

TABLE 28—Geochemical character of vadose water in Carlsbad Cavern.

		Boyer (1964), mg/l		L. González (unpubl. data 1985), mg/l		This study, mg/l
		Drip water, 37 samples	Pool water, 30 samples	Drip water, 17 samples	Pool water, 22 samples	Pool water, 7 samples
Ca ⁺⁺	range	23.20–66.80	16.40–495.60	17.5705–81.3709	13.6860–9521.6555	—
	mean	39.20	82.80	47.5758	496.4934	—
Mg ⁺⁺	range	11.91–55.16	21.63–211.90	2.2301–64.6130	2.4643–3650.9699	—
	mean	29.89	52.49	31.3651	351.6024	—
K ⁺	range	0.39–6.65	0.78–46.53	0.3922–4.4036	0.4070–1002.9686	—
	mean	1.56	15.64	1.3550	95.5815	—
Na ⁺	range	3.45–9.43	4.83–11.96	1.2495–24.4631	1.3686–1930.3253	—
	mean	5.52	8.05	4.6450	123.4030	—
Sr ⁺⁺	range	—	—	0.0000–0.5669	0.000–29.7908	—
	mean	—	—	0.0612	1.5119	—
Mn ⁺⁺	range	—	—	0.0000–0.0096	0.0000–0.2667	—
	mean	—	—	0.0039	0.0224	—
Fe ⁺⁺	range	—	—	0.000–0.0271	0.0000–0.6972	—
	mean	—	—	0.0106	0.0524	—
SO ₄ ⁻	range	0.00–38.4	00.00–122.88	—	—	10.5–175.0
	mean	14.4	57.84	—	—	63.8
Cl ⁻	range	0.00–194.27	0.71–188.59	—	—	5.05–27.9
	mean	9.57	14.52	—	—	13.6
NO ₃ ⁻	range	—	—	—	—	9.4–580.0
	mean	—	—	—	—	165.1
HCO ₃ ⁻	range	204.96–649.04	112.24–912.56	91.10–370.37	46.30–537.59	—
	mean	340.38	315.37	215.93	187.87	—
pH	range	7.30–8.96	7.30–8.57	7.00–8.38	7.31–8.49	—
	mean	7.85	7.87	7.89	8.00	—