

TABLE 1

Chemical Analyses, Calculated Ratios and Subsurface Temperatures for Samples

from the Mt. Princeton area, Chaffee County, Colorado

	Cottonwood Springs X74372	Cottonwood Springs (Sharp, 1970)	Cottonwood Springs X74531	Silver Cliff Ranch X74370	Silver Creek Dude Ranch X74532	Mt. Princeton X74328	Middle Mt. Princeton H. S. X74533	Mt. Princeton Hot Springs X74534	Hortense H. S. Mt. Princeton (Sharp, 1970)
Spring Temperature °C	43°C	52.2°C	51°C	66°C	53°C	51°C	48°C	56°C	83.8°C
pH	8.8	8.9	8.4	8.6	8.4	8.0	7.8	8.0	8.9
F (ppm)	14.0	13	15.0	17.0	15.0	8.2	6.7	7.9	13
Cl (ppm)	26.0	26	11.5	11.0	11.5	1.0	12.0	59	9.5
SO ₄ (ppm)	84.0	98	2	82	96	50	58	54	101
CaCO ₃ (ppm)	32.0	--	66	--	60	50	66	60	--
Na (ppm)	110	98	200	80	180	50	45	49	94
K (ppm)	3	2.5	3	3	3	2	2	2	2.9
SiO ₂ (ppm)	55.0	52	55	70	65.0	50	50	50	72
Ca (ppm)	5	6.3	6.0	13	4.9	10	40	10.1	3.4
Mg (ppm)	< 1	0.3	0.28	1.3	0.10	< 1	1.46	0.56	0
Li (ppm)	1.5	--	3	< 1	1.0	0.8	0.5	0.7	--
Mo (ppb)	8.8	--	8.2	80	80	60	50	50	--
Cu (ppb)	3	--	60	1	< 1	3	< 1	< 1	--
Fe (ppb)	120	0	100	100	< 100	< 100	< 100	< 100	--
Zn (ppb)	< 10	--	< 10	< 10	20	< 10	< 10	< 10	--
Mn (ppb)	< 10	0	630	10	< 10	< 10	< 10	< 10	0
TSiO ₂ °C	100°C	98°C	100°C	115	112	96°C	96°C	96°C	118°C
Na/K Atomic Ratio	62.3	66.4	113	45.3	102	42.5	38.2	41.6	55.1
TNa/K °C	65°C	--	--	105°C	--	109°C	115°C	111°C	80°C
Na-K-Ca	0.96	0.87	2.60	1.64	1.25	1.50	0.80	1.49	2.10
TNa-K-Ca °C	245°C	250°C	80°C	140°C	195°C	170°C	270°C	170°C	120°C
Cl/F Atomic Ratio	0.99	1.07	1.41	0.35	0.41	≈ 0.06	0.95	29.8	0.39
Na/Mg Atomic Ratio	≈ 116	346	757	65	1908	≈ 53	236	25.9	∞
Na/Ca Atomic Ratio	38.3	27	57.9	10.7	63.8	8.7	1.9	8.43	48