



DEPARTMENT OF THE NAVY
PORTSMOUTH NAVAL SHIPYARD
PORTSMOUTH, N.H. 03804-5000

IN REPLY REFER TO:

September 2, 2008

MEMORANDUM

From: Occupational, Safety, Health and Environmental Office, Environmental Division
To: Members of the Restoration Advisory Board (RAB) CERCLA Remedial Action Program, Portsmouth Naval Shipyard, Kittery, Maine
Subj: RESTORATION ADVISORY BOARD (RAB) CERCLA REMEDIAL ACTION PROGRAM, PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE

The next RAB meeting will be held on Thursday, September 11, 2008 beginning at 7 p.m. in a conference room at Kittery Town Hall in Kittery, Maine. Kittery Town Hall is located at 200 Rogers Road, which is just north of Kittery Traffic Circle.

The agenda will include a presentation providing an update on OU2 activities.

Your participation is greatly appreciated. If you are unable to attend the meeting, please contact me at (207) 438-3830. I look forward to seeing you at the RAB meeting.

Sincerely,


KENNETH PLAISTED
Navy Co-Chairman

Copy to:

Doug Bogen
Michele Dionne
Alan Davis
Roger Walls
EPA Region 1 (M. Audet)
MEDEP (I. McLeod)
NOAA (K. Finkelstein)
MEDMR (D. Card)
NHFG (C. McBane)
USFWS (K. Munney)
NAVFAC Mid-Atlantic (K. Stevens)
TINUS (D. Cohen)

Jeff Clifford
Mary Marshall
Jack McKenna
Carolyn Lepage
Onil Roy
James Horngan
Diane McNabb
Peter Britz
Mr. Jon Carter
ATSDR (C. Hossorn)
Bruce Montville



TETRA TECH

PITT-10-8-047

October 23, 2008

Project Number 112G00904

Reference: Contract No. N62467-04-D-0055 (CLEAN)
Contract Task Order No. 443

MEMORANDUM

FOR THE MEMBERS OF THE RESTORATION ADVISORY BOARD (RAB), INSTALLATION RESTORATION PROGRAM, PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE

On behalf of the U.S. Navy, Tetra Tech NUS, Inc. is pleased to provide the draft minutes from the September 11, 2008 Restoration Advisory Board meeting for your review and comment.

Comments are requested by November 13, 2008. You may provide your comments to Ken Plaisted at (207) 438-3830.

Sincerely,

Deborah J. Cohen, P.E.
Project Manager

DJC/clm
Enclosure

DISTRIBUTION:

D. Bogen
P. Britz
J. Carter
J. Clifford
A. Davis
M. Dionne
C. Lepage
M. Marshall
J. McKenna
D. McNabb
B. Montville
O. Roy
R. Wells
EPA (M. Audet)
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MEDMR (D. Card)
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NHF&G (C. McBane)
NOAA (K. Finkelstein)
NAVFAC Mid Atlantic (K. Stevens)
ATSDR (C. Hossom)
TTNUS (D. Cohen)
PNS (J. Gildersleeve)
PNS PAO (D. Eddy, email)
J. Horrigan (email)

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**RESTORATION ADVISORY BOARD MEETING
PORTSMOUTH NAVAL SHIPYARD
KITTERY TOWN HALL, KITTERY, MAINE
September 11, 2008**

Restoration Advisory Board (RAB) members at the meeting included the following:

- RAB community members – Doug Bogen, Jon Carter, Jeff Clifford, Alan Davis, Michele Dionne, Diana McNabb, and Bruce Montville.
- Navy RAB members – Kirk Stevens, Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic, and Ken Plaisted, Portsmouth Naval Shipyard (PNS).
- Regulatory representatives – Matt Audet, United States Environmental Protection Agency (USEPA), and Iver McLeod, Maine Department of Environmental Protection (MEDEP).
- Community members Peter Britz, Don Card, Mary Marshall, Onil Roy, and Roger Wells were absent.

Guests at the RAB included:

- Herb Ueda, John Gildersleeve, and Danna Eddy from PNS
- Jim Horrigan, former RAB community member
- Jamie Sullivan
- Debbie Cohen, Chuck Race, and Stephanie Warino from Tetra Tech NUS, Inc. (TINUS)

INTRODUCTION

Ken Plaisted, Navy Co-Chair, welcomed everyone to the RAB meeting and indicated that the topic for the meeting was an update on Operable Unit (OU) 2 activities. On behalf of the Shipyard, Ken presented Jim Horrigan with a plaque thanking Jim for his service and dedication to the RAB.

STATUS OF WORK AND REGULATOR UPDATES

NAVY --- Kirk Stevens provided an update on schedules for the Installation Restoration Program (IRP) sites at PNS. Kirk indicated that the updated schedules are based on discussion between the regulators and Navy. As part of the IRP for PNS, \$53 million have been spent to date. This includes \$2.5 million in Fiscal Year 2007. Projected funding for Fiscal Year 2008 is \$2 million and for Fiscal Year 2009 is \$2.5 million.

The following is a summary of the schedules for FY09:

