



DEPARTMENT OF THE NAVY

INDIAN HEAD DIVISION
NAVAL SURFACE WARFARE CENTER
101 STRAUSS AVE
INDIAN HEAD MD 20640-5035

5090
Ser 0952/42
3 Feb 94

Mr. Kim Lemaster
Maryland Department of the Environment
CERCLA Response Division
2500 Broening Highway
Baltimore, MD 21224

Dear TRC Member:

We are forwarding the agenda and meeting minutes from the last TRC meeting that was held on January 24, 1994.

In addition, we are forwarding copies of the presentations given by Mr. Tony Klimek and Mr. Kevin Donnelly of Brown & Root Environmental (BR&E). Mr. Klimek discussed the Biomonitoring at Installation Restoration (IR) Site 8 - Nitroglycerin Plant Office and Mr. Donnelly discussed the sampling effort at IR Site 5, X-Ray Facility Building 731.

We are also forwarding a copy of the presentation given by Mr. Shawn Phillips of the Engineering Field Activity - Chesapeake (formerly Chesapeake Division, Naval Facilities Engineering Command) concerning the status of the Interim Removal Action at IR Site 8. Mr. Phillips also discussed the Removal Action Contract which will be used for this effort, including the advantages and disadvantages involved with using this type of contract.

Please note that the next meeting is scheduled for Monday, May 23, 1994, in Building 20 at 1:00 p.m.

If you have any questions or comments, please contact Shawn Jorgensen on (301) 743-6745 or 6746.

Sincerely,

A handwritten signature in cursive script that reads "Susan P. Adams".

SUSAN P. ADAMS
Director, Environmental Division
By direction of the Commander

Encl:

- (1) Meeting Minutes for TRC meeting
of January 24, 1994
- (2) Agenda for TRC meeting
of January 24, 1994
- (3) Copies of Presentations

5090
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Copy to:
TRC Members
CHESNAVFACENGCOM (Code 181)
Brown & Root Environmental (T. Klimek)
Brown & Root Environmental (P. Moore)
U.S.G.S. (S. Hiortdahl)

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

Date of Meeting: January 24, 1994

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

Meeting Participants:

Capt. D.G. Maxwell*	Mr. Kim Lemaster*
Ms. Susan Adams*	Ms. Jennifer McGraw*
Mr. Kevin Donnelly	Mr. Philip Moore
Mr. Vincent Hungerford	Mr. Shawn Phillips*
Mr. Shawn Jorgensen*	Mr. Thomas Symalla*
Mr. Tony Klimek	

* Member

Technical Review Committee Members Not in Attendance:

Mr. Jeff Bossart	Ms. Patricia Haddon
Mr. Stephen Elder	Dr. Gerald Schuster
Mr. Bob Foley	Ms. Susan Weber
Mr. Clarence Fox	

Major Issues Discussed/Accomplished:

1. Meeting Introduction

Ms. Susan Adams of the Indian Head Division, Naval Surface Warfare Center (IHDIVNAVSURFWARCEN) began the meeting by having everyone introduce themselves. Ms Adams then reviewed the agenda for the meeting.

2. IR Site 5 Sampling

Mr. Kevin Donnelly of Brown and Root Environmental (B&RE) discussed the scheduled sampling of IR Site 5, X-Ray Facility Building 731. B&RE personnel will begin sampling of IR Site 5 on Monday 31 January 1994 to characterize the extent of silver contamination at the site. Approximately 85 samples will be taken and analyzed for this effort.

ENCLOSURE(1)

3. IR Site 8 Biomonitoring Results

Mr. Tony Klimek of B&RE provided a brief project background of IR Site 8 and the status of the Interim Removal Action, which he stated is scheduled for April 1994. In addition, Mr. Klimek discussed the latest results of the Biomonitoring effort at this site. The results show that the mercury contamination in the tidal pond is not adversely affecting the biota. Mr. Klimek also stated that the levels of mercury in the biota at IR Site 8 were comparable to those at the Beaver Pond Control Site. This suggests that either these values are typical background concentrations for the area or that there may be an unknown source of mercury contamination at the Beaver Pond Control Site.

