

Treasure Island Meeting No. 56 - May 18, 1999

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2 NAVAL STATION TREASURE ISLAND
3 ENVIRONMENTAL RESTORATION ADVISORY BOARD MEETING
4 18 MAY 1999
5 7:00 P.M.
6 CASA DE LA VISTA
7 TREASURE ISLAND
8 MEETING NO. 56
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12 TRANSCRIPT OF PROCEEDINGS
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20 REPORTED BY: STEPHEN BALBONI, CSR NO. 7139

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1 COMMUNITY MEMBERS (Continued):
2 ALICE LA PIERRE
3 ERNEST (MIKE) W. MICHELSEN
4 JACK W. SAVAGE
5 PUBLIC/GUESTS:
6 GENE BARRY (Levine - Fricke)
7 SANDY BOSBEN-SCKALOR
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1 A T T E N D E E S
2 U.S. NAVY:
3 JAMES B. SULLIVAN (BEC and Navy Co-Chair)
4 ERNIE GALANG (RPM)
5 SAN FRANCISCO MAYOR'S OFFICE:
6 JOHN CHESTER
7 MARTHA WALTERS (SFRA)
8 TETRA TECH EM, INC.:
9 GWEN CAVINESS
10 CRAIG FREEMAN
11 STACEY LUPTON
12 JERRY WICKHAM
13 REGULATORY AGENCY:
14 DAVID RIST (DTSC)
15 GUTIERREZ-PALMENBERG, INC. (GPI)
16 BARRY ROBBINS
17 MARIA VILLAFUERTE
18 COMMUNITY MEMBERS:
19 NATHAN BRENNAN (Alternate Community Co-Chair)
20 PAUL HEHN (Community Co-Chair)

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1 CO-CHAIR SULLIVAN: Welcome to our May
2 Restoration Advisory Board.
3 I hope everyone coming from San Francisco
4 made it onto the right turn off. I meant to send a
5 note out to let everybody know that the Treasure
6 Island exit, which, if you're coming from San
7 Francisco, is the left-hand lane on the lower deck,
8 has been closed by CalTrans for bridge retrofit work
9 for about five months beginning May 1st.
10 So if you're coming from San Francisco, you
11 need to be in the right-hand lane and take the Yerba
12 Buena Island exit, which is where you go through the
13 tunnel first and then turnoff to the right.
14 The exits from Oakland are unaffected.
15 There is only one exit on the left-hand side on the
16 upper deck, so coming from Oakland is unaffected.
17 But coming from San Francisco, you need to
18 be in the right-hand lane for at least the next five
19 months or more.
20 Maybe that's where the rest of the RAB is.

4

1 They are in Oakland now turning around.
2 Our first item is discussion and approval of
3 tonight's agenda. There are additional copies of the
4 agenda on the back table, if you need one.

5 Are there any comments concerning tonight's
6 agenda?

7 (No response.)

8 CO-CHAIR SULLIVAN: Well, with that, we will
9 move into public comment. We set aside time at the
10 beginning of the meeting for any members of the
11 general public to speak on issues related to the
12 environmental cleanup at Treasure Island.

13 We have also been using this time for
14 general announcements that people might want to make
15 early in the meeting while everyone is still here.

16 So is there any public comments?

17 (No response.)

18 CO-CHAIR SULLIVAN: Are there any general
19 announcements that anyone would like to make early on
20 in the meeting?

5

1 (No response.)

2 CO-CHAIR SULLIVAN: Okay. With that, we
3 will proceed into discussion and approval of the April
4 20th meeting minutes.

5 There are also additional copies of the
6 April meeting minutes on the back table.

7 For those of you who can receive E-mail
8 attachments, I have been E-mailing the draft minutes.
9 And this month, I tried E-mailing the actual
10 transcript with the warning not to try to open it up,
11 or not to try to print it out right away, because it's
12 about 200 plus pages. But at least it's there in
13 electronic form, if anyone wanted to make use of that.

14 We have also had a standing offer to make
15 copies of the transcript, the full transcript
16 available to any RAB members. There was one RAB
17 member who, at one time, had been receiving it, but
18 who has not been attending our meetings lately.

19 But any RAB member is welcome to ask for a
20 complete copy of the transcript. Otherwise, the

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1 transcripts as well as the final meeting minutes are
2 in the information repository.

3 There is an information repository at San
4 Francisco main library, which is the same location
5 where the Hunter's Point repository is. And then
6 there is a second repository in our Navy's offices in
7 Building 1 on Treasure Island.

8 Are there any comments concerning the April,
9 the draft April meeting minutes?

10 CO-CHAIR HEHN: I was just going to ask you,
11 Jim: Are you going to continue to send out the
12 transcripts on the E-mail list?

13 CO-CHAIR SULLIVAN: I can.

14 CO-CHAIR HEHN: I found that very
15 interesting to read through, as much as I got through
16 on that in its original form. Steve's doing a good
17 job.

18 CO-CHAIR SULLIVAN: It is an ASCII file, so
19 it does, it ends up with a lot of spaces in it.
20 That's why it's about 200-plus pages.

7

1 But, yes, I can continue to do that. I
2 think the file is only about 200 -- well, I think it
3 might be about 200,000 bytes. As files go, it's not
4 that large. So I will continue to do that.

5 Are there any comments concerning the April
6 meeting minutes?

7 (No response.)

8 CO-CHAIR SULLIVAN: I've also been handing
9 out a kind of pre-pre, the unedited draft at the
10 interim meeting.

11 So those of you who come to the interim
12 meetings on the second Wednesday -- the first
13 Wednesday of the month, we typically, lately we have
14 been able to get the rough draft out by the time of
15 the interim meeting, so I have been bringing copies of
16 that, too, for those who want to look at that, two
17 weeks before the meeting.

18 Are there any comments on the draft minute

19 (No response.)

20 CO-CHAIR SULLIVAN: Is there a move to

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1 approve the draft minutes as written?
2 MR. BRENNAN: I move.
3 CO-CHAIR HEHN: Second.
4 CO-CHAIR SULLIVAN: All in favor?
5 The draft April meeting minutes are approved
6 as written. Thank you.
7 Our next item, we provide time for the City
8 of San Francisco to provide us with updates.
9 I will turn the meeting over to Martha.
10 MS. WALTERS: Good evening.
11 At the last RAB meeting, the City presented
12 or had John Stewart Company come in under the auspices
13 of Dan Levine and talk about the phasing of the
14 housing units in the Site 12 area.
15 And we also had Greg Brorby from Geomatrix
16 come in to give an overview of dioxins and TPH
17 concerns in the area.
18 And during the meeting, I believe it was
19 you, Paul, who was interested in seeing the lease
20 addendum that the John Stewart Company was going to be

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1 putting together, and, since then, it's gone through
2 many iterations.
3 Tonight, I'm going to be passing out what
4 the John Stewart Company and the City have worked
5 together on. It's called the Environmental Conditions
6 Disclosure portion of the lease addendum. I think it
7 gives a very good description about what has gone on
8 and what probably will be going on in that area.
9 This will be, it's actually in its final
10 version as it is right now, and it will be updated as
11 things change in the Site 12 area.
12 So if you have any comments or concerns
13 about this document, please just contact me. I will
14 be the single point of contact on this issue. But I
15 think it gives a pretty good picture.
16 So what I want to do is pass this out here
17 (indicating).
18 So you will see on page 2, it says, part 2,
19 Environmental Conditions Disclosure, and a couple of
20 introductory paragraphs talking about the history of

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1 Treasure Island, and the specific site of Site 12,
2 it's historical uses, and that Cal-EPA is the lead
3 agency, and the involvement of Geomatrix in the
4 process. And, obviously, that the Navy is the
5 responsible party.
6 It breaks it down into the specific
7 components -- lead-based paints, asbestos, dioxins
8 lead in soil, and total petroleum hydrocarbons, TPH.
9 So I think it gives a pretty good snapshot
10 about what is here and what will be happening.
11 As I said to you before, this is a final
12 version, and this is what will be actually signed
13 tomorrow.
14 It is anticipated that people will be moving
15 into the units that Dan described last time on June
16 1st.
17 The second thing is, I literally just got a
18 letter today from the John Stewart Company, also,
19 concerning that there will be fences and fence
20 barricades around areas that they deem to, you know,

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1 to be under some kind of investigation or cleanup, and
2 that is to prevent children or anybody else, I guess,
3 unsolicited or unwelcomed folks in there, just to
4 prevent anything from happening. It's just a safety
5 issue.
6 Also, Sandra Bosben-Sckalor -- is that your
7 last name? -- is here from the John Stewart Company.
8 She's addressing any kind of construction issues. If
9 anybody has questions here tonight, she will be more
10 than happy to answer them. She is the one who is
11 really in charge of that for the John Stewart Company.
12 So feel free to ask your questions after I'm
13 done talking right now.
14 Are there any questions concerning anything
15 right now?
16 Nathan?
17 MR. BRENNAN: Well, they had promised us the
18 lease like immediately after the meeting, so I'm a
19 little surprised it took a whole month to see
20 anything.

12

1 They said: Oh, yeah, we will send the draft
2 around immediately.

3 MS. WALTERS: Well, I don't know how to
4 respond to that.

5 I had been working very closely, actually,
6 Jim, Jim Sullivan and David Rist helped in the writing
7 of the document.

8 MR. BRENNAN: No, it's a nice document to
9 see.

10 The whole thing is, they said: Oh, yeah.
11 We will get it out. Tomorrow we could send a draft
12 over. It's just a draft, but we will send it out.
13 And it's just coming now. I mean, it looks good, but
14 it would have been nice to see it earlier.

15 CO-CHAIR HEHN: So this is signed at the
16 same time as presented with the lease document?

17 MS. WALTERS: Exactly.

18 CO-CHAIR HEHN: And your statement about the
19 fences, barricades around the cleanup areas, are those
20 areas that are active work going on, for instance,

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1 like the excavation, obviously; or are they just areas
2 that have issues that are still outstanding, for
3 instance, the disposal area on Site 12, for instance,
4 the west side?

5 MS. WALTERS: Actually, Sandy, do you know
6 that?

7 MS. BOSBEN-SCKALOR: Pardon me?

8 MS. WALTERS: Do you know about that, about
9 where they're specifically going to be putting the
10 barricades?

11 I know about the active areas, but I'm not
12 sure about the debris disposal area. I really don't
13 know right now.

14 CO-CHAIR HEHN: Okay.

15 MS. WALTERS: As I said, I just got this
16 letter right before I came here tonight.

17 And they -- actually, the letter referred to
18 a diagram. The diagram wasn't attached. So there was
19 a little bit of a problem, so I really don't know.

20 Do you know, Sandy?

14

1 MS. BOSBEN-SCKALOR: You know, I just left
2 my office and I just received that fax. I haven't had
3 a chance to look at it, with the diagram attached.

4 Sorry.

5 CO-CHAIR HEHN: Would that be something,
6 then, we could get sent out by, prior to the interim
7 meeting, at least, so we could take a look at that,
8 just so we know what they are proposing and what they
9 are planning on doing, just so we have an
10 understanding of that issue?

11 MS. WALTERS: Sure.

12 CO-CHAIR HEHN: I think it's great to do
13 that, and if it's just in areas that are active, and,
14 obviously, an active excavation or drilling, or
15 something, that's great. It's almost critical or
16 crucial to do that.

17 But if they are going to do that for other
18 areas where there are concerns, for instance, Site 12,
19 that would be great, too. I think that would be very
20 beneficial for the overall concerns.

15

1 MS. WALTERS: What I could do is send you
2 out the map. I think that would be appropriate.

3 CO-CHAIR HEHN: That would be great.

4 MS. WALTERS: When is your interim meeting?

5 CO-CHAIR SULLIVAN: It will be on the first
6 Wednesday. So it will be in June, it will be the 2nd
7 of June.

8 MS. WALTERS: Okay, no problem, no problem.

9 Do you want me to send it just to you, Paul,
10 or to all the RAB members? How do you want me to do
11 it?

12 CO-CHAIR HEHN: What I suggest is, it go out
13 to all the RAB members, or at least the interim
14 meeting.

15 And if it can't get out prior to that, then
16 send it to Jim. He could bring it to the interim
17 meeting.

18 MS. WALTERS: Right.

19 CO-CHAIR HEHN: I want to just say, I
20 appreciate the City's and John Stewart Company's and

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1 DTSC's efforts to get this out.

2 It's a very crucial issue for us, and I
3 appreciate that. I am glad that's been released and
4 available for tenants prior to their lease signing.
5 Thank you.

6 MS. WALTERS: You're welcome.

7 MS. LA PIERRE: Martha, actually, I had a
8 question slightly related to this.

9 In the Development Authority meeting minutes
10 of April 20th, on the third page, there is, I don't
11 know whether it's a misplaced comma or a missing zero,
12 regarding funding environmental monitoring for the
13 next two years. It's either 500,000 or 50,000.

14 MS. WALTERS: It's half a million dollars.
15 It's \$500,000.

16 MS. LA PIERRE: Okay.

17 MS. WALTERS: That is still subject to the
18 Board of Supervisors approval, but we are assuming
19 that it will be.

20 And that's for Geomatrix's services.

17

1 MS. LA PIERRE: Great. Thanks.

2 MS. WALTERS: Any other questions?

3 I turn it back to you, Jim.

4 CO-CHAIR SULLIVAN: Okay. Thank you.

5 So we will move into our BRAC cleanup
6 process.

7 We have two major items in tonight's
8 meeting:

9 One is the preview of the draft final Site
10 12 operable unit RI report.

11 And, then, secondly, the draft annual
12 groundwater monitoring report, which you probably just
13 received in the last, the groundwater monitoring
14 report, you probably just received in the last week or
15 so.

16 The Site 12 OU, we have a projected date,
17 completion date of 1 June. We expect to be at or
18 about that date.

19 So I would like to introduce Gene Barry from
20 Levine Fricke, who is part of our clean contract team.

18

1 I think most of you have been familiar with, over the
2 years, with the work that Tetrtech is doing.

3 Actually, there are several other team
4 members in the Navy's clean contract. Most of the TI
5 work has been done in the past by Tetrtech, but
6 Levine Fricke is involved in both the fuel line and in
7 the Site 12 OU.

8 And then we have, of course, Gwen Caviness,
9 from our risk assessment at Tetrtech.

10 MS. CAVINESS: Can everyone see?

11 MR. BARRY: Yes. Hopefully, the handouts
12 will help.

13 CO-CHAIR SULLIVAN: The handouts were put
14 out, I think, just prior to the meeting. So you
15 should have a handout in place.

16 MR. BARRY: As Jim mentioned, we will talk a
17 little bit about the upcoming Site 12 OU report.

18 Tonight, we will go through some of the
19 objectives, the objectives of the RI itself and what
20 we have done in the past.

19

1 The first objective of the RI at Site 12 was
2 to investigate potential contamination in suspected
3 source areas: Namely, the former debris disposal
4 area, the ammunition bunker areas, the waste
5 incineration area, and any USTs that were found on
6 site.

7 During the first phase of the RI, there were
8 63 total soil samples taken. I won't go through all
9 of these, but you can see that there were several
10 samples taken and groundwater samples taken during the
11 first phase of the RI report or RI process, I should
12 say.

13 The second -- I'm going to throw up a figure
14 here. It's an 11-by-17, so I might have to move it a
15 little bit on the screen here.

16 But it basically shows all of the sample
17 locations that have been taken during all of the RI
18 process, which includes the most recent sampling at
19 Site 12.

20 I sketched in the approximate boundaries of

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1 the disposal areas. That's disposal area A.
2 One of the things to get off this figure is
3 to see the number of samples that are being collected
4 throughout the site, and that includes soil and
5 groundwater samples.

6 We also show the samples that have been
7 collected at nearby Sites 6 and 20.

8 You could probably see this a little bit
9 better on your handout.

10 During the second phase of the RI, or the
11 additional characterization at Site 12, we went and
12 looked at characterizing areas outside of suspected
13 source areas that were not originally investigated in
14 the RI in the first couple of phases.

15 We took 112 soil samples, including 56
16 surface soil samples from 58 locations.

17 And we also collected 49 grab groundwater
18 samples from geoprobe locations.

19 The soil and groundwater samples were
20 analyzed for metals, VOCs, SVOCs and TPH, and that was

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1 performed in October and November of '97.
2 The next phase occurred in -- and I'm sure
3 you have all gone through these issues. I'm just kind
4 of recapping all this -- but the City of San Francisco
5 in February of '98 collected additional dioxin
6 contamination to assess dioxin contamination at Site
7 12, collected 15 surface samples.

8 And then in August 1998, the Navy collected
9 an additional 27 soil samples from 15 locations.

10 Following that, in August of 1998, the Navy
11 collected an additional 59 samples from 23 locations
12 to help, to further characterize the TPH in soil and
13 groundwater at Site 12.

14 So you can see, there is a lot of samples
15 that would have been collected.

16 The next slide, and this will be a figure in
17 the RI report. It basically gives --

18 MR. SAVAGE: Question?

19 MR. BARRY: Yes.

20 MR. SAVAGE: On the previous slide, 15

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1 locations, that mentions the City of San Francisco
2 paragraph and the Navy.

3 Were they the same locations?

4 MR. BARRY: No, different locations.

5 This will be a table that's in the RI
6 report. It basically gives a summary of all the
7 activities at Site 12.

8 It goes through a chronology of the
9 sampling, and gives you a breakdown of how many
10 samples were collected, what they were analyzed for,
11 how many soil samples, how many groundwater samples.
12 It basically carries us up through the sampling that
13 was performed in August of '98.

14 And in addition, we will also be including
15 the quarterly groundwater samples collected from the
16 monitoring wells at Site 12.

17 Getting to the report, I've brought an
18 outline of the report as it stands right now.

19 And in the report, there is going to be
20 eight sections.

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1 First section is introduction, kind of a
2 background of Site 12 and TI in general. It gives a
3 physical setting of TI, including the geology, the
4 hydrogeology.

5 The third section will basically give you an
6 overview or review of all the, or preview of all of
7 the analytical data that's been collected and the
8 results.

9 Section 4 will be the baseline human health
10 risk assessment, which Gwen will talk to you about in
11 a minute.

12 5 will be the ecological risk assessment.

13 And at Site 12, we do not anticipate --
14 well, there is no habitat for ecological receptors.

15 And the offshore sediments will be addressed
16 in the offshore RI report.

17 So Site 12, basically, does not have an
18 ecological risk assessment portion. That's what will
19 be discussed in that section.

20 Section 6, we will talk about the nature and

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1 extent of the chemical risk drivers that will come out
2 of the risk assessment Gwen is performing.
3 7, we will talk about the fate and transport
4 of the chemical risk drivers.

5 And then we will have Section 8 to discuss
6 conclusions and recommendations.

7 Accompanying any report, you have to have
8 appendices as backup. Right now, we have, I forget
9 how many, 17 or 18. I didn't count them. But,
10 basically, all the appendices for backup. It will
11 give all the analytical data.

12 One thing to pay attention to, Appendix O
13 will be figures what we're going to post the
14 analytical data for Site 6 and Site 20, so we can do
15 an evaluation or at least present a picture off what's
16 happening on nearby sites adjacent to Site 12.

17 CO-CHAIR SULLIVAN: We might want to point
18 out, Gene, in Appendix R, as part of the appendices,
19 we are including the regulatory and the RAB comments
20 on the draft final onshore RI. So those will be bound

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1 into the document.

2 CO-CHAIR HEHN: From the original?

3 CO-CHAIR SULLIVAN: From the original.

4 Well, the original included all of the
5 onshore sites. So we've extracted the Site 12 related
6 comments and are placing them, both the regulatory and
7 the RAB, in the appendices.

8 CO-CHAIR HEHN: Have you been able to
9 capture all of the verbal comments that were also made
10 at various meetings? Have we covered that in all of
11 the responses, do you know?

12 There were verbal, verbal comments or
13 questions or statements that were made at some of the
14 RAB meetings, especially around that time.

15 Do you know if we captured those?

16 CO-CHAIR SULLIVAN: I can't say that we
17 have.

18 I think it's probably, I think we probably
19 should look at the RAB minutes between the Navy and
20 Tetrtech, look at the RAB minutes around that period

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1 of time in the fall of '97.

2 CO-CHAIR HEHN: It would be good just to
3 make sure that we captured everything in that.

4 Another question I had, in fact, two
5 questions:

6 You indicate that the Site 12 boring logs
7 are going to be in there. Is that all the boring
8 logs?

9 MR. BARRY: The 1997 characterization, we
10 didn't do boring logs for those locations.

11 There were 100 -- no, actually, 58
12 locations. We didn't do boring logs for those.

13 CO-CHAIR HEHN: Okay. But all the other
14 ones there will be, they are all going to be included
15 in that?

16 MR. BARRY: Any borings logs will be
17 included.

18 CO-CHAIR HEHN: And then on the figures for
19 the combined, or just the analytical results, is that
20 going to give the figures for all the analyticals that

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1 have been taken for various constituents out there,
2 both soil and groundwater?

3 MR. BARRY: Yes, yes.

4 CO-CHAIR HEHN: Okay.

5 MR. BARRY: And we've taken one of the RAB
6 comments that suggested that we, since Site 12 is so
7 enormous and there is a lot of data out there, in our
8 post and routine, when we actually -- you probably
9 remember the figures -- you have a bunch of leader
10 line that basically comes from every boring, and it
11 will go out and it has a chemical box, we call it. It
12 has the boring location and all the results.

13 To fit all of that data on one map is
14 impossible. There is just no way you can do it. So
15 we broke it up into three maps. You have organics in
16 groundwater. So we have three sections. We basically
17 cordoned it off something like this (indicating).

18 And then this will be, for instance, organic
19 results in water, and that will be map A, B & C.

20 And what we tried to do, there was a comment

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1 that it would be nice to overlay the groundwater in
2 soil maps. So that if you're talking about a boring,
3 for instance, right here (indicating), and you have
4 the soil results posted for that location, you can
5 also overlay the groundwater map or have it right next
6 to it. You can look at it and see if there is a
7 correlation between soil and groundwater.

8 CO-CHAIR HEHN: So that it can be done that
9 way so that it can be correlated?

10 MR. BARRY: Yes.

11 CO-CHAIR HEHN: Same for Sites 6 and 20 as
12 well?

13 MR. BARRY: Sites 6 and 20 are a little
14 different.

15 We are just basically going in a zoom-in
16 area because it is, as you can see on Site 6, there is
17 a lot of borings in that area. It is very dense.

18 To post that data, we have to almost go into
19 a different zoom window. We would basically be
20 looking at something like that.

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1 Or I think it extended over this way a
2 little bit further (indicating). We're just looking
3 at that portion.

4 I believe the 6, we haven't completed the
5 figures themselves yet, but as we are posting the
6 data, I believe there is one map for soil and there is
7 one map for groundwater.

8 CO-CHAIR HEHN: Busy map.

9 MR. BARRY: Yeah, very busy.

10 CO-CHAIR HEHN: Does that particular map
11 with the 6 and 12 combined, does that go all the way
12 up to the northern extent of Site 12?

13 MR. BARRY: I believe it goes up to, yes, up
14 to the shoreline.

15 CO-CHAIR HEHN: Okay, good.

16 I will turn it over to Gwen now, and she can
17 talk about risk assessment.

18 MS. CAVINESS: Any questions about
19 characterization effort come up while I'm talking
20 about the risk assessment, feel free to jump in and

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1 Gene or I will try to take the questions as well.

2 Or if you have questions about the risk
3 assessment also, feel free to jump in.

4 So we conducted a human health risk
5 assessment for Site 12.

6 I guess I would call this an updated human
7 health risk assessment. The reason I say that is
8 because, as Gene indicated, extensive sampling has
9 occurred at Site 12. There have been several phases
10 of sampling. There is a lot of concentration chemical
11 data and information about Site 12.

12 And a human health risk assessment has been
13 conducted each time. We have sort of collected one
14 phase of the data as well.

15 So there is a human health risk assessment,
16 and a draft RI, and the draft final.

17 There is also one in the site specific EBS,
18 and one that's coming out now for the optical unit.

19 The first two versions, the RI is presented
20 information from the original sampling information,

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1 the Phase I and Phase II.

2 The site specific EBS presented a risk
3 assessment for all data collected to date, which would
4 be the Phase I and Phase II RI information, as well as
5 the November '97 data.

6 And there is also a separate analysis in
7 this particular document, looking at the dioxin data
8 that the City of San Francisco collected.

9 So what this draft does, which will come out
10 on June 1st, is to combine all of that information.
11 So we are looking at the RI information, we are
12 looking at the November '97 information, and all the
13 dioxin information collected by the City of San
14 Francisco as well as the Navy.

15 The conclusions for this or the actual -- I
16 guess we could say that this is actually still
17 preliminary, and the reason I say that, there are
18 still sampling efforts that are going to take place.

19 But because we have taken so much, we hav
20 had so much information about the site, that we don't

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1 expect the additional sampling information to change
2 what we know about the site.
3 But we can't say that it's final final until
4 the human health risk assessment has been conducted on
5 all of the data, including what we expect to collect
6 in the future, and put into the final baseline human
7 health risk assessment.

8 For many of you who sat through this before,
9 I'm sorry, I will try to move through it quickly:

10 The objective of human health risk
11 assessment is to evaluate current site conditions at
12 Site 12 that are protective of human health.

13 What I will do, too, for those of you who
14 have been through this before, is just identify what
15 has changed significantly.

16 There haven't been huge changes since the
17 last.

18 The methodology is pretty much the same.
19 What you have seen before, it follows guidance from
20 EPA and DTSC. We follow four basic steps of a risk

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1 assessment: Data collection and evaluation; exposure
2 assessment; toxicity investment; and risk
3 characterization.

4 As I indicated earlier, all of this data was
5 compiled, and we used all of this information to
6 select chemicals of potential concern for the site.

7 Those are chemicals that are evaluated in
8 the human risk assessment.

9 Can you guys hear me back there? Sort of?
10 I will try to yell.

11 And as we've discussed before, in the other
12 drafts, the selection of the COPC process involves
13 combining all the analytical data that you have and
14 then comparing site concentrations to ambient levels.

15 We developed ambient levels because a lot of
16 soils out there are artificial fill; so we developed
17 numbers that we would consider to be background.

18 If it was below those numbers, it was
19 eliminated from the human health risk assessment.

20 If it exceeded those numbers, then we

34

1 evaluated it in the human health risk assessment.

2 And in the end, we ended up evaluating
3 metals, SVOCs, VOCs, pesticides and dioxins in the
4 human health risk assessment.

5 As part of the exposure assessment, we
6 identified receptors. The most likely exposed
7 receptor at the site, based on the intent to use the
8 housing units out there is, obviously, a resident.

9 That's also the most conservative scenario.
10 Residents are assumed to be exposed for a longer
11 duration for having a greater exposure than any of the
12 other receptors.