- **OU1:** The Navy is working on resolving regulatory comments on the draft OU1 Feasibility Study (FS) Report. The schedule for finalizing the FS Report will be determined after receiving USEPA legal comments on the draft report. The Navy is expecting that the Proposed Remedial Action Plan (PRAP) for OU1 will be submitted and finalized in FY09.
- **OU2:** The draft supplemental Remedial Investigation (RI) Report will be submitted in September 2008, and the revised draft FS Report will be submitted in November 2008. Also, the Navy is planning to conduct a removal action for lead-contaminated soil in the residential area of OU2.
- **OU3:** The OU3 Post-Remedial Operation, Maintenance, and Monitoring (OM&M) Program is being conducted. Round 5 field activities were conducted from April to June 2008, and Round 6 field activities are planned for October 2008. The Navy is planning to submit the draft Rounds 1 to 4 Data Evaluation Report in September 2008. Finalization of the Land Use Control (LUC) Plan has been delayed because of changes in administrative requirements for documenting LUCs. The Navy now requires a remedial action design document for LUCs. The draft LUC Plan was revised accordingly and is being reviewed by the Navy legal department.
- **OU4:** An update on OU4 was provided at the June 2008 RAB meeting. After the RAB meeting, a technical meeting was held to discuss the appropriate process to document the technical and administrative changes to OU4. A technical memorandum explaining the status of the offshore Areas of Concern (AOCs) will be submitted in September 2008 and will be the building block for a consensus document for OU4 for documenting management of the offshore area and modification of the interim offshore monitoring program. An amendment to the Interim Record of Decision (IROD) for OU4 is planned to document the changes in the interim remedy for OU4. Round 10 of the monitoring program is scheduled for October 2008.
- **OU7:** The Navy is working on resolving comments and finalizing the work plan so that the OU7 (Site 32) Phase II RI field work can be conducted in 2008.

- OU9: The draft work plan for the RI for OU9 (Site 34) will be submitted in October 2008. Based on the current project schedule, the Navy plans to conduct field work in the spring 2009. The draft Removal Action Report was submitted in September 2008.
- Site 30: As part of the Site 30 removal action, the Navy provided funding to TtNUS to remove water (if present) from the former acid pit beneath the floor in Building 184 (Welding School). The Navy is reviewing the work plan and as part of the field work is planning to take off the access cover to the former pit, determine whether water is present, and attempt to dewater the pit. The work is anticipated to occur in 2009.

Matt Audet, USEPA, provided additional information regarding the status of OU4 discussions since the June 2008 RAB meeting. Matt explained that after the Navy presented a proposal to consider recombining offshore areas with onshore source areas/OUs, the regulators and Navy met to work out the logistics of moving forward with addressing onshore and offshore contamination in the most effective manner. The onshore and offshore areas were originally separated because offshore investigation was lagging behind the onshore investigations and would delay making remedial decisions for onshore areas. Through the interim offshore monitoring program for OU4 and the various onshore source area and shoreline protection removal actions, we are at the point in the remedial process where the remaining offshore contamination can be better addressed as part of a comprehensive remedy with the associated onshore OU. For example, ash and contaminated soil associated with Site 34 (OU9) was removed in 2007, and the Navy is planning an RI to investigate and evaluate residual contamination at Site 34. The extent of contaminated sediments offshore of Site 34 (in Monitoring Station 1) also needs to be defined. The OU9 RI field work will include onshore and offshore investigations, and the OU9 RI Report will document the results. Matt explained that there are administrative requirements to document recombination of the onshore and offshore areas to make sure that the offshore areas are appropriately managed and that there will be more discussion on the status of OU4 at future RAB meetings as the regulators and Navy work through the process of recombining the onshore and offshore areas.

John Gildersleeve, PNS, discussed two incidents involving construction activities at two IRP sites that occurred during the 2008 construction season. One occurred at the Jamaica Island Landfill (JILF) (OU3), and the other occurred at Topeka Pier (Site 32, OU7). At OU3, the Navy is planning to construct a walkway from the parking lot on the northern side of the landfill cap to the hospital complex to the west. Because of miscommunication within the Navy, construction of a portion of the walkway began before the regulators completed their review of the design for the walkway. The work was immediately stopped, the appropriate people at the Shipyard, NAVFAC, and regulatory agencies were contacted, and no further work will be conducted until the design is finalized. It was noted that the Shipyard reacted quickly and

appropriately to correct the situation. Iver McLeod and Matt Audet indicated that they are reviewing the design and do not expect to have any major comments.

The other incident occurred at Site 32 in an area where fencing and railroad tracks were being removed before repaving the area. To provide better subgrade material for the paving, soil was excavated and brought to Building 357 (hazardous waste facility) for management, and clean fill was placed before paving. The excavation of soil was not included in the original construction plans. Excavated material was appropriately handled; however, appropriate notification of the regulators and Shipyard Environmental did not occur before excavation of the soil. An estimated 105 cubic yards of subgrade material was excavated; no waste materials were excavated.

Ken Plaisted and John Gildersleeve explained that the incidents did not result in any harm to human health and the environment; however, the Navy is taking immediate measures to ensure that these types of incidents do not occur in the future. The Navy has a formal critique process that is being used to determine short-term and long-term corrective measures so that incidents like this do not occur again. Several actions that have already been implemented include a specific contact person and procedure for arranging for disposal of materials through Building 357, and providing additional oversight of Shipyard contractors to ensure that the contractors are following Shipyard procedures.

USEPA --- Matt Audet indicated that USEPA has mainly been involved in work related to the OU4 status and the two incidents that John Gildersleeve discussed. Matt is expecting to provide USEPA legal comments on the draft OU1 FS Report and is anticipating resolution of comments on the Site 32 work plan so it can be finalized soon.

MEDEP --- Iver McLeod indicated that in addition to the items mentioned by Matt Audet, MEDEP began reviewing the data package for the OU2 Additional Investigation, submitted in August 2008.

DRAFT SUPPLEMENTAL RI REPORT FOR OU2

Debbie Cohen and Stephanie Warino, TtNUS, provided a presentation on the draft Supplemental RI Report for OU2. After investigating OU2 and determining that risks were unacceptable, the Navy prepared a draft FS Report for OU2 in 2004. During resolution of comments on the draft FS Report, it was determined that additional data on the extent of soil contamination and migration of contamination in groundwater were needed to support evaluation of remedial options in the FS Report. The Additional Investigation Quality Assurance Project Plan (QAPP) was finalized in October 2007, and field work was conducted in 2007 and 2008. The data package for the investigation was submitted in August 2008, and the draft Supplemental RI Report will be submitted in September 2008. The Supplemental RI Report

updates the understanding of the nature and extent of contamination, contaminant migration, and risks associated with OU2 based on the Additional Investigation and the shoreline protection actions conducted in 2005, 2006, and 2008 (as discussed at various RAB meetings since 2005). The Navy is preparing the revised draft FS Report, which will be submitted in November 2008.

