

**Comments – NCDENR
George Lane
Remedial Investigation Report
Operable Unit 1, MCAS Cherry Point
Dated November 2001**

General Comments:

1. This report is generally well written. However, there are several misspelled words and grammatical errors throughout the text. Please perform a thorough review prior to the next submission.

Specific Comments:

1. **Page 1-2, Section 1.2.2, Air Station History.** Also include the Combat Service Support Detachment 21 of the Second Force Service Support Group, the Naval Hospital, the Dental Clinic, and the Naval Air Maintenance Group Detachment. MCAS Cherry Point also provides facilities for the training and support of the Fleet Marine Force Atlantic Aviation Units. It is also designated as a primary aviation supply point.
2. **Page 1-5, Section 1.2.3.4 and 1.2.3.6, Site 17 and 38.** Explain in the text why Site 17 is designated OU 8 and Site 38 is designated OU 11 on the referenced figures.
3. **Page 1-11, Section 1.2.3.17, Site 98-VOCs in Groundwater near building 4032.** Site 99 should read Site 98.
4. **Page 1-20, Section 1.2.4.1.2, Site 16.** Change “state” in the first sentence to “stage”.
5. **Page 1-24, Section 1.2.4.1.12.** Please include a map of the removed well locations in Volume III, Figures- Section 1. Well closure reports should also be included in the appendices.
6. **Page 2-13, Section 2.2.2, Groundwater Sampling.** What caused the change in sampling procedures? Was this a deviation from established procedure or a valid change? Please provide an explanation in the text for the noted change.
7. **Page 3-9, Section 3.6.2.1, Surficial Aquifer.** What is meant by “upper and lower portions of the surficial aquifer”? Please describe.

Dave Lilley Comments
Section 6.0
Human Health Risk Assessment
Remedial Investigation for OU 1
MCAS Cherry Point, NC, November, 2001

1. **Figure 6-1:** It is not necessarily true that if there are no positively detected chemicals that there is no risk to potential receptors. If detection limits > screening values, the contaminants must be carried through the risk assessment process. It appears as though this was considered (see last paragraph of Section 6.1.2.8). Please make Figure 6-1 consistent with Section 6.1.2.8.

2. **Appendix M, Tables 2.x for the air pathway:** Please double check **all** the SSLs used to screen. A spot check of Tables 2.2 and 2.5 revealed the following problems:
 - Table 2.2: There is no SSL provided for DDT in the cited reference.

 - Table 2.2: There is no SSL provided for Aroclor-1260 in the cited reference.

 - Table 2.5: There is no SSL provided for 2-butanone in the cited reference.

 - Table 2.5: There is no SSL provided for Acetophoenone in the cited reference.

3. **Appendix M, Tables 2.x that screen surface/subsurface soil vs. Region IX industrial PRGs:** It should be noted on these tables that subsurface soil is screened against the Reg. IX PRGs for the construction worker exposure only.

4. **Appendix M, Table 2.6:** The Reg. IX PRGs (industrial) were used as screening numbers, not the residential PRGs. Please correct.

5. **Page 6-19, Surficial Aquifer, first paragraph:** According to the Reg. IV risk assessment bulletins, "The concentration-toxicity screening recommended in RAGS should not be used (RAGS, p. 5-23)". Please correct.

6. **Appendix M, Tables 4.x that deal with ingestion and dermal exposure to soil:** Footnotes 2 and 3 do not match the information in these tables. Please correct.

7. **Appendix M, Table 5.2:** According to the Reg. IX PRG table, the RfDi for cis-1,2-dichloroethene is 1.0×10^{-2} , not NA as listed. Please correct.

8. **Appendix M, Tables 5.x and 6.x**: Lacking other values, the toxicity values for naphthalene can be used for 1-methylnaphthalene and 2-methylnaphthalene. Please correct.
9. **Appendix M, Table 7.4**: According to Table 2.8, vinyl chloride and mercury exceeded USEPA Soil Screening Levels for inhalation; these COCPs should have appeared in this table. Please correct.
10. **Appendix M, Tables 10.x**: The title should be changed from “Summary of Receptor Risks and Hazards for COPCs” to “Risk Assessment Summary”. Also, the purpose of these tables is to show which contaminants contributed significantly in the higher risk scenarios. Only contaminants whose $ICR > 10^{-6}$ or $HQ > 0.1$ in scenarios where the $ICR > 10^{-4}$ or $HI > 1$ should appear in Tables 10.x as Chemicals of Concern (COCs). In reviewing the first few Tables 10.x, it appears as though the 10.x tables are the same as the 9.x tables. Please correct Tables 10.x.
11. **Table 6-43**: Please add the values for t^* for each contaminant to this table.

