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Supplement 1

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Oskarshamn site investigation

Numbers and metabolic diversity of microorganisms in borehole KLX03

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Description

This report is a supplement to the SKB report P-05-182 (Numbers and metabolic diversity of microorganisms in borehole KLX03).

The following changes has been made in the database SICADA (and therefore this supplement has been written);

1/ The borehole sections given in the SKB P-05-182 report has been somewhat modified. The former borehole sections were;

193.0–198.0 metres

408.0–415.3 metres

735.5–748.0 metres

964.5–975.2 metres

The correct borehole sections are;

193.50–198.37 metres

408.00–415.30 metres

735.50–748.04 metres

964.50–975.15 metres

2/ Some data in Appendix 1 has been changed. The changed data are given in italics in the tables below (the same tables as in the SKB P-05-182 report);

Table A1-1. Total number of cells and concentration of ATP in the analysed sections of KLX03.

Borehole (section m)	Total counts (cells ml ⁻¹)			ATP amol ml ⁻¹		
	AODC	Standard deviation	Number of observations	ATP	Standard deviation	Number of observations
KLX03 (193.50–198.37)	<i>8.5×10⁴</i>	<i>± 3.6×10⁴</i>	6	<i>5.4×10⁴</i>	<i>± 9.0×10³</i>	3
KLX03 (408.00–415.30)	n.a.*	–	–	<i>14.3×10⁴</i>	<i>± 1.4×10⁴</i>	3
KLX03 (735.50–748.04)	<i>6.0×10⁴</i>	<i>± 0.5×10⁴</i>	6	<i>1.7×10⁴</i>	<i>± 9.1×10³</i>	3
KLX03 (964.50–975.15)	<i>2.0×10⁴</i>	<i>± 0.3 10⁴</i>	6	<i>1.7×10⁴</i>	<i>± 1.3×10⁴</i>	3

*not analysed due to a nonconformity.

Table A1-4. Most probable number (MPN) of metabolic groups of microorganisms in KLX03 section 735.50–748.04 m.

Metabolic groups	Cells ml ⁻¹	
	MPN	Lower – upper 95 % confidence limits
Nitrate reducing bacteria	3,000	1,000–13,000
Iron reducing bacteria	50	20–200
Manganese reducing bacteria	1.4	0.6–3.5
Sulphate reducing bacteria	17	7–48
Autotrophic acetogens	300	100–1,300
Heterotrophic acetogens	500	200–2,000
Autotrophic methanogens	1.3	0.5–3.8
Heterotrophic methanogens	5	2–15

Table A1-5. Most probable number (MPN) of metabolic groups of microorganisms in KLX03, section 964.50–975.15 m.

Metabolic groups	Cells ml ⁻¹	
	MPN	Lower – upper 95 % confidence limits
Iron reducing bacteria	< 0.2	–
Manganese reducing bacteria	2.3	0.9–8.6
Sulphate reducing bacteria	< 0.2	–
Autotrophic acetogens	110	40–300
Heterotrophic acetogens	30	10–120
Autotrophic methanogens	< 0.2	–
Heterotrophic methanogens	2.3	0.9–8.6

The changes made in the Tables A1-1, A1-4 and A1-5 may effect other parts (references to the above mentioned tables, figures etc) of the original report P-05-182. This has not been taken into account in this supplement.

