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NAVAL BASE CHARLESTON ENVIRONMENTAL PROJECT TEAM MEETING MINUTES FOR  
1998 CNC CHARLESTON SC  
12/1/1998  
CNC CHARLESTON

**Naval Base Charleston  
Environmental Project  
Team**

**Meeting Minutes**

**1998**

# PT AGENDA

## NAVAL BASE CHARLESTON

# PROJECT TEAM MEETING AGENDA

**Location: Band Room, Naval Base Charleston**  
**January 12 - 14, 1998**

Team Leader: Dann Spariosu  
Scribe: Dave Backus  
Facilitator: Joe Land

### **Monday, Jan. 12, 1998      Technical Subcommittee**

<b>Time</b>	<b>Lead</b>	<b>Subject</b>	<b>Objective</b>
1100-1300	Navy	Zone J Background Study Strategy	See Note 1.
1300-1400	Lunch		
1400-1630	Navy/Tetra Tech	Zone J (Continued)	See Note 1.

### **Tuesday, Jan 13      Technical Subcommittee**

<b>Time</b>	<b>Lead</b>	<b>Subject</b>	<b>Objective</b>
0800-1000	Navy	Zone J Background Study (cont)	Decision, See Note 1.
1000-1015	Break		
1015-1215	Navy	Monitored Natural Attenuation Protocol	Decision(s). See note 2.
1215-1330	Lunch		
1330- 1430	Navy/SCDHEC	SWMU 39/Hess Oil Update	Information: Note 3.
1430-1445	Break		
1415-1515	Ensafe	Zone I: Proposed Additional Sampling	Decision: See Note 4.
1515-1600	Navy	Fuel Distribution System	Decision: See Note 5.

### **Jan 14, 1998      Project Team**

<b>Time</b>	<b>Lead</b>	<b>Subject</b>	<b>Objective</b>
0800-0830	Dann	Introduction, Rules, Review of Action Items, Parking Lot	Partnering ✓
0830-1030	Navy	Risk Management Decision Document soils: Navy protocol	Discussion, Brainstorming, Decision See Note 6. ✓
1030-1045	<b>Break</b>		
1045-1130	Navy	Disposition of Excavated Soils: Protocol.	Information; See Note 7. ✓
1130-1200	Navy	Project Schedule Updates/ Progress	Information ✓
1145-1300	<b>Lunch</b>		
1300-1430	DET	Update on Interim Measures	Information
1430-1445	<b>Break</b>		
1445-1530	Joe Land	Available Training, Training Needs	Team Development
1530-1630	Team	Wrap up and close out. Next meeting's place and agenda items	Planning

**Notes:**

**Technical Subcommittee**

1. Zone J Discussion

Discussion on Tetra Tech's draft report for background sampling strategy for Nav Base and Ensafé's results, conclusions, and recommendations of Phase I sampling conducted for Zone J. All CNSY team members, NOAA (T.DILLON), and Ms Wendt should have received these reports for Review, if you have not please contact Tony Hunt. Objective is to discuss results of both reports, find common ground as to the ecological issues, and determine conceptual scope for completion of the assessment of the water bodies. Be prepared to discuss solutions and present actions, requirements, and expectations. In addition, representatives from the Navy Research Laboratory whom have performed mineralization and productivity studies of surface water and sediments in the Cooper River adjacent to the Naval Base will be present out of interest in the chemical data and possibly to discuss preliminary results of their studies. In attendance in addition to the technical subcommittee will be Gary Benefield (Contractor -- Tetra Tech), Jay Bassett, Tom Dillon (NOAA), Priscilla Wendt (SCDNR), Jay Cornelius (Ensafé), David Trimm (Ensafé), Mike Montgomery (NRL), Barry Spargo (NRL), and Tom

Boyd (NRL).

## 2. Monitored Natural Attenuation

We discussed this briefly at last month's meeting, the following information and/or further discussion was suggested; A list of sites needs to be developed where natural attenuation will likely be considered (whether it is the sole treatment or part of the treatment train). Data needs to be collected as soon as possible in order to provide a historical perspective for evaluation. Methods need to be discussed especially for the atypical parameters such as dissolved gases.

## 3. SWMU 39 Update

Representatives from NRL will provide a brief summary on the preliminary results of the mineralization and productivity studies. An update on Hess activities and/or plans is expected from SCDHEC.

## 4. Zone I additional sampling

The objective of this discussion is to come to agreement on the additional sampling proposed by Ensafe/Navy in Zone I as a result of the review of SCDHEC comments on the Zone I RFI report.

## 5. Fuel Distribution System

This discussion is a follow up of previous discussion on any further action required for the Fuel Distribution System based on the results of the RFI. The Navy has proposed No Further Action for all of the sites with the exception of those with high arsenic (i.e. >50ppb in groundwater) and to identify areas where petroleum contamination was identified as sites under the UST program. Four of these areas were identified. SCDHEC had asked for additional time to consider this proposal.

## **Project Team Meeting**

## 6. Risk Management Decision document

Objective here is for all members of project team to develop a list of things to be considered that have significance in risk management decisions.

## 7. Protocol for determination of disposition of excavated soil

This is a continuation of the discussion at last month's meeting, the Navy is to prepare a protocol that involves primarily the Navy's Caretaker Site Office in dealing with the requirements for excavated soil disposal. The initial discussion centered on the use of the Environmental Condition of Property Map in screening areas of known contamination from those which are not suspected to be contaminated. The purpose of the protocol is to allow the Navy to make use of the significant amount of data collected at the base in making determinations about the contamination status of soils without performing additional detailed analysis. The protocol will be distributed and discussed at the meeting.

## Action Items from December Meetings

### 1. Technical Subcommittee

9712S-A145	DHEC	Visit SWMU 138/AOC 667. Provide an opinion on the Navy's belief that the site has been adequately characterized. Due: 12/31
9712S-A146	EnSafe	Prepare a tech memo regarding the "plume" approach used for the GW assessment at SWMU 39. Due: 12/31
9712S-A147	DHEC	Review RTC data and re-consider whether the site should receive a SWMU/AOC number. Due: 12/31
9712S-A148	EnSafe	Review DHEC's recommendation for additional RFI sampling in Zone I and prepare a proposal which reflects discussions per the comments provided. Due: 12/31

### 2. Project Team

9712-A140	Tony	Formulate a flow chart/protocol outlining how the Navy will determine whether or not soil can be excavated from one area and used as fill in another. Due: By January PT meeting.
9712-A141	Todd	Develop a list of potential sites where monitored natural attenuation may be feasible as part of the remedial process. Due: By 12/31
9712-A142	Team	Be prepared to discuss and provide input to the risk management decision document by the January PT meeting.
9712-A143	Tony	Evaluate whether the Navy wants to re-number/re-name SWMU 166. Due: By January PT meeting.
9712-A144	Paul	Look into the south Carolina dry cleaning trust fund to determine if the offsite facilities near the Naval Annex are eligible. Due: By January PT meeting.
9712-A145	Tony	Provide examples where groundwater could be "consolidated" into a larger unit for management purposes. Due: By January PT meeting.
9712-A146	Todd	Prepare a tech memo regarding the detection of acetone, DEHP, MEK in samples as artifacts from the sampling process, decontamination process, laboratory, etc. Due: February 15th.
9712-A147	Dann	Discuss possible sources of DEHP with Fred Sloan. By: February 15th.

complete  
 due 1/23  
 today  
 due w/ letter to DHEC  
 in progress  
 in progress complete by Feb  
 in progress  
 in progress

PT MINUTES

**Naval Base Charleston  
Environmental Cleanup Project Team Technical Subcommittee  
Draft Meeting Minutes**

**Date:** 1/12/98      **Place:** NAVBASE Charleston, Band Room      **Time:** 1100

**Attendees:** Dann Spariosu, Tony Hunt, Daryle Fontenot, Reese Batten, Todd Haverkost, Dave Backus Johnny Tapia, Paul Bergstrand

**Invited Guests:** Jay Bassett, Jay Cornelius, David Trimm (EnSafe)  
See attached guest list for others.

**Leader:** Dann Spariosu      **Scribe:** Dave Backus

**Discussion/Decisions**

9801S-M245	NRL	<p>Brief intro to the Naval Research Lab and who they are as an organization</p> <ul style="list-style-type: none"> <li>• At NAVBASE NRL was tasked to perform the finger printing of fuel at SWMU 39 using stable isotopes. The intent was to help establish ownership/responsibility of the fuel contamination in groundwater.</li> <li>• NRL also evaluated the degradation of the TCE plume.</li> <li>• The presence of MTBE in MW-2 and not in MW-11 suggests 2 plumes/sources. Leaded fuel in MW-11 and unleaded in MW-1.</li> </ul>
9801S-M246	Jay C.	<p>Zone J Background Study Strategy</p> <p>PAHs - Significantly exceed at mouth's of DD</p> <p>PEST - Significantly exceed at headwater of SYC</p> <p>As - Exceeded sediment screening in all areas.</p> <p>Cooper River - Major concerns around dry docks with PAHs, metals</p> <p>Shipyards Creek - Metals and PEST at head waters were major concern.</p> <p>Noisette Creek - Lead at mouth.</p> <p>David Trimm suggests normalizing these data-sets to grain size distribution to evaluate different depositional systems.</p> <p>Surface Water - Metals, organotin (1), some PAHs - mostly at DD and Shipyards Creek predominantly in head waters.</p> <p>Rick Coffin - (NRL) suggests looking at specification of PAHs in the deflection distribution areas.</p> <p>EnSafe recommendation - Compare these data to background, risk evaluation, toxicity studies (?). Provide preliminary screening report.</p> <p>Gary Benfield and Tom Dillon - state next steps are dual paper exercise: Compare values to sed screening values along with background. If conc. does not exceed SSL or Background, then it is not a COPC.</p> <p>NRL et.al., suggests going forward with grain size analysis and river flow velocities at contaminant areas of concern.</p> <p>Tetra Tech - Summary of background strategy. Determined that the Wando was as close a model for how the Cooper was before industrialization.</p>

	<p>Attempts to look at contaminant allocation (aside from Macalloy) were not successful.</p> <p>USFWS - interpreted TT background document, was going to take background into the risk determination. They do not want the risk (ECO) risk tainted by background.</p> <p>TT &amp; EnSafe state that background will not be used in risk determinations. Risk is Risk! Background will be provided to the team as a risk management tool.</p> <p>Jay's Proposal Where We Go From Here?</p> <ol style="list-style-type: none"> <li>1. Existing data (compile)</li> <li>2. Previous test studies (research)</li> <li>3. Preliminary end points (determine)</li> <li>4. Run preliminary risk evaluation</li> <li>5. Set up small subcommittee of eco risk personnel to discuss where we go from here based on results.</li> </ol> <p>Potential - Subcommittee:</p> <p>Lynn Wellman - EPA  Tom Dillon - NOAA/Hazmat  Rusty Jeffers - US FW  Priscilla Wendt - SCDHEC  David Trimm - EnSafe  Tony Hunt - SDIV</p>
9801S - M247	<p>SWMU 39 Hess Oil Update</p> <ul style="list-style-type: none"> <li>• Last sampling was late December '97.</li> <li>• Dissolved phase plume has been defined.</li> <li>• Propose bi-annual sampling from here on.</li> <li>• Will install 2 more wells on their property.</li> </ul> <p>New Hess contacts</p> <ul style="list-style-type: none"> <li>• Alex Sagebien 732/750-6918</li> <li>• Joe Farry (Hess consultant) 803/731-4477.</li> </ul> <p>From DHEC</p> <ul style="list-style-type: none"> <li>• Lori Murtaugh (sp?) is new DHEC project manager.</li> <li>• Will be submitting CAP soon.</li> <li>• Proposing vacuum enhanced free product recovery.</li> <li>• Last quarterly monitoring is complete at 39, suggest continued Navy monitoring, add MTBE to analyte list.</li> <li>• Natural attenuation monitoring is about to begin by Navy MTBE will be added.</li> </ul> <p>TCE Plume</p> <ul style="list-style-type: none"> <li>• Source ID has not been defined.</li> <li>• Plan to monitor for 4 quarters to ensure that plume is stable and degrading.</li> <li>• Johnny is concerned that we are only looking at N.A.</li> <li>• Suggestion made to get together with Hess to coordinate the efforts at SWMU 39 (February, meeting) February 11, 1998.</li> </ul>

9801S-M248	Tony	<p>Fuel Distribution System Four areas of contamination have been identified in the system - proposed for moving to UST program.</p> <p><b>Consensus Passed to</b> Transfer of fuel distribution system to UST program with exception of: - SWMU 24, AOC 631. 3 areas identified in today's discussion with RCRA contaminants. Includes 641, 629, 623, 624, 627, 626, 625, 622.</p> <p>Discussion of how to handle the 3 areas with As and metals contamination in GW. SDIV and EnSafe will research what samples are available in the area and come back to the team with proposals for grouping and further actions. By next meeting.</p>
9801S-M249	Tony	<p>PCB detection near SWMU 13 in Zone H</p> <ul style="list-style-type: none"> <li>• DHEC needs letter identifying the site.</li> <li>• Also will need some more characterize samples</li> <li>• Re-evaluate existing data.</li> <li>• Make recommendations on further sampling.</li> </ul>
9801S-M250	Tony	<p>Monitoring Natural Attenuation Site identification -(SWMU 39, 166, SWMU 17 and AOC 607) (Also propose SWMU 65) (Building 80 area) (Area around Building 44, 5, 177 in Zone E, C).</p> <p>Problematic after these due to lack of criteria for choosing, no clear need for any others. Navy will begin sampling the sites listed above and develop a list of other candidate sites.</p> <p><b>Consensus Passed.</b></p>
9801S-M251	Todd	<p>Zone I - Proposed Additional Sampling</p> <p>AOC 671 - Met in GW; evaluate in risk management decision tree, no need for additional sampling. <b>Consensus Passed.</b></p> <p>AOC 672, 673 - Risk was <math>1.6 \times 10^{-4}</math> res, propose 3 additional soil samples for As to further define extent. <b>Consensus Passed.</b></p> <p>AOC 675, 676, 677 - Main concern was petroleum in groundwater, tanks have been removed, possible candidate for transferred to the UST program to look further at PET in GW.</p> <p>AOC 677-583- Thallium was above SSL. No further samples. <b>Consensus Passed.</b></p> <p>Motion to suspend this discussion until we have the benefit of the RFA/RFI work plan. Telecon set for Tuesday 1/20/98 at 13:30. Attendance: Tony, Todd, Paul, Johnny, Dann.</p>