13 And we looked at ingestion. For the
14 resident, we took ingestion of soils, dermal contact,
15 inhalation of particulates and volatile organic
16 compounds, and ingestion of homegrown produce.

17 And for groundwater, we also looked at
18 inhalation of volatiles that migrated from groundwater
19 through soil to air.

20 And in case the future land use changes at

35

1 Site 12, we also looked at other potential receptors:
2 Recreational child and adult; commercial/industrial
3 worker and a construction worker.

4 Now, the recreational scenario and the
5 commercial/industrial scenario were in the last three
6 versions. But the construction worker scenario is new
7 this time. So you want to focus on that when you're
8 looking at the document.

9 For all these receptors, we also looked at
10 the soil pathways, ingestion, dermal contact and
11 inhalation.

12 And for groundwater, for all the receptors,
13 we also looked at inhalation of VOCs released from
14 groundwater migrating through soil to air.

15 For the construction worker in a separate
16 appendice analysis, we also looked at construction
17 contacts with groundwater. If somebody were to dig a
18 trench, or an excavation, actually, be down inside of
19 the trench, come into contact with groundwater and
20 inhale vapors that were released from groundwater.

36

1 And what also is different is based on a
2 review of the spacial distribution of dioxins,
3 specifically. We decided as a group to focus on two
4 separate areas for purposes of the risk assessment.

5 So we looked at area 1, which is what I call
6 area 1, the former debris disposal area -- I will show
7 you the map in a minute -- and area two, which is the
8 rest of the site.

9 The prior risk assessments had looked at
10 Site 12 as a whole, because we hadn't really seen any
11 areas of localized contaminations or where we saw
12 higher concentrations of specific chemicals.

13 Now, one thing that's important to notice,
14 because there is a removal action planned for the
15 former burn pit area, I did not include those
16 locations of the human health risk assessment because
17 they would not be representative of what is
18 essentially current site conditions.

19 So the three locations, sample locations
20 where we found lead at 1420, 1410, 774, those three

37

1 concentrations have been removed from the risk
2 assessment.

3 And here's a map of the areas (indicating).
4 It's not very good, is it? Can you guys see that?

5 This funny box is what's outlining, as Gene
6 said, former debris disposal area A and area B. They
7 are sort of combined.

8 Area 1 is a former debris disposal area.
9 And that's where the more recent round of dioxin
10 sampling occurred.

11 These little dots represent all of the
12 sampling for dioxins that have occurred at the site.

13 In the very beginning during the RI, seven
14 samples went through the old incinerator right in here
15 (indicating). So samples were collected in that area
16 to explore whether or not dioxins might be there.

17 So right in there, there was an incinerator,
18 historically an incinerator. So seven samples were
19 collected during the RI both here (indicating), and
20 then down over here in this debris area (indicating).

38

1 And, again, as Gene indicated, Geomatrix and
2 the City of San Francisco went in and took 15 samr'
3 They did a grid. Essentially what they did was to
4 sample for dioxins at every fifth location, so sort of
5 random statistically significant sampling, which gives
6 you a good sense of what is going on throughout the
7 site.

8 And then based on that, it was decided to go
9 in and focus in this area (indicating). That's why
10 there is sort of a cluster of dioxin sampling in here
11 (indicating).

12 And this is a blowup of the former debris
13 disposal area (indicating), the outlines that Gene had
14 as well.

15 So there are a total of 23 dioxin samples in
16 the vicinity of the former debris disposal area. The
17 green -- these are sort of like half circles -- there
18 is a green part of a circle. It means the dioxin
19 concentrations were less than 10 parts per trillion.

20 The blue, the dioxins were between, or

39

1 concentrations were between 10 and 100 parts per
2 trillion.

3 And if it's red, it means the dioxin
4 concentrations were greater than 100 parts per
5 trillion, but less than 200 parts per trillion.

6 And to give you a sense of relative scale,
7 the EPA action level is 1,000. So the highest
8 concentration is actually well below that.

9 We use all of that information -- the data,
10 exposure assessment information, toxicity information
11 to characterize the risk for each of those areas.

12 The cancer risk is the probability or the
13 likelihood of an individual getting cancer under
14 defined exposure conditions. That's really important,
15 because the risk can only be assigned if the person
16 has actually been exposed for 24 hours a day, 350 days
17 per year for 30 years. That's what we are assuming
18 for a resident.

19 The hazard index is our indicator or measu.
20 of potential noncarcinogenic effects.

40

1 And the risk assessment results, at least
2 for cancer risk and hazard, for both area 1 and area
3 2, are indicated that the cancer risks are within
4 EPA's target risk range. So 1 in 10,000 to 1 in 1
5 million, and that the hazard indices are equal to or
6 less than the threshold value.

7 What I did -- I will show you the numbers
8 for the residential scenario, but I also have attached
9 at the end a few graphs, a copy of all the other
10 receptors, of the risk for all the other receptors.

11 They tend to be, because a resident is
12 exposed for a longer period of time, they tend to be
13 lower. So I thought I would show these because they
14 are more relevant for Site 12 at the moment.

15 So these are the results for the resident.
16 There are two approaches given. The report will also
17 reflect two approaches, and this is new as well.

18 EPA has one approach for evaluating risk and
19 the DTSC has another. We provided both pieces of
20 information to inform risk management decisions, so

41

1 people could essentially choose the value that they
2 understood to be consistent with the way risk
3 assessments are conducted at a site.

4 They are very close. They are both still
5 within the target risk range. And, again, very close.

6 So for surface soil, the cancer risk is 4
7 times 10 to the minus 5, using EPA's approach.

8 DTSC is 6 times 10 to the minus 5.

9 Hazard index is 1.

10 And for all soils, which is the 0 to maximum
11 depth sample interval, which we evaluate to look at
12 the possibility that, during future construction
13 activities, 0 to the maximum depth sample might be,
14 the soil might actually be brought out to the surface
15 and spread over. It's not because we anticipate
16 people would be exposed to soils at those depths, but
17 just in case it was brought to the surface.

18 Those risks are also within the risk range
19 at 5 times 10 to the minus 5, and 7 times 10 to the
20 minus 5.

42

1 What is important to note about this, these
2 risk estimates are based on the maximum concentration
3 of dioxins detected at the site for area 1. That's a
4 very conservative assumption.

5 Typically, we look at a reasonable maximum
6 exposure, which is more like on an upper bound on an
7 average.

8 But, statistically, when you have a data set
9 that's less than 30 samples, you can get a skewness.
10 It appears to be skewed, and you end up using your
11 maximum concentration. And even using the maximum
12 concentration, we are well within the risk range.

13 And then for area 2, we are also within the
14 risk range for a resident, and the hazard index is
15 below 1.

16 This, actually, the chemical risk drivers
17 that Gene indicated, we tend to call chemical risk
18 drivers defined as chemicals that are associated with
19 the risk that is actually within the risk range. So
20 the risk is between 10 to the minus 6 and 10 to the

43

1 minus 4.

2 The reason we tend to focus on those is to
3 present the fate and transport extent, because within
4 that range, we are talking about risk management. We
5 want to make sure that we adequately characterize the
6 site for those particular constituents, that we know
7 everything we want to know about them.

8 So we tend to call them out so we can
9 continue further investigation if we need to, or
10 further analysis, so that everyone knows where they
11 are to make sure we have enough of that information.

12 For these, it was actually TPHs. But they
13 are still well within the risk range.

14 And we did a lead evaluation. Bear with me.
15 This is kind of complicated.

16 What we did, because we have so many
17 receptors, what we typically do is use the DTSC lead
18 model. We plug in our soil concentrations and it will
19 tell us what the lead concentration is in blood for a
20 particular receptor.

44

1 Usually, we look at the child resident,
2 first and foremost, because that's the most sensitive
3 receptor.
4 But in this case, because we have so many
5 receptors and we have two areas, in order to try
6 and -- believe it or not -- simplify the process, we
7 went backwards in the model and derived soil
8 concentrations of lead that correspond to the blood
9 lead concentration of concern, which is 10 micrograms
10 per deciliter.
11 And then what we can do is, we are
12 essentially saying that particular concentration. So
13 it's sort of like a preliminary mediation goal: if
14 you're below it, you know that you're protected for
15 the receptor that you're evaluating.
16 If you're above it, you know that you need
17 to look at the issue further and figure out where your
18 lead concentrations are, and that you may have a
19 problem.
20 So we used the DTSC lead model, and it

45

1 assumes lead uptake from both site related sources and
2 background sources. So it also looks at, for example,
3 food that you might purchase in a grocery store. It
4 tends to be, or has been in the past, fairly high lead
5 concentrations that you might purchase in the grocery
6 store.
7 And because the DTSC lead model assumption
8 is about how much lead is in your food, it's pretty
9 high and they are somewhat, they are, I guess, 15
10 years old. We looked at more recent studies, and
11 actually, the Food and Drug Administration has
12 determined, or through some of their efforts, figured
13 out a way to reduce those dietary lead concentrations.
14 So we've modified the DTSC model. These are
15 both presented, the results are both presented. But
16 just for comparison purposes, the modified DTSC lead
17 model reflects the observed decline in dietary lead.
18 So then what we did, we took site
19 concentrations and compared them to these. For a
20 child resident, we took -- the DTSC model produces a

46

1 number of 219 milligrams per kilogram in soil. The
2 modified DTSC lead model, interestingly enough,
3 corresponds to a lead concentration of 400, which
4 equivalent to the EPA Region 9 preliminary remediation
5 goal.
6 The surface soil lead concentration in area
7 1 is 189, so it's below those levels.
8 For all soils, we have two locations that
9 exceed 400, and the remaining 21 sample locations are
10 below that.
11 For area 2, the surface soil concentration
12 is 88 and all soils is 9.3. So they are well below,
13 both of those numbers.
14 And for all the other receptors, the actual
15 screening lead concentration in soil corresponds to
16 blood lead level is higher than for the child. So if
17 we are below the child, we know we are below the rest
18 of the receptors.
19 Did that make any sense?
20 So at this point and, again, these are

47

1 preliminary results, the conclusion is: The current
2 conditions at Site 12 are protective of human health.
3 But, again, additional sampling is either
4 taking place, and there is only preliminary
5 information we couldn't incorporate into the report;
6 or the intent is to go out and take some additional
7 samples.
8 These efforts include characterization of
9 the vertical extent of the contamination, mostly lead
10 and dioxins, in the former debris disposal area; and
11 also to characterize the dioxin in the vicinity of the
12 burn pit area where the lead removal will occur.
13 Again, we have so much sampling information,
14 we have so much information about the site that we
15 really don't anticipate that the conclusions or the
16 information will change dramatically.
17 But the final human health risk assessment
18 won't be final until we have all that information and
19 we can incorporate it.
20 Any questions?

48

1 CO-CHAIR HEHN: You say the risk assessment
2 won't be final until the last samples?

3 MS. CAVINESS: Well, maybe I'm being
4 cautious, but because we are taking additional
5 information -- maybe I'm one of those careful risk
6 assessors -- until we have all the data that we intend
7 to collect at the site, we can't really say that it's
8 absolutely final.

9 However, in reviewing the data we have
10 collected to date, because we've done several sampling
11 rounds, we don't expect it to change significantly.

12 What we're hoping to do is sort of expedite
13 the process by looking at the data. If it's less than
14 the concentration that we have seen before, we could
15 say that the conclusions wouldn't change, the human
16 health risk assessment using the maximum concentration
17 of dioxins, for example.

18 So we don't expect it to change, but I never
19 elect to say it's absolutely, absolutely final until
20 we have all that information and we can determine that

49

1 for sure.

2 CO-CHAIR HEHN: So the document that is
3 supposed to be available June 1st, is that going to
4 include that last dioxin sampling data or not?

5 MS. CAVINESS: No. That's two weeks.

6 CO-CHAIR HEHN: So it's kind of a draft
7 final, pre final?

8 MR. BARRY: The draft final.

9 MS. CAVINESS: It is the draft final.

10 MR. BARRY: Yes.

11 CO-CHAIR HEHN: So there will be another
12 final.

13 MS. CAVINESS: Exactly.

14 CO-CHAIR HEHN: That will also be available
15 for review and comment.

16 MS. CAVINESS: And Jim can probably tell you
17 sort of where we go from here with the phases in the
18 schedule.

19 MS. WALTERS: Can I just ask a quick
20 question?

50

1 MS. CAVINESS: Sure.

2 MS. WALTERS: Put it this way: When does
3 the Navy -- this could go to Jim as well -- when does
4 the Navy anticipate that there will be a final health
5 risk assessment at Site 12?

6 CO-CHAIR SULLIVAN: Well, the risk
7 assessment in the draft final that will issue on or
8 about the 1st of June will essentially have virtually
9 all of the data.

10 It's just that we won't have validated,
11 well, we either won't have validated the latest data
12 that we've collected from the burn pit area, and we
13 won't have collected the additional vertical extent
14 sampling from the debris disposal area.

15 We had to make a decision as to whether or
16 not to hold up the whole draft final RI waiting for
17 that additional bit of information. But we believe
18 it's not going to substantially change the risk
19 assessment.

20 So, I think, in essence, the complete, the

51

1 100 percent complete risk assessment would be in the
2 final RI report, which, if we issue this report on the
3 1st of June, we're going to ask for a 45-day comment
4 period.

5 We're going to ask for comments by the
6 middle of July, and then at the end of that comment
7 period, we would produce a final within 30 days.

8 So if the document is issued on the 1st, we
9 ask for, we get comments back in 45 days, then we
10 would issue the final RI with 100 percent complete
11 risk assessment on or about the 15th of August.

12 MS. WALTERS: I think that places a bit of a
13 problem for the City.

14 I mean, as you know, we have this 1 August
15 '99 date, and where do we go from here on that?

16 MS. CAVINESS: Well, certainly the results
17 of this risk assessment for the majority of the site
18 would stand.

19 MS. WALTERS: I understand that, but I'm
20 just saying -- actually, what I'm thinking, worst case

52

1 scenario, you have a wild card, you know, you get
2 super high hits, it's above the 1 PPB. What happens
3 then?

4 I think that we need to sort of think beyond
5 the little box here, get outside of it, and put in
6 some contingencies, because as everybody in this room
7 knows, it really affects the leaseability of the site.

8 Yes, there is a phased approach to this, the
9 housing area. We are all aware of that. But there is
10 some serious financial considerations in terms of the
11 City's agreement, lease agreement with the John
12 Stewart Company, and that's actually, really, backing
13 up to that 1 August date, and it really is a real
14 serious date for us.

15 So I think maybe we don't have to do it
16 here, but I think we sort of need to sit down and just
17 sort of have a little brainstorming session and just
18 try to figure this out.

19 I mean, I don't know if there is any kind of
20 like, for example, any flexibility. Instead of 45

53

1 days, maybe we would have 30 days. Change that time
2 period, not only what Cal-EPA thinks.

3 I would really suggest having a meeting
4 sometime next week and just sitting down and try to
5 figure this out. It's in everybody's interests to
6 figure it out.

7 I agree with you, Gwen. I think the
8 likelihood is very remote. I understand that.

9 MS. CAVINESS: Yes.

10 MS. WALTERS: But I'm on the other end of
11 the spectrum here trying to protect the City's
12 interest.

13 MS. CAVINESS: Would the City be interested
14 or comfortable with sort of a letter report? I think
15 that issue or that suggestion has come up, especially
16 if, in fact, the concentrations are below what we see
17 here.

18 MS. WALTERS: Right.

19 MS. CAVINESS: We can include so on and so
20 forth.

54

1 MS. WALTERS: I'm comfortable with that, but
2 the DTSC has to be comfortable with that, too. That's
3 fine with me.

4 CO-CHAIR HEHN: You think you would want a
5 letter report as an addendum to the Site 12 OU?

6 MS. CAVINESS: Well, it's sort of like an
7 interim. If, in fact, I mean, there is sort of two
8 ways things could go. The concentrations are either
9 above or below what we have seen in all the previous
10 data.

11 If it's below, we simply indicate,
12 essentially, we look at the lead and dioxins. And if
13 the concentrations are below levels that are of
14 concern, either below what we have already seen
15 before, below 1,000, or lead is well below that, that
16 we would say, we would qualitatively essentially say
17 that the concentrations are below what we have seen
18 before. We evaluated those and we are comfortable
19 with that information.

20 So it's essentially saying there is no

55

1 change to the conclusion of the human health risk
2 assessment presented in the draft final.

3 And then that data would then be
4 incorporated into that final final so that everything
5 would all be in the same place.

6 But in the interim, the City would have sort
7 of definitive information about what that particular
8 data showed.

9 CO-CHAIR HEHN: For your purposes, Martha,
10 does it need to be an approved final final document
11 for the Site 12 OU?

12 MS. WALTERS: I think that the level of
13 comfort is definitely necessary, frankly; yeah, I do.

14 CO-CHAIR HEHN: Because the question is, as
15 we were just talking about, if the final final is only
16 going to have that new data, then I'm assuming that
17 that final final will have a review period, too, and
18 how long is that going to be?

19 MS. WALTERS: No, I agree. I was thinkin'
20 about that, too.

56

1 That's what I mean. We have to sit down and
2 think out of the box. How can we modify the schedule
3 to be realistic?

4 I understand. Everybody needs to review
5 things. I'm not trying to eliminate that at all.

6 So does that sound reasonable, we could get
7 together next week?

8 CO-CHAIR SULLIVAN: Yes.

9 MS. WALTERS: David?

10 MR. RIST: I won't be here.

11 MS. WALTERS: You won't be here. You're the
12 most important guy.

13 MR. RIST: Maybe the week after or tomorrow
14 or the next day. We could talk about that.

15 MS. WALTERS: Yes, we could talk about that
16 during the break or something. We could figure it
17 out. Okay.

18 CO-CHAIR SULLIVAN: And lastly, we have two
19 removal actions underway, or in planning. The one
20 removal action, the members of the technical review:

57

1 committee, as well as the agencies of the City should
2 have gotten a copy of the remediation action work plan
3 for the building 1207-1209 area for the lead removal.

4 And there is a comment period. You should
5 have received that, a comment period associated with
6 that.

7 MR. GALANG: By the 1st.

8 Final document, the 24th; and then
9 mobilization is June 2nd. Excavation is June 7th. It
10 was in the letter.

11 CO-CHAIR SULLIVAN: Yes. The cover letter
12 has the review date request.

13 MR. GALANG: Yes.

14 CO-CHAIR SULLIVAN: And then in our other
15 removal action project for the TPH in building 1211 --
16 or, excuse me -- building 1311 area, and we just
17 issued an addendum to the sampling plan, and we have
18 asked for comments on that by the 24th of May.

19 MR. GALANG: I handed them today to Nathan
20 and Paul.

58

1 CO-CHAIR SULLIVAN: So for the lead removal,
2 we are posing ourselves to get into the field and
3 start the excavation.

4 And for the TPH removal, we are taking some
5 additional delineation sampling, and then are looking
6 at various options to remediate in the ground rather
7 than do a removal excavation.

8 MR. GALANG: Also with this, there is
9 another addendum for the lead.

10 Remember, we discussed about getting an
11 additional six-month samples on the driveway and then
12 also the carports? That has to be done as soon as
13 possible before the mobilization, so we can determine,
14 really, the extent of the lead.

15 If we have to remove some roadways or
16 hardcourts or slabs, we could incorporate that in the
17 work plan.

18 We can also allow some budget, too, for the
19 restoration.

20 So that's part of the lead removal action.

59

1 CO-CHAIR HEHN: So the size of the
2 excavation planned for the burn area might actually
3 expand in other directions?

4 MR. GALANG: Yes, because there is no reason
5 for sampling the fill. That's why, as much as
6 possible, we don't want to go beyond unpaved areas.
7 But if we have to, then we, to really get out, get all
8 the contamination, might as well do it at this time.

9 CO-CHAIR HEHN: Thank you.

10 I just wanted to let people know, since we
11 are kind of talking about the dioxin issue at Site 12,
12 just in, for interest, there has been a lot of
13 information in the news lately about EPA's
14 announcement for changes in the interest in dioxins in
15 bay waters and the impacts of that.

16 I talked to James Ricks today of the EPA
17 about the EPA's program for that, since there seems to
18 be a lot of information in the public press that has
19 not been very accurate or defined as to what they were
20 really looking for.

60

1 I wanted to make sure that that wasn't going
2 to affect what was happening on Site 12 for those same
3 dioxin issues.

4 And James had indicated that that is
5 actually looking at the dioxin discharges from large
6 industrial dischargers that discharge dioxins into bay
7 waters. They are looking at trying to control some of
8 those point source dischargers.

9 And there was an announcement that the EPA
10 put out, literally yesterday, with a press release. I
11 have some copies, and Gwen was very helpful in getting
12 copies of that from James and brought copies tonight.

13 So there are copies of that in the back, if
14 you want a copy of that, just to let you know what the
15 EPA's rules are and what they are looking for.

16 But it doesn't seem like it's going to
17 affect anything on the Site 12 investigation, or be
18 impacted by that.

19 CO-CHAIR SULLIVAN: Okay. Well, we are
20 actually about on time, and so we have an option:

61

1 We could either take a break now, or we
2 could continue into the groundwater monitoring report
3 presentation. So it's up to the RAB members what you
4 would like to do.

5 I would recommend just pressing on, at least
6 with the next item, since we appear to be on a roll.

7 MS. WALTERS: Can I interrupt for a quick
8 second?

9 CO-CHAIR SULLIVAN: Sure.

10 MS. WALTERS: Sandy, from the John Stewart
11 Company, was kind enough to go out and get the map of
12 the barricades and fencing, so I will hand those out
13 right now, too.

14 CO-CHAIR HEHN: Good.

15 MS. WALTERS: So, Jim, go ahead with your
16 groundwater monitoring.

17 CO-CHAIR SULLIVAN: Okay. So let's go ahead
18 with the presentation on the annual groundwater
19 monitoring report.

20 This document has just become available.

62

1 For those of you on the technical committee that had
2 been receiving documents, we issue a quarterly report
3 and, then, once a year, we compile the four quarterly
4 reports into an annual report.

5 And so that's what we issued. We are taking
6 comments on that until about the 11th of June.

7 And so everyone on the RAB technical
8 subcommittee has received a copy of that.

9 And, of course, as with any of our
10 documents, any other RAB members who would like to
11 receive a copy, you don't necessarily, you don't have
12 to get on the list to receive every document every
13 time. You can select document by document which
14 particular document you would like to have.

15 So you're always welcome to ask for
16 documents, but we automatically send them to the
17 currently seven people who are on the RAB technical
18 subcommittee.

19 I would like to introduce Craig Freeman from
20 Tetratech, a new face to the RAB. We welcome him

63

1 here, to make a presentation on the groundwater
2 monitoring report.

3 MR. FREEMAN: I'm not the transparency
4 expert here, but I have been working with Tetratech
5 for the last eight years, a large chunk of that,
6 recently, on the support activities on Treasure
7 Island.

8 I have been given the opportunity tonight to
9 briefly synopsise the groundwater status report, that
10 very large document you probably got Saturday morning
11 or Monday morning Fed Ex'd wondering what the heck it
12 was. That went out two weeks ago.

13 So let's jump into it. We have about 17
14 slides here, so it will move pretty quickly.

15 I learned in Toastmaster's to tell them what
16 you're going to tell them -- and it also helps to keep
17 your slides straight.

18 I'm going to jump into some of the
19 objectives of groundwater monitoring, basewide
20 groundwater monitoring at TI, a little bit of

64

1 background.

2 And then I will go through our standard
3 sampling methods and quality control procedures.

4 There are no great surprises there.

5 I will talk about the monitored natural
6 attenuation sampling that took place twice last year.

7 And then I will get into the meat of the
8 report itself, the data evaluation and those analytes
9 that were detected at elevated levels.

10 I will give a site example to kind of
11 explore things.

12 And then I will wrap it up.

13 Of course, if you have questions, don't
14 hesitate to interrupt to keep things lively, and I
15 will have an idea that you guys are actually listening
16 to me.

17 Okay. Objectives. Talking about a basewide
18 groundwater sampling project here, I have been trying
19 to think of an analogy to describe how groundwater
20 fits into a larger program. I was unsuccessful. So

65

1 it does support two ongoing environmental restoration
2 programs at TI.

3 The first being, as I'm sure you're all
4 familiar with, the RI itself. That's for the CERCLA
5 sites.

6 The second being the CAP, the Corrective
7 Action Program sites, and, of course, those are
8 petroleum sites.

9 And, specifically, to the groundwater, of
10 course, you're trying to identify the analytes of
11 concern to delineate their extent and assess if
12 they're moving and/or attenuating.

13 Background: Extensive network of monitoring
14 wells at TI. I sometimes joke: Remediation by
15 investigation. Groundwater wells, well positioned at
16 the site.

17 84 on TI itself and 6 at Site 11 on YBI.
18 More wells will be added, a limited number of wells
19 may be added this year, if necessary. That will be
20 under the CAP program, and you've heard about that

66

1 before.

2 And then we do have a large body of
3 groundwater data. It's easy to sometimes forget that,
4 as we move forward in our annual monitoring program,
5 but we have been sampling at TI for quite a while.

6 All that data was made available this year in the
7 annual report. In contrast to just giving a snapshot,
8 as we have been asked in the past, this year we
9 presented the whole enchilada.

10 CO-CHAIR SULLIVAN: Craig, I just want to
11 point out that while this is the majority of the
12 wells, there are a smaller number of wells --

13 MR. FREEMAN: Exactly.

14 CO-CHAIR SULLIVAN: -- that are not in the
15 installation restoration program that are isolated.
16 Mostly smaller USTs on Treasure Island and then one on
17 Yerba Buena Island.

18 MR. FREEMAN: Right.

19 I think there are about 20 UST wells. We
20 did do water levels at those, and you will see them in

67

1 our report. As they are UST site wells, we don't
2 sample them.

3 However, where a UST well or site adjoined
4 our site, we looked at them and presented the data
5 this year in our report, so it's pretty comprehensive.

6 That's a good point.

7 If some of this is sounding familiar to you,
8 it's because we did present, as typically is the case,
9 quick snapshots of each of the first three quarterly
10 reports to make the data available, of course that
11 would be for the January, May and August events.

12 And then the current report presents, again
13 as I mentioned earlier, all of the groundwater data to
14 date at the site. We focus on the current data and,
15 again, we will be sampling in '99 and 2000 for
16 quarterly events.

