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RESTORATION ADVISORY BOARD

FOR

NAS JRB / ARS WILLOW GROVE

- - -

Wednesday, May 4, 2005

6:00 p.m.

- - -

Naval Air Station Joint Reserve Base

Willow Grove, PA

- - -

V A R A L L O Incorporated  
Litigation Support Services  
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**VARALLO Incorporated**



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PRESENT:

|                    |                     |
|--------------------|---------------------|
| Jim Edmond         | Mary Liz Gemmill    |
| Russ Turner        | Eric Lindhult       |
| Ed Boyle           | Rick Myers          |
| Charanjit Gill     | Jack Dunleavy       |
| Jeff Dale          | John C. Martin      |
| Scott Shaw         | George R. Hoffer    |
| Kevin Kilmartin    | Kaye Maxwell-Martin |
| Marge Johnston     | Charles Gaffney     |
| LTCDR J.H. Killian | Thomas Hibbs        |
| Capt. Rick Cline   | Marc Newell         |
| Hal Dusen          | Peter Choate        |
| Sheri Jones        |                     |
| Nancy J. Brooks    |                     |
| Lisa Bradford      |                     |



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A G E N D A

1. Welcome  
Naval Air Station Items/Comments
2. Air Force update of the chemical oxidation process underway at the Air Force groundwater POL area
3. Navy updates
  - a. Plans for a proposed soil removal action at the former Fire Training Area (Site 5)
  - b. Update plans to install additional groundwater monitoring wells and obtain groundwater samples at SITE 5 as requested by the U.S. EPA
4. Closing Remarks
  - a. Discussion of moving RAB meeting to the Horsham Library
  - b. RAB Member Questions and Comments
  - c. Set date for next RAB meeting (14 September 2005)  
Meeting Adjourned



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2 MR. EDMOND: I'd like to  
3 welcome everybody. Thank you for coming.  
4 I see some faces I haven't seen in a  
5 while. As normal, this is the  
6 Restoration Advisory Board meeting.

7 I'd like to get some things out  
8 in front first. As everybody knows, big  
9 Air Show is coming, got some posters here  
10 for anybody who wants any posters, shows  
11 the dates and times. It will be the Lone  
12 Stars on Thursday, the 26th. Then  
13 there's a twilight show on the 27th with  
14 the Blue Angels. And the 28th and 29th  
15 is the normal daytime shows. The XO was  
16 good enough to approve my request. All  
17 the RAB members will be getting tickets.

18 What else? In case anybody  
19 wants to, we're having a 5K Battle of  
20 Midway run on Base, got forms for them.  
21 And if anybody's having a function, we  
22 have functions on Base and we cater.  
23 There's catering menus here. I think  
24 that's my promo for NASJRB.

25 CAPT. CLINE: That's pretty



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2 good PR. I need to interject. Thursday  
3 night Lone Star, gates open -- help me  
4 here, Sheri -- at 5:00 and concert kicks  
5 off at 7 o'clock. That will be a couple  
6 hours, free concert. Friday evening, the  
7 twilight show, Fat Albert is scheduled.  
8 Fat Albert is a C130 with a JATO assisted  
9 takeoff. The rest of the Blues don't fly  
10 at night so you won't see the Blue Angels  
11 that night. And then Saturday and  
12 Sunday, full show. It ought to be  
13 fantastic.

14 MR. EDMOND: They're just  
15 flying the practice show on Friday.  
16 Okay.

17 CAPT. CLINE: And the other  
18 disclaimer is this is not me.

19 MR. EDMOND: We had the  
20 magnifying glass out. We couldn't  
21 confirm nor deny.

22 To get on with the meeting, the  
23 Air Force will open up the meeting  
24 updating their chemical oxidation process  
25 which has been underway at the Air Force



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2 groundwater site, the POL site. So I'll  
3 turn it over to Mr. Gill and Scott.

4 MR. GILL: Thank you for coming  
5 to the RAB meeting. Last week we had a  
6 meeting with EPA to resolve some of the  
7 issues with six out of seven sites and it  
8 was a really good meeting. And we  
9 established a lot of time lines of  
10 getting responses back from EPA and  
11 getting them responses back. So it was  
12 really a good meeting so hopefully we  
13 will be able to close six out of seven  
14 sites soon. Now, we do have one active  
15 site where we are using chemical  
16 oxidation process for remediation.  
17 That's the POL site. So we are going to  
18 give a small presentation on that site  
19 and give you the status. So I'm going to  
20 turn that over to Scott Shaw from Tetra  
21 Tech to give you that.

22 MR. SHAW: This is one of the  
23 more interesting public meetings where  
24 you know everybody every time you come to  
25 one of these. My name is Scott Shaw for



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2 the few of you who don't know who I am.  
3 I'm the Tetra Tech technical lead for POL  
4 site investigation. We are currently  
5 remediating an above-ground storage tank  
6 spill for JP-4. The purpose of my talk  
7 is to briefly bring everybody up to date  
8 on what we're doing at the site, discuss  
9 the most recent groundwater sampling  
10 results, talk a little bit about the  
11 chemical oxidation process and what we've  
12 done to date, and some of the trends that  
13 we're seeing in the contamination areas  
14 that we have treated. Finally, I want to  
15 talk a little bit about some of the  
16 things we're doing once the chemical  
17 oxidation process is done or in some of  
18 the areas we're going to move on and use  
19 a process called biosparging to continue  
20 the remedial process.

21 The most recent groundwater  
22 sampling that we have conducted was  
23 completed back in December of 2004. And  
24 the map you see in front of you is what  
25 we call potentiometric surface map, the



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2 water table map of the site showing the  
3 elevation of the water table. The POL  
4 area is down here towards the southeast  
5 of the Base property line. Groundwater  
6 in general flows from the southeast to  
7 the northwest towards this little creek  
8 that we call Park Creek tributary.

9 As far as the results we've had  
10 from the December sampling, in the past  
11 we've recognized that there are two  
12 compounds that are constituents of JP-4  
13 that are of concern in groundwater.  
14 Those are benzene and naphthalene. In  
15 the State of Pennsylvania, the maximum  
16 groundwater concentration of benzene you  
17 can have is 5 micrograms per liter or  
18 parts per billion. And the other  
19 compound is naphthalene and its  
20 regulatory limit is a hundred micrograms  
21 per liter or parts per billion. We have  
22 one well at the site right now that  
23 exceeds either of those two standards.  
24 It's well DM3 right here. In the past,  
25 well DM5, which is this one here, and



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2 DM11, have seemed to be the two highest  
3 concentration wells for these two  
4 compounds, but at present we're below  
5 regulatory standards for both benzene and  
6 naphthalene in those wells. We have only  
7 recently just started sampling DM3 again.  
8 We had some problems getting into that  
9 well. We repaired it and have continued  
10 to collect samples and will continue to  
11 do so.

12 As I said at the introduction,  
13 and as most of you are aware, our  
14 remedial process will use chemical  
15 oxidation, in this case a compound called  
16 Fenton's reagent, which uses hydrogen  
17 peroxide to mineralize the components of  
18 JP-4. We have a series of injection well  
19 networks, we call them areas, that I've  
20 labeled and then also given an area  
21 designation, Areas A through H. At  
22 present we have completed the chemical  
23 oxidation process in Areas B and D. I  
24 apologize for this. We may bounce back  
25 and forth. Area B is here. Area D is



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2 here. We have completed two of the three  
3 prescribed injections in Area H and will  
4 be moving on to finish that end of this  
5 month, first part of June we hope. Once  
6 that is done, we are preparing to work on  
7 the injections in Areas C, E, F, and G, a  
8 little bit closer to the Base, and A  
9 eventually as well. These wells, the  
10 injection wells and monitoring wells in  
11 those injection areas, the injection  
12 wells are the ones in blue, monitoring  
13 are ones in green, were located around  
14 areas we did a baseline sampling several  
15 years ago and found some evidence of free  
16 product. Realizing that, realizing we  
17 had to address the free product before  
18 any of the dissolved contamination, we  
19 figured that chemical oxidation probably  
20 is one of the better processes to do  
21 that.

