

Response to Comments  
Action Memorandum for Site 35, OU 10  
MCB Camp Lejeune, North Carolina  
May 2007

### Introduction

The purpose of this document is to address comments associated with the Action Memorandum for Site 35, Operable Unit 10 at Marine Corps Base Camp Lejeune, North Carolina. The North Carolina Department of Environment and Natural Resources (NCDENR) provided the comments. Responses to comments are provided in bold type. U.S. Environmental Protection Agency (EPA) had no comments.

**North Carolina Department of Environment and Natural Resources  
Comments on the Action Memorandum for  
Site 35, Operable Unit No. 10  
Marine Corps Base  
Camp Lejeune, North Carolina**

### Specific Comments

1. The Superfund Section recommends additional Geoprobe injection points northwest and southwest of IS100 and south and southwest of IS105 and east and northeast of probe location IS118. These are contaminated areas adjacent to high concentrations of TCE and cis-DCE in the treatment areas. IS100 has the highest concentration of TCE in the two "hot spot" treatment areas in the intermediate aquifer and we have only one Geoprobe treatment point to the southwest and no treatment points to the north or northwest of this point. We know that there are high concentrations of TCE/DCE to the west-southwest of IS100 from data at Monitoring well MW-29IW.

Probe location IS105 has cis-DCE concentrations in the shallow aquifer at more than an order of magnitude higher than the MCL and 2L Standards. IS105 also has the highest TCE concentration in the treatment area of the shallow aquifer and high vinyl chloride. However, we have no proposed injection points to the south or west of this high concentration data point. Probe location IS118 has high concentrations of TCE, cis-DCE, and vinyl chloride and is surrounded by adjacent probe data points that exceed the 2L Standards. There are no proposed probe injection points to the north, east, or south of IS118. Six additional ERD injection points (Two additional wells per area) would probably be sufficient to treat the highest groundwater concentrations from these three areas.

**Based on discussions during the April 2007 Partnering Meeting, the spacing between the proposed injection locations will be increased from 40 feet to 50 feet to ensure adequate coverage of the identified target areas.**

2. It is likely that we will not be able to achieve our volume of substrate injection at all points. The Superfund Section recommends that we include additional probe injection locations in the higher concentration areas near probe locations IS113, IS114, IS108, IS109, and IS104. We may wish to include these as potential injection points on the final injection plan to inject any additional substrate left over as the result surfacing or other signs of aquifer saturation at proposed injection points. These are areas that have lower concentrations of TCE and Cis-DCE but the concentrations exceed the 2L and MCL Standards.

**The injection will be done with DPT, which will provide significant flexibility in injection location, volume, flowrate, and pressure. The JV believes that the volume of substrate can be injected. However, in the event that the total estimated volume of substrate cannot be injected in the 28 proposed locations as initially planned, the remaining volume of substrate will be injected in additional points to the east/northeast of current proposed locations.**

3. Figures 4-2 and 5-1 do not show monitoring well 35 MW03 DW or one of the MW10 monitoring wells. Only two wells are shown in this area, on these figures. Please make appropriate corrections.

**All monitoring wells in the specified cluster (35-MW10, -MW10IW, and – MW03DW) are shown on the figures. Due to the proximity of MW10 and MW10IW and the scale of the figures, the well symbol for MW10 overlays the symbol for MW10IW.**