

Attachment X.VII. Phytoplankton, Zooplankton, and Periphyton

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Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Willow Lake Sub-Basin															
	Jaeger Lake				Pointer Lake				Pointer Lake Outfall							
	August 1989				August 1989				June 1991				July 1991			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
Cyanobacteria (Blue greens)																
<i>Anabaena cf. planctonica</i>	-	-	-	-	6,840	13.41	-	-	-	-	-	-	25,524	6.84	-	-
<i>Aphanocapsa delicatissima</i>	4,275	0.50	-	-	6,840	0.40	-	-	-	-	-	-	-	-	-	-
<i>Aphanothece clathrata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aphanothece</i> sp. A	-	-	-	-	2,280	0.12	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus aphanocapsoides</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus dispersus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus dispersus</i> var <i>minor</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus limneticus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus pallidus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyanarcus hamiformis</i>	24,000	0.30	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeotheca linearis</i>	-	-	-	-	2,280	0.34	-	-	-	-	-	-	-	-	-	-
<i>Gomphosphaeria lacustris</i> var. <i>compacta</i>	1,425	0.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Merismopedia aphanocapsoides</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Merismopedia elegans</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Merismopedia glauca</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria limnetica</i>	-	-	-	-	-	-	-	-	10,635	0.19	-	-	-	-	-	-
<i>Oscillatoria minima</i>	-	-	-	-	-	-	-	-	-	-	-	-	17,016	0.32	-	-
<i>Oscillatoria planctonica</i>	1,425	0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> sp. A	5,700	1.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> 5 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Planktolyngbya limnetica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudanabaena constrictum</i>	-	-	-	-	-	-	-	-	91,696	16.47	-	-	-	-	-	-
Cyanobacteria subtotal	-	-	3.05	2.60	-	-	14.28	10.40	-	-	16.66	52.10	-	-	7.16	7.70
Chlorophyceae (Cocoid Greens, Desmids, etc.)																
<i>Ankistrodesmus falcatus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>acicularis</i>	-	-	-	-	-	-	-	-	-	-	-	-	2,127	0.15	-	-
<i>Ankistrodesmus falcatus</i> var. <i>mirabilis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>setiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>spir</i>	-	-	-	-	18,240	0.27	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus spiralis</i>	-	-	-	-	-	-	-	-	-	-	-	-	8,508	0.21	-	-
<i>Arthrodesmus incus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Carteria</i> 7 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Carteria</i> 10 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ceolastrum microporum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas frigida</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas pyrenoidosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas sagittula</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 5 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 7 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 8 x 5 µm	24,000	2.51	-	-	-	-	-	-	-	-	-	-	2,127	0.22	-	-
<i>Chlamydomonas</i> 8 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 9 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysolykos skujae</i>	-	-	-	-	19,200	1.13	-	-	-	-	-	-	-	-	-	-
<i>Closteium leibleinii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closteriopsis longissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Coelastrum microporum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium bioculatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium cf. ornatum</i>	1,425	2.87	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium depressum</i>	-	-	-	-	-	-	-	-	-	-	-	-	4,254	10.21	-	-
<i>Cosmarium subtumidum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Crucigenia quadrata</i>	1,425	0.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Crucigenia rectangularis</i>	-	-	-	-	-	-	-	-	-	-	-	-	17,016	0.55	-	-
<i>Crucigenia tetrapedia</i>	-	-	-	-	9,120	2.63	-	-	-	-	-	-	25,524	0.82	-	-
<i>Elakatothrix gelatinosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Taxa	Willow Lake Sub-Basin															
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<i>Elakatothrix lacustris</i>	29,925	1.97	-	-	2,280	0.09	-	-	-	-	-	-	-	-	-	-
<i>Euastrum bidentatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Euastrum binale</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Euastrum insigne</i>	-	-	-	-	-	-	-	-	-	-	-	-	2,127	12.76	-	-
<i>Euastrum denticulatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeococcus schroeteri</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeocystis planctonica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeotilia pelagica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gonatozygon monotaenium</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnozyga moniliformis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Monoraphidium setiforme</i>	24,225	0.37	-	-	2,280	0.10	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 50 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	17,016	32.74	-	-
<i>Mougeotia</i> 50 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 55 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 70 x 8 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 85 x 9 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> sp.	-	-	-	-	2,280	6.88	-	-	-	-	-	-	-	-	-	-
<i>Netrium oblongum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oedogonium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis borgei</i>	1,425	0.37	-	-	2,280	2.63	-	-	-	-	-	-	-	-	-	-
<i>Oocystis parva</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis solitaria</i>	1,425	3.82	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis submarina</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Planctococcus alsius</i>	2,850	1.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Planctonema lauterbornii</i>	5,700	5.37	-	-	25,080	8.60	-	-	-	-	-	-	-	-	-	-
<i>Planctosphaeria gelatinosa</i>	-	-	-	-	9,600	2.57	-	-	-	-	-	-	2,127	1.92	-	-
<i>Quadrigula pfitzeri</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus acutus</i>	-	-	-	-	4,560	0.29	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus bijuga</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Selenastrum depressum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Selenastrum minutum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Sphaerocystis schroeteri</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Spondylosium planum</i>	-	-	-	-	9,600	7.68	-	-	-	-	-	-	4,254	2.06	-	-
<i>Staurastrum crenulatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tetraedron minimum</i>	24,000	3.07	-	-	9,600	0.31	-	-	-	-	-	-	-	-	-	-
<i>Westella botryoides</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlorophyceae subtotal</i>	-	-	22.04	18.70	-	-	33.16	24.10	-	-	-	-	-	-	61.65	66.00
Chrysophyceae																
<i>Biocoecca cylindrica</i>	-	-	-	-	28,800	0.68	-	-	-	-	-	-	-	-	-	-
<i>Bitrichia chodatii</i>	4,275	0.25	-	-	2,280	0.13	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 3.5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 4 µm	216,000	7.24	-	-	249,600	8.36	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 4 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 4 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	46,794	1.57	-	-
<i>Chromulina</i> 5 µm	-	-	-	-	-	-	-	-	29,778	1.95	-	-	-	-	-	-
<i>Chromulina</i> 5 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 6 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	10,635	0.84	-	-
<i>Chrysamoeba mikrokonta</i>	-	-	-	-	-	-	-	-	-	-	-	-	4,254	0.76	-	-
<i>Chrysidiastrium catenatum</i>	24,000	3.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysochromulina brevituritt</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysochromulina parva</i>	-	-	-	-	9,600	0.23	-	-	2,127	0.09	-	-	-	-	-	-
<i>Chrysolykos planctonica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysolykos skujae</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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<i>Chrysophyte monads</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysophyte monad</i> 14 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified	48,000	4.42	-	-	4,800	0.11	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified 6 x 4 µm	-	-	-	-	-	-	-	-	4,254	0.21	-	-	-	-	-	-
Chrysophyte unidentified 9 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysosphaerella longispina</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Desmarella brachycalyx</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diceras chodatii</i>	-	-	-	-	-	-	-	-	-	-	-	-	2,127	0.20	-	-
<i>Dinobryon acuminatum</i>	-	-	-	-	2,280	0.21	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon bavaricum</i>	2,850	2.35	-	-	2,280	0.54	-	-	-	-	-	-	17,016	7.86	-	-
<i>Dinobryon borgei</i>	72,000	2.71	-	-	76,800	4.50	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon campanulostipitum</i>	-	-	-	-	-	-	-	-	-	-	-	-	2,127	0.66	-	-
<i>Dinobryon crenulatum</i>	1,425	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon cylindricum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon divergens</i>	4,275	4.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon elegantissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon petiolatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sertularia</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sociale</i>	2,850	0.81	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sociale</i> var <i>americanum</i>	-	-	-	-	-	-	-	-	-	-	-	-	4,254	1.64	-	-
<i>Erkenia subaequiciliata</i>	48,000	1.13	-	-	-	-	-	-	-	-	-	-	2,127	0.28	-	-
<i>Jroglena americana</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion littorale</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion mastigophorum</i>	-	-	-	-	19,200	0.97	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion sitta</i>	24,000	1.01	-	-	-	-	-	-	-	-	-	-	2,127	0.09	-	-
<i>Mallomonas akrokomonas</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas pseudocoronata</i>	1,425	0.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas pumillo</i>	1,425	1.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas pumillo</i> var. <i>canadensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Monosiga baltica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 5 x 4 µm	-	-	-	-	585,600	24.53	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 6 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 6 x 5 µm	216,000	16.97	-	-	-	-	-	-	-	-	-	-	23,397	1.84	-	-
<i>Ochromonas</i> 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 8 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 8 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 9 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 9 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 10 µm	-	-	-	-	-	-	-	-	2,127	1.11	-	-	-	-	-	-
<i>Ochromonas</i> 10 x 7 µm	-	-	-	-	28,800	7.39	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion attenuatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion conicum</i>	-	-	-	-	-	-	-	-	-	-	-	-	4,254	0.18	-	-
<i>Pseudokephyrion ellipsoideum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion planctonicum</i>	-	-	-	-	9,600	0.75	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion tintinnabulu</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizochrysis limnetica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizochrysis tetragena</i>	1,425	1.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizochrysis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Salpingoeca frequentissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stichogloea doedlereinii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stichogloea olivacea</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Uroglena americana</i>	7,125	18.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Uroglena volvox</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysophyceae subtotal</i>	-	-	66.64	56.40	-	-	48.41	35.10	-	-	3.37	10.50	-	-	15.90	17.00

Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Willow Lake Sub-Basin															
	Jaeger Lake				Pointer Lake				Pointer Lake Outfall							
	August 1989				August 1989				June 1991				July 1991			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
Bacillariophyceae																
<i>Achnanthes minutissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Asterionella formosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella bodanica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella ocellata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> 10 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> 20 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella minuta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 21 x 3 µm	-	-	-	-	-	-	-	-	4,168	0.41	-	-	-	-	-	-
<i>Diatom girdle</i> view 24 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	2,127	0.24	-	-
<i>Diatom girdle</i> view 30 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 40 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia lunaris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotica pectinalis</i> var. minor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria</i> 50 x 4 µm	-	-	-	-	-	-	-	-	2,084	0.83	-	-	-	-	-	-
<i>Fragilaria capucina</i>	1,425	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria crotonensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Melosira distans</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula cryptocephala</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i>	1,425	0.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i> 30 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i> view	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizosolenia eriensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra acus</i> var. <i>radians</i>	-	-	-	-	2,280	0.55	-	-	-	-	-	-	2,127	0.84	-	-
<i>Synedra rumpens</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra</i> sp.	1,425	0.21	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra</i> sp. A	-	-	-	-	2,280	0.40	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria fenestrata</i>	1,425	6.27	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria flocculosa</i>	2,850	4.31	-	-	4,560	4.10	-	-	-	-	-	-	6,381	7.66	-	-
<i>Tabellaria quadrisepta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Bacillariophyceae</i> subtotal	-	-	11.69	9.90	-	-	5.06	3.70	-	-	1.25	3.90	-	-	8.73	9.30
Cryptophyceae (Flagellates)																
<i>Cryptomonas erosa</i>	1,425	2.58	-	-	-	-	-	-	2,084	3.77	-	-	-	-	-	-
<i>Cryptomonas marsonii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cryptomonas platyuris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cryptomonas rostrata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Katablepharis ovalis</i>	120,000	7.04	-	-	28,800	1.69	-	-	-	-	-	-	-	-	-	-
<i>Rhodomonas lacustris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhodomonas lens</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhodomonas minuta</i>	-	-	-	-	-	-	-	-	6,381	0.72	-	-	-	-	-	-
<i>Rhodomonas minuta</i> var. <i>nannoplanctica</i>	96,000	3.22	-	-	28,800	0.97	-	-	-	-	-	-	-	-	-	-
<i>Cryptophyceae</i> subtotal	-	-	12.83	10.90	-	-	2.65	1.90	-	-	4.49	14.00	-	-	-	-
Dinophyceae (Dinoflagellates)																
<i>Chroococcus aphanocapsoides</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium ordinatum</i>	-	-	-	-	6,840	7.22	-	-	2,084	4.91	-	-	-	-	-	-
<i>Gymnodinium uberrimum</i>	-	-	-	-	2,280	10.83	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium varians</i>	-	-	-	-	11,400	4.84	-	-	6,381	1.32	-	-	-	-	-	-
<i>Peridinium aciculiferum</i>	1,425	1.93	-	-	4,560	11.28	-	-	-	-	-	-	-	-	-	-
<i>Peridinium inconspicuum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinophyceae</i> subtotal	-	-	1.93	1.60	-	-	34.17	24.80	-	-	6.23	19.50	-	-	-	-
Total	1,055,700	118.19	-	-	1,243,800	137.72	-	-	163,799	31.99	-	-	257,367	93.44	-	-

Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Lower Lake Sub-Basin															
	Mushroom Lake								Cigar Lake							
	August 1990				July 1991				August 1990				June 1991			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
Cyanobacteria (Blue greens)																
<i>Anabaena cf. planctonica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aphanocapsa delicatissima</i>	2,850	0.34	-	-	-	-	-	-	5,700	0.50	-	-	106,350	0.19	-	-
<i>Aphanothece clathrata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aphanothece</i> sp. A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus aphanocapsoides</i>	-	-	-	-	-	-	-	-	2,850	0.05	-	-	-	-	-	-
<i>Chroococcus dispersus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus dispersus</i> var <i>minor</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus limneticus</i>	1,900	0.72	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus pallidus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyanarcus hamiformis</i>	-	-	-	-	-	-	-	-	12,000	0.91	-	-	-	-	-	-
<i>Gloeotheca linearis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphosphaeria lacustris</i> var. <i>compacta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Merismopedia aphanocapsoides</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Merismopedia elegans</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Merismopedia glauca</i>	-	-	-	-	-	-	-	-	5,700	0.17	-	-	17,016	0.07	-	-
<i>Oscillatoria limnetica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria minima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria planctonica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> sp. A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> 5 x 5 µm	-	-	-	-	-	-	-	-	5,700	8.95	-	-	-	-	-	-
<i>Planktolyngbya limnetica</i>	950	0.20	-	-	-	-	-	-	25,650	2.93	-	-	-	-	-	-
<i>Pseudanabaena constrictum</i>	-	-	-	-	-	-	-	-	-	-	-	-	23,397	2.65	-	-
<i>Cyanobacteria subtotal</i>	-	-	1.25	1.13	-	-	-	-	-	-	13.50	6.06	-	-	2.91	1.80
Chlorophyceae (Coccoid Greens, Desmids, etc.)																
<i>Ankistrodesmus falcatus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>acicularis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>mirabilis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>setiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>spir</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus spiralis</i>	2,850	0.48	-	-	-	-	-	-	2,850	0.36	-	-	-	-	-	-
<i>Arthrodesmus incus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Carteria</i> 7 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Carteria</i> 10 µm	-	-	-	-	-	-	-	-	2,850	1.49	-	-	-	-	-	-
<i>Ceolastrum microporum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas frigida</i>	-	-	-	-	4,254	0.25	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas pyrenoidosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas sagittula</i>	12,000	1.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 5 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 7 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 8 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 8 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 9 x 7 µm	-	-	-	-	-	-	-	-	12,000	2.77	-	-	-	-	-	-
<i>Chrysolykos skujae</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closteium leibleinii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closteriopsis longissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Coelastrum microporum</i>	-	-	-	-	-	-	-	-	2,850	6.88	-	-	-	-	-	-
<i>Cosmarium bioculatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium cf. ornatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium depressum</i>	950	0.99	-	-	-	-	-	-	-	-	-	-	12,762	18.38	-	-
<i>Cosmarium subtumidum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Crucigenia quadrata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Crucigenia rectangularis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Crucigenia tetrapedia</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Elakatothrix gelatinosa</i>	10,450	5.78	-	-	-	-	-	-	-	-	-	-	4,254	0.32	-	-

Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Lower Lake Sub-Basin															
	Mushroom Lake								Cigar Lake							
	August 1990				July 1991				August 1990				June 1991			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
<i>Elakatothrix lacustris</i>	2,850	0.40	-	-	-	-	-	-	22,800	1.88	-	-	-	-	-	-
<i>Euastrum bidentatum</i>	-	-	-	-	-	-	-	-	2,850	10.77	-	-	-	-	-	-
<i>Euastrum binale</i>	-	-	-	-	-	-	-	-	2,850	1.64	-	-	-	-	-	-
<i>Euastrum insigne</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Euastrum denticulatum</i>	950	2.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeococcus schroeteri</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeocystis planctonica</i>	-	-	-	-	-	-	-	-	2,850	2.18	-	-	51,048	13.69	-	-
<i>Gloeotilia pelagica</i>	-	-	-	-	8,508	2.14	-	-	57,000	14.33	-	-	8,508	2.14	-	-
<i>Gonatozygon monotaenium</i>	-	-	-	-	-	-	-	-	2,850	12.89	-	-	-	-	-	-
<i>Gymnozyga moniliformis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Monoraphidium setiforme</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 50 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 50 x 5 µm	-	-	-	-	-	-	-	-	19,950	19.59	-	-	-	-	-	-
<i>Mougeotia</i> 55 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 70 x 8 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 85 x 9 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Netrium oblongum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oedogonium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis borgei</i>	1,900	0.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis parva</i>	1,900	0.45	-	-	25,524	0.84	-	-	12,000	1.41	-	-	17,016	1.00	-	-
<i>Oocystis solitaria</i>	-	-	-	-	6,381	0.92	-	-	-	-	-	-	-	-	-	-
<i>Oocystis submarina</i>	-	-	-	-	17,016	1.00	-	-	-	-	-	-	17,016	1.00	-	-
<i>Planctococcus alsius</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Planctonema lauterbornii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Planctosphaeria gelatinosa</i>	1,900	1.72	-	-	2,127	1.92	-	-	2,850	13.82	-	-	2,127	1.92	-	-
<i>Quadrigula pfitzeri</i>	-	-	-	-	89,334	6.32	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus acutus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus bijuga</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Selenastrum depressum</i>	-	-	-	-	-	-	-	-	-	-	-	-	10,635	0.60	-	-
<i>Selenastrum minutum</i>	24,000	0.68	-	-	14,889	0.84	-	-	14,250	0.37	-	-	-	-	-	-
<i>Sphaerocystis schroeteri</i>	-	-	-	-	17,016	4.56	-	-	-	-	-	-	68,064	18.25	-	-
<i>Spondylosium planum</i>	950	0.56	-	-	-	-	-	-	17,100	13.45	-	-	4,254	3.83	-	-
<i>Staurastrum crenulatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tetraedron minimum</i>	-	-	-	-	-	-	-	-	24,000	2.35	-	-	4,254	0.14	-	-
<i>Westella botryoides</i>	-	-	-	-	-	-	-	-	-	-	-	-	17,016	4.56	-	-
<i>Chlorophyceae subtotal</i>	-	-	15.12	13.68	-	-	18.79	26.80	-	-	106.17	47.68	-	-	65.82	41.70
Chrysophyceae																
<i>Biocoecca cylindrica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Bitrichia chodatii</i>	-	-	-	-	10,635	0.62	-	-	-	-	-	-	2,127	0.13	-	-
<i>Chromulina</i> 3 µm	-	-	-	-	-	-	-	-	288,000	4.07	-	-	-	-	-	-
<i>Chromulina</i> 3.5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 4 µm	132,000	4.42	-	-	174,414	5.85	-	-	-	-	-	-	8,508	0.29	-	-
<i>Chromulina</i> 4 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 4 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 5 x 4 µm	-	-	-	-	-	-	-	-	48,000	2.01	-	-	-	-	-	-
<i>Chromulina</i> 6 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysamoeba mikrokonta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysidiastrium catenatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysochromulina brevituritt</i>	-	-	-	-	2,127	0.05	-	-	-	-	-	-	-	-	-	-
<i>Chrysochromulina parva</i>	-	-	-	-	-	-	-	-	120,000	2.83	-	-	-	-	-	-
<i>Chrysolykos planctonica</i>	-	-	-	-	-	-	-	-	12,000	1.26	-	-	-	-	-	-
<i>Chrysolykos skujae</i>	-	-	-	-	2,127	0.13	-	-	-	-	-	-	-	-	-	-

Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Lower Lake Sub-Basin															
	Mushroom Lake								Cigar Lake							
	August 1990				July 1991				August 1990				June 1991			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
<i>Chrysophyte monads</i>	-	-	-	-	8,508	1.23	-	-	-	-	-	-	-	-	-	-
<i>Chrysophyte monad</i> 14 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified 6 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified 9 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysosphaerella longispina</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Desmarella brachycalyx</i>	-	-	-	-	-	-	-	-	8,550	1.00	-	-	-	-	-	-
<i>Diceras chodatii</i>	3,800	0.22	-	-	-	-	-	-	11,400	1.19	-	-	-	-	-	-
<i>Dinobryon acuminatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon bavaricum</i>	6,650	10.89	-	-	-	-	-	-	2,850	7.90	-	-	2,127	0.98	-	-
<i>Dinobryon borgei</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon campanulostipitum</i>	-	-	-	-	14,889	1.56	-	-	-	-	-	-	2,127	0.33	-	-
<i>Dinobryon crenulatum</i>	-	-	-	-	-	-	-	-	5,700	1.07	-	-	-	-	-	-
<i>Dinobryon cylindricum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon divergens</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon elegantissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon petiolatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sertularia</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sociale</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sociale</i> var. <i>americanum</i>	-	-	-	-	-	-	-	-	2,850	0.81	-	-	-	-	-	-
<i>Erkenia subaequiciliata</i>	12,000	0.28	-	-	6,381	0.50	-	-	108,000	4.52	-	-	2,127	0.20	-	-
<i>Jroglena americana</i>	-	-	-	-	-	-	-	-	5,700	3.69	-	-	-	-	-	-
<i>Kephyrion littorale</i>	-	-	-	-	-	-	-	-	12,000	1.26	-	-	-	-	-	-
<i>Kephyrion mastigophorum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion sitta</i>	-	-	-	-	2,127	0.04	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas akrokomonas</i>	1,900	0.32	-	-	4,254	0.57	-	-	2,850	0.50	-	-	-	-	-	-
<i>Mallomonas pseudocoronata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas pumillo</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas pumillo</i> var. <i>canadensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Monosiga baltica</i>	-	-	-	-	-	-	-	-	11,400	9.67	-	-	-	-	-	-
<i>Ochromonas</i> 5 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 6 µm	1,260,000	14.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 6 x 4 µm	-	-	-	-	-	-	-	-	228,000	11.46	-	-	-	-	-	-
<i>Ochromonas</i> 6 x 5 µm	-	-	-	-	178,668	14.03	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 8 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 8 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 9 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 9 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 10 µm	-	-	-	-	-	-	-	-	12,000	6.28	-	-	-	-	-	-
<i>Ochromonas</i> 10 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion attenuatum</i>	-	-	-	-	-	-	-	-	2,850	1.15	-	-	-	-	-	-
<i>Pseudokephyrion conicum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion ellipsoideum</i>	-	-	-	-	-	-	-	-	12,000	0.94	-	-	-	-	-	-
<i>Pseudokephyrion planctonicum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion tintinnabulu</i>	-	-	-	-	2,127	0.17	-	-	-	-	-	-	-	-	-	-
<i>Rhizochrysis limnetica</i>	-	-	-	-	-	-	-	-	12,000	2.16	-	-	-	-	-	-
<i>Rhizochrysis tetragena</i>	950	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizochrysis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Salpingoeca frequentissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stichogloea doedlereinii</i>	1,900	2.87	-	-	-	-	-	-	2,850	1.57	-	-	-	-	-	-
<i>Stichogloea olivacea</i>	-	-	-	-	-	-	-	-	-	-	-	-	8,508	0.78	-	-
<i>Uroglena americana</i>	1,900	6.52	-	-	-	-	-	-	-	-	-	-	1,080,516	84.86	-	-
<i>Uroglena volvox</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysophyceae subtotal</i>	-	-	40.27	36.43	-	-	24.74 ^(a)	35.30 ^(a)	-	-	65.34	29.34	-	-	87.56	55.50

Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Lower Lake Sub-Basin															
	Mushroom Lake								Cigar Lake							
	August 1990				July 1991				August 1990				June 1991			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
Bacillariophyceae																
<i>Achnanthes minutissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Asterionella formosa</i>	16,150	12.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella bodanica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella ocellata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> 10 µm	40,850	12.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> 20 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella minuta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view	1,900	0.48	-	-	-	-	-	-	-	-	-	-	2,127	0.62	-	-
<i>Diatom girdle</i> view 21 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 24 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 30 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 40 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia lunaris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotica pecinalis</i> var. minor	-	-	-	-	-	-	-	-	2,850	0.64	-	-	-	-	-	-
<i>Fragilaria</i> 50 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria capucina</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria crotonensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Melosira distans</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula cryptocephala</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i> 30 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i> view	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizosolenia eriensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra acus</i> var. <i>radians</i>	1,900	0.57	-	-	-	-	-	-	19,950	3.13	-	-	-	-	-	-
<i>Synedra rumpens</i>	950	0.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra</i> sp. A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria fenestrata</i>	950	1.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria flocculosa</i>	2,850	4.56	-	-	-	-	-	-	11,400	19.24	-	-	-	-	-	-
<i>Tabellaria quadriseppta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Bacillariophyceae subtotal</i>	-	-	31.90	28.86	-	-	-	-	-	-	23.01	10.33	-	-	0.62	0.40
Cryptophyceae (Flagellates)																
<i>Cryptomonas erosa</i>	-	-	-	-	2,127	3.85	-	-	-	-	-	-	-	-	-	-
<i>Cryptomonas marsonii</i>	4,750	1.10	-	-	2,127	0.55	-	-	2,850	0.77	-	-	-	-	-	-
<i>Cryptomonas platyuris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cryptomonas rostrata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Katablepharis ovalis</i>	24,000	1.41	-	-	12,762	0.75	-	-	36,000	2.11	-	-	6,381	0.37	-	-
<i>Rhodomonas lacustris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhodomonas lens</i>	-	-	-	-	4,254	0.82	-	-	-	-	-	-	-	-	-	-
<i>Rhodomonas minuta</i>	48,000	5.43	-	-	178,668	20.21	-	-	60,000	6.22	-	-	2,127	0.24	-	-
<i>Rhodomonas minuta</i> var. <i>nannoplanctica</i>	60,000	3.14	-	-	10,635	0.36	-	-	12,000	0.63	-	-	4,254	0.20	-	-
<i>Cryptophyceae subtotal</i>	-	-	11.08	10.02	-	-	26.53	37.90	-	-	9.73	4.37	-	-	0.81	0.50
Dinophyceae (Dinoflagellates)																
<i>Chroococcus aphanocapsoides</i>	1,900	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium ordinatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium uberrimum</i>	950	10.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium varians</i>	-	-	-	-	-	-	-	-	8,550	4.92	-	-	-	-	-	-
<i>Peridinium aciculiferum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Peridinium inconspicuum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinophyceae subtotal</i>	-	-	10.91	9.87	-	-	-	-	-	-	4.92	2.21	-	-	-	-
Total	1,692,650	110.53	-	-	801,879	70.05	-	-	1,322,100	222.67	-	-	1,484,646	157.71	-	-

Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Lower Lake Sub-Basin															
	Andrew Lake Outfall								Bear Island Lake Outfall				Lower Lake Outfall			
	August 1990				June 1991				August 1990				August 1990			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
Cyanobacteria (Blue greens)																
<i>Anabaena cf. planctonica</i>	-	-	-	-	-	-	-	-	11,400	8.21	-	-	2,850	1.29	-	-
<i>Aphanocapsa delicatissima</i>	2,850	0.35	-	-	-	-	-	-	74,100	11.08	-	-	5,700	0.57	-	-
<i>Aphanothece clathrata</i>	-	-	-	-	-	-	-	-	39,900	5.04	-	-	-	-	-	-
<i>Aphanothece</i> sp. A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus aphanocapsoides</i>	4,988	0.10	-	-	-	-	-	-	5,700	0.38	-	-	5,700	0.24	-	-
<i>Chroococcus dispersus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus dispersus</i> var <i>minor</i>	-	-	-	-	-	-	-	-	17,100	3.36	-	-	4,275	0.36	-	-
<i>Chroococcus limneticus</i>	-	-	-	-	-	-	-	-	34,200	37.61	-	-	-	-	-	-
<i>Chroococcus pallidus</i>	-	-	-	-	-	-	-	-	34,200	45.51	-	-	-	-	-	-
<i>Cyanarcus hamiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeotheca linearis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphosphaeria lacustris</i> var. <i>compacta</i>	713	0.22	-	-	-	-	-	-	28,500	10.74	-	-	1,425	0.22	-	-
<i>Merismopedia aphanocapsoides</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Merismopedia elegans</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Merismopedia glauca</i>	-	-	-	-	-	-	-	-	22,800	3.96	-	-	-	-	-	-
<i>Oscillatoria limnetica</i>	-	-	-	-	9,899	0.18	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria minima</i>	3,563	0.40	-	-	-	-	-	-	5,700	3.87	-	-	1,425	0.16	-	-
<i>Oscillatoria planctonica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> sp. A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> 5 x 5 µm	713	1.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Planktolyngbya limnetica</i>	4,988	0.66	-	-	-	-	-	-	153,900	32.21	-	-	-	-	-	-
<i>Pseudanabaena constrictum</i>	-	-	-	-	6,252	1.12	-	-	-	-	-	-	-	-	-	-
<i>Cyanobacteria subtotal</i>	-	-	3.13	4.80	-	-	1.30	17.90	-	-	161.97	46.26	-	-	2.83	0.40
Chlorophyceae (Cocoid Greens, Desmids, etc.)																
<i>Ankistrodesmus falcatus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>acicularis</i>	713	0.03	-	-	1,042	0.04	-	-	-	-	-	-	18,525	1.16	-	-
<i>Ankistrodesmus falcatus</i> var. <i>mirabilis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>setiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>spir</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus spiralis</i>	-	-	-	-	-	-	-	-	5,700	0.86	-	-	2,850	0.37	-	-
<i>Arthrodesmus incus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Carteria</i> 7 x 5 µm	2,000	0.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Carteria</i> 10 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ceolastrum microporum</i>	-	-	-	-	-	-	-	-	5,700	5.16	-	-	-	-	-	-
<i>Chlamydomonas frigida</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas pyrenoidosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas sagittula</i>	-	-	-	-	-	-	-	-	12,000	0.40	-	-	-	-	-	-
<i>Chlamydomonas</i> 5 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 7 x 6 µm	2,000	0.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 8 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 8 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 9 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysolykos skujae</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closteium leibleinii</i>	713	2.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closteriopsis longissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Coelastrum microporum</i>	713	0.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium bioculatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium cf. ornatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium depressum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium subtumidum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Crucigenia quadrata</i>	-	-	-	-	-	-	-	-	5,700	1.49	-	-	-	-	-	-
<i>Crucigenia rectangularis</i>	-	-	-	-	2,084	0.07	-	-	-	-	-	-	-	-	-	-
<i>Crucigenia tetrapedia</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Elakatothrix gelatinosa</i>	-	-	-	-	-	-	-	-	5,700	0.86	-	-	29,925	6.04	-	-

Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Lower Lake Sub-Basin															
	Andrew Lake Outfall								Bear Island Lake Outfall				Lower Lake Outfall			
	August 1990				June 1991				August 1990				August 1990			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
<i>Elakatothrix lacustris</i>	-	-	-	-	-	-	-	-	5,700	0.36	-	-	-	-	-	-
<i>Euastrum bidentatum</i>	-	-	-	-	-	-	-	-	5,700	23.73	-	-	-	-	-	-
<i>Euastrum binale</i>	2,138	4.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Euastrum insigne</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Euastrum denticulatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeococcus schroeteri</i>	-	-	-	-	2,084	0.56	-	-	-	-	-	-	-	-	-	-
<i>Gloeocystis planctonica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeotilia pelagica</i>	1,425	0.54	-	-	-	-	-	-	-	-	-	-	11,400	4.48	-	-
<i>Gonatozygon monotaenium</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnozyga moniliformis</i>	713	21.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Monoraphidium setiforme</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 50 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 50 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 55 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 70 x 8 µm	-	-	-	-	521	1.83	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 85 x 9 µm	713	3.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Netrium oblongum</i>	713	0.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oedogonium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis borgei</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis parva</i>	-	-	-	-	-	-	-	-	11,400	1.72	-	-	1,425	0.33	-	-
<i>Oocystis solitaria</i>	-	-	-	-	-	-	-	-	22,800	8.19	-	-	-	-	-	-
<i>Oocystis submarina</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,425	0.75	-	-
<i>Planctococcus alsius</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Planctonema lauterbornii</i>	-	-	-	-	-	-	-	-	11,400	20.06	-	-	-	-	-	-
<i>Planctosphaeria gelatinosa</i>	713	1.26	-	-	-	-	-	-	5,700	5.16	-	-	1,425	1.29	-	-
<i>Quadrigula pfitzeri</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus acutus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus bijuga</i>	-	-	-	-	-	-	-	-	5,700	0.33	-	-	-	-	-	-
<i>Selenastrum depressum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Selenastrum minutum</i>	-	-	-	-	1,042	0.07	-	-	12,000	0.34	-	-	-	-	-	-
<i>Sphaerocystis schroeteri</i>	-	-	-	-	-	-	-	-	5,700	6.11	-	-	1,425	3.06	-	-
<i>Spondylosium planum</i>	713	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Staurastrum crenulatum</i>	713	0.36	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tetraedron minimum</i>	-	-	-	-	-	-	-	-	-	-	-	-	24,000	1.73	-	-
<i>Westella botryoides</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlorophyceae subtotal</i>	-	-	34.72	53.40	-	-	2.57	35.60	-	-	74.76	21.35	-	-	19.22	2.50
Chrysophyceae																
<i>Biocoecca cylindrica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Bitrichia chodatii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 3.5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 4 µm	-	-	-	-	1,563	0.05	-	-	180,000	6.03	-	-	120,000	4.02	-	-
<i>Chromulina</i> 4 x 3 µm	30,000	0.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 4 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 5 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 6 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysamoeba mikrokonta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysidiastrium catenatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysochromulina brevituritt</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysochromulina parva</i>	-	-	-	-	-	-	-	-	-	-	-	-	72,000	1.70	-	-
<i>Chrysolykos planctonica</i>	-	-	-	-	-	-	-	-	5,700	0.33	-	-	12,000	1.10	-	-
<i>Chrysolykos skujae</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Taxa	Lower Lake Sub-Basin															
	Andrew Lake Outfall								Bear Island Lake Outfall				Lower Lake Outfall			
	August 1990				June 1991				August 1990				August 1990			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
<i>Chrysophyte monads</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysophyte monad</i> 14 x 6 µm	16,000	4.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified 6 µm	76,000	8.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified 6 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified 9 x 6 µm	-	-	-	-	-	-	-	-	12,000	2.04	-	-	-	-	-	-
<i>Chrysosphaerella longispina</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,425	3.58	-	-
<i>Desmarella brachycalyx</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diceras chodatii</i>	-	-	-	-	-	-	-	-	11,400	0.67	-	-	2,850	0.17	-	-
<i>Dinobryon acuminatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon bavaricum</i>	713	0.46	-	-	-	-	-	-	5,700	3.87	-	-	24,225	33.09	-	-
<i>Dinobryon borgei</i>	-	-	-	-	-	-	-	-	12,000	0.40	-	-	12,000	0.70	-	-
<i>Dinobryon campanulostipitum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon crenulatum</i>	-	-	-	-	-	-	-	-	17,100	6.88	-	-	2,850	0.34	-	-
<i>Dinobryon cylindricum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon divergens</i>	-	-	-	-	-	-	-	-	-	-	-	-	7,125	33.93	-	-
<i>Dinobryon elegantissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon petiolatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sertularia</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sociale</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sociale</i> var. <i>americanum</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,425	1.61	-	-
<i>Erkenia subaequiciliata</i>	10,000	0.24	-	-	521	0.04	-	-	12,000	0.50	-	-	24,000	0.57	-	-
<i>Jroglena americana</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion littorale</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion mastigophorum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion sitta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas akrokomonas</i>	-	-	-	-	-	-	-	-	-	-	-	-	4,275	0.60	-	-
<i>Mallomonas pseudocoronata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas pumillo</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas pumillo</i> var. <i>canadensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,425	2.58	-	-
<i>Monosiga baltica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 5 x 4 µm	6,000	0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 6 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	4,176,000	629.73	-	-
<i>Ochromonas</i> 6 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 8 µm	-	-	-	-	521	0.14	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 8 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 9 µm	-	-	-	-	-	-	-	-	12,000	4.58	-	-	-	-	-	-
<i>Ochromonas</i> 9 x 7 µm	34,000	7.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 10 µm	-	-	-	-	1,563	0.82	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 10 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion attenuatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion conicum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion ellipsoideum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion planctonicum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion tintinnabulu</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizochrysis limnetica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizochrysis tetragena</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,425	1.29	-	-
<i>Rhizochrysis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Salpingoeca frequentissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stichogloea doedlereinii</i>	-	-	-	-	-	-	-	-	5,700	6.88	-	-	-	-	-	-
<i>Stichogloea olivacea</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Uroglena americana</i>	-	-	-	-	-	-	-	-	192,000	25.33	-	-	-	-	-	-
<i>Uroglena volvox</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysophyceae subtotal</i>	-	-	22.18	34.10	-	-	1.05	14.50	-	-	57.50	16.43	-	-	715.00	91.30

Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Lower Lake Sub-Basin															
	Andrew Lake Outfall								Bear Island Lake Outfall				Lower Lake Outfall			
	August 1990				June 1991				August 1990				August 1990			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
Bacillariophyceae																
<i>Achnanthes minutissima</i>	1,425	0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Asterionella formosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,425	0.81	-	-
<i>Cyclotella bodanica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella ocellata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> 10 µm	-	-	-	-	-	-	-	-	-	-	-	-	5,700	1.79	-	-
<i>Cyclotella</i> 20 µm	-	-	-	-	-	-	-	-	-	-	-	-	1,425	2.24	-	-
<i>Cymbella minuta</i>	-	-	-	-	521	0.06	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 21 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 24 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 30 x 4 µm	-	-	-	-	-	-	-	-	11,400	4.30	-	-	-	-	-	-
<i>Diatom girdle</i> view 40 x 3 µm	-	-	-	-	521	0.15	-	-	-	-	-	-	-	-	-	-
<i>Eunotia lunaris</i>	713	1.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotica pectinalis</i> var. minor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria</i> 50 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria capucina</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria crotonensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,425	1.07	-	-
<i>Melosira distans</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,425	1.57	-	-
<i>Navicula cryptocephala</i>	713	0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i> 30 x 4 µm	-	-	-	-	1,563	0.39	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i> view	713	0.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizosolenia eriensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra acus</i> var. <i>radians</i>	713	0.20	-	-	521	0.15	-	-	5,700	1.61	-	-	-	-	-	-
<i>Synedra rumpens</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra</i> sp. A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria fenestrata</i>	-	-	-	-	-	-	-	-	11,400	9.12	-	-	-	-	-	-
<i>Tabellaria flocculosa</i>	2,850	1.60	-	-	1,042	0.42	-	-	-	-	-	-	2,850	5.13	-	-
<i>Tabellaria quadrisepta</i>	-	-	-	-	-	-	-	-	11,400	7.98	-	-	-	-	-	-
<i>Bacillariophyceae</i> subtotal	-	-	3.77	5.80	-	-	1.16	16.00	-	-	23.01	6.57	-	-	12.61	1.60
Cryptophyceae (Flagellates)																
<i>Cryptomonas erosa</i>	-	-	-	-	521	0.94	-	-	5,700	10.31	-	-	1,425	2.58	-	-
<i>Cryptomonas marsonii</i>	1,425	0.33	-	-	-	-	-	-	11,400	1.93	-	-	-	-	-	-
<i>Cryptomonas platyuris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cryptomonas rostrata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Katablepharis ovalis</i>	2,000	0.12	-	-	-	-	-	-	60,000	3.52	-	-	60,000	3.52	-	-
<i>Rhodomonas lacustris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhodomonas lens</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,425	0.26	-	-
<i>Rhodomonas minuta</i>	-	-	-	-	521	0.06	-	-	7,657	0.67	-	-	72,000	8.14	-	-
<i>Rhodomonas minuta</i> var. <i>nannoplanctica</i>	2,000	0.11	-	-	-	-	-	-	85,000	4.40	-	-	60,000	3.14	-	-
<i>Cryptophyceae</i> subtotal	-	-	0.55	0.80	-	-	1.00	13.90	-	-	20.83	5.95	-	-	17.64	2.30
Dinophyceae (Dinoflagellates)																
<i>Chroococcus aphanocapsoides</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium ordinatum</i>	-	-	-	-	-	-	-	-	11,400	12.03	-	-	1,425	1.50	-	-
<i>Gymnodinium uberrimum</i>	-	-	-	-	-	-	-	-	-	-	-	-	2,850	14.33	-	-
<i>Gymnodinium varians</i>	1,420	0.67	-	-	1,042	0.15	-	-	-	-	-	-	-	-	-	-
<i>Peridinium aciculiferum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Peridinium inconspicuum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinophyceae</i> subtotal	-	-	0.67	1.00	-	-	0.15	2.10	-	-	12.03	3.44	-	-	15.83	2.00
Total	218,480	65.01	-	-	33,344	7.23	-	-	1,235,057	350.11			4,790,175	783.13		

Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Caribou Lake Sub-Basin												Judge Sissons Lake Sub-Basin			
	Ridge Lake								Cirque Lake				Judge Sissons Lake			
	August 1989				March 1991				August 1989				August 1989			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
Cyanobacteria (Blue greens)																
<i>Anabaena cf. planctonica</i>	2,850	0.97	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aphanocapsa delicatissima</i>	2,850	0.25	-	-	3,403	0.30	-	-	-	-	-	-	-	-	-	-
<i>Aphanothece clathrata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aphanothece</i> sp. A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus aphanocapsoides</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus dispersus</i>	2,850	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus dispersus</i> var <i>minor</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus limneticus</i>	-	-	-	-	-	-	-	-	2,850	0.38	-	-	-	-	-	-
<i>Chroococcus pallidus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyanarcus hamiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeotheca linearis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphosphaeria lacustris</i> var. <i>compacta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Merismopedia aphanocapsoides</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Merismopedia elegans</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Merismopedia glauca</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria limnetica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria minima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria planctonica</i>	8,550	1.79	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> sp. A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> 5 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Planktolyngbya limnetica</i>	-	-	-	-	417	0.05	-	-	-	-	-	-	-	-	-	-
<i>Pseudanabaena constrictum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyanobacteria subtotal</i>	-	-	3.06	1.10	-	-	0.35	0.50	-	-	0.38	0.20	-	-	-	-
Chlorophyceae (Cocoid Greens, Desmids, etc.)																
<i>Ankistrodesmus falcatus</i>	76,950	3.81	-	-	-	-	-	-	-	-	-	-	3,800	0.02	-	-
<i>Ankistrodesmus falcatus</i> var. <i>acicularis</i>	-	-	-	-	1,250	0.11	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>mirabilis</i>	2,850	0.17	-	-	7,806	0.48	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>setiformis</i>	-	-	-	-	2,501	0.24	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>spir</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus spiralis</i>	-	-	-	-	2,501	0.38	-	-	-	-	-	-	-	-	-	-
<i>Arthrodesmus incus</i>	2,850	1.71	-	-	-	-	-	-	-	-	-	-	1,900	2.28	-	-
<i>Carteria</i> 7 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Carteria</i> 10 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ceolastrum microporum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas frigida</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas pyrenoidosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	24,000	2.20	-	-
<i>Chlamydomonas sagittula</i>	-	-	-	-	1,702	0.04	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 5 x 3 µm	-	-	-	-	1,702	0.04	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 7 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 8 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 8 x 6 µm	-	-	-	-	-	-	-	-	24,000	3.62	-	-	-	-	-	-
<i>Chlamydomonas</i> 9 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysolykos skujae</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closteium leibleinii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closteriopsis longissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Coelastrum microporum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium bioculatum</i>	2,850	2.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium cf. ornatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium depressum</i>	-	-	-	-	-	-	-	-	2,850	5.20	-	-	-	-	-	-
<i>Cosmarium subtumidum</i>	2,850	6.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Crucigenia quadrata</i>	-	-	-	-	1,702	0.22	-	-	34,200	7.93	-	-	-	-	-	-
<i>Crucigenia rectangularis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Crucigenia tetrapedia</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Elakatothrix gelatinosa</i>	-	-	-	-	-	-	-	-	2,850	0.27	-	-	15,200	2.23	-	-

Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Caribou Lake Sub-Basin												Judge Sissons Lake Sub-Basin			
	Ridge Lake								Cirque Lake				Judge Sissons Lake			
	August 1989				March 1991				August 1989				August 1989			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
<i>Elakatothrix lacustris</i>	5,700	0	-	-	-	-	-	-	5,700	0.40	-	-	-	-	-	-
<i>Euastrum bidentatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Euastrum binale</i>	2,850	2.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Euastrum insigne</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Euastrum denticulatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeococcus schroeteri</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeocystis planctonica</i>	-	-	-	-	417	0.89	-	-	2,850	3.82	-	-	-	-	-	-
<i>Gloeotilia pelagica</i>	-	-	-	-	417	0.25	-	-	-	-	-	-	-	-	-	-
<i>Gonatozygon monotaenium</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnozyga moniliformis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Monoraphidium setiforme</i>	25,650	2.51	-	-	-	-	-	-	-	-	-	-	26,600	1.95	-	-
<i>Mougeotia</i> 50 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 50 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 55 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 70 x 8 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 85 x 9 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> sp.	2,850	15.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Netrium oblongum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oedogonium</i> sp.	2,850	6.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis borgei</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis parva</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis solitaria</i>	-	-	-	-	-	-	-	-	2,850	1.34	-	-	-	-	-	-
<i>Oocystis submarina</i>	2,850	0.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Planctococcus alsius</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Planctonema lauterbornii</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,900	0.96	-	-
<i>Planctosphaeria gelatinosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Quadrigula pfitzeri</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus acutus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus bijuga</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Selenastrum depressum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Selenastrum minutum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Sphaerocystis schroeteri</i>	2,850	3.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Spondylosium planum</i>	2,850	0.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Staurostrum crenulatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tetraedron minimum</i>	2,850	0.57	-	-	8,508	0.27	-	-	-	-	-	-	1,900	3.04	-	-
<i>Westella botryoides</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlorophyceae subtotal</i>	-	-	46.65	17.30	-	-	2.92	3.80	-	-	22.58	11.40	-	-	12.67	10.70
Chrysophyceae																
<i>Biocoecca cylindrica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Bitrichia chodatii</i>	2,850	0.17	-	-	-	-	-	-	8,550	0.78	-	-	1,900	0.17	-	-
<i>Chromulina</i> 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 3.5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 4 µm	312,000	10.46	-	-	37,435	1.25	-	-	96,000	3.22	-	-	192,000	6.43	-	-
<i>Chromulina</i> 4 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 4 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 5 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 6 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysamoeba mikrokonta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysidiastrium catenatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,900	1.53	-	-
<i>Chrysochromulina brevituritt</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysochromulina parva</i>	-	-	-	-	5,105	0.12	-	-	-	-	-	-	144,000	2.71	-	-
<i>Chrysolykos planctonica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysolykos skujae</i>	-	-	-	-	5,105	0.30	-	-	-	-	-	-	48,000	4.40	-	-

Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Caribou Lake Sub-Basin												Judge Sissons Lake Sub-Basin			
	Ridge Lake								Cirque Lake				Judge Sissons Lake			
	August 1989				March 1991				August 1989				August 1989			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
<i>Chrysophyte monads</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysophyte monad</i> 14 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified	24,000	1.61	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified 6 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified 9 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysosphaerella longispina</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Desmarella brachycalyx</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diceras chodatii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon acuminatum</i>	-	-	-	-	7,919	2.39	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon bavaricum</i>	2,850	1.72	-	-	-	-	-	-	71,250	69.76	-	-	15,200	21.92	-	-
<i>Dinobryon borgei</i>	24,000	1.41	-	-	-	-	-	-	-	-	-	-	15,200	0.89	-	-
<i>Dinobryon campanulostipitum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon crenulatum</i>	5,700	0.60	-	-	-	-	-	-	-	-	-	-	7,600	1.58	-	-
<i>Dinobryon cylindricum</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,900	1.49	-	-
<i>Dinobryon divergens</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon elegantissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	19,000	2.99	-	-
<i>Dinobryon petiolatum</i>	24,000	1.21	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sertularia</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sociale</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sociale</i> var <i>americanum</i>	-	-	-	-	417	0.21	-	-	-	-	-	-	11,400	5.91	-	-
<i>Erkenia subaequiciliata</i>	48,000	0.91	-	-	1,702	0.04	-	-	48,000	0.91	-	-	48,000	2.01	-	-
<i>Jroglena americana</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion littorale</i>	-	-	-	-	-	-	-	-	-	-	-	-	48,000	2.01	-	-
<i>Kephyrion mastigophorum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion sitta</i>	-	-	-	-	1,702	0.03	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas akrokomonas</i>	5,700	2.09	-	-	-	-	-	-	19,950	7.31	-	-	-	-	-	-
<i>Mallomonas pseudocoronata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas pumillo</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas pumillo</i> var. <i>canadensis</i>	-	-	-	-	834	1.51	-	-	-	-	-	-	-	-	-	-
<i>Monosiga baltica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 5 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 6 µm	-	-	-	-	6,806	0.77	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 6 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 6 x 5 µm	-	-	-	-	-	-	-	-	408,000	32.04	-	-	192,000	15.08	-	-
<i>Ochromonas</i> 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 8 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 8 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 9 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 9 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 10 µm	-	-	-	-	-	-	-	-	-	-	-	-	24,000	12.57	-	-
<i>Ochromonas</i> 10 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion attenuatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,900	0.29	-	-
<i>Pseudokephyrion conicum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion ellipsoideum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion planctonicum</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,900	0.08	-	-
<i>Pseudokephyrion tintinnabulu</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizochrysis limnetica</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizochrysis tetragena</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizochrysis</i> sp.	24,000	6.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Salpingoeca frequentissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	3,800	0.50	-	-
<i>Stichogloea doedlereinii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stichogloea olivacea</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Uroglena americana</i>	5,700	0.86	-	-	-	-	-	-	14,250	16.71	-	-	-	-	-	-
<i>Uroglena volvox</i>	22,800	7.64	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysophyceae subtotal</i>	-	-	35.09	13.00	-	-	6.62	8.60	-	-	130.73	66.10	-	-	82.56	69.60

Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Caribou Lake Sub-Basin												Judge Sissons Lake Sub-Basin			
	Ridge Lake								Cirque Lake				Judge Sissons Lake			
	August 1989				March 1991				August 1989				August 1989			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
Bacillariophyceae																
<i>Achnanthes minutissima</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Asterionella formosa</i>	2,850	2.07	-	-	4,585	5.22	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella bodanica</i>	-	-	-	-	2,918	42.11	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella ocellata</i>	-	-	-	-	834	1.55	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> sp.	2,850	17.55	-	-	-	-	-	-	2,850	1.12	-	-	1,900	5.97	-	-
<i>Cyclotella</i> 10 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> 20 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella minuta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view	2,850	1.91	-	-	-	-	-	-	2,850	10.45	-	-	-	-	-	-
<i>Diatom girdle</i> view 21 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 24 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 30 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 40 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia lunaris</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotica pecinalis</i> var. minor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria</i> 50 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria capucina</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria crotonensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Melosira distans</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula cryptocephala</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i> 30 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i> view	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula</i> sp.	5,700	0.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizosolenia eriensis</i>	2,850	0.43	-	-	6,806	4.28	-	-	-	-	-	-	-	-	-	-
<i>Synedra acus</i> var. <i>radians</i>	-	-	-	-	2,918	0.50	-	-	5,700	1.38	-	-	-	-	-	-
<i>Synedra rumpens</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra</i> sp. A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria fenestrata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria flocculosa</i>	39,900	127.68	-	-	-	-	-	-	-	-	-	-	1,900	0.80	-	-
<i>Tabellaria quadrisepata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Bacillariophyceae subtotal</i>	-	-	150.48	55.90	-	-	53.65	69.60	-	-	12.94	6.50	-	-	6.77	5.70
Cryptophyceae (Flagellates)																
<i>Cryptomonas erosa</i>	5,700	10.31	-	-	417	0.38	-	-	5,700	10.31	-	-	-	-	-	-
<i>Cryptomonas marsonii</i>	2,850	1.21	-	-	417	0.09	-	-	5,700	1.91	-	-	1,900	0.61	-	-
<i>Cryptomonas platyuris</i>	2,850	10.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cryptomonas rostrata</i>	-	-	-	-	-	-	-	-	2,850	7.52	-	-	-	-	-	-
<i>Katablepharis ovalis</i>	24,000	1.41	-	-	3,403	0.20	-	-	48,000	2.82	-	-	24,000	1.41	-	-
<i>Rhodomonas lacustris</i>	11,400	5.73	-	-	-	-	-	-	2,850	1.02	-	-	1,900	1.69	-	-
<i>Rhodomonas lens</i>	-	-	-	-	3,403	0.31	-	-	-	-	-	-	-	-	-	-
<i>Rhodomonas minuta</i>	-	-	-	-	86,782	9.82	-	-	-	-	-	-	-	-	-	-
<i>Rhodomonas minuta</i> var. <i>nannoplanctica</i>	48,000	2.51	-	-	42,540	2.23	-	-	72,000	7.54	-	-	192,000	11.26	-	-
<i>Cryptophyceae subtotal</i>	-	-	31.41	11.70	-	-	13.02	16.90	-	-	31.12	15.70	-	-	14.96	12.60
Dinophyceae (Dinoflagellates)																
<i>Chroococcus aphanocapsoides</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium ordinatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium uberrimum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium varians</i>	5,700	2.659	-	-	1,702	0.48	-	-	-	-	-	-	-	-	-	-
<i>Peridinium aciculiferum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Peridinium inconspicuum</i>	-	-	-	-	-	-	-	-	-	-	-	-	1,900	1.69	-	-
<i>Dinophyceae subtotal</i>	-	-	2.66	1.00	-	-	0.48	0.60	-	-	-	-	-	-	1.69	1.40
Total	815,850	269.35	-	-	256,076	77.04	-	-	892,650	197.76	-	-	1,078,500	118.63	-	-

Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Judge Sissons Lake Sub-Basin											
	Judge Sissons Lake				Judge Sissons Lake Outfall							
	March 1991				June 1991				July 1991			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
Cyanobacteria (Blue greens)												
<i>Anabaena cf. planctonica</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aphanocapsa delicatissima</i>	4,254	0.32	-	-	42,540	0.08	-	-	106,350	0.19	-	-
<i>Aphanothece clathrata</i>	851	0.01	-	-	42,540	0.07	-	-	-	-	-	-
<i>Aphanothece</i> sp. A	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus aphanocapsoides</i>	851	0.01	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus dispersus</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus dispersus</i> var. <i>minor</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus limneticus</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus pallidus</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyanarcus hamiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeothece linearis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphosphaeria lacustris</i> var. <i>compacta</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Merismopedia aphanocapsoides</i>	851	0.03	-	-	-	-	-	-	-	-	-	-
<i>Merismopedia elegans</i>	-	-	-	-	6,806	0.03	-	-	-	-	-	-
<i>Merismopedia glauca</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria limnetica</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria minima</i>	-	-	-	-	-	-	-	-	44,667	0.84	-	-
<i>Oscillatoria planctonica</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> sp. A	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oscillatoria</i> 5 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Planktolyngbya limnetica</i>	2,978	0.40	-	-	-	-	-	-	-	-	-	-
<i>Pseudanabaena constrictum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyanobacteria subtotal</i>	-	-	0.77	8.30	-	-	0.17	0.70	-	-	1.03	0.90
Chlorophyceae (Cocoid Greens, Desmids, etc.)												
<i>Ankistrodesmus falcatus</i>	-	-	-	-	-	-	-	-	4,254	0.14	-	-
<i>Ankistrodesmus falcatus</i> var. <i>acicularis</i>	10,635	1.48	-	-	4,168	0.16	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>mirabilis</i>	2,127	0.18	-	-	25,842	1.62	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>setiformis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>spir</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus spiralis</i>	1,702	0.27	-	-	-	-	-	-	10,635	0.56	-	-
<i>Arthrodesmus incus</i>	-	-	-	-	-	-	-	-	2,127	5.11	-	-
<i>Carteria</i> 7 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Carteria</i> 10 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ceolastrum microporum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas frigida</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas pyrenoidosa</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas sagittula</i>	851	0.02	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 5 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 7 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 8 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 8 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas</i> 9 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysolykos skujae</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closteium leibleinii</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Closteriopsis longissima</i>	-	-	-	-	-	-	-	-	23,397	1.47	-	-
<i>Coelastrum microporum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium bioculatum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium cf. ornatum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium depressum</i>	-	-	-	-	-	-	-	-	2,127	1.91	-	-
<i>Cosmarium subtumidum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Crucigenia quadrata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Crucigenia rectangularis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Crucigenia tetrapedia</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Elakatothrix gelatinosa</i>	-	-	-	-	-	-	-	-	23,397	1.65	-	-

