

**Table 99-13 . Selected Non-Radiological Constituents
in Brantley Lake Surface Water Samples Collected during 1998 and 1999**

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.

Analyte	Collection Date and Sampling Depth								
	February 4, 1998 (0.6 m depth)			October 7, 1998 (0.9 m depth)			October 7, 1998 (13.7 m depth)		
	Method	^a MDL (mg L ⁻¹)	Result (mg L ⁻¹)	Method	MDL (mg L ⁻¹)	Result (mg L ⁻¹)	Method	MDL (mg L ⁻¹)	Result (mg L ⁻¹)
Ag	^b ICPMS	^c NA	NA	ICPMS	7.78E-05	<MDL	ICPMS	7.78E-05	<MDL
Al	^d ICPES	2.27E-02	2.34E-02	ICPES	2.27E-02	<MDL	ICPES	2.27E-02	<MDL
As	^e AA	1.35E-04	9.79E-04	AA	1.35E-04	7.43E-03	AA	1.35E-04	1.25E-03
Ba	ICPES	2.89E-04	5.06E-02	ICPMS	4.49E-04	1.91E-02	ICPMS	4.49E-04	2.22E-02
Be	ICPES	8.90E-04	<MDL	ICPMS	2.91E-05	<MDL	ICPMS	2.91E-05	<MDL
Ca	ICPES	1.19E-01	3.40E+02	ICPES	1.46E-01	1.57E+02	ICPES	1.46E-01	8.69E+01
Cd	AA	1.60E-04	<MDL	ICPMS	4.63E-04	<MDL	ICPMS	4.63E-04	<MDL
Ce	ICPMS	NA	NA	ICPMS	3.23E-05	<MDL	ICPMS	3.23E-05	3.61E-05
Chloride	^f IC	NA	NA	IC	2.64E+00	1.39E+03	IC	6.59E-01	2.00E+02
Co	ICPES	7.19E-04	1.41E-02	ICPMS	3.39E-05	1.64E-04	ICPMS	3.39E-05	2.18E-04
Cr	AA	5.00E-04	<MDL	ICPMS	3.85E-04	<MDL	ICPMS	3.85E-04	<MDL
Cu	AA	3.00E-04	1.13E-02	ICPMS	1.61E-03	<MDL	ICPMS	1.61E-03	<MDL
Dy	ICPMS	NA	NA	ICPMS	3.66E-06	<MDL	ICPMS	3.66E-06	<MDL
Er	ICPMS	NA	NA	ICPMS	1.39E-06	<MDL	ICPMS	1.39E-06	<MDL
Eu	ICPMS	NA	NA	ICPMS	2.03E-06	5.60E-06	ICPMS	2.03E-06	7.59E-06
Fe	ICPES	1.64E-02	<MDL	ICPES	3.40E-02	6.40E-02	ICPES	3.40E-02	<MDL
Fluoride	IC	NA	NA	IC	3.24E-01	2.40E+00	IC	8.11E-02	8.10E-01
Gd	ICPMS	NA	NA	ICPMS	4.07E-06	<MDL	ICPMS	4.07E-06	<MDL
Hg	AA	NA	NA	AA	1.00E-05	<MDL	AA	1.00E-05	<MDL
K	ICPES	1.75E-02	5.60E+00	ICPES	1.75E-02	2.88E+00	ICPES	1.75E-02	1.30E+00

