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NSA MID SOUTH  
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STATEMENT OF BASIS SOLID WASTE MANAGEMENT UNIT 23 S 8 UNDERGROUND FUEL  
TANK MILLINGTON SUPPACT TN

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**Statement of Basis  
Solid Waste Management Unit 23  
S-8 Underground Fuel Tank  
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) 23, UST S-8, Fire Station No. 1, 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) except analysis for total petroleum hydrocarbons (TPH) which was compared to the state regulatory standard. Groundwater analytical data was compared to Maximum Contaminant Levels (MCLs). Where there was no groundwater MCL, Region III RBC's were used for comparison. TPH in groundwater was compared to the state regulatory standard.

**SPECIFIC SITE INFORMATION**

Located south of Building S-8 on NSA Mid-South's Southside, SWMU 23 (Figure 1) is the underground storage tank (UST) reportedly used for storage for No. 2 fuel oil and/or diesel fuel from 1944 through 1987. SWMU 23 and surrounding areas are of low relief, generally draining south and west. During a 1992 attempt to remove the UST, the UST could not be located; the excavation was backfilled and compacted. Additional investigation and geophysical data suggested anomalies nearby but did not indicate the presence of a UST.

**SUMMARY OF CONTAMINANT EVALUATION**

SWMU 23 was initially investigated as part of the RFA at NSA Mid-South, from which a report was produced in 1990. No visual evidence of a release was identified in 1990 (ERC/EDGE, 1990) and in 1992, an attempt to locate and remove the UST was completed, though unsuccessful. The 1992 closure report (National Salvage, July 2, 1992) discussed the attempt to locate the UST near Building S-8, as contractors excavated 11 feet of apparently disturbed soil but found no evidence of contamination. A subsequent geophysical survey was completed but no anomalies suggestive of an in-place metal UST were identified.

As described in the Confirmatory Sampling Investigation (CSI), an investigation was conducted at SWMU 23 to determine if a release had occurred. Figure 2 shows the SWMU 23 sample locations.

**Soils**

During the CSI, five soil samples were collected in the suspected area of the UST. Surface soil (0-1 foot deep) was collected from locations 023X0004 and 023X0006; subsurface soil (12-15

feet deep) was collected from locations 023X0003, 023X0005, and 023X0007. Since the depth of the UST was unknown, the sampling interval was estimated based on the 500-gallon UST described in the 1990 RFA report. Surface soil samples were submitted for volatile organic compounds (VOCs), semi volatile organic compounds (SVOCs), chlorinated pesticides/polychlorinated biphenyls (PCBs), organophosphorus pesticides, chlorinated herbicides, metals, cyanide, Total Petroleum Hydrocarbons (TPH), Diesel Range Organics (DRO), and Gasoline Range Organics (GRO). Subsurface soil was analyzed for VOCs, TPH-GRO, and TPH-DRO. Among the SWMU 23 soil samples collected, none exceeded relevant action levels.

### **Groundwater**

During the CSI, at locations 023X0001 and 023X0002, groundwater samples were collected from the fluvial deposits (i.e., sand and gravel) aquifer from a depth of approximately 50 feet below ground surface. The samples were analyzed for VOCs – the contaminants suspected of being the most. Sample locations are shown on Figure 2. VOCs were not detected at either location.

### **SELECTED REMEDY**

Investigations at SWMU 23 indicate no release of contaminants above relevant action levels. Based on the available information, the proposed remedy for SWMU 23 is no further action (NFA).

### **REFERENCES**

- EnSafe Inc. (2000, April 28). *Confirmatory Sampling Investigation Report, Assemblies G and H – SWMUs 23, 24, 41, 43, 47, 48, 49, and 61, NSA Memphis, Millington, Tennessee. Revision: 2.* Memphis, Tennessee.
- EnSafe/Allen & Hoshall. (1997, July 28). *Technical Memorandum. Geophysical Investigation for USTs, Buildings N-5 and N-6 and SWMU 23, NSA Memphis.* Memphis, Tennessee.
- ERC/EDGE. (1990, September). *RCRA Facility Assessment (RFA), NAS Memphis.* Nashville, Tennessee.
- National Salvage. (1992, July 2). *UST Closure Report (SWMU 23).*
- U.S. Environmental Protection Agency. (1996). *Drinking Water Regulations and Health Advisories*, October 1996. USEPA Office of Water: Washington, D.C.

