

Supplementary Table 3.4: Measured environmental parameters at 0.5m and 1 m intervals at Lac Castor and Oromocto Lake.

Lac Castor			Oromocto Lake		
Depth (m)	Temp (°C)	DO (µm/l)	Depth (m)	Temp (°C)	DO (µm/l)
0	21	9.42	0	25.4	2.4
1	20.9	9.32	1	24.6	2.5
2	20.9	9.62	2	24.2	2.4
3	20.7	9.6	3	24.6	2.4
4	20.2	9.5	4	23.8	2.3
5	20.1	9.52	5	23.3	2.3
6	20.1	9.75	6	23.6	2.2
7	20	9.6	7	23.5	2.3
8	19.9	9.54	8	23.3	2.2
8.5	16.8	15.5	9.5	23.2	2.2
9	14.3	16.7	10	NA	NA
9.5	12.3	14.57	11	NA	NA
10	11.4	12.07	12	NA	NA

Supplementary Table 3.5: The chemical, sedimentological, organic, and micropaleontological composition of the identified Arcellinida assemblages and sub-assemblages.

Lac Castor Assemblage (LCA)	Sample Code	Year Collected	Coordinates	Water Depth (m)	Surface pH	Surface DO (µm/l)	Conductivity (µm/S)	Bottom Temp (°C)
	L1	2010	46.14695, -76.03954	1.5	8.8	9.42	165	11.4
	L2	2010	46.14715, -76.03919	2.7	8.8	9.42	165	11.4
	L3	2010	46.14666, -76.03975	3.5	8.8	9.42	165	11.4
	L4	2010	46.14618, -76.03982	3.2	8.8	9.42	165	11.4
	L5	2010	46.14565, -76.03958	2.8	8.8	9.42	165	11.4
	L6	2010	46.14538, -76.03891	2.8	8.8	9.42	165	11.4
	Median	NA	NA	2.8	8.8	9.4	165.0	11.4
	Max	NA	NA	3.5	8.8	9.4	165.0	11.4
	Min	NA	NA	1.5	8.8	9.4	165.0	11.4

Lac Castor Assemblage (LCA)	Sample Code	Mo	Cu	Pb	Zn	Ag	Ni	Co	Fe	As	U	Au	Th	Sr	Mn	Cd	Sb	Bi	V
	L1	0.46	11.2	25.1	52.3	0.06	5.7	1.5	3700	0.05	0.4	0	0.5	306	215	0.52	0.14	0.1	7
	L2	1.02	14.9	32.4	63.1	0.08	9.8	2.2	5300	0.05	0.8	0	0.5	257.7	127	0.74	0.25	0.14	8
	L3	0.89	10.6	21.9	45.2	0.06	6.2	1.4	3800	0.3	0.7	0	0.4	227.6	139	0.53	0.16	0.1	6
	L4	1.08	10.4	18.6	46.8	0.05	6.4	1.5	3800	0.3	0.8	0	0.4	156.1	156	0.49	0.19	0.07	8
	L5	0.57	9.25	19	39.8	0.04	5.4	1.2	3300	0.05	0.5	0	0.3	215.6	151	0.51	0.14	0.08	6
	L6	0.52	6.68	13	30.7	0.04	4.6	0.9	2800	0.05	0.4	0	0.3	221.2	168	0.29	0.08	0.05	5
	Median	0.7	10.5	20.4	46.0	0.1	6.0	1.5	3750.0	0.1	0.6	0.0	0.4	224.4	153.5	0.5	0.2	0.1	6.5
	Max	1.1	14.9	32.4	63.1	0.1	9.8	2.2	5300.0	0.3	0.8	0.0	0.5	306.0	215.0	0.7	0.3	0.1	8.0
	Min	0.5	6.7	13.0	30.7	0.0	4.6	0.9	2800.0	0.1	0.4	0.0	0.3	156.1	127.0	0.3	0.1	0.1	5.0

Supplementary Table 3.5: Continued.