Mr. Klimek also discussed the problem that BR&E is having catching fish at the IR Site 8 tidal pond. At the last TRC meeting, Ms. Patricia Haddon suggested they we look into stocking the pond with fish. However, Mr. Philip Moore, a biologist with BR&E, did not believe that stocking fish into the pond would be a good idea for a variety of reasons. The water quality of the pond can only support non-sensitive biota and the pond has a low fish population. Mr. Moore stated that the pond is already a stressed environment and adding additional fish could worsen the situation.

4. IR Site 8 Removal Action Status

Mr. Shawn Phillips of the Engineering Field Activity - Chesapeake (EFACHES), formerly the Chesapeake Division, Naval Facilities Engineering Command, provided the status of the Interim Removal Action at IR Site 8. The Interim Removal Action will be performed using the Atlantic Division, Naval Facilities Engineering Command's Removal Action Contract (RAC). Mr. Phillips estimated the date of contract award as 1 April 1994, with actual field work beginning in June or July of 1994.

5. Removal Action Contract (RAC)

Mr. Shawn Phillips of EFACHES described that a RAC is a Cost-Plus-Award-Fee type of contract. He also provided some of the advantages and disadvantages involved in using the RAC. For example, even though using the RAC may be more costly than a Fixed Bid Procurement, making changes in the field (i.e. removal of additional soil), which is common with environmental efforts, is much easier to do.

6. Future Schedule

Ms. Adams ended the meeting by stating that the next TRC meeting is scheduled for Monday, May 23, 1994, at 1300 hours.

INSTALLATION RESTORATION
TECHNICAL REVIEW COMMITTEE MEETING
AGENDA

January 24, 1994

- 1300 - 1315 INTRODUCTION
- Ms. Susan P. Adams
 Director, Environmental Division
- 1315 - 1330 IR SITE 5 SAMPLING
- Mr. Kevin Donnelly
 Brown & Root Environmental
- 1330 - 1350 IR SITE 8 BIOMONITORING RESULTS
- Mr. Tony Klimek
 Brown & Root Environmental
- 1350 - 1415 IR SITE 8 REMOVAL ACTION STATUS
- Mr. Shawn Phillips
 Chesapeake Activity, Naval Facilities Engineering
 Command
- 1415 - 1430 REMOVAL ACTION CONTRACT (RAC)
- Mr. Shawn Phillips
 Chesapeake Activity, Naval Facilities Engineering
 Command
- 1430 - 1500 OPEN DISCUSSION
- 1500 ADJOURN

ENCLOSURE(a)

