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NSA MID SOUTH
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STATEMENT OF BASIS SOLID WASTE MANAGEMENT UNIT 41 SALVAGE YARD NUMBER
2 MILLINGTON SUPPACT TN

**Statement of Basis
Solid Waste Management Unit 41
Salvage Yard Number 2
Naval Support Activity Mid-South
Millington, Tennessee**

INTRODUCTION

This Statement of Basis contains a summary of the location, operating history, contaminants detected, and remedy selected for Solid Waste Management Unit (SWMU) 41, Salvage Yard Number 2, Naval Support Activity Mid-South, Millington, Tennessee.

SPECIFIC SITE INFORMATION

SWMU 41 is a 1.2-acre asphalt-covered storage yard located near the southwest corner of NSA Mid-South (Figure 1). The Defense Reutilization and Management Office used the area to store scrap metal, abandoned equipment (planes, helicopters, etc.), tires, furniture, and batteries. Operation of SWMU 41 dates back to 1944. Though the area was designated for non-hazardous storage, it may have also received hazardous materials.

Subsequent investigations of SWMU 41 include the *Confirmatory Sampling Investigation* (CSI; EnSafe, 2000) and the *RCRA Facility Investigation* (RFI; EnSafe, 2001), which led to a soil removal through a *Voluntary Corrective Action* (VCA; EnSafe 2001).

SUMMARY OF CONTAMINANT EVALUATION

Soil and groundwater sample locations from the CSI and RFI are provided in Figures 2 and 3, respectively. Soil characterization consisted of four surface soil samples (locations 041S0004, 041S0007, 041S0011, and 041S0012). Groundwater characterization initially consisted of eight samples — four direct push shallow groundwater samples (041G0002, 041G0005, 041G0008, 041G0010) from the upper alluvial clays/silts (approximately 27 feet below land surface) and four deeper samples (041G0001, 041G0003, 041G0006, 041G0009) from the deeper alluvial sands and gravels (50 feet below land surface). As a result of a volatile organic compound (VOC) detected in the CSI, four monitoring wells (041G01DA through 041G04DA) were constructed during the RFI to screen the deeper alluvial sands and gravels.

Soils

The polychlorinated biphenyl (PCB) Aroclor-1260 was detected in two surface soil samples at concentrations above the U.S. Environmental Protection Agency's (USEPA) residential risk-based concentration (RBC) of 320 parts per billion (ppb) but below the industrial RBC of 2,900 ppb. Locations 41X0007 and 41X0012 contained 1,200 ppb and 710 ppb Aroclor-1260, respectively. Sample location 041X0012 detected TPH at 140 ppm which exceeds TDEC's most stringent cleanup criteria of 100 ppm (EnSafe, 2000).

TPH-contaminated soil was removed from the site through a VCA removal action in 2001. An area measuring 5 feet square, with a depth of 2 feet, was removed. Confirmation samples collected from the excavation bottom and sidewalls contained TPH concentrations below the TDEC cleanup standard of 100 ppm (EnSafe, 2001).

As part of the RFI, risks to human health and the environment from the contaminants (Arcolor-1260) identified at SWMU 41 were evaluated using human health risk assessments, which were developed in accordance with existing USEPA and TDEC methods. Human health risk at SWMU 41 was assessed using four land-use scenarios: hypothetical resident, construction worker, site worker, and trespasser. No chemicals of concern were identified in soil for the four land-use scenarios. Therefore, the soil poses no risk to future users of the property (EnSafe, 2001).

Groundwater

The only contaminant detected in groundwater was 1,2-dichloroethane (1,2 DCA). Direct Push (DPT) sample location 041G0008, sampled in the upper alluvial clays and silts, contained 1,2-DCA at 59 ppb, above the drinking water maximum contaminant level (MCL) of 5 ppb and USEPA's tap-water RBC of 0.12 ppb.

The four RFI monitoring wells that were constructed to delineate the extent of contamination contained no contaminants above relevant action levels. Additional post-RFI monitoring found that 1,2-DCA was absent in deeper alluvial groundwater (EnSafe, 2005).

