

MINUTES OF TRC AND PUBLIC MEETING NOVEMBER 4, 1993

TO: NSB-NLON TRC Members

FROM: Barry Giroux and Paul Burgess
Atlantic Environmental Services, Inc.

DATE: December 13, 1993

RE: Technical Review Committee and Public Meeting - November 4, 1993
Installation Restoration Study
Naval Submarine Base — New London, Groton, Connecticut
N62472-88-C1294

The following people attended the meeting:

Dale Weiss	TRC Environmental
Barry Giroux	Atlantic Environmental Services, Inc.
Paul Burgess	Atlantic Environmental Services, Inc.
Katherine Fogarty	Menzie-Cura & Associates
Adam Sullivan	CTDEP
Mark Leipert	Northern Division Naval Facilities Engineering Command
Suzanne Berkman	Subbase, NLON Environmental Department
LCDE Ruth Noonan	Submarine Group Two
Ronald Ochsner	Ledyard Resident
Susan Pezzullo	Ledyard Resident
Matt Cochran	Halliburton NUS
David Miu	Northern Division Naval Facilities Engineering Command
Deborah Jones	Town of Groton
Bart Pearson	Groton Resident
Richard Conant	Subbase NLON Environmental Department
CDR Barfield	Subbase NLON Public Works Office
Mark Leone	CTDEP
Simeon Hahn	NORTHDIV Biologist
Leo Kay	U.S. EPA
Paul Marchessault	U.S. EPA
David McDonald	Lockheed/ESAT
Scott Heim	TRC Environmental
Connie Dinerman	New London Health Department
Mary Jane Engle	Ledge Light Health Department
Robert Jones	COMSUBGRU TWO
Debra Wroblewski	Halliburton NUS
Chuck Maguire	U.S. Atlantic Fleet
John Kirkland	General Dynamics/Electric Boat
George Gill	General Dynamics/Electric Boat

Rec'd Yes 21, 93

Suzanne Berkman opened the meeting and welcomed all attendees. Due to local traffic congestion, the start of the meeting was slightly delayed and several attendees arrived late. ✓

Review of Minutes From August 4, 1993 TRC Meeting

Suzanne reviewed the minutes from the previous Technical Review Committee (TRC) meeting of August 4, 1993, highlighting residential well sampling, the Building 31 removal project, and the installation restoration program budget. There were no comments or questions regarding the previous minutes. ✓

Second-Round Drinking Water Data → TECHNICAL MEMO AFTER 4TH QTR SAMPLING.

Barry Giroux of Atlantic Environmental Services, Inc. (Atlantic) gave a presentation regarding the residential well monitoring program being conducted by the Navy and the results of the second round of residential well water testing. The overheads used during this presentation are included as Attachment 1 to these minutes.

The presentation included a summary of all residential well testing performed to date and explained that quarterly sampling will continue until the last sampling round is completed in December 1993. At that time, a technical memo will be prepared summarizing the sampling results. The memo will include recommendations regarding the need for additional monitoring. Next, the results of the second round of sampling were presented. Results above health standards or advisories were highlighted. ←

Community Relations Plan

Barry Giroux continued with a presentation regarding the status of the Community Relations Plan. The overhead for this presentation is included as Attachment 2 to these minutes. Barry explained that comments from the TRC, EPA, and DEP have been received and appropriate modifications have been made to the plan. One final review from Naval Sea Systems Command is required prior to the release of the plan. Barry explained that, although the plan is not final, all of the Community Relations activities required by the plan are being implemented. The overhead (Attachment 2) contains a list of key community relations activities. ✓

Interim Remedial Actions

Barry Giroux continued with a presentation regarding the status of the interim remedial actions. The overheads for the presentation are included as Attachment 3 to these minutes.

This presentation went over the overall project schedule (which is included as an overhead) and did a site-by-site presentation for Spent Acid Storage and Disposal Area, DRMO, Area A Landfill and Concrete Pad, and Area A Downstream/OBDA. The overall project schedule is very aggressive and has several activities being conducted concurrently, ending with remedial actions being implemented in the Summer and Fall of 1994. To date, supplemental data collection activities have been completed at all sites, except the Area A Concrete Pad for which these activities should be completed within a week. Other activities listed in the schedule have not commenced for any of the sites. ←

Questions Raised During the Presentation

Comment. Sue Pezzullo asked why a temporary cap was being installed at DRMO. She was concerned that it seems wasteful to install and then remove a cap.

Response. Barry Giroux explained that calling the cap an interim rather than a temporary cap would be better terminology. The cap is temporary or interim because based on further studies the horizontal limits may be extended or additional layers may be added to it to provide greater protection.

Comment. Paul Marchessault asked what type of caps are being proposed (e.g., are they RCRA caps) and he also asked if the Area A Landfill cap is intended to be an interim cap.

Response. Barry explained that, at both the DRMO and Area A Landfill, it is the Navy's interpretation that ARARs require a cap designed to meet the RCRA solid waste standards; however, the cap designs do meet the RCRA hazardous waste standards, which are more stringent than solid waste standards. The impervious layer in the cap design for DRMO and the Area A landfill is the same. The cap for the Area A Landfill is not intended to be a temporary or interim cap. The remediation at Area A Landfill is being called interim because there may be need at this site for further remediation to address contaminated groundwater such as a groundwater pump and treatment system.

Comment. There were a few comments regarding the relationship between the focused feasibility study (FFS) and the remedial design efforts. How can the FFS be evaluating and selecting an alternative when one has already been selected to design?

Response. Paul Burgess explained that, using the Phase I Remedial Investigation (RI) data, a feasibility study has already been 75% completed. Based on this evaluation, we feel comfortable that the proper remedial alternative has been selected to design. Barry Giroux went on to explain that we are also comfortable with the alternatives selected because we have not selected the cheapest remedy and have used permanent remedies when feasible. Although a decision has been made, the Navy is still looking for comments regarding the proposed interim remedial actions. A briefing document describing the actions was distributed to the TRC in May 1993, and design work plans for each action should be distributed by the end of November. Comments are requested. To date, no one has said that implementing the proposed interim remedial actions does not make sense.

Comment. A question was raised regarding interim remedial action for the Area A Wetland.

Response. Barry explained that there are no actions proposed for the wetlands site since no environmental problems have been detected. The Phase II RI sampling of this site, which is being performed by HNUS and consists of 29 sediment samples, is being performed to verify the results of the Phase I RI sampling which do not indicate a problem. This site was originally sampled as it is reportedly where pesticides were applied.

Building 31 Removal Action

Mark Leipert of the Northern Division Naval Facilities Engineering Command gave a presentation regarding the status of the Building 31 removal action. Overheads which summarize the contents of the presentation are included as Attachment 4 to these minutes.

Briefly (the attached overheads should be referenced for further detail), the removal action contract has been awarded to National Environmental Services Corporation of Bloomington, Indiana. Preliminary work regarding the following items has commenced: treatability studies, submittal and review of contract paperwork or submittals, and partnering sessions. Groundwater monitoring should be conducted the first week in December and excavation/removal activities should begin by December 15, 1993, and be completed by April 1, 1994.

Questions Raised During the Presentation

Comment. Suzanne Berkman asked if the health and safety plan (one of the paperwork submittals) would be sent to the U.S. EPA and CTDEP.

Response. Matt Cochran said, yes, it would. He also stated that groundwater sampling could not be performed during the first week in December because other fast track items are being implemented. He verified that this delay would not be a problem, provided that samples are collected by December 15, 1993.

Comment. Suzanne Berkman asked if any approvals of the treatability study are required.

Response. Mark Leipert said that no approvals are required. The treatability studies are solely for the contractor's use to verify that the treatments to be performed will meet all performance standards in the contract specifications.

Comment. CDR Barfield said that implementation of this removal action is verification of the Navy's stated commitment to implement remedial activities and asked what the contract value was.

Response. Mark Leipert responded that it was close to \$1 million.

