

	GOOSE PROJECT											
	Summary of Water Quality Data											
	Umwelt Lake				Llama Lake							
Sample Date	20-Aug-10	13-Apr-11	13-Apr-11	5-Aug-11	20-Aug-10	20-Aug-10	12-Apr-11	12-Apr-11	6-Aug-11	6-Aug-11	6-Aug-11	
SampleDepth (m)	1	0	0	1	7	1	12	1	6.7	6.7	1	
Cond-L uS/cm	30.2	175	173	49.3	37.8	37.9	74.6	65.3	55.0	54.9	54.9	
Hard-T mg/L	11.2	79.5	83.6	17.7	14.7	14.7	29.4	25.3	20.2	20.3	20.3	
pH-L pH units	6.6	7.06	7.07	6.91	6.74	6.69	7.05	7.09	6.93	6.93	6.93	
Alk-bicarb mg/L	4.1	32.7	32.3	4.5	5.0	5.0	9.8	9.9	5.1	4.8	4.8	
Alk-carb mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Alk-hydrox mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Alk-T mg/L	4.1	32.7	32.3	4.5	5.0	5.0	9.8	9.9	5.1	4.8	4.8	
TSS mg/L**	<3.0	3.3	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	
TDS mg/L	26	129	127	34	31	28	55	46	43	39	38	
Turbidity Lab NTU	0.44	0.62	0.65	0.43	0.38	0.45	1.11	0.26	0.33	0.32	0.29	
N-NH3 mg/L	<0.0050	0.0682	0.066	<0.0050	0.0060	<0.0050	0.0113	0.0153	<0.0050	<0.0050	0.0138	
N-NO3 mg/L	<0.0050	0.0487	0.0569	0.0063	<0.0050	<0.0050	0.0822	0.0362	<0.0050	0.0057	0.0111	
N-NO2 mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
N-KJ mg/L	0.243	0.64	0.639	0.233	2.30	0.173	0.206	0.208	0.144	0.130	0.157	
P-ortho-D mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
P-T (met) mg/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	
Phosphorus (P)-Total	0.0055	0.0063	0.0137	0.0064	0.0037	0.0043	0.0030	0.0025	0.0028	0.0026	0.0030	
Bromide mg/L	<0.050	0.081	0.078	<0.050	<0.050	<0.050	<0.050	<0.050	0.072	0.074	0.055	
Chloride mg/L	3.7	23.6	23.3	9.8	5.26	5.27	9.99	8.78	11.1	11.1	11.1	
Fluoride mg/L	<0.020	0.037	0.037	0.021	<0.020	<0.020	0.022	0.025	<0.020	<0.020	<0.020	
SO4-- (sulfate) mg/L	3	13.5	13.4	3.28	3.71	3.70	7.62	6.79	3.81	3.82	3.82	
CN-T mg/L				0.0016					0.0016	0.0029	0.0029	
CN-Free mg/L				<0.0050					<0.0050	<0.0050	<0.0050	
Cyanide WAD mg/L												
Total Org Carbon mg/L	4.5	10.9	10.6	4.66	3.57	3.58	3.90	4.30	3.34	3.41	3.47	
Total metals												
Al-T mg/L	0.0124	0.0108	0.0108	0.0164	0.0117	0.0150	0.0273	0.0068	0.0169	0.0150	0.0223	
Sb-T mg/L	<0.00010	<0.00010	<0.00010	<0.000050	<0.00010	<0.00010	<0.00010	<0.00010	<0.000050	<0.000050	<0.000050	
As-T mg/L	<0.00030	0.000656	0.000612	0.000298	0.000318	<0.00030	0.000288	0.000305	0.000265	0.000270	0.000275	
Ba-T mg/L	0.00462	0.0429	0.042	0.00895	0.00650	0.00669	0.0145	0.0119	0.0101	0.0101	0.00995	
Be-T mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	
Bi-T mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
B-T mg/L	0.0085	0.0096	0.0099	<0.0050	0.0108	0.0095	0.0091	0.0084	0.0051	<0.0050	<0.0050	
Ca-T mg/L	2.37	17.2	17.8	4.27	3.69	3.69	6.78	6.12	5.62	5.60	5.59	
Cs-T mg/L												
Cr-T mg/L	0.00167	0.00021	0.00019	0.00015	<0.00050	0.00072	0.00019	<0.00010	0.00022	0.00017	0.00016	
Co-T mg/L	<0.00010	0.000028	0.00027	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Cu-T mg/L	0.00349	0.0031	0.00298	0.00133	0.00147	0.00286	0.00183	0.00176	0.00113	0.00119	0.00125	
Ga-T mg/L												
Fe-T mg/L	0.085	0.107	0.104	0.086	0.024	0.033	0.041	<0.010	0.022	0.021	0.021	