SUMMARY

And as a result of the VCA, no chemicals being identified in the human health risk assessment as contaminants of concern, and the absence of 1,2-DCA in post-RFI groundwater monitoring, No Further Action was recommended for the site in a Technical Memorandum submitted to TDEC (EnSafe, 2005). TDEC concurred with the recommendation on June 21, 2005.

SELECTED REMEDY

As a result of the risk assessment performed on soils at the site, the VCA and the absence of 1,2-DCA in post-RFI groundwater monitoring, No Further Action is recommended as the Final Remedy for SWMU 41, Salvage Yard Number 2.

REFERENCES

EnSafe Inc. (2000, April 28). *Confirmatory Sampling Investigation Report; Assemblies G & H – SWMUs 23, 24, 41, 43, 47, 48, 49, and 61. NSA Mid-South – Millington, TN.* Revision 02. Memphis, Tennessee.

EnSafe Inc. (2001, June 29). *Voluntary Corrective Action Report, RCRA Facility Investigation, NSA Mid-South, Petroleum-Contaminated Soil Removal, Buildings S-362/SWMU 65, S-235, S394, N-114/SWMU 4, N-1211, N-105, N-108, S-203, SWMU 41, SWMU 43, SWMU 47, SWMU 48, and SWMU 49.* Revision 1. Memphis, Tennessee.

EnSafe Inc. (2001, November). *Assemblies G and H RFI Report. NSA Mid-South.* Revision: 1. Memphis, Tennessee.

U.S. Environmental Protection Agency. (2005). *OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)*. EPA530-D-02-004. November 2002 and updates. Retrieved September 2005 from <http://www.epa.gov/epaoswer/hazwaste/ca/>

U.S. Environmental Protection Agency. (May 20, 2008). Regional Screening Levels for Chemical Contaminants at Superfund Sites. http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm

