

Table 2: Porewater chemistry of Lake Cadagno sediments.

depth	NO ₃ ⁻	PO ₄ ³⁻	SO ₄ ²⁻	ΣH ₂ S	NH ₄ ⁺	Al	Ca	Fe	K	Mg	Mn	Na	DIC	d ¹³ C-DIC	d ¹⁸ O-DIC
(cm)	(umol/l)	(umol/l)	(umol/l)	(umol/l)	(umol/l)	(mmol/l)	(mmol/l)	(umol/l)	(umol/l)	(mmol/l)	(umol/l)	(umol/l)	(mmol/l)	0/00	0/00
0					0	1.85	1.41	0.18	78.52	1.10	1.82	16.53	2.97	-16.54	-13.63
1	0.00	15.53		12.8	157	3.34	1.45	0.18	62.41	1.18	1.82	22.18	3.71	-18.27	-13.67
2	0.00	15.53	1488.03	542.7	160	1.85	0.69	0.00	30.44	0.59	0.73	22.62	3.39	-15.55	-13.29
3	0.00	34.53	1347.40	490.3	200	3.34	1.39	0.00	53.46	1.13	1.46	21.75			
4	0.00	24.38	1793.56	534.6	243	2.22	1.50	0.54	55.25	1.21	0.73	19.57	3.50	-5.65	-13.31
6	0.00	14.98	1041.93	557.1	248	2.59	1.59	0.00	68.55	1.26	0.73	19.57	4.11	-9.84	-13.31
8	0.00	4.72		332.5									4.11	-12.23	-13.48
10	0.00	23.29	1105.19	383.2	313	2.59	1.56	1.79	61.38	1.23	0.36	20.01	4.15	-10.01	-13.40
12	0.00	35.47	461.69	441.1	354	2.59	1.73	0.54	76.22	1.33	0.18	20.88	5.78	-10.94	-13.52
14	0.00	21.46	400.81	390.9	474	2.96	1.42	0.00	55.76	1.21	0.36	20.88	6.09	-8.94	-13.25
16	0.00	19.46		374.5									6.45	-9.59	-13.38
18	0.00	23.46	218.79	179.8	463	2.22	1.73	0.00	71.87	1.33	1.09	20.88	7.19	-7.92	-12.73
20	0.00		10.55	269.6	515	1.85	1.28	0.00	56.78	1.02	1.27	16.53	4.50	-5.81	-13.19
22	0.00	14.04	8.63	296.1	392	3.34	1.54	0.72	67.78	1.20	2.18	20.44	4.72	-7.36	-13.64
24	0.00	12.57		207.6									6.87	-5.38	-13.54
26	0.00	21.17	5.20	252.4	425	6.67	1.81	0.18	87.98	1.36	5.64	29.14			
28	0.00	18.24	3.97	219.3	340	6.67	1.98	0.90	87.22	1.42	9.10	29.58	6.38	-0.71	-13.46
30	0.00	15.96	1.09	181.5	528								7.40	1.13	-13.23
32	0.00	17.70	1.34	140.3	443	7.04	1.86	0.54	87.47	1.32	11.10	34.80	8.61	0.13	
34	0.00	19.17	0.75	116.4	396	8.89	2.07	1.79	90.80	1.43	17.66	46.54	10.04	1.21	
36	0.00	10.65	0.43	186.1	472	6.30	1.97	0.00	87.47	1.40	19.84	27.40	9.16	2.10	
38	0.00	18.42	0.22	31.3	313	18.90	2.18	10.21	107.68	1.51	24.21	36.10	7.87	3.76	-14.97
40	0.00	7.18	0.09	6.4		7.04	1.95	79.33	84.91	1.33	26.39	33.06	8.48	4.97	
44	0.00	16.67		2.6	538	10.16	2.19	145.28	103.54	1.56	35.52	37.89	9.11	5.67	
132				2.1	661										
141.5	0.15	37.35	28.93	1.7	916	12.60	1.10	8.42	89.52	0.79	55.52	25.66	6.64	9.92	-13.93
151.5	0.56	30.28	13.55	2.1	982	1.85	1.06	20.06	84.15	0.75	64.25	26.53	5.78	9.97	-12.59
162.5					831	3.34	1.01	39.39	92.59	0.71	74.45	26.97			
