

03.01-04/16/96-01657



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

April 16, 1996

4WD-FFB

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Ms. Katherine Landman  
Department of the Navy - Atlantic Division  
Naval Facilities Engineering Command  
Code 1823  
Norfolk, Virginia 23511-6287

SUBJ: MCB Camp Lejeune  
Draft Remedial Investigation  
Operable Unit No. 6 - Site 43

Dear Ms. Landman:

The Environmental Protection Agency (EPA) has partially completed its review of the above subject document. Comments are enclosed.

If you have any questions or comments, please call me at (404) 347-3016 or voice mail, (404) 347-3555, x-6459.

Sincerely,

Gena D. Townsend  
Senior Project Manager

Enclosure

cc: Patrick Waters, NCDEHNR  
Neal Paul, MCB Camp Lejeune

## 1.0 General Comments

1. Section 3.2.2, Page 3-3, states that seven surface soil samples were collected from an area immediately adjacent to monitoring well 43-GW01. However, the text does not indicate why these soil samples were collected in this area. The text should indicate the rationale for the sampling locations in each medium.
2. Section 3.3.1, Page 3-7, states that Portland cement was used to backfill the annular space in a moderately to strongly acidic soil. However, over a period of time, the acidic environment of the soil will eventually lead to the deterioration of the grout. ECB recommends that monitoring wells used for prolonged monitoring be grouted with pure gold bentonite to prevent deterioration.
3. Table 4-2 states that metals in surface and subsurface soils were compared to twice the average base background positive concentrations for priority pollutant metals. However, Table 4-2 defines the detections as base background (BB) concentrations (see column 5). In addition, the distribution column notes that some detections exceeded the BB. Appendix P shows that in fact base background concentrations listed in Table 4-2 are two times the average base background levels. The text and the table should consistently label base background comparison data as twice the average base background concentrations.
4. Table 4-2 states that total metals in surface water and sediment were compared to the range of positive detections in upgradient samples at MCB, Camp Lejeune. However, a positive detection can not be compared to a range of values. It appears that maximum metal detections in surface water and sediment were compared to the maximum background concentrations. The text should state that total metals in surface water and sediment were compared to maximum positive detections in upgradient samples.
5. Section 8, Page 8-1, lists conclusions based on the results of this Remedial Investigation (RI), but this section is incomplete. According to EPA guidance, recommendations for future work and recommended remedial action objectives must be included in the list of conclusions (EPA, 1988). The text should be revised accordingly.

## 2.0 Specific Comments

1. **Table 1-4.**  
Table 1-4 lists protected species within MCB, Camp Lejeune. However, the SR protected classification is not defined. The SR protected classification should be defined either on the list of acronyms or in the legend of Table 1-4.

2. **Figure 2-6.**

Figure 2-6 presents potable water supply wells within a one-mile radius of Site 43. However, the one-mile radius is labeled as Site 43. The one-mile radius circle on the figure should be described as the one-mile radius around Site 43.

3. **Section 3.2.3, Page 3.3.**

The text states that the location of test pits are depicted on Figure 3-1. However, Figure 3-1 does not depict the location of test pits; nor does the legend show a symbol for test pits. Figure 3-1 should be revised to show the locations of the test pits.

4. **Section 4.2.2.1, Page 4-3, Paragraph 4, Sentence 2.**

The text mentions Site 43 twice in the same sentence. However, this appears to be the result of a typographical error. The text should be corrected accordingly.

5. **Section 4.3.4.1, Page 4-10, Paragraph 5, Sentence 2.**

The text states that carbon disulfide was identified at concentrations of 1.8 and 3.2  $\mu\text{g}/\text{kg}$  in sediment samples from Edwards Creek. However, Table 4-13 lists the carbon disulfide concentrations in sediment in Edwards Creek as 20 and 26  $\mu\text{g}/\text{kg}$ . The correct carbon disulfide concentrations in sediment at Edwards Creek should be stated in the text.

6. **Table 4-2.**

Table 4-2 shows that the concentration of cadmium in two surface soil samples exceeded the Base Background value (0.7 mg/kg). However, according to the detection frequency in the table, there are only two detections (0.7 mg/kg and 1.7  $\mu\text{g}/\text{kg}$ ) among 21 samples. Thus, only one detection (1.7 mg/kg) exceeded the base background level. The text should be revised accordingly.