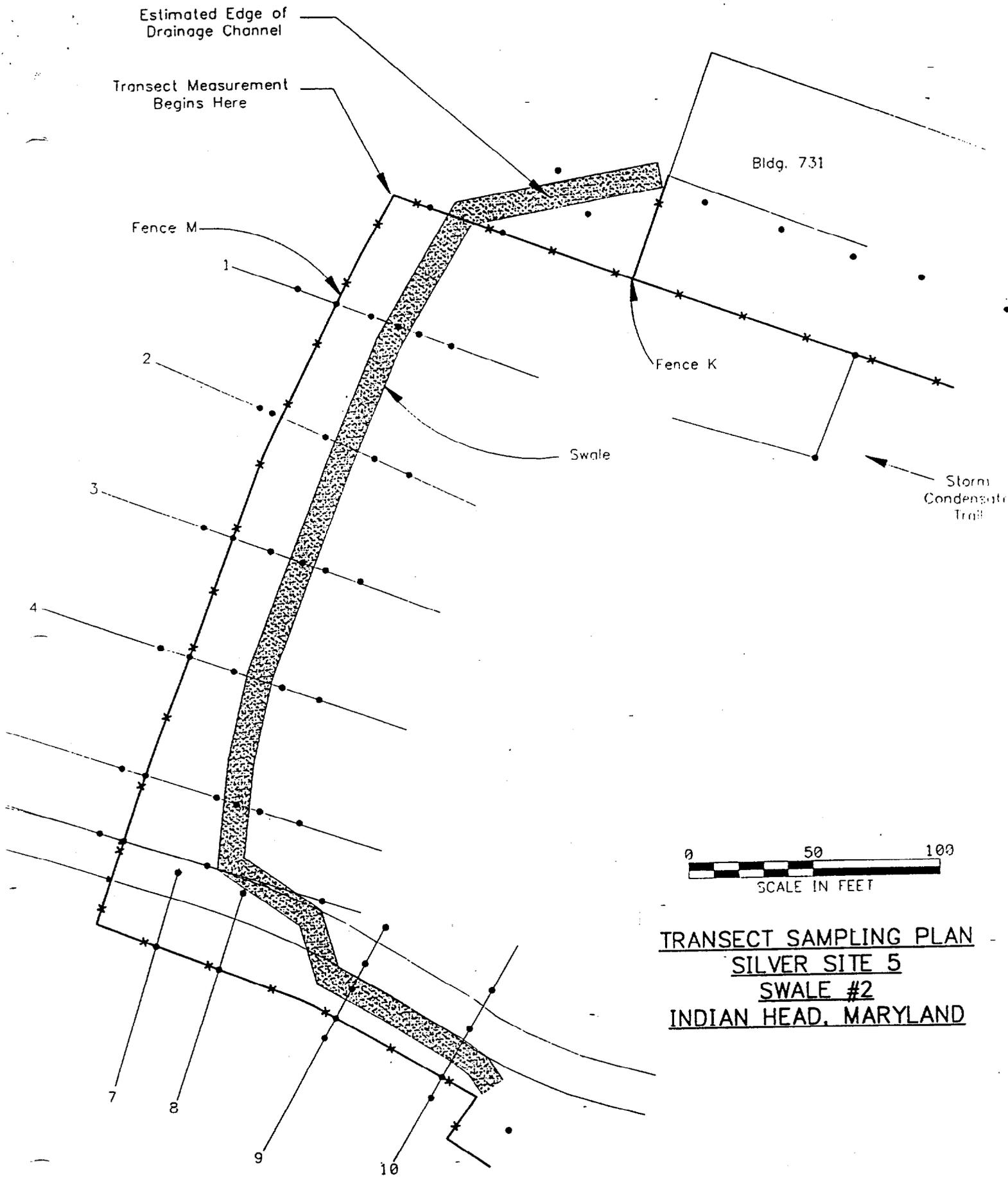
SITE 5

NSWC - INDIAN HEAD

TECHNICAL REVIEW