Lac Castor Assemblage (LCA)	Sample Code	Cd	Sb	Bi	V	Cr	Mg	Ba	Ti	Al	Na	K	Sc	Tl	S	Hg	Se	Ga
	L1	0.52	0.14	0.1	7	6.4	3600	109	180	2000	160	700	0.8	0.08	4600	0.06	1.3	0.7
	L2	0.74	0.25	0.14	8	8.7	3500	97.3	260	2700	160	900	1.3	0.1	7600	0.07	1.6	0.9
	L3	0.53	0.16	0.1	6	7	3000	84.9	170	1800	180	900	0.8	0.06	6300	0.05	1.4	0.6
	L4	0.49	0.19	0.07	8	6.8	2800	65.4	190	1800	130	700	0.7	0.07	6700	0.07	1.2	0.8
	L5	0.51	0.14	0.08	6	5.7	3000	79.7	160	1700	130	600	0.7	0.06	5200	0.04	1.2	0.6
	L6	0.29	0.08	0.05	5	5	2900	76	120	1300	120	600	0.7	0.04	5000	0.05	1	0.4
	Median	0.5	0.2	0.1	6.5	6.6	3000.0	82.3	175.0	1800.0	145.0	700.0	0.8	0.1	5750.0	0.1	1.3	0.7
	Max	0.7	0.3	0.1	8.0	8.7	3600.0	109.0	260.0	2700.0	180.0	900.0	1.3	0.1	7600.0	0.1	1.6	0.9
	Min	0.3	0.1	0.1	5.0	5.0	2800.0	65.4	120.0	1300.0	120.0	600.0	0.7	0.0	4600.0	0.0	1.0	0.4

Lac Castor Assemblage (LCA)	Sample Code	Cs	Nb	Rb	Sn	Zr	Y	Ce	Be	Li	Water	Organics	Carbonates	Minerogenics
	L1	0.18	0.38	3.6	0.8	0.5	5.7	12.2	0.05	1.8	0.9005	0.022054	0.028082	0.049401
	L2	0.22	0.51	4.7	1.1	0.7	7.19	14.5	0.2	2.5	0.9304	0.027708	0.012669	0.02919
	L3	0.15	0.37	3.4	0.7	0.6	5.33	11.3	0.2	1.7	0.933	0.026908	0.014198	0.025942
	L4	0.15	0.36	3	0.6	0.6	5.52	11.4	0.2	1.8	0.9381	0.028984	0.009921	0.023032
	L5	0.14	0.3	2.8	0.5	0.5	5.47	10.3	0.05	1.5	0.8994	0.026567	0.02797	0.046024
	L6	0.11	0.28	2.3	0.4	0.5	4.02	7.7	0.05	1.2	0.9247	0.024489	0.018936	0.031911
	Median	0.2	0.4	3.2	0.7	0.6	5.5	11.4	0.1	1.8	92.75%	2.67%	1.66%	3.06%
	Max	0.2	0.5	4.7	1.1	0.7	7.2	14.5	0.2	2.5	0.9	2.90%	2.81%	4.94%
	Min	0.1	0.3	2.3	0.4	0.5	4.0	7.7	0.1	1.2	0.9	2.21%	0.99%	2.30%

Supplementary Table 3.5: Continued.

Lac Castor Assemblage (LCA)	Sample Code	Sand	Silt	Clay	D/C	SDI	AV %	CAA %	CAD %	CCA %	CCC %	CCS %	CK %	CT %
	L1	15.6	76.4	8.06	0.13	1.88	1.1	3.2	1.3	36.7	23.9	12	0	10.9
	L2	8.04	81.7	10.2	0.15	2	2.8	5.6	3.4	33.8	15.3	17.2	0	9.4
	L3	12.8	78.8	8.35	0.08	1.78	1	6.9	2.3	31.9	29.9	14.1	0	7.2
	L4	15.8	75.7	8.61	0.04	1.32	0	1.6	0	57.5	16.5	8.4	0	12.4
	L5	10.8	80.5	8.73	0.05	1.41	0.3	0.8	2.2	52.8	22.8	5	0	11.4
	L6	13.5	79.5	6.95	0.08	1.42	0	0	4.9	57.9	12.2	3.8	0	14.7
	Median	13.2	79.2	8.5	0.080	1.600	0.7	2.4	2.3	44.8	19.7	10.2	0.0	11.2
	Max	15.8	81.7	10.2	0.150	2.0	2.8	6.9	4.9	57.9	29.9	17.2	0.0	14.7
	Min	8.0	75.7	7.0	0.040	1.3	0.0	0.0	0.0	31.9	12.2	3.8	0.0	7.2