Debbie explained that OU2 consists of Site 6 – Defense Reutilization and Marketing Office (DRMO) Storage Yard, Site 29 – Teepee Incinerator Site, and the DRMO Impact Area – Quarters S, N, and 69, and provided a summary of the history of OU2 uses and environmental investigations. As part of the 2007 and 2008 Additional Investigation field work, soil sampling was conducted at over 300 locations, six new groundwater monitoring wells were installed and the new wells and eight existing overburden wells were sampled three times each, two test pits were excavated, and surface water samples were collected at six locations offshore of OU2. Soil samples were analyzed in the field and laboratory, and the data were used to determine the nature and extent of soil contamination in source and impacted areas to support the RI Report and define remediation areas to support the FS Report. Groundwater and surface water samples were analyzed in a laboratory, and the data were used to determine whether contaminant concentrations in groundwater were adversely impacting the offshore. Large-volume soil samples were collected from the test pits for a treatability study to support evaluation of soil treatment options in the FS Report.

Stephanie reviewed the OU2 geology, showing that most of the soil material (surface fill) was found from 0 to 6 feet below ground surface (bgs), which is above the high tide level. Rock fragment fill was generally found below the surface fill and overlying bedrock. In the waste disposal area, waste materials instead of rock fragment fill were typically found beneath the surface fill and overlying bedrock. Stephanie explained that groundwater at OU2 is tidally influenced and that groundwater levels were generally uniform across the OU2 area at high tide, but there was a steep hydraulic gradient toward the south (toward the Piscataqua River) at low tide.

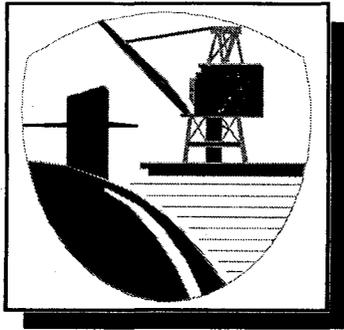
Evaluation of the OU2 data showed that the extent of lead contamination defines the maximum extent of contamination in the majority of Sites 6 and 29 (excluding the waste disposal area). In the waste disposal area, a variety of waste materials with varying contaminant concentrations were found. The waste materials extend from the shallow subsurface (beneath surface fill) to bedrock. The extent of waste materials and contaminant concentrations were used to define the extent of the waste disposal area. A portion of the backyards of Quarters S and N, adjacent to the DRMO Storage Yard, shows an impact from the DRMO Storage Yard. The majority of the area defined as the DRMO Impact Area does not show contamination. Groundwater at OU2 is brackish/saline, and contaminants in groundwater (metals) do not present an unacceptable risk for human health exposure or ecological exposure from migration to offshore surface water. Shoreline stabilization activities addressed the major concern for erosion of

contaminated soil to the offshore, and there is very little sediment in the offshore area; therefore, there are no current unacceptable risks for ecological exposure to offshore sediment. Based on evaluation of the OU2 data, the Navy believes that the nature and extent of contamination and site risks were sufficiently defined to support delineation of remediation areas and evaluation of remedial alternatives in the OU2 FS Report.

FUTURE MEETINGS

The RAB discussed the date for the next meeting. The next RAB meeting will be held on November 20, 2008. The main topic for the RAB will be a presentation on the draft OU2 FS Report.

Post-meeting note: The next RAB meeting will be held on November 20, 2008, in the Community Room at the new Fire Station at 3 Gorges Road, Kittery, Maine. The new Fire Station is located on Route 1 Bypass, between Dennett Road and Route 236 (Rogers Road/Harold L. Dow Highway). The presentation will be on the draft OU2 FS scheduled for submittal in November 2008.



Portsmouth Naval Shipyard Installation Restoration Program Agenda

Date – September 11, 2008

Place – Town Hall, Kittery, ME

Time – 7 p.m. - 9 p.m.

- . Introduction**
- . Presentation**
- . Status of Work**
 - Kirk Stevens
 - John Gildersleeve
- . Regulator Updates**
- . Status of OU 2 Investigations**
- . Other Issues as Required**

Draft Operable Unit 2 Supplemental Remedial Investigation Report Portsmouth Naval Shipyard

Presenter:

Deborah Cohen, Tetra Tech NUS, Inc.

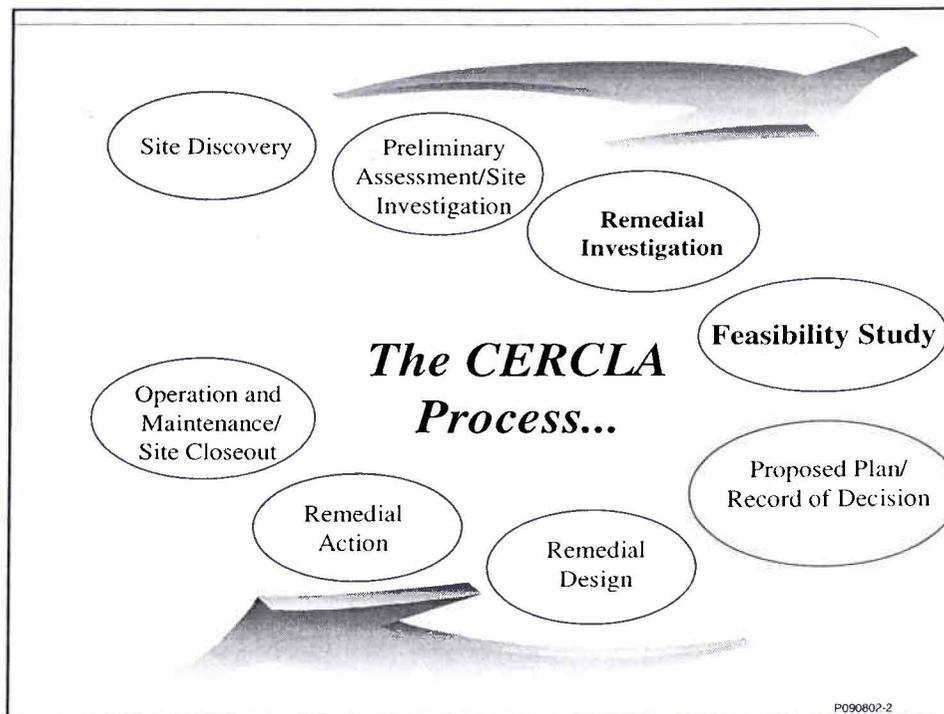
Stephanie Warino, Tetra Tech NUS, Inc.