COMMITTEE UPDATE

JANUARY 24, 1994

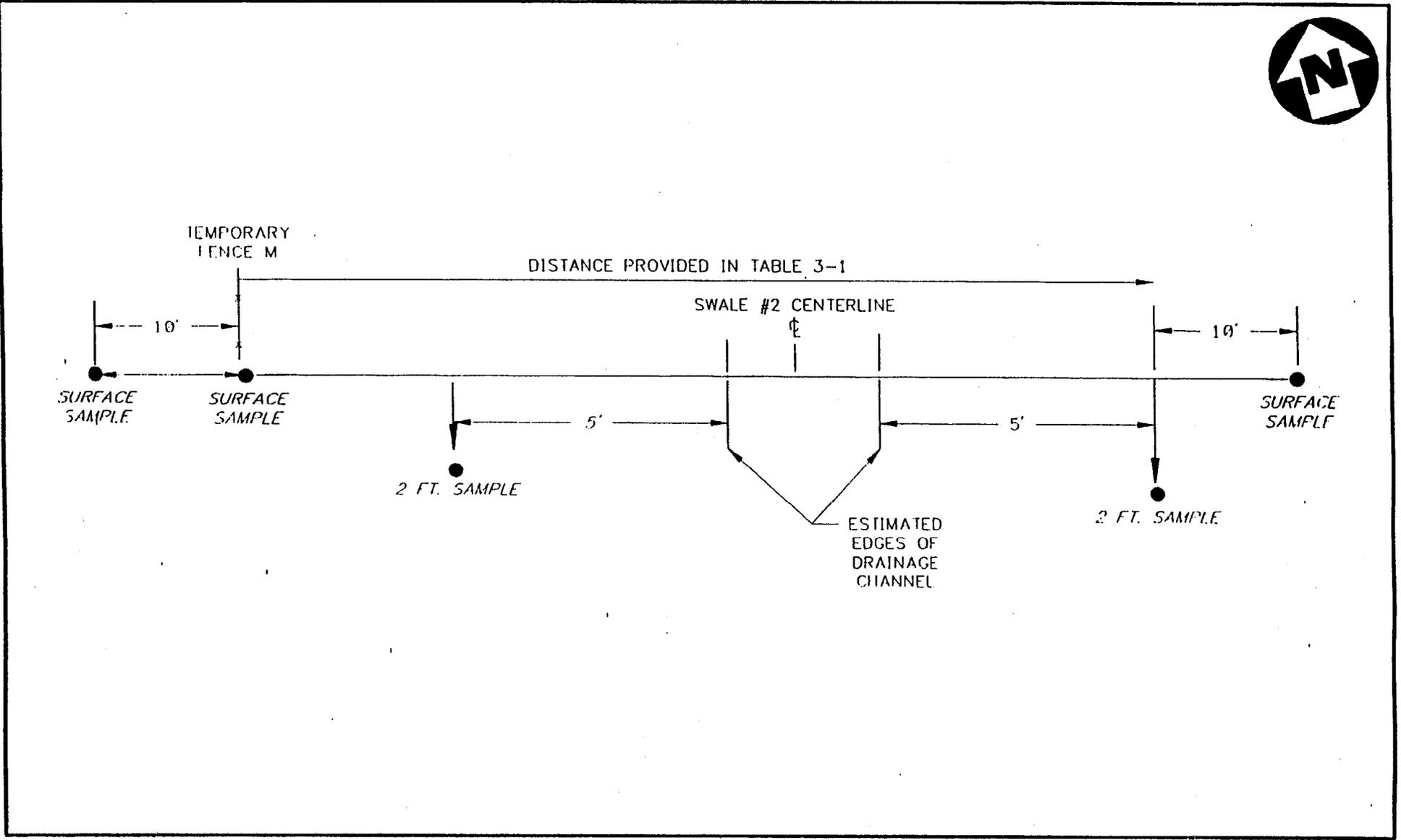
ENCLOSURE(3)