171.5	0.39	45.13	9.01	2.9	500	3.71	0.94	53.54	90.29	0.64	72.45	26.53	5.32	12.10	-13.40
181.5	0.26	51.10		1.3	500	3.71	0.88	49.78	88.49	0.61	63.53	27.84	5.18	3.81	-13.75
200.5	0.26	43.22	12.80		793	1.85	0.84	37.43	84.91	0.55	65.16	29.14	5.15	11.29	-13.90
210.5	0.32	38.98	24.52	0.0	859	1.48	0.72	36.89	76.47	0.48	60.98	24.79	5.34	10.03	-14.04
223.90	0.91	29.05	21.39	4.2	963	1.85	0.77	34.02	69.06	0.47	63.16	33.06			
233.9	0.37	27.99	51.41	0.1	878	1.85	0.68	14.86	72.38	0.41	61.89	36.97	3.85	10.55	-13.81
245.9	0.84	61.69	18.40	1.1	595	2.22	0.66	30.98	79.80	0.41	66.62	27.40	4.61	9.83	-13.56

256.9	0.79	59.58	12.09	0.5	774	1.85	0.66	42.44	78.52	0.42	70.63	27.40	4.07	10.48	-13.93
269.9	0.16	25.01	6.97	2.3	595	1.85	0.61	17.91	77.24	0.37	77.18	33.06			
280.9	0.88	20.04	26.51		651	2.22	0.61	49.42	80.57	0.36	81.55	30.01	3.10	7.91	-13.66
291.00	0.29	30.33	8.62	0.7	368	1.85	0.59	45.48	72.89	0.34	84.64	28.71	3.82	9.69	-13.94
301	0.15	29.37	16.99	1.7	283	1.85	0.50	37.60	71.10	0.30	78.27	28.27	3.58	8.85	-14.14
312	0.32	29.57	1.44	0.7	462	1.11	0.37	30.80	52.43	0.21	62.98	19.57	3.23	8.64	-12.17
322.0	1.42	26.26	11.82	1.1	425										
342.0	0.35	13.01	1.93	4.1	519								3.44	8.18	-14.09
352.0	0.55	15.59	12.84	3.0	396										
362.0	0.27	15.46	3.45		402								3.09	7.36	-14.09
372.0					436								3.06	7.15	-13.88
382.0	0.19	15.29	10.62		470								2.84	6.38	-13.98
405				1.3	402										
415.0				4.4	436										
425.0	3.23	13.08	12.87		470								3.80	5.68	-14.23
434.0	2.71	17.30	26.31		442								4.02	6.25	-14.01
444.0													3.30	7.16	-13.95
453.0	1.46	13.71	24.02		698								3.99	7.12	-13.91
463.0	2.23	17.23	10.53		670								4.89	7.55	-14.19
471.5	8.30	21.43	22.45		557	4.45	0.85	78.79		0.45	44.41	46.54	4.91	7.60	-14.16
481.5	4.01	22.82	10.04		576	2.59	0.77	70.37	123.79	0.45	38.95	37.84	5.06	8.34	-14.13
491.5						2.96	0.93	64.11	122.26	0.48	36.95	49.59	5.20	8.14	-14.10
501.5	0.59	20.30	6.74		523	2.59	0.77	50.14	114.58	0.46	33.67	39.15	5.25	8.30	-14.05
511.5	0.90	28.16	2.96		340	2.22	0.81	53.72	122.26	0.49	34.58	40.89	5.15	8.54	-14.33
521.5	1.65	25.92	13.52		406	2.96	1.00	44.95	118.16	0.48	34.22	50.46	5.04	9.32	-13.58
531.5	1.66	30.30	11.54		453	1.85	0.79	38.14	121.49	0.50	35.68	30.88	5.30	8.80	-13.90
541.5	0.36	13.72	2.38		661	2.22	0.81	33.13	122.00	0.50	36.22	32.19	5.33	8.70	-14.24
551.5	0.86	28.73			500	2.22	0.79	23.46	119.70	0.52	35.68	34.36			
561.5						2.59	0.81	34.02	128.39	0.52	38.04	33.06			
