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NSA MID SOUTH  
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STATEMENT OF BASIS SOLID WASTE MANAGEMENT UNIT 61 BUILDING N 26 FORMER  
PRINTING SHOP MILLINGTON SUPPACT TN

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**Statement of Basis  
Solid Waste Management Unit 61  
Former Printing Shop, Building N-26  
Naval Support Activity Mid-South  
Millington, Tennessee**

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**INTRODUCTION**

This Statement of Basis contains a summary of the location, operating history, contaminants detected, and remedy selected for Solid Waste Management Unit (SWMU) 61, Former Printing Shop, Building N-26, Naval Support Activity Mid-South, Millington, Tennessee. It should be noted that all analytical data for soils was compared to Region III Risk Based-Screening Criteria (RBCs). Groundwater analytical data was compared to Maximum Contaminant Levels (MCLs). Where there was no groundwater MCL, Region III RBC's were used for comparison.

**SPECIFIC SITE INFORMATION**

SWMU 61 (Figure 1), was approximately 250 feet east of Helena Avenue (formerly 8<sup>th</sup> Ave.), adjacent to the east side of former Building N-26 on the NSA Mid-South's Northside. SWMU 61 was a concrete pad area reportedly used as a cleaning area for printing equipment from Building N-26, which was demolished in July 1997. The sides of the pad sloped toward two central drains that discharged into the sewer.

Previous investigations at SWMU 61 include the *RCRA Facility Assessment* (RFA; ERC/EDGE, 1990) and the *Confirmatory Sampling Investigation* (CSI; EnSafe, 2000). Due to elevated petroleum hydrocarbon concentrations in surface soil, a removal action was subsequently conducted in July 1997.

**SUMMARY OF CONTAMINANT EVALUATION**

The primary objective of the CSI was to determine whether a release to soil had occurred at SWMU 61. The soil investigation consisted of both surface (0-1 foot depth) and subsurface (3-4 foot depth) intervals.

**Soils**

Eleven soil samples were collected from 6 locations (6 from the surface and 5 from the subsurface) in and around the former printing shop, as shown on Figure 2. Contaminant concentrations were compared to the United States Environmental Protection Agency's (USEPA's) risk-based screening levels and site background reference concentrations, where applicable. Because no risk-based screening levels exist for TPH, TDEC soil cleanup levels were used for comparison. Lead was detected above the USEPA's soil cleanup level of 400 ppm in surface sample 061S0002 at 403 ppm. Benzo(a)pyrene was the only detected organic contaminant that exceeded its residential risk-based screening level (88 parts per billion [ppb]) but below the industrial risk-based screening level (780 ppb) in four surface samples ranging

from 110 ppb to 370 ppb, as shown in Table 1. TPH was detected at surface sample location 061S0001 at a concentration of 3,600 ppm, which exceeded the most conservative TDEC soil cleanup level of 100 ppm.

Human health risk at SWMU 61 was assessed using three scenarios: site worker, child trespasser, and future site resident. Benzo(a)pyrene and lead were the only compounds requiring evaluation and comparison to risk-based screening levels. This evaluation did not identify any chemicals of concern and concluded that soil poses no risk under the three scenarios. However, the CSI recommended that TPH-contaminated soil be removed to within TDEC-approved levels.

**Table 1  
Benzo(a)pyrene Soil Detections**

<b>Sample ID</b>	<b>Depth</b>	<b>Concentration (ppb)<sup>a</sup></b>	<b>Residential RBC (ppb)<sup>a</sup></b>	<b>Industrial RBC (ppb)<sup>a</sup></b>
061S0001	1'	370	88	780
061S0002	1'	160	88	780
061S0003	1'	110	88	780
061S0005	1'	190	88	780

Notes: <sup>a</sup> parts per billion (ppb)  
RBC Risk-based concentration

In July 1997, approximately 18 cubic yards of soil were excavated to about 2 feet deep. Excavation areas are shown on Figure 2. All petroleum-impacted soils were removed to within TDEC-acceptable levels.

### **GROUNDWATER**

Since soil contaminants were limited primarily to surface soil and they were removed as part of the TPH removal action, the potential leaching concern to groundwater was eliminated. Therefore, no groundwater monitoring was conducted during the CSI.

### **SELECTED REMEDY**

There are no site-related contaminants that would pose an excessive risk to an unrestricted reuse of the property. Therefore, no further action is the recommended remedy for SWMU 61, Former Printing Shop, Building N-26.

### **REFERENCES**

EnSafe Inc. (2000, April 28). *Confirmatory Sampling Investigation Report, Assemblies G and H, Naval Support Activity Mid-South, SWMUs 23, 24, 41, 43, 47, 48, 49, and 61. Revision 2.* Memphis, Tennessee.