Table X.VII-1
Historical Phytoplankton Density and Biomass for Lakes and Streams in the Kiggavik Project Area, 1989 to 1991

Taxa	Judge Sissons Lake Sub-Basin											
	Judge Sissons Lake				Judge Sissons Lake Outfall							
	March 1991				June 1991				July 1991			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
<i>Elakatothrix lacustris</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Euastrum bidentatum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Euastrum binale</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Euastrum insigne</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Euastrum denticulatum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeococcus schroeteri</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeocystis planctonica</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeotilia pelagica</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gonatozygon monotaenium</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnozyga moniliformis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Monoraphidium setiforme</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 50 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 50 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 55 x 5 µm	-	-	-	-	-	-	-	-	21,270	22.97	-	-
<i>Mougeotia</i> 70 x 8 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> 85 x 9 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mougeotia</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Netrium oblongum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oedogonium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis borgei</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis parva</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis solitaria</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis submarina</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Planctococcus alsius</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Planctonema lauterbornii</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Planctosphaeria gelatinosa</i>	-	-	-	-	834	0.75	-	-	2,127	1.92	-	-
<i>Quadrigula pfitzeri</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus acutus</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus bijuga</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Selenastrum depressum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Selenastrum minutum</i>	-	-	-	-	851	0.03	-	-	-	-	-	-
<i>Sphaerocystis schroeteri</i>	-	-	-	-	-	-	-	-	17,016	4.56	-	-
<i>Spondylosium planum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Staurastrum crenulatum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tetraedron minimum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Westella botryoides</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlorophyceae subtotal</i>	-	-	1.95	21.00	-	-	2.57	11.10	-	-	40.30	34.20
Chrysophyceae												
<i>Bioceoea cylindrica</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Bitrichia chodatii</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 3 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 3.5 µm	7,232	0.16	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 4 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 4 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 4 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> 5 µm	-	-	-	-	1,702	0.11	-	-	-	-	-	-
<i>Chromulina</i> 5 x 4 µm	-	-	-	-	-	-	-	-	42,540	1.78	-	-
<i>Chromulina</i> 6 x 5 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysamoeba mikrokonta</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysidiastrum catenatum</i>	-	-	-	-	-	-	-	-	8,508	7.70	-	-
<i>Chrysochromulina brevituritt</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysochromulina parva</i>	425	0.01	-	-	851	0.04	-	-	-	-	-	-
<i>Chrysolykos planctonica</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysolykos skujae</i>	-	-	-	-	-	-	-	-	-	-	-	-

Table X.VII-1
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Taxa	Judge Sissons Lake Sub-Basin											
	Judge Sissons Lake				Judge Sissons Lake Outfall							
	March 1991				June 1991				July 1991			
	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
<i>Chrysophyte monads</i>	-	-	-	-	-	-	-	-	2,127	0.42	-	-
<i>Chrysophyte monad</i> 14 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified	-	-	-	-	4,254	0.06	-	-	2,127	1.92	-	-
Chrysophyte unidentified 6 µm	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified 6 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyte unidentified 9 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysosphaerella longispina</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Desmarella brachycalyx</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diceras chodatii</i>	-	-	-	-	-	-	-	-	6,381	0.37	-	-
<i>Dinobryon acuminatum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon bavaricum</i>	-	-	-	-	-	-	-	-	72,318	43.62	-	-
<i>Dinobryon borgei</i>	-	-	-	-	-	-	-	-	4,254	0.12	-	-
<i>Dinobryon campanulostipitum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon crenulatum</i>	425	0.13	-	-	-	-	-	-	2,127	0.71	-	-
<i>Dinobryon cylindricum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon divergens</i>	425	0.13	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon elegantissima</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon petiolatum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sertularia</i>	-	-	-	-	11,254	4.62	-	-	-	-	-	-
<i>Dinobryon sociale</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sociale</i> var <i>americanum</i>	-	-	-	-	-	-	-	-	17,016	6.99	-	-
<i>Erkenia subaequiciliata</i>	851	0.02	-	-	-	-	-	-	6,381	0.59	-	-
<i>Jroglena americana</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion littorale</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion mastigophorum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion sitta</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas akrokomonas</i>	-	-	-	-	851	0.05	-	-	-	-	-	-
<i>Mallomonas pseudocoronata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas pumillo</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas pumillo</i> var. <i>canadensis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Monosiga baltica</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 5 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 6 µm	425	0.05	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 6 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 6 x 5 µm	-	-	-	-	-	-	-	-	10,635	0.84	-	-
<i>Ochromonas</i> 7 µm	425	0.08	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 8 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 8 x 6 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 9 µm	-	-	-	-	5,956	2.27	-	-	-	-	-	-
<i>Ochromonas</i> 9 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 10 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> 10 x 7 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion attenuatum</i>	-	-	-	-	-	-	-	-	2,127	0.66	-	-
<i>Pseudokephyrion conicum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion ellipsoideum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion planctonicum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion tintinnabulu</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizochrysis limnetica</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizochrysis tetragena</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizochrysis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Salpingoeca frequentissima</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stichogloea doedlereinii</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stichogloea olivacea</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Uroglena americana</i>	-	-	-	-	-	-	-	-	51,048	5.35	-	-
<i>Uroglena volvox</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chrysophyceae subtotal</i>	-	-	0.57	6.20	-	-	7.15	31.00	-	-	71.05	60.20

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	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)	Density (cells/L)	Biomass (mg/m ³)	Total Biomass Per Group (mg/m ³)	Percent of Total Biomass (%)
Bacillariophyceae												
<i>Achnanthes minutissima</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Asterionella formosa</i>	425	0.16	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella bodanica</i>	425	4.91	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella ocellata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> 10 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> 20 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella minuta</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view	425	0.24	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 21 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 24 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 30 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatom girdle</i> view 40 x 3 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia lunaris</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotica pecinalis</i> var. minor	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria</i> 50 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria capucina</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria crotonensis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Melosira distans</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula cryptocephala</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i> 30 x 4 µm	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula girdle</i> view	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhizosolenia eriensis</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra acus</i> var. <i>radians</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra rumpens</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra</i> sp. A	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria fenestrata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria flocculosa</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria quadrisepta</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Bacillariophyceae subtotal</i>	-	-	5.31	57.30	-	-	-	-	-	-	-	-
Cryptophyceae (Flagellates)												
<i>Cryptomonas erosa</i>	-	-	-	-	2,552	4.62	-	-	2,127	3.85	-	-
<i>Cryptomonas marsonii</i>	-	-	-	-	1,702	0.48	-	-	2,127	0.90	-	-
<i>Cryptomonas platyuris</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cryptomonas rostrata</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Katablepharis ovalis</i>	-	-	-	-	-	-	-	-	6,381	0.37	-	-
<i>Rhodomonas lacustris</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhodomonas lens</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhodomonas minuta</i>	7,657	0.67	-	-	40,838	4.62	-	-	4,254	0.48	-	-
<i>Rhodomonas minuta</i> var. <i>nannoplantica</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cryptophyceae subtotal</i>	-	-	0.67	7.20	-	-	9.72	42.10	-	-	5.61	4.80
Dinophyceae (Dinoflagellates)												
<i>Chroococcus aphanocapsoides</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium ordinatum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium uberrimum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium varians</i>	-	-	-	-	4,254	0.88	-	-	-	-	-	-
<i>Peridinium aciculiferum</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Peridinium inconspicuum</i>	-	-	-	-	1,702	2.57	-	-	-	-	-	-
<i>Dinophyceae subtotal</i>	-	-	-	-	-	-	3.45	15.00	-	-	-	-
Total	44,240	9.27	-	-	199,497	23.06	-	-	499,845	117.99	-	-

Notes: Station Codes are composed of the Stream Code-Event Code-Sample-Season-Year; Date is in Day-Month-Year format.
(a) = % Biomass of *Bitrichia chodatii* was originally separate, however for the purposes of this study it is assumed it should have been included in the Crysohyceae group.
cells/L = cells per litre; mg/m³ = milligrams per cubic metre; sp. = species singular; % = percent; µm = micrometre; - = none.

Table X.VII-2

Phytoplankton Density and Biomass for Lakes in the Kiggavik Project Area, 2008

Taxa	Willow Lake Sub-Basin				Lower Lake Sub-Basin								Caribou Lake Sub-Basin							
	Pointer Lake				Mushroom Lake				Lower Lake				Fox Lake				Caribou Lake			
	PRL-PP001-U08		PRL-P001-F08		MSL-PP001-U08		MSL-PP001-F08		LWL-PP001-U08		LWL-PP001-F08		FXL-PP001-U08		FXL-PP001-F08		CBL-PP001-U08		CBL-PP001-F08	
	31-Jul-08		2-Sep-08		25-Jul-08		4-Sep-08		28-Jul-08		5-Sep-08		3-Aug-08		7-Sep-08		2-Aug-08		6-Sep-08	
	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)
Cyanobacteria																				
<i>Anabaena</i> sp. Bory	-	-	7,292	4.95	-	-	6,806	6.16	-	-	-	-	6,806	2.67	-	-	-	-	-	-
<i>Aphanocapsa</i> delicatissima West & West	277,133	54.62	153,152	39.71	-	-	-	-	-	-	145,859	30.55	156,556	57.88	54,454	21.67	13,613	2.28	54,454	11.41
<i>Aphanocapsa</i> elachista W. & G.S. West	-	-	14,585	2.89	-	-	-	-	14,585	14.43	-	-	6,806	3.85	-	-	13,613	1.54	13,613	3.08
<i>Aphanocapsa</i> sp.	-	-	-	-	-	-	6,806	4.46	-	-	-	-	-	-	6,806	35.64	-	-	6,806	1.37
<i>Aphanothece clathrata</i> W & G.S. West	-	-	-	-	-	-	-	-	-	-	-	-	20,420	32.08	61,261	166.80	-	-	-	-
<i>Aphanothece</i> sp.	14,585	5.50	29,171	9.62	-	-	-	-	-	-	21,878	15.81	34,033	35.93	88,488	73.78	-	-	-	-
<i>Chroococcus limneticus</i> Lemmermann	-	-	-	-	-	-	-	-	38,895	97.80	-	-	34,033	105.84	115,715	187.84	-	-	-	-
<i>Cyanodictyon</i> sp.	-	-	-	-	-	-	-	-	-	-	7,292	1.38	-	-	-	-	-	-	-	-
<i>Dactylococcopsis smithii</i> Chodat & Chodat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	0.58	-	-
<i>Limnothrix redekei</i> (Van Goor) Meffert	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Limnothrix</i> sp.	29,171	6.87	-	-	-	-	-	-	-	-	14,585	5.73	13,613	1.18	-	-	6,806	0.54	-	-
<i>Merismopedia glauca</i> (Ehrenberg) Naegeli	-	-	-	-	-	-	-	-	-	-	-	-	6,806	1.54	-	-	-	-	-	-
<i>Merismopedia tenuissima</i> Lemmermann	-	-	-	-	-	-	-	-	4,861	0.29	7,292	3.91	6,806	0.23	-	-	-	-	-	-
<i>Microcystis ichthyoblabe</i> Kuetzing	-	-	-	-	-	-	-	-	-	-	-	-	20,420	14.26	-	-	-	-	-	-
<i>Rhabdoderma lineare</i> Schmidle & Lauterborn	-	-	-	-	-	-	-	-	-	-	7,292	1.24	-	-	-	-	-	-	-	-
<i>Snowella lacustris</i> (Chodat) Komarek et Hindak	14,585	41.24	14,585	41.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyanobacteria subtotal</i>	335,474	108.23	218,785	98.41	0	0	13,612	10.61	58,341	112.52	204,198	58.61	306,299	255.44	326,724	485.72	40,838	4.93	74,873	15.85
Chlorophyceae (Cocoid Greens, Desmids, etc.)																				
<i>Ankistrodesmus bernardii</i> Komarek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	2.57
<i>Ankistrodesmus falcatus</i> var. <i>mirabilis</i> West	-	-	7,292	0.15	-	-	-	-	-	-	-	-	-	-	6,806	0.93	-	-	-	-
<i>Ankistrodesmus gracilis</i> (Reinsch) Kors.	-	-	7,292	0.52	-	-	-	-	-	-	-	-	-	-	-	-	6,806	0.51	40,840	1.28
<i>Ankistrodesmus spiralis</i> (Turner) Lemmermann	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Arthrodesmus triangularis</i> Lagerheim	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Botryococcus sudeticus</i> Lemmermann	-	-	7,292	42.77	-	-	6,806	39.92	-	-	-	-	13,613	256.61	-	-	-	-	-	-
<i>Chamydomonas</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	1.28
<i>Chlamydomonas globosa</i> Snow	-	-	-	-	-	-	13,613	7.13	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas sagitula</i> Skuja	-	-	-	-	-	-	-	-	4,861	0.14	-	-	-	-	-	-	-	-	-	-
<i>Choricystis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Coelastrum cambricum</i> Archer	-	-	-	-	-	-	-	-	-	-	-	-	6,806	49.27	-	-	-	-	-	-
<i>Coenocystis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium meneghinii</i> Brebisson	-	-	-	-	-	-	-	-	4,861	8.98	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium ochthodes</i> var <i>amoebum</i> West & West	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium phaseolus</i> Brebisson	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	28.51	-	-	-	-
<i>Cosmarium</i> sp.	-	-	-	-	-	-	-	-	4,861	2.55	-	-	-	-	-	-	-	-	-	-
<i>Cosmaruim bioculatum</i> Brebisson	14,585	67.21	7,292	6.60	-	-	-	-	-	-	-	-	-	-	13,613	3.65	-	-	-	-
<i>Crucegenia quadrata</i> Morren	14,585	1.96	14,585	1.96	-	-	-	-	14,585	5.21	14,585	3.91	27,227	14.60	68,067	28.74	20,420	7.30	20,420	4.56
<i>Crucegenia tetrapedia</i> (Kirchner) W. & G.S. West	-	-	21,878	11.46	-	-	-	-	-	-	-	-	-	-	-	-	13,613	12.32	20,420	36.95
<i>Dictyosphaerium ehrenbergianum</i> Naegeli	-	-	7,292	1.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dictyosphaerium subsolitarium</i> Van Goor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Elakatothrix gelatinosa</i> Wille	-	-	7,292	0.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Elakatothrix genevensis</i> (Reverdin) Hindak	29,171	0.55	36,464	1.20	6,806	0.11	-	-	-	-	14,585	0.69	13,613	2.17	20,420	1.41	34,033	2.05	6,806	0.64
<i>Eudorina elegans</i> Ehrenberg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eudorina</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeocystis</i> sp.	-	-	21,878	20.96	6,806	0.46	-	-	4,861	3.49	-	-	68,067	50.81	6,806	0.46	6,806	4.89	-	-
<i>Gloeotilia</i> sp.	-	-	94,808	39.32	-	-	6,806	2.91	-	-	-	-	-	-	6,806	2.91	-	-	-	-
<i>Isthmochloron trispinatum</i> (W. & G.S. West) Skuja	-	-	-	-	-	-	-	-	4,861	3.06	-	-	-	-	-	-	-	-	-	-
<i>Korshikoviella</i> sp.	-	-	-	-	13,613	0.91	-	-	-	-	-	-	-	-	20,420	1.64	-	-	-	-
<i>Monoraphidiu dybowskii</i> (Wolosz) Hindak et. Kom.-Legn.	-	-	-	-	13,613	1.60	-	-	4,861	0.18	-	-	-	-	-	-	-	-	-	-
<i>Monoraphidium braunii</i> Naegeli	-	-	-	-	13,613	0.39	6,806	0.32	14,585	0.69	-	-	13,613	0.23	20,420	0.87	34,033	0.57	6,806	0.23
<i>Monoraphidium circinale</i> (Nygaard) Nygaard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Monoraphidium contortum</i> (Thuret) Komarkova-Legenerova	29,171	1.79	51,050	3.13	-	-	-	-	38,895	2.38	-	-	-	-	-	-	108,908	6.67	313,112	19.18
<i>Monoraphidium griffithii</i> (Berkeley) Komarkova-Legenerova	14,585	2.23	14,585	2.41	13,613	2.25	-	-	24,309	3.72	7,292	0.69	-	-	-	-	27,227	4.49	13,613	2.25
<i>Monoraphidium irregulare</i> (G.M. Smith) Komarkova-Legenerova	-	-	7,292	0.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Monoraphidium minutum</i> (Nag.) Komarkova-Legenerova	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81,681	3.08	47,647	1.80
<i>Monoraphidium pusillum</i> (Printz) Kom-Legn.	-	-	-	-	-	-	-	-	4,861	0.23	-	-	-	-	-	-	-	-	-	-
<i>Monoraphidium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	6,806	0.03	-	-	-	-	-	-
<i>Oocystis borgei</i> Snow	-	-	7,292	4.89	-	-	-	-	-	-	-	-	6,806	5.70	6,806	8.21	-	-	-	-
<i>Oocystis gigas</i> Archer	14,585	175.96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table X.VII-2
Phytoplankton Density and Biomass for Lakes in the Kiggavik Project Area, 2008

