

Analytical Figures of Merit

The concentrations are expressed in ng l^{-1} and $\mu\text{g g}^{-1}$ as illustrated in the certificate of analysis of each reference material.

SLRS-4 (River Water Reference Material NRCC), n=5			
	Detection Limits ^a (ng l^{-1})	Certified Values ($\text{ng l}^{-1}\pm 95\%U$)	Determined Values ($\text{ng l}^{-1}\pm \text{sd}$)
Al	120	54000 $\pm$ 4000	59800 $\pm$ 5400
As	28	680 $\pm$ 60	740 $\pm$ 40
Ag	0.2	-	0.7 $\pm$ 0.3
Cd	0.6	12 $\pm$ 2	14 $\pm$ 2
Co	0.9	33 $\pm$ 6	39 $\pm$ 8
Cu	11	1810 $\pm$ 80	1773 $\pm$ 56
Cr	25	330 $\pm$ 20	360 $\pm$ 37
Mn	25	3370 $\pm$ 180	3417 $\pm$ 103
Pb	3	86 $\pm$ 7	98 $\pm$ 9
Zn	48	930 $\pm$ 100	949 $\pm$ 30
U	1.0	50 $\pm$ 3	59 $\pm$ 7

IAEA 405 Sediment Reference Material, n=5			
	Detection Limits ^{a, b} ($\mu\text{g g}^{-1}$)	Certified Values ($\mu\text{g g}^{-1}\pm 95\%U$)	Determined Values ($\mu\text{g g}^{-1}\pm \text{sd}$)
Al	220	77900 $\pm$ 5200	62100 $\pm$ 4300
As	0.2	23.6 $\pm$ 0.7	24.2 $\pm$ 0.5
Ag	0.05	-	0.92 $\pm$ 0.05
Cd	0.02	0.73 $\pm$ 0.05	0.77 $\pm$ 0.05
Co	0.25	13.7 $\pm$ 0.7	15.5 $\pm$ 0.9
Cu	1.5	47.7 $\pm$ 1.02	49.5 $\pm$ 1.2
Cr	3	84 $\pm$ 4	75 $\pm$ 6
Mn	8	495 $\pm$ 11	545 $\pm$ 59
Pb	2.1	74.8 $\pm$ 2.2	82.2 $\pm$ 2.9
Zn	6	279 $\pm$ 7	277 $\pm$ 8
U	0.01	3.01 $\pm$ 1.15	2.78 $\pm$ 0.14

^a based on three times the sd of blank (n=5)

^b using 50mg of sample