Lac Castor Assemblage (LCA)	Sample Code	DB %	MC %	DGG %	DGM %	DGD %	DOB %	DOLan %	DOLin %	DOO %	DOS %	DOT %	DP %	DA %
	L1	0	1.6	0	0	0	0	0	0	2.1	0	1.3	0.3	0.3
	L2	0	2.8	0	0	0	0	0	0.3	1.3	0	0	0	0.3
	L3	0	1.3	0	0	0	0	0	0	2	0	0	0	0.3
	L4	0	0.9	0	0	0	0	0	0	0.3	0	0.3	0	0
	L5	0	0	0	0	0	0	0	0	0	0	0	0	0
	L6	0	1.1	0	0	0.5	0	0	0	0.5	0	0	0.3	0.3
	Median	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.3
	Max	0.0	2.8	0.0	0.0	0.5	0.0	0.0	0.3	2.1	0.0	1.3	0.3	0.3
	Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Supplementary Table 3.5: Continued.

Oromocto Lake 2010 Sub- assemblage (OL10)	Sample Code	Year Collected	Coordinates	Water Depth (m)	Surface pH	Surface DO (µm/l)	Conductivity (µm/S)	Bottom Temp (°C)
	O1	2010	45.64457, -66.99838	3	7.35	2.4	21	24
	O2	2010	45.64422, -66.99818	3.2	7.35	2.4	21	24
	O3	2010	45.64203, -66.99005	3.4	7.35	2.4	21	24
	O4	2010	45.64305, -66.99738	3.8	7.35	2.4	21	24
	O11	2012	45.6449, -66.9946	3	7.35	2.4	21	23
	O6	2010	45.64188, -66.99641	4.5	7.35	2.4	21	24
	O7	2010	45.64234, -66.99836	3.7	7.35	2.4	21	24
	O8	2010	45.64217, -66.99937	3.3	7.35	2.4	21	24
	O9	2010	45.64156, -67.00030	3	7.35	2.4	21	24
	O10	2010	45.64298, -66.99609	4.6	7.35	2.4	21	24
	Median	NA	NA	3.4	7.4	2.4	21.0	24.0
	Max	NA	NA	4.6	7.4	2.4	21.0	24.0
	Min	NA	NA	3.0	7.4	2.4	21.0	23.0

Oromocto Lake 2010 Sub- assemblage (OL10)	Sample Code	Bottom Temp (°C)	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U
	O1	24	0.43	7.53	29.7	75.6	0.056	18.7	10.3	1534	15700	2.6	1.1
	O2	24	0.5	9.35	32.86	81.6	0.061	20.3	12	2430	16500	3.1	1.2
	O3	24	0.55	7.95	31.93	81.1	0.084	19.3	10.4	1955	17500	4.3	1.1
	O4	24	0.48	9.04	34.16	88	0.096	21.8	9.8	1386	18800	3.1	1.4
	O11	23	0.32	6.58	23.4	63.1	0.048	16.6	8.3	1354	15200	3.1	0.9
	O6	24	0.44	10.86	44.11	99.6	0.114	23.5	9.5	965	18200	3.2	1.5
	O7	24	0.65	10.01	38.62	101.9	0.103	23.5	11.7	1510	20800	4.7	1.5
	O8	24	0.7	9.59	36.17	93.4	0.085	23.4	12	2803	21400	4.1	1.5
	O9	24	0.75	8.77	36.98	92	0.069	22.1	11.1	1958	24100	6.8	1.3
	O10	24	0.43	10.01	37.55	85.1	0.094	22.1	8.8	700	16200	2.3	1.3
	Median	24.0	0.5	9.2	35.2	86.6	0.1	22.0	10.4	1522.0	17850.0	3.2	1.3
	Max	24.0	0.8	10.9	44.1	101.9	0.1	23.5	12.0	2803.0	24100.0	6.8	1.5
	Min	23.0	0.3	6.6	23.4	63.1	0.0	16.6	8.3	700.0	15200.0	2.3	0.9

Supplementary Table 3.5: Continued.