TRANSECT SAMPLING PLAN
SILVER SITE 5
SWALE #2
INDIAN HEAD, MARYLAND

LEGEND

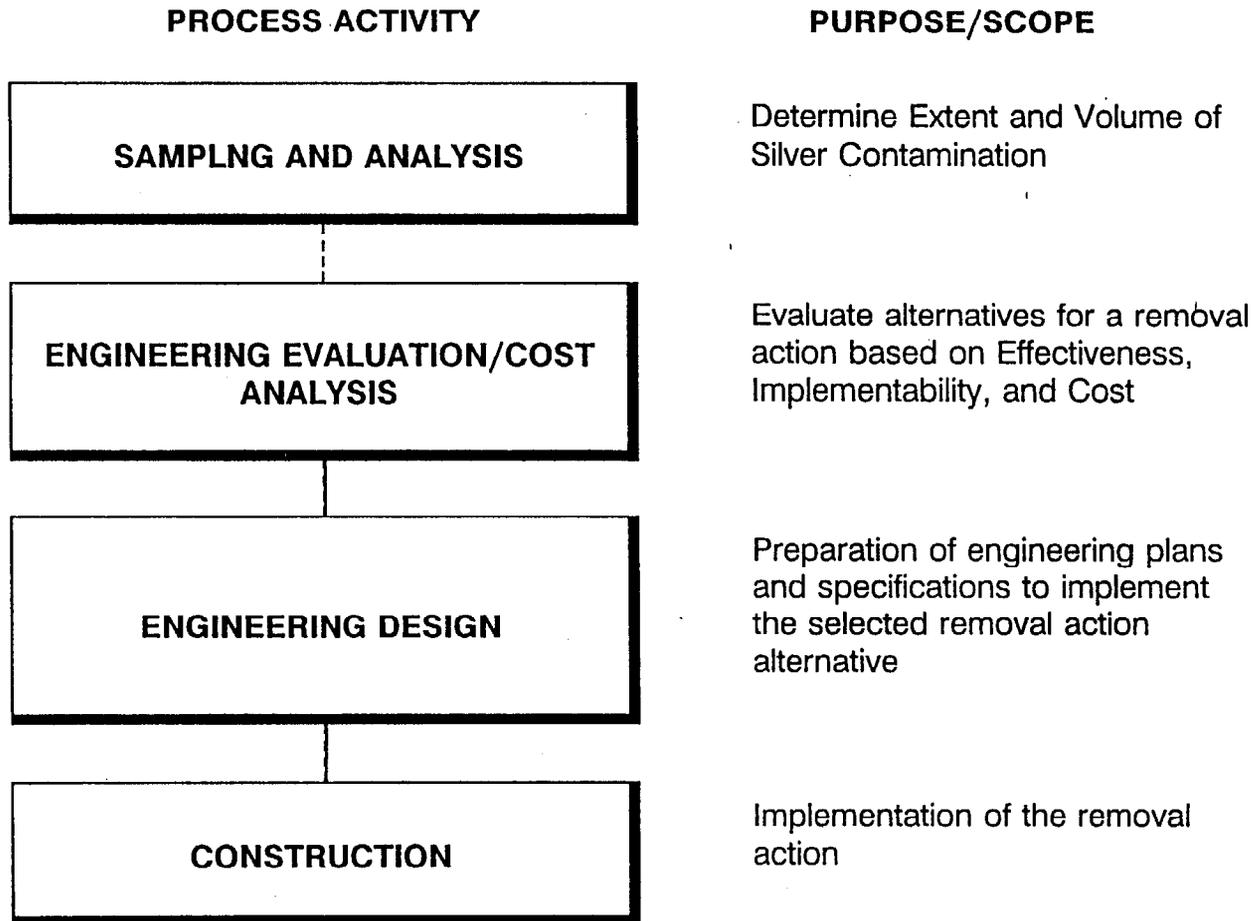
- SAMPLE LOCATION
- x— FENCE



REPRESENTATIVE SOIL SAMPLING PROFILE
SILVER SITE 5, SWALE #2
INDIAN HEAD, MARYLAND

FIGURE 2-1

SITE 5 REMEDIAL ACTION PROCESS



TRC MEETING

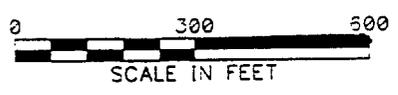
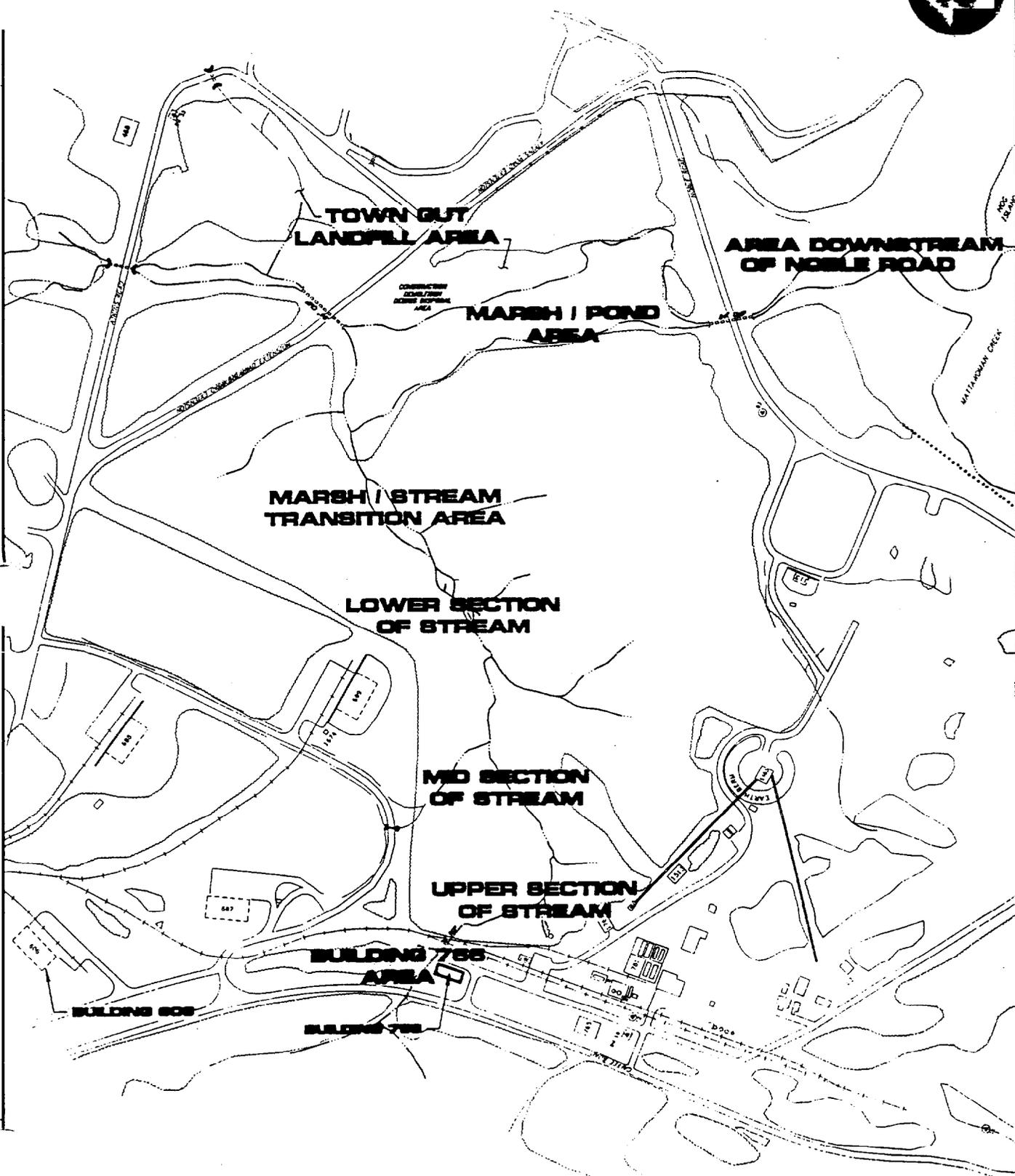
JANUARY 24, 1994

PRESENTATION AGENDA

for

**Site 8 - Nitroglycerin Plant Office
(Mercury-Contaminated Site)**

- 1. Project Background Information**
- 2. Interim Removal Action Status**
- 3. Biomonitoring Program**
- 4. Site 8 Schedule**



PROJECT BACKGROUND INFORMATION

SITE CHARACTERIZATION STUDY

- **Completed September 1992**
- **Summary: Sediments/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**

