

## 1.0 INTRODUCTION AND OVERVIEW

This Work Plan addresses groundwater monitoring well abandonment activities to be performed at the Naval Weapons Industrial Reserve Plant (NWIRP) in Bethpage, Nassau County, Long Island New York. The plan was prepared by Tetra Tech NUS, Inc. (TtNUS) under the Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract Number N62472-03-D-0057, Contract Task Order (CTO) 0002. TtNUS has been contracted to subcontract and oversee site activities for the Department of Navy, Engineering Field Activity Northeast (EFANE) at the Bethpage site.

Field work at the NWIRP Bethpage site will consist of the abandonment of 11 monitoring wells that range in depths from 49 to 220 feet below ground surface (bgs), see attached figure. Well abandonment will consist of backfilling the screened portion of the monitoring well with sand, grouting to approximately 3 feet bgs, and removal of the upper portion of the well casing and well cap.

The wells to be abandoned are no longer required and are on Navy property that is to be transferred to Nassau County. There are several other groundwater monitoring wells on the property to be transferred, but the wells are being used to support a regional groundwater monitoring program, and therefore will remain.

## 2.0 FIELD INVESTIGATION TASKS

The tasks that are necessary to complete the field activities are described in this section.

### 2.1 MOBILIZATION/DEMOBILIZATION

The monitoring well abandonment and monitoring well maintenance will be performed by TtNUS, with support from a drilling subcontractor.

### 2.2 MONITORING WELL ABANDONMENT

These wells will be abandoned in accordance with New York State Department of Environmental Conservation "Groundwater Monitoring Well Decommissioning Procedures" dated October 1996. Specifically, 11 monitoring wells with depths ranging from 49 to 220 feet bgs will be abandoned. The following table summarizes the 11 monitoring wells to be abandoned.

<b>Well Construction Details for the NWIRP Bethpage Site</b>			
Well No.	Elevation Top of PVC (ft, MSL)	Total Depth of Well (ft)	Screened Interval (ft, bgs)
HN24-I-1	120.46	159	149 - 159
HN24-I-2	122.89	160	150 - 160
HN25-S	125.69	59.3	49 - 59
HN25-I	125.51	130.4	120 - 130
HN25-D	124.82	210	200 - 210
HN26-S	125	55	44 - 54
HN26-I	124.84	155	115.3 - 125.3
HN29-S	119.04	49.3	39 - 49
HN30-S	129.1	57.3	47 - 57
HN30-I	126.27	155	110 - 120
HN08-D	125.91	198.4	188 -198

Prior to monitoring well abandonment, the well will be sounded and the total depth recorded. The 11 monitoring wells will be abandoned by filling the screened interval with a Number 2 (20/30) mesh well gravel to a height of 2 feet above the top of the screen. Well screens are 10 feet in length. Above the well gravel, the monitoring well will be filled with a bentonite and cement grout (7 gallons of water per 94-pound bag of cement and 6 pounds fo bentonite mixture) through a tremie pipe to approximately 2 to 3 feet bgs. This upper 2 to 3 feet of the monitoring well will be cut and removed. The resulting hole will be backfilled with native soil. The well cover and top casing will be decontaminated as needed and then either reused or disposed as IDW.

**2.3 INVESTIGATIVE DERIVED WASTE HANDLING**

All Investigative Derived Waste (IDW) accumulated during well abandonment activities will be collected, accumulated at the NWIRP Bethpage site, and eventually disposed off site. These materials include decontamination water, well casings, and protective well casings (flush mounts). All wastes will be disposed of into the provided roll-off which is staged for future characterization and disposal.

**2.4 DECONTAMINATION**

If decontamination is necessary, a centrally located decontamination pad on the NWIRP Bethpage will be used for the collection of all decontamination-generated fluids. All decontamination fluids will be collected and staged for characterization and subsequent disposal.

The decontamination operations will consist of washing monitoring well casings using a high-pressure potable steam wash.