September 11, 2008

Purpose of Presentation

- Explain the additional data collected to Support the Operable Unit (OU) 2 Remedial Investigation (RI) and Feasibility Study (FS).
- Provide a summary of site background and environmental conditions at OU2.
- Present the current understanding of nature and extent of contamination and risks related to OU2.

P090802-1



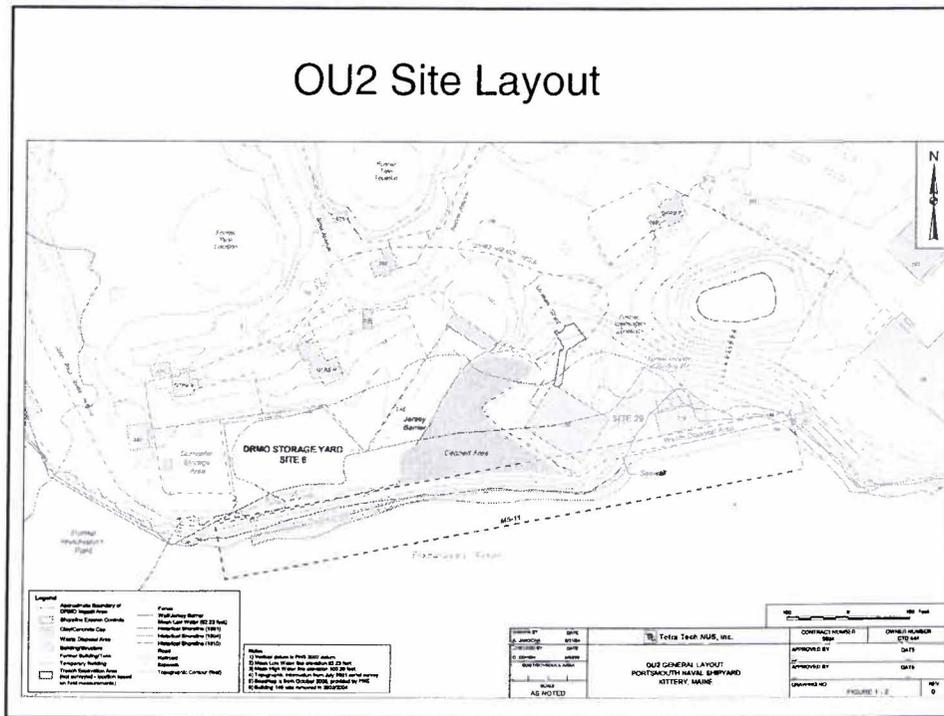
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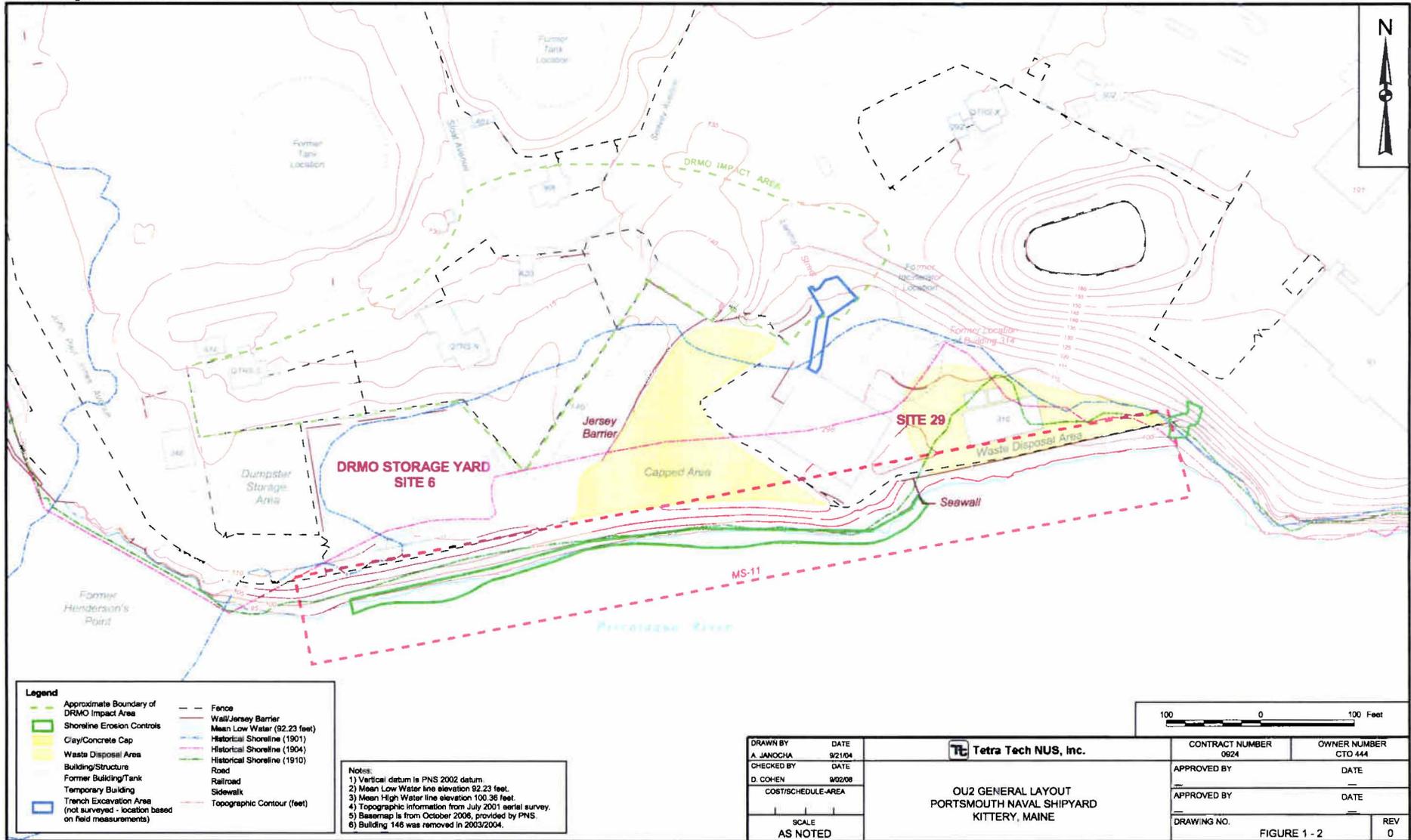
What is OU2?