La	ICPMS	NA	NA	ICPMS	1.77E-05	<MDL	ICPMS	1.77E-05	1.95E-05
Li	ICPMS	NA	NA	ICPMS	5.30E-04	5.89E-03	ICPMS	5.30E-04	6.56E-03
Mg	ICPES	1.09E-02	1.01E+02	ICPES	1.09E-02	4.92E+01	ICPES	1.09E-02	1.68E+01
Mn	ICPES	4.72E-04	8.49E-03	ICPMS	5.71E-04	3.61E-03	ICPMS	5.71E-04	6.33E-03
Mo	ICPES	4.78E-04	1.78E-03	ICPMS	2.41E-05	1.07E-03	ICPMS	2.41E-05	1.17E-03
Na	ICPES	1.33E-01	5.36E+02	ICPES	1.33E-01	2.51E+02	ICPES	1.33E-01	4.70E+01
Nd	ICPMS	NA	NA	ICPMS	1.41E-05	<MDL	ICPMS	1.41E-05	1.70E-05
Ni	AA	5.00E-04	<MDL	ICPMS	1.75E-03	2.51E-03	ICPMS	1.75E-03	2.81E-03
Nitrate	IC	NA	NA	IC	4.44E-01	<MDL	IC	1.11E-01	<MDL
Pb	AA	1.00E-03	<MDL	ICPMS	1.91E-03	<MDL	ICPMS	1.91E-03	<MDL
Phosphate	IC	NA	NA	IC	8.14E-01	<MDL	IC	2.04E-01	<MDL
Pr	ICPMS	NA	NA	ICPMS	5.17E-06	<MDL	ICPMS	5.17E-06	5.20E-06
Sb	AA	2.75E-04	8.28E-04	ICPMS	2.42E-04	<MDL	ICPMS	2.42E-04	<MDL
Se	AA	2.10E-04	4.43E-04	AA	2.10E-04	3.75E-04	AA	2.10E-04	2.83E-04
Sm	ICPMS	NA	NA	ICPMS	1.95E-06	7.57E-06	ICPMS	1.95E-06	1.36E-05
Sn	ICPMS	NA	NA	ICPMS	1.96E-02	<MDL	ICPMS	1.96E-02	<MDL
Sr	ICPES	3.79E-04	5.02E+00	ICPMS	5.30E-04	1.00E+00	ICPMS	5.30E-04	1.14E+00
Sulfate	IC	NA	NA	IC	8.64E-01	1.33E+03	IC	2.16E-01	7.37E+02
Th	ICPMS	NA	NA	ICPMS	5.58E-06	<MDL	ICPMS	5.58E-06	7.62E-06
Ti	ICPMS	NA	NA	ICPMS	3.92E-04	6.97E-02	ICPMS	3.92E-04	9.07E-02
Tl	ICPMS	NA	NA	ICPMS	7.91E-03	<MDL	ICPMS	7.91E-03	<MDL
U	ICPMS	NA	NA	ICPMS	1.90E-06	1.17E-03	ICPMS	1.90E-06	1.28E-03
V	ICPES	1.47E-03	3.04E-03	ICPMS	5.09E-04	2.22E-03	ICPMS	5.09E-04	2.81E-03
Zn	ICPES	9.89E-04	1.70E-02	ICPMS	2.15E-02	<MDL	ICPMS	2.15E-02	<MDL