22 As I said before, we're  
23 preparing to work in the Areas C, E, F,  
24 and G hopefully in the fall of 2005, and  
25 we're beginning the transitioning process



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2 in the remaining three areas to  
3 biosparging. Biosparging is a process  
4 where you inject under some pressure, not  
5 a whole lot of pressure, air to stimulate  
6 biodegradation, continued biodegradation  
7 of dissolved compounds in groundwater.  
8 As always because it's an active site, we  
9 conduct routine compliance and  
10 performance monitoring. We talked about  
11 the compliance monitoring before where we  
12 go to existing monitoring wells at the  
13 site on about a quarterly basis to sample  
14 groundwater and report those to the  
15 state. And because we are off Base a lot  
16 and there's a great deal of brush and  
17 things like that, we have to continually  
18 cut back the brush and make sure the road  
19 stays open and things like that.

20 One of the things we have done  
21 recently is try to measure the progress  
22 that we're seeing as far as the chemical  
23 oxidation is concerned. And I don't know  
24 if you recall, but several years ago we  
25 did a survey of natural attenuation, how



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2 much natural processes are dissolving and  
3 taking care of the contaminants at the  
4 site. I don't know how well you can see  
5 it here, but possibly on your handouts  
6 you can see it a little bit better. You  
7 can't? I apologize. Using a statistical  
8 analysis, we attempted to predict how  
9 quickly natural attenuation would  
10 remediate or do away with the two  
11 compounds in particular, benzene and  
12 naphthalene. This pink line you see here  
13 is what we would expect to see for  
14 naphthalene. Our predicted attenuation  
15 rate was about 27 percent over the time  
16 period you see there, from August of 2003  
17 to the end of November. For naphthalene,  
18 we have actually achieved with chemical  
19 oxidation about 32 percent. That's in  
20 Area B.

21 Now, the other thing you need  
22 to notice is over on this side of the  
23 graph is the amount of pounds of  
24 dissolved contaminant. It's actually  
25 very small. Unfortunately, because of



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2 what we call MCL regulatory limit, you  
3 can still have low mass but have  
4 reasonably high concentrations or  
5 concentrations that are above that value.  
6 In the case of benzene in that Area B,  
7 that larger area that you saw, we had a  
8 slight increase in mass of benzene. Now,  
9 you can also see that benzene's way down  
10 here. We didn't have a lot of benzene in  
11 the area. The primary contaminant there  
12 was naphthalene. Slight changes through  
13 more of it flowing into the area can  
14 increase that mass and that's what you're  
15 seeing here.

16 Area D, on the other hand,  
17 which is sort of in the middle of the  
18 site, where the previous scale over here  
19 was zero to .1, this is zero to 1 and up  
20 to 6 pounds of dissolved mass in that one  
21 area. Our predicted attenuation for  
22 benzene for the period of June of 2004 to  
23 the middle of December was about  
24 19 percent. We've achieved 98,  
25 98 percent reduction. For naphthalene,



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2 we predicted through natural attenuation  
3 it would achieve about 13 percent. We've  
4 achieved 93.

5 And then the other area where  
6 we haven't quite completed the chemical  
7 oxidation process, we expected to see  
8 from September of 2004 to the first of  
9 January 2005 about 57 percent decline in  
10 naphthalene, we've achieved 22 percent,  
11 and 11 percent decline in benzene, we've  
12 achieved 64.

13 I mean, it's fairly reasonable  
14 evidence that the chemical oxidation  
15 process is doing better than natural  
16 attenuation and we are. So where does  
17 that leave us? Well, we believe progress  
18 is being made toward achieving the  
19 remedial goals for the site. As I said  
20 before, benzene mass has increased  
21 slightly in Area B, but it was low to  
22 begin with. And all other contaminants  
23 of concern, essentially naphthalene in  
24 this instance, their rate of decrease in  
25 groundwater is much faster than what we



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2 would expect from natural attenuation.

3 And the final thing, the second  
4 half of our remedial process is  
5 biosparging. And at the end of this  
6 month and beginning of June, we're going  
7 to begin the process of reviewing the  
8 site for how much equipment we're going  
9 to need to do that, locating sources of  
10 power, locating places where we can place  
11 equipment, and establishing a treatment  
12 sequence for those areas. It's clear to  
13 us we will probably be doing biosparging  
14 in some areas, also doing chemical  
15 oxidation in others. We want to  
16 establish a sequence for doing that.

17 And that's about all I have.  
18 Any questions?

19 RAB MEMBER: Have these  
20 torrential rains done anything as far as  
21 bringing the chemical stuff down?

22 MR. SHAW: That's sort of a  
23 tricky question because, one, these  
24 chemicals float. So physically they come  
25 up, but it's a rather old spill. We're



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2 talking the end of the 1970s into the  
3 '80s when we believe the spill occurred.  
4 And we're dealing with a lot of what we  
5 call residual contamination and some free  
6 product. Residual contamination is what  
7 is attached to the soil particles in the  
8 ground so even when it rains and the  
9 water table comes up, it can stay  
10 attached to the soil particles before it  
11 floats to the surface or if it ever does  
12 float to the surface. So we're dealing  
13 with -- as in a fresh spill you would be  
14 dealing with a layer that would float up  
15 and down because there was plenty of free  
16 product, we're dealing with a little bit  
17 more of a stationary target, we believe.

18 Now, as far as the  
19 concentrations are concerned, in the past  
20 at this site after a period of rain like  
21 we've had recently, it takes several  
22 months before you start to see a change  
23 in water level -- in concentrations that  
24 we would normally associate with a  
25 dilution. And we haven't done a sampling



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2 to be able to answer that completely.

3 Does that answer your question?

4 RAB MEMBER: Yeah, but I had  
5 another one. It's sort of a juvenile  
6 question I would assume to you guys. The  
7 township and the county reports these  
8 things in the billions of what?

9 MR. SHAW: Parts per billion.  
10 It's volume, per unit volume.

11 RAB MEMBER: I mean, how is  
12 that detected? Do they have a machine  
13 that will --

14 MR. SHAW: Yeah.

15 RAB MEMBER: I couldn't figure  
16 that out.

17 MR. SHAW: It gets down to a  
18 single part or even parts per trillion.

19 Russ?

20 MR. TURNER: But it's a  
21 laboratory procedure, sophisticated  
22 equipment in the laboratory. So they  
23 take the sample to a laboratory in  
24 Lancaster or some city.

25 RAB MEMBER: And to give you



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2 some idea, John, of what that represents,  
3 the regulatory limit for benzene is 5  
4 parts per billion. That's the equivalent  
5 of about 5 tablespoons of gas in an  
6 Olympic size swimming pool.

7 RAB MEMBER: A teaspoon.

8 RAB MEMBER: Or a teaspoon.

9 MR. SHAW: A very small amount.  
10 They tend to be health-based standards.

11 MR. EDMOND: Scott, all the  
12 rain like John was talking about, the  
13 torrential rain, as environmental  
14 professionals we all grew up with the  
15 mantra dilution is not the solution,  
16 but --

17 MR. SHAW: We always heard it  
18 the other way around.

19 MR. TURNER: Is the solution.

20 MR. EDMOND: It depends on  
21 which side of the fence you're on.

22 MR. SHAW: Absolutely.

23 MR. EDMOND: Here the dilution  
24 could perceivably help your natural  
25 attenuation by spreading out and dropping



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2 the levels; correct?

