

**SUMMARY MEETING MINUTES
INSTALLATION RESTORATION
TECHNICAL REVIEW COMMITTEE MEETING**

Date of Meeting: September 20, 1993

Project: Installation Restoration (IR) Program
Indian Head Division,
Naval Surface Warfare Center
101 Strauss Avenue
Indian Head, MD 20640-5035

Meeting Participants:

Ms. Susan Adams*	Mr. Kim Lemaster*
Mr. Jeff Bossart*	Mr. Joe Matthews
Ms. Patti Davis	Mr. Daniel Murphy
Mr. Bob Foley*	Mr. Shawn Phillips*
Mr. Clarence Fox*	Mr. Paul Stoddard
Ms. Patricia Haddon*	Ms. Susan Weber*
Mr. Steven Hiortdahl*	Ms. Arlene Weiner*
Mr. Shawn Jorgensen*	Mr. John Woodburn*
Mr. Tony Klimek	

* Member

Technical Review Committee Members Not in Attendance:

Mr. Stephen Elder	Dr. Gerald Schuster
Mr. Vincent Hungerford	

Major Issues Discussed/Accomplished:

1. Meeting Introduction

Ms. Susan Adams of the Indian Head Division, Naval Surface Warfare Center (IHDIVNAVSURFWARCEN) began the meeting by stating that we have new members on the Technical Review Committee (TRC) and had everyone introduce themselves.

Ms. Adams then informed the TRC that the weir had been installed, as promised, at Installation Restoration (IR) Site 8 in June.

2. IR Site 8 Update - Nitroglycerin (NG) Plant Office

Mr. Tony Klimek of Brown and Root Environmental (formerly Halliburton NUS) discussed the status of the Removal Action design at IR Site 8. The design provides specifications to excavate the mercury contaminated soil in the stream; place the contaminated soil in the soil cover of a magazine, Building 606; and restore the upper section of the stream. The Removal Action is scheduled to begin in early 1994.

ENCLOSURE(1)

3. Biomonitoring at Site 8

Mr. Klimek discussed the Biomonitoring effort at IR Site 8. He stated that Biomonitoring began in October 1992 and has been performed quarterly; i.e., January 1993, April 1993, and July 1993; and he proposes that Biomonitoring be performed quarterly through the year 1995.

Mr. Klimek also stated that the bioassay results on whole body parts of fish for mercury contamination have been within background levels to date. In addition, concentrations of mercury in fish increase as you go up the food chain, which is to be expected. Although the data is preliminary, this increase in mercury at higher levels of the food chain can be seen at both IR Site 8 and the Control Site.

Finally, Mr. Klimek told the TRC that it is still too soon to draw any conclusions concerning the affect the weir has on periphyton because we do not have enough data.

4. Results of Site Inspections (SI)

Mr. Paul Stoddard of Ensafe/Allen & Hoshall (E/A&H) presented a brief overview of the IR SI process. He stated that, depending on the site, we could continue in the IR program to the RI/FS phase, or perform an extended SI to further characterize the contamination at the site.

Mr. Joe Matthews, also of E/A&H, provided a brief site by site summary of the SI and identified individual areas of concern.

An error was noted in the second paragraph of page 5-85 of the draft final SI report: Phase II. Although it is true that nitrometers are still used for sensitivity testing, "slop jars" are no longer used. The spent sulfuric acid is removed from the acid/mercury solution and is collected for proper disposal as hazardous waste. The mercury is still rinsed for reuse, but the rinsate is also collected for proper disposal. Therefore, nothing from the operation goes down the drain, it is all collected. In addition, traps have been placed in the sewer lines of laboratory buildings to ensure, in the event of an accidental spill, that no metals go to the sewage treatment plant. This error will be corrected in the final version of the SI Report.

A letter from E/A&H providing the second round sampling results of production wells and monitoring wells was distributed to the TRC members. A special point of interest was Production Well #7. Initial sampling results showed tetrachloroethylene (TCE) in the well at 3 micrograms per liter ($\mu\text{g}/\text{l}$), which is below the maximum contaminant level of 5 $\mu\text{g}/\text{l}$. In the second round of sampling, however, the concentration of TCE was nondetect.

