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NAS BRUNSWICK  
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FINAL RESOURCE CONSERVATION AND RECOVERY ACT PARTIAL CLOSURE REPORT  
FOR BUILDING 87 WITH TRANSMITTAL LETTER NAS BRUNSWICK ME  
7/30/2010  
NAS BRUNSWICK

**ENVIRONMENTAL DEPARTMENT  
NAVAL AIR STATION  
437 HUEY DRIVE  
BRUNSWICK, ME 04011**

July 30, 2010

Mr. Edward Vigneault  
Maine Department of Environmental Protection  
Division of Oil and Hazardous Waste Facilities Registration  
17 State House Station  
Augusta, ME 04333-0017

Subj: Final RCRA Partial Closure Report for Building 87

Dear Mr. Vigneault:

A copy of the Final RCRA Partial Closure Report for Building 87 at Naval Air Station Brunswick is provided as Enclosure (1).

If you have any questions, please contact Mr. Mike Fagan at 921-1717 or via e-mail at [michael.fagan1@navy.mil](mailto:michael.fagan1@navy.mil).

Sincerely,



*Fol* LISA M. JOY  
Environmental Director

Enclosure: (1) Final RCRA Partial Closure Report for Building 87

Copy to:  
NAVFAC Mid-Atlantic (B. Abraham)  
NAS Brunswick (M. Fagan/D. Smith)  
EPA Region I (M. Daly)  
MRRA (V. Boundy)  
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Lepage Environmental (C. Lepage)  
BRAC PMO NE (P. Burgio)

**RCRA PARTIAL CLOSURE REPORT  
FOR  
BUILDING 87 – ANTI-SUBMARINE WARFARE OPERATIONS CENTER [ASWOC] PARCEL  
NAVAL AIR STATION BRUNSWICK, MAINE  
USEPA IDENTIFICATION NUMBER ME8170022018  
JULY 2010**

## **1. INTRODUCTION**

The purpose of this report is to present the findings and conclusions of the investigation conducted to determine if the Maine Department of Environmental Protection (MEDEP) RCRA or hazardous waste closure requirements have been completed for the Building 87 (Anti-Submarine Warfare Operations Center [ASWOC]) parcel at Naval Air Station Brunswick (NAS Brunswick).

## **2. PROPERTY DESCRIPTION**

The Building 87 parcel is located inside the Command Patrol and Reconnaissance Wing Five (CPRW-5) compound in the north-central portion of NAS Brunswick (Figure 1).

The parcel is approximately 15.8 acres in size. To the north, the parcel is bordered by Beasley Circle and the Building 54 (Applied Instrument Building) parcel. The Casco Bay Pipeline (described below in Section 3) and Building 750 (Transient Visitors Quarters) form the parcel border to the east and southeast, respectively. Beasley Circle and the Orion's Landing barracks (Buildings 730 through 749) border the parcel to the south. To the west are Building 43 (Telephone Exchange) and Pegasus Street, with Buildings 26 (Child Care Center) and 592 (Vet Clinic) across Pegasus Street (Figure 2).

Building 87 operations center was constructed in 1988. The building measures approximately 52,513 square feet and is a multiple-room, single-level building on a concrete slab foundation with a partial basement. The interior consists of three segments (A, B, and C), each with multiple rooms (Figure 3). Segment A consists of administrative offices and classrooms. Segment B consists of offices, telecommunications rooms, message processing centers, and electrical rooms. Segment C consists of communications offices, briefing theater, training rooms, and electrical repair rooms. A partial basement, entered from the northwest side of the building, includes a mechanical room containing an air-handling unit, a back-up battery, and an electrical unit. Building 87 is heated by a hot-water-base-board system. The boiler for this system is located in nearby Building 594 and is fired by natural gas, supplied by an off-site utility.

Building 594, Air Operations Radar Tower, is included within the Building 87 parcel; however, Building 594 is addressed separately under the NAS Brunswick RCRA closure program and is not discussed in detail in this report.

Photographs taken during the site visit are provided in an attachment.

## **3. PROPERTY HISTORY AND RECORDS RESEARCH**

The Tetra Tech NUS, Inc. (Tetra Tech) project team interviewed NAS Brunswick Environmental Department personnel and performed records research at both NAS Brunswick and the MEDEP office in Augusta, Maine to collect available information concerning the Building 87 parcel, including past use and operations at that location.

Records reviewed include historical aerial photographs, the NAS Brunswick Other Environmental Liabilities (OEL) Database, area-specific reports, facility plans and drawings, and hazardous waste records. Aerial photographs dated 1958, 1978, 1981, 1984, 1989, 1993 and 1997 (all produced by James W. Sewall Company) were reviewed along with Public Works Department (PWD) site base maps dated 1946, 1952, 1956, 1957, 1962, 1975, 1983, 1989, 2004, and 2006, to provide historical information.

According to NAS Brunswick Environmental Department personnel, since its construction in 1988, the sole use of Building 87 has been as an operations control center.

The historical site plan dated 1943 shows a wooded area at the location of the Building 87 parcel. Beginning with the 1946 aerial photograph, a complex of buildings surrounded by fencing and identified as “Air Force Operations”, occupies the northern portion of the Building 87 parcel. Based on available information, this former Air Force facility was a Control and Warning Facility (radar station) and was in operation until the mid-1960s, when the facility was transferred to the Navy. The portion of the facility located within the Building 87 parcel included four buildings and three radar domes or towers. When the Navy took control of the facility, the structures were assigned Navy building identification numbers, which are referenced in this discussion. Below is a summary of the available information regarding these structures, along with their historical building identification numbers.