Phase II RI Update

Matt Cochran of Halliburton NUS gave a presentation regarding the Phase II RI. His overheads, which contain the contents of his presentation, are included as Attachment 5 to these minutes. Matt Cochran explained that the Phase II RI addresses 13 sites. Portions of the Phase II RI regarding soils and sediments will be implemented by Atlantic to support the interim remedial actions. The Phase II RI sections regarding the three highest priority sites (Thames River, Area A Wetland, and Area A Downstream/OBDA) will be implemented by HNUS in accordance with a recently prepared addendum to the work plan. This addendum is currently being reviewed by U.S. EPA and DEP. The extent of sampling, as detailed in the overhead for each site including number, type, and location of samples, was presented. Work has started

regarding the installation of groundwater monitoring wells in Area A Downstream OBDA, and portions of the Thames River studies should start next week.

Questions Raised During Presentation

Comment. Paul Marchessault asked why the field work had started prior to EPA and DEP approval of the work plan addenda.

Response. Matt Cochran responded by indicating that the work plan currently is being revised in response to all comments received and will soon be submitted to EPA/DEP. The field work currently being implemented consists of installation of groundwater monitoring wells and deployment of mussel cages. There were no comments received regarding these portions of the field work. The revised work plan addenda will be submitted to EPA/DEP prior to performing any field work for which comments were received.

Comment. There was a comment regarding the listing of the Lower Subase as one of the interim remedial action sites.

Response. Paul Burgess indicated that this site was originally considered for interim remedial actions; however it has since been eliminated.

Status of Federal Facilities Agreement

Suzanne Berkman talked briefly regarding the FFA (Federal Facilities Agreement). The FFA still has not been signed and is still being reviewed by the Navy's headquarters. Originally, it was anticipated that the agreement might be signed by 9/30/93; however, it now appears that the agreement will not be signed until after the first of the year. The FFA status will again be an agenda item for the next TRC meeting. There were no questions or comments regarding the FFA.

FY 94 Budget Status and Impacts on Subase NLON

David Miu explained the impacts the FY 94 budget may have on installation restoration activities at the Subase. The FY 94 budget cuts are deeper than those in the past and they may continue. Although there are cuts proposed, the Subase is getting more than its fair share of available funds. Listed below are the major IR Projects, along with their funding status.

- Phase II RI (3 priority sites) - fully funded
- Phase II RI (10 other sites) - programmed for FY 94, awaiting funds
- RI Work Plan Pier 33 and Berth 16/Former Incinerator - no funding available ~~TARGETED~~ FY 95
- Design for Interim Remedial Actions - fully funded
- Fuel Farm Investigations - fully funded
- Supplemental Study Areas - no funding available ~~TARGETED~~ FY 95
- Radiological Hazard Assessment - fully funded

After David Miu's presentation, Suzanne Berkman introduced Richard Conant, who just started working for the Subase Environmental Department. Richard Conant will be taking over William Mansfield's responsibilities regarding oversight of the installation restoration program

at the Subase, and his phone number is 449-3644.

At this time the TRC meeting was adjourned and the public comment period was opened. The next TRC meeting has been scheduled for 1:00 pm, February 3, 1994 at the Shepherd of the Sea Chapel.

Public Comment Period

Comment. Bart Person asked if the results of the residential well water testing will be correlated with the results from the new groundwater monitoring wells being installed in Area A.

Response. Matt Cochran indicated that, yes, all available data will be used to determine the extent and degree of contamination. Currently, the problem is being addressed from two directions to reach a conclusion.

There were no further public comments.

ATTACHMENT 1

RESIDENTIAL WELL WATER TESTING

**OFF-SITE RESIDENTIAL WELL SAMPLING
NAVAL SUBMARINE BASE—NEW LONDON
GROTON, CONNECTICUT**

Sample I.D.	Address	Depth (feet)	Number of Previous Samples	In annual program	Quarter 1 March 1993	Quarter 2 June 1993	Quarter 3 September 1993	Quarter 4 December 1993
OSW-1	1488 Route 12	15	2	•	•	•	•	
OSW-2	7 Pinelock Dr	165	2	•	•	•	•	
OSW-3	1053 Long Cove Road	80	2	•	•	•	•	
OSW-5	1037 Long Cove Road	---	2	•	•	•	•	
OSW-6	1458 Route 12	350	4	•	•	•	•	
OSW-7	40 Pinelock Dr	---	2	•	•	•	•	
OSW-8	1292 Route 12	90	3	•	•	•	•	
OSW-9	1477 Route 12	---	3	•	•	•	•	
OSW-10	10 Sleepy Hollow Ptwy	---	2	•	•	•	•	
OSW-11	18 Sleepy Hollow Ptwy	200	2	•	•	•	•	
OSW-12	1444 Route 12	50	4	•				
OSW-13	162 Military Hwy	270	2	•		•	•	
OSW-14	48 Pinelock Dr	300	2	•	•	•	•	
OSW-15	16 Sleepy Hollow Ptwy	---	3	•	•	•	•	
OSW-21	1140 N. Pleasant Valley Rd	64	3	•	•	•	•	
OSW-22	1130 N. Pleasant Valley Rd	64	2	•	•	•	•	
OSW-23	1198 N. Pleasant Valley Rd	---	2	•	•	•	•	
OSW-24	1298 N. Pleasant Valley Rd	---	3	•	•	•	•	
OSW-25	1320 Route 12	---	3	•	•	•	•	
OSW-28	1469 Route 12	---	3	•				
OSW-29	1323 Route 12	120	2	•				
OSW-30	1319 Baldwin Hill Road	---	2	•	•	•	•	
OSW-32	160 Military Hwy	125	2	•		•	•	
OSW-33	150 Military Hwy	---	0	•	•	•	•	
OSW-34	152 Military Hwy	---	0	•	•	•	•	
---	1700 Route 12	---	1					
---	28 Bluff Road	---	1					
---	Route 12 St. David's Church	---	1					

NAVAL SUBMARINE BASE - NEW LONDON
OFFSITE RESIDENTIAL WELLS
SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)
SAMPLE COLLECTION DATE - JUNE 1993