ERC/EDGE. (1990, September). *RCRA Facility Assessment (RFA), NAS Memphis.* Nashville, Tennessee.

## FIGURES FOR SWMU 61

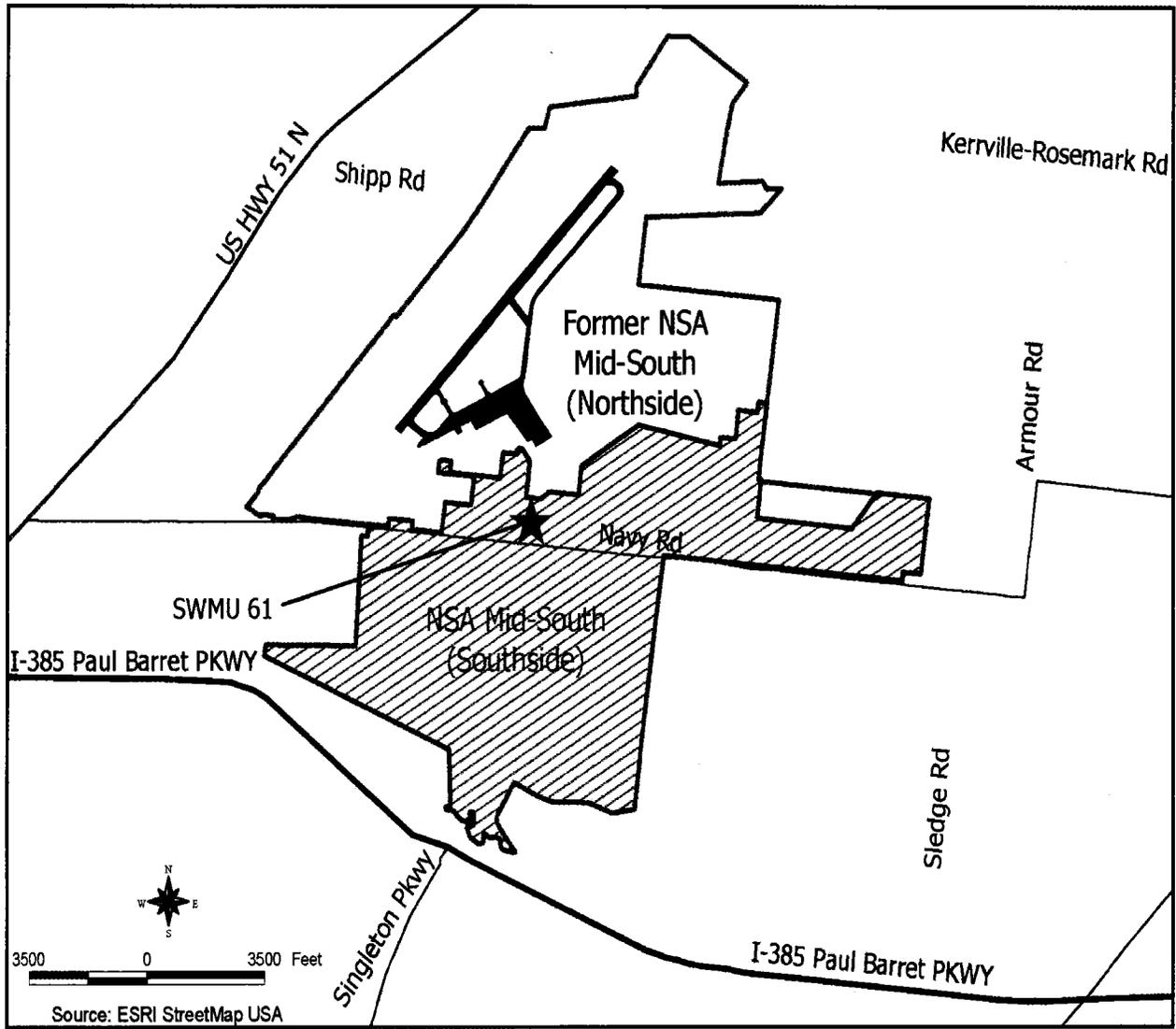
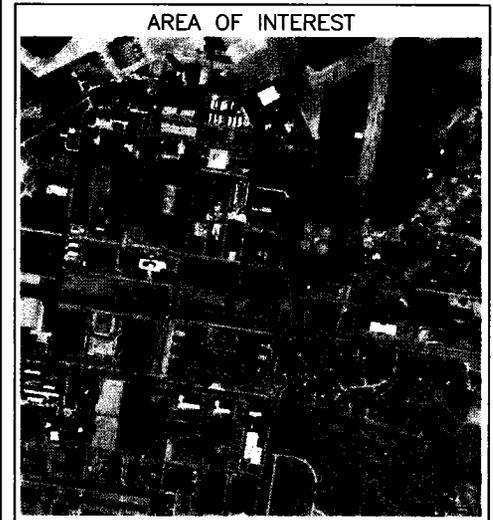
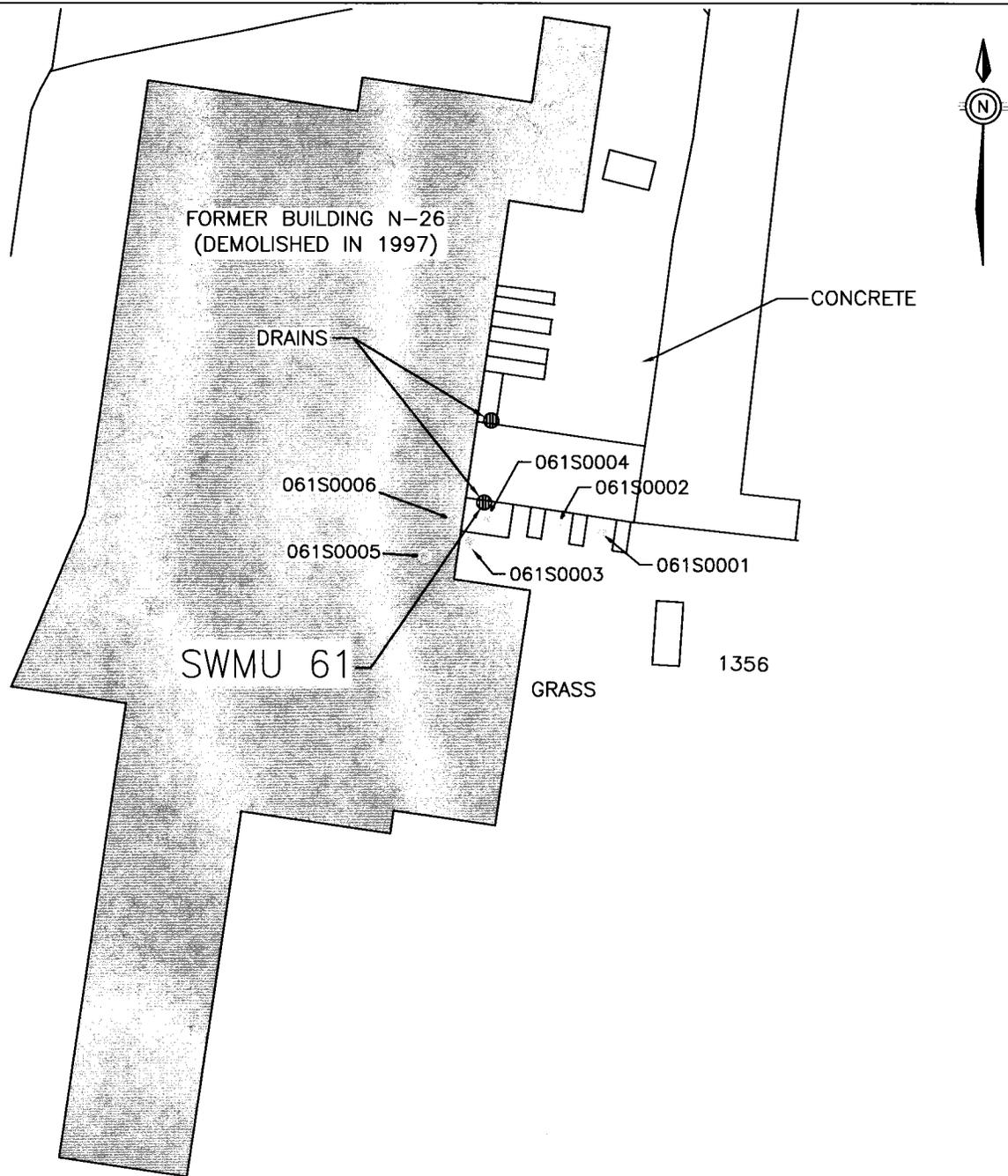


Figure 1: SWMU 61 Location at NSA Mid-South, Millington, Tennessee  
Former Printing Shop, Building N-26

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K:\CAB\094\094-001\094001D013\_SWMU\_61-FIG 2-STATEMENT OF BASIS\_SOIL SAMPLE LOCATIONS.DWG



- LEGEND
- SOIL SAMPLE LOCATION
  - NSA MID-SOUTH BOUNDARY
  - AREA OF INVESTIGATION
  - BUILDING

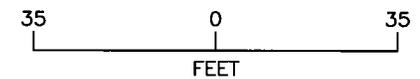


FIGURE 2  
SWMU 61 STATEMENT OF BASIS  
SOIL SAMPLE LOCATIONS