappropriate [1] 64:7
inappropriately [1] 35:9
inches [1] 91:18
incident [13] 40:12 40:19 40:20 41:1 41:4 41:25 42:19 42:21 42:22 42:25 52:8 62:7 63:7
incidents [2] 41:2 44:13
include [1] 46:19
included [1] 13:9
including [3] 80:23 89:10 111:10
inclusive [1] 111:12
incorporate [1] 49:5
Incorporated [1] 73:18
incorporation [1] 36:9
increase [4] 22:16 27:1 40:13 64:18
increased [1] 42:8
indicated [1] 107:3
indicates [2] 84:23 106:3
indicating [1] 96:8
indication [1] 29:17
induces [1] 104:17
industrial [1] 55:6
inflow [2] 20:16 45:21
informal [30] 1:17 5:7 5:9 5:12 5:18 6:8 6:21 7:13 7:15 7:24 11:12 14:6 14:8 14:17 17:23 26:3 28:20 30:11 32:25 34:10 34:16 35:19 36:16 36:19 36:24 37:11 40:4 41:16 63:18 77:24
informally [1] 5:22
informals [2] 26:10 37:22
information [30] 9:15 11:12 11:17 12:9 12:10 13:7 13:15 20:12 21:8 22:18 23:21 23:24 24:13 25:14 26:7 27:7 27:18 32:19 33:1 43:3 43:6 43:11 43:14 43:23 44:19 68:16 69:3 75:15 75:21 78:9
inquiry [1] 9:18
inside [15] 79:23 86:14 86:21 87:8 87:18 87:25 88:11 88:14 89:4 89:6 91:11 94:17 98:14 98:15 100:13
inspection [1] 107:19
instead [2] 50:3 103:17
insufficient [1] 10:13
intend [3] 9:10 12:5 12:9
intense [4] 86:24 87:5 88:18 93:16
intensely [3] 89:1 89:1 94:22
intention [1] 8:13
intentional [1] 92:19
intents [1] 97:19
interbed [1] 94:12
interbedded [2] 82:2 94:10
intercept [6] 96:21 97:7 97:12 100:16 101:1 101:20
intercepted [9] 11:20 20:19 24:22 85:22 100:11 101:22 101:23 102:2 102:17
intercepting [4] 102:7 104:1 106:5 106:8
interception [1] 105:23
intercepts [11] 83:14 83:16 85:11 85:20 93:3 93:4 95:4 98:17 100:9 100:18 100:19
interchanging [1] 103:8
interconnection [2] 30:3 46:23
interested [1] 111:14
interesting [1] 91:15
interests [3] 10:20 12:7 71:6
interfere [1] 108:10
International [1] 73:17
interoffice [1] 23:12
interpret [1] 89:3
interpretation [4] 31:25 88:17 88:25 89:2
interpretations [2] 13:7 33:2
interpreting [1] 49:4
intimates [1] 88:18
introduce [2] 23:4 37:1
introduced [2] 90:21 108:23
investigate [1] 80:19
investigated [1] 83:20
investigation [2] 24:16 80:9
investigations [1] 81:18
involved [1] 47:25
involvement [1] 107:20
ions [1] 81:3
irrelevant [1] 36:7
irretrievably [1] 10:11
irrigation [13] 2:15 7:9 15:19 24:11 29:4 29:5 38:11 70:10 70:12 70:21 70:22 71:4 71:13
isolated [2] 12:15 52:8
isotopes [1] 81:4
issue [6] 11:9 11:10 46:23 83:11 83:18 95:11
issued [2] 27:22 48:23
issues [2] 84:3 108:7
item [1] 24:22
J [4] 1:18 2:17 111:5 111:19
Jack [1] 53:11
JAMES [1] 2:4
Jan [3] 3:7 53:16 54:1
January [3] 22:11 43:23 50:21
Jeffrey [2] 2:12 7:6
Jensen [6] 3:10 69:17 69:20 70:2 70:4 72:22
Jesse [1] 25:18
Jim [2] 5:5 79:6
job [1] 76:3
jobs [1] 73:23
Joes [4] 88:14 89:4 89:4 89:5
jointing [1] 88:3
judgment [3] 33:13 33:14 33:14
July [1] 57:6
jump [1] 26:3
Kay [4] 3:10 69:17 69:20 70:4
keep [6] 14:17 30:12 52:20 57:7 76:7 77:24
keeping [1] 52:2
Kelley [1] 25:19
Kim [1] 52:9
KIMLY [1] 2:25
kin [1] 111:13
kind [15] 26:9 28:8 32:12 37:17 46:15 56:10 56:12 56:16 56:17 57:10 66:6 87:5 87:14 94:23 95:1
kinds [1] 13:3
knew [3] 32:8 33:17 33:17
knocked [2] 66:12 66:12
knowledge [5] 40:20 40:25 41:12 45:10 62:14
known [1] 27:24
L.C [2] 2:12 2:12
Lake [12] 2:6 2:10 2:14 2:19 8:16 8:25 9:5 23:17 73:18 79:18 107:4 111:3
land [1] 90:11
language [1] 27:8
large [7] 19:18 22:12 40:13 49:10 78:4 79:17 102:15
larger [1] 104:2
last [9] 18:13 27:20 37:15 37:18 44:18 60:9 69:1 71:24 100:8
late [1] 40:12
latest [1] 16:24
law [8] 2:8 2:9 2:13 2:18 34:13 34:15 36:23 37:9
laws [2] 12:1 48:20
lay [1] 19:14
layer [10] 84:9 84:9 84:10 85:10 85:22 93:4 93:4 93:21 97:13 97:23
layers [1] 93:22
layout [2] 100:4 100:8
lead [1] 101:24
leads [1] 100:15
leakage [1] 84:11
leaky [1] 93:20
Leamaster [14] 2:21 3:3 14:4 14:20 14:22 15:6 17:25 28:25 40:11 43:22 44:12 45:18 53:1 58:2

Leamaster's [2] 42:12 44:17
leases [1] 48:14
least [11] 13:13 22:3 30:2 31:8 39:3 47:10 48:13 88:24 105:2 107:10 108:24
leave [4] 8:10 8:15 107:13 107:24
leaving [1] 107:4
ledge [1] 90:14
ledges [2] 27:17 50:7
left [1] 8:19
legal [9] 13:2 13:4 14:1 34:17 34:23 35:1 35:1 48:8 48:18
length [3] 93:10 108:11 109:24
less [4] 10:15 60:2 90:23 94:10
lesser [1] 104:19
lets [1] 63:11
letter [7] 26:4 43:6 44:10 48:23 49:1 49:3 49:4
letters [1] 22:20
leveled [1] 57:5
levels [2] 20:10 99:12
License [1] 111:19
lifting [1] 34:5
light [1] 13:18
limestone [1] 67:20
limestones [1] 82:17
limited [1] 88:18
line [9] 38:25 39:20 41:6 41:9 52:15 66:24 68:11 81:7 81:8
lines [4] 47:17 82:19 83:2 91:12
live [2] 54:2 70:4
livestock [1] 55:4
localities [1] 50:6
located [14] 16:2 16:3 74:1 74:2 77:13 77:15 79:7 79:9 79:12 80:4 80:5 82:6 92:8 92:9
location [3] 51:13 80:7 81:2
locations [1] 91:13
logical [2] 108:13 109:4
logistics [1] 110:5
longer [2] 34:11 57:23
longwalled [1] 77:11
longwalling [1] 77:11
look [13] 12:10 13:17 16:18 33:3 56:11 56:19 64:8 69:4 79:6 88:23 105:25 108:4 108:4
looked [7] 16:24 76:4 86:19 88:6 88:15 88:15 105:19
looking [5] 14:11 16:19 26:14 58:11 74:3
looks [3] 19:20 51:20 78:19
loosen [1] 77:25
Los [1] 74:10
lose [3] 16:22 31:1 68:14
lost [1] 17:14
loud [1] 109:3
loudly [1] 78:20
low [7] 30:21 42:3 64:2 97:19 100:2 100:20 100:21
lower [15] 18:19 80:10 81:12 82:5 82:7 82:23 83:10 83:23 85:22 87:12 94:9 97:12 97:16 100:18 104:9
main [4] 1:21 20:18 66:19 107:20
mains [1] 20:16
maintain [2] 54:23 83:8
maintained [1] 10:16
maintenance [3] 74:7 76:3 77:6
major [5] 57:16 81:3 83:14 91:5 99:25
makes [3] 34:17 36:22 36:22
manager [1] 15:8
MANGUM [1] 2:25
manually [1] 61:19
map [9] 78:4 78:12 79:5 79:10 79:11 79:12 81:8 88:9 96:10
mapped [1] 81:17
mapping [2] 76:4 88:20
maps [7] 4:6 56:20 77:21 78:5 78:7 78:13 78:17
March [2] 20:15 24:5
mark [11] 2:8 2:8 7:11 22:23 51:24 51:25 52:16 52:18 78:1 78:4 78:12
marked [1] 60:22
marker [1] 81:9
masters [1] 76:17
Masuk [1] 82:3
material [3] 5:23 17:20 95:19
materials [2] 7:25 9:21
matter [11] 1:2 1:18 5:24 6:1 31:22 32:11 33:20 33:22 36:22 63:15 90:4
matters [2] 11:8 13:2
may [58] 8:22 20:7 23:14 24:1 25:18 26:19 27:22 27:22 30:9 30:23 30:24 33:1 33:8 33:9 33:10 36:6 36:12 42:6 43:6 44:10 48:6 61:23 63:20 72:7 85:24 89:25 90:16 90:22 90:22 91:21 92:20 93:8 93:8 94:18 94:19 94:20 94:20 95:17 97:6 97:7 97:10 97:10 97:11 97:12 97:18 97:23 97:23 98:15 98:17 102:4 103:9 105:6 105:6 105:7 105:8 106:22 107:18 108:15
McCadden [3] 90:14 92:3 92:5
mean [6] 46:1 83:24 87:25 89:12 96:22 103:6
meaning [2] 77:6 87:8
means [6] 49:10 49:11 83:25 84:6 84:8 106:5
measure [3] 88:2 94:16 94:18
measured [9] 58:19 84:13 84:14 84:15 84:20 84:21 84:22 84:22 86:20
measurement [1] 84:12
meet [2] 107:12 108:12
meetings [1] 65:18
melt [2] 89:16 96:20
melts [1] 90:2
member [1] 99:22
members [2] 81:13 81:25
memo [5] 23:12 24:2 24:5 27:22 45:4
memory [1] 68:20
Menko [9] 79:19 81:22 83:12 83:15 85:8 95:4 97:17 97:20 98:7
Menkos [3] 94:11 98:2 98:3
mentioned [3] 41:1 43:22 66:11
met [2] 5:5 10:22
meter [1] 26:5
meters [1] 9:25
method [1] 48:17
methodology [1] 80:22
might [3] 13:15 16:19 65:24
miles [3] 17:1 77:16 93:10
million [2] 31:9 47:19
mind [4] 8:14 34:3 37:24 68:8
minds [1] 32:20
mine [71] 5:25 15:22 16:4 20:12 20:19 20:22 21:2 22:4 22:9 22:10 24:19 24:23 24:23 25:10 25:11 26:6 26:17 28:2 28:5 28:6 30:3 30:5 42:22 44:6 45:11 45:20 45:23 46:5 56:4 56:15 73:25 74:6 74:8 74:16 74:19 75:10 75:12 75:12 75:18 76:6 76:22 76:24 77:3 77:7 77:13 77:14 77:15 77:17 79:7 79:8 79:9 79:25 80:1 81:2 88:4 88:21 96:12 96:12 99:23 100:14 101:14 101:17 101:17 102:1 104:20 105:8 105:14 105:25 106:1 106:4 106:18
mineable [1] 82:8
mined [7] 75:17 100:7 100:7 100:12 100:24 100:25 104:22
miner [1] 62:16
mines [2] 44:1 74:15
mining [45] 2:5 2:7 2:23 5:6 5:25 6:3 6:7 9:12 9:24 10:7 10:23 11:14 11:19 11:23 12:2 12:16 18:15 20:3 20:7 24:6 24:13 28:4 30:21 32:7 46:8 47:6 48:24 62:14 63:3 65:5 65:8 65:11 66:9 75:21 76:7 77:5 80:20 96:3 100:5 100:15 101:20 102:18 104:10 104:17 106:9
Mining's [1] 6:6
minus [1] 98:1
minute [31] 14:18 17:17 20:20 20:22 20:23 20:24 30:20 30:22 30:24 31:4 31:9 38:3 42:3 42:8 46:2 57:5 57:13 58:6 58:20 58:21 58:22 60:1 60:4 60:7 64:1 64:2 67:9 67:12 67:12 68:1 101:24
mischaracterizing [1] 85:15
misinterpreted [1] 13:9
misleading [1] 9:15
missed [1] 9:2
mistake [1] 36:23
mitigating [1] 65:18
mitigation [2] 66:5 66:8
mixed [1] 26:10
mixer [1] 39:17
moment [1] 46:14
money [2] 47:17 48:3
monitored [1] 29:16
monitoring [5] 10:13 10:14 26:7 29:14 45:8
monitors [1] 45:10
Montgomery [2] 50:17 74:11
month [2] 20:25 83:6
months [11] 21:4 21:5 21:17 33:18 42:7 45:14 51:5 57:6 59:5 59:7 59:10
morning [5] 5:4 5:7 5:12 6:21 102:13
most [7] 5:17 7:22 25:22 46:16 46:20 82:8 101:13
mother [1] 6:24
Mountain [7] 47:5 79:20 80:14 88:12 92:3 96:23 98:10
mouth [2] 16:3 38:24
move [19] 77:21 85:10 89:13 92:24 93:8 93:8 93:14 93:15 94:5 94:7 94:8 94:12 94:13 96:20 97:20 98:11 98:18 98:25 102:8
moved [2] 9:25 87:12
movement [5] 90:18 91:19 94:15 94:23 95:1
moves [7] 82:24 97:5 97:8 100:1 104:7 104:7 104:8
moving [17] 78:2 84:7 84:8 90:24 90:24 93:7 94:21 95:2 95:3 100:3 100:18 103:7 103:25 104:1 105:10 106:6 109:18

Munson [4] 23:12 44:24 45:5 46:15
Munson's [2] 46:16 46:19
N [2] 3:1 5:2
N-i-e-l-s-e-n [1] 73:15
name [9] 15:5 15:6 53:24 53:25 54:1 69:17 70:2 73:14 75:10
narrative [1] 5:15
narrowed [1] 9:18
natural [8] 2:4 5:7 16:21 44:5 97:5 103:21 105:7 105:8
naturally [2] 44:3 105:23
near [5] 15:21 56:3 79:7 79:18 85:24
nearest [1] 49:13
necessarily [1] 105:10
necessary [1] 105:17
need [22] 5:19 5:23 8:4 8:10 8:11 8:15 14:6 34:3 35:13 37:12 39:2 39:4 39:4 40:7 42:16 42:16 43:8 52:4 63:19 102:9 106:4 107:10
needed [1] 63:12
needs [3] 7:1 8:5 107:4
Nevada [1] 87:7
never [12] 27:15 27:16 27:19 51:16 51:16 57:4 57:19 61:5 61:7 62:16 68:8 100:19
new [32] 6:16 11:11 11:17 13:9 13:14 13:18 13:18 23:24 24:13 32:19 33:1 33:1 33:15 33:17 33:19 33:20 37:18 39:2 42:11 42:24 43:3 43:6 43:15 44:19 48:11 56:15 56:25 69:6 72:17 78:7 78:9 78:14
next [8] 25:13 58:15 69:17 73:4 78:22 81:25 82:15 96:10
Nielsen [7] 2:17 2:22 3:11 38:2 73:5 73:7 73:15
Nielson's [1] 46:17
night [1] 16:12
nominally [1] 38:19
noncompliance [1] 48:23
none [1] 19:15
nonprofit [1] 55:23
noon [1] 8:10
nor [2] 10:16 18:8
normal [15] 18:12 18:16 18:20 45:9 45:16 59:6 71:16 71:18 71:20 79:17 79:23 87:1 87:5 87:6 88:22
north [54] 2:5 2:9 7:9 11:16 20:18 22:2 24:9 41:7 41:8 41:24 54:7 54:8 54:21 55:1 55:20 56:22 57:9 57:12 57:14 60:5 67:9 70:5 70:13 70:15 70:18 71:1 71:10 74:2 77:16 77:16 80:16 82:15 83:2 83:3 83:4 84:1 84:18 84:23 84:24 85:5 85:7 85:12 89:22 90:7 91:8 92:14 94:9 94:12 97:11 100:16 101:7 101:18 104:7 106:9
northern [5] 20:18 55:10 77:10 80:15 101:14
northwestern [1] 74:16
Notary [2] 1:19 111:6
note [6] 7:12 21:14 23:3 35:4 52:21 107:3
noted [1] 91:16
notes [3] 34:18 107:21 107:25
nothing [7] 16:23 28:17 42:24 43:13 44:13 44:19 111:8
notice [4] 7:13 22:25 85:2 88:13
noticed [2] 19:5 19:11
November [2] 24:15 25:16
novo [1] 36:22
now [51] 9:14 10:6 13:13 18:9 20:23 20:25 25:1 25:3 26:7 30:19 32:9 33:18 33:19 37:5 42:14 45:7 47:22 52:15 54:13 59:21 60:7 60:16 74:3 76:22 78:23 80:2 82:19 83:20 85:1 85:23 88:5 90:16 92:11 92:15 93:7 93:8 93:15 99:2 99:5 99:9 100:12 101:5 101:6 101:6 101:13 102:22 104:16 106:20 106:23 109:1 109:16
numbered [1] 111:12
O [1] 5:2
o'clock [1] 69:8
oath [2] 35:20 36:20
object [2] 12:8 34:4
objection [2] 17:19 17:23
objections [2] 24:8 41:17
objectors [20] 1:9 2:11 2:15 2:20 7:7 7:8 7:15 7:19 8:12 9:11 9:17 10:5 10:20 13:6 13:25 14:24 53:18 69:22 73:9 80:18
observations [1] 25:20
observe [1] 5:19
observed [7] 19:6 20:2 22:12 22:14 22:16 91:12 91:12
obtain [1] 37:23
obtained [3] 19:7 19:8 23:16
obvious [1] 28:1
obviously [1] 8:24
occur [2] 25:24 28:10
occurred [8] 21:2 21:15 22:6 45:1 58:2 59:2 59:2 87:1
occurrence [5] 21:18 51:12 52:10 101:18 102:6
occurring [1] 104:5
occurs [1] 104:20
October [6] 1:22 21:16 41:1 59:2 111:16 111:21
off [7] 41:6 41:9 84:17 86:13 86:22 93:9 101:24
offending [1] 98:20
offer [2] 8:14 51:18
offered [1] 33:5
Office [2] 2:19 48:24
official [2] 90:6 111:16
offset [1] 98:7
oftentimes [1] 60:20
oil [8] 2:5 5:6 6:3 6:7 21:21 41:9 59:19 62:11
old [20] 12:5 25:10 25:21 25:22 25:24 26:6 26:14 26:18 27:1 27:3 36:9 43:18 44:11 45:2 45:3 45:13 45:20 56:14 74:2 102:16
once [6] 11:5 12:12 67:8 93:4 93:14 103:7
one [37] 7:12 9:13 9:13 26:21 30:9 38:19 39:17 39:17 39:18 39:18 40:11 41:14 42:2 42:19 44:23 45:25 47:13 48:18 50:3 52:19 58:12 61:13 62:12 71:16 78:15 79:22 80:11 80:16 81:13 81:17 84:19 86:9 86:10 88:16 96:10 99:6 99:22
one's [3] 36:23 50:9 50:9
ones [2] 78:14 96:12
ongoing [1] 26:2
onus [1] 37:1
open [1] 94:24
opened [1] 19:19
opening [5] 9:9 19:19 85:21 105:11 105:12
operable [1] 38:24
operate [1] 48:4
operated [2] 10:17 48:5
operates [2] 15:17 54:24
operating [2] 44:1 51:9
operation [2] 9:25 20:3
operations [6] 10:23 11:19 46:8 65:6 65:8 65:12
operator/manager [1] 54:10
opinion [8] 6:4 17:14 18:11 22:3 22:3 49:3 104:25 106:13
opponents [1] 109:4
opportunities [2] 51:4 60:19
opportunity [2] 7:23 32:14
order [13] 6:16 8:4 8:9 14:3 24:14 25:16 27:21 27:23 32:1 33:6 35:7 46:18 93:25
ordinary [1] 18:6
Orem [2] 111:6 111:16
orientation [5] 84:13 84:20 86:5 86:23 88:7
orientations [3] 86:6 86:12 86:20
origin [1] 52:24
original [1] 86:25
otherwise [2] 44:4 111:14
ought [4] 7:3 7:4 26:2 107:14
outcrop [1] 25:25
outcroppings [1] 46:18
outcrops [1] 85:2
outlined [1] 44:10
outlying [2] 55:9 70:19
outside [4] 55:12 86:15 87:18 87:24
outward [1] 90:19
overburdened [1] 104:18
overflow [1] 67:2
overlooked [3] 13:8 32:18 33:1
overturn [2] 35:9 35:9
Owen [5] 2:24 20:19 90:13 90:20 91:7
own [3] 9:19 29:5 36:18
owned [2] 22:20 80:9
owns [3] 29:4 38:23 71:1
P [1] 5:2
P.C [1] 2:8
page [5] 3:2 4:2 52:15 68:11 79:1
pages [1] 111:12
Pamela [1] 23:13
Panther [2] 82:1 99:22
paragraph [1] 25:13
parameters [1] 22:15
part [17] 8:2 14:2 20:14 31:17 31:22 32:3 32:22 46:9 48:17 52:11 55:10 78:5 80:8 80:24 87:6 101:14 103:21
particular [6] 28:1 36:4 43:12 47:6 89:23 104:3
particularly [1] 18:2
parties [5] 5:12 8:1 9:4 51:22 111:14
party [1] 36:25
pass [1] 106:25
past [3] 10:6 17:10 27:13
pasting [1] 34:6
pat [1] 37:24
path [2] 105:7 105:9
pattern [10] 21:15 86:25 89:8 93:12 96:16 98:16 100:3 103:22 105:25 106:1
patterns [4] 10:11 18:14 75:19 80:19
Paul [1] 24:16
Pause [2] 91:24 99:1
Peabody [1] 75:12
peak [3] 57:4 62:23 90:14

peaks [1] 22:14
people [8] 9:3 16:17 19:15 55:20 56:1 59:3 81:18 83:20
per [12] 20:20 20:22 20:24 20:24 20:25 30:17 30:20 31:9 42:8 67:9 67:12 67:12
percent [3] 65:24 89:16 96:17
perception [1] 6:13
perch [7] 81:14 82:13 82:13 93:13 95:3 97:7 98:17
perched [20] 82:14 82:17 83:3 83:7 83:25 84:5 85:13 85:20 85:21 91:13 93:6 93:9 97:8 97:9 103:1 103:5 103:11 103:14 103:20 104:1
percolates [1] 93:3
perfectly [1] 40:6
perhaps [4] 7:3 8:7 8:16 110:1
peril [2] 36:3 51:21
perimeter [1] 18:25
period [9] 18:2 18:18 21:5 21:20 22:17 28:10 51:7 84:2 109:6
permeabilities [2] 97:19 97:25
permeability [3] 85:23 105:2 105:12
permeable [1] 93:4
permit [31] 1:4 5:24 6:6 9:24 10:3 10:18 10:22 12:14 12:21 12:22 15:22 17:5 19:1 23:14 25:6 27:8 27:21 31:17 43:10 48:9 48:17 74:7 76:3 77:4 77:10 78:15 80:1 88:4 89:10 89:10 99:23
permits [1] 76:5
permitted [2] 12:17 74:16
permitting [4] 44:14 74:14 77:2 77:9
personal [1] 41:12
personally [2] 41:23 42:1
perspective [2] 32:6 58:7
Pete [2] 7:17 7:17
Peter [5] 2:22 3:11 73:4 73:7 73:15
PHC [4] 9:22 74:23 75:8 75:9
phone [1] 58:8
phonetic [1] 98:6
photographs [11] 19:7 19:8 22:13 49:25 50:1 50:5 50:14 51:12 60:23 60:25 61:9
photos [3] 4:3 4:5 50:6
physical [3] 90:16 90:18 90:23
physically [1] 90:9
pick [1] 29:13
pictures [1] 51:16
piece [1] 42:10
pipeline [1] 66:19
piping [1] 25:22
place [8] 2:14 6:10 10:17 10:19 39:6 66:9 69:7 107:6
places [1] 16:19
plan [3] 31:23 66:2 75:18
planning [1] 7:14
plant [8] 38:22 38:23 39:17 42:15 47:16 48:4 56:25 66:4
plate [15] 4:6 4:6 78:14 78:14 78:18 78:18 98:20 98:25 99:2 99:4 99:17 99:18 99:18 99:19 99:20
Plateau [8] 73:25 75:23 76:1 76:20 79:9 81:7 83:21 89:16
play [1] 8:4
Plaza [1] 2:19
Pleasant [5] 79:16 79:21 89:6 98:14 99:24
plug [2] 49:14 49:14
plus [3] 76:22 77:9 96:6
point [69] 12:8 12:10 12:10 20:21 22:8 22:22 29:6 33:21 35:23 39:10 40:16 42:16 47:4 47:16 48:25 52:6 56:17 64:11 79:9 81:9 81:12 81:19 82:1 82:4 82:23 83:11 83:23 84:22 85:4 88:10 88:21 89:19 90:25 92:10 92:10 94:2 94:4 94:6 94:12 94:17 95:19 96:5 96:6 97:1 97:10 97:15 97:21 99:15 99:22 99:23 100:11 100:17 101:17 102:1 102:4 102:10 103:7 103:8 103:14 104:3 104:4 104:6 104:9 107:2 108:5 108:13 109:22 110:1 110:4
point-by-point [1] 24:11
pointed [3] 13:10 40:11 48:21
pointing [3] 13:22 56:20 97:1
points [2] 53:3 96:15
policy [2] 48:11 49:7
ponded [1] 102:2
pops [1] 26:11
porosity [3] 97:6 105:2 105:13
portals [1] 106:21
portion [7] 7:15 12:22 15:17 33:3 38:5 97:13 108:16
portions [2] 24:1 94:16
position [4] 36:11 54:8 70:9 70:13
possession [3] 23:15 23:22 27:7
possible [5] 14:17 85:9 93:15 103:5 107:18
possibly [2] 30:7 72:4
postdates [1] 87:2
potential [6] 26:19 58:11 65:1 82:13 100:1 100:2
potentially [2] 25:25 105:3
potentiometric [15] 95:25 96:8 96:9 98:22 100:10 100:23 101:4 101:19 102:11 102:19 102:20 103:12 103:13 103:15 103:21
precipitation [8] 18:12 18:16 18:19 60:9 63:1 75:19 96:17 96:18
preclude [1] 107:17
precondition [1] 9:22
Predates [2] 87:2 87:3
predict [1] 75:19
predominant [4] 83:13 83:17 84:17 85:3
preference [3] 109:8 109:17 109:20
prejudice [1] 51:21
prejudiced [1] 37:3
preliminarily [1] 5:9
prepare [1] 109:6
prepared [1] 108:14
present [8] 2:20 2:23 10:22 11:18 13:6 24:18 46:4 69:15
presentation [2] 11:4 33:16
presented [5] 13:15 31:25 32:15 33:5 108:3
president [1] 70:11
pressure [1] 25:11
pretty [5] 42:18 44:16 60:9 82:7 86:23
prevail [1] 36:16
prevent [2] 20:1 28:6
previous [8] 20:12 21:17 24:5 27:15 27:18 35:10 35:21 40:16
previously [5] 21:14 22:13 32:18 69:5 107:4
Price [4] 81:15 82:10 82:11 97:14
primarily [1] 64:12
primary [4] 13:6 71:15 83:22 86:6
principal [1] 73:22
Probable [1] 74:24
problem [7] 26:5 28:1 34:22 46:4 58:13 61:11 108:12
problems [15] 17:10 17:14 19:5 19:6 20:6 20:9 39:15 39:19 43:1 45:21 58:11 59:12 68:9 72:2 72:3
procedures [4] 5:10 14:9 57:24 67:24
proceed [4] 5:21 6:19 9:8 23:5
proceeding [12] 14:1 14:12 32:4 32:24 32:24 32:25 33:22 34:4 35:21 36:4 68:20 71:6
proceedings [6] 6:24 31:15 37:14 40:16 91:24 99:1
process [8] 31:23 34:8 35:8 48:2 74:14 74:20 77:2 77:9
produced [1] 67:9
producing [3] 57:3 57:13 59:25
production [1] 57:10
professional [3] 1:19 15:10 15:11
program [3] 10:24 13:13 13:14
progressively [1] 81:14
proof [3] 12:14 13:2 14:1
property [1] 90:23
proposed [1] 34:20
protect [3] 11:24 12:1 19:23
protocols [1] 5:18
proven [1] 28:14
provide [6] 9:22 15:17 15:18 55:2 55:4 71:25
provided [3] 24:13 24:20 39:24
providers [1] 55:17
provides [2] 15:24 15:24
providing [2] 57:12 72:2
provisions [1] 49:6
Public [2] 1:19 111:6
pulled [1] 86:11
pump [1] 106:4
pumped [2] 25:10 65:22
pumping [8] 25:12 25:17 25:21 25:22 26:25 27:2 27:16 28:5
purpose [9] 9:2 13:6 13:24 32:6 36:4 36:5 36:21 77:25 108:2
purposes [5] 5:20 9:19 78:3 97:20 99:7
pursuant [1] 10:25
put [23] 5:14 10:1 10:2 26:5 26:18 30:4 36:8 36:11 36:20 38:25 40:19 49:15 52:8 53:7 59:22 68:13 69:3 72:12 78:19 88:11 104:17 107:16 109:21
putting [3] 35:24 46:10 75:14
Qualities [1] 18:4
quality [17] 11:22 12:18 16:12 18:1 22:15 27:4 28:8 40:21 41:5 42:19 45:7 45:9 45:15 45:21 46:3 59:12 61:11
quantify [1] 30:24
quantities [3] 18:4 18:5 40:18
quantity [4] 12:18 17:15 27:4 28:8
questions [10] 26:11 28:19 30:8 40:3 61:22 61:23 64:20 67:4 72:21 108:16
quicker [1] 100:19
quickly [1] 46:16
quit [1] 22:7
quite [4] 47:3 58:18 86:25 108:20
quitter [1] 101:25

quote [1] 20:14
R [2] 5:2 111:1
radiants [1] 97:9
radiometric [1] 81:4
rain [1] 98:10
raise [2] 12:9 12:25
raised [1] 24:8
range [1] 87:7
ranging [1] 81:20
rate [1] 10:8
rates [2] 97:25 108:20
rather [4] 8:24 35:24 64:15 79:4
ration [1] 57:1
RE [1] 1:2
reaching [1] 29:23
read [7] 5:8 24:1 24:3 26:22 30:3 41:25 68:6
ready [1] 12:23
real [4] 36:13 50:2 57:2 100:7
realize [1] 17:22
really [11] 14:9 34:25 35:12 37:14 42:10 44:19 56:24 58:9 81:11 85:16 108:12
realm [1] 33:11
reappealable [1] 6:16
reason [13] 8:23 12:3 33:7 34:3 48:3 85:21 89:3 89:24 90:2 93:19 94:7 94:13 97:16
reasonable [2] 107:5 107:9
REBECCA [3] 1:18 111:5 111:19
rebuttal [1] 53:8
recap [1] 45:17
receive [4] 29:24 70:20 76:14 89:23
received [4] 21:9 25:15 29:18 76:18
receives [1] 29:23
Recess [1] 69:13
recharge [25] 10:11 75:18 82:25 83:22 89:7 89:12 89:13 89:15 89:18 89:20 89:23 89:24 90:3 90:13 90:23 91:9 91:17 93:2 96:16 103:8 103:22 104:2 104:11 105:4 106:24
recharges [2] 89:17 92:11
recharging [3] 91:18 104:5 104:8
reclamation [1] 23:13
recognize [2] 8:12 81:10
recognized [1] 71:21
recollection [1] 68:25
recommend [1] 5:13
recommendation [4] 26:15 26:25 43:7 108:25
reconsider [1] 33:12
reconvene [1] 69:11
reconvening [1] 109:19
record [52] 5:8 7:1 7:4 7:5 7:23 12:7 12:23 17:20 20:13 21:14 21:21 22:25 23:1 26:12 27:20 31:15 31:17 31:22 32:3 33:3 34:18 35:3 35:3 35:16 40:19 43:12 43:24 44:7 44:9 52:2 52:7 52:12 52:17 53:23 53:24 56:12 56:19 64:11 68:17 68:21 68:23 68:24 69:14 70:3 78:21 99:5 109:3 109:5 109:9 109:12 110:3 110:10
record's [1] 52:17
recorded [2] 20:14 21:3
records [5] 16:9 21:1 40:24 52:22 78:6
recovered [3] 10:8 18:13 45:8
recoveries [1] 18:12
redevelop [1] 67:17
reduced [1] 17:15
reevaluated [1] 24:19
refer [11] 9:12 14:10 18:16 24:22 31:18 34:13 35:23 52:11 52:12 68:11 78:17
reference [2] 68:21 81:2
referred [3] 50:8 99:3 102:22
referring [4] 23:11 28:12 33:23 44:25
regard [3] 14:2 45:19 52:23
regarding [5] 24:6 36:15 44:14 62:7 63:6
region [3] 80:20 87:21 96:7
regional [4] 82:24 86:11 97:18 104:2
registered [2] 1:19 15:11
regular [3] 45:9 52:10 61:13
regulations [4] 12:1 19:23 20:1 54:25
reiterate [1] 99:21
relate [3] 45:22 86:9 86:10
related [2] 73:23 75:21
relationship [2] 68:22 77:13
relatively [1] 81:19
relevant [2] 33:25 33:25
reliable [1] 16:12
relied [1] 9:15
relief [2] 25:11 104:24
relies [1] 38:13
relieve [1] 104:25
rely [8] 15:21 15:23 36:5 36:9 38:17 38:20 55:20 107:24
relying [1] 14:9
remained [2] 20:16 32:18
remains [1] 8:15
remand [1] 6:2
remember [2] 20:6 30:19
reminding [1] 77:24
remove [1] 41:10
renewal [8] 1:4 5:25 6:6 9:23 27:21 34:4 36:8 74:21
repaired [1] 63:14
repeat [1] 11:6
repeating [1] 41:15
replace [1] 38:15
replaced [1] 30:25
replacement [14] 9:20 16:22 17:3 17:7 17:8 30:17 39:23 48:10 48:10 48:12 48:16 49:8 65:19 66:5
report [5] 6:17 24:12 25:3 28:15 104:18
reported [3] 20:16 21:1 111:10
reporter [6] 1:19 6:23 14:11 53:25 69:10 111:6
reports [2] 20:14 30:2
represented [1] 5:13
represents [3] 20:24 21:5 38:3
request [1] 31:16
requested [2] 26:20 45:5
require [1] 41:5
required [4] 38:16 48:21 74:21 77:2
requirements [1] 48:12
requiring [1] 49:7
reschedule [1] 109:7
residing [1] 111:6
resolve [1] 6:14
resolved [2] 17:21 48:25
resources [4] 2:4 5:7 16:16 16:16
respect [2] 74:14 94:2
respond [3] 12:24 53:6 91:9
responded [1] 44:8
responding [1] 25:3
response [5] 24:6 24:14 25:15 49:20 109:6
responsibilities [2] 32:13 74:4
responsible [1] 11:21
rest [4] 10:8 89:9 107:7 110:4
resubmit [1] 35:19
result [6] 6:15 26:15 44:4 44:5 46:14 68:14
results [1] 76:4
retained [1] 80:18
retired [1] 70:8
return [2] 69:14 110:9
returned [2] 18:14 45:15
reveal [1] 59:18
review [4] 7:2 36:21 37:23 37:25
reviewed [1] 101:8
revised [1] 10:25
revision [1] 31:17
revisited [2] 8:16 10:25
Reynolds [6] 2:24 26:12 26:13 44:20 44:23 46:21
ridge [7] 21:25 77:5 77:12 77:15 79:10 96:12 99:23
ridges [1] 20:3
right [90] 7:12 10:2 10:3 14:3 23:5 23:6 25:7 25:9 28:21 30:19 31:12 36:18 37:4 37:15 37:20 37:21 39:2 40:14 42:14 46:22 48:19 49:11 50:11 52:15 53:5 54:16 55:16 56:8 56:17 57:20 58:2 63:8 65:9 72:13 72:16 72:19 73:2 74:3 78:10 78:19 78:24 79:5 79:9 79:11 79:15 79:21 80:1 80:4 80:5 80:10 80:11 80:17 81:8 82:4 83:11 83:15 88:12 88:12 88:14 88:16 88:18 88:22 89:21 90:4 91:5 91:18 92:9 92:10 92:13 95:7 95:18 96:10 96:20 96:22 97:10 99:25 100:4 100:4 100:10 100:12 101:4 101:5 101:6 106:20 106:21 106:23 108:18 109:25 110:2 110:8
rights [9] 29:1 29:3 29:4 34:7 35:8 71:2 71:3 71:5 71:7
Rilda [12] 56:7 57:3 62:22 63:4 63:20 63:23 64:1 64:20 65:2 65:12 66:7 68:22
risk [1] 98:20
river [5] 47:24 56:8 82:11 82:11 97:14
road [1] 58:11
roads [1] 15:19
rocks [8] 85:24 89:17 93:1 97:6 104:18 104:20 105:2 105:3
roll [1] 93:9
room [1] 98:20
rotate [1] 87:8
rotation [2] 87:7 87:17
roughly [5] 31:12 68:5 95:21 96:2 101:21
RPR [1] 111:19
rule [1] 44:15
rules [4] 6:9 48:1 49:6 54:25
ruling [8] 6:11 8:20 13:2 35:1 36:7 36:13 37:2 42:23
run [2] 59:3 65:19
running [2] 30:20 31:4
runoff [4] 63:24 64:5 64:18 84:2
runs [1] 16:11
S [2] 4:1 5:2
S-t-o-y-a-n-o-f-f [1] 54:2
safeguard [1] 10:19
salt [12] 2:6 2:10 2:14 2:19 8:16 8:25 9:5 23:16 73:18 87:12 107:4 111:3
sample [2] 29:15 45:9
sampled [4] 80:8 80:12 80:13 83:9
samples [5] 43:20 61:14 76:4 81:3 105:16
sampling [1] 76:3

sand [3] 58:25 66:3 67:3
sandstone [27] 47:5 81:9 81:12 81:19 82:1 82:4 82:11 82:12 82:12 82:23 83:11 83:23 92:10 94:12 94:17 96:6 96:6 97:15 97:21 99:22 100:12 103:8 103:9 103:14 104:4 104:6 104:9
sandstones [4] 82:16 93:15 94:9 95:2
saturated [1] 97:18
saturates [1] 84:1
save [1] 50:4
saw [3] 18:3 61:8 66:15
says [6] 24:4 25:9 26:4 26:24 68:24 104:19
scale [2] 92:16 99:6
schedule [3] 107:13 108:9 108:13
scheduling [1] 110:4
school [2] 70:8 76:17
Scofield [1] 79:18
scratch [1] 37:7
scrutiny [1] 76:9
seal [1] 111:16
seam [12] 19:19 32:7 33:23 43:24 52:14 90:25 95:13 95:15 100:5 100:16 100:19 101:20
seams [6] 7:19 43:9 82:6 86:22 95:6 106:2
second [1] 29:8
seconds [1] 14:14
SECOR [1] 73:17
sections [1] 28:5
sediment [1] 58:25
see [40] 5:18 6:23 7:13 7:20 8:6 8:9 8:11 8:11 9:6 13:19 14:17 31:8 31:11 33:25 34:9 34:10 45:17 52:4 52:22 57:9 57:10 59:15 60:3 64:17 69:5 69:5 81:23 83:15 84:16 84:19 85:25 86:9 86:13 87:7 90:8 92:5 100:1 108:2 109:10 109:11
seeing [1] 60:24
seek [1] 12:24
seeking [1] 17:20
seeps [3] 44:3 83:5 104:21
self-employed [1] 70:7
Seneca [1] 75:12
senior [2] 2:17 23:13
sense [1] 103:4
sentence [1] 26:21
separate [1] 86:25
separated [1] 95:18
separately [1] 84:25
sequences [1] 94:10
series [7] 4:8 53:2 78:25 79:17 79:23 88:22 103:1
serve [5] 16:16 29:20 55:7 55:9 56:1
served [2] 55:14 55:15
service [8] 9:10 15:9 15:12 15:14 15:15 15:16 16:6 48:13
services [13] 1:7 2:11 7:7 11:16 15:18 24:9 29:1 29:2 29:9 38:5 55:15 70:25 80:10
set [5] 25:11 39:9 39:12 84:13 111:12
set-up [1] 25:18
setting [1] 80:25
seven [1] 17:11
several [15] 19:21 24:21 45:14 47:19 48:5 65:20 85:10 87:4 88:6 93:11 93:25 96:5 100:25 101:3 101:23
severe [1] 20:3
sewer [1] 15:19
shading [1] 80:2
shale [10] 79:20 81:22 82:3 83:12 83:15 85:8 93:12 95:4 97:17 97:20
shaley [5] 81:24 82:2 85:22 94:10 94:11
shall [1] 30:9
shallow [2] 63:24 64:16
share [3] 71:12 71:14 71:21
shares [6] 29:5 38:6 38:7 71:17 72:1 72:2
shatter [3] 90:6 90:7 90:11
shattered [8] 88:2 88:3 88:11 88:13 88:17 89:1 89:3 89:8
shattering [1] 89:6
shells [1] 82:16
shooting [1] 8:1
short [4] 72:5 72:7 72:15 109:6
Shorthand [1] 111:6
shortly [1] 107:13
shot [3] 4:3 50:10 52:18
show [13] 9:10 22:21 50:8 60:22 68:24 80:6 91:23 92:17 93:16 95:6 95:17 96:2 106:25
showing [4] 49:25 91:25 96:10 100:5
shown [2] 21:21 50:25
shows [3] 27:12 43:15 92:14
side [5] 56:8 65:3 79:20 80:12 98:14
sight [1] 61:2
significance [2] 45:19 52:24
silting [1] 81:14
similar [4] 51:11 75:22 75:25 101:18
similarly [1] 84:24
simple [1] 12:11
simpleminded [1] 32:12
simplistic [1] 32:12
simply [4] 8:25 11:24 33:13 108:6
single [3] 12:8 40:19 42:19
single-pass [1] 39:17
sinkhole [2] 19:17 19:18
sinkholes [2] 20:4 43:1
sit [5] 11:6 12:8 20:5 39:23 84:7
site [2] 80:23 107:19
sits [4] 56:14 56:16 89:22 101:6
sitting [1] 65:18
six [4] 14:14 17:11 33:17 59:10
skipped [1] 48:6
slightly [7] 21:25 81:21 84:17 90:23 92:20 92:22 93:18
slow [2] 66:3 85:16
small [2] 83:6 101:25
Smith [38] 2:17 3:4 3:6 3:7 3:8 3:10 7:8 7:8 8:3 11:1 11:2 14:4 14:14 28:19 28:20 28:24 46:13 48:19 49:9 49:11 49:19 49:24 51:23 51:25 53:5 53:10 53:22 54:19 61:22 64:20 64:25 68:24 69:7 69:15 69:16 70:1 108:15 108:19
snow [6] 89:16 89:18 90:1 90:17 96:19 98:10
snowfall [1] 89:21
soils [1] 97:4
sole [1] 12:3
solely [1] 55:20
solve [1] 27:3
someone [1] 72:19
somewhat [2] 34:25 35:6
somewhere [5] 17:1 66:24 79:13 86:2 101:1
soon [1] 66:25
sorry [4] 42:5 63:17 91:23 93:22
sort [3] 37:14 81:9 84:10
sound [1] 31:11
sounds [2] 12:4 32:12
source [13] 9:21 16:6 16:8 17:1 17:3 17:7 39:24 44:2 48:10 48:17 56:6 56:22 64:12
sources [18] 10:9 10:9 10:20 11:15 11:25 12:2 15:21 16:19 16:21 17:2 18:21 30:17 38:13 56:3 71:7 71:9 71:10 72:18
south [5] 2:18 22:10 25:10 81:16 94:13
southeast [1] 81:21
speak [3] 46:25 47:1 78:20
Special [17] 1:7 2:11 7:7 9:10 11:16 15:9 15:12 15:15 15:16 24:9 29:1 29:2 29:9 38:5 55:15 70:25 80:10
specific [2] 13:1 97:1
specifically [3] 10:5 15:23 77:1
speed [1] 108:1
spell [2] 53:25 73:14
spend [1] 65:20
spent [3] 47:16 47:19 48:3
spike [6] 28:9 45:1 45:12 45:21 46:2 58:4
spikes [1] 18:3
spoke [1] 91:7
spots [1] 90:10
spread [1] 8:10
spring [105] 10:9 10:12 15:24 16:2 16:3 18:10 18:13 21:13 21:16 21:20 21:22 21:23 21:25 22:2 22:6 22:15 22:16 24:24 26:1 27:2 27:4 27:12 28:2 28:7 28:10 29:3 29:7 29:8 29:12 29:14 29:25 30:4 30:5 30:18 30:22 31:1 40:21 40:22 40:23 41:3 41:5 41:9 41:11 42:3 42:7 43:4 43:15 44:18 45:1 45:7 45:22 45:24 46:4 47:18 47:18 50:7 50:7 56:9 56:13 56:21 57:3 57:4 57:11 57:15 58:21 58:23 59:9 59:25 60:12 61:12 62:8 62:22 63:4 64:9 64:9 64:10 64:12 64:15 64:16 65:12 66:13 66:15 66:18 66:19 66:22 66:25 67:8 67:10 67:16 68:15 68:23 71:7 71:8 80:9 81:15 82:1 83:5 84:2 96:7 97:11 102:14 105:24 106:15 106:25 108:4
springs [62] 7:19 9:17 10:4 10:8 11:14 11:20 11:22 12:15 12:19 17:11 22:13 24:25 38:18 43:12 46:20 47:21 48:3 51:9 56:7 56:8 56:23 58:16 58:20 59:22 63:21 63:23 63:24 64:1 64:3 64:4 64:21 65:2 65:23 66:8 68:22 71:9 72:17 80:3 80:4 80:6 80:8 80:11 80:12 80:13 80:21 80:25 83:4 83:9 83:18 84:3 84:15 91:14 91:16 92:8 95:22 96:4 99:12 99:21 103:22 104:11 106:13 106:14
square [1] 27:7
ss [1] 111:3
stable [1] 81:4
stand [3] 6:12 12:23 37:24
standards [1] 10:23
standby [1] 39:19
standing [2] 32:17 103:18
stands [1] 75:5
Star [38] 47:4 79:9 81:9 81:12 81:19 81:25 82:4 82:23 83:11 83:22 84:21 85:4 88:10 88:21 90:25 92:10 94:2 94:4 94:6 94:12 94:17 95:19 96:5 96:6 97:15 97:21

99:15 99:22 99:23 100:11 101:17 103:7 103:8 103:14 104:4 104:5 104:8 108:4
start [4] 22:22 37:6 47:24 65:18
started [8] 21:16 57:17 57:20 58:8 58:11 60:4 67:1 67:16
starts [2] 47:5 49:15
state [12] 1:20 2:3 10:3 10:24 15:5 49:5 53:24 70:2 74:14 83:21 111:2 111:6
statement [1] 9:9
statute [1] 49:5
stay [1] 109:11
stayed [1] 60:14
Stenotype [1] 111:10
step [1] 89:14
stick [1] 95:8
Stiff [1] 79:2
still [6] 42:20 67:19 72:7 72:15 93:7 98:16
stipulations [1] 48:13
stock [4] 71:12 71:14 71:15 71:15
stop [6] 85:17 85:18 85:18 92:5 107:6 107:11
store [1] 106:5
storms [1] 90:2
Storrs [2] 81:13 82:1
Stoyanoff [8] 3:7 53:11 53:16 54:1 62:5 67:8 68:12 69:1
straight [1] 29:19
stratigraphy [6] 10:12 76:20 77:19 81:21 92:12 94:24
stream [3] 58:20 67:19 104:4
streams [1] 39:10
Street [1] 1:21
stress [3] 104:24 105:1 105:11
stricken [1] 36:6
structure [1] 88:24
struggling [1] 23:7
studied [1] 82:22
studies [9] 43:8 43:10 43:11 43:17 43:19 62:20 73:23 74:12 82:19
study [4] 80:24 86:12 86:19 88:9
stuff [2] 63:25 65:23
sub [1] 107:11
subdivide [1] 78:18
subdrainages [1] 10:1
subject [2] 33:21 48:22
submit [3] 12:22 51:19 51:23
submitted [5] 7:25 20:13 22:14 33:24 35:20
subsequent [3] 37:14 44:13 45:4
subsidence [11] 19:5 19:6 19:9 19:24 20:2 40:18 43:1 104:17 104:20 105:9 105:10
substantially [1] 9:18
substitute [1] 33:13
Subway [1] 107:11
such [2] 13:2 66:1
suggest [5] 5:13 42:24 44:13 69:8 69:8
suggested [6] 17:4 17:6 17:8 34:2 43:7 47:3
suggesting [2] 34:5 42:16
suggestion [2] 43:2 43:5
Suite [3] 2:5 2:9 2:18
sulfate [1] 18:3
summer [6] 20:17 21:2 57:2 57:3 57:6 59:3
sumps [3] 106:2 106:4 106:9
supervisor [1] 23:14
supplied [1] 9:12
supplies [1] 16:20
supply [1] 38:16
support [1] 7:20
supported [1] 56:1
suppose [1] 36:9
Supreme [3] 32:10 36:7 48:22
surface [24] 38:18 38:20 38:21 38:23 47:25 48:24 75:18 86:21 95:25 96:8 96:9 98:22 100:10 100:22 100:23 101:4 101:19 102:11 102:19 102:21 103:12 103:14 103:15 103:21
survey [2] 84:12 86:20
suspicions [1] 28:14
swearing [1] 53:13
sworn [8] 14:6 14:10 14:20 14:24 53:18 69:22 73:9 111:8
synopsis [1] 24:3
system [37] 25:12 25:17 25:22 29:17 29:21 29:25 31:1 41:11 47:20 47:24 54:23 55:6 57:20 57:25 59:8 59:22 61:20 63:12 64:4 66:13 67:25 85:13 85:20 88:19 88:21 92:15 93:2 93:3 94:22 96:19 97:4 97:5 103:6 103:14 104:1 104:6 106:15
systems [1] 85:24
T [3] 4:1 111:1 111:1
table [8] 53:12 100:9 100:11 100:17 100:20 100:21 101:7 102:8
takes [1] 64:5
taking [3] 47:24 107:21 109:19
talks [1] 24:21
tank [11] 32:7 33:23 43:24 52:14 56:25 66:4 82:6 95:13 95:15 95:16 100:19
taught [1] 70:8
TDS [1] 45:1
TDS's [1] 18:4
technical [1] 41:16
telegraphing [1] 31:23
telling [3] 36:10 36:13 85:6
Temple [2] 2:5 2:18
ten [1] 69:11
ten-minute [1] 69:9
tend [2] 13:15 32:20
term [2] 14:1 95:24
termination [1] 27:2
terms [5] 9:24 10:21 34:23 67:11 68:5
terrain [1] 94:25
test [1] 65:21
testified [9] 14:25 42:2 47:22 53:19 69:1 69:23 73:10 85:12 96:17
testify [3] 22:1 52:9 111:8
testimony [23] 5:14 10:25 14:10 21:9 30:16 31:24 36:6 42:12 44:17 46:11 52:23 62:25 68:11 99:3 102:23 107:6 107:17 108:3 108:18 108:22 111:9 111:10 111:11
testing [1] 43:16
tests [5] 59:14 59:15 59:18 65:19 107:7
Thank [10] 11:2 17:24 40:1 52:24 53:10 68:19 72:23 73:2 73:3 110:10
Thanks [1] 53:9
themselves [1] 47:18
theory [3] 86:7 101:12 101:15
thereafter [1] 111:10
Therefore [1] 10:24
thereof [1] 111:15
they've [13] 17:6 20:13 33:12 43:25 66:3 87:16 96:6 100:12 100:25 101:11 106:1 106:9 106:10
thick [1] 93:25
thicker [1] 94:13
thickness [1] 84:21
thin [1] 94:12
thinking [1] 109:3
thinner [1] 94:11
third [4] 62:12 71:16 71:21 101:20
thought [3] 58:13 72:4 105:16
thoughts [1] 34:19
thousand [1] 65:20
three [15] 21:17 23:19 23:20 47:4 59:5 59:7 62:8 71:17 73:20 77:16 80:13 81:25 85:25 94:5 94:8
through [44] 5:22 9:4 12:20 12:21 18:3 22:2 22:5 29:19 33:6 44:3 46:16 47:2 57:6 57:24 61:15 67:20 67:24 71:6 74:21 79:18 83:1 84:4 85:1 85:4 85:4 85:5 87:1 92:2 92:3 92:11 93:3 93:17 93:18 94:14 96:19 97:4 97:5 97:6 97:20 97:21 99:24 103:25 106:15 106:21
throughout [10] 11:6 29:15 42:11 45:12 81:11 82:7 84:20 88:19 91:9 98:11
tie [7] 16:25 77:25 80:9 80:10 83:10 92:2 96:7
times [2] 30:21 88:6
today [18] 8:22 9:10 10:25 11:12 11:18 12:3 12:25 13:6 20:5 21:10 33:25 39:23 56:20 92:6 109:9 109:12 109:23 110:9
toe [1] 95:22
together [3] 9:11 40:13 75:14
Tom [3] 23:12 44:24 45:4
tongue [1] 81:12
tongues [5] 47:4 82:2 94:6 94:8 94:11
too [7] 5:20 41:20 47:13 49:2 68:9 100:20 100:21
took [4] 45:9 51:15 59:5 99:11
top [19] 79:10 79:12 80:14 80:16 80:17 81:8 81:19 82:4 82:10 84:16 85:6 88:10 88:12 88:24 89:21 92:2 95:18 95:19 104:6
topic [2] 108:19 109:19
topography [2] 47:2 88:23
total [1] 30:19
towards [1] 83:6
Tower [1] 2:19
town [1] 74:2
towns [1] 55:10
track [1] 52:20
transcribe [1] 107:22
transcribed [4] 17:19 110:3 111:11 111:12
transcript [4] 1:17 6:22 6:23 108:8
transcription [1] 111:11
transmitted [1] 47:1
treat [1] 47:23
treatment [13] 29:22 29:24 38:18 38:20 38:21 38:23 39:9 42:14 47:14 47:25 48:1 48:2 56:25
tremendous [1] 21:19
trends [1] 22:2
tributary [1] 105:23
tridium [1] 43:11
tried [2] 37:3 108:14
trip [7] 9:1 9:1 56:11 107:9 108:2 108:11 109:1
trouble [1] 6:25
true [2] 94:2 111:11
truth [3] 111:8 111:8 111:8
try [5] 13:19 35:7 50:2 57:22 62:20
trying [4] 6:25 8:6 11:24 69:3
turn [8] 8:7 23:7 37:7 37:9 54:19 58:23 59:4 59:7
turned [6] 57:19 57:25 66:25 67:1 67:25 67:25
turning [1] 46:15
twice [1] 11:4

two [19] 11:15 12:15 14:19 21:17 31:6 46:24 49:25 49:25 76:25 78:14 80:21 81:12 81:20 85:25 87:18 89:9 91:5 99:25 103:22
tying [1] 33:15
typewriting [1] 111:11
typical [10] 71:20 83:6 85:24 86:23 93:2 94:22 94:23 94:24 95:1 98:16
typically [12] 8:25 34:10 34:16 71:23 81:23 82:12 83:4 83:12 89:16 89:21 91:13 93:25
unable [1] 59:9
unallocated [1] 72:9
unconfined [1] 95:3
under [8] 5:10 10:2 11:25 35:20 36:20 48:20 76:9 76:25
undergraduate [1] 76:21
underground [6] 12:16 43:20 74:18 75:11 80:20 88:16
undermine [1] 13:15
underneath [3] 47:6 67:20 104:23
understand [7] 11:13 19:23 19:25 32:5 35:15 49:18 63:8
understood [1] 67:14
unfair [1] 30:23
Unfortunately [1] 79:11
unit [6] 81:25 82:15 85:1 85:5 92:13 105:13
units [3] 84:23 85:4 97:12
universe [1] 37:13
University [1] 76:13
unknown [1] 21:18
unless [1] 85:19
unnatural [1] 21:19
unsaturated [5] 83:22 83:24 84:6 93:5 103:15
unusual [5] 6:21 61:2 84:10 87:5 87:14
up [75] 19:19 20:2 20:3 22:2 25:11 26:11 28:6 29:14 30:21 37:16 39:9 39:12 41:16 46:3 47:5 49:20 51:1 53:12 56:15 56:25 57:4 57:4 57:21 57:24 58:9 58:10 58:12 58:14 60:3 60:12 60:13 60:19 62:23 65:2 65:21 66:2 66:7 66:15 67:1 67:22 67:24 72:4 72:7 77:11 78:20 79:9 79:10 79:17 80:13 83:25 84:15 85:4 85:4 85:5 85:17 87:15 87:20 88:6 88:15 88:15 88:20 90:8 91:14 92:14 96:12 96:20 96:22 97:11 102:11 104:7 104:8 106:1 107:8 107:14 107:25
updated [2] 24:19 47:19
upgradient [3] 94:19 94:20 94:20
upgrading [2] 47:17 47:20
upper [4] 80:9 92:2 96:7 97:13
upset [1] 35:9
upstream [2] 66:12 66:17
upward [1] 105:11
usable [1] 39:21
usage [1] 106:6
used [4] 9:13 16:10 17:4 77:8
users [27] 1:8 2:16 7:10 11:10 11:17 12:5 12:13 12:24 17:22 24:10 29:20 36:16 42:21 54:7 54:9 54:22 55:21 56:22 57:10 57:12 60:5 68:13 70:14 70:18 71:1 71:25 109:21
users' [1] 48:9
uses [1] 29:1
USGS [3] 82:19 88:10 104:18
using [3] 42:15 57:7 96:4
usually [2] 83:14 89:22
UT [1] 2:6
Utah [15] 1:20 1:21 2:3 2:10 2:14 2:19 32:10 49:6 54:3 86:19 111:2 111:6 111:6 111:16 111:19
utilize [1] 47:20
vac [4] 63:7 63:9 66:11 66:16
vacs [1] 58:13
valid [1] 32:18
Valley [27] 1:7 2:11 7:7 9:10 11:16 15:8 15:12 15:15 15:16 24:9 29:1 29:2 29:9 38:5 42:14 70:25 71:11 79:16 79:21 80:10 88:14 89:4 89:4 89:5 89:6 98:14 99:24
valve [1] 25:11
various [3] 10:2 73:22 93:7
vary [1] 64:1
vastly [1] 36:4
verification [1] 25:17
vertical [13] 83:22 83:24 84:3 84:10 86:1 87:9 90:3 90:25 91:23 94:15 94:23 97:12 97:24
vertically [4] 82:25 83:1 85:7 104:7
via [2] 25:11 25:22
viable [3] 9:20 10:15 39:23
vicinity [1] 7:18
view [4] 32:2 32:3 32:13 37:17
violate [1] 34:7
violation [1] 9:23
violence [1] 35:8
visit [1] 51:4
visited [1] 80:24
visits [1] 80:23
void [1] 87:13
volume [4] 1:14 91:16 91:17 91:20
volumes [1] 47:1
vs [1] 1:10
W [2] 2:4 2:12
Waddell [2] 82:22 91:12
wait [1] 30:9
waiting [1] 49:12
walk [2] 18:25 90:8
walking [1] 14:11
wants [4] 8:14 36:5 36:8 36:9
WARLAUMONT [1] 2:12
warranted [1] 48:11
Wasatch [6] 75:23 76:1 76:20 81:7 83:21 89:15
waste [4] 62:13 62:15 62:18 62:18
water [231] 1:8 2:16 7:10 9:25 10:9 10:20 11:10 11:15 11:17 11:20 11:21 11:25 12:2 12:5 12:13 12:18 12:24 15:19 15:19 15:21 15:24 15:25 16:12 16:15 16:16 16:20 17:8 17:21 18:2 20:10 20:17 21:6 21:6 21:8 21:8 21:11 21:11 24:10 24:22 25:10 25:21 25:23 26:13 26:16 27:1 27:3 27:16 28:6 28:8 28:25 29:4 29:7 30:17 30:25 31:3 31:5 36:16 38:18 38:20 38:21 38:23 39:2 39:8 39:9 39:16 39:23 40:13 40:14 40:17 40:21 41:4 42:14 42:19 42:21 43:15 43:15 43:18 44:2 44:3 44:5 45:10 45:15 45:20 46:3 46:10 46:15 47:1 47:14 47:24 48:8 49:7 54:7 54:8 54:21 55:2 55:4 55:8 55:18 55:21 56:3 56:21 56:22 57:2 57:7 57:8 57:10 57:11 57:12 57:15 57:19 57:22 58:9 58:18 58:19 58:25 59:3 59:12 59:15 59:15 60:5 61:11 61:17 63:12 64:12 65:18 65:25 66:4 66:5 67:2 67:19 67:19 67:23 68:9 68:13 68:15 70:14 70:15 70:17 70:18 70:20 70:21 70:24 71:1 71:1 71:3 71:7 71:10 71:13 71:18 71:22 71:25 72:8 72:9 72:11 72:12 72:15 72:18 72:19 77:7 81:3 84:1 84:5 85:9 85:16 85:18 86:1 89:7 89:13 89:13 89:14 89:17 90:11 90:18 90:24 91:9 91:16 91:20 92:11 92:15 92:24 93:1 93:7 93:14 93:19 93:19 94:5 94:15 94:17 94:23 95:1 95:2 95:3 96:16 96:18 96:19 97:4 97:15 97:19 98:9 99:11 100:9 100:11 100:16 100:19 100:21 101:4 101:7 101:8 101:11 101:13 101:22 102:2 102:3 102:4 102:8 102:15 102:17 103:17 103:18 103:20 103:25 104:6 105:4 105:6 105:23 106:3 106:5 106:8 106:10 106:12 109:21
water's [1] 102:7
waters [1] 43:17
Watson [1] 74:11
Wattis [1] 74:2
wave [1] 108:5
weather [1] 63:25
weeks [2] 23:19 23:20
wells [7] 10:15 10:17 65:21 75:17 96:5 96:6 96:11
Wendell [4] 2:24 20:19 52:9 90:20
West [6] 2:5 2:9 65:2 65:9 65:15 66:9
West's [1] 65:11
western [1] 15:17
wet [3] 102:1 102:3 102:5
wherever [1] 89:18
whole [21] 9:2 19:19 31:1 32:3 45:12 58:16 58:24 71:21 79:23 81:20 82:7 82:22 84:13 86:14 88:19 88:22 89:14 89:15 104:5 105:13 111:8
wide [1] 85:25
wider [3] 4:3 50:10 52:18
winter [2] 51:5 60:20
wish [1] 108:9
wishes [1] 14:10
within [7] 12:16 24:22 43:9 54:11 89:9 93:23 101:21
without [6] 31:7 32:22 33:15 33:15 35:14 107:19
witness [44] 14:4 14:23 18:1 19:17 21:25 26:4 26:21 26:24 39:12 39:15 41:23 47:13 49:21 49:25 53:17 61:24 63:20 63:23 64:17 68:4 68:7 69:15 69:17 69:21 72:23 73:3 73:4 73:8 75:9 78:7 78:11 86:4 86:10 86:18 87:3 90:16 90:22 95:15 98:3 98:5 103:19 108:24 108:25 111:16
witnessed [1] 20:7
witnesses [10] 3:2 5:14 8:17 14:6 41:18 53:4 53:8 53:13 111:7 111:10
Woodward [1] 86:12
words [1] 8:18
worked [6] 11:11 73:19 73:25 74:10 79:8 101:17
workings [21] 22:9 24:18 24:23 25:10 25:21 25:24 26:6 26:14 26:18 27:1 27:3 28:2 30:4 44:11 45:2 45:3 45:13 45:20 56:14 56:15 102:16
works [2] 13:13 46:6

world [1] 32:3
worse [2] 54:18
68:21
worth [1] 75:16
writes [1] 26:22
wrong [3] 9:16
34:6 36:17
X [2] 3:1 4:1
year [23] 29:15 30:18
31:5 31:10 44:18
45:3 46:11 46:14
50:19 54:19 56:25
57:2 59:4 60:9
60:10 61:8 62:22
63:1 64:2 71:18
72:3 100:6 102:10
year's [1] 75:16
years [19] 15:13
16:10 16:13 17:11
18:13 48:5 51:10
54:13 54:17 65:13
66:2 71:16 71:20
71:24 73:20 76:19
76:22 76:23 76:25
Young [1] 76:13
yourself [1] 41:13
zero [1] 87:16
zone [42] 79:13
79:15 79:16 79:24
80:14 83:13 84:6
85:22 85:22 85:23
86:15 87:15 87:19
88:2 88:3 88:11
88:11 88:14 88:17
89:1 89:3 89:6
89:8 90:5 90:6
90:7 90:12 91:1
91:3 91:4 93:5
93:13 93:17 97:7
98:14 98:15 98:17
99:25 103:15 104:23
105:1 105:11
zones [7] 85:3
85:25 95:3 97:5
98:18 104:22 106:22

ORIGINAL TRANSCRIPT

BEFORE THE DIVISION OF OIL, GAS AND MINING

DEPARTMENT OF NATURAL RESOURCES

STATE OF UTAH

INFORMAL CONFERENCE, CAUSE NO. ACT/015/025

IN THE MATTER OF THE FIVE
YEAR PERMIT RENEWAL FOR
THE CO-OP MINING COMPANY,
BEAR CANYON MINE, EMERY
COUNTY, UTAH

Place: DEPARTMENT OF NATURAL RESOURCES
1594 West North Temple, Room 2000
Salt Lake City, Utah 84114

Date: October 27, 2000

Time: 9:00 a.m.