# FIGURES FOR SWMU 23

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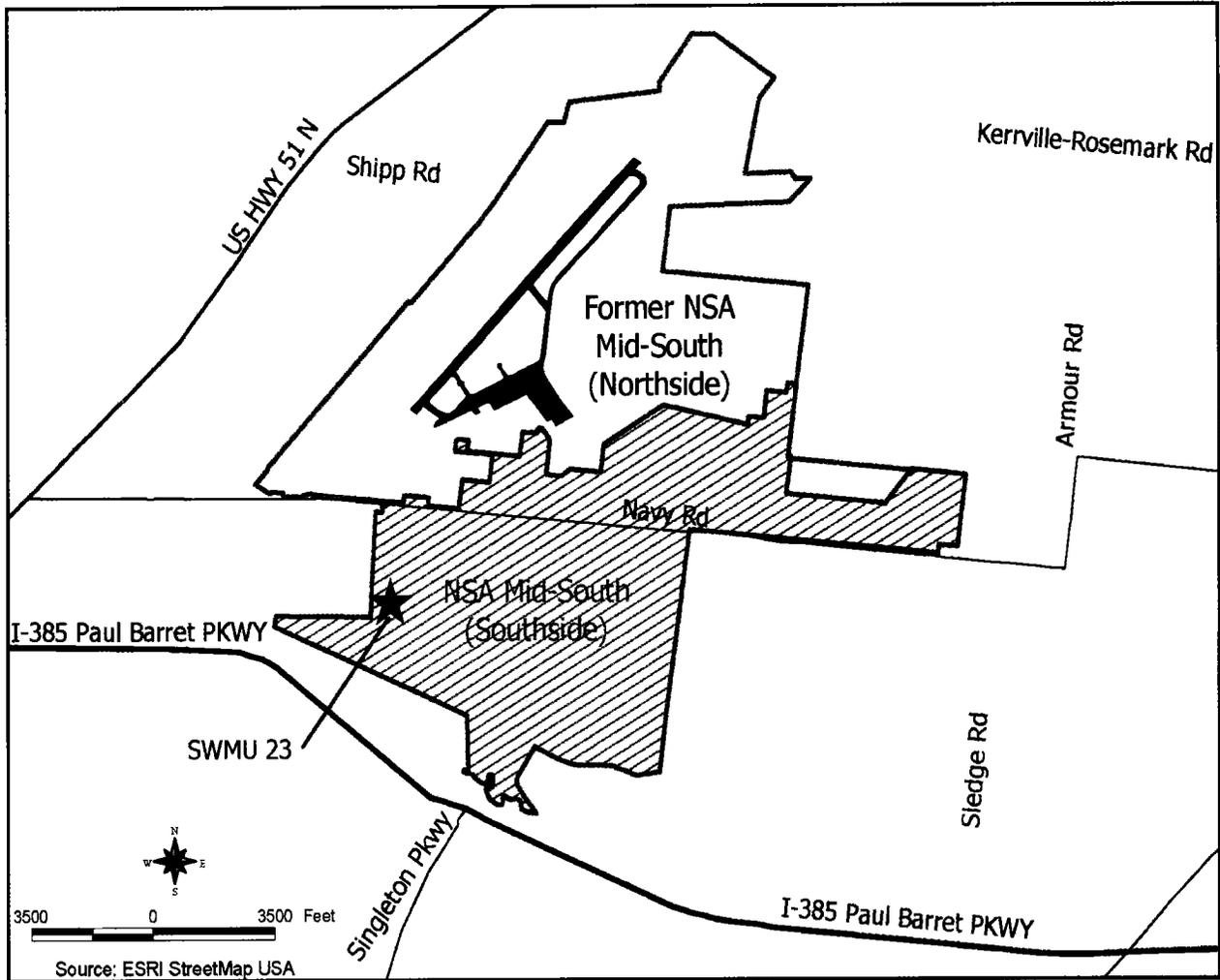
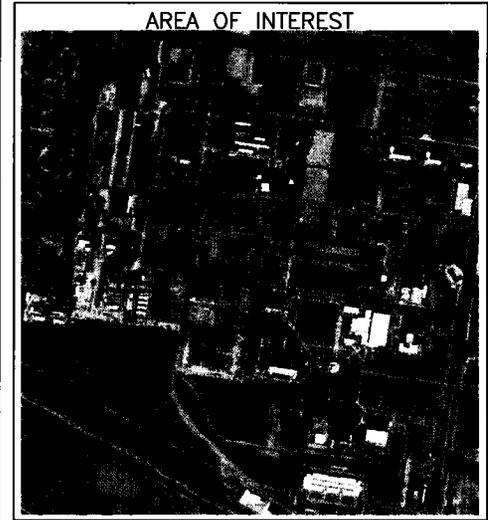
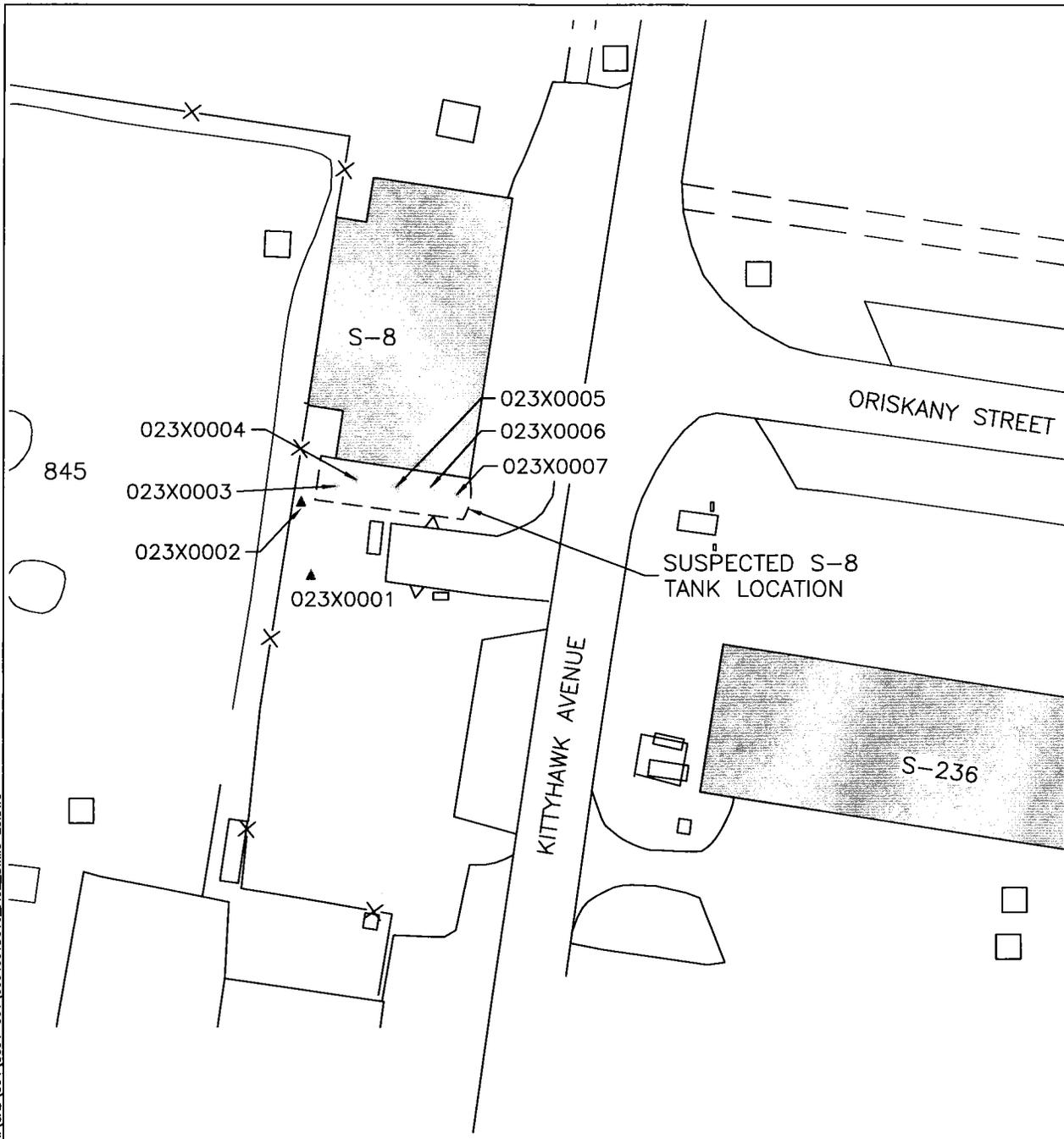


Figure 1: SWMU 23 Location at NSA Mid-South, Millington, Tennessee  
S-8 Underground Fuel Tank

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

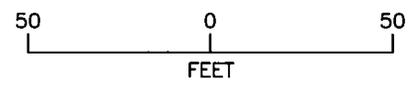


FIGURE 2  
SWMU 23 STATEMENT OF BASIS  
SAMPLE LOCATION MAP