Navy ID	Air Force ID <sup>(1)</sup>	Year Constructed	Year Demolished	Description	Navy Use (past and current)
593	AF-12	1950 <sup>(4)</sup>	1988 <sup>(2)</sup>	one-story, masonry building <sup>(2)</sup>	Storage (1966) <sup>(5)</sup> Communications (1976) <sup>(6)</sup>
594	AF-R2	1950 <sup>(3)</sup>	NA	originally constructed as a radar dome	Storage (1966) <sup>(1)</sup> CRW5 Vacant (1976) <sup>(6)</sup> Boiler House (2010)
595	AF-R8	1950 <sup>(4)</sup>	Unknown	originally constructed as a radar dome	FASOTRAGRULANT Storage <sup>(5)</sup>
596	AF-1	1950 <sup>(4)</sup>	1988 <sup>(2)</sup>	one-story masonry building <sup>(1)</sup>	TSC/Communications Center (1976) <sup>(5)</sup>
597	AF-2	1950 <sup>(4)</sup>	1988 <sup>(2)</sup>	none found	Inactive (1976) <sup>(6)</sup>
598	AF-3	1950 <sup>(4)</sup>	1988 <sup>(2)</sup>	originally constructed as a radar dome	Storage <sup>(1)</sup> Storehouse (1976) <sup>(6)</sup>
612	unknown	Unknown – visible on 1956 historic map	1988 <sup>(2)</sup>	one-story masonry building <sup>(1)</sup>	Disaster Preparedness (1976) <sup>(6)</sup>

1 Buildings and Structure List (Revised January 1, 1966)

2 Removals Plan Operations Control Center, NAVFAC Drawing 2076807, 1988

3 NASB Facilities List, September 29, 2006

4 Construction date based on Building 594 construction date

5 Alphabetical Listing of Buildings and Numbers (date unknown)

6 Index of Structures (Update September 21, 1976)

FASOTRAGRULANT Fleet Aviation Specialized Operational Training Group, Atlantic

In the 1956 historical site plan, Building 594 is shown along with two additional tower structures, Buildings 595 and 598. Building 596 (former ASWOC communications building) is shown to the north of Building 594. Between 1956 and 1989, seven buildings (listed above) are present on the Building 87 parcel. On the 1989 map, only one of the tower structures (Building 594) and Building 87 are shown. According to NAS Brunswick records, Building 87 was built in 1988 as an operations control center. The removal plan for the operations control center indicates that Buildings 593, 596, 598 and 612 were to be removed. The 1989 aerial photograph indicates all buildings except Building 594 were demolished prior to that photograph date; the current roadways, parking area, and Building 87 are present in their current configuration.

The NAS Brunswick Transformer Database lists one non-polychlorinated-biphenyl (PCB)-containing electrical transformer for Building 87; a 1,000-kVa pad-mounted transformer (I-T-E Serial No. 866004108). The first two digits of the transformer serial number indicate that it was likely manufactured in 1986, and is therefore unlikely to contain PCBs (as of July 1, 1979, the United States Environmental Protection Agency [EPA] prohibited all manufacturing of new PCB electrical equipment [transformers and capacitors]). However, since buildings have been present on the parcel since at least 1946, it is possible

that a previous PCB-containing transformer may have been present at the Building 87 parcel, although there is no record of PCB-containing transformers for the previous buildings.

A 1985 historical site plan entitled "Removals Plan" (see attachment) indicates a transformer adjacent to former Building 596 to be removed. This location would correspond to the area approximately 25 feet west of Building 594, in the parking lot. Also shown on this plan, are the locations of three fuel tanks (believed to be ASTs reportedly used for heating oil storage) planned for removal; one 275-gallon tank at the southwest corner of Building 596; one 8,500-gallon tank east of Building 596; and one unspecified capacity tank at the northeast corner of Building 596. These tanks are not listed in NAS Brunswick historic databases.

The Initial Assessment Study (IAS) prepared in 1983 by the Naval Energy and Environmental Support Activity (NEESA) lists NAS Brunswick PCB-containing transformers; the former Buildings 596 and 597 were not listed as locations with PCB-containing transformers. In addition, based on available documentation and discussions with NAS Brunswick Environmental Department personnel, there have not been any documented leaks or releases from any transformers in past use at the Building 87 parcel.

According to NAS Brunswick Environmental Department personnel, hazardous waste generation at Building 87 was episodic in nature, with no operations producing hazardous wastes on a regular basis. The source of most Building-87-generated hazardous waste was electronic repair operations and building maintenance activities, conducted on an as-needed basis. NAS Brunswick has a program in place that tracks hazardous waste to ensure proper handling and disposal. The table below provides a summary from the NAS Brunswick Public Works Department Manifests for ASWOC/CPRW-5 (Building 87), from 1990 through 2002. Generally, small quantities (less than 50 gallons total) of paint waste, adhesives, acids, aerosols, detergents, cleaners, grease, developer, floor polish, toner, and ink waste were generated during the 1990 through 2002 time period. Lithium and lead batteries and small quantities of halogenated solvents (aerosols, e.g.) also originated from Building 87 during this time period.

**CPRW-5 (Building 87) Hazardous Waste Quantities 1990 through 2002**

Description	RCRA Waste Code	Quantity
acid	D002	5 gallons
adhesive	D001	2.75 gallons
alcohol, isopropyl	D001	11 each
battery, lead	D008	1 tub
battery, lithium	D003	55 gallons
cleaner, aerosol	D001	0.06 gallons
corrosion prevention compound (spent)	D001	0.5 gallons
floor polish remover (corrosive)	D002, D006, D008, D010	10 gallon
cathode ray tube (CRT)	D008UW	106 each
dichlorodifluoromethane	U075	Unknown
grease, lead plate	D008	0.75 gallons
methyl chloroform	U226	5 gallons
halogenated solvents, cleaners, spent	F002	Unknown
1,1,1- trichloroethane, spent	F002	0.06 gallons
oxygen breathing apparatus (OBA) generators (expended)	D001, D003, D005	2 each
paint	D001, D007, D008, D035	48.25 gallons
paint, aerosol	D001, D007, D008	21 cartons
polish, plastic	D001	0.06 gallons
potassium dichromate	D003	1 pound
aerosol spray kit	D001	0.1 gallons
toner	D001	Unknown

Source: NAS Brunswick Public Works Department Manifest Tracking Database

According to the NAS Brunswick records, two USTs were previously located at Building 594. A 6,000 gallon, fiberglass-reinforced-plastic (FRP) No. 2 fuel oil UST (10045-069) was installed in March 1986 and removed in July 1992. This UST was replaced by a 3,000-gallon, No. 2 fuel oil UST (10045-490) in September 1992, which was removed in July 1999 and replaced by an AST.