17 Okay. Sampling methods. I don't think,
18 unless there is a popular request for it, I won't go
19 into great detail here. It's standard sampling
20 methodologies conducted in accordance with the

68

1 approved Treasure Island field sampling plan.
2 Analytes. The samples were subjected to
3 full spectrum analysis. I will talk about that a
4 little bit more in the future.
5 Next slide. And, then, of course, all
6 samples were analyzed with standard EPA laboratory
7 methodologies.
8 Okay. Comprehensive suite again. We are
9 not just going out there looking for one metal, we are
10 not just looking for one VOC.
11 When a sample goes in, it gets the full
12 suite of analyses, as we call it. In the case of
13 metals, The CLP -- the contract laboratory program --
14 has 23 metals in it.
15 VOCS, there are 33 VOCs in the VOC suite.
16 SVOCs are comprised of 64 analytes.
17 Petroleum, of course, comes in gasoline,
18 diesel and motor oil ranges; and, then, of course,
19 there are other analytes that were sampled for as
20 well, but at the risk of boring everyone to death, I

69

1 won't get into all that detail. It's in the report.
2 If you have questions, of course, I would be
3 more than willing to answer them.
4 CO-CHAIR HEHN: Were those filtered metals?
5 MR. FREEMAN: Right.
6 This year, we did both filtered and
7 unfiltered metals, and both sets of data are
8 presented. The focus is on the unfiltered data this
9 year.
10 And then three sets of data -- I probably
11 should have summarized this earlier. Of course,
12 traditionally, you send your samples off to your lab,
13 contract certified, State of California certified lab.
14 When we were doing the monitored natural
15 attenuation sampling this year, some of the indicator
16 parameters from the data we needed is time or oxygen
17 sensitive. In English, that means you have to sample
18 it right away.
19 So in that case, for a limited number -- not
20 analytes of concern, we are not talking about anything

70

1 in terms of a risk driver -- but we are worried about
2 dissolved oxygen. You can't send your sample off
3 the lab because, by the time the sample gets to the
4 lab, the dissolved oxygen readings change.
5 So in those cases, we used field test kits.
6 We call it an on-site lab. We had a project chemist
7 there. We race the sample over to the chemist to
8 quickly conduct the analyses.
9 We also used some high precision field
10 equipment to collect data that you had to get. It's
11 called a flow-through cell. It ensured that data
12 hadn't changed.
13 And, again, temperature. Obviously, you
14 can't put a sample in a bottle and send it to the lab
15 to get the temperature because the temperature is
16 going to change.
17 So you collect that right at the well head.
18 Same with dissolved oxygen.
19 And that was some pretty interesting stuff,
20 using the, basically, we are using a flow cell 4000.

71

1 It's a groundwater flow cell.
2 Okay. Standard quality control measures.
3 Again, in accordance with the approved Treasure
4 Island, we call it QAP, Quality Assurance Plan.
5 We collected, of course, the standard
6 complete suites of quality control samples,
7 duplicates, matrix spikes, laboratory control spikes,
8 equipment and trip blanks.
9 I won't get into great detail here, but an
10 example of a quality control sample is a duplicate
11 which, in the case of TI -- well, actually, not just
12 TI, all of our facilities -- we collect 1 out of 10.
13 As a blind duplicate, we submit it to the lab to make
14 sure that the laboratory results are very similar and
15 consistent and reliable throughout the sample effort.
16 Accordingly, and you see this in the report
17 itself, there is a 60-page appendices. It's called,
18 "A Quality Control Summary Report." It assesses the
19 quality of the data.
20 The short answer to that, the quality, the

72

1 data quality is a very high quality.
2 Okay. Monitoring natural attenuation. I
3 understand Richard Knapp presented some information
4 about this. I believe it was in February. So I won't
5 go into great detail here. There is a lot of that in
6 the report.

7 Basically, natural attenuation is,
8 monitoring natural attenuation is looking at
9 attenuation processes, that being chemical, physical,
10 biological processes that reduce the mass, toxicity,
11 mobility and volume of contaminants, concentration of
12 contaminants.

13 In the case of Treasure Island, we did that
14 only at TPH and solvent sites.

15 And, basically, we had a subset of wells at
16 those sites where we look for what we call indicator
17 parameters that would give us information to allow us
18 to determine what rates of natural attenuation were
19 taking place.

20 Now, under the data evaluation, the

73

1 evaluation protocol, again, we are looking at the 1998
2 data, is comparing the groundwater sampling results to
3 the receptor pathway, which is, of course, saltwater
4 life.

5 So we compared the results to the EPA
6 ambient water quality criteria, chronic, where there
7 was one; if there was no chronic, we use acute. You
8 will see more detail on that in the report.

9 These are criteria that, criteria that are
10 specific to a specific individual analyte.

11 In the case of TPH, we use the proposed
12 Regional Water Board criterion of 1.4 milligram per
13 liter, again, for total petroleum hydrocarbons.

14 Okay. So I've got -- I hope you have a copy
15 of the slides. I'm not quite sure how easy it is to
16 see this up here.

17 This is obviously in the slide set
18 (indicating). These are the analytes that were
19 detected at elevated levels (indicating). Not a lot
20 of this is extremely hot. Most of the levels we are

74

1 talking about here, above 80 WQCs, most of the numbers
2 are hanging right about AWQC.

3 Briefly, this table is a snapshot of the
4 nine sites that are presented in the report. The
5 first two, obviously, indicate the number and the name
6 of the site.

7 The third column identifies those analytes
8 that were above AWQC, or detected above AWQC, at any
9 point during the sampling event in 1998.

10 And then the fourth column, of course,
11 identifies exceedences of TPH.

12 And then the last column calls out analytes
13 that were elevated. They may not have exceeded a
14 criterion. There may also be no criterion for this
15 analyte. We thought it was important just to call
16 them out. They may be associated degradation
17 constituents.

18 And that's the first set of sites.

19 And the second -- and, again, in the report,
20 each one of these sites gets a chapter.

75

1 To try to make some sense out of this, let
2 me jump into one site example. I will do Site 25.
3 Since how, from what I've heard, we've talked a lot
4 about Site 12 at these meetings.

5 It's the seaplane, former seaplane
6 maintenance area directly south of here, or almost
7 directly south, southeast.

8 There are three wells at the site that have
9 been sampled for a number of years. Last year, they
10 were sampled semiannually.

11 We also did quarterly water levels, which
12 means, of course, we did them four times, to determine
13 groundwater contour maps for the site. And they are
14 in the report.

15 The groundwater samples were analyzed for
16 TPH, VOCs, SVOCs and metals, and we also, as mentioned
17 earlier, we reviewed the results of the separate
18 contractor's work at two UST sites in proximity to
19 Site 25 to make sure our two reports supported each
20 other. We are making good use of their data and the

76

1 money that was spent there.

2 Consistent with previous results and the
3 other studies, elevated TPH, primarily gasoline, was
4 detected at the site, and, again, only in one well.
5 It's well 25-MW02. That's the bad actor in the group.
6 The other two came up clean.

7 This is consistent with the other
8 investigations, be it ours or the other contractors at
9 the site.

10 There is a lot more detail on this, of
11 course, in the report.

12 We also found elevated levels of benzene,
13 lead and arsenic.

14 This site will be receiving focused
15 additional investigation. Of course, under the CAP
16 program -- because it's one of the TPH sites -- under
17 the CAP program, which will be moving forward this
18 summer, they will be collecting additional geoprobe
19 samples. Of course, geoprobing is good for collecting
20 things like both soil and water. That will be moving

77

1 forward this summer to further delineate this one area
2 of TPH contamination.

3 And then noting the elevated levels at 25 in
4 this one well, again, 25-MW02, the Navy has decided to
5 move forward with a remedial technology demonstration.

6 If you bear with me, I have been asked to
7 put in a little plug here:

8 This is taking place tomorrow. I am not
9 sure if you had a chance to see the flier up front.
10 Tomorrow morning, there will be a seminar
11 demonstration. It's being put forward primarily by
12 two vendors, Regenesi Bioremediation Products and
13 Precision Sampling.

14 In a nutshell, the idea is to degrade
15 oxygen -- I'm sorry -- degrade petroleum. Primarily
16 the limiting factor in aerobic degradation, of course,
17 would be oxygen. It's difficult to get oxygen in the
18 subsurface.

19 What these folks at Regenesi have
20 discovered, they have a patented compound. It's a

78

1 formulation of magnesium hydroxide. When it comes in
2 contact with water, it releases oxygen, which
3 accelerates natural biodegradation of TPH. That's
4 approach they will be punching a hole in, logically
5 enough, adjacent to well 25-MW02. We will be
6 monitoring it throughout the year to see the results.

7 So as you will see once you have the
8 document, or crack it open, this is a large basewide
9 program, extensive sampling, extensive network of
10 wells.

11 Again, there is a lot of detail in the
12 report. The report itself is meant to support these
13 primary investigations, as you can probably just gauge
14 by scale. Site 12 RI gets 45 minutes. Poor
15 groundwater guys get 15 for basewide.

16 So, basically, groundwater plugs into these
17 larger documents. You will be seeing those this year.
18 The onshore RI, and, of course, the draft final CAP
19 for TPH sites.

20 And then there are remedial activities

79

1 ongoing, not only at Site 25 tomorrow, but there is a
2 proposed biosparging, bioventing demonstration for
3 Site 6 as well.

4 CO-CHAIR SULLIVAN: At a later date.

5 MR. FREEMAN: At a later date, yes.

6 That's all I have. If you have questions, I
7 would be more than willing to answer them.

8 CO-CHAIR HEHN: I have a couple of questions
9 for you.

10 MR. FREEMAN: Sure.

11 CO-CHAIR HEHN: One on your technology
12 demonstration that you're having tomorrow.

13 MR. FREEMAN: Right.

14 CO-CHAIR HEHN: I know that that was
15 something we signed up for earlier.

16 Is it possible for anybody that wants to
17 attend that tomorrow to just come out and do that?

18 MR. FREEMAN: Yes. I encourage anyone
19 that's interested to show up tomorrow. I think you
20 will get a free breakfast, too.

80

1 I wasn't primarily involved in that. I have
2 been following it. I did watch the video last night.
3 It does seem really interesting.
4 It's a fairly exciting technology. And I'm
5 sure they would love to have anyone and anyone that
6 shows up, even though you would be a walk on at this
7 point, because I think they ask for an RSVP. But it's
8 in their best interests to have anyone there.
9 CO-CHAIR SULLIVAN: Yes. I think I could
10 say for the number of people we have in the RAB,
11 especially since we are providing the facility, if
12 there is anyone who would like to attend who hasn't
13 RSVP'd, please go ahead. Actually, there will be, I
14 will have a map at the front gate.
15 But it will be in our Building 570, which is
16 sort of our environmental compound that is located
17 right over here (indicating). So if you drive in the
18 main gate and turn right onto California Avenue, and,
19 actually, go as far as you can. When you reach the
20 dead end, just take a left and go all the way down.

81

1 You will see the environmental compound. It has some
2 sort of a Navy sign on the outside.
3 MR. FREEMAN: It says "Environmental
4 Restoration." It's a big green sign. You can't miss
5 it.
6 CO-CHAIR SULLIVAN: Blue -- yes, green.
7 MR. FREEMAN: Green.
8 MS. WALTERS: What's the cross street?
9 CO-CHAIR SULLIVAN: I can never remember the
10 streets on this base.
11 MS. WALTERS: There aren't a lot.
12 CO-CHAIR SULLIVAN: It has to be around 10th
13 or 11th or so. This is 9th Street (indicating). This
14 I do remember (indicating).
15 So it must be about 11th Street.
16 MR. FREEMAN: Yes.
17 CO-CHAIR SULLIVAN: It's just before you get
18 to the brig.
19 MR. FREEMAN: And the exterior of the
20 compound -- correct me if I'm wrong -- it has wooden,

82

1 rust colored wooden slats running through a chain link
2 fence.
3 CO-CHAIR SULLIVAN: It's a large chain link
4 fence with two buildings, one which is 570.
5 MS. WALTERS: At what time?
6 MR. FREEMAN: That's the catch. They start,
7 I think, at 8:00.
8 CO-CHAIR SULLIVAN: Yes. I brought some
9 fliers.
10 Did you bring some fliers?
11 MR. FREEMAN: There is a stack of fliers up
12 front.
13 It runs through noon, is my understanding.
14 CO-CHAIR SULLIVAN: Yes. There is a
15 presentation that starts at . . .
16 MS. WALTERS: It says here, 7:45.
17 CO-CHAIR SULLIVAN: Yes. I think that's
18 kind of actually the walk in.
19 And then the registration.
20 The actual program starts 8:15, and then

83

1 continues to 11:00.
2 And then at that point at 11:00, everyone
3 would leave and go out to the investigation site.
4 And then they would do the field
5 demonstration for about another half hour, and then it
6 would end about 11:30, 11:45.
7 MR. GALANG: No lunch.
8 (Laughter.)
9 MS. WALTERS: No free lunch, is that what
10 you said?
11 CO-CHAIR HEHN: Are we still going to have a
12 bit of a discussion on that after the break?
13 CO-CHAIR SULLIVAN: Well --
14 MR. FREEMAN: I got coaxed into that,
15 actually.
16 CO-CHAIR HEHN: I'm interested in finding
17 out what the follow-up is going to be from that
18 demonstration.
19 MR. FREEMAN: Okay.
20 CO-CHAIR SULLIVAN: Well, basically, the

84

1 follow-up is, we would just, I mean, we are not
2 drilling a new well. We are just injecting adjacent
3 to the well, and then we would continue to monitor
4 MW02 on a quarterly basis.

5 CO-CHAIR HEHN: Okay. Rather than
6 semiannual basis?

7 MR. FREEMAN: We were discussing that
8 yesterday. I guess it's open for discussion, for TPH.

9 There is also going to be additional data
10 coming through on these geoprobe borings.

11 So we will have a robust data set, be it
12 from the monitoring well itself, or the geoprobe holes
13 that are going, not this one hole, but the additional
14 holes are going in the CAP program right in that area.

15 Also, I may recommend a sampling in the FSAP
16 for this coming year, sampling some of the UST wells
17 in the area under the RI.

18 CO-CHAIR HEHN: Okay. We will cover that
19 bit more after the break.

20 The other thing, can you give us an idea on

85

1 metals? This was the first year that we actually did
2 filtered samples. We did unfiltered samples
3 previously.

4 MR. FREEMAN: Right.

5 CO-CHAIR HEHN: Can you kind of generalize
6 what the difference between those two data sets are?

7 MR. FREEMAN: Sure.

8 Okay. Let's start with the August one.

9 Filtered samples are water and those things that are
10 dissolved in water.

11 Unfiltered samples are water and whatever
12 particulate matter may come up in the sample.

13 Particulate matter is a fancy word for saying "dirt,"
14 or whatever is observed, which is another fancy word
15 for saying stuck to dirt.

16 So standard protocol for sampling sites is
17 filtered samples, at least at the sites I have worked
18 at.

19 There are a number of reasons for that, the
20 bottom line being, the criteria we are comparing them

86

1 to are dissolved metals not for, not actually for
2 particulate matter. So it gives you an apples to
3 apples comparison rather than apples and oranges.

4 CO-CHAIR HEHN: Was there considerable
5 difference in just the overall sense of concentrations
6 between the two data sets, is what I'm driving at?

7 MR. FREEMAN: Sure. That's a great
8 question. That's one I was interested in, too.

9 The actual evaluation of the two data sets
10 took place in the May sampling event, and, I guess,
11 the October report. There is more detail there. I
12 wasn't part of that.

13 But in terms of the annual report, you can
14 see, there are two things you can see if you look at
15 the larger data set, and that's one of the -- if
16 you're into the groundwater -- that's one of the
17 beautiful things about this report, the full data set
18 is there.

19 The two things you do see is, filtration
20 isn't a cure-all. I mean, Site 25, the levels went

87

1 up. So what it does, it can screen out the backgroun
2 interference, but it doesn't necessarily mean you're
3 diluting your concentrations.

4 We do see, if you look at unfiltered samples
5 across time, lo and behold, unfiltered samples, you
6 see your concentrations going down fairly steeply,
7 very steeply.

8 What is happening, you're sampling the well
9 year after year. It's called developing the well.

10 You're pulling the dirt out of the surrounding area.
11 Stuck to the dirt are the contaminants. So it looks
12 like your site is getting really clean.

13 The truth of the matter is, the
14 concentration of dirt entering your samples is going
15 down quickly.

16 You don't see that this year, that is, with
17 filtered samples.

18 CO-CHAIR HEHN: So do the filtered samp
19 then, go back up for metals?

20 MR. FREEMAN: In some cases, yes; in some

88

1 cases they have gone up.
2 CO-CHAIR HEHN: Okay.
3 Significantly?
4 MR. FREEMAN: No. It depends on the site.
5 I can't, as much as I would like to claim to
6 recite it off the top of my head, it probably wouldn't
7 be prudent for me to pretend I can.
8 But there are some cases where I noticed
9 metals going up, and in other cases, I saw it coming
10 down.
11 But, generally, across the board, if there
12 was a concern about elevated metals at a site, it
13 would remain a concern.
14 If it was something hanging, like trace
15 zinc, it's probably not a real environmental concern.
16 In terms of environmental or aquatic
17 receptors, and if it's hanging at the level, it may
18 drop down slightly.
19 CO-CHAIR HEHN: Thank you.
20 MR. FREEMAN: Sure.

89

1 CO-CHAIR SULLIVAN: Okay. Well, I think we
2 will take a break. We've actually gone a little bit
3 over now, so we need to pick up the pace again.
4 Rather than 20 minutes, maybe we can hold it to a firm
5 15 minutes, and the coffee should be ready.
6 We will be back, and then we will just touch
7 back on the ORC demo.
8 MR. FREEMAN: If anyone has any questions,
9 we can answer them. Otherwise, we'll move forward.
10 (Short break.)
11 CO-CHAIR SULLIVAN: Okay. We had a separate
12 item -- Craig, you better not sit down yet -- we had a
13 separate item in here for the ORC demo.
14 I don't know. Paul, is there anything else
15 we wanted to say about that?
16 CO-CHAIR HEHN: About the demonstration
17 itself?
18 CO-CHAIR SULLIVAN: Yes, or did we
19 sufficiently cover it?
20 I mean, basically, what we are doing, we are

90

1 going to be injecting the Regenes compound adjacent
2 to our 25-MW02, and then that's the extent of that
3 field activity. And then we would just be monitoring
4 MW02.
5 CO-CHAIR HEHN: Yes.
6 We were just talking about that, actually.
7 It's been my experience, any time you do an oxygen
8 enhancement of any kind, that that particular
9 enhancement will see a sort of a bell-shaped curve.
10 You will have oxygen increase incrementally, and then
11 it will reach a peak and start to decline as the
12 oxygen availability goes away.
13 But that could happen anywhere from one
14 month or it could happen at four months. You don't
15 really know. There is no information out here to base
16 that, you know, where you should be sampling.
17 So I was suggesting that maybe you might
18 want to, rather than only do that on each quarterly
19 event, go out there with a down well, dissolved oxygen
20 meter, on a monthly basis and just, all you do is take

91

1 it for that one well.
2 It's probably an hour's worth of work to
3 just go out and measure that, so that you're at least
4 using that free information that they're providing to
5 you to its best benefits, that you're looking at ORC
6 as a possible remedial alternative at other CAP sites.
7 How long does it take to get there? What
8 kind of concentrations do you see, depending upon how
9 far away they are going to inject? What kind of
10 changes do you see then before and after the fact?
11 MR. FREEMAN: Right. That's a good
12 recommendation.
13 It will enable us to take advantage of the
14 free demonstration to get some site specific
15 information we may be able to extract and use.
16 If we do go use ORC elsewhere, we'll have
17 some idea of the effect of tidal influence and natural
18 attenuation on the ORC as a slurry versus using it or
19 different ways of injecting it. That will provide us
20 with an opportunity to get a more robust data set as a

92

1 result of the, of this one boring.
2 So we could evaluate that and propose --
3 well, I will work with Jerry on that and the FSAP. We
4 will make some proposals there.
5 CO-CHAIR HEHN: Because I think one of the
6 things, even ORC generally, or Regenesis generally
7 admits that there isn't a lot of information as to
8 what kind of effect brackish conditions have on their
9 product.
10 MR. FREEMAN: Right. Chloride interference
11 and so forth.
12 CO-CHAIR HEHN: Okay.
13 MR. FREEMAN: Okay.
14 MR. BRENNAN: Is this just a one shot? I
15 mean they're injecting more and then they walk away?
16 MR. FREEMAN: It's a trial.
17 MR. BRENNAN: So your trial will be later,
18 down in the old fire school will be more of a test.
19 CO-CHAIR SULLIVAN: Yes. That's a more
20 involved pilot test.

93

1 MR. FREEMAN: That's a true pilot study,
2 biosparging and bioventing.
3 MR. BRENNAN: So this is just a show.
4 CO-CHAIR SULLIVAN: Well, no. It's just a
5 very limited demonstration.
6 I should add that, I really didn't quite go
7 about this the right way. I have to apologize to the
8 agency. We really didn't involve them and we should
9 have.
10 Basically, we got approached to do the demo
11 by the vendor. It was free and it sounded great.
12 MR. FREEMAN: Don't feel left out. It was
13 the same with me, too.
14 CO-CHAIR SULLIVAN: I just said: Yes, come
15 on in and do it. And it kind of took off.
16 MR. FREEMAN: It is useful, because, I mean,
17 the elevated levels of TPH in this one well, if you're
18 going to do a demonstration, it's a perfect place to
19 do it. You have a small area of contamination that
20 was well-suited for biodegradation through oxygen

94

1 enhancement.
2 MR. SAVAGE: Is it expensive?
3 CO-CHAIR SULLIVAN: Well, that's pai
4 what we would eventually evaluate, because, you know,
5 you're paying for this commercial chemical, and it's
6 going to be a question of how much of this chemical do
7 you need to inject to achieve your desired results?
8 We might find out it's not cost effective.
9 MR. SAVAGE: Well, is it a process where you
10 would buy the chemical and do it yourself, or is it
11 tied up with the source where they buy the chemical in
12 addition to selling it?
13 CO-CHAIR SULLIVAN: Well, the application
14 itself is not proprietary.
15 So I believe you could basically just buy
16 the chemical, and then any contractor could do the
17 installation.
18 MR. FREEMAN: Right.
19 And it's evaluated. They will be looking at
20 remedial technologies, at remedial options. They will

95

1 evaluate it there.
2 There are other limiting factors -- excuse
3 the scientific pun there -- that would effect whether
4 or not this is an appropriate technology to use,
5 depending on the conditions of the site: Is it too
6 tight? Is it clay? Is it not going to flow? Are you
7 trying to limit migration or are you trying to attack
8 the plume itself?
9 Those are all the things that will be
10 evaluated in detail in the larger reports.
11 But this is a chance to try this out, keep
12 things moving on a fast track.
13 CO-CHAIR HEHN: Do you have a sense of how
14 many pounds they're actually going to be injecting?
15 MR. FREEMAN: I'm relatively new. If I've
16 convinced you otherwise, I'm relatively new to this
17 demonstration.
18 I'm not quite sure how many pounds of slurr
19 they're going to use.
20 CO-CHAIR HEHN: Is it a 2-inch, 4-inch, do

96

1 you have any idea?

2 MR. FREEMAN: I assume it will be a 2-inch
3 geoprobe boring.

4 CO-CHAIR SULLIVAN: We will find out
5 tomorrow morning.

6 So this is probably not, this is not the way
7 we would conduct future demonstrations, but we just
8 had an opportunity to do something, and we just let it
9 happen. The future will be more preplanned.

10 MR. FREEMAN: It is an easy question to
11 answer, though.

12 If anyone does have a serious question on
13 the volumes or amounts, Penny Wilson, the
14 environmental engineer, is working on the project.
15 She wouldn't have any difficulty answering a question
16 like that. It's a practical resource thing. I would
17 rather bring Penny over for this one pitch.

18 CO-CHAIR HEHN: I'm assuming that they will
19 go through all that tomorrow, anyway.

20 MR. FREEMAN: Yes.

97

1 CO-CHAIR SULLIVAN: Then we will have an
2 opportunity at either the interim meeting or the next
3 monthly meeting to provide an after action report on
4 what was done and where we go from there.

5 But for future demonstration projects, we
6 would involve the agencies in the RAB at the beginning
7 and work through together.

8 Okay. Thanks, Craig.

9 So next, moving into program updates:

10 Under announcements, then, and for those of
11 you who may not know, we have a -- well, the Tetratch
12 team, our Navy consultant, is led by what we refer,
13 the person we refer to as the installation
14 coordinator. And for the last two or so years --
15 three, two, two? -- it's been Richard Knapp.

16 But we have, over the last month, there has
17 been an adjustment in the organization, and we have a
18 new installation coordinator.

19 I should say Richard had an opportunity to
20 get out and do more field work out in Tetratch's

98

1 Albuquerque's office. So we are glad he had the
2 opportunity to take that.

3 And so we now have a new installation
4 coordinator, Jerry Wickham, who has been working on
5 the project for the last several months. He is
6 familiar where the project is, and now he has taken on
7 the mantle of the installation coordinator.

8 So I would like to introduce Jerry, and if
9 you would like to say a few words.

10 MR. WICKHAM: Well, thanks. I'm glad to be
11 on the project.

12 Richard was able to take an opportunity to
13 do some other investigation. He's working down in
14 China Lake doing some groundwater investigations down
15 there. So I was able to move into the slot as
16 installation coordinator.

17 I have experience. I have worked previously
18 in the industry for quite a few years. I have had a
19 similar role previous in my former employment. I
20 worked, since 1990, I worked at Sierra Army Depo as

99

1 the installation coordinator there.

2 So I'm glad to be on the team, and,
3 hopefully, you will be seeing me at future RAB
4 meetings.

5 CO-CHAIR SULLIVAN: Thank you.

6 Are there any other announcements? This is
7 the last call, the last opportunity to make
8 announcements.

9 (No response.)

10 CO-CHAIR SULLIVAN: So, again, everybody is
11 invited to the ORC demo tomorrow. We have the fliers,
12 and we will be assembling in Building 570.

13 On the 3rd of May, we had our BCT meeting.
14 We had our meeting down in San Bruno in our regional
15 office. Every couple of months we give Ernie a break.
16 Instead of making him come up here, we go down there.
17 It also gives us an opportunity to bring in some of
18 our other Navy team members into the meeting for our
19 UST program and our EBS FOSL FOST program.