Reporter: Kerry J. Sorensen, CSR/RPR

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OIL, GAS AND MINING

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1 APPEARANCES
2
3 The Conference Officer:
4 Mr. Lowell P. Braxton
5 DEPARTMENT OF NATURAL RESOURCES
6 DIVISION OF OIL, GAS AND MINING
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8 Salt Lake City, Utah 84114-5801
9 (801) 538-5370
10
11 For Huntington-Cleveland Irrigation Company:
12 Mr. D. Scott Crook
13 NIELSEN & SENIOR
14 60 East South Temple, Suite 1000
15 Salt Lake City, Utah 84111
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17
18 For C.W. Mining Company:
19 Mr. F. Mark Hansen
20 431 North 1300 West
21 Salt Lake City, Utah 84116
22 (801) 517-3530
23
24 Also Present:
25 Mr. Charles Reynolds

1 October 27, 2000
2 9:00 a.m.
3 PROCEEDINGS
4 THE CONFERENCE OFFICER: This is the
5 time and the place for the matter of the
6 informal hearing -- informal conference, I
7 should say, for the permit renewal of Co-Op
8 Mining Company, Bear Canyon Mine, Cause
9 Number ACT/015/025.
10 I think we should have everybody
11 that's representing somebody here identify
12 themselves, and then I think the two parties
13 can discuss which order they want to go in.
14 MR. CROOK: I'm Scott Crook,
15 representing Huntington-Cleveland Irrigation
16 Company.
17 MR. HANSEN: I am Mark Hansen,
18 representing C.W. Mining Company.
19 MR. REYNOLDS: I'm Charles Reynolds,
20 representing C.W. Mining Company.
21 THE CONFERENCE OFFICER: And for the
22 record, I'm Lowell Braxton, the Conference
23 Officer.
24 Scott, presumably, you know, you go
25 first, but is there any objection to that on

1 your part?
2 MR. HANSEN: No. We're just here
3 to respond to the protestors and whatever
4 issues they raise.
5 THE CONFERENCE OFFICER: Very good.
6 MR. CROOK: Okay. I represent the
7 Huntington-Cleveland Irrigation Company, which
8 holds significant water rights in Huntington
9 Creek and the tributaries to it. As I am
10 sure the Division is aware, by the number of
11 our appearances here, Huntington-Cleveland has
12 significant interests in assuring that both
13 the quantity and quality of water is
14 protected from diminishment and degradation
15 by those upstream of its rights, and that
16 includes Co-Op Mining Company.
17 Huntington-Cleveland, of course, is
18 aware that an application for renewal carries
19 with it the right of successive renewals, and
20 that's found in Utah Administrative Rule
21 R.645-303-231. However, Huntington-Cleveland
22 would like to stress that the Division has
23 the duty to -- to determine, one, that the
24 terms and conditions of existing permit are
25 being satisfactorily -- satisfactorily met --

1 that's found in R.645-303-233.110 -- and
2 that, two, the present coal mining and
3 reclamation operations are in compliance with
4 the environmental protection standards of the
5 state program. And that is found at
6 R.645-303-233.120. Additionally, Utah
7 Administrative Rule R.645-303-232.200 to -250
8 provides the Division may require additional
9 revised or updated information in a renewal
10 application.
11 We come to the Division, first, to
12 ask that the Division assure that, pursuant
13 to R.645-303-232.230, Co-Op provides evidence
14 that the performance bond in effect for the
15 operation will continue in full force and
16 effect for any renewal requested, as well as
17 any additional bond required by the Division.
18 With regard to the bond, Co-Op's
19 application states only that "The current
20 amount of the bond filed with the Division in
21 the form of an irrevocable letter of credit
22 is $899,000.00. We are in the process of
23 determining a new estimate," end quote.
24 Huntington-Cleveland submits that this
25 unilateral -- unilateral unsupported

1 declaration is insufficient to meet the
2 evidentiary requirements.
3 Turning to Huntington-Cleveland's
4 second concern, which is its primary concern,
5 we believe that the Division should require
6 that Co-Op provide assurance and that the
7 Division assure that the hydrological
8 information supporting the Bear Canyon Mine
9 permit, including the Probable Hydrological
10 Consequences and the Comprehensive
11 Hydrological Impact Assessment, are complete,
12 accurate, and up to date.
13 The reasons for our concern include,
14 first, despite several studies, including the
15 Mayo report, which is a report prepared to
16 describe the surface water and groundwater
17 systems of the current Bear Canyon Mine lease
18 area, the Wild Horse Ridge area, and the
19 Mohrland area, in support of Chapter 7 of the
20 Mining and Reclamation Plan, and the Gentry
21 Mountain CHIA prepared by the Division, the
22 source of the water supply and the recharge
23 areas for Big Bear Spring and Birch Spring,
24 tributaries to Huntington Creek, are unknown,
25 or largely unknown. Big Bear Spring provides

1 culinary water to Huntington City through
2 Castle Valley Service District, and Birch
3 Spring provides culinary water to
4 unincorporated Emery County through North
5 Emery Water Users. And both of those
6 entities are Huntington-Cleveland
7 shareholders.
8 The Mayo report -- report postulates
9 that the source of the Bear -- Big Bear
10 Spring is a connection to Nuck Woodward
11 Canyon and Tie Fork, north of the Gentry
12 Mountain area. However, other likely
13 explanations include that the Bear Canyon
14 fault, which is impacted by -- I'm sorry,
15 that the source of water could be Bear Canyon
16 fault, which is impacted by mining activities
17 at Bear Canyon Mine. And we have a
18 significant interest in assuring that the
19 quantity of water and the quality of water is
20 not affected by any further activity at Bear
21 Canyon Mine.
22 Our second concern stems from the
23 fact that Bear Canyon Mine admittedly
24 intercepts groundwater. Just looking at the
25 Gentry Mountain CHIA and the Mayo report,

1 there are significant indications that Bear
2 Canyon Mine has been responsible for drying
3 up at least the spring referred to as SBC-7.
4 Now, Bear Canyon Mine had the spring
5 discharging at 18 gallons per minute to 14
6 gallons per minute -- minute, without
7 significant seasonal variations from 1988.
8 By February of 1990, the spring stopped
9 flowing. And that -- the source of that
10 information is the Mayo report at Page 53.
11 SBC-8 was encountered in 1988,
12 another spring, and discharged at 18 to 21
13 gallons per minute. The report -- Mayo
14 report, at 53, also says that.
15 THE CONFERENCE OFFICER: Excuse me.
16 You said it was encountered in '88?
17 MR. CROOK: Yeah.
18 THE CONFERENCE OFFICER: What do you
19 mean by that?
20 MR. CROOK: As mining -- as mining
21 proceeded in the Bear Canyon Mine, SBC-8 was
22 encountered. As the mining went in, as it
23 proceeded, there was another mine, another
24 spring source that was encountered.
25 MR. REYNOLDS: And -- and just for

1 a little clarification, both sites were
2 underground water sources within the mine
3 that were encountered.
4 THE CONFERENCE OFFICER: Thank you.
5 Do you agree with that?
6 MR. CROOK: Yes.
7 MR. HANSEN: In fact, there were
8 drill holes that we created weren't there, or
9 seeps that we created during the mining?
10 MR. CROOK: I'm not sure that SBC-7
11 was a seep that was created originally by --
12 MR. REYNOLDS: Yeah. It -- it
13 originally flows inside of the old Bear
14 Canyon --
15 THE CONFERENCE OFFICER: Excuse me.
16 Thank you.
17 MR. CROOK: Okay. SBC-9, which
18 was, I believe, a seep that was created by
19 Bear Canyon mine activity, flows at a rate
20 from a starting point of about 120 gallons
21 per minute, since 1990. Now the latest
22 report that I saw from the Mayo report
23 indicates it's now at 50 gallons per minute.
24 But that has been a steady flowing spring or
25 seep for ten years, but the -- the seep has

1 -- I'm sorry. The flow has continued. It's
2 now decreasing. But that's a significant
3 amount of time for the water to be seeping
4 into the -- into the mine, and there has been
5 obvious -- obviously, a huge impact on
6 groundwater seeping into the mine.
7 There's, also, SBC-10, which is
8 flowing at a rate of approximately 20 gallons
9 per minute, presently. It was started -- it
10 started at 250 gallons per minute in 1991.
11 SBC-10 is now inaccessible, but SBC-13
12 appears to be the flow that it is coming
13 from. And that's taken from the Mayo report,
14 54 to 56. The Gentry Mountain CHIA indicates
15 the same conclusion on Page 49.
16 Obviously, Bear Canyon Mine is
17 having impact on water quantity, and there is
18 some circumstantial evidence that mining
19 activity has impacted Big Bear Spring flow.
20 Now, the Mayo report suggests that it has had
21 no impact. However, they -- it derives that
22 conclusion simply from recharge rates that it
23 describes out of the springs that we were
24 just speaking about. However, it does not --
25 it doesn't account for possible other sources

1 of groundwater interruption in Big Bear -- I
2 mean in the Bear Canyon Mine.
3 Our third concern --
4 THE CONFERENCE OFFICER: Is that
5 your circumstantial evidence right there, or
6 do you have evidence that you're going to
7 present to support what you just said?
8 MR. CROOK: We have -- I -- I would
9 suggest that -- well, first of all, we're not
10 presenting any evidence here today.
11 THE CONFERENCE OFFICER: Okay.
12 MR. CROOK: What we are saying is
13 that there is no evidence. What we have is
14 supposition about what the source of Big Bear
15 Spring is. However, as mining has continued
16 in -- in the area -- I've got the report
17 here, but --
18 THE CONFERENCE OFFICER: Well, I
19 just want to clarify what I thought I heard
20 you say. You said there's circumstantial
21 evidence of mining impact on Big Bear Spring;
22 is that correct?
23 MR. CROOK: Yes.
24 THE CONFERENCE OFFICER: Okay.
25 MR. CROOK: And that is found in

1 the reports themselves, prior to 19- -- and I
2 -- I don't have the dates here, but -- I'm
3 trying to remember the dates. From I think
4 it was approximately 1995, there was a
5 seasonal variation in the flow rates that
6 occurred in June and July. There showed an
7 up- -- an upsurge of flow rates in the summer
8 months since 1995; I believe that's the
9 correct year. The flow rates have not
10 increased at that time. There's
11 circumstantial evidence that -- that is our
12 circumstantial evidence, that Big Bear -- I
13 mean -- I'm sorry, Bear Canyon Mine has
14 effected the flow coming into that spring. I
15 believe it was 1995.
16 Now, recent findings and conclusions
17 and orders from DOGM suggest caution, also.
18 In the matter of the application of Co-Op
19 Mining Company to mine the Wild Horse Ridge
20 addition of the Bear Canyon Mine, there were
21 Findings and Conclusions ordered by this
22 Division. And that was stated March 22nd of
23 2000. There was an opinion issued on Page 6.
24 The first conclusion of law states,
25 "In the northern portion of the Wild Horse

1 Ridge Addition, the geological control for
2 characterizing Blackhawk sandstones, Blackhawk
3 coal units, and the potential water-bearing
4 Star Point sandstones is inadequate."
5 Number 2 under that conclusion was
6 that "Clarification is needed in the permit
7 application regarding the possible effects of
8 coal mining in the Wild Horse Ridge Addition
9 on Big Bear Spring. However, many concerns
10 raised in the informal conference are
11 addressed in the February 21, 2000 letter,
12 'Responses to concerns of Castle Valley
13 Special Services District,' from Mayo and
14 Associates to Charles Reynolds of Co-Op."
15 This suggests that the Wild Horse
16 Ridge Addition, as I'm sure the Division is
17 aware, is an amendment to the Big -- the Bear
18 Canyon mining lease application, in an
19 attempt to increase the -- the mining that
20 would increase of the Bear Canyon Mine. The
21 Mayo report was submitted with that. There
22 was a -- an informal conference held, in
23 which the Mayo report was discussed at
24 length, and these are the -- this is the
25 order and conclusion that came out of that --

1 out of that informal conference.
2 THE CONFERENCE OFFICER: Is the Wild
3 Horse Ridge, in your opinion, part of this
4 permit at this time?
5 MR. CROOK: Well, I don't -- I
6 don't -- it's -- from my understanding, it is
7 still a -- it's still not been approved, if
8 that's correct.
9 MR. REYNOLDS: That's correct.
10 MR. CROOK: However, the Mayo report
11 was prepared for the entire area, not just
12 the Wild Horse Ridge area, and includes
13 studies of the Bear Canyon mining and lease
14 area, the Wild Horse Ridge area, and the
15 Mohrland area. And so the discussion at the
16 time of the informal conference discussed the
17 entire hydrological impacts of the entire
18 area, not just the Wild Horse Ridge
19 application.
20 THE CONFERENCE OFFICER: Correct.
21 Let's -- let's come back to the
22 part that you quoted, I believe from Page 6
23 in that report, talking about the Blackhawk
24 geology. Would you read that again.
25 MR. CROOK: I'm sorry. It's not

1 from the report, it's from the --
2 THE CONFERENCE OFFICER: From the
3 conference.
4 MR. CROOK: -- which there were
5 two. There was one which said, "In the
6 northern portion of the Wild Horse Ridge
7 area, the geological control for
8 characterizing Blackhawk sandstones, Blackhawk
9 coal units, and the potential water-bearing
10 Star Point sandstones is inadequate."
11 THE CONFERENCE OFFICER: Now, do you
12 believe that applies to the entire permit
13 area and the part we are talking to now, or
14 do you believe that that's -- it's fairly
15 narrowly confined?
16 MR. CROOK: Well, I think that it
17 has two interpretations; one, that it appears
18 the Division is taking the position that it's
19 only speaking of the Wild Horse Ridge area.
20 But I would say that you cannot separate the
21 hydrological consequences of -- of the Mayo
22 report, the Wild Horse Ridge area; that if --
23 if the Mayo report is inadequate in that
24 area, that can have an impact and should be
25 studied by the Division to determine if there

1 are hydrological impacts to the -- to the
2 entire coal mining area.
3 THE CONFERENCE OFFICER: Is that
4 discussed further in the -- in the hearing
5 that you talked about?
6 MR. CROOK: The Mayo report was
7 discussed.
8 THE CONFERENCE OFFICER: No. I'm
9 talking about the hearing right now, because
10 that's what we're talking about.
11 MR. CROOK: That's -- and I was
12 answering the question. The hearing
13 discussed the Mayo report. The Mayo report
14 discussed more than the Wild Horse Ridge
15 application.
16 THE CONFERENCE OFFICER: But the
17 conclusions of the hearing didn't cover the
18 entire Mayo report, did they?
19 MR. CROOK: They did.
20 THE CONFERENCE OFFICER: They did?
21 MR. CROOK: Yes.
22 And I would just --
23 THE CONFERENCE OFFICER: That may be
24 your opinion, then.
25 MR. CROOK: Well, this is -- this

1 is how I would see it, Mr. Braxton. If the
2 Mayo report was discussed, which was part of
3 the amendment, and that wasn't -- the
4 discussion was not -- I know that our office
5 did not confine our discussions to the simple
6 Wild Horse Ridge application of the Mayo
7 report, because it is impossible to do that.
8 The Mayo report is comprehensive. It deals
9 with the entire hydrology of the Gentry
10 Mountain area. It discusses the Bear Canyon
11 Mine and it discusses the Mohrland area
12 expansion -- expansion. If there was a
13 discussion of the Mayo report, it could not
14 have been confined simply to a discussion of
15 the Wild Horse Ridge application.
16 THE CONFERENCE OFFICER: I'm not
17 questioning the discussion of the Mayo
18 report, I'm questioning the nexus that you're
19 bringing that says because we reach a
20 conclusion in the Wild Horse Ridge portion of
21 the Bear Canyon permit application, that that
22 conclusion applies broadly to the entire
23 permit area.
24 MR. CROOK: Well, I'm not --
25 THE CONFERENCE OFFICER: And that's

1 -- that's the only part that I'm wanting to
2 discuss right now.
3 MR. CROOK: Okay. If -- if the
4 question is -- and this is -- if the question
5 is am I asserting that this applies to the
6 Bear Canyon Mine; in other words, that the
7 conclusion --
8 THE CONFERENCE OFFICER: That was my
9 question to you, yeah.
10 MR. CROOK: -- the -- the
11 conclusion meaning that this order affected
12 Bear Canyon Mine without the Wild Horse Ridge
13 application, I would say you're absolutely
14 correct. Of course, the order is dealing
15 only with that application. What I'm
16 suggesting, however, is that these findings
17 and conclusions and orders suggest caution,
18 because we're talking about the same
19 hydrological area, we're talking about the
20 same -- the Gentry Mountain area. And that's
21 all I'm suggesting. I'm not suggesting that
22 they -- that -- that Bear Canyon Mine,
23 particularly, without the Wild Horse Ridge
24 application, is -- is required to follow this
25 order. It's only --

1 THE CONFERENCE OFFICER: That's
2 helpful. Thank you.
3 MR. CROOK: Okay. So this will
4 also help. I think, in the next thing that I
5 will point to, and that is in the matter of
6 the proposed Phase III bond release at the
7 Co-Op Mining Company Trail Canyon Mine, which
8 is also part of this -- the Gentry Mountain
9 agreement, at Cause Number ACT/015/021, Slip
10 Opinion at 4. This was issued October 24th,
11 2000.
12 An order was entered by the Division
13 which says, "The Division is to proceed with
14 processing the Applicant's request for Phase
15 III bond release. The technical analysis
16 associated with -- with this request should
17 develop a position with respect to, (1)
18 'Evidence from inspection reports and other
19 information that may clarify if drainage from
20 the Trail Canyon portals has occurred
21 subsequent to backfilling,' and, (2) 'Water
22 monitoring data with the intent of
23 determining if contamination or dimunition of
24 waters in the permit, and adjacent areas has
25 resulted from coal mining and reclamation

1 operations at Trail Canyon.'"
2 Again, I'm not saying that this
3 applies to Bear Canyon Mine. What I am
4 saying, however, is that since this is in the
5 same -- is in the same Gentry Mountain area,
6 that if the Division is concerned about these
7 things, with these two applications, that
8 that urges the -- that urges some caution in
9 dealing with the Bear Canyon permit renewal
10 application.
11 We respectfully request that the
12 Division require that Co-Op show that the
13 hydrological information supporting the Bear
14 Canyon Mine permit, including the Probable
15 Hydrological Consequences and the
16 Comprehensive Hydrological Impact Assessment,
17 are complete, accurate, and up to date.
18 That's simply what we're asking.
19 Huntington-Cleveland has, I think, a
20 legitimate and serious concern about quantity
21 and quality of water. The Division is aware
22 of the geological area, it's aware of the
23 facts and the -- the climate that Bear Canyon
24 finds itself in. It's familiar with that
25 area. We're simply suggesting that

1 Huntington-Cleveland has a legitimate concern.
2 Its concern is that the Division take -- take
3 a -- a careful look at any hydrological
4 impact that may effect people who are
5 downstream of the coal mine. And we suggest
6 the Mayo report and other -- the Gentry
7 Mountain CHIA show that. There are so many
8 things that are unknown about the coal mine,
9 that a careful analysis is not out of turn,
10 and that we -- we would simply suggest that
11 we would like the Division to look at that
12 carefully or ask that Co-Op assure that what
13 they've got there is -- is complete,
14 accurate, and up to date.
15 THE CONFERENCE OFFICER: You're
16 basically asking that the Division to follow
17 its own rules; is that what you're saying?
18 MR. CROOK: Yeah. Yes. And -- and
19 I don't have any reason to believe that the
20 Division wouldn't follow its own rules, but
21 what we -- our problem is that we see these
22 reports and their reports are inconclusive
23 about stream sources and recharge areas, and
24 it concerns us that -- or it concerns
25 Huntington-Cleveland that sometimes, given

1 those reports, that the Division should be --
2 well, let's say it this way, that the
3 Division, although following it's own rules,
4 should be especially careful in this area.
5 We're just concerned because there's no
6 evidence of -- well, I won't say no evidence,
7 because there are conclusions extrapolated in
8 the Mayo report and the CHIA, but those are
9 inconclusive. There is no definitive
10 determination of sources of water in the
11 recharge area. So we're simply asking the
12 Division to be -- to assure that more study
13 is done so that water users, particularly
14 culinary water users, are protected.
15 THE CONFERENCE OFFICER: Thank you.
16 Anything further at THIS time?
17 MR. CROOK: No.
18 THE CONFERENCE OFFICER: Turning to
19 Co-Op.
20 MR. HANSEN: Do you want to go
21 first, or me?
22 MR. REYNOLDS: I suppose that you
23 can go ahead and go. I --
24 MR. HANSEN: Okay.
25 MR. REYNOLDS: I don't think I have

too much to add.

MR. HANSEN: Let's take Mr. Crook's points in order. The first point was concerns over evidence of the performance bond. As Mr. Crook points out, the application states that the bond is an irrevocable letter of credit in a sum certain amount. An irrevocable letter of credit drawn on the bank in a sum certain amount is more than just some amorphous evidence, it's -- it's -- it basically amounts to a -- a cash bond that cannot be withdrawn as long as it -- that letter of credit is in DOGM's position -- possession, and it certainly satisfies the regulatory requirements. And then if the DOGM determines that that bond is insufficient, then it can come back to C.W. Mining Company and make those concerns so those can be addressed. But as of right now, the irrevocable letter of credit is nearly $900,000. Unless there's some reason to object to it, it is, in fact, a bond.

MR. REYNOLDS: I might also add, too, there has been additional correspondence with the Division direct to the bond.

1 THE CONFERENCE OFFICER: That was
2 going to be my question. There's a
3 regulatory requirement to submit a notarized
4 statement of one sort or another. Has that
5 done been now?
6 MR. REYNOLDS: Yes.
7 THE CONFERENCE OFFICER: That --
8 that, at least in your opinion, meets the
9 requirements of the reg. Have you received
10 any correspondence from the Division?
11 MR. REYNOLDS: At this point we
12 haven't got any written, but we have got the
13 verbal correspondence concerning a new amount
14 that has been determined and set. And we
15 are, at this point, in the process of
16 increasing that letter of credit through
17 the --
18 THE CONFERENCE OFFICER: So the bond
19 is going to go up. And have you provided the
20 -- again, the notarized statement, or will
21 that happen after the Division approves the
22 bond amount?
23 MS. GRUBAGH-LITTIG: Well, we
24 have --
25 THE CONFERENCE OFFICER: Please go

1 ahead.
2 MS. GRUBAUGH-LITTIG: May I
3 interrupt?
4 We have evidence in our files that
5 we do have the letter of credit and it is in
6 effect. I mean, we do have the physical
7 document in our files. And there has been an
8 escalation factor, which is just done for a
9 five-year period, that would increase it. And
10 Co-Op is working on it. But we do have
11 evidence that it is in effect at this time.
12 THE CONFERENCE OFFICER: Is -- is
13 that your concern, Mr. Crook, or are you
14 looking for the -- the thing that I thought
15 you were looking for in the previous hearing
16 like this, wanting to see strictly the
17 notarized statement and -- and that type of
18 compliance with the law?
19 MR. CROOK: I didn't think that
20 there was any problem with the notarized
21 compliance. We just wanted to --
22 THE CONFERENCE OFFICER: So you just
23 want to make sure the bond is adequate?
24 MR. CROOK: Right. Right.
25 MS. GRUBAGH-LITTIG: Do you mean as

1 far as the amount, or as far as --
2 MR. CROOK: Well, my -- our -- our
3 concern was that we didn't think a -- just a
4 statement was sufficient, if the --
5 MS. GRUBAUGH-LITTIG: Oh.
6 MR. CROOK: -- if the Division has
7 it in its possession.
8 MS. GRUBAGH-LITTIG: But we -- I
9 have physical --
10 (There was a discussion held off the record.)
11 MS. GRUBAUGH-LITTIG: I was just
12 going to say that I have personal knowledge
13 that we do have it in our possession.
14 THE CONFERENCE OFFICER: Please
15 continue.
16 Thank you.
17 MR. HANSEN: I think that adequately
18 addresses the performance bond issue.
19 The -- the second issue -- and as I
20 see it, there's really only two issues raised
21 here, Mr. Crook. Those are concerns over the
22 area hydrology and the adequacy of the
23 evidence to support the permit in the area of
24 hydrology; is that correct?
25 MR. CROOK: No.

1 MR. HANSEN: Pardon?
2 MR. CROOK: No. I -- I think that
3 my second concern is not a statement of the
4 adequacy of information, it's about the -- I
5 think that it needs to be -- there needs to
6 be some assurance that it's complete,
7 accurate, and up to date, that there needs to
8 be a little bit more assurance that water
9 quality and quantity will not be impacted.
10 So maybe I just -- maybe adequacy
11 of information is the right way to put it.
12 MR. HANSEN: I -- I'm going to be
13 speaking a little bit about the contents of
14 the Mayo report, but I primarily want to
15 address the legal issues that are -- are
16 raised by Mr. Crook's concerns. The -- the
17 first is the distinction between an initial
18 permit application and a request for a permit
19 renewal. And as Mr. Crook points -- points
20 out, a permit comes with a -- an automatic
21 right to renewal, as long as the terms and
22 conditions are met.
23 In an initial permit application the
24 burden of proof is on the applicant to
25 demonstrate compliance with all the statutory

1 and regulatory requirements. That burden of
2 proof shifts on permit renewal. The burden
3 falls on anyone that seeks to protest the
4 permit renewal, to demonstrate that the
5 requirements have not been met.
6 In this particular permit we have
7 had litigation over this very issue, both
8 under a permit renewal on the previous
9 request to renew permit ACT/015/025, and,
10 also, litigation over the same issues at --
11 in a request for substantial modification of
12 the permit, to allow mining. And so we've
13 already had litigation over these issues,
14 both where the burden of proof fell on C.W.
15 Mining Company and where the burden of proof
16 fell on Huntington-Cleveland Irrigation
17 Company. In both cases there was convincing
18 evidence presented first to -- to DOGM and
19 then to the Board, on both sides. And in
20 both proceedings, previous permit renewal and
21 the Tank seem application, DOGM and then the
22 Board concluded that the evidence was
23 sufficient to establish that C.W. Mining
24 Company had complied with all regulatory
25 requirements, and, in fact, even went beyond

1 that, and made -- made specific findings of
2 fact that Big Bear Spring is not
3 hydrologically connected to the current
4 permit area and that Birch Spring is not
5 hydrologically connected to the current
6 permit area, and at least as of the date of
7 the resolution of the Tank seam application,
8 that neither the quantity nor the quality of
9 water at either spring had ever before been
10 adversely impacted by mining at the Bear
11 Canyon Mine.
12 Now, Huntington-Cleveland, along
13 with the other protestors of the Tank seam
14 application, took that matter up on appeal,
15 and the Utah Supreme Court upheld the Board's
16 findings that the springs are not
17 hydrologically connected to the permit area,
18 that the mining operation was designed to
19 prevent material damage to the hydrologic
20 balance outside the permit area, and that
21 Co-Op's permit complied with all the statutes
22 and regulatory requirements.
23 Now, the reason that those previous
24 matters of litigation and the appeal were
25 reported is because there is a doctrine in

1 the law called collateral estoppel, and that
2 applies to bar re-litigation of those issues.
3 I would refer the Court, first, to Utah
4 Supreme Court case Career Service Review
5 Board versus the Utah Department of
6 Corrections. This is found at 942 Pacific
7 2nd, 933, beginning on Page 938.
8 The Utah Supreme Court stated, "Res
9 judicata, which subsumes the doctrine of
10 collateral estoppel... applies to
11 administrative adjudications in Utah."
12 The court said, "The principles of
13 res judicata apply to enforce repose when an
14 administrative agency has acted in a judicial
15 capacity in an adversary proceeding to
16 resolve a controversy over legal rights and
17 to apply a remedy."
18 The fourth -- the four elements of
19 issue preclusion are required to show
20 collateral estoppel. The first element is
21 that the issue decided in the prior
22 adjudication must be identical to the one
23 presented in the action in question.
24 The second is that there must be a
25 final judgment on the merits.

1 The third is that the party against
2 whom the plea is asserted must be a party in
3 privity with a party to the prior
4 adjudication.
5 And, finally, the issue in the first
6 action must be completely, fully, and fairly
7 litigated.
8 The particular question here, the
9 issue is whether the information contained in
10 -- in the permit application is adequate, and
11 that rests on certain findings. If, in fact,
12 Big Bear Spring is not hydrologically
13 connected to the permit area, and if, in
14 fact, Birch Spring is not hydrologically
15 connected to the permit area, then mining in
16 the permit area is not going to impact those
17 springs.
18 Those two issues have been resolved
19 twice in the litigation already. Those are
20 identical issues to issues that Mr. Crook
21 wants to raise this morning. So the issues
22 are identical to ones previously presented.
23 In both the prior permit renewal and in the
24 Tank seam application, there was a final
25 judgment on the merits. The judgment was in

1 favor of C.W. Mining Company and against the
2 Huntington-Cleveland. The parties, C.W. Mining
3 Company and Huntington-Cleveland, are
4 identical, and the issues were completely,
5 fully, and fairly litigated.
6 Now, on appeal, in the Tank seam
7 application, Huntington-Cleveland challenged
8 whether that fourth leg -- element had been
9 met, and the Utah Supreme Court, after
10 reviewing the entire matter, concluded, yes,
11 that -- that the -- the issue had been
12 completely, fully, and fairly litigated, that
13 the -- that DOGM and then the Board had
14 jurisdiction to consider those issues; that
15 they did consider those issues;
16 Huntington-Cleveland put on a full panel of
17 evidence on those issues; that all due
18 process requirements were met; and that the
19 issue was, in fact, fully and fairly
20 litigated.
21 Because all four of the elements
22 were met, collateral estoppel applies at this
23 point to re-bar any litigation over whether
24 or not there is a hydrologic connection
25 between Big Bear Spring and Birch Spring.

1 Now, I realize Mr. Crook -- Crook
2 would like the -- DOGM to revisit those
3 issues, but it is a fundamental --
4 fundamental principle of res judicata that
5 for a judgment to be valid it need not be
6 free from error. That's from a case called
7 Copper State. It's found at 735 Pacific 2nd.
8 The quote is on Page 392.
9 Now, we would submit that the DOGM
10 and the Board and the Utah Supreme Court did
11 not err in -- on quoting those previous
12 findings in the hydrologic connection, but
13 even if somehow they had erred, those
14 findings are, nevertheless, barred by
15 collateral estoppel.
16 I would point out that the burden
17 of proof in this hearing is not on C.W.
18 Mining Company, it is on Huntington-
19 Cleveland; that no evidence has been
20 presented that hasn't already been presented
21 to the Board and considered by the board,
22 resolved by the Board, and ruled on by the
23 Board.
24 Now, there are -- there could
25 conceivably be some issues where it would not

1 be barred by collateral estoppel; for
2 example, if there'd been some geologic
3 upheaval in the area, an earthquake or the
4 like, that opened new cracks and fissures
5 that hadn't been there at the time of the
6 Tank seam application, or if C.W. Mining
7 Company had -- had drilled -- drilled some
8 new sink holes that made connections where
9 those things no longer existed. Then
10 Huntington-Cleveland would be free to put on
11 evidence that those things that did not exist
12 at the time of the Tank seam application had
13 created a connection, where they did not
14 previously exist, and if Huntington-Cleveland
15 has such evidence, they're certainly free to
16 come forward with that. But Huntington-
17 Cleveland is not entitled to contest issues
18 resolved as of the Tank seam application,
19 which is that the geology at that time
20 establishes the hydrologic connection between
21 the springs and the permit area. That's a
22 matter that has been resolved, and they
23 cannot re-litigate that question.
24 I'll point out a few things in --
25 concerning the Mayo report itself. Mr.

1 Crook, as I -- as I understand his
2 clarification, he wants -- he wants DOGM to
3 ensure that C.W. Mining Company's PHC and
4 CHIA are complete and accurate and up to
5 date. Well, that is no more than DOGM is
6 already required to do, with or without a
7 protest and with or without an informal
8 conference. And I would assume that -- that
9 DOGM is meeting its regulatory requirements
10 in that regard, and that it is giving due
11 attention to all of those matters; if there
12 are materials that are incomplete or
13 inaccurate or outdated, that DOGM either
14 already has or is in the process of asking
15 C.W. Mining Company to update that
16 information already. C.W. Mining Company
17 will certain comply with any requests that
18 are needed to satisfy its regulatory
19 requirements.
20 I would point out that DOGM, as
21 well as the Board, has already reviewed the
22 Mayo report, and has concluded that -- that
23 the evidence contained in the report shows
24 there wasn't a hydrological connection
25 between the springs and the mine. And I know

1 Mr. Crook would like to argue to the
2 contrary, but that is an issue that has
3 already been resolved.
4 It's not the burden of C.W. Mining
5 Company to tie down with scientific certainty
6 the -- the hydrology of the entire area. It
7 that was a burden that anybody had, that
8 would be impossible to meet such a burden.
9 There would be -- never be any mining
10 activity. And certainly the regulations do
11 not require such a burden.
12 I -- I'm not going to discuss the
13 underground seeps SBC-7, -9, -10, and -13.
14 If Charles would like to point out specifics
15 of those, I -- I would leave that to him.
16 But I -- I would basically point out that
17 those were not springs that existed
18 pre-mining, that dried up.
19 Mr. Crook suggested that the -- that
20 the Mayo report shows the mining has
21 intercepted groundwater. That's a complete
22 misstatement as to what the Mayo report
23 states. The Mayo reports clearly states that
24 there is no regional aquifer in the area,
25 that the mining has not encountered the

1 aquifer, that the mining water encountered
2 during mining is perch water and it describes
3 where the source of that perch water is.
4 Mr. Crook suggests that the Mayo
5 report is mere supposition as -- as to what
6 -- what it concludes as far as hydrology. I
7 would submit that it is not supposition, that
8 Mr. Mayo is a highly respected expert in the
9 area, and that the Mayo report contains his
10 expert opinion based on the comprehensive
11 analysis of all available information
12 addressing the geology of the area, the
13 hydrology in the area, includes specific
14 chemical testing of the waters encountered
15 both in the mine and in the springs, and
16 includes specific radioisotope testing of the
17 waters encountered both in the mine and in
18 the springs; considers climate, the
19 climatology, and weather and changes thereto;
20 even addresses an earthquake that the water
21 users indicated had occurred at one point in
22 time and possible impact it did have on the
23 hydrology. In other words, he covered all
24 the available evidence and found that
25 evidence adequate to come up with an expert

1 opinion, and gave that expert opinion.
2 The water uses had their own expert
3 opinion that contested those matters based on
4 their review of the evidence. Those disputes
5 as to expert opinions were also presented to
6 -- to DOGM, first, and then to the Board, and
7 were already resolved. And we are not here
8 this morning to re-litigate those matters
9 that have already been resolved.
10 Mr. Crook spent some time discussing
11 the Wild Horse Ridge application that he
12 thinks leaves some open questions about the
13 hydrology outside the permit area. I submit
14 that the Wild Horse Ridge application is not
15 before DOGM this morning, that whatever is
16 contained in that application has no bearing
17 on whether or not the exiting permit in the
18 existing permit area can be renewed.
19 The Mayo report was prepared solely
20 to support the Tank seam application, and
21 there for awhile it does address the
22 hydrology outside the immediate application
23 area, outside the immediate permit area. It
24 was not designed to and was not intended to,
25 and, therefore, it did not address specifics

1 regarding the Wild Horse Ridge. Again, that
2 point is not relevant to the matters before
3 DOGM at this point.
4 Mr. Crook also brought up the Trail
5 Canyon Mine bond release. But in doing so,
6 he stated that he did not -- did not suggest
7 that that applies to Bear Canyon Mine, only
8 that certain statements appeared to raise
9 some open questions. Again, that is not
10 really relevant to the matters before DOGM
11 this morning. It was a different mine, it
12 was a different permit. Mining has been
13 completed in that area. It is possibly
14 different hydrology. That area was not
15 addressed in the Mayo report. But, again,
16 those matters are really not relevant to
17 whether C.W. Mining Company is entitled to
18 renew its permit for the Bear Canyon Mine.
19 And I believe that pretty much
20 covers the items that Mr. Crook raised.
21 MR. REYNOLDS: Maybe I could add --
22 add to that just a few clarifying points.
23 First of all, in the sites that we talked
24 about, SBC-7, SBC-8, -9, and -10, those
25 sites, as I mentioned, are all located within

1 the mine. SBC-7 was a seep that was
2 encountered as a result of mining that took
3 place back in the 1950's. So that did exist
4 before C.W. Mining went in there, but it was,
5 in fact, the result of mine workings, and it
6 was a seep that was within the mine.
7 I might also add that the water
8 quality and quantity of all of the sites
9 with -- within the mine have continually and
10 are continuing to be monitored. The Division
11 does review all of that data.
12 And then the other point from the
13 Mayo report and the relation of the Wild
14 Horse Ridge issue to the existing permit: It
15 is true that the Mayo report draws from and
16 discusses a lot of information from the
17 existing permit area, but the report, also,
18 in its conclusions pertaining to Wild Horse
19 Ridge and the information pertaining to Wild
20 Horse Ridge, the Mayo report does present
21 that the two areas, the Wild Horse Ridge and
22 the existing permit area, are hydrologically
23 isolated because of the Bear Canyon fault.
24 So information pertaining to Wild Horse Ridge
25 would not necessarily also pertain to the

1 existing permit.
2 THE CONFERENCE OFFICER: Anything
3 further?
4 MR. REYNOLDS: I think that's it.
5 THE CONFERENCE OFFICER: Mr. Crook?
6 MR. CROOK: Yeah. I just have a
7 couple of questions, first, and then I would
8 like to respond to some of the legal
9 arguments that were made and
10 characterizations of my -- or
11 Huntington-Cleveland's position.
12 One, what is the Tank seam
13 litigation Supreme Court citation?
14 MR. HANSEN: Let's see. It's
15 Castle Valley Special Service District, et
16 al. versus Utah Board of Oil, Gas and Mining,
17 938 Pacific 2nd, 248.
18 MR. CROOK: What's the year?
19 MR. HANSEN: Pardon?
20 MR. CROOK: The year.
21 MR. HANSEN: Oh. 19-, what was it,
22 -97? 1996.
23 MR. CROOK: Okay.
24 First of all, just so it's clear on
25 the record, I wasn't aware that they were

1 going to make -- that Co-Op Mining was going
2 to be making these arguments regarding res
3 judicata and collateral estoppel. However, I
4 have a few responses to that, and I apologize
5 I don't have any of my -- my citations with
6 me.
7 THE CONFERENCE OFFICER: Before you
8 do, let me just add for the record that I'm
9 not an attorney, and this is an informal
10 conference slash hearing that we're doing
11 right here, and you're welcome to -- to make
12 the arguments that you want, legally. I -- I
13 wonder whether I'm capable of -- of assessing
14 narrow legal things you're going to talk
15 about, but --
16 MR. CROOK: Well --
17 THE CONFERENCE OFFICER: -- if you
18 feel like you need to --
19 MR. CROOK: -- I feel like I need
20 to, as a matter of law, to preserve --
21 THE CONFERENCE OFFICER: You're
22 privileged.
23 MR. CROOK: -- my objection.
24 THE CONFERENCE OFFICER: You're
25 privileged.

1 MR. CROOK: First of all, let me
2 explain, first, collateral estoppel applies
3 -- I -- I don't disagree with the -- with the
4 elements as set forth by Co-Op Mining, I just
5 have a few -- one big issue. The first prong
6 of the collateral estoppel doctrine applies
7 in the same -- the same issue or same matter
8 -- and I'll probably be corrected if I get
9 this wrong -- was -- or the identical issue
10 was presented and resolved, and that it to be
11 -- that is the question. I would suggest,
12 one, that we've got different issues here
13 before the Board today, and that is that this
14 is an application for renewal of a permit for
15 Bear Canyon. We're not speaking about Trail
16 Canyon Mine -- or I'm sorry, the Tank Seam
17 litigation, we're talking about this issue
18 before the Board today. And the issue before
19 the Board today is that we are protesting --
20 we are merely coming before the Board
21 suggesting that we have concerns. Now,
22 there's been some minimization of our
23 ability to do that, or at least it appears
24 that there is a minimization of that. But I
25 believe that as interested water users in the

1 area, even if the Division already has the
2 duty to do this -- we're not suggestion the
3 Division will not do it, what we are
4 suggesting is the Division -- we have
5 significant interests in making sure that
6 those requirements are looked at and that
7 they are met. We are simply suggesting we
8 want, we want the Division to know we are
9 concerned that Bear Canyon Mine has an impact
10 on water. And that seems to be the thing
11 that has been ignored a little bit in, in
12 response to our arguments.
13 But going on beyond that, the issue
14 before this Division is whether they've met
15 the Division's requirement for renewal. And
16 one of those requirements, as I discussed
17 before, is that the Division may add, ask for
18 additional revised or updated information.
19 We're suggesting to the Division we would, we
20 think it would be appropriate to ask for
21 that, to make sure that the reports are
22 accurate, and to suggest to the Division we
23 have serious concerns.
24 Our concerns don't only lie with the
25 Bear -- Big Bear Spring and the Birch Spring

1 question. That was only one of the elements
2 that we have. I'd say, I'd say it's
3 inaccurate to say that it is, that water is
4 not affected. We've got significant seeps in
5 the Bear Canyon Mine. Now, whether those are
6 perched aquifers or whether they're general
7 aquifers or whether they're perched waters is
8 irrelevant. The fact is that water is
9 effected by the Bear Canyon Mine. They've
10 dug in there, there've been seeps created,
11 there's significant flow out of those seeps,
12 and that suggests to us that there is a, a
13 serious water concern. Our concern is not
14 only tied with the, with the springs. So I
15 would say that those are separate issues.
16 Those issues have not been litigated.
17 And I would also suggest that the
18 -- since the Division is concerned about the
19 -- our suggestion that the Wild Horse Ridge
20 application findings and conclusions are not
21 relevant to the discussion today, that any
22 suggestion about the Tank Seam application or
23 anything else would be equally relevant. We
24 would ask for fairness in that determination.
25 But I would just now move to a

1 couple of things. First, I don't mean to
2 minimize the Mayo report. I'm sure Mr. --
3 and I'm sure it's Dr. Mayo -- is much more
4 intelligent than I am, when it comes to water
5 issues; I have no qualms about that. What I
6 have suggested, however, is that even as
7 smart as Mr. Mayo is, as smart as he is and
8 as, as good as his report was, and as, as
9 much testing that he did, he still couldn't
10 determine what the source of the water going
11 into Big Bear Spring was. He still could not
12 determine where the recharge areas were. And
13 we're suggesting that suggests caution. And
14 that is why the Wild Horse Ridge addition
15 application is relevant, because the Mayo
16 report does talk about the hydrology of the
17 area.
18 The conclusion of the Division was
19 that even though the Mayo report was
20 submitted with the Wild Horse Ridge, Ridge
21 addition, that the geologic control for the
22 characterizing Blackhawk sandstones, Blackhawk
23 coal unit, and the potential water-bearing
24 Star Point sandstones, is inadequate. Even
25 though it was the Mayo report that was relied

on, the Division suggested that that was inadequate and that there needs to be additional studies. We're simply saying if that is the case, it urges caution in this application as well, and we're just asking the Division to exercise that caution and ask Co-Op to make sure that these things are updated and that they're accurate. That's all we're doing.

Next, I, I also object to the characterization of some of our concerns. We're not here suggesting that, that Bear Canyon has to tie down and to show with certainty every possible water flow in the Gentry Mountain area, we're simply suggesting that because everyone, even the folks that they hired, that Co-Op hired cannot conclude where the water is coming from, that there be some caution in renewing. And we just ask that that be done.

And, finally -- and I think I've already talked about this a little bit, is that Huntington-Cleveland Irrigation Company is not out of bounds for coming and asking the Division to do this type of thing. The

1 reason is they have significant interests,
2 and those significant interests can be
3 impacted. And we -- all we, all we want to
4 do is to tell the Division that we have those
5 concerns, and that we're asking that they
6 just be listened to and responded to.
7 There is a, there has appeared, to
8 me, to be, from Co-Op Mining, an attitude
9 that we are just trying to be a bur in their
10 saddle, and that's the farthest from the
11 truth. What we want is to make sure that our
12 interests are protected, and we have
13 significant ones. And I don't think that
14 it's unfair for us to come and ask the
15 Division and to tell the Division that we
16 have those concerns.
17 And I, I think that's all the
18 response that I'll have.
19 THE CONFERENCE OFFICER: Thank you.
20 Anything further?
21 MR. HANSEN: I would like to
22 respond to a couple of points, if I may. I
23 -- I don't believe that I made the argument
24 or that Mr. Reynolds made the argument that
25 H.C., or that Huntington-Cleveland is out of

1 bounds by requesting this conference.
2 Certainly, they're entitled to do so, and if
3 they have any evidence to present that is
4 relevant to the proceedings, they are free to
5 do so, and we do not contest the right to do
6 so. But I would point out that in this
7 proceeding collateral estoppel does apply,
8 and in this proceeding the burden of proof is
9 on Huntington-Cleveland.
10 Now, collateral estoppel, again,
11 does not deprive the Board of subject matter
12 jurisdiction over claims and issues properly
13 before the Court. Certainly it does not
14 deprive the Board of, of jurisdiction to
15 determine the adequacy of the information in
16 the permit. But it does require that while
17 acting in an adjudicative capacity, as DOGM
18 does in an informal conference, that the
19 Board shall not reinvent the wheel; that is,
20 that the Board, that if the elements of
21 collateral estoppel are met, the issue
22 resolved then prior to the adjudicatory
23 proceedings are already conclusively resolved
24 for the purposes of this proceeding, and that
25 those issues include whether or not there is

1 a hydrological connection between the current
2 permit area and the Birch and Big Bear
3 Springs. That is an issue that was
4 previously resolved, and if Huntington-
5 Cleveland wants to readdress whether there is
6 such a hydrologic connection, then that
7 matter has already been resolved.
8 So in this proceeding it's true both
9 that DOGM has jurisdiction to rule on
10 objections to the permit, but, at the same
11 time, in exercising that jurisdiction, that
12 DOGM is obligated to give preclusive effect
13 to issues that have been previously
14 adjudicated.
15 Now, as I -- as the regulations
16 make clear, in a permit renewal the burden of
17 proof is on the, the party protesting the
18 permit renewal. I've, I've heard repeatedly
19 requests for DOGM to ask C.W. Mining Company
20 to update its information, but I have yet to
21 hear about any particular information that is
22 not already complete and accurate and up to
23 date. And rather than just throwing out a
24 blanket demand to be sure everything is okay,
25 the Board -- DOGM is already supposed to be

1 doing that. I think that it becomes
2 incumbent upon Huntington-Cleveland at this
3 time, if Huntington-Cleveland is raising an
4 objection, to point out specific information,
5 specific data in the permit that is not
6 complete, is not accurate, is not up to date,
7 to point out specific criteria in the
8 regulations that Huntington-Cleveland contends
9 have not been met and to show how those
10 regulations have not been met. I would
11 submit that Huntington-Cleveland has not done
12 that, they have not met their burden of proof
13 in this matter.
14 And I think that's all. I'll leave
15 it at that.
16 THE CONFERENCE OFFICER: May I just
17 respond?
18 THE CONFERENCE OFFICER: Let's --
19 let's do one more round of this. But, again,
20 I would like to see, in order to facilitate
21 my burden, any evidence that you have that
22 suggests this permit not be renewed. I think
23 that's, you're welcome to say other things;
24 we're informal and you certainly have the
25 ability to put other cards on the table, but

1 the decision that I make is going to be based
2 on the evidence that you present, so please
3 do so.
4 MR. CROOK: Okay. Let me address
5 those concerns first. I think the evidence
6 that I've already indicated suggests that the
7 Division ought to act with caution. We
8 haven't suggested that the permit should not
9 be renewed if those things that they bring
10 before, that Co-Op brings before the Division
11 satisfy the Division, but what we have done
12 is looked at the Mayo report, looked at the
13 Gentry Mountain CHIA. Those conclude, those
14 suggest that there is groundwater that has
15 been seeping into the mines. Those suggest
16 that Gentry Mountain, at least, suggests that
17 water can -- Gentry Mountain CHIA, can come
18 through faulting areas, and that those may be
19 alternative ways the water can get into the
20 Gentry Mountain area and into the Bear Canyon
21 Mine.
22 Now, I, I've also indicated and
23 represented to the Division various seep
24 points that show that water is going in and
25 can have an impact on quantity, at least

1 where groundwater is intercepted. I've also
2 indicated that there may be some
3 circumstantial evidence that Big Bear Spring
4 and Birch Spring have become impacted by
5 mining activity. Those are the pieces of
6 evidence that I suggested from the reports
7 that already exist, and that's all, that's
8 the evidence, and that would be my reply to
9 that specific question.
10 THE CONFERENCE OFFICER: Just for a
11 minute, setting the two major springs that
12 you cited aside, Birch and Big Bear, do you
13 have any evidence that in-line water flows
14 have contaminated or diminished water flows
15 in other springs inside the CHIA area?
16 MR. CROOK: Not that isn't discussed
17 in the reports that the Division has already
18 got before it.
19 THE CONFERENCE OFFICER: All right.
20 MR. CROOK: The, the other things
21 that I'd like to respond to are, first, as
22 res judicata is asserted here, what Co-Op
23 would have the Division do is do this: It
24 would have one study done, have one protest,
25 and then everybody would be bound by what the

1 Division concluded from that one protest.
2 I'm saying that, you know, that is not
3 conceivably possible. But not only that,
4 that we're, we've got a different issue here.
5 We're asking for the Division just to look at
6 what it needs to do to have a renewal, to
7 suggest that, that there be water concerns,
8 to assure that the water concerns are
9 addressed with Huntington-Cleveland, and that
10 those things are accurate, up to date, and
11 complete. And that's not an issue that has
12 been litigated before.
13 Also, the question of the
14 groundwater interception has not been an
15 issues that's been addressed before. As I
16 hear represented by Co-Op, the only issues
17 that were litigated that he is asserting are
18 that Big Bear Spring and Birch Spring are
19 hydrologically isolated from the permit
20 areas. So I would say, as a matter of law,
21 then, that res judicata wouldn't apply here.
22 And -- and, really, those are our
23 concerns. It's simply that we're asking,
24 we're coming here because we have, we just
25 want the Division to know that we have

1 serious water concerns. Water is an important
2 issue, and I'm sure that the Division knows
3 that, and it's important to our client.
4 Also, lastly, the burden has been
5 discussed. That falls under R.645-303.200,
6 discussing the burden. I would merely
7 suggest that we have brought our concerns
8 under -232.100 and have asked that the
9 Division recognize our concerns, again,
10 looking for --
11 THE CONFERENCE OFFICER: Could you
12 reiterate what the last cite that you gave,
13 the 233.100 --
14 MR. CROOK: That's the general
15 application requirements and procedures that
16 the Division follows.
17 THE CONFERENCE OFFICER: All right.
18 MR. CROOK: And we're just asking
19 the Division to exercise its discretion to
20 assure that the water reports are all
21 updated, complete, and accurate.
22 THE CONFERENCE OFFICER: Thank you.
23 Sir.
24 MR. HANSEN: Just very briefly.
25 As I hear things -- and I -- I

1 don't want to put words in Mr. Crook's mouth,
2 but the primary evidence that Huntington-
3 Cleveland is relying on in support of this
4 particular protest is the evidence contained
5 in the Mayo report, so I would -- I would ask
6 that DOGM take a close look at that Mayo
7 report, and not only the underlined data, but
8 the expert opinions that -- and conclusions
9 that are reached based on that data, because
10 the Mayo -- the Mayo report does not suggest
11 that groundwater is seeping into the mine.
12 In fact, it goes through an extensive
13 analysis to reach the entirely contrary
14 conclusion, that groundwater is not seeping
15 into the mine, but the water that is
16 encountered there is, is -- consists solely
17 of perched aquifers, and the source of those
18 perched aquifers is adequately identified.
19 I, I heard a statement that the
20 Mayo report couldn't determine the source of
21 the water or the recharge source for the
22 springs. That is just simply a wrong
23 statement. And if DOGM will read the report,
24 they will find that the Mayo report does make
25 a conclusion as to what the source and

1 recharge of Big Bear Spring is, and that that
2 source of recharge is not impacted by the
3 mining, by the mining activities. And,
4 again, the burden to disprove that is
5 Huntington-Cleveland at this point. We don't
6 need to reprove those, those particular
7 matters.
8 I would also ask that DOGM, in
9 addition to the Mayo report itself, review
10 the testimony of Dr. Mayo and our other
11 experts witnesses in the prior hearings, with
12 the suggestion that if DOGM does that, they
13 will conclude most of the issues that, that
14 Huntington-Cleveland actually wants to raise
15 here are issues that were already raised in
16 those prior matters, that were litigated in
17 those prior matters; that the parties were
18 the same; and that -- and that there were
19 final judgments on those very matters, and so
20 that collateral estoppel does apply to those
21 things.
22 And, again, I would, I would just
23 like to restate, in, in my opinion, that at
24 this stage of the proceeding it's fine to say
25 that DOGM should require C.W. Mining Company

1 to comply with the regulatory provisions
2 dealing with permit renewal. We, we submit
3 that we've done that. If the water users, if
4 Huntington-Cleveland considers that C.W.
5 Mining Company has not met those regulatory
6 requirements, the burden remains on
7 Huntington-Cleveland to point out in what
8 manner those requirements have not been met.
9 And I have heard nothing to suggest
10 that there is any particular regulatory
11 requirement that has not been met. I have
12 heard no evidence to suggest that the PHC has
13 not satisfied all the regulatory requirements
14 for PHC. I've heard no evidence to suggest
15 that CHIA does not satisfy all the
16 requirements for a CHIA, and unless the water
17 users or Huntington-Cleveland has some
18 evidence to the contrary, that their protest
19 should be denied.
20 Thank you. I have no further --
21 nothing further.
22 THE CONFERENCE OFFICER: Thank you.
23 Is there anybody here that would
24 like to be heard on this matter, that hasn't
25 already been heard?

I think we stand adjourned, then.

Thank you.

(The hearing was adjourned at 10:15 a.m.)

1 **CERTIFICATE**

2 This is to certify that the foregoing deposition was
3 taken before me, KERRY SORENSEN, a Registered
4 Professional Reporter and Notary Public in and for the
5 State of Utah, residing at Sandy, Utah;

6 That said witness was by me, before examination,
7 duly sworn to testify the truth, the whole truth and
8 nothing but the truth in said cause;

9 That the testimony of said witness was reported by
10 me in stenotype and thereafter caused by me to be
11 transcribed into typewriting and that a full, true, and
12 correct transcription of said testimony so taken and
13 transcribed is set forth in the foregoing pages,
14 inclusive, and said witness deposed and said as in the
15 foregoing annexed deposition.

16 I further certify that I am not of kin or otherwise
17 associated with any of the parties to said cause of
18 action, and that I am not interested in the event
19 thereof.

20

21 Kerry Sorensen, CSR/RPR
22 My Commission Expires:
June 21, 2001

23

24

25

NOTARY PUBLIC
KERRY SORENSEN
1411 E. Waters Lane
Sandy, UT 84093
My Commission Expires
June 21, 2001
STATE OF UTAH

1 BEFORE THE DIVISION OF OIL, GAS AND MINING
2 DEPARTMENT OF NATURAL RESOURCES
3 STATE OF UTAH
4
INFORMAL CONFERENCE, CAUSE NO. ACT/015/025
5
6 IN THE MATTER OF THE FIVE
YEAR PERMIT RENEWAL FOR
7 THE CO-OP MINING COMPANY,
BEAR CANYON MINE, EMERY
8 COUNTY, UTAH
9
10
11 Place: DEPARTMENT OF NATURAL RESOURCES
1594 West North Temple, Room 2000
12 Salt Lake City, Utah 84114
13 Date: October 27, 2000
14 Time: 9:00 a.m.
15 Reporter: Kerry J. Sorensen, CSR/RPR
16
17
18
19
20
21
22
23
24
25

1 APPEARANCES
2 .
3 The Conference Officer:
4 Mr. Lowell P. Braxton
5 DEPARTMENT OF NATURAL RESOURCES
6 DIVISION OF OIL, GAS AND MINING
7 1594 West North Temple, Suite 1210
8 Salt Lake City, Utah 84114-5801
9 (801) 538-5370
10 .
11 For Huntington-Cleveland Irrigation Company:
12 Mr. D. Scott Crook
13 NIELSEN & SENIOR
14 60 East South Temple, Suite 1000
15 Salt Lake City, Utah 84111
16 (801) 532-1900
17 .
18 For C.W. Mining Company:
19 Mr. F. Mark Hansen
20 431 North 1300 West
21 Salt Lake City, Utah 84116
22 (801) 517-3530
23 .
24 Also Present:
25 Mr. Charles Reynolds

1 October 27, 2000
2 9:00 a.m.
3 PROCEEDINGS
4 THE CONFERENCE OFFICER: This is the
5 time and the place for the matter of the
6 informal hearing -- informal conference, I
7 should say, for the permit renewal of Co-Op
8 Mining Company, Bear Canyon Mine, Cause
9 Number ACT/015/025.
10 I think we should have everybody
11 that's representing somebody here identify
12 themselves, and then I think the two parties
13 can discuss which order they want to go in.
14 MR. CROOK: I'm Scott Crook,
15 representing Huntington-Cleveland Irrigation
16 Company.
17 MR. HANSEN: I am Mark Hansen,
18 representing C.W. Mining Company.
19 MR. REYNOLDS: I'm Charles Reynolds,
20 representing C.W. Mining Company.
21 THE CONFERENCE OFFICER: And for the
22 record, I'm Lowell Braxton, the Conference
23 Officer.
24 Scott, presumably, you know, you go
25 first, but is there any objection to that on

1 your part?
2 MR. HANSEN: No. We're just here
3 to respond to the protestors and whatever
4 issues they raise.
5 THE CONFERENCE OFFICER: Very good.
6 MR. CROOK: Okay. I represent the
7 Huntington-Cleveland Irrigation Company, which
8 holds significant water rights in Huntington
9 Creek and the tributaries to it. As I am
10 sure the Division is aware, by the number of
11 our appearances here, Huntington-Cleveland has
12 significant interests in assuring that both
13 the quantity and quality of water is
14 protected from diminishment and degradation
15 by those upstream of its rights, and that
16 includes Co-Op Mining Company.
17 Huntington-Cleveland, of course, is
18 aware that an application for renewal carries
19 with it the right of successive renewals, and
20 that's found in Utah Administrative Rule
21 R.645-303-231. However, Huntington-Cleveland
22 would like to stress that the Division has
23 the duty to -- to determine, one, that the
24 terms and conditions of existing permit are
25 being satisfactorily -- satisfactorily met --

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OIL, GAS AND MINING

Page 5

1 that's found in R.645-303-233.110 -- and
2 that, two, the present coal mining and
3 reclamation operations are in compliance with
4 the environmental protection standards of the
5 state program. And that is found at
6 R.645-303-233.120. Additionally, Utah
7 Administrative Rule R.645-303-232.200 to -250
8 provides the Division may require additional
9 revised or updated information in a renewal
10 application.
11 We come to the Division, first, to
12 ask that the Division assure that, pursuant
13 to R.645-303-232.230, Co-Op provides evidence
14 that the performance bond in effect for the
15 operation will continue in full force and
16 effect for any renewal requested, as well as
17 any additional bond required by the Division.
18 With regard to the bond, Co-Op's
19 application states only that "The current
20 amount of the bond filed with the Division in
21 the form of an irrevocable letter of credit
22 is $899,000.00. We are in the process of
23 determining a new estimate," end quote.
24 Huntington-Cleveland submits that this
25 unilateral -- unilateral unsupported

Page 6

1 declaration is insufficient to meet the
2 evidentiary requirements.
3 Turning to Huntington-Cleveland's
4 second concern, which is its primary concern,
5 we believe that the Division should require
6 that Co-Op provide assurance and that the
7 Division assure that the hydrological
8 information supporting the Bear Canyon Mine
9 permit, including the Probable Hydrological
10 Consequences and the Comprehensive
11 Hydrological Impact Assessment, are complete,
12 accurate, and up to date.
13 The reasons for our concern include,
14 first, despite several studies, including the
15 Mayo report, which is a report prepared to
16 describe the surface water and groundwater
17 systems of the current Bear Canyon Mine lease
18 area, the Wild Horse Ridge area, and the
19 Mohrland area, in support of Chapter 7 of the
20 Mining and Reclamation Plan, and the Gentry
21 Mountain CHIA prepared by the Division, the
22 source of the water supply and the recharge
23 areas for Big Bear Spring and Birch Spring,
24 tributaries to Huntington Creek, are unknown,
25 or largely unknown. Big Bear Spring provides

Page 7

1 culinary water to Huntington City through
2 Castle Valley Service District, and Birch
3 Spring provides culinary water to
4 unincorporated Emery County through North
5 Emery Water Users. And both of those
6 entities are Huntington-Cleveland
7 shareholders.
8 The Mayo report -- report postulates
9 that the source of the Bear -- Big Bear
10 Spring is a connection to Nuck Woodward
11 Canyon and Tie Fork, north of the Gentry
12 Mountain area. However, other likely
13 explanations include that the Bear Canyon
14 fault, which is impacted by -- I'm sorry,
15 that the source of water could be Bear Canyon
16 fault, which is impacted by mining activities
17 at Bear Canyon Mine. And we have a
18 significant interest in assuring that the
19 quantity of water and the quality of water is
20 not affected by any further activity at Bear
21 Canyon Mine.
22 Our second concern stems from the
23 fact that Bear Canyon Mine admittedly
24 intercepts groundwater. Just looking at the
25 Gentry Mountain CHIA and the Mayo report,

Page 8

1 there are significant indications that Bear
2 Canyon Mine has been responsible for drying
3 up at least the spring referred to as SBC-7.
4 Now, Bear Canyon Mine had the spring
5 discharging at 18 gallons per minute to 14
6 gallons per minute -- minute, without
7 significant seasonal variations from 1988.
8 By February of 1990, the spring stopped
9 flowing. And that -- the source of that
10 information is the Mayo report at Page .53.
11 SBC-8 was encountered in 1988,
12 another spring, and discharged at 18 to 21
13 gallons per minute. The report -- Mayo
14 report, at 53, also says that.
15 THE CONFERENCE OFFICER: Excuse me.
16 You said it was encountered in '88?
17 MR. CROOK: Yeah.
18 THE CONFERENCE OFFICER: What do you
19 mean by that?
20 MR. CROOK: As mining -- as mining
21 proceeded in the Bear Canyon Mine, SBC-8 was
22 encountered. As the mining went in, as it
23 proceeded, there was another mine, another
24 spring source that was encountered.
25 MR. REYNOLDS: And -- and just for

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Page 9

1 a little clarification, both sites were
2 underground water sources within the mine
3 that were encountered.
4 THE CONFERENCE OFFICER: Thank you.
5 Do you agree with that?
6 MR. CROOK: Yes.
7 MR. HANSEN: In fact, there were
8 drill holes that we created weren't there, or
9 seeps that we created during the mining?
10 MR. CROOK: I'm not sure that SBC-7
11 was a seep that was created originally by --
12 MR. REYNOLDS: Yeah. It -- it
13 originally flows inside of the old Bear
14 Canyon --
15 THE CONFERENCE OFFICER: Excuse me.
16 Thank you.
17 MR. CROOK: Okay. SBC-9, which
18 was, I believe, a seep that was created by
19 Bear Canyon mine activity, flows at a rate
20 from a starting point of about 120 gallons
21 per minute, since 1990. Now the latest
22 report that I saw from the Mayo report
23 indicates it's now at 50 gallons per minute.
24 But that has been a steady flowing spring or
25 seep for ten years, but the -- the seep has

Page 10

1 -- I'm sorry. The flow has continued. It's
2 now decreasing. But that's a significant
3 amount of time for the water to be seeping
4 into the -- into the mine, and there has been
5 obvious -- obviously, a huge impact on
6 groundwater seeping into the mine.
7 There's, also, SBC-10, which is
8 flowing at a rate of approximately 20 gallons
9 per minute, presently. It was started -- it
10 started at 250 gallons per minute in 1991.
11 SBC-10 is now inaccessible, but SBC-13
12 appears to be the flow that it is coming
13 from. And that's taken from the Mayo report,
14 54 to 56. The Gentry Mountain CHIA indicates
15 the same conclusion on Page .49.
16 Obviously, Bear Canyon Mine is
17 having impact on water quantity, and there is
18 some circumstantial evidence that mining
19 activity has impacted Big Bear Spring flow.
20 Now, the Mayo report suggests that it has had
21 no impact. However, they -- it derives that
22 conclusion simply from recharge rates that it
23 describes out of the springs that we were
24 just speaking about. However, it does not --
25 it doesn't account for possible other sources

Page 11

1 of groundwater interruption in Big Bear -- I
2 mean in the Bear Canyon Mine.
3 Our third concern --
4 THE CONFERENCE OFFICER: Is that
5 your circumstantial evidence right there, or
6 do you have evidence that you're going to
7 present to support what you just said?
8 MR. CROOK: We have -- I -- I would
9 suggest that -- well, first of all, we're not
10 presenting any evidence here today.
11 THE CONFERENCE OFFICER: Okay.
12 MR. CROOK: What we are saying is
13 that there is no evidence. What we have is
14 supposition about what the source of Big Bear
15 Spring is. However, as mining has continued
16 in -- in the area -- I've got the report
17 here, but --
18 THE CONFERENCE OFFICER: Well, I
19 just want to clarify what I thought I heard
20 you say. You said there's circumstantial
21 evidence of mining impact on Big Bear Spring;
22 is that correct?
23 MR. CROOK: Yes.
24 THE CONFERENCE OFFICER: Okay.
25 MR. CROOK: And that is found in

Page 12

1 the reports themselves, prior to 19- -- and I
2 -- I don't have the dates here, but -- I'm
3 trying to remember the dates. From I think
4 it was approximately 1995, there was a
5 seasonal variation in the flow rates that
6 occurred in June and July. There showed an
7 up- -- an upsurge of flow rates in the summer
8 months since 1995; I believe that's the
9 correct year. The flow rates have not
10 increased at that time. There's
11 circumstantial evidence that -- that is our
12 circumstantial evidence, that Big Bear -- I
13 mean -- I'm sorry, Bear Canyon Mine has
14 effected the flow coming into that spring. I
15 believe it was 1995.
16 Now, recent findings and conclusions
17 and orders from DOGM suggest caution, also.
18 In the matter of the application of Co-Op
19 Mining Company to mine the Wild Horse Ridge
20 addition of the Bear Canyon Mine, there were
21 Findings and Conclusions ordered by this
22 Division. And that was stated March 22nd of
23 2000. There was an opinion issued on Page .6.
24 The first conclusion of law states,
25 "In the northern portion of the Wild Horse

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Page 13

1 Ridge Addition, the geological control for
2 characterizing Blackhawk sandstones, Blackhawk
3 coal units, and the potential water-bearing
4 Star Point sandstones is inadequate."
5 Number 2 under that conclusion was
6 that "Clarification is needed in the permit
7 application regarding the possible effects of
8 coal mining in the Wild Horse Ridge Addition
9 on Big Bear Spring. However, many concerns
10 raised in the informal conference are
11 addressed in the February 21, 2000 letter,
12 'Responses to concerns of Castle Valley
13 Special Services District,' from Mayo and
14 Associates to Charles Reynolds of Co-Op."
15 This suggests that the Wild Horse
16 Ridge Addition, as I'm sure the Division is
17 aware, is an amendment to the Big -- the Bear
18 Canyon mining lease application, in an
19 attempt to increase the -- the mining that
20 would increase of the Bear Canyon Mine. The
21 Mayo report was submitted with that. There
22 was a -- an informal conference held, in
23 which the Mayo report was discussed at
24 length, and these are the -- this is the
25 order and conclusion that came out of that --

Page 14

1 out of that informal conference.
2 THE CONFERENCE OFFICER: Is the Wild
3 Horse Ridge, in your opinion, part of this
4 permit at this time?
5 MR. CROOK: Well, I don't -- I
6 don't -- it's -- from my understanding, it is
7 still a -- it's still not been approved, if
8 that's correct.
9 MR. REYNOLDS: That's correct.
10 MR. CROOK: However, the Mayo report
11 was prepared for the entire area, not just
12 the Wild Horse Ridge area, and includes
13 studies of the Bear Canyon mining and lease
14 area, the Wild Horse Ridge area, and the
15 Mohrland area. And so the discussion at the
16 time of the informal conference discussed the
17 entire hydrological impacts of the entire
18 area, not just the Wild Horse Ridge
19 application.
20 THE CONFERENCE OFFICER: Correct.
21 Let's -- let's come back to the
22 part that you quoted, I believe from Page .6
23 in that report, talking about the Blackhawk
24 geology. Would you read that again.
25 MR. CROOK: I'm sorry. It's not

Page 15

1 from the report, it's from the --
2 THE CONFERENCE OFFICER: From the
3 conference.
4 MR. CROOK: -- which there were
5 two. There was one which said, "In the
6 northern portion of the Wild Horse Ridge
7 area, the geological control for
8 characterizing Blackhawk sandstones, Blackhawk
9 coal units, and the potential water-bearing
10 Star Point sandstones is inadequate."
11 THE CONFERENCE OFFICER: Now, do you
12 believe that applies to the entire permit
13 area and the part we are talking to now, or
14 do you believe that that's -- it's fairly
15 narrowly confined?
16 MR. CROOK: Well, I think that it
17 has two interpretations; one, that it appears
18 the Division is taking the position that it's
19 only speaking of the Wild Horse Ridge area.
20 But I would say that you cannot separate the
21 hydrological consequences of -- of the Mayo
22 report, the Wild Horse Ridge area; that if --
23 if the Mayo report is inadequate in that
24 area, that can have an impact and should be
25 studied by the Division to determine if there

Page 16

1 are hydrological impacts to the -- to the
2 entire coal mining area.
3 THE CONFERENCE OFFICER: Is that
4 discussed further in the -- in the hearing
5 that you talked about?
6 MR. CROOK: The Mayo report was
7 discussed.
8 THE CONFERENCE OFFICER: No. I'm
9 talking about the hearing right now, because
10 that's what we're talking about.
11 MR. CROOK: That's -- and I was
12 answering the question. The hearing
13 discussed the Mayo report. The Mayo report
14 discussed more than the Wild Horse Ridge
15 application.
16 THE CONFERENCE OFFICER: But the
17 conclusions of the hearing didn't cover the
18 entire Mayo report, did they?
19 MR. CROOK: They did.
20 THE CONFERENCE OFFICER: They did?
21 MR. CROOK: Yes.
22 And I would just --
23 THE CONFERENCE OFFICER: That may be
24 your opinion, then.
25 MR. CROOK: Well, this is -- this

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Page 17

1 is how I would see it, Mr. Braxton. If the
2 Mayo report was discussed, which was part of
3 the amendment, and that wasn't -- the
4 discussion was not -- I know that our office
5 did not confine our discussions to the simple
6 Wild Horse Ridge application of the Mayo
7 report, because it is impossible to do that.
8 The Mayo report is comprehensive. It deals
9 with the entire hydrology of the Gentry
10 Mountain area. It discusses the Bear Canyon
11 Mine and it discusses the Mohrland area
12 expansion -- expansion. If there was a
13 discussion of the Mayo report, it could not
14 have been confined simply to a discussion of
15 the Wild Horse Ridge application.
16 THE CONFERENCE OFFICER: I'm not
17 questioning the discussion of the Mayo
18 report, I'm questioning the nexus that you're
19 bringing that says because we reach a
20 conclusion in the Wild Horse Ridge portion of
21 the Bear Canyon permit application, that that
22 conclusion applies broadly to the entire
23 permit area.
24 MR. CROOK: Well, I'm not --
25 THE CONFERENCE OFFICER: And that's

Page 18

1 -- that's the only part that I'm wanting to
2 discuss right now.
3 MR. CROOK: Okay. If -- if the
4 question is -- and this is -- if the question
5 is am I asserting that this applies to the
6 Bear Canyon Mine; in other words, that the
7 conclusion --
8 THE CONFERENCE OFFICER: That was my
9 question to you, yeah.
10 MR. CROOK: -- the -- the
11 conclusion meaning that this order affected
12 Bear Canyon Mine without the Wild Horse Ridge
13 application, I would say you're absolutely
14 correct. Of course, the order is dealing
15 only with that application. What I'm
16 suggesting, however, is that these findings
17 and conclusions and orders suggest caution,
18 because we're talking about the same
19 hydrological area, we're talking about the
20 same -- the Gentry Mountain area. And that's
21 all I'm suggesting. I'm not suggesting that
22 they -- that -- that Bear Canyon Mine,
23 particularly, without the Wild Horse Ridge
24 application, is -- is required to follow this
25 order. It's only --

Page 19

1 THE CONFERENCE OFFICER: That's
2 helpful. Thank you.
3 MR. CROOK: Okay. So this will
4 also help. I think, in the next thing that I
5 will point to, and that is in the matter of
6 the proposed Phase III bond release at the
7 Co-Op Mining Company Trail Canyon Mine, which
8 is also part of this -- the Gentry Mountain
9 agreement, at Cause Number ACT/015/021, Slip
10 Opinion at 4. This was issued October 24th,
11 2000.
12 An order was entered by the Division
13 which says, "The Division is to proceed with
14 processing the Applicant's request for Phase
15 III bond release. The technical analysis
16 associated with -- with this request should
17 develop a position with respect to, (1)
18 'Evidence from inspection reports and other
19 information that may clarify if drainage from
20 the Trail Canyon portals has occurred
21 subsequent to backfilling,' and, (2) 'Water
22 monitoring data with the intent of
23 determining if contamination or dimunition of
24 waters in the permit, and adjacent areas has
25 resulted from coal mining and reclamation

Page 20

1 operations at Trail Canyon.'"
2 Again, I'm not saying that this
3 applies to Bear Canyon Mine. What I am
4 saying, however, is that since this is in the
5 same -- is in the same Gentry Mountain area,
6 that if the Division is concerned about these
7 things, with these two applications, that
8 that urges the -- that urges some caution in
9 dealing with the Bear Canyon permit renewal
10 application.
11 We respectfully request that the
12 Division require that Co-Op show that the
13 hydrological information supporting the Bear
14 Canyon Mine permit, including the Probable
15 Hydrological Consequences and the
16 Comprehensive Hydrological Impact Assessment,
17 are complete, accurate, and up to date.
18 That's simply what we're asking.
19 Huntington-Cleveland has, I think, a
20 legitimate and serious concern about quantity
21 and quality of water. The Division is aware
22 of the geological area, it's aware of the
23 facts and the -- the climate that Bear Canyon
24 finds itself in. It's familiar with that
25 area. We're simply suggesting that

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Page 21

1 Huntington-Cleveland has a legitimate concern.
2 Its concern is that the Division take -- take
3 a -- a careful look at any hydrological
4 impact that may effect people who are
5 downstream of the coal mine. And we suggest
6 the Mayo report and other -- the Gentry
7 Mountain CHIA show that. There are so many
8 things that are unknown about the coal mine,
9 that a careful analysis is not out of turn,
10 and that we -- we would simply suggest that
11 we would like the Division to look at that
12 carefully or ask that Co-Op assure that what
13 they've got there is -- is complete,
14 accurate, and up to date.
15 THE CONFERENCE OFFICER: You're
16 basically asking that the Division to follow
17 its own rules; is that what you're saying?
18 MR. CROOK: Yeah. Yes. And -- and
19 I don't have any reason to believe that the
20 Division wouldn't follow its own rules, but
21 what we -- our problem is that we see these
22 reports and their reports are inconclusive
23 about stream sources and recharge areas, and
24 it concerns us that -- or it concerns
25 Huntington-Cleveland that sometimes, given

Page 22

1 those reports, that the Division should be --
2 well, let's say it this way, that the
3 Division, although following it's own rules,
4 should be especially careful in this area.
5 We're just concerned because there's no
6 evidence of -- well, I won't say no evidence,
7 because there are conclusions extrapolated in
8 the Mayo report and the CHIA, but those are
9 inconclusive. There is no definitive
10 determination of sources of water in the
11 recharge area. So we're simply asking the
12 Division to be -- to assure that more study
13 is done so that water users, particularly
14 culinary water users, are protected.
15 THE CONFERENCE OFFICER: Thank you.
16 Anything further at THIS time?
17 MR. CROOK: No.
18 THE CONFERENCE OFFICER: Turning to
19 Co-Op.
20 MR. HANSEN: Do you want to go
21 first, or me?
22 MR. REYNOLDS: I suppose that you
23 can go ahead and go. I --
24 MR. HANSEN: Okay.
25 MR. REYNOLDS: I don't think I have

Page 23

1 too much to add.
2 MR. HANSEN: Let's take Mr. Crook's
3 points in order. The first point was
4 concerns over evidence of the performance
5 bond. As Mr. Crook points out, the
6 application states that the bond is an
7 irrevocable letter of credit in a sum certain
8 amount. An irrevocable letter of credit
9 drawn on the bank in a sum certain amount is
10 more than just some amorphous evidence, it's
11 -- it's -- it basically amounts to a -- a
12 cash bond that cannot be withdrawn as long as
13 it -- that letter of credit is in DOGM's
14 position -- possession, and it certainly
15 satisfies the regulatory requirements. And
16 then if the DOGM determines that that bond is
17 insufficient, then it can come back to C.W.
18 Mining Company and make those concerns so
19 those can be addressed. But as of right now,
20 the irrevocable letter of credit is nearly
21 $900,000. Unless there's some reason to
22 object to it, it is, in fact, a bond.
23 MR. REYNOLDS: I might also add,
24 too, there has been additional correspondence
25 with the Division direct to the bond.