Taxa	Willow Lake Sub-Basin				Lower Lake Sub-Basin								Caribou Lake Sub-Basin							
	Pointer Lake				Mushroom Lake				Lower Lake				Fox Lake				Caribou Lake			
	PRL-PP001-U08		PRL-P001-F08		MSL-PP001-U08		MSL-PP001-F08		LWL-PP001-U08		LWL-PP001-F08		FXL-PP001-U08		FXL-PP001-F08		CBL-PP001-U08		CBL-PP001-F08	
	31-Jul-08		2-Sep-08		25-Jul-08		4-Sep-08		28-Jul-08		5-Sep-08		3-Aug-08		7-Sep-08		2-Aug-08		6-Sep-08	
	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)
<i>Oocystis parva</i> W. & G.S. West	131,273	4.95	7,292	0.49	-	-	-	-	48,619	1.83	36,464	2.44	272,270	38.78	129,325	11.97	319,918	13.86	34,033	4.01
<i>Oocystis pusilla</i> Hansgirg	29,171	1.10	43,757	1.65	-	-	-	-	-	-	29,171	1.93	13,613	0.91	-	-	-	-	20,420	5.77
<i>Oocystis solitaria</i> Wittrock	-	-	160,445	45.37	6,806	10.26	6,806	8.21	19,447	6.99	14,585	7.82	47,647	10.78	6,806	1.54	6,806	8.21	47,647	13.47
<i>Pediastrum boryanum</i> (Turpin) Meneghini	14,585	488.78	7,292	1,309.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Quadrigula closteriodes</i> (Bohlin) Printz	14,585	4.89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,613	2.31	-	-
<i>Scenedesmus bijuga</i> (Turp.) Lagerheim	14,585	0.24	-	-	-	-	-	-	4,861	1.63	7,292	2.67	-	-	-	-	-	-	-	-
<i>Scenedesmus obliquus</i> (Turpin) Kuetzing	-	-	-	-	-	-	-	-	-	-	-	-	6,806	0.58	-	-	6,806	0.51	-	-
<i>Sphaerocystis Schroeteri</i> Chodat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	72.99	-	-	-	-
<i>Spondylosium planum</i> (Wolle) W. & G.S. West	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Staurastrum</i> sp.	-	-	7292	23.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tatraedron caudatum</i> (Corda) Hansgirg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tetraedron minimum</i> var. <i>tetralobulatum</i> Reins	-	-	-	-	-	-	-	-	4,861	0.55	-	-	-	-	-	-	27,227	3.08	-	-
<i>Tetraedron minimum</i> (A. Braun) Hansgirg	72,929	65.99	14,585	13.20	-	-	-	-	14,585	11.62	21,878	19.80	6,806	6.16	6,806	6.16	-	-	-	-
<i>Tetraedron</i> sp.	-	-	-	-	-	-	-	-	4,861	2.55	-	-	-	-	-	-	-	-	-	-
<i>Tetraedron trigonum</i> (Naeg.) Hansgirg	-	-	-	-	-	-	6,806	228.10	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlorophyceae subtotal</i>	393,810	815.64	554,247	1,531.75	74,870	15.97	47,643	286.58	223,635	55.79	145,852	39.94	503,693	436.62	326,713	169.98	707,897	69.85	585,376	93.99
Chrysophyceae																				
<i>Bicosoeca kenaiensis</i> Hillard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	3.19
<i>Bitrichia chodatii</i> (Rev.) Chod.	14,585	0.41	-	-	6,806	0.19	-	-	4,861	0.24	-	-	-	-	-	-	-	-	6,806	0.19
<i>Bitrichia olula</i> (Fott) Bourrelly	-	-	-	-	-	-	-	-	-	-	-	-	13,613	1.14	-	-	-	-	-	-
<i>Chromulina</i> sp.	422,993	55.37	102,101	16.04	183,783	28.87	176,976	27.80	170,169	24.50	204,203	46.19	170,169	26.73	176,976	40.03	47,647	6.86	142,942	22.45
<i>Chrysolykos planctonicus</i> Mack	14,585	0.34	7,292	0.17	-	-	6,806	0.16	-	-	21,878	0.62	6,806	0.07	-	-	-	-	27,227	0.34
<i>Chrysolykos skuja</i> i (Nauwerck) Bourrelly	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Desmarella moniliformis</i> Kent	-	-	29,171	1.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dicronema</i> cf. <i>vlkanum</i> Prauser	29,171	0.83	43,757	1.24	122,522	2.89	129,328	3.66	4,861	0.12	43,757	1.24	129,328	3.05	68,067	1.93	319,918	7.54	374,373	10.59
<i>Dinobryon acuminatum</i> Ruttner	-	-	-	-	6,806	0.80	6,806	0.26	4,861	0.24	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon bavaricum</i> Imhof	-	-	51,050	19.48	-	-	136,135	36.27	-	-	21,878	3.97	-	-	6,806	1.71	6,806	4.28	74,874	47.90
<i>Dinobryon bavaricum</i> var. <i>Vanhoffenii</i> (Bachm.) Krieg.	14,585	8.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon borgei</i> Lemmermann	-	-	29,171	3.82	-	-	6,806	0.46	4,861	0.18	-	-	13,613	1.96	13,613	1.14	-	-	13,613	0.77
<i>Dinobryon cylindricum</i> Imhof	-	-	-	-	-	-	13,613	41.70	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon dilatatum</i> Hillard	-	-	14,585	0.55	-	-	-	-	63,205	2.38	14,585	0.55	-	-	6,806	0.63	-	-	6,806	0.74
<i>Dinobryon divergens</i> Imhof	-	-	-	-	-	-	20,420	32.79	-	-	-	-	-	-	6,806	1.71	6,806	24.95	-	-
<i>Dinobryon sociale</i> Ehrenberg	-	-	-	-	-	-	-	-	-	-	72,929	16.50	13,613	4.28	6,806	0.86	-	-	6,806	1.37
<i>Dinobryon sociale</i> var. <i>americana</i> (Brunthaler) Bachmann	-	-	-	-	13,613	2.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sociale</i> var. <i>stipitatum</i> (Stein) Lemmermann	14,585	5.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88,488	65.69	47,647	104.25
<i>Dinobryon</i> sp. (loose monad)	131,273	13.20	7,292	1.34	13,613	4.28	47,647	6.39	-	-	138,566	13.93	-	-	34,033	10.26	163,362	25.66	231,430	23.27
<i>Epipyxis</i> sp.	-	-	-	-	6,806	0.26	-	-	-	-	7,292	0.24	-	-	-	-	-	-	6,806	0.26
<i>Kephyrion boreale</i> Skuja	-	-	21,878	1.10	-	-	6,806	0.34	-	-	7,292	0.57	-	-	-	-	-	-	-	-
<i>Kephyrion cupuliforme</i> Conrad	-	-	36,464	0.86	-	-	-	-	4,861	0.12	7,292	0.37	-	-	6,806	0.77	-	-	-	-
<i>Kephyrion</i> sp.	29,171	0.98	14,585	0.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	0.16
<i>Mallomonas pseudocoronata</i> Prescott	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas</i> sp.	-	-	-	-	13,613	8.21	-	-	-	-	-	-	-	-	-	-	-	-	6,806	13.34
<i>Monosiga</i> sp.	14,585	0.34	21,878	0.52	-	-	-	-	4,861	0.12	21,878	0.52	20,420	0.48	6,806	0.16	-	-	-	-
<i>Monosiga varians</i> Skuja	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	102,101	2.41
<i>Ochromonas</i> sp.	29,171	3.82	36,464	5.25	47,647	6.86	47,647	6.24	48,619	11.00	51,050	7.35	34,033	5.35	40,840	5.88	13,613	1.96	20,420	2.94
<i>Pedinella</i> sp.	14,585	7.64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion ellipsoideum</i> (Pascher) Schmid	-	-	29,171	0.83	-	-	-	-	-	-	14,585	0.41	-	-	-	-	-	-	13,613	0.39
<i>Pseudokephyrion minutissimum</i> Conrad	-	-	7,292	3.82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Salpingoeca</i> sp.	-	-	7,292	32.99	20,420	0.48	-	-	-	-	-	-	-	-	-	-	-	-	6,806	12.83
<i>Spiniferomonas</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stichogloea doederleinii</i> (Schmidle) Wille	58,343	28.59	21,878	2.20	13,613	15.40	-	-	-	-	-	-	13,613	14.60	-	-	-	-	-	-
<i>Stichogloea globosa</i> Starmach	-	-	-	-	-	-	-	-	9,723	35.64	-	-	-	-	6,806	7.13	-	-	-	-
<i>Synura</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27,227	18.25	6,806	4.56
Unidentified naked Chrysophyte sp. (<i>Ochromonas</i> / <i>Chromulina</i>) - large	1,808,659	306.83	517,801	67.78	823,620	129.37	891,688	140.07	466,750	67.21	1,217,928	175.37	183,783	26.46	571,769	82.33	122,522	19.25	333,532	75.44
Unidentified naked Chrysophyte sp. (<i>Ochromonas</i> / <i>Chromulina</i>) - small	860,571	43.26	342,770	8.08	170,169	4.01	347,145	8.18	257,685	6.07	678,247	15.98	170,169	4.01	204,203	4.81	122,522	2.89	279,078	7.89
<i>Uroglena</i> sp.	3,004,708	201.38	14,585	0.98	40,839	84.85	374,372	169.93	-	-	-	-	-	-	-	-	462,860	1093.04	27,227	1.83
<i>Chrysophyceae subtotal</i>	6,461,570	677.13	1,356,477	169.13	1,483,870	289.32	2,212,195	474.23	1,045,317	147.82	2,523,360	283.80	769,160	88.12	1,157,143	159.34	1,381,771	1270.36	1,749,331	337.10

Table X.VII-2
Phytoplankton Density and Biomass for Lakes in the Kiggavik Project Area, 2008

