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MINUTES FOR RESTORATION ADVISORY BOARD MEETING 25 AUGUST 2011 MCB CAMP
LEJEUNE NC
08/25/2011
CAROLINA COURT REPORTERS

COPY

PUBLIC MEETING

RESTORATION ADVISORY BOARD (RAB)

IR SITE 6, TIME-CRITICAL REMOVAL ACTION (TCRA) RESULTS
MARINE CORPS BASE CAMP LEJEUNE

AUGUST 25, 2011
COASTAL CAROLINA COMMUNITY COLLEGE
444 WESTERN BOULEVARD
JACKSONVILLE, NORTH CAROLINA 28546

* * * * *

MEETING MODERATOR - MS. CHARITY M. RYCHAK
DOI CO-CHAIR
MCB CAMP LEJEUNE EMD/EQB
BUILDING 12, McHUGH BOULEVARD
CAMP LEJEUNE, NORTH CAROLINA
28542-0004

PRESENTER - MR. CHRIS BOZZINI, CH2M HILL

COURT REPORTER - BOBBIE G. NEWMAN

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LIST OF ATTACHMENTS

- ATTACHMENT [1] Public Meeting Agenda, August 25, 2011.
ATTACHMENT [2] Attendees of Public Meeting.
ATTACHMENT [3] Slide presentation.

1 COURT REPORTER NOTE: The public meeting portion
2 of the Restoration Advisory Board (RAB) meeting convened at
3 6:00 p.m., in Room 105 of the Business Technology Building,
4 Coastal Carolina Community College.

5 MS. CHARITY M. RYCHAK: I'm Charity Rychak,
6 Marine Corps Base Camp Lejeune. Welcome to the RAB. Glad
7 you guys could make it. I know there's a hurricane coming.
8 Knock on wood, it hopefully won't hit us. But, we've got
9 kind of a hefty agenda including a public meeting that we're
10 going to be starting out with. We have a court reporter with
11 us and she will be recording the first presentation. If any
12 of you guys do have questions, just be sure to say your name
13 first just so she can get that on record. We'll take a break
14 afterwards and then we'll be giving an update on Camp Devil
15 Dog which is one of our UXO Sites that we're actively
16 clearing right now with ongoing construction nearby. And
17 then just give some information about our finances and our
18 public web sites, too. And we have Internet access, so
19 hopefully the Internet will work for us and we can kind of
20 show you guys how to find information including the Site 6
21 report. Without further ado, Chris Bozzini with CH2MHILL.

22 MR. CHRIS BOZZINI: Okay. Since this is going
23 to be part of our public meeting, we're going to talk about
24 the Site 6 Time-Critical Removal Action and the results. And
25 I think the folks -- we talked about this at the last

1 meeting. Just in short, what we want to do is talk about
2 just the background of the Site, provide the results of the
3 Removal Action, and let you know what we're going to do
4 moving forward. So, the Site 6 is part of Operable Unit 2.
5 This is Holcomb Boulevard. (Indicates on slide map.) Hadnot
6 Point is down here. The landfill, this is the landfill to
7 kind of give you an idea where it is. Storage lots 201, 203.
8 Historically out there, there's been past disposal areas of
9 waste such as pesticides, transformers, solvents, *et cetera*.
10 About two years ago we found some munitions debris out there,
11 to add a new twist. And currently the site has weigh scales
12 and shipping containers for DRMO. This is the DRMO lot right
13 there. And the Record of Decision was signed in 1993
14 requiring groundwater pump and treat, which is up in here
15 (indicates on slide map). Land use controls, which is the
16 entire area, is long-term monitoring. And as part of our
17 long-term monitoring, about ten years ago, I think it's the
18 next slide, we started seeing chlorobenzene spiking in our
19 well -- in one well out at Site 6. And so, the Partnering
20 Team really, I guess, over ten years ago, started trying to
21 figure out what was going on at this one well; why we've seen
22 chlorobenzene and we weren't seeing it elsewhere at the site.
23 So over the next five or six years, we put in some additional
24 wells and we did some additional testing out there. And then
25 finally in 2008, we were going to take kind of a larger