Page 24

1 THE CONFERENCE OFFICER: That was
2 going to be my question. There's a
3 regulatory requirement to submit a notarized
4 statement of one sort or another. Has that
5 done been now?
6 MR. REYNOLDS: Yes.
7 THE CONFERENCE OFFICER: That --
8 that, at least in your opinion, meets the
9 requirements of the reg. Have you received
10 any correspondence from the Division?
11 MR. REYNOLDS: At this point we
12 haven't got any written, but we have got the
13 verbal correspondence concerning a new amount
14 that has been determined and set. And we
15 are, at this point, in the process of
16 increasing that letter of credit through
17 the --
18 THE CONFERENCE OFFICER: So the bond
19 is going to go up. And have you provided the
20 -- again, the notarized statement, or will
21 that happen after the Division approves the
22 bond amount?
23 MS. GRUBAGH-LITTIG: Well, we
24 have --
25 THE CONFERENCE OFFICER: Please go

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Page 25

1 ahead.
2 MS. GRUBAUGH-LITTIG: May I
3 interrupt?
4 We have evidence in our files that
5 we do have the letter of credit and it is in
6 effect. I mean, we do have the physical
7 document in our files. And there has been an
8 escalation factor, which is just done for a
9 five-year period, that would increase it. And
10 Co-Op is working on it. But we do have
11 evidence that it is in effect at this time.
12 THE CONFERENCE OFFICER: Is -- is
13 that your concern, Mr. Crook, or are you
14 looking for the -- the thing that I thought
15 you were looking for in the previous hearing
16 like this, wanting to see strictly the
17 notarized statement and -- and that type of
18 compliance with the law?
19 MR. CROOK: I didn't think that
20 there was any problem with the notarized
21 compliance. We just wanted to --
22 THE CONFERENCE OFFICER: So you just
23 want to make sure the bond is adequate?
24 MR. CROOK: Right. Right.
25 MS. GRUBAGH-LITTIG: Do you mean as

Page 26

1 far as the amount, or as far as --
2 MR. CROOK: Well, my -- our -- our
3 concern was that we didn't think a -- just a
4 statement was sufficient, if the --
5 MS. GRUBAUGH-LITTIG: Oh.
6 MR. CROOK: -- if the Division has
7 it in its possession.
8 MS. GRUBAGH-LITTIG: But we -- I
9 have physical --
10 (There was a discussion held off the record.)
11 MS. GRUBAUGH-LITTIG: I was just
12 going to say that I have personal knowledge
13 that we do have it in our possession.
14 THE CONFERENCE OFFICER: Please
15 continue.
16 Thank you.
17 MR. HANSEN: I think that adequately
18 addresses the performance bond issue.
19 The -- the second issue -- and as I
20 see it, there's really only two issues raised
21 here, Mr. Crook. Those are concerns over the
22 area hydrology and the adequacy of the
23 evidence to support the permit in the area of
24 hydrology; is that correct?
25 MR. CROOK: No.

Page 27

1 MR. HANSEN: Pardon?
2 MR. CROOK: No. I -- I think that
3 my second concern is not a statement of the
4 adequacy of information, it's about the -- I
5 think that it needs to be -- there needs to
6 be some assurance that it's complete,
7 accurate, and up to date, that there needs to
8 be a little bit more assurance that water
9 quality and quantity will not be impacted.
10 So maybe I just -- maybe adequacy
11 of information is the right way to put it.
12 MR. HANSEN: I -- I'm going to be
13 speaking a little bit about the contents of
14 the Mayo report, but I primarily want to
15 address the legal issues that are -- are
16 raised by Mr. Crook's concerns. The -- the
17 first is the distinction between an initial
18 permit application and a request for a permit
19 renewal. And as Mr. Crook points -- points
20 out, a permit comes with a -- an automatic
21 right to renewal, as long as the terms and
22 conditions are met.
23 In an initial permit application the
24 burden of proof is on the applicant to
25 demonstrate compliance with all the statutory

Page 28

1 and regulatory requirements. That burden of
2 proof shifts on permit renewal. The burden
3 falls on anyone that seeks to protest the
4 permit renewal, to demonstrate that the
5 requirements have not been met.
6 In this particular permit we have
7 had litigation over this very issue, both
8 under a permit renewal on the previous
9 request to renew permit ACT/015/025, and,
10 also, litigation over the same issues at --
11 in a request for substantial modification of
12 the permit, to allow mining. And so we've
13 already had litigation over these issues,
14 both where the burden of proof fell on C.W.
15 Mining Company and where the burden of proof
16 fell on Huntington-Cleveland Irrigation
17 Company. In both cases there was convincing
18 evidence presented first to -- to DOGM and
19 then to the Board, on both sides. And in
20 both proceedings, previous permit renewal and
21 the Tank seem application, DOGM and then the
22 Board concluded that the evidence was
23 sufficient to establish that C.W. Mining
24 Company had complied with all regulatory
25 requirements, and, in fact, even went beyond

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Page 29

1 that, and made -- made specific findings of
2 fact that Big Bear Spring is not
3 hydrologically connected to the current
4 permit area and that Birch Spring is not
5 hydrologically connected to the current
6 permit area, and at least as of the date of
7 the resolution of the Tank seam application,
8 that neither the quantity nor the quality of
9 water at either spring had ever before been
10 adversely impacted by mining at the Bear
11 Canyon Mine.
12 Now, Huntington-Cleveland, along
13 with the other protestors of the Tank seam
14 application, took that matter up on appeal,
15 and the Utah Supreme Court upheld the Board's
16 findings that the springs are not
17 hydrologically connected to the permit area,
18 that the mining operation was designed to
19 prevent material damage to the hydrologic
20 balance outside the permit area, and that
21 Co-Op's permit complied with all the statutes
22 and regulatory requirements.
23 Now, the reason that those previous
24 matters of litigation and the appeal were
25 reported is because there is a doctrine in

Page 30

1 the law called collateral estoppel, and that
2 applies to bar re-litigation of those issues.
3 I would refer the Court, first, to Utah
4 Supreme Court case Career Service Review
5 Board versus the Utah Department of
6 Corrections. This is found at 942 Pacific
7 2nd, 933, beginning on Page .938.
8 The Utah Supreme Court stated, "Res
9 judicata, which subsumes the doctrine of
10 collateral estoppel... applies to
11 administrative adjudications in Utah."
12 The court said, "The principles of
13 res judicata apply to enforce repose when an
14 administrative agency has acted in a judicial
15 capacity in an adversary proceeding to
16 resolve a controversy over legal rights and
17 to apply a remedy."
18 The fourth -- the four elements of
19 issue preclusion are required to show
20 collateral estoppel. The first element is
21 that the issue decided in the prior
22 adjudication must be identical to the one
23 presented in the action in question.
24 The second is that there must be a
25 final judgment on the merits.

Page 31

1 The third is that the party against
2 whom the plea is asserted must be a party in
3 privity with a party to the prior
4 adjudication.
5 And, finally, the issue in the first
6 action must be completely, fully, and fairly
7 litigated.
8 The particular question here, the
9 issue is whether the information contained in
10 -- in the permit application is adequate, and
11 that rests on certain findings. If, in fact,
12 Big Bear Spring is not hydrologically
13 connected to the permit area, and if, in
14 fact, Birch Spring is not hydrologically
15 connected to the permit area, then mining in
16 the permit area is not going to impact those
17 springs.
18 Those two issues have been resolved
19 twice in the litigation already. Those are
20 identical issues to issues that Mr. Crook
21 wants to raise this morning. So the issues
22 are identical to ones previously presented.
23 In both the prior permit renewal and in the
24 Tank seam application, there was a final
25 judgment on the merits. The judgment was in

Page 32

1 favor of C.W. Mining Company and against the
2 Huntington-Cleveland. The parties, C.W. Mining
3 Company and Huntington-Cleveland, are
4 identical, and the issues were completely,
5 fully, and fairly litigated.
6 Now, on appeal, in the Tank seam
7 application, Huntington-Cleveland challenged
8 whether that fourth leg -- element had been
9 met, and the Utah Supreme Court, after
10 reviewing the entire matter, concluded, yes,
11 that -- that the -- the issue had been
12 completely, fully, and fairly litigated, that
13 the -- that DOGM and then the Board had
14 jurisdiction to consider those issues; that
15 they did consider those issues;
16 Huntington-Cleveland put on a full panel of
17 evidence on those issues; that all due
18 process requirements were met; and that the
19 issue was, in fact, fully and fairly
20 litigated.
21 Because all four of the elements
22 were met, collateral estoppel applies at this
23 point to re-bar any litigation over whether
24 or not there is a hydrologic connection
25 between Big Bear Spring and Birch Spring.

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Page 33

1 Now, I realize Mr. Crook -- Crook
2 would like the -- DOGM to revisit those
3 issues, but it is a fundamental --
4 fundamental principle of res judicata that
5 for a judgment to be valid it need not be
6 free from error. That's from a case called
7 Copper State. It's found at 735 Pacific 2nd.
8 The quote is on Page .392.
9 Now, we would submit that the DOGM
10 and the Board and the Utah Supreme Court did
11 not err in -- on quoting those previous
12 findings in the hydrologic connection, but
13 even if somehow they had erred, those
14 findings are, nevertheless, barred by
15 collateral estoppel.
16 I would point out that the burden
17 of proof in this hearing is not on C.W.
18 Mining Company, it is on Huntington-
19 Cleveland; that no evidence has been
20 presented that hasn't already been presented
21 to the Board and considered by the board,
22 resolved by the Board, and ruled on by the
23 Board.
24 Now, there are -- there could
25 conceivably be some issues where it would not

Page 34

1 be barred by collateral estoppel; for
2 example, if there'd been some geologic
3 upheaval in the area, an earthquake or the
4 like, that opened new cracks and fissures
5 that hadn't been there at the time of the
6 Tank seam application, or if C.W. Mining
7 Company had -- had drilled -- drilled some
8 new sink holes that made connections where
9 those things no longer existed. Then
10 Huntington-Cleveland would be free to put on
11 evidence that those things that did not exist
12 at the time of the Tank seam application had
13 created a connection, where they did not
14 previously exist, and if Huntington-Cleveland
15 has such evidence, they're certainly free to
16 come forward with that. But Huntington-
17 Cleveland is not entitled to contest issues
18 resolved as of the Tank seam application,
19 which is that the geology at that time
20 establishes the hydrologic connection between
21 the springs and the permit area. That's a
22 matter that has been resolved, and they
23 cannot re-litigate that question.
24 I'll point out a few things in --
25 concerning the Mayo report itself. Mr.

Page 35

1 Crook, as I -- as I understand his
2 clarification, he wants -- he wants DOGM to
3 ensure that C.W. Mining Company's PHC and
4 CHIA are complete and accurate and up to
5 date. Well, that is no more than DOGM is
6 already required to do, with or without a
7 protest and with or without an informal
8 conference. And I would assume that -- that
9 DOGM is meeting its regulatory requirements
10 in that regard, and that it is giving due
11 attention to all of those matters; if there
12 are materials that are incomplete or
13 inaccurate or outdated, that DOGM either
14 already has or is in the process of asking
15 C.W. Mining Company to update that
16 information already. C.W. Mining Company
17 will certain comply with any requests that
18 are needed to satisfy its regulatory
19 requirements.
20 I would point out that DOGM, as
21 well as the Board, has already reviewed the
22 Mayo report, and has concluded that -- that
23 the evidence contained in the report shows
24 there wasn't a hydrological connection
25 between the springs and the mine. And I know

Page 36

1 Mr. Crook would like to argue to the
2 contrary, but that is an issue that has
3 already been resolved.
4 It's not the burden of C.W. Mining
5 Company to tie down with scientific certainty
6 the -- the hydrology of the entire area. It
7 that was a burden that anybody had, that
8 would be impossible to meet such a burden.
9 There would be -- never be any mining
10 activity. And certainly the regulations do
11 not require such a burden.
12 I -- I'm not going to discuss the
13 underground seeps SBC-7, -9, -10, and -13.
14 If Charles would like to point out specifics
15 of those, I -- I would leave that to him.
16 But I -- I would basically point out that
17 those were not springs that existed
18 pre-mining, that dried up.
19 Mr. Crook suggested that the -- that
20 the Mayo report shows the mining has
21 intercepted groundwater. That's a complete
22 misstatement as to what the Mayo report
23 states. The Mayo reports clearly states that
24 there is no regional aquifer in the area,
25 that the mining has not encountered the

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Page 37

1 aquifer, that the mining water encountered
2 during mining is perch water and it describes
3 where the source of that perch water is.
4 Mr. Crook suggests that the Mayo
5 report is mere supposition as -- as to what
6 -- what it concludes as far as hydrology. I
7 would submit that it is not supposition, that
8 Mr. Mayo is a highly respected expert in the
9 area, and that the Mayo report contains his
10 expert opinion based on the comprehensive
11 analysis of all available information
12 addressing the geology of the area, the
13 hydrology in the area, includes specific
14 chemical testing of the waters encountered
15 both in the mine and in the springs, and
16 includes specific radioisotope testing of the
17 waters encountered both in the mine and in
18 the springs; considers climate, the
19 climatology, and weather and changes thereto;
20 even addresses an earthquake that the water
21 users indicated had occurred at one point in
22 time and possible impact it did have on the
23 hydrology. In other words, he covered all
24 the available evidence and found that
25 evidence adequate to come up with an expert

Page 38

1 opinion, and gave that expert opinion.
2 The water uses had their own expert
3 opinion that contested those matters based on
4 their review of the evidence. Those disputes
5 as to expert opinions were also presented to
6 -- to DOGM, first, and then to the Board, and
7 were already resolved. And we are not here
8 this morning to re-litigate those matters
9 that have already been resolved.
10 Mr. Crook spent some time discussing
11 the Wild Horse Ridge application that he
12 thinks leaves some open questions about the
13 hydrology outside the permit area. I submit
14 that the Wild Horse Ridge application is not
15 before DOGM this morning, that whatever is
16 contained in that application has no bearing
17 on whether or not the exiting permit in the
18 existing permit area can be renewed.
19 The Mayo report was prepared solely
20 to support the Tank seam application, and
21 there for awhile it does address the
22 hydrology outside the immediate application
23 area, outside the immediate permit area. It
24 was not designed to and was not intended to,
25 and, therefore, it did not address specifics

Page 39

1 regarding the Wild Horse Ridge. Again, that
2 point is not relevant to the matters before
3 DOGM at this point.
4 Mr. Crook also brought up the Trail
5 Canyon Mine bond release. But in doing so,
6 he stated that he did not -- did not suggest
7 that that applies to Bear Canyon Mine, only
8 that certain statements appeared to raise
9 some open questions. Again, that is not
10 really relevant to the matters before DOGM
11 this morning. It was a different mine, it
12 was a different permit. Mining has been
13 completed in that area. It is possibly
14 different hydrology. That area was not
15 addressed in the Mayo report. But, again,
16 those matters are really not relevant to
17 whether C.W. Mining Company is entitled to
18 renew its permit for the Bear Canyon Mine.
19 And I believe that pretty much
20 covers the items that Mr. Crook raised.
21 MR. REYNOLDS: Maybe I could add --
22 add to that just a few clarifying points.
23 First of all, in the sites that we talked
24 about, SBC-7, SBC-8, -9, and -10, those
25 sites, as I mentioned, are all located within

Page 40

1 the mine. SBC-7 was a seep that was
2 encountered as a result of mining that took
3 place back in the 1950's. So that did exist
4 before C.W. Mining went in there, but it was,
5 in fact, the result of mine workings, and it
6 was a seep that was within the mine.
7 I might also add that the water
8 quality and quantity of all of the sites
9 with -- within the mine have continually and
10 are continuing to be monitored. The Division
11 does review all of that data.
12 And then the other point from the
13 Mayo report and the relation of the Wild
14 Horse Ridge issue to the existing permit: It
15 is true that the Mayo report draws from and
16 discusses a lot of information from the
17 existing permit area, but the report, also,
18 in its conclusions pertaining to Wild Horse
19 Ridge and the information pertaining to Wild
20 Horse Ridge, the Mayo report does present
21 that the two areas, the Wild Horse Ridge and
22 the existing permit area, are hydrologically
23 isolated because of the Bear Canyon fault.
24 So information pertaining to Wild Horse Ridge
25 would not necessarily also pertain to the

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Page 41

1 existing permit.
2 THE CONFERENCE OFFICER: Anything
3 further?
4 MR. REYNOLDS: I think that's it.
5 THE CONFERENCE OFFICER: Mr. Crook?
6 MR. CROOK: Yeah. I just have a
7 couple of questions, first, and then I would
8 like to respond to some of the legal
9 arguments that were made and
10 characterizations of my -- or
11 Huntington-Cleveland's position.
12 One, what is the Tank seam
13 litigation Supreme Court citation?
14 MR. HANSEN: Let's see. It's
15 Castle Valley Special Service District, et
16 al. versus Utah Board of Oil, Gas and Mining,
17 938 Pacific 2nd, 248.
18 MR. CROOK: What's the year?
19 MR. HANSEN: Pardon?
20 MR. CROOK: The year.
21 MR. HANSEN: Oh. 19-, what was it,
22 -97? 1996.
23 MR. CROOK: Okay.
24 First of all, just so it's clear on
25 the record, I wasn't aware that they were

Page 42

1 going to make -- that Co-Op Mining was going
2 to be making these arguments regarding res
3 judicata and collateral estoppel. However, I
4 have a few responses to that, and I apologize
5 I don't have any of my -- my citations with
6 me.
7 THE CONFERENCE OFFICER: Before you
8 do, let me just add for the record that I'm
9 not an attorney, and this is an informal
10 conference slash hearing that we're doing
11 right here, and you're welcome to -- to make
12 the arguments that you want, legally. I -- I
13 wonder whether I'm capable of -- of assessing
14 narrow legal things you're going to talk
15 about, but --
16 MR. CROOK: Well --
17 THE CONFERENCE OFFICER: -- if you
18 feel like you need to --
19 MR. CROOK: -- I feel like I need
20 to, as a matter of law, to preserve --
21 THE CONFERENCE OFFICER: You're
22 privileged.
23 MR. CROOK: -- my objection.
24 THE CONFERENCE OFFICER: You're
25 privileged.

Page 43

1 MR. CROOK: First of all, let me
2 explain, first, collateral estoppel applies
3 -- I -- I don't disagree with the -- with the
4 elements as set forth by Co-Op Mining, I just
5 have a few -- one big issue. The first prong
6 of the collateral estoppel doctrine applies
7 in the same -- the same issue or same matter
8 -- and I'll probably be corrected if I get
9 this wrong -- was -- or the identical issue
10 was presented and resolved, and that it to be
11 -- that is the question. I would suggest,
12 one, that we've got different issues here
13 before the Board today, and that is that this
14 is an application for renewal of a permit for
15 Bear Canyon. We're not speaking about Trail
16 Canyon Mine -- or I'm sorry, the Tank Seam
17 litigation, we're talking about this issue
18 before the Board today. And the issue before
19 the Board today is that we are protesting --
20 we are merely coming before the Board
21 suggesting that we have concerns. Now,
22 there's been some minimization of our
23 ability to do that, or at least it appears
24 that there is a minimization of that. But I
25 believe that as interested water users in the

Page 44

1 area, even if the Division already has the
2 duty to do this -- we're not suggestion the
3 Division will not do it, what we are
4 suggesting is the Division -- we have
5 significant interests in making sure that
6 those requirements are looked at and that
7 they are met. We are simply suggesting we
8 want, we want the Division to know we are
9 concerned that Bear Canyon Mine has an impact
10 on water. And that seems to be the thing
11 that has been ignored a little bit in, in
12 response to our arguments.
13 But going on beyond that, the issue
14 before this Division is whether they've met
15 the Division's requirement for renewal. And
16 one of those requirements, as I discussed
17 before, is that the Division may add, ask for
18 additional revised or updated information.
19 We're suggesting to the Division we would, we
20 think it would be appropriate to ask for
21 that, to make sure that the reports are
22 accurate, and to suggest to the Division we
23 have serious concerns.
24 Our concerns don't only lie with the
25 Bear -- Big Bear Spring and the Birch Spring

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Page 45

1 question. That was only one of the elements
2 that we have. I'd say, I'd say it's
3 inaccurate to say that it is, that water is
4 not affected. We've got significant seeps in
5 the Bear Canyon Mine. Now, whether those are
6 perched aquifers or whether they're general
7 aquifers or whether they're perched waters is
8 irrelevant. The fact is that water is
9 effected by the Bear Canyon Mine. They've
10 dug in there, there've been seeps created,
11 there's significant flow out of those seeps,
12 and that suggests to us that there is a, a
13 serious water concern. Our concern is not
14 only tied with the, with the springs. So I
15 would say that those are separate issues.
16 Those issues have not been litigated.
17 And I would also suggest that the
18 -- since the Division is concerned about the
19 -- our suggestion that the Wild Horse Ridge
20 application findings and conclusions are not
21 relevant to the discussion today, that any
22 suggestion about the Tank Seam application or
23 anything else would be equally relevant. We
24 would ask for fairness in that determination.
25 But I would just now move to a

Page 46

1 couple of things. First, I don't mean to
2 minimize the Mayo report. I'm sure Mr. --
3 and I'm sure it's Dr. Mayo -- is much more
4 intelligent than I am, when it comes to water
5 issues; I have no qualms about that. What I
6 have suggested, however, is that even as
7 smart as Mr. Mayo is, as smart as he is and
8 as, as good as his report was, and as, as
9 much testing that he did, he still couldn't
10 determine what the source of the water going
11 into Big Bear Spring was. He still could not
12 determine where the recharge areas were. And
13 we're suggesting that suggests caution. And
14 that is why the Wild Horse Ridge addition
15 application is relevant, because the Mayo
16 report does talk about the hydrology of the
17 area.
18 The conclusion of the Division was
19 that even though the Mayo report was
20 submitted with the Wild Horse Ridge, Ridge
21 addition, that the geologic control for the
22 characterizing Blackhawk sandstones, Blackhawk
23 coal unit, and the potential water-bearing
24 Star Point sandstones, is inadequate. Even
25 though it was the Mayo report that was relied

Page 47

1 on, the Division suggested that that was
2 inadequate and that there needs to be
3 additional studies. We're simply saying if
4 that is the case, it urges caution in this
5 application as well, and we're just asking
6 the Division to exercise that caution and ask
7 Co-Op to make sure that these things are
8 updated and that they're accurate. That's
9 all we're doing.
10 Next, I, I also object to the
11 characterization of some of our concerns.
12 We're not here suggesting that, that Bear
13 Canyon has to tie down and to show with
14 certainty every possible water flow in the
15 Gentry Mountain area, we're simply suggesting
16 that because everyone, even the folks that
17 they hired, that Co-Op hired cannot conclude
18 where the water is coming from, that there be
19 some caution in renewing. And we just ask
20 that that be done.
21 And, finally -- and I think I've
22 already talked about this a little bit, is
23 that Huntington-Cleveland Irrigation Company
24 is not out of bounds for coming and asking
25 the Division to do this type of thing. The

Page 48

1 reason is they have significant interests,
2 and those significant interests can be
3 impacted. And we -- all we, all we want to
4 do is to tell the Division that we have those
5 concerns, and that we're asking that they
6 just be listened to and responded to.
7 There is a, there has appeared, to
8 me, to be, from Co-Op Mining, an attitude
9 that we are just trying to be a bur in their
10 saddle, and that's the farthest from the
11 truth. What we want is to make sure that our
12 interests are protected, and we have
13 significant ones. And I don't think that
14 it's unfair for us to come and ask the
15 Division and to tell the Division that we
16 have those concerns.
17 And I, I think that's all the
18 response that I'll have.
19 THE CONFERENCE OFFICER: Thank you.
20 Anything further?
21 MR. HANSEN: I would like to
22 respond to a couple of points, if I may. I
23 -- I don't believe that I made the argument
24 or that Mr. Reynolds made the argument that
25 H.C., or that Huntington-Cleveland is out of

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Page 49

1 bounds by requesting this conference.
2 Certainly, they're entitled to do so, and if
3 they have any evidence to present that is
4 relevant to the proceedings, they are free to
5 do so, and we do not contest the right to do
6 so. But I would point out that in this
7 proceeding collateral estoppel does apply,
8 and in this proceeding the burden of proof is
9 on Huntington-Cleveland.
10 Now, collateral estoppel, again,
11 does not deprive the Board of subject matter
12 jurisdiction over claims and issues properly
13 before the Court. Certainly it does not
14 deprive the Board of, of jurisdiction to
15 determine the adequacy of the information in
16 the permit. But it does require that while
17 acting in an adjudicative capacity, as DOGM
18 does in an informal conference, that the
19 Board shall not reinvent the wheel; that is,
20 that the Board, that if the elements of
21 collateral estoppel are met, the issue
22 resolved then prior to the adjudicatory
23 proceedings are already conclusively resolved
24 for the purposes of this proceeding, and that
25 those issues include whether or not there is

Page 50

1 a hydrological connection between the current
2 permit area and the Birch and Big Bear
3 Springs. That is an issue that was
4 previously resolved, and if Huntington-
5 Cleveland wants to readdress whether there is
6 such a hydrologic connection, then that
7 matter has already been resolved.
8 So in this proceeding it's true both
9 that DOGM has jurisdiction to rule on
10 objections to the permit, but, at the same
11 time, in exercising that jurisdiction, that
12 DOGM is obligated to give preclusive effect
13 to issues that have been previously
14 adjudicated.
15 Now, as I -- as the regulations
16 make clear, in a permit renewal the burden of
17 proof is on the, the party protesting the
18 permit renewal. I've, I've heard repeatedly
19 requests for DOGM to ask C.W. Mining Company
20 to update its information, but I have yet to
21 hear about any particular information that is
22 not already complete and accurate and up to
23 date. And rather than just throwing out a
24 blanket demand to be sure everything is okay,
25 the Board -- DOGM is already supposed to be

Page 51

1 doing that. I think that it becomes
2 incumbent upon Huntington-Cleveland at this
3 time, if Huntington-Cleveland is raising an
4 objection, to point out specific information,
5 specific data in the permit that is not
6 complete, is not accurate, is not up to date,
7 to point out specific criteria in the
8 regulations that Huntington-Cleveland contends
9 have not been met and to show how those
10 regulations have not been met. I would
11 submit that Huntington-Cleveland has not done
12 that, they have not met their burden of proof
13 in this matter.
14 And I think that's all. I'll leave
15 it at that.
16 THE CONFERENCE OFFICER: May I just
17 respond?
18 THE CONFERENCE OFFICER: Let's --
19 let's do one more round of this. But, again,
20 I would like to see, in order to facilitate
21 my burden, any evidence that you have that
22 suggests this permit not be renewed. I think
23 that's, you're welcome to say other things;
24 we're informal and you certainly have the
25 ability to put other cards on the table, but

Page 52

1 the decision that I make is going to be based
2 on the evidence that you present, so please
3 do so.
4 MR. CROOK: Okay. Let me address
5 those concerns first. I think the evidence
6 that I've already indicated suggests that the
7 Division ought to act with caution. We
8 haven't suggested that the permit should not
9 be renewed if those things that they bring
10 before, that Co-Op brings before the Division
11 satisfy the Division, but what we have done
12 is looked at the Mayo report, looked at the
13 Gentry Mountain CHIA. Those conclude, those
14 suggest that there is groundwater that has
15 been seeping into the mines. Those suggest
16 that Gentry Mountain, at least, suggests that
17 water can -- Gentry Mountain CHIA, can come
18 through faulting areas, and that those may be
19 alternative ways the water can get into the
20 Gentry Mountain area and into the Bear Canyon
21 Mine.
22 Now, I, I've also indicated and
23 represented to the Division various seep
24 points that show that water is going in and
25 can have an impact on quantity, at least

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Page 53

1 where groundwater is intercepted. I've also
2 indicated that there may be some
3 circumstantial evidence that Big Bear Spring
4 and Birch Spring have become impacted by
5 mining activity. Those are the pieces of
6 evidence that I suggested from the reports
7 that already exist, and that's all, that's
8 the evidence, and that would be my reply to
9 that specific question.
10 THE CONFERENCE OFFICER: Just for a
11 minute, setting the two major springs that
12 you cited aside, Birch and Big Bear, do you
13 have any evidence that in-line water flows
14 have contaminated or diminished water flows
15 in other springs inside the CHIA area?
16 MR. CROOK: Not that isn't discussed
17 in the reports that the Division has already
18 got before it.
19 THE CONFERENCE OFFICER: All right.
20 MR. CROOK: The, the other things
21 that I'd like to respond to are, first, as
22 res judicata is asserted here, what Co-Op
23 would have the Division do is do this: It
24 would have one study done, have one protest,
25 and then everybody would be bound by what the

Page 54

1 Division concluded from that one protest.
2 I'm saying that, you know, that is not
3 conceivably possible. But not only that,
4 that we're, we've got a different issue here.
5 We're asking for the Division just to look at
6 what it needs to do to have a renewal, to
7 suggest that, that there be water concerns,
8 to assure that the water concerns are
9 addressed with Huntington-Cleveland, and that
10 those things are accurate, up to date, and
11 complete. And that's not an issue that has
12 been litigated before.
13 Also, the question of the
14 groundwater interception has not been an
15 issues that's been addressed before. As I
16 hear represented by Co-Op, the only issues
17 that were litigated that he is asserting are
18 that Big Bear Spring and Birch Spring are
19 hydrologically isolated from the permit
20 areas. So I would say, as a matter of law,
21 then, that res judicata wouldn't apply here.
22 And -- and, really, those are our
23 concerns. It's simply that we're asking,
24 we're coming here because we have, we just
25 want the Division to know that we have

Page 55

1 serious water concerns. Water is an important
2 issue, and I'm sure that the Division knows
3 that, and it's important to our client.
4 Also, lastly, the burden has been
5 discussed. That falls under R.645-303.200,
6 discussing the burden. I would merely
7 suggest that we have brought our concerns
8 under -232.100 and have asked that the
9 Division recognize our concerns, again,
10 looking for --
11 THE CONFERENCE OFFICER: Could you
12 reiterate what the last cite that you gave,
13 the 233.100 --
14 MR. CROOK: That's the general
15 application requirements and procedures that
16 the Division follows.
17 THE CONFERENCE OFFICER: All right.
18 MR. CROOK: And we're just asking
19 the Division to exercise its discretion to
20 assure that the water reports are all
21 updated, complete, and accurate.
22 THE CONFERENCE OFFICER: Thank you.
23 Sir.
24 MR. HANSEN: Just very briefly.
25 As I hear things -- and I -- I

Page 56

1 don't want to put words in Mr. Crook's mouth,
2 but the primary evidence that Huntington-
3 Cleveland is relying on in support of this
4 particular protest is the evidence contained
5 in the Mayo report, so I would -- I would ask
6 that DOGM take a close look at that Mayo
7 report, and not only the underlined data, but
8 the expert opinions that -- and conclusions
9 that are reached based on that data, because
10 the Mayo -- the Mayo report does not suggest
11 that groundwater is seeping into the mine.
12 In fact, it goes through an extensive
13 analysis to reach the entirely contrary
14 conclusion, that groundwater is not seeping
15 into the mine, but the water that is
16 encountered there is, is -- consists solely
17 of perched aquifers, and the source of those
18 perched aquifers is adequately identified.
19 I, I heard a statement that the
20 Mayo report couldn't determine the source of
21 the water or the recharge source for the
22 springs. That is just simply a wrong
23 statement. And if DOGM will read the report,
24 they will find that the Mayo report does make
25 a conclusion as to what the source and

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Page 57

1 recharge of Big Bear Spring is, and that that
2 source of recharge is not impacted by the
3 mining, by the mining activities. And,
4 again, the burden to disprove that is
5 Huntington-Cleveland at this point. We don't
6 need to reprove those, those particular
7 matters.
8 I would also ask that DOGM, in
9 addition to the Mayo report itself, review
10 the testimony of Dr. Mayo and our other
11 experts witnesses in the prior hearings, with
12 the suggestion that if DOGM does that, they
13 will conclude most of the issues that, that
14 Huntington-Cleveland actually wants to raise
15 here are issues that were already raised in
16 those prior matters, that were litigated in
17 those prior matters; that the parties were
18 the same; and that -- and that there were
19 final judgments on those very matters, and so
20 that collateral estoppel does apply to those
21 things.
22 And, again, I would, I would just
23 like to restate, in, in my opinion, that at
24 this stage of the proceeding it's fine to say
25 that DOGM should require C.W. Mining Company

Page 58

1 to comply with the regulatory provisions
2 dealing with permit renewal. We, we submit
3 that we've done that. If the water users, if
4 Huntington-Cleveland considers that C.W.
5 Mining Company has not met those regulatory
6 requirements, the burden remains on
7 Huntington-Cleveland to point out in what
8 manner those requirements have not been met.
9 And I have heard nothing to suggest
10 that there is any particular regulatory
11 requirement that has not been met. I have
12 heard no evidence to suggest that the PHC has
13 not satisfied all the regulatory requirements
14 for PHC. I've heard no evidence to suggest
15 that CHIA does not satisfy all the
16 requirements for a CHIA, and unless the water
17 users or Huntington-Cleveland has some
18 evidence to the contrary, that their protest
19 should be denied.
20 Thank you. I have no further --
21 nothing further.
22 THE CONFERENCE OFFICER: Thank you.
23 Is there anybody here that would
24 like to be heard on this matter, that hasn't
25 already been heard?

Page 59

1 I think we stand adjourned, then.
2 Thank you.
3 (The hearing was adjourned at 10:15 a.m.)
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A

ability 43:23 51:25
about 9:20 10:24 11:14 14:23 16:5 16:9,10 18:18,19 20:6,20 21:8,23 27:4,13 38:12 39:24 42:15 43:15 43:17 45:18,22 46:5,16 47:22 50:21
absolutely 18:13
account 10:25
accurate 6:12 20:17 21:14 27:7 35:4 44:22 47:8 50:22 51:6 54:10 55:21
act 52:7
acted 30:14
acting 49:17
action 30:23 31:6
activities 7:16 57:3
activity 7:20 9:19 10:19 36:10 53:5
actually 57:14
ACT/015/021 19:9
ACT/015/025 1:4 3:9 28:9
add 23:1,23 39:21 39:22 40:7 42:8 44:17
addition 12:20 13:1 13:8,16 46:14,21 57:9
additional 5:8,17 23:24 44:18 47:3
Additionally 5:6
address 27:15 38:21 38:25 52:4
addressed 13:11 23:19 39:15 54:9 54:15
addresses 26:18 37:20
addressing 37:12
adequacy 26:22 27:4,10 49:15
adequate 25:23 31:10 37:25
adequately 26:17 56:18
adjacent 19:24
adjourned 59:1,3
adjudicated 50:14
adjudication 30:22 31:4
adjudications 30:11
adjudicative 49:17
adjudicatory 49:22
administrative 4:20 5:7 30:11,14
admittedly 7:23
adversary 30:15
adversely 29:10
affected 7:20 18:11 45:4
after 24:21 32:9
again 14:24 20:2 24:20 39:1,9,15 49:10 51:19 55:9 57:4,22
against 31:1 32:1
agency 30:14
agree 9:5
agreement 19:9
ahead 22:23 25:1
al 41:16
allow 28:12
along 29:12
already 28:13 31:19 33:20 35:6,14,16 35:21 36:3 38:7,9 44:1 47:22 49:23 50:7,22,25 52:6 53:7,17 57:15 58:25
alternative 52:19
although 22:3
amendment 13:17 17:3
amorphous 23:10
amount 5:20 10:3 23:8,9 24:13,22 26:1
amounts 23:11
analysis 19:15 21:9 37:11 56:13
another 8:12,23,23 24:4
answering 16:12
anybody 36:7 58:23
anyone 28:3
anything 22:16 41:2 45:23 48:20
apologize 42:4
appeal 29:14,24 32:6
appearances 2:1 4:11
appeared 39:8 48:7
appears 10:12 15:17 43:23
applicant 27:24
Applicant's 19:14
application 4:18 5:10,19 12:18 13:7,18 14:19 16:15 17:6,15,21 18:13,15,24 20:10 23:6 27:18,23 28:21 29:7,14 31:10,24 32:7 34:6,12,18 38:11 38:14,16,20,22 43:14 45:20,22 46:15 47:5 55:15
applications 20:7
applies 15:12 17:22 18:5 20:3 30:2,10 32:22 39:7 43:2,6
apply 30:13,17 49:7 54:21 57:20
appropriate 44:20
approved 14:7
approves 24:21
approximately 10:8 12:4
aquifer 36:24 37:1
aquifers 45:6,7 56:17,18
area 6:18,18,19 7:12 11:16 14:11 14:12,14,14,15,18 15:7,13,19,22,24 16:2 17:10,11,23 18:19,20 20:5,22 20:25 22:4,11 26:22,23 29:4,6 29:17,20 31:13,15 31:16 34:3,21 36:6,24 37:9,12 37:13 38:13,18,23 38:23 39:13,14 40:17,22 44:1 46:17 47:15 50:2 52:20 53:15
areas 6:23 19:24 21:23 40:21 46:12 52:18 54:20
argue 36:1
argument 48:23,24
arguments 41:9 42:2,12 44:12
aside 53:12
asked 55:8
asking 20:18 21:16 22:11 35:14 47:5 47:24 48:5 54:5 54:23 55:18
asserted 31:2 53:22
asserting 18:5 54:17
assessing 42:13
Assessment 6:11 20:16
associated 19:16
Associates 13:14
assume 35:8
assurance 6:6 27:6 27:8
assure 5:12 6:7 21:12 22:12 54:8 55:20
assuring 4:12 7:18
attempt 13:19
attention 35:11
attitude 48:8
attorney 42:9
automatic 27:20
available 37:11,24
aware 4:10,18 13:17 20:21,22 41:25
awhile 38:21
a.m 1:14 3:2 59:3

B

back 14:21 23:17 40:3
backfilling 19:21
balance 29:20
bank 23:9
bar 30:2
barred 33:14 34:1
based 37:10 38:3 52:1 56:9
basically 21:16 23:11 36:16
bear 1:7 3:8 6:8,17 6:23,25 7:9,9,13 7:15,17,20,23 8:1 8:4,21 9:13,19 10:16,19 11:1,2 11:14,21 12:12,13 12:20 13:9,17,20 14:13 17:10,21 18:6,12,22 20:3,9 20:13,23 29:2,10 31:12 32:25 39:7 39:18 40:23 43:15 44:9,25,25 45:5,9 46:11 47:12 50:2 52:20 53:3,12 54:18 57:1
bearing 38:16
become 53:4
becomes 51:1
before 1:1 29:9 38:15 39:2,10 40:4 42:7 43:13 43:18,18,20 44:14 44:17 49:13 52:10 52:10 53:18 54:12 54:15
beginning 30:7
being 4:25
believe 6:5 9:18 12:8,15 14:22 15:12,14 21:19 39:19 43:25 48:23
between 27:17 32:25 34:20 35:25 50:1
beyond 28:25 44:13
big 6:23,25 7:9 10:19 11:1,14,21 12:12 13:9,17 29:2 31:12 32:25 43:5 44:25 46:11 50:2 53:3,12 54:18 57:1
Birch 6:23 7:2 29:4 31:14 32:25 44:25 50:2 53:4,12 54:18
bit 27:8,13 44:11 47:22
Blackhawk 13:2,2 14:23 15:8,8 46:22,22
blanket 50:24
board 28:19,22 30:5 32:13 33:10 33:21,21,22,23

35:21 38:6 41:16 43:13,18,19,20 49:11,14,19,20 50:25
Board's 29:15
bond 5:14,17,18,20 19:6,15 23:5,6,12 23:16,22,25 24:18 24:22 25:23 26:18 39:5
both 4:12 7:5 9:1 28:7,14,17,19,20 31:23 37:15,17 50:8
bound 53:25
bounds 47:24 49:1
Braxton 2:4 3:22 17:1
briefly 55:24
bring 52:9
bringing 17:19
brings 52:10
broadly 17:22
brought 39:4 55:7
bur 48:9
burden 27:24 28:1 28:2,14,15 33:16 36:4,7,8,11 49:8 50:16 51:12,21 55:4,6 57:4 58:6

C

called 30:1 33:6
came 13:25
canyon 1:7 3:8 6:8 6:17 7:11,13,15 7:17,21,23 8:2,4 8:21 9:14,19 10:16 11:2 12:13 12:20 13:18,20 14:13 17:10,21 18:6,12,22 19:7 19:20 20:1,3,9,14 20:23 29:11 39:5 39:7,18 40:23 43:15,16 44:9 45:5,9 47:13 52:20
capable 42:13
capacity 30:15 49:17
cards 51:25
Career 30:4
careful 21:3,9 22:4
carefully 21:12
carries 4:18
case 30:4 33:6 47:4
cases 28:17
cash 23:12
Castle 7:2 13:12 41:15
cause 1:4 3:8 19:9
caution 12:17 18:17 20:8 46:13 47:4,6 47:19 52:7
certain 23:7,9 31:11 35:17 39:8
certainly 23:14 34:15 36:10 49:2 49:13 51:24
certainty 36:5 47:14
challenged 32:7
changes 37:19
Chapter 6:19
characterization 47:11
characterizations 41:10
characterizing 13:2 15:8 46:22
Charles 2:25 3:19 13:14 36:14
chemical 37:14
CHIA 6:21 7:25 10:14 21:7 22:8 35:4 52:13,17 53:15 58:15,16
circumstantial 10:18 11:5,20 12:11,12 53:3
citation 41:13
citations 42:5
cite 55:12
cited 53:12
City 1:12 2:8,15,21 7:1
claims 49:12
clarification 9:1 13:6 35:2
clarify 11:19 19:19
clarifying 39:22
clear 41:24 50:16
clearly 36:23
Cleveland 33:19 34:17 50:5 56:3
client 55:3
climate 20:23 37:18
climatology 37:19
close 56:6
coal 5:2 13:3,8 15:9 16:2 19:25 21:5,8 46:23
collateral 30:1,10 30:20 32:22 33:15 34:1 42:3 43:2,6 49:7,10,21 57:20
come 5:11 14:21 23:17 34:16 37:25 48:14 52:17
comes 27:20 46:4
coming 10:12 12:14 43:20 47:18,24 54:24
company 1:7 2:11 2:18 3:8,16,18,20 4:7,16 12:19 19:7 23:18 28:15,17,24 32:1,3 33:18 34:7 35:15,16 36:5 39:17 47:23 50:19 57:25 58:5
Company's 35:3
complete 6:11 20:17 21:13 27:6 35:4 36:21 50:22 51:6 54:11 55:21
completed 39:13
completely 31:6 32:4,12
compliance 5:3 25:18,21 27:25
complied 28:24 29:21
comply 35:17 58:1
comprehensive 6:10 17:8 20:16 37:10
conceivably 33:25 54:3
concern 6:4,4,13 7:22 11:3 20:20 21:1,2 25:13 26:3 27:3 45:13,13
concerned 20:6 22:5 44:9 45:18
concerning 24:13 34:25
concerns 13:9,12 21:24,24 23:4,18 26:21 27:16 43:21 44:23,24 47:11 48:5,16 52:5 54:7 54:8,23 55:1,7,9
conclude 47:17 52:13 57:13
concluded 28:22 32:10 35:22 54:1
concludes 37:6
conclusion 10:15,22 12:24 13:5,25 17:20,22 18:7,11 46:18 56:14,25
conclusions 12:16 12:21 16:17 18:17 22:7 40:18 45:20 56:8
conclusively 49:23
conditions 4:24 27:22
conference 1:4 2:3 3:4,6,21,22 4:5 8:15,18 9:4,15 11:4,11,18,24 13:10,22 14:1,2 14:16,20 15:2,3 15:11 16:3,8,16 16:20,23 17:16,25 18:8 19:1 21:15 22:15,18 24:1,7 24:18,25 25:12,22 26:14 35:8 41:2,5 42:7,10,17,21,24 48:19 49:1,18 51:16,18 53:10,19 55:11,17,22 58:22
confine 17:5
confined 15:15 17:14
connected 29:3,5,17 31:13,15
connection 7:10 32:24 33:12 34:13 34:20 35:24 50:1 50:6
connections 34:8
consequences 6:10 15:21 20:15
consider 32:14,15
considered 33:21
considers 37:18 58:4
consists 56:16
contained 31:9 35:23 38:16 56:4
contains 37:9
contaminated 53:14
contamination 19:23
contends 51:8
contents 27:13
contest 34:17 49:5
contested 38:3
continually 40:9
continue 5:15 26:15
continued 10:1 11:15
continuing 40:10
contrary 36:2 56:13 58:18
control 13:1 15:7 46:21
controversy 30:16
convincing 28:17
Copper 33:7
correct 11:22 12:9 14:8,9,20 18:14 26:24
corrected 43:8
Corrections 30:6
correspondence 23:24 24:10,13
county 1:8 7:4
couple 41:7 46:1 48:22
course 4:17 18:14
court 29:15 30:3,4,8 30:12 32:9 33:10 41:13 49:13
cover 16:17
covered 37:23
covers 39:20
co-op 1:7 3:7 4:16 5:13 6:6 12:18 13:14 19:7 20:12 21:12 22:19 25:10 42:1 43:4 47:7,17 48:8 52:10 53:22 54:16
Co-Op's 5:18 29:21
cracks 34:4
created 9:8,9,11,18 34:13 45:10
credit 5:21 23:7,8 23:13,20 24:16 25:5

Creek 4:9 6:24
criteria 51:7
crook 2:12 3:14,14 4:6 8:17,20 9:6,10 9:17 11:8,12,23 11:25 14:5,10,25 15:4,16 16:6,11 16:19,21,25 17:24 18:3,10 19:3 21:18 22:17 23:5 25:13,19,24 26:2 26:6,21,25 27:2 27:19 31:20 33:1 33:1 35:1 36:1,19 37:4 38:10 39:4 39:20 41:5,6,18 41:20,23 42:16,19 42:23 43:1 52:4 53:16,20 55:14,18
Crook's 23:2 27:16 56:1
CSR/RPR 1:15
culinary 7:1,3 22:14
current 5:19 6:17 29:3,5 50:1
C.W 2:18 3:18,20 23:17 28:14,23 32:1,2 33:17 34:6 35:3,15,16 36:4 39:17 40:4 50:19 57:25 58:4

D

D 2:12
damage 29:19
data 19:22 40:11 51:5 56:7,9
date 1:13 6:12 20:17 21:14 27:7 29:6 35:5 50:23 51:6 54:10
dates 12:2,3
dealing 18:14 20:9 58:2
deals 17:8
decided 30:21
decision 52:1
declaration 6:1
decreasing 10:2
definitive 22:9
degradation 4:14
demand 50:24
demonstrate 27:25 28:4
denied 58:19
department 1:2,11 2:5 30:5
deprive 49:11,14
derives 10:21
describe 6:16
describes 10:23 37:2
designed 29:18 38:24
despite 6:14
determination 22:10 45:24
determine 4:23 15:25 46:10,12 49:15 56:20
determined 24:14
determines 23:16
determining 5:23 19:23
develop 19:17
different 39:11,12 39:14 43:12 54:4
diminished 53:14
diminishment 4:14
dimunition 19:23
direct 23:25
disagree 43:3
discharged 8:12
discharging 8:5
discretion 55:19
discuss 3:13 18:2 36:12
discussed 13:23 14:16 16:4,7,13 16:14 17:2 44:16 53:16 55:5
discusses 17:10,11 40:16
discussing 38:10 55:6
discussion 14:15 17:4,13,14,17 26:10 45:21
discussions 17:5
disprove 57:4
disputes 38:4
distinction 27:17
District 7:2 13:13 41:15
division 1:1 2:6 4:10,22 5:8,11,12 5:17,20 6:5,7,21 12:22 13:16 15:18 15:25 19:12,13 20:6,12,21 21:2 21:11,16,20 22:1 22:3,12 23:25 24:10,21 26:6 40:10 44:1,3,4,8 44:14,17,19,22 45:18 46:18 47:1 47:6,25 48:4,15 48:15 52:7,10,11 52:23 53:17,23 54:1,5,25 55:2,9 55:16,19
Division's 44:15
doctrine 29:25 30:9 43:6
document 25:7
DOGM 12:17 23:16 28:18,21 32:13 33:2,9 35:2,5,9,13 35:20 38:6,15 39:3,10 49:17 50:9,12,19,25 56:6,23 57:8,12 57:25
DOGM's 23:13
doing 39:5 42:10 47:9 51:1
done 22:13 24:5 25:8 47:20 51:11 52:11 53:24 58:3
down 36:5 47:13
downstream 21:5
Dr 46:3 57:10
drainage 19:19
drawn 23:9
draws 40:15
dried 36:18
drill 9:8
drilled 34:7,7
drying 8:2
due 32:17 35:10
dug 45:10
during 9:9 37:2
duty 4:23 44:2

E

earthquake 34:3 37:20
East 2:14
effect 5:14,16 21:4 25:6,11 50:12
effected 12:14 45:9
effects 13:7
either 29:9 35:13
element 30:20 32:8
elements 30:18 32:21 43:4 45:1 49:20
emery 1:7 7:4,5
encountered 8:11 8:16,22,24 9:3 36:25 37:1,14,17 40:2 56:16
end 5:23
enforce 30:13
ensure 35:3
entered 19:12
entire 14:11,17,17 15:12 16:2,18 17:9,22 32:10 36:6
entirely 56:13
entities 7:6
entitled 34:17 39:17 49:2
environmental 5:4
equally 45:23
err 33:11
erred 33:13
error 33:6
escalation 25:8
especially 22:4
establish 28:23
establishes 34:20
estimate 5:23
estoppel 30:1,10,20 32:22 33:15 34:1 42:3 43:2,6 49:7 49:10,21 57:20
et 41:15
even 28:25 33:13 37:20 44:1 46:6 46:19,24 47:16
ever 29:9
every 47:14
everybody 3:10 53:25
everyone 47:16
everything 50:24
evidence 5:13 10:18 11:5,6,10,13,21 12:11,12 19:18 22:6,6 23:4,10 25:4,11 26:23 28:18,22 32:17 33:19 34:11,15 35:23 37:24,25 38:4 49:3 51:21 52:2,5 53:3,6,8,13 56:2,4 58:12,14 58:18
evidentiary 6:2
example 34:2
Excuse 8:15 9:15
exercise 47:6 55:19
exercising 50:11
exist 34:11,14 40:3 53:7
existed 34:9 36:17
existing 4:24 38:18 40:14,17,22 41:1
exiting 38:17
expansion 17:12,12
expert 37:8,10,25 38:1,2,5 56:8
experts 57:11
explain 43:2
explanations 7:13
extensive 56:12
extrapolated 22:7

F

F 2:19
facilitate 51:20
fact 7:23 9:7 23:22 28:25 29:2 31:11 31:14 32:19 40:5 45:8 56:12
factor 25:8
facts 20:23
fairly 15:14 31:6 32:5,12,19
fairness 45:24
falls 28:3 55:5
familiar 20:24
far 26:1,1 37:6
farthest 48:10
fault 7:14,16 40:23
faulting 52:18
favor 32:1
February 8:8 13:11
feel 42:18,19
fell 28:14,16
few 34:24 39:22 42:4 43:5
filed 5:20

files 25:4,7
final 30:25 31:24 57:19
finally 31:5 47:21
find 56:24
findings 12:16,21 18:16 29:1,16 31:11 33:12,14 45:20
finds 20:24
fine 57:24
first 3:25 5:11 6:14 11:9 12:24 22:21 23:3 27:17 28:18 30:3,20 31:5 38:6 39:23 41:7,24 43:1,2,5 46:1 52:5 53:21
fissures 34:4
FIVE 1:6
five-year 25:9
flow 10:1,12,19 12:5,7,9,14 45:11 47:14
flowing 8:9 9:24 10:8
flows 9:13,19 53:13 53:14
folks 47:16
follow 18:24 21:16 21:20
following 22:3
follows 55:16
force 5:15
Fork 7:11
form 5:21
forth 43:4
forward 34:16
found 4:20 5:1,5 11:25 30:6 33:7 37:24
four 30:18 32:21
fourth 30:18 32:8
free 33:6 34:10,15 49:4
from 4:14 7:22 8:7 9:20,22 10:13,13 10:22 12:3,17 13:13 14:6,22 15:1,1,2 19:18,19 19:25 24:10 33:6 33:6 40:12,15,16 47:18 48:8,10 53:6 54:1,19
full 5:15 32:16
fully 31:6 32:5,12 32:19
fundamental 33:3,4
further 7:20 16:4 22:16 41:3 48:20 58:20,21

G

gallons 8:5,6,13 9:20,23 10:8,10
gas 1:1 2:6 41:16
gave 38:1 55:12
general 45:6 55:14
Gentry 6:20 7:11,25 10:14 17:9 18:20 19:8 20:5 21:6 47:15 52:13,16,17 52:20
geologic 34:2 46:21
geological 13:1 15:7 20:22
geology 14:24 34:19 37:12
give 50:12
given 21:25
giving 35:10
go 3:13,24 22:20,23 22:23 24:19,25
goes 56:12
going 11:6 24:2,19 26:12 27:12 31:16 36:12 42:1,1,14 44:13 46:10 52:1 52:24
good 4:5 46:8
groundwater 6:16 7:24 10:6 11:1 36:21 52:14 53:1 54:14 56:11,14
GRUBAGH-LIT... 24:23 25:25 26:8
GRUBAUGH-LI... 25:2 26:5,11

H

hansen 2:19 3:17,17 4:2 9:7 22:20,24 23:2 26:17 27:1 27:12 41:14,19,21 48:21 55:24
happen 24:21
having 10:17
hear 50:21 54:16 55:25
heard 11:19 50:18 56:19 58:9,12,14 58:24,25
hearing 3:6 16:4,9 16:12,17 25:15 33:17 42:10 59:3
hearings 57:11
held 13:22 26:10
help 19:4
helpful 19:2
highly 37:8
him 36:15
hired 47:17,17
holds 4:8
holes 9:8 34:8
Horse 6:18 12:19 12:25 13:8,15 14:3,12,14,18 15:6,19,22 16:14 17:6,15,20 18:12 18:23 38:11,14 39:1 40:14,18,20 40:21,24 45:19 46:14,20
huge 10:5
Huntington 4:8 6:24 7:1 33:18 34:16 50:4 56:2
Huntington-Clev... 2:11 3:15 4:7,11 4:17,21 5:24 7:6 20:19 21:1,25 28:16 29:12 32:2 32:3,7,16 34:10 34:14 47:23 48:25 49:9 51:2,3,8,11 54:9 57:5,14 58:4 58:7,17
Huntington-Clev... 6:3 41:11
hydrologic 29:19 32:24 33:12 34:20 50:6
hydrological 6:7,9 6:11 14:17 15:21 16:1 18:19 20:13 20:15,16 21:3 35:24 50:1
hydrologically 29:3 29:5,17 31:12,14 40:22 54:19
hydrology 17:9 26:22,24 36:6 37:6,13,23 38:13 38:22 39:14 46:16
H.C 48:25

I

identical 30:22 31:20,22 32:4 43:9
identified 56:18
identify 3:11
ignored 44:11
III 19:6,15
immediate 38:22,23
impact 6:11 10:5,17 10:21 11:21 15:24 20:16 21:4 31:16 37:22 44:9 52:25
impacted 7:14,16 10:19 27:9 29:10 48:3 53:4 57:2
impacts 14:17 16:1
important 55:1,3
impossible 17:7 36:8
inaccessible 10:11
inaccurate 35:13 45:3
inadequate 13:4 15:10,23 46:24 47:2
include 6:13 7:13 49:25
includes 4:16 14:12 37:13,16
including 6:9,14 20:14
incomplete 35:12
inconclusive 21:22 22:9
increase 13:19,20 25:9
increased 12:10
increasing 24:16
incumbent 51:2
indicated 37:21 52:6,22 53:2
indicates 9:23 10:14
indications 8:1
informal 1:4 3:6,6 13:10,22 14:1,16 35:7 42:9 49:18 51:24
information 5:9 6:8 8:10 19:19 20:13 27:4,11 31:9 35:16 37:11 40:16 40:19,24 44:18 49:15 50:20,21 51:4
initial 27:17,23
inside 9:13 53:15
inspection 19:18
insufficient 6:1 23:17
intelligent 46:4
intended 38:24
intent 19:22
intercepted 36:21 53:1
interception 54:14
intercepts 7:24
interest 7:18
interested 43:25
interests 4:12 44:5 48:1,2,12
interpretations 15:17
interrupt 25:3
interruption 11:1
in-line 53:13
irrelevant 45:8
irrevocable 5:21 23:7,8,20
Irrigation 2:11 3:15 4:7 28:16 47:23
isolated 40:23 54:19
issue 26:18,19 28:7 30:19,21 31:5,9 32:11,19 36:2 40:14 43:5,7,9,17 43:18 44:13 49:21 50:3 54:4,11 55:2
issued 12:23 19:10
issues 4:4 26:20 27:15 28:10,13 30:2 31:18,20,20 31:21 32:4,14,15 32:17 33:3,25 34:17 43:12 45:15 45:16 46:5 49:12 49:25 50:13 54:15 54:16 57:13,15
items 39:20

J

J 1:15
judgment 30:25 31:25,25 33:5
judgments 57:19
judicata 30:9,13 33:4 42:3 53:22 54:21
judicial 30:14
July 12:6
June 12:6
jurisdiction 32:14 49:12,14 50:9,11
just 4:2 7:24 8:25 10:24 11:7,19 14:11,18 16:22 22:5 23:10 25:8 25:21,22 26:3,11 27:10 39:22 41:6 41:24 42:8 43:4 45:25 47:5,19 48:6,9 50:23 51:16 53:10 54:5 54:24 55:18,24 56:22 57:22

K

Kerry 1:15
know 3:24 17:4 35:25 44:8 54:2 54:25
knowledge 26:12
knows 55:2

L

Lake 1:12 2:8,15,21
largely 6:25
last 55:12
lastly 55:4
latest 9:21
law 12:24 25:18 30:1 42:20 54:20
lease 6:17 13:18 14:13
least 8:3 24:8 29:6 43:23 52:16,25
leave 36:15 51:14
leaves 38:12
leg 32:8
legal 27:15 30:16 41:8 42:14
legally 42:12
legitimate 20:20 21:1
length 13:24
let 42:8 43:1 52:4
letter 5:21 13:11 23:7,8,13,20 24:16 25:5
let's 14:21,21 22:2 23:2 41:14 51:18 51:19
lie 44:24
like 4:22 21:11 25:16 33:2 34:4 36:1,14 41:8 42:18,19 48:21 51:20 53:21 57:23 58:24
likely 7:12
listened 48:6
litigated 31:7 32:5 32:12,20 45:16 54:12,17 57:16
litigation 28:7,10 28:13 29:24 31:19 32:23 41:13 43:17
little 9:1 27:8,13 44:11 47:22
located 39:25
long 23:12 27:21
longer 34:9
look 21:3,11 54:5 56:6
looked 44:6 52:12 52:12
looking 7:24 25:14 25:15 55:10
lot 40:16
Lowell 2:4 3:22

M

made 29:1,1 34:8 41:9 48:23,24
major 53:11
make 23:18 25:23 42:1,11 44:21 47:7 48:11 50:16 52:1 56:24
making 42:2 44:5
manner 58:8
many 13:9 21:7
March 12:22
Mark 2:19 3:17
material 29:19
materials 35:12
matter 1:6 3:5 12:18 19:5 29:14 32:10 34:22 42:20 43:7 49:11 50:7 51:13 54:20 58:24
matters 29:24 35:11 38:3,8 39:2,10,16 57:7,16,17,19
may 5:8 16:23 19:19 21:4 25:2 44:17 48:22 51:16 52:18 53:2
maybe 27:10,10 39:21
Mayo 6:15 7:8,25 8:10,13 9:22 10:13,20 13:13,21 13:23 14:10 15:21 15:23 16:6,13,13 16:18 17:2,6,8,13 17:17 21:6 22:8 27:14 34:25 35:22 36:20,22,23 37:4 37:8,9 38:19 39:15 40:13,15,20 46:2,3,7,15,19,25 52:12 56:5,6,10 56:10,20,24 57:9 57:10
mean 8:19 11:2 12:13 25:6,25 46:1
meaning 18:11
meet 6:1 36:8
meeting 35:9
meets 24:8
mentioned 39:25
mere 37:5
merely 43:20 55:6
merits 30:25 31:25
met 4:25 27:22 28:5 32:9,18,22 44:7 44:14 49:21 51:9 51:10,12 58:5,8 58:11
might 23:23 40:7
mine 1:7 3:8 6:8,17 7:17,21,23 8:2,4 8:21,23 9:2,19 10:4,6,16 11:2 12:13,19,20 13:20 17:11 18:6,12,22 19:7 20:3,14 21:5 21:8 29:11 35:25 37:15,17 39:5,7 39:11,18 40:1,5,6 40:9 43:16 44:9 45:5,9 52:21 56:11,15
mines 52:15
minimization 43:22 43:24
minimize 46:2
mining 1:1,7 2:6,18 3:8,18,20 4:16 5:2 6:20 7:16 8:20,20 8:22 9:9 10:18 11:15,21 12:19 13:8,18,19 14:13 16:2 19:7,25 23:18 28:12,15,23 29:10,18 31:15 32:1,2 33:18 34:6 35:3,15,16 36:4,9 36:20,25 37:1,2 39:12,17 40:2,4 41:16 42:1 43:4 48:8 50:19 53:5 57:3,3,25 58:5
minute 8:5,6,6,13 9:21,23 10:9,10 53:11
misstatement 36:22
modification 28:11
Mohrland 6:19 14:15 17:11
monitored 40:10
monitoring 19:22
months 12:8
more 16:14 22:12 23:10 27:8 35:5 46:3 51:19
morning 31:21 38:8 38:15 39:11
most 57:13
Mountain 6:21 7:12 7:25 10:14 17:10 18:20 19:8 20:5 21:7 47:15 52:13 52:16,17,20
mouth 56:1
move 45:25
much 23:1 39:19 46:3,9
must 30:22,24 31:2 31:6

N

narrow 42:14
narrowly 15:15
NATURAL 1:2,11 2:5
nearly 23:20
necessarily 40:25
need 33:5 42:18,19 57:6
needed 13:6 35:18
needs 27:5,5,7 47:2 54:6
neither 29:8
never 36:9
nevertheless 33:14
new 5:23 24:13 34:4 34:8
next 19:4 47:10
nexus 17:18
NIELSEN 2:13
north 1:11 2:7,20 7:4,11
northern 12:25 15:6
notarized 24:3,20 25:17,20
nothing 58:9,21
Nuck 7:10
number 3:9 4:10 13:5 19:9

O

object 23:22 47:10
objection 3:25 42:23 51:4
objections 50:10
obligated 50:12
obvious 10:5
obviously 10:5,16
occurred 12:6 19:20 37:21
October 1:13 3:1 19:10
off 26:10
office 17:4
officer 2:3 3:4,21,23 4:5 8:15,18 9:4,15 11:4,11,18,24 14:2,20 15:2,11 16:3,8,16,20,23 17:16,25 18:8

19:1 21:15 22:15 22:18 24:1,7,18 24:25 25:12,22 26:14 41:2,5 42:7 42:17,21,24 48:19 51:16,18 53:10,19 55:11,17,22 58:22
Oh 26:5 41:21
oil 1:1 2:6 41:16
okay 4:6 9:17 11:11 11:24 18:3 19:3 22:24 41:23 50:24 52:4
old 9:13
one 4:23 15:5,17 24:4 30:22 37:21 41:12 43:5,12 44:16 45:1 51:19 53:24,24 54:1
ones 31:22 48:13
only 5:19 15:19 18:1,15,25 26:20 39:7 44:24 45:1 45:14 54:3,16 56:7
open 38:12 39:9
opened 34:4
operation 5:15 29:18
operations 5:3 20:1
opinion 12:23 14:3 16:24 19:10 24:8 37:10 38:1,1,3 57:23
opinions 38:5 56:8
order 3:13 13:25 18:11,14,25 19:12 23:3 51:20
ordered 12:21
orders 12:17 18:17
originally 9:11,13
other 7:12 10:25 18:6 19:18 21:6 29:13 37:23 40:12 51:23,25 53:15,20 57:10
ought 52:7
out 10:23 13:25 14:1 21:9 23:5 27:20 33:16 34:24 35:20 36:14,16 45:11 47:24 48:25 49:6 50:23 51:4,7 58:7
outdated 35:13
outside 29:20 38:13 38:22,23
over 23:4 26:21 28:7,10,13 30:16 32:23 49:12
own 21:17,20 22:3 38:2

P

P 2:4
Pacific 30:6 33:7 41:17
Page 8:10 10:15 12:23 14:22 30:7 33:8
panel 32:16
Pardon 27:1 41:19
part 4:1 14:3,22 15:13 17:2 18:1 19:8
particular 28:6 31:8 50:21 56:4 57:6 58:10
particularly 18:23 22:13
parties 3:12 32:2 57:17
party 31:1,2,3 50:17
people 21:4
per 8:5,6,13 9:21,23 10:9,10
perch 37:2,3
perched 45:6,7 56:17,18
performance 5:14 23:4 26:18
period 25:9
permit 1:6 3:7 4:24 6:9 13:6 14:4 15:12 17:21,23 19:24 20:9,14 26:23 27:18,18,20 27:23 28:2,4,6,8,9 28:12,20 29:4,6 29:17,20,21 31:10 31:13,15,16,23 34:21 38:13,17,18 38:23 39:12,18 40:14,17,22 41:1 43:14 49:16 50:2 50:10,16,18 51:5 51:22 52:8 54:19 58:2
personal 26:12
pertain 40:25
pertaining 40:18,19 40:24
Phase 19:6,14
PHC 35:3 58:12,14
physical 25:6 26:9
pieces 53:5
place 1:11 3:5 40:3
Plan 6:20
plea 31:2
please 24:25 26:14 52:2
point 9:20 13:4 15:10 19:5 23:3 24:11,15 32:23 33:16 34:24 35:20 36:14,16 37:21 39:2,3 40:12 46:24 49:6 51:4,7 57:5 58:7
points 23:3,5 27:19 27:19 39:22 48:22 52:24
portals 19:20
portion 12:25 15:6 17:20
position 15:18 19:17 23:14 41:11
possession 23:14 26:7,13
possible 10:25 13:7 37:22 47:14 54:3
possibly 39:13
postulates 7:8
potential 13:3 15:9 46:23
preclusion 30:19
preclusive 50:12
prepared 6:15,21 14:11 38:19
present 2:24 5:2 11:7 40:20 49:3 52:2
presented 28:18 30:23 31:22 33:20 33:20 38:5 43:10
presenting 11:10
presently 10:9
preserve 42:20
presumably 3:24
pretty 39:19
prevent 29:19
previous 25:15 28:8 28:20 29:23 33:11
previously 31:22 34:14 50:4,13
pre-mining 36:18
primarily 27:14
primary 6:4 56:2
principle 33:4
principles 30:12
prior 12:1 30:21 31:3,23 49:22 57:11,16,17
privileged 42:22,25
privity 31:3
Probable 6:9 20:14
probably 43:8
problem 21:21 25:20
procedures 55:15
proceed 19:13
proceeded 8:21,23
proceeding 30:15 49:7,8,24 50:8 57:24
proceedings 3:3 28:20 49:4,23
process 5:22 24:15 32:18 35:14
processing 19:14
program 5:5
prong 43:5
proof 27:24 28:2,14 28:15 33:17 49:8 50:17 51:12
properly 49:12
proposed 19:6
protected 4:14 22:14 48:12
protection 5:4
protest 28:3 35:7 53:24 54:1 56:4 58:18
protesting 43:19 50:17
protestors 4:3 29:13
provide 6:6
provided 24:19
provides 5:8,13 6:25 7:3
provisions 58:1
purposes 49:24
pursuant 5:12
put 27:11 32:16 34:10 51:25 56:1

Q

quality 4:13 7:19 20:21 27:9 29:8 40:8
qualms 46:5
quantity 4:13 7:19 10:17 20:20 27:9 29:8 40:8 52:25
question 16:12 18:4 18:4,9 24:2 30:23 31:8 34:23 43:11 45:1 53:9 54:13
questioning 17:17 17:18
questions 38:12 39:9 41:7
quote 5:23 33:8
quoted 14:22
quoting 33:11

R

radioisotope 37:16
raise 4:4 31:21 39:8 57:14
raised 13:10 26:20 27:16 39:20 57:15
raising 51:3
rate 9:19 10:8
rates 10:22 12:5,7,9
rather 50:23
reach 17:19 56:13
reached 56:9
read 14:24 56:23
readdress 50:5
realize 33:1
really 26:20 39:10 39:16 54:22
reason 21:19 23:21 29:23 48:1
reasons 6:13
received 24:9
recent 12:16
recharge 6:22 10:22 21:23 22:11 46:12 56:21 57:1,2
reclamation 5:3 6:20 19:25

recognize 55:9
record 3:22 26:10 41:25 42:8
refer 30:3
referred 8:3
reg 24:9
regard 5:18 35:10
regarding 13:7 39:1 42:2
regional 36:24
regulations 36:10 50:15 51:8,10
regulatory 23:15 24:3 28:1,24 29:22 35:9,18 58:1,5,10,13
reinvent 49:19
reiterate 55:12
relation 40:13
release 19:6,15 39:5
relevant 39:2,10,16 45:21,23 46:15 49:4
relied 46:25
relying 56:3
remains 58:6
remedy 30:17
remember 12:3
renew 28:9 39:18
renewal 1:6 3:7 4:18 5:9,16 20:9 27:19,21 28:2,4,8 28:20 31:23 43:14 44:15 50:16,18 54:6 58:2
renewals 4:19
renewed 38:18 51:22 52:9
renewing 47:19
repeatedly 50:18
reply 53:8
report 6:15,15 7:8,8 7:25 8:10,13,14 9:22,22 10:13,20 11:16 13:21,23 14:10,23 15:1,22 15:23 16:6,13,13 16:18 17:2,7,8,13 17:18 21:6 22:8 27:14 34:25 35:22 35:23 36:20,22 37:5,9 38:19 39:15 40:13,15,17 40:20 46:2,8,16 46:19,25 52:12 56:5,7,10,20,23 56:24 57:9
reported 29:25
Reporter 1:15
reports 12:1 19:18 21:22,22 22:1 36:23 44:21 53:6 53:17 55:20
repose 30:13
represent 4:6
represented 52:23 54:16
representing 3:11 3:15,18,20
reprove 57:6
request 19:14,16 20:11 27:18 28:9 28:11
requested 5:16
requesting 49:1
requests 35:17 50:19
require 5:8 6:5 20:12 36:11 49:16 57:25
required 5:17 18:24 30:19 35:6
requirement 24:3 44:15 58:11
requirements 6:2 23:15 24:9 28:1,5 28:25 29:22 32:18 35:9,19 44:6,16 55:15 58:6,8,13 58:16
res 30:8,13 33:4 42:2 53:22 54:21
resolution 29:7
resolve 30:16
resolved 31:18 33:22 34:18,22 36:3 38:7,9 43:10 49:22,23 50:4,7
RESOURCES 1:2 1:11 2:5
respect 19:17
respected 37:8
respectfully 20:11
respond 4:3 41:8 48:22 51:17 53:21
responded 48:6
response 44:12 48:18
responses 13:12 42:4
responsible 8:2
restate 57:23
rests 31:11
result 40:2,5
resulted 19:25
review 30:4 38:4 40:11 57:9
reviewed 35:21
reviewing 32:10
revised 5:9 44:18
revisit 33:2
reynolds 2:25 3:19 3:19 8:25 9:12 13:14 14:9 22:22 22:25 23:23 24:6 24:11 39:21 41:4 48:24
re-bar 32:23
re-litigate 34:23 38:8
re-litigation 30:2
Ridge 6:18 12:19 13:1,8,16 14:3,12 14:14,18 15:6,19 15:22 16:14 17:6 17:15,20 18:12,23 38:11,14 39:1 40:14,19,20,21,24 45:19 46:14,20,20
right 4:19 11:5 16:9 18:2 23:19 25:24 25:24 27:11,21 42:11 49:5 53:19 55:17
rights 4:8,15 30:16
Room 1:11
round 51:19
rule 4:20 5:7 50:9
ruled 33:22
rules 21:17,20 22:3
R.645-303-231 4:21
R.645-303-232.200 5:7
R.645-303-232.230 5:13
R.645-303-233.110 5:1
R.645-303-233.120 5:6
R.645-303.200 55:5