Oromocto Lake 2010 Sub- assemblage (OL10)	Sample Code	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg
	O1	0.0001	0.6	11.9	0.66	0.22	0.19	21	1700	490	12.7	16.8	3300
	O2	0.0004	0.6	14.6	0.65	0.24	0.19	23	2000	540	13.4	20.2	3500
	O3	0.0001	0.6	13.6	0.73	0.21	0.2	21	1800	600	13.7	17.4	3400
	O4	0.0001	0.6	17	0.52	0.29	0.22	23	2400	710	16.4	21.5	4100
	O11	0.0015	0.7	9.6	0.5	0.19	0.11	19	2000	420	11.9	15.6	3400
	O6	0.0001	0.6	17.3	0.55	0.28	0.25	23	2600	730	16.6	21.3	4100
	O7	0.0001	0.6	17.9	0.77	0.3	0.26	26	2300	750	17	22.8	4100
	O8	0.0027	0.6	17.7	0.67	0.27	0.28	25	2300	660	16.9	21.8	3800
	O9	0.0011	0.7	13.8	0.61	0.28	0.24	25	1900	590	15.7	20.9	3600
	O10	0.0008	0.5	14.5	0.59	0.27	0.23	21	2200	660	15.1	21.3	3800
	Median	0.0	0.6	14.6	0.6	0.3	0.2	23.0	2100.0	630.0	15.4	21.1	3700.0
	Max	0.0	0.7	17.9	0.8	0.3	0.3	26.0	2600.0	750.0	17.0	22.8	4100.0
	Min	0.0	0.5	9.6	0.5	0.2	0.1	19.0	1700.0	420.0	11.9	15.6	3300.0

Oromocto Lake 2010 Sub- assemblage (OL10)	Sample Code	Ba	Ti	Al	Na	K	Sc	Tl	S	Hg	Se	Ga	Cs
	O1	68.5	150	9500	140	700	1.5	0.08	700	0.043	0.2	3.2	1.15
	O2	75.7	140	10900	50	600	1.9	0.09	1000	0.041	0.3	3.3	1.19
	O3	77.3	140	10300	100	700	1.5	0.09	900	0.055	0.5	3.1	1.13
	O4	81.3	150	13000	40	700	2	0.08	1100	0.086	0.2	3.8	1.29
	O11	58	190	9000	200	800	2	0.07	600	0.048	0.5	2.9	1.04
	O6	81.4	160	13700	30	700	2	0.08	1200	0.082	0.5	3.8	1.36
	O7	91.8	150	14000	40	700	2	0.1	1200	0.079	0.5	4.2	1.38
	O8	101.9	160	13400	30	800	2	0.11	1100	0.052	0.6	3.9	1.35
	O9	89	150	12800	50	700	2	0.1	900	0.046	0.5	3.6	1.21
	O10	72.5	150	12200	30	700	1.7	0.1	1000	0.066	0.6	3.9	1.38
	Median	79.3	150.0	12500.0	45.0	700.0	2.0	0.1	1000.0	0.1	0.5	3.7	1.3
	Max	101.9	190.0	14000.0	200.0	800.0	2.0	0.1	1200.0	0.1	0.6	4.2	1.4
	Min	58.0	140.0	9000.0	30.0	600.0	1.5	0.1	600.0	0.0	0.2	2.9	1.0

Supplementary Table 3.5: Continued.