FIGURES FOR SWMU 41

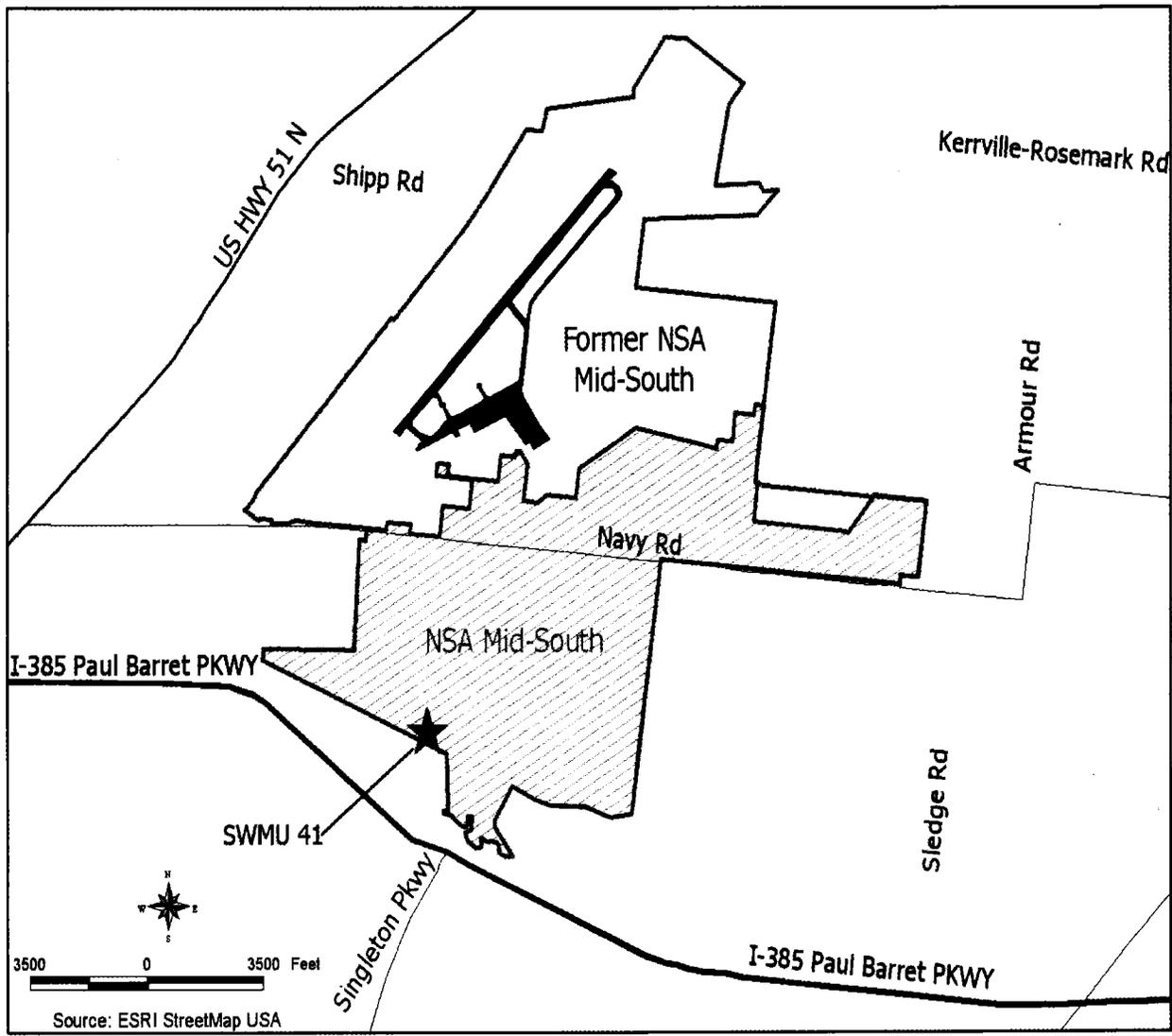