9801S-M252	Mac	<p data-bbox="565 212 781 239"><b>SWMU 166 Update</b></p> <p data-bbox="565 243 1354 273">Proposal for Team to review handout and continue discussion tomorrow.</p> <p data-bbox="565 277 1398 338">Most important goal of this update is to decide on the process for choosing a remedial option</p> <ul data-bbox="565 373 1378 497" style="list-style-type: none"><li data-bbox="565 373 1378 434">• Tony suggests changing the number of the sewer system (at the Annex) instead of the chlorinated plume.</li><li data-bbox="565 470 1227 497">• Johnny asks that the Navy send a request letter to DHEC.</li></ul>
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### Action Items

9801S-A149	Team	<p>Establish a subcommittee to move forward with the ECO risk process for Zone J. Subcommittee will be responsible for the following:</p> <ul style="list-style-type: none"> <li>• Compile existing data.</li> <li>• Research previous studies } QA/DQO checks.</li> <li>• Determine preliminary assessment and measurement endpoint.</li> <li>• Run preliminary risk evaluation.</li> <li>• Agree on conceptual site model.</li> <li>• Determine data gaps and info needed to fill data gaps (may include background).</li> <li>• Site management decision point.</li> <li>• Process will lead to — NFA — or next ECO step.</li> </ul> <p>Begin meeting next month.</p>
9801S-A150	Daryle	<p>Set up meeting with Hess Oil, have them come to next PT meeting February 11<sup>th</sup>, Wednesday to discuss future plans for SWMU 39 remediation.</p> <p>By next meeting.</p>

NAVBASE Charleston Project Team  
Guest Attendees  
Tech Sub Committee Meeting

Barry Spargo	U.S. Naval Research Laboratory Code 6115 Washington DC 20375	202-404-6392
Thomas J. Boyd	U.S. Naval Research Laboratory Code 6115 Washington DC 20375	202-404-6424
Michael T. Montgomery	U.S. Naval Research Laboratory Code 6115 Washington DC 20375	202-404-6419
Richard B. Coffin	U.S. Naval Research Laboratory Code 6115 Washington DC 20375	202-767-0065
David Trimm	EnSafe	850-479-4595
Jay Cornelius	EnSafe	901-372-7962
Dave Backus	EnSafe	901-372-7962
Tony Hunt	South Div	803-820-5525
Gary Benfield	TetraTech EM Inc.	803-971-7030
Johnny Tapia	SCDHEC	803-896-4179
Paul M. Bergstrand	SCDHEC	803-896-4016
Rusty Jeffers	USFWS	803-727-4707 ext. 20
Dann Spariosu	USEPA	404-562-8552
Tom Dillon	NOAA/HAZMAT	404-562-8639
Reece Batten	South Div	803-820-5578
Jay Bassett	USEPA	404-562-8542
Todd Haverkost	EnSafe	803-884-0029

**Naval Base Charleston  
Environmental Cleanup Project Team  
Draft Meeting Minutes**

**Date:** 1/14/98

**Place:** Naval Base Charleston, NH-46

**Time:** 0800

**Attendees:** Tony Hunt, Reese Batten, Daryle Fontenot, Johnny Tapia, Paul Bergstrand, Ann Ragan, Dann Spariosu, Mac McNeil, Todd Haverkost, Dave Backus, Joe Land, Jeri Johnson, Tom Fresilli

**Invited Guests:** Mark Bowers

**Leader:** Dann Spariosu

**Scribe:** Dave Backus

**Discussion/Decisions**

9801-M253	Tony	<p>Risk Management Decision Document Problems seen to date:</p> <ol style="list-style-type: none"> <li>1) How do we make decisions on sites that exhibit risk within the <math>10^{-4}</math> to <math>10^{-6}</math> range.</li> <li>2) RFI recommendation sections have not done well in facilitating risk management decisions. Propose development of a separate document and protocols to capture risk management decisions. EnSafe will prepare outline of risk management considerations incorporating Johnny and Tony's drafts. Bring outline.</li> </ol>
9801-M254	Tony Mark B.	<p>SWMU 39 Groundwater Issues Exposure Point Conc - was departure from EIC used in different zones due to multiple plumes. Also used all 4 quarters of data. This was agreed upon by Region IV Risk Assessors (Ted Simon). Johnny still has guidance, suggestion to get Johnny and Ted together.</p>
9801-M255	Tony	<p>Disposition of Excavated Soil</p> <ul style="list-style-type: none"> <li>• Navy is receiving many requests from Lessees to excavate soils for improvement.</li> <li>• Navy proposes to use environmental condition of property map as screen of how to proceed with permitting the excavation and disposal of base soils.</li> <li>• Tony handed out a proposed Navy protocol for the permitting process.</li> <li>• Paul suggests addition of a flow chart with this process and run through a few sample permits.</li> </ul>

9801-M256	Daryle	<p>Project Schedule/Progress Updates  Very important to meet our goals for 1998 i.e., completion of RFI Reports -  Basewide</p> <p>Zone A Waiting on SWMU 39 groundwater discussion (1/16/98). Then  submit whole Zone A document.</p> <p>Zone C Awaiting final approval and permit mod.</p> <p>Zone E Comments due 6/12/98.</p> <p>Zone F Submitted last week.</p> <p>Zone G Submitted January 30.</p> <p>Zone I Needs additional field work</p> <p>Zone J Waiting on Focus group to recommend Phase II</p> <p>Zone K July comments due.</p> <p>Zone L Field work end 4/15/98 projected.</p> <p>CMS .</p> <p>Zone A Work Plan (Draft) due 3/10/98.</p> <p>Zone C Work Plan (Draft) due 3/10/98.</p> <p>Zone H Document approval meeting 2/10/98.</p> <ul style="list-style-type: none"> <li>• Reese to provide schedule of expedited IM sites to DHEC by Friday 1/16.</li> <li>• CAMP has been updated and will be submitted with the quarterly status report next week.</li> </ul>
9801-M257	DET	<p>Interim Measures Update</p> <p>SWMU 14 Back fill complete yet to see ID.</p> <p>SWMU 8 500 gal. oil recovered since Christmas at Area 2.</p> <p>SWMU 5 Backfilled yesterday.</p> <p>SWMU 7 Let contract for disposal</p> <p>SWMU 38 Researching alternate disposal or treatment options suggestion to  look at ind. Rec. And/or perform a preliminary risk evaluation.  Also provide copies of RODs from other past sites performed by  EnSafe.</p> <p>AOC 500 Contractors being selected and WP<sup>6</sup> being reviewed.  501, 502</p> <p>AOC 611, 696 Complete..</p> <p>AOC 699 Incorporating comments from DHEC.</p> <p>SWMU 3 PEP complete waste characterization samples are being run.</p> <p>Zone G PCBs Immuno assay and GC screening has identified extent of  contamination cost estimate to SDIV by next week.</p> <p>SWMU 2 PEP delivered to SDIV this week.</p> <p>SWMU 166 PEP delivered to SDIV this week.</p> <p>SWMU 17 PEP due to be delivered to SDIV next week.</p>

9801-M258	Mac	<p>SWMU 166</p> <p>Outstanding issues:</p> <p>Plume delineation, horizontal boundaries are not well defined. 18 wells currently being installed will help with definition. Data should be available in 3 weeks.</p> <ul style="list-style-type: none"> <li>- MCL requirement - may not be technically attainable.</li> <li>- Extraction system will cause - recharge. Will need injection permit for all pump and treat samples.</li> </ul> <p>Technology Selection</p> <p>PT asks Bechtel to come back to the team with recommendation of which technology is best.</p>				
9801-M259		<p>AOC 667, 608</p> <p>Tanks are being addressed by UST program O/W separator. Looking for as built or typical installation.</p> <p>DET will be sampling tanks and O/W separator as well as clean out and disposal.</p>				
9801-M260	Team	<p>Close Out</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center; vertical-align: top;">±</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>• ECO discussion</li> <li>• Decisions made</li> <li>• Risk management</li> <li>• Good progress</li> <li>• Soil protocol feedback</li> <li>• SWMU 166</li> <li>• Permanent home</li> <li>• DET IM report</li> <li>• Fuel Dist. Sys. Agreement</li> <li>• Meeting attitude</li> <li>• Good dinner Tues. Night</li> <li>• NRL presentation</li> <li>• Dann as Team leader</li> <li>• Agenda format</li> </ul> </td> <td style="text-align: center; vertical-align: top;">-/*</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>• Tues sluggish</li> <li>• Time slips</li> <li>• Poorly prepared for Zone I</li> <li>• Poor preparation 667/138</li> <li>• Too much posturing</li> </ul> </td> </tr> </table>	±	<ul style="list-style-type: none"> <li>• ECO discussion</li> <li>• Decisions made</li> <li>• Risk management</li> <li>• Good progress</li> <li>• Soil protocol feedback</li> <li>• SWMU 166</li> <li>• Permanent home</li> <li>• DET IM report</li> <li>• Fuel Dist. Sys. Agreement</li> <li>• Meeting attitude</li> <li>• Good dinner Tues. Night</li> <li>• NRL presentation</li> <li>• Dann as Team leader</li> <li>• Agenda format</li> </ul>	-/*	<ul style="list-style-type: none"> <li>• Tues sluggish</li> <li>• Time slips</li> <li>• Poorly prepared for Zone I</li> <li>• Poor preparation 667/138</li> <li>• Too much posturing</li> </ul>
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### Action Items

9801-A156	Tony/Johnny	<p>Tony and Johnny to provide copies of risk management outline to team by Friday 1/16.</p> <p>Team to review and comment for discussion in next months Tech subcommittee.</p>
9801-A157	Johnny	<p>Call Mark Bowers (by Friday 1/16) and/or Ted Simon (EPA Region IV) to get clarification on exposure point concentration calculations for SWMU 39 groundwater.</p>
9801-A158	Tony	<p>Tony to amend excavated soil protocol.</p> <p>Develop flow chart and distribute to team by 1/23.</p>
9801-A159	Reese	<p>Provide schedule of expedited IM work to DHEC by 1/16/98.</p>
9801-A160	EnSafe	<p>Perform preliminary risk evaluation on SWMU 38 data results. Also provide copies of RODs from other pesticide removal sites, by next PT meeting.</p>

M-245  
A-149  
D-

Naval Base Charleston  
Environmental Cleanup Project Team  
Draft Meeting Minutes

TECIT  
Subcommittee

Date: 1/12/98 Place: NAVBASE Charleston Time: 1100  
Band Room  
Attendees: DANN, TONY, DARYL, REESE, TODD, DAVE, JOHNNY, PAUL  
Invited Guests: JAY BASSETT, JAY CORNELIUS, DAVID TRIMM (ENSAF)  
SEE ATTACHED GUEST LIST FOR OTHERS  
Leader: Dann Scribe: DAVE

Discussion/Decisions

9801S-M245	NRL	Brief intro to the Naval Research Lab and who they are as an organization - At NAVBASE NRL was tasked to perform the fingerprinting of fuel at SWMU 39 using stable isotopes. The intent was to help establish ownership/responsibility of the
9801S -	A	fuel contamination in groundwater. - NRL also evaluated the degradation of the TCE plume - The presence of MTBE in MW-2 + not in MW-11 suggests 2 plumes/sources. Leaded fuel in MW-11 and unleaded in MW-2
9801S -		
9801S-M246	JAY C.	<u>ZONE J BKND STUDY STRATEGY</u> PART - SIGNIF EXCEED MT MONTHS OF DD PBT - " " AT HEAD WATER OF SVC As - EXCEEDED SED SCREENING IN ALL AREAS

9801S -	↑	<p>COOPER RIVER - MAJOR CONCERNS AROUND DRY DOCKS WITH PATHS, MET</p> <p>SHOPYARD CREEK - METALS AND PEST AT HEAD WATERS WERE MAJOR CONCERN</p> <p>NOISETTE CREEK - LEAD AT MOUTH</p> <p>DAVID TRIMM SUGGESTS NORMALIZING THESE DATA SETS TO GRAIN SIZE DISTRIBUTION TO EVALUATE DIFFERENT DEPOSITIONAL SYSTEMS</p>
9801S -	↑	<p>SURFACE WATER - METALS, ORGANOIN (1), SOME PATHS - MOSTLY AT DD AND SHOPYARD CREEK PREDOMINANTLY IN HEAD WATERS</p> <p>RICK COFFIN - (BRL) SUGGESTS LOOKING @ SPECIMEN OF PATHS IN THE DETECTION DISTRIBUTION AREAS.</p> <p>ENSAFE RECOMMENDATION - COMPARE THESE DATA TO BACKGROUND, RISK EVALUATION, TOXICITY STUDIES (P), PRODUCE PRELIM SCREENING REPORT</p>
9801S -	↑	<p>GARY BENEFIELD &amp; TOM DILLON - STATE NEXT STEPS ARE DUAL PAPER EVALUATE: COMPARE VALUES TO SED SCREENING VALUES ALONG WITH BKND. IF CONC. DOES NOT EXCEED BSL OR BKN, THEN IT IS NOT A CONC.</p> <p>NRL C.F.A., SUGGESTS GOING FORWARD WITH GRAIN SIZE ANALYSIS AND RIVER FLOW VELOCITIES AT CONTAMINANT AREAS OF CONCERN.</p>
9801S -	↑	<p>TETRA TEST - SUMMARY OF BACKGROUND STRATEGY DETERMINED THAT THE WINDO WAS AS CLOSE TO A THE MODEL FOR HOW THE COOPER WAS BEFORE INDUSTRIALIZATION.</p> <p>ATTEMPTS TO LOOK AT CONTAMINANT ALLOCATION (AHEAD FROM METALLOY) WERE NOT SUCCESSFUL</p> <p>USFWS - INTERPRETED TT BKND DOCUMENT, WAS GOING TO TAKE BKND INTO THE RISK DETERMINATION. THEY DO NOT WANT THE RISK (EO) RISK TAINTED BY BKND.</p>

TT & ENSAFE STATE THAT BKND WILL NOT BE USED IN RISK DETERMINATIONS.  
 RISK IS RISK ↓ BKND WILL BE PROVIDED TO THE TEAM AS A RISK MGMT TOOL.