Oromocto Lake 2010 Sub-assemblage (OL10)	Sample Code	Nb	Rb	Sn	Zr	Y	Ce	Be	Li	Water	Organics	Carbonates	Minerogenic
	O1	0.35	8.4	1.3	0.3	7.91	29.7	0.5	16.1	0.769173	0.023371	0.002604	0.204852
	O2	0.31	9.2	1.1	0.4	8.98	30.9	0.4	15.1	0.818758	0.022706	0.00283	0.155707
	O3	0.23	8.6	1.1	0.3	9.3	29.4	0.3	14.6	0.727366	0.02425	0.003199	0.245185
	O4	0.3	10.9	1.4	0.5	11.75	36.5	0.7	17.7	0.769689	0.026834	0.003731	0.199746
	O11	0.32	7.6	0.9	0.3	7.36	27	0.4	16	0.769371	0.019148	0.002101	0.20938
	O6	0.36	10.5	1.6	0.3	12.32	38.8	0.6	19.9	0.795517	0.026707	0.003477	0.174299
	O7	0.35	10.9	1.5	0.4	13.26	37.8	0.8	20.2	0.793683	0.027954	0.002984	0.175379
	O8	0.31	10.3	1.4	0.3	12.37	38.2	0.8	21.2	0.779738	0.025116	0.003951	0.191195
	O9	0.26	9.3	1.4	0.3	11.63	35.8	0.8	20.1	0.784226	0.021958	0.003809	0.190007
	O10	0.43	10.3	1.6	0.3	10.84	34.6	0.6	20.3	0.774269	0.027632	0.003509	0.194591
	Median	0.3	9.8	1.4	0.3	11.2	35.2	0.6	18.8	77.70%	2.47%	0.33%	19.29%
	Max	0.4	10.9	1.6	0.5	13.3	38.8	0.8	21.2	0.8	2.80%	0.40%	24.52%
	Min	0.2	7.6	0.9	0.3	7.4	27.0	0.3	14.6	0.7	1.91%	0.21%	15.57%

Oromocto Lake 2010 Sub-assemblage (OL10)	Sample Code	Sand	Silt	Clay	D/C	SDI	AV %	CAA %	CAD %	CCA %	CCC %	CCS %	CK %
	O1	31.71	60.16	8.14	2.05	2.79	0	2	2	14	6.1	2.4	0.4
	O2	58.15	37.2	4.65	2.63	2.8	0.3	3	0.6	8.8	4.6	1.8	0.6
	O3	42.71	50.51	6.78	1.53	2.65	0.7	4.9	4.9	10.2	4.9	6.6	0.7
	O4	43.84	49.67	6.48	1.71	2.47	0.6	0	0	18.8	8.5	1.4	1.2
	O11	58.75	35.79	5.46	1.37	2.81	0.20	4.20	1.90	15.20	5.80	4.20	4.10
	O6	22.45	66.6	10.95	3.24	2.51	0.6	0	0.3	10.3	6.9	1.6	0
	O7	21.5	69.03	9.47	2.38	2.62	0.2	2.3	1	12.5	4.1	2.6	1.8
	O8	31.93	59.48	8.59	2.29	2.81	0	4.4	1.9	14.8	2.4	0.7	0
	O9	33.78	58.64	7.59	1.98	2.55	0	1.4	0	22	4.3	0	0
	O10	29	62.02	8.99	2.41	2.76	0.3	3.7	1.5	11.4	4.6	1.2	0
	Median	32.9	59.1	7.9	2.2	2.7	0.25	2.65	1.25	13.25	4.75	1.70	0.50
	Max	58.8	69.0	11.0	3.2	2.81	0.7	4.9	4.9	22.0	8.5	6.6	4.1
	Min	21.5	35.8	4.7	1.4	2.47	0.0	0.0	0.0	8.8	2.4	0.0	0.0

Supplementary Table 3.5: Continued.