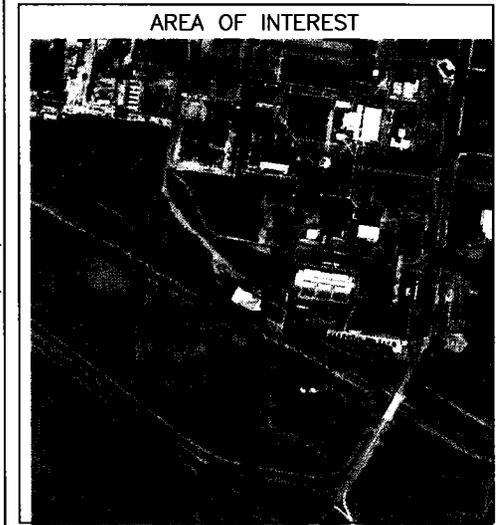
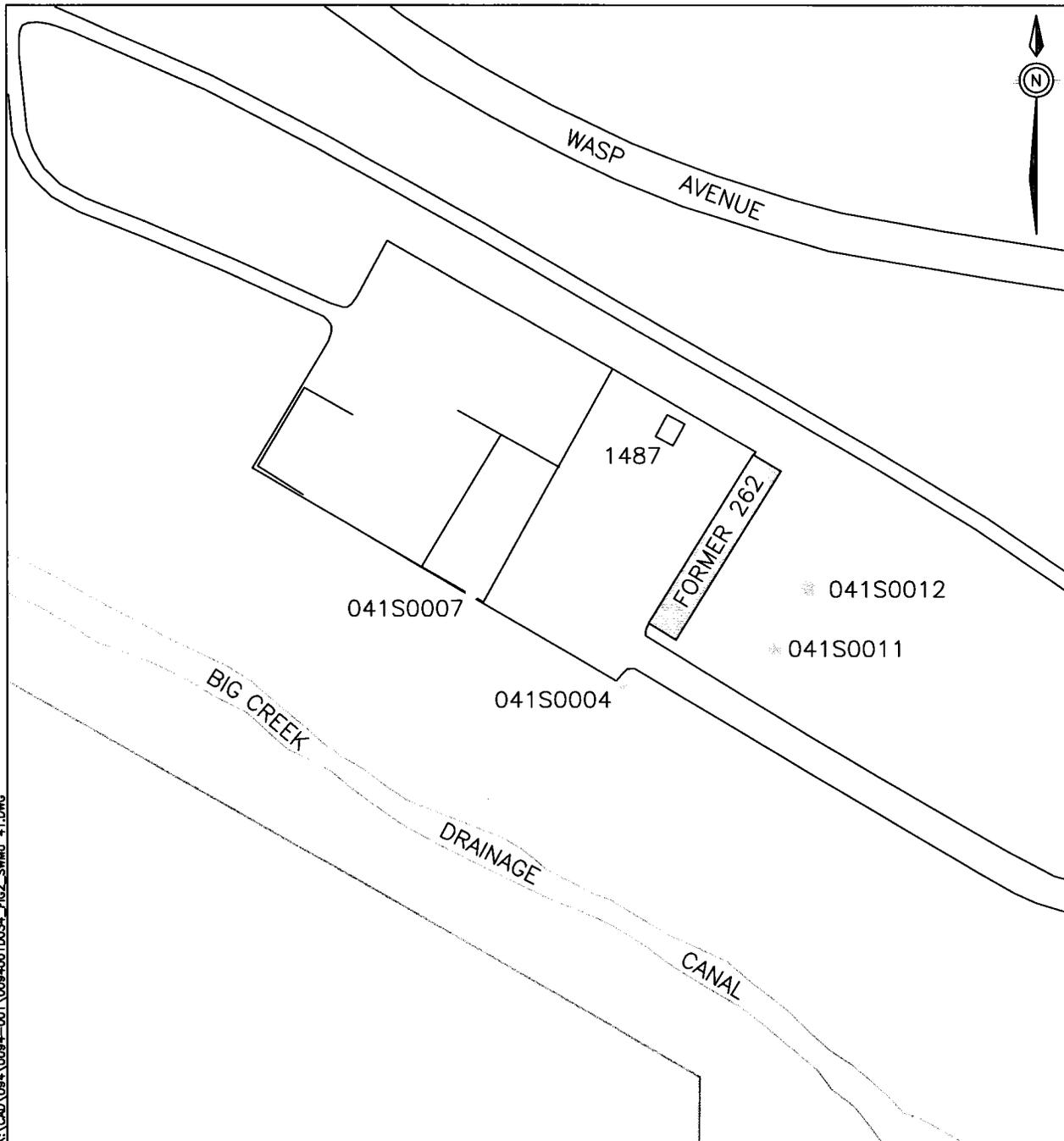