ENGINEERING AND DESIGN

- **Completed August 1993**

BIOMONITORING

- **Began July 1992**
- **Quarterly biomonitoring through January 1995**

INTERIM REMOVAL ACTION STATUS

- **Design completed**
- **Anticipate utilizing Navy RAC (Remedial Action Contract)**
- **Interim Removal Action tentatively scheduled for April 1994**

BIOMONITORING PROGRAM

- **Program Objectives and Strategy**
- **Schedule**
- **Sampling Components and Locations**
- **Preliminary Results**
- **Issues and Recommendations**
- **Summary**

BIOMONITORING PROGRAM

PROGRAM OBJECTIVES: Assess the impact of the Site 8 mercury contamination on the biota of the Site 8 Pond/marsh and evaluate potential environmental impacts of the Interim Removal Action.

PROGRAM STRATEGY: Determine conditions of Site 8 Pond/marsh biota and compare it to Control Sites and monitor conditions at Site 8 before and after removal action to assess changes.

BIOMONITORING PROGRAM SCHEDULE

Task	1992					1993					1994					1995					
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
PRELIMINARY BIOSURVEY	█																				
BIOMONITORING PLAN			▲																		
PHASE 1 BIOMONITORING			█	█	█																
<ul style="list-style-type: none"> ● October 1992 ● January 1993 			█	█	█																
REVISED BIOMONITORING PLAN									▲												
PHASE 2 BIOMONITORING									█	█	█	█	█	█	█	█	█	█			
<ul style="list-style-type: none"> ● April 1993 ● July 1993 ● October 1993 ● January 1994 									█	█	█	█	█	█	█	█	█				
REMEDIAL ACTION																					
<ul style="list-style-type: none"> ● April 1994 ● July 1994 ● October 1994 ● January 1995 																					

BIOMONITORING PROGRAM

SAMPLING COMPONENTS

- **Water Quality**
- **Periphyton**
- **Benthic Macroinvertebrate**
- **Fish**

SAMPLING LOCATIONS

- **Site 8 Pond/Marsh**
- **Control Site No. 1: Beaver Pond at Stump Neck Annex**
- **Control Site No. 2: Mattawoman Creek**

WATER QUALITY SAMPLING

OBJECTIVE: Collect information to support interpretation of biological data and assess bioavailability of contaminants

STRATEGY: Measure the following parameters at various locations in Site 8 Pond and Control Sites:

- Temperature
- Dissolved Oxygen
- Conductivity
- Hardness
- pH
- TOC

PERIPHYTON SAMPLING

OBJECTIVE: Determine if periphyton (algae) in Site 8 Pond have been impacted by mercury contamination.

STRATEGY: Collect information on periphyton in Site 8 Pond and Control Sites. Determine if there are any differences between the sites and review information obtained before and after the removal action.

BENTHIC MACROINVERTEBRATE SAMPLING

OBJECTIVE: Determine if benthic macroinvertebrates in Site 8 Pond have been impacted by mercury contamination.

STRATEGY: Collect information on benthic macroinvertebrates in Site 8 Pond and Control Sites. Determine if there are any differences between the sites and review information obtained before and after the removal action.

FISH SAMPLING AND ANALYSIS

OBJECTIVE: Determine if fish in Site 8 Pond have been impacted by mercury contamination.

STRATEGY: Collect information on amount of mercury in the fish in the Site 8 Pond and Control Sites. Determine how this compares to fish in other Maryland waterways.

PRELIMINARY BIOMONITORING RESULTS

GENERAL: Site 8 Pond has a relatively simple community structure

WATER QUALITY: Site 8 Pond is a shallow, freshwater pond capable of supporting non-sensitive biota.

PERIPHYTON: Site 8 periphyton community varies with seasons. Periphyton in Site 8 Pond do not indicate adverse impacts from mercury contamination.

