P-08-77

Supplement 1 March 2010

Oskarshamn site investigation

Complete chemical characterisation in borehole KLX27A

Results from borehole section 641.5 to 650.6 m

Anette Bergelin, Kersti Nilsson, Anna Lindquist, Pia Wacker Geosigma AB

> **Svensk Kärnbränslehantering AB** Swedish Nuclear Fuel and Waste Management Co

Box 250, SE-101 24 Stockholm Phone +46 8 459 84 00



Description

When the method "Complete Chemical Characterization" is performed, the redox potential (Eh) of the groundwater is recorded *in situ* on-line in the borehole and the result is reported in a table in the P-report.

In addition, a method for the determination of the amount and size of colloid particles in the groundwater is applied (Laser Induced Breakdown Detection; LIBD). The sampling of the groundwater for the colloid determination is performed *in situ* in the borehole, usually in two sample containers (PVB), which are immediately transported to the laboratory. At the laboratory, the groundwater is analysed with respect to a number of parameters including Eh. For comparison, the Eh value measured at the laboratory is reported in a result table together with the *in situ* on-line recorded Eh value.

Errata 1

Table 7-1, p. 28 reads:

Borehole section [m]	Eh** [mV]	
PVB (LIBD)(1)****	-95	
PVB (LIBD)(2)****	70	
		_

Should read:

Borehole section [m]	Eh** [mV]
PVB (LIBD)(1)****	119 ^m
PVB (LIBD)(2)****	284 ^m

^m = Redox, Eh (SHE) measured.

Errata 2

P. 27, third paragraph reads: "The recorded redox potentials from the on-line measurements were approximately –190 mV, while the measured redox potential from the LIBD experiment was –95 mV (container no 1). An explanation for the discrepancy could be the limited time of measurement in container no 1. However, in container no 2, the redox potential was 70 mV and considering also the results from the chemical analyses, the water in the container cannot be regarded as representative for the section."

Should read: "The recorded redox potentials from the on-line measurements were approximately –190 mV, while the measured redox potential from the LIBD experiment was 119 mV (container no 1). An explanation for the discrepancy could be the limited time of measurement in container no 1. However, in container no 2, the redox potential was 284 mV and considering also the results from the chemical analyses, the water in the container cannot be regarded as representative for the section."