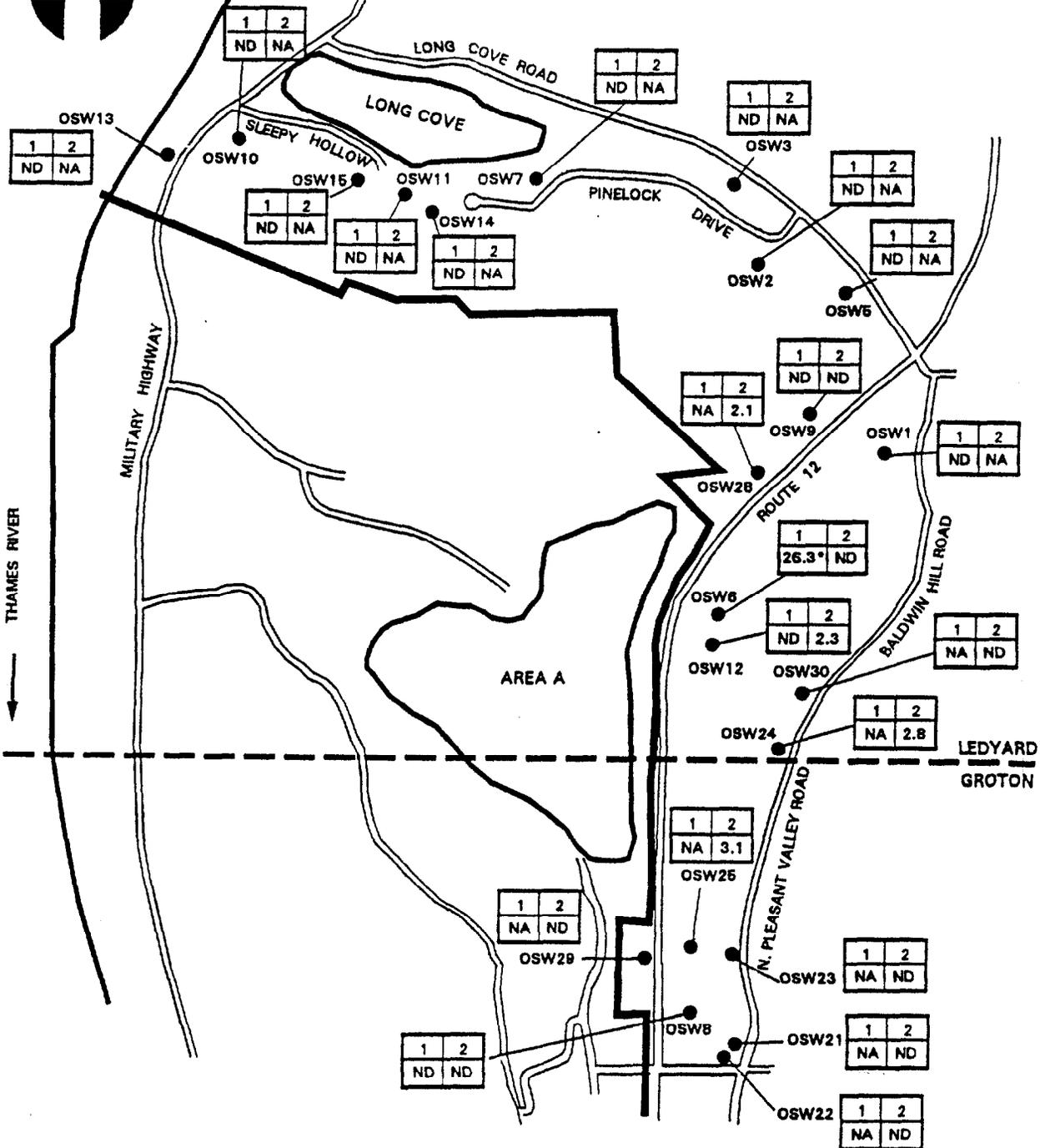
PARAMETER	ARAR/TBC ¹		SAMPLE IDENTIFICATION / LOCATION										
			OSW01	OSW02	OSW03	OSW05	OSW06	OSW07	OSW08	OSW09	OSW10	OSW11	OSW13
	VALUE	SOURCE ²	1488 Rte 12	6 Pinelock Dr	1053 Long Cove Rd	1037 Long Cove Rd	1458 Rte 12	40 Pinelock Dr	1292 Rte 12	1477 Rte 12	10 Sleepy Hollow Pkwy	18 Sleepy Hollow Pkwy	162 Military Hwy
TAL INORGANICS (ppb)													
Aluminum	200	SMCL	35.2 J	39.8 J	15.4 J	25.2 J	17.4 J	18 J	52.6 <	20.1 J	471	112 <	25.7 J
Antimony	6	MCL	12.3 <	12.3 <	12.3 <	12.3 <	12.3 <	12.3 <	12.3 <	12.3 <	12.3 <	12.3 <	12.3 <
Arsenic	50	MCL	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.64 J	0.5 <	0.5 <	0.5 <
Barium	1000	CTMCL	37.3 J	10.4 J	72.3 J	16.9 J	5.8 J	4.6 J	85.6 J	12.7 J	20.4 J	9.7 <	9.2 J
Beryllium	4	MCL	0.3 <	0.3 <	0.3 <	0.3 <	0.3 <	0.3 <	0.3 <	0.3 <	0.33 J	0.3 <	0.3 <
Cadmium	5	MCL	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.9 J	1.8 <	1.8 <	1.8 <
Calcium	--		7840	8340	35600	9400	7160	10100	17700	7800	3110 J	4350 J	28100
Chromium	50	CTMCL	3.1 <	3.1 <	3.1 <	3.1 <	3.1 <	3.1 <	3.1 <	3.1 <	3.1 <	3.1 <	3.1 <
Cobalt	--		2.6 <	2.6 <	2.6 <	2.6 <	2.6 <	2.6 <	2.6 <	2.6 <	2.6 <	2.6 <	2.6 <
Copper	1000	CTMCL	34.1	7.4 J	269	157	273	95.4	63.4	164	1.6 <	1.6 <	17.6 J
Cyanide	200	MCL	1.8 J	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <
Iron	300	SMCL	27.3 J	28.8 J	112	26.2 J	17 J	32.4 J	33.4 <	37.6 J	50 J	42.9 <	16.4 J
Lead	15	AL	9.6	1.1 J	3.8	7.8	4.4	2 J	19 J	1.2 J	1 J	1 <	4
Magnesium	--		1340 J	1270 J	4430 J	1450 J	1750 J	1140 J	3410 J	1100 J	715 J	1040 J	1660 J
Manganese	200	DMCLG	5.3 J	9.4 J	480	3.4 J	0.89 J	2.2 J	2.5 <	9.3 J	58.2	7.4 J	0.7 <
Mercury	2	MCL	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <
Nickel	100	PMCL	8 <	8 <	8 <	8 <	8 <	8 <	8 <	8 <	8 <	8 <	8 <
Potassium	--		1630 J	824 J	15800	1250 J	934 J	1170 J	2780 J	489 J	530 J	290 J	1340 J
Selenium	50	MCL	1.5 J	1.1 <	1.1 <	1.1 <	1.1 <	1.1 <	1.1 <	2.4 J	1.1 <	1.1 <	1.1 <
Silver	50	CTMCL	2.9 <	3.4 J	2.9 <	2.9 <	2.9 <	4.9 J	2.9 <	2.9 <	2.9 <	2.9 <	2.9 <
Sodium	20000	DHA	35400	3790 J	33200	5880	9210	4190 J	59000	3780 J	5080	3530 J	20700
Thallium	2	MCL	1.2 <	1.2 <	1.2 <	1.2 <	1.2 <	1.2 <	1.2 <	1.8 J	1.2 <	1.4 <	1.2 <
Vanadium	20	DHA	5 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <
Zinc	2000	HA	21	6.3 J	19 J	10.7 J	24.6	11.8 J	61.5	7.4 J	14.5 J	6.2 <	6.3 J
Boron	600	DHA	20.1 J	27.5 J	22.9 J	34.4 J	25.9 J	21.7 J	42.2 <	8.8 <	21.2 J	8.8 <	36 J
Chloride	250000	SMCL	64000	3000	100000	7000	12000	4000	91000	4000	8000	4000	41000

NAVAL SUBMARINE BASE – NEW LONDON (continued)
 OFFSITE RESIDENTIAL WELLS
 SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)
 SAMPLE COLLECTION DATE – JUNE 1993