20 The meeting minutes should be out in a

100

1 couple of weeks. We talked about draft meeting
2 minutes from the BCT meeting.
3 MR. WICKHAM: Yes. We will have the draft
4 meeting minutes. They should be out within the next
5 couple of days.
6 CO-CHAIR SULLIVAN: Okay.
7 CO-CHAIR HEHN: Could you comment on the BCT
8 meeting minutes?
9 I was reviewing the meeting minutes from the
10 meeting before last that I was in attendance at --
11 where were we at?
12 CO-CHAIR SULLIVAN: Tetrtech.
13 CO-CHAIR HEHN: Tetrtech, yes.
14 I was reviewing those minutes, and I was a
15 little bit surprised. We had a fairly lengthy
16 discussion about the issue of dioxin, the public
17 perception of dioxin in soils, and the impacts based
18 on the Site 12 information.
19 And in the meeting minutes, there was one
20 sentence that said I was concerned about the sampling

101

1 that was being done.
2 I was a little bit surprised that it was
3 quite so brief in it's description of what that
4 lengthy discussion we had was.
5 So I wanted to just say, maybe we need to
6 make sure that we are capturing the true essence of
7 those discussions, because we did talk about that for
8 probably 15 minutes about that issue.
9 So I just wanted to bring that up because I
10 was surprised about what came out in the minutes.
11 CO-CHAIR SULLIVAN: Okay. Well, I agree.
12 If there is substantive comments, we need --
13 substantive discussion, it needs to be covered
14 appropriately in the minutes.
15 So I think that's a comment we could take
16 for the next and future draft minutes.
17 Most of the meeting covered both our Site 12
18 and our overall onshore RI report.
19 MR. WICKHAM: Yes.
20 We talked about the priorities and schedules

102

1 and milestones for Site 12.
2 And also talked about community relations
3 program and risk communication strategies.
4 We talked about groundwater beneficial uses,
5 briefly.
6 We talked about final onshore RI.
7 And we also talked about how we would work
8 out our schedule in trying to maximize the time we
9 have in order to get these documents out and
10 available.
11 We talked briefly, also, about our draft
12 fuel line CAP and work plan. We talked about how we
13 would organize some of the sites.
14 And then there were several action items
15 that I won't go into that will be laid out in the
16 meeting minutes as to how those were addressed in
17 future action items that we are going to be covering.
18 But there were some fairly interesting
19 items, such as glass filtering that we are going to
20 be, that were addressed at this meeting.

103

1 CO-CHAIR SULLIVAN: And, Ernie, did we st
2 E-mailing those out, too, the BCT minutes?
3 MR. GALANG: Just the final.
4 CO-CHAIR SULLIVAN: Okay.
5 MR. GALANG: It's not E-mailed but a hard
6 copy.
7 CO-CHAIR SULLIVAN: Okay. So the RAB
8 members should receive a copy of the draft minutes in
9 the next week or so.
10 Okay. Next quick item -- well, this is kind
11 of a holdover from the last meeting: Progress report
12 on TPH screening and cleanup levels. There is no new
13 information. We are still expecting to get another
14 draft technical report, the Navy is expecting to get
15 another technical report from our Navy consultant,
16 Battelle Labs, and then we haven't received that yet.
17 Once we get that, then we would forward it and
18 schedule a meeting with the regulatory agencies for
19 our TPH working group.
20 So we would expect to receive a report from

104

1 Battelle, and schedule a meeting with the agencies, at
2 least we would schedule, we would -- let me say this
3 correctly: I would expect that we will be able to
4 schedule a meeting in the next month.

5 When that meeting will occur, it will depend
6 on the individual attendee schedules.

7 So we will at least know, have a date for
8 the meeting, I would expect, within the next couple of
9 weeks, next three weeks or so.

10 But I think we are getting close to being
11 able to adopt that methodology for screening and
12 cleanup levels to our TI sites.

13 TI is kind of the test case for using this
14 methodology in the Bay Area. Jerry has already been
15 working with earlier drafts of the methodology.

16 So we think it has promise, and we will be
17 presenting that to the agencies once he have had a
18 chance to provide the next draft of the document to
19 them.

20 Environmental document status. Do we have

105

1 an updated copy of the document schedule? I think
2 that was on the back table.

3 So I won't go through that.

4 Were there any questions or comments
5 concerning the upcoming document review?

6 (No response.)

7 CO-CHAIR SULLIVAN: I did err on the -- and
8 I don't know whether it got corrected in the
9 handout -- but in the agenda, I think I showed 8 June
10 for the next version of the draft final fuel plan, but
11 I don't, we are not . . .

12 MR. WICKHAM: I think we are still waiting
13 on comments.

14 CO-CHAIR SULLIVAN: Yes. So the comments
15 are extended.

16 So all likelihood, we would not be releasing
17 the draft final on the 8th of June.

18 CO-CHAIR HEHN: When did that get extended?

19 CO-CHAIR SULLIVAN: Is there an official
20 extension date on the fuel line?

106

1 MR. WICKHAM: No.

2 CO-CHAIR SULLIVAN: If not, we need to set
3 one.

4 MR. WICKHAM: I'm not aware of an official
5 date.

6 CO-CHAIR SULLIVAN: Well, what's a
7 reasonable -- well, I guess we need to come up with a
8 reasonable date, at least for the RAB members.

9 MR. WICKHAM: Right.

10 CO-CHAIR SULLIVAN: We can do that, or are
11 we awaiting comments from the agencies?

12 MR. GALANG: I received the first comment
13 yesterday and gave it to Bernard. It was addressed to
14 me.

15 CO-CHAIR SULLIVAN: Okay. Well, then, we
16 just need to set a date for the RAB members, then.

17 We say, I mean, do we think we will have a
18 comment on the fuel line?

19 CO-CHAIR HEHN: I guess what my question
20 was, if you have given it an extension, I'm just

107

1 looking for when that extension expires so we know
2 what that time period really is.

3 CO-CHAIR SULLIVAN: Well, we can just set
4 it. I could make it this Friday or I could make it
5 Monday.

6 If you think there is going to be, if there
7 was interest in commenting, we can just establish a
8 new date.

9 CO-CHAIR HEHN: Why don't we set it for
10 Monday?

11 CO-CHAIR SULLIVAN: Okay. So for the RAB
12 members, the end of the comment period on the draft
13 fuel line work plan would be this coming Monday, which
14 will be the 24th.

15 MR. GALANG: The 24th.

16 CO-CHAIR SULLIVAN: And then we will set a
17 new schedule for the draft final, based on receiving
18 the comments, all the comments by the 24th.

19 Okay. Great.

20 We will move to organizational business.

108

1 We have a couple of items.
2 Site 12 removals field trip.
3 I guess, Ernie, we are getting close for the
4 burn pit area to be able to site trip.
5 MR. GALANG: Yes. We are shooting for
6 mobilization on June 2nd.
7 And then June 7th is for the field work.
8 So that's still on that schedule.
9 So you can organize a field trip by maybe
10 Tuesday, probably, will be better than Monday, the
11 second day.
12 CO-CHAIR HEHN: So are we looking at June
13 8th?
14 MR. GALANG: Yes, June the 8th.
15 CO-CHAIR SULLIVAN: Do we have a reasonable
16 degree of certainty that we can set the date on that?
17 MR. GALANG: We are shooting for those
18 dates.
19 We have been working on those. We had the
20 working group meeting.

109

1 Or do you think maybe a week or two for this
2 excavation?
3 CO-CHAIR HEHN: Do you think that might be
4 fairly fixed by the time the announcement comes out
5 for the interim meeting?
6 MR. GALANG: Yes. The interim meeting is
7 the 2nd.
8 CO-CHAIR SULLIVAN: Is the 2nd of June.
9 But I will send the notices out four days or
10 so, basically by about the 28th or so of May.
11 MR. GALANG: Yes.
12 CO-CHAIR SULLIVAN: So we will include an
13 announcement for the field trip in the announcement
14 for the 2 June interim meeting. It will probably be
15 on or about the 8th of June.
16 We may still end up having to do something
17 like asking people to call in advance or something
18 just for any potential last minute changes.
19 CO-CHAIR HEHN: Highway 80 announcements?
20 CO-CHAIR SULLIVAN: Well, if we send out a

110

1 written announcement, we might just ask in that
2 announcement for people to call.
3 If we set a date, ask them to call prior to
4 that date just to make sure there aren't any last
5 minute changes.
6 CO-CHAIR HEHN: Or we send out an E-mail,
7 too.
8 CO-CHAIR SULLIVAN: And an E-mail, too.
9 And I encourage anybody who has an E-mail
10 address, to, please, if you don't already have it on
11 the sign-up sheet, please include it.
12 I would be happy to send out anything that's
13 E-mailable to anybody who provides us with an E-mail
14 address.
15 And at this point, the lead removal is the
16 only scheduled removal action, and so the TPH removal,
17 the TPH action is still awaiting the further
18 delineation.
19 And so we could have a separate, depending
20 on what the nature of the action is, we could have a

111

1 separate field trip for that, too.
2 CO-CHAIR HEHN: Is there any chance that
3 those will be going on concurrently?
4 CO-CHAIR SULLIVAN: No.
5 CO-CHAIR HEHN: No?
6 CO-CHAIR SULLIVAN: I would say it kind of
7 looks like the TPH work is probably about roughly 30
8 days out from the lead removal work.
9 CO-CHAIR HEHN: Okay.
10 CO-CHAIR SULLIVAN: If it had been just a
11 straight dig and haul, it probably would have been
12 around the same time, but it's not turning into that.
13 CO-CHAIR HEHN: Even the additional
14 delineation sampling?
15 CO-CHAIR SULLIVAN: Well, the additional
16 delineation sampling would still be done fairly
17 quickly.
18 CO-CHAIR HEHN: I'm saying if that's going
19 on concurrently at the time when we are doing the
20 CO-CHAIR SULLIVAN: Oh, okay, okay. Yes.

112

1 If we are doing sampling at the TPH area, at
2 the same time, if we have a field trip for the lead
3 removal, we can bring people over to see that.

4 CO-CHAIR HEHN: So that would be good if
5 that happened.

6 CO-CHAIR SULLIVAN: Okay. RAB operating
7 guidelines.

8 We made a decision at the last meeting to
9 resurrect those, and, actually, I had to go find my
10 old computer before the base closed and search the
11 hard drive and find the operating procedures from May
12 of '96.

13 So I made copies of those. And I think at
14 this point, it's kind of informational for the
15 community members. We will have to decide what need
16 there is to update it.

17 I apologize the formatting is a little
18 crude. Back in '96, I was still using Word Perfect,
19 and when I brought it into Word, it kind of did a
20 number on the formatting.

113

1 So as I remember it, it was pretty, I mean,
2 we kept the operating procedures as kind of a fairly
3 simple framework just to kind of define who we are and
4 what we do.

5 So I think what we decided to do is take
6 another look at that and see whether or not it
7 warrants updating, and, if so, to proceed with that.

8 CO-CHAIR HEHN: Do we want to just review
9 that and bring it up again at the next meeting?

10 CO-CHAIR SULLIVAN: We could make it an
11 item, for those who attend the interim meeting, we can
12 make it an item at the interim meetings, and then
13 maybe based on that, make it an agenda item at next
14 month's meeting.

15 CO-CHAIR HEHN: That would be good, if there
16 are any questions or suggested changes or anything
17 else.

18 CO-CHAIR SULLIVAN: And just for your info,
19 we didn't come up with the RAB operating guidelines
20 all on our own.

114

1 We actually looked at some RABs with already
2 established guidelines, and we kind of drew on that.
3 So it was based on some other historical documents.
4 TAPP.

5 I have a complete copy, except I only
6 have -- well, I have one for myself to make more
7 copies, and then I have one complete set to hand out
8 either to Paul or Nathan.

9 This is a complete start to finish TAPP that
10 was done at Alameda for a document review. So on top
11 here is actually a blank form, and then there is the
12 actual filled in form, which is pretty much simple,
13 fill in the blank; and then it goes on to the actual
14 Navy contract and the work product, the review
15 document produced by the RAB's consultant.

16 CO-CHAIR HEHN: Okay.

17 CO-CHAIR SULLIVAN: So I could make more
18 copies.

19 I will give it to Paul, and I will make
20 copies to send out to --

115

1 MR. BRENNAN: You can send one through the
2 office if you want.

3 CO-CHAIR SULLIVAN: Okay. Well, do you want
4 to send this out to the technical committee?

5 CO-CHAIR HEHN: That would be good.

6 MR. BRENNAN: That would be good, because
7 then we could review it at the interm meeting.

8 CO-CHAIR SULLIVAN: Okay. So we will send
9 it out to the technical committee.

10 So this represents a complete TAPP package
11 from start to finish (indicating).

12 MR. BRENNAN: A completely successful one.

13 CO-CHAIR HEHN: One that was actually
14 awarded.

15 MR. BRENNAN: Yes.

16 CO-CHAIR SULLIVAN: Actually, I believe this
17 was the first TAPP grant or TAPP in the Navy.

18 MR. GALANG: Yes.

19 For Alameda, they are working on TAPP number
20 three.

116

1 CO-CHAIR SULLIVAN: Okay. And, then,
2 lastly, I don't know if there is any new information
3 on the RAB newsletter.

4 CO-CHAIR HEHN: Let me step back just a
5 moment, if I can, on the TAPP proposal.

6 One of the things that we are considering
7 when we talked a little bit about this at the last
8 interim meeting, and I've talked a little bit more
9 about that with Pat Nelson -- and, unfortunately, she
10 wasn't able to make it back over here this evening --
11 about doing a TAPP proposal for technical assistance
12 by an outside consultant to the RAB to help with the
13 large volume of documents that we are getting right
14 now.

15 I'm overwhelmed. I think Pat is more
16 overwhelmed. I think the rest of us are pretty
17 overwhelmed. I think it would be helpful to have a
18 proposal go in that would allow some technical
19 assistance oversight and review, and comment on some
20 of the more important documents coming up now or will

117

1 be coming up in the next month or so.

2 So I'm thinking that it would be very
3 helpful to put one together for that purpose. That's
4 why this one is so helpful for one that was actually
5 awarded.

6 So I would like to get some feedback from
7 the rest of the RAB members, if they are interested in
8 doing that.

9 I have one consultant that I am very
10 familiar with and that Pat is also familiar with. We
11 both feel comfortable with putting it as a proposed
12 consultant to work with. We would probably do this --
13 this is what, the maximum for sole source is 2500?

14 CO-CHAIR SULLIVAN: The maximum for a
15 totally sole source is \$2500, and then the next
16 threshold is 25,000; but that involves some limited
17 competition.

18 CO-CHAIR HEHN: What we were thinking about
19 doing was, actually, I've talked to this particular
20 consultant. He is interested in working with us on

118

1 doing this and putting together a proposal submitted
2 for his consulting services for the \$2500 for one or
3 one large document or maybe several smaller documen
4 and then having him give a written comment to us on
5 that, and possibly even an oral presentation at one of
6 our RAB meetings based on this review of those
7 documents; to which we could then, if we agree with
8 his conclusions and wanted to, we could even just put
9 a cover letter on and say: This is done in support of
10 the RAB and here it is, you know, with the RAB cover
11 letter, if you will. It says, yes, here is the basis
12 for our comments in these particular document or
13 documents.

14 That's something I would like to try to get
15 going fairly soon, because I think that the volume of
16 the documents is such that we're going to need the
17 help, I need the help, definitely.

18 So is there any additional comment or
19 question or concerns about that?

20 (No response.)

119

1 CO-CHAIR HEHN: Do you agree that we should
2 maybe go ahead and try to do this?

3 (No response.)

4 CO-CHAIR HEHN: Okay. I think what I will
5 try to do, I will go through this and talk to the
6 consultant again and maybe we can put that together,
7 maybe by the time of the next RAB meeting so that they
8 can review it.

9 I have a copy of his resume, also, that we
10 could put in that people could review and give
11 everybody an idea on what his background is and how
12 that might work with our review.

13 I'll look at the documents that we have
14 outstanding, too, and what the comment period of time
15 in order to kind of put that together to say, based on
16 how long it takes to get the TAPP proposal through,
17 too.

18 I don't know whether this is going to work
19 or not. One of the things that I was talking to Jim a
20 little bit about was to see if it would be possible to

120

1 utilize a couple of small TAPP grants to kind of keep
2 us going on the review and comment of the documents as
3 they come in.

4 At the same time as we might want to go into
5 a larger, what is it, 2500 to 25,000 document range,
6 or consulting range, which then requires some
7 competitive bidding so that we would have some ongoing
8 review and comment period going on while that larger
9 TAPP proposal is being put in.

10 However long that takes to get to that
11 phase, that's going to be a much longer time than a
12 single smaller TAPP proposal and grant.

13 So that was sort of my thought of how we
14 might be able to do that.

15 I don't know whether within the Navy's view
16 if it's possible to do that. I know they don't like
17 to do many of those as the sole source; but if it's
18 possible to put a couple of those together, that would
19 be real helpful for our immediate needs while we put
20 together this larger proposal which will take a longer

121

1 time, I'm assuming.

2 So that's my sort of view on how we might
3 want to try to resolve this question and still make
4 sure that there is enough comment and information back
5 to the Navy about these particular documents.

6 CO-CHAIR SULLIVAN: I would like to suggest,
7 too, maybe it would be a good opportunity at the June
8 meeting, and it doesn't have to be real long, but
9 maybe we can have a short, brief background on the
10 TAPP program.

11 We did that when the program first came out,
12 I think, about a year and a half or so or more ago,
13 and I think we can make that, make a brief
14 presentation to give you an overview of what the
15 program is and how it contractually works. Maybe that
16 will help the RAB in their decision making.

17 CO-CHAIR HEHN: Actually, that brings up a
18 good point.

19 I just realized that I will be gone during
20 the June RAB meeting and Nathan is going to be

122

1 co-chairing that particular meeting.

2 So what I will do, I will try to get that
3 information to you, Nathan, and pass that out to the
4 RAB.

5 MR. BRENNAN: Okay.

6 CO-CHAIR HEHN: We can get that going and
7 maybe we can kind of move forward; so when I come
8 back, we can get that going into the Navy so people
9 have a chance at least to look at that.

10 CO-CHAIR SULLIVAN: Well, maybe there are
11 some things we can even do at the 2 June interim
12 meeting, too, if you're going to be there.

13 CO-CHAIR HEHN: Yes, I will be there. I
14 will be there.

15 On the RAB newsletter, I talked to Pat about
16 that. She was going to be trying to work on that this
17 last weekend. She was going to try to make it a
18 little later on this evening. Apparently, she wasn't
19 able to do that.

20 And then Alice has also offered to work on a

123

1 masthead for a particular RAB newsletter.

2 I would certainly be interested in having
3 any help we can on putting together that newsletter.
4 So if there is anybody that has some ideas on an
5 article or something that they would like to write,
6 that would be very helpful as well.

7 So we are still trying to do that. It's
8 fallen on hard times, as far as everybody's schedule.

9 So anything you can do to help us out on
10 that would be always greatly appreciated.

11 And that's all I have -- oh, one other
12 thing. Excuse me. I'm sorry.

13 I brought in copies of the Treasure Island
14 Development Authority meeting minutes that I just
15 received this morning. So I brought in copies and
16 there are copies in the back, if you haven't already
17 received those. They are the meeting before last.

18 CO-CHAIR SULLIVAN: Okay. We have an open
19 question discussion period, so just if there is
20 anything we haven't otherwise covered or any comments

124

1 or questions?
2 (No response.)
3 CO-CHAIR SULLIVAN: Okay. The agenda items
4 for next meeting:
5 Well, for sure, for the June meeting, there
6 will be the Site 12 OU report, since the document will
7 definitely be out by the time of the June 15th
8 meeting.
9 We will have to go over a draft RAB agenda
10 further at the June interim meeting.
11 The draft final fuel line work plan, that
12 may or may not be in the June meeting, depending on
13 what our revised delivery date is for that. But then
14 I think we would add an item for the TAPP program.
15 So right now, our big items will probably be
16 Site 12 and the TAPP. And then we can discuss any
17 other items, or potential June agenda items at the
18 meeting on the 2nd of June.
19 And, of course, everyone is welcome, too.
20 All RAB members are welcome to input on the draft

125

1 agenda, which we go over at the interim meeting.
2 So our next interim meeting is -- well, they
3 are always on the first Wednesday of the month. We
4 have been holding them mostly courtesy of Pat Nelson
5 at her offices in PG&E. I will send out a notice on
6 that. So that meeting will be the 2nd of June.
7 Our next BCT meeting --
8 Ernie, did we agree to have it at Geomatrix?
9 That is what I thought.
10 MR. GALANG: Yes.
11 CO-CHAIR SULLIVAN: Okay. So the next BCT
12 meeting will be on the following Monday, the 7th of
13 June, because of the way the calendar falls, and that
14 will be at Geomatrix's new offices in Oakland. They
15 recently moved from San Francisco to Oakland.
16 And then our next two RAB meetings will be
17 on the 15th of June and on the 20th of July.
18 So any other comment before we bring the
19 meeting to a close?
20 (No response.)

126

1 CO-CHAIR SULLIVAN: Okay. Well, thank you
2 very much.
3 (The meeting adjourned at 9:30 p.m.)

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127

Treasure Island Meeting No. 56 - May 18, 1999

<p>- \$ -</p>	<p>- 2 -</p>	<p>- 7 -</p>	<p>add 94:6 125:14 added 66:18,19 addendum 9:20 10:6 55:5 58:17 59:9 addition 23:14 95:12 additional 5:3 6:5 21:11 22:5,9,11 33:1 48:3,6 49:4 51:13,17 59:5,11 77:15,18 85:9,13 112:13, 15 119:18 address 111:10,14 addressed 24:15 103:16,20 107:13 addressing 12:8 adequately 44:5 adjacent 25:16 79:5 85:2 91:1 adjoined 68:3 adjourned 127:3 adjustment 98:17 Administration 46:11 admits 93:7 adopt 105:11 adult 36:2 advance 110:17 advantage 92:13 ADVISORY 1:3 4:2 aerobic 78:16 affect 61:2,17 affects 53:7 after 12:12,18 57:13 84:12 85:19 88:9 92:10 98:3 again 39:1 42:5 47:20 48:3,13 68:12,15 69:8 71:13 72:3 74:1,13 75:19 77:4 78:4 79:11 90:3 100:10 114:9 120:6 agencies 58:1 98:6 104:18 105:1,17 107:11 AGENCY 2:13 11:3 94:8 agenda 5:3,4,6 106:9 114:13 125:3,9,17 126:1 ago 64:12 122:12 agree 54:7 56:19 102:11 119:7 120:1 126:8 agreement 53:11,11 ahead 62:15,17 81:13 120:2 air 35:19 36:14 Alameda 115:10 116:19 Albuquerque's 99:1 ALICE 3:2 123:20 All 9:4 16:10,13 20:8,16, 17 22:3,4 23:6 24:6,6 25:10,11 26:4,9,10 27:7, 13,14,20 28:12,13 30:11 32:3,10,12 33:5 34:4,5,13 36:9,12 38:11 40:9 41:9, 10 42:10 47:8,12,14 48:18 49:6,20 51:9 53:9 55:9 56:5 57:5 60:7 66:3 67:6 68:13 69:5 70:1 72:12 80:6 81:20 91:20 96:9 97:19 106:16 108:18 114:20 124:11 125:20 allow 59:18 73:17 117:18</p>
<p>\$2500 118:15 119:2 \$500,000 17:15</p>	<p>2 10:18,18 41:3 43:13 47:11 110:14 123:11 2-inch 96:20 97:2 20 21:7 25:14 29:11,13 67:19 90:4 200 6:12 8:2 40:5 200,000 8:3 200-plus 7:20 2000 68:15 20th 6:4 17:10 126:17 21 47:9 219 47:1 23 22:11 39:15 69:14 24 40:16 24th 58:8,18 108:14,15,18 25 76:2,19 78:3 80:1 87:20 25,000 118:16 121:5 25-MW02 77:5 78:4 79:5 91:2 2500 118:13 121:5 27 22:9 28th 110:10 2nd 16:6 58:9 109:6 110:7,8 125:18 126:6</p>	<p>7 25:3 42:19 7139 1:20 774 37:20 7:00 1:5 7:45 83:16 7th 58:9 109:7 126:12</p>	<p>- 8 -</p>
<p>- ' -</p>	<p>- 3 -</p>	<p>- 8 -</p>	<p>- 9 -</p>
<p>'96 113:12,18 '97 22:1 27:1 32:5,12 '98 22:5 23:13 '99 52:15 68:15</p>	<p>- 4 -</p>	<p>- A -</p>	<p>- 9 -</p>
<p>- 0 -</p>	<p>- 3 -</p>	<p>- A -</p>	<p>- 9 -</p>
<p>0 42:10,13</p>	<p>- 4 -</p>	<p>- A -</p>	<p>- 9 -</p>
<p>- 1 -</p>	<p>- 3 -</p>	<p>- A -</p>	<p>- 9 -</p>
<p>1 7:7 18:17 37:5,6 38:8 41:2,4,4,4 42:9 43:3,15 47:7 52:14 53:2,13 72:12 1,000 40:7 55:15 1.4 74:12 10 39:19 40:1 42:7,8,19,19 43:20,20 45:9 72:12 10,000 41:4 100 27:11 40:1,4 52:1,10 10th 82:12 11 66:17 11-by-17 20:14 112 21:15 11:00 84:1,2 11:30 84:6 11:45 84:6 11th 63:6 82:13,15 12 9:14 10:11 11:1 14:3 15:18 18:10,16 19:7,17 20:1,19 21:11 22:7,13 23:7,16 24:2,13,17 25:16 26:5 27:6 28:6 30:11,12 31:5,9,11 33:12 36:1 37:10 41:14 48:2 51:5 55:5 56:11 60:11 61:2,17 76:4 79:14 101:18 102:17 103:1 109:2 125:6,16 1207-1209 58:3 1211 58:15 1311 58:16 1410 37:20 1420 37:20 15 22:7,9,20 39:2 46:9 79:15 90:5 102:8 15th 52:11 125:7 126:17 17 25:9 64:13 18 1:4 25:9 189 47:7 1990 99:20 1997 27:9 1998 22:8,10 74:1 75:9 1999 1:4 1st 4:9 11:16 32:10 50:3 51:8 52:3,8 58:7</p>	<p>30 40:17 43:9 52:7 54:1 112:7 33 69:15 350 40:16 3rd 100:13</p>	<p>9 47:4 9.3 47:12 9:30 127:3 9th 82:13</p>	<p>able 8:14 26:8 92:15 99:12,15 105:3,11 109:4 117:10 121:14 123:19 above 45:16 53:2 55:9 75:1,8,8 absolutely 49:8,19,19 accelerates 79:3 Accompanying 25:7 accordance 68:20 72:3 Accordingly 72:16 accurate 60:19 achieve 95:7 across 88:5 89:11 action 37:14 40:7 57:20 58:2,15 59:20 66:7 98:3 103:14,17 111:16,17,20 actions 57:19 active 13:20 14:11 15:13, 14 activities 23:7 42:13 64:6 79:20 activity 91:3 actor 77:5 actual 6:9 32:15 47:14 83:20 87:9 115:12,13 14:5,17 17:7 19:3 27:11 28:8 32:16 36:18 40:8,16 42:14 43:16,19 44:12 46:11 52:20 53:12 60:2 61:5,20 65:15 72:11 81:13,19 83:18 84:15 86:1 87:1 90:2 91:6 96:14 113:9 115:1,11 116:13,16 118:4,19 122:17 acute 74:7</p>

