

# STATE OF ALASKA

## DEPT. OF ENVIRONMENTAL CONSERVATION DIVISION OF SPILL PREVENTION AND RESPONSE CONTAMINATED SITES PROGRAM

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December 5, 2007

Mr. Mark Ridgway  
United States Coast Guard  
Civil Engineering Unit Juneau  
Post Office Box 21747  
Juneau, Alaska 99802-1747

Re: USCG Ketchikan Small Arms Firing Range (SAFR)  
Groundwater Monitoring Report Approval and Requirements for Additional Actions

Dear Mr. Ridgway:

The Alaska Department of Environmental Conservation (department) has received and reviewed the *Memorandum for the Ketchikan SAFR November 2006 Groundwater Sample Results*, prepared by Jacobs Engineering and dated May 8, 2007. This report is approved in accordance with 18 Alaska Administrative Code (AAC) 75.345(h).

During the review of this long-term monitoring report, department staff also reviewed past site reports in order to determine the need for additional actions at the site. Cleanup levels were approved for this site in a letter dated January 26, 2006. The lead cleanup levels are set at the industrial exposure level of 1000 milligrams per kilogram (mg/kg) in soil and at the default 18 AAC 75.345 drinking water standard of 15 micrograms per liter (ug/L) for groundwater.

The site was used as a firing range for several decades. Lead soil contamination was found to be present in 2000 and soil removals conducted in 2003 and 2004. Three (3) micro-wells were installed; including one (1) in the middle of the excavation and two (2) downgradient of the excavation. Groundwater samples for total and dissolved lead were collected in August 2004, August 2005, November 2005, and November 2006. Results for MW-1, located in the excavated area, and MW-3, located downgradient of the excavation area, have been below the cleanup level for both analyses for all sampling events.

In MW-2, the dissolved lead results have consistently remained in the range of 5.4 ug/L to 9.6 ug/L, well below the cleanup level, with a 2006 sampling event result of 6.32 in the primary sample and 9.76 in the duplicate. The total lead results ranged from 96.2 ug/L to 658 ug/L and in the 2006 sampling event, the results were 6.48 ug/L for the primary sample and 15.2 ug/L for the duplicate. All sampling results from MW-2 (in ug/L) are shown in the following table.

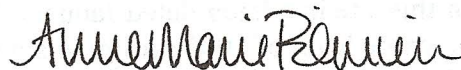
	August 2004	August 2005	November 2005	November 2006
<b>Total Lead</b>	96.2	658	96.2	6.78
<b>Total Lead (dup)</b>	99.7			15.2
<b>Dissolved Lead</b>	7.43	6.7	5.44	6.32
<b>Dissolved Lead (dup)</b>				9.76

As the groundwater sampling results have either been below the approved cleanup level or shown a downward trend, the department determines that additional groundwater sampling is not required in accordance with 18 AAC 75.380(c)(2). As there are no buildings located downgradient of the SAFR and the buildings on the base (located cross-gradient) are supplied with municipal drinking water and the downgradient receiving surface water body is an estimated 450 feet from the site, the risk to human health and the environment from the lead concentrations in the groundwater at the site is very low.

The department has determined this site can be conditionally closed. However, in order to conditionally close it, the department requires some sort of institutional control tracking system be in place in order to document that 1) soils containing concentrations of contaminants of concern above the most stringent default pathways are present at the site and cannot be moved off-site without department approval; 2) residential land-use of the site is prohibited; and 3) any groundwater dewatered from the site should be sampled prior to discharge.

If you have any questions about this site, please do not hesitate to contact me 766-3184.

Sincerely,



Anne Marie Palmieri  
Environmental Program Specialist

cc: Colin Craven, DEC-Fairbanks