PARAMETER	ARAR/TBC ¹		SAMPLE IDENTIFICATION / LOCATION										
	VALUE	SOURCE ²	OSW14	OSW15	OSW21	OSW22	OSW23	OSW24	OSW25	OSW30	OSW32	OSW33	OSW34
			48 Pinelock	16 Sleepy Hollow Pkwy	1140 N Pleasant Valley Rd	1130 N Pleasant Valley Rd	1198 N Pleasant Valley Rd	1298 N Pleasant Valley Rd	1320 Rte 12	1319 Baldwin Hill Rd	160 Military Hwy	150 Military Hwy	152 Military Hwy
TAL INORGANICS (ppb)													
Aluminum	200	SMCL	18 J	12.8 <	37.5 J	20.3 <	196 J	29.1 J	106 J	39.9 <	315	41.9 <	114 J
Antimony	6	MCL	12.3 <	12.3 <	12.3 <	12.3 <	12.3 <	12.3 <	12.3 <	12.3 <	12.3 <	12.3 <	12.3 <
Arsenic	50	MCL	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <
Barium	1000	CTMCL	80 J	3.2 <	19.9 J	33.4 J	23.4 J	33.3 J	27.2 J	13.1 <	17 J	8.4 <	14 J
Beryllium	4	MCL	0.3 <	0.3 <	0.3 <	0.3 <	0.3 <	0.3 <	0.3 <	0.3 <	0.3 <	0.3 <	0.3 <
Cadmium	5	MCL	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <
Calcium	--		21800	20700	9620	15600	6150	10100	7540	5410	5950	7610	5210
Chromium	50	CTMCL	3.1 <	3.1 <	3.1 <	3.1 <	3.1 <	3.1 <	3.1 <	3.1 <	3.1 <	3.1 <	3.1 <
Cobalt	--		2.6 <	2.6 <	2.6 <	2.6 <	2.6 <	2.6 <	2.6 <	2.6 <	2.6 <	2.6 <	2.6 <
Copper	1000	CTMCL	15.8 J	12 <	27.4	437	136	124	25.3	63.4	6.8 J	51.4	20.2 J
Cyanide	200	MCL	1.8 <	1.8 <	1.8 <	2 J	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	1.8 <	3.1 J
Iron	300	SMCL	16.6 J	38.7 <	61.7 J	89.4 <	90.2 J	38.7 J	18.5 J	110	51.8 J	67 <	38.5 J
Lead	15	AL	1 <	1 <	1.8 J	4.6 <	5	2.4 J	12	2.8 <	1.4 J	1 <	2.2 J
Magnesium	--		1370 J	1810 J	2340 J	3490 J	1860 J	2270 J	1790 J	1280 J	809 J	2220 J	833 J
Manganese	200	DMCLG	0.7 <	0.92 <	7 J	6 <	42.4	12.5 J	27.6	9.7 J	52.2	34.1	11.3 J
Mercury	2	MCL	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <
Nickel	100	PMCL	8 <	8 <	8 <	8 <	8 <	8 <	8 <	8 <	8 <	8 <	8 <
Potassium	--		762 J	916 J	1940 J	2500 J	1540 J	1900 J	2120 J	813 J	626 J	1240 J	785 J
Selenium	50	MCL	1.1 <	1.1 <	1.1 <	1.1 <	1.1 <	1.1 <	3.4 J	1.1 <	1.1 <	1.1 <	1.1 <
Silver	50	CTMCL	2.9 <	2.9 <	2.9 <	2.9 <	2.9 <	2.9 <	2.9 <	2.9 <	2.9 <	2.9 <	2.9 <
Sodium	20000	DHA	5660	8580	10400	21000	11300	41700	9580	25500	11700	19200	13800
Thallium	2	MCL	1.8 J	1.2 <	1.2 J	4.4 <	1.6 J	1.8 J	1.2 <	1.4 <	1.2 <	1.2 <	1.2 <
Vanadium	20	DHA	5 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <
Zinc	2000	HA	4.6 J	12.3 <	7.7 J	15.1 J	13.9 J	9.9 J	24	7.4 <	20.9	19.7 J	29.5
Boron	600	DHA	8.8 <	10.3 <	12.4 J	8.8 <	27.6 J	9.3 J	63.4 J	8.8 <	11.3 J	10.9 <	26.2 J
Chloride	250000	SMCL	4000	5000	17000	47000	16000	65000	12000	41000	13000	33000	16000

Notes:

- ARAR/TBC indicates applicable or relevant and appropriate requirements/TBC indicates to be considered values.
 - SMCL = Secondary Maximum Contaminant Level; MCL = Maximum Contaminant Level; CTMCL = Connecticut Maximum Contaminant Level; PMCL = Proposed Maximum Contaminant Level; AL = Action Level; HA = Health Advisory; DHA = Draft Health Advisory; and DMCLG = Draft Maximum Contaminant Level Goal. Shading indicates value above ARAR/TBC. Only MCL, CTMCL and AL are ARAR.
- ppb indicates concentrations of parts per billion.
 < means not detected; less than detection limit.
 J indicates estimated value based on data validation.



INSTALLATION RESTORATION STUDY
 NAVAL SUBMARINE BASE - NEW LONDON
 GROTON, CT

LEGEND

<ul style="list-style-type: none"> ● Residential Well OSW# - Sampling Number 	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>1</td><td>2</td></tr> <tr><td>ND</td><td>NA</td></tr> </table> <ul style="list-style-type: none"> - Sample Round - Cadmium Concentration (ppb) 	1	2	ND	NA	<ul style="list-style-type: none"> NA - Not Analyzed ND - Not Detected * - Indicates above drinking water standards <p style="text-align: center;">Approximate Scale</p> <div style="text-align: center;"> </div>
1	2					
ND	NA					

FIGURE 4-25
 OFFSITE RESIDENTIAL WELL
 SAMPLE LOCATIONS

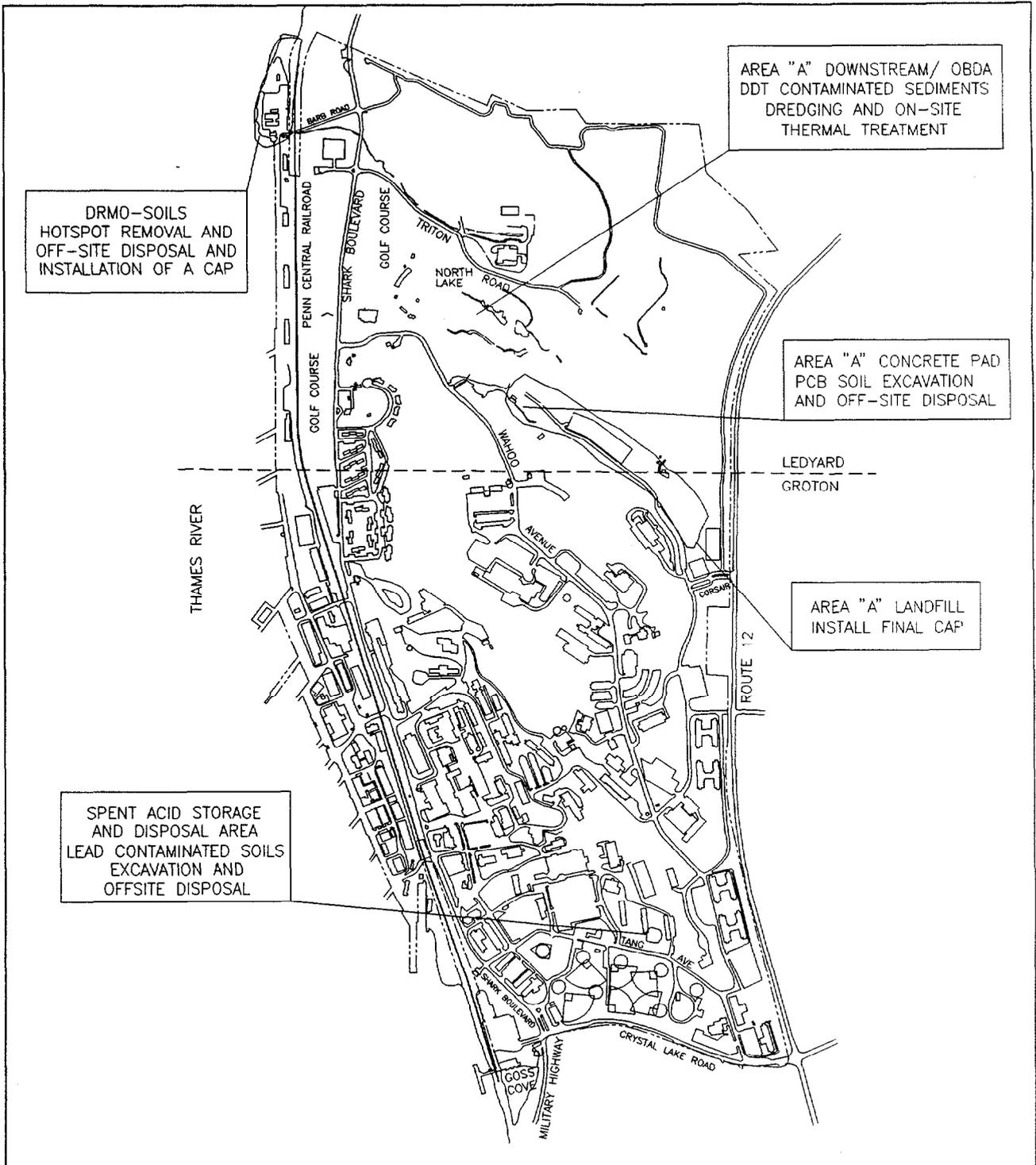
ATLANTIC ENVIRONMENTAL SERVICES, INC.