almost 15:15 29:18 76:6
 already 55:14 105:14
 111:10 115:1 124:16
 Alternate 2:19
 alternative 92:6
 always 63:15 124:10 126:3
 ambient 34:14,15 74:6
 ammunition 20:4
 amounts 97:13
 analogy 65:19
 analyses 69:12 71:8
 analysis 32:6 36:16 44:10
 69:3
 analyte 74:10 75:15
 analytes 65:8 66:10 69:2,
 16,19 70:20 74:18 75:7,
 12
 analytical 24:7 25:11,14
 27:19 34:13
 analyticals 27:20
 analyzed 21:20 23:10 69:6
 76:15
 and/or 66:12
 announcement 60:14 61:9
 110:4,13,13 111:1,2
 announcements 5:14,19
 98:10 100:6,8 110:19
 annual 18:11 62:18 63:4
 67:4,7 87:13
 Another 27:4 41:19 50:11
 59:9 84:5 86:14 104:13,
 15 114:6
 answer 12:10 70:3 72:20
 80:7 90:9 97:11
 answering 97:15
 anticipate 24:13 42:15
 48:15 51:4
 anticipated 11:14
 any 5:5,10,16,18 6:16,19
 7:8 8:5,18 10:12 12:8,14
 18:2 20:5 25:7 27:16
 30:18 35:11 37:10 47:19
 48:20 53:19,20 63:9,10
 75:8 90:8 91:7,8 95:16
 97:1,15 100:6 106:4
 110:18 111:4 112:2
 114:16 117:2 119:18
 124:3,20 125:16 126:18
 anybody 12:2,9 80:16
 111:9,13 124:4
 anyone 5:19 6:13 80:18
 81:5,5,8,12 90:8 97:12
 anything 12:4,14,20 61:17
 70:20 90:14 111:12
 114:16 124:9,20
 anyway 97:19
 anywhere 91:13
 apologize 94:7 113:17
 Apparently 123:18
 appear 62:6
 appears 43:10
 appendix 36:16
 appendices 25:8,10,18 26:7
 72:17
 Appendix 25:12,18
 apples 87:2,3,3
 application 95:13

appreciate 16:20 17:3
 appreciated 124:10
 approach 41:18 42:7 53:8
 79:4
 approached 94:10
 approaches 41:16,17
 appropriate 16:2 96:4
 appropriately 102:14
 approval 5:2 6:3 17:18
 approve 9:1
 approved 9:5 56:10 69:1
 72:3
 approximate 20:20
 April 6:3,6 7:8,9 8:5 9:5
 17:10
 aquatic 89:16
 area 9:14,17 10:8,11 14:3,
 12 20:4,5 21:1 29:16,17
 37:5,6,6,7,15 38:6,6,8,8,
 15,20 39:9,13,16 41:2,2,
 43:3,13 47:6,11 48:10,12
 51:12,14 53:9 58:3,16
 60:2 76:6 78:1 85:14,17
 88:10 94:19 105:14
 109:4 113:1
 areas 11:20 13:19,20 14:1,
 11 15:13,18 20:3,4 21:1,
 12,13 37:4,11 38:3 40:11
 45:5 60:6
 aren't 82:11 111:4
 Army 99:20
 around 5:1 11:20 13:2,19
 26:14,20 82:12 112:12
 arsenic 77:13
 article 124:5
 artificial 34:16
 asbestos 11:7
 ASCII 7:18
 aside 5:9
 ask 6:19 7:10 12:12 50:19
 52:3,5,9 63:15 81:7
 111:1,3
 asked 58:18 67:8 78:6
 asking 110:17
 assembling 100:12
 assess 22:6 66:11
 assesses 72:18
 assessment 19:9 24:10,12,
 18 25:2 30:17,20 31:3,5,
 7,12,15 32:3 33:4,7,11
 34:1,2,8,19 35:1,4,5
 37:4,16 38:2 40:10 41:1
 48:17 49:1,16 51:5,7,19
 52:1,11,17 56:2
 assessments 37:9 42:3
 assessors 49:6
 assigned 40:15
 assistance 117:11,19
 associated 43:18 58:5
 75:16
 assume 97:2
 assumed 35:10
 assumes 46:1
 assuming 17:18 40:17
 56:16 97:18 122:1
 assumption 43:4 46:7
 Assurance 72:4

attached 14:18 15:3 41:8
 attachments 6:8
 attack 96:7
 attend 80:17 81:12 114:11
 attendance 101:10
 attendee 105:6
 attending 6:18
 attention 25:12
 attenuating 66:12
 attenuation 65:6 70:15
 73:2,7,8,9,18 92:18
 August 22:8,10 23:13
 52:11,14 53:13 68:11
 86:8
 auspices 9:12
 Authority 17:9 124:14
 automatically 63:16
 availability 91:12
 available 6:16 17:4 50:3,14
 62:20 67:6 68:10 103:10
 Avenue 81:18
 average 43:7
 awaiting 107:11 111:17
 awarded 116:14 118:5
 aware 53:9 107:4
 away 6:11 70:18 91:12
 92:9 93:15
 AWQC 75:2,8,8

- B -

back 5:4 6:6 18:3 34:9
 52:9 61:13 88:19 90:6,7
 106:2 113:18 117:4,10
 122:4 123:8 124:16
 background 24:2 34:17
 46:2 65:1 66:13 88:1
 120:11 122:9
 backing 53:12
 backup 25:8,10
 backwards 45:7
 bad 77:5
 BALBONI 1:20
 barricades 11:20 13:19
 14:10 62:12
 BARRY 2:16 3:6 18:19
 19:11,16 22:19 23:4
 27:9,16 28:3,5 29:10,13
 30:9,13 50:8,10
 base 82:10 91:15 113:10
 based 35:7 37:1 39:8 43:2
 101:17 108:17 114:13
 115:3 119:6 120:15
 baseline 24:9 33:6
 basewide 64:19 65:17
 79:8,15
 basic 33:20
 basically 20:16 22:17 23:6,
 12 24:5,17 25:10 28:10,
 16 29:15,19 71:20 73:7,
 15 79:16 84:20 90:20
 94:10 95:15 110:10
 basis 85:4,6 91:20 119:11
 Battelle 104:16 105:1
 bay 60:15 61:6 105:14
 BCT 100:13 101:2,7 104:2
 126:7,11

Bear 44:14 78:6
 beautiful 87:17
 BEC 2:3
 become 62:20
 before 8:17 11:11 14:16
 33:8,14,19 34:11 49:14
 55:15,18 59:13 67:1
 82:17 92:10 101:10
 113:10 124:17 126:18
 beginning 4:9 5:10 38:13
 98:6
 behold 88:5
 believe 9:18 30:4,6,13 45:6
 51:17 73:4 95:15 116:16
 bell-shaped 91:9
 below 34:18 40:8 43:15
 45:14 47:7,10,12,17,17
 54:16 55:9,11,13,14,15,
 15,17
 beneficial 15:20 103:4
 benefits 92:5
 benzene 77:12
 Bernard 107:13
 best 81:8 92:5
 better 21:9 90:12 109:10
 between 26:19 29:7 39:20
 40:1 43:20 86:6 87:6
 beyond 53:4 60:6
 bidding 121:7
 big 82:4 125:15
 biodegradation 79:3 94:20
 biological 73:10
 Bioremediation 78:12
 biosparging 80:2 94:2
 bioventing 80:2 94:2
 bit 14:19 19:17 20:15 21:6
 30:2 51:17 52:12 64:20
 69:4 84:12 85:19 90:2
 101:15 102:2 117:7,8
 120:20
 blank 115:11,13
 blanks 72:8
 blind 72:13
 blood 44:19 45:8 47:16
 blowup 39:12
 blue 39:20 82:6
 BOARD 1:3 4:2 17:18
 74:12 89:11
 body 67:2
 boring 27:6,7,10,12 28:10,
 12 29:2 69:20 93:1 97:3
 borings 27:16 29:17 85:10
 BOSBEN-SCKALOR 3:7
 12:6 14:7 15:1
 both 19:6 26:6 28:2 38:19
 41:2,19 42:4 46:1,15,15
 47:13 70:6,7 77:20
 102:17 118:11
 bottle 71:14
 bottom 86:20
 bound 25:20 43:6
 boundaries 20:20
 box 28:11 38:5 53:5 5
 BRAC 18:5
 brackish 93:8
 brainstorming 53:17
 break 57:16 62:1 84:12

85:19 90:2,10 100:15
 breakdown 23:9
 breakfast 80:20
 breaks 11:6
 BRENNAN 2:19 9:2 12:17
 13:8 93:14,17 94:3
 116:1,6,12,15 123:5
 bridge 4:8
 brief 102:3 122:9,13
 briefly 64:9 75:3 103:5,11
 brig 82:18
 bring 16:16 83:10 97:17
 100:17 102:9 113:3
 114:9 126:18
 bringing 8:15
 brings 122:17
 broke 28:15
 Brorby 9:15
 brought 23:17 42:14,17
 61:12 83:8 113:19
 124:13,15
 Bruno 100:14
 budget 59:18
 Buena 4:12 67:17
 Building 7:7 58:3,15,16
 81:15 100:12
 buildings 83:4
 bunch 28:9
 bunker 20:4
 burn 37:15 48:12 51:12
 60:2 109:4
 business 108:20
 Busy 30:8,9
 buy 95:10,11,15
 bytes 8:3

- C -

Cal-EPA 11:2 54:2
 calendar 126:13
 California 70:13 81:18
 call 28:11 31:6 37:5 43:17
 44:8 69:12 71:6 72:4
 73:16 75:15 100:7
 110:17 111:2,3
 called 10:5 71:11 72:17
 88:9
 calls 75:12
 CalTrans 4:8
 came 14:16 77:6 102:10
 122:11
 can't 16:15 26:16 33:3
 49:7 71:2,14 82:4 89:5
 cancer 40:12,13 41:2,3
 42:6
 CAP 66:6,20 77:15,17
 79:18 85:14 92:6 103:12
 capture 26:9
 captured 26:15 27:3
 capturing 102:6
 card 53:1
 careful 49:5
 carports 59:12
 carries 23:12
 CASA 1:6
 case 35:20 42:17 45:4
 52:20 68:8 69:12 70:19

72:11 73:13 74:11
 105:13
 cases 71:5 88:20 89:1,8,9
 catch 83:6
 cautious 49:4
 CAVINESS 2:9 19:8,10
 30:18 49:3 50:5,9,13,16
 51:1 52:16 54:9,13,19
 55:6
 cell 71:11,20 72:1
 CERCLA 66:4
 certainly 52:16 124:2
 certainty 109:16
 certified 70:13,13
 chain 83:1,3
 chance 15:3 78:9 96:11
 105:18 112:2 123:9
 change 10:11 33:1 48:16
 49:11,15,18 51:18 54:1
 56:1 71:4,16
 changed 33:15 71:12
 changes 33:16 35:20 60:14
 92:10 110:18 111:5
 114:16
 chapter 75:20
 characterization 21:11 27:9
 30:19 34:3 48:8
 characterize 22:12 40:11
 44:5 48:11
 characterizing 21:12
 charge 12:11
 chemical 25:1,4 28:11
 31:10 43:16,17 73:9
 95:5,6,10,11,16
 chemicals 34:6,7 37:12
 43:18
 chemist 71:6,7
 CHESTER 2:6
 child 36:2 45:1 46:20
 47:16,17
 children 12:2
 China 99:14
 Chloride 93:10
 choose 42:1
 chronic 74:6,7
 chronology 23:8
 chunk 64:5
 circle 39:18
 circles 39:17
 City 9:7,11 10:4 22:4 23:1
 32:8,13 39:2 52:13 54:13
 56:6 58:1
 City's 16:20 53:11 54:11
 claim 89:5
 clay 96:6
 clean 18:20 19:4 77:6
 88:12
 cleanup 5:12 12:1 13:19
 18:5 104:12 105:12
 close 42:4,5 105:10 109:3
 126:19
 closed 4:8 113:10
 closely 13:5
 CLP 69:13
 cluster 39:10
 Co-Chair 2:3,19,20 4:1
 5:8,18 6:2 7:10,13,14,18

8:8,20 9:3,4 13:15,18
 14:14 15:5,12 16:3,5,12,
 19 18:4 19:13 25:17
 26:2,3,8,16 27:2,13,18
 28:4 29:8,11 30:8,10,15
 49:1 50:2,6,11,14 51:6
 55:4 56:9,14 57:8,18
 58:11,14 59:1 60:1,9
 61:19 62:9,14,17 67:10,
 14 70:4 80:4,8,11,14
 81:9 82:6,9,12,17 83:3,8,
 14,17 84:11,13,16,20
 85:5,18 86:5 87:4 88:18
 89:2,19 90:1,11,16,18
 91:5 93:5,12,19 94:4,14
 95:3,13 96:13,20 97:4,18
 98:1 100:5,10 101:6,7,12,
 13 102:11 104:1,4,7
 106:7,14,18,19 107:2,6,
 10,15,19 108:3,9,11,16
 109:12,15 110:3,8,12,19,
 20 111:6,8 112:2,4,5,6,9,
 10,13,15,18,20 113:4,6
 114:8,10,15,18 115:16,17
 116:3,5,8,13,16 117:1,4
 118:14,18 120:1,4 122:6,
 17 123:6,10,13 124:18
 125:3 126:11 127:1
 co-chairing 123:1
 coaxed 84:14
 coffee 90:5
 collect 33:5 49:7 71:10,17
 72:12
 collected 21:3,7,17 22:5,7,
 8,11,15 23:10,15 24:7
 31:13 32:3,8,13 38:15,19
 49:10 51:12,13 72:5
 collecting 77:18,19
 collection 34:1
 colored 83:1
 column 75:7,10,12
 combine 32:10
 combined 27:19 30:11 38:7
 combining 34:13
 come 8:11 9:12,16 25:1
 30:19 32:9 36:19 54:15
 80:17 86:12 94:14
 100:16 107:7 114:19
 121:3 123:7
 comes 28:10 69:17 79:1
 110:4
 comfort 56:13
 comfortable 54:14 55:1,2,
 18 118:11
 coming 4:3,6,10,16,17
 13:13 31:18 85:10,16
 89:9 108:13 117:20
 118:1
 comma 17:11
 comment 5:9 28:20 50:15
 52:3,6 58:4,5 101:7
 102:15 107:12,18 108:12
 117:19 119:4,18 120:14
 121:2,8 122:4 126:18
 commenting 108:7
 comments 5:5,16 7:8 8:5,
 18 10:12 25:19 26:6,9,12

28:6 52:5,9 58:18 63:6
 102:12 106:4,13,14
 107:11 108:18,18 119:12
 124:20
 commercial 95:5
 commercial/industrial 36:2,
 5
 committee 58:1 63:1
 116:4,9
 communication 103:3
 COMMUNITY 2:18,19,20
 3:1 103:2 113:15
 Company 9:12,20 10:4
 11:18 12:7,11 53:12
 62:11
 Company's 16:20
 compared 46:19 74:5
 comparing 34:14 74:2
 86:20
 comparison 46:16 87:3
 competition 118:17
 competitive 121:7
 compile 63:3
 compiled 34:5
 complete 6:20 51:20 52:1,
 10 72:6 115:5,7,9 116:10
 completed 30:4
 completely 116:12
 completion 18:17
 complicated 44:15
 components 11:7
 compound 78:20 81:16
 82:1,20 91:1
 compounds 35:16
 comprehensive 68:5 69:8
 comprised 69:16
 computer 113:10
 concentration 31:10 40:8
 43:2,11,12 44:19 45:9,12
 47:3,6,11,15 49:14,16
 73:11 88:14
 concentrations 34:14 37:12
 38:1 39:19 40:1,4 44:18
 45:8,18 46:5,13,19 54:16
 55:8,13,17 87:5 88:3,6
 92:8
 concern 34:6 45:9 55:14
 66:11 70:20 89:12,13,15
 concerned 101:20
 concerning 5:5 7:8 8:5
 11:19 12:14 106:5
 concerns 9:17 10:12 15:18,
 20 119:19
 conclusion 48:1 56:1
 conclusions 25:6 32:15
 48:15 49:15 119:8
 concurrently 112:3,19
 Conditions 10:5,19 33:11
 37:18 40:14 48:2 93:8
 96:5
 conduct 71:8 97:7
 conducted 31:4,13 33:4
 42:3 68:20
 conservative 35:9 43:4
 consider 34:17
 considerable 87:4
 considerations 53:10

considering 117:6
 consistent 42:2 72:15 77:2,
 7
 constituents 28:1 44:6
 75:17
 construction 12:8 36:3,6,
 15,16 42:12
 consultant 98:12 104:15
 115:15 117:12 118:9,12,
 20 120:6
 consulting 119:2 121:6
 contact 10:13,14 35:14
 36:10,19 79:2
 contacts 36:17
 contaminants 73:11,12
 88:11
 contamination 20:2 22:6,6
 48:9 60:8 78:2 94:19
 contaminations 37:11
 contingencies 53:6
 continue 7:11 8:1,4 44:9
 62:2 85:3
 Continued 3:1
 continues 84:1
 contour 76:13
 contract 18:20 19:4 69:13
 70:13 115:14
 contractor 95:16
 contractor's 76:18
 contractors 77:8
 contractually 122:15
 contrast 67:7
 control 61:7 65:3 72:2,6,7,
 10,18
 convinced 96:16
 coordinator 98:14,18 99:4,
 7,16 100:1
 COPC 34:12
 copies 5:3 6:5,15 8:15
 61:11,12,12,13 113:13
 115:7,18,20 124:13,15,16
 copy 6:20 41:9 58:2 61:14
 63:8,11 74:14 104:6,8
 106:1 115:5 120:9
 cordoned 28:17
 correct 82:20
 corrected 106:8
 Corrective 66:6
 correctly 105:3
 correlated 29:9
 correlation 29:7
 correspond 45:8
 corresponds 47:3,15
 cost 95:8
 could 13:11 15:6,7 16:1,16
 21:8 32:16 42:1 49:14
 51:3 55:8 57:6,14,15,16
 59:16 62:1,2 81:9 91:13,
 14 93:2 95:15,16 101:7
 102:15 108:4,4 111:19,20
 114:10 115:17 116:7
 119:7,8 120:10,10
 couldn't 48:5
 count 25:9
 couple 10:19 21:14 80:8
 100:15 101:1,5 105:8
 109:1 121:1,18

course 19:8 63:9 65:13
 66:7,10 68:10 69:5,17,18
 70:2,11 72:5 74:3 75:10
 76:12 77:11,15,19 78:16
 79:18 125:19
 courtesy 126:4
 cover 58:11 85:18 90:19
 119:9,10
 covered 26:10 102:13,17
 124:20
 covering 103:17
 crack 79:8
 CRAIG 2:10 63:19 67:10
 90:12 98:8
 criteria 74:6,9 86:20
 criterion 74:12 75:14,14
 criterions 74:9
 critical 15:15
 cross 82:8
 crucial 15:16 17:2
 crude 113:18
 CSR 1:20
 cure-all 87:20
 current 33:11 37:18 48:1
 68:12,14
 currently 63:17
 curve 91:9

- D -

Dan 9:13 11:15
 data 24:7 25:11,14 28:7,13
 29:18 30:6 31:11,14
 32:3,5,7 33:5 34:1,4,13
 40:9 43:8 49:6,9,13 50:4
 51:9,11 55:10 56:3,8,16
 65:8 67:3,6 68:4,10,13,14
 70:7,8,10,16 71:10,11
 72:19 73:1,20 74:2 76:20
 85:9,11 86:6 87:6,9,15,17
 92:20
 date 18:16,17,18 32:3
 49:10 52:15 53:13,14
 58:12 68:14 80:4,5 105:7
 106:20 107:5,8,16 108:8
 109:16 111:3,4 125:13
 dates 109:18
 DAVID 2:14 13:6 57:9
 day 40:16 57:14 109:11
 days 40:16 52:7,9 54:1,1
 101:5 110:9 112:8
 DE 1:6
 dead 81:20
 death 69:20
 debris 14:12 20:3 37:6
 38:6,8,20 39:12,16 48:10
 51:14
 decide 113:15
 decided 37:3 39:8 78:4
 114:5
 deciliter 45:10
 decision 51:15 113:8
 122:16
 decisions 41:20
 deck 4:7,16
 decline 46:17 91:11
 deem 11:20

define 114:3
 defined 40:14 43:18 60:19
 definitely 56:13 119:17
 125:7
 definitive 56:7
 degradation 75:16 78:16
 degrade 78:14,15
 degree 109:16
 delineate 66:11 78:1
 delineation 59:5 111:18
 112:14,16
 delivery 125:13
 demo 90:7,13 94:10
 100:11
 demonstration 78:5,11
 80:2,12 84:5,18 90:16
 92:14 94:5,18 96:17 98:5
 demonstrations 97:7
 dense 29:17
 depend 105:5
 depending 92:8 96:5
 111:19 125:12
 depends 89:4
 Depo 99:20
 depth 42:11,13
 depths 42:16
 derived 45:7
 dermal 35:14 36:10
 describe 65:19
 described 11:15
 description 10:7 102:3
 desired 95:7
 detail 68:19 70:1 72:9
 73:5 74:8 77:10 79:11
 87:11 96:10
 detected 43:3 65:9 74:19
 75:8 77:4
 determine 49:20 59:13
 73:18 76:12
 determined 46:12
 developed 34:15,16
 developing 88:9
 Development 17:9 124:14
 diagram 14:18,18 15:3
 did 37:15 39:3,3 41:7
 44:14,16 46:18 47:19
 67:20 68:8 70:6 73:13
 76:11,12 81:2 83:10
 86:1,2 90:18 102:7 104:1
 106:7,18 113:19 122:11
 126:8
 didn't 25:9 27:10,12 94:6,
 8 114:19
 diesel 69:18
 dietary 46:13,17
 difference 86:6 87:5
 different 23:4 29:14,19
 37:1 92:19
 difficult 78:17
 difficulty 97:15
 dig 36:17 112:11
 diluting 88:3
 dioxin 22:5,6 32:7,13 38:9
 39:10,15,18 40:3 48:11
 50:4 60:11 61:3,5
 101:16,17
 dioxins 9:16 11:7 35:3

37:2 38:12,16 39:4,20
 43:3 48:10 49:17 55:12
 60:14 61:6
 directions 60:3
 directly 76:6,7
 dirt 86:13,15 88:10,11,14
 discharge 61:6
 dischargers 61:6,8
 discharges 61:5
 Disclosure 10:6,19
 discovered 78:20
 discuss 25:5 125:16
 discussed 24:19 34:11
 59:10
 discussing 85:7
 discussion 5:2 6:3 84:12
 85:8 101:16 102:4,13
 124:19
 discussions 102:7
 disposal 14:3,12 20:3 21:1,
 1 37:6 38:6,8 39:13,16
 48:10 51:14
 dissolved 71:2,4,18 86:10
 87:1 91:19
 distribution 37:2
 document 10:13 13:7,8,16
 26:1 32:7 36:8 50:2 52:8
 56:10 58:8 62:20 63:12,
 13,13,14 64:10 79:8
 105:18,20 106:1,5
 115:10,15 119:3,12 121:5
 125:6
 documents 63:2,10,16
 79:17 103:9 115:3
 117:13,20 119:3,7,13,
 120:13 121:2 122:5
 doesn't 61:16 88:2 122:8
 doing 7:16 15:9 19:2
 70:14 90:20 99:14
 112:19 113:1 117:11
 118:8,19 119:1
 dollars 17:14
 don't 13:3 14:12,19 17:10
 32:20 48:15 49:11,18
 53:15,19 60:6 63:11,11
 65:13 68:1,17 88:16
 90:14 91:14 94:12 106:8,
 11 108:9 111:10 117:2
 120:18 121:15,16
 done 12:13 19:5,20 29:8
 49:10 59:12 98:4 102:1
 112:16 115:10 119:9
 dots 38:11
 down 11:6 36:18 38:20
 53:16 54:4 57:1 81:20
 88:6,15 89:10,18 90:12
 91:19 93:18 99:13,14
 100:14,16
 draft 6:8 7:9 8:9,14,18
 9:1,5 13:1,11,12 18:9,11
 25:20 31:16,16 32:9
 50:6,8,9 51:7,16 56:2
 79:18 101:1,3 102:16
 103:11 104:8,14 105:
 106:10,17 108:12,17
 125:9,11,20
 drafts 34:12 105:15

dramatically 48:16
 drew 115:2
 drilling 15:14 85:2
 drive 81:17 113:11
 driver 71:1
 drivers 25:1,4 43:16,18
 driveway 59:11
 driving 87:6
 drop 89:18
 Drug 46:11
 DTSC 2:14 33:20 41:19
 42:8 44:17 45:20 46:7,
 14,16,20 47:2 55:2
 DTSC's 17:1
 duplicate 72:10,13
 duplicates 72:7
 duration 35:11
 during 9:18 20:7,10,17
 21:10 38:13,19 42:12
 57:16 75:9 122:19