1 effort to do some geophysics to really try to figure out what
2 was going on out there. And right off the bat we discovered
3 a whole bunch of munitions debris. So the project got shut
4 down while we had to go in there and pull all those things
5 out to clear the site. Then we went back and started doing
6 test pits. And then as part of our test pitting activity, we
7 found a drum out there of chlorobenzene. So, we -- we -- the
8 proverbial smoking gun that we found -- that was located
9 probably about 50 feet from our monitoring operation. So
10 unfortunately -- but in hopes of successfully finding. This
11 is our well and this is where we found the buried drums. So
12 we collected a soil sample from beneath that drum and we had
13 this very high hit. Chlorobenzene is a very strong odor.
14 We, at the time, basically back-filled the soil so we could
15 have this Time-Critical Removal Action. What the Partnering
16 Team did is we defined an area of 15 x 15 feet and to a depth
17 of 5 feet to dig up and haul away. And just for reference,
18 this red square (on slide map) was where we found all the
19 munitions debris buried up there. So, the drums were
20 discovered in January, 2011. We did an Action Memorandum
21 which basically defined what we're going to do out there.
22 The action being just to dig it up. We did a work plan in
23 April, and in May a contractor went out there and dug up the
24 drums. So here's just some of the pictures of the process of
25 where we went. So the excavated soil was placed on poly-

1 plastic. The old drums were removed and put in these large -
2 - they're about 85 gallon over pack, so you can put the whole
3 drum in there. Because of finding the old munitions we had
4 to have UXO techs out there to make sure there was nothing
5 buried that the workers would get into. And once again,
6 here's just another picture of a drum coming out of the
7 ground. When we had the open excavation, we collected soil
8 samples from the sidewalls and the bottom of the excavation,
9 backfilled it with clean material, you know, compacted it so
10 it wouldn't sink in there. And while we were getting the lab
11 analysis of the soil, we put it in roll-off containers,
12 covered it and put a fence around it to make sure it was well
13 secured. So the Removal Action, once again, it was very
14 limited with the sole intent of getting these drums out and
15 getting this product out of the area. In addition to the
16 soil and debris, communication wire, and metal scrap was
17 found in this area. Three intact drums and one partial drum
18 were removed. They all had liquid so those were put in over
19 packs. No munitions was present in the excavation. Clean
20 fill was brought in to fill the hole back in. The soil
21 debris was placed in four 20-cubic yard roll-offs, and it was
22 transported to Alabama for disposal. The confirmatory
23 sampling, the results are below our screening criteria with
24 the exception of the downgrading and pit. You know what we
25 feel is that that is just some of the residual product that

1 was in the drums. This is actually -- groundwater flows in
2 this direction, so we think it's just the residual material
3 that's seeped from the drum and is still present in the soil.
4

5 The cost -- as part -- we have to report the cost for
6 doing this work. (Indicates graph of TCRA Cost Summary.)
7 The total is about \$260,000. And once again, getting rid of
8 hazardous waste is really expensive, so.

9 This Final Summary Report is on this website. It is
10 in the Admin Record. A hard copy's in the library. We're
11 actually going to review this website a little later tonight,
12 so. As part of our process, this is the Public Notice and
13 the Public Meeting. It's a 30-day Public Notice that I
14 believe started last Thursday. Finally, our pass forward is,
15 since there's still soil out there that's contaminated, we're
16 going to be looking at that soil. We've got Task 4 coming to
17 evaluate the nature and extent that's still left out there,
18 just to make sure that we can, you know, identify if there's
19 any risks, and address and manage that risk accordingly.
20 We're still looking at the groundwater investigation,
21 delineating the groundwater extent out there. Once again, at
22 the end of the day if we need to alter the ROD to do some
23 protective remedy, the Partnering Team will do what needs to
24 get done. In these future field activities which will be
25 some soil screenings, some soil sampling, some additional

1 monitoring wells, will be this winter and we'll have a report
2 next spring.

3 That's it. Any questions?

4 MS. RYCHAK: Okay.

5 MR. BOZZINI: Great.

6 MR. LEONARD G. McADAMS: I've got one. Why do we
7 haul that stuff to Alabama. Isn't there somewhere closer you
8 can get rid of it?

9 MR. BOZZINI: No. Because it's hazardous waste,
10 there actually are very few facilities that can take it. So
11 it's not like you could take it to the Sampson County
12 Landfill or the Base Landfill. The closest facility --
13 there's one in Michigan, there's one in Alabama, and it's a
14 specially built landfill with multiple layers and so forth
15 to, you know, nothing could leach from the material, so.

16 MS. GENA TOWNSEND: Well, one thing about this is, it
17 originally went to Alabama, and because of the high
18 concentration, it had to be incinerated. So, it ended up in
19 Texas at a facility to incinerate it.

