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State of North Carolina  
Department of Natural Resources and Community Development  
Wilmington Regional Office

James G. Martin, Governor  
S. Thomas Rhodes, Secretary

Bob Jamieson

September 22, 1988

Colonel T. J. Dalzell  
Assistant Chief of Staff, Facilities  
Marine Corps Base  
Building 1  
Camp Lejeune, North Carolina 28542-5001

Re: Review and Comment  
Characterization, Confirmation and  
Feasibility Reports  
Hadnot Point Industrial Area  
Camp Lejeune, North Carolina  
Onslow County

Dear Colonel Dalzell:

This letter is intended to provide you with our comments on the subject reports.

The principal comment involves the target concentrations that your consultant, ESE, has proposed for the remediation of the contaminant plumes. As you may know, the North Carolina Groundwater Classifications and Standards (15 NCAC 2L) is now being revised. Major revisions include the establishment, for the first time, of numerical standards for the following constituents encountered in Class GA groundwater:

<u>Constituent</u>	<u>Proposed Standard (ppm)</u>
benzene	0.00070
chloroform	0.00019
trans-1, 2-dichloroethene	0.07000
ethylbenzene	0.02900
methylene chloride	0.00500
methyl ethyl ketone	0.17000
☆ tetrachloroethene	0.00070

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<u>Constituent</u>	<u>Proposed Standard (ppm)</u>
toluene	1.00000
1,1,1-trichloroethane	0.20000
* trichloroethene	0.00280
vinyl chloride	0.000015
xylene	0.40000

Since the source(s) in this instance are unpermitted, these standards will apply to Class GA groundwater directly underneath the source(s). By definition, there is no compliance boundary for unpermitted sources. Also, you should note that in the proposed revisions to 2L that the GB class has been eliminated.

Also, where no numerical standard exists for a constituent, descriptive standards then apply. Here, the standards revolve around the "suitability of the water for drinking," which means that if ingested into the human body, this quality of water will not cause death, disease, behavior abnormalities, congenital defects, genetic mutations, or result in an incremental lifetime cancer risk in excess of one in one million, or render the water unacceptable due to aesthetic qualities (taste, odor, and appearance).

However, if it is not possible for the responsible party to restore to the standards, then the responsible party may submit to the Division for consideration a request for variances to the standards or a proposal for alternate contamination concentrations.

A copy of the new and proposed 2L is enclosed for your reference. It is believed that revised 2L will be effective by the time you begin remediation of the problem sites.

2. A second comment concerns the definition of the extent of the groundwater quality violations established by ESE. As the analytical work to date has been of limited scope, we suggest that you select the well(s) that have been most impacted by the source(s) and perform complete analyses, to include:

National Interim Primary Drinking Water Regulations  
National Secondary Drinking Water Regulations  
volatile organic analyses  
extractable organic analysis

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- Thirdly, we suggest that you evaluate the impact that the contaminated
3. groundwater will have on operation of the sewage treatment plants if the Division agrees to its disposal in this way. Performance of bioassay analyses may be useful in evaluating the potential impact.
  4. Finally, we feel that it is now appropriate to begin discussions on a Special Order by Consent (SOC) between the Marine Corps and the Environmental Management Commission. This SOC will authorize a mutually acceptable action plan with a timetable that will allow the responsible party to take the actions necessary to come into compliance with 2L. Once the final review is finished on the subject reports, we would like to meet with you and/or your consultants to begin negotiation of the SOC terms.

If you have questions, please do not hesitate to call Rick Shiver or me at (919) 256-4161.

Sincerely,

RICK SHIVER

FC12 A. Preston Howard, Jr., P.E.  
Regional Supervisor

APH/RSS/dhz

Enclosure

cc: Paul Wilms  
Perry Nelson  
GWS - WiRO  
CF