When the initial sample was taken, the well had been off. Therefore, in order to get a sample, the well was turned on and the sample taken after 15 minutes. However, when the well was resampled, the well had already been running when the sample was taken. As recommended by Ms. Arlene Weiner of the Maryland Department of the Environment, we will take additional samples in the future, in an attempt to recreate the problem and determine it's cause.

During the discussion of the laboratory area, IR Site 53, Susan Weber asked if there was a problem with mercury in our sewage treatment plant sludge, and if so, if the sewer lines in the laboratory area could be relined to prevent this problem. Sue Adams stated that the sewer lines on-site were video taped with a camera to locate cracks and these cracked lines were relined/resealed to reduce water infiltration into the sanitary sewer system. Since the TRC meeting, we have discovered that the IHDIIVNAVSURFWARCEN Environmental office recommended the sewer lines in the laboratory not be relined in 1991. This decision was based on the fact that the drains in Buildings 101 and 102 contain mercury. Therefore, relining the sewer lines in this area would not solve the problem of mercury infiltration into the sanitary sewer system.

5. Funding

Mr. John Woodburn of the Chesapeake Division, Naval Facilities Engineering Command (CHESNAVFACENGCOM) discussed the funding availability for future efforts at IHDIIVNAVSURFWARCEN. Mr. Woodburn stated that the Department of the Navy is prioritizing to fund as many Removal Actions as possible in fiscal year 1994. Therefore, it does not look promising for study efforts in fiscal year 1994.

However, CHESNAVFACENGCOM will be developing a plan of attack for all IR sites under their jurisdiction. We will not know exactly what will be done until all sites are prioritized.

6. Future Schedule

Ms. Adams ended the meeting by stating that the next TRC meeting is scheduled for Monday, January 24, 1994, at 1300 hours.

TRC MEETING
September 20, 1993

Presentation Agenda
for
Site 8 - Nitroglycerin Plant Office
(Mercury-Contaminated Site)

1. Project Background Information
2. Work Completed Since February 8, 1993, TRC Meeting
 - Placement and Treatability Study
 - Permitting
 - Removal Action Design
 - Construction Documents
3. Current Status
 - Construction Documents Completed
 - Permit Applications Completed
4. Upcoming Work
 - Removal Action Contractor Procurement
 - Removal Action
5. Biomonitoring Status

ENCLOSURE(4)

PROJECT BACKGROUND

SITE CHARACTERIZATION STUDY:

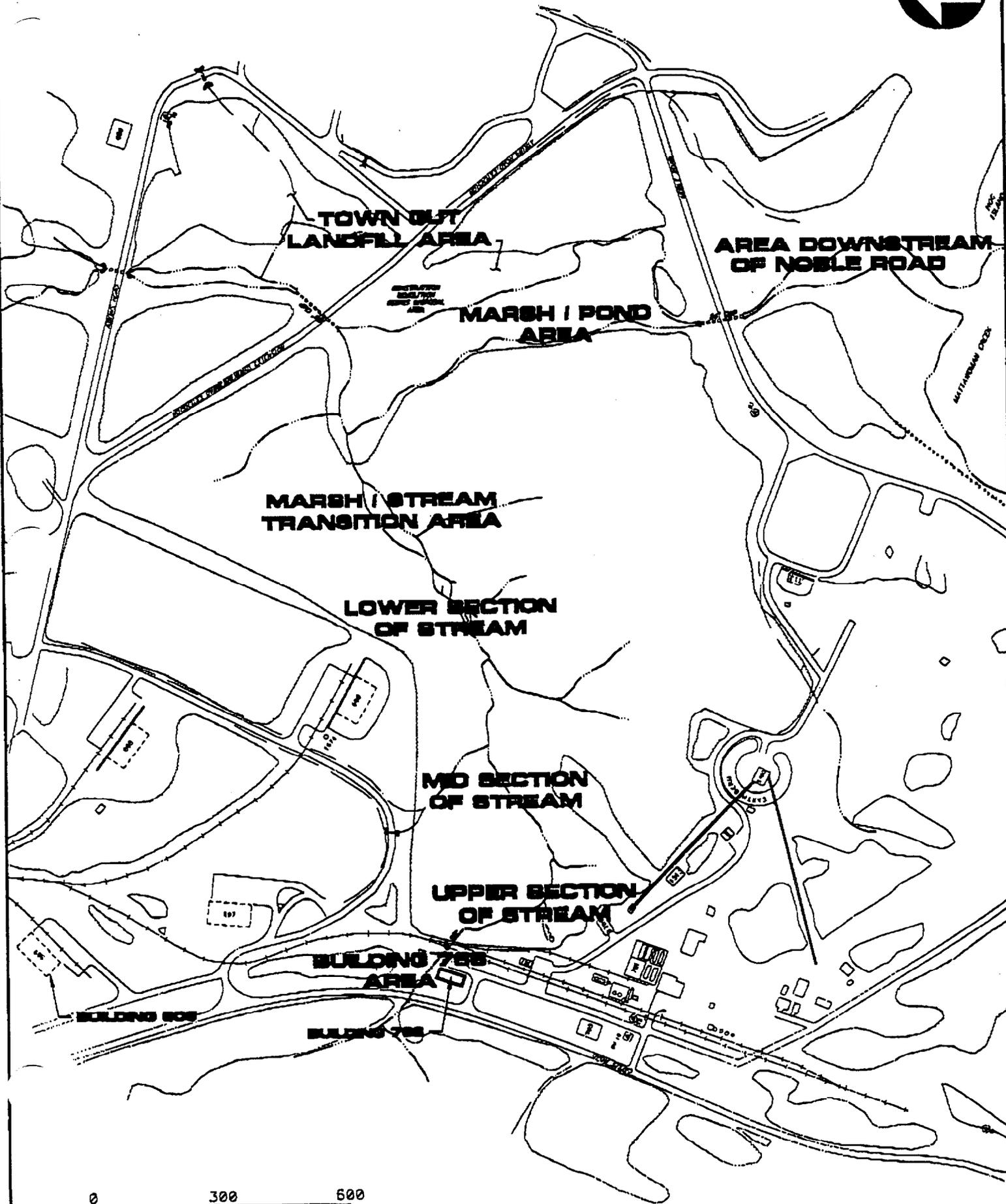
- Completed - September 1992
- Summary - Sediment/Soils in Upper Section of Stream were Contaminated with Mercury