Currently there are two ASTs located to the north of Building 594 (see Figure 2). These include a closed 4,000-gallon, double-walled No. 1 fuel oil AST (A594.1) that replaced UST 10045-490 in July 1999. This AST was closed on April 4, 2008. The second AST is a 4,000 gallon diesel unit (A594.0) installed adjacent to AST 594.1 in 1996. It provides diesel fuel to the generators in the boiler room on the first floor of Building 594. (PWD, 2010 and Environmental Department, 2009).

In addition, according to NAS Brunswick files, there are no oil/water separators associated with the Building 87 parcel.

An approximately 600-foot segment of abandoned aviation fuel pipeline (Casco Bay Pipeline) forms the eastern boundary of the Building 87 parcel. This pipeline system consists of two separate pipes that were used to transfer jet propulsion fuel (primarily JP-5) from the Defense Fuel Support Point (DFSP)-Casco Bay facility to the Old Navy Fuel Farm during the period from about 1952 until 1991. The pipelines are constructed of two separate carbon steel pipes with welded joints and are set approximately 3 feet apart. The pipes are covered in an exterior tar coating impregnated with asbestos. In 1991 the pipeline was taken out of service, drained, cleaned, and pressurized with nitrogen until 1995 when the NASB Old Navy Fuel Farm was dismantled (GZA, 1997).

Review of the Building 87 Segment B floor plan indicates that one room may have been previously used for solid waste accumulation, based on the identification of the room as "S148, Waste Stor." (Figure 3). (As discussed in Section 4, below, a wipe sample was collected from Room S148 to assess the possible presence of hazardous waste residue.)

No groundwater investigations have been conducted in the vicinity of the Building 87 parcel; therefore, groundwater characterization information for the parcel is not available. Information on known NAS Brunswick groundwater contamination areas was reviewed to determine if groundwater underlying the Building 87 parcel could potentially be impacted by another (off-parcel) source area. The only identified groundwater contamination that could potentially impact the parcel is the dissolved-phase hydrocarbon plume associated with the Old Navy Fuel Farm (ONFF), located north and upgradient of Building 87. The ONFF was decommissioned in 1993 and remediated in 2000. Recent results from the ONFF groundwater monitoring program indicate that groundwater is encountered at about 3 to 7 feet below grade and flows from the ONFF to the southeast, across Fitch Avenue and the Building 151 parcel (ESI, 2009). (Building 151 is located approximately 1200 feet north of Building 87.) Based on information from the ONFF groundwater monitoring program, it is unlikely that groundwater underlying the Building 87 parcel is impacted by the ONFF hydrocarbon plume.

#### 4. SITE VISIT AND INVESTIGATION

A site visit was conducted by Mr. James Forrelli, P.E., Mindi Messmer, and Chelsea Fellows of Tetra Tech on June 3, 2010. The purpose of the visit was to verify information gathered during the records search and to collect additional information as necessary to prepare this closure report. Tetra Tech personnel were accompanied by Mr. D. Bruce Smith, the NAS Brunswick Hazardous Waste Manager. The Building 87 parcel was visually inspected for signs of hazardous waste generation or storage. Site visit observations, recorded on the attached Building Inspection Form <sup>(1)</sup>, are summarized below:

- At the time of inspection, Building 87 was vacant and in good condition.
- The interior consisted of three wings, Segments A, B, and C, each with multiple rooms. Segment A consisted of administrative offices and classrooms. A mechanical room containing an air handling unit, back-up battery, and electrical unit was also present. Segment B consisted of offices, telecommunications rooms, message processing centers, and electrical rooms. Segment C consisted of communications offices, briefing theater, training rooms, and electrical repair rooms.
- Evidence of electronic repair operations, previously referenced by NAS Brunswick Environmental Department personnel, were noted. These areas where hazardous waste may have been generated were noted in Building 87, as follows: electrical repair work benches where soldering

possibly occurred were observed in Segment B (Rooms S113 and S120) and Segment C (Rooms N103, N107 and N108). In addition, one Segment B room, S148, was labeled "Waste Storage" on available floor plans of the building.

- No signs of a past release (staining, unusual odors, stressed vegetation, etc.) were observed. No modifications to the structure, which may conceal signs of a past release, were observed.
- No signs of a past release (staining, unusual odors, stressed vegetation, etc.) were observed and no structural modifications, which could conceal signs of a past release, were observed.
- An electrical transformer and associated pad were observed between Buildings 87 and 594. There was no visible staining or contamination present.
- The location of the former transformer shown on the 1985 "Removals Plan", which was removed in 1988, appeared to be within the existing parking lot. This area has been significantly reworked.

Based on the records research and site visit observations, specific areas within Building 87 were identified for sample collection to determine if hazardous waste residues were present. As listed in Table 1, six rooms where hazardous waste may have been generated or stored were targeted for sample collection:

#### Segment B

Room S113 - ASCOM: A work bench was observed in the electronics repair shop area where possible historical soldering occurred.

Room S120 - Message Process Center: A work bench was observed in the electronics repair shop area where possible historical soldering occurred.

Room S148 - Waste Storage: This room may have been used for historical waste storage.

#### Segment C

Room N103 - ASWOC Maintenance Office: This may have been the location of an electronics repair shop where possible historical soldering occurred.

Room N107 - Maintenance Shop: A work bench was observed in the electronics repair shop area where possible historical soldering occurred.

Room N108 - Maintenance Storage: There was evidence of a former electronics repair shop area where possible historical soldering occurred.