Oromocto Lake 2010 Sub-assemblage (OL10)	Sample Code	CT %	DB %	MC %	DGG %	DGM %	DGD %	DOB %	DOLan %	DOLin %	DOO %	DOS %	DOT %
	O1	6.3	1.5	0.6	5.4	0	4.8	0.2	6.8	5.2	15.7	0	6.8
	O2	7	0	0.6	7.9	2.7	4	0	0.9	1.8	17.3	0.9	7.3
	O3	6.3	1.3	0	5.6	3	0	0	2.3	4.9	19.4	0.7	0
	O4	6.5	0	0.8	0	1.2	0	0	0	3	13.9	0	9.9
	O11	5.30	0.90	0.50	3.90	2.10	1.80	0.00	3.40	4.60	11.50	0.20	12.70
	O6	7.5	0	0.6	4	0	0	0	0.3	1.6	17.1	0	12.1
	O7	7.7	0	0.3	1.2	0.7	0.3	0	1.3	2.6	15.5	0.2	15.3
	O8	6.5	1.9	0.7	6.1	0	1	0	1.5	3.1	12.8	0.7	10.2
	O9	5.9	1.4	0.2	4.5	0	0	0.2	4.5	5.5	14.2	0	6.6
	O10	5.6	2.5	0.9	4.6	0	3.4	0	0.6	4.9	16	0	10.2
	Median	6.40	1.10	0.60	4.55	0.35	0.65	0.00	1.40	3.85	15.60	0.10	10.05
	Max	7.7	2.5	0.9	7.9	3.0	4.8	0.2	6.8	5.5	19.4	0.9	15.3
	Min	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	11.5	0.0	0.0

Oromocto Lake 2010 Sub-assemblage (OL10)	Sample Code	DP %	DA %	DCI %	DUE %	DUU %	DU %	DSc %	DCur %	DE %	LV %	LS %	PC %	DAI %	DAB %
	O1	0	1.3	1.5	0	0.2	0.7	0	0.2	3.3	0.6	7.4	3.5	0.2	1.1
	O2	2.1	1.2	0.3	0	0	0.6	0.9	0.3	3	3	11.9	6.4	0	0
	O3	0	3.3	0	0.3	0	0	0	0	9.5	0.7	9.2	0.7	0	0
	O4	2.2	3.8	0	0	0	0	1.6	0	15	0.8	7.1	2.8	0	1
	O11	0.40	1.20	0.00	0.20	0.20	0.00	0.20	0.20	4.60	0.50	6.90	2.80	0.00	0.40
	O6	2.2	10.3	0	0	0	0	0	0.3	13.7	1.6	5.6	2.2	0.6	0.6
	O7	0.8	7.9	0.3	0	0.2	0	0	0.8	10.9	1.8	6.6	1	0	0.2
	O8	1.7	3.1	2.9	0.2	0	0	0.5	1.9	6.3	2.2	10.4	1.2	0.2	0.5
	O9	0.5	3.3	2.4	0	0	0.5	0	1.4	9	0	9	2.4	0.2	0.5
	O10	1.2	2.5	0	0	0.3	0	0	0.3	7.1	2.2	6.5	8	0	0.3
	Median	1.00	3.20	0.15	0.00	0.00	0.00	0.00	0.30	8.05	1.20	7.25	2.60	0.00	0.45
	Max	2.2	10.3	2.9	0.3	0.3	0.7	1.6	1.9	15.0	3.0	11.9	8.0	0.6	1.1
	Min	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	5.6	0.7	0.0	0.0

Supplementary Table 3.5: Continued.

	Sample Code	Year Collected	Coordinates	Water Depth (m)	Surface pH	Surface DO (µm/l)	Conductivity (µm/S)	Bottom Temp (°C)
Oromocto Lake 2012 Sub- assemblage (OL12)	O5	2010	45.64249, -66.9969	4	7.35	2.4	21	24
	O12	2012	45.6435, -66.9981	2	7.35	2.4	21	23
	O13	2012	45.6422, -66.9971	3	7.35	2.4	21	23
	O14	2012	45.6413, -66.9959	5	7.35	2.4	21	23
	O15	2012	45.6415, -66.9957	5	7.35	2.4	21	23
	O16	2012	45.6426, -66.9978	7	7.35	2.4	21	23
	Median	NA	NA	4.5	7.4	2.4	21.0	23.0
	Max	NA	NA	7.0	7.4	2.4	21.0	24.0
	Min	NA	NA	2.0	7.4	2.4	21.0	23.0
Oromocto Lake Assemblage (OLA)	Median	NA	NA	0.9	5.9	2.3	2.6	0.1
	Max	NA	NA	7.0	7.9	3.0	21.0	24.0
	Min	NA	NA	0.0	0.0	0.0	0.0	0.0

