

**Baker**

July 25, 1994

Commander  
Atlantic Division  
Naval Facilities Engineering Command  
1510 Gilbert Street (Building N-26)  
Norfolk, Virginia 23511-2699

**Baker Environmental, Inc.**  
Airport Office Park, Building 3  
420 Rouser Road  
Coraopolis, Pennsylvania 15108

(412) 269-6000  
FAX (412) 269-2002

Attn: Ms. Katherine Landman  
Code 1823

Re: Contract N62470-89-D-4814  
Navy CLEAN, District III  
Contract Task Order (CTO) 0233  
Response to NC DEHNR Comments  
to the Draft RI/FS Project Plans for  
Operable Units No. 8, No. 11, and No. 12  
MCB, Camp Lejeune, North Carolina

Dear Ms. Landman:

Baker Environmental, Inc. (Baker) has reviewed NC DEHNR comments regarding the Draft Remedial Investigation (RI)/Feasibility Study (FS) Project Plans for the above-referenced CTO. Written responses to these comments are provided in Attachment A. The comment letter is provided in Attachment B. Responses to comments are included on the enclosed disc under the file name "RESPONSE".

Baker is planning on submitting the draft final version of these plans on or before August 2, 1994, in accordance with the project schedule.

If you have any questions, please do not hesitate to contact me at (412) 269-2053 or Mr. Raymond P. Watras (Activity Coordinator) at (412) 269-2016.

Sincerely,

BAKER ENVIRONMENTAL, INC.

*Matthew W. Bartman*

Matthew D. Bartman  
Project Manager

MDB/jc  
Attachments

cc: Mr. Neal Paul, (MCB Camp Lejeune)  
Ms. Beth Hacie, Code 02115 (w/o attachments)  
Ms. Lee Ann Rapp, Code 183 (w/o attachments)



A Total Quality Corporation

**Attachment A**

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ATTACHMENT A

Response to Comments submitted by State of North Carolina  
Department of Environmental Health and Natural Resources  
on the Draft RI/FS Project Plans for CTO-0233  
Operable Units No. 8, 11, and 12,  
MCB Camp Lejeune, North Carolina

Comment letter by Mr. Patrick Watters dated June 27, 1994

General Comments

1. This comment will be taken under advisement if a second round of groundwater sampling is required to define a potential inorganics problem at any of the Operable Units.
2. This comment was resolved through a phone conversation between Ms. Katherine Landman of LANDTIV and Mr. Patrick Watters on NC DEHNR.

Specific Comments

- ✓ 3. The NCWQS for copper (1000 ug/L) and chromium (50 ug/L) will be added to this table. The valence for chromium will be presented on the table and the NCWQS for lead will be corrected.
- ✓ 4. In order to be conservative, the PRG for chromium in groundwater will be adjusted to the NCWQS (50 ug/L).
5. There are two general sources of chemical-specific PRGs: (1) concentrations are based on ARARs and (2) concentrations based on risk assessment. When ARARs do not exist, risk-based PRGs are calculated using EPA health criteria (i.e., reference doses or cancer slope factors) and default site-specific assumptions. For the groundwater contaminants mentioned in this comment an ARAR has not been established. Additionally, with the exception of anthracene, EPA has not published health criteria for any of these contaminants. Consequently, a PRG could not be established for these compounds and acenaphthene. *What are you doing about these 2? Including them? yes. Also typo on 2-35 (anthracene)*
6. During the Sample Strategy Plan meeting held at USEPA Region IV, it was discussed and agreed that materials excavated from test pits/trenches would be screened using a PID and any visual contamination noted. Based on the visual observations and organic vapor readings, potentially contaminated soils would be placed in drums or a roll-off box for subsequent disposal. "Clean" soils will be left onsite. Testing of containerized waste would be performed to satisfy the disposal and handling of any hazardous wastes. Debris encountered during the excavation would be containerized and disposed of appropriately.
7. The text will be changed to read 6 (six) shallow wells.
8. The subsurface soil contamination at Site 7 was detected in

