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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

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

January 5, 1995

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

4WD-FFB

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

SUBJ: MCB Camp Lejeune - OU10
Draft Remedial Investigation

Dear Ms. Landman:

The Environmental Protection Agency (EPA) has partially completed its review of the "Draft Remedial Investigation Report, Operable Unit 10, Site 35, dated October 31, 1994. The comments are enclosed.

If there are 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: Mr. Neal Paul, MCB Camp Lejeune
Mr. Patrick Watters, NCDEHNR

1.0 GENERAL COMMENTS

1. At OU No. 10, Site 35, additional soil and groundwater samples should be collected and analyzed for pesticides. Section 1.0, Introduction, of the Draft RI Report states that the purpose of the RI was to evaluate the nature and extent of the threat to public health and the environment caused by the release of hazardous substances, pollutants or contamination. Section 4.2.1.1 states that the purpose of analyzing for pesticides in the surface soil was to assess human health and ecological risks from the site. Analytical results of Site 35 surface soil samples indicate that Subpart S soil action levels for the pesticides dieldrin and DDD have been exceeded. Additionally, the State of North Carolina action level for heptachlor in groundwater was exceeded. Pesticide contamination is present in the soil and groundwater at several locations throughout Site 35 and appears to be the result of previous disposal practices and/or site activities. However, Section 8.0, Conclusion and Recommendations, does not state whether the extent of pesticide contamination at Site 35 will be determined or if the contamination will be investigated during a feasibility study (FS). The nature and extent of pesticide contamination in the soil and groundwater should be determined at Site 35.

   In further review of this comment and consultation with the Human Health Risk Assessment, the levels of contamination identified and the risk evaluation demonstrates a risk range within the acceptable levels. However, a statement should be added to the conclusion identifying that these contaminants were included in the risk assessment.

2. The laboratory sample analysis forms for samples collected during the RI were not provided. The forms are necessary in determining the adequacy of data summary tables which were included in the Draft RI Report.

3. The text states that the results of sample analyses were compared to background conditions. The following background sample guidelines were used for each media:

Soil:	MCB Camp Lejeune (Base) Background Samples
Groundwater:	Site 35 and Base Background Samples
Surface Water:	Off-base Reference Stations
Sediment:	Off-base Reference Stations

   The actual background sample concentrations collected at OU No. 10, Site 35, and for the whole of MCB Camp LeJeune were

not included in the Draft RI Report. Please provide the analytical results of the MCB Camp Lejeune and Site 35 background samples.

4. The text correctly states that the RI at OU No. 10, Site 35, should be extended south of Fifth Street as needed to define the extent of groundwater contamination in the surficial aquifer. However, the text should also state that the RI should be extended to the east toward Brinson Creek as well. Monitoring well 35-MW33BW-01 is completed in the lower portion of the surficial aquifer and located along the eastern edge of the OU No. 10, Site 35 investigation area. Monitoring well 35-MW33BW-01 contained trichloroethene, cis-1,2-Dichloroethene and trans-1,2-dichloroethene in concentrations which exceeded the Maximum Contaminant Levels (MCLs) and State of North Carolina standards for contaminants in groundwater. Therefore, the extent of groundwater contamination in the surficial aquifer has not been determined for the eastern portion of OU No. 10, Site 35, and further investigation is needed.

5. In addition, additional monitoring wells should also be completed in the underlying Castle Hayne aquifer. The potential exists for the semiconfining layer separating the surficial aquifer from the Castle Hayne aquifer to leak. Therefore, additional wells should be completed in the Castle Hayne aquifer to ensure that contamination has not migrated from the surficial aquifer to the Castle Hayne aquifer.

2.0 SPECIFIC COMMENTS

The specific comments are listed on the following pages. The comments are listed in order of occurrence in the Draft RI Report and are organized by section number, page and paragraph number and/or figure and table number, as appropriate.

1. Section 2.1.2.1, Page 2-3, Paragraph 6:
The text states, "These borings were advanced using fluid rotary drilling methods." The text should include a discussion of the type of "fluid" used during the onsite drilling.

2. Section 2.1.2.1, Page 2-4, Paragraph 3:
The text states, "Five deep soil borings were advanced using fluid rotary drilling methods". See Specific Comment No. 1.