3 MR. SHAW: Spreading out you're  
4 talking about is an aspect of natural  
5 attenuation, including bio that I talked  
6 about, biodegradation that I talked  
7 about, absorption that I talked about.  
8 Those are all natural attenuation  
9 processes. Yeah, it certainly does. In  
10 presentations past, I've shown what our  
11 perception of what the plume has done or  
12 what contamination has done over time and  
13 it was a much, much larger area. If we  
14 go back to that first one showing all the  
15 monitoring wells, these monitoring wells  
16 are here for a reason and it's because at  
17 some point contamination was detected  
18 nearby or they had some reason to install  
19 a well nearby. So at some point I know  
20 that wells as far away as GM3 had  
21 constituents of concern, I know PO2 did  
22 as well and certainly these here. The  
23 only well we're seeing concentrations at  
24 this point above what we call an MCL is  
25 this well here. We're still detecting



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2 the other compounds there, but they're  
3 below the regulatory limits.

4 RAB MEMBER: After doing the  
5 Fenton's in those areas, what are your  
6 residual concentrations? Because I guess  
7 the question is you were saying you're  
8 going to do sparging at some locations  
9 but not in others. Are the  
10 concentrations still going to be high  
11 enough that natural attenuation will not  
12 take care of them?

13 MR. SHAW: That's the point  
14 we're trying to get to. We don't want to  
15 biosparge for very long. You want to do  
16 it over a much shorter period of time.

17 RAB MEMBER: I assume there are  
18 no receptor wells downgradient?

19 MR. SHAW: No, not that we've  
20 been able to find.

21 RAB MEMBER: And there's enough  
22 buffering after the Fenton's to take care  
23 of the acid addition?

24 MR. SHAW: Okay. The buffering  
25 takes place at a slower rate with the



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2 greater number of injections that you've  
3 done.

4 Was your name John?

5 RAB MEMBER: No. It's Eric.

6 MR. SHAW: I'm sorry. What  
7 Eric was talking about is one of the  
8 things we use with the Fenton's reagent  
9 is acid to drop the pH of the water. The  
10 chemical oxidation process takes place  
11 more efficiently under lower pHs so we  
12 add acid to drop the pH of groundwater.  
13 After the first injection we have three  
14 prescribed in our remedy -- it takes, you  
15 know, two weeks to a month to get back to  
16 what you would normally see. And with  
17 each subsequent injection, it takes a  
18 little bit longer. But there is  
19 sufficient buffering and I would expect  
20 with all the rain we've had and our last  
21 injection taking place back in January  
22 we're back to normal conditions in both  
23 of those locations.

24 RAB MEMBER: Out of curiosity,  
25 how deep are these wells?



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2 MR. SHAW: Good question.

3 There are at the site -- all of the wells  
4 you see here we call shallow. They go  
5 down to the top of bedrock so they range  
6 anywhere from about 10 to about 25 feet.  
7 This well sort of sits up on a hill and I  
8 believe it's about 25 feet deep. We have  
9 three other wells at the site that are  
10 installed into bedrock up to about  
11 75 feet. There's a well that's paired  
12 with this one that's about 75 feet deep.  
13 There's a well that's paired with this  
14 one that's about 65 feet deep. This is  
15 all off the top of my head. And another  
16 one right in here that's about 45 feet  
17 deep that's in the bedrock. So the  
18 answer to your question is most of them  
19 go to the top of bedrock anywhere from  
20 about 10 to 25 feet and then we have  
21 three wells that go into bedrock.  
22 Currently we're not seeing any  
23 contamination in any of the bedrock  
24 wells.

25 MR. EDMOND: Any other



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2 questions for Scott?

3 Thanks, Scott.

4 MR. SHAW: Thank you.

5 MR. EDMOND: Well, that's the  
6 Air Force presentation. The Navy will  
7 give their presentation now. The Navy's  
8 presentation is on Site 5. And as most  
9 of you know from being in the RAB for a  
10 long time, we asked the community about a  
11 year and a half, two years ago to let us  
12 know what site they felt we should work  
13 on first and more or less put our eggs in  
14 one basket. And the community said Site  
15 5 is the one that they chose. So we  
16 basically have done a lot of work at Site  
17 5 and this will update what we're doing  
18 over the summer, what we've done in the  
19 last few weeks with meetings with EPA,  
20 and where we're going. So I'll turn it  
21 over to Ed Boyle from EFANE.

22 MR. BOYLE: Jim summarized it  
23 pretty good. Since the last meeting in  
24 January when Jeff gave a nice  
25 presentation on the Site 5 soil and Kevin



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2 Kilmartin gave a presentation on the Site

3 5 groundwater, we had a meeting with EPA

4 to discuss some of the issues there. The

5 Site 1 soil we have proposed doing a

6 removal action I think Jeff mentioned, a

7 small removal action so we can close out

8 the site. We discussed it with their

9 people and we basically came to an

10 agreement at that meeting that we would

11 move ahead with an action memorandum to

12 address this hot spot removal and we're

13 going to handle the removal under an

14 action memorandum. After that meeting, I

15 proceeded with getting contract action to

16 task Tetra Tech to prepare an action

17 memorandum, which basically is a

18 requirement -- it's a report that's a

19 requirement to do the removal. And also

20 I worked on contract actions to get a

21 contractor out there to physically do the

22 work and fund those things. Both of

23 those items are completed or underway and

24 we're planning on doing the removal

25 middle of July. So that's a positive



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2 thing.

3 And the other item we're going  
4 to be talking about that we worked out at  
5 that meeting was the groundwater issue at  
6 Site 5, the FS. There were some  
7 additional data gaps that we knew about.  
8 The Navy was considering addressing them  
9 in the design phase of remediation and  
10 EPA felt more comfortable addressing them  
11 up front. And Kevin will discuss that.  
12 But I'll turn it over to Russ now because  
13 he's going to just update everybody on  
14 the Site 5 removal action.

15 RAB MEMBER: One quick  
16 question. On the removal action, you  
17 guys have any idea of a cost associated  
18 with this?

19 MR. BOYLE: Our estimate is  
20 about \$160,000. I believe it's going to  
21 be less than that.

22 MR. TURNER: It's like  
23 230 cubic yards.

24 MR. BOYLE: Small.

25 RAB MEMBER: Yeah.



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2 MR. TURNER: All right. Ed is  
3 right. This is going to be a bit -- you  
4 could use the word "rehash." It sounded  
5 like you almost wanted to say that. We  
6 have different people here. We had  
7 weather issues last RAB meeting. So  
8 we're going to rehash some of the same  
9 information. We've also made some  
10 progress on Site 5 IRP program,  
11 Installation Restoration Program  
12 everybody here is familiar with  
13 generally. There's a proposal from the  
14 Navy and plan from the Navy to put  
15 together the requirements to remove this  
16 soil at Site 5. So I want to give you a  
17 historical perspective, recent  
18 developments, and a summary of the  
19 conditions out there.

20 The historical perspective goes  
21 like this: The fire training area, Site  
22 5, was used from about 1942 to about  
23 1978, so it's been shut down for whatever  
24 that adds up to, not quite 30 years, I  
25 guess. The types of activities that



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2 occurred there were burning, firefighting  
3 activities where solvents were stored  
4 there and firefighters set things on fire  
5 and then practiced putting them out,  
6 maybe saving lives and things like that,  
7 pretend there's a dummy in there, you  
8 know. The Navy performed a remedial  
9 investigation of the site in 1993,  
10 concluded that there was reason for  
11 concern for PAHs, which are polynuclear  
12 aromatic hydrocarbon compounds, petroleum  
13 compounds.