- E -

E-mail 6:7 7:12 111:6,8,9,
 13
 E-mailable 111:13
 E-mailed 104:5
 E-mailing 6:8,9 104:2
 each 31:13 40:11 68:9
 75:20 76:19 91:18
 earlier 13:14 34:4 68:13
 70:11 76:17 80:15
 105:15
 early 5:15,19
 easy 67:3 74:15 97:10
 EBS 31:17 32:2 100:19
 ecological 24:12,14,18
 effect 92:17 93:8 96:3
 effective 95:8
 effects 40:20
 effort 30:19 72:15
 efforts 17:1 32:18 46:12
 48:8
 eight 23:20 64:5
 either 17:13 48:3 51:11
 55:8,14 62:1 98:2 115:8
 elect 49:19
 electronic 6:13
 elevated 65:9 74:19 75:13
 77:3,12 78:3 89:12 94:17
 eliminate 57:5
 eliminated 34:19
 else 12:2 90:14 114:17
 elsewhere 92:16
 EM 2:8
 employment 99:19
 enable 92:13
 enchilada 67:9
 encourage 80:18 111:9
 end 35:2 41:9 43:10 52:6
 54:10 81:20 84:6 108:12
 110:16
 ended 35:2
 ends 7:19
 engineer 97:14
 English 70:17
 enhancement 91:8,9 95:1

enormous 28:7
 enough 44:11 47:2 62:11
 79:5 122:4
 ensured 71:11
 entering 88:14
 ENVIRONMENTAL 1:3
 5:12 10:5,19 17:12 66:1
 81:16 82:1,3 89:15,16
 97:14 105:20
 EPA 33:20 40:7 41:18
 47:4 60:16 61:9 69:6
 74:5
 EPA's 41:4 42:7 60:13,17
 61:15
 equal 41:5
 equipment 71:10 72:8
 equivalent 47:4
 ERNEST 3:3
 ERNIE 2:4 100:15 104:1
 109:3 126:8
 err 106:7
 especially 26:14 54:15
 81:11
 essence 51:20 102:6
 essentially 37:18 39:3 42:1
 45:12 51:8 55:12,16,20
 establish 108:7
 established 115:2
 estimates 43:2
 evaluate 33:11 42:11 93:2
 95:4 96:1
 evaluated 34:7 35:1 55:18
 95:19 96:10
 evaluating 35:2 41:18
 45:15
 evaluation 25:15 34:1
 44:14 65:8 73:20 74:1
 87:9
 even 43:11 81:6 93:6
 112:13 119:5,8 123:11
 evening 9:10 117:10
 123:18
 event 75:9 87:10 91:19
 events 68:11,16
 eventually 95:4
 every 28:10 39:4 63:12,12
 100:15
 everybody 4:5 53:6 57:4
 100:10 120:11
 everybody's 54:5 124:8
 everyone 4:3 5:15 19:10
 44:10 63:7 69:20 84:2
 125:19
 everything 27:3 44:7 56:4
 Ex'd 64:11
 Exactly 13:17 50:13 67:13
 example 46:2 49:17 53:20
 65:10 72:10 76:2
 excavation 14:1 15:14
 36:18 58:9 59:3,7 60:2
 110:2
 exceed 47:9
 exceeded 34:20 75:13
 exceedences 75:11
 except 115:5
 exciting 81:4
 excuse 58:16 96:2 124:12

exit 4:6,12,15
 exits 4:14
 expand 60:3
 expect 18:17 33:1,5 49:11,
 18 104:20 105:3,8
 expecting 104:13,14
 expedite 49:12
 expensive 95:2
 experience 91:7 99:17
 expert 64:4
 expires 108:1
 explore 38:16 65:11
 exposed 35:6,10 40:16
 41:12 42:16
 exposure 34:1 35:5,11
 40:10,14 43:6
 extended 30:1 106:15,18
 extension 106:20 107:20
 108:1
 extensive 31:8 66:13 79:9,
 9
 extent 25:1 30:12 44:3
 48:9 51:13 59:14 66:11
 91:2
 exterior 82:19
 extract 92:15
 extracted 26:5
 extremely 74:20

- F -

face 63:20
 facilities 72:12
 facility 81:11
 fact 27:4 54:16 55:7 92:10
 factor 78:16
 factors 96:2
 fairly 46:4 81:4 88:6
 101:15 103:18 110:4
 112:16 114:2 119:15
 fall 27:1
 fallen 124:8
 falls 126:13
 familiar 19:1 66:4 68:7
 99:6 118:10,10
 fancy 86:13,14
 far 81:19 92:9 124:8
 fast 96:12
 fate 25:3 44:3
 favor 9:4
 fax 15:2
 February 22:5 73:4
 Fed 64:11
 feedback 118:6
 feel 12:12 30:20 31:3
 94:12 118:11
 fence 11:19 83:2,4
 fences 11:19 13:19
 fencing 62:12
 few 41:9 99:9,18
 field 59:2 69:1 71:5,9 84:4
 91:3 98:20 109:2,7,9
 110:13 112:1 113:2
 fifth 39:4
 figure 20:13 21:2 22:16
 45:17 53:18 54:5,6 57:16
 figured 46:12

figures 25:13 27:18,20
 28:9 30:5
 file 7:18 8:2
 files 8:3
 fill 34:16 60:5 115:13
 filled 115:12
 filtered 70:4,6 86:2,9,17
 88:17,18
 filtering 103:19
 filtration 87:19
 final 7:1 10:9 11:11 18:9
 25:20 31:16 33:3,3,6
 48:17,18 49:2,8,19 50:7,
 7,8,9,12 51:4,7,16 52:2,
 7,10 56:2,4,4,10,10,15,
 15,17,17 58:8 79:18
 103:6 104:3 106:10,17
 108:17 125:11
 financial 53:10
 find 95:8 97:4 113:9,11
 finding 84:16
 fine 55:3
 finish 115:9 116:11
 fire 93:18
 firm 90:4
 first 4:13 5:2 8:12 16:5
 20:1,7,11 21:14 24:1
 31:19 45:2 66:3 68:9
 75:5,18 86:1 107:12
 116:17 122:11 126:3
 fit 28:13
 fits 65:20
 five 4:9,18
 fixed 110:4
 flexibility 53:20
 flier 78:9
 fliers 83:9,10,11 100:11
 flow 71:20 72:1 96:6
 flow-through 71:11
 focus 36:7 37:3 39:9 44:2
 68:14 70:8
 focused 77:14
 folks 12:3 78:19
 follow 33:20
 follow-up 84:17 85:1
 Following 22:10 81:2
 126:12
 follows 33:19
 food 46:3,8,11
 foremost 45:2
 forget 25:8 67:3
 form 6:13 7:16 115:11,12
 formatting 113:17,20
 former 20:3 37:6,15 38:6,
 8 39:12,16 48:10 76:5
 99:19
 formulation 79:1
 forth 54:20 93:11
 forward 67:4 77:17 78:1,
 5,11 90:9 104:17 123:7
 FOSL 100:19
 FOST 100:19
 found 7:14 20:5 37:20
 77:12
 four 33:20 63:3 76:12
 91:14 110:9
 fourth 75:10

framework 114:3
FRANCISCO 2:5 4:3,7,10,
 17 7:4 9:8 22:4 23:1
 32:8,14 39:2 126:15
frankly 56:13
free 12:12 30:20 31:3
 80:20 84:9 92:4,14 94:11
FREEMAN 2:10 63:19
 64:3 67:13,18 70:5 80:5,
 10,13,18 82:3,7,16,19
 83:6,11 84:14,19 85:7
 86:4,7 87:7 88:20 89:4,
 20 90:8 92:11 93:10,13,
 16 94:1,12,16 95:18
 96:15 97:2,10,20
Fricke 3:6 18:20 19:6
Friday 108:4
front 78:9 81:14 83:12
FSAP 85:15 93:3
fuel 19:6 103:12 106:10,20
 107:18 108:13 125:11
full 6:15 69:3,11 87:17
funding 17:12
funny 38:5
further 22:12 30:2 44:9,10
 45:17 78:1 111:17
 125:10
future 33:6 35:20 42:12
 69:4 97:7,9 98:5 100:3
 102:16 103:17

- G -

GALANG 2:4 58:7,13,19
 59:8 60:4 84:7 104:3,5
 107:12 108:15 109:5,14,
 17 110:6,11 116:18
 126:10
gasoline 69:17 77:3
gate 81:14,18
gauge 79:13
gave 107:13
GENE 3:6 18:19 25:18
 31:1,8 38:5 39:1,13
 43:17
general 5:11,14,18 24:2
generalize 86:5
generally 89:11 93:6,6
geology 24:3
Geomatrix 9:15 11:3 39:1
 126:8
Geomatrix's 17:20 126:14
geoprobe 21:18 77:18
 85:10,12 97:3
geoprobng 77:19
gets 69:11 71:3 75:20
 79:14
Getting 23:17 40:13 59:10
 61:11 88:12 105:10
 109:3 117:13
give 9:16 24:5 25:11 27:20
 40:6 65:10 73:17 85:20
 100:15 115:19 119:4
 120:10 122:14
given 41:16 64:8 107:20
gives 10:7,15 11:9 22:17
 23:6,9 24:2 39:5 87:2

100:17
giving 67:7
glad 17:3 99:1,10 100:2
glass 103:19
go 4:12 8:3 16:12 19:18
 20:8 28:11 29:18 30:11
 39:8 48:6 50:17 51:3
 52:15 55:8 60:6 62:11,
 15,17 65:2 68:18 73:5
 81:13,19,20 84:3 88:19
 91:19 92:3,16 94:6 97:19
 98:4 100:16 103:15
 106:3 113:9 117:18
 120:2,5 121:4 125:9
 126:1
goal 45:13 47:5
goes 23:8 30:13 69:11
 91:12 115:13
gone 10:1,7 22:3 89:1
 90:2 122:19
good 7:16 9:10 10:7,15
 11:9 13:13 27:2 30:15
 38:4 39:6 62:14 68:6
 76:20 77:19 92:11 113:4
 114:15 116:5,6 122:7,18
got 7:15 11:17 14:15
 64:10 74:14 84:14 94:10
 106:8
gotten 58:2
GPI 2:15
grab 21:17
grant 116:17 121:12
grants 121:1
graphs 41:9
great 15:12,15,19 16:3
 18:1 65:4 68:19 72:9
 73:5 87:7 94:11 108:19
greater 35:11 40:4
greatly 124:10
green 39:17,18 82:4,6,7
Greg 9:15
grid 39:3
grocery 46:3,5
ground 59:6
groundwater 18:12,13
 20:10 21:5,17,19 22:13
 23:11,15 28:2,16 29:1,5,7
 30:7 35:17,18 36:12,14,
 17,19,20 62:2,16,18 64:1,
 9,19,20 65:18,19 66:9,15
 67:3 68:13 72:1 74:2
 76:13,15 79:15,16 87:16
 99:14 103:4
group 37:3 77:5 104:19
 109:20
guess 12:2 31:6 32:16
 46:9 85:8 87:10 107:7,19
 109:3
guidance 33:19
guidelines 113:7 114:19
 115:2
GUTIERREZ-PALMENBE
RG 2:15
guy 57:12
guys 34:9 38:4 65:15
 79:15
GWEN 2:9 19:8 24:10

25:2 30:16 54:7 61:11
 - H -
habitat 24:14
hadn't 37:10 71:12
half 17:14 39:17 84:5
 122:12
hand 62:12 115:7
handed 58:19
handing 8:8
handout 19:15 21:9 106:9
handouts 19:11,13
hanging 75:2 89:14,17
happen 91:13,14 97:9
happened 113:5
happening 11:10 12:4
 25:16 61:2 88:8
happens 53:2
happy 12:10 111:12
hard 104:5 113:11 124:8
hardcourts 59:16
hasn't 81:12
haul 112:11
haven't 15:2 30:4 33:16
 104:16 124:16,20
having 35:11 54:3 80:12
 110:16 119:4 124:2
hazard 40:19 41:2,5 42:9
 43:14
He's 99:13
head 71:17 89:6
health 24:9 31:4,7,12,15
 33:4,7,10,12 34:19 35:1,4
 37:16 48:2,17 49:16 51:4
 56:1
hear 34:9
heard 66:20 76:3
heck 64:11
HEHN 2:20 7:10,14 9:3
 13:15,18 14:14 15:5,12
 16:3,12,19 26:2,8 27:2,
 13,18 28:4 29:8,11 30:8,
 10,15 49:1 50:2,6,11,14
 55:4 56:9,14 60:1,9
 62:14 70:4 80:8,11,14
 84:11,16 85:5,18 86:5
 87:4 88:18 89:2,19 90:16
 91:5 93:5,12 96:13,20
 97:18 101:7,13 106:18
 107:19 108:9 109:12
 110:3,19 111:6 112:2,5,9,
 13,18 113:4 114:8,15
 115:16 116:5,13 117:4
 118:18 120:1,4 122:17
 123:6,13
help 19:12 22:12 117:12
 119:17,17 122:16 124:3,9
helped 13:6
helpful 61:11 117:17
 118:3,4 121:19 124:6
helps 64:16
here's 38:3
hesitate 65:14
high 46:4,9 53:2 71:9 73:1
higher 37:12 47:16
highest 40:7

Highway 110:19
historical 11:2 115:3
historically 38:18
history 10:20
hits 53:2
hold 51:16 90:4
holding 126:4
holdover 104:11
hole 79:4 85:13
holes 85:12,14
homegrown 35:16
hope 4:3 74:14
Hopefully 19:11 100:3
hoping 49:12
hot 74:20
hour 84:5
hour's 92:2
hours 40:16
housing 9:14 35:8 53:9
how 13:3 16:10 23:9,11,11
 25:9 46:8 56:18 57:2
 65:19 74:15 76:3 92:7,8
 95:6 96:13,18 103:7,12,
 16 120:11,16 121:13
 122:2,15
However 49:9 68:3 121:10
huge 33:16
human 24:9 31:4,6,12,15
 33:4,6,10,12 34:8,19
 35:1,4 37:16 48:2,17
 49:15 56:1
Hunter's 7:5
hydrocarbons 11:8 74:13
hydrogeology 24:4
hydroxide 79:1

- I -

I've 8:8 23:17 74:14 76:3
 96:15 117:8 118:19
idea 65:15 78:14 85:20
 92:17 97:1 120:11
ideas 124:4
identified 35:6
identifies 75:7,11
identify 33:14 66:10
II 32:1,4
immediate 121:19
immediately 12:18 13:2
impacted 61:18
impacts 60:15 101:17
important 37:13 40:14
 43:1 57:12 75:15 117:20
impossible 28:14
INC 2:8,15
incineration 20:5
incinerator 38:14,17,18
include 37:15 48:8 50:4
 54:19 110:12 111:11
included 26:4 27:14,17
includes 20:18 21:4
including 21:15 23:14 24:3
 25:19 33:5
incorporate 48:5,19 59:
incorporated 56:4
increase 91:10
incrementally 91:10

index 40:19 42:9 43:14
 indicate 27:6 55:11 75:5
 indicated 31:8 34:4 39:1
 41:3 43:17 61:4
 indicating 10:17 28:17
 29:3 30:2 38:3,15,19,20
 39:9,11,13 74:18,19
 81:17 82:13,14 116:11
 indicator 40:19 70:15
 73:16
 indices 41:5
 individual 40:13 74:10
 105:6
 industrial 61:6
 industry 99:18
 influence 92:17
 info 114:18
 inform 41:20
 information 7:2,3 31:11,
 20,20 32:4,10,11,12,13,20
 33:1 34:5 40:9,10,10
 41:20 44:11 48:5,13,14,
 16,18 49:5,20 51:17
 55:19 56:7 60:13,18
 73:3,17 91:15 92:4,15
 93:7 101:18 104:13
 117:2 122:4 123:3
 informational 113:14
 ingestion 35:13,14,16 36:10
 inhalation 35:15,18 36:11,
 13
 inhale 36:20
 inject 92:9 95:7
 injecting 85:2 91:1 92:19
 93:15 96:14
 input 125:20
 inside 36:18
 installation 67:15 95:17
 98:13,18 99:3,7,16 100:1
 instance 13:20 14:3,3
 15:18 28:18 29:3
 Instead 53:20 100:16
 intend 49:6
 intent 35:7 48:6
 interest 54:12 60:12,14
 108:7
 interested 9:19 54:13 80:19
 84:16 87:8 118:7,20
 124:2
 interesting 7:15 71:19 81:3
 103:18
 interestingly 47:2
 interests 54:5 81:8
 interference 88:2 93:10
 interim 8:10,11,15 15:6
 16:4,13,16 55:7 56:6
 98:2 110:5,6,14 114:11,
 12 117:8 123:11 125:10
 126:1,2
 interm 116:7
 interrupt 62:7 65:14
 interval 42:11
 into 5:9 6:3 11:6,15 18:5
 26:1 28:15 29:18 33:6
 36:19 48:5 56:4 59:2
 61:6 62:2 63:4 64:13,18
 65:7,20 68:19 70:1 72:9

73:5 76:2 79:16 84:14
 87:16 98:9 99:15 100:18
 103:15 112:12 113:19
 121:4 123:8
 introduce 18:19 63:19 99:8
 introduction 24:1
 introductory 10:20
 investigate 20:2
 investigated 21:13
 investigation 12:1 44:9
 61:17 66:15 77:15 84:3
 99:13
 investigations 77:8 79:13
 99:14
 investment 34:2
 invited 100:11
 involve 94:8 98:6
 involved 19:6 81:1 93:20
 involvement 11:3
 involves 34:12 118:16
 ISLAND 1:2,7 4:6,12 5:12
 7:7 11:1 64:7 67:16,17
 69:1 72:4 73:13 124:13
 isn't 87:20 93:7
 isolated 67:15
 issue 10:14 12:5 15:10
 17:2 45:17 51:7 52:2,10
 54:15 60:11 63:2 101:16
 102:8
 issued 52:8 58:17 63:5
 issues 5:11 12:8 14:2 22:3
 61:3
 item 5:2 9:7 62:6 90:12,13
 104:10 114:11,12,13
 125:14
 items 18:7 103:14,17,19
 109:1 125:3,15,17,17
 iterations 10:2
 itself 19:19 65:8 66:4,17
 72:17 79:12 85:12 90:17
 95:14 96:8

- J -

JACK 3:4
 JAMES 2:3 60:16 61:4,12
 January 68:11
 JERRY 2:12 93:3 99:4,8
 105:14
 Jim 7:11 13:6,6 16:16
 18:3 19:16 50:16 51:3
 62:15 120:19
 job 7:17
 JOHN 2:6 9:12,20 10:4
 11:18 12:7,11 16:20
 53:11 62:10
 joke 66:14
 July 52:6 126:17
 jump 30:20 31:3 64:13,18
 76:2
 June 11:15 16:6,7 18:17
 32:10 50:3 51:8 52:3
 58:9,9 63:6 106:9,17
 109:6,7,12,14 110:8,14,15
 122:7,20 123:11 125:5,7,
 10,12,17,18 126:6,13,17
 just 7:10 10:13 11:17

12:3,4 13:12,13 14:1,15
 15:1,2,8,9,13 16:9,19
 18:12,14 19:14 22:3
 27:2,19 28:14 29:15 30:2
 33:14 42:17 46:16 50:19
 51:10 52:20 53:16,17
 54:4 56:15 58:16 60:10,
 12 61:14 62:5,20 67:7,10
 69:9,10 72:11 75:15
 79:13 80:17 81:20 82:17
 85:1,2 87:5 90:6 91:3,6,
 20 92:3 93:14 94:3,4,14
 95:15 97:7,8 102:5,9
 104:3 107:16,20 108:3,7
 110:18 111:1,4 112:10
 114:3,8,18 117:4 119:8
 122:19 124:14,19

- K -

keep 64:16 65:14 96:11
 121:1
 kept 114:2
 kilogram 47:1
 kind 8:9 12:1,8 22:3 24:1
 44:15 50:6 53:19 60:11
 62:11 65:10 83:18 86:5
 91:8 92:8,9 93:8 94:15
 104:10 105:13 112:6
 113:14,19 114:2,3 115:2
 120:15 121:1 123:7
 kits 71:5
 Knapp 73:3 98:15
 know 4:5 11:20 13:3 14:5,
 8,11,13,19,20 15:1,8
 17:11 26:11,15 33:2
 44:6,7 45:14,16 47:17
 52:14 53:1,19 60:10
 61:14 80:14 90:14 91:15,
 16 95:4 98:11 105:7
 106:8 108:1 117:2
 119:10 120:18 121:15,16
 knows 44:10 53:7

- L -

LA 1:6 3:2 17:7,16 18:1
 lab 70:12,13 71:3,4,6,14
 72:13
 laboratory 69:6,13 72:7,14
 Labs 104:16
 laid 103:15
 Lake 99:14
 land 35:20
 lane 4:7,11,18
 large 8:4 61:5 64:5,10
 67:2 79:8 83:3 117:13
 119:3
 larger 65:20 79:17 87:15
 96:10 121:5,8,20
 last 9:11 11:15 12:7
 18:13,14 33:17 36:5 49:2
 50:4 64:5 65:6 75:12
 76:9 81:2 98:14,16 99:5
 100:7,7 101:10 104:11
 110:18 111:4 113:8
 117:7 123:17 124:17

lastly 57:18 117:2
 lately 6:18 8:13 60:13
 later 80:4,5 93:17 123:18
 latest 51:11
 Laughter 84:8
 lead 11:2,8 37:20 44:14,
 17,19 45:8,9,18,20 46:1,
 4,7,8,13,16,17 47:2,3,6,
 15,16 48:9,12 55:12,15
 58:3 59:1,9,14,20 77:13
 111:15 112:8 113:2
 lead-based 11:7
 leader 28:9
 learned 64:15
 lease 9:19 10:6 12:18
 13:16 17:4 53:11
 leaseability 53:7
 least 4:18 6:12 15:7 16:13
 25:15 41:1 62:5 86:17
 92:3 105:2,7 107:8 123:9
 leave 84:3
 led 98:12
 left 15:1 81:20 94:12
 left-hand 4:7,15
 lengthy 101:15 102:4
 less 39:19 40:5 41:6 43:9
 49:13
 letter 11:18 14:16,17 54:14
 55:5 58:10,11 119:9,11
 level 40:7 47:16 56:12
 89:17
 levels 34:14,15 47:7 55:13
 65:9 67:20 74:19,20
 76:11 77:12 78:3 87:20
 94:17 104:12 105:12
 Levine 3:6 9:13 18:20
 19:6
 library 7:4
 life 74:4
 like 5:19 12:18 14:1 18:19
 28:17 29:20 39:17 43:6
 45:13 53:20 55:6 61:16
 62:4 63:10,14,19 77:20
 81:12 88:12 89:5,14
 97:16 99:8,9 110:17
 112:7 118:6 119:14
 121:16 122:6 124:5
 likelihood 40:13 54:8
 106:16
 likely 35:6
 limit 96:7
 limited 66:18 70:19 94:5
 118:16
 limiting 78:16 96:2
 line 19:6 28:10 86:20
 103:12 106:20 107:18
 108:13 125:11
 link 83:1,3
 list 7:12 63:12
 listening 65:15
 liter 74:13
 literally 11:17 61:10
 little 12:19 14:19 19:17
 20:15 21:8 29:13 30:2
 38:11 53:5,17 64:20 69:4
 78:7 90:2 101:15 102:2
 113:17 117:7,8 120:20

123:18
 lively 65:14
 lo 88:5
 localized 37:11
 located 81:16
 location 7:4 28:12 29:4
 39:4
 locations 20:17 21:16,18
 22:9,11 23:1,3,4 27:10,12
 37:16,19,19 47:8,9
 logically 79:4
 logs 27:6,8,10,12,16
 long 56:18 92:7 120:16
 121:10 122:8
 longer 35:10 41:12 121:11,
 20
 look 8:16 15:3,7 26:19,20
 29:6 42:11 43:5 45:1,17
 55:12 73:16 87:14 88:4
 114:6 120:13 123:9
 looked 21:12 35:13,17
 36:1,9,13,16 37:5,9 46:10
 68:4 115:1
 looking 29:20 30:2 32:7,
 11,12 36:8 49:13 59:5
 60:20 61:5,7,15 69:9,10
 73:8 74:1 92:5 95:19
 108:1 109:12
 looks 13:13 46:2 88:11
 112:7
 lot 7:19 22:14 28:7 29:17
 31:10 34:15 60:12,18
 73:5 74:19 76:3 77:10
 79:11 82:11 93:7
 love 81:5
 lower 4:7 41:13
 lunch 84:7,9
 LUPTON 2:11

- M -

made 4:4 26:9,13 67:6
 113:8,13
 magnesium 79:1
 main 7:4 81:18
 maintenance 76:6
 major 18:7
 majority 52:17 67:11
 make 5:14,19 6:13,14 27:3
 44:5,11 47:19 51:15 61:1
 64:1 68:10 72:13 76:1,19
 93:4 100:7 102:6 108:4,4
 111:4 114:10,12,13
 115:6,17,19 117:10
 122:3,13,13 123:17
 making 76:20 100:16
 122:16
 management 41:20 44:4
 mantel 99:7
 many 10:2 23:9,11,11 25:9
 33:8 44:16 45:4 96:14,18
 121:17
 map 16:2 28:13,19 29:5
 30:6,7,8,10 37:7 38:3
 62:11 81:14
 maps 28:15 29:2 76:13
 MARIA 2:17

MARTHA 2:7 9:9 17:7
 56:9
 mass 73:10
 masthead 124:1
 matrix 72:7
 matter 86:12,13 87:2
 88:13
 maximize 103:8
 maximum 42:10,13 43:2,5,
 11,11 49:16 118:13,14
 MAY 1:4 4:1,9 45:18
 58:18 66:19 68:11 75:13,
 14,16 85:15 86:12 87:10
 89:17 92:15 98:11
 100:13 110:10,16 113:11
 125:12,12
 Maybe 4:20 49:3,5 53:15
 54:1 57:13 90:4 91:17
 102:5 109:9 110:1
 114:13 119:3 120:2,6,7
 122:7,9,15 123:7,10
 MAYOR'S 2:5
 me 10:13 14:7 16:9,10
 34:9 44:14 55:3 58:16
 65:16 76:2 78:6 82:20
 89:7 94:13 100:3 105:2
 107:14 117:4 124:12
 mean 13:13 52:14 53:19
 55:7 57:1 85:1 87:20
 88:2 90:20 93:15 94:16
 107:17 114:1
 means 39:18 40:3 70:17
 76:12
 meant 4:4 79:12
 measure 40:19 92:3
 measures 72:2
 meat 65:7
 mediation 45:13
 MEETING 1:3,8 5:10,15,
 20 6:4,6 7:1,9 8:6,10,15,
 17 9:5,9,11,18 12:18
 15:7 16:4,14,17 17:9
 18:8 19:14 54:3 98:2,3
 100:13,14,18,20 101:1,2,
 4,8,9,10,19 102:17
 103:16,20 104:11,18
 105:1,4,5,8 109:20 110:5,
 6,14 113:8 114:9,11,14
 116:7 117:8 120:7 122:8,
 20 123:1,12 124:14,17
 125:4,5,8,10,12,18 126:1,
 2,6,7,12,19 127:3
 meetings 6:18 8:12 26:10,
 14 76:4 100:4 114:12
 119:6 126:16
 member 6:17,19
 MEMBERS 2:18 3:1 5:10
 6:16 16:10,13 19:4 57:20
 62:3 63:10 100:18 104:8
 107:8,16 108:12 113:15
 118:7 125:20
 mentioned 19:16 68:13
 76:16
 mentions 23:1
 metal 69:9
 metals 21:20 35:3 69:13,14
 70:4,7 76:16 86:1 87:1