3. Section 2.1.2.3, Page 2-5, Paragraph 3:
The text states, "In general, soils at the site were analyzed for [Target Compound List] TCL volatiles, semivolatiles, pesticides, [polychlorinated biphenyls] PCBs and [Target Analyte List] TAL metals." The text is

misleading because only one subsurface soil sample collected during the RI was analyzed for pesticides/PCBs. The text should be revised to state what specific analysis was performed for each surface and subsurface soil sample.

4. Section 2.1.3.1, Page 2-6, Paragraph 2:
The text should be revised to include the minimum thickness of the sand filter pack and the bentonite seal installed at every well.

5. Section 2.1.3.4, Page 2-7, Paragraph 2:
The text states that bottom-loading Teflon bailers equipped with a monofilament leader are dedicated to each well. This statement implies that each bottom-loading Teflon bailer equipped with a monofilament leader was used to purge and sample the well. This is not in accordance with the ECB SOPQAM. Section 4.9.4.3 of the ECB SOPQAM states that a closed-top Teflon bailer may be used to collect a groundwater sample. However, if the bailer is also used to purge the well, then a Teflon-coated stainless steel wire should be attached to the bailer and not a monofilament leader. Please clarify this discrepancy.

6. Section 2.1.4, Page 2-7, Paragraph 4:
The text states, "The surface water and sediment samples were analyzed for TCL organics and TAL metals." This statement does not agree with Section 2.1.4.3 of the text which states, "Surface water/sediment samples were analyzed for TCL volatiles, semivolatiles, pesticides, PCBs, TAL metals, and particle-size distribution." Please clarify these discrepancies.

7. Section 2.2, Page 2-14, Paragraph 4:
The decontamination procedures outlined in the text do not agree with what was proposed in the Section 5.7.2 of the Draft RI/FS Sampling and Analysis Plan for Operable Unit No. 10, Site 35, dated July 1993. The text does not indicate if the sampling equipment was rinsed twice with pesticide-grade isopropanol followed by a final rinse with organic-free water before being allowed to air dry. The text should justify any deviations from the Draft RI/FS Sampling and Analysis Plan.

8. Section 2.0, Table 2-1:
Several of the bentonite thicknesses presented in Table 2-1 are less than 2 feet and do not agree with what was proposed in the Section 5.2.1 of the Draft RI/FS Sampling and Analysis Plan for Operable Unit No. 10, Site 35, dated July 1993. The text should justify any deviations from the Draft RI/FS Sampling and Analysis Plan.

9. Section 2.0, Figure 2-3:

The benzene and trichloroethylene isoconcentration lines appear to be reversed in Figure 2-3. The figure should be corrected.

10. Section 3.0, Figure 3-2:
Cross-section B to B' does not agree with Section 3.6.2 of the text. Section 3.6.2 states that the site is underlain by, in descending order, the water table aquifer and the Castle Hayne aquifer. However, Figure 3-2, cross-section B to B', does not depict the Castle Hayne aquifer as underlying the site. This discrepancy between the text and the figure should be corrected.

11. Section 4.1.2, Page 4-2, Paragraph 3:
The text states that the following guidelines were used for each media:

Soil:	MCB Camp Lejeune (Base) Background Samples
Groundwater:	Site and Base Background Samples
Surface Water:	Off-base Reference Stations
Sediment:	Off-base Reference Stations

A discussion of the background samples collected for OU No. 10, site 35, and MCB Camp Lejeune was not included in the Draft RI Report. See General Comment No. 3.

12. Section 4.3.1.1, Page 4-20, Paragraph 1:
The text states, "There were no pesticides detected in the samples collected during the subsurface investigation." This statement is misleading since only one subsurface soil sample was analyzed for pesticides. The text should be revised to reflect this fact.

13. Section 4.0, Figure 4-4:
Figure 4-4 does not indicate that sample 35-MW32AW-01 contains cis-1,2-dichloroethene above the State of North Carolina Water Quality Standards and the Federal MCLs of 0.070 milligrams per liter. Figure 4-4 should be revised to reflect that sample 35-MW32AW-01 exceeds the Federal MCLs and the State of North Carolina Standards for cis-1,2-dichloroethene.