JAY'S PROPOSAL  
 WHERE WE GO FROM HERE

- ① EXISTING DATA (COMPILE)
- ② PREVIOUS TEST STUDIES (RESEARCH)
- ③ PRELIMINARY END POINTS (DETERMINE)
- ④ RUN PRELIMINARY RISK EVALUATION
- ⑤ SET UP SMALL SUB COMMITTEE OF EIO RISK PERSONNEL TO DISCUSS WHERE WE GO FROM HERE BASED ON REVL

9801S -		<p>POTENTIAL SUBCOMMITTEE:</p> <p>LYNN WELLMAN - EPA  TOM DILLOIN - NOAA/HALMUT  RUSTY JEFFERS - JS FW  <del>FRILLA</del> WENAT - SLD HEC  DAVID TRIVUM - ENSURE  TONY HUNT - SDIV</p>
<p>TUES. 1/13/98</p> <p>↓</p>	9801S - M247	<p>SWMU 39 HESS OIL UPDATE -</p> <ul style="list-style-type: none"> <li>- LAST SAMPLING WAS LATE DECEMBER '97</li> <li>- DISSOLVED PHASE PLUME HAS BEEN DEFINED</li> <li>- PROPOSE 3<sup>rd</sup> ANNUAL SAMPLING FROM HERE ON</li> <li>- WILL INSTALL 2 MORE WELLS ON THEIR PROPERTY</li> <li>- ALEX SAHAYEN 732/760-6918 NEW HESS CONTACT</li> <li>- JOE FERRY (HESS CASWANT) 803/751-4477 FROM DHEC</li> <li>- LORI MORTA <del>W</del> IS NEW STATE PROJECT MANAGER</li> </ul>
9801S -	↑	<ul style="list-style-type: none"> <li>- WILL BE SUBMITTING CAP SOON</li> <li>- <del>PROPOSING</del> PROPOSING UALUMA ENHANCED FREE PRODUCT RECOVERY</li> <li>- LAST QUARTER MONITORING IS COMPLETE AT 39, SUGGEST CONTINUED NAVY MONITORING, ADD MTBE TO ANALYTE LIST</li> <li>- NATURAL ATTENUATION MONITORING IS ABOUT TO BEGIN BY NAVY MTBE WILL BE ADDED</li> </ul>
9801S -	↑	<p>TCE PLUME -</p> <ul style="list-style-type: none"> <li>• SOURCE ID HAS NOT BEEN DETERMINED</li> <li>• PLAN TO MONITOR FOR 4 QUARTERS TO ENSURE THAT PLUME IS STABLE AND DEGRADING</li> <li>• JOHNNY IS CONCERNED THAT WE ARE ONLY LOOKING AT N.A.</li> <li>• SUGGESTION MADE TO GET TOGETHER WITH HESS TO COORDINATE THE EFFORTS AT SWMU 39 (FEB. MEETING) FEB. 11, 1998</li> </ul>

> 98015 - 248

SEE ACTION ITEM SHEET

98015 - 248 <sup>9</sup>	TONY	<p>PCB DETECTION NEAR SWMU 13 IN ZONE H</p> <ul style="list-style-type: none"> <li>- DETEC NEED LETTER IDENTIFYING THE SITE</li> <li>- ALSO WILL NEED SOME MORE CHARACTERIZE SAMPLES</li> <li>- RE-EVALUATE EXISTING DATA</li> <li>- MAKE RECOMMENDATIONS ON FURTHER SAMPLING</li> </ul>
98015 - <del>249</del> 250	TONY  -D-	<p>MONITORED NATURAL ATTENUATION - SWMU 17</p> <p>SITE IDENTIFICATION - (SWMU 39, 166, + AOC 607) (ALSO PROPOSE SWMU 65) (AREA AROUND BLDG 44, 5, 17) (BLDG. 60 AREA) (IN ZONE E, C)</p> <p>PROBLEMS AFTER THESE DUE TO LACK OF CRITERIA FOR CHOOSING, NO CLEAR NEED FOR ANY OTHERS. NAVY WILL BEGIN SAMPLING THE SITES LISTED ABOVE AND DEVELOP A LIST OF OTHER CANDIDATE SITES. <u>CONSENSUS PASSED</u></p>
98015 - 251	TODD	<p>ZONE I - PROPOSED ADDITIONAL SAMPLING</p> <p>AOC 671 - MET IN GW; EVALUATE IN RISK MGMT DECISION TREE, NO NEED FOR ADDNL SAMPLING <u>CONSENSUS PASSED</u></p> <p>AOC 672, 73 - RISK WAS <math>1.6 \times 10^{-4}</math> RAS, PROPOSE 3 ADDITIONAL SOIL SAMPLES FOR AS TO FURTHER DEFINE EXTENT <u>CONSENSUS PASSED</u></p> <p>AOC 675, 6, &amp; 7 - MAIN CONCERN WAS PETROLEUM IN GROUND WATER, TANKS HAVE BEEN</p>
98015 -	↑	<p>REMOVED, POSSIBLE CANDIDATE FOR TRUSTED TO THE JST PROGRAM TO LOOK FURTHER AT PET IN GW.</p> <p>677 - SB 3, THALLIUM WAS ABOVE SSL NO FURTHER SAMPLES <u>CONSENSUS PASSED</u></p> <p>MOTION TO SUSPEND THIS DISCUSSION UNTIL WE HAVE THE BOYFID OF THE RPA / RFI WORK PLAN. TELECON SET FOR TUES. 1/20/98 @ 1300 ATTENDANCE: TONY TODD, PAUL JOHNNY, DANN</p>

9801S - 252	MAC	<p><u>SWMU 166 UPDATE -</u>          PROPOSAL FOR TEAM TO REVIEW HANDBOOK AND CONTINUE DISCUSSION TOMORROW. MOST IMPORTANT GOAL OF THIS UPDATE IS TO DECIDE ON THE PROCESS FOR CHOOSING A REMEDIATION OPTION</p> <ul style="list-style-type: none"> <li>• TONY SUGGESTS CHANGING THE NUMBER OF THE SEWER SYSTEM (AT THE ANNEK) INSTEAD OF THE CHLORINATED PLUMS.</li> <li>• JOHNNY ASKS THAT THE NAVY SEND A REQUEST LETTER TO DHEC</li> </ul>
9801S -		
9801S -		
9801S -		

## ACTION ITEMS

9801S-15 <sup>1</sup> / <sub>1</sub>	TONY	<p>SUBMIT NOTIFICATION LETTER TO DHEC ON THE PCB CONTAMINATION IDENTIFIED IN ZONE H ADJACENT TO SWMU 13.</p> <ul style="list-style-type: none"> <li>- RE-EVALUATE EXISTING DATA</li> <li>- MAKE RECOMMENDATIONS ON FURTHER SAMPLING.</li> </ul> <p style="text-align: right;">BY NEXT MEETING</p>														
9801S-15 <sup>2</sup> / <sub>2</sub>	<del>TONY</del> PAUL	<p>FIND OUT WHEN NEXT MEETING CONCERNING OYSTER SHELL PROJECT IS SCHEDULED</p>														
9801S-15 <sup>3</sup> / <sub>3</sub>	TODD	<p>BEGIN NATURAL ATTENUATION SAMPLING ON SITES</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">ADC 607</td> <td style="width: 50%;">ALSO SOME</td> </tr> <tr> <td>SWMU 39</td> <td>UPGRADIENT</td> </tr> <tr> <td>SWMU 166</td> <td>WELLS</td> </tr> <tr> <td>SWMU 17</td> <td></td> </tr> <tr> <td>SWMU 65</td> <td></td> </tr> <tr> <td>BLOG 80 AREA</td> <td></td> </tr> <tr> <td>BLDG 44 AREA</td> <td></td> </tr> </table> <p style="text-align: right;">BY 1/23/98</p>	ADC 607	ALSO SOME	SWMU 39	UPGRADIENT	SWMU 166	WELLS	SWMU 17		SWMU 65		BLOG 80 AREA		BLDG 44 AREA	
ADC 607	ALSO SOME															
SWMU 39	UPGRADIENT															
SWMU 166	WELLS															
SWMU 17																
SWMU 65																
BLOG 80 AREA																
BLDG 44 AREA																
9801S-15 <sup>4</sup> / <sub>4</sub>	TODD	<p>DEVELOP LIST OF OTHER SITES PROPOSED FOR NATURAL ATTENUATION MONITORING</p> <p style="text-align: right;">BY 1/23/98</p>														
9801S-15 <sup>5</sup> / <sub>5</sub>	TODD	<p>COST ANALYSIS OF NMT ATTN MONITORING</p> <p>SUBMIT TO PAUL</p> <p style="text-align: right;">BY 1/23/98</p>														
9801S-																

# TECH SUBCOMMITTEE

## Action Items

9801S-149	TERRA	<p>ESTABLISH A SUBCOMMITTEE TO MOVE FORWARD WITH THE ECO RISK PROCESS FOR ZONE J. SUBCOMITE WILL BE RESPONSIBLE FOR THE FOLLOWING:</p> <ul style="list-style-type: none"> <li>• COMPILE EXISTING DATA</li> <li>• RESEARCH PREVIOUS STUDIES } QA/QC CHECKS</li> <li>• DETERMINE PRELIM ASSESSMENT &amp; MEASUREMENT ENDPOINTS</li> <li>• RUN PRELIM RISK EVALUATION</li> <li>• AGREE ON CONCEPTUAL SITE MODEL</li> <li>• DETERMINE DATA GAPS AND INFO NEEDED TO FILL DATA GAPS (MAY INCLUDE BKWD.)</li> </ul>
9801S-	↑	<ul style="list-style-type: none"> <li>• SITE MANAGEMENT DECISION POINT</li> <li>• PROCESS WILL LEAD TO             <ul style="list-style-type: none"> <li>- NFA</li> <li>- OR NEXT ECO STEP</li> </ul> </li> </ul> <p style="text-align: center;">BEGIN MEETING NEXT MONTH</p>
9801S-150	DARYL	<p>SET UP MEETING WITH HESS OIL, HAVE THEM COME TO NEXT PT MEETING FEB. 11 W/EN. TO DISCUSS FUTURE PLANS FOR SWAMP 5? REMEDIATION.</p> <p style="text-align: center;">BY NEXT MEETING</p>
<p>9801S-151 9801S-122E</p> <p style="text-align: center;">* -D-</p>	<p>TONY</p> <p><u>CONSENSUS PASSED TO</u></p>	<p>FUEL DISTRIBUTION SYSTEM -</p> <p>4 AREAS OF CONTAMINATION HAVE BEEN IDENTIFIED IN THE SYSTEM - PROCEED FOR MOVING TO USE PROGRAM.</p> <p>TRANSFER OF FUEL DIST SYSTEM TO USE PROGRAM 2/ EXCEPT 01</p> <ul style="list-style-type: none"> <li>- SWAMP 24, AOC 631</li> <li>- 3 AREAS IDENTIFIED IN TONY'S DISCUSSION WITH RCRM CONTAMINANTS</li> </ul> <p>INCLUDES 641 629, 623, 624, 627, 626, 625 622</p>

DISCUSSION OF HOW TO HANDLE THE 3 AREAS WITH AS & METALS CONTAMINATION IN GW. SDIV & ENSAFE WILL RESEARCH WHAT SAMPLES ARE AVAILABLE TO IN THE AREA AND COME BACK TO THE TEAM WITH PROPOSALS FOR GROUPING AND FURTHER ACTIONS

BY NEXT MEETING



Environmental and Safety Designs, Inc.