Figure 1: SWMU 41 Location at NSA Mid-South, Millington, Tennessee
Salvage Yard Number 2

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LEGEND

- * - SOIL SAMPLE LOCATION
- - AREA REMOVED DURING VCA
- ▭ - BUILDING
- - NSA MID-SOUTH BOUNDARY
- - AREA OF INVESTIGATION

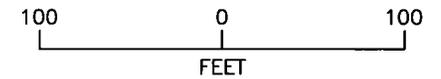
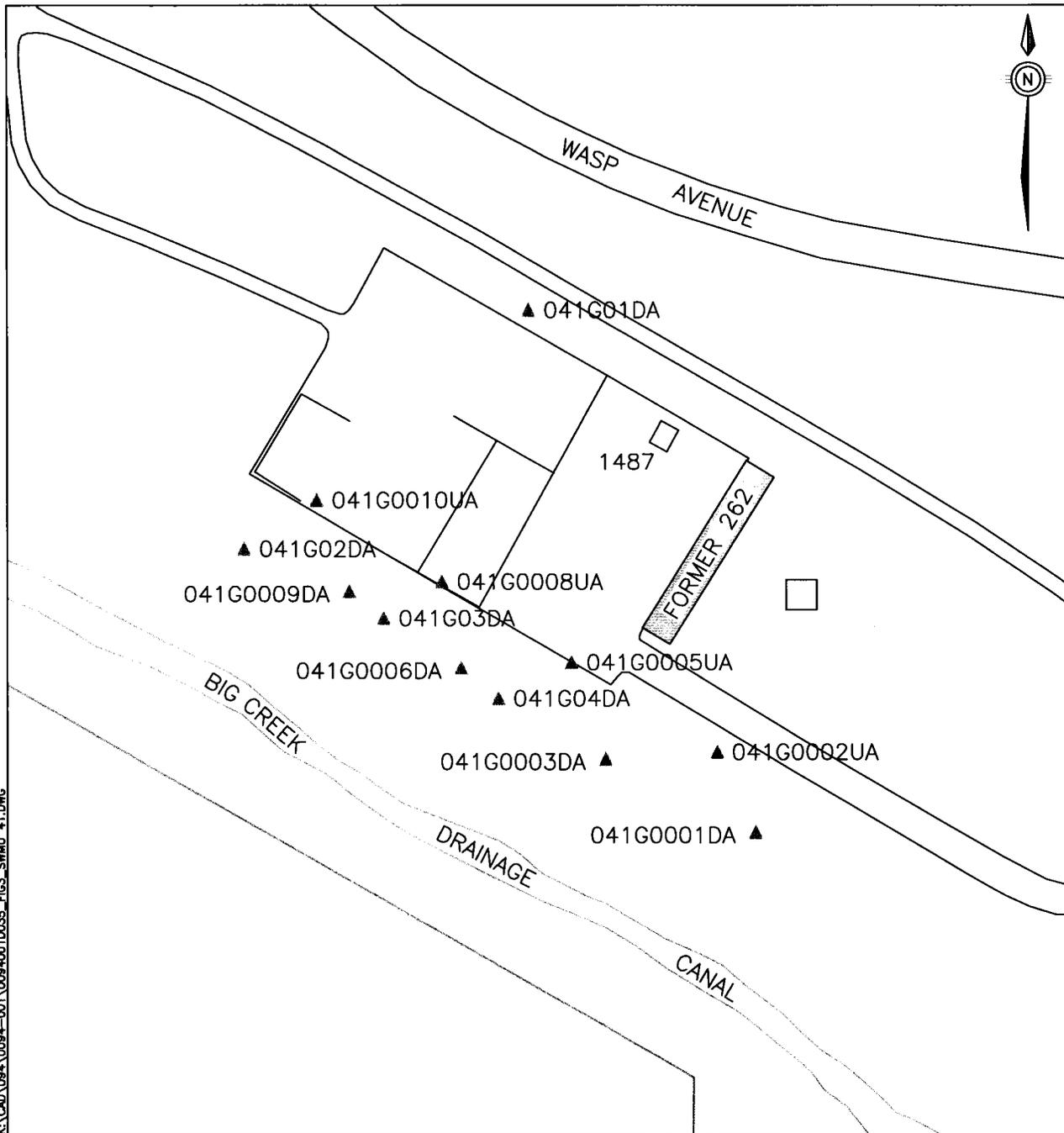
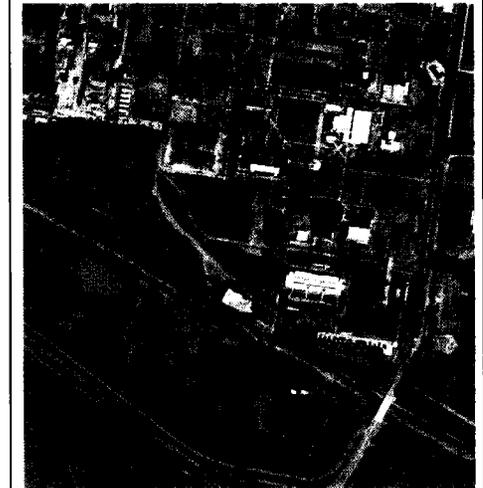


FIGURE 2
STATEMENT OF BASIS
SWMU 41
SOIL SAMPLE LOCATIONS

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AREA OF INTEREST



LEGEND

- ▲ - GROUNDWATER SAMPLE LOCATION
- - AREA REMOVED DURING VCA
- ▨ - BUILDING
- - NSA MID-SOUTH BOUNDARY
- - AREA OF INVESTIGATION

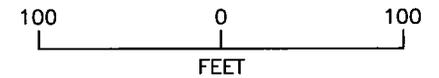


FIGURE 3
STATEMENT OF BASIS
SWMU 41
GROUNDWATER SAMPLE LOCATIONS