## **2.5 DOCUMENTATION**

Documentation required to support this project will consist of the following items:

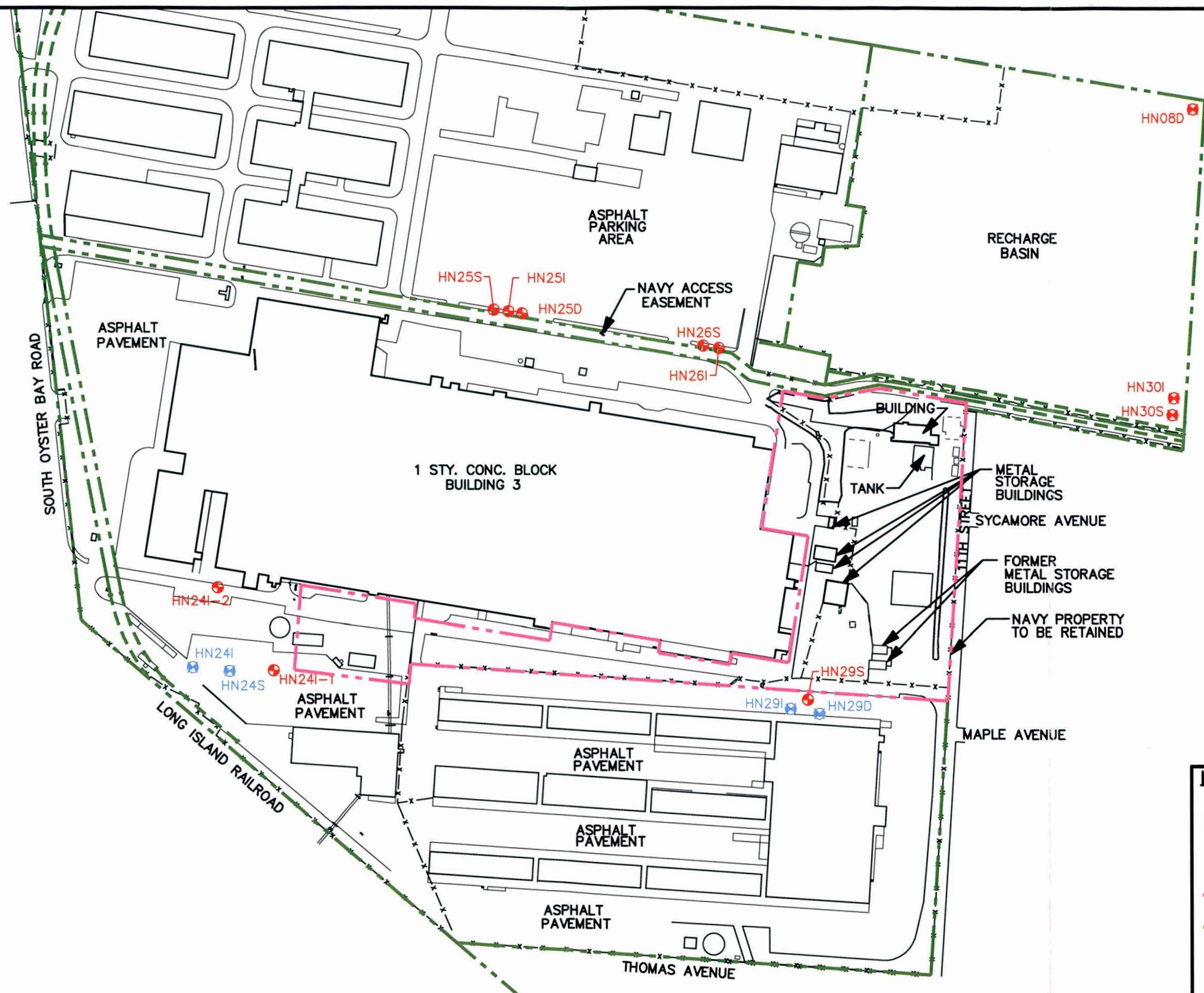
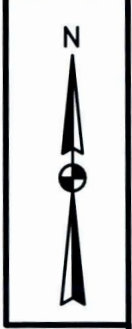
- Field Notebook
- Daily Field Activities Form (to be filled out by the FOL and signed daily by both FOL and subcontractor)

## **2.6 REPORTING**

A brief letter report (3-4 pages) will be produced upon completion of the field tasks summarizing the field activities performed.

1-30-003B-0V1  
10/29/04

ACAD: 9845CP07.dwg 11/01/04 DM PIT



**LEGEND:**

- + MONITORING WELLS TO BE ABANDONED  
HN29S
- + MONITORING WELLS ON PROPERTY TO BE TRANSFERRED  
HN29I
- NAVY PROPERTY TO BE RETAINED
- NAVY PROPERTY TO BE TRANSFERRED

0 250 500  
GRAPHIC SCALE IN FEET

DRAWN BY DM	DATE 10/29/04
CHECKED BY	DATE
REVISED BY	DATE
SCALE AS NOTED	



**MONITORING WELLS  
NWRP BETHPAGE, NEW YORK**

CONTRACT NO. 9845	
OWNER NO. 0000	
APPROVED BY	DATE
DRAWING NO. FIGURE	REV. 0