20 MR. BOZZINI: Yes.

21 MS. TOWNSEND: And then the ash was disposed of --
22 was it Louisiana? There was another landfill either there or
23 Louisiana. Alabama was the starting point, but this was
24 really almost pure product.

25 MR. BOZZINI: It gets expensive. And like I said,

1 there's just not many facilities out there, so you're kind of
2 held hostage, if you will, to what they want to charge.

3 Okay? All right. Great. Anything else?

4 ATTENDEES: (Indicate negative.)

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*****THE PUBLIC MEETING CONCLUDED AT 6:15 P.M.*****

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Site 6 Time-Critical Removal Action Results

Public Meeting
August 25, 2011



CH2MHILL.



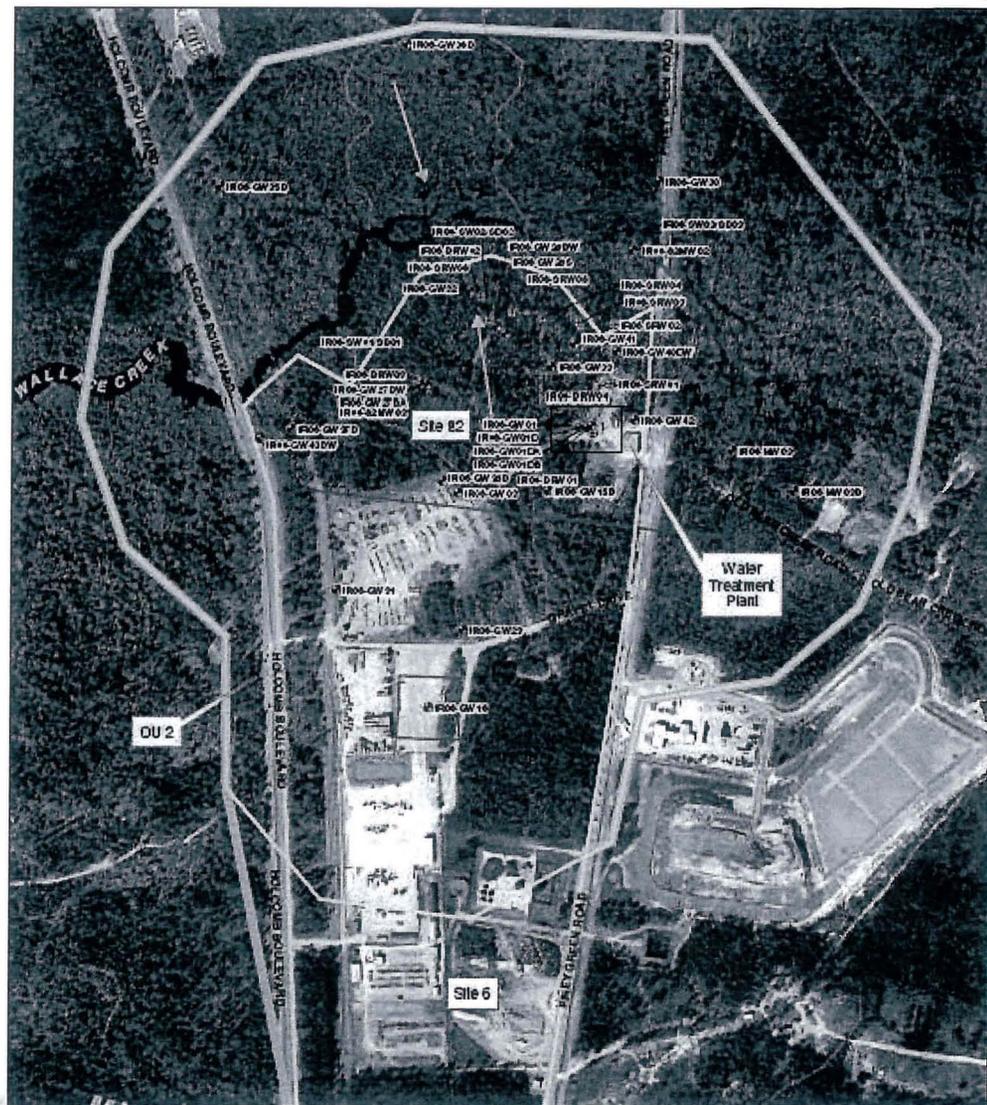
Objectives

- Review background
- Provide results of the Time-Critical Removal Action (TCRA)
- Present path forward and schedule