- OU2 includes:
 - Site 6 – Defense Reutilization and Marketing Office (DRMO) Storage Yard
 - Site 29 - Former Teepee Incinerator Area
 - DRMO Impact Area (Quarters S, N, and 68)
- Offshore area of OU2 is currently part of OU4
 - DRMO Storage Yard Area of Concern; MS-11

PO90802-3

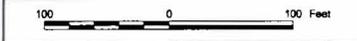
OU2 Site Layout





Legend	
	Approximate Boundary of DRMO Impact Area
	Shoreline Erosion Controls
	Clay/Concrete Cap
	Waste Disposal Area
	Building/Structure
	Former Building/Tank
	Temporary Building
	Trench Excavation Area (not surveyed - location based on field measurements)
	Fence
	Wall/Jersey Barrier
	Mean Low Water (92.23 feet)
	Historical Shoreline (1901)
	Historical Shoreline (1904)
	Historical Shoreline (1910)
	Road
	Railroad
	Sidewalk
	Topographic Contour (feet)

Notes:
 1) Vertical datum is PNS 2002 datum.
 2) Mean Low Water line elevation 92.23 feet.
 3) Mean High Water line elevation 100.38 feet.
 4) Topographic information from July 2001 aerial survey.
 5) Basemap is from October 2006, provided by PNS.
 6) Building 146 was removed in 2003/2004.



DRAWN BY A. JANICHA CHECKED BY D. COHEN COST/SCHEDULE-AREA SCALE AS NOTED	DATE 9/21/04 DATE 9/22/08 DATE DATE	Tetra Tech NUS, inc.	CONTRACT NUMBER 0624 APPROVED BY APPROVED BY DRAWING NO. FIGURE 1 - 2	OWNER NUMBER CTO 444 DATE DATE REV 0
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OU2 GENERAL LAYOUT
 PORTSMOUTH NAVAL SHIPYARD
 KITTERY, MAINE

History of OU2

- Most of the Site 6 area was filled as part of excavation of Henderson's Point (1902 to 1908).
- DRMO storage operations began in 1920.
 - Various activities including storage of lead-acid batteries and scrap metal.
 - Buildings used as part of operations are no longer present.
- Filling of the waste disposal area ended by late 1970s.
 - Open burning was conducted in the waste disposal area before 1965.
- Teepee incinerator operated from 1965 to 1975.
- Building 298 was built in 1975.
- Building 310 was built over the waste disposal area in 1980.
- Several interim remedial measures or removal actions conducted since 1993.

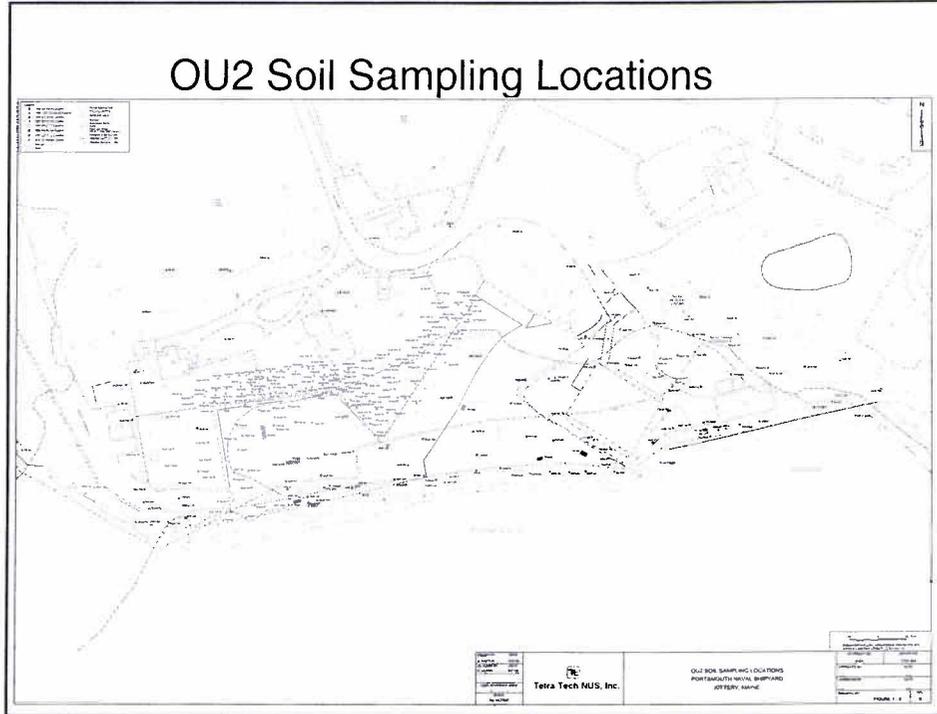
P090802-5

Additional Data Collection

- 2007/2008 soil sampling and field and laboratory analysis was conducted to
 - Determine extent of soil contamination in source areas and impacted areas.
 - Determine nature of soil contamination especially related to lead for evaluation of soil treatment options.
 - Define site boundaries in the OU2 RI and remediation areas in the OU2 FS.