14 In 1997, based on that earlier  
15 information, the Navy performed a second  
16 RI, phase two RI, to get an idea how  
17 extensive the contamination was then, how  
18 much concern they should have for it. As  
19 part of that second RI, remedial  
20 investigation, in 1997 the Navy  
21 calculated the risk using the EPA  
22 procedures for human health risk  
23 assessment and found that the risk level  
24 for the theoretical future resident if  
25 this site were to become a residential



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2 site exceeded the acceptable levels for  
3 cancer risk. And so we proceeded to the  
4 current time. Something happened in the  
5 middle. That was 1997. The RI report  
6 was finalized I think in 2002, 2001-2002.  
7 Meanwhile, the Navy installed additional  
8 security facilities, a fence, in the  
9 vicinity. So in 2004 the Navy decided to  
10 resample and see if conditions had  
11 changed with that soil.

12 So that brings us up to the  
13 current. I'm going to tell you about the  
14 current status. But, first of all, let's  
15 remind ourselves of where Site 5 is.  
16 Everybody here has probably seen this map  
17 a hundred times. That would be I guess  
18 Route 611, Horsham Road. We are  
19 approximately about here. Across the  
20 runways on the Horsham Road side, Site 5  
21 would be -- am I getting closer? -- near  
22 the Marine Corps Reserve Center. So  
23 that's about it there. If you're more  
24 comfortable with this map, the USGS type  
25 map, fire training area's down here.



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2 You know what I'd like to do,  
3 while we have this map up, it shows where  
4 the golf course is in relation to our  
5 site, shows where the industrial  
6 development and, you know, real  
7 high-density residential development is.

8 MR. EDMOND: And if I may add,  
9 that was why the community chose this  
10 site to be the Navy's primary site to  
11 remediate. It was the closest of our  
12 sites to the residential area and they  
13 felt this is the site we should clean up  
14 first for that reason.

15 RAB MEMBER: Russ, while you  
16 have that map, do you want to just show  
17 groundwater flow direction?

18 MR. TURNER: Sure. This one's  
19 the best for that, I'd say. In the  
20 vicinity of the fire training area,  
21 generally there's a whole issue about  
22 being this is a runway, it's high ground,  
23 very flat, but generally groundwater  
24 flows to the northwest.

25 Kevin, are you okay with that?



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2 Fill it in a little bit.

3 MR. KILMARTIN: Well, actually  
4 the studies both that we've conducted for  
5 the RI and regional studies that the USGS  
6 has conducted in this area show that  
7 there's a regional groundwater divide  
8 that goes from about southwest up through  
9 the northeast and it passes literally  
10 right underneath Site 5. So as Russ  
11 said, most of Site 5 the groundwater  
12 flows in the generally west to northwest  
13 direction, but the eastern part of Site 5  
14 and everything east of that it flows to  
15 the southeast. And it coincides with a  
16 major surface water divide also.

17 MR. TURNER: Everyone okay with  
18 that one then? It's an interesting area  
19 for that reason. That's one of the  
20 reasons. Okay. I'll go to the next  
21 slide. I stole this from Jeff's  
22 presentation from last time, but really  
23 the site conceptual model is over those  
24 years we mentioned, drums of solvents and  
25 maybe lubricants and things like that



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2 were stored here. Those were the fuel  
3 for the firefighting exercises. The burn  
4 ring is inside this yellow ring. So  
5 storage here, burning there. And the  
6 concept is that those drums had to be  
7 moved over there, transported over  
8 ground. And you'll see in a minute that  
9 there's a corridor there of contamination  
10 with PAHs essentially. And everybody's  
11 okay that's Horsham Road? Okay.

12 This is a shot Jeff got in the  
13 wintertime. I don't know who -- is that  
14 Jim Edmond back there?

15 MR. EDMOND: It's me hiding.

16 MR. TURNER: It's January.

17 He's staying out of the wind or  
18 something. This is diameter of the ring,  
19 115, 20 meet, something like that.  
20 Inside essentially looks like ash in  
21 there. You can see things are growing in  
22 there. Outside is like gravel and black  
23 ash. It looks essentially the same as it  
24 did in 1997 when we did the first phase  
25 one RI. The point is even when this new



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2 fence was put in, for some reason the  
3 Navy moved it over and didn't go through  
4 our site, this RI Site 5.

5 MR. EDMOND: We planned it that  
6 way, Russ.

7 MR. TURNER: I always suspected  
8 that.

9 All right. Now, the issue here  
10 was the original investigation was  
11 repeated in 2004. And very similar, we  
12 actually tried to hit sort of the same  
13 locations. The green are the old ones  
14 and the black are the new ones. We knew  
15 we didn't want to go inside the fence.  
16 It's a restricted area. And also these  
17 samples didn't have much PAH the first  
18 time in 1997. So we took a number of  
19 samples and tried to duplicate the  
20 previous sampling locations and then  
21 surveyed them afterwards and found we  
22 didn't exactly hit them, just sort of  
23 close in some cases. And what we found  
24 was sort of essentially unchanged. In  
25 general, concentrations were lower and



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2 quite a number. I think maybe 65 percent  
3 of the samples were quite a bit lower in  
4 PAH concentrations, one was higher and  
5 others were very similar. However, we  
6 still had concentrations above the  
7 risk-based concentrations. This would be  
8 the concentration that would correspond  
9 to a human health risk that would be  
10 considered unacceptable. The three  
11 samples that were high were near the  
12 burning area and they were 31, 43, and  
13 45. If you can read those, but they  
14 would be -- I think they were these  
15 three. This one was not high, believe it  
16 or not, the one real near the burning  
17 ring. And 36 is about here. I can't  
18 read it, but I think this would be about  
19 where 36 was. They were all high in that  
20 they were above the risk-based  
21 concentration.

22 One thing, I'm going to digress  
23 just one second. Oh, I think I covered  
24 that. Human health risk assessment, we  
25 already covered that. There's excessive



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2 human health risk based on future  
3 resident but for the future occupational  
4 worker, if the site were to remain as  
5 current use, which is light industrial or  
6 whatever, current occupational worker  
7 there was no excess risk for human  
8 health.

9 All right. So we're really  
10 here to talk about soil removal action  
11 memorandum and so I want to talk about --  
12 this is preliminary, but the action  
13 memorandum will talk about an excavation  
14 to remove approximately 2 feet of soil in  
15 this area here to a depth about 2 feet.  
16 That's our 230 cubic yards, 160, 180  
17 thousand dollars. That's a very  
18 preliminary estimate. So the Navy  
19 will -- here's the schedule. We're  
20 working on the action memorandum now. It  
21 should be in my hands by May 10. I'll  
22 have it in Ed's hands May 16 or so.  
23 Between the two of us, we'll get it  
24 turned around in two weeks and have it in  
25 the hands of EPA around the first week in



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2 June or so.

3 Sound about right for you, Ed?

4 MR. BOYLE: Right.

5 MR. TURNER: And the soil  
6 cleanup, PRGs have been calculated by  
7 EPA. It was nice of them to do that. So  
8 we have a leg up on that. And they will  
9 be based on unlimited future use,  
10 unrestricted future use, which means for  
11 the lifetime resident scenario.

12 And basically that really is  
13 about it. Did I miss anything? Did  
14 anyone feel they needed to know something  
15 else?