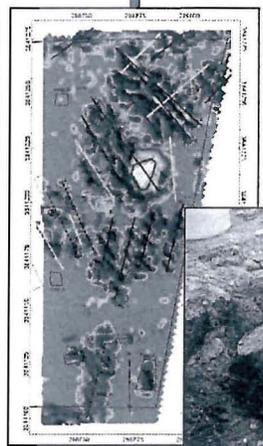
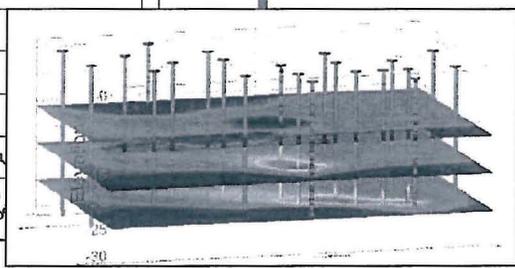
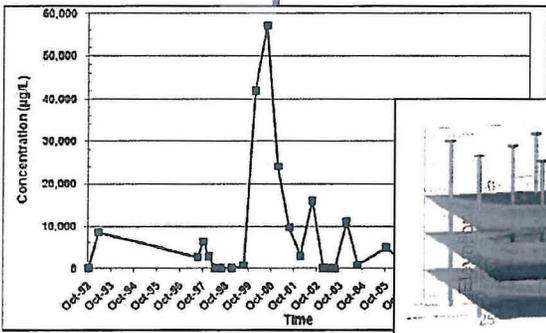
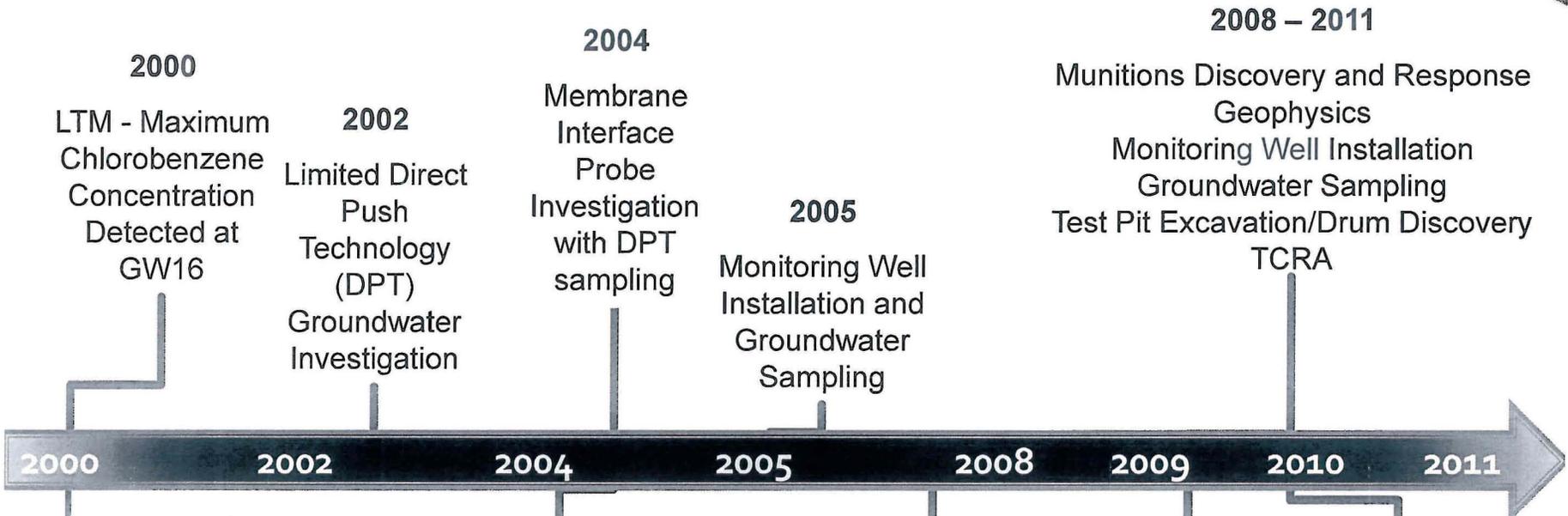


Background

- **Site 6 is part of Operable Unit (OU) 2**
 - Storage Lots 201 and 203
 - Historical disposal and storage of wastes
 - Pesticides, transformers, solvents, electrolytes, used batteries, waste oils, munitions debris (MD)
 - Current storage of shipping containers and metal staging for Defense Reutilization and Marketing Office (DRMO)
- **Record of Decision for OU 2 signed in 1993**
 - Groundwater extraction and treatment
 - Land use controls (LUCs)
 - Long-term monitoring (LTM)
 - Fluctuating chlorobenzene concentrations in groundwater