P090802-6

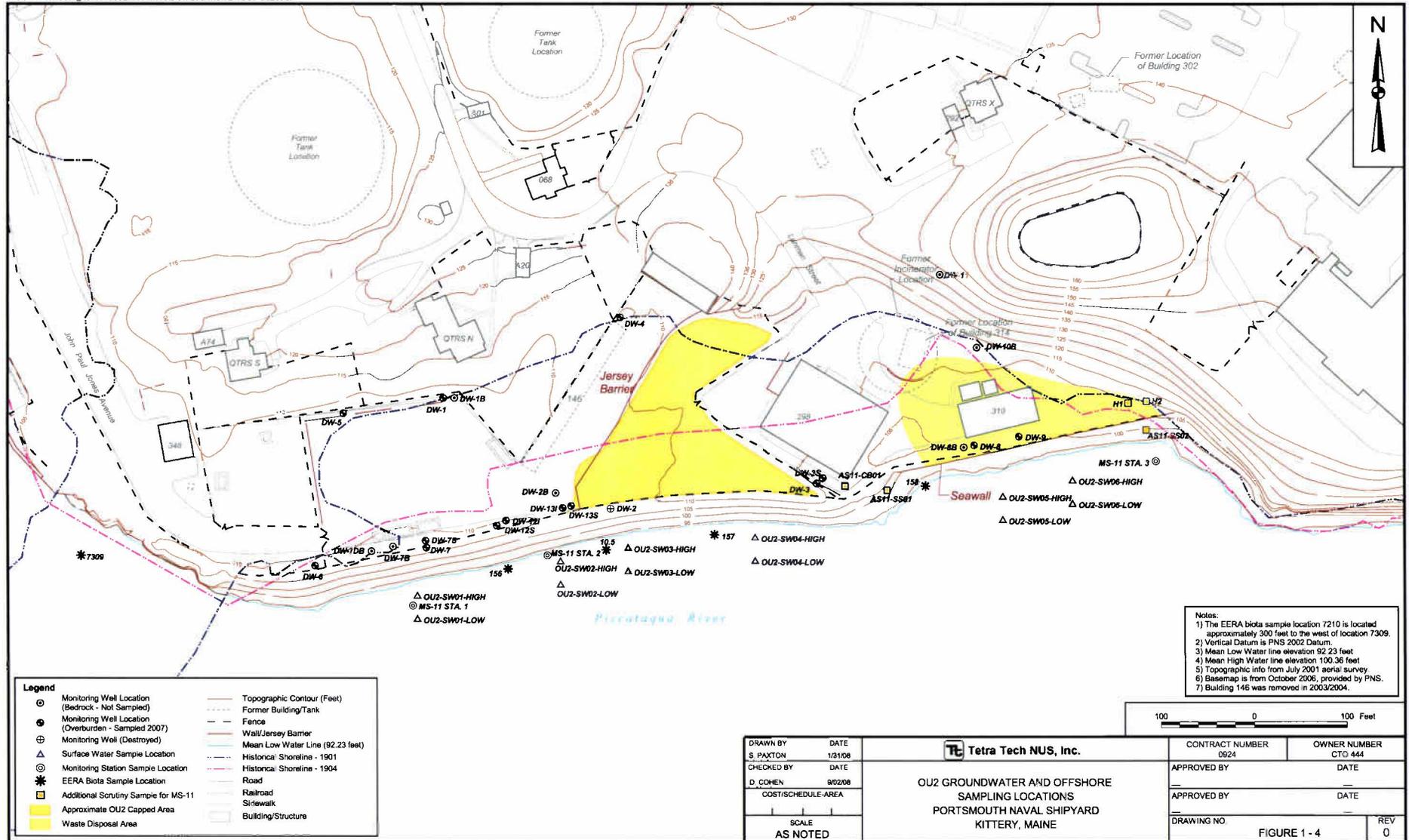
OU2 Soil Sampling Locations



Additional Data Collection

- 2007 groundwater and surface water sampling at high and low tides was conducted to determine whether groundwater concentrations (current comprehensive data set) are at concentrations that represent a potential unacceptable offshore impact.
- Offshore area was observed to determine the current conditions of the shoreline controls for evaluation of shoreline remedial alternatives.

P090802 8



Legend	
⊙	Monitoring Well Location (Bedrock - Not Sampled)
⊕	Monitoring Well Location (Overburden - Sampled 2007)
⊗	Monitoring Well (Destroyed)
△	Surface Water Sample Location
⊙	Monitoring Station Sample Location
*	EERA Biota Sample Location
□	Additional Scrutiny Sample for MS-11
■	Approximate OU2 Capped Area
■	Waste Disposal Area
—	Topographic Contour (Feet)
—	Former Building/Tank
—	Fence
—	Wall/Jersey Barrier
—	Mean Low Water Line (92.23 feet)
—	Historical Shoreline - 1901
—	Historical Shoreline - 1904
—	Road
—	Railroad
—	Sidewalk
—	Building/Structure