Houston Northcutt Blvd., Ste. 113 • Mt. Pleasant, SC 29464  
(803) 884-0029

JOB \_\_\_\_\_  
SHEET NO. \_\_\_\_\_ TO \_\_\_\_\_  
CALCULATED BY \_\_\_\_\_ DATE \_\_\_\_\_  
CHECKED BY \_\_\_\_\_ DATE 1/12/98  
SCALE \_\_\_\_\_

NAVBASE Charleston Project Team  
Guest Attendees  
TECH SUB COMMITTEE MEETING

Barry Spargo	US Naval Research Laboratory Code 6115 Washington DC 20375	202-404-6392
Thomas J. Boyd	"	202-404-6424
Michael T Montgomery	"	202-404-6419
Richard B. Coffin	"	202-767-0065
DAVID TRIMIN	ENSAFE	850-479-4595
JAY CORNELIUS	"	901-372-7962
DAVE BACKUS	"	" " "
Tommy Hunt	SouthDiv	803-820-5525
GARY BENFIELD	TETRA TECH EM INC.	803-971-7030
Johnny Tapia	SC DHEC	803-896-4179
PAUL M. BERGSTRAND	SC DHEC	803-896-4016
Rushy Jeffers	USEWS	(803) 727-4707 ext. 20
DANN SPAROSU	US EPA	404.562.8552
Tom Dillon	NOAA/HAZMAT	404-562-8639
REECE BATTEN	SOUTH DIV	803-820-5528
Joy Bassett	EPA	(404) 562-8542
" " "	EPA	803-884-0029

Naval Base Charleston  
Environmental Cleanup Project Team  
Draft Meeting Minutes

Date: 1/14/97

Place: NBC; NH-46

Time: 0800

Attendees: TONY, REESE, DARYLE, JOHNNY, PAUL, ANN, DANN, MAC, TODD, DAVE, JOE  
JERI JOHNSON, TOM FRESILI

Invited Guests: MARK BOWERS

Leader: DANN

Scribe: DAVE

Discussion/Decisions

9710 - 9801 - M253	TONY	<p><u>RISK MANAGEMENT DECISION DOCUMENT -</u></p> <p>PROBLEMS SEEN TO DATE:</p> <ol style="list-style-type: none"><li>1) HOW DO WE MAKE DECISIONS ON SITES THAT EXHIBIT RISK WITHIN THE <math>10^{-4}</math> TO <math>10^{-6}</math> RANGE</li><li>2) RFI RECOMMENDATION SECTIONS HAVE NOT DONE WELL IN FACILITATING RISK MANAGEMENT DECISIONS</li></ol> <p>PROPOSE DEVELOPMENT OF A SEPARATE DOCUMENT WITH PROTOCOLS TO CAPTURE RISK MANAGEMENT DECISIONS</p> <p>ENSAFE WILL PREPARE OUTLINE OF RISK MGMT. CONSIDERATIONS INCORPORATING JOHNNY AND TONY'S DRAFTS BRING OUTLINE</p>
9710 - M254 9801	TONY MARK B.	<p><u>SUMU 39 GW ISSUES -</u></p> <p>EXPOSURE POINT CONC - WAS DEPARTURE FROM EPC USED IN DIFFERENT ZONES DUE TO MULTIPLE PROFILES ALSO USED ALL 4 QUARTERS OF DATA. THIS WAS AGREED UPON BY REGION IV RISK ASSESSORS (TED SIMON)</p> <p>JOHNNY STILL HAS GUIDANCE, SUGGESTION TO GET JOHNNY AND TED TOGETHER</p>
9710 - M255 9801	TONY	<p><u>DISPOSITION OF EXCAVATED SOIL -</u></p> <p>NAVY IS RECEIVING MANY REQUESTS FROM LESSEES TO EXCAVATE SOILS FOR IMPROVEMENTS.</p> <p>NAVY PROPOSES TO USE ENVIRONMENTAL CONDITION OF PROPERTY MAP AS SCREEN OF HOW TO PROCEED WITH PERMITTING THE EXCAVATION AND DISPOSAL OF BASE SOILS.</p> <p>TONY HANDED OUT A PROPOSED NAVY PROTOCOL FOR THE PERMITTING PROCESS.</p> <p>PAUL SUGGESTS ADDITION OF A FLOW CHART WITH THIS PROCESS, AND RUN THROUGH A FEW SAMPLE PERMITS.</p>

9710 - M256 9801	DARYLE	<p>PROJECT SCHEDULE/PROGRESS UPDATES -</p> <p>VERY IMPORTANT TO MEET OUR GOALS FOR 1998 IE, COMPLETION OF RFI REPORTS - BASEWIDE</p> <p>ZONE A - WAITING ON SWMU 39 GWD DISCUSSION (1/16/98) THEN SUBMIT WHOLE ZONE A DOC</p> <p>ZONE C - AWAITING FINAL COMMENTS APPROVAL &amp; PERMIT MOD COMMENTS DUE 6/12/98</p> <p>ZONE E - COMMENTS DUE 6/12/98</p> <p>ZONE F - SUBMITTED LAST WEEK</p> <p>ZONE G - SUBMITTED JAN 30</p> <p>ZONE I - NEEDS ADDNL FIELD WORK</p> <p>ZONE K - JULY 28 COMMENTS DUE</p>
9710 - 9801	↑	<p>ZONE L - FIELD WORK END 4/15/98 PROJECTED</p> <p>ZONE J - WAITING ON FOWS GROUP TO RECOMMEND PHASE II</p> <p><u>CMS</u></p> <p>ZONE A &gt; WP (DRAFT) DUE 3/10/98</p> <p>ZONE C</p> <p>ZONE H - DOCUMENT APPROVAL INTG 2/10/98</p> <p>REESE TO PROVIDE SCHEDULE OF EXPEDITED IIM SITES TO DHEC BY FRIDAY 1/16</p> <p>CAMP HAS BEEN UPDATED AND WILL BE SUBMITTED WITH THE QUARTERLY STATUS REPORT NEXT WEEK.</p>
9710 - M257 9801	DET	<p>INTERIM MEASURES UPDATE -</p> <p>SWMU 14 - BACK FILL COMPLETE YET TO SEED</p> <p>SWMU 8 - SOOQAL OIL SINCE CHRISTMAS AT AREA 2</p> <p>SWMU 5 - BACK FILLED YESTERDAY</p> <p>SWMU 7 - LET CONTRACT FOR DISPOSAL OR TREATMENT</p> <p>SWMU 38 - RESEARCHING ALTERNATE DISPOSAL OPTIONS SUGGESTION TO LOOK AT IND. REC AND/OR PERFORM A PRELIMINARY RISK EVALUATION. ALSO PROVIDE COPIES OF ROD'S FROM OTHER POST SITES PERFORMED BY ENSAFE.</p> <p>AOC 500 - CONTRACTORS BEING SELECTED AND WPS BEING REVIEWED.</p>
9710 - 9801	↑	<p>501, 502</p> <p>AOC 611, 696 - COMPLETE</p> <p>AOC 699 - INCORPORATING COMMENTS FROM DHEC</p> <p>SWMU 3 - DEP COMPLETE WASTE CHARACTERIZATION SAMPLES ARE BEING RUN</p> <p>ZONE G PCB'S - IMMUNOASSAY AND GC SCREENING HAS IDENTIFIED EXTENT OF CONTAMINATION COST ESTIMATE TO SDV BY NEXT WEEK</p> <p>SWMU 2 - DEP DELIVERED TO SDV THIS WEEK</p> <p>SWMU 166 - " " " "</p>
		<p>SWMU 17 - DEP DUE TO BE DELIVERED TO SDV NEXT WEEK</p>

9710-M258 9801	MAC	<p>           SWMU 166 -            OUTSTANDING ISSUES:            PLUME DELINEATION, HORIZONTAL BOUNDARIES ARE NOT WELL DEFINED. 18 WELLS CURRENTLY BEING INSTALLED WILL HELP WITH DEFINITION. DATA SHOULD BE AVAILABLE IN 3 WEEKS.            - MCL REQUIREMENT - MAY NOT BE TECHNICALLY ATTAINABLE            - EXTRACTION SYSTEM WILL CAUSE - RECHARGE OR R WILL NEED INJECTION PERMIT FOR ALL PUMP &amp; TREAT SAMPLES            - RECHARGE         </p>		
9710-	↑	<p> <u>TECHNOLOGY SELECTION</u>            PT ASKS ISCHTEL TO COME BACK TO THE TEAM WITH RECOMMENDATION OF WHICH TECHNOLOGY IS BEST.         </p>		
9710-M259 9801		<p>           AOC 66T, 60B -            TANKS ARE BEING ADDRESSED BY JST PROGRAM            O/W SEPARATOR - LOOKING FOR AS BUILT OR TYPICAL INSTALLATION            DET WILL BE SAMPLING TANKS &amp; O/W SEP AS WELL AS CLEANOUT AND DISPOSAL         </p>		
9710-M260	TERRY	<p> <u>CLOSE OUT</u> </p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <p style="text-align: center;">+</p> <ul style="list-style-type: none"> <li>• ECD DISCUSSION</li> <li>• DECISIONS MADE</li> <li>• RISK MGMT</li> <li>• GOOD PROGRESS</li> <li>• SOIL PROTOCOL FEEDBACK</li> <li>• SWMU 166</li> <li>• PERMMENT HOME</li> <li>• DET IUL REPORT</li> <li>• FEUL DIST SYS. AGREEMENT</li> <li>• MEETING ATTITUDE</li> <li>• GOOD DINNER TUES. NIGHT</li> </ul> </td> <td style="width: 50%; border: none;"> <p style="text-align: center;">-1A</p> <ul style="list-style-type: none"> <li>• TUES SLOUGH</li> <li>• TIME SLIPS</li> <li>• POORLY PREPARED FOR ZONE I</li> <li>• POOR PREPARATION 66T/138</li> <li>• TOO MUCH POSTURING</li> </ul> </td> </tr> </table> <ul style="list-style-type: none"> <li>• NRL PRESENTATION</li> <li>• DANN AS TEAM LEADER</li> <li>• AGENDA FORMAT</li> </ul>	<p style="text-align: center;">+</p> <ul style="list-style-type: none"> <li>• ECD DISCUSSION</li> <li>• DECISIONS MADE</li> <li>• RISK MGMT</li> <li>• GOOD PROGRESS</li> <li>• SOIL PROTOCOL FEEDBACK</li> <li>• SWMU 166</li> <li>• PERMMENT HOME</li> <li>• DET IUL REPORT</li> <li>• FEUL DIST SYS. AGREEMENT</li> <li>• MEETING ATTITUDE</li> <li>• GOOD DINNER TUES. NIGHT</li> </ul>	<p style="text-align: center;">-1A</p> <ul style="list-style-type: none"> <li>• TUES SLOUGH</li> <li>• TIME SLIPS</li> <li>• POORLY PREPARED FOR ZONE I</li> <li>• POOR PREPARATION 66T/138</li> <li>• TOO MUCH POSTURING</li> </ul>
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### Action Items

<p>9710-A156 9108</p>	<p><del>ENSENPE</del> TONY/JOHNNY</p>	<p>TONY &amp; JOHNNY TO PROVIDE COPIES OF RISK MGMT OUTLINES TO TEAM BY FRI. 1/16</p> <p>TEAM TO REVIEW AND COMMENT FOR DISCUSSION IN NEXT MONTHS TELM SUBCOMMITTEE</p>
<p>9710-A157 9801</p>	<p>JOHNNY</p>	<p>① CALL MARK BOWERS (BY FRI. 1/16) AND/OR TED SIMON (EPH REG 4) TO GET CLARIFICATION ON EXPOSURE POINT CONCENTRATION CALCULATIONS FOR SWELL 39 GROUNDWATER</p>
<p>9710-A158 9801</p>	<p>TONY</p>	<p>TONY TO AMEND EXCAVATED SOIL PROTOCOL DEVELOP FLOW CHART AND DISTRIBUTE TO TEAM BY 1/23/98.</p>
<p>9710-A159 9801</p>	<p>REESE</p>	<p>PROVIDE SCHEDULE OF EXPEDITED IM WORK TO DHEC BY 1/16/98</p>

# ACTION ITEMS

9710-A160 9801	ENSAFE	PERFORM PRELIM RISK EVAL ON SWMS 38 DATA RESULTS. ALSO PROVIDE COPIES OF RODS FROM OTHER PESTICIDE REMOVAL SITES. BY NEXT PT MEETING
9710 -		
9710 -		
9710 -		

# PT AGENDA

PT MINUTES

**Naval Base Charleston  
Environmental Cleanup Project Team  
Technical Subcommittee Meeting Minutes**

**Date:** 2/09/98                      **Place:** NAVBASE Charleston, NH-46                      **Time:** 1100 - 1600

**Attendees:** Tony Hunt, Reese Batten, Dann Spariosu, Daryle Fontenot, Paul Bergstrand  
Johnny Tapia, Todd Haverkost, Dave Backus

**Invited Guests:** Craig Wise, Ted Blahnik (EnSafe), John Sohl (Target Environmental)

**Leader:** Tony Hunt                      **Scribe:** Dave Backus

**Discussion/Decisions**

9802S-M261	Team	<p>Zone H CMS Work Plan — Johnny was the only one who provided comments. Paul has a problem with the fact groundwater has been written off. The Zone H CMS work plan presents a major shift in approach. The essential question is: What are the clean up goals? The State insists MCLs are the goal because it is written into the standards. Work plan is highest priority of the Team. Dann and Paul will try to comment by 20 February 1998.</p>
9802S-M262	Todd	<p>Natural Attenuation — Todd has put together a strawman approach for identifying potential sites for monitored natural attenuation, as well as a first cut at a list of potential sites.  Where do we go from here? Tony suggests moving forward with collecting additional data from the wells recommended C or D in Todd's list, then take a look at progress and results over the next few months. Paul would also like to see some representative background wells. <b>Consensus Passed.</b></p>
9802S - M263	Tony	<p>SWMU 38 Discussion — IM work at this site identified at much larger area of concern than was originally thought. Bill Bennett has given a historic account of the DDT/chlordane application procedures at the base during the early 1960s. Filled 30 gallon drum with DDT and kerosene and placed them in low lying areas to fill and overflow naturally. This information changes the waste characterization to non-hazardous. EnSafe recommends a more site-specific risk evaluation for this site vs the RBC. Provided copies of a ROD and AOC from pesticide remediation sites in the Carolinas. Ron ran a PRE on the SWMU 38 data and found that <math>10^{-6}</math> Industrial cleanup level is 109 ppm. Johnny would like to see the completed risk evaluation. DET will estimate volumes based on a 109 ppm total pesticide removal goal.</p>

9802S-M264	Tony	<p>Fuel Distribution System (Hot Spots) —</p> <p>Of the 3 sites, Tony proposes:</p> <p>Investigating 1 with SWMU 175.</p> <p>Investigating 1 with SWMU 24.</p> <p>Assigning a new site (AOC 712) to the remaining site.</p> <p>Johnny states that we do not have enough groundwater data for SWMU 24.</p> <p>Additional wells are planned for SWMU 24.</p> <p>Outlook is to expand the entire site to include wells 12B and 13A even if it means more wells to the south of this area.</p> <p>Tony will submit a proposal letter to DHEC by this Friday.</p>
9802S-M265	Johnny	<p>Industrial Lead Screening Levels</p> <p>Johnny has recalculated the screening value using numbers for black populations and came up with 920 ppm vs. 1300 ppm which was calculated for white populations.</p>

**Tech Subcommittee  
Action Items**

9802S-A161	EnSafe	Revise the CMS work plan to state; The information that will be considered when evaluating remedial actions with respect to groundwater.
9802S-A162	EnSafe Ted	Provide summary of RFI risk results for those sites that are recommended for CMS. This summary is meant for facilitation of the risk management decision.  By 23 February 1998.
9802S-A163	EnSafe Ron	Submit preliminary risk evaluation to DHEC on the SWMU 38 pesticide data. DET will estimate the removal volumes for $10^{-6}$ Industrial - 109 ppm and $10^{-5}$ Industrial - 220 ppm.
9802-A164	EnSafe	Recalculate the lead screening value for the base using EPAs numbers for predominantly black populations.