The location of a former transformer, removed in 1988, was not sampled, as it is within the existing paved parking lot. This location would have been significantly re-worked during Building 87 construction activities, and any residues related to the former transformer would be very difficult to locate and identify.

On June 16, 2010, Tetra Tech collected wipe samples from fifteen locations at targeted areas, as shown on Figure 3 and identified on Table 1. Wipe samples from all locations were submitted for RCRA 8 metals analysis, with one wipe sample from Room S148 - Waste Storage also submitted for semi-volatile organic compound (SVOC) analysis. Analyses were conducted by Tetra Tech's subcontracted laboratory, Analytics Environmental Laboratory (Analytics), Portsmouth, New Hampshire.

SVOCs were not detected in the only wipe sample collected for this analysis, the Room S148 wipe sample. The wipe sample results for RCRA 8 metals analysis are presented in Table 2.

Results for lead were compared to the following MEDEP criteria for lead-contaminated settled dust, applicable for RCRA closures:

Floors: 40 micrograms per square foot ( $\mu\text{g}/\text{sf}$ )  
 Walls and other flat surfaces up to a height of 8 feet: 250  $\mu\text{g}/\text{sf}$   
 Surfaces above 8 feet: visibly clean (dust-free)

As shown in Table 2, lead levels in all wipe samples are below the respective criteria.

There are no Maine criteria for the other seven RCRA metals analyzed. For informational purposes, wipe sample results for the other seven metals are compared to available World Trade Center Settled Dust

Screening Values (WTC, 2003). As shown in Table 2, all levels of these metals, where detected, are below the referenced screening values.

Based on the available information regarding the historical activities that occurred at the parcel and the location of known NAS Brunswick groundwater contamination areas, there is no evidence to suggest that groundwater underlying the Building 87 parcel has been adversely impacted by a release, either from within the parcel or from another (off-parcel) source area.

Based on the records research findings and site visit observations, it was determined that neither further inspection nor sampling of the Building 87 parcel is required to complete the MEDEP hazardous waste closure requirements.

## 5. HAZARDOUS WASTE GENERATION AND STORAGE

The records research, site visit observations, NAS Brunswick Environmental Department personnel interviews, and investigation results document that hazardous waste was generated at Building 87 while the building was in service. As discussed in Section 3, NAS Brunswick tracks hazardous waste to ensure proper handling and disposal. According to NAS Brunswick personnel, hazardous waste generated at Building 87 included solvents; waste paint that may have contained lead; lead dust from soldering and welding; lead-acid batteries; and universal waste.

## 6. OTHER ENVIRONMENTAL CONSIDERATIONS

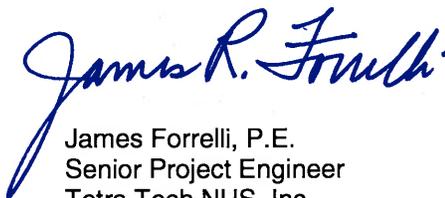
No USTs or ASTs were observed at the Building 87 parcel other than those described in Section 3.

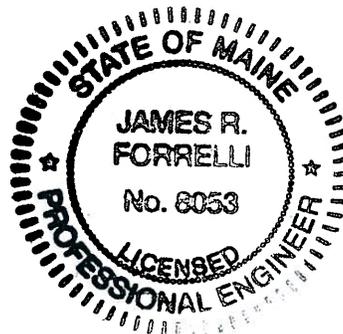
## 7. LIMITATIONS

This investigation of the hazardous waste closure requirement applies to the Building 87 parcel (as shown on Figure 2) only.

## 8. CERTIFICATION

Historical operations resulted in the generation of hazardous waste at the Building 87 parcel, NAS Brunswick, Maine. Based on the findings of the investigation as reported in this Partial Closure Report, the hazardous waste closure of the Building 87 parcel was completed in accordance with the provisions of MEDEP Regulations Chapter 851, Standards for Generators of Hazardous Waste, Section 11.

  
James Forrelli, P.E.  
Senior Project Engineer  
Tetra Tech NUS, Inc.



<sup>(1)</sup> The Building Inspection Form provides preliminary information collected during the building inspection, including information from visual observations, Navy personnel interviews, and from documents reviewed during file reviews. It does reflect any additional information provided at a later date that further clarifies or corrects preliminary information collected during the building inspection and file reviews.

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PWD. 2010. Transformer Database. NAS Brunswick, Maine.