88:19 89:9,12
 meter 91:20
 methodologies 68:20 69:7
 methodology 33:18 105:11,
 14,15
 methods 65:3 68:17
 MICHELSEN 3:3
 micrograms 45:9
 middle 52:6
 might 5:14 8:3 20:14
 25:17 38:16 42:13,14
 46:3,5 60:2,8 91:17 95:8
 110:3 111:1 120:12
 121:4,14 122:2
 migrated 35:18
 migrating 36:14
 migration 96:7
 MIKE 3:3
 milestones 103:1
 milligram 74:12
 milligrams 47:1
 million 17:14 41:5
 minus 42:7,8,19,20 43:20
 44:1
 minute 24:11 37:7 110:18
 111:5
 minutes 6:4,6,8 7:1,9 8:6,
 18 9:1,5 17:9 26:19,20
 79:14 90:4,5 100:20
 101:2,4,8,9,14,19 102:8,
 10,14,16 103:16 104:2,8
 124:14
 misplaced 17:11
 miss 82:4
 missing 17:11
 mobility 73:11
 mobilization 58:9 59:13
 109:6
 model 44:18 45:7,20 46:7,
 14,17,20 47:2
 modified 46:14,16 47:2
 modify 57:2
 moment 41:14 117:5
 Monday 64:11 108:5,10,13
 109:10 126:12
 money 77:1
 monitor 85:3
 monitored 65:5 70:14
 monitoring 17:12 18:12,13
 23:16 62:2,16,19 64:2,19,
 20 66:13 67:4 73:2,8
 79:6 85:12 91:3
 month 6:9 8:13 12:19
 91:14 98:16 105:4 118:1
 126:3
 month's 114:14
 monthly 91:20 98:3
 months 4:9,19 91:14 99:5
 100:15
 more 4:19 12:9 38:9 41:14
 43:6 46:10 66:18 69:4
 70:3 74:8 77:10 80:7
 85:19 87:11 92:20 93:15,
 18,19 97:9 98:20 115:6,
 17 117:8,15,20 122:12
 morning 64:10,11 78:10
 97:5 124:15

most 19:1,4 20:18 35:6,9
 45:2 57:12 74:20 75:1
 102:17
 mostly 48:9 67:16 120:
 motor 69:18
 move 5:9 8:20 9:2 18:5
 20:14 33:9 64:14 67:4
 78:5 90:9 99:15 108:20
 123:7
 moved 126:15
 moving 11:14 66:12 77:17,
 20 96:12 98:9
 much 7:15 32:19,20 33:18
 46:8 48:13,14 60:5 89:5
 95:6 115:12 121:11
 127:2
 must 82:15
 MW02 85:4 91:4
 myself 115:6

- N -

name 12:7 75:5
 Namely 20:3
 NATHAN 2:19 12:16
 58:19 115:8 122:20
 123:3
 natural 65:5 70:14 73:2,7,
 8,18 79:3 92:17
 nature 24:20 111:20
 NAVAL 1:2
 NAVY 2:2,3 11:4 22:8,10
 23:2 26:19 32:14 51:3,4
 78:4 82:2 98:12 100:
 104:14,15 115:14 116:
 122:5 123:8
 Navy's 7:6 19:4 121:15
 nearby 21:7 25:16
 necessarily 63:11 88:2
 necessary 56:13 66:19
 need 4:11,17 5:4 44:9
 45:16 53:4,16 56:10 90:3
 95:7 102:5,12 107:2,7,16
 113:15 119:16,17
 needed 70:16
 needs 57:4 102:13 121:19
 Nelson 117:9 126:4
 network 66:13 79:9
 never 49:18 82:9
 new 36:6 41:17 56:16
 63:20 85:2 96:15,16
 98:18 99:3 104:12 108:8,
 17 117:2 126:14
 news 60:13
 newsletter 117:3 123:15
 124:1,3
 next 4:18 9:7 17:13 22:2,
 16 29:5 54:4 57:7,14
 62:6 69:5 98:2,9 101:4
 102:16 104:9,10 105:4,8,
 9,18 106:10 114:9,13
 118:1,15 120:7 125:4
 126:2,7,11,16
 nice 13:8,14 29:1
 night 81:2
 nine 75:4
 NO 1:8,20 5:7,17 6:1 8:7,

19 13:8 16:8,8 23:4
 24:14 27:11 28:14 50:5
 55:20 56:19 60:4 65:4
 74:7 75:14 84:7,9 89:4
 91:15 94:4 100:9 104:12
 106:6 107:1 112:4,5
 119:20 120:3 125:2
 126:20
 noncarcinogenic 40:20
 noon 83:13
 northern 30:12
 not 6:10,11,18 8:3 14:11
 21:13 24:13,17 37:15,17
 38:4,16 42:15 45:6 50:4
 51:16,18 54:2 57:5 60:19
 64:3 67:14 69:9,10
 70:19,20 72:11 74:15,19
 75:13 78:8 80:1 85:1,13
 87:1,1 89:15 90:12 95:8,
 14 96:4,6,18 97:6,6
 98:11 104:5 106:11,16
 107:2,4 112:12 114:6
 120:19 125:12
 note 4:5 43:1
 notice 37:13 126:5
 noticed 89:8
 notices 110:9
 noting 78:3
 November 22:1 32:5,12
 now 5:1 10:10 12:13,15
 13:13 14:13 23:18 25:8
 30:16 31:18 36:4 37:13
 62:1,13 73:20 90:3 99:3,
 6 117:14,20 125:15
 number 21:3 47:1 66:18
 67:12 70:19 75:5 76:9
 81:10 86:19 113:20
 116:19
 numbers 34:17,18,20 41:7
 47:13 75:1
 nutshell 78:14

- O -

o0o 1:1,9 3:8 127:4
 Oakland 4:14,16 5:1
 126:14,15
 objective 20:1 33:10
 objectives 19:19,19 64:19
 65:17
 observed 46:17 86:14
 obviously 11:4 14:1 15:14
 35:8 71:13 74:17 75:5
 occur 48:12 105:5
 occurred 22:2 31:9 38:10,
 12
 October 22:1 87:11
 off 4:4 21:2 25:15 28:17
 70:12 71:2 89:6 94:15
 offer 6:14
 offered 123:20
 OFFICE 2:5 15:2 99:1
 100:15 116:2
 offices 7:6 126:5,14
 official 106:19 107:4
 offshore 24:15,16
 Oh 13:1,10 112:20 124:11

oil 69:18
 Okay 6:2 14:14 16:8
 17:16 18:4 27:13 28:4
 30:15 57:17 61:19 62:17
 65:17 68:17 69:8 72:2
 73:2 74:14 84:19 85:5,18
 86:8 89:2 90:1,11 93:12,
 13 98:8 101:6 102:11
 104:4,7,10 107:15
 108:11,19 112:9,20,20
 113:6 115:16 116:3,8
 117:1 120:4 123:5
 124:18 125:3 126:11
 127:1
 old 38:14 46:10 93:18
 113:10
 on-site 71:6
 once 63:3 79:7 104:17
 105:17
 one 4:15 5:4 6:16,17
 12:10 18:9 21:2 25:12
 28:5,13 30:6,7 31:13,17,
 18 37:13 41:18 49:5
 57:19 67:16 69:9,10 74:7
 75:20 76:2 77:4,16 78:1,
 4 80:11 83:4 85:13 86:8
 87:8,15,16 91:13 92:1
 93:1,5,14 94:17 97:17
 101:19 107:3 115:6,7
 116:1,12,13 117:6 118:3,
 4,4,9 119:2,3,5 120:19
 124:11
 ones 27:14
 ongoing 66:1 80:1 121:7
 only 4:15 8:2 40:15 48:4
 54:2 56:15 73:14 77:4
 80:1 91:18 111:16 115:5
 onshore 25:20 26:5 79:18
 102:18 103:6
 onto 4:4 81:18
 open 6:10 79:8 85:8
 124:18
 operable 18:10
 operating 113:6,11 114:2,
 19
 opportunity 64:8 92:20
 97:8 98:2,19 99:2,12
 100:7,17 122:7
 optical 31:18
 option 61:20
 options 59:6 95:20
 oral 119:5
 oranges 87:3
 ORC 90:7,13 92:5,16,18
 93:6 100:11
 order 45:5 103:9 120:15
 organic 28:18 35:15
 organics 28:15
 organization 98:17
 organizational 108:20
 organize 103:13 109:9
 original 7:16 26:2,3,4
 31:20
 originally 21:13
 other 15:17 18:2 19:3
 27:13 34:11 35:12 36:1
 41:9,10 47:14 54:10

58:14 60:3 63:10 69:19
 76:20 77:3,6,7,8 85:20
 89:9 92:6 96:2 99:13
 100:6,18 115:3 124:11
 125:17 126:18
 Otherwise 6:20 90:9 96:16
 124:20
 OU 18:16 19:7,17 55:5
 56:11 125:6
 our 4:1 5:2 6:18 7:6 9:7
 18:5,20 19:9 28:7 40:19
 44:18 58:14 63:9 65:2
 67:4 68:1,4,5 72:12
 76:19 81:15,16 91:2
 98:12 100:13,14,14,18,18,
 19 102:17,18 103:8,11
 104:15,19 105:12 114:20
 119:6,12 120:12 121:19
 125:13,15 126:2,7,16
 ours 77:8
 ourselves 59:2
 out 4:5 6:11 7:11 8:9,14
 10:3,16 13:11,12 15:6
 16:2,12,15 17:1 19:14
 25:1,18 28:1,7,11 31:18
 32:9 34:16 35:8 42:14
 44:8 45:17 46:13 48:6
 53:18 54:5,6 57:2,17
 60:7 61:10 62:11,12
 64:12 67:11 69:9 72:12
 75:12,16 76:1 80:17
 84:3,17 88:1,10 91:15,19
 92:3 94:12 95:8 96:11
 97:4 98:20,20 100:20
 101:4 102:10 103:8,9,15
 104:2 110:4,9,20 111:6,
 12 112:8 115:7,20 116:4,
 9 122:11 123:3 124:9
 125:7 126:5
 outline 23:18
 outlines 39:13
 outlining 38:5
 outside 21:12 53:5 82:2
 117:12
 outstanding 14:2 120:14
 over 9:9 13:12 19:1 30:1,
 16 38:20 42:15 71:7
 81:17 90:3 97:17 98:16
 113:3 117:10 125:9
 126:1
 overall 15:20 87:5 102:18
 overlay 29:1,5
 oversight 117:19
 overview 9:16 24:6 122:14
 overwhelmed 117:15,16,17
 own 114:20
 oxygen 70:16 71:2,4,18
 78:15,17,17 79:2 91:7,10,
 12,19 94:20

- P -

P.M 1:5 127:3
 pace 90:3
 package 116:10
 page 10:18 17:10
 pages 6:12 7:20

paints 11:7
 paragraph 23:2
 paragraphs 10:20
 parameters 70:16 73:17
 Pardon 14:7
 part 10:18 18:20 25:18
 35:5 39:18 59:20 87:12
 95:3
 particular 30:10 32:7 44:6,
 20 45:12 56:7 63:14
 91:8 118:19 119:12
 122:5 123:1 124:1
 articulate 86:12,13 87:2
 particulates 35:15
 parts 39:19 40:1,4,5
 party 11:5
 pass 10:16 123:3
 passing 10:3
 past 19:5,20 46:4 67:8
 Pat 117:9,15 118:10
 123:15 126:4
 patented 78:20
 pathway 74:3
 pathways 36:10
 PAUL 2:20 9:19 16:9
 58:20 90:14 115:8,19
 pay 25:12
 paying 95:5
 peak 91:11
 Penny 97:13,17
 people 5:14 11:14 42:1,16
 60:10 63:17 81:10
 110:17 111:2 113:3
 120:10 123:8
 per 39:19 40:1,4,5,17
 45:10 47:1 74:12
 percent 52:1,10
 perception 101:17
 perfect 94:18 113:18
 performed 22:1 23:13
 performing 25:2
 period 26:20 41:12 52:4,7
 54:2 56:17 58:4,5 108:2,
 12 120:14 121:8 124:19
 person 40:15 98:13
 pesticides 35:3
 petroleum 11:8 66:8 69:17
 74:13 78:15
 PG&E 126:5
 phase 20:7,11 21:10 22:2
 31:14 32:1,1,4,4 121:11
 phased 53:8
 phases 21:14 31:9 50:17
 phasing 9:13
 physical 24:3 73:9
 pick 90:3
 picture 10:15 25:15
 pieces 41:19
 PIERRE 3:2 17:7,16 18:1
 pilot 93:20 94:1
 pit 37:15 48:12 51:12
 109:4
 pitch 97:17
 place 19:15 32:18 48:4
 56:5 65:6 73:19 78:8
 87:10 94:18
 places 52:12

placing 26:6
 plan 58:2,17 59:17 69:1
 72:4 103:12 106:10
 108:13 125:11
 planned 37:14 60:2
 planning 15:9 57:19
 please 10:13 81:13 111:10,
 11
 plug 44:18 78:7
 plugs 79:16
 plume 96:8
 plus 6:12
 Point 7:5 10:14 25:17
 47:20 61:8 67:11 68:6
 75:9 81:7 84:2 111:15
 113:14 122:18
 Poor 79:14
 popular 68:18
 portion 10:6 24:18 30:3
 posing 59:2
 positioned 66:15
 possibility 42:12
 possible 59:13 60:6 80:16
 92:6 120:20 121:16,18
 possibly 119:5
 post 25:13 28:8 29:18
 posted 29:4
 posting 30:5
 potential 20:2 34:6 36:1
 40:20 110:18 125:17
 pounds 96:14,18
 PPB 53:2
 practical 97:16
 pre 50:7
 pre-pre 8:9
 precision 71:9 78:13
 preliminary 32:17 45:13
 47:4 48:1,4
 replanned 97:9
 present 25:15 44:3 68:8
 presentation 62:3,18 64:1
 83:15 119:5 122:14
 presented 9:11 13:16 31:19
 32:2 46:15,15 56:2 67:9
 68:4 70:8 73:3 75:4
 presenting 105:17
 presents 68:12
 press 60:18 61:10
 pressing 62:5
 pretend 89:7
 pretty 10:15 11:9 33:18
 46:8 64:14 68:5 71:19
 114:1 115:12 117:16
 prevent 12:2,4
 preview 18:9 24:6
 previous 22:20 55:9 77:2
 99:19
 previously 86:3 99:17
 primarily 77:3 78:11,15
 81:1
 primary 79:13
 print 6:11
 prior 15:6 16:15 17:4
 19:14 37:9 111:3
 priorities 102:20
 probability 40:12
 probably 10:8 18:12,14

21:8 26:18,18 28:8 50:16
 64:10 70:10 79:13 89:6,
 15 92:2 97:6 102:8
 109:10 110:14 112:7,11
 118:12 125:15
 problem 14:19 16:8,8
 45:19 52:13
 procedures 65:3 113:11
 114:2
 proceed 6:3 114:7
 PROCEEDINGS 1:12
 process 11:4 18:6 20:11,18
 34:12 45:6 49:13 95:9
 processes 73:9,10
 produce 35:16 52:7
 produced 115:15
 produces 46:20
 product 93:9 115:14
 Products 78:12
 program 60:17 65:20 66:7,
 20 67:4,15 69:13 77:16,
 17 79:9 83:20 85:14
 98:9 100:19,19 103:3
 122:10,11,15 125:14
 programs 66:2
 Progress 104:11
 project 58:15 65:18 71:6
 97:14 99:5,6,11
 projected 18:16
 projects 98:5
 promise 105:16
 promised 12:17
 proposal 117:5,11,18 119:1
 120:16 121:9,12,20
 proposals 93:4
 propose 93:2
 proposed 74:11 80:2
 118:11
 proposing 15:8
 proprietary 95:14
 protect 54:11
 protected 45:14
 protective 33:12 48:2
 protocol 74:1 86:16
 provide 9:7,8 92:19 98:3
 105:18
 provided 41:19
 provides 111:13
 providing 81:11 92:4
 proximity 76:18
 prudent 89:7
 public 5:9,11,16 60:18
 101:16
 PUBLIC/GUESTS 3:5
 pulling 88:10
 pun 96:3
 punching 79:4
 purchase 46:3,5
 purpose 118:3
 purposes 37:4 46:16 56:9
 put 19:13 33:6 51:2 53:5
 61:10 71:14 78:7,11
 118:3 119:8 120:6,10,15
 121:9,18,19
 putting 10:1 14:9 118:11
 119:1 124:3

- Q -

QAP 72:4
 qualitatively 55:16
 quality 65:3 72:2,4,6,10,
 18,19,20 73:1,1 74:6
 quarterly 23:15 63:2,3
 68:9,16 76:11 85:4 91:18
 question 17:8 22:18 27:4
 50:20 56:14 87:8 95:6
 97:10,12,15 107:19
 119:19 122:3 124:19
 questions 12:9,12,14 18:2
 26:13 27:5 30:18 31:1,2
 48:20 65:13 70:2 80:6,8
 90:8 106:4 114:16 125:1
 quick 50:19 62:7 68:9
 104:10
 quickly 33:9 64:14 71:8
 88:15 112:17
 quite 67:5 74:15 94:6
 96:18 99:18 102:3

- R -

RAB 4:20 6:16,16,19 9:11
 16:10,13 25:19 26:7,14,
 19,20 28:5 62:3 63:7,10,
 17,20 81:10 98:6 100:3
 104:7 107:8,16 108:11
 113:6 114:19 117:3,12
 118:7 119:6,10,10 120:7
 122:16,20 123:4,15 124:1
 125:9,20 126:16
 RAB's 115:15
 RABs 115:1
 race 71:7
 random 39:5
 range 41:4 42:5,18 43:12,
 14,19 44:4,13 121:5,6
 ranges 69:18
 rates 73:18
 rather 59:6 85:5 87:3 90:4
 91:18 97:17
 reach 81:19 91:11
 read 7:15
 readings 71:4
 ready 90:5
 real 53:13 89:15 121:19
 122:8
 realistic 57:3
 realized 122:19
 really 12:11 14:12,19
 37:10 40:14 48:15 49:7
 53:7,12,13 54:3 59:14
 60:7,20 81:3 88:12 91:15
 94:6,8 108:2
 reason 31:7 32:17 44:2
 60:4
 reasonable 43:5 57:6
 107:7,8 109:15
 reasons 86:19
 recapping 22:4
 receive 6:7 63:11,12 104:8,
 20
 received 15:2 18:13,14

58:5 63:8 104:16 107:12
 124:15,17
 receiving 6:17 63:2 77:1
 108:17
 recent 20:18 38:9 46:1
 recently 64:6 126:15
 receptor 35:7 44:20 45:3,
 15 74:3
 receptors 24:14 35:6,12
 36:1,9,12 41:10,10 44:17
 45:5 47:14,18 89:17
 recite 89:6
 recommend 62:5 85:15
 recommendation 92:12
 recommendations 2:5,6
 Recreational 36:2,4
 red 40:3
 reduce 46:13 73:10
 refer 98:12,13
 referred 14:17
 reflect 41:17
 reflects 46:17
 regarding 17:12
 Regensis 78:12,19 91:1
 93:6
 Region 47:4
 Regional 74:12 100:14
 registration 83:19
 REGULATORY 2:13
 25:19 26:6 104:18
 related 5:11 17:8 26:5
 46:1
 relations 103:2
 relative 40:6
 relatively 96:15,16
 release 61:10
 released 17:3 36:13,20
 releases 79:2
 releasing 106:16
 relevant 41:14
 reliable 72:15
 remain 89:13
 remaining 47:9
 remedial 78:5 79:20 92:6
 95:20,20
 remediate 59:6
 remediation 47:4 58:2
 66:14
 remember 28:9 59:10
 82:9,14 114:1
 remote 54:8
 removal 37:14 48:12
 57:19,20 58:3,15 59:1,4,
 7,20 111:15,16,16 112:8
 113:3
 removals 109:2
 remove 59:15
 removed 38:1
 report 18:10,12,14 19:17
 20:11 22:17 23:6,17,18,
 19 24:16 25:7 41:16
 48:5 52:2,2 54:14 55:5
 62:2,19 63:2,4 64:2,9
 65:8 67:7 68:1,5,12
 72:16,18 73:6 74:8 75:4,
 19 76:14 77:11 79:12,12
 87:11,13,17 98:3 102:18

104:11,14,15,20 125:6
REPORTED 1:20
 reports 63:4 68:10 76:19
 96:10
 repository 7:2,3,5,6
 represent 38:11
 representative 37:17
 represents 116:10
 request 58:12 68:18
 requires 121:6
 resident 35:8,14 40:18
 41:11,15 43:14 45:1
 46:20
 residential 41:8
 Residents 35:10
 resolve 122:3
 resource 97:16
 respond 13:4
 response 5:7,17 6:1 8:7,19
 100:9 106:6 119:20
 120:3 125:2 126:20
 responses 26:11
 responsible 11:5
 rest 4:20 37:8 47:17
 117:16 118:7
RESTORATION 1:3 4:2
 59:19 66:1 67:15 82:4
 result 93:1
 results 24:8 27:19 28:12,19
 29:4 41:1,15 46:15 48:1
 52:16 72:14 74:2,5 76:17
 77:2 79:6 95:7
 resume 120:9
 resurrect 113:9
 retrofit 4:8
 review 24:6 37:2 50:15
 56:17 57:4,20 58:12
 106:5 114:8 115:10,14
 116:7 117:19 119:6
 120:8,10,12 121:2,8
 reviewed 76:17
 reviewing 49:9 101:9,14
 revised 125:13
 RI 18:10 19:19 20:1,7,11,
 11,17 21:10,14 22:17
 23:5 24:16 25:20 31:16,
 19 32:4,11 38:13,19
 51:16 52:2,10 66:4
 79:14,18 85:17 102:18
 103:6
 Richard 73:3 98:15,19
 99:12
 Ricks 60:16
 right 4:4,13 6:11 10:10
 12:13,15 14:13,16 16:18
 23:18 25:8 29:3,5 38:14,
 17 54:18 62:13 67:18
 70:5,18 71:17 75:2 80:13
 81:17,18 85:14 86:4
 92:11 93:10 94:7 95:18
 107:9 117:13 125:15
 right-hand 4:11,18
 risk 19:9 24:10,12,18 25:1,
 2,4 30:17,20 31:2,4,7,12,
 15 32:2 33:4,7,10,20
 34:2,8,19 35:1,4 37:4,9,
 16 38:1 40:11,12,15

41:1,2,4,10,18,20 42:2,5,
 6,18 43:2,12,14,16,17,19,
 19,20 44:4,13 48:17
 49:1,5,16 51:5,6,18 52:1,
 11,17 56:1 69:20 71:1
 103:3
 risks 41:3 42:18
RIST 2:14 13:6 57:10,13
 roadways 59:15
ROBBINS 2:16
 robust 85:11 92:20
 role 99:19
 roll 62:6
 room 53:6
 rough 8:14
 roughly 112:7
 round 38:9
 rounds 49:11
 routine 28:8
RPM 2:4
RSVP 81:7
RSVP'd 81:13
 rules 61:15
 running 83:1
 runs 83:13
 rust 83:1

- S -

safety 12:4
 said 11:11 13:1,10 14:15
 38:6 84:10 94:14 101:20
 saltwater 74:3
 same 7:4 13:16 23:3 29:11
 33:18 56:5 61:2 71:18
 94:13 112:12 113:2
 121:4
 sample 20:16 37:19 39:4
 42:11,13 47:9 68:2 69:11
 70:17 71:2,3,7,14 72:10,
 15 86:12
 sampled 69:19 76:9,10
 samples 20:8,10,10 21:3,5,
 6,15,16,18,19 22:7,9,11,
 14 23:10,11,11,15 38:14,
 15,18 39:2,15 43:9 48:7
 49:2 59:11 69:2,6 70:12
 72:6 76:15 77:19 86:2,2,
 9,11,17 88:4,5,14,17,18
 sampling 20:18 23:9,12
 31:8,10,20 32:18 33:1
 38:10,12 39:5,10 48:3,13
 49:10 50:4 51:14 58:17
 59:5 60:5 65:3,6,18 67:5
 68:15,17,19 69:1 70:15
 74:2 75:9 78:13 79:9
 85:15,16 86:16 87:10
 88:8 91:16 101:20
 112:14,16 113:1
SAN 2:5 4:3,6,10,17 7:3
 9:8 22:4 23:1 32:8,13
 39:2 100:14 126:15
 Sandra 12:6
SANDY 3:7 14:5,20 62:10
 sat 33:8
 Saturday 64:10
SAVAGE 3:4 22:18,20