	Collection Date and Sampling Depth					
	July 1, 1999 (0.9 m depth)			July 1, 1999 (13.4 m depth)		
Analyte	Method	MDL (mg L ⁻¹)	Result (mg L ⁻¹)	Method	MDL (mg L ⁻¹)	Result (mg L ⁻¹)
Ag	ICPMS	7.78E-05	<MDL	ICPMS	7.78E-05	<MDL
Al	ICPMS	1.74E-02	5.20E-02	ICPMS	1.74E-02	1.40E-01
As	AA	6.00E-05	1.68E-03	AA	6.00E-05	5.21E-03
Ba	ICPMS	4.49E-04	6.47E-02	ICPMS	4.49E-04	7.50E-02
Be	ICPMS	2.91E-05	<MDL	ICPMS	2.91E-05	<MDL
Ca	ICPMS	1.46E+01	3.47E+02	ICPMS	1.46E+01	5.00E+02
Cd	ICPMS	4.63E-04	<MDL	ICPMS	4.63E-04	<MDL
Ce	ICPMS	3.23E-05	8.07E-05	ICPMS	3.23E-05	2.66E-04
Chloride	IC	3.30E+00	1.07E+03	IC	3.30E+00	2.20E+03
Co	ICPMS	3.39E-05	1.81E-03	ICPMS	3.39E-05	2.99E-03
Cr	ICPMS	3.85E-04	6.27E-04	ICPMS	3.85E-04	8.61E-04
Cu	ICPMS	1.61E-03	4.69E-03	ICPMS	1.61E-03	5.56E-03
Dy	ICPMS	3.66E-06	5.79E-06	ICPMS	3.66E-06	2.34E-05
Er	ICPMS	1.39E-06	3.52E-06	ICPMS	1.39E-06	1.25E-05
Eu	ICPMS	2.03E-06	1.76E-05	ICPMS	2.03E-06	2.16E-05
Fe	ICPMS	3.40E-02	5.30E-02	ICPMS	3.40E-02	2.04E-01
Fluoride	IC	4.06E-02	4.29E-01	IC	4.06E-02	3.13E+00
Gd	ICPMS	4.07E-06	7.34E-06	ICPMS	4.07E-06	3.60E-05
Hg	AA	6.00E-06	<MDL	AA	6.00E-06	<MDL
K	ICPMS	5.89E+00	6.65E+00	ICPMS	5.89E+00	7.65E+00
La	ICPMS	1.77E-05	5.32E-05	ICPMS	1.77E-05	1.52E-04
Li	ICPMS	5.30E-02	<MDL	ICPMS	5.30E-02	6.85E-02
Mg	ICPMS	1.88E+00	1.04E+02	ICPMS	1.88E+00	1.63E+02
Mn	ICPMS	5.71E-02	<MDL	ICPMS	5.71E-02	6.55E-01
Mo	ICPMS	2.41E-05	3.30E-03	ICPMS	2.41E-05	2.43E-03

Na	ICPMS	1.93E+01	5.05E+02	ICPMS	1.93E+01	8.85E+02
Nd	ICPMS	1.41E-05	3.73E-05	ICPMS	1.41E-05	1.59E-04
Ni	ICPMS	1.75E-03	5.93E-03	ICPMS	1.75E-03	8.39E-03
Nitrate	IC	5.55E-01	<MDL	IC	5.55E-01	<MDL
Pb	ICPMS	1.91E-03	<MDL	ICPMS	1.91E-03	<MDL
Phosphate	IC	1.02E+00	<MDL	IC	1.02E+00	<MDL
Pr	ICPMS	5.17E-06	1.08E-05	ICPMS	5.17E-06	3.67E-05
Sb	ICPMS	2.42E-04	4.40E-04	ICPMS	2.42E-04	3.85E-04
Se	AA	2.60E-04	<MDL	AA	2.60E-04	<MDL
Sm	ICPMS	1.95E-06	3.11E-05	ICPMS	1.95E-06	5.85E-05
Sn	ICPMS	1.96E-02	<MDL	ICPMS	1.96E-02	<MDL
Sr	ICPMS	5.30E-02	5.00E+00	ICPMS	5.30E-02	7.40E+00
Sulfate	IC	1.08E+00	1.52E+03	IC	1.08E+00	2.61E+03
Th	ICPMS	5.58E-06	8.64E-06	ICPMS	5.58E-06	2.27E-05
Ti	ICPMS	3.92E-02	3.92E-01	ICPMS	3.92E-02	7.70E-01
Tl	ICPMS	7.91E-03	<MDL	ICPMS	7.91E-03	<MDL
U	ICPMS	1.90E-06	3.42E-03	ICPMS	1.90E-06	3.80E-03
V	ICPMS	5.09E-04	5.90E-03	ICPMS	5.09E-04	5.13E-03
Zn	ICPMS	2.15E-02	<MDL	ICPMS	2.15E-02	<MDL

^aMDL = Method Detection Limit

^bICPMS = Inductively-Coupled Mass Spectrometry

^cNA = Sample was not analyzed for target analyte

^dICPES = Inductively-Coupled Plasma Emission Spectroscopy

^eAA = Atomic Absorption Spectroscopy

^fIC = Ion Chromatography