

**Baker**

**Michael Baker Jr., Inc.**  
*A Unit of Michael Baker Corporation*

Airside Business Park  
100 Airside Drive  
Moon Township, PA 15108  
Office: 412-269-6300  
Fax: 412-375-3995

June 12, 2009

U.S. Environmental Protection Agency - Region II  
290 Broadway – 22<sup>nd</sup> Floor  
New York, New York 10007-1866

Attn: Mr. Adolph Everett, P.E.  
Chief, RCRA Programs Branch

Re: Contract N62470-07-D-0502  
IQC for A/E Services for Multi-Media  
Environmental Compliance Engineering Support  
Delivery Order (DO) 0002  
U.S. Naval Activity Puerto Rico (NAPR)  
EPA I.D. No. PR2170027203  
Final Phase I RCRA Facility Investigation Report for SWMU 71

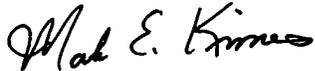
Dear Mr. Everett:

Michael Baker Jr., Inc. (Baker), on behalf of the Navy, is pleased to provide you with one hard copy of the replacement pages for the Draft Phase I RCRA Facility Investigation Report for SWMU 71, Naval Activity Puerto Rico, for your review and approval. These replacement pages make up the Final Phase I RCRA Facility Investigation Report for SWMU 71. Directions for inserting the replacement pages into the Draft Phase I RCRA Facility Investigation Report for SWMU 71 are provided for your use. Also included with the copy of the replacement pages is one electronic copy provided on CD of the Final Phase I RCRA Facility Investigation Report for SWMU 71, Naval Activity Puerto Rico.

This document is being submitted in accordance with EPA comments dated April 23, 2009 and PREQB comments dated May 5, 2009. The Navy responses to these comments are attached for your review.

If you have questions regarding this submittal, please contact Mr. Mark Davidson at (843) 743-2124. Additional distribution has been made as indicated below.

Sincerely,  
**MICHAEL BAKER JR., INC.**



Mark E. Kimes, P.E.  
Activity Coordinator

MEK/lp  
Attachments

cc: Ms. Debra Evans-Ripley, BRAC PMO SE (letter only)  
Mr. David Criswell, BRAC PMO SE (letter only)  
Mr. Mark E. Davidson, BRAC PMO SE (1 hard copy and 1 CD)  
Mr. Pedro Ruiz, NAPR (1 CD)  
Mr. Tim Gordon, US EPA Region II (1 hard copy and 1 CD)  
Mr. Carl Soderberg, US EPA Caribbean Office (1 hard copy and 1 CD)  
Mr. Felix Lopez, US F&WS (1CD)  
Mr. Michael Smith, TechLaw, Inc. (1 CD)  
Ms. Willmarie Rivera, PREQB (1CD)  
Ms. Gloria Toro, PREQB (1 hard copy and 1 CD)

**NAVY RESPONSES TO EPA COMMENTS DATED APRIL 23, 2009 AND PREQB COMMENTS  
DATED MAY 5, 2009**

**EPA AND PREQB COMMENTS ON THE DRAFT PHASE I RCRA FACILITY  
INVESTIGATION REPORT FOR SWMU 71 (QUARRY DISPOSAL AREA) DATED MARCH  
12, 2009**

**EPA COMMENTS DATED APRIL 23, 2009**

*(EPA comments are provided in italics, while Navy responses are provided in regular print)*

- 1. EPA does not concur with the recommendation in Section 7.2, to limit further investigations to polynuclear aromatic hydrocarbons (PAHs) and metals in the surface and subsurface soils and metals in groundwater. Although volatile organic constituents (VOCs) were only detected at estimated ("J" qualified) levels in all surface and subsurface soil samples, total petroleum hydrocarbon diesel range organics (TPH-DRO) were detected in all eight subsurface soil samples where analyzed, and in all three groundwater samples where analyzed. The TPH-DRO detections were below the cited screening criteria of 100 mg/kg for soil and 12.5 ug/L for groundwater; though the basis for the cited 100 mg/kg for soil is not documented in the report or the approved Phase I RFI work plan. The presence of VOCs and semivolatile organic compounds (SVOCs) in soil and groundwater samples had been previously reported in the 2005 Phase II Environmental Condition of Property (ECP) report (refer to Section 2.3, Previous Investigations, of the Phase I RFI Report). The Phase II ECP report concluded that these chemicals were associated with fuel contamination and degreasing operations at the site as well as the presence of a tar-like substance present in the drums previously stored at Solid Waste Management Unit (SWMU) 71. The VOCs detected in the ECP soil samples included benzene, ethylbenzene, xylene, and carbon tetrachloride. Ethylbenzene and naphthalene were also detected in groundwater. Based on the ECP results and the pervasive detection of low-level TPH-DRO in subsurface soil and groundwater samples, EPA requests that Section 7.2 (Recommendations) of the Phase I RFI Report be revised to indicate that VOCs and TPH-DRO analysis be included in the full RFI recommended for SWMU 71. See also comment #2 below.*

**Navy Response to EPA Comment No. 1:** The Navy agrees with this comment. The text in Section 7.2 will be revised to indicate that surface soil, subsurface soil, and groundwater collected during the Full RFI will be analyzed for VOCs and TPH-DRO.