monitoring well boring 07MW02 at a depth of 7.5 to 9.5 feet. The screen for this well was installed from 4 to 14 feet, indicating that the subsurface soil sample with detected pesticides and PCBs was collected below the groundwater table. The validity of soil sample results within the saturated zone is questionable - are the detected contaminants from the soil or the groundwater? Concentrations for the detected pesticides and PCBs at depth were not detected at shallower depths in this boring. It would appear to indicate the detected concentrations are from the groundwater. Subsurface soil samples will be collected just above the groundwater table and at the mid-depth to the ground surface (if depth to groundwater permits a third sample) to characterize subsurface conditions. These depths are variable based on the depth to groundwater.

9. The text will be changed so it reads that the intermediate well will be placed next to shallow well 80MW03.

10. The deep soil contamination at Site 3 was detected in monitoring well boring 03MW02 at a depth of 15 to 17 feet. The screen for this well was installed from 6.8 to 16.8 feet, indicating that the subsurface soil sample with the detected PAHs was collected below the groundwater table. The validity of soil sample results within the saturated zone is questionable - are the detected contaminants from the soil or the groundwater? Since no contaminants were detected above this sample, except from within the surficial soils (0 to 2 feet), it would appear to indicate the detected concentrations are from the groundwater. Subsurface soil samples will be collected just above the groundwater table and at the mid-depth to the ground surface to characterize subsurface conditions. These depths are variable based on the depth to groundwater.

#### Health and Safety Plan

11. An unexploded ordnance (UXO) contractor will not be required for this investigation. Consequently, text regarding the use of this subcontractor will be removed from the plans.

**Attachment B**

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Post-It™ brand fax transmittal memo 7671		# of pages	3
To	MATT BARTMAN	From	KATE LANDMAN
Co.	BAKER	Co.	LANTDIV
Dept.		Phone #	804-322-4818
Fax #	412-269-2002	Fax #	4805

State of North Carolina  
Department of Environment,  
Health and Natural Resources  
Division of Solid Waste Management

James B. Hunt, Jr., Governor  
Jonathan B. Howes, Secretary  
William L. Meyer, Director

**DEHNR**

June 27, 1994

Commander, Atlantic Division  
Naval Facilities Engineering Command  
Code 1823-1

Attention: MCB Camp Lejeune, RPM  
Ms. Katherine Landman  
Norfolk, Virginia 23511-6287

Commanding General  
Attention: AC/S, EMD/IRD  
Marine Corps Base  
PSC Box 20004  
Camp Lejeune, NC 28542-0004

RE: Draft RI/FS Project Plans and Health & Safety Plan  
for Operable Unit 8, (Site 16); Operable Unit 11,  
(Sites 7 and 80) and; Operable Unit 12, (Site 3).

Dear Ms. Landman:

The referenced documents have been received and reviewed by  
the North Carolina Superfund Section. Our comments are attached.  
Please call me at (919) 733-2801 if you have any questions about  
this.

Sincerely,

*Patrick Watters*

Patrick Watters  
Environmental Engineer  
Superfund Section



Attachment

cc: Gena Townsend, US EPA Region IV  
Neal Paul, MCB Camp Lejeune  
Bruce Reed, DEHNR - Wilmington Regional Office

P.O. Box 27687, Raleigh, North Carolina 27611-7687 Telephone 919-733-4996 FAX 919-715-3605  
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North Carolina Superfund Comments  
Draft RI/FS Project Plan and Health & Safety Plan  
Camp Lejeune Operable Units 8, 11 and 12

RI/FS Project Plan

General Comments

- ✓ 1. In light of the recent discussions of metals in groundwater, it would seem appropriate to take additional samples for TSS, TDS, etc. as proposed for Operable Unit 5.
- ✓ 2. As a reminder, the North Carolina Solid Waste regulations require the proper disposal of solid waste "generated" from trenching activities.