S

saddle 48:10
Salt 1:12 2:8,15,21
same 10:15 18:18 18:20 20:5,5 28:10 43:7,7,7 50:10 57:18
sandstones 13:2,4 15:8,10 46:22,24
satisfactorily 4:25 4:25
satisfied 58:13
satisfies 23:15
satisfy 35:18 52:11 58:15
saw 9:22
saying 11:12 20:2,4 21:17 47:3 54:2
says 8:14 17:19 19:13
SBC-10 10:7,11
SBC-13 10:11
SBC-7 8:3 9:10 36:13 39:24 40:1
SBC-8 8:11,21 39:24
SBC-9 9:17
scientific 36:5
Scott 2:12 3:14,24
seam 29:7,13 31:24 32:6 34:6,12,18 38:20 41:12 43:16 45:22
seasonal 8:7 12:5
second 6:4 7:22 26:19 27:3 30:24
see 17:1 21:21 25:16 26:20 41:14 51:20
seeks 28:3
seem 28:21
seems 44:10
seep 9:11,18,25,25 40:1,6 52:23
seeping 10:3,6 52:15 56:11,14
seeps 9:9 36:13 45:4 45:10,11
SENIOR 2:13
separate 15:20 45:15
serious 20:20 44:23 45:13 55:1
Service 7:2 30:4 41:15
Services 13:13
set 24:14 43:4
setting 53:11
several 6:14
shareholders 7:7
shifts 28:2
show 20:12 21:7 30:19 47:13 51:9 52:24
showed 12:6
shows 35:23 36:20
sides 28:19
significant 4:8,12 7:18 8:1,7 10:2 44:5 45:4,11 48:1 48:2,13
simple 17:5
simply 10:22 17:14 20:18,25 21:10 22:11 44:7 47:3 47:15 54:23 56:22
since 9:21 12:8 20:4 45:18
sink 34:8
Sir 55:23
sites 9:1 39:23,25 40:8
slash 42:10
Slip 19:9
smart 46:7,7
solely 38:19 56:16
some 10:18 20:8 23:10,21 27:6 33:25 34:2,7 38:10,12 39:9 41:8 43:22 47:11 47:19 53:2 58:17
somebody 3:11
somehow 33:13
sometimes 21:25
Sorensen 1:15
sorry 7:14 10:1 12:13 14:25 43:16
sort 24:4
source 6:22 7:9,15 8:9,24 11:14 37:3 46:10 56:17,20,21 56:25 57:2
sources 9:2 10:25

21:23 22:10
South 2:14
speaking 10:24 15:19 27:13 43:15
Special 13:13 41:15
specific 29:1 37:13 37:16 51:4,5,7 53:9
specifics 36:14 38:25
spent 38:10
spring 6:23,23,25 7:3,10 8:3,4,8,12 8:24 9:24 10:19 11:15,21 12:14 13:9 29:2,4,9 31:12,14 32:25,25 44:25,25 46:11 53:3,4 54:18,18 57:1
springs 10:23 29:16 31:17 34:21 35:25 36:17 37:15,18 45:14 50:3 53:11 53:15 56:22
stage 57:24
stand 59:1
standards 5:4
Star 13:4 15:10 46:24
started 10:9,10
starting 9:20
state 1:3 5:5 33:7
stated 12:22 30:8 39:6
statement 24:4,20 25:17 26:4 27:3 56:19,23
statements 39:8
states 5:19 12:24 23:6 36:23,23
statutes 29:21
statutory 27:25
steady 9:24
stems 7:22
still 14:7,7 46:9,11
stopped 8:8
stream 21:23
stress 4:22
strictly 25:16
studied 15:25
studies 6:14 14:13 47:3
study 22:12 53:24
subject 49:11
submit 24:3 33:9 37:7 38:13 51:11 58:2
submits 5:24
submitted 13:21 46:20
subsequent 19:21
substantial 28:11
subsumes 30:9
successive 4:19
sufficient 26:4 28:23
suggest 11:9 12:17 18:17 21:5,10 39:6 43:11 44:22 45:17 52:14,15 54:7 55:7 56:10 58:9,12,14
suggested 36:19 46:6 47:1 52:8 53:6
suggesting 18:16,21 18:21 20:25 43:21 44:4,7,19 46:13 47:12,15
suggestion 44:2 45:19,22 57:12
suggests 10:20 13:15 37:4 45:12 46:13 51:22 52:6 52:16
Suite 2:7,14
sum 23:7,9
summer 12:7
supply 6:22
support 6:19 11:7 26:23 38:20 56:3
supporting 6:8 20:13
suppose 22:22
supposed 50:25
supposition 11:14 37:5,7
Supreme 29:15 30:4 30:8 32:9 33:10 41:13
sure 4:10 9:10 13:16 25:23 44:5 44:21 46:2,3 47:7 48:11 50:24 55:2
surface 6:16
systems 6:17

T

table 51:25
take 21:2,2 23:2 56:6
taken 10:13
taking 15:18
talk 42:14 46:16
talked 16:5 39:23 47:22
talking 14:23 15:13 16:9,10 18:18,19 43:17
Tank 28:21 29:7,13 31:24 32:6 34:6 34:12,18 38:20 41:12 43:16 45:22
technical 19:15
tell 48:4,15
Temple 1:11 2:7,14
ten 9:25
terms 4:24 27:21
testimony 57:10
testing 37:14,16 46:9
Thank 9:4,16 19:2 22:15 26:16 48:19 55:22 58:20,22 59:2
their 21:22 38:2,4 48:9 51:12 58:18
themselves 3:12 12:1
thereto 37:19
thing 19:4 25:14 44:10 47:25
things 20:7 21:8 34:9,11,24 42:14 46:1 47:7 51:23 52:9 53:20 54:10 55:25 57:21
think 3:10,12 12:3 15:16 19:4 20:19 22:25 25:19 26:3 26:17 27:2,5 41:4 44:20 47:21 48:13 48:17 51:1,14,22 52:5 59:1
thinks 38:12
third 11:3 31:1
though 46:19,25
thought 11:19 25:14
through 7:1,4 24:16 52:18 56:12
throwing 50:23
tie 7:11 36:5 47:13
tied 45:14
time 1:14 3:5 10:3 12:10 14:4,16 22:16 25:11 34:5 34:12,19 37:22 38:10 50:11 51:3
today 11:10 43:13 43:18,19 45:21
Trail 19:7,20 20:1 39:4 43:15
tributaries 4:9 6:24
true 40:15 50:8
truth 48:11
trying 12:3 48:9
turn 21:9
Turning 6:3 22:18
twice 31:19
two 3:12 5:2 15:5 15:17 20:7 26:20 31:18 40:21 53:11
type 25:17 47:25

U

under 13:5 28:8 55:5,8
underground 9:2 36:13
underlined 56:7
understand 35:1
understanding 14:6
unfair 48:14
unilateral 5:25,25
unincorporated 7:4
unit 46:23
units 13:3 15:9
unknown 6:24,25 21:8
unless 23:21 58:16
unsupported 5:25
update 35:15 50:20
updated 5:9 44:18 47:8 55:21
upheaval 34:3
upheld 29:15
upstream 4:15
upsurge 12:7
urges 20:8,8 47:4
users 7:5 22:13,14 37:21 43:25 58:3 58:17
uses 38:2
utah 1:3,8,12 2:8,15 2:21 4:20 5:6 29:15 30:3,5,8,11 32:9 33:10 41:16

V

valid 33:5
Valley 7:2 13:12 41:15
variation 12:5
variations 8:7
various 52:23
verbal 24:13
versus 30:5 41:16
very 4:5 28:7 55:24 57:19

W

want 3:13 11:19 22:20 25:23 27:14 42:12 44:8,8 48:3 48:11 54:25 56:1
wanted 25:21
wanting 18:1 25:16
wants 31:21 35:2,2 50:5 57:14
wasn't 17:3 35:24 41:25
water 4:8,13 6:16 6:22 7:1,3,5,15,19 7:19 9:2 10:3,17 19:21 20:21 22:10 22:13,14 27:8 29:9 37:1,2,3,20 38:2 40:7 43:25 44:10 45:3,8,13 46:4,10 47:14,18 52:17,19,24 53:13 53:14 54:7,8 55:1 55:1,20 56:15,21 58:3,16
waters 19:24 37:14 37:17 45:7
water-bearing 13:3 15:9 46:23
way 22:2 27:11
ways 52:19
weather 37:19
welcome 42:11 51:23

well 5:16 11:9,18 14:5 15:16 16:25 17:24 22:2,6 24:23 26:2 35:5 35:21 42:16 47:5
went 8:22 28:25 40:4
were 9:1,3,7 10:23 12:20 15:4 25:15 29:24 32:4,18,22 36:17 38:5,7 41:9 41:25 46:12 54:17 57:15,16,17,18
weren't 9:8
West 1:11 2:7,20
we're 4:2 11:9 16:10 18:18,19 20:18,25 22:5,11 42:10 43:15,17 44:2,19 46:13 47:3,5,9,12,15 48:5 51:24 54:4,5 54:23,24 55:18
we've 28:12 43:12 45:4 54:4 58:3
wheel 49:19
while 49:16
Wild 6:18 12:19,25 13:8,15 14:2,12 14:14,18 15:6,19 15:22 16:14 17:6 17:15,20 18:12,23 38:11,14 39:1 40:13,18,19,21,24 45:19 46:14,20
withdrawn 23:12
witnesses 57:11
wonder 42:13
Woodward 7:10
words 18:6 37:23 56:1
working 25:10
workings 40:5
wouldn't 21:20 54:21
written 24:12
wrong 43:9 56:22

Y

yeah 8:17 9:12 18:9 21:18 41:6
year 1:6 12:9 41:18 41:20
years 9:25

$

$899,000.00 5:22
$900,000 23:21

1

1 19:17
10 36:13 39:24
10:15 59:3
1000 2:14
120 9:20
1210 2:7
13 36:13
1300 2:20
14 8:5
1594 1:11 2:7
18 8:5,12
19 12:1 41:21
1950's 40:3
1988 8:7,11
1990 8:8 9:21
1991 10:10
1995 12:4,8,15
1996 41:22

2

2 13:5 19:21
2nd 30:7 33:7 41:17
20 10:8
2000 1:11,13 3:1 12:23 13:11 19:11
21 8:12 13:11
22nd 12:22
232.100 55:8
233.100 55:13
24th 19:10
248 41:17
250 5:7 10:10
27 1:13 3:1

3

392 33:8

4

4 19:10
431 2:20
49 10:15

5

50 9:23
517-3530 2:22
53 8:10,14
532-1900 2:16
538-5370 2:9
54 10:14
56 10:14

6

6 12:23 14:22
60 2:14

7

7 6:19
735 33:7

8

801 2:9,16,22
84111 2:15
84114 1:12
84114-5801 2:8
84116 2:21
88 8:16

9

9 36:13 39:24
9:00 1:14 3:2
933 30:7
938 30:7 41:17
942 30:6
97 41:22

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

--ooOOoo--

IN THE MATTER OF THE FIVE YEAR PERMIT RENEWAL FOR THE CO-OP MINING COMPANY, BEAR CANYON MINE, EMERY COUNTY, UTAH	:	NOTICE OF INFORMAL CONFERENCE CAUSE NO. ACT/015/025

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining ("Division") will conduct an informal conference on October 27, 2000, beginning at 9:00 a.m., at the Department of Natural Resources, 1594 West North Temple, Room 2000, Salt Lake City, Utah.

The informal conference will be conducted in accordance with the Utah Code Ann. § 40-10-13 (1953, as amended) and the Utah Admin. R. 645-300-112 and R. 645-300-123.

Persons interested in this matter may participate pursuant to Utah Admin. R. 645-300-123. The application, subsequent public comments, and request for informal conference may be inspected in the office of the undersigned, 1594 West North Temple, Suite 1210, Salt Lake City, Utah.

Pursuant to the Americans with Disabilities Act, persons requiring auxiliary communicative aids and services to enable them to participate in this conference should call Tiffini Moss at 538-5304, at least three working days prior to the hearing date.

DATED this 21 day of September, 2000.

STATE OF UTAH
DIVISON OF OIL, GAS AND MINING

Lowell P. Braxton

Lowell P. Braxton, Director
Division of Oil, Gas and Mining
State of Utah

Mayo and Associates, LC
Consultants in Hydrogeology

21 February 2000

Mr. Charles Reynolds
C.W. Mining Company
P.O. Box 1245
Huntington, Utah 84528

Re: Response to concerns of Castle Valley Special Service District

Charles,

We have reviewed the letter submitted by Mr. Darrel Leamaster to the Division of Oil, Gas and Mining regarding the Wild Horse Ridge Amendment. We are writing this letter to specifically address Mr. Leamaster's concern regarding the possibility that mining in the Wild Horse Ridge area will affect Big Bear Spring.

Mr. Leamaster states that "Co-Op does not know the source of recharge for the spring and therefore the impacts of mining can not be predicted". Although we agree that the recharge and flow path locations of Big Bear Spring have not been specifically determined, we feel that it is certainly possible to exclude certain areas and geologic structures as potential recharge sources or flow path locations.

Specifically, Mr. Leamaster states that the Bear Canyon Fault may be the source of water discharging from Big Bear Spring and that fractures associated with the fault may convey water from the fault to the spring. He is concerned that mining in the Wild Horse Ridge area may encounter water in or near the Bear Canyon Fault and thereby diminish the discharge rate of Big Bear Spring.

We believe with a good degree of certainty that mining in the Wild Horse Ridge area will not have any impact on Big Bear Spring. This position has been stated in our report, which is Appendix 7-J of C.W. Mining's Wild Horse Ridge permit amendment. Specifically, our position is based on the six points listed below.

1. The vertical offset of the Bear Canyon Fault is approximately 230 feet (MRP, Chap 6). It has been our experience that faults with large displacements in the Blackhawk Formation, Star Point Sandstone, and Mancos Shale are almost always filled with relatively impermeable fault gouge (smeared and pulverized rock resulting from motion along the fault) because of abundant shale and mudstone. This suggests that the plane of the Bear Canyon Fault is certainly filled with fault gouge. Where the Bear Canyon Fault is exposed near the headwaters of Bear

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Canyon, extensive fault gouge is visible. Fault gouge is generally not capable of transmitting water as demonstrated by the lack of water in the gouge of the Blind Canyon Fault where encountered by the Bear Canyon Mine (MRP, Appendix 7-J, p. 78).

If, as we suppose, the Bear Canyon Fault is filled with gouge, then the fault is a barrier to flow both vertically down the fault, laterally along the fault, or perpendicularly across the fault. While, the fault plane itself may not support groundwater or groundwater flow, fault-associated fractures on either side of the fault may support groundwater flow. The fault plane, because it is filled with impermeable materials, hydraulically isolates groundwater on one side of the fault with groundwater on the other side of the fault.

Consequently, any water-bearing fractures east of the Bear Canyon Fault are not in hydraulic communication with fractures west of the fault that may be supporting groundwater flow to Big Bear Spring. And so, mining in the Wild Horse Ridge should not impact Big Bear Spring.

2. We have postulated that groundwater recharge to the Panther Sandstone occurs where the Panther Sandstone is exposed at or near the surface and the little water recharges the Panther Sandstone from overlying horizons (MRP, Appendix 7-J, p. 103). Along the Bear Canyon Fault, adjacent to the Wild Horse Ridge area, the Panther Sandstone is juxtaposed against the Blackhawk Formation, because of 230 feet of vertical movement along the Bear Canyon Fault. Consequently there can be no direct hydraulic communication between the Panther Sandstone west of the Bear Canyon Fault where Big Bear Spring is located and the Panther Sandstone east of the fault in Wild Horse Ridge.

3. The rocks in the Wild Horse Ridge area dip to the southeast (MRP, Chap 6). Thus, groundwater in bedrock formations in the Wild Horse Ridge area would naturally flow to the southeast, away from the Bear Canyon Fault and away from Big Bear Spring.

4. Groundwater that may be associated with the Bear Canyon Fault was encountered in the Hiawatha Complex approximately 5 miles north of the Bear Canyon Mine. This water, which now discharges from the Mohrland Portal, has a radiocarbon age in excess of 9,000 years, which is considerably older than water in either Big Bear Spring or the Bear Canyon Mine (MRP, Appendix 7-J, pp. 60, 85-88). Thus, water inflows to the Bear Canyon Mine or water discharging from Big Bear Spring is not the same water that is associated with the Bear Canyon Fault in the Hiawatha Complex. This indicates that the Bear Canyon Fault does not convey water from the Hiawatha area to the Bear Canyon area.

5. Two springs, 16-7-24-3 and 16-7-24-4, discharge from the Blackhawk Formation immediately east of the Bear Canyon Fault in Bear Canyon. A third spring, WHR-6, discharges from the Spring Canyon Sandstone near the location of the proposed portals for the Wild Horse Ridge expansion. All three of these waters have elevated TDS contents relative to Big Bear Spring or water encountered in the Bear Canyon Mine. These waters also have unusual chemical compositions with magnesium and sulfate being the dominant ions compared to Big Bear Spring water in which calcium and bicarbonate dominate (MRP, Appendix 7-J, pp. 76-79, 129). These chemical data suggest that there is no hydraulic communication between the area east and the area west of the Bear Canyon Fault.

If we can be of further assistance, please do not hesitate to contact us.

Regards,

Kelly Payne

Kelly Payne
Hydrogeologist

710 East 100 North · Lindon, Utah 84042 · 801-796-0211 · Fax 801-785-2387

Letter from Nielson & Senior
Representing Huntington- Cleveland Irrigation District.

Salient Points:

1. The CHIA needs to be updated for the proposed mine operations: Potential Ground Water Quality and Quantity Impact Statement in the Gentry Mountain CHIA is not specific on pp 26 and 27.

Response:

a. Pg. 88 in the Technical Analyses agrees: the CHIA will be updated.
b. It is recommended that the objectors read the remaining CHIA document pages 28 through 62 and page 66 for further detail on assessing mining impacts.

2. More current water measurements need to be made.

Response:

Pg. 88 in the Technical Analyses agrees : the Division has requested the applicant to submit current data. Additional commitments are contained in the plan. See pg.9, R645-301-121.200 #6.

Letter from Castle Valley Special Service District

Salient Points:

1. The source for Big Bear Spring Flow is not known; therefore, impacts can not be determined.

Response:

This is a good point.
The Mayo report makes reference to recharge occurring from the Nuckwoodward and Tie Fork area and the following:
* indicates sand channel water did not contribute to seasonal peak flows SRC 10, SRC 6
* indicates the Hiawatha seam is not a potential mechanism for recharge of seasonal flows.
* agrees the peak flow recharge mechanism was disrupted.
* identifies water in the Panther Sandstone to have antiquity and a possible relationship with water encountered by the mine workings pg.129.
* says groundwater is not associated with the Bear Canyon Fault in the current permit area
*states it is not known if the Bear Canyon Fault will be a source of groundwater inflow when approached from the east. pg 131.

2. The applicant needs to provide a commitment to replace springs affected by subsidence.

Response:

Current rules include replacing springs affected by subsidence or through surface mining. It is not likely changes due to subsidence would directly affect flow to Big Bear spring. However, mining needs to be conducted to prevent material damage outside the permit area.

A question that should be considered is:

Do losses in peak flow constitute material damage outside the permit area?

Material damage is not defined for regulation R645-301-731.

3. Mining by Co-Op interfered with spring flow.

Response:

The Mayo report identifies the following:

- The large seasonal peaks intimate discharges are likely supported by a groundwater system with a short flow path from recharge area to discharge area (pg 41).
- A large fairly stable baseflow component was sustained through the drought period suggesting a longer flow path and larger groundwater system supports the baseflow component.
- The relationship between the small seasonal peaks now observed and the large seasonal peaks observed previously is uncertain.
- The likely explanation for the lack of large seasonal peaks is that the water that once supported the large yearly peaks is diverted to another location because of a physical change which may include natural changes, catastrophic events or mining related activities pg 43.
- Big Bear Spring might be impacted by the 1988 earthquake pg.121.

No strong finding is made by the Mayo report as to the cause in decreased peak flow at Big Bear Spring.

4. Is the source of water for the spring the Bear Canyon Fault?

Response:

I found no specific statement negating or supporting this question. A student of Dr. Mayo was supposedly investigating this under a masters program but, we have not receive the results.

5. Mining has a high potential of impacting the springs and baseflow in Fish Creek.

Response:

The Technical analyses asks for further clarification on pg 60 and 37 and deficiency R645-301-730 and 301-121.200 #7 on the proposed monitoring plan.

Big Bear Springs Chronology of Events

1920 The spring was first developed by Huntington City using a 4" diameter transmission pipeline which did not have adequate capacity to carry the peak flows (Castle Valley Special Service District memo June 24, 1997).

1976 The 1996-1977 snow year is lowest on record for the region (Castle Valley Special Service District memo June 24, 1997).

1977 In 1977 Templeton Link and Associates Consulting Engineers upgraded the spring box and collection system for Huntington City. A meter was installed and used by Terry Danielson of the USGS to collect spring flow data (Castle Valley Special Service District memo June 24, 1997).

1978 A low flow of 110 g.p.m. was recorded on April 27 and May 26.(Terry Danielson, USGS). **Need full citation.**

1981 The Castle Valley Special Services District replaced the 4 " line with a 6 inch Line. A new meter was also installed and flow rates are recorded on the 15th and the last day of the month following the meter installation. Flows collected in June through August in 1980 were felt to be inaccurate according to Darrel Leamaster (Castle Valley Special Service District memo June 24, 1997).

1989 A memo from Darrel Lea Master, August 5, 1997 reports Co-op intercepted flows of 120 to 160 g.p.m. of water in August 1989. I found concurring documentation. The mine water first encountered according to Division records was identified to occur on August 3, 1989 (Bear Canyon Mine Plan PHC, April 26, 1993 revised January 31,1995).

1991 First reported mine water discharge at Co-Op April 18, 1991.

1995 April 7, a memo from the Castle Valley Special Services District was presented to Co-Op indicating the average in March was 83 g.p.m. and the present reading was 78 g.p.m. A 35 g.p.m. drop in flow rate was seen since January of 1995.

PHC and Geologic Information which Changed Through the Sequences of the Permitting Process at the Bear Canyon Mine.

As mining progressed the general understanding of the environmental ground water resources differ from those identified in earlier documents. The changes identified here to were incorporated under the Tank Seam amendment, section 7.1.2 and 7.1.3. Major changes to pre-existing information were:

1. Previous statement: the Bear Springs flow is derived from water bearing zones from the north up-gradient of the site and includes water bearing portions of the Star Point Blackhawk contact cut by the fault to the north of the springs.

Permit change: separate and distinct aquifers exist in the Spring Canyon, Storrs and Panther tongues of the Star Point Sandstone rather than one single aquifer within the Star Point Sandstone and Blackhawk Formations.

2. Previous statement: at Big Bear Springs fault and related sub-parallel fault zones are the primary control for a major amount of ground water occurring in the permit area.

   Permit change: the relative dryness of the faults and the existence of fault gouge in the mine indicate that little or no flow across these faults occur.

3. Previous statement: the secondary permeability is present along the near-vertical joints and bedding plains.

   Permit change: permeability is generally low with the exception of the Castle Gate Sandstone.

4. Previous statement: the Potentiometric surface is considerably below the Star Point-Blackhawk contact in the area of the mine.

   Permit change: the separate formations in the Star Point were unsaturated in the southern portions of the permit area.

   The statement made regarding the Star Point is not inaccurate directly under the mine, but, does not provide information on the water occurrence to the north of the mine site.

Based on current and previous statements it appears as though it is plausible that some water in the mine intercepted fracture flows and that the existing water source is from a sandchannel formation. The fracture flows might have impacted peak flows and seasonal recharge to the Big Bear Spring.

Dating Techniques

The variations in data are shown for dateng techniques as presented in the Mayo report. The Big Bear Spring is tending to decrease in the duterium ratio. However, it is not clear whether this is a seasonal change. The remaining information does not appear to have a trend but changes seasonally. The change in the duterium ratio may indicate the spring water source is changing.

Information from the Star Point Mine Plan shows the water from Bear Canyon Springs lies above the Meteoric Water Line. Current data obtained by Co-Op, shows the water from the Springs lies below the Meteoric Water Line (4 samples collected from 5/96 to 1/99).

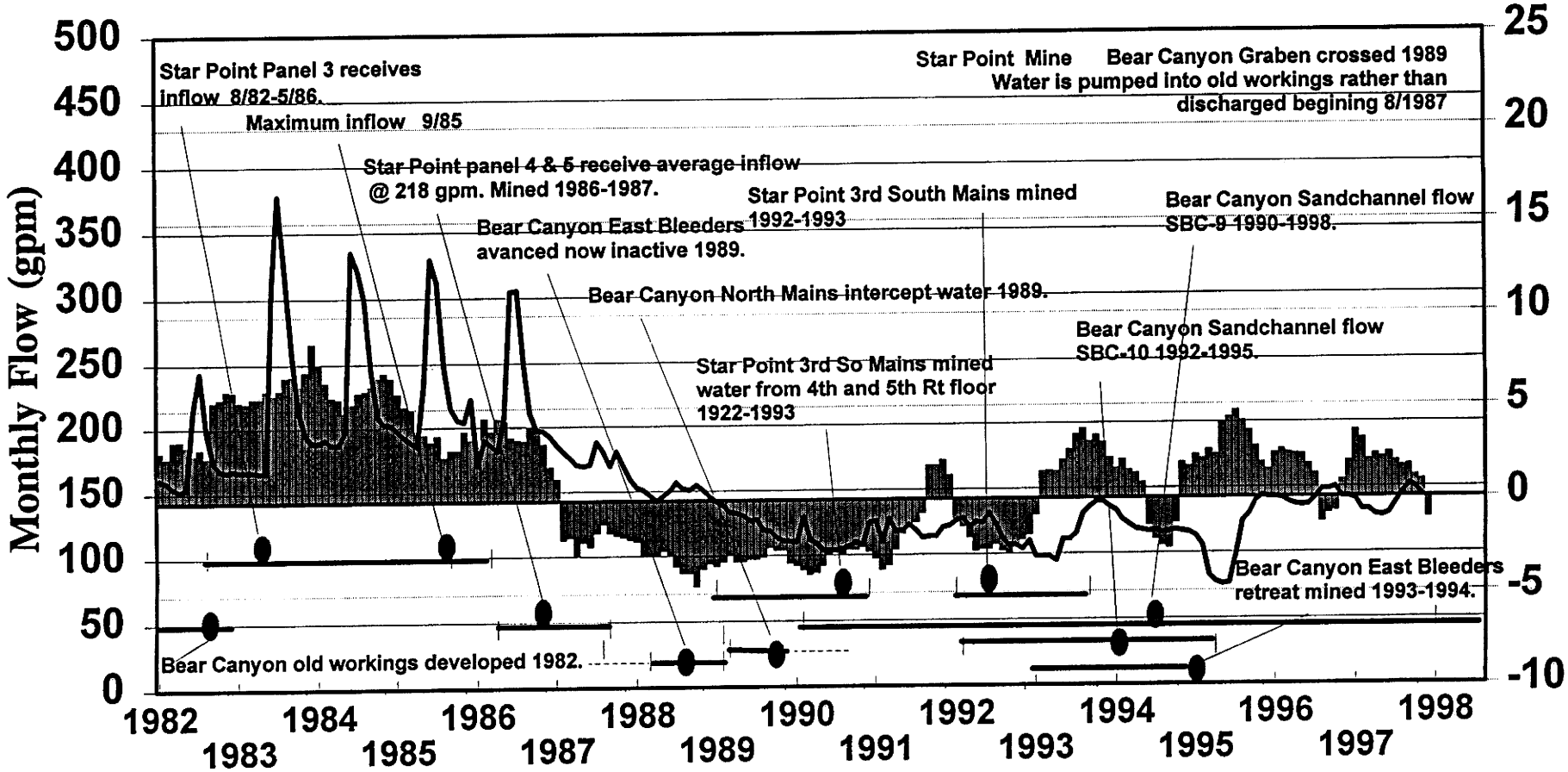
These variations may be due to seasonal or climatic or water source changes brought about by mining. In order to validate either hypotheses continued water dating during high and low flow periods is recommended. This data alone may not provide conclusive results because water dating techniques were only obtained once during the pre mining period.

Analyses of Bear Canyon Big Bear Spring flows through Time.

See graphs.
Figure 14b. (1989, CHIA)
Mine Water Discharge- Figure 12, Mayo Report.

Figure 14 b

Bear Canyon Spring the PHDI and Mine Water Interception



PHDI - Region 5 —— Bear Canyon Spring

3

CASTLE VALLEY SPECIAL SERVICE DISTRICT

P. O. BOX 877
CASTLE DALE, UTAH 84513
TELEPHONE (435) 381-5333

January 26, 2000

DORR W. HANSON
Chairman
DARREL V. LEAMASTER
Manager

FAXED January 28, 2000

RECEIVED

JAN 31 2000

DIVISION OF
OIL, GAS AND MINING

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

Re: Co-Op Mining Company
Wild Horse Ridge Amendment
[redacted]

Gentlemen:

The Co-Op Mining Company recently published a legal notice in the Emery County Progress on their expanded mining permit for the Wild Horse Ridge Amendments. We believe that the continued operation of this mine and the expansion of mining into the Wild Horse Ridge area may adversely affect our District and the 2,800 people that receive their drinking water from the Big Bear Spring.

The Castle Valley Special Service District operates and maintains the culinary water system for the communities of Huntington, Cleveland and Elmo. We rely heavily upon the Big Bear Spring as one of the main sources of water for these communities. This spring has been used for about 70 years as a drinking water source and it has always had good quality water and been a reliable source of drinking water.

In the past, this spring and Co-Op's mining activities have been the subject of numerous hearings and legal actions by the District, local communities, water companies, and regulator agencies. Even after these hearings and the extensive hydrological investigations conducted by consultants for the District and the Co-Op Mine, the exact source of the water supply and the recharge areas are not known. It is still a point of contention as to the source of the water and the possible impacts that mining operations in the existing mine and in the permit expansion area under the Wild Horse Ridge will have on the spring. Simply stated, the source of the water for the spring is not known and therefore the impacts that mining will have on the spring can not be determined.

We feel that there are many reasons for us to be concerned about Big Bear Spring. The Co-Op mining activities could easily impact the flow and/or quality of water to our spring. We suggest that the following items need to have further consideration before a permit is issued:

1. REPLACEMENT

   On page I-8 Co-Op Mining Company states "In the event a spring is affected by subsidence, the water will be replaced at the source." Nothing else is presented on replacement. They do not say if they will replace the water if it is encountered in normal mining activities. This is grossly inadequate and the permit needs to address in much more detail replacement issues especially for the culinary springs.
   Replacement of this spring will not be an easy matter. We do not know of any other springs in the area that could easily be developed and used in place of this spring. Treatment of surface water sources would be much more extensive and expensive that the use of the spring.
   How do they plant to replace the spring? Where will they find the water? What will our citizens' drink while the Co-Op finds a replacement? Who will pay for the replacement? Who will obtain the necessary permits and approvals from the Division of Drinking Water for the replacement source? Who will provide the water rights? How will they connect the replacement water to our system? And etc.
   A replacement plan needs to be formulated and approved before hand so that we have some assurance that the spring can and will be replaced. The simple statement in their permit that they will replace the spring is meaningless. We need a plan to assure the 2,800 people that drink this water that they will have a safe drink of water tomorrow and the next day that will be protected from the Co-Op's mining activities.

2. PREIVIOUS INTERFERENCE WITH BIG BEAR SPRING

   It is our contention that previous mining activities by Co-Op Mine have interfered with the flow to the spring. We have attached a graph showing the average flow from the Big Bear Spring. This graph illustrates the dramatic changes in flow patterns that have occurred at this spring. One curve illustrates the average spring flows from 1980 to and including 1988. The other curve shows the average spring flows from 1989 to 1999. The first curve has a bell shape with high peak flows occurring in June and July. The other curve is almost a flat line with the peaks completely missing. Obviously the flow pattern has been significantly altered since 1989.

The quantity of flow has also been significantly lowered. Prior to 1989 the average flow was 204 gpm. Since 1989 the average flow has been lowered to 124 gpm, a drop of 80 gpm. This is about a 40% drop in the flow rate. Drought conditions existed during the late 1980's but have now returned too normal. However, the spring flows have not returned to normal.

In August of 1989 Co-Op Mining encountered large flows of water in the Blind Canyon seam as they mined northward at their Site #SBC-9. That large flow of water has continued ever since, for 10 years now. They report that the average flow from this site flow has exceeded 100 gpm for that 10-year period and that 616 million gallons of water have been produced at this site. They also report hitting large flows of water in 1991 at site SBC-10. Initially this flowed at 250 gpm; it is not currently being measured, but has been flowing continuously since 1991.

We believe that these large flows encountered in the mine and other mining activities have impacted the flow to the Big Bear Spring. These impacts have never been addressed and replacement sources have not been provided. This needs to be resolved before additional mining is allowed.

3. WILD HORSE RIDGE IMPACTS

The Co-Op Mine has hired Mayo and Associates, to investigate the ground water and surface water systems in the mining area and to provide the Probable Hydrologic Consequences of Coal Mining in the Bear Canyon Area. They (Mayo) have offered a new "theory" that the source of water for the spring is at the point where the Panther Sandstone is exposed at the surface. They postulate that no flow is intercepted from vertical layers above because of the Mancos shale formation and that the water moves only horizontally through the Panther Sandstone. They suggest that the recharge for Big Bear Spring might occur at Tie Fork and Nuck Woodward Canyons located several miles North of the spring. They also suggest that the flow follows a fracture system that basically moves water horizontally but not vertically.

If this theory is correct, that the water is following fractures and conduits horizontally in the formation, but not picking up any water vertically from above, then it is possible that the source of water for the spring is the Bear Canyon Fault. It is much closer than Tie Fork or Nuck Woodward Creeks, which are several miles away. The water may follow the main and secondary fractures in the rock from the fault to the spring. The fault has the potential to contain a large volume of water and would be a good source for the spring.

Large volumes of water were previously encountered in the Hiawatha Complex associated with the Bear Canyon Fault. Co-Op's mining activities under Wild Horse Ridge will be in close proximity to the fault and may also encounter water. This water may be the source for the Big Bear Spring. And this would directly impact the spring.
Again we state that the Co-Op does not know the source of recharge for the spring and therefore the impacts of mining on the spring can not be predicted.

4. IMPACTS ON FISH CREEK

Mining under Wild Horse Ridge and the associated subsidence has a high potential of impacting the springs and surface sources that feed Fish Creek.
Much of the base flow for this stream is provided through groundwater discharges. Direct interruption by mining or subsidence disturbances of this ground water flow will directly alter the flow to Fish Creek.
The mine permit simply states that the flow to Fish Creek should not be affected by mining. There is no plan presented on how the flows will be maintained if they actually are disturbed. How will the water be replaced? How will instream flows be maintained?

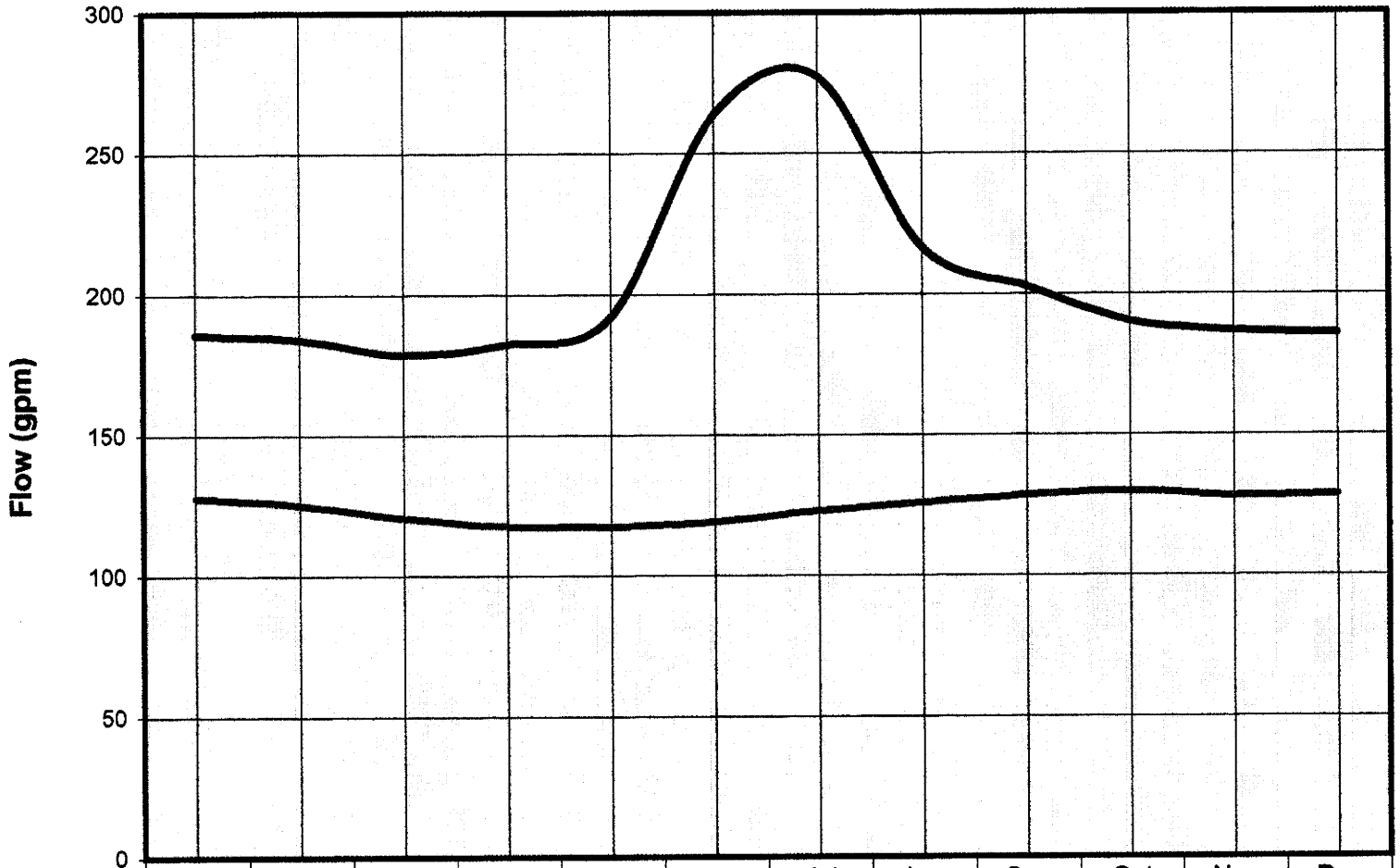
We thank you for considering our interests in this matter. We believe that the Co-Op Mining Co. should only be allowed to continue mining when they develop a replacement plan and demonstrate their willingness to replace our vital sources of culinary water. We also believe that they should replace the water that their mining operations have already diminished from our springs.

Very truly yours,

Darrel V. Leamaster

Darrel V. Leamaster
District Manager

Big Bear Spring Average Monthly Flow



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980-88 Monthly Ave	185.90	184.20	178.70	182.20	192.00	263.70	277.20	216.60	202.70	190.30	186.90	185.90
1989-Cur. Monthly Ave	127.90	125.40	120.70	117.70	117.50	119.30	123.00	126.00	128.50	130.00	128.00	128.80

cc: MAW
Done WB 1-28-00

Gary A. Weston
Earl Jay Peck
Neil R. Sabin
Harold C. Verhaaren
Mark H. Anderson
Richard M. Hymas
John K. Mangum
Richard K. Hincks
Noel S. Hyde
J. Craig Smith
Jay R. Mohlman
David B. Hartvigsen
Marilynn K. Burningham
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Scott M. Ellsworth
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Clair M. Senior (1901-1965)
Raymond T. Senior (1903-1995)
Arthur H. Nielsen (1914-1997)

Of Counsel
Harold A. Ranquist
Clark R. Nielsen
Elwood P. Powell
Wesley M. Lang

January 27, 2000

Mr. Lowell Braxton, Director
DIVISION OF OIL, GAS, & MINING
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

RECEIVED
JAN 27 2000
DIVISION OF
OIL, GAS AND MINING

Re: Cause No. ACT/015/025

Dear Mr. Braxton:

Pursuant to Utah Administrative Code R645-300-122, the Huntington-Cleveland Irrigation Company submits the following objections to the addition of the Wild Horse Ridge Leases to the Bear Canyon Mine, ACT/015/025-SR98-1, and requests that the Division hold an informal conference at its Salt Lake City offices on the application pursuant to R645-300-123.

Among other things, Huntington-Cleveland notes with concern that the *Potential Groundwater Quantity and Quality Impact* statements (***Gentry Mountain CHIA***, September 16, 1998, pp. 26–27) contain little more than basic generalizations about groundwater which any decently informed person could draft without reference to anything, rather than the specific observations and conclusions so necessary to a proper conclusion and recommendation. The impact of such a considerable expansion as Co-Op Mining Company contemplates surely requires an appropriately serious evaluation. The short-shrift these critical matters receive in the present CHIA will not do.

Huntington-Cleveland also notes that the most recent measurements of water in and around the Bear Canyon mine apparently took place some time in late 1996 or 1997. Inasmuch as water levels and flows can change quite rapidly, information as much as three years out of date seems rather antiquated. More current water measurements ought to be obtained before the Division reaches a final decision regarding the Co-Op Mining Company's application.

We look forward to the opportunity to discuss these and other concerns.

Sincerely,

J. Craig Smith
Scott M. Ellsworth

JCS/ch
cc: Huntington Cleveland Irrigation Company

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

February 3, 2000

Facsimile Transmittal
(435) 637-2716

Sun Advocate
Emery County Progress
845 East Main
P. O. Box 870
Price, Utah 84501-0870

Re: Notice of Informal Conference

Enclosed is a notice of Informal Conference from the Division of Oil, Gas and Mining, Department of Natural Resources, State of Utah.

It is requested that this notice be published ONCE ONLY no later than Tuesday, February 8, 2000, in both the Sun Advocate and Emery County Progress. In the event that said notice cannot be published by this date, please notify me immediately by calling (801) 538-5304.

Upon completion of this request, please send proof of publication and statement of cost to the Division of Oil, Gas and Mining, P. O. Box 145801, Salt Lake City, Utah 84114-5801.

Sincerely,

Tiffini Moss

Tiffini Moss
Executive Secretary

tm
Enclosure
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TRANSACTION REPORT

P.01

FEB-03-00 WED 01:19 PM

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State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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Executive Director

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Division Director

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801-538-7223 (TDD)

UTAH DIVISION OF OIL, GAS AND MINING
FACSIMILE COVER SHEET

DATE: Feb 3, 2000

FAX #: (435) 637-2716

ATTN:

COMPANY: Sun Advocate

DEPARTMENT:

NUMBER OF PAGES: (INCLUDING THIS ONE) 4

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

---ooOoo---

IN THE MATTER OF THE APPLICATION OF CO-OP MINING COMPANY TO MINE THE WILD HORSE RIDGE ADDITION AT THE BEAR CANYON MINE, EMERY COUNTY, UTAH	:	NOTICE OF INFORMAL CONFERENCE CAUSE NO. ACT/015/025

---ooOoo---

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining ("Division") will conduct an informal conference on February 22, 2000, beginning at 10:00 a.m., at the Department of Natural Resources, Room 1040, 1594 West North Temple, Salt Lake City, Utah.

The informal conference will be conducted in accordance with the Utah Code Ann. § 40-10-13 (1953, as amended) and Utah Admin. R. 645-300-112 and R. 645-300-123.

Objections to Co-Op Mining Company's application to mine the Wild Horse Ridge Addition and request for an informal conference were received, and an informal conference will be conducted to accept written or oral statements and any relevant information pertaining to this permitting action from any party to the conference.

Persons interested in this matter may participate pursuant to Utah Admin. R. 645-300-123. The application, subsequent public comments, and request for informal conference may be inspected in the office of the undersigned, 1594 West North Temple, Suite 1210, Salt Lake City, Utah.

Pursuant to the Americans with Disabilities Act, persons requiring auxiliary communicative aids and services to enable them to participate in this conference should call Tiffini Moss at (801) 538-5304, at least three working days prior to the hearing date.

DATED this __3__ day of February, 2000.

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

Lowell P. Braxton, Director

CERTIFICATE OF MAILING

I hereby certify that I caused a true and correct copy of the foregoing NOTICE OF INFORMAL CONFERENCE for Cause No. ACT/015/025 to be mailed by certified mail, postage prepaid, on the 3 day of February, 2000 the following:

Wendell Owen
Co-Op Mining Company
P. O. Box 1245
Huntington, Utah 84528
Z 230 748 169

J. Craig Smith
Scott Ellsworth
Nielsen & Senior, P.C.
1100 Eagle Gate Tower
60 East South Temple
Salt Lake City, Utah 84111
Z 230 748 170

Darrel V. Leamaster PE
District Manager
Castle Valley Special Service District
P.O. Box 877
Castle Dale, Utah 84513
Z 230 748 171

Carl E. Kingston
3212 South State Street
Salt Lake City, Utah 84115
Z 230 748 172

F. Mark Hansen
404 East 4500 South, Suite B-34
Salt Lake City, Utah 84107
Z 230 748 173

Tiffini Moss

Tiffini Moss
Executive Secretary
Division of Oil, Gas & Mining

P:\GROUPS\MINES\WP\NOTICES\Bear Canyon\wdhorse_com.wpd

Notices were mailed first class, postage prepaid to the following:

Charles Reynolds
Co-op Mining Company
P O Box 1245
Huntington, Utah 84528

Eldon Kingston
Mountain Coin Machine District
3753 South State St
Salt Lake City, Utah 84115

Thomas A. Mitchell
Public Affairs Division
Heber Wells Building
160 East 300 South, 5th Floor
Salt Lake City, Utah 84114

James Fulton, Chief
Denver Field Division
Office of Surface Mining
Reclamation & Enforcement
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Denver, Colorado 80202-5733

Richard Manus, Area Manager
Bureau of Land Management
Price Field Office
125 South 6 West
Price, Utah 84501

Alan Rabinoff, Chief
Mining Law & Solid Minerals
Bureau of Land Management
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Salt Lake City, Utah 84145-0155

Mark Page Regional Engineer
Utah Division of Water Rights
Southeastern Regional Office
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P.O. Box 718
Price, Utah 84501-0718

Dave Ariotti, District Engineer
Southeastern Utah Health Dept
128 South 100 East
P.O. Box 800
Price, Utah 84501

Derris Jones, Habitat Mngr
455 West Railroad Avenue
Price, Utah 84501

Gary L Roeder District Engineer
Natural Resources Conservation Service
350 North 400 East
Price, Utah 84501

David Winder, Executive Director
Department of Community & Economic Development
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Salt Lake City, Utah 84111

Bryant Anderson
Emery County Planning & Zoning
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Castle Dale, Utah 84513

Bill Howell, Executive Director
Southeastern Utah Association of Local Governments
P.O. Box 1106
Price, Utah 84501

Jeff Walters, Acting Forest Supervisor
U.S. Forest Service
Manti La Sal National Forest
599 West Price River Road
Price, Utah 84501

Reed Harris, Assistant Field Supervisor
U.S. Fish & Wildlife Service
Ecological Services
Lincoln Plaza
145 East 1300 South, Suite 404
Salt Lake City, Utah 84115

Robert Morgan, State Engineer
Utah Division of Water Rights
Department of Natural Resources
1636 West North Temple
Salt Lake City, Utah 84116

Brent Bradford, Deputy Director
Office of the Executive Director
Department of Environmental Quality
168 North 1950 West
Salt Lake City, Utah 84114

John Kimball, Director
Utah Division of Wildlife Resources
1594 West North Temple
Salt Lake City, Utah 84114

Max J. Evans, Director
Utah Division of State History
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Salt Lake City, Utah 84101

David Terry, Director
School & Institutional Trust Lands
Administration
675 East 500 South
Salt Lake City, Utah 84102

Ronald P. Parkin, State Mine Inspector
Industrial Commission of Utah
College of Eastern Utah
451 East 400 North
Price, Utah 84501

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Utah Mining Association
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Salt Lake City, Utah 84101

Chuck Semborski, Environmental Chairman
Energy West Mining Company
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Huntington, Utah 84528

Carolyn B Wright, Research Analyst
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State Planning Coordinator Office
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Salt Lake City, Utah 84114

Mike Schwinn, District Engineer
U.S. Army Corps of Engineers
1403 South 600 West
Bountiful, Utah 84010

William P. Yellowtail, Jr., Regional
Administrator
Environmental Protection Agency
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Denver Place, Suite 500
Denver, Colorado 80202-2405

Kathleen Clarke, Executive Director
Department of Natural Resources
1636 West North Temple, Suite 316
Salt Lake City, Utah 84116

Dave D Lauriski, Chairman
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School & Institutional Trust Lands
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675 East 500 South, Suite 500
Salt Lake City, Utah 84102

Duane K. Jensen, President
Board of Directors
Huntington-Cleveland Irrigation Company
Box 395
Cleveland, Utah 84518

Menco Copinga, President
North Emery Water Users Association
Box 129
Cleveland, Utah 84518

Lee Lemmon, Vice President
Board of Directors
Huntington-Cleveland Irrigation Company
Box 1183
Huntington, Utah 84528

Varden Willson, Secretary
Huntington-Cleveland Irrigation Company
Box 327
Huntington, Utah 84528

Jay Mark Humphrey
Emery Water Conservancy District
P.O. Box 998
Castle Dale, Utah 84513

Tiffini Moss

Tiffini Moss
Executive Secretary
Division of Oil, Gas & Mining

INFORMAL CONFERENCE

Co-Op Mining Company
Bear Canyon Mine
ACT/015/032

Wild Horse Ridge Addition

Name	Company	Telephone Number	Do you want to make comments?	
KENNY PAYNE	MAYO + ASSOCIATES	801-796-0211	☐ Yes	☐ No
Erik C. Petersen	Mayo & Associates	(801) 796-0211	☐ Yes	☐ No
J. Craig Smith	Nielsen & Senior	801 532-1900	☒ Yes	☐ No
Mary Ann Wright	Oil, Gas & Mining	801-538-5306	☐ Yes	☑ No
Mark Hansen	attorney for C.W. Mining Co.	801-517-3530	☒ Yes	☐ No
Charles Reynolds	C.W. Mining Co	435-687-2450	☒ Yes	☐ No
~~J. Craig Smith~~	~~Nielsen & Senior~~		☐ Yes	☐ No
Scott M. Ellsworth	Nielsen & Senior	(801) 532-1900	☐ Yes	☐ No
Jim Smith	UDOGM	(801) 538-5262	☐ Yes	☑ No
VAL PAYNE	EMERY COUNTY	(435) 381-5552	☐ Yes	☑ No
Darrel Leamaster	Castle Valley SSD	(435) 381-5333	☑ Yes	☐ No
JEFFREY W. DEFREEST	USDA - Forest Service	435 636 3521	☐ Yes	☑ No
Robert Davidson	DOGM	801-538-5264	☐ Yes	☑ No
Sharon Falvey	DOGM	801 538-5260	☐ Yes	☑ No
Tiffini Moss	DOGM		☐ Yes	☐ No
[illegible]	DOG	801-538-5268	☐ Yes	☑ No
			☐ Yes	☐ No
			☐ Yes	☐ No
			☐ Yes	☐ No
			☐ Yes	☐ No
			☐ Yes	☐ No

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

---ooOoo—

IN THE MATTER OF THE APPLICATION OF CO-OP MINING COMPANY TO MINE THE WILD HORSE RIDGE ADDITION AT THE BEAR CANYON MINE, EMERY COUNTY, UTAH	:	INFORMAL CONFERENCE FINDINGS, CONCLUSIONS AND ORDER CAUSE NO. ACT/015/025

---ooOoo—

A newspaper notice was filed December 7, 14, 21, and 28, 1999 providing notice to the public that an administratively complete copy of the Wild Horse Ridge addition to the Bear Canyon Mine permit was available for public comment. On January 26 and 27, 2000 the Division of Oil, Gas and Mining received requests for an informal conference to seek information on how the permit application package addressed hydrologic issues from the Castle Valley Special Service District and the Huntington-Cleveland Irrigation Company respectively. On February 22, 2000, an informal conference was held to review this public request for additional information concerning the permit application package (PAP) for the proposed Wild Horse Ridge addition (WHRA) to the Bear Canyon coal mine.

The following persons were involved in the informal conference:

Presiding: Lowell P. Braxton, Director
Oil, Gas and Mining

Petitioner: For Huntington-Cleveland Irrigation Company:
J. Craig Smith & Scott Ellsworth
Nielsen & Senior

Darrel Leamaster
Castle Valley Special Service District

Applicant: Charles Reynolds
Co-Op Mining Company

As a result of a review of all pertinent data and facts presented and provided at the informal conference, and on information in the files of the Division, the following shall constitute the findings of fact, conclusions of law and order in this matter.

The Informal Conference

Issues raised by Huntington-Cleveland Irrigation Company (HCIC) and Castle Valley Special Service District (CVSSD) are summarized as:

1. Detailed information is lacking to support conclusions in the PAP and Probable Hydrologic Consequences document (the PHC).
2. Hydrologic and geologic data from within the proposed permit area are inadequate to sustain conclusions in the PAP and the PHC.
3. Monitoring data from springs located in the adjacent area were used to supplement the PAP and the PHC.
4. Hydrologic data may not be adequate to sustain the requisite regulatory findings needed to support issuance of a Mining and Reclamation Permit.
5. Information from outside the proposed permit area was extrapolated into the WHRA to bolster conclusions for the PAP.
6. The USGS concludes that there are regional aquifers in the WHRA and conclusions reached in the PAP that there are no regional aquifers within the WHRA are not consistent.
7. Insufficient subsurface geologic control exists within the northern part of the WHRA to define the number of sandstone aquifers below the coal.
8. A Blackhawk Fm. channel sandstone that contributes water to the present Bear Canyon Mine may contribute water inflows to the proposed WHRA.
9. Is there sufficient information to characterize water-bearing Blackhawk channel sands within the WHRA?
10. No hydrologic impact should be permitted within a permit area of a coal mine.
11. The PHC does not discuss inflows to the proposed mine.

12. Base line water data are not adequate.
13. There is no empirical data regarding volume of groundwater within the proposed WHRA.
14. Source of Big Bear Spring has not been adequately addressed.
15. Replacement of waters if mining contaminates or diminishes water quality or quantity has not been addressed.
16. Reclamation of groundwater in the permit area has not been addressed.
17. The Mancos Shale is not totally impermeable.
18. Possible effects of mining in the WHRA on Big Bear Spring are not adequately addressed.

As the above issues were raised by the Petitioners, Co-Op Mining's Charles Reynolds and Mr. Kelly Payne, Hydrologist for Mayo and Associates (under contract to Co-Op) responded. This dialogue including comments by others attending the hearing was recorded.

FINDINGS OF FACT

1. Request for the informal conference was appropriately made and timely.
2. The informal conference was appropriately noticed.
3. The issues raised by Huntington-Cleveland Irrigation Company and Castle Valley Special Service District addressed only hydrologic deficiencies alleged to be in the PAP for the WHRA.
4. The informal conference was held at the appointed time, and a record of the proceedings was made by a Certified Shorthand Reporter.
5. The levels of geologic and hydrologic detail contained in the Permit Application Package and the Probable Hydrologic Consequences document are being reviewed by the Division, and a formal determination of technical adequacy for the PAP has not been made.
6. Use of springs from the adjacent area to supplement the PAP and the PHC will help predict chemical parameters of waters that may be encountered by mining in

the WHRA.

7. Extrapolation of geologic information from outside of a permit area to a permit area is an acceptable practice when supplemented with compatible data collected from within the permit area.

8. The various members of the Star Point Sandstone that frequently constitute the first aquifer below the Blackhawk coals, with the exception of one spring in the Spring Canyon Tongue are not considered prospective for groundwater in the WHRA, since these sandstones outcrop in the WHRA.

9. US Geological Survey conclusions concerning regional aquifers in the Wasatch Plateau Coalfield that were reached prior to the modern coal mining era are not always consistent with conclusions that could be reached by professional geologists and hydrologists working with additional mining derived data, as is currently the case for this permit application.

10. Concerns that no hydrologic impact can occur within a permit area of a coal mine overstate the regulations as exemplified by R645-301-731 which reads (in part): The Permit application... *"will contain the steps to be taken during coal mining and reclamation operations through bond release to minimize disturbance to the hydrologic balance within the permit and adjacent areas; to prevent material damage outside the permit area; to support approved postmining land use in accordance with the terms and conditions of the approved permit and performance standards of R645-301-750; to comply with the Clean Water Act (33 U.S.C. 1251 et seq.); and to meet applicable federal and Utah water quality laws and regulations...."*

    Thus mine inflows are permissible unless found either conceptually or factually by the Division to cause material damage to the hydrologic balance.

11. Age dating of Blackhawk waters in adjacent coal mines support these waters as being geologically isolated from modern recharge, and in the WHRA, topographic conditions will preclude recharge of Blackhawk sandstones.

12. The character of the Blackhawk Fm. sandstones as seen in outcrop in the WHRA and elsewhere in the Wasatch Plateau does not support consideration of these

sands as a regional aquifer.

13. In much of the WHRA, the exposures of Blackhawk sandstones along steep ridges precludes recharge of these porous zones by precipitation, supporting suggestions in the PHC that these sands will not contribute water to many portions of the proposed coal mine.

14. In the northern portion of the WHRA, Blackhawk water contribution to the mine cannot be totally discounted.

15. Base line water data submitted in the permit application meet the requirements of the Utah Coal Regulatory Program except as previously noted by the Division or otherwise noted below.

16. Empirical data regarding volumes of groundwater within a proposed permit area are not required by Utah regulation unless coal mining is found to pose a threat of material damage to the hydrologic balance.

17. Big Bear Spring may be geologically isolated from the hydrologic system in the WHRA by gouge resulting from the Bear Canyon Fault, and the PHC suggests multiple recharge sources for Big Bear Spring that are not related to the WHRA.

18. Water replacement is not mandated by the Utah Coal Regulatory Program until a finding has been supported that Coal mining and Reclamation Operations have contaminated or diminished state appropriated waters:

    40-10-18(15)(c) *"Subject to the provisions of Section 40-10-29, the permittee shall promptly replace any state-appropriated water in existence prior to the application for a surface coal mining and reclamation permit, which has been affected by contamination, diminution, or interruption resulting from underground coal mining operations."*

19. "Reclamation" of ground water at the conclusion of mining is not specifically addressed by the Utah program, but as addressed at R645-301-729, the Division has an affirmative obligation to assess the cumulative hydrologic impacts of a proposed coal mining and reclamation operation, and all surface and groundwater systems in the cumulative impact area, to determine for purposes of permit approval, whether the proposed operation has been designed to prevent material

damage to the hydrologic balance.

20. The possible effects of coal mining in the WHRA and the possible effects of mining on Big Bear Spring is well developed in the February 21, 2000 letter "Responses to concerns of Castle Valley Special Services District" from Mayo and Associates, LC, to Charles Reynolds, Co-Op.

21. For purposes of differentiating potential aquifers from potential aquicludes in the WHRA, the shaley units of the Mancos Shale shall be considered aquicludes.

CONCLUSION OF LAW

The Permit Application Package for the Wild Horse Ridge significant revision is still under review by the Division. The following two items must be addressed by Co-Op as a result of this informal conference.

1. In the northern portion of the WHRA, the geologic control for characterizing Blackhawk sandstones, Blackhawk coal units and the potential water-bearing Star Point sandstones is inadequate.

2. Clarification is needed in the permit application regarding the possible effects of coal mining in the WHRA on Big Bear Spring. However, many concerns raised in the informal conference are addressed in the February 21, 2000 letter "Responses to concerns of Castle Valley Special Services District" from Mayo and Associates, LC, to Charles Reynolds, Co-Op.

ORDER

NOW THEREFORE, it is ordered that:

1. The Division shall continue its review of the Wild Horse Ridge permit application package, and the applicant shall respond to all deficiencies identified by the Division as part of this review.

2. As part of the permit application package, Co-Op shall propose a minimum of one

in-mine drill hole at a location acceptable to the Division of Oil, Gas and Mining, in the northern portion of the WHRA, to further characterize Blackhawk sandstones, Blackhawk coal units and the potential water-bearing upper sandstone member of the Star Point sandstone. The nature of geologic sampling, water monitoring, mechanical configuration and other details attendant to this or other in-mine drill holes shall be at the discretion of the Division, and shall be described in the permit application.

3. The applicant is ordered to modify the permit application under the direction of the Division to include portions of the February 21, 2000 letter "Responses to concerns of Castle Valley Special Services District" from Mayo and Associates, LC, to Charles Reynolds, Co-Op. This letter addresses concerns raised by Petitioners during the conference and inclusion of relevant portions (to be determined by the Division) will improve the quality of the permit application with respect to the question of possible effects of mining in the WHRA on Big Bear Spring.

APPEAL PROVISIONS

As anticipated at R645-300-200, within 30 days of your receipt of this document, you or your agent may make a written appeal of these Findings and Order to the Board of Oil, Gas and Mining. Failure to comply with the 30 day requirement will result in a waiver of your right of further recourse.

SO DETERMINED AND ORDERED this 22 day of March, 2000.

Lowell P. Braxton, Director
Division of Oil, Gas and Mining
State of Utah

CERTIFICATE OF MAILING

I hereby certify that I caused a true and correct copy of the foregoing FINDINGS, CONCLUSIONS AND ORDER for Cause No. ACT/015/025 to be mailed by certified mail, postage prepaid, on the 22 day of March, 2000 the following:

Wendell Owen
Co-Op Mining Company
P. O. Box 1245
Huntington, Utah 84528
Z 230 748 133

J. Craig Smith
Scott Ellsworth
Nielsen & Senior, P.C.
1100 Eagle Gate Tower
60 East South Temple
Salt Lake City, Utah 84111
Z 230 748 134

Darrel V. Leamaster PE
District Manager
Castle Valley Special Service District
P.O. Box 877
Castle Dale, Utah 84513
Z 230 748 135

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Tiffini Moss
Executive Secretary
Division of Oil, Gas & Mining

BEFORE THE DIVISION OF OIL, GAS AND MINING

DEPARTMENT OF NATURAL RESOURCES

STATE OF UTAH

-O-

IN THE MATTER OF THE APPLICATION OF CO-OP MINING COMPANY TO MINE THE WILD HORSE RIDGE ADDITION AT THE BEAR CANYON MINE, EMERY COUNTY, UTAH	: INFORMAL CONFERENCE : CAUSE NO. ACT/015/025 : :

-O-

Place: DEPARTMENT OF NATURAL RESOURCES
1594 West North Temple
Room 1040
Salt Lake City, Utah 84114

Date: February 22, 2000
10:00 a.m.

Reporter: Kerry J. Sorensen, CSR/RPR

-O-

A P P E A R A N C E S

For C.W. Mining Company:
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The Hearing Officer:
Mr. Lowell Braxton

Division Members:
Ms. Tiffany Moss
Ms. Vicki Bailey

-oOo-

February 22, 2000 10:00 a.m.

P R O C E E D I N G S

THE HEARING OFFICER: Let's go on the record now.

We're here today to have an informal conference in the matter of the addition of the Wild Horse Ridge leases to Co-op Mining's Bear Canyon Mine, and that mine number is ACT/015/025.

This conference is being held under the provisions of Utah Rule 645-300-123. The intent of this conference is to hear matters relevant to the permit application that, as I said before, is seeking to add the Wild Horse Ridge leases to the Bear Canyon permit.

In matters like this the applicant for the permit bears the burden of proof. In other words, what we've got to have before the Division can -- can approve a permit application is a complete and accurate application.

Two parties have objections to the permit application that has been submitted, Huntington-Cleveland Irrigation Company and Castle Valley Special Services District. They've requested a conference that we're having right now.

At this juncture I'd like to ask: Are there other people that would like to be heard in this matter? I'm presuming Co-op will have some things that they would like to say, also.

As we begin, I'd like to focus the discussion on the permit modification that's before us. In other words, let's comment about the permit action that -- that precipitated this conference. I know there's a lot of history in the area, but this hearing is designed to accommodate the application that -- that resulted in the notice which resulted in this conference, so I hope we don't have to delve too far into ancient history in order to resolve the issues that are before us today.

There's a sign-in sheet. I hope everybody will sign in before the day's over. Again, this is supposed to be informal. There's some coffee and some drinking water available back there.

A transcript is being made today, as you can see, so when you're -- when your testifying, please speak slowly. Bear in mind that what you're saying is being recorded, and I'd like to get a good record out of this.

If you have information that you're going to be quoting from, I think it would be a great help

to our reporter if you could provide him with a copy of that. It just makes his job a lot easier.

So with that bit of housekeeping, I guess I'd like to begin. And I'm not sure who would like to go first. Mr. Smith, would you like to?

MR. SMITH: I'd be pleased to, Mr. Braxton.

My name is Craig Smith. With me is Mr. Scott Ellsworth. We're here on behalf of the Huntington-Cleveland Irrigation Company.

Just -- I'll be very brief on who we are. I think everybody knows who we are, but just for the purposes of the record, Huntington-Cleveland Irrigation Company is a nonprofit mutual irrigation company that holds numerous water rights in the Huntington Creek drainage, the area that we're talking about here, as far as water.

And we appreciate the opportunity to participate in the conference. We will focus our comments and questions -- and we do have many questions -- on the substantial revision. We don't want to go through the history. We think that's, so to speak, water under the bridge of what's happened in the past. Those things have been heard, they've been decided, and we're not here to try to rehear,

resurrect, or retry any -- any previously heard issue. However, the permit revision does anticipate going into new area, and we want to focus attention on -- on that, new area.

And it's our goal, which I think is similar to the goal of everyone here -- and I know that may sound strange in a -- in a informal conference where we have mining companies, water companies, and the regulatory agency here, but I really do think we all have the same goal, even though I think we've maybe gone about this ways that, as I look back at the past -- and I'll delve just briefly into the past here -- may not have been as effective or as smart, now I've learned and grown, and as we've been through these issue for now about six years of -- of having concern about the water in the area. And that's really why we're here, and everybody knows that's why we're here. We're water users, we're water right holders, we are concerned about the water.

There's been, I guess -- you know, there's obviously many ways to try to achieve a goal, and -- and at times we've been -- I think we've tried ways that, as I look back, probably weren't as effective, probably could have been more effective if we would have taken a more cooperative approach. And that's

the kind of approach we want to take today, because we feel that everybody really does have the same goal, i.e., to understand the hydrology of the area.

We're going to focus our comments on the hydrological portions of the permit revision, for obvious reasons, to understand the hydrology of the area and to know whether or not the mining activity is affecting the hydrology of the area. That's not a goal that's different for my client, for Huntington-Cleveland Irrigation, than for Co-op, or, for that matter, for the Division of Oil, Gas & Mining. That's precisely why we have the regulations we have.

So it's my hope today to try to engender that kind of cooperative approach in determining whether or not we have the type of information that we need to have, so that we will know if something happens in the mining activities that will affect the hydrology, affect the springs, affect the water in the area. And I -- and so we feel that's the approach we're going to take.

The resource is the water. The resource has been there before mining, and we want it to be there after the -- after the mining. We all depend on the same watershed in that area, and so we -- we want

to take that sort of approach.

And with that approach we just have some questions, and I don't know if Co-op has a designated person they would like to have answer questions. We have some questions about the -- this is the PHC that I'm going to be asking questions from, if that's okay. And I don't know if Co-op has someone they have designated they'd like to answer questions. I don't want this to be formal. If they have a map or if they have something they wanted to show, and please feel free to do that. I want to make it as informative as possible. This is not a situation where, you know, you see on TV with attorneys that have trick questions to try to elicit certain answers. It really is simply to help us understand what the situation has been and what studies have been done and what's known about the hydrology.

So it's our hope that at the end of this process that we can have a study or a document that will allow DOGM to understand sufficiently the hydrology of this area; that if there is a spring that dries up, or if there is water -- water that comes out of the mine that's not expected, that we'll be able to -- to determine what that -- where that's draining from, what spring -- why that spring dried up, you

1 know, what's happened in that area, so that if
2 replacement water needs to be found we don't have to
3 come back and have another hearing, we don't have to
4 come back and do another study, that the studies and
5 everything is in place so we understand the hydrology
6 well enough that even if the predicted consequences
7 don't take place and something unpredicted takes
8 place, that we will understand the hydrology enough
9 that DOGM can just take action, as it should. And
10 that's -- that's our -- our question. That's our
11 quest today, I should say.
12 THE HEARING OFFICER: Might I interrupt for
13 a minute? Is that an acceptable approach to you, or
14 would you like to get through the entire litany of
15 questions that -- that Mr. Smith has, and then respond
16 to those? What's the most efficient manner to do
17 this, from Co-op's perspective?
18 MR. REYNOLDS: I -- I appreciate
19 Mr. Smith's approach, and I think that would be fine;
20 if there are concerns, that we certainly would like to
21 address those.
22 MR. SMITH: Should I just proceed, then?
23 THE HEARING OFFICER: Please do.
24 MR. SMITH: And I don't know if Castle
25 Valley wants to say something, before I proceed to my

1 questions.
2 MR. VAL PAYNE: No. Go ahead.
3 MR. SMITH: I want to give everybody an
4 opportunity to say what they want to say.
5 The first -- and it was hard, and we've
6 have -- and please forgive me, I'm not a hydrologist,
7 and neither is Mr. Ellsworth. In reading through the
8 documents, and we got copies of everything that was
9 provided, if it's something that's in the document,
10 please just refer us to the document. We're not
11 trying to just take time, we're not trying to make
12 this any more difficult than answering questions.
13 But the first thing I guess we'd like to
14 have discussed and have Co-op respond to, is the kind
15 of -- what kind of field studies were conducted. And
16 we'll just limit this to the Wild Horse Ridge area.
17 We really don't need to know about other areas.
18 Within this expanded area -- and we'll call it the
19 Wild Horse Ridge area, I think everybody knows what
20 we're talking about; that's the area that's being
21 proposed to be added to the permit -- what kind of
22 field studies were conducted in the Wild Horse Ridge
23 area in preparation of the PHC.
24 MR. REYNOLDS: Perhaps a lot of questions
25 regarding -- I'll go ahead and defer to Mr. Kelly

1 Payne and Mr. Erik Petersen, who have helped in
2 offering the PHC.
3 MR. KELLY PAYNE: I can at least relate the
4 things that we've done in the area. My name's Kelly
5 Payne. I work for Mayo and Associates, M-a-y-o.
6 Do you want me to sit up there?
7 MR. SMITH: You might as well come up, if
8 it'll make it easier.
9 THE HEARING OFFICER: Thank you.
10 MR. KELLY PAYNE: We've undertaken, if
11 you've seen Appendix 7-J of the permit, this report
12 here, it's, you know, quite voluminous. We've done a
13 number of sampling events, we've looked at the
14 isotopic compositions of groundwaters and surface
15 waters in the area.
16 MR. SMITH: If I could stop you there.
17 Could you tell us where you took samples from in the
18 Wild Horse Ridge area.
19 MR. KELLY PAYNE: They will be enumerated
20 in the --
21 MR. SMITH: Okay.
22 MR. KELLY PAYNE: -- in the permit or in
23 this document itself, you can go to.
24 THE HEARING OFFICER: Is there a map that
25 we could post that would be helpful to us? This might

1 be a good suggestion.
2 MR. SMITH: If we had one that showed --
3 obviously that's, I think, too small of scale or, you
4 know, too much is shown. If you have one that shows
5 just the -- if we have an overhead projector, I've got
6 an overhead. I don't know if one is available.
7 THE HEARING OFFICER: As Captain Kirk would
8 say, we'll make it so.
9 MR. SMITH: Just so I know, we got this
10 copy here. Is this -- the report here (indicating),
11 is that the same thing as this (indicating)?
12 MR. KELLY PAYNE: Yes. You're missing a
13 cover, but --
14 MR. SMITH: Okay.
15 MR. KELLY PAYNE: I'll assume that we have
16 all the same pages.
17 MR. ELLSWORTH: Hope so.
18 MR. KELLY PAYNE: Specifically, Table 4,
19 Craig, will enumerate all of the samples we've
20 collected in not only the existing Co-op lease, but,
21 also, the Wild Horse Ridge. That's on Page 83.
22 And -- and future expansion into the northern area,
23 the area north of the existing lease and the
24 geomountain area. Do you want to post that map,
25 Charles, or -- my map isn't that good, but --

MS. BAILEY: Do you want to put out our map here (indicating)? Does anybody need to use it?