ATTACHMENT 2
COMMUNITY RELATIONS PLAN

Schedule of Community Relations Activities

Community Relations Activity	Completion of Work Plan	During RI	Completion of RI	Completion of FS & Proposed Plan	ROD	Start of Remedial Design Remedial Action
Information Repositories	update as needed					
Key Contact Persons	update as needed					
Mailing List	update as needed					
Contact Local Officials	as needed					
Press Releases/Public Notices	as needed					
Public Informational Meetings		[]	[]	[]		[]
Fact Sheets/Information Updates	as needed					
Site Tours	as needed					
Public Comment Period	[]					
Responsiveness Summary	[]					
Review of CRP	[]					

ATTACHMENT 3
INTERIM REMEDIAL ACTIONS



DRMO-SOILS
HOTSPOT REMOVAL AND
OFF-SITE DISPOSAL AND
INSTALLATION OF A CAP

AREA "A" DOWNSTREAM/ OBDA
DDT CONTAMINATED SEDIMENTS
DREDGING AND ON-SITE
THERMAL TREATMENT

AREA "A" CONCRETE PAD
PCB SOIL EXCAVATION
AND OFF-SITE DISPOSAL

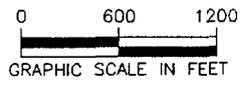
LEDYARD
GROTON

AREA "A" LANDFILL
INSTALL FINAL CAP

SPENT ACID STORAGE
AND DISPOSAL AREA
LEAD CONTAMINATED SOILS
EXCAVATION AND
OFFSITE DISPOSAL

INSTALLATION RESTORATION STUDY
NAVAL SUBMARINE BASE - NEW LONDON
GROTON, CT

SOURCE: Naval Submarine Base
Existing Conditions
April 1985
Laureiro Engineering Associates



INTERIM REMEDIAL MEASURES

ATLANTIC ENVIRONMENTAL SERVICES, INC.

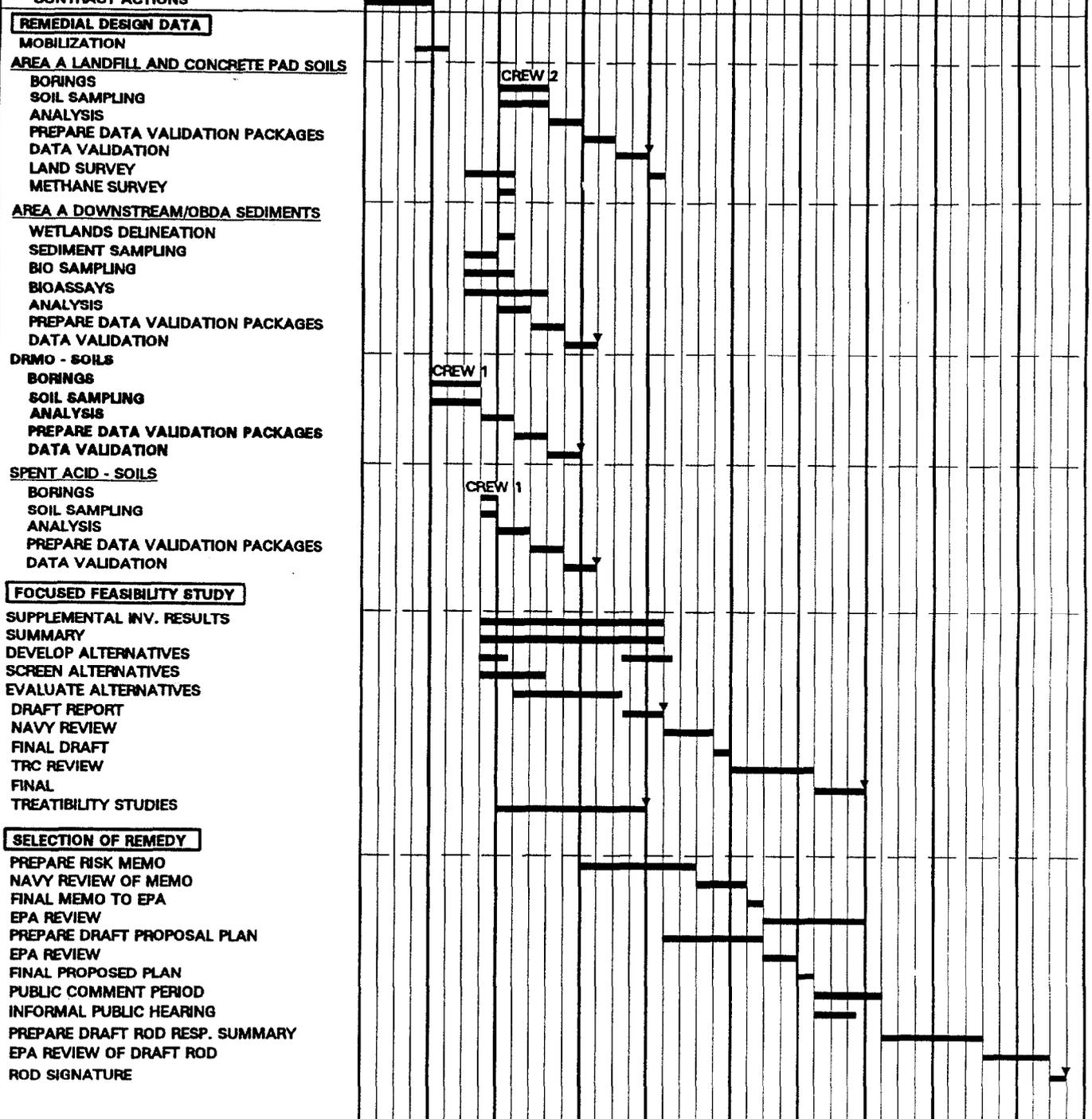
PROJECT SCHEDULE

Supplemental Data Collection . . . September to November 1993
Focused Feasibility Study November 1993 to March 1994
Proposed Plan January 1994 to March 1994
Record of Decision March 1994 to June 1994
Remedial Design November 1993 to May 1994
Remedial Action Summer and Fall 1994

INTERIM REMEDIAL DESIGN

1993 1994

SEP OCT NOV DEC JAN FEB MAR APR MAY JUN
 6 13 20 27 4 11 18 26 1 8 15 22 29 6 13 20 27 3 10 17 24 31 7 14 21 28 7 14 21 28 4 11 18 26 2 9 16 23 30 6 13 20 27