Taxa	Willow Lake Sub-Basin				Lower Lake Sub-Basin								Caribou Lake Sub-Basin							
	Pointer Lake				Mushroom Lake				Lower Lake				Fox Lake				Caribou Lake			
	PRL-PP001-U08		PRL-P001-F08		MSL-PP001-U08		MSL-PP001-F08		LWL-PP001-U08		LWL-PP001-F08		FXL-PP001-U08		FXL-PP001-F08		CBL-PP001-U08		CBL-PP001-F08	
	31-Jul-08		2-Sep-08		25-Jul-08		4-Sep-08		28-Jul-08		5-Sep-08		3-Aug-08		7-Sep-08		2-Aug-08		6-Sep-08	
	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)
Cryptophyceae (Flagellates)																				
<i>Cryptomonas erosa</i> Ehrenberg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cryptomonas marsonii</i> Skuja	-	-	-	-	122,522	102.64	6,806	4.56	24,309	25.46	-	-	-	-	-	-	13,613	14.26	-	-
<i>Cryptomonas pyrenoidifera</i> Geitler	-	-	-	-	6,806	20.96	-	-	9,723	14.66	-	-	6,806	16.77	-	-	-	-	-	-
<i>Cryptomonas reflexa</i> Skuja	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cryptomonas tenuis</i> Pascher	-	-	-	-	-	-	6,806	2.05	-	-	-	-	-	-	-	-	-	-	-	-
<i>Katablepharis ovalis</i> Skuja	29,171	4.20	36,464	5.25	-	-	13,613	1.96	102,101	8.55	116,687	16.80	27,227	3.92	68,067	9.80	27,227	2.28	20,420	2.94
<i>Rhodomonas lens</i> Pascher & Ruttner	-	-	-	-	-	-	-	-	4,861	2.28	-	-	-	-	-	-	-	-	-	-
<i>Rhodomonas minuta</i> Skuja	87,515	13.75	7,292	1.15	190,589	43.11	47,647	6.86	63,205	14.30	65,636	14.85	149,749	33.87	27,227	4.28	34,033	5.35	61,261	13.86
<i>Cryptophyceae subtotal</i>	116,686	17.95	43,756	6.40	319,917	166.71	74,872	15.44	204,199	65.25	182,323	31.65	183,782	54.56	95,294	14.08	74,873	21.88	81,681	16.80
Dinophyceae (Dinoflagellates)																				
<i>Glrenodinium</i> sp.	-	-	21,878	0.72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium aeruginosum</i> Stein	14,585	123.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,613	178.83	-	-
<i>Gymnodinium ordinatum</i> Skuja	14,585	5.87	29,171	18.33	-	-	6,806	2.28	77,791	31.28	29,171	11.73	6,806	2.74	6,806	4.28	-	-	13,613	16.42
<i>Gymnodinium paradoxum</i> Schill.	-	-	-	-	-	-	20,420	268.24	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium</i> sp.	-	-	14,585	22.00	-	-	-	-	-	-	14,585	56.91	-	-	-	-	-	-	-	-
<i>Peridinium inconspicuum</i> Lemmermann	-	-	-	-	-	-	-	-	4,861	13.03	-	-	-	-	-	-	6,806	9.24	-	-
<i>Peridinium pusillum</i> (Penard) Lemmermann	-	-	29,171	98.98	-	-	-	-	34,033	91.24	-	-	-	-	-	-	-	-	13,613	62.73
<i>Peridinium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	59.88	-	-	-	-
<i>Dinophyceae subtotal</i>	29,170	129.04	94,805	140.02	0	0	27,226	270.52	116,685	135.56	43,756	68.64	6,806	2.74	13,612	64.15	20,419	188.07	27,226	79.15
Diatoms																				
<i>Achnanthes minutissima</i> Kuetzing	-	-	-	-	6,806	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Asterionella formosa</i> Hansall	-	-	-	-	-	-	13,613	7.84	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella/Stephanodiscus</i> (7-10 µm)	72,929	28.64	102,101	40.10	88,488	34.75	40,840	16.04	24,309	9.55	21,878	8.59	27,227	10.69	-	-	20,420	8.02	6,806	2.67
<i>Cymbella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	6,806	1.58	-	-	-	-	-	-
<i>Diatoma</i> sp.	-	-	-	-	6,806	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula</i> sp	-	-	-	-	20,420	4.41	-	-	14,585	6.07	-	-	-	-	6,806	1.84	-	-	-	-
<i>Neidium</i> sp.	-	-	-	-	-	-	6,806	21.78	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	3.19
<i>Rhizosolenia longiseta</i> Ehrenberg	-	-	43,757	1.65	-	-	-	-	-	-	14,585	1.24	20,420	0.87	-	-	-	-	47,647	0.90
<i>Synedra</i> sp.	-	-	21,878	7.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synedra/Nitzschia</i> sp.	-	-	43,757	8.75	-	-	-	-	4,861	2.10	7,292	0.58	-	-	-	-	-	-	-	-
<i>Tabellaria flocculosa</i> (Roth) Kuetzing	-	-	21,878	45.03	-	-	-	-	9,723	2.80	-	-	-	-	-	-	-	-	-	-
<i>Diatoms subtotal</i>	72,929	28.64	233,371	103.05	122,520	39.26	61,259	45.66	53,478	20.52	43,755	10.41	54,453	13.14	6,806	1.84	20,420	8.02	61,259	6.76
Other																				
Haptophyceae	14,585	0.12	14,585	0.12	-	-	27,227	0.23	-	-	21,878	0.18	6,806	0.06	-	-	13,613	0.11	6,806	0.06
<i>Ophiocytium parvulum</i> (Perty) A. Braun (Xanthophyceae)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Other subtotal</i>	14,585	0.12	14,585	0.12	0	0	27,227	0.23	0	0	21,878	0.18	6,806	0.06	0	0	13,613	0.11	6,806	0.06
Total	7,424,224	1,776.75	2,516,026	2,048.89	2,001,177	511.26	2,464,034	1,103.28	1,701,655	537.45	3,165,122	493.24	1,830,999	850.67	1,926,292	895.11	2,259,831	1,563.23	2,586,552	549.71

Table X.VII-2
Phytoplankton Density and Biomass for Lakes in the Kiggavik Project Area, 2008

Taxa	Judge Sissons Lake Sub-Basin																			
	Judge Sissons Lake																			
	JSL-PP001-U08		JSL-PP001-F08		JSL-PP002-U08		JSL-PP002-F08		JSL-PP003-U08		JSL-PP004-U08		JSL-PP005-U08		JSL-PP006-F08		JSL-PP007-F08		JSL-PP008-F08	
	25-Jul-08		28-Aug-08		25-Jul-08		26-Aug-08		27-Jul-08		27-Jul-08		26-Jul-08		28-Aug-08		29-Aug-08		30-Aug-08	
	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)
Cyanobacteria																				
<i>Anabaena</i> sp. Bory	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aphanocapsa delicatissima</i> West & West	-	-	102,101	23.10	6,806	1.71	108,908	28.51	61,261	10.84	6,806	0.86	34,033	4.56	163,362	39.63	129,328	23.10	20,420	19.39
<i>Aphanocapsa elachista</i> W. & G.S. West	-	-	27,227	23.10	-	-	6,806	0.96	40,840	28.10	-	-	6,806	3.85	-	-	6,806	2.89	-	-
<i>Aphanocapsa</i> sp.	-	-	-	-	-	-	-	-	-	-	6,806	0.23	-	-	-	-	-	-	-	-
<i>Aphanothece clathrata</i> W & G.S. West	-	-	-	-	-	-	6,806	19.25	-	-	-	-	-	-	-	-	6,806	12.83	-	-
<i>Aphanothece</i> sp.	-	-	6,806	2.57	6,806	2.57	6,806	1.93	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chroococcus limneticus</i> Lemmermann	-	-	-	-	-	-	6,806	7.30	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyanodictyon</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dactylococcopsis smithii</i> Chodat & Chodat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Limnothrix redekei</i> (Van Goor) Meffert	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,613	9.62	-	-	-	-
<i>Limnothrix</i> sp.	13,613	1.28	13,613	2.99	-	-	27,227	23.42	6,806	8.55	-	-	6,806	0.86	-	-	6,806	3.21	-	-
<i>Merismopedia glauca</i> (Ehrenberg) Naegeli	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Merismopedia tenuissima</i> Lemmermann	-	-	6,806	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Microcystis ichthyoblabe</i> Kuetzing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhabdoderma lineare</i> Schmidle & Lauterborn	-	-	6,806	0.34	-	-	-	-	-	-	6,806	0.51	-	-	-	-	-	-	-	-
<i>Snowella lacustris</i> (Chodat) Komarek et Hindak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyanobacteria subtotal</i>	13,613	1.28	163,359	52.15	13,612	4.28	163,359	81.36	108,907	47.49	20,418	1.60	47,645	9.27	176,975	49.26	149,746	42.02	20,420	19.39
Chlorophyceae (Coccoid Greens, Desmids, etc.)																				
<i>Ankistrodesmus bernardii</i> Komarek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ankistrodesmus falcatus</i> var. <i>mirabilis</i> West	-	-	6,806	0.29	-	-	6,806	0.21	-	-	-	-	13613	0.60	-	-	-	-	-	-
<i>Ankistrodesmus gracilis</i> (Reinsch) Kors.	-	-	6,806	0.64	-	-	6,806	0.51	-	-	-	-	-	-	-	-	6,806	0.30	-	-
<i>Ankistrodesmus spiralis</i> (Turner) Lemmermann	-	-	-	-	-	-	6,806	4.11	-	-	-	-	-	-	-	-	-	-	-	-
<i>Arthrodesmus triangularis</i> Lagerheim	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	13.97	-	-
<i>Botryococcus sudeticus</i> Lemmermann	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,613	64.67	-	-
<i>Chlamydomonas</i> sp.	-	-	6,806	23.10	-	-	-	-	-	-	-	-	-	-	-	-	6,806	2.28	-	-
<i>Chlamydomonas globosa</i> Snow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlamydomonas sagitula</i> Skuja	-	-	6,806	0.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Choricystis</i> sp.	-	-	-	-	-	-	-	-	-	-	6,806	0.46	-	-	-	-	-	-	-	-
<i>Coelastrum cambricum</i> Archer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Coenocystis</i> sp.	-	-	-	-	6,806	2.57	-	-	6,806	4.23	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium meneghinii</i> Brebisson	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium ochthodes</i> var <i>amoebum</i> West & West	-	-	-	-	-	-	-	-	6,806	57.48	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium phaseolus</i> Brebisson	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmarium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cosmaruim bioculatum</i> Brebisson	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Crucegenia quadrata</i> Morren	-	-	-	-	6,806	1.83	-	-	6,806	0.91	-	-	-	-	6,806	1.83	20,420	3.65	13,613	1.83
<i>Crucegenia tetrapedia</i> (Kirchner) W. & G.S. West	6,806	0.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dictyosphaerium ehrenbergianum</i> Naegeli	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dictyosphaerium subsolitarium</i> Van Goor	-	-	-	-	-	-	-	-	6,806	0.39	-	-	-	-	-	-	-	-	-	-
<i>Elakatothrix gelatinosa</i> Wille	-	-	-	-	-	-	-	-	13,613	0.90	-	-	-	-	-	-	-	-	-	-
<i>Elakatothrix genevensis</i> (Reverdin) Hindak	-	-	13,613	0.34	6,806	0.45	6,806	0.51	6,806	0.64	13,613	0.64	-	-	-	-	13,613	0.77	20,420	1.60
<i>Eudorina elegans</i> Ehrenberg	-	-	-	-	-	-	-	-	6,806	45.62	-	-	-	-	-	-	-	-	-	-
<i>Eudorina</i> sp.	-	-	13,613	61.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gloeocystis</i> sp.	-	-	-	-	-	-	13,613	89.10	-	-	-	-	6,806	0.91	-	-	-	-	-	-
<i>Gloeotilia</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	6,806	2.91	13,613	5.82	20,420	7.70	54,454	17.79
<i>Isthmochloron trispinatum</i> (W. & G.S. West) Skuja	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Korshikoviella</i> sp.	-	-	-	-	-	-	-	-	-	-	6,806	0.16	-	-	-	-	-	-	6,806	0.58
<i>Monoraphidiu dybowskii</i> (Wolosz) Hindak et. Kom.-Legn.	-	-	-	-	-	-	-	-	-	-	6,806	0.32	-	-	6,806	0.26	-	-	-	-
<i>Monoraphidium braunii</i> Naegeli	-	-	6,806	0.07	27,227	0.64	20,420	0.77	40,840	1.35	40,840	1.54	13,613	0.51	-	-	20,420	0.58	-	-
<i>Monoraphidium circinale</i> (Nygaard) Nygaard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	0.45
<i>Monoraphidium contortum</i> (Thuret) Komarkova-Legenerova	6,806	0.42	6,806	0.40	-	-	13,613	0.83	6,806	0.42	-	-	6,806	0.42	40,840	2.50	6,806	0.40	108,908	6.67
<i>Monoraphidium griffithii</i> (Berkeley) Komarkova-Legenerova	27,227	3.85	61,261	9.82	61,261	9.38	149,749	22.93	13,613	2.02	-	-	81,681	12.51	163,362	25.02	122,522	17.32	68,067	11.23
<i>Monoraphidium irregulare</i> (G.M. Smith) Komarkova-Legenerova	6,806	0.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Monoraphidium minutum</i> (Nag.) Komarkova-Legenerova	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Monoraphidium pusillum</i> (Printz) Kom-Legn.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Monoraphidium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis borgei</i> Snow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Oocystis gigas</i> Archer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table X.VII-2
Phytoplankton Density and Biomass for Lakes in the Kiggavik Project Area, 2008