MR. PAYNE: Yeah. The only problem is we don't have any --

MR. BRAXTON: We're going to get a better map.

MR. KELLY PAYNE: -- water points plotted on that map.

MS. BAILEY: Just so people know, it has Big Bear and it has the --

MR. KELLY PAYNE: Yeah.

MS. BAILEY: -- and has the entire geo area outlined, as well as the proposed permit area, so if anybody needs to refer to that map, they're welcome to.

MR. REYNOLDS: I might reference some of the specific names or numbers that we've given the springs within this area that are referred to in this document, WHR-4, -5, and -6. WHR-4, WHR-5, and WHR-6 are all located within the expansion area, as well as springs that are labeled 16-7-24-4 and 16-7-24- -- and dash -3.

MR. KELLY PAYNE: I think it's -5.

MR. REYNOLDS: Dash 5. Okay.

MR. KELLY PAYNE: Oh, it is -3. I'm sorry.

MR. REYNOLDS: 16-7-24-3.

And then, in addition, we've got several springs that are outside of the expansion area but are near the area, and we've looked at those. They are referred to in the PHC as WHR-2, WHR-3, LF-1, and then also we've got a well -- actually, three wells, MW-114, MW-116 and MWD-117. So those are specific --

MR. KELLY PAYNE: Not all of those sites were sampled for isotopic composition, but a representative sample was taken.

MR. SMITH: So to make sure I understand, you sampled springs and seeps that are within the Wild Horse Ridge area?

MR. KELLY PAYNE: Correct.

MR. SMITH: Any wells within that expansion area, or are they all outside of the expansion area?

MR. REYNOLDS: They're all -- all of the wells are just north of the expansion.

MR. SMITH: Those are the Cypress Plateau wells --

MR. REYNOLDS: Yes.

MR. SMITH: -- that were, I guess, drilled for this Cypress Plateau purpose?

Any wells within the expansion area?

MR. REYNOLDS: No. Due to the -- the

steepness of the slopes within Wild Horse Ridge and the limited access, there's -- there's none directly on it.

MR. SMITH: Okay. How about any core samples that were taken?

MR. REYNOLDS: There are geologic core samples of holes that were drilled by Arco. I believe it was either 1981 or 1982 when some of that area was drilled.

MR. SMITH: And how many were drilled -- core samples were drilled in the Wild Horse Ridge area?

MR. REYNOLDS: Let me pull that information out.

MR. SMITH: While he's doing that, Kelly, maybe you could just go ahead and talk about other field analysis you did besides what we've talked about.

MR. KELLY PAYNE: In terms of actual field work we've done, in addition to collecting the samples, we have visited the site, we did a gain-loss study on Bear Creek, we hiked the creek and measured the flow in the creek at certain points and geologic formations, and looked that for gains and losses in the area.

MR. SMITH: Let me turn this off.

MR. KELLY PAYNE: This is informal, Craig.

(Telephone interruption).

MR. SMITH: I'm sorry. I didn't get this turned off before. I neglected to do that.

MR. KELLY PAYNE: Let me finish before we get back to Charles.

MR. SMITH: Okay.

MR. KELLY PAYNE: Co-op's collected quite a bit of the baseline data, and although we weren't directly involved in that, we tabulated it and compiled it and analyzed it extensively, the water quality data and the water discharge data from all the springs and creeks in that area. So that would be what -- what we've done.

MR. SMITH: Okay. So did you -- so when you say -- just so I understand, so they provided you with the data --

MR. KELLY PAYNE: That's correct.

MR. SMITH: -- and you tabulated that?

MR. KELLY PAYNE: Yes.

MR. SMITH: Did you do any kind of quality or qualify assurance on the data or verification of the data by -- by Mayo and Associates?

MR. KELLY PAYNE: We did look at the --

cad-ion and ion balance on all of the soluble data, anything with a -- I believe it was 15 percent air balance, which was kind of high. But we rejected anything with large air balances. So we looked at the -- you know, how well the cad-ions' balance out.

MR. SMITH: How about any verification saying if you've got a sample of water, to verify where that sample came from?

MR. KELLY PAYNE: That -- we wouldn't have been able to do that. These data were collected in the past over past -- years prior to -- to our becoming involved with this, so --

MR. REYNOLDS: I might mention, in regard to that, that most of the samples were collected directly by me, personally. They were -- there were also some samples that were taken by Intermountain Power Agency in the area, that the -- that information was provided to us by them. Copies of all of the certified lab reports and all of the field information collected are provided in Appendix 7-M of the permit.

MR. SMITH: In other words, is it your position that the mine was responsible for providing and gathering that kind of data?

MR. REYNOLDS: Yes.

MR. SMITH: How about reporting accidents?

Are you responsible to report accidents?

MR. REYNOLDS: No, I'm not involved in that part of it.

MR. SMITH: I see. So if there is an accident at the mine, you don't have any responsibility to notify DOGM or any other regulatory agency?

MR. REYNOLDS: The responsibility for that falls on our safety director.

MR. SMITH: And who's that?

MR. REYNOLDS: The person I think would be responsibility for that is Ken DeFaye.

MR. SMITH: Okay. And, to the best of your knowledge, has he always reported every accident that's occurred at the mine?

MR. REYNOLDS: To the best of my knowledge.

MR. SMITH: Okay. Why don't go ahead and tell us what other studies you did. We've pretty much covered that?

MR. KELLY PAYNE: Yes, we've -- we've covered that.

That's the approach that we've employed successfully, we believe, in a lot of the Wasatch Plateau, is looking at discharge data of creeks and the springs, as well as the solute data, and looking

at those not only as averages, but -- but time dependent. And you'll find in our report both graphs of time-dependent chemistry and -- and water discharge data, as well as mean chemistry, and incorporating that with solute data and our knowledge of the rocks and how those rocks support groundwater.

MR. SMITH: Now, for us to understand the hydrology of that area, what are the factors -- what are the factors we need to understand to be able to understand the groundwater and whether putting a mine in an area will effect the hydrologic balance?

MR. KELLY PAYNE: The -- the approach that we take anywhere when we look at groundwater is to look at where is water recharging, what are the flow path locations, where, physically, are they, what rocks are they in, what geologic characters are they in, and where is water discharged? And we've done our best to look at that here. We don't know for certain. Some recharge locations we haven't been able to pinpoint them, but we have a fairly good idea of what is not a recharge area or what is not supporting ground water.

MR. SMITH: Now, how many springs are there in the Wild Horse Ridge area?

MR. KELLY PAYNE: The Wild Horse Ridge area

is surprisingly dry -- well, not surprisingly. It's quite dry and, you know, for good reason. It's got some steep slopes and not a lot of access to groundwater recharge. The water runs off the slopes quickly.

Charles could give you a better count. He has the map in front of him.

MR. REYNOLDS: Those springs that I named are basically the extent of the springs.

MR. SMITH: And how many were there, four springs? Do you count four?

MR. REYNOLDS: That are a total of five springs within the expansion area. We monitored an additional two springs, and then also a sample in Fish Creek, which is a surface stream in the area, that were outside and adjacent to the expansion area.

And then we do have the -- the -- the plateau monitoring that we monitored, and, in addition, we've got several of our existing water monitoring points adjacent to the expansion area.

MR. SMITH: Of these five springs, which -- which formation do they issue from?

MR. REYNOLDS: The -- let's see. There's one of them that issues --

MR. KELLY PAYNE: From the Spring Canyon

sandstone.

MR. REYNOLDS: Spring Canyon sandstone, the Star Point, there were two springs in the Blackhawk formation, and then the remainder of the springs were all up in the upper --

MR. KELLY PAYNE: North Fork Flagstaff.

MR. REYNOLDS: Yeah.

MR. SMITH: Have we -- what's the period of time we have measurements of these springs?

MR. KELLY PAYNE: There's a table -- Table 1 in our report, on Page 21. It'll show you the number of measurements up through the middle of last year, when we completed this report. You would see that the table will tell you the period of record and the number of flow measurements for each of those springs, as well as the geology and the general description of where they're located.

So while this is comprehensive for this area, you can go find those specific springs we mentioned within this table.

THE HEARING OFFICER: Are you continuing to sample those now?

MR. REYNOLDS: They -- there will be -- additional baseline samples will be collected in the year 2000, to give us additional current information,

prior to the mining.

MR. SMITH: What methodology was used to -- to measure -- measure the flow of these springs?

MR. REYNOLDS: It was -- the -- the flow measurements that we took was primarily trying to channel the water into the bucket -- measure bucket.

MR. SMITH: And who conducted those measurements?

MR. REYNOLDS: The samples that we took, I conducted those. But the springs were monitored by Intermountain Power Agency. The samples were collected primarily by Earthfax Engineering. I understand there was one -- one set that was collected by Gary Gray, who at the time was working for us, collecting for IPA. He currently works for General Resources.

MR. SMITH: It appears that some of these springs -- I can't tell from this table how many times these springs were measured. Do you know how many times, Kelly, those springs were measured?

MR. KELLY PAYNE: You can look at the flow measurement right here, this number. And maybe that's not always intuitive, but in science that's what we use for a number, in terms of count.

So if you look down this column, for

instance, if we take the first -- 16-8, 18-5, under "Springs," look over and under the column "End of 7," so we have seven flow measurements, and, generally, when there's flow measurements there's been solute measurements. And, specifically, if you wanted to verify the number of solute measurements, you could go to Table A-1, and there's the whole -- the whole database.

MR. SMITH: Okay. Going to Page 7-2, it says, "Our studies indicate, however, that within the areas of in-line wells, separate and distinct aquifers exist in the Spring Canyon stores of Panther tongues, and Star Point sandstone, rather than one single aquifer." Is this true to the north of the Wild Horse Ridge, as well?

MR. KELLY PAYNE: No. I believe there's only water in --

MR. SMITH: I guess my question is, really, are there three separate aquifers, three separate and distinct aquifers in the Wild Horse Ridge area, in the -- I guess the Spring Canyon, Stores, and Panther tongues and Star Point sandstone.

MR. REYNOLDS: The only -- the only formation that we see any water coming out of is the Spring Canyon formation. There are no springs in the

area coming out of either the Stores or the --

MR. SMITH: Okay. I guess -- but do we know whether there are three separate tongues in the Wild Horse Ridge area?

MR. REYNOLDS: Yes.

MR. KELLY PAYNE: There are three separate tongues.

MR. SMITH: How about besides what's supposedly the cliff? How about where the area is going to be mined? Any bore holes that have verified that?

MR. REYNOLDS: There haven't been any.

MR. KELLY PAYNE: Yeah. They've only drilled --

MR. REYNOLDS: On the Spring Canyon.

MR. SMITH: So this conclusion, then, wouldn't it be better if we had some bore holes that told us that there are these -- that gave us that data, instead of just extrapolating it from where we do have bore holes?

MR. KELLY PAYNE: Well --

MR. HANSEN: I don't think that's what they have done, just extrapolate. They've looked at other factors here.

MR. KELLY PAYNE: Tell me what they're

extrapolating.

MR. SMITH: I'll read your conclusion again, and I'm trying to see what you base your conclusion on. That's really all I'm really trying to do. It says "our studies," and you have to realize there's not any backup. Your studies indicate a different conclusion than the USGS studies for the general area for this specific location.

MR. KELLY PAYNE: That's probably true.

MR. SMITH: And it goes -- let me read the whole thing so we can get it all in context. "According to this report" -- and this is referring to the Danielson, which I'm sure you're familiar with it -- "Available data from the study area, which includes the permits area, concludes that the Star Point sandstone and the lower part of the Blackhawk formation are an extensive aquifer with many large springs in the Cottonwood-Huntington area, including various springs issuing from fault displacements in this aquifer. Our studies indicate, however, that within the areas of in-mine wells DH-81A, DH-2, and DH-3, separate and distinct aquifers exist in the Spring Canyon stores and Panther tongues of Star Point sandstone, rather than one single aquifer within the Star Point sandstone and Blackhawk formation."

My question is: Is this same conclusion true -- your conclusion, not the Danielson conclusion -- true for the Wild Horse Ridge area? That's the first question.

MR. KELLY PAYNE: Data are not available to substantiate that conclusion.

MR. SMITH: Okay. That's the -- that's answer I was wondering about, and that's what I would suggest, Mr. Braxton, is that -- that we need to have to data to substantiate this. If not, then I think we have to go back to the Danielson study as being the authoritative study on the hydrology of this area --

MR. KELLY PAYNE: No.

MR. SMITH: Well, let me finish.

MR. KELLY PAYNE: Okay.

MR. SMITH: -- rather than -- because we don't have any data to construct the Danielson study, which was an area-wide study -- and I understand it, was a general study. And I would -- I would ask that that this be required to be -- that Co-op be required to provide additional -- do additional studying to tell us whether or not we have one aquifer -- one regional aquifer or separate and distinct aquifers in the Wild Horse Ridge area.

THE HEARING OFFICER: I hear your request.

MR. SMITH: Okay.

MR. LEAMASTER: Well, let me answer, and I wonder if I could ask a related question.

MR. KELLY PAYNE: Okay. If I may respond, Danielson wrote this study without the benefit of the data that we have now, and that is common with a lot of USGS reports; they're written before there was a lot of coal mining in the region, before there was a lot of hydrologic data. They did the best job they could.

MR. SMITH: Sure. You've done the best you could, as well.

MR. KELLY PAYNE: Let me finish.

MR. SMITH: I'll be happy to let you finish.

MR. KELLY PAYNE: Not only at this -- at this location, but we've looked at, and other people looked, in other locations such as in Trail Mountain, and there is no such thing as a regional Star Point/Blackhawk aquifer. It just simply doesn't exist. It was the best interpretation of the data they could make at the time.

To -- I don't think it's big jump to suggest that, knowing the geology, knowing that these rocks do not communicate vertically with one another,

that within the Wild Horse Ridge area it -- there is -- there is water in the Stores and Panther sandstone that is separate and distinct from water in the Spring Canyon.

Additionally, I believe it may be correct here that this Board -- a coal mine permit was required to characterize the aquifer immediately below and all the aquifers above. And so if this is a separate and distinct aquifer in Spring Canyon, we've done our job in characterizing the Spring Canyon sandstones immediately below the mine.

MR. SMITH: You say you don't think this is a big leap, but it's a leap. You don't have the data to make that conclusion on.

MR. KELLY PAYNE: No, we don't --

MR. SMITH: You're extrapolating from areas, not the expansion area; is that right, Kelly?

MR. KELLY PAYNE: Well, yes, we are extrapolating, but that is --

MR. SMITH: All we ask is that we get the data. That's all we're asking.

MR. KELLY PAYNE: But I don't think that that data is necessary. I think that the extrapolation is valid and would be valid -- I think if Mr. Danielson were here with us, he would agree

that, viewing this data, this was okay, and he would be probably be comfortable extrapolating it, as well.

MR. SMITH: You know --

MR. KELLY PAYNE: He made the statement without ever being at the Wild Horse Ridge, and so that, in itself, is also an extrapolation. Mr. Danielson extrapolated what he saw in a few locations in the plateau, to come up with an area-wide regional groundwater system. So, you know, that's the fundamentals of science, we don't always have the data where we need it, but we can make from the data several scientifically sound extrapolations that are valid.

MR. SMITH: But the data's available. You could go get the data.

MR. KELLY PAYNE: The data aren't available without drilling a hole.

MR. SMITH: That's all you have to do, is drill holes, isn't it? Isn't that what Plateau did in the area? Didn't they drill holes?

MR. HANSEN: If I may make a comment, I think the central issue before this conference is to determine whether the permit contains adequate information to satisfy DOGM that mining in the Wild Horse expansion area will not have a significant

hydrological impact on Big Bear Spring. That's the central question.

MR. SMITH: No, no, no, no. Not at all. Big Bear Spring has nothing to do with why I'm here, Mr. Hansen.

THE HEARING OFFICER: Could you identify yourself for the record, please.

MR. HANSEN: My name is Mark Hansen. I'm the attorney for C.W. Mining Company.

What -- if -- if you may, just to enlighten me, what -- what water does -- is your client claiming in the area that is going to be significantly impacted by the mining?

MR. SMITH: We have numerous water rights in the area. They're of record. You can go find those out, if you'd like to know --

MR. HANSEN: Well, they were --

MR. SMITH: Let me finish.

MR. HANSEN: Yeah.

MR. SMITH: What we're trying to determine today -- and, again, we don't think we're in an adverse position. We think that if everybody does the job we are supposed to do, we can all hold hands and walk out of this room together on this, because what we want to make sure and what we are asking the

Division to do is to make sure we have sufficient information, the data upon which we can understand the hydrology of the area, so if mining starts and a spring dries up in the area, we can know whether or not that mining caused the spring to dry up in the area. And that's -- that's what we're here for, and we're just trying to find out how much data we have and how much we're basing it on projections and not having the data.

I believe that we had a question.

MR. LEAMASTER: Yeah, I did. My name is Darrel Leamaster, Castle Valley Special Services.

In the PHC you had a cross-section drawn, an east-west cross-section, hydrologic information through the drop in -- yeah, that's it. And you identified an angiometric service over the surface in the Spring Canyon member over on the Wild Horse Ridge site. And I'm wondering where you got the information to draw that, where you got the information of that.

What page was that on?

MR. KELLY PAYNE: Page 63.

MR. REYNOLDS: The information came from well levels of the plateau wells, collected by Earthfax Engineering.

MR. SMITH: But none of those wells are

within the Wild Horse Ridge area; isn't that correct, Charles?

MR. REYNOLDS: Yes. They're -- they are all north of it.

MR. SMITH: Why did -- why was Plateau drilling wells?

MR. REYNOLDS: We're looking at the property immediately north of Wild Horse.

MR. SMITH: So -- okay. Does that answer your question?

MR. LEAMASTER: Yeah. That's what I wondered, if you had any information, actually, that this was the Wild Horse area that you're planning on mining, or if this was all north of where we --

MR. REYNOLDS: The wells were north and -- and -- let's see. The -- the information further south, I believe Earthfax, they were looking at Wild Horse Ridge, and also basing it on the springs or lack of springs within the Wild Horse Ridge area.

MR. SMITH: You believe that's what they were doing, or do you know that's what they were doing.

MR. REYNOLDS: I know that's what they were doing.

MR. SMITH: Well, I would suggest that if

33

they wanted to have Earthfax' expertise here, they could have Earthfax here at the table explaining what they were doing and why they were doing it.

So, again, this -- this table, this chart, you had nothing to do with preparing?

MR. KELLY PAYNE: This chart?

MR. SMITH: Yes.

MR. KELLY PAYNE: No, I did not prepare this chart.

MR. SMITH: Or anyone at Mayo and Associates?

MR. KELLY PAYNE: No. No one at Mayo and Associates prepared this chart.

MR. SMITH: And it's not based on any information data gathered from the Wild Horse Ridge area itself?

MR. KELLY PAYNE: It's from data immediately adjacent to the Wild Horse Ridge.

MR. SMITH: So I guess the answer is no, there's no data from the Wild Horse Ridge area that comes off of that chart?

MR. KELLY PAYNE: No, there are none.

MR. SMITH: Thank you.

MR. KELLY PAYNE: But if we were to draw the border just a little bit to the north, then would

34

you be -- would it be all of a sudden, magically, from the Wild Horse Ridge area?

MR. SMITH: What we want to know is what we're getting into -- we're getting into a new area that hasn't been mined, as I understand it. What we want to know is do we have enough data that we can be confident that there's not going to be an impact in the springs in the area and the hydrologic balance, or do we need to gather more information before we -- again, my goal is that we end up -- and I hope it's the same goal as everybody else here -- we end up with a document, PHC, that will tell us, "If this happens, this means that we have affected the hydrologic balance." Even if they don't expect this spring to dry up, that we know enough that we don't have to come back and do another hearing, you won't have to go back and do another round of studies, because we understand the hydrology well enough that this can be a self-executing document, this PHC.

THE HEARING OFFICER: I understand what you're asking for.

MR. HANSEN: I believe that what Craig is asking for goes too far. What Mr. Smith, or Craig, is asking for goes far, far beyond what the regs require in a permit application. I think what we ought to be

35

asking here is what do we know about the area and what reasonable conclusions can we draw about what we do know, as far as the impact on mining to springs and the underwater resources in or adjacent to the area? That's really the question that needs to be asked, and it hasn't been asked yet.

I understood this to be an informal conference. It's turning into a fairly narrowly tailored form of deposition, and I think is not what we're here for. And I think if Craig would focus his questions on what do we actually know and what could we reasonably conclude from what we do know, as far the impacts on mining to the water resources in the area.

THE HEARING OFFICER: I would like to continue, if that's acceptable, Craig.

MR. SMITH: I'm sorry.

THE HEARING OFFICER: In other words, I would like to keep -- to keep moving. I understand the point that you made.

MR. SMITH: Okay. I'm ready to move on into another point. I'm heading to another point. I think I've exhausted that --

THE HEARING OFFICER: I believe you have.

MR. SMITH: -- thoroughly.

36

The next point I think we've already covered. That's the hydrologic cross-sections. Isn't that what we were just talking about? It says, Illustrates projected services within the permit areas."

I'm on Page 75. I'm sorry.

"Potential methods." We've already covered that, right?

MR. KELLY PAYNE: Yes.

MR. SMITH: We've covered the fact that we don't have the data from that area, okay?

It says "Field measurements." We've talked about all the field measurements that you've done.

I'm on Page 7-6 of the PHC. Any other field measurements that we haven't talked about? I'm on 7-6 of the PHC.

MR. KELLY PAYNE: Of the permit itself?

MR. SMITH: Isn't that what this is?

I just want to make sure we've covered it. I want to give you a chance to say everything that you did as far as gathering field data, any other wells you drilled, anything else. I don't want to try to leave a misimpression you have done things that you have. So is there anything else you want to talk about? If not, we can move on to my next point. I

just want to give you a chance to do that.

MR. REYNOLDS: The field measurements and the drill hole data that we've done are all included in the PHC in Appendix 7-M. The geology is presented in Chapter 6.

MR. SMITH: Okay. Unless there's something else you'd like to say, I'm ready to move on to another point.

MR. KELLY PAYNE: Let's move on.

MR. SMITH: I'm looking at the aquifer storage part of the permit, where it talks about that. It says, "Quantitative data and published estimates" --

MR. KELLY PAYNE: Page?

MR. SMITH: I'm sorry. 7-9.

MR. KELLY PAYNE: Okay.

MR. SMITH: -- "published estimates are not available on the amount of water stored in the rock units in the permit area." What would have to be done to obtain that quantitative data?

MR. REYNOLDS: Some of that data has been obtained and included in the PHC. That statement is a statement that's in the original application. It's not been changed, and it probably isn't sufficient. That statement would need to be revised.

MR. SMITH: Okay. So that's not a correct statement.

Can you tell us what the estimates are.

MR. KELLY PAYNE: We've -- we have what -- what would be required to assess the amount of water in storage would be the thickness, the lateral extent, in both X and Y directions, to the area, the thickness of the area, and porosity -- effective porosity for this unit. There's only one real aquifer, if you might want to call it that, that we've -- that we've identified with that, and that was the sandstone channel that fills water to the mine currently. And we've made some estimates of water flow in that channel that's responsible for those estimates.

MR. HANSEN: That's the reason for that existing mining.

MR. KELLY PAYNE: That is true of the existing mine.

MR. SMITH: I just want to hear about -- you know, not to cut anybody off, I want to give everybody a chance to say whatever they want to say, but, again, I'm trying to focus on the Wild Horse Ridge area, not on the existing mines. Like I said, we've plowed the ground with the existing mines many times, and I'm not here to plow it again.

MR. KELLY PAYNE: If you want to speak to the existing area, we've not had any quantitative determinations of the amount of water in storage. We don't believe there is a lot of water in storage. It is a dry area. We've noticed -- we've noted there are no springs which discharge -- the down dip end of these rocks is towards the south and east, so it would be part of Huntington Canyon and part of the Fish Creek Canyon. There are no springs in the Blackhawk formation in that area. So we don't think there's a lot of groundwater, though there may be groundwater in the rocks, but not significant volumes.

MR. SMITH: How about in the expanded area? One of the springs I was told issues from the Blackhawk formation.

MR. KELLY PAYNE: It does from the Blackhawk formation in Bear Canyon itself on the east side of Bear Canyon. It comes out of the sandstone channel. We don't know the lateral extents of that.

MR. SMITH: That's -- that's in the new Wild Horse Ridge area?

MR. KELLY PAYNE: The border, yes.

MR. SMITH: So do you know the extent of the recharge for that spring in the Blackhawk formation?

MR. KELLY PAYNE: I -- I do not know. I know that it is hydraulically isolated from many of the other springs in the creek itself, but we have not characterized the recharge to it. So it's -- it's a small discharge spring. It's not a large discharge spring at all.

MR. SMITH: Okay. There's a statement in here I didn't understand, "About" -- I'm reading from Page 7-9. "About one third of the Blackhawk has been removed by drainage development in the permit area." Is that mining? Is that what we're talking about?

MR. REYNOLDS: No.

MR. SMITH: What's that in there?

MR. REYNOLDS: "Drainage development" simply indicates erosion. In other words, you've got Bear Canyon. Within Bear Canyon, the canyon itself is a result of erosion of formations being removed. That's what that's referring to.

MR. KELLY PAYNE: The rocks really carried away by the creek.

MR. SMITH: Okay. Thank you. I didn't understand -- when it says "removed," I didn't realize it was removed -- you're talking about natural erosion.

The next paragraph -- next paragraph on

that same 7-9, it says, "Assuming a dry to increasing saturation with depth of these sandstone lenses." Is his the three tongues we've talked about before?

MR. REYNOLDS: Okay. What that is referring to is the lens -- actually, just reading that, it's referring to sandstone lenses within the Blackhawk formation. So throughout the Blackhawk formation you get bedded sandstone, silt stone, and mud stone layers. And that's what it's talking about, as you continue on in the sentence, is describing the Blackhawk formation.

MR. SMITH: Okay. Is that characteristic true in the area of the Wild Horse Ridge in the Blackhawk formation?

MR. KELLY PAYNE: Yes. The entire Blackhawk formation.

MR. SMITH: We do not know how many lenses or how thick they are or anything like that?

MR. REYNOLDS: We do, actually, have a lot of that information in the core samples, the three core samples that you asked about.

MR. SMITH: Okay. Tell me where those core samples were taken. Maybe you could point them out on the map.

MR. REYNOLDS: Okay. The three of them are

all located within the Wild Horse Ridge area. They're referred to as WHR-1, WHR-5, and WHR-8.

MR. SMITH: Can you just describe what -- how deep they went, the formations they've found, that sort of thing.

MR. REYNOLDS: Yes. They went down to the the top of the Star Point sample and the top of the Spring Canyon member. They basically went through the Cold Springs end of the top, Star Point.

MR. SMITH: And did they -- it says -- it says -- in here it says, "Assuming relatively impervious remaining intervening silt and mud stone layers in the Blackhawk formation." Did you find that?

MR. KELLY PAYNE: Yes.

MR. SMITH: And why don't -- maybe somebody could just draw or just explain what the -- what was found in the -- in the core sample.

THE HEARING OFFICER: I believe they've explained what was found in the core samples.

MR. SMITH: You're satisfied --

THE HEARING OFFICER: Yeah, I am. I think they've described the geology that's -- that exists in the area. You can go back and look at the core in a lot of detail, if you want to. I think that's a

pretty fair sample of what the Blackhawk would be expected to have.

MR. SMITH: Okay. I'll move ahead. If you're -- if you've got the information you need, I'll move ahead.

THE HEARING OFFICER: Well, I can answer your question.

MR. SMITH: Okay. Moving on, there's a discussion about the sandstone channel on Page 7-10. Does that sandstone channel also extend to the Wild Horse Ridge area?

MR. KELLY PAYNE: We don't have any information pertaining to that channel. That -- if you were to extrapolate that across, it would actually be north of the Wild Horse Ridge area.

MR. SMITH: Do we know whether we ran into that channel through our core samples?

MR. REYNOLDS: Not that specific channel. We do have information of significant scouring from some of the whole -- U.S. Fuel has north of this. The IPH should have all that geologic information that kind of illustrates what the geology is in the area.

MR. SMITH: Now, my understanding is this channel was the main source of water currently in the mine that you've encountered?

MR. REYNOLDS: In -- with the existing mine, that is correct.

SMITH: In the Wild Horse Ridge area, are you anticipating encountering similar amounts of water or not?

MR. REYNOLDS: No.

MR. KELLY PAYNE: Well, I should say it's possible if a sandstone channel were encountered it could contain a large volume of water. If this particular sandstone channel were encountered by mining, it is disconnected by flow along the Bear Canyon fault from anything from the other side of the fault. So it's -- it won't be the same water. So there -- there is a possibility of encountering the water in some channels in the region.

Some sandstones channels are dry, some wet. If they have a -- a method of being recharged or a conduit for recharge, and it's not readily predictable -- whether they exist isn't even readily predictable. They take turns. You can map them out as you like. But the drill hole data is -- it's difficult to assess the number, the extent, the direction they're going. That's just not possible with this kind of resolution of drill holes.

MR. HANSEN: The coal mine didn't find any

such channels in the existing mine until they hit the north end of the permit area, did they?

MR. REYNOLDS: Yeah. We did encounter channels -- other channels in the area, but they were small and contained water.

MR. HANSEN: And that -- that area where the sandstone channels exist did contain water, is well to the north of the Wild Horse expansion area.

MR. SMITH: You anticipate -- so you don't -- you're -- you're not anticipating -- let me back up and ask the question this way: How much water do you anticipate will be encountered in the Wild Horse Ridge area through the mining activity there?

MR. KELLY PAYNE: Unless a large sandstone channel is well connected with other sandstone channels that have water or a good recharge source, none.

MR. SMITH: Okay. So --

MR. KELLY PAYNE: And we've -- and that statement is in our document. We make that very statement.

MR. SMITH: Okay. If -- and so you don't anticipate having any impact on any spring --

MR. KELLY PAYNE: We do not.

MR. SMITH: -- within the Wild Horse Ridge

area by mining that area?

MR. KELLY PAYNE: If those sandstone channels were contributing significant volumes of water to a spring, we would see a spring. We do not see any springs along the outcrop, with the exception of the one spring that -- or the two springs in the Blackhawk formation that we've noted, and there are no other springs in the Blackhawk area or adjacent areas.

MR. SMITH: Are any of the springs in the permit or adjacent areas hydrologically connected with the Blackhawk formation where you'll be mining?

MR. KELLY PAYNE: If there are no springs there, how could the springs be connected?

MR. SMITH: Well, there's five springs. I was told there were five springs in the Wild Horse Ridge area, itself.

MR. KELLY PAYNE: One's in the -- two are in the Blackhawk, one's is down in the Star Point sandstone. We'll assume -- or we assume there's a good basis that the springs in the Star Point sandstone are not connected to the Blackhawk formation. The remainder of formations, the higher elevations north of Flagstaff formation, are also disconnected from anything in the Blackhawk formation. So the only real impact -- potential

impact, as it's stated in there, are those two springs in the Blackhawk formation. That's the only impact -- only probable impact we could ever find.

MR. SMITH: Okay. So if there's -- there's only two springs in the Blackhawk formation that probably -- possibility, I'll say that --

MR. KELLY PAYNE: Possibility.

MR. SMITH: -- that would be impacted by mining, how do they know it will be impacted by mining?

MR. REYNOLDS: They're part of our -- they're proposed in the application as part of our regular monitoring. It will be monitored.

MR. SMITH: So if -- if the --

MR. KELLY PAYNE: Diminution in flow.

MR. SMITH: -- there's diminution in flow, you would agree that those things have to be impacted?

MR. KELLY PAYNE: We'd have to look at climatic conditions which possibly could contribute, and that's something --

MR. SMITH: Could you give us a formula or -- I would ask that the -- the Co-op be required to -- to put something in their PHC, and you can account for all the variables, i.e., a change of

precipitation, but would give some triggerpoint based -- let me ask the question this way: We know what the -- we know what the precipitation is in the area, correct?

MR. KELLY PAYNE: Correct.

MR. SMITH: There's meteorological stations in the area that can measure the precipitation, so that that's a known, that's a given, at any one time. Couldn't you come up with a formula that would say, "Taking into account the variables, if there's diminution in flow of this spring in the Blackhawk formation, that that's been impacted by mining"?

THE HEARING OFFICER: Now, let me ask what you're asking for, Craig. You're putting a commitment in the PHC that does that; am I correct?

MR. SMITH: Exactly.

THE HEARING OFFICER: That was a protracted sentence you have there.

MR. SMITH: Let me try to explain what I would like the PHC -- I'd like the -- and I'll be happy at the end to point out where I -- I think the rules require this. I think the PHC is more than just a document that is used to explain things, I think it's a document that is also used in describing the

hydrologic balance, to say, "If this springs dries up and we can't explain it through changes in precipitation or some other external thing, then there's been a -- an impact on the spring, and under law and regulation, there needs to be a replacement of water."

THE HEARING OFFICER: Well, I would submit to you that's what the monitoring program that's done throughout the whole mining cycle is designed to do, and that commitment isn't necessarily mandated in the PHC.

MR. SMITH: Well, I guess where we break down, though, is on this -- where it breaks down is what happens if -- I understand there have to be monitors. Let's say a spring is flowing ten gallons a minute, and then it's monitored and it drops to one gallon a minute. There's nothing in the PHC that explains what -- what caused that, what could be the causes of that drop.

THE HEARING OFFICER: Well, the PHC can't really reflect the future, I don't think.

MR. SMITH: Well, it's got to predict the probable hydrological consequences.

So I guess my question is what happens -- let's say they send in a sample, and all of a sudden

it's gone from ten -- and the precipitation has stayed constant; we'll just assume that for purposes of flushing out my point. Precipitation has stayed constant. There's no other external factor that can explain it. They send in a sample, and all of a sudden from ten gallons a minute it's been flowing for ten years, it's dropped to one gallon a minute. What happens then?

THE HEARING OFFICER: Well, I think you have to look at the -- the mining operations and you have to look the -- the geology, you have to look at what you know about the hydrology in the area, and then you can begin to come up with an answer.

The PHC is designed to I think adequately characterize the hydrologic situation before you go to mining, but I'm not sure that the PHC can actually predict what will happen if -- if subsidence influences the spring. I think if the spring actually declines in flow, then we'll have to deal with that. We have got a regulatory matter before us, but I'm not sure that -- that the commitment that you're asking for in the PHC is a practical commitment, because there are a lot of different parameters that would have to be established in the case.

MR. KELLY PAYNE: I would agree. I think

it could be difficult to come up with formula and say, "Well, given the precipitation's at 70 percent and the flow decreases by 30 percent" -- I -- I don't know what basis we would -- we would have for that. It would be almost be an extrapolation, as you've --

MR. SMITH: Tell me the basis you have for saying -- for saying there will be no impact.

MR. KELLY PAYNE: I didn't say there would be no impact.

MR. SMITH: Well, that's the -- I think the dilemma I'm facing here is, while it's impossible to say what the impact would be, yet it's possible, in this document, to say there's obviously going to be no impact.

MR. HANSEN: Is there a particular spring that Huntington-Cleveland Irrigation Company has a water right in that you're concerned about, so we can address the particulars, Craig?

MR. SMITH: Our water rights are within the whole drainage.

MR. HANSEN: What particular water rights are they?

MR. SMITH: For the whole river.

MR. HANSEN: The Huntington River?

MR. SMITH: You bet, and other -- other

drainages as well, including Cedar Creek and other -- other rivers.

MR. HANSEN: Until the water gets into the river, do you have an interest in it?

MR. SMITH: We do.

MR. HANSEN: If someone else has the water right to Fish Creek, for example, and if they choose to use up all of that water, so it never reaches the Huntington River, do you have an interest?

MR. SMITH: The Utah Supreme Court has recently affirmed in the Silver Fork case, in January of this year, we have a right to all of the water in a drainage. If you have a water right in a drainage, you have the right to look to the furthest reaches of that drainage to satisfy your water right. And that's Utah law, and they -- you know, if you want to look it up, that's the case that just came out.

THE HEARING OFFICER: I'd like to focus back on the permit itself, if we could.

Darrel?

MR. LEAMASTER: May I ask one more question related to that, as well? Assuming this scenario takes place, where the flow is impacted to the spring, is there any requirement for anyone to advise us? And this could happen, that Huntington-Cleveland

Irrigation Company could go for a couple of years without even knowing that they'd been impacted.

THE HEARING OFFICER: Well, I think we've talked to you about this before in some of the Emery County public land meetings, we have a protocol inside the Division that -- that requires that we monitor the springs, and if we believe that something is -- has affected the flow, and it's an anomalous effect, we notify the mining company. And I believe we've committed to notifying you. That's an internal Division protocol, and I believe we've talked to you about that before.

MR. LEAMASTER: The -- the mining company itself, does it have any obligation to notify us?

THE HEARING OFFICER: No, they don't, not to my knowledge. I'd have to check the regulations, but I'm not aware of a requirement on their part.

MR. SMITH: Just -- I have just a few more questions.

Can you tell me, for each spring that's in the -- in the Wild Horse Ridge area, can you tell me what the recharge area for that spring is. Where does -- where does each spring draw its water from, and does the mining intersect with any of the recharge areas; or the prospected mining, will it intersect

with any of those recharge areas?

MR. KELLY PAYNE: Starting the top of the hill, we've identified DWH-4 and -5; is that correct? These streams discharged, again, near the top of the plateau, the good section of interburden between them. Time and again, I think within the entire plateau, we've seen that with that thick of a section the springs just aren't impacted.

MR. SMITH: How thick are the sections?

MR. KELLY PAYNE: I'm not sure what the overburden is there, but it's over a thousand feet. So, no, those springs will not -- I do not believe will be impacted under any circumstances through mining.

We -- we -- we've made a statement that that there is a probability, and I'm not sure what -- at what level. It depends on, you know, where the recharge area is, for the two springs in the Blackhawk to be impacted. I do not know where the recharge area is. I don't know where the impact locations are, except in that sandstone channel which outcrops in the canyon, which those springs discharge from, and I don't know which direction that sandstone channel goes, as we have discussed that those things are not readily predictable.

And then if you -- the last spring, WHR-6, was discharged from the Star Point sandstone. We believe it's locally influenced, it's easily influenced by climate, very quick responses in the discharge of the spring due to precipitation into local climatic cycles. So it's recharged locally in that area, in that region, perhaps through some fracture in the Star Point sandstone outcrop itself. But it's not an extensive groundwater system, it's a local system, so there's not a lot of water, so that should not be impacted.

THE HEARING OFFICER: Kelly, is there a regional strike to those sandstone channels of the Blackhawk, just generally accepted as for those things?

MR. KELLY PAYNE: There is.

THE HEARING OFFICER: What is the source area for the --

MR. KELLY PAYNE: It would be the highlands to the west. The highlands would have been to the west, and the sea would have been to the east, and there had been local preservations that center southeast or south --

THE HEARING OFFICER: So it sort of meanders?

MR. KELLY PAYNE: Yeah, there's meanders. Some of them feed into larger sets. The best thing, if you want -- Energy West has mapped out quite an extensive channel system, and it tends to flow generally to the east, but then there's a lot of smaller channels that come in almost north and south, coming into that --

THE HEARING OFFICER: Tributary channels?

MR. KELLY PAYNE: Yes. And then the larger channel heads off to the east.

THE HEARING OFFICER: Thanks.

MR. SMITH: Are you done?

MR. KELLY PAYNE: Yeah.

MR. SMITH: So I guess it's impossible at this point to say whether the mining's going to affect some of these things?

MR. KELLY PAYNE: No, it's not impossible. We've -- of the five springs we said three, with a high degree of probability, should not be impacted. Two there is some probability, and I'm not even going to venture a guess as to what that would be.

MR. SMITH: Okay. Is that detailed in your PHC probability?

MR. KELLY PAYNE: No, the probability is not.

MR. SMITH: Has there been any --

MR. KELLY PAYNE: The probability has not been quantified --

MR. SMITH: Okay.

MR. KELLY PAYNE: -- with the exception that we do speak to the springs that are in the higher sections there will not an effect.

MR. SMITH: Because they're up above the mining area?

MR. KELLY PAYNE: They're above the mining area, they're recharged locally on top of the plateau, on top of the rocks at the very top of the plateau. Subsidence doesn't affect that.

MR. SMITH: If you were to have the ability to collect more data in the field, do more studies, drill more wells, what would you -- what would you do?

MR. HANSEN: I think that depends on the budget.

MR. KELLY PAYNE: You know, budgetary limitations aside, I do not think that in order to characterize the hydrology of the Wild Horse Ridge area we need more down-hole data, hydrologic data. I think we've got a good handle on what water looks like in the Spring Canyon sandstone and all of the

formations above the mine hole seam, which is what the regulatory requirements are. I think there's good baseline data.

MR. SMITH: You can't say there is good baseline data?

MR. KELLY PAYNE: There's adequate baseline data. It goes back far enough in time that we are seeing -- in the discharge rate of springs, we are seeing the effects of seasons, you know, high flow in spring, low flow in the fall, and climate changes, your drought cycles, and the wet cycles. We've seen that in the spring and established, you know, that they -- they respond in that manner.

MR. SMITH: But you have no data on the Wild Horse Ridge, however. I'm talking just about the Wild Horse Ridge area, not the permit area as a whole.

MR. KELLY PAYNE: I'm speaking of the Wild Horse Ridge area.

MR. SMITH: You have no hydrologic data in that area?

MR. KELLY PAYNE: It's -- that's not -- not correct. There's springs in there, and hydrologic data includes spring discharge data. There's surface data, and that, again, is hydrologic data. So there are hydrologic data from the Wild Horse Ridge area.

There are not the very specific data that you were looking for, in terms of a drill hole right in the middle of the proposed lease saying there is water in these horizons. That data does not exist. But I would feel -- I feel comfortable with the amount of data that we have and making the statements that we have made. I would not have made the statements we've made without having data to back them up.

MR. SMITH: So if you had the ability to do another well, you wouldn't do another well?

MR. KELLY PAYNE: I don't think it would tell us anything more. I don't think it would change the conclusions or what we have assigned as a probable hydrologic consequence. I do not think those would change if another well were installed.

MR. SMITH: What if you encounter water in the mine that you weren't expecting now? What would you do to determine where that water is coming from? What additional studies would you do, if any? Maybe none?

MR. KELLY PAYNE: Generally, when a mine encounters water, a large inflow of water, we encourage them to make a solute sample to collect carbon atrinium data and monitor the flow reception; what is the initial flow rate, what is the flow rate,

how does the flow rate change over time? We encourage that, and some follow it and some don't. And that would be up to the operator here to take that commitment, but that's what I would encourage if a large inflow were encountered.

MR. SMITH: And what would you -- what kind of study would you encourage to be done if you have a diminution or stop flow in one of the springs in the Wild Horse Ridge area?

MR. KELLY PAYNE: Take into -- we would take into account where water -- or how the flow path of that spring may have been affected by mining, whether mining directly intercepts the flow path or --

MR. SMITH: How would you know that?

MR. KELLY PAYNE: We'd get out and map some geology, we'd look at where subsidence has occurred, the angle of draw, we'd look to see if water was coming into the mine, and look at those kind of factors. We'd compare -- we'd look the climatic data, we'd look to responses of springs in the neighborhood that, you know, are on the perimeter and have not been affected, that there's a good probability have not been affected by mining, so they're responding in the same fashion. But it would be -- it would be almost a case-by-case basis. I don't think we could spell out

a formula at this point, because in geology there's no straightforward answers.

MR. SMITH: I think I'm about done. Let me see if I have any more questions. (Pause)

MR. HANSEN: Craig, before you conclude, is there any specific part of the regulations that you feel are not adequately addressed? We can't answer your question unless we know what the question is. Well, it really comes down to whether the application satisfies the regulations, and so I'd just like to know if there's any specific part of the regulations that you feel the application doesn't satisfy, and, if so, why, so that we can look into these things and address them.

MR. SMITH: Yeah. I'd be happy to answer that question. Yeah.

In my review -- and I'll tell you my review of this. In my review of what that's been done, we've done a lot, and I think a very admirable job with information outside of the Wild Horse Ridge area, but we really haven't gotten really any information inside the Wild Horse Ridge area. So it's like looking into a box and looking at what's all around the box, but not looking into the box itself to see what we're going to find in the box. That's probably my biggest

concern. We extrapolate lot of information from what we've found in the mine, what other people, when they drilled the wells, have found, but very little, except for a few bore holes, in the -- in the permit area. There seems to be a lot -- in my view, a lot of unanswered questions.

THE HEARING OFFICER: You do accept the -- the spring data that's inside the permit area as valid data?

MR. SMITH: Well --

THE HEARING OFFICER: I mean, I heard you say a minute ago that there's positive information inside the permit area, but yet I think we've heard some evidence today, and I think it's in the PHC and the record, that we have collected data inside the permit area -- or the applicant has, I should say.

MR. SMITH: Well, the applicant has, but the people here testifying, they have just relied on the information that has been provided to them. They haven't verified any of that information.

THE HEARING OFFICER: I thought -- I understood that there was some spring sampling that had been done by the applicants. Am I mistaken about that?

MR. SMITH: No. I'm saying the applicants

has, but not Mayo and Associates, is what I'm saying, haven't verified any of the information.

MR. KELLY PAYNE: Do you question the data?

MR. SMITH: Well, you know, I hesitate to say this, but I guess I have a real concern about -- and I don't want to dredge up the whole hearing about how --

THE HEARING OFFICER: Let's not, then.

MR. SMITH: Fine.

THE HEARING OFFICER: Not today.

MR. SMITH: I'll just leave it my answer is yes, I have a question about the veracity of the data that's been provided to Mayo and Associates. I'll just leave it at that.

MR. KELLY PAYNE: If I might speak a little bit in defense. There are no wild fluctuations that we would attribute to a bottle being mixed up or mislabeled or a source being contaminated or wrong, a substitute sample of any sort. The discharge data looks like it should. There are the expected seasonal and climatic fluctuations.

And I have been to the sites that Charles has identified here. I have been to all of these sites that -- so I've seen these springs. And I've

seen them label the bottle when I was there, the two particular times I was at each of those sites. Personally, I have no -- no -- what's the word I'm looking for -- mistrust of the data that we've been provided. If I did have distrust, I would not have made the statements that I've made based on that data.

MR. SMITH: If you're happy to base your professional reputation on this, I'll leave it at that.

Just a couple more questions.

MR. KELLY PAYNE: That's about the fourth time we've heard "a couple more questions."

MR. SMITH: Well, I'm a lawyer.

7-24, on that page it says, "Currently no water is discharged from the tank seam due to lack of mine water in-flow. Similar conditions are expected in both seams within the Wild Horse Ridge." Can you tell me what you base that conclusion on.

MR. REYNOLDS: That statement was based on the information that was collected and put together in the PHC, and based on the angiometric surfaces and based on the -- the lack of water and lack of springs that are encountered within the Blackhawk formation.

MR. SMITH: But there are springs in that formation and --

MR. REYNOLDS: There are the two minor springs, and the PHC has -- has referred to it. In fact, if you look at the statement, it says, "Expected mine water is further discussed in the probable hydrologic consequences."

MR. SMITH: Do we have -- we have any empirical data on how much water is within those seams within the Wild Horse Ridge?

MR. REYNOLDS: The only information we have is the flows, all the springs in the Blackhawk formation.

MR. SMITH: But isn't it true you can have water in rock strata and not have springs, because there may not be the outlets for the springs to issue; isn't that correct?

MR. REYNOLDS: That is correct.

MR. SMITH: So -- but if we drill down into the Blackhawk formation, we could measure how much water is in that formation in the Wild Horse Ridge area?

MR. KELLY PAYNE: The problem with that, Craig, is water in the Blackhawk formation is almost entirely and exclusively within permeable tangible terrain. If we go and drill and we miss it by ten feet, we won't see water. And so, you know, I'm not

sure what the point to your question is.

MR. HANSEN: You'd have to drill holes on a ten-foot-square grid.

MR. KELLY PAYNE: We don't see water in coal seams. I've yet to see water in -- anywhere in the plateau of the Book Cliffs, water stored in the coal seam itself. Where water's coming out of the roof or the floor in the sandstone associated with the sandstone, the roof or the floor or some geologic structure is, again, associated with the sandstone.

MR. SMITH: So water isn't in the coal seam itself?

MR. KELLY PAYNE: No. That -- the -- the regional Blackhawk Star Point aquifer of Danielson, if it existed, there would be water in the core samples, because many of the coal seams run underneath it. What he identified as the potentiometric surface in that aquifer, is -- there's just simply not water there.

MR. SMITH: Again, I guess maybe I just missed your point, but you don't think that you could do anything more to determine what -- the amount of the water in the seams in this Wild Horse Ridge area?

THE HEARING OFFICER: Craig, are you asking specifically about the coal seams right now? That's

what -- I heard you you say "seam." Is that what you're --

MR. SMITH: Well, I'm -- I'm reading from the PHC, and that's what they call it.

THE HEARING OFFICER: Your question came from something on Page 7-24 with respect to the Tanks seam; is that right?

MR. SMITH: Well, they extrapolate from the Tanks seam to this the coal seam from the Wild Horse Ridge. I'm just trying to find out what the basis for that extrapolation is.

THE HEARING OFFICER: And I thought Kelly gave an explanation that says that the coal seams are not water bearing in the Wasatch Plateau in general. It's not to say they weren't elsewhere in the world, but --

MR. KELLY PAYNE: In general, I think that Tank seam is -- the Blind Canyon seam will be inherently dry. Water will only in-flow into the workings if it is encountered in the sandstone channel above the roof. I doubt there is any water below except -- yeah, because the Blind Canyon is above the Star Point sandstone, so there will be no contact with the Blind Canyon seam through the Star Point sandstone. So there's no water -- no water can come

from the Star Point channel, which may be encountered, but it cannot be quantified -- that is a statement that can be made, but I do not think we can quantify the amount of water that's in there.

And I'm not sure what the purpose would be to quantify the water in the sandstone channel, to what end? What would you do with the information if you had it? There are ten billion -- there are ten million gallons of water in the Sandstone Canyon. What would we do that with information, other than put it in a report? I don't know how it would change the outcome --

MR. SMITH: I guess --

MR. KELLY PAYNE: -- of what we're doing here.

MR. SMITH: I guess all I'm saying is you put it in the report, you do an extrapolation, and now you're telling me it didn't meaning anything. Why did you put it in the report in the first place, if it didn't mean anything?

MR. KELLY PAYNE: What it means -- this sentence is operative. I'm -- I'm saying that if you're asking us to quantity potential volumes of water that may be encountered or potential volumes of water in storage, to what end could we gather that

information?

MR. SMITH: You'd gather it to help identify the movement of groundwater and whether groundwater is moving in that seam, and those seams are connected with the stream. That's the end.

MR. KELLY PAYNE: But there are no springs.

MR. SMITH: Well, that -- that --

THE WITNESS: There are no large --

MR. SMITH: I guess I'm very confused. We keep talking about two springs, then you keep saying there are no springs. There are either two springs or there are no springs. If we can't even agree on that basis point --

MR. KELLY PAYNE: Craig, I'm -- Craig -- Craig, I'm backing off. I'm backing off.

MR. SMITH: Let me ask this question. I'm trying to get this thing done. No hydraulic information is available in the Wild Horse Ridge, drill holes. Why not?

MR. REYNOLDS: When Arco drilled those they did not collect any hydraulic information. The holes are still backed up.

MR. SMITH: So all you have is Arco's information?

MR. REYNOLDS: That's correct. We've got

their electronic drill logs, and we've got --

THE HEARING OFFICER: Those were exploration holes. There's plenty of requirements. They plugged those things fairly shortly after they were drilled.

MR. SMITH: And I'm not faulting that, but what I'm trying to say is that we should have more empirical data.

THE HEARING OFFICER: I understand that.

MR. SMITH: And that's -- that's my point.

Okay. It says, "Mining effects on water quantities consist of interception of local birch stones and the interception of a larger first aquifer at the north end of the Blind Canyon on seam workings. Investigations have shown that this aquifer is not hydraulically connected to Big Bear Birch Spring." Is the aquifer connected to any other springs?

MR. KELLY PAYNE: What page are you reading from?

MR. SMITH: 7-25.

MR. KELLY PAYNE: Does this not deal with --

MR. REYNOLDS: That entire statement deals with the existing mine, part of the existing mine.

MR. SMITH: Has there been a similar statement that deals with the Wild Horse Ridge area?

MR. REYNOLDS: Now, which statement were you reading? Which sentence?

MR. SMITH: The first paragraph on 7-25.

MR. REYNOLDS: Okay.

MR. KELLY PAYNE: Okay. You're asking -- you're making -- or you're addressing the question, is there -- I think you're asking the same question: Is there -- is there a connection between any water that may be encountered and any springs? Is that the question you're asking?

MR. SMITH: I think that's the question I'm asking.

MR. KELLY PAYNE: Okay. I think we've answered that question. There's a probability that the two Blackhawk springs may be connected to water that may be encountered in the mine. Other than that, no, there is no connection to any other springs.

MR. SMITH: Do --

MR. KELLY PAYNE: That is stated.

MR. SMITH: Is it accurate to characterize a regional aquifer in the area of the Wild Horse Ridge? Is there a regional aquifer in that area?

MR. KELLY PAYNE: No.

MR. SMITH: There's none?

MR. KELLY PAYNE: I don't believe there's any regional aquifers in the plateau. I guess you need to define "region" looking at -- the USGS talks about a regional -- they talk about a regional aquifer for most of the plateau, and there simply isn't. There are local birch stones and there's water in fractured old systems in the Star Point sandstone, but we do not believe any of the birch stones are regional in extent.

THE HEARING OFFICER: Kelly, do you think the closest thing to a regional aquifer is a Star Point?

MR. KELLY PAYNE: Yes, that would be the closest thing to an aquifer. I think that -- we've looked at that, and there's been a Master's thesis done at BYU trying to look at where the Star Point is recharged. And I think this is some distance from the area which would make it a regional system.

THE HEARING OFFICER: But there's nothing above the Star Point or in the Blackhawk area or anything like that?

MR. KELLY PAYNE: No. The rocks are just too discontinuous and heterogenous to support any kind of a regional system.

THE HEARING OFFICER: Thank you.
MR. SMITH: That's all the questions I have for Co-op. I do have a question for the Division, which is we were given a copy of the -- it says "Coal Regulatory Program." It appears to be a critique of the permit application, Technical Analysis. This thing (indicating).
THE HEARING OFFICER: Okay.
MR. SMITH: It describes a lot more information was needed. And I guess we were confused. Is that -- even if the permit is considered to be complete by the Division, obviously it's not considered complete in this sense. Can you explain how these work together?
THE HEARING OFFICER: Sure. There are two stations on the cross, if you want to use that analogy, in permitting, and one of those is a technical adequacy and the other is an administrative completeness determination. And I believe what we've done right here is made a finding that this permit is administratively complete, which means that the basics have generally been tagged in terms of the specific parts of the regs being addressed. However, it's not unusual for us to ask for additional technical information in the course of making a finding of

technical accuracy. Those are the questions which you're seeing in the TA right here. And correct me, somebody from the Division, if you'd rather speak to that in a bit more detail.
MS. GRUBAUGH-LITTIG: Yeah. This was a technical deficiency document that was sent out on January 24th, and we sent you a copy of it.
MR. SMITH: That was our question.
I have kind of a wrap-up thing, but I don't know if Co-op or anybody else wants to make their statements. I've gone through my questions. I appreciate the answers to my questions.
THE HEARING OFFICER: Would anybody else like to speak before Craig does his wrap-up?
MR. LEAMASTER: I want to at some point.
MR. SMITH: Why don't you go ahead.
THE HEARING OFFICER: Please proceed.
MR. LEAMASTER: Yeah. My name is Darrel Leamaster. I reside in Huntington, and I'm here today representing the Castle Valley Special Service District, Huntington City, Cleveland town, and Elmo town.
And our main concerns are those issues associated with Big Bear Spring. Big Bear Spring is a spring that has been used for well over 70 years by

Huntington, and now by Cleveland, to supply water to about 2,800 people. And I'm one of those people; so is my wife and my kids and my grandkids, and so is Val. We are just concerned that we're going to end up having no drinking water.
Question of clarification -- and I don't want to delve back into past things, either, but is this a permit also -- a renewal of the permit for the existing mines, or is it strictly the Wild Horse Ridge portion?
THE HEARING OFFICER: My understanding is that the -- that the matter that's before us right now has to do with the permit change that would propose to incorporate the Wild Horse Ridge into the Bear Canyon permit, so this is not permit renewal action.
MR. SMITH: So that would be coming up like in one more year?
THE HEARING OFFICER: I'd have to check the record on that.
MR. REYNOLDS: Yes, we do have a permit renewal coming up on November 2nd of this year, and we will be doing that this year.
MR. LEAMASTER: Well, that changes a little bit some of the things I wanted to say. But we still have some concerns. I'd like to talk about those for

just a minute.
The first thing I guess I'd like to address is replacement. In the PHC it makes some statements about not knowing exactly what the source of our Big Bear Spring is. We've been through all these hearings and all this seeping of information we've talked about in the past, and basically I don't think any of us can say for sure what the source of the Big Bear Spring is and exactly where it discharges, and that bothers me. If we don't know, you know, where the spring comes from, how the water travels to get there, it seems to me it's very difficult to say that mining either will or will not impact that spring. And I guess we're concerned about what would happen if in the mining operation the spring was impacted, either with the flow or with the quality of water that's coming out of that spring.
In the -- in the permit, on Page 18, Co-op states this, and I'm quoting: "In the event a spring is affected by subsidence, the water will be replaced at the source." There's no mention of what would happen if water that was encountered during normal mining operations would impact the spring, and there's no mention of how that replacement would take place. And we're really concerned about that. We have 2800

1 people drinking this water, and if it's impacted it's
2 lost. What do we do to get those people a drink of
3 water, and how quickly are we going to be able to
4 respond to this?
5 And there's just all kinds of questions
6 associated with that. Where's the water going to come
7 from? We've looked the area over a lot, and there
8 currently aren't any other big springs readily
9 available that could be tapped on and put into the
10 system. If we are going to treat surface water and
11 put it into the system, that's going to take a lot of
12 time, it's going to take a lot of money. Who's going
13 to pay for all those things? Who's going to provide
14 water rights? There's a whole list of questions that
15 we see when we start talking about replacement of the
16 water. And we're concerned about that, and we would
17 like to see more details presented on how they might
18 propose to replace that water. Right now it's really
19 pretty open. They've basically stated they don't
20 think they'll impact it, and there's nothing, no plans
21 at all, about any kind of replacement.
22 So that's one point. Another point is
23 reclamation. And there's large section of the permit
24 that talks about reclamation. There's nothing ever
25 addressed about how groundwater sources would be

1 reclaimed; if we hit groundwater what do we do to
2 return it back to the flows and the condition that it
3 was prior to mining? If the -- if the spring is
4 impacted, what can we do to return those groundwaters
5 back to the spring? There's no mention of any of
6 those kind of things in there. And, again, it brings
7 big questions to our mind on what will be the
8 condition when the mine is closed up and they walk
9 away from that? Where will that water go? Where will
10 it exit? Will it still be usable to
11 Huntington-Cleveland Irrigation Company, to Castle
12 Valley Special Service District? What's going to
13 happen with all those kind of things? We don't know.
14 I want to go back into past history just a
15 little bit. It's our -- still our belief that past
16 mining activities have had an influence upon that Big
17 Bear Spring. And we've prepared a very little simple
18 graph that I'd like to present, and I've only got
19 three or four copies, so I'll give you guys one.
20 THE HEARING OFFICER: I'd be glad to -- I'd
21 be glad to look at your graph, Mr. Leamaster, but if
22 this does not have a direct bearing on -- on the Wild
23 Horse Ridge application, I wonder about why we want to
24 take the time to do that right now. I appreciate what
25 you have, and I'm sure it's a fine piece of work, and

1 if you'd like to talk about it, that's fine, but I'd
2 like you to tell me how you think it relates to the
3 Wild Horse Ridge application that's before us, if
4 you're going to do that, because that's what we're
5 here for.
6 MR. LEAMASTER: Okay. Maybe what I should
7 do on this is make a request to DOGM to go back and
8 take a look at -- we think we have problems. If you
9 think they've really been satisfactorily addressed,
10 maybe we need to make an official request to DOGM to
11 go back. And why don't you hand those back.
12 THE HEARING OFFICER: That opportunity is
13 available to you at any time, actually.
14 MR. LEAMASTER: Okay. Maybe that's the way
15 we should do that.
16 Okay. In the PHC they talk a lot about
17 the -- the locations of the mancos shale tongues that
18 are located between the members of the Star Point
19 sandstone -- and I'm trying to find my notes here.
20 Just a minute. Hang on. If I understand what -- what
21 they're saying there, basically they're saying that
22 the main members of the Star Point Sandstone, the
23 Spring Canyon, the Stores, and the Panther, are each
24 separated by mancos shell layers that are like 50-
25 to 80-foot thick. And what they're claiming is that

1 those layers become an impervious layer that does not
2 permit any hydraulic connection from the Blackhawk
3 formation into the lower members, and each of those
4 members don't transmit any water downgrading to the
5 other members.
6 Hydraulic conductivity of the mancos shell
7 members are really low, like 10 to the 11th or ten to
8 the 12th centimeters per second, which doesn't
9 transmit much water. We recognize that. I think
10 where we disagree is that -- is that the thing that
11 hasn't been considered and hasn't been looked at is
12 that those mancos shell members can transmit water.
13 And we see this all the time down in the
14 valley. Down in the valley we live right in the main
15 mancos shell formation, which is 3- to 4,000 feet
16 thick. And we've had a lot of experience dealing with
17 mancos shale. Our houses are built on it, the
18 structures that we built with Castle Valley Special
19 District are built on it, all the irrigation ditches
20 and canals -- or not all of them, but most of them are
21 built in the mancos shell.
22 And I'd like to just cite a couple of
23 experiences we've had that demonstrate how the water
24 does move through the mancos shell. The first one I'd
25 like to talk about is -- is an experience that we had,

1 Castle Valley Special Service District. In the town
2 of Clawson, about three or four years ago, we put a
3 new sewer system into the town of Clawson. This
4 included all new collections system and a new lagoon,
5 and it's the lagoon I want to talk about.
6 We purchased a piece of property east of
7 Clawson that was being used as a field, it was growing
8 hay. And on the north edge of this field there was a
9 mancos shale hill, which wasn't a real high hill,
10 probably 30 foot high. As we began construction on
11 the lagoon everything went well, except right along
12 the north edge of the first sell we encountered mancos
13 shell formation, and when we saw this we knew we had
14 trouble. We talked it over with the engineer and
15 decided what we would do is over excavate that by a
16 foot or two and then put a clay liner back in. Well,
17 that information didn't get communicated properly to
18 the contractor, to our inspector, and it didn't get
19 done, so the lagoon was built with the -- about a
20 third of the sell exposed to the mancos shell at a
21 depth of about ten feet. And it was hard shell. The
22 rock riff raff was put back in place. The sell was
23 tested for permeability on the floors. That wall,
24 that face of the north side of the sell was never
25 tested. And we put water in it. We filled it clear

1 up with irrigation water. We went back to check it in
2 about three days, and half the water was gone out of
3 the sell. Well, it didn't take us long to figure out
4 what happened. We filled it again, the same thing
5 happened.
6 We saw some of the water appear in the
7 third sell, which was the located just immediately
8 east of that first sell, but not very much, and we
9 started looking to see where the rest of the water
10 went. And what it had done, it had traveled through
11 that mancos shell hill and had gone about 2,000 feet
12 to the north and came out about 20 foot lower than the
13 lagoons, through that mancos shell hill. And we dug
14 some trenches in there and we found the shell was so
15 tight that we couldn't dig it out with a backhoe. And
16 I'm convinced that if we went in and drilled it and
17 took some cores out and tested that shell, we'd find
18 the same kind of permeability that we found up on the
19 mine. It wouldn't be permeable, yet the water went
20 right through it.
21 And it cost me about $70,000 to fix it.
22 We had to empty the sell. We had to go back in and
23 dig all that shell out and replace it with bentonite
24 and clay to prevent it from leaking. That's how that
25 was solved. It cost me about $70,000. If would have

1 read this PHC and known that mancos shell doesn't
2 transmit any water, then we wouldn't have had to spend
3 that $70,000. But as it actually turned out, it
4 does. We had to spend that money.
5 Another similar experience that we have had
6 at Elmo -- and we've had several of those experiences
7 in the valley. In the town of Elmo, in the early
8 1980's, we put a sewer system in. Elmo is located so
9 that there is a little hill on the north side of town,
10 and right across the top of this hill they built an
11 irrigation ditch so that it could provide water both
12 to the north and the south of the irrigation ditch.
13 As we were installing sewer lines in the town, we were
14 digging trenches in town, and on the 200 -- on 100
15 South, which is about 2,000 feet away from this canal,
16 we were digging at a depth of about ten feet, and,
17 again, we were in very hard shell, which it was all
18 the backhoes could do to rip it out. In fact, we had
19 to raise the grade and bring them up about -- about
20 nine foot so we could even dig through there. As we
21 as started digging, the hole was completely dry, and
22 as we dug to the west we came on an area where we got
23 wet, and before we could get through there the
24 contractor had two sump pumps running to pump that
25 water out of the trench. And as you looked at the

1 trench, the water was coming from the north side of
2 the trench, coming right into the trench. It looked
3 like a waterfall that was coming off the sides of the
4 trench, directly from the canal. And if you look over
5 to the south, you can see areas where Elmo's basically
6 gone swampy. There's swamp grass growing, cattails,
7 and all those sorts of things. We know that water's
8 leaving the canal, following the mancos shell and
9 going down to those areas.
10 So I could give you other examples. The
11 canals that you see all through the valley are good
12 examples. When the pioneers built those canals, they
13 put them around the mancos shell hills, built them
14 right into the mancos shell. And you go look at them
15 now, 100 years later, you'll see that almost every one
16 of them have leaked, and you have grass and vegetation
17 growing almost right back up to the canals. It is so
18 bad that the canal companies from Emery over to
19 Huntington-Cleveland have what they call a "shrink
20 factor," which is basically a measure of the
21 evaporation and seepage that occurs in those canals,
22 and they use a number from ten to 20 percent for
23 shrink, which means if you put 10-acre-foot in the top
24 of the canal you're going to get 80-acre-foot out of
25 the bottom of the canal, and most of the rest of that

is going to seepage through the mancos shell.

THE HEARING OFFICER: Can you tell me how this relates to the permit that is before us, specifically.

MR. LEAMASTER: Yeah. What I'm trying to show is that they have assumed that the mancos shell will not transmit any water, and it's our contention that that assumption in the PHC is incorrect. The mancos shell will transmit water, it is possible to transmit water.

THE HEARING OFFICER: So would a statement to that effect in the PHC satisfy you?

MR. LEAMASTER: Yeah. It would help.

THE HEARING OFFICER: Okay. I think anybody will recognize that shales do transmit water, generally.

MR. LEAMASTER: That's not what it says. It states that they're impervious.

THE HEARING OFFICER: Well, relatively impervious with respect to the sandstones or --

MR. LEAMASTER: If you just look at the shell. But if you consider fractures and breaks --

THE HEARING OFFICER: There may well be lenses in those sandstone shales that may transmit water, too.

MR. LEAMASTER: I think our objection is there's a statement that there's no interrelation, there's no way that the water can get from one to the other. And, frankly, we don't believe that's the case, and the statement in the PHC that states that, we don't agree with.

I'll leave that for you.

MR. HANSEN: Can I ask you a quick couple of questions about that? I just want to clear up something.

MR. LEAMASTER: Okay.

MR. HANSEN: The lagoon was built on the top of the mancos shell?

MR. LEAMASTER: It was built into the topsoil that was there in the field, and on the north side of it, as we were excavating that out, we encountered hard parts of mancos shell.

MR. HANSEN: So it was excavated down through the topsoil, and over about a third of that area that were actually on the mancos shell bed?

MR. LEAMASTER: The bottom part of the lagoon just encountered it. The north slope of the lagoon that was dug down into the hill encountered real hard shell.

MR. HANSEN: So that's how the lagoon

itself was constructed. And you filled it up and it leaked, and you came to find out later, part of it -- a good deal of the leak was encountered by water that was to the north out of the --

MR. LEAMASTER: Yes.

MR. HANSEN: It had traveled to the north out of the --

MR. LEAMASTER: Yes. That's correct. So it traveled out of the north side of the lagoon, through that mancos shell hill, and over about 2,000 feet.

MR. HANSEN: What was the inclination of the shell in that area; in the direction of water flow or opposite to the water flow, or horizontally, basically?

MR. LEAMASTER: You mean as far as the slope of the layers?

MR. HANSEN: Yes.

MR. LEAMASTER: Basically flat.

MR. HANSEN: Was the water actually --

THE HEARING OFFICER: Can we speak to the permit action before us, please. We can tell our war stories all afternoon, if we want, but I'd like to address the permit.

MR. HANSEN: My other question was Darrel

was saying, based on this information, that he had concluded that the mancos shell is not impervious, and I am trying to explore what facts and evidence would lead to that conclusion.

THE HEARING OFFICER: I would prefer to not deal with the abstracts of sewage lagoons and things like that, and talk about the problems that we have with the permit application we have in front of us.

And I appreciate the example that you've given, and I've noted that.