95:2,9
 saw 37:11 89:9
 saying 45:12 52:20 55:20
 86:13,15 112:18
 scale 40:6 79:14
 scenario 35:9 36:4,5,6
 41:8 53:1
 schedule 50:18 57:2 103:8
 104:18 105:1,2,4 106:1
 108:17 109:8 124:8
 scheduled 111:16
 schedules 102:20 105:6
 school 93:18
 scientific 96:3
 screen 20:15 88:1
 screening 47:15 104:12
 105:11
 seaplane 76:5,5
 search 113:10
 second 7:6 8:12 9:3 11:17
 20:13 21:10 62:8 66:6
 75:19 109:11
 secondly 18:11
 section 24:1,5,9,19,20 25:5
 sections 23:20 28:16
 sediments 24:15
 see 10:18 12:19 13:9,14
 19:10 20:9 21:3,8 22:14
 29:6,16 38:4 54:16 67:20
 72:16 74:8,16 78:9 79:6,
 7 82:1 87:14,14,19 88:4,
 6,16 91:9 92:8,10 113:3
 114:6 120:20
 seeing 9:19 79:17 100:3
 seem 61:16 81:3
 seems 60:17
 seen 33:19 37:10 49:14
 55:9,14,17
 select 34:6 63:13
 selection 34:12
 selling 95:12
 semiannual 85:6
 semiannually 76:10
 seminar 78:10
 send 4:4 7:11 13:1,11,12
 16:1,9,16 63:16 70:12
 71:2,14 110:9,20 111:6,
 12 115:20 116:1,4,8
 126:5
 sense 39:6 40:6 47:19 76:1
 87:5 96:13
 sensitive 45:2 70:17
 sent 15:6
 sentence 101:20
 separate 32:6 36:15 37:4
 76:17 90:11,13 111:19
 112:1
 serious 53:10,14 97:12
 services 17:20 119:2
 session 53:17
 set 5:9 43:8 74:17 75:18
 85:11 87:15,17 92:20
 107:2,16 108:3,9,16
 109:16 111:3 115:7
 sets 70:7,10 86:6 87:6,9
 setting 24:3
 seven 38:13,18 63:17

several 19:3 20:9 31:9
 49:10 99:5 103:14 119:3
SFRA 2:7
 She's 12:8
 sheet 111:11
 shooting 109:5,17
 shoreline 30:14
 short 72:20 90:10 122:9
 shot 93:14
 should 19:15 20:11 26:19
 58:1,4 70:11 90:5 91:16
 94:6,8 98:19 100:20
 101:4 104:8 120:1
 show 21:6 37:6 41:7,13
 80:19 94:3
 showed 56:8 106:9
 shows 20:16 81:6
 side 4:15 14:4
 Sierra 99:20
 sign 82:2,4
 sign-up 111:11
 signed 11:12 13:15 80:15
 significant 39:5
 significantly 33:15 49:11
 89:3
 signing 17:4
 similar 72:14 99:19
 simple 114:3 115:12
 simplify 45:6
 simply 55:11
 since 10:1 28:6 33:16
 60:10,17 62:6 76:3 81:11
 99:20 125:6
 single 10:14 121:12
 sit 53:16 57:1 90:12
 Site 9:14 10:11 11:1,1
 14:3 15:18 18:9,16 19:7,
 17 20:1,6,19 21:4,11
 22:6,13 23:7,16 24:2,13,
 17 25:14,14,16 26:5 27:6
 28:6 29:16 30:12 31:5,9,
 11,17 32:2,20 33:2,11,12
 34:6,14 35:7 36:1 37:8,
 10,18 38:12 39:7 41:14
 42:3 43:3 44:6 46:1,18
 48:2,14 49:7 51:5 52:17
 53:7 55:5 56:11 60:11
 61:2,17 65:10 66:16,17
 68:1,3,4,14 75:6 76:2,2,
 4,8,13,19 77:4,9,14 79:14
 80:1,3 84:3 87:20 88:12
 89:4,12 92:14 96:5
 101:18 102:17 103:1
 109:2,4 125:6,16
 Sites 21:7 25:16 26:5
 29:11,13 66:5,7,8 73:14,
 16 75:4,18,20 76:18
 77:16 79:19 86:16,17
 92:6 103:13 105:12
 sitting 54:4
 six-month 59:11
 size 60:1
 sketched 20:20
 skewed 43:10
 skewness 43:9
 slabs 59:16
 slats 83:1

slide 22:16,20 69:5 74:17
 slides 64:14,17 74:15
 slightly 17:8 89:18
 slot 99:15
 slurry 92:18 96:18
 small 94:19 121:1
 smaller 67:12,16 119:3
 121:12
 snapshot 11:9 67:7 75:3
 snapshots 68:9
 So 4:10,16 5:16 7:18 8:4,
 11,15 10:12,16,18 11:9
 12:12,18 13:15 14:18,19
 15:7,8,9 16:6 18:5,15,19
 19:14 20:14 22:14 24:17
 25:14,20 26:5 28:6,14,16
 29:2,8,9 31:4,15 32:9,11,
 19,20 34:16 36:7 37:5,19
 38:15,17,18 39:4,15 40:7
 41:4,13,15,20 42:6 43:19
 44:8,8,10,16 45:4,12,20
 46:2,14,18 47:7,12,16,20
 48:13,14 49:18 50:2,6,11
 51:20 52:8 53:15 54:19,
 19 55:20 56:4 57:6 59:1,
 13,20 60:1 61:13,20
 62:3,12,15,17 63:5,7,15
 64:13,14 65:20 68:5
 70:19 71:5,17 73:4 74:5,
 14 79:7,16 81:17 82:13,
 15 85:11 86:16 87:2
 88:1,11,18 90:3 91:17
 92:3 93:2,11,17 94:3
 95:15 97:6 98:9,14 99:1,
 3,8,15 100:2,10 102:3,5,
 9,15 104:7,9,20 105:7,9,
 16 106:3,14,16 108:1,11
 109:8,9,12 110:10,10,12
 111:16,19 113:4,13
 114:1,5,7 115:3,10,17
 116:8,10 118:1,2,4,6
 119:18 120:7 121:7,13
 122:2,12 123:2,7,8 124:4,
 7,9,15,19 125:15 126:2,6,
 11,18
 soil 11:8 20:8 21:4,15,16,
 19 22:9,12 23:11 28:2
 29:2,4,7 30:6 35:19
 36:10,14 42:6,14 44:18
 45:7 47:1,6,11,15 77:20
 soils 34:16 35:14 42:10,16
 47:8,12 101:17
 sole 118:13,15 121:17
 solvent 73:14
 some 12:1 19:18 26:13
 46:12 48:6 53:6,10 59:4,
 15,18 61:7,11 64:18 68:7
 70:15 71:9,19 73:3 76:1
 82:1 83:8,10 85:16
 88:20,20 89:8 92:14,17
 93:4 99:13,14 100:17
 103:13,18 115:1,3
 117:18,19 118:6,16
 121:6,7 123:11 124:4
 somebody 36:17
 something 15:5,15 28:17
 29:20 57:16 80:15 89:14

97:8 110:16,17 119:14
 124:5
 sometime 54:4
 sometimes 66:14 67:3
 somewhat 46:9
 soon 59:12 119:15
 Sorry 15:4 33:9 78:15
 124:12
 sort 31:13 34:9 38:7 39:4,
 10,17 45:13 49:12 50:17
 53:4,16,17 54:14 55:6,7
 56:6 81:16 82:2 91:9
 121:13 122:2
 sound 57:6
 sounded 94:11
 sounding 68:7
 source 20:3 21:13 61:8
 95:11 118:13,15 121:17
 sources 46:1,2
 south 76:6,7
 southeast 76:7
 spaces 7:19
 spacial 37:2
 speak 5:11
 specific 11:1,6 31:17 32:2
 37:12 74:10,10 92:14
 specifically 14:9 37:3 66:9
 spectrum 54:11 69:3
 spent 77:1
 spikes 72:7,7
 spread 42:15
 STACEY 2:11
 stack 83:11
 stand 52:18
 standard 65:2 68:19 69:6
 72:2,5 86:16
 standing 6:14
 stands 23:18
 start 59:3 83:6 86:8 91:11
 104:1 115:9 116:11
 starts 83:15,20
 State 70:13
 statement 13:18
 statements 26:13
 STATION 1:2
 statistically 39:5 43:8
 status 64:9 105:20
 steeply 88:6,7
 step 117:4
 STEPHEN 1:20
 steps 33:20
 Steve's 7:16
 Stewart 9:12,20 10:4 11:18
 12:7,11 16:20 53:12
 62:10
 still 5:15 14:2 17:17
 32:16,18 42:4 44:13
 84:11 104:13 106:12
 109:8 110:16 111:17
 112:16 113:18 122:3
 124:7
 store 46:3,6
 straight 64:17 112:11
 strategies 103:3
 street 82:8,13,15
 streets 82:10
 stuck 86:15 88:11

studies 46:10 77:3
 study 94:1
 stuff 71:19
 subcommittee 63:8,18
 subject 17:17
 subjected 69:2
 submit 72:13
 submitted 119:1
 subset 73:15
 substantively 51:18
 substantive 102:12,13
 subsurface 78:18
 successful 116:12
 sufficiently 90:19
 suggest 16:12 54:3 122:6
 suggested 28:6 114:16
 suggesting 91:17
 suggestion 54:15
 suite 69:8,12,15
 suites 72:6
 SULLIVAN 2:3 4:1 5:8,18
 6:2 7:13,18 8:8,20 9:4
 13:6 16:5 18:4 19:13
 25:17 26:3,16 51:6 57:8,
 18 58:11,14 59:1 61:19
 62:9,17 67:10,14 80:4
 81:9 82:6,9,12,17 83:3,8,
 14,17 84:13,20 90:1,11,
 18 93:19 94:4,14 95:3,13
 97:4 98:1 100:5,10
 101:6,12 102:11 104:1,4,
 7 106:7,14,19 107:2,6,10,
 15 108:3,11,16 109:15
 110:8,12,20 111:8 112:4,
 6,10,15,20 113:6 114:10,
 18 115:17 116:3,8,16
 117:1 118:14 122:6
 123:10 124:18 125:3
 126:11 127:1
 summarized 70:11
 summary 23:6 72:18
 summer 77:18 78:1
 super 53:2
 Supervisors 17:18
 support 64:6 66:1 79:12
 119:9
 supported 76:19
 supposed 50:3
 sure 14:12 15:11 22:2
 27:3 44:5,11 50:1 51:1
 61:1 62:9 66:3 72:14
 74:15 76:19 78:9 80:10
 81:5 86:7 87:7 89:20
 96:18 102:6 111:4 122:4
 125:5
 surface 21:16 22:7 42:6,
 14,17 47:6,11
 surprised 12:19 101:15
 102:2,10
 surprises 65:4
 surrounding 88:10
 suspected 20:2 21:12
 SVOCs 21:20 35:3 69:16
 76:16
 synopsize 64:9

- T -

table 5:4 6:6 23:5 75
 106:2
 take 4:11 15:7 31:1 32:18
 48:6 62:1 81:20 90:2
 91:20 92:7,13 99:2,12
 102:15 114:5 121:20
 taken 20:8,10,10,17 28:1,5
 32:19 99:6
 takes 120:16 121:10
 taking 48:4 49:4 59:4 63:5
 73:19 78:8
 talk 9:13 19:16 24:10,20
 25:3 30:17 57:14,15 65:5
 69:3 102:7 120:5
 talked 60:16 76:3 101:1
 102:20 103:2,4,6,7,11,12
 117:7,8 118:19 123:15
 talking 10:20 12:13 29:2
 30:19 44:4 56:15 60:11
 65:17 70:20 75:1 91:6
 120:19
 TAPP 115:4,9 116:10,17,
 17,19 117:5,11 120:16
 121:1,9,12 122:10
 125:14,16
 target 41:4 42:5
 team 18:20 19:3 98:12
 100:2,18
 TECH 2:8
 technical 57:20 63:1,7,17
 104:14,15 116:4,9
 117:11,18
 technologies 95:20
 technology 78:5 80:11 81:4
 96:4
 tell 44:19 50:16 64:15,16
 temperature 71:13,15,15
 tenants 17:4
 tend 41:11,12 43:17 44:2,8
 tends 46:4
 terms 53:10 71:1 87:13
 89:16
 test 71:5 93:18,20 105:13
 TETRA 2:8
 Tetrattech 19:2,5,9 26:20
 63:20 64:4 98:11 101:12,
 13
 Tetrattech's 98:20
 than 12:10 35:11 39:19
 40:4,5 41:6 43:9 47:16
 49:13 59:7 70:3 80:7
 85:5 87:3 90:4 91:18
 109:10 121:11
 Thank 9:6 17:5 18:4 60:9
 89:19 100:5 127:1
 Thanks 18:1 98:8 99:10
 that's 4:20 7:20 15:15
 17:3,20 21:1 23:5 24:7,
 18 31:18 35:9 37:13
 38:9 39:9 40:14,17 47
 9 45:2 50:5 53:12 55
 57:1 59:20 60:5 63:5
 66:4 68:6 75:18 77:5
 79:3 80:6,19 83:6,17

87:7,8,15,16 91:2 92:11
 93:19 94:1 95:3 102:15
 109:8 111:12 112:18
 118:3 119:14 121:11
 122:2 124:11
them 12:10 25:9 26:6
 44:7,8 46:19 58:19 63:16
 64:15,16 67:20 68:2,4
 70:3 75:16 76:12 80:7
 86:20 90:9 94:8 105:19
 111:3 126:4
themselves 30:5
then 4:13 7:5 10:1 15:6
 16:15 18:11 19:8 22:8
 25:5 27:18 28:18 34:14,
 20 38:20 39:8 43:13
 45:11 46:18 52:6,9 53:3
 56:3,3,16 58:8,14 59:5,11
 60:7 63:3 65:2,7,12
 67:2,16 68:12 69:5,18
 70:10 75:10,12 78:3
 79:20 83:19,20 84:2,4,5
 85:3 88:19 90:6 91:2,3,
 10 92:10 93:15 95:16
 98:1,10 103:14 104:16,17
 107:15,16 108:16 109:7
 114:12 115:7,11,13 116:7
 117:1 118:15 119:4,7
 121:6 123:20 125:13,16
 126:16
these 20:9 22:3 36:9 38:11
 39:17 41:13,15 43:1
 44:12 46:14,19 47:20
 48:8 74:9,18 75:20 76:4
 78:19 79:12,16 85:10
 103:9 119:12 122:5
they're 14:9 66:12 92:4
 93:15 96:14,19
thing 11:17 13:10 25:12
 37:13 85:20 97:16
 124:12
things 10:11 21:2 55:8
 57:5 65:11,14 77:20 86:9
 87:14,17,19 93:6 96:9,12
 117:6 120:19 123:11
think 8:2,2 10:6,15 11:9
 15:12,19 16:2 19:1,14
 26:18,18 30:1 51:20
 52:12 53:4,4,15,16 54:7,
 14 55:4 56:12 57:2
 65:19 67:19 68:17 80:19
 81:7,9 83:7,17 90:1 93:5
 102:15 105:10,16 106:1,
 9,12 107:17 108:6 110:1,
 3 113:13 114:5 117:15,
 16,17 119:15 120:4
 122:12,13 125:14
thinking 52:20 56:19
 118:2,18
thinks 54:2
third 17:10 24:5 75:7
though 81:6 97:11
thought 41:13 75:15
 121:13 126:9
three 28:15,16 36:5 37:19,
 20 68:9 70:10 76:8
 98:15 105:9 116:20

threshold 41:6 118:16
through 4:12 7:15,15 10:1
 19:18 20:8 22:3 23:8,12
 33:8,9,14 35:19 36:14
 38:14 46:12 65:2 83:1,13
 85:10 94:20 97:19 98:7
 106:3 116:1 120:5,16
throughout 21:4 39:6
 72:15 79:6
throw 20:13
TI 19:4 24:2,3 64:20 66:2,
 14,17 67:5 72:11,12
 105:12,13
tidal 92:17
tied 95:11
tight 96:6
time 5:9,13 6:17 8:14 9:7
 11:15 13:16 26:14 27:1
 31:13 36:7 41:12 54:1
 60:8 61:20 63:13 70:16
 71:3 83:5 88:5 91:7
 103:8 108:2 110:4
 112:12,19 113:2 120:7,14
 121:4,11 122:1 125:7
times 42:7,8,19,19 76:12
 124:8
Toastmaster's 64:15
today 11:18 58:19 60:16
together 10:1,5 57:7 98:7
 118:3 119:1 120:6,15
 121:18,20 124:3
tomorrow 11:13 13:11
 57:13 78:8,10 80:1,12,17,
 19 97:5,19 100:11
Tonight 10:3 12:9 14:16
 19:18 61:12 64:8
tonight's 5:3,5 18:7
took 12:19 21:15 35:14
 39:2 46:18,20 65:6 87:10
 94:15
top 89:6 115:10
total 11:8 20:8 39:15
 74:13
totally 118:15
touch 90:6
toxicity 34:2 40:10 73:10
TPH 9:16 11:8 21:20
 22:12 58:15 59:4 73:14
 74:11 75:11 76:16 77:3,
 16 78:2 79:3,19 85:8
 94:17 104:12,19 111:16,
 17 112:7 113:1
TPHs 44:12
trace 89:14
track 96:12
traditionally 70:12
TRANSCRIPT 1:12 6:10,
 15,15,20
transcripts 7:1,12
transparency 64:3
transport 25:3 44:3
TREASURE 1:2,7 4:5
 5:12 7:7 11:1 64:6 67:16
 69:1 72:3 73:13 124:13
trench 36:18,19
trial 93:16,17
tried 6:9 28:20

trillion 39:19 40:2,5,5
trip 72:8 109:2,4,9 110:13
 112:1 113:2
true 94:1 102:6
truth 88:13
try 6:10,11 31:1 33:9
 34:10 45:5 53:18 54:4
 76:1 96:11 119:14 120:2,
 5 122:3 123:2,17
trying 54:11 57:5 61:7
 65:18 66:10 96:7,7 103:8
 123:16 124:7
Tuesday 109:10
tunnel 4:13
turn 4:4 9:9 18:3 30:16
 81:18
turning 5:1 112:12
turnoff 4:13
twice 65:6
two 8:16 17:13 18:7 27:4
 31:19 37:3,7 41:16,17
 45:5 47:8 50:5 55:7
 57:18 64:12 66:1 75:5
 76:18,19 77:6 78:12 83:4
 86:6 87:6,9,14,19 98:14,
 15,15 110:1 126:16
typically 8:13 43:5 44:17
 68:8

- U -

U.S 2:2
unaffected 4:14,16
under 9:12 12:1 40:13
 66:20 73:20 77:15,16
 85:17 98:10
understand 52:19 54:8
 57:4 73:3
understanding 15:10 83:13
understood 42:2
underway 57:19
unedited 8:9
unfiltered 70:7,8 86:2,11
 88:4,5
unfortunately 117:9
unit 18:10 31:18
units 9:14 11:15 35:8
unless 68:18
unpaved 60:6
unsolicited 12:3
unsuccessful 65:20
until 33:3 48:18 49:2,6,19
 63:6
unwelcomed 12:3
up 6:10 7:19 20:13 23:12
 28:15 30:12,13,13,19
 35:2 43:10 51:16 53:13
 54:15 62:3 65:12 74:16
 77:6 78:9 80:15,19 81:6
 83:11 86:12 88:1,19
 89:1,9 90:3 95:11 100:16
 102:9 107:7 110:16
 114:9,19 117:20 118:1
 122:17
upcoming 19:17 106:5
update 113:16
updated 10:10 31:6 106:1

updates 9:8 98:9
updating 114:7
upon 92:8
upper 4:16 43:6
uptake 46:1
us 9:8 12:17 17:2 23:12
 44:19 53:14 73:17,17
 85:20 92:13,19 100:17
 111:13 117:16 118:20
 119:4 121:2 124:9
use 6:13 35:7,20 40:9
 44:17 74:7,11 76:20
 92:15,16 96:4,19
used 34:5 45:20 71:5,9
useful 94:16
uses 11:2 103:4
using 5:13 42:7 43:10,11
 49:16 71:20,20 92:4,18
 105:13 113:18
UST 67:19 68:1,3 76:18
 85:16 100:19
USTs 20:5 67:16
Usually 45:1
utilize 121:1

- V -

validated 51:10,11
value 41:6 42:1
vapors 36:20
various 26:10 28:1 59:6
vendor 94:11
vendors 78:12
verbal 26:9,12,12
version 10:10 11:12 106:10
versions 31:19 36:6
versus 92:18
vertical 48:9 51:13
very 7:14 10:7 13:5 15:19
 17:2 29:17 30:9 38:4,13
 42:4,5 43:4 54:8 60:19
 61:11 64:10 72:14 73:1
 88:7 94:5 118:2,9 124:6
 127:2
vicinity 39:16 48:11
video 81:2
view 121:15 122:2
VILLAFUERTE 2:17
virtually 51:8
VISTA 1:6
VOC 69:10,15
VOCs 21:20 35:3 36:13
 69:15,15 76:16
volatile 35:15
volatiles 35:18
volume 73:11 117:13
 119:15
volumes 97:13

- W -

waiting 51:16 106:12
walk 81:6 83:18 93:15
WALTERS 2:7 9:10 13:3,
 17 14:5,8,15 15:11 16:1,
 4,8,18 17:6,14,17 18:2
 50:19 51:2 52:12,19

54:10,18 55:1 56:12,19
 57:9,11,15 62:7,10,15
 82:8,11 83:5,16 84:9
 want 5:14 8:16 10:16
 16:9,10,19 25:17 36:7
 44:5,7 55:4 60:6 61:14
 67:10 91:18 114:8 116:2,
 3 121:4 122:3
 wanted 6:13 60:10 61:1
 90:15 102:5,9 119:8
 wants 80:16
 warning 6:10
 warrants 114:7
 wasn't 14:18 61:1 81:1
 87:12 117:10 123:18
 waste 20:4
 watch 81:2
 water 28:19 67:20 74:6,12
 76:11 77:20 79:2 86:9,
 10,11
 waters 60:15 61:7
 way 28:14 29:9 30:1,11
 42:2 46:13 51:2 81:20
 94:7 97:6 126:13
 ways 55:8 92:19
 we'll 90:9 92:16
 we're 25:13 30:2 49:12
 52:3,5 119:16
 we've 26:5 28:5 34:11
 46:14 49:10 51:12 76:3
 90:2
 Wednesday 8:12,13 16:6
 126:3
 week 18:14 54:4 57:7,13
 104:9 110:1
 weekend 123:17
 weeks 8:17 50:5 64:12
 101:1 105:9,9
 Welcome 4:1 6:19 17:6
 63:15,20 125:19,20
 Well 5:8 7:1 8:2 12:17
 13:3 24:14 26:4 29:12
 31:1,14 32:4,14 39:14
 40:8 41:17 43:12 44:13
 47:12 49:3 51:3,6,11
 52:16 55:6,15 58:1 60:8
 61:19 66:15 68:3 69:20
 71:17 72:11 77:4,5 78:4
 79:5 80:3 84:13,20 85:2,
 3,12 88:8,9 90:1 91:19
 92:1 93:3 94:4,17 95:3,
 9,13 98:11 99:10 102:11
 104:10 107:6,7,15 108:3
 110:20 112:15 115:6
 116:3 123:10 124:6
 125:5 126:2 127:1
 well-suited 94:20
 wells 23:16 66:14,15,18,18
 67:12,12,19 68:1 73:15
 76:8 79:10 85:16
 went 21:11 38:14 39:2
 45:7 64:12 87:20
 west 14:4
 what 10:3,7,8,16 11:10,10,
 12 15:8,8 16:1,12 19:19
 23:10 24:18 25:13 28:20
 32:9 33:2,5,13,14,19

37:1,5,17 39:3,6 40:17
 41:7 43:1 44:16,17,19
 45:11 46:18 49:12 52:20
 53:2 54:2,16 55:9,14,17
 56:7 57:1 60:19 61:2,14,
 15 62:3 63:5 64:11,15
 73:16,18 76:3 78:19 83:5
 84:9,17 86:6 87:6 88:1,8
 90:20 92:7,9 93:8 95:4
 98:4,12 102:3,10 107:19
 108:2 111:20 113:15
 114:4,5 118:13,18 120:4,
 11,14 121:5 122:14
 123:2 125:13 126:9
 what's 25:15 38:5 82:8
 107:6
 whatever 86:11,14
 When 16:4 28:8 36:7 43:8
 51:2,3 69:11 70:14 79:1
 81:19 105:5 106:18
 108:1 112:19 113:19
 117:7 122:11 123:7
 where 4:12,20 7:5 14:9
 15:18 37:11,20 38:9
 44:10 45:17 48:12 50:17
 52:15 68:3 73:16 74:6
 89:8 91:16 95:9,11 98:4
 99:6 101:11
 whether 17:11 38:16 51:15
 96:3 106:8 114:6 120:18
 121:15
 which 4:6,12 7:4 18:12
 20:18 24:10 32:3,9 37:5,
 7 39:5 42:10,11 43:6
 45:9 47:3 52:2 63:13
 72:11 74:3 76:11 77:17
 79:2 81:15 83:4 86:14
 108:13 115:12 119:7
 121:6,20 126:1
 while 5:15 30:19 67:5,11
 121:8,19
 who 6:7,17,18 8:11,16
 9:19 12:10 18:20 33:8,13
 63:10,17 81:12,12 98:11
 99:4 111:9,13 114:3,11
 whole 12:19 13:10 37:10
 51:16 67:9
 why 7:20 39:9 60:5 108:9
 118:4
 WICKHAM 2:12 99:4,10
 101:3 102:19 106:12
 107:1,4,9
 wild 53:1
 will 5:8 6:3 8:4 9:9 10:8,
 9,10,13,18 11:10,12,14,19
 12:9 13:1,11,12 16:5,6,6
 17:19 18:5 19:12,16,18
 22:16 23:5,14 24:5,9,10,
 12,15,18,20 25:1,3,5,10,
 13,20 27:14,16 28:11,18,
 19 30:16 31:1 32:9 33:9,
 13 34:10 37:6 41:7,16
 44:18 48:12,16 50:11,14
 51:4,7,8 56:17 62:12
 64:14 65:2,5,7,10,12,15
 66:18,19 67:20 68:15
 69:3 74:8 76:2 77:14,17,

18,20 78:10 79:4,5,7,17
 80:20 81:13,14,15 82:1
 85:11,18 90:2,6,6 91:9,
 10,11 92:13,19 93:3,4,17,
 18 95:19,20 96:9 97:2,4,
 9,18 98:1 100:3,12 101:3
 103:15 105:3,5,5,7,16
 107:17 108:14,16,20
 109:10 110:9,12,14 112:3
 113:15 115:19,19 116:8
 117:20 119:11 120:4,5
 121:20 122:16,19 123:2,
 2,13,14 125:6,6,9,15
 126:5,6,12,14,16
 willing 70:3 80:7
 Wilson 97:13
 window 29:19
 within 41:3 42:5,18 43:12,
 13,19 44:3,13 52:7 101:4
 105:8 121:15
 wold 122:7
 won't 20:8 48:18 49:2
 51:10,11,13 57:10,11
 68:18 70:1 72:9 73:4
 103:15 106:3
 wondering 64:11
 wooden 82:20 83:1
 word 86:13,14 113:18,19
 words 99:9
 work 4:8 13:20 19:2,5
 58:2 59:17 76:18 92:2
 93:3 98:7,20 103:7,12
 108:13 109:7 112:7,8
 115:14 118:12 120:12,18
 123:16,20 125:11
 worked 10:4 86:17 99:17,
 20,20
 worker 36:3,3,6,15
 working 13:5 64:4 97:14
 99:4,13 104:19 105:15
 109:19,20 116:19 118:20
 works 122:15
 worried 71:1
 worst 52:20
 worth 92:2
 would 5:19 13:14 15:5,19,
 19 16:2,3 18:19 22:15
 27:2 29:1,19 31:6 32:3
 34:17 37:17 41:13 42:16
 52:1,7,10,18 54:1,3,13
 55:4,16,16 56:3,5,6 62:4,
 5 63:10,14,19 68:11 70:2
 73:17 78:17 80:7 81:5,6,
 12 84:3,4,6 85:1,3 89:5,
 13 91:3 95:4,10 96:3
 97:7,16 98:6 99:8,9
 103:7,13 104:17,20
 105:2,2,3,8 106:16
 108:13 111:12 112:6,11,
 16 113:4 114:15 116:5,6
 117:17,18 118:2,6,12
 119:14 120:20 121:7,18
 122:6 124:2,5,6,10
 125:14
 wouldn't 49:15 89:6 97:15
 WQCs 75:1
 wrap 65:12

write 124:5
 writing 13:6
 written 9:1,6 111:1 110:4
 wrong 82:20

- Y -

YBI 66:17
 yeah 13:1,10 30:9 56:13
 year 40:17 63:3 65:6
 66:19 67:6,8 68:5 70:6,
 9,15 76:9 79:6,17 85:16
 86:1 88:9,9,16 122:12
 years 17:13 19:2 40:17
 46:10 64:5 76:9 98:14
 99:18
 yell 34:10
 Yerba 4:11 67:17
 yes 8:1 19:11 22:19 28:3,3
 29:10 30:13 50:10 53:8
 54:9 57:8,15 58:11,13
 60:4 80:5,18 81:9 82:6,
 16 83:8,14,17 88:20
 90:18 91:5 93:19 94:14
 97:20 101:3,13 102:19
 106:14 109:5,14 110:6,11
 112:20 116:15,18 119:11
 123:13 126:10
 yesterday 61:10 85:8
 107:13
 yet 30:5 90:12 104:16
 you've 66:20
 yourself 95:10

- Z -

zero 17:11
 zinc 89:15
 zoom 29:19
 zoom-in 29:15