Specific Comments

✓ 3. Page 2-19, Table 2-3  
The table does not include the North Carolina groundwater standard values for copper (1000 µg/L) and chromium (50 µg/L). The table also indicates that the USEPA MCL for chromium is for trivalent chromium but it is not clear if the "Range of Positive Detections" column from Table 2-3 includes values only for chromium (III). The North Carolina standard for chromium is total and does not differentiate between the trivalent and hexavalent forms. Note also that the NC groundwater standard for lead is 15 µg/L instead of 50 µg/L.

✓ 4. Page 4-21, Table 4-2  
The Preliminary Remediation Goal for chromium in groundwater is shown as 1000 µg/L (MCL value). Other Camp Lejeune reports use 100µg/L as the MCL. NC groundwater standard for chromium is more restrictive (50 µg/L) and therefore should be the remediation goal.

✓ 5. Page 4-23, Table 4-4  
Several groundwater contaminants from Table 2-8 are not included as potential contaminants of concern in Table 4-4. Please explain the rationale for excluding these compounds.  
✓ - 2-methylnaphthalene (max value = 1,500 µg/l)  
✓ - phenanthrene (max value = 1,600 µg/l)  
✓ - dibenzofuran (max value = 1,100 µg/l)  
Also, the USEPA MCL for chrysene is 2 µg/l in Table 2-8 and 0.2 µg/l in Table 4-4.

Several soil contaminants from Table 2-9 are not included as potential contaminants of concern in Table 4-4. Please explain the rationale for excluding these compounds.  
✓ - acenaphthene (max value = 37,000 µg/kg) *2.0 EPC soil res = 47000µg/kg*  
✓ - anthracene (max value = 8,600 µg/kg) *23000µg/kg*  
✓ - 2-methylnaphthalene (max value = 26,000 µg/kg)  
✓ - phenanthrene (max value = 81,000 µg/kg)  
✓ - dibenzofuran (max value = 35,000 µg/kg)

- ✓✓6. Page 3-3, Section 3.1.2.1  
The fourth paragraph indicates that soil samples are not scheduled to be pulled from the Site 16 trenches. The soil excavated from the trenches should be sampled to verify that it is nonhazardous prior to being backfilled.
- ✓✓7. Page 3-3, Section 3.1.3 now Section 4  
This section states that 4 shallow wells are proposed for the groundwater investigation. Figure 3-3 shows 6 shallow wells.
- ✓✓8. Page 3-7, Section 3.2.2.1  
The second paragraph in this section states that the subsurface soil samples for site 7 will be taken just above the groundwater table, which is estimated to be ~ 5 feet bgs. Table 2-4 on page 2-21 indicates there are elevated concentrations of several contaminants at a depth between 3 and 12 feet bgs. It is not clear if the proposed subsurface sampling scheme will be deep enough to adequately characterize the suspected areas of contamination identified from previous investigations.
- ✓✓9. Page 3-14, Section 3.3.3  
This section states that one intermediate well will be placed near well 80MW02. Figure 3-8 shows the intermediate well near 80MW03.
- ✓✓10. Page 3-17, Section 3.4.2.1  
The description of the subsurface soil sampling scheme for site 3 indicates that subsurface soil samples will be taken from just above the water table and at "mid-depth". Table 2-9 on page 2-35 indicates there are elevated concentrations of several contaminants at depths greater than 12 feet. It is not clear if the proposed subsurface sampling scheme will be deep enough to adequately characterize the suspected areas of contamination identified from previous investigations.

Health & Safety Plan (H&SP)

- ✓✓11. Page 4-1, Section 4.3  
This section mentions the use of an unexploded ordnance (UXO) contractor in the discussion of Work Zones however this is not mentioned anywhere else in the H&SP. Please clarify if a UXO contractor is needed for these sites.