MR. LEAMASTER: Okay. As far as Wild Horse Ridge impacts are concerned, we are not really sure if they might have impact on our springs or not, because we simply don't know the source of the spring. In the PHC Mayo has put a new theory that the source of the water for the spring is farther to the north where the Panther sandstone is exposed to the surface, which would maybe be in Tie Fork Canyon or father to the north in Nut Wittard Canyon. And the water basically does not move vertically to the spring, but, instead, travels horizontally from those areas and down in the spring. It may and it may not. We don't know.

It also opens up the possibility if the water is flowing horizontally from the Big Bear fault, that there is water in the Big Bear fault that moves

horizontally over to our spring and discharges. If that's the case, then we become concerned about how mining under the Wild Horse Ridge might impact Big Bear Fault from the water that might be adjacent to it.

They presented information in the Hiawatha mine they encountered a large flow when they got close to the Bear Canyon fault, and I'm wondering whether they know what the source of that flow was, that was encountered over in the Hiawatha mine, and whether that subtracted from the flow of our spring.

I guess, you know, basically our problem is that we don't know what impact it may have on us. They've stated in the PHC that they don't anticipate any impact. We don't see how they can make that statement when they don't know what the source of the spring is, where it comes from. And that is our -- our main concern, what happens if it is impacted, and what do they do to remedy it?

And I think that's all the comments I want to make.

THE HEARING OFFICER: So you'd like to see more -- more information as to the relationship between mining at Wild Horse Ridge and conceivable impacts to Big Bear Spring; is that the thing that

you're asking for?

MR. LEAMASTER: Yeah, and more information on what would be done for replacement in the event that they should impact the spring.

THE HEARING OFFICER: Okay. Who wants to go next?

MR. KELLY PAYNE: Well, we'd be happy to respond.

We agree with -- with Darrel that maybe we have not pinpointed the exact recharge location of Big Bear Spring. There's a number of ideas out there. I think some have more merit than others. But the data to this point do not tell us with any certainty which of those ideas may or may not be correct, or may be correct. The data do tell us which -- or they do help us to understand what geologic formations and what areas and what geologic structures are not either the flow path -- or either the recharge location or location flow path to Big Bear Spring. We feel fairly certain that any area east of the Bear Canyon Fault, which would be the entire Wild Horse Ridge area, is in -- is not in hydraulic communication with Big Bear Spring, for a number of reasons.

Darrel has -- you know, first, let me say I appreciate Darrel's concerns. I drink spring water

myself, so I -- I know what -- what this is like. But if we look at the Bear Canyon fault, we view, based on our experience, that Bear Canyon fault has a barrier to flow, both down the fault virtually, laterally along the faults and perpendicularly across the fault.

I think, if I may dredge up a little bit of past history, we talked about the Blind Canyon fault in the last round, and how it was built with fault damage that was fairly dry, and we don't believe water was moving across the Blind Canyon fault from the area west of the current permit area or Birch Spring, and located to the area east from where the mine has impacted -- or has encountered water.

Similarly, we think that the Bear Canyon Fault is -- is filled with the similar type fault gouges, 230 feet of offset of the fault, a lot of clay, a lot of shale along that plain, and you've probably got a good -- good section of fault gouges.

If you hike up -- if you hike up Bear Canyon to the top, you can see where the Blackhawk formation is juxtaposed against the Castle Gate, and there's quite a bit of gouge. As you try to walk through that -- that creek bed, it's muddy, and you sink down to your ankles pretty quick. And that's the

kinds of material we follow all the way down. We don't think the water's being transmitted across the fault. So if there is water in the Bear Canyon Fault, which for other reasons I'll bring up I don't think there is, water on the east side of Bear Canyon Fault, the fractures that are associated with the fault, there's not going to be communication with anything west of the fault, so mining east of the fault should have no impact on Big Bear Spring, which is located west of the fault.

THE HEARING OFFICER: Is that stated in the -- in the permit application?

MR. KELLY PAYNE: That may not be stated explicitly. We can prepare a letter, if you want, a response which we'll give you a copy of today, that's exactly what information is there. And maybe the interpretation wasn't explicit.

MR. SMITH: May I ask a question there? I'm not trying to get into another long question, one question. Would the same conclusions be true about Birch Spring?

MR. KELLY PAYNE: They would be true --

MR. SMITH: Okay.

MR. KELLY PAYNE: -- yes.

MR. LEAMASTER: One other question?

MR. KELLY PAYNE: Okay.

MR. LEAMASTER: When -- I wondered about the water on the Bear Canyon Fault line. The old-timers, the cowboys that took cattle and everything up Bear Canyon hill, said there's a large spring in Bear Canyon that went right -- which was above our spring, which was above your mine and that's on the other side of the fault.

MR. KELLY PAYNE: On the east side?

MR. LEAMASTER: I think it was on the west side of the fault.

MR. KELLY PAYNE: I can't comment on what you're saying. That's the first time I've heard that anecdote. We don't know, and we've tried to find out exactly how the water in the Hiawatha complex occurs, whether it was from the fault in the plain itself, the water was leaking -- the water was leaking into a fracture associated with the fault or -- it's been our experience that all almost large inflows like that are associated with sandstone channel that acts as a reservoir and may be truncated by a fault, and that's what we we suspect may be happening here.

Regardless of mode of occurrence, that water is discharged from a portal which is in excess of 9,000 years old, because we've determined, from

carbon dating, water from Big Bear Spring has a mixed component, and possibly mixed as old as 3500 years, and any water found in the mine ranges from 500 to 3500 years, as well. So water cannot -- that same water cannot be moving down the fault and end up younger at Bear Canyon. So we don't think that that water is at all related to any water that is discharged from there.

I don't know how to respond to Darrel's experience with the old-timers.

So we don't think that water's moving down the fault. We don't think there's a considerable mode to convey water along the fault through some fractures that are associated on either side of the fault. And, then again, those fractures on either side are going to be hydrologically isolated from each other.

MR. LEAMASTER: Do you anticipate drilling holes along the fault?

MR. KELLY PAYNE: If there is a large reservoir, such as a sandstone channel that is truncated by that fault, there would be large inflows.

If I may mention one more time -- and I'm going to put up this graphic to help me illustrate that.

MR. REYNOLDS: While you're putting that up, one thing I may mention in regard to the Wild Horse Ridge and along Bear Canyon, is nearly the entire expansion area outcrops in Bear Canyon, and there's only about a -- maybe a 300-foot segment that we anticipate possibly encountering. Other than that, the majority of the -- what's on the north -- up on the very north end, other than that, the entire expansion area is actually isolated from the fault where the Blackhawk outcrops.

MR. LEAMASTER: How close do you anticipate mining to the fault, just approximately?

MR. REYNOLDS: Probably -- within that area, it would probably be about 2- or 300 feet away from it.

MR. KELLY PAYNE: This is a diagram map. For those not familiar with this diagram, this diagram tells us, by its size, the approximate solute concentration of the water; by its shape, the -- the ions and -- or the ions and anions that make up that water. So without going into a lot of detail, the different shaped diagrams -- for instance, WHR-6 here, versus WHR-5, you can see that WHR-6 is a water with different makeup, chemical makeup. There are four waters with -- five waters we've sampled -- no, three,

sorry, three waters we've sampled on the east side of Bear Canyon Fault, all the waters we could find in the Bear Canyon Fault associated, possibly, with the fault. So the Wild Horse range includes --

MR. SMITH: Could you point where the fault is there, so we can see where --

MR. KELLY PAYNE: Okay. The fault is going to roughly parallel the canyon right near the creek along this area, and then it continues in a straight -- straight -- a pointer. Sorry about this. Roughly parallels this creek here, and then it takes off through this hill.

MR. SMITH: Okay. Thank you.

MR. HANSEN: Can you make that stand up? The bottom part is --

MR. KELLY PAYNE: Three waters. We have discussed the two Blackhawk springs with Craig. The 16-7-24-4 and 16-7-24-3 and WHR-6, you can see those waters are very distinct in there, their shape.

The bottom two legs of this diagram, you can see these waters are magnesium sulfate water, something we rarely see in a plateau or rarely see naturally, anyway.

Your water, Big Bear Spring, right up here is a lot better water. I'd rather be drinking Big

Bear Spring than any of the stuff on the east side of the fault. We can't take a water that looks like this (indicating) and make it look like this (indicating). There's no natural mechanism that's known in these rocks.

So we just don't think that any water on this side of the Bear Canyon Fault, east side of Bear Canyon Fault, is communicating with the west side at all. These signatures, these groundwater signatures, aren't seen on the west anywhere that we've looked. So that is another reason we believe that.

MR. SMITH: Before you sit down, can I ask you a couple questions about that --

MR. KELLY PAYNE: Geologic map.

MR. SMITH: Based on that sample, it appears -- would Big Bear and Birch Spring be different sources of water, based on your study there?

MR. KELLY PAYNE: They're not significantly different, but it's a type of water that, as you can see, is common throughout the whole region. These kind of rocks produce that kind of a solute chemistry, with the exception of those we were just looking at, which were unique, and I'm at a loss to explain why the chemistry is such as it is. Anyway --

MR. SMITH: Okay.

MR. KELLY PAYNE: Bear Canyon Fault is mapped at a different scale. You can see this is Bear Canyon Fault, this red line here on the east. I think it's -- Charles, did you want to put out about the Blackhawk being separated, or point that out on this?

MR. REYNOLDS: I've -- maybe if you could put out where Section 24 is.

MR. KELLY PAYNE: Right there.

MR. LEAMASTER: What color is what?

MR. KELLY PAYNE: Oh, I'm sorry. Purple color is going to be Blackhawk formation. The brown is the Star Point sandstone. Red is the fault.

MR. REYNOLDS: The expansion area does not include anything north of Section 24?

MR. KELLY PAYNE: No. This section right here (indicating) is the expansion.

MR. SMITH: Is this the northern boundary?

MR. LEAMASTER: It is.

Are we done with this?

THE HEARING OFFICER: Okay. All right. Do we want to take a ten-minute break, or are we close enough to the end that we want to forge ahead? What's the pleasure of the --

MR. SMITH: I could do either one. I don't

know how much -- do they have anything more to present?

MR. HANSEN: Not a big deal.

MR. LEAMASTER: I want to -- I'd say forge ahead.

THE HEARING OFFICER: Okay. Is that satisfactory to everyone else?

Go ahead.

MR. LEAMASTER: I'd just like to make a comment. Craig made a comment today, he talked about cooperation. And we certainly would want to agree with the comments he made. The last thing we want to do is got involved in another big long hearing and court case, like we did last time. Our district has spent over $200,000 in all this stuff that we've done so far, and as we look back at it we certainly would have been much better off to take that money and put it towards development of some other water source, and probably if we could have done something in cooperation, and Co-op could do the same thing with the amount of money they've spent. They could have done something else and not had these problems. We've been able to do that in the past with Plateau -- Cypress Plateau. And North Emery has done that with Pacificorp, as. Well, and we certainly offer it --

that's a better way to solve this than what we've done in the past, and certainly indicate that we would be willing to pursue things like that, if it were at all possible.

THE HEARING OFFICER: All right.

MR. LEAMASTER: Thank you.

THE HEARING OFFICER: Thank you.

Craig.

MR. SMITH: Thank you. I'll just -- I think I have just a few brief concluding comments.

As I, you know, spent some time over the weekend thinking about this issue -- that whole issue, we got started on these hydrological issues, at least in this area, by some unexplained drop-offs in the flow of two springs. One was the one in Castle Valley Special Services District; that's the Big Bear Spring. The other one was one North Emery water users. And Huntington-Cleveland has water rights to both those springs. And despite a lot of effort, a lot of time, a lot of hearings, a lot of experts, to this day we don't know why those are -- at least there has been never a determination as to why those springs have dropped. Maybe there never will be. And that's why when we came this afternoon I said we didn't want to start over, because, obviously, whatever has

happened has happened, and we're not talking about those springs per se, except for the impact that the Wild Horse Ridge area may have on those and other springs. And so what we're here to talk about today is whether we know enough to -- to allow the permit to extend to a new area. Do we know enough about the hydrology of this new Wild Horse Ridge area to be able to know whether or not there's going to be some sort of adverse hydrological impact?

I would submit that with the questions -- and I appreciate everyone's patience and everybody's taking the time to answer questions. What we found out is that we just don't quite yet know enough. And it's not because Co-op doesn't have good experts. I think Mayo and Associates have done an admirable job. I think they're well qualified people and they're smart, they work hard. But your expert opinions -- and I've ordered more than my share of experts as a lawyer. Your expert opinions can only be as good as the data which they base those opinions on. And they can say, "Well, we have sufficient data to make an opinion," and that's fine. But let's look at the data that we really have for the Wild Horse Ridge area. We have samples that were taken from springs. Even though it's been admitted that you could have --

springs only issue where they issue. We have Birch Spring. It may draw on a large area. We don't know. Other areas could have -- you could have saturated rock and not have -- no springs because there just isn't the fault or something that acts as the outlet, so the spring isn't an issue.

We have no wells at all in the area. We have drill holes that were done by someone else, and I'm sure they provide some helpful information, but they're not in the area. It's a very large area. We're not talking about a, you know, small area. As I mapped out this area that's being added to the permit, it's several sections, an extremely large area of land.

We have some bore holes that were done by Arco, I guess, but we have no hydrological information, and those bore holes have been sealed up. They weren't done for this.

There's been some extrapolation, I guess is the -- the best way to put it, I think, as to what we think we'll find in this area, but that's all it is, is extrapolation. And when I asked the question, "Do you have any data," for example -- and Darrel talked about this, and I'll just talk about it -- I don't have -- one of the key -- key points has been that

there's these three tongues, that they're disconnected. That's been a key premise throughout all these hearings, and it's being urged to -- that the same premise exists in the Wild Horse Ridge area, even though we have no data to show that.

Anyway, unless you have something you want to say, as I look at the regulations I believe they require some pretty detailed information, information that can't be just gathered under extrapolation from other areas.

It talks about the proposed operation and potential impact to the hydrologic balance. It's been admitted there may be some potential impacts on these two springs; how much or probability of that, we don't know.

It also says that to determine the probable hydrological consequences you're required to have findings on the groundwater and surface water availability, whether they were proximate results of contamination, diminution, or interruption of underground or surface source. My reading of this is that the findings that were -- should be in the PHC -- and I know it's just a projection, but we should know enough to say if there's problems with this spring quits flowing or this spring diminishes or this spring

is contaminated, we'll have some idea where it came from, and not just have to go back and do another study.

I think, again, I'd like to see a situation where we have PHC's that answer the questions and that it's a dynamic process, that as mining goes on those are updated regularly. The Division I think has all of the authority, I think, that it needs to require that, so that when there's a problem, when there's a diminution, we're not just scratching our heads, like we have been for the last six years on Birch and Big Bear springs. We're still scratching our heads on that. No information has ever explained why those springs used to flow more than they do now.

I think if we do that, we'll have an opportunity, as I said earlier, to work together to be able to cooperate on things, if we can get the -- the information at that level.

We'll leave it to the Division on this one to -- to look at this and say, "Does this PHC have the kind of information that we've required other places, from other mines," because I'm told that other mines have gone out and had to do the bore holes, they've had to do the test wells, and that -- that kind of thing is continuously required for mining companies.

We're not trying to say anything different, unique, we are just saying let's follow the regulations. We have a resource that's so valuable we can't just give up on. And we think we have a method to -- to address that, and that's what we are asking the Division to do.

That's basically all I have. Thank you for your patience and time in listening to us today.

THE HEARING OFFICER: Thank you very much. Co-op?

MR. HANSEN: I have just a couple of comments I would like to make. If there's any questions that we haven't put forward by the Huntington people talking about it, you can flush that out and you can let me know.

I haven't personally seen the document evaluation that Craig was pointing out, so I don't know what's in it, and perhaps that evaluation already addresses all of the issues that need to be raised here, and, if so, I wanted to make a comment without resort to having seen that.

More particularly regarding Big Bear Spring than the area in general, because it's easier to address Big Bear Spring, the permit application -- while we don't know exactly where the recharge and the

flow does go into Big Bear Spring, we do know a few things that it does not do, and it's not based only solely on data, but partially on the data that have been represented, but also on other factual information that doesn't reduce to raw numerical data.

The entire Wild Horse Ridge area, with the exception of the small area towards the north, is the -- it consists of cliffs. The coal can be mined on actually outcrops of the entire area, so we actually have a visual observation along the entire expansion area of exactly what the geology consists of. You can look at the cliff faces and see where the coal seams are and see where the sandstone is and see where the shale is. So we don't need test holes to obtain that kind of geological data. We've got that data through the entire area, data as far as outcrops and outcrops virtually through the entire expansion area, so we can see what's there. If there is water, either above or below those mine seams, because of the outcrops we know one of two things, either it flows through, and, therefore, comes out as springs or acquiesces from where we see surface indicia of water, or it doesn't come out at all, in which case there has to be a first aquifer.

If you look at the first aquifer, it doesn't appear on the surface anywhere, and clearly isn't impacting Bear Creek Spring, and likely isn't impacting any other waters in the area. And those first aquifers are the only water that the mine is likely to encounter as it mines into the Wild Horse expansion area.

We -- we know the general flow inclinations of the straight in the area, that the straight -- or incline is south and east away from Big Bear Spring. Unless there is something really anomalous about the geology, if there is any water in the area and if it's flowing, it's going to flow more or less along the incline, which would be flowing away from the spring. That, coupled with the chemical information of the spring we do have, that do outcrop in the area, which are completely similar to Big Bear Spring, and the existence of the Bear Canyon fault, which has a 230-foot displacement, which where it's visible is filled with gouge, are indicia that there isn't a hydraulic conductivity between the east and west, providing us with a fairly good comfort level that wherever the water in Big Bear Spring is coming from, it's not coming from this expansion area.

And because of these things, additional

bore holes in the area are not really going to be additional help in narrowing that down, because the information that we already have certainly adequately fills Co-op mine's burden of showing there is high probability of no significant adverse impact on Big Bear Spring from mining in the expansion area.

With somewhat lesser degree of certainty, but still within the level of comfort, we think that the information in the permit adequately addresses the general hydrology of the area and gives satisfactory evidence to support being able to say, with comfort, that the likelihood of mining in that expansion area is not likely to cause a significant adverse impact to the area's hydrology. And because of that, we -- we are able to make that statement, and because we're able to make that statement, the regulations do not require us to speculate on, "Oh, my, if we should impact where are we going to get displacement of water, who's going to pay for it," all of those kind of things. That was a matter that was already addressed in the previous issue by the Utah Supreme Court, and the Utah Supreme Court made the ruling that unless there is an adverse impact there -- there is no need to disclose that information.

And since then the rules have been

amended. Rule 645-301-727 does require such information if the probable hydrological concentrations determination indicates that the proposed activity may proximately result in contamination, diminution, or interruption of the waters within the permit and adjacent areas. Because we are satisfied that that will not occur, this Section -727 is not triggered, and the information in the permit, those issues, does satisfy the regulations. And, of course, the mine is going to be happy to revise the permit, as needed, to satisfy whatever is required by the Division, to comply with the regulations.

I believe that's about it.

Do you have anything to add my comments?

Thank you.

THE HEARING OFFICER: Thank you.

MR. SMITH: I just -- if if I can make one response to that, because I think since we went first we have the chance to go last.

I think we heard today there's a probability that at least or two of those springs will be interrupted. That's the testimony I heard. It was different from what I just heard in argument. And based on that and based on this -- on the regulation,

I think that they do have to identify replacement water for that spring.

THE HEARING OFFICER: Anything else?

MR. SMITH: And all I'd say is -- is that -- that the applicant has chosen not to assign -- I asked him what the probabilities were, and he said no, it's just probable. We don't know what the percentages are. That's the basis of the information that's before the Division. Based on that, I think that there's got to be -- that needs to be -- exactly what Mr. Hansen just read out of the regulation, require that they identify where their replacement water is and how they're going to make that replacement.

THE HEARING OFFICER: Do you know if that rule that you're citing is in effect right now or not?

MR. SMITH: I believe it is.

THE HEARING OFFICER: Actually, I'm not positive --

MR. SMITH: Those rules have been adopted. I know there's a challenge to the rules, but --

THE HEARING OFFICER: That's my point.

MR. SMITH: I know that's your point. My point is, at least as I understand the law, and you'll

have to talk to a legal advisor, is even though the rule is challenged, it does not keep the rule from going into effect. The rule is still in affect, even though it's challenged.

THE HEARING OFFICER: There may be some difference of opinion on that, but I still hear the point you're making.

Pam?

MS. GRUBAUGH-LITTIG: Excuse me. I think that Mr. Hansen was referring to Article 25-01-727. It's called "Alternative water source information," and says, "If the probable hydrologic consequences determination required by 301-728 indicate the proposed surface coal mining and reclamation activities." That's referring to -- just to surface mining. It doesn't refer to surface impacts related to underground coal mining, so it's not applicable here.

MR. HANSEN: I thought the definition included that --

MR. SMITH: I think that's the wrong citation. I think there's a similar rule that we can cite.

THE HEARING OFFICER: And that may be the one that's being appealed right now. And I won't

argue with you on your legal interpretation, because I'm not an attorney.

MR. SMITH: Well, I'm not going to argue with you, either.

Go ahead, Scott. What's the number?

MR. ELLSWORTH: 728-350.

MR. HANSEN: That's I guess the citation.

MR. SMITH: The one that requires definition of replacement water?

THE HEARING OFFICER: Well, we'll investigate that part of it.

MR. SMITH: Whatever the rule is. Thank you.

MR. HANSEN: The only other point that I would make is that perhaps the mine and DOGM take a look at whether the application, as to those two specific springs, adequately addresses those springs, as far as the PHC determination.

THE HEARING OFFICER: We'll -- we'll certainly take a hard look at that.

MR. HANSEN: And if the permit does adequately address those two springs as part of the PHC determination, that satisfies the regulatory requirement.

THE HEARING OFFICER: Thank you.

Val, do you want to say anything, or are you hoping to get out of here?

MR. VAL PAYNE: Oh. If I may make a brief statement on behalf of Emery County, but it doesn't have to do with water, but it has to that with surface distribution.

THE HEARING OFFICER: Please.

MR. VAL PAYNE: But, with your permission, I'd like to do it here standing. That's how brief I intend it to be.

My name is Val Payne. I'm a public lands director for Emery County, and in such capacity, part of my responsibility includes serving as staff to the planning commission. In my review of the -- of the application for the Wild Horse Ridge addition, it came to my attention that the proposed surface facilities are located on private property owned by COP Development. And I concluded from that, then, they would fall within the purview of the zoning ordinance, and I transmitted that information to the county zoning administrator, as well as the county planning commission chairman.

And in particular reference to Page 4-2 in the permit information, it states, "Site plan approval has been issued by Emery County to approve mining." I

think that's accurate from the context of the overall zoning of that area which accommodates mining, but as far as the actual permitting process associated with surface facilities, Mr. Reynolds acknowledges receipt of a letter from the zoning administrator indicating that there is a process through which they need to go to actually permit the surface facilities. And Mr. Reynolds has already made contact with that office to accomplish that.

THE HEARING OFFICER: And I've received a copy of that letter, and passed it on to our probative folks, too.

MR. VAL PAYNE: Thank you very much.

THE HEARING OFFICER: Well, if there's nobody else that like to be heard, let's conclude this hearing, then.

MR. KELLY PAYNE: Just -- I do want to -- just in response to Craig, I think he -- he's leading -- or he interpreting what I said as there's a high degree of probability those streams will be impacted. We have never said such. Although there's a probability, we have not assigned a numerical value to that.

It's -- it's not -- no one has never stated those springs will dry up, and that's nothing

that -- that's not something that we are proposing, and it's not something that that PHC has evaluated in that context. It's not a certainty or a high probability.

THE HEARING OFFICER: We'll certainly look the at permit application in light of what we've heard today.

Charles?

MR. REYNOLDS: One final thing I wanted -- I might mention with regard to these springs, and it's referenced to the Section -728 in the regulations: There is no state-appropriated right on either of those springs.

MR. SMITH: Well, again, we have the right to look to all the sources that meet Huntington-Cleveland, so we don't have to have a right on each spring. If you want the case, I'll send it to you. If you don't need the case, I won't send it to you.

THE HEARING OFFICER: I'd say from the level that we're in right now, let's avoid that.

MR. SMITH: Okay. That's -- that's bluebook, or whatever you want to call the water law in Utah.

So the fact that we don't have a point of

diversion on every single spring in a drainage doesn't mean anything. We have the right to take the water when it gets to our point of diversion. We have the right to look at all of the sources in the drainage.

THE HEARING OFFICER: I hear you.

MR. SMITH: Thank you.

THE HEARING OFFICER: Thank you, everybody, for coming.

(The hearing was concluded at 12:30 p.m.)

* * *

1 C E R T I F I C A T E

2 STATE OF UTAH)
: ss.
3 COUNTY OF SALT LAKE)

4

5 THIS IS TO CERTIFY that the informal hearing fevor the Division of Oil, Gas and Mining was taken before me, KERRY SORENSEN, a Certified Shorthand
6 Reporter and Notary Public in and for the State of Utah, residing at Salt Lake City, Utah.

7

8 That the hearing was reported by me in Stenotype and thereafter caused by me to be transcribed into typewriting, and that a full, true
9 and correct transcription of said testimony so taken and transcribed is set forth in the foregoing pages
10 numbered from 1 to 117, inclusive.

11 I further certify that after the said hearing was transcribed, the original of same was
12 delivered to TIFFANY MOSS at the Division of Oil, Gas & Mining.

13

14 I further certify that I am not of kin or otherwise associated with any of the parties to said cause of action, and that I am not interested in the
15 event thereof.

16 WITNESS MY HAND and official seal of Salt Lake City, Utah, this 1st day of March, 2000.

17

18

19 KERRY SORENSEN CSR/RPR

20 My Commission Expires:
June 21, 2001

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#1100 [1] 2:60

$

$200,000 [1] 99:15
$70,000 [3] 82:21,25 83:3

1

1 [2] 21:11 117:10
10 [1] 80:7
10-acre-foot [1] 84:23
10:00 [2] 1:18 3:1
100 [2] 83:14 84:15
1040 [1] 1:16
117 [1] 117:10
11th [1] 80:7
12:30 [1] 116:9
12th [1] 80:8
15 [1] 17:2
16-7-24 [1] 13:21
16-7-24-3 [2] 14:1 96:18
16-7-24-4 [2] 13:21 96:18
16-8 [1] 23:1
18 [1] 76:18
18-5 [1] 23:1
1980's [1] 83:8
1981 [1] 15:8
1982 [1] 15:8

2

2 [1] 95:14
2,000 [3] 82:11 83:15 87:10
2,800 [1] 75:2
20 [2] 82:12 84:22
200 [1] 83:14
2000 [2] 3:1 21:25
21 [1] 21:11
22 [1] 3:1
230 [1] 91:17
230-foot [1] 107:19
24 [2] 98:8,15
24th [1] 74:7
25-01-727 [1] 111:10
2800 [1] 76:25
2nd [1] 75:21

3

3 [3] 13:22,25 80:15
30 [2] 51:3 81:10
300 [1] 95:14
300-foot [1] 95:5
301-728 [1] 111:13
3500 [2] 94:2,4

4

4 [1] 12:18
4,000 [1] 80:15
4-2 [1] 113:23

5

5 [4] 13:19,23,24 54:3
50 [1] 79:24
500 [1] 94:3

6

6 [2] 13:19 37:5
63 [1] 31:21
645-300-123 [1] 3:11
645-301-727 [1] 109:1

7

7 [1] 23:2
7-10 [1] 43:9
7-2 [1] 23:9
7-24 [2] 64:14 67:6
7-25 [2] 70:21 71:5
7-6 [2] 36:14,16
7-9 [3] 37:15 40:9 41:1
7-j [1] 11:11
7-m [2] 17:20 37:4
70 [2] 51:2 74:25
727 [1] 109:8
728 [1] 115:11
728-350 [1] 112:6
75 [1] 36:6

8

80-acre-foot [1] 84:24
80-foot [1] 79:25
83 [1] 12:21
84111 [1] 2:8
84116 [1] 2:4

9

9,000 [1] 93:25

A

a-1 [1] 23:7
a.m [2] 1:18 3:1
ability [2] 57:14 59:9
able [11] 8:23 17:10 19:9,19 77:3 99:23 101:7 104:17 108:11,15,16
above [10] 28:8 57:8,10 58:1 67:21,22 72:21 93:7,7 106:20
abstracts [1] 88:6
accept [1] 62:7
acceptable [2] 9:13 35:16
accepted [1] 55:14
access [2] 15:2 20:3
accident [2] 18:5,14
accidents [2] 17:25 18:1
accommodate [1] 4:10
accommodates [1] 114:2
accomplish [1] 114:9
according [1] 25:12
account [3] 47:25 48:10 60:11
accuracy [1] 74:1
accurate [3] 3:20 71:22 114:1
achieve [1] 6:21
acknowledges [1] 114:4
acquiesces [1] 106:23
across [5] 43:14 83:10 91:5,11 92:2
act/015/025 [2] 1:10 3:9
action [4] 4:8 9:9 75:15 87:22
activities [3] 7:18 78:16 111:15
activity [3] 7:7 45:13 109:4
acts [2] 93:20 102:5
actual [2] 15:19 114:3
actually [17] 14:6 32:12 35:11 41:5,19 43:14 50:16,18 79:13 83:3 86:20 87:20 95:9 106:10,11 110:19 114:7
add [2] 3:14 109:15
added [2] 10:21 102:12
addition [5] 3:7 14:2 15:20 20:19 113:15
additional [9] 20:14 21:24,25 26:21,21 59:19 73:24 107:25 108:2
additionally [1] 28:5
address [8] 9:21 51:18 61:14 76:2 87:24 105:5,24 112:22
addressed [5] 61:7 73:23 77:25 79:9 108:21
addresses [3] 105:19 108:9 112:17
addressing [1] 71:8
adequacy [1] 73:18
adequate [2] 29:23 58:6
adequately [6] 50:14 61:7 108:3,9 112:17,22
adjacent [8] 20:16,20 33:18 35:4 46:8,10 89:4 109:6
administrative [1] 73:18
administratively [1] 73:21
administrator [2] 113:21 114:5
admirable [2] 61:19 101:15
admitted [2] 101:25 103:13
adopted [1] 110:21
adverse [5] 30:22 101:9 108:5,13,23
advise [1] 52:24
advisor [1] 111:1
affect [6] 7:18,19,19 56:15 57:13 111:3
affected [6] 34:13 53:8 60:12,22,23 76:20
affecting [1] 7:8
affirmed [1] 52:11
afternoon [2] 87:23 100:24
agency [4] 6:9 17:17 18:7 22:11
ago [2] 62:12 81:2
agree [7] 28:25 47:17 50:25 69:12 86:6 90:9 99:11
ahead [11] 10:2,25 15:16 18:17 43:3,5 74:16 98:23 99:5,8 112:5
air [2] 17:2,4
allow [2] 8:20 101:5
almost [7] 51:5 56:6 60:24 65:22 84:15,17 93:19
already [6] 36:1,7 105:18 108:3,20 114:8
alternative [1] 111:11
although [2] 16:10 114:21
amended [1] 109:1
amount [7] 37:18 38:5 39:3 59:5 66:22 68:4 99:21
amounts [1] 44:4
analogy [1] 73:17
analysis [2] 15:17 73:6
analyzed [1] 16:12
ancient [1] 4:13
anecdote [1] 93:14
angiometric [2] 31:16 64:21
angle [1] 60:17
anions [1] 95:20
ankles [1] 91:25
anomalous [2] 53:8 107:11
another [17] 9:3,4 27:25 34:16,17 35:22,22 37:8 59:10,10,15 77:22 83:5 92:19 97:11 99:13 104:2
answer [13] 8:4,8 26:8 27:2 32:9 33:19 43:6 50:13 61:7,15 63:12 101:12 104:5
answered [1] 71:16
answering [1] 10:12
answers [3] 8:14 61:2 74:12
anticipate [8] 6:2 45:9,12,23 89:14 94:17 95:6,11
anticipating [2] 44:4 45:10
anybody [6] 13:2,14 38:20 74:10,13 85:15
anyway [3] 96:23 97:25 103:6
appealed [1] 111:25
appear [2] 82:6 107:2
appears [3] 22:17 73:5 97:16
appendix [3] 11:11 17:20 37:4
applicable [1] 111:17
applicant [4] 3:16 62:16,17 110:5
applicants [2] 62:23,25
application [20] 1:9 3:13,19,22,22 4:10 34:25 37:23 47:12 61:9,12 73:6 78:23 79:3 88:8 92:12 105:24 112:16 113:15 115:6
appreciate [7] 5:18 9:18 74:12 78:24 88:9 90:25 101:11
approach [10] 6:25 7:1,15,20 8:1,2 9:13,19 18:22 19:12
approval [1] 113:24
approve [2] 3:19 113:25
approximate [1] 95:18
approximately [1] 95:12
aquifer [23] 23:14 25:17,20,24 26:22,23 27:20 28:7,9 37:10 38:9 66:14,18 70:13,15,17 71:23,24 72:5,12,15 106:25 107:1
aquifers [8] 23:11,19,20 25:22 26:23 28:8 72:3 107:5
arco [3] 15:7 69:20 102:16
arco's [1] 69:23
area [183] 4:9 5:16 6:3,4,16 7:3,7,8,20,25 8:21 9:1 10:16,18,19,20,23 11:4,15,18 12:22,23,24 13:12,13,18,20 14:3,4,13,16,16,24 15:8,12,25 16:14 17:17 19:8,11,21,24,25 20:13,15,16,20 21:19 23:20 24:1,4,9 25:8,14,15,18 26:3,12,24 28:1,17 29:20,25 30:12,15 31:3,4,6 32:1,13,19 33:16,20 34:2,4,8 35:1,4,14 36:11 37:19 38:7,8,23 39:2,5,10,14,21 40:10 41:13 42:1,24 43:11,15,22 44:3 45:2,4,6,8,13 46:1,1,8,16 48:4,7 50:12 53:21,22 54:18,19 55:7,18 57:9,11,23 58:16,16,18,20,25 60:9 61:20,22 62:4,8,13,16 65:20 66:

23 71:2,23,24 72:19,21 77:7 83:22 86:20 87:13 90:20,21 91:11,12,13 95:4,9,14 96:9 98:14 100:14 101:3,6,7,23 102:2,7,10,10,11,12,13,21 103:4 105:23 106:7,8,10,12,17,19 107:4,7,9,12,16,24 108:1,6,10,12 114:2
area's [1] 108:14
area-wide [2] 26:18 29:8
areas [16] 10:17 23:11 25:21 28:17 36:5 46:8,10 53:25 54:1 84:5,9 88:21 90:17 102:3 103:10 109:6
aren't [4] 29:16 54:8 77:8 97:10
argue [2] 112:1,3
argument [1] 109:24
around [2] 61:23 84:13
article [1] 111:10
aside [1] 57:21
assess [2] 38:5 44:22
assign [1] 110:5
assigned [2] 59:13 114:22
associated [11] 66:8,10 74:24 77:6 92:6 93:18,20 94:14 96:3 114:3 117:14
associates [7] 11:5 16:24 33:11,13 63:1,14 101:15
assume [4] 12:15 46:19,19 50:2
assumed [1] 85:6
assuming [3] 41:1 42:11 52:22
assumption [1] 85:8
assurance [1] 16:23
atrinium [1] 59:24
attention [2] 6:3 113:16
attorney [2] 30:9 112:2
attorneys [1] 8:13
attribute [1] 63:18
authoritative [1] 26:12
authority [1] 104:8
availability [1] 103:19
available [10] 4:18 12:6 25:14 26:5 29:14,16 37:18 69:18 77:9 79:13
averages [1] 19:1
avoid [1] 115:21
aware [1] 53:17
away [6] 40:20 78:9 83:15 95:14 107:10,14

B

back [28] 4:18 6:11,23 9:3,4 16:7 26:11 34:16,16 42:24 45:11 52:19 58:7 59:8 75:7 78:2,5,14 79:7,11,11 81:16,22 82:1,22 84:17 99:16 104:2
backed [1] 69:22
backhoe [1] 82:15
backhoes [1] 83:18
backing [2] 69:15,15
backup [1] 25:6
bad [1] 84:18
bailey [4] 2:12 13:1,9,12
balance [8] 17:1,3,5 19:11 34:8,14 49:1 103:12
balances [1] 17:4
barrier [1] 91:3
base [4] 25:3 64:7,18 101:20
based [14] 33:14 48:2 64:6,19,21,22 88:1 91:2 97:15,17 106:2 109:25,25 110:9
baseline [5] 16:10 21:24 58:3,5,6
basically [12] 20:9 42:8 76:7 77:19 79:21 84:5,20 87:15,19 88:19 89:12 105:7
basics [1] 73:21
basing [2] 31:8 32:18
basis [7] 46:20 51:4,6 60:25 67:10 69:13 110:8
bear [62] 3:8,14 4:21 13:10 15:22 30:1,4 39:17,18 40:16,16 44:11 70:16 74:24,24 75:14 76:5,8 78:17 88:24,25 89:4,8,25 90:11,19,20,22 91:2,3,15,20 92:3,5,9 93:3,5,6 94:1,6 95:3,4 96:2,3,24 97:1,7,7,16 98:2,3 100:16 104:12 105:22,24 106:1 107:3,10,17,18,23 108:6
bearing [2] 67:14 78:22
bears [1] 3:17
become [2] 80:1 89:2
becoming [1] 17:12
bed [2] 86:20 91:24
bedded [1] 41:8
began [1] 81:10
begin [3] 4:5 5:4 50:13
behalf [2] 5:9 113:4
belief [1] 78:15
believe [26] 15:7 17:2 18:23 23:16 28:5 31:10 32:17,20 34:22 35:24 39:4 42:19 53:7,9,11 54:12 55:3 72:2,9 73:19 86:4 91:10 97:11 103:7 109:14 110:18
below [4] 28:7,11 67:21 106:20
benefit [1] 27:5
bentonite [1] 82:23
besides [2] 15:17 24:8
best [8] 18:13,16 19:18 27:9,11,21 56:2 102:20
bet [1] 51:25
better [6] 13:5 20:6 24:17 96:25 99:17 100:1
between [5] 54:5 71:10 79:18 89:24 107:21
beyond [1] 34:24
big [36] 13:10 27:23 28:13 30:1,4 70:16 74:24,24 76:4,8 77:8 78:7,16 88:24,25 89:3,25 90:10,19,22 92:9 94:1 96:24,25 97:16 99:3,13 100:16 104:11 105:22,24 106:1 107:10,17,23 108:5
biggest [1] 61:25
billion [1] 68:8
birch [9] 70:12,16 72:7,9 91:12 92:21 97:16 102:1 104:11
bit [9] 5:3 16:10 33:25 63:17 74:4 75:24 78:15 91:7,23
blackhawk [39] 21:3 25:16,25 39:9,15,17,24 40:9 41:7,7,11,14,16 42:13 43:1 46:7,8,11,18,21,24 47:2,5 48:12 54:18 55:14 64:23 65:10,18,22 66:14 71:17 72:21 80:2 91:21 95:10 96:17 98:6,12
blind [6] 67:18,22,24 70:14 91:8,11
bluebook [1] 115:23
board [1] 28:6
book [1] 66:6
border [2] 33:25 39:22
bore [8] 24:10,17,20 62:4 102:15,17 104:23 108:1
both [6] 19:2 38:7 64:17 83:11 91:4 100:19
bothers [1] 76:9
bottle [2] 63:18 64:1
bottom [4] 84:25 86:21 96:15,20
boundary [1] 98:18
box [4] 61:23,23,24,25
braxton [4] 2:10 5:7 13:5 26:9
break [2] 49:12 98:22
breaks [2] 49:13 85:22
bridge [1] 5:23
brief [4] 5:11 100:10 113:3,9
briefly [1] 6:12
bring [2] 83:19 92:4
brings [1] 78:6
brown [1] 98:12
bucket [2] 22:6,6
budget [1] 57:19
budgetary [1] 57:20
built [11] 80:17,18,19,21 81:19 83:10 84:12,13 86:12,14 91:9
burden [2] 3:17 108:4
byu [1] 72:17

C

c.w [1] 30:9
cad-ion [1] 17:1
cad-ions' [1] 17:5
call [5] 10:18 38:10 67:4 84:19 115:23
called [1] 111:11
came [10] 17:8 31:22 52:17 67:5 82:12 83:22 87:2 100:24 104:1 113:15
canal [6] 83:15 84:4,8,18,24,25
canals [5] 80:20 84:11,12,17,21
cannot [3] 68:2 94:4,5
canyon [58] 1:11 3:8,14 20:25 21:2 23:12,21,25 24:15 25:23 28:4,9,10 31:17 39:8,9,17,18 40:16,16,16 42:8 44:12 54:22 57:25 67:18,22,24 68:9 70:14 75:14 79:23 88:18,19 89:8 90:20 91:2,3,8,11,15,21 92:3,5 93:3,5,6 94:6 95:3,4 96:2,3,8 97:7,8 98:2,4 107:18
capacity [1] 113:12
captain [1] 12:7
carbon [2] 59:24 94:1
carried [1] 40:19
case [9] 50:24 52:11,17 86:5 89:2 99:14 106:24 115:17,18
case-by-case [1] 60:25
castle [9] 3:23 9:24 31:12 74:20 78:11 80:18 81:1 91:22 100:15
cattails [1] 84:6
cattle [1] 93:4
cause [2] 1:10 108:13
caused [3] 31:5 49:18 117:8
causes [1] 49:19
cedar [1] 52:1
center [1] 55:22
centimeters [1] 80:8
central [2] 29:22 30:2
certain [4] 8:14 15:23 19:19 90:20
certainly [8] 9:20 99:11,16,25 100:2 108:3 112:20 115:5
certainty [3] 90:13 108:7 115:3
certified [1] 17:19
certify [1] 117:11
chairman [1] 113:22
challenge [1] 110:22
challenged [2] 111:2,4
chance [4] 36:20 37:1 38:21 109:20
change [6] 47:25 59:12,15 60:1 68:11 75:13
changed [1] 37:24
changes [3] 49:2 58:10 75:23
channel [22] 22:6 38:12,14 39:19 43:9,10,13,17,18,24 44:8,10 45:15 54:21,23 56:4,10 67:20 68:1,6 93:20 94:20
channels [11] 44:15,16 45:1,4,4,7,16 46:3 55:13 56:6,8
chapter [1] 37:5
characteristic [1] 41:12
characterize [4] 28:7 50:15 57:22 71:22
characterized [1] 40:4
characterizing [1] 28:10
characters [1] 19:16
charles [7] 12:25 16:7 20:6 32:2 63:23 98:5 115:8
chart [5] 33:4,6,9,13,21
check [3] 53:16 75:18 82:1
chemical [2] 95:24 107:15
chemistry [4] 19:3,4 97:22,25
choose [1] 52:7
chosen [1] 110:5
circumstances [1] 54:13
citation [2] 111:22 112:7
cite [2] 80:22 111:23
citing [1] 110:16
city [3] 2:4,8 74:21
claiming [2] 30:11 79:25
clarification [1] 75:6
clawson [3] 81:2,3,7
clay [3] 81:16 82:24 91:18
clear [2] 81:25 86:9
clearly [1] 107:2
cleveland [2] 74:21 75:1
client [2] 7:9 30:11
cliff [2] 24:9 106:13

cliffs [2] 66:6 106:9
climate [2] 55:4 58:10
climatic [4] 47:20 55:6 60:19 63:22
close [3] 89:7 95:11 98:22
closed [1] 78:8
closest [2] 72:12,15
co-op [17] 1:9 3:8 4:3 7:10 8:3,7 10:14 12:20 26:20 47:23 73:3 74:10 76:18 99:20 101:14 105:10 108:4
co-op's [2] 9:17 16:9
coal [15] 27:8 28:6 44:25 66:5,7,11,16,25 67:9,13 73:4 106:9,14 111:14,17
coffee [1] 4:17
cold [1] 42:9
collect [3] 57:15 59:23 69:21
collected [11] 12:20 16:9 17:10,14,20 21:24 22:12,13 31:23 62:15 64:20
collecting [2] 15:20 22:15
collections [1] 81:4
color [2] 98:10,12
column [2] 22:25 23:2
come [12] 9:3,4 11:7 29:8 34:15 48:9 50:13 51:1 56:6 67:25 77:6 106:24
comes [7] 8:22 33:21 39:18 61:9 76:10 89:17 106:22
comfort [3] 107:22 108:8,11
comfortable [2] 29:2 59:5
coming [15] 23:24 24:1 56:7 59:18 60:18 66:7 75:16,21 76:16 84:1,2,3 107:23,24 116:8
comment [6] 4:7 29:21 93:12 99:10,10 105:20
comments [7] 5:20 7:4 89:20 99:12 100:10 105:12 109:15
commission [3] 113:14,22 117:20
commitment [5] 48:15 49:10 50:21,22 60:4
committed [1] 53:10
common [2] 27:6 97:21
communicate [1] 27:25
communicated [1] 81:17
communicating [1] 97:8
communication [2] 90:22 92:7
companies [4] 6:8,8 84:18 104:25
company [10] 3:23 5:10,14,15 30:9 51:16 53:1,9,13 78:11
compare [1] 60:19
compiled [1] 16:12
complete [4] 3:19 73:12,13,21
completed [1] 21:13
completely [2] 83:21 107:17
completeness [1] 73:19
complex [1] 93:15
comply [1] 109:12
component [1] 94:2
composition [1] 14:9
compositions [1] 11:14
comprehensive [1] 21:18
conceivable [1] 89:24
concentration [1] 95:19
concentrations [1] 109:3
concern [4] 6:16 62:1 63:6 89:18
concerned [8] 6:19 51:17 75:4 76:14,25 77:16 88:12 89:2
concerns [4] 9:20 74:23 75:25 90:25
conclude [3] 35:12 61:5 114:15
concluded [3] 88:2 113:18 116:9
concludes [1] 25:15
concluding [1] 100:10
conclusion [11] 24:16 25:2,4,7 26:1,2,3,6 28:14 64:18 88:4
conclusions [3] 35:2 59:13 92:20
condition [2] 78:2,8
conditions [2] 47:20 64:16
conducted [4] 10:15,22 22:7,10
conductivity [2] 80:6 107:21
conduit [1] 44:18
conference [10] 3:7,10,12,25 4:8,12 5:19 6:7 29:22 35:8
confident [1] 34:7
confused [2] 69:9 73:11
connected [8] 45:15 46:10,13,21 69:5 70:16,17 71:17
connection [3] 71:10,19 80:2
consequence [1] 59:14
consequences [5] 9:6 49:23 65:5 103:17 111:12
consider [1] 85:22
considerable [1] 94:12
considered [3] 73:11,13 80:11
consist [1] 70:12
consists [2] 106:9,12
constant [2] 50:2,4
construct [1] 26:17
constructed [1] 87:1
construction [1] 81:10
contact [2] 67:23 114:8
contain [2] 44:9 45:7
contained [1] 45:5
contains [1] 29:23
contaminated [2] 63:19 104:1
contamination [2] 103:20 109:5
contention [1] 85:7
context [3] 25:11 114:1 115:3
continue [2] 35:16 41:10
continues [1] 96:9
continuing [1] 21:21
continuously [1] 104:25
contractor [2] 81:18 83:24
contribute [1] 47:20
contributing [1] 46:3
convey [1] 94:13
convinced [1] 82:16
cooperate [1] 104:17
cooperation [2] 99:11,20
cooperative [2] 6:25 7:15
cop [1] 113:17
copies [3] 10:8 17:18 78:19
copy [6] 5:1 12:10 73:4 74:7 92:15 114:11
core [11] 15:4,6,11 41:20,21,22 42:18,20,24 43:17 66:15
cores [1] 82:17
correct [19] 14:14 16:19 28:5 32:1 38:1 44:2 48:4,5,16 54:3 58:22 65:15,16 69:25 74:2 87:8 90:14,15 117:9
cost [2] 82:21,25
cottonwood-huntington [1] 25:18
couldn't [2] 48:9 82:15
count [3] 20:6,11 22:24
county [7] 53:5 113:4,12,20,21,25 117:3
couple [7] 53:1 64:10,12 80:22 86:8 97:13 105:11
coupled [1] 107:15
course [2] 73:25 109:10
court [4] 52:10 99:14 108:22,22
cover [1] 12:13
covered [6] 18:19,21 36:2,8,10,19
cowboys [1] 93:4
craig [22] 2:6 5:8 12:19 16:2 34:22,23 35:10,16 48:15 51:18 61:5 65:22 66:24 69:14,14,15 74:14 96:17 99:10 100:8 105:17 114:18
creek [14] 5:16 15:22,22,23 20:15 39:9 40:3,20 52:1,7 91:24 96:9,11 107:3
creeks [2] 16:14 18:24
critique [1] 73:5
cross [1] 73:16
cross-section [2] 31:13,14
cross-sections [1] 36:2
csr/rpr [2] 1:19 117:19
current [2] 21:25 91:12
currently [5] 22:15 38:12 43:24 64:14 77:8
cut [1] 38:20
cycle [1] 49:9
cycles [3] 55:6 58:11,11
cypress [3] 14:19,23 99:24

D

damage [1] 91:10
danielson [8] 25:13 26:2,11,17 27:5 28:25 29:7 66:14
darrel [7] 31:12 52:20 74:18 87:25 90:9,24 102:23
darrel's [2] 90:25 94:9
dash [2] 13:22,24
data [85] 16:10,13,13,18,23,24 17:1,10,23 18:24,25 19:4,5 24:19 25:14 26:5,10,17 27:6,9,21 28:13,21,23 29:1,10,11,15,16 31:2,7,9 33:15,17,20 34:6 36:11,21 37:3,12,20,21 44:21 57:15,23,23 58:3,5,7,14,19,23,23,24,24,25 59:1,4,6,8,24 60:19 62:8,9,15 63:4,13,20 64:4,6 65:7 70:8 90:12,15 101:20,21,22 102:23 103:5 106:3,3,6,16,17,17
data's [1] 29:14
database [1] 23:8
dating [1] 94:1
day [1] 100:21
day's [1] 4:16
days [1] 82:2
deal [5] 50:19 70:22 87:3 88:6 99:3
dealing [1] 80:16
deals [2] 70:24 71:2
decided [2] 5:25 81:15
declines [1] 50:19
decreases [1] 51:3
deep [1] 42:4
defaye [1] 18:12
defense [1] 63:17
defer [1] 10:25
deficiency [1] 74:6
define [1] 72:4
definition [2] 111:19 112:9
degree [3] 56:19 108:7 114:20
delivered [1] 117:12
delve [3] 4:12 6:12 75:7
demonstrate [1] 80:23
depend [1] 7:24
dependent [1] 19:2
depends [2] 54:17 57:18
deposition [1] 35:9
depth [3] 41:2 81:21 83:16
describe [1] 42:3
described [1] 42:23
describes [1] 73:9
describing [2] 41:10 48:25
description [1] 21:17
designated [2] 8:3,8
designed [3] 4:10 49:9 50:14
despite [1] 100:19
detail [3] 42:25 74:4 95:21
detailed [2] 56:22 103:8
details [1] 77:17
determination [6] 73:19 100:22 109:3 111:13 112:18,23
determinations [1] 39:3
determine [6] 8:24 29:23 30:20 59:18 66:22 103:16
determined [1] 93:25
determining [1] 7:15
development [4] 40:10,14 99:18 113:18
dh-2 [1] 25:21
dh-3 [1] 25:22
dh-81a [1] 25:21
diagram [4] 95:16,17,17 96:20
diagrams [1] 95:22
difference [1] 111:6
different [10] 7:9 25:7 50:23 95:22,24 97:17,20 98:3 105:1 109:24
difficult [4] 10:12 44:22 51:1 76:12
dig [3] 82:15,23 83:20
digging [3] 83:14,16,21

dilemma [1] 51:11
diminishes [1] 103:25
diminution [7] 47:15,16 48:11 60:8 103:20 104:10 109:5
dip [1] 39:6
direct [1] 78:22
direction [3] 44:23 54:23 87:13
directions [1] 38:7
directly [5] 15:2 16:11 17:15 60:13 84:4
director [2] 18:9 113:12
disagree [1] 80:10
discharge [11] 16:13 18:24 19:3 39:6 40:5,5 54:22 55:5 58:8,23 63:20
discharged [6] 19:17 54:4 55:2 64:15 93:24 94:8
discharges [2] 76:9 89:1
disclose [1] 108:24
disconnected [3] 44:11 46:24 103:2
discontinuous [1] 72:24
discussed [4] 10:14 54:24 65:4 96:17
discussion [2] 4:6 43:9
displacement [2] 107:19 108:18
displacements [1] 25:19
distance [1] 72:18
distinct [7] 23:11,20 25:22 26:23 28:3,9 96:19
distribution [1] 113:6
district [7] 3:24 74:21 78:12 80:19 81:1 99:14 100:16
distrust [1] 64:5
ditch [2] 83:11,12
ditches [1] 80:19
diversion [2] 116:1,3
division [16] 2:11 3:18 7:11 31:1 53:6,11 73:3,12 74:3 104:7,19 105:6 109:12 110:9 117:5,12
document [13] 8:19 10:9,10 11:23 13:19 34:12,19 45:20 48:24,25 51:13 74:6 105:16
documents [1] 10:8
dogm [7] 8:20 9:9 18:6 29:24 79:7,10 112:15
doing [8] 15:15 32:21,22,24 33:3,3 68:14 75:22
done [36] 8:16 11:4,12 15:20 16:15 19:17 24:23 27:11 28:10 36:13,23 37:3,19 49:8 56:12 60:7 61:3,18,19 62:23 69:17 72:17 73:20 81:19 82:10 90:3 98:20 99:15,19,22,24 100:1 101:15 102:8,15,18
doubt [1] 67:21
down [21] 22:25 39:6 42:6 46:18 49:13,13 61:9 65:17 80:13,14 84:9 86:18,23 88:21 91:4,25 92:1 94:5,11 97:12 108:2
down-hole [1] 57:23
downgrading [1] 80:4
drainage [9] 5:16 40:10,14 51:20 52:13,13,15 116:1,4
drainages [1] 52:1
draining [1] 8:24
draw [7] 31:19 33:24 35:2 42:17 53:23 60:17 102:2
drawn [1] 31:13
dredge [2] 63:7 91:7
dried [1] 8:25
dries [3] 8:22 31:4 49:1
drill [13] 29:19,20 37:3 44:21,24 57:16 59:2 65:17,24 66:2 69:19 70:1 102:8
drilled [11] 14:22 15:7,9,10,11 24:14 36:22 62:3 69:20 70:5 82:16
drilling [3] 29:17 32:6 94:17
drink [2] 77:2 90:25
drinking [4] 4:18 75:5 77:1 96:25
drop [2] 31:15 49:19
drop-offs [1] 100:14
dropped [2] 50:7 100:23
drops [1] 49:16
drought [1] 58:11
dry [11] 20:1,2 31:5 34:15 39:5 41:1 44:16 67:19 83:21 91:10 114:25
due [3] 14:25 55:5 64:15
dug [3] 82:13 83:22 86:23
during [1] 76:22
dwh-4 [1] 54:3
dynamic [1] 104:6

E

each [8] 21:15 53:20,23 64:2 79:23 80:3 94:16 115:17
eagle [1] 2:7
earlier [1] 104:16
early [1] 83:7
earthfax [4] 22:12 31:24 32:17 33:2
earthfax' [1] 33:1
easier [3] 5:2 11:8 105:23
easily [1] 55:3
east [19] 2:60 39:7,17 55:21 56:5,10 81:6 82:8 90:20 91:13 92:5,8 93:9 96:1 97:1,7 98:4 107:10,21
east-west [1] 31:14
edge [2] 81:8,12
effect [6] 19:11 53:8 57:7 85:12 110:16 111:3
effective [4] 6:13,23,24 38:8
effects [2] 58:9 70:11
efficient [1] 9:16
effort [1] 100:19
either [15] 15:8 24:1 69:11 75:7 76:12,15 90:17,18 94:14,15 98:25 106:20,21 112:4 115:12
electronic [1] 70:1
elevations [1] 46:23
elicit [1] 8:14
ellsworth [4] 5:9 10:7 12:17 112:6
elmo [4] 74:21 83:6,7,8
elmo's [1] 84:5
elsewhere [1] 67:15
emery [8] 1:11 53:4 84:18 99:24 100:17 113:4,12,25
empirical [2] 65:7 70:8
employed [1] 18:22
empty [1] 82:22
encounter [3] 45:3 59:16 107:6
encountered [20] 43:25 44:8,10 45:12 60:5 64:23 67:20 68:1,24 71:11,18 76:22 81:12 86:17,22,23 87:3 89:7,10 91:14
encountering [3] 44:4,14 95:6
encounters [1] 59:22
encourage [4] 59:23 60:1,4,7
end [16] 8:18 23:2 34:10,11 39:6 42:9 45:2 48:22 68:7,25 69:5 70:14 75:4 94:5 95:8 98:23
energy [1] 56:3
engender [1] 7:14
engineer [1] 81:14
engineering [2] 22:12 31:24
enlighten [1] 30:10
enough [11] 9:6,8 34:6,15,18 58:7 98:23 101:5,6,13 103:24
entire [13] 9:14 13:12 41:15 54:6 70:24 90:21 95:4,8 106:7,10,11,17,18
entirely [1] 65:23
enumerate [1] 12:19
enumerated [1] 11:19
erik [1] 11:1
erosion [3] 40:15,17,24
established [2] 50:24 58:12
estimates [5] 37:13,17 38:3,13,14
evaluated [1] 115:2
evaluation [2] 105:17,18
evaporation [1] 84:21
even [13] 6:10 9:6 34:14 44:19 53:2 56:20 69:12 73:11 83:20 101:24 103:5 111:1,3
event [3] 76:19 90:3 117:15
events [1] 11:13
everybody [10] 4:15 5:12 6:17 7:2 10:3,19 30:22 34:11 38:21 116:7
everybody's [1] 101:11
everyone [2] 6:6 99:7
everyone's [1] 101:11
everything [5] 9:5 10:8 36:20 81:11 93:5
evidence [3] 62:14 88:3 108:11
exact [1] 90:10
exactly [8] 48:17 76:4,9 92:16 93:15 105:25 106:12 110:10
example [3] 52:7 88:9 102:23
examples [2] 84:10,12
excavate [1] 81:15
excavated [1] 86:18
excavating [1] 86:16
except [5] 54:21 62:3 67:22 81:11 101:2
exception [4] 46:5 57:5 97:23 106:8
excess [1] 93:24
exclusively [1] 65:23
excuse [1] 111:9
exhausted [1] 35:23
exist [6] 23:12 25:22 27:21 44:[illegible]9 45:7 59:4
existed [1] 66:15
existence [1] 107:18
existing [13] 12:20,23 20:19 33:16,18,23,24 39:2 44:1 45:1 70:25,25 75:9
exists [2] 42:23 103:4
exit [1] 78:10
expanded [2] 10:18 39:13
expansion [23] 12:22 13:20 14:3,15,16,18,24 20:13,16,20 28:17 29:25 45:8 95:4,9 98:14,17 106:12,18 107:7,24 108:6,12
expect [1] 34:14
expected [5] 8:23 43:2 63:21 84:16 65:3
expecting [1] 59:17
experience [6] 80:16,25 83:5 91:3 93:19 94:10
experiences [2] 80:23 83:6
expert [2] 101:17,19
expertise [1] 33:1
experts [3] 100:20 101:14,18
expires [1] 117:20
explain [7] 42:17 48:20,24 49:2 50:5 73:13 97:24
explained [2] 42:20 104:13
explaining [1] 33:2
explains [1] 49:18
explanation [1] 67:13
explicit [1] 92:17
explicitly [1] 92:14
exploration [1] 70:3
explore [1] 88:3
exposed [2] 81:20 88:17
extend [2] 43:10 101:6
extensive [3] 25:17 55:9 56:4
extensively [1] 16:12
extent [5] 20:9 38:6 39:23 44:22 72:10
extents [1] 39:19
external [2] 49:3 50:4
extrapolate [4] 24:23 43:14 62:1 67:8
extrapolated [1] 29:7
extrapolating [5] 24:19 25:1 28:16,19 29:2
extrapolation [8] 28:24 29:6 51:5 67:11 68:17 102:19,22 103:9
extrapolations [1] 29:12
extremely [1] 102:13

F

face [1] 81:24
faces [1] 106:13
facilities [3] 113:16 114:4,7
facing [1] 51:11
fact [4] 36:10 65:3 83:18 115:25
factor [2] 50:4 84:20
factors [4] 19:8,9 24:24 60:19

facts [1] 88:3
factual [1] 106:4
fair [1] 43:1
fairly [6] 19:20 35:8 70:4 90:19 91:10 107:22
fall [2] 58:10 113:19
falls [1] 18:9
familiar [2] 25:13 95:17
far [15] 4:13 5:17 34:23,24,24 35:3,12 36:21 58:7 87:16 88:11 99:16 106:17 112:18 114:3
farther [1] 88:16
fashion [1] 60:24
father [1] 88:18
fault [53] 25:19 44:12,13 88:24,25 89:4,8 90:20 91:2,3,4,6,8,9,11,16,16,17,19 92:3,3,5,6,8,8,10 93:3,8,11,16,18,21 94:5,12,13,14,18,21 95:9,12 96:2,3,4,5,7 97:2,7,8 98:2,4,13 102:5 107:18
faulting [1] 70:6
faults [1] 91:5
february [1] 3:1
feed [1] 56:2
feel [8] 7:2,20 8:10 59:5,5 61:7,12 90:19
feet [10] 54:11 65:25 80:15 81:21 82:11 83:15,16 87:11 91:17 95:14
fevor [1] 117:5
few [5] 29:7 53:18 62:4 100:10 106:1
field [14] 10:15,22 15:17,19 17:19 36:12,13,15,21 37:2 57:15 81:7,8 86:15
figure [1] 82:3
filled [5] 81:25 82:4 87:1 91:16 107:20
fills [2] 38:12 108:4
final [1] 115:9
find [15] 19:2 21:19 30:15 31:7 42:13 44:25 47:3 61:25 67:10 79:19 82:17 87:2 93:14 96:2 102:21
finding [2] 73:20,25
findings [2] 103:18,22
fine [5] 9:19 63:10 78:25 79:1 101:22
finish [5] 16:6 26:14 27:13,15 30:18
first [18] 5:5 10:5,13 23:1 26:4 68:19 70:13 71:5 76:2 80:24 81:12 82:8 90:24 93:13 106:25 107:1,5 109:19
fish [3] 20:14 39:8 52:7
five [6] 20:12,21 46:14,15 56:18 95:25
fix [1] 82:21
flagstaff [2] 21:6 46:23
flat [1] 87:19
floor [2] 66:8,9
floors [1] 81:23
flow [41] 15:23 19:14 21:15 22:3,4,21 23:3,4 38:13 44:11 47:15,16 48:11 50:19 51:3 52:23 53:8 56:4 58:9,10 59:24,25,25 60:1,8,11,13 76:16 87:13,14 89:7,9,11 90:18,19 91:4 100:15 104:14 106:1 107:8,13
flowing [6] 49:15 50:6 88:24 103:25 107:13,14
flows [3] 65:10 78:2 106:21
fluctuations [2] 63:17,22
flush [1] 105:14
flushing [1] 50:3
focus [7] 4:5 5:19 6:3 7:4 35:10 38:22 52:18
folks [1] 114:12
follow [3] 60:2 92:1 105:2
following [1] 84:8
foot [4] 81:10,16 82:12 83:20
forge [2] 98:23 99:4
forgive [1] 10:6
fork [3] 21:6 52:11 88:18
form [1] 35:9
formal [1] 8:9
formation [35] 20:22 21:4 23:24,25 25:17,25 39:10,15,17,25 41:7,8,11,14,16 42:13 46:7,11,22,23,25 47:2,5 48:12 64:23,25 65:11,18,19,22 80:3,15 81:13 91:22 98:12
formations [6] 15:24 40:17 42:4 46:22 58:1 90:16
formula [4] 47:22 48:9 51:1 61:1
forward [1] 105:13
found [10] 9:2 42:4,18,20 62:2,3 82:14,18 94:3 101:12
four [5] 20:10,11 78:19 81:2 95:24
fourth [1] 64:11
fracture [2] 55:8 93:18
fractured [1] 72:8
fractures [4] 85:22 92:6 94:13,15
frankly [1] 86:4
free [1] 8:11
front [2] 20:7 88:8
fuel [1] 43:20
fundamentals [1] 29:10
further [3] 32:16 65:4 117:11
furthest [1] 52:14
future [2] 12:22 49:21

G

gain-loss [1] 15:21
gains [1] 15:24
gallon [2] 49:17 50:7
gallons [3] 49:15 50:6 68:9
gary [1] 22:14
gas [3] 7:11 117:5,12
gate [2] 2:7 91:22
gather [3] 34:9 68:25 69:2
gathered [2] 33:15 103:9
gathering [2] 17:23 36:21
gave [2] 24:18 67:13
general [9] 21:16 22:15 25:8 26:19 67:14,17 105:23 107:8 108:10
generally [6] 23:3 55:14 56:5 59:21 73:22 85:16
geo [1] 13:12
geologic [8] 15:6,23 19:16 43:21 66:9 90:16,17 97:14
geological [1] 106:16
geology [10] 21:16 27:24 37:4 42:23 43:22 50:11 60:16 61:1 106:12 107:12
geomountain [1] 12:24
gets [2] 52:3 116:3
getting [2] 34:4,4
give [12] 10:3 20:6 21:25 36:20 37:1 38:20 47:22 48:1 78:19 84:10 92:15 105:4
given [5] 13:17 48:8 51:2 73:4 88:10
gives [1] 108:10
glad [2] 78:20,21
goal [8] 6:5,6,10,21 7:3,9 34:10,11
got [26] 3:18 10:8 12:5,9 14:2,6 17:7 20:2,19 31:18,19 40:15 43:4 49:22 50:20 57:24 69:25 70:1 78:18 83:22 89:7 91:19 99:13 100:13 106:16 110:10
gotten [1] 61:21
gouge [2] 91:23 107:20
gouges [2] 91:17,19
grade [1] 83:19
grandkids [1] 75:3
graph [2] 78:18,21
graphic [1] 94:24
graphs [1] 19:2
grass [2] 84:6,16
gray [1] 22:14
great [1] 4:25
grid [1] 66:3
ground [2] 19:22 38:24
groundwater [14] 19:6,10,13 20:4 29:9 39:11,11 55:9 69:3,4 77:25 78:1 97:9 103:18
groundwaters [2] 11:14 78:4
growing [3] 81:7 84:6,17
grown [1] 6:14
grubaugh-littig [2] 74:5 111:9
guess [25] 5:3 6:20 10:13 14:22 23:18,21 24:2 33:19 49:12,24 56:14,21 63:6 66:20 68:13,16 69:9 72:3 73:10 76:2,13 89:12 102:16,19 112:7
guys [1] 78:19

H

half [1] 82:2
hand [2] 79:11 117:16
handle [1] 57:24
hands [1] 30:23
hang [1] 79:20
hansen [38] 2:3 24:22 29:21 30:5,8,8,17,19 34:22 38:15 44:25 45:6 51:15,21,24 52:3,6 57:18 61:5 66:2 86:8,12,18,25 87:6,12,18,20,25 96:14 99:3 105:11 110:11 111:10,19 112:7,14,21
happen [5] 50:17 52:25 76:14,22 78:13
happened [6] 5:23 9:1 82:4,5 101:1,1
happening [1] 93:22
happens [6] 7:18 34:12 49:14,24 50:8 89:18
happy [6] 27:14 48:22 61:15 64:7 90:7 109:11
hard [7] 10:5 81:21 83:17 86:17,24 101:17 112:20
hay [1] 81:8
heading [1] 35:22
heads [3] 56:10 104:10,12
hear [5] 3:12 26:25 38:19 111:3 116:5
heard [13] 4:2 5:24 6:1 62:11,13 64:12 67:1 93:13 109:21,23,24 114:15 115:6
hearing [90] 3:4 4:10 9:3,12,23 11:9,24 12:7 21:21 26:25 30:6 34:16,20 35:15,18,24 42:19,22 43:6 48:14,18 49:7,20 50:9 52:18 53:3,15 55:12,17,24 56:8,17 62:7,11,21 63:7,9,11 66:24 67:5,12 70:2,9 72:11,20 73:1,8,15 74:13,17 75:11,18 78:20 79:12 85:2,11,14,19,23 87:21 88:5 89:22 90:5 92:11 98:21 99:6,13 100:5,7 105:9 109:17 110:3,15,19,23 111:5,24 112:10,19,25 113:7 114:10,14,16 115:5,20 116:5,7,9 117:5
hearings [3] 76:5 100:20 103:3
held [1] 3:10
help [7] 4:25 8:15 69:2 85:13 90:15 94:24 108:2
helped [1] 11:1
helpful [2] 11:25 102:9
hesitate [1] 63:5
heterogenous [1] 72:24
hiawatha [3] 89:6,10 93:15
high [8] 17:3 56:19 58:9 81:9,10 108:4 114:20 115:3
higher [2] 46:22 57:6
highlands [2] 55:19,20
hike [2] 91:20,20
hiked [1] 15:22
hill [11] 54:3 81:9,9 82:11,13 83:9,10 86:23 87:10 93:5 96:12
hills [1] 84:13
history [5] 4:9,13 5:22 78:14 91:8
hit [2] 45:1 78:1
hold [1] 30:23
holders [1] 6:19
holds [1] 5:15
hole [6] 29:17 37:3 44:21 58:1 59:2 83:21
holes [19] 15:7 24:10,17,20 29:19,20 44:24 62:4 66:2 69:19,21 70:3 94:18 102:8,15,17 104:23 106:15 108:1

hope [6] 4:12,15 7:14 8:18 12:17 34:10
hoping [1] 113:2
horizons [1] 59:4
horizontally [4] 87:14 88:21,24 89:1
horse [76] 1:10 3:8,14 10:16,19, 22 11:18 12:21 14:13 15:1,11 19: 24,25 23:14,20 24:4 26:3,24 28: 1 29:5,25 31:17 32:1,8,13,18,19 33:15,18,20 34:2 38:22 39:21 41: 13 42:1 43:11,15 44:3 45:8,13, 25 46:15 53:21 57:22 58:15,16, 18,25 60:9 61:20,22 64:17 65:8, 19 66:23 67:9 69:18 71:2,23 75: 9,14 78:23 79:3 88:11 89:3,24 90:21 95:3 96:4 101:3,7,23 103: 4 106:7 107:6 113:15
housekeeping [1] 5:3
houses [1] 80:17
however [5] 6:2 23:10 25:20 58: 15 73:23
huntington [8] 5:16 39:8 51:24 52:9 74:19,21 75:1 105:14
huntington-cleveland [10] 3:23 5:10,13 7:10 51:16 52:25 78:11 84:19 100:18 115:16
hydraulic [6] 69:17,21 80:2,6 90: 22 107:21
hydraulically [2] 40:2 70:16
hydrologic [17] 19:11 27:9 31:14 34:8,13 36:2 49:1 50:15 57:23 58:19,22,24,25 59:14 65:5 103: 12 111:12
hydrological [8] 7:5 30:1 49:23 100:13 101:9 102:16 103:17 109: 2
hydrologically [2] 46:10 94:16
hydrologist [1] 10:6
hydrology [17] 7:3,6,8,19 8:17, 21 9:5,8 19:8 26:12 31:3 34:18 50:12 57:22 101:7 108:10,14