16 MR. EDMOND: I'd like to say  
17 that when Russ says there was a human  
18 health risk there, the concept is, yes,  
19 there's a human health risk if we would  
20 put children or build a house on top of  
21 that site as it stands today. For the  
22 people who work at the Base who travel  
23 out there that occupy the area around  
24 there, there is no human risk. ATSDR,  
25 Agency for Toxic Substances and Disease



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2 Registry, which is a branch of the CDC,  
3 gave us a rating of a D minus, which is  
4 good. I mean, in school that would have  
5 been bad, but for us it's a good rating.

6 MR. TURNER: A low severity  
7 rating; right?

8 MR. EDMOND: Right. They said  
9 there is no human health risk nor was  
10 there a biological risk to the flora and  
11 fauna of the Air Station. But we have to  
12 look at the risk of what if the Navy  
13 wanted to build another building there  
14 and then the construction workers would  
15 become at risk. So that's why we're  
16 taking it down to a lifetime residential  
17 receptor for those reasons, not that  
18 there's a health risk that the community  
19 has to be aware of or worried about.  
20 It's just within that little section of  
21 the Air Station and there is really no  
22 risk at this time until we start doing  
23 the excavation.

24 MR. BOYLE: I just wanted to  
25 add we're taking it down to a level where



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2 you can have children live there and a  
3 house and stay and roll in the sand all  
4 day. That's what we're taking this  
5 cleanup, not to a construction worker.  
6 We're going to make it to residential  
7 use. And basically the way they consider  
8 it is the child is out there all day 300  
9 some days a year and every day.

10 MR. EDMOND: Eating dirt.

11 MR. TURNER: There's a dirt  
12 adherence factor.

13 MR. BOYLE: We're cleaning it  
14 up to that standard.

15 RAB MEMBER: So then there  
16 wouldn't be any restriction on the use  
17 for the area.

18 MR. BOYLE: Right.

19 MR. TURNER: That's similar to  
20 what the Navy did for the removal action  
21 at Site 1.

22 MR. EDMOND: PCB removal.

23 MR. TURNER: Exactly. So there  
24 was a precedent and we wanted to follow  
25 that one. And the last factor is that



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2 when you look at cleaning it up to  
3 different levels, it's not that much more  
4 expensive to go to that point.

5 RAB MEMBER: Already mobilized  
6 out there.

7 MR. TURNER: Exactly.

8 MR. EDMOND: Kind of like what  
9 the Navy is doing, instead of maybe  
10 cheaping out for less for loss of a  
11 better word and saving \$25,000 or \$50,000  
12 and only taking it down to one level,  
13 it's easier for the Navy for the contract  
14 mechanism to go and take it down to a  
15 residential level and be done with the  
16 site instead of maybe five or ten years  
17 from now the Navy wants to build a  
18 building there and we have to clean up  
19 the site again, which again you contract,  
20 you have to bring people on-site, you're  
21 tripling probably what the cost would be.  
22 So we're trying to save the taxpayers  
23 money by doing a one-time removal and  
24 then being done with the site.

25 MR. TURNER: That's it. Unless



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2 there are questions, I would like to hand  
3 it over to Kevin Kilmartin, talk about  
4 Site 5 groundwater.

5 MR. KILMARTIN: Well, as Russ  
6 mentioned, the Navy will be performing  
7 additional groundwater investigation at  
8 Site 5. If you remember, there is a  
9 groundwater plume at Site 5. It's  
10 composed of volatile organic compounds or  
11 VOCs, in particular several different  
12 solvents. The source of the plume is  
13 near that old drum storage area near our  
14 well cluster 1 and the plume is traveling  
15 or migrating in basically a west  
16 northwest direction along with  
17 groundwater flow. The groundwater divide  
18 that we just talked about a little bit  
19 basically passes through the site maybe  
20 right about here. So the groundwater to  
21 the left side of that divide is moving in  
22 that direction. And as the groundwater  
23 goes, so goes the plume, so the plume's  
24 basically migrating along that route.

25 This investigation is going to



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2 address basically three main issues. The  
3 first issue will be that it will address  
4 some questions regarding the extent of  
5 the plume; that is, there still are some  
6 areas through the site that we're not  
7 sure whether the plume extends through  
8 that area or not or, secondly, if it  
9 does, we don't know what the groundwater  
10 concentrations may be. The second issue  
11 we'll be looking at is we're going to  
12 test to determine -- to look for a  
13 chemical called 1,4-dioxane. It's a  
14 chemical that's been receiving a lot of  
15 attention recently. It's also a chemical  
16 that's not detected by our standard  
17 laboratory analyses that we conduct for  
18 our typical groundwater samples. It's a  
19 chemical you have to basically  
20 specifically look for. And really it's  
21 associated with the solvent called  
22 1,1,1-TCA or trichloroethane. It's  
23 basically used as a stabilizer in that  
24 solvent. So for sites where you have  
25 1,1-TCA, 1,1,1-TCA, it's a good idea to



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2 look for the 1,4-dioxane. And as you  
3 might remember, we do have 1,1,1-TCA at  
4 Site 5. In fact, it's really our most  
5 highly concentrated solvent that we  
6 detect here. The reason it's important  
7 whether to know if dioxane is present or  
8 not is because it chemically behaves a  
9 lot differently than the rest of the  
10 solvents. And a remedial alternative  
11 that may very effectively take care of  
12 the solvents may not have as pronounced  
13 an effect on the dioxane, so we need to  
14 know whether or not it's there to help us  
15 determine what the best remedial  
16 alternative for the groundwater is.

17 And the third issue that we'll  
18 be addressing is we'll be collecting some  
19 additional natural attenuation parameters  
20 to supplement our existing data to again  
21 help us determine the feasibility of  
22 including natural attenuation as a  
23 component of any selected groundwater  
24 alternative or remedy.

25 Now, to address these issues,



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2 the Navy plans to do several things.  
3 First is to install four additional  
4 monitoring wells to add to the 27 that  
5 currently exist there. And they show up  
6 as the blue monitoring wells on this map.  
7 We'll be installing an additional  
8 monitoring well directly downdip of the  
9 source area. If you remember from  
10 previous talks, the rock units beneath  
11 the site, it's like a layer cake but it's  
12 a tilted layer cake and they're tilted or  
13 dipping in this direction here. So we're  
14 going to install an additional well  
15 downdip of the source.

16 We're going to install two  
17 wells along the bedrock strike or the  
18 trend of the various rock units. In this  
19 geologic setting, groundwater sometimes  
20 will preferentially travel in that  
21 direction. Currently we sort of have  
22 strike bounded on either side, but we  
23 don't have any wells directly along  
24 strike. So these two wells will address  
25 that issue.



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2 And then, thirdly, we're going  
3 to install the fourth well further  
4 downgradient from the extent of the plume  
5 as it's currently defined. Again, we  
6 know the plume begins right here and it's  
7 traveling in this direction. These two  
8 wells right now are our furthest  
9 downgradient wells and we know they have  
10 solvent in them, that they're impacted.  
11 So we don't really know where the  
12 downgradient edge or border of the plume  
13 is and we hope to define that by this  
14 well here.

15 RAB MEMBER: Kevin, where is  
16 that in relation to the boundaries of the  
17 Base, for example?

18 MR. KILMARTIN: Here's Horsham  
19 Road right here. North is straight up.

20 So after the wells are  
21 installed, the next thing the Navy will  
22 do is perform two rounds of water level  
23 measurements, use that data combined with  
24 all of these wells to help us refine the  
25 precise direction or directions of



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2 groundwater flow by getting the  
3 additional data at those locations. All  
4 of the wells, 31 wells will be sampled  
5 for the VOCs, volatile organic compounds,  
6 and for 1,4-dioxane. And the four new  
7 wells will be sampled for the natural  
8 attenuation parameters to add to the  
9 existing database we have of those  
10 parameters as we've measured them in the  
11 other wells.