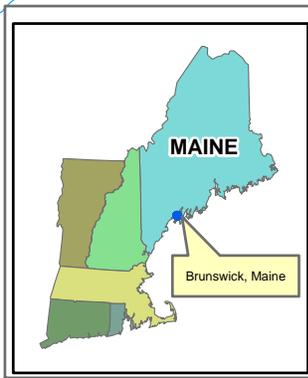
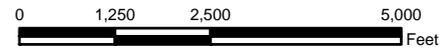
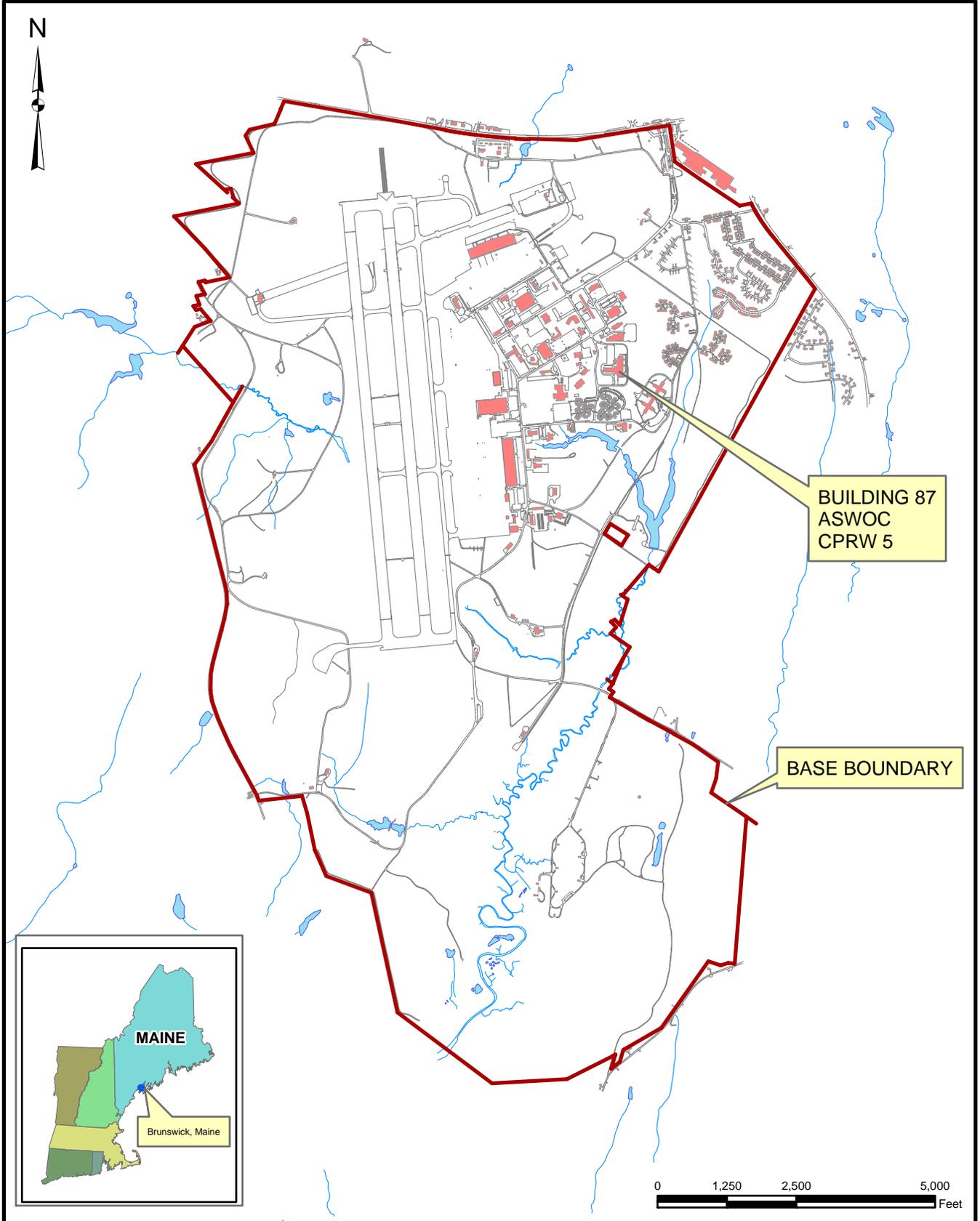
**TABLE 1**  
**RCRA CLOSURE INVESTIGATION - WIPE SAMPLE LOCATIONS**  
**RCRA PARTIAL CLOSURE REPORT**  
**BUILDING 87 – ANTI-SUBMARINE WARFARE OPERATIONS CENTER [ASWOC] PARCEL NAVAL**  
**AIR STATION BRUNSWICK, MAINE**

Location	Sample ID <sup>(1)</sup>	RCRA 8 Metals	SVOCs	Comments
<b>Segment B</b>				
<b>Room S113 - ASCOM</b>				
work bench	B87-WP01	X	--	
floor below work bench (north)	B87-WP02	X	--	
floor below work bench (south)	B87-WP03	X	--	
<b>Room S120 – Message Process Center</b>				
work bench	B87-WP04	X	--	
floor below work bench (east)	B87-WP05	X	--	
floor below work bench (west)	B87-WP06	X	--	
<b>Room S148 – Waste Storage</b>				
floor in center of room	B87-WP07	X	X	
<b>Segment C</b>				
<b>Room N103 - ASWOC Maintenance Office</b>				
floor south	B87-WP08	X	--	
floor south	B87-WPDUP05	X	--	Duplicate of NASB- B87-WP08
floor north	B87-WP09	X	--	
<b>Room N107 - Maintenance Shop</b>				
work bench	B87-WP10	X	--	
floor below work bench (north)	B87-WP11	X	--	
floor below work bench (south)	B87-WP12	X	--	
<b>Room N108 - Maintenance Storage</b>				
floor at former work bench location	B87-WP13	X	--	
floor at former work bench location (west)	B87-WP14	X	--	
floor at former work bench location (east)	B87-WP15	X	--	

**TABLE 2  
RCRA CLOSURE INVESTIGATION - WIPE SAMPLE RESULTS: METALS  
RCRA PARTIAL CLOSURE REPORT  
BUILDING 87 – ANTI-SUBMARINE WARFARE OPERATIONS CENTER [ASWOC] PARCEL  
NAVAL AIR STATION BRUNSWICK, MAINE**