- 2. The last sentence of Section 6.3, Subsurface Soil, indicates that subsurface soil contamination appears to be limited to areas south and southwest of the Commissary Building and one additional location to the northwest. However, the Test Boring Record given in Appendix A of the Phase I RFI Report indicates that photoionization readings of 310 parts per million were recorded at the base of boring location 71SB10 (8-12 feet bgs), and a "kerosene odor" was reported at the base of this boring, which is located north of the Commissary Building. Though exceedences of risk-based screening criteria were not measured for subsurface soil samples from this boring, several SVOC compounds were detected in samples from the boring. It should be noted that TPH was not analyzed for in this boring, and that groundwater was not reached or evaluated in this boring or at any other locations north of the Commissary Building. Therefore, based on the elevated photoionization readings and reported "kerosene odor" at the base of boring 71SB10, EPA requests that Section 7.2 (Recommendations) of the Phase I RFI Report be revised to recommend that subsurface soils and groundwater be further investigated around boring 71SB10 as part of the Full RFI.*

**Navy Response to EPA Comment No. 2:** The Navy agrees with this comment. Section 7.2 will be revised to include additional investigation of subsurface soil and groundwater in the vicinity of boring 71SB10. It is noted that probe and auger refusal occurred at boring 71SB10 at 12.0 feet bgs, while probe and auger refusal at other boring locations north of the Commissary Building occurred at depths of less than 3.0 feet bgs (see Section 4.2 and the field notes prepared by Environmental Geologist Mr. Mark DeJohn included within Appendix A). As such, the collection of groundwater contiguous to boring 71SB10 may not be possible.

#### **PREQB COMMENTS DATED MAY 5, 2009**

*(PREQB comments are provided in italics, while Navy responses are provided in regular print)*

1. *At page 4-1, the third point indicate that due to the low groundwater volume at 71SB04, the samples from 71GW04 were only analyzed for VOCs, SVOCs, and GRO. This constituted a deviation from the work plan and should be also listed at the end of section 4.0 along with all other deviations. Additionally, the minor deviation number 4 should be justified.*

**Navy Response to PREQB Comment No. 1:** The list of work plan deviations listed at the end of Section 4.0 will be revised to include the limited analyte list for the groundwater sample collected at 71GW04. With regard to the fourth work plan deviation listed in Section 4.0, the text should have stated that, “Groundwater development at monitoring well 71GW08 (development initiated at 0831 On June 3, 2008) was conducted less than 24 hours after well installation (installation completed at 1035 on June 2, 2008)”. The establishment of a 24-hour wait period between completion of well installation and initiation of well development can be attributed to field crew oversight. As such, no technical justification can be provided.

2. *According to Section 3.4 the Revised Final Phase I RCRA Facility Investigation Work Plan approved by EPA on May 13, 2008, QA/QC samples will be obtained during the investigations. The samples will include Field Blanks, among others. The work plan also specifies that field blank samples consist of the source water used in equipment decontamination procedures. At a minimum, one field blank for each source of water must be collected and analyzed for the same parameters as the related samples. The RFI Report informed at Section 4.8.4 that only one field blank sample (FB01) was collected and adequately explains the reason for it. The field blank was analyzed for the appropriate parameters. Nevertheless, the sample was not taken during the sampling events. According to the summary of the laboratory results the field sample was collected on May 2, 2008. PREQB’s interpretation of the procedures at the work plan was that the field blanks were going to be collected during the same conditions that the investigation samples would be collected, hence, on the same date. Please provide more detailed information regarding the sample identification and preparation. For example, it is not clear how a Field Blank, collected on May 2, 2008 could be related to samples taken on May 29 – 31, 2008. Furthermore, according to the RCRA Sampling Procedures Handbook (USEPA 1996) a field blank is similar to the trip blank except that it is prepared in the field with laboratory grade distilled water and is prepared exactly as all other samples in the field. The same comment apply for sample number QATB01 that is a trip blank. For future activities the frequency of the QA/QC samples should be clearly noted along with how the quality samples will be taken and share for concurrent site activities.*

**Navy Response to PREQB Comment No. 2:** Field blank FB01 was collected at the beginning of a multi-site field investigation (i.e., SWMUs 56, 61, 62, 69, 71, 74, and 78). The field blank was collected using the same batch of laboratory-grade deionized water that was used to collect equipment rinsate blanks specific to each SWMU. Since FB01 was not collected at SWMU 78 during the sampling event, it is acknowledged that the results of FB01 only address laboratory sources of contamination and not the ambient conditions encountered in the field. For future multi-site field investigations at NAPR, field blanks will be collected at each SWMU at the time samples are being collected. Additionally, it should be noted that trip blank

QATB01 also was collected on May 2, 2008 and appropriately accompanied the sample shipment containing FB01. As such QATB01 is not associated with any environmental samples collected at SWMU 78.

3. *The chain of custody that includes sample ID 71GW04 was not found at the report.*

**Navy Response to PREQB Comment No. 3:** The Chain-of-Custody forms listing 71GW04 will be added to Appendix A.