12 Is there any questions?

13 RAB MEMBER: After you  
14 establish a well, how long does a well  
15 take to just -- a day, poof, and it's  
16 there?

17 MR. KILMARTIN: No. What the  
18 process will be, the actual drilling of  
19 the well, making the hole in the  
20 ground --

21 RAB MEMBER: I'm talking about  
22 the start to where you can take a test  
23 and get feedback, what's the time frame  
24 of something like that?

25 MR. KILMARTIN: Okay. When you



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2 consider everything that has to go into  
3 the building of the well and then the  
4 sampling of the well and lab analysis and  
5 evaluation of the data, it will be  
6 roughly about two months.

7 RAB MEMBER: So you are going  
8 to put those extending wells right on the  
9 edge of the property then?

10 MR. KILMARTIN: No, no.

11 RAB MEMBER: Because it seems  
12 to me if you tap a well and you find that  
13 you're getting something, you're going to  
14 still want to go back out further and  
15 hope that there's nothing there, right,  
16 like you're doing with these other ones?  
17 The new one, take it to the end of the  
18 property line and then work your way  
19 back, I would say.

20 MR. KILMARTIN: Well, possibly.  
21 It depends a lot too on what the  
22 concentrations are.

23 RAB MEMBER: Well, you hope  
24 there's none; right?

25 MR. KILMARTIN: You hope



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2 there's none, of course. In a typical  
3 groundwater plume, the highest  
4 concentration is at the source and then  
5 it gets progressively lower as you move  
6 out. Now, if we know, for example --  
7 I'll just pick a number. If we know, for  
8 example, that it's a hundred micrograms  
9 per liter here and it's 20 micrograms per  
10 liter here, and then we put a well in  
11 here and it's maybe 2 micrograms per  
12 liter, you know, that's not zero, it's  
13 not a nondetection, yet it's telling us  
14 that we're very near that boundary or the  
15 edge of the plume.

16 MR. TURNER: Could I add one  
17 thing? In that direction, the property  
18 boundary is quite a long distance because  
19 that's essentially going toward the Army  
20 Reserve area.

21 So the property boundary, wild  
22 guess, Jim? Several thousand feet, 1,500  
23 feet?

24 MR. EDMOND: Just to add to  
25 that, in the past we have sampled wells



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2 along private properties on Horsham Road  
3 and found nothing. So we know it hasn't  
4 crossed the boundary line of the Base.  
5 This is basically just to help not only  
6 refine where the plume is but so we can  
7 set up the feasibility study which is  
8 going to clean this site up. This will  
9 kind of refine what we're going to do for  
10 remediation, how long we're going to have  
11 to do it. It fills in the data gaps.  
12 These wells are not just something we're  
13 doing just to fill in the data. It was  
14 going to be part of the formal FS process  
15 too. But we're just going to do it now  
16 to hurry it up. And we've already asked  
17 EPA to review the FS, which you folks  
18 have already seen. The draft FS has  
19 already been out. We feel the FS as it  
20 stands is pretty good, so it will shorten  
21 the process of us doing a remediation,  
22 whether natural attenuation or in situ or  
23 whatever. We're trying to speed the  
24 process along.

25 RAB MEMBER: Jim, I don't know



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2 who to ask this question to, but we've  
3 been looking at this plume for a long  
4 time. It looks to me we're starting to  
5 look at it with a magnifying glass.  
6 We're putting in more wells now. Are  
7 these new wells needed to define what  
8 remedial action to take or are we still  
9 trying to figure out where this plume is  
10 going? It seems to me -- of course, I  
11 used to be involved in this project, used  
12 to work for the Navy, but don't we know  
13 that this plume is not going any further  
14 at this point? Is it fair to say that?  
15 It seems to me that it's not. I mean,  
16 we've been continually sampling these  
17 wells at the edge of the property and  
18 coming up with low or nondetects. I  
19 mean, how much more do we have to study  
20 this before we can start doing something  
21 about it?

22 MR. TURNER: You want me to try  
23 that one or you want to take it, Kevin?

24 MR. KILMARTIN: You're welcome  
25 to.



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2 MR. TURNER: There are several  
3 parts to that question. The first part  
4 is why do these wells now, I think.  
5 These wells were planned in the FS  
6 process. We planned to put in additional  
7 wells before actually starting  
8 remediation, part of some pilot testing  
9 remedial thing. Any of the alternatives  
10 we choose will require us to put  
11 additional wells in there. So since they  
12 were requested by EPA, we're moving that  
13 forward for that reason.

14 There's another aspect in  
15 there. Okay? That's one. Another  
16 aspect that you touched on is is the  
17 plume growing or not. I think we can  
18 confidently say and Kevin can really --  
19 I'm going to paraphrase what I've heard  
20 from Kevin and he can tell you this, that  
21 we think the plume is in what you would  
22 call a steady state, not growing but we  
23 can't say it's shrinking either.

24 MR. KILMARTIN: Yeah.

25 MR. TURNER: Is that about



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2 right?

3 MR. KILMARTIN: Yeah.

4 MR. TURNER: So those are two  
5 of the issues. There might have been  
6 others in there, Jack. I don't remember.

7 MR. EDMOND: I think it will  
8 help us prove our theory that natural  
9 attenuation may be the way to go, which  
10 could save the government and the  
11 taxpayer a lot of money.

12 RAB MEMBER: I guess I'm just  
13 commenting because I'm frustrated, and I  
14 was frustrated when I worked on this  
15 project when I worked for the Navy, that  
16 we study these things too much and we  
17 should be focusing more on doing things  
18 that inherently we know we need to do  
19 like we moving the soil at Site 5. I  
20 mean, the fire ring is still there.  
21 We've been studying it for ten years. We  
22 stopped using it in 1978, but the fire  
23 ring is still there today and we're  
24 pulling it out. I mean, I think you guys  
25 do a great job. I love you all. But



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2 let's start -- I think we should move  
3 away from studying and move closer to  
4 getting things done. I think we've done  
5 a lot of studying and some great studies  
6 with some great professionals doing great  
7 work, but we need to change focus.

8 MR. DALE: And I'm going to try  
9 to add a little and then he had a  
10 question. The green line that trends  
11 from 2 o'clock to 8 o'clock that Kevin  
12 described as strike, in about the last  
13 five years it's become more evident that  
14 in this kind of rock very often the  
15 groundwater flows along strike more than  
16 you would think it flows in the  
17 groundwater flow direction. And we have  
18 other project sites where that occurs.  
19 Well, if you go right along strike, we  
20 don't have any wells and that's towards  
21 the residential neighborhood. Now, we  
22 don't think it's over there, but it's  
23 very reasonable for us to have a well  
24 there to show that it's not.

25 And, secondly, only in the last



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2 two or three years has this compound  
3 1,4-dioxane become a big problem at other  
4 solvent sites such as this where a  
5 remedy's been in place for a decade and  
6 it was not capable of treating that  
7 compound. So we have to confirm that  
8 this compound is not there or not at  
9 levels that would pose a risk before we  
10 can investigate a good remedy or an  
11 appropriate remedy.

12 RAB MEMBER: Okay. I can  
13 understand why the additional wells are  
14 needed other than that the EPA asked for  
15 them. Right.

16 MR. DALE: And we agreed they  
17 were needed. And if we want to take a  
18 less active remedy, we have to be more  
19 sure that our plume is not going towards  
20 that residential neighborhood. We're  
21 pretty certain it's not, but when you're  
22 dealing with one in a million cancer  
23 risks as being unacceptable, you got to  
24 be really sure. And one other thing to  
25 clarify is 1,4-dioxane is not dioxin. It



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2 sounds like it. It is not.

