

Table 99-18. Activity Concentration of Selected Alpha-emitting Radionuclides in Red Bluff Reservoir Sediment Samples Collected during 1998

See CEMRC 1999 Report “Radiological and non-radiological constituents in surface water and sediments at selected reservoirs” for descriptions of locations and methods of data collection.

		^{239,240} Pu		
Collection Date	Water Depth (m)	^a Activity Concentration (mBq g ⁻¹)	^b SD (mBq g ⁻¹)	^c MDC (mBq g ⁻¹)
3/3/98	14.9	4.07E-01	7.40E-02	1.63E-01
3/10/98	14.0	5.18E-01	7.40E-02	1.04E-01
3/10/98	14.0	3.33E-01	6.29E-02	8.51E-02
3/10/98	11.9	1.85E-01	2.70E-02	2.81E-02
10/14/98	10.4	2.87E-01	3.15E-02	5.55E-02
10/14/98	10.4	3.94E-01	2.29E-02	2.04E-02
10/14/98	10.4	4.13E-01	3.26E-02	4.44E-02
10/14/98	10.1	4.57E-01	2.81E-02	2.89E-02

		²³⁸ U			²³⁵ U			²³⁴ U		
Collection Date	Water Depth (m)	Activity Concentration (mBq g ⁻¹)	SD (mBq g ⁻¹)	MDC (mBq g ⁻¹)	Activity Concentration (mBq g ⁻¹)	SD (mBq g ⁻¹)	MDC (mBq g ⁻¹)	Activity Concentration (mBq g ⁻¹)	SD (mBq g ⁻¹)	MDC (mBq g ⁻¹)
3/3/98	14.9	5.65E+01	2.44E+00	3.40E-02	2.97E+00	2.18E-01	4.07E-02	9.22E+01	3.96E+00	3.11E-02
3/10/98	14.0	5.82E+01	2.52E+00	3.03E-02	3.23E+00	2.26E-01	3.66E-02	9.66E+01	4.14E+00	3.18E-02
3/10/98	14.0	5.02E+01	2.15E+00	3.26E-02	2.42E+00	1.85E-01	3.66E-02	8.26E+01	3.48E+00	3.37E-02
3/10/98	11.9	3.15E+01	1.37E+00	2.85E-02	1.64E+00	1.41E-01	3.18E-02	4.55E+01	1.92E+00	2.89E-02
10/14/98	10.4	4.64E+01	3.22E+00	3.44E-02	2.40E+00	3.00E-01	3.22E-02	7.55E+01	5.14E+00	3.70E-02
10/14/98	10.4	6.48E+01	4.18E+00	3.59E-02	3.42E+00	3.40E-01	4.07E-02	1.05E+02	6.66E+00	4.44E-02
10/14/98	10.4	7.17E+01	4.92E+00	5.18E-02	3.74E+00	4.07E-01	5.55E-02	1.23E+02	8.33E+00	7.03E-02
10/14/98	10.1	6.36E+01	4.03E+00	3.44E-02	3.24E+00	3.15E-01	3.70E-02	1.09E+02	6.77E+00	3.70E-02

		²³² Th			²³⁰ Th			²²⁸ Th		
Collection Date	Water Depth (m)	Activity Concentration (mBq g ⁻¹)	SD (mBq g ⁻¹)	MDC (mBq g ⁻¹)	Activity Concentration (mBq g ⁻¹)	SD (mBq g ⁻¹)	MDC (mBq g ⁻¹)	Activity Concentration (mBq g ⁻¹)	SD (mBq g ⁻¹)	MDC (mBq g ⁻¹)
3/3/98	14.9	3.02E+01	2.00E+00	5.18E-01	3.41E+01	2.26E+00	2.04E+00	3.56E+01	2.29E+00	1.78E+00
3/10/98	14.0	3.29E+01	3.40E+00	1.41E+00	2.93E+01	3.37E+00	3.55E+00	3.53E+01	3.74E+00	4.11E+00
3/10/98	14.0	2.61E+01	1.89E+00	2.63E-01	3.39E+01	2.37E+00	2.26E+00	3.59E+01	2.41E+00	2.07E+00
3/10/98	11.9	3.09E+01	1.70E+00	4.44E-01	3.39E+01	1.89E+00	1.48E+00	3.24E+01	1.81E+00	1.26E+00
10/14/98	10.4	2.60E+01	1.15E+00	4.81E-01	4.17E+01	1.70E+00	1.18E+00	2.67E+01	1.18E+00	9.62E-01
10/14/98	10.4	2.87E+01	1.41E+00	8.88E-02	3.71E+01	1.74E+00	1.41E+00	3.24E+01	1.55E+00	1.18E+00
10/14/98	10.4	2.86E+01	1.59E+00	6.29E-01	3.19E+01	1.78E+00	1.78E+00	3.27E+01	1.81E+00	1.63E+00
10/14/98	10.1	2.65E+01	1.33E+00	4.07E-01	3.15E+01	1.59E+00	1.48E+00	3.24E+01	1.63E+00	1.59E+00

^aActivity concentrations of all radionuclides were measured using alpha spectroscopy

^bSD=count standard deviation

^cMDC = minimum detectable concentration