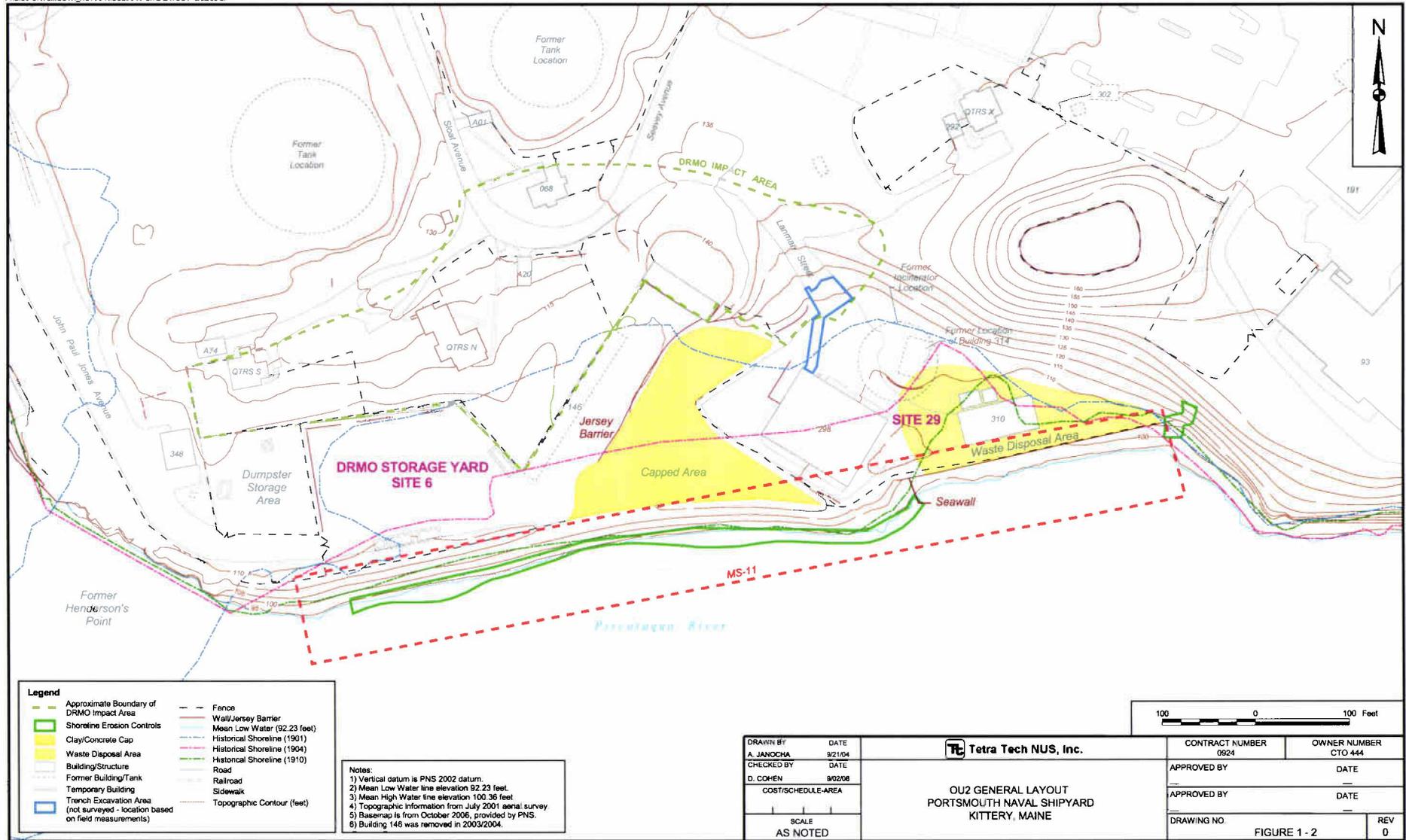
Notes:
 1) The EERA biota sample location 7210 is located approximately 300 feet to the west of location 7309.
 2) Vertical Datum is PNS 2002 Datum.
 3) Mean Low Water line elevation 92.23 feet
 4) Mean High Water line elevation 100.36 feet
 5) Topographic info from July 2001 aerial survey
 6) Basemap is from October 2006, provided by PNS.
 7) Building 146 was removed in 2003/2004.

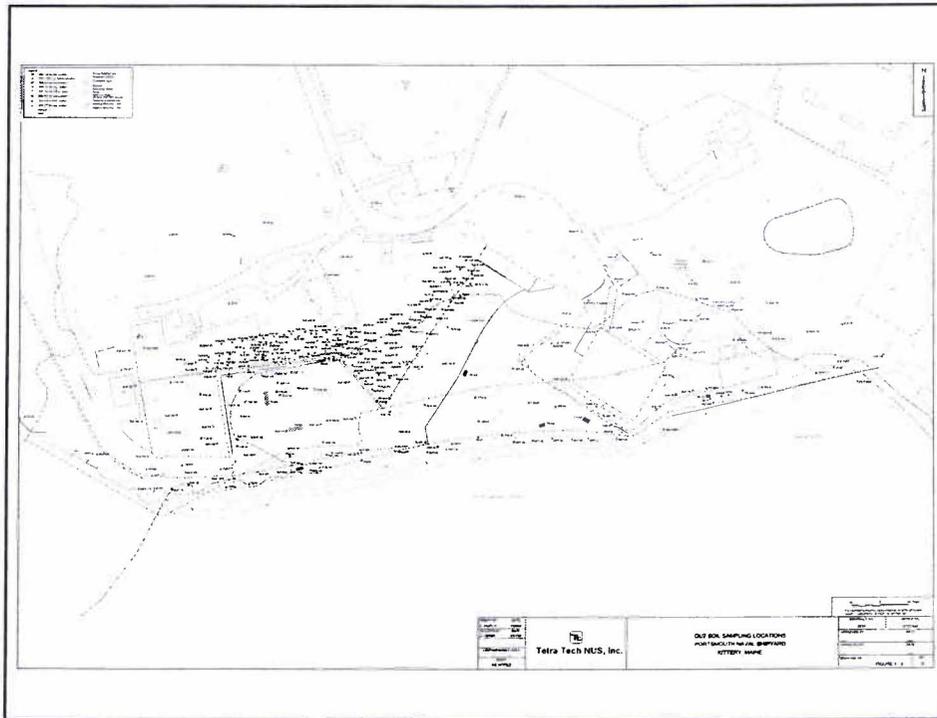


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COST/SCHEDULE-AREA	
SCALE AS NOTED	

Tetra Tech NUS, Inc.
 OU2 GROUNDWATER AND OFFSHORE
 SAMPLING LOCATIONS
 PORTSMOUTH NAVAL SHIPYARD
 KITTERY, MAINE

CONTRACT NUMBER 0624	OWNER NUMBER CTO 444
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Environmental Conditions

- Groundwater
 - OU2 groundwater is brackish/saline and the metals are the chemicals of concern
 - Overall, concentrations of metals do not present a risk for human health exposure.
 - Groundwater does not appear to present a risk for migration to the offshore.
- Offshore Area
 - Erosion of soil from OU2 is the main concern for the offshore.
 - Shoreline stabilization activities addressed the concern for erosion.
 - There is very little sediment in the offshore area; most of the shoreline is covered with rocks.