**Naval Base Charleston  
Environmental Cleanup Project Team  
Meeting Minutes**

**Date:** 2/10/98 and 2/11/98    **Place:** Naval Base Charleston, NH-46    **Time:** 0800 - 1700

**Attendees:** Tony Hunt, Reese Batten, Daryle Fontenot, Dann Spariosu, Johnny Tapia, Paul Bergstrand, Jeri Johnson, Mac McNeil, Todd Haverkost, Dave Backus, Joe Land,

**Invited Guests:** Craig Wise, Ted Blahnik, Britton Dotson (EnSafe), Roy Hookstra (Bechtel), Alex Sagebien, Steven Freeman (Amerada Hess), Joe Farry (Carolina Environmental)

**Leader:** Reece Batten                      **Scribe:** Dave Backus

**Discussion/Decisions**

9802-M266	Mac	<p>SWMU 166 Discussion — Bechtel recommends that the IM scope address that portion of the contaminant plume greater than 100 ppb.</p> <p>Actions Not Considered Appropriate:</p> <ul style="list-style-type: none"> <li>• No Action</li> <li>• Natural Attenuation</li> <li>• Vertical Barriers</li> <li>• Bio or Chemical treatment</li> <li>• Soil vapor extraction/In-situ air stripping</li> <li>• Extraction/UV oxidation, carbon polish</li> <li>• Re-injection</li> <li>• Treatment and discharge to surface outfall</li> <li>• Treatment and Discharge to POTW</li> </ul> <p>Actions Retained As Appropriate:</p> <ul style="list-style-type: none"> <li>• Air sparging with soil vapor extraction</li> <li>• In-well vapor stripping</li> <li>• Pump and treat with air stripping and upgradient injection or infiltration</li> </ul> <p>Bechtel recommends - Pump and treat with air stripping treatment and discharge by upgradient injection/infiltration. Cost estimate in the range of \$500,000. Question posed to the team - Do we want to invest this amount of money for a temporary control to bound this contamination to the Navy property?</p>
9802-D	Team	<p>In lieu of implementing the containment IM, collect additional aquifer and chemical data with the goal of determining fate and transport characteristics of the plume. Also collect additional data on the interstate storm water drain system. Bechtel will propose bench scale treatability studies on several technologies.</p> <p><b>Consensus Passed.</b></p>

9802-M267	Tony	<p>Risk Management Decision Document — Goals of the Document:</p> <ul style="list-style-type: none"> <li>• Used as guidance or tickler file</li> <li>• Justify risk management decisions reached by Team</li> <li>• Resource to explain to RDA how decisions are made</li> <li>• Process decision document/common process for Team</li> <li>• Streamline remedy selection</li> <li>• Improve communication</li> <li>• Tool to expedite decisions</li> </ul> <p>Brainstorm decision factors for framework of document - Tony to compose the list as an action.</p>		
9802-M268	DET	<p>IM Update — See attached status summary Johnny would like to see better justification of schedule misses. Monthly status summaries will be amended to improve the justification.</p>		
9802-M269	Daryle	<p>RAB Preparation —</p> <ul style="list-style-type: none"> <li>• Environmental update</li> <li>• 5 of 6 tanks at CTF have been emptied by DET and Air National Guard unit under contract to DLA.</li> <li>• Asbestos and lead-based paint surveys have been funded and started.</li> <li>• Coordination with Hess continues for SWMU 39</li> <li>• Reuse update</li> </ul>		
9802-M270	Tony	<p>SWMU 138/AOC 667 Update — DET and Gabe Magwood investigated an (oil/water separator looking) arrangement at this site. It is actually a wash area drain sump with an overflow pipe to the sanitary sewer. DET pumped the sump out and found that the sump is structurally sound. No connections from buildings run to this sump.</p>		
9802-M271	Joe	<p>RAB - DeBrief</p> <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <p style="text-align: center;">±</p> <ul style="list-style-type: none"> <li>• Comments of support</li> <li>• Short meeting</li> <li>• Presumptive remedy discussion</li> <li>• Dann's support of Tony's presentation</li> <li>• Tony's brief</li> <li>• RAB support of Team</li> <li>• Gussie Green's comment</li> <li>• RDA handout</li> <li>• External contamination concerns</li> <li>• Offer to take RAB on tour</li> <li>• Distribution of handout in community</li> <li>• Good conversation after meeting</li> </ul> </td> <td style="vertical-align: top; width: 50%;"> <p style="text-align: center;">-△</p> <ul style="list-style-type: none"> <li>• Short meeting</li> <li>• Did not have latest DET information</li> <li>• Should have shown maps</li> <li>• Missing RAB members</li> <li>• Only 3 community members</li> <li>• Community has become complacent</li> <li>• Dull - no content to updates</li> </ul> </td> </tr> </table>	<p style="text-align: center;">±</p> <ul style="list-style-type: none"> <li>• Comments of support</li> <li>• Short meeting</li> <li>• Presumptive remedy discussion</li> <li>• Dann's support of Tony's presentation</li> <li>• Tony's brief</li> <li>• RAB support of Team</li> <li>• Gussie Green's comment</li> <li>• RDA handout</li> <li>• External contamination concerns</li> <li>• Offer to take RAB on tour</li> <li>• Distribution of handout in community</li> <li>• Good conversation after meeting</li> </ul>	<p style="text-align: center;">-△</p> <ul style="list-style-type: none"> <li>• Short meeting</li> <li>• Did not have latest DET information</li> <li>• Should have shown maps</li> <li>• Missing RAB members</li> <li>• Only 3 community members</li> <li>• Community has become complacent</li> <li>• Dull - no content to updates</li> </ul>
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9802-M272	Daryle	<p>Hess/SWMU 39 Update —  Alex Sagebien, Steven Freeman (Amerada Hess Corporation) and Joe Farry (Carolina Environmental) Provided an update to the team on the results of their investigation.</p> <p>The Hess terminal is no longer in operation. They feel the fuel spill is historic and not continuing. Plume delineation activities are not quite complete. Looking at dual phase recovery system, plan to obtain closure. Will conduct interim measure using dual phase vacuum extraction. Source of spill is thought to be chronic over fills of transportation trucks at the facility's historic loading rack. Predominance of plume is No. 2 diesel, but some source gasoline and xylenes have also been identified within the AOC.</p> <p>Have already removed 500 cubic yards of contaminated soil as source abatement measure. Load rack operations were stopped in late 1970s, prior to the introduction of MTBE in fuels. Corrective Action Report will propose semi-annual monitoring.</p> <p>Hess would like to have access to the data from wells on Navy property. Suggestion made to have Hess provide bi-monthly updates to the PT on the progress of their corrective actions.</p>
9802-M273	Jeri	<p>Sanitary Sewer System —  Can the sanitary sewer system be transferred?  Are there environmental concerns?  EPA and DHEC will not approve a FOST until RFI type data has been reviewed.  Team will look into ways to expedite the Zone L RFI investigation.  Dann and Tony/Daryle will look into transfer mechanics and/or requirements.</p>
9802-M274	Joe	<p style="text-align: center;">± <span style="float: right;">-1Δ</span></p> <ul style="list-style-type: none"> <li>• SWMU 166 discussion</li> <li>• Good team work</li> <li>• Team training</li> <li>• One to one support of EnSafe</li> <li>• RAB discussion</li> <li>• Hess Corporation</li> <li>• Risk management discussions</li> <li>• DET scheduling resolution</li> <li>• Team leader</li> </ul> <ul style="list-style-type: none"> <li>• Hess discussion was unstructured</li> <li>• Schedule discussion with DET</li> <li>• Need better relations with DET</li> <li>• Posturing</li> <li>• Questions by DET concerning scheduling</li> <li>• Cross fire of DET schedule discussion</li> <li>• Do not gang up on Team members</li> </ul>

### Action Items

9802-A165	Tony	Compose list of risk management decision factors within categories of – Adequacy – Significance – Future  By 20 February 1998
9802-A166	Tony	Supply SWMU 39 addendum material to Hess project managers.  By 20 February 1998.

Status of Interim Measures

at

Charleston Naval Complex

9 February 1998

# Working Funded Projects

SDIV #	Project ID	Name	Project Description	Current Status
96017	Swmu-14	Chemical Disposal Pond	Detachment found and removed decontamination agent (DANC containisters) anomalies.	SDIV completed acceptance walk thru 1/23/98. Completion report in progress.
96017	Swmu-8	Oil Sludge Pits	Remove oil sludge's from 2 areas - SCDHEC approval ltr dtd 7 Nov 96. Field work commenced 7 Nov 96.	Area #1 complete. Area #2 - Continued skimming operations have recovered 16,000 gals of oil for recycling. In process of letting disposal contract. Status Report submitted to SCDHEC 2/2/98.
96020	Swmu-5	Battery Wrecking Pad	Remove lead contaminated soil - SCDHEC Approval ltr dtd 14 Feb 97 - Field work started 4 Mar 97.	SDIV completed acceptance walk thru on 1/23/98. Completion report in progress.
96015	Swmu-7	Old Public Works Storage	Remove PCB contaminated slab/soil, lead soil, and pesticide soil. SCDHEC Approval ltr dtd 23 Jan 97 - Field work started 20 Feb 97.	Confirmation and GC screening shows PCB and Pesticide contamination still exists. Further Delineation of the site was performed and additional disposal funding has been approved 1/8/98. Letting disposal contract. Status Report sent to SCDHEC 1/29/98.
96014	Swmu-38	B-1605 outside Storage Area	Remove pesticide contaminated soil. SCDHEC Approval ltr dtd 31 Mar 97 - Field work started 24 April 97.	Site is secured and the holes covered with metal plates. GC screening revealed the extent of contamination is an area of 100 feet x 40 feet and a depth of 3 to 4 feet (groundwater). Contamination appears to encroach onto the Hess fuel farm at one sample location. Background information indicates pesticide contamination resulted from application. Awaiting SDIV guidance.
97014	Aoc-500	Waterborne UXO Pier T	Find/Remove 2 Mark 47 Torpex Depth Bombs at end of Pier T. SCDHEC Approval ltr dtd 24 Oct 96. SDIV Notice to Proceed dtd 19 May 97.	Received contract on 9 Oct. 1997. Status report issued 20 Sept. 97. Work Plan submitted to DDESB for approval.
97014	Aoc-501	Waterborne UXO Channel	Find/Remove 2 Mark 47 Torpex Depth Bombs in the channel between Piers X & Y. SCDHEC Approval ltr dtd 24 Oct 96. SDIV Notice to Proceed dtd 19 May 97.	Contract is being put in place - ECD for contract award is 16 March 98

SDIV #	Project ID	Name	Project Description	Current Status
97014	Aoc-502	Waterborne UXO Pier G	Find/Remove 3 five inch shells at southwest end of Pier G. SCDHEC Approval ltr dtd 24 Oct 96. SDIV Notice to Proceed dtd 19 May 97.	Received contract on 9 Oct. 1997. Issued status report 20 Sept. 1997. Work Plan submitted to DDESB for approval.
97030	Aoc-611	Former Bldg 1264 Vehicle Maint.	Rmved approximately 280 cyds of soil (metals & benzo's).	Site completed and SDIV walk through performed and approved (12/1/97). Completion Report issued 1/29/98.
97030	Aoc-696	Annex Radar Site PCB's	Removd 6 transformers, PCB & Arsenic contaminated soil, and a 22' by 24' concrete slab.	Site completed and SDIV walk through performed and approved (12/1/97). Completion report issued 1/29/98.
96008	Aoc-699	Storm Drain Cleanout	"Jet-Rod" Storm Drain Piping and clean Identified Catch Basins from the furthest upstream to the associated outfall. SCDHEC conditional approval Dtd. 1/5/98, received 1/15/98.	SCDHEC comments discussed per tele con the week of 15 Dec. 1997. Issued revised pages 1/14/98. Letting contract.

