

**Baker**

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May 22, 1992

Commanding Officer  
Atlantic Division  
Naval Facilities Engineering Command  
Norfolk, Virginia 23511-6287

Attn: Mr. Byron Brant  
Code 1822

Re: Contract N62470-89-D-4814  
CTO-0024 - Response to EPA Comments

Dear Mr. Brant:

Attached are responses to comments submitted by the U.S. Environmental Protection Agency, Region IV (EPA). The comments submitted by the EPA address the following reports that were prepared by Baker Environmental, Inc. (Baker):

- Draft Final Remedial Investigation/Feasibility Study Work Plan, Sites 6, 9, 48, and 69, MCB, Camp Lejeune, North Carolina, drafted April 17, 1992.
- Draft Final Remedial Investigation/Feasibility Study Sampling and Analysis Plan, Sites 6, 9, 48, and 69, MCB, Camp Lejeune, North Carolina, drafted April 17, 1992.

Responses to comments are provided on the attachments to this letter. A summary of these attachments is provided below.

- Attachment A - Response to Comments to the Draft Final RI/FS Work Plan for Sites 6, 9, 48, and 69, MCB, Camp Lejeune, Submitted by EPA Region IV, 05/13/92.
- Attachment B - Response to Comments to the Draft Final RI/FS Sampling and Analysis Plan for Sites 6, 9, 48, and 69, MCB, Camp Lejeune, by EPA Region IV, 05/13/1992.
- Attachment C - Response to Comments to the Draft Final RI/FS Quality Assurance Project Plan for Sites 6, 9, 48, and 69, MCB, Camp Lejeune, by EPA Region IV, 05/13/1992.

The provided "replacement pages" are to be incorporated with the "replacement pages" provided in the letter from May 12, 1992, which were made in accordance with your directions of May 8 and 11. Per the requirements of the scope of work, only replacement pages are being forwarded to EPA, DEHNR, CLEJ EMD, and TRC members.

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Baker is planning to formally distribute these revised pages to the previously mentioned parties, unless otherwise directed. If you have any questions or additional changes, please do not hesitate to contact me at (412) 269-2016.

Sincerely,

BAKER ENVIRONMENTAL, INC.



Raymond P. Wattras  
Project Manager

RPW/rw  
Enclosure

cc: Mr. Marc Lambert (w/o enclosure)  
Ms. Laurie Boucher (w/o enclosure)  
Mr. Keith Simmons (w/o enclosure)  
Mr. George Radford (w/o enclosure)

**ATTACHMENT A**

**RESPONSE TO COMMENTS SUBMITTED BY THE  
U.S. EPA REGION IV  
LETTER DATED MAY 13, 1992**

**RI/FS Work Plan for Sites 6, 9, 48, and 69**

1. Aquifer testing will be conducted on the surficial aquifer. If the Castle Hayne (deep aquifer) is contaminated, aquifer testing also will be conducted.
2. The aquifer testing scope of work will be submitted for review and will include such information as location of pumping wells and observation wells, anticipated pumping rates, duration of tests.

Because the RI/FS at Site 69 will be conducted in at least two phases (due to potential presence of chemical agents), aquifer tests may not be required unless there is a need to remediate the groundwater. At this time, the nature and extent of groundwater contamination has not been defined. The objective of the Phase I RI is to determine groundwater quality. If the groundwater is contaminated, additional investigations, including aquifer tests, will be conducted in order to support the risk assessment and the feasibility study.

3. Continuous water level recorders will be installed at Site 6, 9, and 69. This revision has been made in the Final Work Plan.
4. See Response No. 3.
5. Potentiometric surface maps will be developed for each site in the RI Report. Potentiometric surface maps, based on previously collected water level measurements, can be found in the reference documents (i.e., previous investigative reports).

We agree with the comment that groundwater flow in the deep aquifer may not necessarily flow in the same direction as the shallow aquifer. Background information has indicated that this aquifer may flow in a southwest direction, which is opposite the shallow groundwater flow directions in some portions of Sites 6 and 9. Additional deep wells over and above the number specified in the Work Plan will be installed if needed to assess upgradient or downgradient groundwater quality.

**ATTACHMENT B**

**RESPONSE TO COMMENTS SUBMITTED BY THE  
THE U.S. EPA REGION IV  
LETTER DATED MAY 13, 1992**

**Draft Final RI/FS Sampling and Analysis Plan for Sites 6, 9, 48, 69**

1. and 2. Corrective action taken. Text reworded to indicate that filtered and unfiltered samples will be collected. In addition, only total (unfiltered) results will be used in the risk assessment.
3. a. No action necessary. The 14 days presented on Table 6-1, page 6-2 is an indication of quick turn around time for analytical results. This time does not pertain to extraction or analytical holding times which are presented on Table 7-1 of the Quality Assurance Project Plan (QAPP).
- b. Corrective action taken. Additional information added to footnote 6 to indicate second column confirmation is required for EPA methods 601/602.
- c. No action necessary. Holding times for water and soil samples are presented on Table 7-1 of the QAPP.
- d. Corrective action taken. Analytical "Standard Methods" referenced from the 17th Edition, 1989.
- e. Corrective action taken. Analysis references corrected to indicate Chlorine, Residual to be performed according to EPA Method 330.5.
- f. Corrective action taken. TOC analysis to be performed in accordance with EPA 415.1
- g. No action necessary. Method reference is sufficient information for specifying procedure.

## ATTACHMENT C

### RESPONSE TO COMMENTS SUBMITTED BY THE U.S. EPA REGION IV LETTER DATED MAY 13, 1992

Draft Final Quality Assurance Project Plan for Sites 6, 9, 48, 69

1. Corrective action taken. Correction made to indicate "OLM01.6" and "ILM020.0" in text. Per telephone conversation with USEPA Office of Solid Waste, the 1991 edition of "Test Methods for Evaluation of Solid Waste" has not been promulgated. Although it may be available to laboratories it may not be in practice.
2. See response No. 1.
3. Corrective action taken. Holding time for TCL volatile organic analysis corrected to 7 days if unpreserved. Holding time for extraction of semi-volatile organics corrected to 7 days. Holding time for pesticides corrected to 7 days for extraction and 40 days after extraction for analysis. Holding time for mercury corrected from 26 to 28 days. Added 28 day holding time for TOC. Changed "BOC" to "BOD".
4. Corrective action taken. Removed acid preservation recommendation from table for soil and sediment samples. Organic chlorine analysis corrected to indicate Total Residual Chlorine to be performed in accordance with EPA Method 330.5. Corrected holding times for extraction and analysis of TCL semi-volatiles and TCL pesticides/PCBs. Corrected preservation and holding time for alkalinity. Added 28 day holding time for TOC.
5. See response No. 1.
6. Corrective action taken. Footnote (1) on Table 9-1 revised to indicate "OLM01.6" for organics and "ILM02.0" for inorganics. Added footnote (3) to Table 9-1, pages 9-6 and 9-7, to indicate EPA Methods 601/602 require second column confirmation. Corrected method for mercury (EPA 245.5). Corrected method description for potassium (direct aspiration). Corrected method reference for nitrate (EPA 352.1) and sulfate (EPA 375.1). TOC is to be analyzed using EPA Method 415.1. Analysis for Total Residual Chlorine will be done according to EPA Method 330.5. Method for nitrogen corrected. Extraction procedures applicable for pesticides and semi-volatiles only. Extraction procedures for herbicides (EPA 8150) and volatiles (EPA 8240) are addressed in the method.