	Sample Code	Mo	Cu	Pb	Zn	Ag	Ni	Co
Oromocto Lake 2012 Sub- assemblage (OL12)	O5	0.51	9.99	36.14	96.7	0.092	22.7	10.1
	O12	0.59	10.35	33.43	102.9	0.085	21.8	12
	O13	0.66	11.51	36.78	102.3	0.089	23.6	12.2
	O14	0.42	10.34	44.44	93.3	0.105	21.7	7.8
	O15	0.54	10.01	44.7	95.1	0.107	21.6	8.4
	O16	0.53	10.38	37.2	101.4	0.098	23.3	10.1
	Median	0.5	10.3	37.0	99.1	0.1	22.3	10.1
	Max	0.7	11.5	44.7	102.9	0.1	23.6	12.2
	Min	0.4	10.0	33.4	93.3	0.1	21.6	7.8
Oromocto Lake Assemblage (OLA)	Median	0.6	5.2	18.3	0.7	8.3	22.3	10.1
	Max	6.8	11.5	44.7	102.9	15.3	23.6	12.2
	Min	0.0	1.6	11.5	0.0	0.0	21.6	7.8

Supplementary Table 3.5: Continued.

Oromocto Lake 2012 Sub- assemblage (OL12)	Sample Code	Mn	Fe	As	U	Au	Th	Sr
	O5	1161	21100	3.7	1.4	0.0011	0.7	18.7
	O12	1964	20200	4.4	1.4	0.0006	0.5	20.5
	O13	2233	22400	5.4	1.6	0.0014	0.6	19.1
	O14	404	16100	2.5	1.4	0.0016	0.7	13.6
	O15	538	16500	2.7	1.5	0.0001	0.6	14.8
	O16	1194	19300	3.3	1.6	0.0011	0.6	15
	Median	1177.5	19750.0	3.5	1.5	0.0	0.6	16.9
	Max	2233.0	22400.0	5.4	1.6	0.0	0.7	20.5
	Min	404.0	16100.0	2.5	1.4	0.0	0.5	13.6
Oromocto Lake Assemblage (OLA)	Median	1177.5	19750.0	3.5	1.5	0.0	0.6	16.9
	Max	2233.0	22400.0	5.4	1.6	0.0	0.7	20.5
	Min	404.0	16100.0	2.5	1.4	0.0	0.5	13.6

Oromocto Lake 2012 Sub- assemblage (OL12)	Sample Code	Cd	Sb	Bi	V	Ca	P	La
	O5	0.58	0.29	0.24	23	3400	790	16.7
	O12	1.17	0.25	0.2	24	2900	770	16.4
	O13	1.03	0.29	0.24	26	2700	810	17.8
	O14	0.63	0.33	0.26	24	2200	700	17.3
	O15	0.62	0.34	0.25	23	2400	710	16.9
	O16	0.84	0.26	0.24	25	2200	750	17.7
	Median	0.7	0.3	0.2	24.0	2550.0	760.0	17.1
	Max	1.2	0.3	0.3	26.0	3400.0	810.0	17.8
	Min	0.6	0.3	0.2	23.0	2200.0	700.0	16.4
Oromocto Lake Assemblage (OLA)	Median	0.7	0.3	0.2	24.0	2550.0	760.0	17.1
	Max	1.2	0.3	0.3	26.0	3400.0	810.0	17.8
	Min	0.6	0.3	0.2	23.0	2200.0	700.0	16.4

Supplementary Table 3.5: Continued.

Oromocto Lake 2012 Sub- assemblage (OL12)	Sample Code	Cr	Mg	Ba	Ti	Al	Na	K
	O5	22.2	4200	79.1	150	13600	50	700
	O12	21.6	3900	96.9	140	12700	370	1200
	O13	23	4100	95.5	160	14400	220	1000
	O14	20.7	3800	70.1	170	13300	30	800
	O15	20.6	3800	74.3	180	13000	20	800
	O16	24.9	4000	83.8	150	14500	100	800
	Median	21.9	3950.0	81.5	155.0	13450.0	75.0	800.0
	Max	24.9	4200.0	96.9	180.0	14500.0	370.0	1200.0
	Min	20.6	3800.0	70.1	140.0	12700.0	20.0	700.0
Oromocto Lake Assemblage (OLA)	Median	21.9	3950.0	81.5	155.0	13450.0	75.0	800.0
	Max	24.9	4200.0	96.9	180.0	14500.0	370.0	1200.0
	Min	20.6	3800.0	70.1	140.0	12700.0	20.0	700.0