ENGINEERING EVALUATION/COST ANALYSIS (EE/CA):

- Completed - January 1993
- Summary - Recommended Excavation and Disposal of Contaminated Sediment/Soil from Upper Section of Stream

BIOMONITORING:

- Began - October 1992
- Quarterly Biomonitoring through January 1995



ENGINEERING AND DESIGN

- **Placement and Treatability Study**
- **Permitting**
- **Removal Action Design**
- **Construction Documents**

PLACEMENT AND TREATABILITY STUDY

OBJECTIVE: Evaluate mercury-contaminated soil/sediment and identify stabilization and/or placement procedures.

TREATABILITY STUDY GOAL: Perform leaching tests to determine the quantity of mercury that will leach from contaminated soil/sediment and identify chemical stabilization method if appropriate.

PLACEMENT STUDY GOAL: Identify appropriate placement procedures.

TREATABILITY STUDY ANALYTICAL RESULTS

Sample Date	Sample Number	Total Hg (mg/kg)	TCLP Hg* (µg/L)
August 1992	SS-62	15.0	20.0 U
	SS-64	218.0	20.0 U
	SS-113	13.20	29.6 R(q)
April 1993	S-1-1A2	10.40	20.0 U
	S-2-1A1	94.30	20.0 U
	S-2-1A2	2.16	20.0 U
	S-3-1A2	11.40	20.0 U

U Not detected.

R(q) False positive.

* Hazardous waste concentration is 200 µg/L.

TREATABILITY STUDY CONCLUSION: Site 8 mercury contaminated sediment/soil is not classified as a hazardous waste and does not require chemical stabilization.