SAMPLE ID <sup>(1)</sup>				B87-WP-01	B87-WP-02	B87-WP-03	B87-WP-04	B87-WP-05	B87-WP-06	B87-WP-07	B87-WP-08	DUP (B87-WP-08)	B87-WP-09	B87-WP-10	B87-WP-11	B87-WP-12	B87-WP-13	B87-WP-14	B87-WP-15
LOCATION				B87-WP-01	B87-WP-02	B87-WP-03	B87-WP-04	B87-WP-05	B87-WP-06	B87-WP-07	B87-WP-08	B87-WP-08	B87-WP-09	B87-WP-10	B87-WP-11	B87-WP-12	B87-WP-13	B87-WP-14	B87-WP-15
SAMPLE DATE				6/16/10	6/16/10	6/16/10	6/16/10	6/16/10	6/16/10	6/16/10	6/16/10	6/16/10	6/16/10	6/16/10	6/16/10	6/16/10	6/16/10	6/16/10	6/16/10
CRITERIA	WTC	MEDE P Wall	MEDE P Floor	S113 work bench	S113 floor at bench (north)	S113 floor at bench (south)	S120 work bench	S120 floor at bench (east)	S120 floor at bench (west)	S148 floor room (center)	N103 floor (north)	N103 floor (south)	N103 floor (south)	N107 work bench	N107 floor at bench (north)	N107 floor at bench (south)	N108 floor at fm. work bench	N108 floor at fm. bench (west)	N108 floor at fm. bench (east)
<b>METALS (µg/ft<sup>2</sup>)</b>																			
arsenic	36	--	--	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U
barium	10000	--	--	100	12	11	16	17	15	31	18	20	25	13	14	16	15	14	16
cadmium	140	--	--	35	0.93 U	0.93 U	1.3	1.5	1.5	1.6	3	3	9.3	3.1	1.4	3.5	16	7.6	7.4
chromium	440	--	--	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	11	9.3 U	9.3 U	9.3 U
lead	NA	250	40	7.4	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	13	6.4	7.2	13	4.2	11	20	6.9	12	7.9
mercury	15	--	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
selenium	--	--	--	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
silver	730	--	--	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.9	5.4	14	1.9 U	1.9 U	1.9 U
<b>SVOCs (µg/ft<sup>2</sup>)</b>	--	--	--	na	na	na	na	na	na	na	ND	na	na	na	na	na	na	na	na

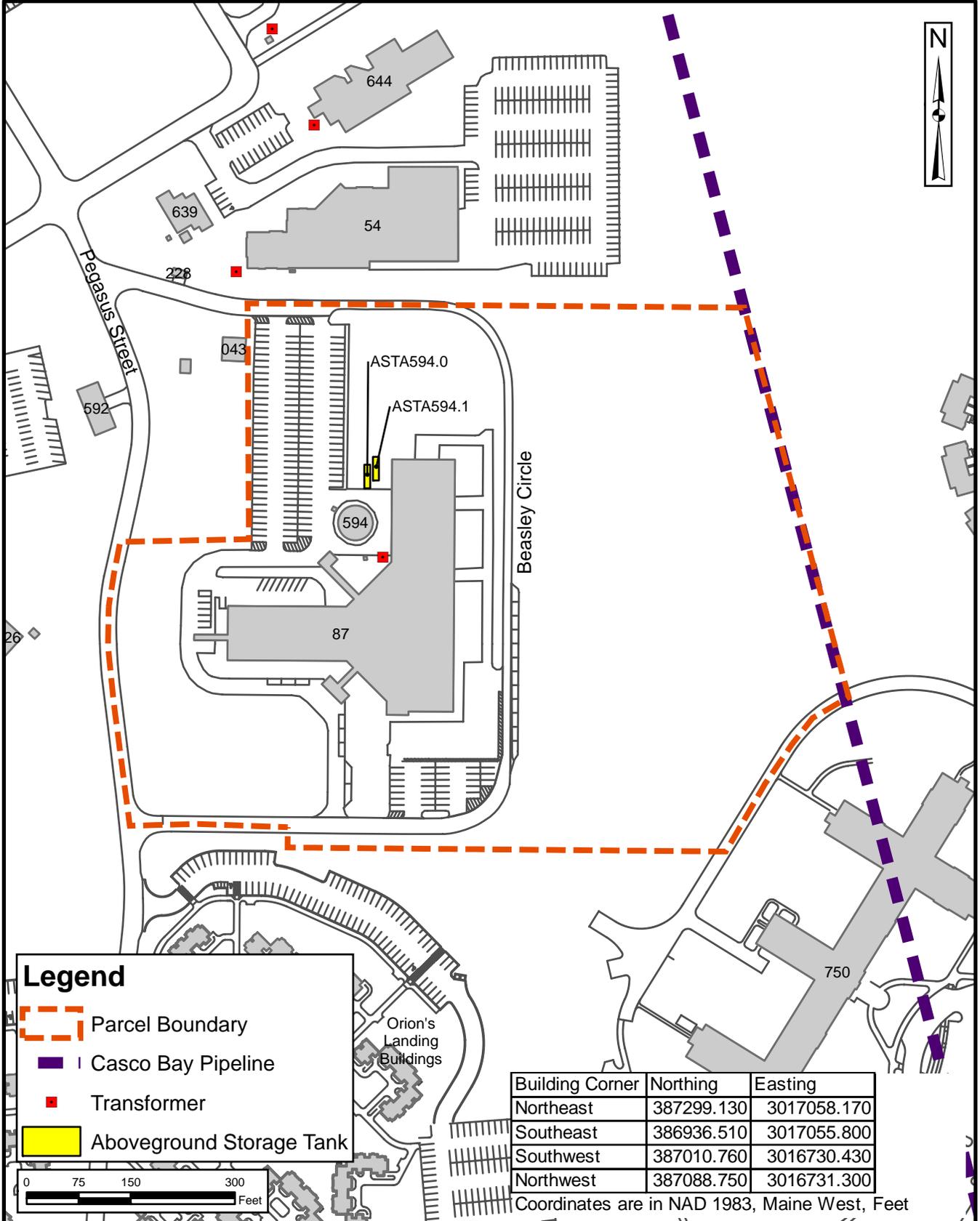
Notes:  
<sup>(1)</sup> Sample prefix "NASB" is not shown.  
 Wipe sample surface area: 10 cm by 10 cm  
 WTC Source: Table A-3 Settled Dust Screening Values and Supporting Toxicity Criteria from World Trade Center Indoor Environment Assessment: Selecting Contaminants of Potential Concern and Setting Health-Based Benchmarks, May 2003  
 µg/ft<sup>2</sup> micrograms per square foot  
 -- no criteria available  
 na not analyzed  
 NA not applicable  
 ND not detected  
 U not detected (with associated detection limit)



Tetra Tech NUS, Inc.