# PT AGENDA

PT MINUTES

**Naval Base Charleston  
Environmental Cleanup Project Team  
Technical Subcommittee Meeting Minutes**

**Date:** 3/09/98

**Place:** SCDHEC (Farrow Road)

**Time:** 10:30 - 1700

**Attendees:** Tony Hunt, Reese Batten, Daryle Fontenot, Paul Bergstrand Johnny Tapia, **DANN**  
Todd Haverkost, Dave Backus **SPARICUSU**

**Invited Guests:** Melissa King (SCDHEC DoD Coordinator), Ted Blahnik (EnSafe),

**Leader:** Tony Hunt

**Scribe:** Dave Backus

**Discussion/Decisions**

9803S-M266	Tony	<p><b>Review Project Status and Prioritization</b>          Provided an updated Team schedule and SDIV environmental cleanup program schedule. The final Zone A RFI Report will be submitted around 3/20/98.</p> <p><b>Proposal</b>          In April the Team will review, at the table, all documents which have been previously reviewed, commented upon, and re-submitted with corrections.</p> <ul style="list-style-type: none"> <li>— Final Zone A RFI Report</li> <li>— Final Zone C RFI Report</li> <li>— Final Zone H CMS Work Plan</li> <li>— Draft CMS Work Plan for SWMU 166/AOC 607</li> </ul> <p>The purpose of this exercise is to streamline the review process. The Team agreed to make an attempt to review the documents. The goal will be to reach a decision on Zones A, C, and H. The goal for SWMU 166/ AOC 607 will be to provide the reviewers with background information and allow an opportunity to ask questions prior to completing a formal review.</p> <p><b>Document Priorities: (As previously agreed upon)</b></p> <ol style="list-style-type: none"> <li>1. Zone H CMS</li> <li>2. Zone C RFI</li> <li>3. Zone A RFI</li> <li>4. Zone I RFI</li> <li>5. Zone E RFI</li> <li>6. Zone K RFI</li> <li>7. Zone F RFI</li> <li>8. Zone G RFI</li> </ol> <p>Need to add the lab artifact memo and the Draft SWMU 166/AOC 607 CMS Work Plans.</p>
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9803S-M267	Todd	<p><b>Monitored Natural Attenuation List:</b></p> <p><b>Zone H</b> 2 areas of primary interest AOC 607/SWMU 138 and SWMU 20. After discussion and map review, decision made to include all wells (shallow only) initially in the SWMU 8 and Combined SWMU 9 areas. <b>Consensus Passed</b></p> <p><b>SWMU 17</b> Already sampling these parameters at this site, also proposing 2 additional wells, shallow/deep. Paul suggests adding 2 more downgradient wells for better coverage.</p> <p><b>SWMU 136/AOC 663</b> To be determined by final tank closure samples.</p> <p><b>AOC 656</b> Resample wells 2 and 3 for VOCs TBD.</p> <p><b>AOC 667/SWMU 138</b> TBD, awaiting DHEC decision.</p> <p><b>Zone I</b> EnSafe recommends more RFI sampling for all those nominated for MNA in this zone - TBD.</p> <p><b>Zone E</b> Follow same grouping approach as in Zone H.</p> <p>For isolated wells, continue monitoring cocs to see if mass is reducing. Tony suggest having Target come to Team with presentation of MNA results collected so far. SWMU 65 group - TBD. Tony would like to further discuss (TBD) all the miscellaneous hits wells in Zone E. But Paul would like definitely monitor (GDE 18D).</p>
9803S-M268	Daryle	<p><b>RDA/Floor Daniel Update</b> Areas ready for transfer right now from Daryle - Zone D - parking and warehouses Zone B - minus Quarters with UST or asbestos issues. RDA economic development plan is due out this month.</p>
9803S-M269	Tony	<p><b>AOC 607 Status Update</b> Have Ron 10 additional samples in the storm sewer system, the SE of the site. A lot of the current flow in the sanitary storm sewer is thought to be leaking GW into the system.</p> <p>SDIV - Recommends expediting the CMS for this site. How should data be presents? - Map chemical constituents each time you sample. (Quarterly). Also suggestion made to look at the USGS groundwater model for this area.</p>

9803S-M270	<p><b>Letter addressing 3 new sites form UST/Fuel Distribution System</b> Paul had concern about the location of the proposed wells surrounding SWMU 24, which are the waste oil tanks? The EBASCO RFA (original) lists 39A and 39D, the tank slab shown to the SW was planned for new construction, but never built. Tony will supply additional information to Johnny and Paul supporting this information.</p> <p>Johnny will respond to the new site ID letter stating, that it is not necessary to assign a new site if the Navy will continue to monitor the surrounding wells.</p> <p>AOC 709 will now be assigned to other sites of significance in Zone H.</p>
9803S-M271	<p><b>Zone H CMS Work Plan Update</b> SWMU 17 and 19 - Possible IM candidates.</p> <p><b>AOC 666</b> Tony has DET completion report need recommendation from Team.</p> <p><b>SWMU 17</b> Deep well recommended sample and gauge all wells and sumps during IM activities.</p> <p><b>AOC 656</b> Resample 2 wells for VOCs.</p> <p><b>Soil Background</b> Risk was recalculated removing some of the background components.</p> <p>Last month - How do we develop cleanup goals? (2) scenarios</p> <ol style="list-style-type: none"> <li>a. Remove everything above 10-6 risk after background has been removed.</li> <li>b. Look at cost/benefit analysis by decreasing risk by some factor (say 90%).</li> </ol> <p>As you remove hot spots sequentially at a site, recalculate risk. At some point approaching 90-95% reduction you will realize diminishing returns.</p> <p><b>Groundwater Classification</b> Significant GW quality data has already been collected. Navy is very interested in pursuing reclassification of the aquifer beneath the base. Reclassification requests are brought before the DHEC board with the board's concurrence. The request is then taken to State legislation for a vote.</p> <p>Ann will look into the steps and procedures for reclassification. Paul suggests also looking at filtered samples.</p>

9803S-M272	Johnny	<p><b>Lead Model Discussion</b>  Need to ask Ted Simon (EPA) to reproduce the calculations he used to come up with a lead remedial goal of 1328 ppm. Johnny is not in agreement with the Navy's number of 1500 ppm. He has calculated a number based on exposure to a black female of child bearing age ~920 ppm.</p> <p>Set up telecom with Ted Simon for late next week: Tony, Johnny, Dann, Ron Severson according to Ted's schedule.</p>
9803S-M273	Tony	<p><b>Zone J Meeting Discussion</b>  Unfavorable letter was received at EPA from Fish and Wildlife Service. Root cause of letter was mis-communication or mis-understanding.</p> <p>Need to set a meeting with State and Federal Trustees for early - April to bring them up to speed on the eco-risk efforts to date.</p>
9803S-M274	DET	<p><b>IM Update/Discussion</b>  Coordinate IM results with CMS plans.</p> <p><b>SWMU 14</b>  Completion report due next month. All excavations were completed down to below the respective RBCs. Some excavations exceeded SSLs for perchloroethane. The side walls and base of each hole was sampled. Most exceedances of SSLs were from the base. All excavations have been backfilled.</p> <p><b>AOC 653</b>  DHEC Lab has specified a particular method for analyzing hydraulic fluids at this site.</p> <p><b>SWMU 159</b>  Paul wants to make sure we are looking for the correct constituents. We have proposed (2) additional wells at this site. Run for VOCs. <del>MTBE</del></p> <p><b>SWMU 17</b>  Product recovery starts this week.</p> <p><b>IM Status Update</b>  See attached index of the site status. Also note this is a new format for the IM updates.</p>

**Tech Subcommittee  
Action Items**

9803S-A171	Tony	Supply additional background information on the SWMU 24 waste oil tank area, to Paul and Johnny. By next Team meeting.
9803S-A172	Ann	Look into steps and procedures for reclassification of groundwater aquifers.  Report to Team by next meeting.
9803S-A173	Tony	Set up telecom with Ted Simon to discuss lead model and remediation goals. Ted and Dann (EPA), Johnny (DHEC), Tony (SDIV), Ron Severson (EnSafe).  Telecom for late next week.
9803-A174	DET	Make copies of SAPs for UST removals at AOCs 663/666. Distribute to  Team by next week.

PENDING

PAUL HAS SOME INFO

COMPLETE

# PT AGENDA

# Charleston Naval Base Project Team Agenda

13, 14, 15 April 1998

\* 15 minute break included

*Team Leader – Daryle Fontenot*

*Scribe – Dave Backus*

*Location - Naval Base Charleston, Building 761 NH-C [“Maison Charleston Team”]*

**Monday 13 April 1998**

**Technical Sub-Committee**

	<b>Start Time</b>	<b>TIME</b>	<b>LEADER</b>	<b>TOPIC</b>	<b>GOAL</b>	<b>OUTCOME</b>
1	11:00	15 Min	Daryle	Review Tech Sub Committee Action Items	Review action items from March Tech Sub Committee and progress made on completing the action items.	
2	11:15	45 Min	Tony	Lab “Artifacts”	Agree on the process to identify, distinguish and document lab artifacts from contaminants	Decision
3	12:00	1 Hr		Lunch		
4	1:00	3 Hrs*	EnSafe	Zone H CMS WP	Review Comments, Discussion, Agreements	Decision
5	4:00	2 Hr*	Team	Zone C RFI Report	Review Comments, Discussion, Agreement	Decision

# Charleston Naval Base Project Team Agenda

Tuesday 14 April 1998

Full Team: 8am – 2pm, Tech Sub-Committee: 2:15 – 3:15 pm

	Start Time	TIME	LEADER	TOPIC	GOAL	OUTCOME
6	8:00	30 Min	Daryle	Ground Rules, Review Agenda Review Minutes Review Action Items	Review ground rules; review, revise and prioritize agenda; approval of meeting minutes; and review action items	Decision
7	8:30	30 Min	Daryle	Schedule Status	Update Schedule status	Agreement
8	09:15	1 Hr	Todd	MNA	Update on status	Information
9	10:30	1 Hr	Joe	Team Training	Continuous improvement as a Team	Learning
10	11:30	1 Hr		Lunch		
11	12:30	30 Min	Kevin	IM Update	DET presents current IM status.	Information
12	1:00	1 Hr	Daryle	RAB Prep	Team agrees on RAB topics, points and reviews presentations to be presented by the Team at the RAB	Agreement
13	2:15	1 Hr	EnSafe	AOC 607 CMS WP	Present working Draft, Get Team direction	Decision
14	6:00	1.5 Hrs		RAB Meeting		

# Charleston Naval Base Project Team Agenda

Wednesday 15 April 1998

Full Team 8:00 - 9:00am, Technical Sub-Committee 9:15am - 3:15pm

	Start Time	TIME	LEADER	TOPIC	GOAL	OUTCOME
15	8:00	30 min	Joe	RAB Debrief	Review positive and negatives aspects of the previous nights RAB meeting	Information
16	8:30	30 Min	Joe	Close Out	Agenda for May PT meeting in Atlanta, GA and Facilitator's critique of team meeting	Information
17	9:15	3 Hrs*	Team	Zone A RFI Report	Review Comments, Discussion, Agreement	Decision
18	12:15	1 Hr		Lunch		
19	1:15	2 Hrs*	EnSafe Bechtel	SWMU 166 CMS WP & IM	WP: Present working Draft, Get Team direction IM: Review new information and decide how to proceed with IM	Decision

PT MINUTES

**Naval Base Charleston  
Environmental Cleanup Project Team  
Meeting Minutes**

**Date:** 4/13/98 - 4/15/98      **Place:** NH-C/Project Team Room      **Time:** 0800 - 1700

**Attendees:** Tony Hunt, Reese Batten, Daryle Fontenot, Dann Spariosu, Paul Bergstrand  
Johnny Tapia, Ann Clark, Dave Backus, Joe Land

**Invited Guests:** Ted Blahnik, Larry Bowers, Allison Dennen, Charlie Vernoy, Todd Kafka,  
Lawson Anderson, Mark Hancher, Britton Dotson, Ron Severson (EnSafe), Jeri Johnson  
(RDA), Tom Fresilli (BCO), Kevin Tunstall (DET), Mac McNeil (Bechtel)

**Leader:** Daryle Fontenot      **Scribe:** Dave Backus

**Discussion/Decisions**

9804-M275	Dann	<p><b>New VOC Method for Soils</b> Dann wanted to make the Team aware of the new sampling methods for VOCs. EnSafe has been trained on the new method.</p>
9804-M276	Tony	<p><b>Lab Artifact Discussion</b> Charlie Vernoy gave overview of common lab artifacts and the document produced by EnSafe.</p> <p>Most common are acetone and methylene chloride. These chemicals are widely used by laboratories for clean up and extractions. Fisher Scientific has indicated that our grade of isopropyl alcohol does have trace levels of acetone contamination.</p> <p>Paul maintains that the Navy has the responsibility to prove that lab contamination is the cause for contaminant hits. There will be no blanket approval of dismissing acetone and methylene chloride contamination.</p> <p>The Navy favors looking at the whole picture: lab performance QC, frequency of detection, history of the site, etc.</p>
9804-M277	Ted	<p><b>Zone H CMS Work Plan</b> <b>Response to Comments - Johnny Tapia Comments</b></p> <ol style="list-style-type: none"> <li>1. Changed wording in plan.</li> <li>2. Added reference.</li> <li>3. GW will be addressed.</li> <li>4. Comparative volume analysis has been deleted.</li> <li>5. Navy concurs, will perform additional investigation of GW in the removal area.</li> <li>6. Comment noted, WP has been amended to reflect comment.</li> <li>7. WP has been revised to be clearly commercial.</li> <li>8. Figures have been included.</li> </ol>