Oromocto Lake 2012 Sub- assemblage (OL12)	Sample Code	Sc	Tl	S	Hg	Se	Ga	Cs
	O5	1.9	0.1	1100	0.062	0.8	3.9	1.38
	O12	1.9	0.1	1100	0.082	0.9	4.2	1.42
	O13	2.2	0.11	1200	0.108	0.8	4.2	1.48
	O14	2.1	0.1	1100	0.085	0.9	3.7	1.35
	O15	2.1	0.1	1000	0.113	0.5	4.1	1.48
	O16	2.3	0.1	1100	0.067	0.7	4	1.4
	Median	2.1	0.1	1100.0	0.1	0.8	4.1	1.4
	Max	2.3	0.1	1200.0	0.1	0.9	4.2	1.5
	Min	1.9	0.1	1000.0	0.1	0.5	3.7	1.4
Oromocto Lake Assemblage (OLA)	Median	2.1	0.1	1100.0	0.1	0.8	4.1	1.4
	Max	2.3	0.1	1200.0	0.1	0.9	4.2	1.5
	Min	1.9	0.1	1000.0	0.1	0.5	3.7	1.4

Supplementary Table 3.5: Continued.

	Sample Code	Nb	Rb	Sn	Zr	Y	Ce	Be	Li
Oromocto Lake 2012 Sub- assemblage (OL12)	O5	0.37	10.7	1.5	0.6	13.25	37.4	0.9	19.1
	O12	0.34	11.7	1.3	0.3	11.17	36.3	1	18.9
	O13	0.39	11.5	1.3	0.5	12.14	39.3	0.9	19.6
	O14	0.36	10	1.4	0.3	11.97	38.3	0.8	18.3
	O15	0.39	10.6	1.6	0.3	11.91	39	0.8	19.6
	O16	0.33	11.5	1.5	0.3	13.03	39	0.9	20
	Median	0.4	11.1	1.5	0.3	12.1	38.7	0.9	19.4
	Max	0.4	11.7	1.6	0.6	13.3	39.3	1.0	20.0
	Min	0.3	10.0	1.3	0.3	11.2	36.3	0.8	18.3
Oromocto Lake Assemblage (OLA)	Median	0.4	11.1	1.5	0.3	12.1	38.7	0.9	19.4
	Max	0.4	11.7	1.6	0.6	13.3	39.3	1.0	20.0
	Min	0.3	10.0	1.3	0.3	11.2	36.3	0.8	18.3

	Sample Code	Water	Organics	Carbonates	Minerogenic	Sand	Silt	Clay
Oromocto Lake 2012 Sub- assemblage (OL12)	O5	0.808403	0.023941	0.003166	0.16449	36.92	55.36	7.72
	O12	0.808487	0.022237	0.002256	0.16702	37.61	56.14	6.25
	O13	0.823108	0.022276	0.002163	0.152452	79.67	17.91	2.42
	O14	0.696026	0.034348	0.003243	0.266383	24.64	64.17	11.19
	O15	0.693764	0.033836	0.002993	0.269407	14.15	74.05	11.8
	O16	0.649177	0.03993	0.003441	0.307451	23.69	68.72	7.59
	Median	75.22%	2.89%	0.31%	21.67%	30.8	60.2	7.7
	Max	82.31%	3.99%	0.34%	30.75%	79.7	74.1	11.8
	Min	64.92%	2.22%	0.22%	15.25%	14.2	17.9	2.4
Oromocto Lake Assemblage (OLA)	Median	75.22%	2.89%	0.31%	21.67%	30.8	60.2	7.7
	Max	82.31%	3.99%	0.34%	30.75%	79.7	74.1	11.8
	Min	64.92%	2.22%	0.22%	15.25%	14.2	17.9	2.4