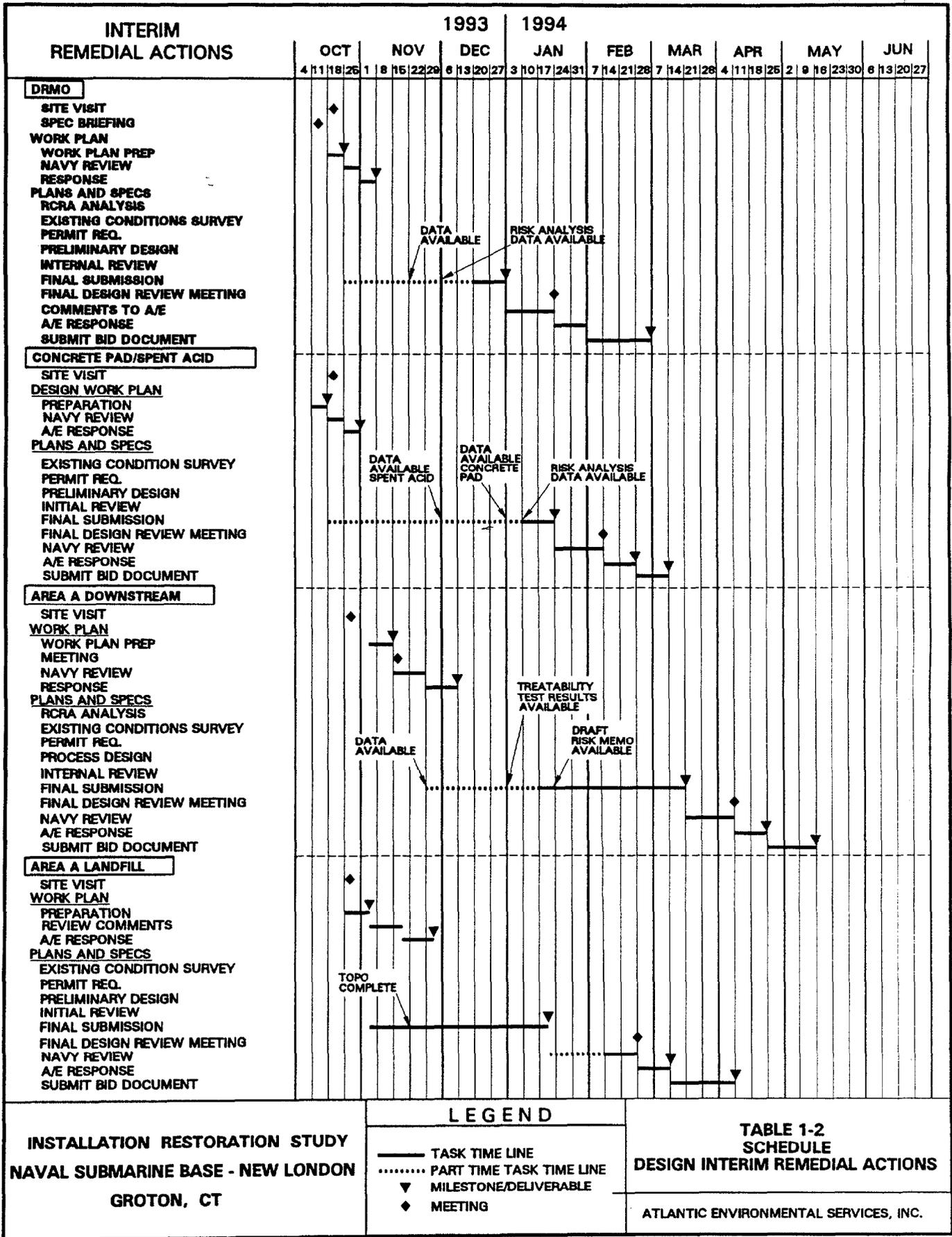
INSTALLATION RESTORATION STUDY
 NAVAL SUBMARINE BASE - NEW LONDON
 GROTON, CT

LEGEND

- TASK TIME LINE
- ▼ ENDING MILESTONE

TABLE 1-1
 SUPPLEMENTAL DESIGN DATA/
 FOCUSSED FEASIBILITY STUDY/
 PROPOSED PLANS/RODS
 INTERIM REMEDIAL ACTIONS

ATLANTIC ENVIRONMENTAL SERVICES, INC.