I

i.e [2] 7:3 47:25
idea [2] 19:20 104:1
ideas [2] 90:11,14
identified [5] 31:16 38:11 54:3 63:24 66:17
identify [4] 30:6 69:3 110:1,12
illustrate [1] 94:24
illustrates [2] 36:4 43:22
immediately [5] 28:7,11 32:8 33: 18 82:7
impact [30] 30:1 34:7 35:3 45:23 46:25 47:1,2,3 49:4 51:7,9,12,14 54:20 76:13,23 77:20 88:13 89:3, 13,15 90:4 92:9 101:2,9 103:12 108:5,13,18,23
impacted [18] 30:12 47:8,9,18 48:12 52:23 53:2 54:8,13,19 55: 11 56:19 76:15 77:1 78:4 89:18 91:14 114:21
impacting [2] 107:3,4
impacts [5] 35:13 88:12 89:25 103:13 111:16
impervious [5] 42:12 80:1 85:18, 20 88:2
impossible [3] 51:11 56:14,17
in-flow [2] 64:16 67:19
in-line [1] 23:11
in-mine [1] 25:21
inclination [1] 87:12
inclinations [1] 107:8
incline [2] 107:10,14
include [1] 98:15
included [4] 37:3,22 81:4 111:20
includes [4] 25:15 58:23 96:4 113:13
including [2] 25:18 52:1
inclusive [1] 117:10
incorporate [1] 75:14
incorporating [1] 19:4
incorrect [1] 85:8
increasing [1] 41:1
indicate [5] 23:10 25:6,20 100:2 111:13
indicates [2] 40:15 109:3
indicating [8] 12:10,11 13:2 73: 7 97:3,3 98:17 114:5
indicia [2] 106:23 107:20
inflow [2] 59:22 60:5
inflows [2] 93:19 94:22
influence [1] 78:16
influenced [2] 55:3,4
influences [1] 50:18
informal [5] 3:6 4:17 6:7 16:2 35: 7
information [63] 4:24 7:16 15:13 17:17,19 21:25 29:24 31:2,14,18, 19,22 32:12,16 33:15 34:9 41:20 43:4,13,19,21 61:20,21 62:1,12, 19,20 63:2 64:20 65:9 68:7,10 69:1,18,21,24 73:10,25 76:6 81: 17 88:1 89:6,23 90:2 92:16 102: 9,17 103:8,8 104:13,18,21 106:5 107:15 108:3,9,24 109:2,8 110:8 111:11 113:20,24
informative [1] 8:11
inherently [1] 67:19
initial [1] 59:25
inside [5] 53:5 61:21 62:8,13,15
inspector [1] 81:18
installed [1] 59:15
installing [1] 83:13
instance [2] 23:1 95:22
instead [2] 24:19 88:20
intend [1] 113:10
intent [1] 3:11
interburden [1] 54:5
interception [2] 70:12,13
intercepts [1] 60:13
interest [2] 52:4,9
intermountain [2] 17:16 22:11
internal [1] 53:10
interpretation [3] 27:21 92:17 112:1
interpreting [1] 114:19
interrelation [1] 86:2
interrupt [1] 9:12
interrupted [1] 109:23
interruption [3] 16:3 103:20 109: 5
intersect [2] 53:24,25
intervening [1] 42:12
intuitive [1] 22:23
investigate [1] 112:11
investigations [1] 70:15
involved [4] 16:11 17:12 18:2 99: 13
ion [1] 17:1
ions [2] 95:20,20
ipa [1] 22:15
iph [1] 43:21
irrigation [12] 3:23 5:10,14,14 7: 10 51:16 53:1 78:11 80:19 82:1 83:11,12
isn't [18] 12:25 29:19,19 32:1 36: 2,18 37:24 44:19 49:10 65:12,15 66:11 72:6 102:5,6 107:3,3,20
isolated [3] 40:2 94:16 95:9
isotopic [2] 11:14 14:9
issue [11] 6:2,15 20:22 29:22 65: 14 100:12,12 102:1,1,6 108:21
issued [1] 113:25
issues [7] 4:14 20:24 39:14 74: 23 100:13 105:19 109:9
issuing [1] 25:19
it'll [2] 11:8 21:11
itself [16] 11:23 29:6 33:16 36:17 39:17 40:3,16 46:16 52:19 53:14 55:8 61:24 66:7,12 87:1 93:16

J

january [2] 52:11 74:7
job [6] 5:2 27:9 28:10 30:23 61: 19 101:15
jump [1] 27:23
juncture [1] 4:1
juxtaposed [1] 91:22

K

keep [5] 35:19,19 69:10,10 111:2
kelly [146] 10:25 11:3,4,10,19,22 12:12,15,18 13:7,11,23,25 14:8, 14 15:15,19 16:2,6,9,19,21,25 17:9 18:20 19:12,25 20:25 21:6, 10 22:20,21 23:16 24:6,13,21,25 25:9 26:5,13,15 27:4,13,16 28: 15,17,18,22 29:4,16 31:21 33:6, 8,12,17,22,24 36:9,17 37:9,14, 16 38:4,17 39:1,16,22 40:1,19 41:15 42:15 43:12 44:7 45:14,19, 24 46:2,12,17 47:7,15,19 48:5 50:25 51:8 54:2,10 55:12,16,19 56:1,9,13,17,24 57:2,5,10,20 58: 6,17,21 59:11,21 60:10,15 63:3, 16 64:11 65:21 66:4,13 67:12,17 68:14,21 69:6,14 70:19,22 71:7, 15,21,25 72:2,11,14,23 90:7 92: 13,22,24 93:1,9,12 94:19 95:16 96:7,16 97:14,19 98:2,9,11,16 114:17
ken [1] 18:12
kerry [2] 1:19 117:19
key [3] 102:25,25 103:2
kids [1] 75:3
kind [24] 7:1,15 10:14,15,21 16: 22 17:3,23 43:22 44:24 60:6,18 72:24 74:9 77:21 78:6,13 82:[illegible] 97:22,22 104:21,24 106:16 108: 19
kinds [2] 77:5 92:1
kirk [1] 12:7
knowing [4] 27:24,24 53:2 76:4
knowledge [4] 18:14,16 19:5 53: 16
known [4] 8:16 48:8 83:1 97:4
knows [3] 5:12 6:17 10:19

L

lab [1] 17:19
label [1] 64:1
labeled [1] 13:21
lack [4] 32:18 64:15,22,22
lagoon [9] 81:4,5,11,19 86:12,22, 23,25 87:9
lagoons [2] 82:13 88:6
lake [3] 2:4,8 117:3
land [2] 53:5 102:14
lands [1] 113:11
large [17] 17:4 25:17 40:5 44:9 45:14 59:22 60:5 69:8 77:23 89: 7 93:5,19 94:19,21 102:2,10,13
larger [3] 56:2,9 70:13
last [7] 21:12 55:1 91:9 99:12 14 104:11 109:20
later [2] 84:15 87:2
lateral [2] 38:6 39:19
laterally [1] 91:4
law [4] 49:5 52:16 110:25 115:23
lawyer [2] 64:13 101:19
layer [1] 80:1
layers [5] 41:9 42:13 79:24 80 1 87:17
lead [1] 88:4
leading [1] 114:19
leak [1] 87:3
leaked [2] 84:16 87:2
leaking [3] 82:24 93:17,17
leamaster [37] 27:2 31:11,12 32: 11 52:21 53:13 74:15,18,19 75: 23 78:21 79:6,14 85:5,13,17,2[illegible] 86:1,11,14,21 87:5,8,16,19 88: 11 90:2 92:25 93:2,10 94:17 95: 11 98:10,19 99:4,9 100:6
leap [2] 28:13,13
learned [1] 6:14
lease [3] 12:20,23 59:3
leases [2] 3:8,14
least [5] 11:3 100:13,21 109:22 110:25
leave [6] 36:23 63:12,15 64:8 86: 7 104:19
leaving [1] 84:8
legal [2] 111:1 112:1

legs [1] 96:20
lens [1] 41:5
lenses [4] 41:2,6,17 85:24
less [1] 107:13
lesser [1] 108:7
letter [3] 92:14 114:5,11
level [5] 54:17 104:18 107:22 108:8 115:21
levels [1] 31:23
lf-1 [1] 14:5
light [1] 115:6
likelihood [1] 108:12
likely [3] 107:3,6 108:13
limit [1] 10:16
limitations [1] 57:21
limited [1] 15:2
line [2] 93:3 98:4
liner [1] 81:16
lines [1] 83:13
list [1] 77:14
listening [1] 105:8
litany [1] 9:14
little [8] 33:25 62:3 63:17 75:23 78:15,17 83:9 91:7
live [1] 80:14
local [5] 55:6,10,22 70:12 72:7
locally [3] 55:3,6 57:11
located [9] 13:20 21:17 42:1 79:18 82:7 83:8 91:13 92:9 113:17
location [5] 25:8 27:17 90:10,18,19
locations [6] 19:15,19 27:18 29:8 54:20 79:17
logs [1] 70:1
long [3] 82:3 92:19 99:13
look [42] 6:11,23 16:25 19:13,14,18 22:21,25 23:2 42:24 47:19 50:10,11,11 52:14,16 60:16,17,18,19,20 61:13 65:3 72:17 78:21 79:8 84:4,14 85:21 91:2 97:3 99:16 101:22 103:7 104:20 106:13 107:1 112:16,20 115:5,15 116:4
looked [13] 11:13 14:4 15:24 17:4 24:23 27:17,18 72:16 77:7 80:11 83:25 84:2 97:10
looking [13] 18:24,25 32:7,17 37:10 59:2 61:22,23,24 64:4 72:4 82:9 97:23
looks [3] 57:24 63:21 97:2
loss [1] 97:24
losses [1] 15:24
lost [1] 77:2
lot [33] 4:9 5:2 10:24 18:23 20:3 27:6,8,9 39:4,11 41:19 42:25 50:23 55:10 56:5 61:19 62:1,5,5 73:9 77:7,11,12 79:16 80:16 91:17,18 95:21 96:25 100:19,20,20,20
low [2] 58:10 80:7
lowell [1] 2:10
lower [3] 25:16 80:3 82:12

M

m-a-y-o [1] 11:5
made [16] 4:19 29:4 35:20 38:13 54:15 59:7,7,8 64:6,6 68:3 73:20 99:10,12 108:22 114:8
magically [1] 34:1
magnesium [1] 96:21
main [5] 43:24 74:23 79:22 80:14 89:18
majority [1] 95:7
makeup [2] 95:24,24
mancos [25] 79:17,24 80:6,12,15,17,21,24 81:9,12,20 82:11,13 83:1 84:8,13,14 85:1,6,9 86:13,17,20 87:10 88:2
mandated [1] 49:10
manner [2] 9:16 58:13
many [12] 5:20 6:21 15:10 19:23 20:10 22:18,19 25:17 38:24 40:2 41:17 66:16
map [14] 8:9 11:24 12:24,25 13:1,6,8,14 20:7 41:24 44:20 60:15 95:16 97:14
mapped [3] 56:3 98:3 102:12
mark [2] 2:3 30:8
master's [1] 72:16
material [1] 92:1
matter [6] 3:7 4:3 7:11 50:20 75:12 108:20
matters [2] 3:12,16
mayo [8] 11:5 16:24 33:10,12 63:1,14 88:15 101:15
mean [5] 19:4 62:11 68:20 87:16 116:2
meanders [2] 55:25 56:1
meaning [1] 68:18
means [4] 34:13 68:21 73:21 84:23
measure [6] 22:3,3,6 48:7 65:18 84:20
measured [3] 15:22 22:19,20
measurement [1] 22:22
measurements [13] 21:9,12,15 22:5,8 23:3,4,5,6 36:12,13,15 37:2
mechanism [1] 97:4
meet [1] 115:15
meetings [1] 53:5
member [2] 31:17 42:8
members [8] 2:11 79:18,22 80:3,4,5,7,12
mention [7] 17:13 76:21,24 78:5 94:23 95:2 115:10
mentioned [1] 21:20
merit [1] 90:12
meteorological [1] 48:6
method [2] 44:17 105:4
methodology [1] 22:2
methods [1] 36:7
middle [2] 21:12 59:3
might [12] 9:12 11:7,25 13:16 17:13 38:10 63:16 77:17 88:13 89:3,4 115:10
million [1] 68:9
mind [2] 4:21 78:7
mine [37] 1:11 3:8,9 8:23 17:22 18:5,15 19:10 28:6,11 38:12,18 43:25 44:2,25 45:1 58:1 59:17,21 60:18 62:2 64:16 65:4 70:25,25 71:18 78:8 82:19 89:7,10 91:13 93:7 94:3 106:20 107:5 109:10 112:15
mine's [1] 108:4
mined [3] 24:10 34:5 106:9
mines [6] 38:23,24 75:9 104:22,22 107:6
mining [58] 6:8 7:7,12,18,23,24 22:1 27:8 29:24 30:9,13 31:3,5 32:14 35:3,13 38:16 40:11 44:11 45:13 46:1,11 47:9,10 48:13 49:9 50:10,16 53:9,13,24,25 54:14 57:9,10 60:12,13,23 70:11 76:12,14,23 78:3,16 89:3,24 92:8 95:12 104:6,25 108:6,12 111:14,16,17 113:25 114:2 117:5
mining's [2] 3:8 56:15
minor [1] 65:1
minute [8] 9:13 49:16,17 50:6,7 62:12 76:1 79:20
misimpression [1] 36:23
mislabeled [1] 63:19
miss [1] 65:24
missed [1] 66:21
missing [1] 12:12
mistaken [1] 62:23
mistrust [1] 64:4
mixed [3] 63:18 94:1,2
mode [2] 93:23 94:12
modification [1] 4:6
money [4] 77:12 83:4 99:17,21
monitor [2] 53:6 59:24
monitored [5] 20:13,18 22:10 47:13 49:16
monitoring [4] 20:18,20 47:13 49:8
monitors [1] 49:15
moss [1] 117:12
most [5] 9:16 17:14 72:6 80:20 84:25
mountain [1] 27:18
move [8] 35:21 36:25 37:7,9 43:3,5 80:24 88:20
movement [1] 69:3
moves [1] 88:25
moving [6] 35:19 43:8 69:4 91:11 94:5,11
ms [6] 2:12 13:1,9,12 74:5 111:9
much [14] 12:4 18:18 31:7,8 45:11 65:7,18 80:9 82:8 99:1,17 103:14 105:9 114:13
mud [2] 41:9 42:12
muddy [1] 91:24
mutual [1] 5:14
mw-114 [1] 14:7
mw-116 [1] 14:7
mwd-117 [1] 14:7
myself [1] 91:1

N

name [5] 5:8 30:8 31:11 74:18 113:11
name's [1] 11:4
named [1] 20:8
names [1] 13:17
narrowing [1] 108:2
narrowly [1] 35:8
natural [2] 40:23 97:4
naturally [1] 96:23
near [3] 14:4 54:4 96:8
nearly [1] 95:3
necessarily [1] 49:10
necessary [1] 28:23
need [17] 7:17 10:17 13:2 19:9 26:9 29:11 34:9 37:25 43:4 57:23 72:4 79:10 105:19 106:15 108:24 114:6 115:18
needed [2] 73:10 109:11
needs [6] 9:2 13:14 35:5 49:5 104:8 110:10
neglected [1] 16:5
neighborhood [1] 60:20
neither [1] 10:7
never [6] 52:8 81:24 100:22,23 114:21,24
new [10] 6:3,4 34:4 39:20 81:3,4,4 88:15 101:6,7
next [5] 36:1,25 40:25,25 90:6
nine [1] 83:20
nobody [1] 114:15
none [6] 15:2 31:25 33:22 45:17 59:20 72:1
nonprofit [1] 5:14
normal [1] 76:22
north [36] 12:23 14:18 21:6 23:14 32:4,8,14,15 33:25 43:15,20 45:2,8 46:23 56:6 70:14 81:8,12,24 82:12 83:9,12 84:1 86:15,22 87:4,6,9 88:16,19 95:7,8 98:15 99:24 100:17 106:8
northern [2] 12:22 98:18
notary [1] 117:6
noted [3] 39:5 46:7 88:10
notes [1] 79:19
nothing [7] 30:4 33:5 49:17 72:20 77:20,24 114:25
notice [1] 4:11
noticed [1] 39:5
notify [3] 18:6 53:9,14
notifying [1] 53:10
november [1] 75:21
number [12] 3:9 11:13 21:12,15 22:22,24 23:6 44:22 84:22 90:11,23 112:5
numbered [1] 117:10
numbers [1] 13:17
numerical [2] 106:5 114:22
numerous [2] 5:15 30:14
nut [1] 88:19

O

objection [1] 86:1
objections [1] 3:21
obligation [1] 53:14
observation [1] 106:11
obtain [2] 37:20 106:16

obtained [1] 37:22
obvious [1] 7:6
obviously [5] 6:21 12:3 51:13 73:12 100:25
occur [1] 109:7
occurred [2] 18:15 60:16
occurrence [1] 93:23
occurs [2] 84:21 93:15
offer [1] 99:25
offering [1] 11:2
office [2] 2:7 114:8
officer [82] 3:4 9:12,23 11:9,24 12:7 21:21 26:25 30:6 34:20 35:15,18,24 42:19,22 43:6 48:14,18 49:7,20 50:9 52:18 53:3,15 55:12,17,24 56:8,11 62:7,11,21 63:9,11 66:24 67:5,12 70:2,9 72:11,20 73:1,8,15 74:13,17 75:11,18 78:20 79:12 85:2,11,14,19,23 87:21 88:5 89:22 90:5 92:11 98:21 99:6 100:5,7 105:9 109:17 110:3,15,19,23 111:5,24 112:10,19,25 113:7 114:10,14 115:5,20 116:5,7
official [2] 79:10 117:16
offset [1] 91:17
oil [3] 7:11 117:5,12
okay [55] 8:7 11:21 12:14 13:24 15:4 16:8,16 18:13,17 23:9 24:2 26:7,15 27:1,4 29:1 32:9 35:21 36:11 37:6,16 38:1 40:7,21 41:4,12,22,25 43:3,8 45:18,22 47:4 56:22 57:4 70:11 71:6,7,15 73:8 79:6,14,16 85:14 86:11 88:11 90:5 92:23 93:1 96:7,13 98:1,21 99:6 115:22
old [3] 72:8 93:25 94:2
old-timers [2] 93:4 94:10
one [46] 12:2,4,6 20:24 22:13,13 23:13 25:24 26:22,22 27:25 33:12 38:9 39:14 40:9 46:6 48:9 49:16 50:7 52:21 60:8 73:17 75:2,17 77:22 78:19 80:24 84:15 86:3 92:19,25 94:23 95:2 98:25 100:15,15,17,17 102:25 104:19 106:21 109:18 111:25 112:8 114:24 115:9
one's [2] 46:17,18
only [22] 12:20 13:3 19:1 23:17,23,23 24:13 27:16 38:9 46:25 47:2,3,5 65:9 67:19 78:18 95:5 101:19 102:1 106:2 107:5 112:14
ooo [1] 2:15
open [1] 77:19
opens [1] 88:23
operation [2] 76:15 103:11
operations [2] 50:10 76:23
operative [1] 68:22
operator [1] 60:3
opinion [2] 101:22 111:6
opinions [3] 101:17,19,20
opportunity [4] 5:18 10:4 79:12 104:16
opposite [1] 87:14
order [2] 4:13 57:21
ordered [1] 101:18
ordinance [1] 113:19
original [1] 37:23
other [54] 3:17 4:2,7 10:17 15:16 17:21 18:6,18 24:23 27:17,18 35:18 36:14,21 40:3,15 44:12 45:4,15 46:8 49:3 50:4 51:25,25 52:1,2 62:2 68:10 70:17 71:18,19 73:18 77:8 80:5 84:10 86:4 87:25 92:4,25 93:8 94:16 95:6,8 99:18 100:17 101:3 102:3 103:10 104:21,22,22 106:4 107:4 112:14
others [1] 90:12
otherwise [1] 117:14
ought [1] 34:25
out [52] 4:23 8:22 13:1 15:14 17:5 23:24 24:1 30:16,24 31:7 39:18 41:23 44:20 48:22 50:3 52:17 56:3 60:15,25 66:7 67:10 74:6 76:16 82:2,3,12,15,17,23 83:3,18,25 84:24 86:16 87:2,4,7,9 90:11 93:14 98:5,6,8 101:13 102:12 104:23 105:15,17 106:22,24 110:11 113:2
outcome [1] 68:12
outcrop [3] 46:5 55:8 107:16
outcrops [7] 54:21 95:4,10 106:10,17,18,21
outlet [1] 102:5
outlets [1] 65:14
outlined [1] 13:13
outside [4] 14:3,16 20:16 61:20
over [20] 4:16 17:11 23:2 31:16,17 54:11 60:1 74:25 77:7 81:14,15 84:4,18 86:19 87:10 89:1,10 99:15 100:11,25
overall [1] 114:1
overburden [1] 54:11
overhead [2] 12:5,6
owned [1] 113:17

P

p.m [1] 116:9
pacificorp [1] 99:25
page [15] 12:21 21:11 23:9 31:20,21 36:6,14 37:14 40:9 43:9 64:14 67:6 70:19 76:18 113:23
pages [1] 12:16
pam [1] 111:8
panther [6] 23:12,21 25:23 28:2 79:23 88:17
paragraph [3] 40:25,25 71:5
parallel [1] 96:8
parallels [1] 96:11
parameters [1] 50:23
part [17] 18:3 25:16 37:11 39:8,8 47:11,12 53:17 61:6,11 70:25 86:21 87:2 96:15 112:11,22 113:12
partially [1] 106:3
participate [1] 5:19
particular [5] 44:10 51:15,21 64:2 113:23
particularly [1] 105:22
particulars [1] 51:18
parties [2] 3:21 117:14
parts [2] 73:23 86:17
passed [1] 114:11
past [12] 5:24 6:12,12 17:11,11 75:7 76:7 78:14,15 91:8 99:23 100:2
path [5] 19:15 60:11,13 90:18,19
patience [2] 101:11 105:8
pause [1] 61:4
pay [2] 77:13 108:19
payne [146] 10:2 11:1,3,5,10,19,22 12:12,15,18 13:3,7,11,23,25 14:8,14 15:19 16:2,6,9,19,21,25 17:9 18:20 19:12,25 20:25 21:6,10 22:21 23:16 24:6,13,21,25 25:9 26:5,13,15 27:4,13,16 28:15,18,22 29:4,16 31:21 33:6,8,12,17,22,24 36:9,17 37:9,14,16 38:4,17 39:1,16,22 40:1,19 41:15 42:15 43:12 44:7 45:14,19,24 46:2,12,17 47:7,15,19 48:5 50:25 51:8 54:2,10 55:16,19 56:1,9,13,17,24 57:2,5,10,20 58:6,17,21 59:11,21 60:10,15 63:3,16 64:11 65:21 66:4,13 67:17 68:14,21 69:6,14 70:19,22 71:7,15,21,25 72:2,14,23 90:7 92:13,22,24 93:1,9,12 94:19 95:16 96:7,16 97:14,19 98:2,9,11,16 113:3,8,11 114:13,17
people [11] 4:2 13:9 27:17 62:2,18 75:2,2 77:1,2 101:16 105:14
per [2] 80:8 101:2
percent [4] 17:2 51:2,3 84:22
percentages [1] 110:8
perhaps [4] 10:24 55:7 105:18 112:15
perimeter [1] 60:21
period [2] 21:8,14
permeability [2] 81:23 82:18
permeable [2] 65:23 82:19
permission [1] 113:8
permit [59] 3:13,15,17,19,22 4:6,7 6:2 7:5 10:21 11:11,22 13:13 17:20 28:6 29:23 34:25 36:4,17 37:11,19 40:10 45:2 46:10 52:19 58:16 62:4,8,13,16 73:6,11,20 75:8,8,13,15,15,20 76:18 77:23 80:2 85:3 87:22,24 88:8 91:12 92:12 101:5 102:12 105:24 108:9 109:6,9,11 112:21 113:24 114:7 115:6
permits [1] 25:15
permitting [2] 73:17 114:3
perpendicularly [1] 91:5
person [2] 8:4 18:11
personally [3] 17:15 64:3 105:16
perspective [1] 9:17
pertaining [1] 43:13
petersen [1] 11:1
phc [39] 8:5 10:23 11:2 14:5 31:13 34:12,19 36:14,16 37:4,22 47:24 48:16,21,23 49:11,17,20 50:14,16,22 56:23 62:14 64:21 65:2 67:4 76:3 79:16 83:1 85:8,12 86:5 88:15 89:14 103:22 104:20 112:18,23 115:2
phc's [1] 104:5
physically [1] 19:15
piece [2] 78:25 81:6
pinpoint [1] 19:20
pinpointed [1] 90:10
pioneers [1] 84:12
place [7] 9:5,7,8 52:23 68:19 76:24 81:22
places [1] 104:21
plain [2] 91:18 93:16
plan [1] 113:24
planning [3] 32:13 113:14,21
plans [1] 77:20
plateau [19] 14:19,23 18:24 20:18 29:8,19 31:23 32:5 54:5,7 57:11,12 66:6 67:14 72:3,6 96:22 99:23,24
plaza [1] 2:7
please [9] 4:21 8:10 9:23 10:6,10 30:7 74:17 87:22 113:7
pleased [1] 5:6
pleasure [1] 98:24
plenty [1] 70:3
plotted [1] 13:7
plow [1] 38:25
plowed [1] 38:24
plugged [1] 70:4
point [51] 21:3 23:13,22 25:16,23,25 35:20,22,22 36:1,25 37:8 41:23 42:7,9 46:18,20 48:22 50:3 55:2,8 56:15 61:1 66:1,14,21 67:23,24 68:1 69:13 70:10 72:8,13,17,21 74:15 77:22,22 79:18,22 90:13 96:5 98:6,13 110:23,24,25 111:7 112:14 115:25 116:3
point/blackhawk [1] 27:20
pointer [1] 96:10
pointing [1] 105:17
points [4] 13:7 15:23 20:20 102:25
porosity [2] 38:8,8
portal [1] 93:24
portion [1] 75:10
portions [1] 7:5
position [2] 17:22 30:22
positive [2] 62:12 110:20
possibility [4] 44:14 47:6,7 88:23
possible [6] 8:12 44:8,23 51:12 85:9 100:4
possibly [4] 47:20 94:2 95:6 96:3
post [2] 11:25 12:24
potential [6] 36:7 46:25 68:23,24 103:12,13
potentiometric [1] 66:17
power [2] 17:17 22:11
practical [1] 50:22
precipitated [1] 4:8
precipitation [7] 48:1,3,8 49:3

50:1,3 55:5
precipitation's [1] 51:2
precisely [1] 7:12
predict [2] 49:22 50:17
predictable [3] 44:19,20 54:25
predicted [1] 9:6
prefer [1] 88:5
premise [2] 103:2,4
preparation [1] 10:23
prepare [2] 33:8 92:14
prepared [2] 33:13 78:17
preparing [1] 33:5
present [2] 78:18 99:2
presented [3] 37:4 77:17 89:6
preservations [1] 55:22
presuming [1] 4:3
pretty [5] 18:18 43:1 77:19 91:25 103:8
prevent [1] 82:24
previous [1] 108:21
previously [1] 6:1
primarily [2] 22:5,12
prior [3] 17:11 22:1 78:3
private [1] 113:17
probabilities [1] 110:6
probability [14] 54:16 56:19,20, 23,24 57:2 60:22 71:16 103:14 108:5 109:22 114:20,22 115:4
probable [8] 47:3 49:23 59:13 65:4 103:16 109:2 110:7 111:12
probably [12] 6:23,24 25:9 29:2 37:24 47:6 61:25 81:10 91:19 95: 13,14 99:19
probative [1] 114:11
problem [4] 13:3 65:21 89:12 104:9
problems [4] 79:8 88:7 99:22 103:24
proceed [3] 9:22,25 74:17
process [4] 8:19 104:6 114:3,6
produce [1] 97:22
professional [1] 64:8
program [2] 49:8 73:5
projected [1] 36:4
projection [1] 103:23
projections [1] 31:8
projector [1] 12:5
proof [1] 3:17
properly [1] 81:17
property [3] 32:8 81:6 113:17
propose [2] 75:13 77:18
proposed [8] 10:21 13:13 47:12 59:3 103:11 109:4 111:14 113: 16
proposing [1] 115:1
prospected [1] 53:25
protocol [2] 53:5,11
protracted [1] 48:18
provide [5] 5:1 26:21 77:13 83: 11 102:9
provided [7] 10:9 16:17 17:18,20 62:19 63:14 64:5
providing [2] 17:22 107:22
provisions [1] 3:11
proximate [1] 103:19
proximately [1] 109:4
public [3] 53:5 113:11 117:6
published [2] 37:12,17
pull [1] 15:13
pump [1] 83:24
pumps [1] 83:24
purchased [1] 81:6
purple [1] 98:11
purpose [2] 14:23 68:5
purposes [2] 5:13 50:2
pursue [1] 100:3
purview [1] 113:19
put [22] 13:1 47:24 64:20 68:10, 17,19 77:9,11 81:2,16,22,25 83: 8 84:13,23 88:15 94:24 98:5,8 99:17 102:20 105:13
putting [3] 19:10 48:15 95:1

Q

qualified [1] 101:16
qualify [1] 16:23
quality [3] 16:13,22 76:16
quantified [2] 57:3 68:2
quantify [2] 68:3,6
quantitative [3] 37:12,20 39:2
quantities [1] 70:12
quantity [1] 68:23
quest [1] 9:11
question [36] 9:10 23:18 26:1,4 27:3 30:2 31:10 32:10 35:5 43:7 45:11 48:2 49:24 52:21 61:8,8, 16 63:3,13 66:1 67:5 69:16 71:8, 9,12,13,16 73:3 74:8 75:6 87:25 92:18,19,20,25 102:22
questions [31] 5:20,21 8:3,4,5,6, 8,13 9:15 10:1,12,24 35:11 53: 19 61:4 62:6 64:10,12 73:2 74:1, 11,12 77:5,14 78:7 86:9 97:13 101:10,12 104:5 105:13
quick [3] 55:4 86:8 91:25
quickly [2] 20:5 77:3
quite [6] 11:12 16:9 20:2 56:3 91: 23 101:13
quits [1] 103:25
quoting [2] 4:25 76:19

R

raff [1] 81:22
raise [1] 83:19
raised [1] 105:19
ran [1] 43:16
range [1] 96:4
ranges [1] 94:3
rarely [2] 96:22,22
rate [4] 58:8 59:25,25 60:1
rather [5] 23:13 25:24 26:16 74:3 96:25
raw [1] 106:5
reaches [2] 52:8,14
read [4] 25:2,10 83:1 110:11
readily [4] 44:18,19 54:25 77:8
reading [7] 10:7 40:8 41:5 67:3 70:19 71:4 103:21
ready [2] 35:21 37:7
real [5] 38:9 46:25 63:6 81:9 86: 24
realize [2] 25:5 40:22
really [22] 6:9,17 7:2 8:14 10:17 23:18 25:4,4 35:5 40:19 49:21 61:9,21,21 76:25 77:18 79:9 80: 7 88:12 101:23 107:11 108:1
reason [3] 20:2 38:15 97:11
reasonable [1] 35:2
reasonably [1] 35:12
reasons [3] 7:6 90:23 92:4
receipt [1] 114:4
received [1] 114:10
recently [1] 52:11
reception [1] 59:24
recharge [15] 19:19,21 20:4 39: 24 40:4 44:18 45:16 53:22,24 54: 1,18,19 90:10,18 105:25
recharged [4] 44:17 55:6 57:11 72:18
recharging [1] 19:14
reclaimed [1] 78:1
reclamation [3] 77:23,24 111:14
recognize [2] 80:9 85:15
record [8] 3:5 4:23 5:13 21:14 30: 7,15 62:15 75:19
recorded [1] 4:22
red [2] 98:4,13
reduce [1] 106:5
refer [3] 10:10 13:14 111:16
reference [2] 13:16 113:23
referenced [1] 115:11
referred [4] 13:18 14:5 42:2 65:2
referring [6] 25:12 40:18 41:5,6 111:10,15
reflect [1] 49:21
regard [3] 17:13 95:2 115:10
regarding [2] 10:25 105:22
regardless [1] 93:23
region [5] 27:8 44:15 55:7 72:4 97:21
regional [14] 26:23 27:19 29:9 55:13 66:14 71:23,24 72:3,5,5,9, 12,19,25
regs [2] 34:24 73:23
regular [1] 47:13
regularly [1] 104:7
regulation [3] 49:5 109:25 110: 11
regulations [11] 7:12 53:16 61:6, 10,11 103:7 105:3 108:16 109: 10,13 115:11
regulatory [6] 6:9 18:6 50:20 58: 2 73:5 112:23
rehear [1] 5:25
rejected [1] 17:3
relate [1] 11:3
related [4] 27:3 52:22 94:7 111: 16
relates [2] 79:2 85:3
relationship [1] 89:23
relatively [2] 42:11 85:19
relevant [1] 3:12
relied [1] 62:18
remainder [2] 21:4 46:22
remaining [1] 42:12
remedy [1] 89:19
removed [4] 40:10,17,22,23
renewal [3] 75:8,15,21
replace [2] 77:18 82:23
replaced [1] 76:20
replacement [11] 9:2 49:5 76:3, 24 77:15,21 90:3 110:1,12,14 112:9
report [10] 11:11 12:10 18:1 19:2 21:11,13 25:12 68:11,17,19
reported [1] 18:14
reporter [3] 1:19 5:1 117:6
reporting [1] 17:25
reports [2] 17:19 27:7
representative [1] 14:10
represented [1] 106:4
representing [1] 74:20
reputation [1] 64:8
request [3] 26:25 79:7,10
requested [1] 3:24
require [7] 34:24 48:23 103:8 104:8 108:17 109:1 110:12
required [10] 26:20,20 28:7 38:5 47:23 103:17 104:21,25 109:12 111:13
requirement [3] 52:24 53:17 112:24
requirements [2] 58:2 70:3
requires [2] 53:6 112:8
reservoir [2] 93:21 94:20
reside [1] 74:19
resolution [1] 44:24
resolve [1] 4:13
resort [1] 105:21
resource [3] 7:22,22 105:3
resources [4] 1:15 22:16 35:4, 13
respect [2] 67:6 85:20
respond [7] 9:15 10:14 27:4 58: 13 77:4 90:8 94:9
responding [1] 60:23
response [3] 92:15 109:19 114: 18
responses [2] 55:4 60:20
responsibility [4] 18:6,8,12 113: 13
responsible [3] 17:22 18:1 38: 14
rest [2] 82:9 84:25
result [2] 40:17 109:4
resulted [2] 4:11,11
results [1] 103:19
resurrect [1] 6:1
retry [1] 6:1
return [2] 78:2,4
review [4] 61:17,17,18 113:14
revise [1] 109:11
revised [1] 37:25
revision [3] 5:21 6:2 7:5
reynolds [63] 9:18 10:24 13:16 24 14:1,17,21,25 15:6,13 17:13,

24 18:2,8,11,16 20:8,12,23 21:2, 7,23 22:4,9 23:23 24:5,12,15 31: 22 32:3,7,15,23 37:2,21 40:12, 14 41:4,19,25 42:6 43:18 44:1,6 45:3 47:11 64:19 65:1,9,16 69: 20,25 70:24 71:3,6 75:20 95:1, 13 98:7,14 114:4,8 115:9
ridge [70] 1:10 3:8,14 10:16,19, 22 11:18 12:21 14:13 15:1,11 19: 24,25 23:15,20 24:4 26:3,24 28: 1 29:5 31:17 32:1,18,19 33:15, 18,20 34:2 38:23 39:21 41:13 42: 1 43:11,15 44:3 45:13,25 46:16 53:21 57:22 58:15,16,18,25 60:9 61:20,22 64:17 65:8,19 66:23 67: 10 69:18 71:2,24 75:9,14 78:23 79:3 88:12 89:3,24 90:21 95:3 101:3,7,23 103:4 106:7 113:15
riff [1] 81:22
rights [6] 5:15 30:14 51:19,21 77: 14 100:18
rip [1] 83:18
river [4] 51:23,24 52:4,9
rivers [1] 52:2
rock [4] 37:18 65:13 81:22 102:4
rocks [11] 19:5,6,16 27:25 39:7, 12 40:19 57:12 72:23 97:5,22
roof [3] 66:8,9 67:21
room [2] 1:16 30:24
roughly [2] 96:8,11
round [2] 34:17 91:9
rule [8] 3:11 109:1 110:16 111:2, 2,3,22 112:12
rules [4] 48:23 108:25 110:21,22
ruling [1] 108:22
run [1] 66:16
running [1] 83:24
runs [1] 20:4

S

safety [1] 18:9
salt [4] 2:4,8 117:3,16
same [17] 6:10 7:2,25 12:11,16 26:1 34:11 41:1 44:13 60:24 71: 9 82:4,18 92:20 94:4 99:20 103: 4
sample [13] 14:10 17:7,8 20:14 21:22 42:7,18 43:1 49:25 50:5 59:23 63:20 97:15
sampled [4] 14:9,12 95:25 96:1
samples [18] 11:17 12:19 15:5,7, 11,21 17:14,16 21:24 22:9,11 41: 20,21,23 42:20 43:17 66:15 101: 24
sampling [2] 11:13 62:22
sandstone [46] 21:1,2 23:13,22 25:16,24,25 28:3 38:11 39:18 41: 2,6,8 43:9,10 44:8,10 45:7,14,15 46:2,19,21 54:21,23 55:2,8,13 57:25 66:8,9,10 67:20,23,25 68: 6,9 72:8 79:19,22 85:24 88:17 93:20 94:20 98:13 106:14
sandstones [3] 28:11 44:16 85: 20
satisfactorily [1] 79:9
satisfactory [2] 99:7 108:10
satisfied [2] 42:21 109:7
satisfies [2] 61:10 112:23
satisfy [6] 29:24 52:15 61:12 85: 12 109:9,11
saturated [1] 102:3
saturation [1] 41:2
saw [3] 29:7 81:13 82:6
saying [15] 4:22 17:7 51:7,7 59:3 62:25 63:1 68:16,22 69:10 79:21, 21 88:1 93:13 105:2
says [18] 23:10 25:5 36:3,12 37: 12 40:22 41:1 42:10,11,11 64:14 65:3 67:13 70:11 73:4 85:17 103: 16 111:12
scale [2] 12:3 98:3
scenario [1] 52:22
science [2] 22:23 29:10
scientifically [1] 29:12
scott [2] 5:9 112:5
scouring [1] 43:19
scratching [2] 104:10,12
se [1] 101:2
sea [1] 55:21
seal [1] 117:16
sealed [1] 102:17
seam [13] 58:1 64:15 66:7,11 67: 1,7,9,9,18,18,24 69:4 70:14
seams [10] 64:17 65:7 66:5,16, 23,25 67:13 69:4 106:14,20
seasonal [1] 63:21
seasons [1] 58:9
second [1] 80:8
section [9] 54:5,7 77:23 91:19 98:8,15,16 109:8 115:11
sections [3] 54:9 57:7 102:13
see [40] 4:20 8:13 18:4 20:23 21: 13 23:24 25:3 32:16 46:4,5 60: 17 61:4,24 65:25 66:4,5 77:15, 17 80:13 82:9 84:5,11,15 89:15, 22 91:21 95:23 96:6,18,21,22,22 97:21 98:3 104:4 106:13,14,14, 19,23
seeing [3] 58:8,9 74:2
seeking [1] 3:13
seems [2] 62:5 76:11
seen [8] 11:11 54:7 58:11 63:25 64:1 97:10 105:16,21
seepage [2] 84:21 85:1
seeping [1] 76:6
seeps [1] 14:12
segment [1] 95:5
self-executing [1] 34:19
sell [8] 81:12,20,22,24 82:3,7,8, 22
send [4] 49:25 50:5 115:17,18
sense [1] 73:13
sent [2] 74:6,7
sentence [4] 41:10 48:19 68:22 71:4
separate [9] 23:11,19,19 24:3,6 25:22 26:23 28:3,9
separated [2] 79:24 98:6
service [4] 31:16 74:20 78:12 81: 1
services [4] 3:24 31:12 36:4 100: 16
serving [1] 113:13
set [1] 22:13
sets [1] 56:2
seven [1] 23:3
several [5] 14:2 20:19 29:12 83: 6 102:13
sewage [1] 88:6
sewer [3] 81:3 83:8,13
shale [5] 79:17 80:17 81:9 91:18 106:15
shales [2] 85:15,24
shape [2] 95:19 96:19
shaped [1] 95:22
share [1] 101:18
sheet [1] 4:15
shell [30] 79:24 80:6,12,15,21,24 81:13,20,21 82:11,13,14,17,23 83:1,17 84:8,13,14 85:1,6,9,22 86:13,17,20,24 87:10,13 88:2
shortly [1] 70:4
show [4] 8:10 21:11 85:6 103:5
showed [1] 12:2
showing [1] 108:4
shown [2] 12:4 70:15
shows [1] 12:4
shrink [2] 84:19,23
side [18] 39:18 44:12 81:24 83:9 84:1 86:16 87:9 92:5 93:8,9,11 94:14,15 96:1 97:1,7,7,8
sides [1] 84:3
sign [1] 4:16
sign-in [1] 4:15
signatures [2] 97:9,9
significant [6] 29:25 39:12 43: 19 46:3 108:5,13
significantly [2] 30:12 97:19
silt [2] 41:8 42:12
silver [1] 52:11
similar [8] 6:5 44:4 64:16 71:1 83:5 91:16 107:17 111:22
similarly [1] 91:15
simple [1] 78:17
simply [6] 8:14 27:20 40:15 66: 18 72:6 88:14
since [2] 108:25 109:19
single [3] 23:13 25:24 116:1
sink [1] 91:25
sit [2] 11:6 97:12
site [3] 15:21 31:18 113:24
sites [4] 14:8 63:23,25 64:2
situation [4] 8:12,15 50:15 104:4
six [2] 6:15 104:11
size [1] 95:18
slope [2] 86:22 87:17
slopes [3] 15:1 20:3,4
slowly [1] 4:21
small [5] 12:3 40:5 45:5 102:11 106:8
smaller [1] 56:6
smart [2] 6:13 101:17
smith [206] 2:6 5:5,6,8 9:15,22,24 10:3 11:7,16,21 12:2,9,14 14:11, 15,19,22 15:4,10,15 16:1,4,8,13, 20,22 17:6,21,25 18:4,10,13,17 19:7,23 20:10,21 21:8 22:2,7,17 23:9,18 24:2,8,16 25:2,10 26:7, 14,16 27:1,11,14 28:12,16,20 29: 3,14,18 30:3,14,18,20 31:25 32: 5,9,20,25 33:7,10,14,19,23 34:3, 23 35:17,21,25 36:10,18 37:6,10, 15,17 38:1,19 39:13,20,23 40:7, 13,21 41:12,17,22 42:3,10,16,21 43:3,8,16,23 44:3 45:9,18,22,25 46:9,14 47:4,8,14,16,22 48:6,17, 20 49:12,22 51:6,10,19,23,25 52: 5,10 53:18 54:9 56:12,14,22 57: 1,4,8,14 58:4,14,19 59:9,16 60:6, 14 61:3,15 62:10,17,25 63:5,10, 12 64:7,13,24 65:6,12,17 66:1, 20 67:3,8 68:13,16 69:2,7,9,16, 23 70:6,10,21 71:1,5,13,20,22 72:1 73:2,9 74:8,16 75:16 92:18, 23 96:5,13 97:12,15 98:1,18,25 100:9 109:18 110:4,18,21,24 111:21 112:3,8,12 115:14,22 116:6
smith's [1] 9:19
solely [1] 106:3
soluble [1] 17:1
solute [7] 18:25 19:5 23:4,6 59: 23 95:18 97:22
solve [1] 100:1
solved [1] 82:25
somebody [2] 42:16 74:3
someone [3] 8:7 52:6 102:8
somewhat [1] 108:7
sorensen [2] 1:19 117:19
sorry [8] 13:25 16:4 35:17 36:6 37:15 96:1,10 98:11
sort [5] 8:1 42:5 55:24 63:20 101: 8
sorts [1] 84:7
sound [2] 6:7 29:12
source [14] 43:24 45:16 55:17 63: 19 76:4,8,21 88:14,15 89:9,16 99:18 103:21 111:11
sources [4] 77:25 97:17 115:15 116:4
south [9] 2:60 32:17 39:7 55:23 56:6 83:12,15 84:5 107:10
southeast [1] 55:23
speaking [1] 58:17
special [7] 3:24 31:12 74:20 78: 12 80:18 81:1 100:16
specific [10] 13:17 14:7 21:19 25: 8 43:18 59:1 61:6,11 73:22 112: 17
specifically [4] 12:18 23:5 66:25 85:4
speculate [1] 108:17
spell [1] 60:25
spend [2] 83:2,4
spent [3] 99:15,21 100:11
spring [103] 8:21,25,25 20:25 21:

2 23:12,21,25 24:15 25:23 28:4, 9,10 30:1,4 31:4,5,17 34:14 39: 24 40:5,6 42:8 45:23 46:4,4,6 48: 11 49:4,15 50:18,18 51:15 52:23 53:20,22,23 55:1,5 57:25 58:10, 12,23 60:12 62:8,22 70:17 74:24, 24,25 76:5,8,10,13,15,17,19,23 78:3,5,17 79:23 88:14,16,20,22 89:1,11,17,25 90:4,11,19,23,25 91:12 92:9,21 93:6,7 94:1 96:24 97:1,16 100:17 102:2,6 103:24, 25,25 105:22,24 106:1 107:3,10, 14,16,17,23 108:6 110:2 115:17 116:1
springs [98] 7:19 13:18,21 14:3, 12 16:14 18:25 19:23 20:8,9,11, 13,14,21 21:3,4,9,16,19 22:3,10, 18,19,20 23:2,25 25:18,19 32:18, 19 34:8 35:3 39:6,9,14 40:3 42:9 46:5,6,8,9,12,13,14,15,20 47:1,5 49:1 53:7 54:8,12,18,22 56:18 57:6 58:8,22 60:8,20 63:25 64: 22,24 65:2,10,13,14 69:6,10,11, 11,12 70:18 71:11,17,19 77:8 88: 13 96:17 100:15,19,22 101:2,4, 24 102:1,4 103:14 104:12,14 106:22 109:22 112:17,17,22 114: 25 115:10,13
staff [1] 113:13
stand [1] 96:14
standing [1] 113:9
star [24] 21:3 23:13,22 25:15,23, 25 27:19 42:7,9 46:18,20 55:2,8 66:14 67:23,24 68:1 72:8,12,17, 21 79:18,22 98:13
start [2] 77:15 100:25
started [3] 82:9 83:21 100:13
starting [1] 54:2
starts [1] 31:3
state [2] 117:2,6
state-appropriated [1] 115:12
stated [7] 47:1 71:21 77:19 89: 14 92:11,13 114:25
statement [22] 29:4 37:22,23,25 38:2 40:7 45:20,21 54:15 64:19 65:3 68:2 70:24 71:2,3 85:11 86: 2,5 89:16 108:15,16 113:4
statements [5] 59:6,7 64:6 74: 11 76:3
states [4] 76:19 85:18 86:5 113: 24
stations [2] 48:7 73:16
stayed [2] 50:1,3
steep [1] 20:3
steepness [1] 15:1
stenotype [1] 117:8
still [8] 69:22 75:24 78:10,15 104: 12 108:8 111:3,6
stone [3] 41:8,9 42:12
stones [3] 70:13 72:7,9
stop [2] 11:16 60:8
storage [5] 37:11 38:6 39:3,4 68: 25
stored [2] 37:18 66:6
stores [6] 23:12,21 24:1 25:23 28:2 79:23
stories [1] 87:23
straight [4] 96:10,10 107:9,9
straightforward [1] 61:2
strange [1] 6:7
strata [1] 65:13
stream [2] 20:15 69:5
streams [2] 54:4 114:20
strictly [1] 75:9
strike [1] 55:13
structure [1] 66:10
structures [2] 80:18 90:17
studies [13] 8:16 9:4 10:15,22 18: 18 23:10 25:5,6,7,20 34:17 57: 15 59:19
study [13] 8:19 9:4 15:22 25:14 26:11,12,17,18,19 27:5 60:7 97: 17 104:3
studying [1] 26:21
stuff [2] 97:1 99:15
submit [2] 49:7 101:10
submitted [1] 3:22
subsidence [4] 50:17 57:13 60: 16 76:20
substantial [1] 5:21
substantiate [2] 26:6,10
substitute [1] 63:20
subtracted [1] 89:11
successfully [1] 18:23
sudden [3] 34:1 49:25 50:6
sufficient [3] 31:1 37:24 101:21
sufficiently [1] 8:20
suggest [3] 26:9 27:24 32:25
suggestion [1] 12:1
sulfate [1] 96:21
sump [1] 83:24
supply [1] 75:1
support [3] 19:6 72:24 108:11
supporting [1] 19:21
supposed [2] 4:17 30:23
supposedly [1] 24:9
supreme [3] 52:10 108:21,22
surface [18] 11:14 20:15 31:16 58:23 66:17 77:10 88:17 103:18, 21 106:23 107:2 111:14,15,16 113:5,16 114:4,7
surfaces [1] 64:21
surprisingly [2] 20:1,1
suspect [1] 93:22
swamp [1] 84:6
swampy [1] 84:6
system [11] 29:9 55:9,10 56:4 72: 19,25 77:10,11 81:3,4 83:8
systems [1] 72:8

T

ta [1] 74:2
table [9] 12:18 21:10,11,14,20 22: 18 23:7 33:2,4
tabulated [2] 16:11,20
tagged [1] 73:22
tailored [1] 35:9
talked [11] 15:17 36:12,15 41:3 53:4,11 76:6 81:14 91:8 99:10 102:23
talks [4] 37:11 72:4 77:24 103:11
tangible [1] 65:23
tank [2] 64:15 67:18
tanks [2] 67:6,9
tapped [1] 77:9
technical [5] 73:6,18,24 74:1,6
telephone [1] 16:3
tells [1] 95:18
temple [1] 2:60
ten [11] 49:15 50:1,6,7 65:24 68:8, 8 80:7 81:21 83:16 84:22
ten-foot-square [1] 66:3
ten-minute [1] 98:22
tends [1] 56:4
terms [4] 15:19 22:24 59:2 73:22
terrain [1] 65:24
test [2] 104:24 106:15
tested [3] 81:23,25 82:17
testifying [2] 4:20 62:18
testimony [2] 109:23 117:9
thanks [1] 56:11
theory [1] 88:15
there's [85] 4:9,15,17 6:20,20 15: 2,2 20:24 21:10 23:4,4,7,16 25:6 33:20 34:7 37:6 38:9 39:10 40:7 43:8 46:14,19 47:4,4,16 48:6,11 49:4,17 50:4 51:13 55:10 56:1,5 58:2,6,22,23 60:22 61:1,11 62: 12 66:18 67:25 70:3 71:16 72:1, 2,7,16,20 76:21,23 77:5,14,20, 23,24 78:5 84:6 86:2,2,3 90:11 91:23 92:7 93:5 94:12 95:5 97:4 101:8 102:19 103:1,24 104:9,9 105:12 109:21 110:10,22 111:22 114:14,19,21
thereafter [1] 117:8
therefore [1] 106:22
thereof [1] 117:15
thesis [1] 72:16
they'll [1] 77:20
they've [12] 3:24 5:24 24:13,23 42:4,19,23 77:19 79:9 89:14 99: 21 104:23
thick [5] 41:18 54:7,9 79:25 80: 16
thickness [2] 38:6,7
thinking [1] 100:12
third [4] 40:9 81:20 82:7 86:19
thoroughly [1] 35:25
though [7] 6:10 39:11 49:13 101: 25 103:5 111:1,4
thousand [1] 54:11
three [16] 14:6 23:19,19 24:3,6 41:3,20,25 56:18 78:19 81:2 82: 2 95:25 96:1,16 103:1
throughout [4] 41:7 49:9 97:21 103:2
tie [1] 88:18
tiffany [1] 117:12
tight [1] 82:15
time-dependent [1] 19:3
today [16] 3:6 4:14,19 7:1,14 9: 11 30:21 62:14 63:11 74:19 92: 15 99:10 101:4 105:8 109:21 115:7
together [4] 30:24 64:20 73:14 104:16
tongues [8] 23:12,22 24:3,7 25: 23 41:3 79:17 103:1
took [5] 11:17 22:5,9 82:17 93:4
top [12] 42:7,7,9 54:2,4 57:11,12, 12 83:10 84:23 86:13 91:21
topsoil [2] 86:15,19
total [1] 20:12
towards [3] 39:7 99:18 106:8
tower [1] 2:7
town [8] 74:21,22 81:1,3 83:7,9, 13,14
trail [1] 27:18
transcript [1] 4:19
transcription [1] 117:9
transmit [9] 80:4,9,12 83:2 85:7, 9,10,15,24
transmitted [2] 92:2 113:20
traveled [3] 82:10 87:6,9
travels [2] 76:11 88:21
treat [1] 77:10
trench [5] 83:25 84:1,2,2,4
trenches [2] 82:14 83:14
tributary [1] 56:8
trick [1] 8:13
tried [2] 6:22 93:14
triggered [1] 109:8
triggerpoint [1] 48:1
trouble [1] 81:14
true [9] 23:14 25:9 26:2,3 38:17 41:13 65:12 92:20,22
truncated [2] 93:21 94:21
try [7] 5:25 6:21 7:14 8:14 36:22 48:20 91:23
trying [17] 10:11,11 22:5 25:3,4 30:20 31:7 38:22 67:10 69:17 70: 7 72:17 79:19 85:5 88:3 92:19 105:1
turn [1] 16:1
turned [2] 16:5 83:3
turning [1] 35:8
turns [1] 44:20
tv [1] 8:13
two [25] 3:21 20:14 21:3 46:6,17 47:1,5 54:18 56:20 64:1 65:1 69: 10,11 71:17 73:15 81:16 83:24 96:17,20 100:15 103:14 106:21 109:22 112:16,22
type [3] 7:16 91:16 97:20

U

u.s [1] 43:20
unanswered [1] 62:6
under [8] 3:10 5:23 23:1,2 49:4 54:13 89:3 103:9
underground [2] 103:21 111:17
underneath [1] 66:16
understand [25] 7:3,6 8:15,20 9: 5,8 14:11 16:17 19:7,9,10 22:13 26:18 31:2 34:5,17,20 35:19 40:

8,22 49:14 70:9 79:20 90:16 110:25
understanding [2] 43:23 75:11
understood [2] 35:7 62:22
undertaken [1] 11:10
underwater [1] 35:4
unexplained [1] 100:14
unique [2] 97:24 105:2
unit [1] 38:9
units [1] 37:19
unless [6] 37:6 45:14 61:8 103:6 107:11 108:23
unpredicted [1] 9:7
until [2] 45:1 52:3
unusual [1] 73:24
up [51] 8:22,25 11:6,7 21:5,12 29:8 31:4,5 34:10,11,15 45:11 48:9 49:1 50:13 51:1 52:8,17 57:8 59:8 60:3 63:7,18 69:22 75:5,16,21 78:8 82:1,18 83:19 84:17 86:9 87:1 88:23 91:7,20,20 92:4 93:5 94:5,24 95:2,7,20 96:14,24 102:18 105:4 114:25
updated [1] 104:7
upper [1] 21:5
urged [1] 103:3
usable [1] 78:10
users [2] 6:18 100:18
usgs [3] 25:7 27:7 72:4
utah [9] 2:4,8 3:11 52:10,16 108:21,22 115:24 117:2

V

val [7] 10:2 75:4 113:1,3,8,11 114:13
valid [4] 28:24,24 29:13 62:8
valley [12] 3:24 9:25 31:12 74:20 78:12 80:14,14,18 81:1 83:7 84:11 100:15
valuable [1] 105:3
value [1] 114:22
variables [2] 47:25 48:10
various [1] 25:19
vegetation [1] 84:16
venture [1] 56:21
veracity [1] 63:13
verification [2] 16:23 17:6
verified [3] 24:10 62:20 63:2
verify [2] 17:7 23:6
versus [1] 95:23
vertically [2] 27:25 88:20
vicki [1] 2:12
view [2] 62:5 91:2
viewing [1] 29:1
virtually [2] 91:4 106:18
visible [1] 107:19
visited [1] 15:21
visual [1] 106:11
volume [1] 44:9
volumes [4] 39:12 46:3 68:23,24
voluminous [1] 11:12

W

walk [3] 30:24 78:8 91:23
wall [1] 81:23
wanted [6] 8:10 23:5 33:1 75:24 105:20 115:9
wants [3] 9:25 74:10 90:5
war [1] 87:22
wasatch [2] 18:23 67:14
water [185] 4:18 5:15,17,23 6:8,16,18,18,19 7:19,22 8:22,22 9:2 13:7 16:12,13 17:7 19:3,14,17,22 20:4,19 22:6 23:17,24 28:2,3 30:11,14 35:13 37:18 38:5,12,13 39:3,4 43:24 44:4,9,13,15 45:5,7,11,16 46:4 49:6 51:17,19,21 52:3,6,8,12,13,15 53:23 55:10 57:24 59:4,16,18,22,22 60:11,17 64:15,16,22 65:4,7,13,19,22,25 66:4,5,6,11,15,18,23 67:14,19,21,25,25 68:4,6,9,24,25 70:11 71:10,17 72:7 75:1,5 76:11,16,20,22 77:1,3,6,10,14,16,18 78:9 80:4,9,12,23 81:25 82:1,2,6,9,19 83:2,11,25 84:1 85:7,9,10,15,25 86:3 87:3,13,14,20 88:16,19,24,25 89:4 90:25 91:10,14 92:3,5 93:3,15,17,17,24 94:1,3,4,5,7,7,13 95:19,21,23 96:21,24,25 97:2,6,17,20 99:18 100:17,18 103:18 106:19,23 107:5,12,23 108:19 110:2,13 111:11 112:9 113:5 115:23 116:2
water's [4] 66:7 84:7 92:2 94:11
waterfall [1] 84:3
waters [10] 11:15 95:25,25 96:1,2,16,19,21 107:4 109:6
watershed [1] 7:25
way [7] 45:11 48:2 79:14 86:3 92:1 100:1 102:20
ways [3] 6:11,21,22
weekend [1] 100:12
welcome [1] 13:14
wells [16] 14:6,15,18,20,24 23:11 25:21 31:23,25 32:6,15 36:21 57:16 62:3 102:7 104:24
west [11] 55:20,21 56:3 83:22 91:12 92:8,10 93:10 97:8,10 107:21
wet [3] 44:17 58:11 83:23
whatever [5] 38:21 100:25 109:12 112:12 115:23
where's [1] 77:6
wherever [1] 107:23
whether [20] 7:7,16 19:10 24:3 26:22 29:23 31:4 43:16 44:19 56:15 60:13 61:9 69:3 89:8,10 93:16 101:5,8 103:19 112:16
who's [4] 18:10 77:12,13 108:19
whole [12] 23:7,7 25:11 43:20 49:9 51:20,23 58:16 63:7 77:14 97:21 100:12
whr-1 [1] 42:2
whr-2 [1] 14:5
whr-3 [1] 14:5
whr-4 [2] 13:19,19
whr-5 [3] 13:19 42:2 95:23
whr-6 [5] 13:19 55:1 95:22,23 96:18
whr-8 [1] 42:2
wife [1] 75:3
wild [77] 1:10 3:7,14 10:16,19,22 11:18 12:21 14:12 15:1,11 19:24,25 23:14,20 24:4 26:3,24 28:1 29:5,24 31:17 32:1,8,13,17,19 33:15,18,20 34:2 38:22 39:21 41:13 42:1 43:10,15 44:3 45:8,12,25 46:15 53:21 57:22 58:15,16,17,25 60:9 61:20,22 63:17 64:17 65:8,19 66:23 67:9 69:18 71:2,23 75:9,14 78:22 79:3 88:11 89:3,24 90:21 95:2 96:4 101:3,7,23 103:4 106:7 107:6 113:15
will [43] 4:3,16 5:19 7:17,18 8:20 9:8 11:19 12:19 19:11 21:14,23,24 29:25 34:12 45:12 47:9,13 50:17 51:7 53:25 54:12,13 57:7 67:18,19,23 75:22 76:12,13,20 78:7,9,9,10 85:7,9,15 100:23 109:7,22 114:20,25
willing [1] 100:3
within [31] 10:18 13:18,20 14:12,15,24 15:1 20:13 21:20 23:10 25:21,24 28:1 32:1,19 36:4 40:16 41:6 42:1 45:25 51:19 54:6 64:17,23 65:7,8,23 95:13 108:8 109:6 113:19
without [7] 27:5 29:5,17 53:2 59:8 95:21 105:20
witness [2] 69:8 117:16
wittard [1] 88:19
wonder [2] 27:3 78:23
wondered [2] 32:12 93:2
wondering [3] 26:8 31:18 89:8
word [1] 64:3
words [5] 3:17 4:7 17:21 35:18 40:15
work [6] 11:5 15:20 73:14 78:25 101:17 104:16
working [1] 22:14
workings [2] 67:20 70:15
works [1] 22:15
world [1] 67:15
wrap-up [2] 74:9,14
written [1] 27:7
wrote [1] 27:5

Y

year [6] 21:13,25 52:12 75:17,21,22
years [11] 6:15 17:11 50:7 53:1 74:25 81:2 84:15 93:25 94:2,4 104:11
younger [1] 94:6
yourself [1] 30:7

Z

zoning [4] 113:19,21 114:2,5

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Susan

Re: Cause No. ACT/015/025 Incoming

Dear Mr. Braxton:

Pursuant to Utah Administrative Code R645-300-122, the Huntington-Cleveland Irrigation Company submits the following objections to the renewal application for coal mining activity at the Bear Canyon Mine, ACT/015/025, and requests that the Division hold an informal conference at its Salt Lake City offices on the application pursuant to R645-300-123.

Among other things, Huntington-Cleveland notes that Rule R645-303-232-230 requires "[e]vidence that the performance bond in effect for the operation will continue in full force and effect for any renewal requested, as well as any additional bond required by the Division pursuant to R645-301-800." With regard to the bond, Co-Op's application states only that "[t]he current amount of the bond filed with the Division in the form of an irrevocable letter of credit (#1055, Bank One, Salt Lake City), is $899,000.00. We are in the process of determining a new estimate." Huntington-Cleveland submits that this unilateral unsupported declaration regarding the continued existence of a bond is insufficient to meet the evidentiary requirements of R645-303-232-230.

Further, Huntington-Cleveland believes that this is an appropriate time for the Division to review the Permit and the hydrologic information supporting said Permit to assure that such Permit and hydrologic information including the Probable Hydrologic Consequences ("PHC") and Comprehensive Hydrologic Impact Assessment ("CHIA") are complete, accurate and up to date.

If such information and Permit are not complete, accurate and up to date, Huntington-

NORTH EMERY
WATER USERS ASSOCIATION

Box 129
Cleveland, Utah 84518
Telephone (801) 653-2649

RECEIVED

AUG 14 2000

DIVISION OF
OIL, GAS AND MINING

August 8,2000

Utah Division of Oil, Gas & Mining
1594 W. North Temple Suite 1210
P.O. Box 145801
Salt Lake City Ut. 84114-5801

Incoming (Prof. Cof. file)
ACT/015/025
Copy Susan

To whom it may concern:

In response to the notice in the Emery County Progress, dated Aug.8,2000 about the Co-Op mine wanting to renew their coal mine and reclamation permit #ACT/015/025 in the Bear Canyon area, the Board of Directors of N.E.W.U.A. are concerned about the negative impact of mining in this area on our springs. North Emery Water would like to formally protest this permit renewal.

We feel that it is very important that the necessary tests and monitoring be done and that all precautions be taken to insure the quality and quantity of our drinking water.

North Emery Water Users Assoc. feel that it is the responsibility of the mining company to prove that their mining will not have a negative impact on our springs.

Sincerely,

Jack Stoyanoff

Jack Stoyanoff
Manager N.E.W.U.A.

& Board of Directors
N.E.W.U.A.

NORTH EMERY
WATER USERS ASSOCIATION

Box 129
Cleveland, Utah 84518
Telephone (801) 653-2649

July 12,2000

Utah Division of Oil, Gas & Mining
1594 W. North Temple Suite 1210
P.O. Box 145801
Salt Lake City Ut. 84114-5801

Incoming
ACT/015/025

To whom it may concern:

In response to the notice in the Emery County Progress, dated June 27,2000 about the Co-Op mine wanting to renew their coal mine and reclamation permit #ACT/015/025 in the Bear Canyon area, the Board of Directors of N.E.W.U.A. are concerned about the negative impact of mining in this area on our springs. North Emery Water would like to formally protest this permit renewal.

We feel that it is very important that the necessary tests and monitoring be done and that all precautions be taken to insure the quality and quantity of our drinking water.

North Emery Water Users Assoc. feel that it is the responsibility of the mining company to prove that their mining will not have a negative impact on our springs.

Sincerely,

Jack Stoyanoff

Jack Stoyanoff
Manager N.E.W.U.A.

& Board of Directors
N.E.W.U.A.

RECEIVED
JUL 17 2000
DIVISION OF
OIL, GAS AND MINING

Office Located at 1325 North Highway 155

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

August 18, 2000

J. Craig Smith
D. Scott Crook
Nielsen & Senior
Eagle Gate Plaza & Office Tower
60 East South Temple, Suite 1100
Salt Lake City, Utah 84111

Re: Request for Informal Conference on Bear Canyon Permit Renewal, Co-Op Mining Company, Bear Canyon Mine, ACT/015/025, Outgoing File

Dear Mssrs. Smith and Crook:

We are in receipt of your letter dated August 17, 2000 requesting an informal conference on the permit renewal for the Bear Canyon Mine.

The last public notice for permit renewal will be published on August 29, and the comment period will end thirty (30) days after that. We will schedule the informal conference shortly after that time.

If you have any questions or concerns please call me at (801) 538-5268.

Sincerely,

Pamela Grubaugh-Littig
Acting Associate Director

tm
P:\GROUPS\COAL\WP\015025.BCN\inf_conf\reply_hc.doc

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

August 15, 2000

Jack Stoyanoff, Manager
North Emery Water Users Association
Box 129
Cleveland, Utah 84518

Re: Request for Informal Conference on Bear Canyon Permit Renewal, Co-Op Mining Company, Bear Canyon Mine, ACT/015/025, Outgoing File

Dear Mr. Stoyanoff:

We are in receipt of your letter dated August 8, 2000 requesting an informal conference on the permit renewal for the Bear Canyon Mine.

The last public notice for permit renewal will be published on August 29, and the comment period will end thirty (30) days after that. We will schedule the informal conference shortly after that time.

If you have any questions or concerns please call me at (801) 538-5268.

Sincerely,

Pamela Grubaugh-Littig
Acting Associate Director

Tm
P:\GROUPS\COAL\WP\015025.BCN\inf_conf\reply.doc

IC Folder

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

July 19, 2000

Jack Stoyanoff, Manager
North Emery Water Users Association
Box 129
Cleveland, Utah 84158

Re: Formal Protest to the Bear Canyon Mine Permit Renewal, Co-Op Mining Company, Bear Canyon Mine, ACT/015/025-PR00, Outgoing File

Dear Mr. Stoyanoff:

The Division received your formal protest to the Bear Canyon Mine permit renewal on June 17, 2000. This protest was the result of the notice for the renewal in the Emery County Progress, dated June 27, 2000. Co-Op Mining Company published this permit renewal notification prematurely. The Division has not yet determined the permit renewal application administratively complete, which is the trigger to begin publication. Therefore, Co-Op Mining Company will need to republish for the permit renewal.

The Division acknowledges your protest and, if it meets with your satisfaction, will set up an informal conference thirty days after the last republication date of the Bear Canyon Mine permit renewal. If this does not meet with your satisfaction, please let me know as soon as possible. My phone number is 801-538-5268.

Thank you.

Sincerely,

Pamela Grubaugh-Littig
Permit Supervisor

tm
cc: Charles Reynolds, Co-Op Mining Company
Robert Davidson
Mary Ann Wright
P:\GROUPS\COAL\WP\015025.BCN\FINAL\NEWUAltr.wpd

[illegible] and in favor
H, the present Beneficiary. The present owner is reported [illegible] DEVON B.

rchase price is payable in lawful money of the United States of America.
) the 18th day of September, 2000

-s- Paul M. Halliday, Jr.
Successor Trustee
876 East 400 South, Suite 300
Salt Lake City, Utah 84111
Telephone: (801) 355-2886
FILE NUMBER 17756

the Emery County Progress September 19, 26 and October 3, 2000.

IITY DEVELOPMENT BLOCK GRANT (CDBG) FIRST PUBLIC HEARING

lle City will hold a public hearing to consider potential projects for which funding
r the cdbg Small Cities Program for FY 2001-02. Suggestions for potential
ed, both verbally and in writing, from all interested parties. The expected
ds for this FY will be discussed along with the range of projects eligible under
eview of previously funded projects. The hearing will begin at 7:30 p.m. on
Orangeville City Hall, 5 North Main. Further information can be obtained by
le City at 748-2651. In compliance with the Americans with Disabilities Act
ecial accommodations (including auxiliary communicative aids and services)
ould notify Orangeville City at the above address at least three days prior to

-s Murleen Bean, CMC
City Recorder

d in the Emery County Progress on October 3 and 10, 2000.

NOTICE

ng described property will be sold to the highest bidder, payable in lawful
ates. Minimum acceptable bid of $6,500.00. Sealed Bids will be accepted
Hall at 35 S 1st W, Cleveland, Utah 84518 or can be mailed to PO Box 325,
Bids will be accepted until 5:00 pm on Thursday, October 12, 2000. Bids will
onthly Town Council Meeting to be held at the above address on October 12,
veland Town reserves the right to accept or reject any or all bids. The
s located in Emery County:
ock 9 Cramer's Subdivision, Cleveland Townsite Survey, 1.04 acres.
mery County Progress on September 19, 26 and October 3, 2000.

INVITATION TO BID

construction of CITY OF GREEN RIVER - CULINARY WATER TREAT-
EMENT PROJECT will be received by the CITY OF GREEN RIVER

d and read aloud at 5:00 PM on OCTOBER 26, 2000 at 240 EAST MAIN
R, UTAH 84525.

d under this project shall consist of furnishing all labor, materials and
nstruct the facilities and features called for by the CONTRACT DOCU-
the DRAWINGS.

project consists of the construction of a 1,000 gpm conventional water
t. The plant equipment, provided under a separate contract, will be
e contractor, along with the construction of a 110' x 64' masonry block
terconnecting piping and valving. Installation of the equipment will in-
ing and installing two (2) 500 gpm treatment [illegible] installation of
al feed equipment, pneumatic and electric controls, piping, valving and
aneous appurtenances necessary to [illegible] and functional
ater treatment plant facility.

o includes the construction of a 200,000 [illegible]
umps for the river intake structure, [illegible] as well as
piping, valving, and [illegible]

NOTICE OF INFORMAL CONFERENCE
CAUSE NO. ACT/0015/025

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

IN THE MATTER OF THE FIVE
YEAR PERMIT RENEWAL FOR
THE CO-OP MINING COMPANY,
BEAR CANYON MINE, EMERY
COUNTY, UTAH

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining ("Division") will conduct an informal conference on October 27, 2000, beginning at 9:00 a.m., at the Department of Natural Resources, 1594 West North Temple, Room 2000, Salt Lake City, Utah.

The informal conference will be conducted in accordance with the Utah Code Ann. § 40-10-13 (1953, as amended) and the Utah Admin. R. 645-300-112 and R. 645-300-123.

Persons interested in this matter may participate pursuant to Utah Admin. R. 645-300-123. The application, subsequent public comments, and request for informal conference may be inspected in the office of the undersigned, 1594 West North Temple, Suite 1210, Salt Lake City, Utah.