Pb-T mg/L	0.000125	<0.000050	<0.000050	0.000219	<0.000050	0.000088	<0.000050	<0.000050	<0.000050	0.000082	0.000202	
Li-T mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Mg-T mg/L	1.34	9.39	9.42	1.85	1.36	1.41	3.06	2.78	1.71	1.73	1.71	
Mn-T mg/L	0.00143	0.0172	0.0175	0.00133	0.00200	0.00237	0.00611	0.00148	0.00230	0.00237	0.00230	
Hg-T mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Mo-T mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000056	0.000059	<0.000050	<0.000050	<0.000050	
Ni-T mg/L	0.00828	0.00747	0.00732	0.00143	0.00161	0.00502	0.00263	0.00240	0.00155	0.00160	0.00156	
K-T mg/L	0.5	2.27	2.29	0.579	0.589	0.580	0.982	0.929	0.601	0.609	0.598	
Re-T mg/L												
Rb-T mg/L												
Se-T mg/L	<0.00020	<0.00010	<0.00010	<0.00010	<0.00020	<0.00020	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Si-T mg/L	0.306	1.56	1.52	0.314	0.250	0.258	0.693	0.577	0.292	0.287	0.290	
Ag-T mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Na-T mg/L	0.771	3.86	3.86	0.85	0.805	0.816	1.39	1.28	0.791	0.797	0.791	
Sr-T mg/L	0.0129	0.0843	0.0843	0.0263	0.0281	0.0281	0.0495	0.0462	0.0397	0.0399	0.0395	
S-T mg/L												
Te-T mg/L												
Tl-T mg/L	<0.00010	<0.00010	<0.00010	<0.000050	<0.00010	<0.00010	<0.00010	<0.00010	<0.000050	<0.000050	<0.000050	
Th-T mg/L												
Sn-T mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Ti-T mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
W-T mg/L												
U-T mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
V-T mg/L	<0.00050	0.000081	0.000067	<0.000050	<0.00050	<0.00050	0.000077	<0.000050	<0.000050	<0.000050	<0.000050	
Y-T mg/L												
Zn-T mg/L	0.0024	0.0034	0.0033	<0.0030	<0.0010	0.0015	<0.0030	<0.0030	<0.0030	<0.0030	0.0036	
Zr-T mg/L												

Lake Date Depth m	LLAMA LAKE						UMWELT LAKE					
	April-12-11			August-06-11			April-13-11			August-05-11		
	Temp degC	DO mg/L	DO % saturation	Temp degC	DO mg/L	DO % saturation	Temp degC	DO mg/L	DO % saturation	Temp degC	DO mg/L	DO % saturation
0.0	ice thickness = 1.5m			15	9.13	89.6	ice thickness = 1.5m			15.2	8.95	89.1
0.5										15.1	9	89.5
1.0				14.9	8.77	86.7				15.1	9.01	89
1.5	0.2	15.06	103.9				0.1	3.83	26.3	15.1	8.87	88.2
2.0	0.4	14.35	100.6	14.9	8.72	86.4	0.9	3.73	26.1	15.4	8.91	88.1
2.5	1.6	13.44	96.1				2.1	3.26	23.6			
3.0	2.50	12.44	90.6	14.9	8.66	85	bottom depth = 2.6m			bottom depth = 2.6m		
3.5	2.4	11.13	87.2									
4.0	2.5	11.17	81.9	14.5	8.69	85.2						
4.5	2.5	11.16	81.8									
5.0	2.5	11.21	82.2	14.4	8.68	84.5						
5.5	2.5	11.2	82.1									
6.0	2.5	11.23	82.3	14	8.62	83.8						
6.5	2.5	11.23	82.3									
7.0	2.5	11.3	82.8	13.5	8.62	82.8						
7.5	2.5	11.38	83.4									
8.0	2.5	11.35	83.2	13.5	8.63	82.8						
8.5	2.5	11.4	83.5									
9.0	2.5	11.52	84.5	13.4	8.61	82.3						
9.5	2.5	11.49	84.2									
10.0	2.6	11.51	84.6	13.3	8.63	82.4						
10.5	2.6	11.41	83.8									
11.0	2.6	11.4	83.7	13.3	8.6	82.1						
11.5	2.5	10.84	79.4									
12.0	2.5	11.14	81.7	13.2	8.61	82.1						
12.5	2.6	10.01	73.4									
13.0	2.6	8.53	63.3	13.1	8.52	80.5						
13.5	2.7	9.31	68.6									
	bottom depth = 13.7m			bottom depth = 14.5m								