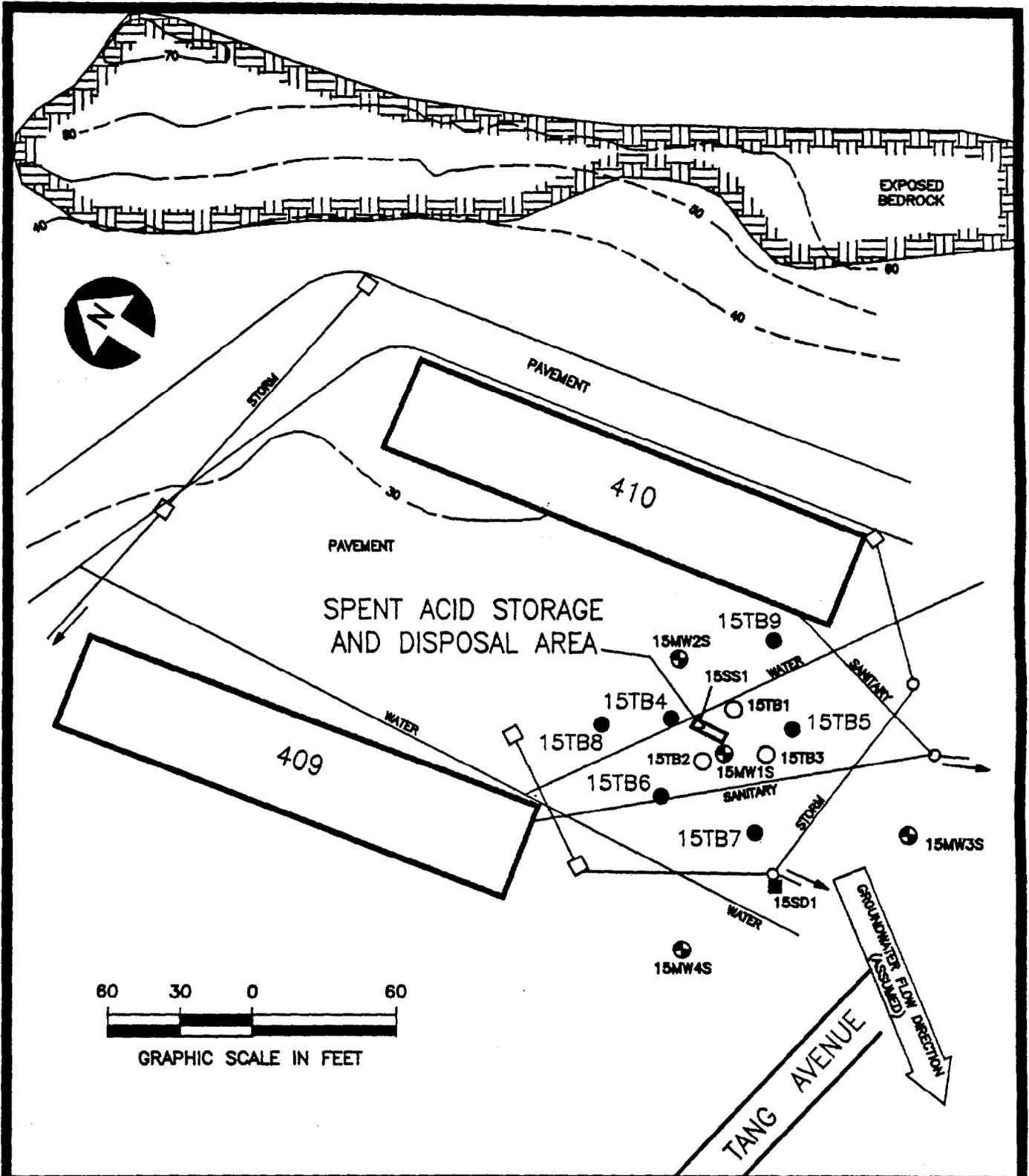
INSTALLATION RESTORATION STUDY
 NAVAL SUBMARINE BASE - NEW LONDON
 GROTON, CT

LEGEND

- TASK TIME LINE
- PART TIME TASK TIME LINE
- ▼ MILESTONE/DELIVERABLE
- ◆ MEETING

TABLE 1-2
SCHEDULE
DESIGN INTERIM REMEDIAL ACTIONS

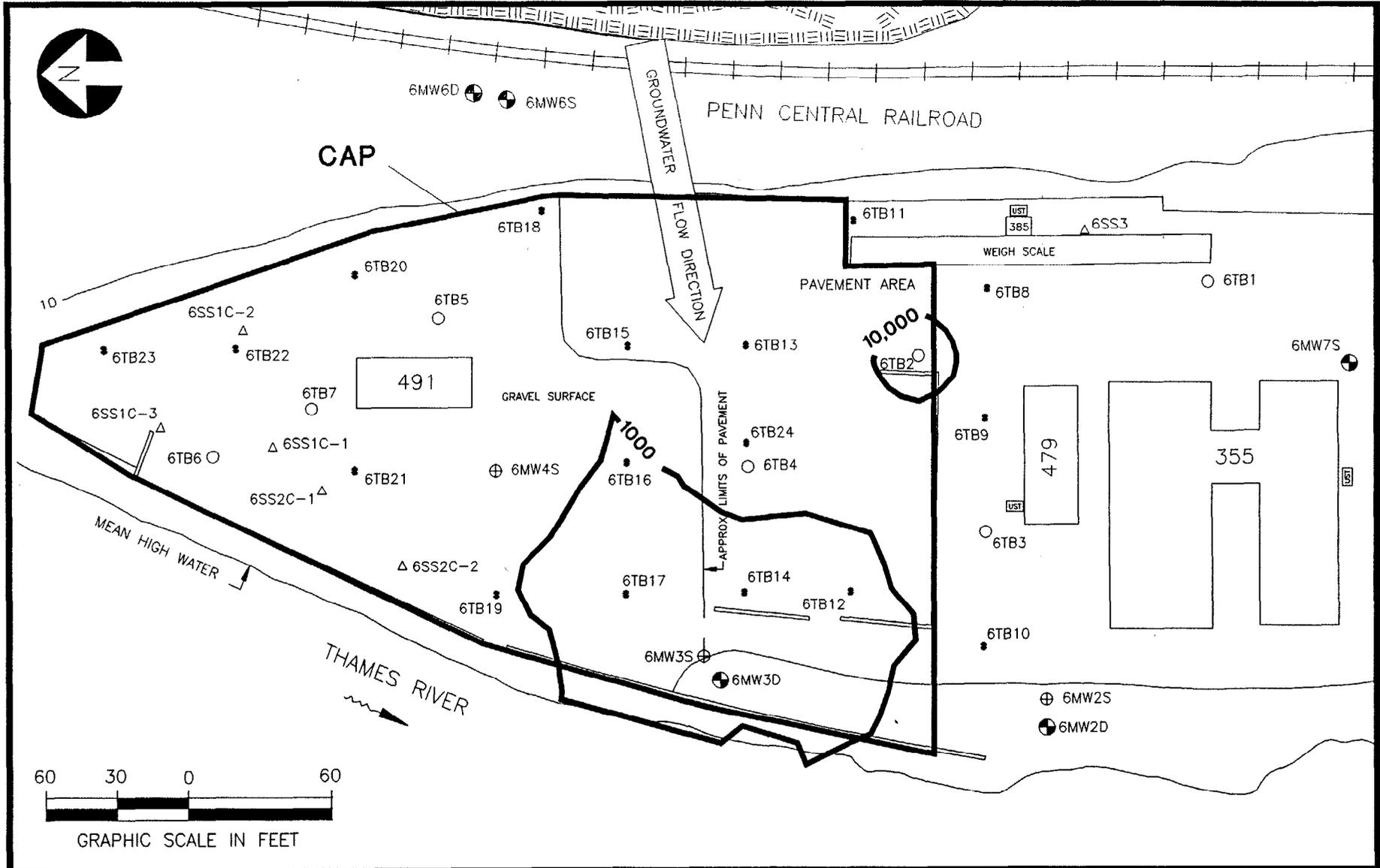
ATLANTIC ENVIRONMENTAL SERVICES, INC.



LEGEND

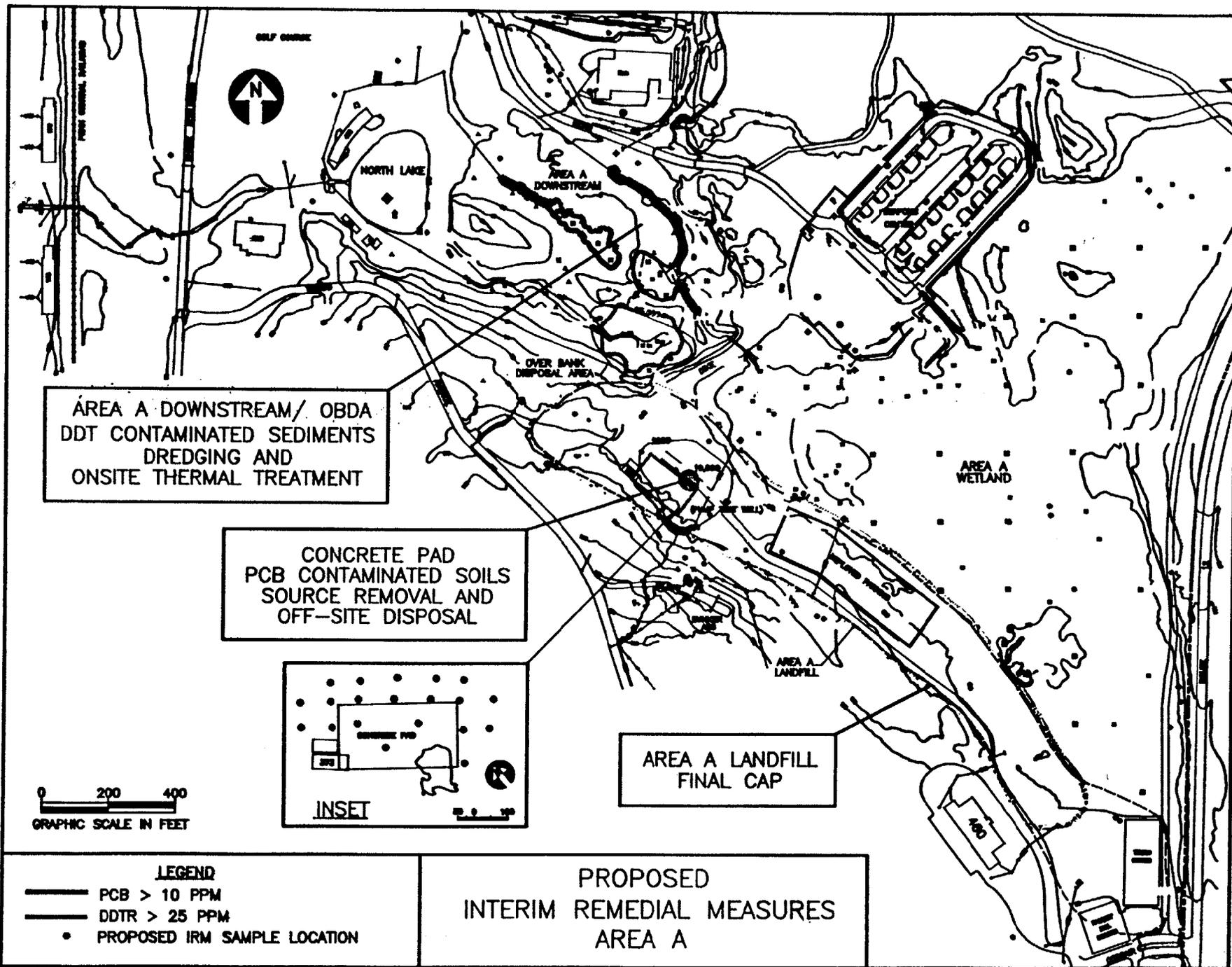
● 15TB6 PROPOSED IRM SAMPLE LOCATION
○ 5 OPTIONAL BORINGS

SPENT ACID STORAGE AND DISPOSAL AREA
LEAD CONTAMINATED SOILS
REMOVAL AND OFF-SITE DISPOSAL



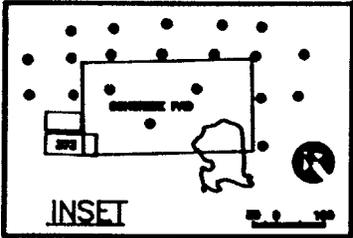
LEGEND	
	PCB >10,000 PPB
	LEAD >1,000 PPM
	PROPOSED IRM SAMPLE LOCATION
	6TB10