P090802-18

What's Next

- Draft RI will be submitted in September 2008.
- Revised draft OU2 FS is being prepared for submittal in November 2008.

P030802-19

- Legend**
- 1964 Soil Sample Location
 - 1969 - 1991 Soil Sample Location
 - 1995 Soil Sample Location
 - 1999 Soil Sample Location
 - 2002 Soil Sample Location
 - 2004 Soil Sample Location
 - 2007 Soil Sample Location
 - 2008 Soil Sample Location
 - Former Building/Tank
 - Temporary Building
 - Building Structure
 - Sewer
 - Wall/Jersey Barrier
 - Fence
 - Mean Low Water (MSL) (2002 Datum)
 - Topographic Contour Line
 - Historical Shoreline - 1901
 - Historical Shoreline - 1904
 - Railroad
 - Road

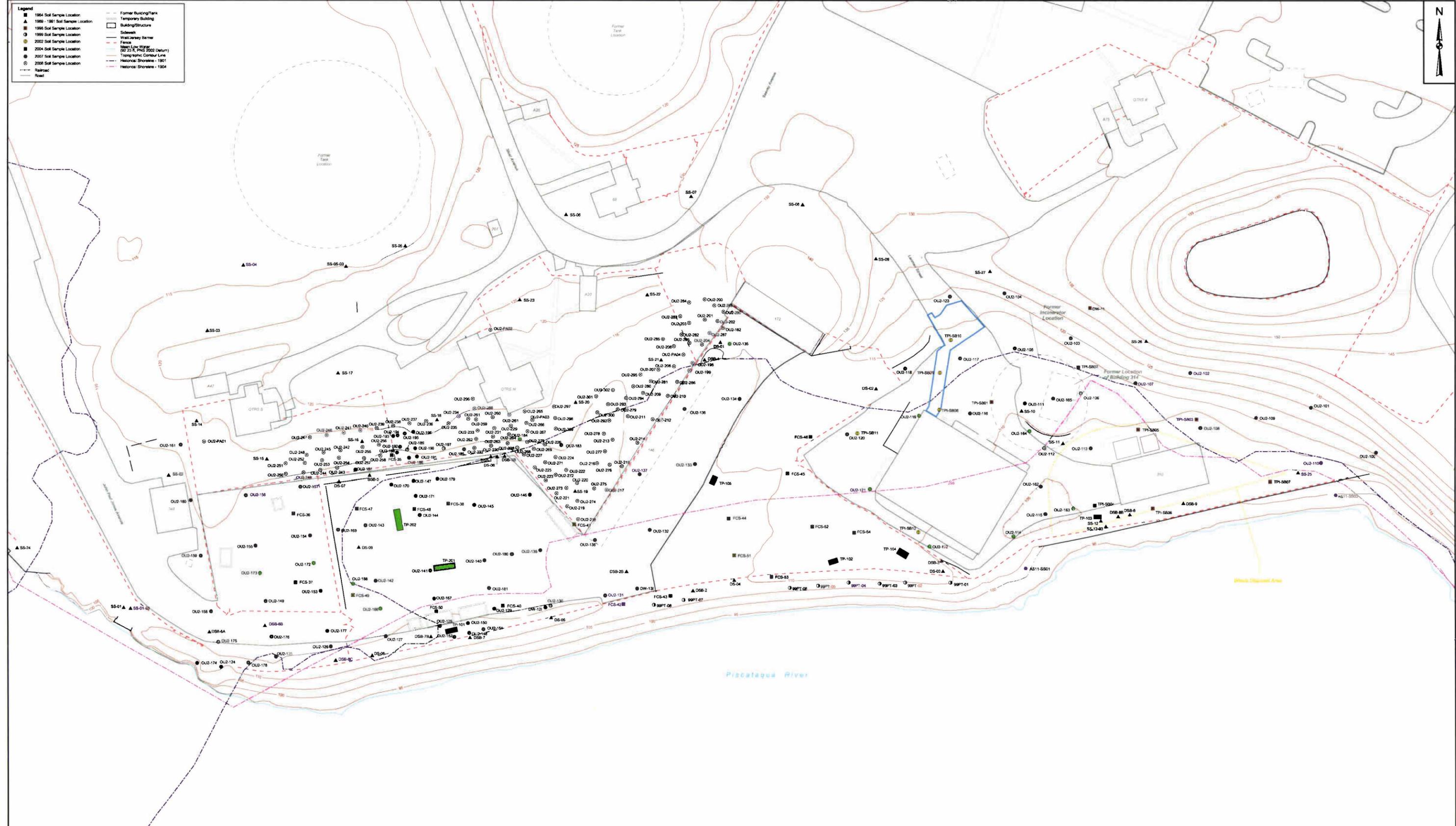


FIG SPORTSMOUTH, NYSADPROJ, POSTPLOTS.APR
SAMPLE LOCATION LAYOUT - D 8/21/08 SP

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CHECKED BY D. COHEN	DATE 8/21/08
COST/SCHEDULE-AREA	
SCALE AS NOTED	



**OU2 SOIL SAMPLING LOCATIONS
PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE**

CONTRACT NO. 0924	OWNER NO. CTO 444
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