3 Then you had a question.

4 RAB MEMBER: Thank you.

5 RAB MEMBER: You're saying that  
6 farthest well, it's the same amount of  
7 readings or it's weakened at all?

8 MR. KILMARTIN: This well here?

9 RAB MEMBER: Yeah. Is it  
10 weakening?

11 MR. KILMARTIN: Yeah. Your  
12 concentrations here are much lower than  
13 the concentrations here.

14 RAB MEMBER: Is that change  
15 still weakening as we go?

16 MR. TURNER: Trend over time?

17 RAB MEMBER: Yeah.

18 MR. KILMARTIN: Two ways to  
19 look at it. In any one slice of time,  
20 this concentration will always be lower  
21 than this concentration. But at this  
22 location over time, to be honest, out  
23 here I think this well may have only been  
24 sampled once, if not maybe twice. We  
25 don't have an extensive sampling history



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2 on a lot of these wells sufficient to  
3 define any meaningful trend like that.

4 RAB MEMBER: Does that cost  
5 money? I don't understand. To me a well  
6 is a hole in the ground.

7 MR. TURNER: They weren't all  
8 installed at the same time. Some were  
9 installed in '93, '97, 2001.

10 MR. EDMOND: Plus, as Jeff  
11 said, the idea of the water running on  
12 strike, we put sentry wells along Horsham  
13 Road by the compound thinking that was  
14 the most direct route to the residents.  
15 And as technology and stuff moves along,  
16 we're finding out, well, maybe that isn't  
17 the most direct route, that the strike  
18 route is. And that's why the wells are  
19 going to go in.

20 MR. TURNER: But we put that  
21 one, the one Kevin just pointed out, to  
22 ensure the Horsham Township well was  
23 protected. That was a big issue for the  
24 RAB.

25 MR. EDMOND: And it's always



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2 come up good.

3 MR. TURNER: It's always  
4 perfectly clean.

5 RAB MEMBER: Quick question  
6 about 1,4-dioxane. I assume being a  
7 stabilizer it's not degradable or a very  
8 poor degrader, and also is there any  
9 groundwater quality risk number that  
10 you're trying to meet or is there not one  
11 established?

12 MR. KILMARTIN: There is no  
13 MCL. Region 3 has an RBC or a risk-based  
14 concentration that I believe is about 6  
15 and a half, 6.5 micrograms per liter, so  
16 a little bit above, say, the 5 micrograms  
17 per liter that most of the solvents are  
18 at.

19 MR. DALE: I believe the State  
20 of Pennsylvania also has a standard,  
21 which the way we choose which standards  
22 apply, if the EPA didn't have one, then  
23 we would use PADEP's anyway. And it's in  
24 the ballpark of the number Kevin's  
25 talking, 4 or 6.



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2 MR. EDMOND: And as everybody  
3 probably knows, we as the government  
4 clean up to the most stringent level.

5 RAB MEMBER: You used a term  
6 that I'm not familiar with. It's natural  
7 attenuation?

8 MR. KILMARTIN: Yes.

9 RAB MEMBER: And you made a  
10 comment that you could increase this or  
11 accelerate it?

12 MR. KILMARTIN: Yes. Well, in  
13 fact, that was the earlier --

14 RAB MEMBER: What is it and how  
15 do you do that?

16 MR. TURNER: Maybe Scott --

17 RAB MEMBER: Let Eric answer  
18 it.

19 RAB MEMBER: A real quick  
20 analogy is if you go to an outhouse and  
21 do your business there, it will naturally  
22 attenuate. If you go to a facility over  
23 here, it goes to a treatment plant, they  
24 have a biological process with air. Air  
25 is good for the bugs and it's an enhanced



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2 natural degradation of the waste product.

3 This would be similar except it would be  
4 done instead of under an aerobic or an  
5 oxygen-filled environment, it would be an  
6 anaerobic or without oxygen environment.  
7 So you would put in chemicals which would  
8 allow the degradation process to go more  
9 quickly.

10 RAB MEMBER: And don't  
11 necessarily have to even put in these  
12 chemicals. Some of these compounds  
13 degrade over time.

14 RAB MEMBER: As it's moving  
15 out, it's degrading. That's why it's  
16 stable. As it moves along, it degrades  
17 so you don't get concentrations further  
18 out.

19 RAB MEMBER: And you can add to  
20 this if necessary?

21 RAB MEMBER: Accelerate it in  
22 some ways.

23 RAB MEMBER: As I recall, this  
24 does have a negative oxygen reduction  
25 potential, which means it's anaerobic



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2 here?

3 MR. TURNER: Not every -- it  
4 varies from well to well, but we believe  
5 natural -- anaerobic biodegradation is  
6 favored in some -- in the large part of  
7 the plume, how about we put it that way,  
8 but not every part. The shallow parts  
9 there's too much oxygen.

10 RAB MEMBER: And I guess kind  
11 of getting to what Jack said earlier, you  
12 know, we've been studying a long time.  
13 Have you just thought about, you know,  
14 getting a permit and dumping some soy oil  
15 or vegetable oil down there to get things  
16 moving along and try some degradation?

17 MR. TURNER: Well, we have an  
18 FS out for comments and it includes that,  
19 but we have to go through the procedures.

20 RAB MEMBER: Can't hire someone  
21 to dump it?

22 MR. TURNER: Like at night?

23 RAB MEMBER: I agree you have  
24 these stringent procedures under  
25 Superfund and all this stuff, but we also



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2 have the ability to do these things like  
3 at Site 5, removal actions, things that  
4 are interim measures that still get you  
5 to where you want to be in the end. So  
6 that's what I'm saying is let's do more  
7 of that stuff and maybe less of the  
8 studying.

9 MR. EDMOND: That's what we're  
10 trying to do, Jack, and that's why we're  
11 pushing to do the soil removal because it  
12 gets rid of the source. And once the  
13 source is gone, natural attenuation -- I  
14 mean, even if we study it for another ten  
15 years, it's slowly decomposing.

16 RAB MEMBER: Great, Jim. I  
17 agree.

18 RAB MEMBER: But the ring will  
19 still be there.

20 MR. EDMOND: The ring is going  
21 to go. We're putting it in Jack's  
22 backyard.

23 Any other questions for Kevin  
24 or Ed or Russ?

25 Thanks, Kevin.



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2 That's that part of the  
3 presentation. There's a couple things  
4 we'd like to propose for the RAB. I  
5 guess they're more logistics things  
6 related to the community. There's always  
7 been the question since we started  
8 this -- and this is our 25th RAB meeting.  
9 This is 25. So I just wanted to let  
10 everybody know that but, anyway,  
11 everybody's always saying why do we have  
12 to have it on the Air Station, why can't  
13 we have it somewhere in town that's more  
14 accessible, we don't have to go through  
15 security and all that. Well, we never  
16 had a place. Horsham -- you know, we  
17 didn't want to take it to Willow Grove or  
18 Hatboro. We're in Horsham. And as a  
19 Horsham site, we wanted it somewhere in  
20 Horsham.

21 Well, Horsham has built a  
22 library. And any of the folks who have  
23 seen it, it's a beautiful library,  
24 state-of-the-art library. They have one  
25 large conference room, meeting room, that



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2 is split by adjustable walls. As  
3 everybody knows, we've moved the  
4 administrative record, both the Air Force  
5 and the Navy, to the library. It's  
6 available there both in hard form in  
7 paper or on CD-ROM. But while I was  
8 there taking the administrative record  
9 over, I broached the question with Laurie  
10 Tynan, who is the head librarian, and she  
11 stated she would be more than happy to  
12 have the meetings there. Mike Magee has  
13 said he'd be happy the meetings are  
14 there. Rich Peffal, a member of the  
15 board, said he would be happy if the  
16 meetings were there. I'd like to throw  
17 that out on the table if the community  
18 would like to move it from here on  
19 station off to the library.

