

**NAVY RESPONSE TO EPA PRELIMINARY COMMENTS
DATED JANUARY 9, 2007 ON THE
DRAFT PHASE I RCRA FACILITY INVESTIGATION WORK PLAN
SWMU 9 AREA B, TANK 214 AREA
DECEMBER 4, 2006
NAVAL ACTIVITY PUERTO RICO
CEIBA, PUERTO RICO**

I. GENERAL COMMENTS

1. According to the second paragraph in Section 1.2, the objectives of the investigation are limited to determining the nature and extent of the petroleum-impacted soil and any impacts on the groundwater and estuarine wetland area located downgradient of the tank area. The scope of work outlined in the work plan (WP) appears to be adequately comprehensive to satisfactorily and expeditiously accomplish this objective with regard to petroleum-impacted soil in the northwestern corner of solid waste management unit (SWMU) 9. However, additional discussion is needed regarding potential petroleum impacts to soil and groundwater in the vicinity of test pit location 9TP05 at the southeast corner of SWMU Area B. As shown on Figure 2-3, diesel range organics were reported at 15,000 milligrams per kilogram (mg/kg) in this location during the Phase I SWMU-wide investigation. The figures do not show the locations of Phase II sampling points, and as a result, it is not clear whether additional soil and groundwater investigation has been completed in this portion of the SWMU. If contamination in this area has not yet been evaluated, NAPR should expand the scope of the investigation accordingly.

Navy Response to General Comment 1:

A typographical error was made on Figure 2-3. The units associated with the diesel range organics (DRO) at 9TP05 are incorrect on Figure 2-3. The concentration detected at this location for DRO is actually 15,000 micrograms per kilogram (ug/kg), not milligrams per kilogram (mg/kg). Figure 2-3 will be corrected to reflect ug/kg instead of mg/kg for TPH at sample TP-05. It should also be noted that this area was evaluated during the original RFI and additional surface water samples were recommended to be collected from the adjacent mangrove forest in the vicinity of Area B, no other action was recommended (see RFI Report dated March 10, 2000). No other change to the work plan is required except for the correction to Figure 2-3.

II. SPECIFIC COMMENTS

Section 3.1.5, Fixed Base Laboratory Soil Analysis

1. According to Sections 3.1.4 and 3.1.5, three soil samples will be collected from each boring, and up to two samples will be screened using the SiteLAB ultraviolet fluorescence (UVF) analyzer. After the field screening, the samples will be “renamed with consecutive numbers” and the three soil samples from each location will be submitted to the laboratory. A check of the referenced web site indicates that the UVF

analysis will require less than five minutes per sample and, presumably, the analyses will be performed in concert with the drilling activity to guide placement of the next boring location. It is unclear, then, why “renaming” is necessary and how the samples will be managed in the interim to avoid confusion between various samples and subsequent mislabeling. Additional discussion on this issue should be provided in the WP.

Navy Response to Specific Comment 1:

The number of soil samples submitted to the fixed base laboratory is to be limited to three soil samples from fifteen locations (and any associated QA/QC samples). However, inherent in a dynamic work plan, such as the one proposed for SWMU 9, is the potential for collection of samples from more than fifteen locations during the site delineation process. While all locations will be analyzed with the UVF technology in order to delineate the site, samples from some locations may not be sent to the laboratory for analysis due to the above limitation. In that case, renaming of the samples will need to occur, in order to be consistent with the naming convention in place at NAPR. Otherwise, there will be numerical gaps in the SWMU 9 sample IDs.

Discussion will be added to the text regarding the sample management prior to packaging them for submission to the analytical laboratory. It is proposed that the samples be renamed while preparing the chain of custody and that the “UVF” sample ID be noted on the chain of custody in the “note” column. In addition, corresponding samples ID’s (e.g., 9SBXX –XX = UVFXX) be logged in the field notebook.

Section 3.3, Groundwater Sampling and Analysis Program

2. According to the first sentence of this section, “if soil contamination is present... groundwater may also be tested with the UVF analyzer prior to determining which samples to send to the fixed base laboratory.” Additional detail should be provided in the WP to outline the factors that will be used to identify which groundwater samples will be screened in the field via UVF.

Navy Response to Specific Comment 2:

Additional text will be added to Section 3.3 explaining which factors will be used to identify which groundwater samples will be screened in the field via UVF. Specifically, groundwater samples will be analyzed with the UVF analyzer if soil contamination is present based on UVF results, at a location just above the groundwater table.

Section 3.6.2, Equipment Rinsates

3. There is a discrepancy between the number of equipment rinsate samples proposed in the first sentence on page 3-7 (i.e., four samples) and those listed on Table 3-3 (i.e., three samples). If NAPR can confirm that a new, laboratory-certified clean, liter bottle will be used for each separate surface water sampling location, the text should be modified to

state that only three equipment rinsate samples will be collected and to eliminate references to surface water in this section. However, if the bottle will be reused after cleaning, a sample of the final rinsate should be collected for laboratory analysis, and Table 3-3 should be modified accordingly.

Navy Response to Specific Comment 3:

The text in Section 3.6.2 will be edited to delete the word surface water since new; laboratory-certified clean, liter bottles will be used for each separate surface water sampling location. The text will also be edited to read three equipment rinsates instead of four.

Section 3.7.3, Investigation Derived Wastes

4. According to this section, composite samples of investigation derived waste (IDW) will be analyzed for gasoline range organics and toxicity characteristic leaching procedure volatile organic compounds (VOCs). It is unclear how NAPR intends to collect and composite the samples without significant loss of VOC concentrations. Rather than compositing samples when volatile constituents are on the proposed list of analytes, it would seem preferable to collect discrete samples from a specified percentage of the IDW containers. Additional discussion should be provided on this issue.

Navy Response to Specific Comment 4:

The loss of volatile organic compounds (VOCs) in the investigative derived waste (IDW) is not an issue. Take into account that after the geologist collects the environmental samples from the sample for analysis these soils are handled/broken up by the geologist to determine the geologic make up of the soils. The soils are then placed back in the exposed acetate liner. Once the boring is ready to be backfilled the soils will be placed back into the borehole with any remaining soils dumped into a 55-gallon drum. During the transport of the drum additional volatilization of the soil may occur. Therefore the issue of significant loss of VOC concentrations is not of concern for the collection of the samples from the IDW.

Table 3-2, Method Performance Limits

5. Although most of the test methods are correctly referenced, the analytical methods for pH, ignitability and VOC sample preparation should be updated to reflect the most current version of SW-846 methods (e.g., SW1010A, SW5030B, SW9040C, SW9045D).

Navy Response to Specific Comment 5:

The methods in Table 3-2 for SW1010A, SW9040C, SW9045D will be corrected.

Figure 3-1, Proposed Sampling Grid

6. The legend on this figure is unclear. Verify that the proposed sediment samples are to be collected from grids 19, 30, 44, 48, 49, 50, 52, and 53, and revise the figure legend to clarify.

Navy Response to Specific Comment 6:

The font size in the legend has been increased and the labels on some of the sediment grids have been moved to clarify their IDs. The proposed sediment samples are to be collected from grids 19, 30, 44, 48, 49, 50, 52, and 53 as listed in the comment.

Figure 5-1, Proposed Project Schedule

7. The schedule should be corrected to refer to SWMU 9 Area B, rather than SWMU 16.

Navy Response to Specific Comment 7:

Figure 5-1 will be corrected to read SWMU 9 Area B instead of SWMU 16 on lines 13, 15, 17, and 19 of the schedule.