Pursuant to the Americans with Disabilities Act, persons requiring auxiliary communicative aids and services to enable them to participate in this conference should call Tiffini Moss at 538-5304, at least three working days prior to the hearing date.

DATED this 21 day of September, 2000.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
-s-Lowell P. Braxton, Director
Division of Oil, Gas and Mining
State of Utah

Published in the Emery County Progress October 3, 2000.

NOTICE OF TRUSTEES SALE

The following described property will be sold at public auction to the highest bidder, payable in lawful money of the United States, at the South Main Entrance, Emery County Courthouse, Castle Dale, Utah, on November 2, 2000, at 12:00 p.m., for the purpose of foreclosing a Trust Deed dated March 24, 1998 and executed by Cory S. Madsen and Pamela S. Harris in favor of Bank of Utah, covering the following real property located in Emery County:

Lot 39, Valley View Subdivision, Plat 4, according to the Official Plat thereof.

Together with all the improvements now or hereafter erected on the property, and all easements, appurtenances, and fixtures now or hereafter a part of the property.

The address of the property is purported to be 730 North Valley View Drive, Castle Dale, UT 84513. The undersigned disclaims liability for any error in the address. The present owners are reported to be Cory S. Madsen and Pamela S. Harris.

Bidders must tender to the trustee a $5,000.00 deposit at the sale and the balance of the purchase price by 12:00 noon the day following the sale. The purchase price must be paid to Lundberg & Associates in the form of a wire transfer, cashier's check or certified funds. Cash payments are not accepted.

Dated: September 22, 2000.

-s Scott Lundberg, trustee
(801) 263-3400
L&A Case No. 14605
Loan No. 6849185
Team A/LCU

THIS COMMUNICATION IS AN ATTEMPT TO COLLECT A DEBT, AND ANY INFORMATION OBTAINED WILL BE USED FOR THAT PURPOSE.

Published in the Emery County Progress October 3, 10 and 17, 2000.

NOTICE OF TRUSTEE'S SALE

The following described property will be sold at public auction to the highest bidder, payable in lawful money of the United States, at the South Main Entrance, Emery County Courthouse, Castle Dale, Utah, on October 19, 2000, at 12:00 p.m., for the purpose of foreclosing a Trust Deed dated August 2, 1999 and executed by Michael J. Christensen and Tiffany A. Christensen in favor of Bank of Utah, covering the following real property located in Emery County:

LOT 22, VALLEY VIEW SUBD[illegible]

INFORMAL CONFERENCE

Co-Op Mining Company
Bear Canyon Mine
ACT/015/025

5- Year Permit Renewal

Name	Company	Telephone Number
Lowell Braxton	OGM	538-5370
D. Scott Crook	DOGM	532-1900
F. Mark Hansen	C.W. Mining Co.	517-3530
Charles Reynolds	C.W. Mining Co.	(435) 687-2450

P:\GROUPS\MINES\WP\inf_conference\sign-in.wpd

CERTIFICATE OF MAILING

I hereby certify that I caused a true and correct copy of the foregoing NOTICE OF INFORMAL CONFERENCE for Cause No. ACT/015/025 to be mailed by certified mail, postage prepaid, on this 21 day of September, 2000 to the following:

Wendell Owen
Co-Op Mining Company
P.O. Box 1245
Huntington, UT 84528
Z 228 354 948

J. Craig Smith
D. Scott Crook
Nielsen & Senior
1100 Eagle Gate Tower
60 East South Temple
Salt Lake City, UT 84111
Z 228 354 949

Carl E. Kingston
3212 South State Street
Salt Lake City, UT 84115
Z 228 354 950

F. Mark Hansen
431 North 1300 West
Salt Lake City, UT 84116-2630
Z 228 354 951

Tiffini Moss

Tiffini Moss
Executive Secretary
Division of Oil, Gas and Mining

Notices were mailed first class, postage prepaid to the following:

Charles Reynolds
Co-Op Mining Company
P.O. Box 1245
Huntington, UT 84528

Eldon Kingston
Mountain Coin Machine District
3753 South State Street
Salt Lake City, UT 84115

Kurt E. Seel
Public Affairs Division
Heber Wells Building
160 East 300 South, 5th Floor
Salt Lake City, UT 84114

James Fulton, Chief
Office of Surface Mining
Reclamation & Enforcement
Denver Field Division
1999 Broadway, Suite 3320
Denver, CO 80202

Richard Manus, Area Manager
Bureau of Land Management
Price Field Office
125 South 6 West
Price, UT 84501

Mary Ann Wright, Acting Chief
Mining Law & Solid Minerals
Bureau of Land Management
324 South State Street
Salt Lake City, UT 84145-0155

Mark Page, Regional Engineer
Utah Division of Water Rights
Southeastern Regional Office
453 South Carbon Avenue
Price, UT 84501

Dave Ariotti, District Engineer
Southeastern Utah Health Department
128 South 100 East
P.O. Box 800
Price, UT 84501

Derris Jones, Habitat Manager
Division of Wildlife Resources
455 West Railroad Avenue
Price, UT 84501

Gary L. Roeder, District Engineer
Natural Resources Conservation Service
350 North 400 East
Price, UT 84501

David Winder, Executive Director
Dept of Community & Economic Development
324 South State Street, Suite 500
Salt Lake City, UT 84111

Bryant Anderson
Emery County Planning & Zoning
P.O. Box 297
Castle Dale, UT 84513

Bill Howell, Executive Director
Southeastern Utah Assoc. of Local Governments
P.O. Box 1106
Price, UT 84501

Elaine Zieroth, Forest Supervisor
U.S. Forest Service
599 West Price River Drive
Price, UT 84501

Reed Harris, Assistant Field Supervisor
U.S. Fish & Wildlife Service
Ecological Services
Lincoln Plaza
145 East 1300 South, Suite 404
Salt Lake City, UT 84115

Robert Morgan, State Engineer
Utah Division of Water Rights
Department of Natural Resources
1636 West North Temple
Salt Lake City, UT 84116

Brent Bradford, Deputy Director
Office of the Executive Director
Department of Environmental Quality
168 North 1950 West
Salt Lake City, UT 84114

John Kimball, Director
Utah Division of Wildlife Resources
1594 West North Temple
Salt Lake City, UT 84114

Max J. Evans, Director
Utah Division of State History
300 Rio Grande
Salt Lake City, UT 84101

David Terry, Director
School & Institutional Trust Lands Admin.
675 East 500 South
Salt Lake City, UT 84102

Ronald P. Parkin, State Mine Inspector
Industrial Commission of Utah
c/o College of Eastern Utah
451 East 400 North
Price, UT 84501

Thomas Bingham, President
Utah Mining Association
Kearns Building
136 South Main, Suite 709
Salt Lake City, UT 84101

Chuck Semborski, Environmental Chairman
Energy West Mining Company
P.O. Box 310
Huntington, UT 84528

Carolyn B. Wright, Research Analyst
Office of Planning & Budget
State Planning Coordinator Office
116 Capitol
Salt Lake City, UT 84114

Mike Schwinn, District Engineer
U.S. Army Corps of Engineers
1403 South 600 West
Bountiful, UT 84010

William P. Yellowtail, Jr.
Regional Administrator
Environmental Protection Agency
999 18th Street
Denver Place, Suite 500
Denver, CO 80202-2405

Kathleen Clarke, Executive Director
Department of Natural Resources
1636 West North Temple, Suite 316
Salt Lake City, UT 84116

Dave D. Lauriski, Chairman
Board of Oil, Gas and Mining
739 East 2900 South
Box 7
Price, UT 84501

John W. Andrews, Attorney
School & Institutional Trust Lands Admin.
675 East 500 South, Suite 500
Salt Lake City, UT 84102

Duane K. Jensen, President
Board of Directors
Huntington-Cleveland Irrigation Company
Box 395
Cleveland, UT 84518

Menco Copinga, President
North Emery Water Users Association
Box 129
Cleveland, UT 84518

Lee Lemon, Vice President
Board of Directors
Huntington-Cleveland Irrigation Company
Box 1183
Huntington, UT 84528

Varden Willson, Secretary
Huntington-Cleveland Irrigation Company
Box 327
Huntington, UT 84528

Jay Mark Humphrey
Emery Water Conservancy District
P.O. Box 998
Castle Dale, UT 84513

Tiffini Moss

Tiffini Moss
Executive Secretary
Division of Oil, Gas and Mining

P.01

TRANSACTION REPORT

SEP-26-2000 TUE 02:14 PM

FOR: OIL, GAS & MINING 801 359 3940

DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#	DP
SEP-26	02:13 PM	14356372716	1'05"	3	SEND	OK	898	

TOTAL : 1M 5S PAGES: 3

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

UTAH DIVISION OF OIL, GAS AND MINING
FACSIMILE COVER SHEET

DATE: September 26, 2000

FAX#: (435) 637-2716

ATTN:

COMPANY: Sun Advocate/ Emery Coutny Progress

DEPARTMENT:

NUMBER OF PAGES: (INCLUDING THIS ONE) 3

FROM: Tiffini Moss (801-538-5304)

If you do not receive all of the pages, or if they are illegible, please call (801)538-5340

P.01

TRANSACTION REPORT

SEP-26-2000 TUE 01:38 PM

FOR: OIL, GAS & MINING 801 359 3940

DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#	DP
SEP-26	01:37 PM	14356372716	**' **"	0	SEND	BUSY	896	

TOTAL : 0S PAGES: 0

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

Resent 2:10 PM

UTAH DIVISION OF OIL, GAS AND MINING
FACSIMILE COVER SHEET

DATE: September 26, 2000

FAX#: (435) 637-2716

ATTN:

COMPANY: Sun Advocate/ Emery Coutny Progress

DEPARTMENT:

NUMBER OF PAGES: (INCLUDING THIS ONE) 3

FROM: Tiffini Moss (801-538-5304)

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

UTAH DIVISION OF OIL, GAS AND MINING
FACSIMILE COVER SHEET

DATE: September 26, 2000

FAX#: (435) 637-2716

ATTN:

COMPANY: Sun Advocate/ Emery Coutny Progress

DEPARTMENT:

NUMBER OF PAGES:(INCLUDING THIS ONE) 3

FROM: Tiffini Moss (801-538-5304)

If you do not receive all of the pages, or if they are illegible, please call (801)538-5340.
We are sending from a sharp facsimile machine. Our telecopier number is (801)359-3940.

MESSAGES:

Important: This message is intended for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have recieved this communication in error, please notify us immediately by telephone and return this original message to us at the above address via regular postal service. Thank you.

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

September 26, 2000

Facsimile Transmittal
(435) 637-2716

Sun Advocate
Emery County Progress
845 East Main
P. O. Box 870
Price, Utah 84501-0870

Re: Notice of Informal Conference

Enclosed is a notice of Informal Conference from the Division of Oil, Gas and Mining, Department of Natural Resources, State of Utah.

It is requested that this notice be published ONCE ONLY no later than Friday, October 13, 2000, in both the Sun Advocate and Emery County Progress. In the event that said notice cannot be published by this date, please notify me immediately by calling (801) 538-5304.

Upon completion of this request, please send proof of publication and statement of cost to the Division of Oil, Gas and Mining, P. O. Box 145801, Salt Lake City, Utah 84114-5801.

Sincerely,

Tiffini Moss

Tiffini Moss
Executive Secretary

tm
Enclosure
P:\GROUPS\COAL\WP\015025.BCN\Conference\permit renewal\npcoverltr.doc

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

--ooOOoo--

IN THE MATTER OF THE FIVE YEAR PERMIT RENEWAL FOR THE CO-OP MINING COMPANY, BEAR CANYON MINE, EMERY COUNTY, UTAH	:	NOTICE OF INFORMAL CONFERENCE
	:	CAUSE NO. ACT/015/025
	:	

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining ("Division") will conduct an informal conference on October 27, 2000, beginning at 9:00 a.m., at the Department of Natural Resources, 1594 West North Temple, Room 2000, Salt Lake City, Utah.

The informal conference will be conducted in accordance with the Utah Code Ann. § 40-10-13 (1953, as amended) and the Utah Admin. R. 645-300-112 and R. 645-300-123.

Persons interested in this matter may participate pursuant to Utah Admin. R. 645-300-123. The application, subsequent public comments, and request for informal conference may be inspected in the office of the undersigned, 1594 West North Temple, Suite 1210, Salt Lake City, Utah.

Pursuant to the Americans with Disabilities Act, persons requiring auxiliary communicative aids and services to enable them to participate in this conference should call Tiffini Moss at 538-5304, at least three working days prior to the hearing date.

DATED this 21 day of September, 2000.

STATE OF UTAH
DIVISON OF OIL, GAS AND MINING

Lowell P. Braxton

Lowell P. Braxton, Director
Division of Oil, Gas and Mining
State of Utah

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

---ooOoo---

IN THE MATTER OF THE FIVE-YEAR PERMIT RENEWAL AT THE CO-OP MINING COMPANY, BEAR CANYON MINE, EMERY COUNTY, UTAH	:	FINDINGS, CONCLUSIONS AND ORDER
	:	CAUSE NO. ACT/015/025
	:	

---ooOoo---

On October 27, 2000, the Division of Oil, Gas and Mining ("Division") held an informal conference concerning the Five-year Permit Renewal for the Co-Op Mining Company, Bear Canyon Mine. The following individuals attended:

Presiding:	Lowell P. Braxton, Director Division of Oil, Gas and Mining
Petitioner:	D. Scott Crook for Huntington-Cleveland Irrigation Company
Applicant:	F. Mark Hansen and Charles Reynolds Co-Op Mining Company

The Findings, Conclusions, and Order in this matter are based on information provided by the Petitioner and Applicant in connection with this informal conference, and on information in the files of the Division.

THE INFORMAL CONFERENCE

Petitioner stressed that the Division has an obligation to determine that the terms and conditions of the existing permit are being satisfactorily met, and that the present coal mining and reclamation operations are in compliance with the environmental protection standards of the state program. Petitioner asked that the Division ensure that the reclamation performance bond in effect for the current permit remain in full force for the renewal, and that any increase required by the Division be in full force and effect. Petitioner also asked that the Division assure the hydrological information supporting the Bear Canyon Mine permit, including the Probable Hydrological Consequences (the PHC) document and

the Cumulative Hydrologic Impact Assessment document (the CHIA) are complete, accurate and up to date. Petitioner raised concerns regarding the source of water emanating from Big Bear Spring may not be fully understood. Petitioner noted that "springs" SBC 7, 8, 9, and 10 have demonstrated flow decreases not attributable to seasonal changes, and likely attributable to mining activities at the Bear Canyon Mine.

Mr. Reynolds noted that water monitoring points SBC 7, 8, 9 and 10 are in-mine water monitoring points.

Petitioner noted there may be circumstantial evidence that the Bear Canyon Mine may be interrupting flows at Big Bear Spring. The Conference Officer asked if Petitioner was going to present evidence to support this opinion, and was told "we're not presenting any evidence here today."

Petitioner cited findings and conclusions from an informal hearing conducted on the contiguous Wild Horse Ridge property that suggested geologic data might be inadequate to characterize the Blackhawk sandstones, the Blackhawk coal units and the Star Point sandstone. Petitioner wanted to apply these findings to the area of the CHIA, but was told that those findings and conclusions only dealt with the northern part of the Wild Horse Ridge lease addition, which was not at this time part of the Bear Canyon Mine renewal.

Petitioner suggested the subjectivity of certain geologic data in the cumulative impact area (CIA) for the Bear Canyon Mine and requested caution in the review of the Bear Canyon Mine renewal. Petitioner further stressed that the Division should carefully evaluate any hydrologic impact that may affect people who are downstream of the coal mine.

Applicant noted that the permit has a reclamation bond in force (an irrevocable letter of credit), and that a new bond amount was being established as a function of the permit renewal. Petitioner reiterated the position that the bond amount be adequate.

Applicant noted that Petitioner carries the burden of proof when contesting a permit renewal. The Applicant also noted earlier litigation had established that Big Bear Spring is not hydrologically connected with the Bear Canyon Mine, and stated that previous litigation had not substantiated mining at

the Bear Canyon Mine having an impact on Big Bear Spring. Applicant cited the doctrine of collateral estoppel would bar re-litigation of this issue. The Applicant further noted that the Utah Supreme Court found that "Res judicata which substantiates the doctrine of collateral estoppel applies to administrative adjudication in Utah." Applicant argued that no new evidence regarding a relationship between Big Bear Spring and the Bear Canyon Mine had been presented by petitioners.

FINDINGS OF FACT

1. By letter dated August 17, 2000, Petitioner requested an "informal conference" to discuss issues of concern to the renewal of the Bear Canyon permit application.

2. Notice of the informal conference was properly given.

3. Pursuant to Utah Code Ann. Section 40-10-13 and Utah Administrative Rule R645-300-123, an informal conference in the matter was held on Friday, October 27, 2000.

4. The Division is reviewing the adequacy of the Bear Canyon reclamation bond as part of the permit renewal activity.

5. The findings and conclusions of inadequate geologic data for the Wild Horse Ridge addition to the Bear Canyon permit do not apply to the Bear Canyon permit renewal, because that proposed permit modification has not been finalized and incorporated into the Bear Canyon permit at this time.

6. No evidence was presented in this conference suggesting that materials in the current permit that discuss the source for the Big Bear Spring are inadequate.

7. Water monitoring points SBC 7, 8, 9, and 10 are in-mine water monitoring points, not springs, and the water monitoring data derived from these points do not support a finding that state appropriated water has been contaminated or diminished.

8. In its request for the conference, and in the conference, Petitioner presented no data supporting water contamination or diminution of state appropriated waters resulted from coal mining and reclamation operations at the Bear Canyon Mine.

9. In the conference, Petitioner presented no data to support his burden that renewal of the Bear Canyon mining and reclamation permit would be counter to the provisions of the Utah Coal Regulatory Program.

10. A stenotype recording of the conference proceedings was converted to type and certified to be a true and correct transcription of the conference by Kerry Sorensen, a Registered Professional Reporter.

CONCLUSIONS OF LAW

1. No evidence substantiating denial of Applicant's request for renewal of the Bear Canyon permit was presented at the conference.

2. In the determination of whether to approve or deny a renewal of a permit, the burden of proof is on the opponents of the renewal.

3. No opinion is rendered regarding the argument for application of res judicata and collateral estoppel in this informal conference.

ORDER

1. The Division shall continuing processing the Bear Canyon permit renewal application following statutory and regulatory mandates of the Utah Coal Regulatory Program.

APPEAL PROVISIONS

As anticipated at R 645-300-200, within 30 days of your receipt of this letter, you or your agent may make a written appeal of these Findings, Conclusions and Order to the Board of Oil, Gas and Mining. Failure to comply with the 30-day requirement will result in a waiver of your right of further recourse.

SO DETERMINED AND ORDERED this 27th day of November, 2000.

Lowell P. Braxton

Lowell P. Braxton, Director
Division of Oil, Gas and Mining
State of Utah

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CERTIFICATE OF MAILING

I hereby certify that I caused a true and correct copy of the foregoing FINDINGS, CONCLUSIONS AND ORDER for Cause No. ACT/015/025 to be mailed by certified mail, postage prepaid, on this day 28TH of November, 2000 to the following:

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Angela Nance

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Angela Nance

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

INFORMAL CONFERENCE, CAUSE NO. ACT/015/025

IN THE MATTER OF THE FIVE YEAR PERMIT RENEWAL FOR THE CO-OP MINING COMPANY, BEAR CANYON MINE, EMERY COUNTY, UTAH

Place: DEPARTMENT OF NATURAL RESOURCES
1594 West North Temple, Room 2000
Salt Lake City, Utah 84114
Date: October 27, 2000
Time: 9:00 a.m.
Reporter: Kerry J. Sorensen, CSR/RPR

APPEARANCES

The Conference Officer:
Mr. Lowell P. Braxton
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple, Suite 1210
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(801) 538-5370

For Huntington-Cleveland Irrigation Company:
Mr. D. Scott Crook
NIELSEN & SENIOR
60 East South Temple, Suite 1000
Salt Lake City, Utah 84111
(801) 532-1900

For C.W. Mining Company:
Mr. F. Mark Hansen
431 North 1300 West
Salt Lake City, Utah 84116
(801) 517-3530

Also Present:
Mr. Charles Reynolds

October 27, 2000
9:00 a.m.
PROCEEDINGS

THE CONFERENCE OFFICER: This is the time and the place for the matter of the informal hearing -- informal conference, I should say, for the permit renewal of Co-Op Mining Company, Bear Canyon Mine, Cause Number ACT/015/025.

I think we should have everybody that's representing somebody here identify themselves, and then I think the two parties can discuss which order they want to go in.

MR. CROOK: I'm Scott Crook, representing Huntington-Cleveland Irrigation Company.

MR. HANSEN: I am Mark Hansen, representing C.W. Mining Company.

MR. REYNOLDS: I'm Charles Reynolds, representing C.W. Mining Company.

THE CONFERENCE OFFICER: And for the record, I'm Lowell Braxton, the Conference Officer.

Scott, presumably, you know, you go first, but is there any objection to that on

your part?

MR. HANSEN: No. We're just here to respond to the protestors and whatever issues they raise.

THE CONFERENCE OFFICER: Very good.

MR. CROOK: Okay. I represent the Huntington-Cleveland Irrigation Company, which holds significant water rights in Huntington Creek and the tributaries to it. As I am sure the Division is aware, by the number of our appearances here, Huntington-Cleveland has significant interests in assuring that both the quantity and quality of water is protected from diminishment and degradation by those upstream of its rights, and that includes Co-Op Mining Company.

Huntington-Cleveland, of course, is aware that an application for renewal carries with it the right of successive renewals, and that's found in Utah Administrative Rule R.645-303-231. However, Huntington-Cleveland would like to stress that the Division has the duty to -- to determine, one, that the terms and conditions of existing permit are being satisfactorily -- satisfactorily met --

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that's found in R.645-303-233.110 -- and that, two, the present coal mining and reclamation operations are in compliance with the environmental protection standards of the state program. And that is found at R.645-303-233.120. Additionally, Utah Administrative Rule R.645-303-232.200 to -250 provides the Division may require additional revised or updated information in a renewal application.

We come to the Division, first, to ask that the Division assure that, pursuant to R.645-303-232.230, Co-Op provides evidence that the performance bond in effect for the operation will continue in full force and effect for any renewal requested, as well as any additional bond required by the Division.

With regard to the bond, Co-Op's application states only that "The current amount of the bond filed with the Division in the form of an irrevocable letter of credit is $899,000.00. We are in the process of determining a new estimate," end quote. Huntington-Cleveland submits that this unilateral -- unilateral unsupported

declaration is insufficient to meet the evidentiary requirements.

Turning to Huntington-Cleveland's second concern, which is its primary concern, we believe that the Division should require that Co-Op provide assurance and that the Division assure that the hydrological information supporting the Bear Canyon Mine permit, including the Probable Hydrological Consequences and the Comprehensive Hydrological Impact Assessment, are complete, accurate, and up to date.

The reasons for our concern include, first, despite several studies, including the Mayo report, which is a report prepared to describe the surface water and groundwater systems of the current Bear Canyon Mine lease area, the Wild Horse Ridge area, and the Mohrland area, in support of Chapter 7 of the Mining and Reclamation Plan, and the Gentry Mountain CHIA prepared by the Division, the source of the water supply and the recharge areas for Big Bear Spring and Birch Spring, tributaries to Huntington Creek, are unknown, or largely unknown. Big Bear Spring provides

culinary water to Huntington City through Castle Valley Service District, and Birch Spring provides culinary water to unincorporated Emery County through North Emery Water Users. And both of those entities are Huntington-Cleveland shareholders.

The Mayo report -- report postulates that the source of the Bear -- Big Bear Spring is a connection to Nuck Woodward Canyon and Tie Fork, north of the Gentry Mountain area. However, other likely explanations include that the Bear Canyon fault, which is impacted by -- I'm sorry, that the source of water could be Bear Canyon fault, which is impacted by mining activities at Bear Canyon Mine. And we have a significant interest in assuring that the quantity of water and the quality of water is not affected by any further activity at Bear Canyon Mine.

Our second concern stems from the fact that Bear Canyon Mine admittedly intercepts groundwater. Just looking at the Gentry Mountain CHIA and the Mayo report,

Source of B Bear Spring

there are significant indications that Bear Canyon Mine has been responsible for drying up at least the spring referred to as SBC-7. Now, Bear Canyon Mine had the spring discharging at 18 gallons per minute to 14 gallons per minute -- minute, without significant seasonal variations from 1988. By February of 1990, the spring stopped flowing. And that -- the source of that information is the Mayo report at Page .53.

SBC-8 was encountered in 1988, another spring, and discharged at 18 to 21 gallons per minute. The report -- Mayo report, at 53, also says that.

THE CONFERENCE OFFICER: Excuse me. You said it was encountered in '88?

MR. CROOK: Yeah.

THE CONFERENCE OFFICER: What do you mean by that?

MR. CROOK: As mining -- as mining proceeded in the Bear Canyon Mine, SBC-8 was encountered. As the mining went in, as it proceeded, there was another mine, another spring source that was encountered.

MR. REYNOLDS: And -- and just for

SBC 7-8 are in mine mont. Posts

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1 a little clarification, both sites were
2 underground water sources within the mine
3 that were encountered.
4 THE CONFERENCE OFFICER: Thank you.
5 Do you agree with that?
6 MR. CROOK: Yes.
7 MR. HANSEN: In fact, there were
8 drill holes that we created weren't there, or
9 seeps that we created during the mining?
10 MR. CROOK: I'm not sure that SBC-7
11 was a seep that was created originally by --
12 MR. REYNOLDS: Yeah. It -- it
13 originally flows inside of the old Bear
14 Canyon --
15 THE CONFERENCE OFFICER: Excuse me.
16 Thank you.
17 MR. CROOK: Okay. SBC-9, which
18 was, I believe, a seep that was created by
19 Bear Canyon mine activity, flows at a rate
20 from a starting point of about 120 gallons
21 per minute, since 1990. Now the latest
22 report that I saw from the Mayo report
23 indicates it's now at 50 gallons per minute.
24 But that has been a steady flowing spring or
25 seep for ten years, but the -- the seep has

SBC 9

1 -- I'm sorry. The flow has continued. It's
2 now decreasing. But that's a significant
3 amount of time for the water to be seeping
4 into the -- into the mine, and there has been
5 obvious -- obviously, a huge impact on
6 groundwater seeping into the mine.
7 There's, also, SBC-10, which is
8 flowing at a rate of approximately 20 gallons
9 per minute, presently. It was started -- it
10 started at 250 gallons per minute in 1991.
11 SBC-10 is now inaccessible, but SBC-13
12 appears to be the flow that it is coming
13 from. And that's taken from the Mayo report,
14 54 to 56. The Gentry Mountain CHIA indicates
15 the same conclusion on Page .49.
16 Obviously, Bear Canyon Mine is
17 having impact on water quantity, and there is
18 some circumstantial evidence that mining
19 activity has impacted Big Bear Spring flow.
20 Now, the Mayo report suggests that it has had
21 no impact. However, they -- it derives that
22 conclusion simply from recharge rates that it
23 describes out of the springs that we were
24 just speaking about. However, it does not --
25 it doesn't account for possible other sources

SBC 10

1 of groundwater interruption in Big Bear -- I
2 mean in the Bear Canyon Mine.
3 Our third concern --
4 THE CONFERENCE OFFICER: Is that
5 your circumstantial evidence right there, or
6 do you have evidence that you're going to
7 present to support what you just said?
8 MR. CROOK: We have -- I -- I would
9 suggest that -- well, first of all, we're not
10 presenting any evidence here today.
11 THE CONFERENCE OFFICER: Okay.
12 MR. CROOK: What we are saying is
13 that there is no evidence. What we have is
14 supposition about what the source of Big Bear
15 Spring is. However, as mining has continued
16 in -- in the area -- I've got the report
17 here, but --
18 THE CONFERENCE OFFICER: Well, I
19 just want to clarify what I thought I heard
20 you say. You said there's circumstantial
21 evidence of mining impact on Big Bear Spring;
22 is that correct?
23 MR. CROOK: Yes.
24 THE CONFERENCE OFFICER: Okay.
25 MR. CROOK: And that is found in

1 the reports themselves, prior to 19- -- and I
2 -- I don't have the dates here, but -- I'm
3 trying to remember the dates. From I think
4 it was approximately 1995, there was a
5 seasonal variation in the flow rates that
6 occurred in June and July. There showed an
7 up- -- an upsurge of flow rates in the summer
8 months since 1995; I believe that's the
9 correct year. The flow rates have not
10 increased at that time. There's
11 circumstantial evidence that -- that is our
12 circumstantial evidence, that Big Bear -- I
13 mean -- I'm sorry, Bear Canyon Mine has
14 effected the flow coming into that spring. I
15 believe it was 1995.
16 Now, recent findings and conclusions
17 and orders from DOGM suggest caution, also.
18 In the matter of the application of Co-Op
19 Mining Company to mine the Wild Horse Ridge
20 addition of the Bear Canyon Mine, there were
21 Findings and Conclusions ordered by this
22 Division. And that was stated March 22nd of
23 2000. There was an opinion issued on Page .6.
24 The first conclusion of law states,
25 "In the northern portion of the Wild Horse

Wild horse Ridge ~~geology~~ not a part of the activity

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1 Ridge Addition, the geological control for
2 characterizing Blackhawk sandstones, Blackhawk
3 coal units, and the potential water-bearing
4 Star Point sandstones is inadequate."
5 Number 2 under that conclusion was
6 that "Clarification is needed in the permit
7 application regarding the possible effects of
8 coal mining in the Wild Horse Ridge Addition
9 on Big Bear Spring. However, many concerns
10 raised in the informal conference are
11 addressed in the February 21, 2000 letter,
12 'Responses to concerns of Castle Valley
13 Special Services District,' from Mayo and
14 Associates to Charles Reynolds of Co-Op."
15 This suggests that the Wild Horse
16 Ridge Addition, as I'm sure the Division is
17 aware, is an amendment to the Big -- the Bear
18 Canyon mining lease application, in an
19 attempt to increase the -- the mining that
20 would increase of the Bear Canyon Mine. The
21 Mayo report was submitted with that. There
22 was a -- an informal conference held, in
23 which the Mayo report was discussed at
24 length, and these are the -- this is the
25 order and conclusion that came out of that --

1 out of that informal conference.
2 THE CONFERENCE OFFICER: Is the Wild
3 Horse Ridge, in your opinion, part of this
4 permit at this time?
5 MR. CROOK: Well, I don't -- I
6 don't -- it's -- from my understanding, it is
7 still a -- it's still not been approved, if
8 that's correct.
9 MR. REYNOLDS: That's correct.
10 MR. CROOK: However, the Mayo report
11 was prepared for the entire area, not just
12 the Wild Horse Ridge area, and includes
13 studies of the Bear Canyon mining and lease
14 area, the Wild Horse Ridge area, and the
15 Mohrland area. And so the discussion at the
16 time of the informal conference discussed the
17 entire hydrological impacts of the entire
18 area, not just the Wild Horse Ridge
19 application.
20 THE CONFERENCE OFFICER: Correct.
21 Let's -- let's come back to the
22 part that you quoted, I believe from Page .6
23 in that report, talking about the Blackhawk
24 geology. Would you read that again.
25 MR. CROOK: I'm sorry. It's not

1 from the report, it's from the --
2 THE CONFERENCE OFFICER: From the
3 conference.
4 MR. CROOK: -- which there were
5 two. There was one which said, "In the
6 northern portion of the Wild Horse Ridge
7 area, the geological control for
8 characterizing Blackhawk sandstones, Blackhawk
9 coal units, and the potential water-bearing
10 Star Point sandstones is inadequate."
11 THE CONFERENCE OFFICER: Now, do you
12 believe that applies to the entire permit
13 area and the part we are talking to now, or
14 do you believe that that's -- it's fairly
15 narrowly confined?
16 MR. CROOK: Well, I think that it
17 has two interpretations; one, that it appears
18 the Division is taking the position that it's
19 only speaking of the Wild Horse Ridge area.
20 But I would say that you cannot separate the
21 hydrological consequences of -- of the Mayo
22 report, the Wild Horse Ridge area; that if --
23 if the Mayo report is inadequate in that
24 area, that can have an impact and should be
25 studied by the Division to determine if there

find intent to WHR only

1 are hydrological impacts to the -- to the
2 entire coal mining area.
3 THE CONFERENCE OFFICER: Is that
4 discussed further in the -- in the hearing
5 that you talked about?
6 MR. CROOK: The Mayo report was
7 discussed.
8 THE CONFERENCE OFFICER: No. I'm
9 talking about the hearing right now, because
10 that's what we're talking about.
11 MR. CROOK: That's -- and I was
12 answering the question. The hearing
13 discussed the Mayo report. The Mayo report
14 discussed more than the Wild Horse Ridge
15 application.
16 THE CONFERENCE OFFICER: But the
17 conclusions of the hearing didn't cover the
18 entire Mayo report, did they?
19 MR. CROOK: They did.
20 THE CONFERENCE OFFICER: They did?
21 MR. CROOK: Yes.
22 And I would just --
23 THE CONFERENCE OFFICER: That may be
24 your opinion, then.
25 MR. CROOK: Well, this is -- this

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1 is how I would see it, Mr. Braxton. If the
2 Mayo report was discussed, which was part of
3 the amendment, and that wasn't -- the
4 discussion was not -- I know that our office
5 did not confine our discussions to the simple
6 Wild Horse Ridge application of the Mayo
7 report, because it is impossible to do that.
8 The Mayo report is comprehensive. It deals
9 with the entire hydrology of the Gentry
10 Mountain area. It discusses the Bear Canyon
11 Mine and it discusses the Mohrland area
12 expansion -- expansion. If there was a
13 discussion of the Mayo report, it could not
14 have been confined simply to a discussion of
15 the Wild Horse Ridge application.
16 THE CONFERENCE OFFICER: I'm not
17 questioning the discussion of the Mayo
18 report, I'm questioning the nexus that you're
19 bringing that says because we reach a
20 conclusion in the Wild Horse Ridge portion of
21 the Bear Canyon permit application, that that
22 conclusion applies broadly to the entire
23 permit area.
24 MR. CROOK: Well, I'm not --
25 THE CONFERENCE OFFICER: And that's

1 -- that's the only part that I'm wanting to
2 discuss right now.
3 MR. CROOK: Okay. If -- if the
4 question is -- and this is -- if the question
5 is am I asserting that this applies to the
6 Bear Canyon Mine; in other words, that the
7 conclusion --
8 THE CONFERENCE OFFICER: That was my
9 question to you, yeah.
10 MR. CROOK: -- the -- the
11 conclusion meaning that this order affected
12 Bear Canyon Mine without the Wild Horse Ridge
13 application, I would say you're absolutely
14 correct. Of course, the order is dealing
15 only with that application. What I'm
16 suggesting, however, is that these findings
17 and conclusions and orders suggest caution,
18 because we're talking about the same
19 hydrological area, we're talking about the
20 same -- the Gentry Mountain area. And that's
21 all I'm suggesting. I'm not suggesting that
22 they -- that -- that Bear Canyon Mine,
23 particularly, without the Wild Horse Ridge
24 application, is -- is required to follow this
25 order. It's only --

1 THE CONFERENCE OFFICER: That's
2 helpful. Thank you.
3 MR. CROOK: Okay. So this will
4 also help. I think, in the next thing that I
5 will point to, and that is in the matter of
6 the proposed Phase III bond release at the
7 Co-Op Mining Company Trail Canyon Mine, which
8 is also part of this -- the Gentry Mountain
9 agreement, at Cause Number ACT/015/021, Slip
10 Opinion at 4. This was issued October 24th,
11 2000.
12 An order was entered by the Division
13 which says, "The Division is to proceed with
14 processing the Applicant's request for Phase
15 III bond release. The technical analysis
16 associated with -- with this request should
17 develop a position with respect to, (1)
18 'Evidence from inspection reports and other
19 information that may clarify if drainage from
20 the Trail Canyon portals has occurred
21 subsequent to backfilling,' and, (2) 'Water
22 monitoring data with the intent of
23 determining if contamination or dimunition of
24 waters in the permit, and adjacent areas has
25 resulted from coal mining and reclamation

1 operations at Trail Canyon.'"
2 Again, I'm not saying that this
3 applies to Bear Canyon Mine. What I am
4 saying, however, is that since this is in the
5 same -- is in the same Gentry Mountain area,
6 that if the Division is concerned about these
7 things, with these two applications, that
8 that urges the -- that urges some caution in
9 dealing with the Bear Canyon permit renewal
10 application.
11 We respectfully request that the
12 Division require that Co-Op show that the
13 hydrological information supporting the Bear
14 Canyon Mine permit, including the Probable
15 Hydrological Consequences and the
16 Comprehensive Hydrological Impact Assessment,
17 are complete, accurate, and up to date.
18 That's simply what we're asking.
19 Huntington-Cleveland has, I think, a
20 legitimate and serious concern about quantity
21 and quality of water. The Division is aware
22 of the geological area, it's aware of the
23 facts and the -- the climate that Bear Canyon
24 finds itself in. It's familiar with that
25 area. We're simply suggesting that

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Page 21

1 Huntington-Cleveland has a legitimate concern.
2 Its concern is that the Division take -- take
3 a -- a careful look at any hydrological
4 impact that may effect people who are
5 downstream of the coal mine. And we suggest
6 the Mayo report and other -- the Gentry
7 Mountain CHIA show that. There are so many
8 things that are unknown about the coal mine,
9 that a careful analysis is not out of turn,
10 and that we -- we would simply suggest that
11 we would like the Division to look at that
12 carefully or ask that Co-Op assure that what
13 they've got there is -- is complete,
14 accurate, and up to date.
15 THE CONFERENCE OFFICER: You're
16 basically asking that the Division to follow
17 its own rules; is that what you're saying?
18 MR. CROOK: Yeah. Yes. And -- and
19 I don't have any reason to believe that the
20 Division wouldn't follow its own rules, but
21 what we -- our problem is that we see these
22 reports and their reports are inconclusive
23 about stream sources and recharge areas, and
24 it concerns us that -- or it concerns
25 Huntington-Cleveland that sometimes, given

Page 22

1 those reports, that the Division should be --
2 well, let's say it this way, that the
3 Division, although following it's own rules,
4 should be especially careful in this area.
5 We're just concerned because there's no
6 evidence of -- well, I won't say no evidence,
7 because there are conclusions extrapolated in
8 the Mayo report and the CHIA, but those are
9 inconclusive. There is no definitive
10 determination of sources of water in the
11 recharge area. So we're simply asking the
12 Division to be -- to assure that more study
13 is done so that water users, particularly
14 culinary water users, are protected.
15 THE CONFERENCE OFFICER: Thank you.
16 Anything further at THIS time?
17 MR. CROOK: No.
18 THE CONFERENCE OFFICER: Turning to
19 Co-Op.
20 MR. HANSEN: Do you want to go
21 first, or me?
22 MR. REYNOLDS: I suppose that you
23 can go ahead and go. I --
24 MR. HANSEN: Okay.
25 MR. REYNOLDS: I don't think I have

Page 23

1 too much to add.
2 MR. HANSEN: Let's take Mr. Crook's
3 points in order. The first point was
4 concerns over evidence of the performance
5 bond. As Mr. Crook points out, the
6 application states that the bond is an
7 irrevocable letter of credit in a sum certain
8 amount. An irrevocable letter of credit
9 drawn on the bank in a sum certain amount is
10 more than just some amorphous evidence, it's
11 -- it's -- it basically amounts to a -- a
12 cash bond that cannot be withdrawn as long as
13 it -- that letter of credit is in DOGM's
14 position -- possession, and it certainly
15 satisfies the regulatory requirements. And
16 then if the DOGM determines that that bond is
17 insufficient, then it can come back to C.W.
18 Mining Company and make those concerns so
19 those can be addressed. But as of right now,
20 the irrevocable letter of credit is nearly
21 $900,000. Unless there's some reason to
22 object to it, it is, in fact, a bond.
23 MR. REYNOLDS: I might also add,
24 too, there has been additional correspondence
25 with the Division direct to the bond.

Page 24

1 THE CONFERENCE OFFICER: That was
2 going to be my question. There's a
3 regulatory requirement to submit a notarized
4 statement of one sort or another. Has that
5 done been now?
6 MR. REYNOLDS: Yes.
7 THE CONFERENCE OFFICER: That --
8 that, at least in your opinion, meets the
9 requirements of the reg. Have you received
10 any correspondence from the Division?
11 MR. REYNOLDS: At this point we
12 haven't got any written, but we have got the
13 verbal correspondence concerning a new amount
14 that has been determined and set. And we
15 are, at this point, in the process of
16 increasing that letter of credit through
17 the --
18 THE CONFERENCE OFFICER: So the bond
19 is going to go up. And have you provided the
20 -- again, the notarized statement, or will
21 that happen after the Division approves the
22 bond amount?
23 MS. GRUBAGH-LITTIG: Well, we
24 have --
25 THE CONFERENCE OFFICER: Please go

6 (Pages 21 to 24)

ahead.
MS. GRUBAUGH-LITTIG: May I interrupt?
We have evidence in our files that we do have the letter of credit and it is in effect. I mean, we do have the physical document in our files. And there has been an escalation factor, which is just done for a five-year period, that would increase it. And Co-Op is working on it. But we do have evidence that it is in effect at this time.
THE CONFERENCE OFFICER: Is -- is that your concern, Mr. Crook, or are you looking for the -- the thing that I thought you were looking for in the previous hearing like this, wanting to see strictly the notarized statement and -- and that type of compliance with the law?
MR. CROOK: I didn't think that there was any problem with the notarized compliance. We just wanted to --
THE CONFERENCE OFFICER: So you just want to make sure the bond is adequate?
MR. CROOK: Right. Right.
MS. GRUBAGH-LITTIG: Do you mean as

far as the amount, or as far as --
MR. CROOK: Well, my -- our -- our concern was that we didn't think a -- just a statement was sufficient, if the --
MS. GRUBAUGH-LITTIG: Oh.
MR. CROOK: -- if the Division has it in its possession.
MS. GRUBAGH-LITTIG: But we -- I have physical --
(There was a discussion held off the record.)
MS. GRUBAUGH-LITTIG: I was just going to say that I have personal knowledge that we do have it in our possession.
THE CONFERENCE OFFICER: Please continue.
Thank you.
MR. HANSEN: I think that adequately addresses the performance bond issue.
The -- the second issue -- and as I see it, there's really only two issues raised here, Mr. Crook. Those are concerns over the area hydrology and the adequacy of the evidence to support the permit in the area of hydrology; is that correct?
MR. CROOK: No.

MR. HANSEN: Pardon?
MR. CROOK: No. I -- I think that my second concern is not a statement of the adequacy of information, it's about the -- I think that it needs to be -- there needs to be some assurance that it's complete, accurate, and up to date, that there needs to be a little bit more assurance that water quality and quantity will not be impacted.
So maybe I just -- maybe adequacy of information is the right way to put it.
MR. HANSEN: I -- I'm going to be speaking a little bit about the contents of the Mayo report, but I primarily want to address the legal issues that are -- are raised by Mr. Crook's concerns. The -- the first is the distinction between an initial permit application and a request for a permit renewal. And as Mr. Crook points -- points out, a permit comes with a -- an automatic right to renewal, as long as the terms and conditions are met.
In an initial permit application the burden of proof is on the applicant to demonstrate compliance with all the statutory

and regulatory requirements. That burden of proof shifts on permit renewal. The burden falls on anyone that seeks to protest the permit renewal, to demonstrate that the requirements have not been met.
In this particular permit we have had litigation over this very issue, both under a permit renewal on the previous request to renew permit ACT/015/025, and, also, litigation over the same issues at -- in a request for substantial modification of the permit, to allow mining. And so we've already had litigation over these issues, both where the burden of proof fell on C.W. Mining Company and where the burden of proof fell on Huntington-Cleveland Irrigation Company. In both cases there was convincing evidence presented first to -- to DOGM and then to the Board, on both sides. And in both proceedings, previous permit renewal and the Tank seem application, DOGM and then the Board concluded that the evidence was sufficient to establish that C.W. Mining Company had complied with all regulatory requirements, and, in fact, even went beyond

Find Same of B. Bear spring w/N Be revisited

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that, and made -- made specific findings of fact that Big Bear Spring is not hydrologically connected to the current permit area and that Birch Spring is not hydrologically connected to the current permit area, and at least as of the date of the resolution of the Tank seam application, that neither the quantity nor the quality of water at either spring had ever before been adversely impacted by mining at the Bear Canyon Mine.

Now, Huntington-Cleveland, along with the other protestors of the Tank seam application, took that matter up on appeal, and the Utah Supreme Court upheld the Board's findings that the springs are not hydrologically connected to the permit area, that the mining operation was designed to prevent material damage to the hydrologic balance outside the permit area, and that Co-Op's permit complied with all the statutes and regulatory requirements.

Now, the reason that those previous matters of litigation and the appeal were reported is because there is a doctrine in

the law called collateral estoppel, and that applies to bar re-litigation of those issues. I would refer the Court, first, to Utah Supreme Court case Career Service Review Board versus the Utah Department of Corrections. This is found at 942 Pacific 2nd, 933, beginning on Page .938.

The Utah Supreme Court stated, "Res judicata, which subsumes the doctrine of collateral estoppel... applies to administrative adjudications in Utah."

The court said, "The principles of res judicata apply to enforce repose when an administrative agency has acted in a judicial capacity in an adversary proceeding to resolve a controversy over legal rights and to apply a remedy."

The fourth -- the four elements of issue preclusion are required to show collateral estoppel. The first element is that the issue decided in the prior adjudication must be identical to the one presented in the action in question.

The second is that there must be a final judgment on the merits.

Conclude
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The third is that the party against whom the plea is asserted must be a party in privity with a party to the prior adjudication.

And, finally, the issue in the first action must be completely, fully, and fairly litigated.

The particular question here, the issue is whether the information contained in -- in the permit application is adequate, and that rests on certain findings. If, in fact, Big Bear Spring is not hydrologically connected to the permit area, and if, in fact, Birch Spring is not hydrologically connected to the permit area, then mining in the permit area is not going to impact those springs.

Those two issues have been resolved twice in the litigation already. Those are identical issues to issues that Mr. Crook wants to raise this morning. So the issues are identical to ones previously presented. In both the prior permit renewal and in the Tank seam application, there was a final judgment on the merits. The judgment was in

favor of C.W. Mining Company and against the Huntington-Cleveland. The parties, C.W. Mining Company and Huntington-Cleveland, are identical, and the issues were completely, fully, and fairly litigated.

Now, on appeal, in the Tank seam application, Huntington-Cleveland challenged whether that fourth leg -- element had been met, and the Utah Supreme Court, after reviewing the entire matter, concluded, yes, that -- that the -- the issue had been completely, fully, and fairly litigated, that the -- that DOGM and then the Board had jurisdiction to consider those issues; that they did consider those issues; Huntington-Cleveland put on a full panel of evidence on those issues; that all due process requirements were met; and that the issue was, in fact, fully and fairly litigated.

Because all four of the elements were met, collateral estoppel applies at this point to re-bar any litigation over whether or not there is a hydrologic connection between Big Bear Spring and Birch Spring.

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Page 33

1 Now, I realize Mr. Crook -- Crook
2 would like the -- DOGM to revisit those
3 issues, but it is a fundamental --
4 fundamental principle of res judicata that
5 for a judgment to be valid it need not be
6 free from error. That's from a case called
7 Copper State. It's found at 735 Pacific 2nd.
8 The quote is on Page .392.
9 Now, we would submit that the DOGM
10 and the Board and the Utah Supreme Court did
11 not err in -- on quoting those previous
12 findings in the hydrologic connection, but
13 even if somehow they had erred, those
14 findings are, nevertheless, barred by
15 collateral estoppel.
16 I would point out that the burden
17 of proof in this hearing is not on C.W.
18 Mining Company, it is on Huntington-
19 Cleveland; that no evidence has been
20 presented that hasn't already been presented
21 to the Board and considered by the board,
22 resolved by the Board, and ruled on by the
23 Board.
24 Now, there are -- there could
25 conceivably be some issues where it would not

Page 34

1 be barred by collateral estoppel; for
2 example, if there'd been some geologic
3 upheaval in the area, an earthquake or the
4 like, that opened new cracks and fissures
5 that hadn't been there at the time of the
6 Tank seam application, or if C.W. Mining
7 Company had -- had drilled -- drilled some
8 new sink holes that made connections where
9 those things no longer existed. Then
10 Huntington-Cleveland would be free to put on
11 evidence that those things that did not exist
12 at the time of the Tank seam application had
13 created a connection, where they did not
14 previously exist, and if Huntington-Cleveland
15 has such evidence, they're certainly free to
16 come forward with that. But Huntington-
17 Cleveland is not entitled to contest issues
18 resolved as of the Tank seam application,
19 which is that the geology at that time
20 establishes the hydrologic connection between
21 the springs and the permit area. That's a
22 matter that has been resolved, and they
23 cannot re-litigate that question.
24 I'll point out a few things in --
25 concerning the Mayo report itself. Mr.

Page 35

1 Crook, as I -- as I understand his
2 clarification, he wants -- he wants DOGM to
3 ensure that C.W. Mining Company's PHC and
4 CHIA are complete and accurate and up to
5 date. Well, that is no more than DOGM is
6 already required to do, with or without a
7 protest and with or without an informal
8 conference. And I would assume that -- that
9 DOGM is meeting its regulatory requirements
10 in that regard, and that it is giving due
11 attention to all of those matters; if there
12 are materials that are incomplete or
13 inaccurate or outdated, that DOGM either
14 already has or is in the process of asking
15 C.W. Mining Company to update that
16 information already. C.W. Mining Company
17 will certain comply with any requests that
18 are needed to satisfy its regulatory
19 requirements.
20 I would point out that DOGM, as
21 well as the Board, has already reviewed the
22 Mayo report, and has concluded that -- that
23 the evidence contained in the report shows
24 there wasn't a hydrological connection
25 between the springs and the mine. And I know

Page 36

1 Mr. Crook would like to argue to the
2 contrary, but that is an issue that has
3 already been resolved.
4 It's not the burden of C.W. Mining
5 Company to tie down with scientific certainty
6 the -- the hydrology of the entire area. It
7 that was a burden that anybody had, that
8 would be impossible to meet such a burden.
9 There would be -- never be any mining
10 activity. And certainly the regulations do
11 not require such a burden.
12 I -- I'm not going to discuss the
13 underground seeps SBC-7, -9, -10, and -13.
14 If Charles would like to point out specifics
15 of those, I -- I would leave that to him.
16 But I -- I would basically point out that
17 those were not springs that existed
18 pre-mining, that dried up.
19 Mr. Crook suggested that the -- that
20 the Mayo report shows the mining has
21 intercepted groundwater. That's a complete
22 misstatement as to what the Mayo report
23 states. The Mayo reports clearly states that
24 there is no regional aquifer in the area,
25 that the mining has not encountered the

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Page 37

1 aquifer, that the mining water encountered
2 during mining is perch water and it describes
3 where the source of that perch water is.
4 Mr. Crook suggests that the Mayo
5 report is mere supposition as -- as to what
6 -- what it concludes as far as hydrology. I
7 would submit that it is not supposition, that
8 Mr. Mayo is a highly respected expert in the
9 area, and that the Mayo report contains his
10 expert opinion based on the comprehensive
11 analysis of all available information
12 addressing the geology of the area, the
13 hydrology in the area, includes specific
14 chemical testing of the waters encountered
15 both in the mine and in the springs, and
16 includes specific radioisotope testing of the
17 waters encountered both in the mine and in
18 the springs; considers climate, the
19 climatology, and weather and changes thereto;
20 even addresses an earthquake that the water
21 users indicated had occurred at one point in
22 time and possible impact it did have on the
23 hydrology. In other words, he covered all
24 the available evidence and found that
25 evidence adequate to come up with an expert

Page 38

1 opinion, and gave that expert opinion.
2 The water uses had their own expert
3 opinion that contested those matters based on
4 their review of the evidence. Those disputes
5 as to expert opinions were also presented to
6 -- to DOGM, first, and then to the Board, and
7 were already resolved. And we are not here
8 this morning to re-litigate those matters
9 that have already been resolved.
10 Mr. Crook spent some time discussing
11 the Wild Horse Ridge application that he
12 thinks leaves some open questions about the
13 hydrology outside the permit area. I submit
14 that the Wild Horse Ridge application is not
15 before DOGM this morning, that whatever is
16 contained in that application has no bearing
17 on whether or not the exiting permit in the
18 existing permit area can be renewed.
19 The Mayo report was prepared solely
20 to support the Tank seam application, and
21 there for awhile it does address the
22 hydrology outside the immediate application
23 area, outside the immediate permit area. It
24 was not designed to and was not intended to,
25 and, therefore, it did not address specifics

Page 39

1 regarding the Wild Horse Ridge. Again, that
2 point is not relevant to the matters before
3 DOGM at this point.
4 Mr. Crook also brought up the Trail
5 Canyon Mine bond release. But in doing so,
6 he stated that he did not -- did not suggest
7 that that applies to Bear Canyon Mine, only
8 that certain statements appeared to raise
9 some open questions. Again, that is not
10 really relevant to the matters before DOGM
11 this morning. It was a different mine, it
12 was a different permit. Mining has been
13 completed in that area. It is possibly
14 different hydrology. That area was not
15 addressed in the Mayo report. But, again,
16 those matters are really not relevant to
17 whether C.W. Mining Company is entitled to
18 renew its permit for the Bear Canyon Mine.
19 And I believe that pretty much
20 covers the items that Mr. Crook raised.
21 MR. REYNOLDS: Maybe I could add --
22 add to that just a few clarifying points.
23 First of all, in the sites that we talked
24 about, SBC-7, SBC-8, -9, and -10, those
25 sites, as I mentioned, are all located within

Page 40

1 the mine. SBC-7 was a seep that was
2 encountered as a result of mining that took
3 place back in the 1950's. So that did exist
4 before C.W. Mining went in there, but it was,
5 in fact, the result of mine workings, and it
6 was a seep that was within the mine.
7 I might also add that the water
8 quality and quantity of all of the sites
9 with -- within the mine have continually and
10 are continuing to be monitored. The Division
11 does review all of that data.
12 And then the other point from the
13 Mayo report and the relation of the Wild
14 Horse Ridge issue to the existing permit: It
15 is true that the Mayo report draws from and
16 discusses a lot of information from the
17 existing permit area, but the report, also,
18 in its conclusions pertaining to Wild Horse
19 Ridge and the information pertaining to Wild
20 Horse Ridge, the Mayo report does present
21 that the two areas, the Wild Horse Ridge and
22 the existing permit area, are hydrologically
23 isolated because of the Bear Canyon fault.
24 So information pertaining to Wild Horse Ridge
25 would not necessarily also pertain to the

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1 existing permit.
2 THE CONFERENCE OFFICER: Anything
3 further?
4 MR. REYNOLDS: I think that's it.
5 THE CONFERENCE OFFICER: Mr. Crook?
6 MR. CROOK: Yeah. I just have a
7 couple of questions, first, and then I would
8 like to respond to some of the legal
9 arguments that were made and
10 characterizations of my -- or
11 Huntington-Cleveland's position.
12 One, what is the Tank seam
13 litigation Supreme Court citation?
14 MR. HANSEN: Let's see. It's
15 Castle Valley Special Service District, et
16 al. versus Utah Board of Oil, Gas and Mining,
17 938 Pacific 2nd, 248.
18 MR. CROOK: What's the year?
19 MR. HANSEN: Pardon?
20 MR. CROOK: The year.
21 MR. HANSEN: Oh. 19-, what was it,
22 -97? 1996.
23 MR. CROOK: Okay.
24 First of all, just so it's clear on
25 the record, I wasn't aware that they were

1 going to make -- that Co-Op Mining was going
2 to be making these arguments regarding res
3 judicata and collateral estoppel. However, I
4 have a few responses to that, and I apologize
5 I don't have any of my -- my citations with
6 me.
7 THE CONFERENCE OFFICER: Before you
8 do, let me just add for the record that I'm
9 not an attorney, and this is an informal
10 conference slash hearing that we're doing
11 right here, and you're welcome to -- to make
12 the arguments that you want, legally. I -- I
13 wonder whether I'm capable of -- of assessing
14 narrow legal things you're going to talk
15 about, but --
16 MR. CROOK: Well --
17 THE CONFERENCE OFFICER: -- if you
18 feel like you need to --
19 MR. CROOK: -- I feel like I need
20 to, as a matter of law, to preserve --
21 THE CONFERENCE OFFICER: You're
22 privileged.
23 MR. CROOK: -- my objection.
24 THE CONFERENCE OFFICER: You're
25 privileged.

1 MR. CROOK: First of all, let me
2 explain, first, collateral estoppel applies
3 -- I -- I don't disagree with the -- with the
4 elements as set forth by Co-Op Mining, I just
5 have a few -- one big issue. The first prong
6 of the collateral estoppel doctrine applies
7 in the same -- the same issue or same matter
8 -- and I'll probably be corrected if I get
9 this wrong -- was -- or the identical issue
10 was presented and resolved, and that it to be
11 -- that is the question. I would suggest,
12 one, that we've got different issues here
13 before the Board today, and that is that this
14 is an application for renewal of a permit for
15 Bear Canyon. We're not speaking about Trail
16 Canyon Mine -- or I'm sorry, the Tank Seam
17 litigation, we're talking about this issue
18 before the Board today. And the issue before
19 the Board today is that we are protesting --
20 we are merely coming before the Board
21 suggesting that we have concerns. Now,
22 there's been some minimization of our
23 ability to do that, or at least it appears
24 that there is a minimization of that. But I
25 believe that as interested water users in the

1 area, even if the Division already has the
2 duty to do this -- we're not suggestion the
3 Division will not do it, what we are
4 suggesting is the Division -- we have
5 significant interests in making sure that
6 those requirements are looked at and that
7 they are met. We are simply suggesting we
8 want, we want the Division to know we are
9 concerned that Bear Canyon Mine has an impact
10 on water. And that seems to be the thing
11 that has been ignored a little bit in, in
12 response to our arguments.
13 But going on beyond that, the issue
14 before this Division is whether they've met
15 the Division's requirement for renewal. And
16 one of those requirements, as I discussed
17 before, is that the Division may add, ask for
18 additional revised or updated information.
19 We're suggesting to the Division we would, we
20 think it would be appropriate to ask for
21 that, to make sure that the reports are
22 accurate, and to suggest to the Division we
23 have serious concerns.
24 Our concerns don't only lie with the
25 Bear -- Big Bear Spring and the Birch Spring

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question. That was only one of the elements that we have. I'd say, I'd say it's inaccurate to say that it is, that water is not affected. We've got significant seeps in the Bear Canyon Mine. Now, whether those are perched aquifers or whether they're general aquifers or whether they're perched waters is irrelevant. The fact is that water is effected by the Bear Canyon Mine. They've dug in there, there've been seeps created, there's significant flow out of those seeps, and that suggests to us that there is a, a serious water concern. Our concern is not only tied with the, with the springs. So I would say that those are separate issues. Those issues have not been litigated.

And I would also suggest that the -- since the Division is concerned about the -- our suggestion that the Wild Horse Ridge application findings and conclusions are not relevant to the discussion today, that any suggestion about the Tank Seam application or anything else would be equally relevant. We would ask for fairness in that determination.

But I would just now move to a

couple of things. First, I don't mean to minimize the Mayo report. I'm sure Mr. -- and I'm sure it's Dr. Mayo -- is much more intelligent than I am, when it comes to water issues; I have no qualms about that. What I have suggested, however, is that even as smart as Mr. Mayo is, as smart as he is and as, as good as his report was, and as, as much testing that he did, he still couldn't determine what the source of the water going into Big Bear Spring was. He still could not determine where the recharge areas were. And we're suggesting that suggests caution. And that is why the Wild Horse Ridge addition application is relevant, because the Mayo report does talk about the hydrology of the area.

The conclusion of the Division was that even though the Mayo report was submitted with the Wild Horse Ridge, Ridge addition, that the geologic control for the characterizing Blackhawk sandstones, Blackhawk coal unit, and the potential water-bearing Star Point sandstones, is inadequate. Even though it was the Mayo report that was relied

on, the Division suggested that that was inadequate and that there needs to be additional studies. We're simply saying if that is the case, it urges caution in this application as well, and we're just asking the Division to exercise that caution and ask Co-Op to make sure that these things are updated and that they're accurate. That's all we're doing.

Next, I, I also object to the characterization of some of our concerns. We're not here suggesting that, that Bear Canyon has to tie down and to show with certainty every possible water flow in the Gentry Mountain area, we're simply suggesting that because everyone, even the folks that they hired, that Co-Op hired cannot conclude where the water is coming from, that there be some caution in renewing. And we just ask that that be done.

And, finally -- and I think I've already talked about this a little bit, is that Huntington-Cleveland Irrigation Company is not out of bounds for coming and asking the Division to do this type of thing. The

reason is they have significant interests, and those significant interests can be impacted. And we -- all we, all we want to do is to tell the Division that we have those concerns, and that we're asking that they just be listened to and responded to.

There is a, there has appeared, to me, to be, from Co-Op Mining, an attitude that we are just trying to be a bur in their saddle, and that's the farthest from the truth. What we want is to make sure that our interests are protected, and we have significant ones. And I don't think that it's unfair for us to come and ask the Division and to tell the Division that we have those concerns.

And I, I think that's all the response that I'll have.

THE CONFERENCE OFFICER: Thank you. Anything further?

MR. HANSEN: I would like to respond to a couple of points, if I may. I -- I don't believe that I made the argument or that Mr. Reynolds made the argument that H.C., or that Huntington-Cleveland is out of

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1 bounds by requesting this conference.
2 Certainly, they're entitled to do so, and if
3 they have any evidence to present that is
4 relevant to the proceedings, they are free to
5 do so, and we do not contest the right to do
6 so. But I would point out that in this
7 proceeding collateral estoppel does apply,
8 and in this proceeding the burden of proof is
9 on Huntington-Cleveland.
10 Now, collateral estoppel, again,
11 does not deprive the Board of subject matter
12 jurisdiction over claims and issues properly
13 before the Court. Certainly it does not
14 deprive the Board of, of jurisdiction to
15 determine the adequacy of the information in
16 the permit. But it does require that while
17 acting in an adjudicative capacity, as DOGM
18 does in an informal conference, that the
19 Board shall not reinvent the wheel; that is,
20 that the Board, that if the elements of
21 collateral estoppel are met, the issue
22 resolved then prior to the adjudicatory
23 proceedings are already conclusively resolved
24 for the purposes of this proceeding, and that
25 those issues include whether or not there is

1 a hydrological connection between the current
2 permit area and the Birch and Big Bear
3 Springs. That is an issue that was
4 previously resolved, and if Huntington-
5 Cleveland wants to readdress whether there is
6 such a hydrologic connection, then that
7 matter has already been resolved.
8 So in this proceeding it's true both
9 that DOGM has jurisdiction to rule on
10 objections to the permit, but, at the same
11 time, in exercising that jurisdiction, that
12 DOGM is obligated to give preclusive effect
13 to issues that have been previously
14 adjudicated.
15 Now, as I -- as the regulations
16 make clear, in a permit renewal the burden of
17 proof is on the, the party protesting the
18 permit renewal. I've, I've heard repeatedly
19 requests for DOGM to ask C.W. Mining Company
20 to update its information, but I have yet to
21 hear about any particular information that is
22 not already complete and accurate and up to
23 date. And rather than just throwing out a
24 blanket demand to be sure everything is okay,
25 the Board -- DOGM is already supposed to be

1 doing that. I think that it becomes
2 incumbent upon Huntington-Cleveland at this
3 time, if Huntington-Cleveland is raising an
4 objection, to point out specific information,
5 specific data in the permit that is not
6 complete, is not accurate, is not up to date,
7 to point out specific criteria in the
8 regulations that Huntington-Cleveland contends
9 have not been met and to show how those
10 regulations have not been met. I would
11 submit that Huntington-Cleveland has not done
12 that, they have not met their burden of proof
13 in this matter.
14 And I think that's all. I'll leave
15 it at that. Crook?
16 THE CONFERENCE OFFICER: May I just
17 respond?
18 THE CONFERENCE OFFICER: Let's --
19 let's do one more round of this. But, again,
20 I would like to see, in order to facilitate
21 my burden, any evidence that you have that
22 suggests this permit not be renewed. I think
23 that's, you're welcome to say other things;
24 we're informal and you certainly have the
25 ability to put other cards on the table, but

1 the decision that I make is going to be based
2 on the evidence that you present, so please
3 do so.
4 MR. CROOK: Okay. Let me address
5 those concerns first. I think the evidence
6 that I've already indicated suggests that the
7 Division ought to act with caution. We
8 haven't suggested that the permit should not
9 be renewed if those things that they bring
10 before, that Co-Op brings before the Division
11 satisfy the Division, but what we have done
12 is looked at the Mayo report, looked at the
13 Gentry Mountain CHIA. Those conclude, those
14 suggest that there is groundwater that has
15 been seeping into the mines. Those suggest
16 that Gentry Mountain, at least, suggests that
17 water can -- Gentry Mountain CHIA, can come
18 through faulting areas, and that those may be
19 alternative ways the water can get into the
20 Gentry Mountain area and into the Bear Canyon
21 Mine.
22 Now, I, I've also indicated and
23 represented to the Division various seep
24 points that show that water is going in and
25 can have an impact on quantity, at least

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Page 53

1 where groundwater is intercepted. I've also
2 indicated that there may be some
3 circumstantial evidence that Big Bear Spring
4 and Birch Spring have become impacted by
5 mining activity. Those are the pieces of
6 evidence that I suggested from the reports
7 that already exist, and that's all, that's
8 the evidence, and that would be my reply to
9 that specific question.
10 THE CONFERENCE OFFICER: Just for a
11 minute, setting the two major springs that
12 you cited aside, Birch and Big Bear, do you
13 have any evidence that inline water flows
14 have contaminated or diminished water flows
15 in other springs inside the CHIA area?
16 MR. CROOK: Not that isn't discussed
17 in the reports that the Division has already
18 got before it.
19 THE CONFERENCE OFFICER: All right.
20 MR. CROOK: The, the other things
21 that I'd like to respond to are, first, as
22 res judicata is asserted here, what Co-Op
23 would have the Division do is do this: It
24 would have one study done, have one protest,
25 and then everybody would be bound by what the

Page 54

1 Division concluded from that one protest.
2 I'm saying that, you know, that is not
3 conceivably possible. But not only that,
4 that we're, we've got a different issue here.
5 We're asking for the Division just to look at
6 what it needs to do to have a renewal, to
7 suggest that, that there be water concerns,
8 to assure that the water concerns are
9 addressed with Huntington-Cleveland, and that
10 those things are accurate, up to date, and
11 complete. And that's not an issue that has
12 been litigated before.
13 Also, the question of the
14 groundwater interception has not been an
15 issues that's been addressed before. As I
16 hear represented by Co-Op, the only issues
17 that were litigated that he is asserting are
18 that Big Bear Spring and Birch Spring are
19 hydrologically isolated from the permit
20 areas. So I would say, as a matter of law,
21 then, that res judicata wouldn't apply here.
22 And -- and, really, those are our
23 concerns. It's simply that we're asking,
24 we're coming here because we have, we just
25 want the Division to know that we have

Page 55

1 serious water concerns. Water is an important
2 issue, and I'm sure that the Division knows
3 that, and it's important to our client.
4 Also, lastly, the burden has been
5 discussed. That falls under R.645-303.200,
6 discussing the burden. I would merely
7 suggest that we have brought our concerns
8 under -232.100 and have asked that the
9 Division recognize our concerns, again,
10 looking for --
11 THE CONFERENCE OFFICER: Could you
12 reiterate what the last cite that you gave,
13 the 233.100 --
14 MR. CROOK: That's the general
15 application requirements and procedures that
16 the Division follows.
17 THE CONFERENCE OFFICER: All right.
18 MR. CROOK: And we're just asking
19 the Division to exercise its discretion to
20 assure that the water reports are all
21 updated, complete, and accurate.
22 THE CONFERENCE OFFICER: Thank you.
23 Sir.
24 MR. HANSEN: Just very briefly.
25 As I hear things -- and I -- I

Page 56

1 don't want to put words in Mr. Crook's mouth,
2 but the primary evidence that Huntington-
3 Cleveland is relying on in support of this
4 particular protest is the evidence contained
5 in the Mayo report, so I would -- I would ask
6 that DOGM take a close look at that Mayo
7 report, and not only the underlined data, but
8 the expert opinions that -- and conclusions
9 that are reached based on that data, because
10 the Mayo -- the Mayo report does not suggest
11 that groundwater is seeping into the mine.
12 In fact, it goes through an extensive
13 analysis to reach the entirely contrary
14 conclusion, that groundwater is not seeping
15 into the mine, but the water that is
16 encountered there is, is -- consists solely
17 of perched aquifers, and the source of those
18 perched aquifers is adequately identified.
19 I, I heard a statement that the
20 Mayo report couldn't determine the source of
21 the water or the recharge source for the
22 springs. That is just simply a wrong
23 statement. And if DOGM will read the report,
24 they will find that the Mayo report does make
25 a conclusion as to what the source and

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1 recharge of Big Bear Spring is, and that that
2 source of recharge is not impacted by the
3 mining, by the mining activities. And,
4 again, the burden to disprove that is
5 Huntington-Cleveland at this point. We don't
6 need to reprove those, those particular
7 matters.
8 I would also ask that DOGM, in
9 addition to the Mayo report itself, review
10 the testimony of Dr. Mayo and our other
11 experts witnesses in the prior hearings, with
12 the suggestion that if DOGM does that, they
13 will conclude most of the issues that, that
14 Huntington-Cleveland actually wants to raise
15 here are issues that were already raised in
16 those prior matters, that were litigated in
17 those prior matters; that the parties were
18 the same; and that -- and that there were
19 final judgments on those very matters, and so
20 that collateral estoppel does apply to those
21 things.
22 And, again, I would, I would just
23 like to restate, in, in my opinion, that at
24 this stage of the proceeding it's fine to say
25 that DOGM should require C.W. Mining Company

1 to comply with the regulatory provisions
2 dealing with permit renewal. We, we submit
3 that we've done that. If the water users, if
4 Huntington-Cleveland considers that C.W.
5 Mining Company has not met those regulatory
6 requirements, the burden remains on
7 Huntington-Cleveland to point out in what
8 manner those requirements have not been met.
9 And I have heard nothing to suggest
10 that there is any particular regulatory
11 requirement that has not been met. I have
12 heard no evidence to suggest that the PHC has
13 not satisfied all the regulatory requirements
14 for PHC. I've heard no evidence to suggest
15 that CHIA does not satisfy all the
16 requirements for a CHIA, and unless the water
17 users or Huntington-Cleveland has some
18 evidence to the contrary, that their protest
19 should be denied.
20 Thank you. I have no further --
21 nothing further.
22 THE CONFERENCE OFFICER: Thank you.
23 Is there anybody here that would
24 like to be heard on this matter, that hasn't
25 already been heard?

1 I think we stand adjourned, then.
2 Thank you.
3 (The hearing was adjourned at 10:15 a.m.)
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Oct. 27th hearing

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Co-Op Mining Company
Bear Canyon Mine
ACT/015/025

5- Year Permit Renewal

Name	Company	Telephone Number
Lowell Braxton	OGM	538-5370
D. Scott Crook	DOGM	532-1900
F. Mark Hansen	C.W. Mining Co.	517-3530
Charles Reynolds	C.W. Mining Co.	(435) 687-2450