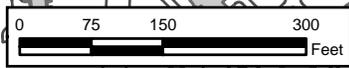
SITE LOCATION MAP  
 BUILDING 87 - ASWOC CPRW 5  
 RCRA PARTIAL CLOSURE REPORT  
 NAVAL AIR STATION BRUNSWICK, MAINE

SCALE AS NOTED	
FILE I:\NASB_BLDG_87_LOCUS.MXD	
REV 0	DATE 06/22/10
FIGURE NUMBER 1	



**Legend**

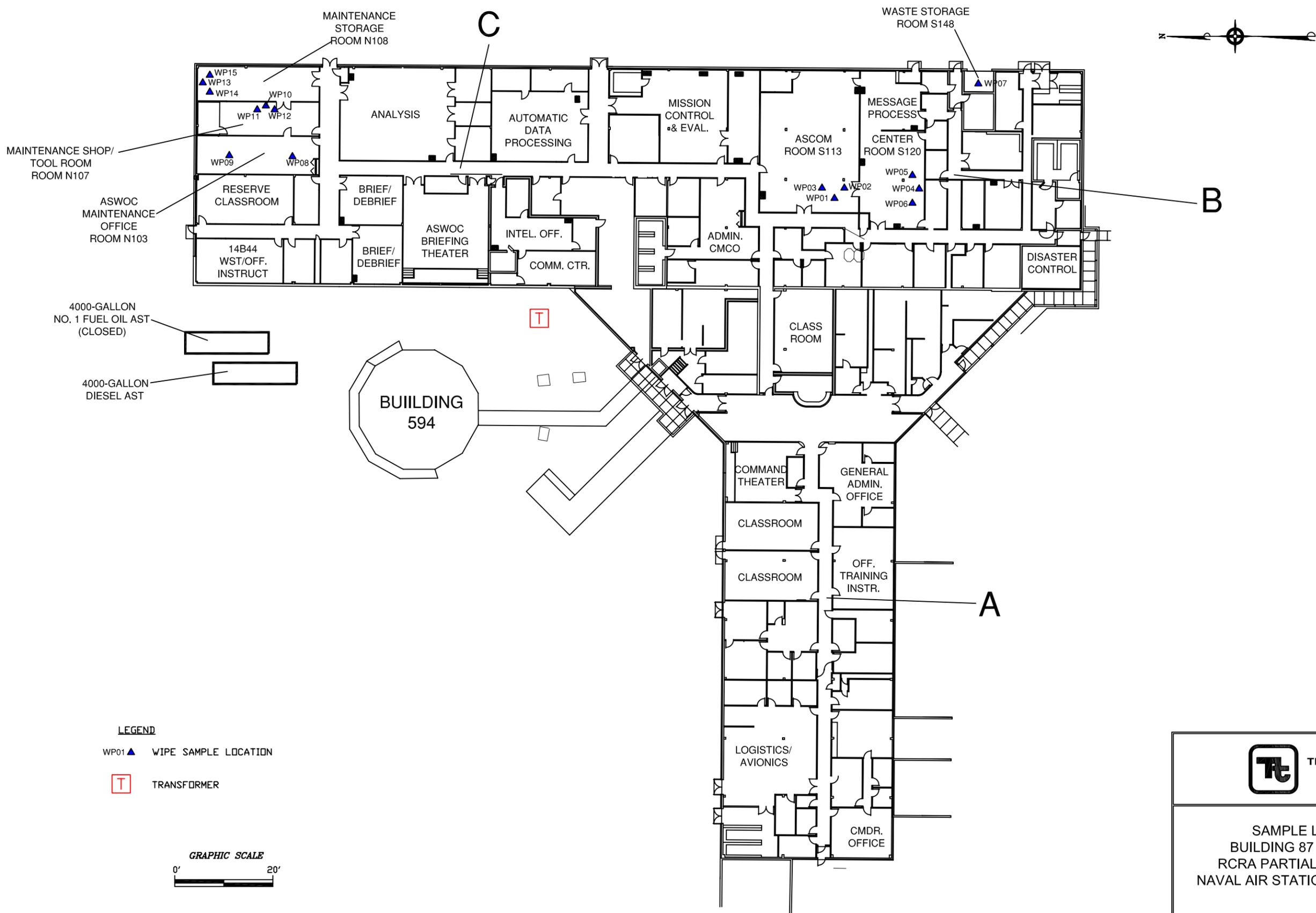
- Parcel Boundary
- Casco Bay Pipeline
- Transformer
- Aboveground Storage Tank



Tetra Tech NUS, Inc.

**SITE LOCATION MAP**  
**BUILDING 87 - ASWOC PARCEL**  
**RCRA PARTIAL CLOSURE REPORT**  
**NAVAL AIR STATION BRUNSWICK, MAINE**

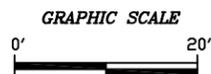
SCALE AS NOTED	
FILE	
VCP_DR\NASB_BLDG_87_SITE_MAP.MXD	
REV	DATE
0	07/12/10
FIGURE NUMBER	
FIGURE NO. 2	



**LEGEND**

WP01 ▲ WIPE SAMPLE LOCATION

Ⓣ TRANSFORMER



TETRA TECH NUS, INC.

SAMPLE LOCATION MAP  
BUILDING 87 - ASWOC PARCEL  
RCRA PARTIAL CLOSURE REPORT  
NAVAL AIR STATION BRUNSWICK, MAINE

FILE \\.\NASB_BLDG_87_FP.DWG	SCALE AS NOTED
FIGURE NUMBER FIGURE NO. 3	REV DATE 0 07/08/10

**HWSA INSPECTION FORM  
HAZARDOUS WASTE STORAGE AREAS CLOSURE  
NAS BRUNSWICK  
BRUNSWICK, MAINE  
CTO WE22**

**Inspection Date: 6/03/10**

**Personnel: Chelsea Fellows / James Forrelli, P.E. / Mindi Messmer**

**Weather: Cloudy, Showers, 60s**

**GENERAL BUILDING INFORMATION / USES**

Building Name: Building 87 – ASWOC / Wing 5 Administration

Function: Communications / Administration / Offices / Classrooms

Size: 52,513 SF

Year of Construction: 1988

Building 87 is located at NASB Brunswick on Beasley Circle adjacent to Buildings 54 (Applied Instr. Building) and 592 (Vet. Clinic). It was constructed in 1988 and served as a communications and administration building for its entire history. Building 87 consists of a 52,513 SF multi-room single level building on a slab foundation. Building 594 (Radar Tower / Mech at ASWOC) is associated with Building 87.