Dave Lilley Comments
Section 7.0
Ecological Risk Assessment
Remedial Investigation for OU 1
MCAS Cherry Point, NC
November, 2001

1. **Tables 7-1 to 7-12:** According to current EPA guidance, if the Detection Level > Screening Value, or if Region IV does not have a screening value, the contaminant is retained as a COPC. This applies to detects and non-detects. Also, since bioaccumulative contaminants can appear in higher trophic level organisms when concentrations are below detection levels in abiotic media, all non-detected bioaccumulative contaminants where DL > SV, and all non-detected bioaccumulative contaminants that did not have a Reg. IV SV, should appear in the Foodchain Modeling Calculations. Please correct.
2. **Tables 7-1 to 7-12 and 7-25 to 7-27:** Please highlight the exceedences.
3. **Table 7-3:** Please provide the concentration units for the contaminants and screening levels.
4. **Tables 7-4 and 7-5:** Only the Region IV sediment screening values should be used at this phase of analysis. Please correct.
5. **Tables 7-6 to 7-11:** Only the Region IV soil-screening values should be used at this phase of analysis. Please correct.
6. **Table 7-25:** For the SVOCs and Pesticides/PCBs, the “Range of Detection Limits” is a single number, with the “Average Detection Limit” listed as ½ the Range of Detection Limit. How can the average of a single number equal ½ that number? Are these columns representing two different detection limits? Please explain.
7. **Page 7-10, Section 7.4.1.1, third paragraph:** Is “Section XXX” a typo? Please explain.
8. **Page 7-25, Section 7.6.1.3:** The overuse of the words “less conservative” in this section leaves the reader with the impression that the purpose of Step 3A is to use different values simply because they are less conservative. The purpose of using alternate screening values *should* be to refine the list of COCPs by replacing generic screening values with values that may be more appropriate for use on this site. Please modify the wording in these areas of

the report to be consistent with this purpose. This comment was also made in an early version of the Slocum Creek ERA, and the words “less conservative” were replaced with “more realistic”; these words would also be acceptable in this situation.

9. **Page 7-17, Section 7.6.1.1, first paragraph**: Since EPA, 2000 is not listed in the references section, there is no way to review this information. Please cite the reference used so this information can be verified.
10. **Page 7-29, Boron**: Since Eisler 2000 is not listed in the references section, there is no way to review this information. Please cite the reference used so this information can be verified. Also, please double check the references section for completeness.
11. **Table 7-13**: Please clarify in this table, the NOAEL and LOAEL listed for chromium (black duck as test subject) is for trivalent chromium, not hexavalent.
12. **Appendix N, Foodchain Modeling Calculations**: When used, please include the AUF in the heading of each table.
13. **Tables 7-23 and 7-24**: Please explain why the detected VOCs were not included in these tables.
14. **Section 7.6.2.1**: In the discussion for arsenic, cadmium, and chromium, reference is made to modeling using maximum concentrations. Appendix N contains food chain modeling calculations for mean concentrations only. Please submit the modeling calculations using the maximum concentrations for review.

Comments
Aquatic Toxicology Unit
Div. of Water Quality
Sandy Mort, Environmental Biologist,
Remedial Investigation Report
Operable Unit 1, MCAS Cherry Point
Dated November 2001

1. Tables 7-1, 7-2 and 7-3 - Average concentrations are provided for other media but not surface water. Why? This information would have been useful in the Step 3A review.
2. On page 7-38 in the Step 3A discussion for vanadium it states "The available surface soil guidelines, in particular the EPA Region 4 screening level, appear to be conservative because they are comparable to concentrations of vanadium commonly found in unimpacted areas of military bases." Provide a reference to the source of these values, a brief discussion of their development and include the pertinent values for comparison.
3. Page 7-40, Pesticides – Sample OU1-SD31 is referenced in the text (¶ 2) and in Table 7-23 as the maximum for 4,4'-DDD. In Figure 4-32 a value of 1100 ppb 4,4'-DDD is listed for sample OU1-SD48. Explain the discrepancy. If the SD48 value is the appropriate maximum sediment concentration how does this impact the decision process? Is the average sediment concentration listed in Table 7-23 correct, and if not, how does the corrected average value affect the decision process?
4. Copper is listed as a retained COC in Table 8-4 but the Step 3A discussion text on page 7-32 states it was eliminated as a COC. Explain.
5. Nickel is listed as a retained COC in Table 8-4 but the Step 3A discussion text on page 7-35 states it was eliminated as a COC. Explain.
6. In section 8.0 (pg. 8-1, 3rd ¶) it was concluded that there is potential risk to some environmental receptors due to soil and sediment contamination. The next paragraph states that remedial action is required to address the threats to human health and the environment and both will be included in the FS. Yet, further discussions of the FS do not address the environmental concerns, only the human health issues are addressed. Further specific explanation of the recommendations, or elimination from the FS, regarding the environmental risks is needed. If further environmental concerns are recommended as not warranted due to the spotty elevated concentrations of specific contaminants and the lack of habitat in OU1 make a specific statement to this affect in Section 8.7, Conclusions and Recommendations.