20 RAB MEMBER: I have not been  
21 there, but do they have facilities for  
22 this?

23 MR. EDMOND: We can bring that.  
24 We have portable projectors. They have  
25 screens but we have the technology.



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2 RAB MEMBER: I'd like to say  
3 alternating perhaps.

4 CAPT. CLINE: Before the debate  
5 continues, I just want to make sure  
6 everyone understands you are absolutely  
7 welcome to continue the meetings here.  
8 If you'd like to take them somewhere  
9 else, that's fine. Wherever you'd like  
10 to hold the meetings, that's fine. We  
11 like having it here. Frankly, for my  
12 perspective, I walk upstairs. You have  
13 to get in your car and drive here. There  
14 are more of you than me.

15 RAB MEMBER: Anywhere is fine  
16 with me.

17 MR. EDMOND: As the XO said,  
18 this is brought up. I'm just trying to  
19 appease if that's the right word the  
20 community because the community has  
21 always voiced two things: why do we have  
22 to have it on the Air Station and does it  
23 have to be at 6 o'clock in the evening.

24 RAB MEMBER: The XO can bring  
25 the pizza over to the Horsham library



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2 with him.

3 MS. JONES: Or we can invite  
4 you to the club where there's an  
5 excellent menu.

6 CAPT. CLINE: This absolutely  
7 is not a quorum, but everybody has a  
8 voice. Do you want to hold the vote  
9 here?

10 MR. EDMOND: We'll let the  
11 community folks vote what they want to  
12 do.

13 CAPT. CLINE: Ma'am, over to  
14 you.

15 MR. EDMOND: As chairperson, go  
16 for it.

17 RAB MEMBER: Doesn't make any  
18 difference. I enjoy coming to the  
19 meetings.

20 MR. EDMOND: We'll try the  
21 library once and see how it flies. If it  
22 doesn't work out for the community, we  
23 still have this conference room.

24 RAB MEMBER: Sounds good.

25 RAB MEMBER: Well, excuse me.



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2 Don't mind me. I had a hard day today.

3 This is only my second one of these.

4 Now, I'm new on the block. I'm still  
5 interested in the field trip. Granted, I  
6 work here every day.

7 MR. EDMOND: We've had them.

8 RAB MEMBER: But I missed them.

9 MR. TURNER: You got to get the  
10 bus.

11 RAB MEMBER: I'd like to know  
12 the workings of one of these wells and  
13 how the tests are done.

14 MR. EDMOND: What we can do as  
15 a sidebar from the meeting is if anybody  
16 wants the tour, we can set a date and I  
17 and Russ or myself and Jeff and Hal and  
18 Gill, whoever -- we do this all the time.  
19 I've given tours more than I'd like to  
20 remember, but we can do it again.

21 RAB MEMBER: Like I said, I'm  
22 here every day. My pals over there can  
23 take me on a tour. I'll take the day  
24 off. Now, I'm all for the library.

25 CAPT. CLINE: Do a show of



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2 hands. How many folks like the library?

3 CAPT. CLINE: One. How many  
4 folks would like to stay here?

5 You can't vote twice.

6 So it looked like it was six  
7 folks who would like to stay here, one  
8 guy wants to go to the library, and  
9 everybody else has no preference.

10 RAB MEMBER: I think trying the  
11 library once would be --

12 MR. EDMOND: We'll try the  
13 library for the next meeting, go for one  
14 and see what it's like. Then we can  
15 bring it back here. And is 6 o'clock  
16 still a good time?

17 RAB MEMBER: Yes.

18 RAB MEMBER: Yes.

19 MR. EDMOND: Then we'll hold  
20 the next one at the library. This is now  
21 tentative on me working with the library  
22 and she again agrees and we'll put it out  
23 like that.

24 RAB MEMBER: Is that date  
25 listed on agenda?



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2 MR. EDMOND: We'll close with  
3 that, but I have here the 14th of  
4 September down as the next.

5 RAB MEMBER: Wednesday?

6 MR. EDMOND: Yes. The reason  
7 for that is we'll have a new XO and I can  
8 brief him and tell him that this XO has  
9 promised he will bring the pizza to the  
10 next meeting.

11 CAPT. CLINE: You bet.

12 MR. EDMOND: The only other  
13 thing I guess then for the meeting is the  
14 mission statement. I had put it out. I  
15 think some of the people who came in late  
16 might not have it. The last few meetings  
17 we've kicked around Department of Defense  
18 kind of requires, suggests strongly we  
19 have a mission statement for our  
20 Restoration Advisory Board. I took the  
21 one from Mechanicsburg and I forget where  
22 else we took it from and kind of massaged  
23 it into this. Changes, additions,  
24 subtractions, please, and then we'll make  
25 this as our mission statement.



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2 RAB MEMBER: Jim, how long did  
3 it take you to think this one? This is  
4 great. It's like a poem.

5 MR. EDMOND: I'm not going to  
6 read it in verse.

7 RAB MEMBER: Except it should  
8 be may be, not can be.

9 MR. EDMOND: We'll change that.

10 RAB MEMBER: Where's that?

11 MR. EDMOND: Third line, third  
12 word from the end. We'll change that to  
13 may be. Then we can agree, the community  
14 members can agree that this will be our  
15 mission statement until the community  
16 wishes to change it.

17 Then basically that's it.  
18 Fourteenth of September is the next  
19 meeting.

20 Again, I'd like to let everyone  
21 know we're trying to save you folks  
22 taxpayers' money by not mailing out  
23 minutes. On the bottom of the agenda is  
24 the web site. On that web site, meeting  
25 minutes will be posted.



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2 CAPT. CLINE: Just to close, I  
3 want to thank everybody for coming. This  
4 will be my last RAB meeting unless  
5 something happens unforeseen between now  
6 and July 9 I guess, which is the day that  
7 I'm due to check out, or July 10 I guess  
8 is the day I'm going to check out of the  
9 Air Station. Thank you very much. It's  
10 been a pleasure.

11 Again, I'm going to press one  
12 more time. Take as many of those posters  
13 as you'd like. If you need more, let me  
14 know and we'll get you more. The Air  
15 Show ought to be fantastic. The most  
16 important piece of the Air Show is the  
17 weather. We have the chaplain working on  
18 that. As long as the weather's good for  
19 Memorial Day, you're all invited.  
20 Invitations, the CO will be sending out  
21 invitations to his chalet, called the  
22 Freedom Hospitality chalet. It was  
23 inadvertent if you didn't get an  
24 invitation to that, but the gates are  
25 open Thursday night for the concert,



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2   Friday night for the twilight show,  
3   Saturday and Sunday open to the public  
4   for everybody. So please come enjoy it.  
5   And this is probably going to be  
6   Commander Killian's last RAB as well.  
7   He's off to fight the war. God bless  
8   him. Thanks for coming.

9                   MR. EDMOND: Just so you know,  
10   the XO here is going to be the CO of  
11   NASJRB Atlanta.

12                  MR. TURNER: Good luck.

13                  MR. EDMOND: Thanks for coming.

14                                 - - -

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CERTIFICATE

I HEREBY CERTIFY that the proceedings are contained fully and accurately in the stenographic notes taken by me upon the meeting of taken on May 4, 2005, and that this is a true and correct transcript of same.



-----  
Kimberly A. Overwise  
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**Lawyer's Notes**

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