572.3						2.22	0.71	70.73	121.49	0.43	47.69	30.01			
583.00	0.55	14.22	1.98		547	3.71	0.68	44.77	104.35	0.28	42.41	44.80	5.03	8.86	-14.23
593.0	0.99	33.50	4.30		406	2.22	0.53	55.51	113.30	0.28	46.78	31.75	5.31	8.51	-13.99
603.0					354	2.59	0.63	63.75	117.40	0.33	44.23	32.19			
613.0	3.20	22.24	5.33		302	2.59	0.58	60.35	104.10	0.34	42.96	24.36			
623.0	6.45	17.26	7.62		585	8.15	0.78	50.86	118.93	0.52	29.85	43.50			
634.0	0.85	19.08	4.01		472	7.04	0.77	53.18	119.19	0.53	36.22	35.67	5.16	8.19	-14.23
694.5	0.68	13.06	5.31	3.3	348										
704.5	0.38	15.81	6.31		428										
714.50					367								3.66	5.80	-14.24

726.50	0.98	9.81	8.52	1.0	345									3.89	6.70	-14.16
736.5	0.61	9.34	3.83	3.7	279											
746.50					279	7.78	0.89	17.73		0.59	42.41	67.86	3.41	1.44	-14.26	
756.5	0.74	7.13	13.49	2.3	230	5.93	0.63	14.33	122.77	0.40	23.66	54.37				
760.6	0.50	2.95	3.56	0.0	213	8.89	0.66	13.25	128.91	0.41	18.20	47.41				
770.6	0.88	2.21	11.87	3.7	140	6.67	0.58	12.89	130.95	0.37	13.65	67.42				
780.6	0.43	1.79	12.10	0.6	142	1.85	0.51	6.98	131.72	0.36	10.19	48.28	3.95	4.52	-14.27	
790.6	0.58	1.10	14.60	2.5	95	1.48	0.48	4.66	132.49	0.34	6.92	42.63	1.76	-10.98	-14.44	
800.6	0.58	0.00	75.36	2.3	89	4.08	0.47	2.87	131.21	0.33	3.09	39.15	2.02	-9.79	-14.53	
810.6	0.28	0.00	102.52	8.8	29	1.48	0.45	1.43	132.74	0.31	2.18	42.19	1.67	-10.86	-13.90	
820.6	0.27	0.00	152.32	2.6	31	3.34	0.51	0.90	130.95	0.31	1.46	76.56				
830.6	1.01	0.00	140.62	1.1	6	3.71	0.46	0.54	134.79	0.31	1.82	50.46	3.57	6.42	-14.18	
840.65		0.00			70	3.34	0.46	1.43	133.25	0.30	1.27	50.02	1.59	-11.11	-14.48	
850.6	0.45	0.00	116.58	1.3	77	2.96	0.46	0.36	133.51	0.31	1.09	47.41	1.56	-10.76	-14.35	
861.3	0.35	0.00	179.53	1.7	85	4.08	0.55	0.36	130.70	0.29	0.91	78.30	1.72	-11.03	-14.34	
871.3	0.28	0.00	167.77	3.2	53	2.22	0.41	0.72	125.07	0.29	0.91	38.28	1.54	-11.03	-14.42	
881.3	0.37	0.00	166.81	3.2	24	1.85	0.42	0.54	123.79	0.29	0.91	36.54	2.48	-8.88	-14.28	
891.3	0.57	0.00	153.85	1.9	55	1.48	0.41	0.18	125.07	0.28	0.91	36.54	1.62	-11.02	-14.42	
901.3	0.29	0.00	108.60	1.9	56	80.05	0.43	78.79	158.83	0.35	2.18	48.28	1.55	-11.03	-14.46	
911.3	0.41	0.00	98.73	2.9	51	1.85	0.43	1.07	128.65	0.29	0.91	35.23	1.62	-11.30	-14.19	
921.25	0.57	0.00	209.71	3.5	62	8.15	0.46	0.90	136.58	0.29	0.91	85.26				
931.25	0.39	0.00	129.92	4.5	70	5.93	0.47	1.43	135.30	0.30	0.91	97.00	1.41	-10.98	-14.39	