		9. Identification, screening, evaluation and ranking of remedial alternatives will satisfy this comment.
9804-M277	Ted	<p><b>Paul Comments:</b></p> <p>A. Figure 5.1.11 has been amended to show all COCs detected in GW by round.</p> <p>B. Additional data above MCLs has been plotted on maps. Will re-sample GEL MW-15 and install (3) additional wells in this area.</p> <p>C. Areal coverage of Zone H maps has been expanded.</p> <p>DHEC will take WP back to office and plan to provide approval (?) within 2 weeks - 01 May 98.</p> <p>Format of this plan - DHEC feels this is closer to what they were expecting. Paul would like to have the computer-generated contour maps looked at and amended. Dash those areas that are inferred.</p>
9804-M278	Tony	<p><b>Zone C RFI Report Discussion</b></p> <p>Comment 7:</p> <p>RTC document states DAF of 20 was used to calculate SSL. Report states DAF of 10 was assumed. Johnny would like to be consistent with Zone A and use a DAF of 10. Recommend change reference on line 4, page 6.15 to a DAF of 20. Dann suggests that we should have enough data to start calculating site-specific DAFs. Johnny stated that we need to agree on the DAF for finalization of several reports now in draft form. (Zones E, F and G).</p> <ul style="list-style-type: none"> <li>• TEQ value of 1 ppb was used as a screening value - Is there a more appropriate residential screening value? (Page 7.10, Paragraph 3).</li> </ul> <p><b>Recommendation (Section 11) Discussion</b></p> <ul style="list-style-type: none"> <li>• AOC 518 - Report has discrepancy in recommendation. Dann's notes indicate we agreed on CMS in our October meeting. The recommendation on page 10.5.40 needs to be changed to CMS for surface soil.</li> <li>• AOC 510 - DHEC concurs with NFA.</li> <li>• AOC 512 - Concur with CMS for surface soil.</li> <li>• AOC 517 - NFA</li> <li>• AOC 518 - Agree with CMS as stated above.</li> <li>• AOC 520 - NFA</li> <li>• AOC 522 - Agree that we need additional sampling - sampling was completed in late January 1998. State needs to review this one.</li> <li>• AOC 523 - NFA due to decreasing conc in subsequent rounds of GW sampling - refer tanks to UST program. This concurrence is pending resolution of the base-wide thallium issues.</li> <li>• AOC 700 - CMS for surface soil concurrence.</li> <li>• Recommend IM for shallow soil removal at AOC 518 target is chlordane.</li> <li>• Grid locations. Location 001 had DDT exceeding RBCs - DHEC recommends limited soil removal for this location.</li> </ul> <p>Johnny will approve the document when he returns to Columbia.</p>

9804-M279	Daryle	<p><b>Project Team Status</b></p> <p><b>RFI</b></p> <p><b>Zone J</b> Field work end has been moved to May 15, 1998, still trying to meet with ECO subcommittee.</p> <p><b>Zone A</b> - RFI report approval April 15, 1998.</p> <p><b>Zone C</b> - CMS WP approval meeting April 13, 1998.</p> <p>No change on Zones E, F and G.</p> <p><b>SWMU 166</b> - Ready to move to CMS.</p> <p><b>CMS</b></p> <p>Zone H Work Plan (Final) submitted April 13, 1998.</p> <p>Zones A and C - Work Plans will move forward with approval of Zone H</p> <p>SWMU 166 and AOC 607 Work Plans will be submitted this week.</p>
9804-M280	Charlie	<p><b>Monitored Natural Attenuation</b></p> <p>SWMU 39 has been chosen as a model to assess the possibility of MNA. EnSafe has followed EPAs recently published guidance on this issue. Three lines of evidence are required to support choosing this remedial alternative.</p> <ol style="list-style-type: none"> <li>1. Observed reduction in contaminant concentration along the flow path downgradient from the source.</li> <li>2. Document loss of contaminant mass at the field scale.</li> <li>3. Microbiological lab or field data to support occurrence of NA and yield biodegradation rates.</li> </ol> <p>Original wells at SWMU 39 have been sampled quarterly for over a year. Geoprobe points were sampled last summer to fill data gaps. BTEX predominates the northern portion of the site. PCE-TCE-DCE-VC degradation is present in the southern portion of the site. Latest data suggests the possibility of a second source for solvents at the site (south of Building 1604).</p> <p>9 Wells showed limited evidence for MNA according to EPA guidance.  10 Wells showed adequate evidence for MNA according to EPA guidance.  7 Wells showed strong evidence for MNA according to EPA guidance.</p> <p>Site geology is a complex mixture of interbedded sand and clay.</p> <p>Groundwater flow is mappable in general terms but becomes extremely complex as it interacts with the clay deposits beneath the site.</p>

9804-M281	Johnny	<p><b>Cooperative Agreement (DOD/State Agency)</b></p> <p>Navy received letter from DHEC requesting schedule of activities at NBC for the next 2 years.</p> <p>Paul and Johnny have calculated 15 to 20 days per quarter are spent in or preparing for meetings. That leaves 25 to 30 days for review of documents.</p> <p>Johnny suggests sitting down with the Navy to work out the upcoming schedule.</p> <p>Suggestion made to consult with RDA to define transfer priorities. Property transfer must remain the primary schedule driver.</p> <p>Johnny suggests prioritizing the documents needed in the next two years.</p> <p>Would like to have draft agreement by the end of this week.</p>
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9804-M282	DET	<p><b>Interim Measures Update</b>  UXO Sites scheduled to begin, EOD field work next week</p> <p><b>AOC 501</b> — Contract due to be awarded soon.</p> <p><b>AOC 699</b> — Contract handled by SouthDiv, yet to be awarded by June 12, 1998.</p> <p><b>SWMU 14</b> — Completion report out next week.</p> <p><b>SWMU 38</b> — RGOs have been revised, awaiting approval of DHEC.</p> <p><b>SWMU 5</b> — Completion report submitted today.</p> <p><b>SWMU 7</b> — 245 tons excavated last week. Two small areas left to excavate. 15 tons of pesticide contaminated soil was excavated from another area. Also found some petroleum contaminated soil beneath a concrete slab. If area is found to be large, DET recommends splitting continued remediation out from the SWMU 7 IM.</p> <p><b>SWMU 8</b> — Disposal contract award 01 May 98. Not much oil recovery past month.</p> <p><b>SWMU 3</b> — Work Plan submitted awaiting approval.</p> <p><b>Zone G</b> — PCBs submitted awaiting approval.</p> <p><b>SWMU 166</b> — Comments received, TCE - SSL has been revised from 20 µg/kg to 60 µg/kg.</p> <p><b>SWMU 17</b> — Small amount of oil was recovered initially, not much after that. DET would like to pump the sumps down in the area to create a cone of depression for better product recovery.</p> <p><b>SWMU 2</b> —  Site has been grid sampled for characterization (20-foot spacing). Next step is to scope the remedial alternatives.</p>
9804-M282	DET	<p><b>Dye Testing</b> — Cross connects have been identified and tied back to buildings, Building 68 will be first remedial effort. This work will be done as a process closure, not an IM.</p> <p><b>SWMU 25</b> — Yellow water in electric vault will be pumped out, let recharge and sample. Goal is to turn over to SCE&amp;G.</p> <p><b>SWMU 11</b> — Caustic Pond - First phase is more delineation sampling.</p>

9804-M283	Daryle	<p><b>RAB Prep</b></p> <p>Will present the TAPP program in June</p> <ul style="list-style-type: none"> <li>• Technical assistance for public participation which will provide the ability for the RAB to hire a consultant for their technical interpretation of data or reports.</li> <li>• Jack Sprott plans to give a presentation and update on the RDA Business Plan.</li> <li>• Gabe Magwood has prepared base-wide maps depicting the status of petroleum tank corrective actions.</li> <li>• Chicora Tank Farm update by overhead.</li> <li>• IR update from Tony review of the latest fact sheet.</li> <li>• Johnny will give presentation of the public participation in the RCRA Corrective Action Program.</li> <li>• Will offer a base tour for this Thursday, if there is enough interest.</li> </ul>				
9804-M284	Ted	<p><b>SWMU 166/AOC 607 - CMS Work Plan Discussion</b></p> <p>Work Plan is very streamlined. Bench scale studies are planned more aquifer characterization is planned. Need more DPT at 607 to identify the source area, also planning one additional well to further define DNAPLs.</p> <p><b>Team consensus to collect the DPT samples while the work plan is being reviewed.</b></p> <p>DHEC will shoot for review completion by next month's meeting.</p>				
9804-M285	Joe	<p><b>RAB Debrief</b></p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">±</td> <td style="text-align: center;">-/Δ</td> </tr> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>• Johnny's presentation</li> <li>• Jack Sprott's presentation</li> <li>• Tony's presentation</li> <li>• Building was clean.</li> </ul> </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>• Low turnout</li> <li>• Flogging dead horse</li> <li>• RAB not functioning</li> <li>• RAB attendance</li> <li>• Fact sheet was not presented as Draft</li> </ul> </td> </tr> </table> <p>Suggestion to evaluate RAB attendance metrics. Make the agenda more specific.</p>	±	-/Δ	<ul style="list-style-type: none"> <li>• Johnny's presentation</li> <li>• Jack Sprott's presentation</li> <li>• Tony's presentation</li> <li>• Building was clean.</li> </ul>	<ul style="list-style-type: none"> <li>• Low turnout</li> <li>• Flogging dead horse</li> <li>• RAB not functioning</li> <li>• RAB attendance</li> <li>• Fact sheet was not presented as Draft</li> </ul>
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9804-M286	Daryle	<p><b>AOCs 500 and 502</b></p> <p>Work for EOD survey is due to begin next week. There is a ship moored at Pier T and Metal Trades, Inc. has stated that it is too costly to move the ship.</p> <p>The EOD Team only has certain window to perform their work.</p> <p>SouthDiv Real Estate has lead on resolution.</p>				

9804-M287	Lawson	<p><b>Zone A RFI Report Discussion</b></p> <p>Response to comments review, site specific to SWMUs 1, 2, and 39.</p> <ol style="list-style-type: none"> <li>1.) No discussion</li> <li>2.) No discussion</li> <li>3.) Finalization of lead model parameters is still in process.</li> <li>4.) DAF of 10 will be used across Zone A.</li> <li>5.) No discussion</li> <li>6.) No discussion</li> <li>7.) No discussion</li> <li>8.) DHEC agrees with response</li> <li>9.) Text will be amended to indicate which samples detected the methylene chloride. Map could use some flow directions as further evidence that the NAVBASE is not the source.</li> <li>10.) DHEC agrees with response</li> <li>11.) No discussion</li> <li>12.) No discussion</li> <li>13.) DHEC agrees with response</li> <li>14.) DHEC would like to revisit the text in the report for clarity.</li> <li>15.) No discussion</li> <li>16.) No discussion</li> <li>17.) DHEC agrees with response, future sampling events will be developed in conjunction with the CMS.</li> </ol> <p>Paul has noticed two wells without locks at SWMU 39. Tony will look into well security issues.</p> <p><b>Response to comments review 9/12/96 Zone A Report</b></p> <ol style="list-style-type: none"> <li>1.) No discussion</li> <li>2.) No discussion</li> <li>3.) No discussion</li> <li>4.) Agreement to explain the use of 1 ppb level in the into to Section 11 of the report.</li> </ol> <p>The remainder of the comments were determined to no longer be relevant to the updated document. Suggestion to recognize the potential for a second source of solvent at SWMU 39 in Section 11 of the report.</p>
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9804-M288	Britton	<p><b>SWMU 166 CMS Work Plan and IM</b></p> <p>Potentiometric maps show a groundwater trough with an axis trending along I-26 flowing north. Plume map indicates that the plume is being captured or bounded by the hydraulic groundwater system.</p> <p>Approximately 20 to 25 thousand gallons per day feeding the points along the trough. Based on the data, EnSafe has concluded that the spill event(s) occurred after the construction of the interstate.</p> <p>Question raised: Do we know how to account for contaminants showing up in well 002D. Possible second source area. This cross gradient contamination is the only piece of data that the conceptual model cannot define.</p> <p>Paul feels that we need better definition of what is going on at well 002D before calling the RFI complete.</p> <p>Next step will be the soil source sampling activities by the DET. A focused group will discuss options for further investigation at 002D.</p> <p><b>Soil Removal Remedial Goal Option Discussion</b>  RBC - 58,000 <math>\mu\text{g}/\text{kg}</math>  SSL - 60 <math>\mu\text{g}/\text{kg}</math></p> <p><b>Team consensus to calculate a site-specific soil screening level and consider it for a remedial goal.</b></p> <p>DET will take 20 samples in this area, (1) will be analyzed for Appendix VIII and the remainder for VOCs and SVOCs.</p>				
9804-M289	Tony	<p><b>Lead Model Discussion</b></p> <p>Trying to come to agreement on the geometric mean and geometric standard deviation. As input parameters to our lead exposure model.</p> <p>Tony has forwarded two sources of local census data to Ted Simon at EPA. Ted will calculate a remedial goal and get back with the Team.</p>				
9804-M290	Joe	<p><b>Close Out</b></p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;"><math>\pm</math></td> <td style="text-align: center;"><math>-\Delta</math></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• New location is great</li> <li>• <b>Team consensus to drop tech subcommittee</b></li> <li>• SWMU 166 table work</li> <li>• Almost finished Zone C</li> <li>• DET briefing format</li> <li>• Agenda flexibility</li> <li>• Heads up on AOC 502 ship issue</li> <li>• Good participation</li> <li>• Good interaction</li> <li>• RAB discussion</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Technical issues out of main Project Team meeting</li> <li>• Too many different topics</li> <li>• Consensus checks lacking</li> </ul> </td> </tr> </table>	$\pm$	$-\Delta$	<ul style="list-style-type: none"> <li>• New location is great</li> <li>• <b>Team consensus to drop tech subcommittee</b></li> <li>• SWMU 166 table work</li> <li>• Almost finished Zone C</li> <li>• DET briefing format</li> <li>• Agenda flexibility</li> <li>• Heads up on AOC 502 ship issue</li> <li>• Good participation</li> <li>• Good interaction</li> <li>• RAB discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Technical issues out of main Project Team meeting</li> <li>• Too many different topics</li> <li>• Consensus checks lacking</li> </ul>
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### Action Items

9804-A175	Paul/Johnny	Review Zone H CMS Work Plan, provide comments/approval by 01 May 98.
9804-A176	Allison	Provide latest AOC 522 data to DHEC by Friday 4/17/98.  Revise Section 11 of the Zone C RFI Report and submit to Team by 4/30/98.
9804-A177	Daryle	Pull together the RAB attendance records for the last couple of years by the next Team meeting.
9804-A178	Tony	Look for technical issues to present to the RAB (15, zone report summaries) by next RAB meeting.