Building 87 was used only as a communications and administrative office space.

Building 87 was heated by a natural gas boiler.

**HWSA INSPECTION / CONDITION**

- No record of hazardous waste stored at Building 87.
- At the time of inspection, Building 87 was vacant and in good condition.
- The interior consisted of 3 wings, each with multiple rooms (Wings A, B, and C). Wing A consisted of administrative offices and classrooms. A mechanical room containing an air handling unit, back-up battery and electrical unit was also present. Wing B consisted of offices, Telecommunications rooms, message processing centers, and electrical rooms. Wing C consisted of communications offices, briefing theater, training rooms and electrical repair rooms.
- No evidence of current or past hazardous waste generation activities was observed. Electrical repair rooms may have generated hazardous waste but it was reused so no hazardous waste was turned into the Hazardous Waste Manager.
- Electrical repair work benches where soldering possibly occurred was identified in Rooms S120, S113, N108, and N104.
- No signs of a past release (staining, unusual odors, stressed vegetation, etc.) were observed.
- No modifications to the structure, which may conceal signs of a past release, were observed.

**POTENTIAL PCB-CONTAINING TRANSFORMERS**

No transformer that could be a potential source of polychlorinated biphenyls (PCBs) contamination in the event of a leak was observed. One non-PCB transformer is currently associated with Building 87 (SN-866004108).

# BUILDING 87

## APPLICABLE REPORTS / DOCUMENTS

Available historical aerial photos were reviewed for past uses:

1943 map – Vacant.

1946 map – One unmarked tower and one unmarked building are shown on Building 87 footprint. Parcel is labeled "Operation (AF)" and "(AF)."

1952 map – Same as 1946 map.

1956 map – Buildings 598, 595 and 594 (Air Force Towers) and Buildings 596, 597, 612, and 593 present on Building 87 footprint.

1957 map – Entire parcel not shown on map however Buildings 593, 596, 598, and 612 are shown on the approximate Building 87 parcel.

1958 aerial – Buildings 598, 595 and 594 (Air Force Towers) and Buildings 596, 597, 612, and 593 present on Building 87 footprint.

1962 map – Several buildings present on Building 87 footprint. Three towers (Buildings 594, 595, and 598) and Buildings 593 and 596 shown on Building 87 footprint. Building 596 is labeled "ASWOC Communications."

1975 map – Same as 1962 map except another label for Building 597 is shown but location is unclear.

1978 aerial – same as 1958 aerial.

1978 map – Buildings on Building 87 parcel are not shown on the Building 87 footprint.

1979 map – Buildings shown are same as 1962 map.

1981 aerial – same as 1958 aerial.

1983 map – Building 87 and likely Building 594 are shown on Building 87 footprint.

1984 aerial – same as 1978 aerial except only two towers are visible (594 and 598) on Building 87 footprint.

1989 map – Same as 1983 map.

1989 aerial – Buildings 87, 594 and 43 (on adjacent parcel)

1993 aerial – Buildings 87, 594 and 43 (on adjacent parcel) and associated parking area are visible.

1997 aerial – Buildings 87, 594 and 43 (on adjacent parcel) and associated parking area are visible.

2006 map – Same as 1989 map except Buildings 43 and 220 are also shown (adjacent parcel).

No underground storage tanks (USTs) or above ground storage tanks (ASTs) are registered at Building 87. However, two above ground storage tanks (ASTs) are registered at Building 594 (associated tower); one 4,000 gallon tank of diesel fuel for the generator (A594.0) and one 4,000 gallon tank of #1 fuel oil for heating (A594.1). The ASTs were installed in 1996 and 1999 respectively and the generator fuel oil tank was officially closed on 4/23/09.

## HAZARDOUS WASTE STORAGE RECORDS

No hazardous waste was historically stored at Building 87 according to NAS Brunswick Hazardous Waste Manager. D. Bruce Smith.

## MISCELLANEOUS NOTES

The Tetra Tech personnel were accompanied on the inspection by D. Bruce Smith Hazardous Waste Manager.

(SEE ATTACHED SITE SKETCH AND HWSA SKETCH)

(SEE ATTACHED PHOTOGRAPHS)

INSPECTOR SIGNATURE: Chelsea Fellows 

**PHOTOGRAPHS**



No. 1 Building 87 ASWOC Parcel – NAS Brunswick  
Building 87 southwest elevation; Building 594 in left background

June 3, 2010



No. 2 Building 87 ASWOC Parcel – NAS Brunswick  
Room W108 Theater (Segment A)

June 3, 2010

**PHOTOGRAPHS**



No. 3 Building 87 ASWOC Parcel – NAS Brunswick June 3, 2010  
Transformer located to the northwest side of Building 87



No. 4 Building 87 ASWOC Parcel – NAS Brunswick June 3, 2010  
Building 594 diesel AST (left) and closed No. 1 fuel oil AST (right) located northwest of Building 87

**PHOTOGRAPHS**



No. 5 Building 87 ASWOC Parcel – NAS Brunswick June 16, 2010  
Building 87 Room N107 (Segment C) work bench area wipe sample locations



No. 6 Building 87 ASWOC Parcel – NAS Brunswick June 3, 2010  
Building 87 Room S120 (Segment B) - work bench wipe sample area

**PHOTOGRAPHS**



No. 7 Building 87 ASWOC Parcel – NAS Brunswick June 3, 2010  
Room N107 (Segment C) - work bench wipe sample area



No. 8 Building 87 ASWOC Parcel – NAS Brunswick June 16, 2010  
Building 87 Room S148 (Segment B) waste storage area wipe sample location