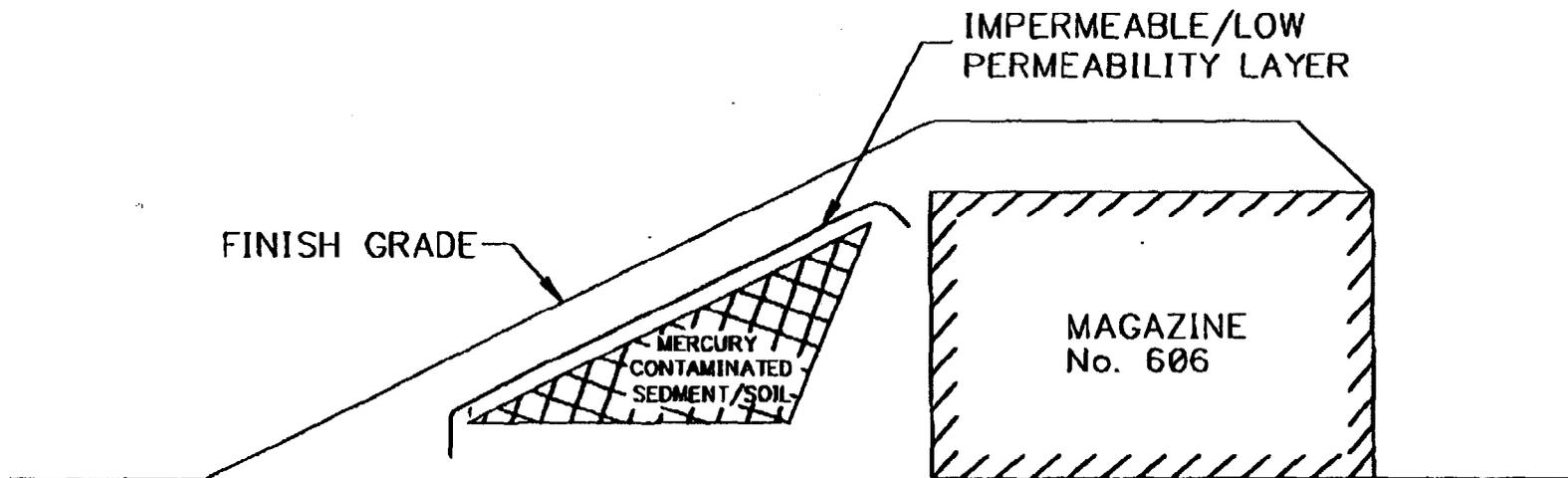
PLACEMENT STUDY SUMMARY

PLACEMENT LOCATION: Earthen berm of Magazine No. 606.

PLACEMENT CONCEPT: Place contaminated sediment/soil in earthen berm and cap with 1 foot of low permeability soil (clay), 2 feet of clean soil (minimum), and topsoil.

CAP OBJECTIVES:

1. Prevent Human and Ecological Exposure
2. Prevent Wind and Water Erosion
3. Minimize Plant Uptake



PLACEMENT CONCEPT

PERMITTING

- **No Hazardous Waste Permits Required**
- **Meetings with MDE on August 4, 1993**
- **Erosion and Sediment Control Permit**
- **Stormwater Management Waiver**
- **Joint Permit Application**

REMOVAL ACTION DESIGN

(Based on EE/CA Results)

- **Excavate Mercury-Contaminated Sediment/Soil**
- **Place Contaminated Sediment/Soil in Earthen Berm**
- **Restore Upper Section of Stream**

CURRENT STATUS

- **Removal Action Construction Documents Completed**
 - Drawings
 - Specifications
- **Removal Action Permit Applications Completed**
- **Biomonitoring Ongoing**

UPCOMING WORK

- **Obtain Permit Approval**
 - **Erosion and Sediment Control Plan**
 - **Stormwater Management Waiver**
 - **Joint Permit Application**

- **Removal Action Contractor Procurement**

- **Removal Action**

- **Continue Biomonitoring**

BIOMONITORING - BIOASSAY RESULTS

Location/Fish Type	Mercury Concentrations			
	October 1992	January 1993	April 1993	July 1993
Site 8 Pond - gambusia or "mosquitofish"	0.06	0.15	--	--
Site 8 Pond - mummichog	--	0.02	0.04	--
Site 8 Pond - creek chubsucker	--	0.03	--	--
Site 8 Pond - bluegill	0.02	0.02	0.06	0.09
Site 8 Pond - brown bullhead	0.04	--	--	0.05
Site 8 Pond - warmouth	--	--	--	0.23
Site 8 Pond - crayfish	--	--	--	0.07
Site 8 Pond - frog	--	--	0.03	--
Beaver Pond - eastern mudminnow	--	--	0.07	--
Beaver Pond - creek chubsucker	--	0.03	--	0.09
Beaver Pond - redfin pickerel	--	--	--	0.21
Mattawoman Creek - shiner (minnow family)	--	--	0.04	--
Mattawoman Creek - white perch	--	--	0.02	--

Preliminary Assessment: Mercury levels are low, essentially background.