Chlorobenzene Investigation History



TCRA Objectives

- Remove drums and grossly contaminated soil uncovered in Test Pit 10
 - Chlorobenzene source (70,000,000 $\mu\text{g}/\text{kg}$)
 - 15 ft x 15 ft x 5 ft excavation, 42 cubic yards



TCRA Timeline

- Discovered drums – January 2011
- Final Action Memorandum – April 2011
- Final Implementation Plan – April 2011
- Field Implementation – May 2011

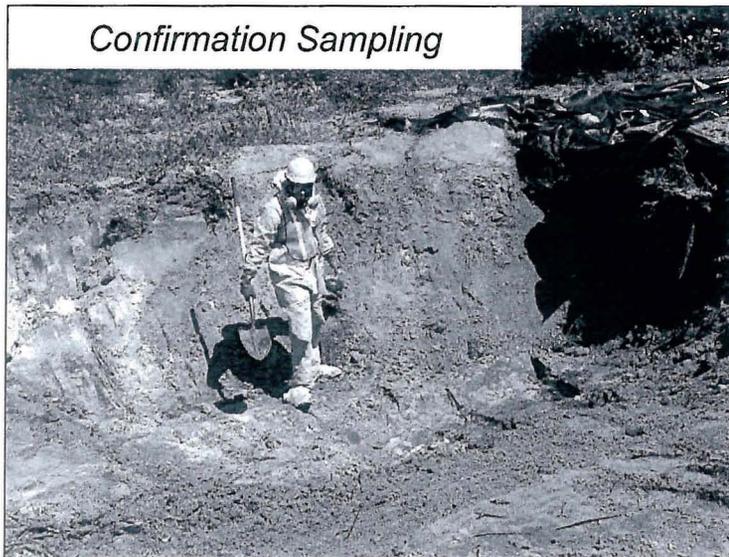


Removal Action

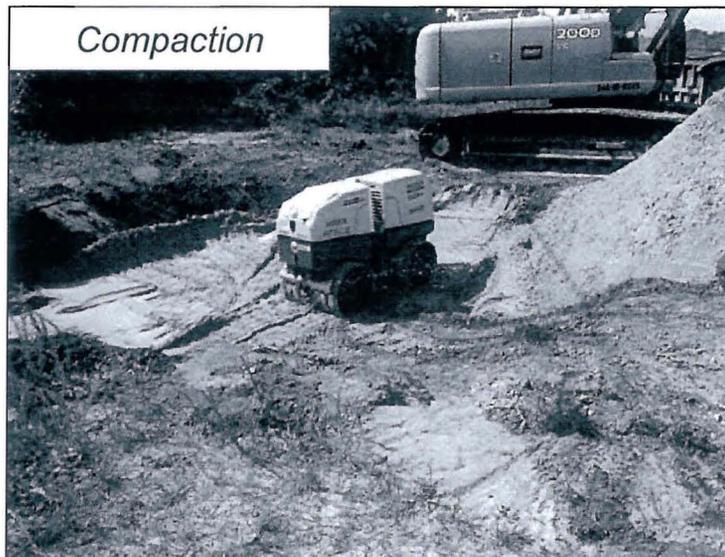


Removal Action

Confirmation Sampling



Compaction



Backfilling



IDW Staging





TCRA Summary

- **Removal Action**

- 42 cubic yards of soil and debris removed
 - Communication wire and metal scrap
- 3 intact drums and one partial drum removed, all containing liquid
- No munitions and explosives of concern (MEC) or material presenting a potential explosive hazard (MPPEH) encountered