**DRMO CONTAMINATED SOILS
(LEAD, PCB, VOC)
HOTSPOT REMOVAL AND CAP**



AREA A DOWNSTREAM/ OBDA
DDT CONTAMINATED SEDIMENTS
DREDGING AND
ONSITE THERMAL TREATMENT

CONCRETE PAD
PCB CONTAMINATED SOILS
SOURCE REMOVAL AND
OFF-SITE DISPOSAL



AREA A LANDFILL
FINAL CAP

0 200 400
GRAPHIC SCALE IN FEET

LEGEND
 ——— PCB > 10 PPM
 ——— DDTR > 25 PPM
 • PROPOSED IRM SAMPLE LOCATION

PROPOSED
INTERIM REMEDIAL MEASURES
AREA A

ATTACHMENT 4
BUILDING 31 REMOVAL ACTION

BUILDING 31 STATUS

- CONSTRUCTION CONTRACT AWARDED - 30 SEPTEMBER 1993
 - NATIONAL ENVIRONMENTAL SERVICES CORPORATION
 - BLOOMINGTON, INDIANA
- SAMPLES TAKEN FOR TREATABILITY STUDY
 - ONE INSIDE BUILDING & ONE OUTSIDE
- PAPERWORK TOGETHER
 - SAFETY AND HEALTH PLAN
 - WORK PLAN
 - SELECT A SUBCONTRACTOR BY NEXT WEEK
- HALLIBURTON NUS IS GOING TO BE REVIEWING THE FOLLOWING:
 - CONTRACTOR'S TECHNICAL EXPERIENCE
 - SAFETY AND HEALTH PLAN
 - WORK PLAN
- PARTNERING SESSION - OCTOBER 28th AND 29th, 1993
 - WHO ATTENDED - ROICC, NORTHDIV, HNU, NATIONAL ENVIRONMENT
 - DISCUSSED ISSUES AND ANSWERED QUESTIONS
 - INVITED EPA AND CTDEP BUT WERE UNABLE TO ATTEND
 - BENEFICIAL
- GROUNDWATER SAMPLING
 - SLOW PURGE SLOW SAMPLE
 - NEXT WEEK (EPA & CTDEP SPLIT SAMPLE ?)
 - CONFERRED WITH DICK WILEY OF EPA REGION I AND EPA CINCINNATI LABS
- WHEN WILL CONSTRUCTION BEGIN (IF ALL DELIVERABLES ARE APPROVED)
 - WORK WILL BEGIN AROUND DECEMBER 15, 1993
 - SIX MONTHS LONG FROM AWARD OF CONTRACT
 - WORK WILL END AROUND APRIL 1, 1994

ATTACHMENT 5
PHASE II RI UPDATE

REFERENCE DOCUMENTS

ATLANTIC WP, FSP AND QA/QC PLANS; MAY, 1993.

- 1) THAMES RIVER
- 2) AREA A WETLAND
- 3) AREA A DOWNSTREAM / OBDA
- 4) AREA A LANDFILL
- 5) AREA A WEAPONS CENTER
- 6) DRMO
- 7) SPENT ACID STORAGE AND DISPOSAL AREA
- 8) LOWER SUBBASE
- 9) OBDANE
- 10) CBU DRUM STORAGE AREA
- 11) RUBBLE FILL AT BUNKER A-86
- 12) TORPEDO SHOPS
- 13) GOSS COVE LANDFILL

ATLANTIC PROPOSED IRA DOCUMENT; MARCH 23, 1993.

AREA A LANDFILL
AREA A DOWNSTREAM / OBDA
DRMO
LOWER SUBBASE
SPENT ACID STORAGE AND DISPOSAL AREA

HNUS WP, FSP, QA/QC PLAN ADDENDA AND HASP; SEPTEMBER - NOVEMBER, 1993.

ALL WORK DETAILED IN ATLANTIC PLANS FOR 13 SITES, MINUS
HIGHLIGHTED WORK DETAILED IN IRA DOCUMENT

FUNDING AVAILABLE FOR:

- 1) THAMES RIVER
- 2) AREA A WETLAND
- 3) AREA A DOWNSTREAM / OBDA

THAMES RIVER

16 SEDIMENT SAMPLES

16 SURFACE WATER SAMPLES

5 OYSTER CAGE SAMPLES

9 BIVALVE TISSUE SAMPLES

AREA A WETLAND

29 SEDIMENT SAMPLES

9 SURFACE WATER SAMPLES

1 SHALLOW WELL

3 DEEP WELLS

GROUNDWATER SAMPLING

FIELD SCREENING

AREA A DOWNSTREAM / OBDA

4 SEDIMENT SAMPLES

12 SURFACE WATER SAMPLES

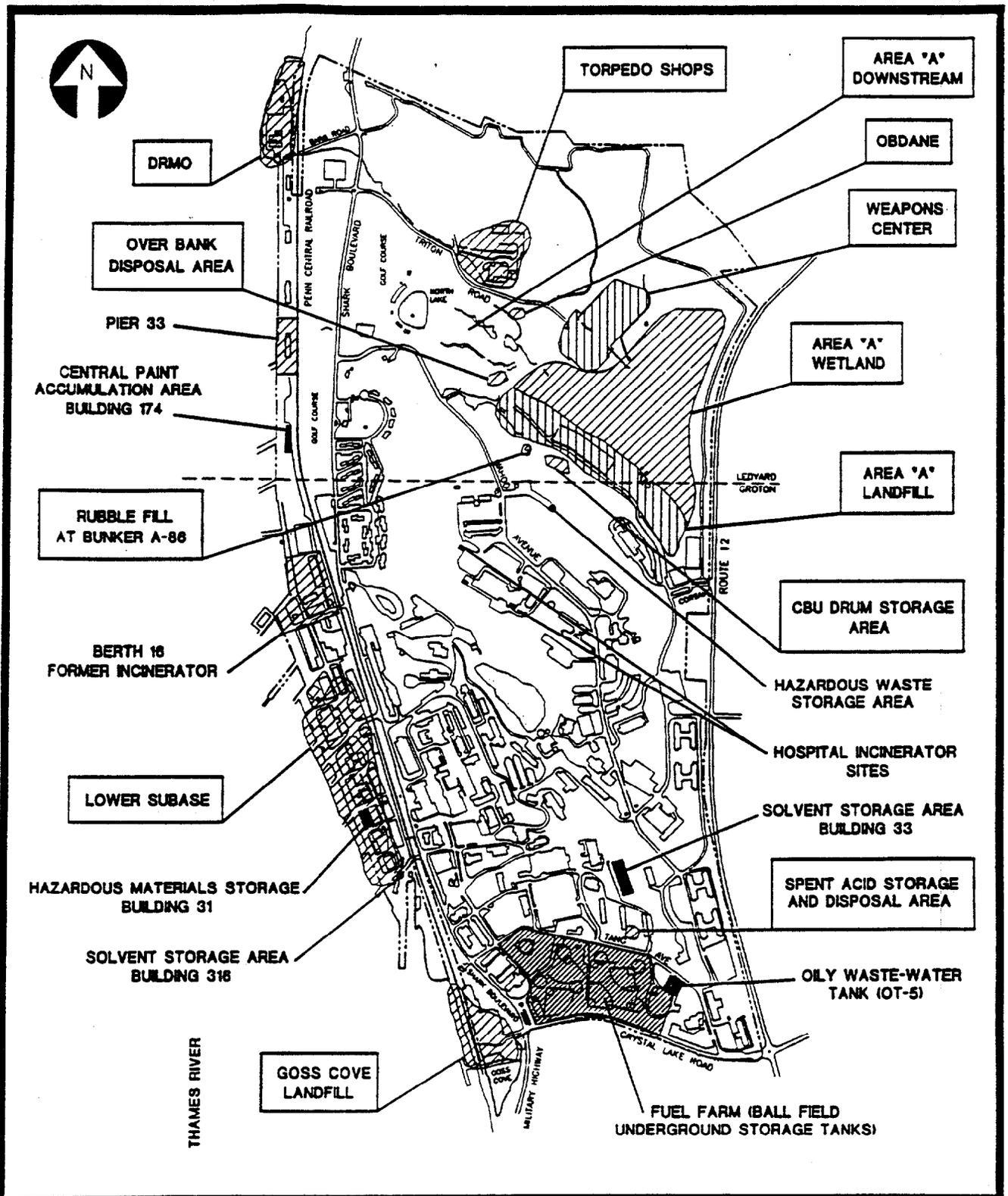
7 SHALLOW WELLS

6 DEEP WELLS

SOIL GAS SURVEYS

1 OPTIONAL SOIL BORING

FIELD SCREENING



INSTALLATION RESTORATION STUDY
 NAVAL SUBMARINE BASE - NEW LONDON
 GROTON, CT

LEGEND

 Goss Cove Landfill

Phase II RI Workplan Investigation Site

SOURCE: Naval Submarine Base, Existing Conditions
 Loureiro Engineering Associates, April 1985

0 600 1200
 GRAPHIC SCALE IN FEET

FIGURE 1-3
 INSTALLATION RESTORATION
 STUDY SITES

ATLANTIC ENVIRONMENTAL SERVICES, INC.