BENTHIC MACROINVERTEBRATES: Benthic community is composed of herbivores. Benthics in Site 8 Pond do not indicate adverse affects from mercury contamination.

FISH: Fish species and diversity are low at Site 8 Pond. Mercury concentration in fish tissue at Site 8 Pond are consistent with other Maryland waterways.

MERCURY CONCENTRATIONS IN FISH TISSUE (BIOASSAY RESULTS)

Location	Organism	Mercury Concentrations (mg/kg)				
		Oct. 1992	Jan. 1993	April 1993	July 1993	Oct. 1993
Site 8 Pond	<i>Notropis</i> (shiner)	--	--	--	--	0.05
	Creek chubsucker	--	0.03	--	--	--
	Brown bullhead	0.04	--	--	0.05	0.05
	<i>Gambusia</i> (mosquitofish)	0.06	0.15	--	--	0.12
	Warmouth	--	--	--	0.23	--
	Bluegill	0.02	0.02	0.06	0.09	--
	Crayfish	--	--	--	0.07	0.09
	Frog	--	--	0.03	--	--
Control Site 1: Beaver Pond	American eel	--	--	--	--	0.11
	Eastern mudminnow	--	--	0.07	--	--
	Redfin pickerel	--	--	--	0.21	--
	<i>Notropis</i> (shiner)	--	--	--	--	0.07
	Creek chub	--	0.03	--	0.09	0.11
	Pumpkinseed	--	--	--	--	0.11
Control Site 2: Mattawoman Creek	<i>Notropis</i> (shiner)	--	--	0.04	--	--
	Creek chubsucker	--	--	--	--	0.02
	White perch	--	--	0.02	--	--
	Pumpkinseed	--	--	--	--	0.01
	Warmouth	--	--	--	--	--
	Bluegill	--	--	--	--	0.03

MAJOR ISSUES

- **Changing water levels.**
- **Siltation in Site 8 Pond.**
- **Mercury concentrations in Control Site No. 1 -
Beaver Pond fish tissue.**
- **Quantities of fish.**
- **Lead contamination at Site 8 Pond.**

RECOMMENDATIONS

- **Investigate lead at Site 8.**
- **Sediment/soil sampling and analysis for mercury at Control Site No. 1 - Beaver Pond.**
- **Evaluate stocking of fish in future.**

BIOMONITORING PROGRAM SUMMARY

PRELIMINARY SUMMARY: Mercury contamination at the levels observed in the Site 8 Pond appear to have had virtually no effect on the Site 8 biota.

SITE 8 SCHEDULE

- **Interim Removal Action**

- **April 1994**

- **Biomonitoring**

- **Quarterly biomonitoring through January 1995.**
- **Possibly investigate lead at Site 8 Pond.**
- **Possibly investigate mercury at Control Site No. 1 - Beaver Pond.**

INSTALLATION RESTORATION SITE 8

REMOVAL ACTION

AND

REMOVAL ACTION CONTRACT

BY

**SHAWN PHILLIPS
EFACHES**

SITE 8 Removal Action

- **Construction to be done using LANTDIV's Remedial Action Contract (RAC)**
- **The RAC Prime Contractor is OHM**
- **Estimated Award Date 1 April 1994**
- **Plan to start Field Work this summer (June, July)**
- **Field work most likely will take less than 2 months**
- **Estimated cost cannot be released until after award but definitely < \$1 million**

RAC Advantages

- Flexible in terms of negotiations and field changes, since basic contract already exists
- Easiest contract vehicle for environmental projects where our quantities are estimates (as compared to regular construction)
- “Hand Selected” contractor familiar with environmental work and regulatory requirements
- Less expensive than a Firm Fixed Procurement if scope of project increases significantly during field work

RAC Disadvantages

- **More Expensive than a Fixed Bid**
Procurement on a cost per unit removed basis if the original estimated amounts are accurate
- **Some additional training required for ROICC and EFACHES persons because of the award fee concept and invoice procedures**