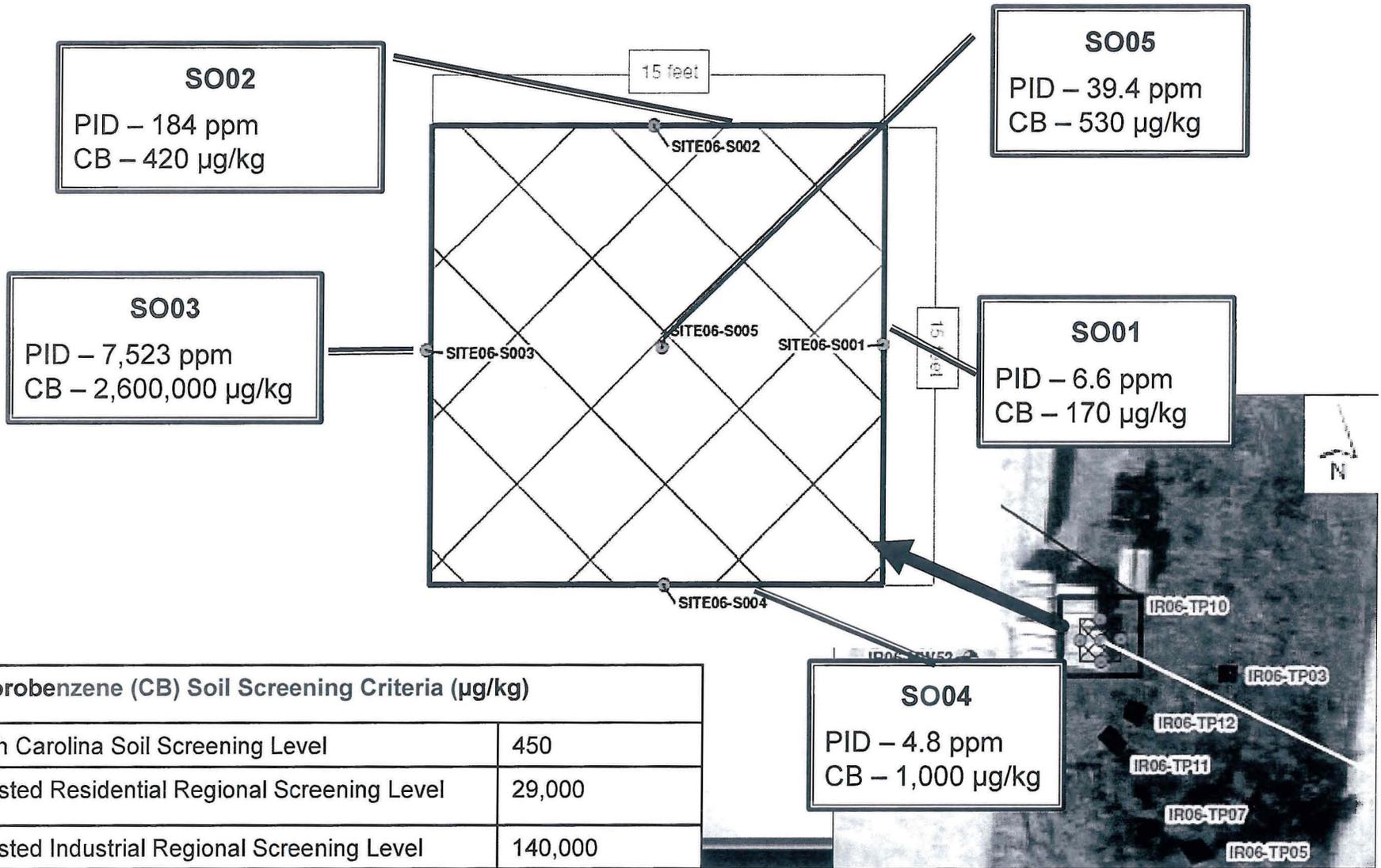
- **Site Restoration**

- Backfilled with 44 cubic yards of clean sandy fill
- Compacted using a 32-inch vibratory roller to 95% compaction

- **Disposal Summary**

- Soil and debris placed in 4 covered and secure 20-cubic yard roll-off containers
 - Waste disposed as U037 RCRA hazardous waste (chlorobenzene) at Chemical Waste Management facility in Alabama
- 

Soil Confirmation Sampling





TCRA Cost Summary

Project Task	Cost
Work Planning and Reporting	\$ 12,000
Soil Removal Implementation	\$ 102,400
Offsite Transportation and Disposal	\$ 146,000
Total	\$ 260,400





TCRA Reporting

- **Final TCRA Summary Report – August 2011**
 - Site 6 documentation is available in the Administrative Record
 - <http://go.usa.gov/jZi>
 - Onslow County Public Library
58 Doris Avenue East
Jacksonville, North Carolina 28540
(910) 455-7350
 - **Public Notice – August 2011**
 - **Public Meeting – August 2011**
- 

Path Forward and Schedule

- **Continue chlorobenzene investigation**
 - Evaluate nature and extent of chlorobenzene remaining in site soils
 - Continue groundwater investigation
 - Delineate at depth
 - Evaluate fluctuating concentrations
 - Ensure remedy continues to be protective of human health and the environment
- **Schedule**
 - Field Activities – Winter 2011
 - Summary Report – Spring 2012