# PT AGENDA

PT MINUTES

**Naval Base Charleston  
Environmental Cleanup Project Team  
Meeting Minutes**

**Date:** 5/11/98 - 5/12/98      **Place:** Atlanta, GA      **Time:** 0800 - 1700

**Guest:** Ted Simon

**Attendees:** Tony Hunt, Reese Batten, Dann Spariosu, Paul Bergstrand Johnny Tapia,  
Joe Land, Todd Haverkost, Larry Bowers

**Leader:** Paul Bergstrand      **Scribe:** Todd Haverkost

**Discussion/Decisions**

9805-M291	<p><b>Status Review</b></p> <ul style="list-style-type: none"><li>— Tentatively agreed that Zone K field work (SWMU 166) is over pending data from 2 new wells.</li><li>— Zone C RFI Report was approved last week.</li><li>— Zone H CMS Work Plan conditionally approved.</li></ul> <p><b>Document Review Priority</b></p> <ol style="list-style-type: none"><li>1. Zone A RFI Report</li><li>2. SWMU 166/AOC 607 CMS Work Plan</li><li>3. Zone A CMS Work Plan</li><li>4. Zone C CMS Work Plan</li><li>5. Zone I RFI Report</li><li>6. Zone E RFI Report</li><li>7. Zone K RFI Report</li><li>8. Zone F RFI Report</li><li>9. Zone G RFI Report</li></ol> <p><b>Interim Measure Schedule</b></p> <p>Reece handed out a detailed schedule which is included as Attachment 1.</p> <p>Dye testing completion report finishes Zone L field work (5/15). This allows target date of Zone L report to be set at 8/15/98</p> <p><b>Team consensus to change the document review priority so that Zone A CMS becomes #3, Zone C CMS Work Plan becomes #4, and Zone I RFI Report becomes #5 (it was formerly #3).</b></p>
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9805-M292	Ted	<p><b>Lead Model</b> Reviewed the memo Simon to Spariosu (27 April 98). (Attachment 2)</p> <p>Johnny questioned whether the population distribution within a 40 mile radius of the base actually represents the ethnic makeup of the work force.</p> <p>(The 40 mile radius was previously agreed upon during a conference call with Navy, EPA, DHEC, and EnSafe).</p> <p>Nobody really knows but the distribution used in the model probably more closely reflects the work force that will be utilized by the RDA business plan. Who is the worker population (women of child bearing age) at the base?</p>
9805-M293	Tony	<p><b>Basewide Thallium Hypothesis</b> Distribution of thallium at base in soil and groundwater does not appear to be related as an industrial release.</p> <p><b>Other Possible Sources</b></p> <ol style="list-style-type: none"> <li>1. Clay minerals - sediment deposited around base and then redeposited by dredging.</li> <li>2. Deposition of particulates from coal fired furnaces or released from areas of coal storage. High % of thallium in U.S. can be attributed to flue gas dust.</li> <li>3. Presence of thallium and other trace metals in Cooper River water sheds due to mining tailings and fertilizer processing.</li> <li>4. Look at validity and uncertainty of laboratory analysis ICP may not provide best quantitative results.</li> <li>5. Origin related to rodenticides.</li> </ol> <p>Tony has been obtaining journal articles and has compiled quite a few geochemistry references. Local libraries don't have a lot of mining references.</p> <p>Possibly proceed with mineralogical analysis of core samples.</p> <p>Cd, Th, H, and As distributions were plotted. Need to normalize data to Al to strengthen argument that it may be related to clay minerals.</p> <p>Time frame - will probably take until the end of the year.</p> <p>Consider - maturity of well/turbidity/concentration gradients vertical distribution in soil cores.</p>

9805-M294	Reece	<p><b>Zone A RFI</b>  Preliminary data from SWMU 2 sampling to refine Pb distribution. Some data gaps still exist. After data collection is finished an evaluation of residential vs. industrial cleanup cost will be performed and presented to the team.</p> <p>SCDHEC will notify the team in two weeks when they will complete a review of the Zone A RFI report changes so that we can have a follow up discussion to get the document finalized/approved.</p>
9805-M295	Tony	<p><b>Ship Interference with UXO Survey</b></p> <ul style="list-style-type: none"> <li>- CMMC claims they didn't get enough lead time to get the ship moved. Verbal notifications in January, written notification in April.</li> <li>- RDA, Navy, CMMC met to discuss moving ships to Pier C and back when the survey is done. RDA says the Navy should pay. The Navy agreed to pay.</li> <li>- The ships were moved, the survey completed, and one ship has been moved back. The other is soon to be moved back.</li> <li>- RDA, tenants, and Navy worked together to resolve what started out to be a tough issue.</li> </ul>
9805-M296	Tony	<p><b>GEL Well #14/15</b>  <b>Well #14</b>  A statement was made that a foot of product was found in well 14. The statement appears unfounded since the GEL report indicates 1/8" of product during sampling. Only SVOCs were detected. The GEL well will be sampled as part of AOC 632.</p> <p><b>Well #15</b>  Currently have access problem to work out with CPW to install new wells.</p>
9805-M297	Todd	<p><b>MNA Update</b>  Dann will check into getting EPA resources involved in evaluation of current data and planning future data collection requirements.</p> <p>Will have a summary of all the data to present prior to June meeting.</p> <p>Will also try to have suggestions regarding key parameters and sampling frequency.</p>
9805-M298	Joe	<p><b>Team Training - Negotiation Topics</b></p> <ul style="list-style-type: none"> <li>- Negotiating skills</li> <li>- Negotiation vs. conflict resolution</li> <li>- When is negotiating appropriate?</li> <li>- When does it breakdown?</li> <li>- What allows it to work?</li> <li>- How do we go about it?</li> <li>- Prepare to negotiate.</li> <li>- Guidelines for effective negotiation.</li> </ul> <p>See Attachment 3</p>

9805-M299	Todd	<p><b>Zone I RFI Update</b>  Data presentation limited to available data received for AOC 678, 680, and 681.</p> <p>Primarily groundwater from direct push locations will submit a complete data package before June meeting. Will need to change the document review priority. Include recommendations. Attachment 4</p>
9805-M300		<p><b>DSMOA/Coop Agreement</b>  In the past DSMOA was administered by the ACOE. This year the ACOE told the various agencies to negotiate directly with the states and then the ACOE would fund it.</p> <p>Steps that had to be taken to see what it would take to meet the Navy transfer of property needs.</p> <ol style="list-style-type: none"> <li>1. Identify the current state resources - currently funded for 1.7 people (FTEs).</li> <li>2. To meet the current schedule requirements the state proposed 3 NTEs. The Navy did not think this would support the schedule so through ensuing talks the following agreement was reached:  2.5 engineers  2.5 hydrogeologists  .5 risk assessor</li> </ol> <p>Funding will be available in July. The "new" hires will be brought on in September 1998.</p> <p>Dann suggested that now that a commitment of more resources has been made that we should look at the permit since it is in draft stage to see if there is some flexibility in terms of requirements (i.e. fewer documents, more realistic schedules, etc.)</p>
9805-M301		<p><b>Team Improvement</b>  <b>Processing of documents</b> seems to be a bottleneck.  Why? - project awareness; process of sending, reviewing, approving documents; team interaction; impossible schedules; obstacles to our team efficiency.</p> <p><b>Priorities</b></p> <ol style="list-style-type: none"> <li>1. Process to send, review, approve documents.</li> </ol> <p>**See flowchart, Attachment 5</p>

9805-M302	Johnny	<p><b>Zone C RFI Report</b> Johnny is issuing a conditional approval letter for the report.</p> <p><b>Main Concerns</b> <b>AOC 517</b> Lead residue in the building was presented as an OSHA issue. Rather than evaluate exposure to lead dust, the consensus at DHEC (in agreement with Ted Simon) is just to direct the Navy to clean the building. Possibly use a process closure or interim measure as the mechanism.</p> <p>Will not require a report modification.</p> <p><b>AOC 523</b> Tony was to verify if Gabe is addressing the UST. Gabe tasked the DET to survey the area with their magnetometer. WE don't know the results. AT each area where thallium in groundwater is an issue, final resolution will be part of the basewide thallium study.</p> <p><b>Grid Location 001</b> High DDT hit in soil. Can the well at that location be abandoned so an IM (removal) can be completed.</p> <p><b>Dioxins</b> Dioxins were screened against 1 ppb. As a result the risk calculations do not include dioxin. The report does not need to be changed but future assessments must screen against RBCs. This should be discussed in the upcoming Section 11. Johnny has additional Charleston area dioxin data which is comparable to the Navy base results.</p> <p>Johnny will issue another letter re: Zone C to clarify (rescind) his original condition that a CMS be required at AOC 517.</p> <p>The Zone C RFI Report is approved.</p>
9805-M303	Paul Johnny	<p><b>Zone H CMS Work Plan</b> DHEC comments were provided but Paul emphasized that even though they have some issues the CMS can proceed. The SCDHEC comments must be addressed in the context of the CMS report.</p> <p>The Navy and EnSafe would like the opportunity to look at the letters and have a conference call if needed next Monday at 1500. (Attachment 6)</p>
9805-M304	DET	<p><b>IM Report</b> *See handout provided by the DET at the meeting.</p> <p>Team consensus to cease any further IM excavation activities at SWMU 7 and backfill, prepare completion report. The site will proceed to the CMS for final evaluation. (Attachment 7)</p>

9805-M305	Johnny	<p><b>Permit Update</b>  The draft permit is ready. Tony and Dann are currently reviewing it. The entire team is encouraged to review the draft.</p> <ul style="list-style-type: none"> <li>- July 12<sup>th</sup> is the end of the public comment period.</li> <li>- May 28<sup>th</sup> public notice.</li> </ul>										
9805-M306	Paul	<p><b>South Carolina DOD Meeting</b>  Basically an open house for DOD and SCDHEC. June 16-18 at MCAS Beaufort.</p> <p style="text-align: center;"><b>Topics</b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Inn. Sampling Tech</td> <td style="width: 50%;">Lessons Learned</td> </tr> <tr> <td>Mixing zones/MNA</td> <td>Coastal Concerns</td> </tr> <tr> <td>Range Rule</td> <td>Comp. Trends</td> </tr> <tr> <td>ISO 14000</td> <td>Regulatory Update</td> </tr> <tr> <td>Asbestos</td> <td>DHEC Panel</td> </tr> </table>	Inn. Sampling Tech	Lessons Learned	Mixing zones/MNA	Coastal Concerns	Range Rule	Comp. Trends	ISO 14000	Regulatory Update	Asbestos	DHEC Panel
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Asbestos	DHEC Panel											
9805-M307	Dann	<p><b>Community Involvement Conference</b>  August in Boston, MA</p> <p>EPA Training/Conference for community coordinators. The intent for this year is to include a broader range of staff other than just those involved typically through CERCLA projects.</p>										
9805-M308		<p><b>Close Out</b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">±</td> <td style="width: 50%; text-align: center;">-/Δ</td> </tr> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>• Finished early</li> <li>• Stayed on track</li> <li>• Team improvement exercise</li> <li>• Smaller group</li> <li>• Team leadership</li> <li>• Ate lunch together</li> <li>• Conditional acceptance letter</li> <li>• DET presentation</li> <li>• Cleared up team meeting needs</li> <li>• Closure on items/decisions</li> <li>• Team training</li> <li>• Agenda re-evaluations</li> </ul> </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>• Did not discuss other documents.</li> <li>• Could have skipped the meeting</li> <li>• Goal of topic</li> <li>• Atlanta location - why?</li> </ul> </td> </tr> </table>	±	-/Δ	<ul style="list-style-type: none"> <li>• Finished early</li> <li>• Stayed on track</li> <li>• Team improvement exercise</li> <li>• Smaller group</li> <li>• Team leadership</li> <li>• Ate lunch together</li> <li>• Conditional acceptance letter</li> <li>• DET presentation</li> <li>• Cleared up team meeting needs</li> <li>• Closure on items/decisions</li> <li>• Team training</li> <li>• Agenda re-evaluations</li> </ul>	<ul style="list-style-type: none"> <li>• Did not discuss other documents.</li> <li>• Could have skipped the meeting</li> <li>• Goal of topic</li> <li>• Atlanta location - why?</li> </ul>						
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### Action Items

9805-A179	Tony	Try to obtain additional data regarding distribution of African American/Caucasian/Hispanic women of child bearing age (17-45) in the worker population prior to closure. If possible also determine commuting distance. This will provide an estimate of uncertainty. Ted will use the data to perform another simulation.
9805-A180	Tony/Todd	Find out if oil/water separators at NS 26 and 681 still exist. Find out if the 4 tanks at AOC 678 are being assessed by the petroleum program.
9805-A181	Tony	Send out team improvement outline to all team members by 22 May 98.
9805-A182	Team	Team must come prepared to discuss team improvement outline at next meeting.
9805-A183	Tony/Jed	Need to determine if a SCDHEC letter exists which states a removal of the vault at SWMU 25 is required.

# PT AGENDA

PT MINUTES

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RAB INFO

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