Taxa	Judge Sissons Lake Sub-Basin																			
	Judge Sissons Lake																			
	JSL-PP001-U08		JSL-PP001-F08		JSL-PP002-U08		JSL-PP002-F08		JSL-PP003-U08		JSL-PP004-U08		JSL-PP005-U08		JSL-PP006-F08		JSL-PP007-F08		JSL-PP008-F08	
	25-Jul-08		28-Aug-08		25-Jul-08		26-Aug-08		27-Jul-08		27-Jul-08		26-Jul-08		28-Aug-08		29-Aug-08		30-Aug-08	
	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)
<i>Oocystis parva</i> W. & G.S. West	-	-	-	-	-	-	13,613	3.08	13,613	0.96	6,806	1.83	6,806	2.28	27,227	12.32	-	-	13,613	1.14
<i>Oocystis pusilla</i> Hansgirg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	1.07	-	-	-	-
<i>Oocystis solitaria</i> Wittrock	-	-	13,613	3.08	-	-	-	-	129,328	19.50	40,840	6.16	-	-	-	-	-	-	27,227	9.12
<i>Pediastrum boryanum</i> (Turpin) Meneghini	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	1,222.46	-	-	-	-
<i>Quadrigula closteriodes</i> (Bohlin) Printz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus bijuga</i> (Turp.) Lagerheim	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Scenedesmus obliquus</i> (Turpin) Kuetzing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Sphaerocystis Schroeteri</i> Chodat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Spondylosium planum</i> (Wolle) W. & G.S. West	-	-	6,806	12.83	-	-	-	-	20,420	12.83	6,806	4.28	6,806	4.28	6,806	25.66	6,806	4.28	54,454	141.14
<i>Staurostrum</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	7.13	6,806	7.13
<i>Tatraedron caudatum</i> (Corda) Hansgirg	-	-	-	-	-	-	-	-	-	-	6,806	1.83	-	-	6,806	20.79	6,806	0.77	-	-
<i>Tetraedron minimum</i> var. <i>tetralobulatum</i> Reins	6,806	0.10	-	-	6,806	0.45	-	-	20,420	1.34	20,420	5.47	6,806	0.45	20,420	1.34	6,806	0.77	6,806	0.77
<i>Tetraedron minimum</i> (A. Braun) Hansgirg	-	-	-	-	6,806	6.16	6,806	3.56	6,806	0.77	6,806	1.83	-	-	-	-	-	-	6,806	1.83
<i>Tetraedron</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tetraedron trigonum</i> (Naeg.) Hansgirg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chlorophyceae subtotal</i>	54,451	5.45	149,742	112.29	122,518	21.47	245,038	125.63	306,295	149.36	163,355	24.50	149,743	24.86	306,298	1,319.05	265,456	124.58	394,786	201.26
Chrysophyceae																				
<i>Bicosoeca kenaiensis</i> Hillard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Bitrichia chodatii</i> (Rev.) Chod.	6,806	0.19	6,806	0.34	-	-	6,806	0.34	13,613	0.68	6,806	0.19	-	-	34,033	1.71	-	-	-	-
<i>Bitrichia ollula</i> (Fott) Bourrelly	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Chromulina</i> sp.	88,488	13.90	40,840	6.42	68,067	10.69	74,874	10.78	74,874	10.78	54,454	8.55	95,294	14.97	108,908	15.68	88,488	12.74	156,556	24.59
<i>Chrysolykos planctonicus</i> Mack	20,420	0.21	6,806	0.19	13,613	0.32	6,806	0.19	-	-	6,806	0.16	-	-	40,840	1.16	6,806	0.07	13,613	0.32
<i>Chrysolykos skuja</i> i (Nauwerck) Bourrelly	-	-	-	-	6,806	0.19	13,613	0.32	-	-	-	-	-	-	-	-	-	-	-	-
<i>Desmarella moniliformis</i> Kent	27,227	4.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	0.32
<i>Dicronema</i> cf. <i>viklanum</i> Prauser	88,488	2.50	47,647	1.35	74,874	2.12	115,715	3.27	74,874	2.12	61,261	1.73	149,749	4.23	176,976	8.90	54,454	1.54	68,067	1.93
<i>Dinobryon acuminatum</i> Ruttner	6,806	0.26	-	-	-	-	-	-	13,613	1.37	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon bavaricum</i> Imhof	40,840	15.68	47,647	18.53	61,261	41.70	61,261	28.07	40,840	17.11	13,613	7.13	40,840	13.90	40,840	17.38	20,420	17.11	27,227	27.09
<i>Dinobryon bavaricum</i> var. <i>Vanhoffenii</i> (Bachm.) Krieg.	-	-	-	-	-	-	-	-	6,806	1.43	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon borgei</i> Lemmermann	-	-	-	-	-	-	6,806	0.57	-	-	-	-	-	-	6,806	0.63	20,420	0.77	20,420	1.54
<i>Dinobryon cylindricum</i> Imhof	6,806	7.70	-	-	20,420	4.90	-	-	-	-	-	-	6,806	3.42	-	-	-	-	-	-
<i>Dinobryon dilatatum</i> Hillard	-	-	-	-	-	-	13,613	1.14	-	-	-	-	-	-	6,806	0.68	6,806	0.26	54,454	2.05
<i>Dinobryon divergens</i> Imhof	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon sociale</i> Ehrenberg	-	-	-	-	-	-	6,806	3.71	6,806	0.68	-	-	-	-	6,806	4.28	-	-	68,067	31.36
<i>Dinobryon sociale</i> var. <i>americana</i> (Brunthaler) Bachmann	6,806	0.57	-	-	-	-	-	-	-	-	-	-	-	-	6,806	2.50	-	-	13,613	6.16
<i>Dinobryon sociale</i> var. <i>stipitatum</i> (Stein) Lemmermann	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinobryon</i> sp. (loose monad)	-	-	-	-	6,806	0.68	6,806	1.25	13,613	1.71	13,613	1.14	6,806	1.16	20,420	3.21	34,033	6.24	40,840	5.13
<i>Epipyxis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion boreale</i> Skuja	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,613	0.32
<i>Kephyrion cupuliforme</i> Conrad	-	-	6,806	0.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kephyrion</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Mallomonas pseudocoronata</i> Prescottt	-	-	-	-	-	-	-	-	-	-	6,806	6.42	-	-	-	-	-	-	-	-
<i>Mallomonas</i> sp.	6,806	4.56	6,806	10.69	6,806	4.56	-	-	13,613	9.82	6,806	7.13	6,806	6.42	-	-	-	-	6,806	5.70
<i>Monosiga</i> sp.	-	-	40,840	0.96	-	-	13,613	0.32	-	-	-	-	-	-	-	-	13,613	0.32	13,613	0.32
<i>Monosiga varians</i> Skuja	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ochromonas</i> sp.	40,840	5.88	20,419	4.88	20,420	3.21	20,419	7.13	68,067	10.69	6,806	1.07	13,613	1.96	20420.00	2.94	6,806	0.98	13,613	2.14
<i>Pedinella</i> sp.	-	-	-	-	-	-	-	-	6,806	3.56	-	-	-	-	-	-	6,806	1.83	-	-
<i>Pseudokephyrion ellipsoideum</i> (Pascher) Schmid	-	-	6,806	0.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pseudokephyrion minutissimum</i> Conrad	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Salpingoeca</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,613	6.42
<i>Spiniferomonas</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	6,806	1.83	-	-	-	-	-	-
<i>Stichogloea doederleinii</i> (Schmidle) Wille	-	-	-	-	13,613	9.12	-	-	6,806	4.11	-	-	-	-	34,033	12.83	6,806	2.05	13,613	3.08
<i>Stichogloea globosa</i> Starmach	-	-	-	-	-	-	6,806	35.64	-	-	-	-	-	-	-	-	-	-	-	-
<i>Synura</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified naked Chrysophyte sp. (<i>Ochromonas</i> / <i>Chromulina</i>) - large	469,668	73.78	170,169	26.73	442,440	81.08	245,044	38.49	503,702	113.94	265,464	41.70	381,179	59.88	333,532	48.03	374,373	58.81	932,529	134.28
Unidentified naked Chrysophyte sp. (<i>Ochromonas</i> / <i>Chromulina</i>) - small	285,884	6.74	156,556	3.69	319,918	7.54	313,112	7.38	564,963	13.31	245,044	5.77	183,783	4.33	340,339	8.02	204,203	2.14	367,566	8.66
<i>Uroglena</i> sp.	456,053	52.01	592,190	39.69	585,383	39.23	741,939	49.73	1,007,404	67.52	585,383	39.23	204,203	13.69	476,474	31.93	864,460	79.38	27,227	10.95
<i>Chrysophyceae subtotal</i>	1,551,938	188.97	1,150,338	113.89	1,640,427	205.35	1,654,039	188.32	2,416,400	258.82	1,272,862	120.22	1,095,885	125.77	1,654,039	159.86	1,708,494	184.22	1,871,856	272.35

Table X.VII-2

Phytoplankton Density and Biomass for Lakes in the Kiggavik Project Area, 2008

Taxa	Judge Sissons Lake Sub-Basin																			
	Judge Sissons Lake																			
	JSL-PP001-U08		JSL-PP001-F08		JSL-PP002-U08		JSL-PP002-F08		JSL-PP003-U08		JSL-PP004-U08		JSL-PP005-U08		JSL-PP006-F08		JSL-PP007-F08		JSL-PP008-F08	
	25-Jul-08		28-Aug-08		25-Jul-08		26-Aug-08		27-Jul-08		27-Jul-08		26-Jul-08		28-Aug-08		29-Aug-08		30-Aug-08	
	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)
Cryptophyceae (Flagellates)																				
<i>Cryptomonas erosa</i> Ehrenberg	6,806	14.46	-	-	-	-	6,806	10.26	-	-	-	-	6,806	7.13	-	-	-	-	-	-
<i>Cryptomonas marsonii</i> Skuja	-	-	6,806	7.13	-	-	-	-	13,613	14.26	-	-	6,806	3.19	-	-	6,806	7.13	-	-
<i>Cryptomonas pyrenoidifera</i> Geitler	-	-	-	-	-	-	-	-	-	-	13,613	24.64	-	-	-	-	-	-	-	-
<i>Cryptomonas reflexa</i> Skuja	-	-	-	-	-	-	-	-	-	-	-	-	6,806	20.96	-	-	-	-	-	-
<i>Cryptomonas tenuis</i> Pascher	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Katablepharis ovalis</i> Skuja	6,806	0.63	34,033	3.14	-	-	20,420	2.94	20,420	2.94	13,613	1.26	6,806	0.63	27,227	4.28	40,840	3.76	47,647	4.39
<i>Rhodomonas lens</i> Pascher & Ruttner	-	-	-	-	-	-	6,806	3.19	-	-	-	-	-	-	-	-	-	-	-	-
<i>Rhodomonas minuta</i> Skuja	34,033	5.35	74,874	10.78	54,454	8.55	156,556	24.59	231,430	36.35	190,589	29.94	54,454	8.55	68,067	10.69	74,874	10.78	54,454	7.84
<i>Cryptophyceae subtotal</i>	47,645	20.43	115,713	21.05	54,454	8.55	190,588	40.99	265,463	53.55	217,815	55.83	81,678	40.46	95,294	14.97	122,520	21.67	102,101	12.23
Dinophyceae (Dinoflagellates)																				
<i>Glenodinium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium aeruginosum</i> Stein	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium ordinatum</i> Skuja	-	-	6,806	4.28	-	-	6,806	2.28	6,806	4.28	6,806	4.28	-	-	-	-	20,419	8.94	34,033	17.32
<i>Gymnodinium paradoxum</i> Schill.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gymnodinium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	6,806	7.19	-	-	-	-	20,420	54.74
<i>Peridinium inconspicuum</i> Lemmermann	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Peridinium pusillum</i> (Penard) Lemmermann	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	11.18
<i>Peridinium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Dinophyceae subtotal</i>	0	0	6,806	4.28	0	0	6,806	2.28	6,806	4.28	6,806	4.28	6,806	7.19	0	0	20,419	8.94	61,259	83.24
Diatoms																				
<i>Achnanthes minutissima</i> Kuetzing	-	-	-	-	-	-	-	-	6,806	0.18	-	-	-	-	-	-	-	-	-	-
<i>Asterionella formosa</i> Hansall	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	4.25	-	-	-	-
<i>Cyclotella/Stephanodiscus</i> (7-10 µm)	20,420	8.02	-	-	6,806	2.67	34,033	13.37	20,420	8.02	20,420	8.02	6,806	2.67	-	-	6,806	2.67	13,613	5.35
<i>Cymbella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,806	1.20	-	-	-	-
<i>Diatoma</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula</i> sp	-	-	6,806	6.81	-	-	-	-	6,806	3.70	13,613	3.68	-	-	6,806	14.70	6,806	3.06	20,419	9.99
<i>Neidium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia</i> sp.	-	-	6,806	2.02	-	-	6,806	1.09	-	-	6,806	4.41	-	-	-	-	-	-	-	-
<i>Rhizosolenia longiseta</i> Ehrenberg	-	-	27,227	0.51	-	-	20,420	0.39	-	-	6,806	0.09	6,806	0.13	20,420	0.32	47,647	2.36	6,806	0.13
<i>Synedra</i> sp.	-	-	20,420	2.94	-	-	6,806	2.02	-	-	-	-	-	-	-	-	13,613	3.81	-	-
<i>Synedra/Nitzschia</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20,420	0.83	-	-	34,033	6.81
<i>Tabellaria flocculosa</i> (Roth) Kuetzing	-	-	-	-	-	-	-	-	-	-	-	-	6,806	28.32	-	-	-	-	6,806	3.31
<i>Diatoms subtotal</i>	20,420	8.02	61,259	12.28	6,806	2.67	68,065	16.85	34,032	11.91	47,645	16.19	20,418	31.12	61,258	21.30	74,872	11.91	81,677	25.58
Other																				
Haptophyceae	13,613	0.11	95,294	0.80	40,840	0.34	61,261	0.51	20,420	0.17	6,806	0.06	13,613	0.09	40,840	0.43	-	-	-	-
<i>Ophiocytium parvulum</i> (Perty) A. Braun (Xanthophyceae)	-	-	-	-	6,806	13.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Other subtotal</i>	13,613	0.11	95,294	0.80	47,646	14.03	61,261	0.51	20,420	0.17	6,806	0.06	13,613	0.09	40,840	0.43	0	0	0	0
Total	1,701,680	224.26	1,742,511	316.72	1,885,463	256.35	2,389,156	455.95	3,158,323	525.57	1,735,707	222.68	1,415,788	238.75	2,334,704	1,564.86	2,341,507	393.34	2,532,099	614.06

Notes: Station Codes are composed of the Stream Code-Event Code-Sample-Season-Year; Date is in Day-Month-Year format.

cells/L =cells per Litre; µg/m³ = micrograms per cubic metre; sp.= species singular; - = none; Jul = July; Aug = August.

Table X.VII-3
Phytoplankton Density and Biomass for Lakes in the Kiggavik Project Area, 2009

Taxa	Willow Lake Sub-Basin						Lower Lake Sub-Basin		Judge Sissons Lake Sub-Basin													
	Sik Sik Lake		Rock Lake		Willow Lake		Andrew Lake		Judge Sissons Lake													
	SSL-PP001-F09		ROL-PP001-F09		WIL-PP001-F09		ANL-PP001-F09		JSL-PP001-F09		JSL-PP002-F09		JSL-PP006-F09		JSL-PP006-F09		JSL-PP007-F09		JSL-PP008-F09		JSL Mean	
	18-Aug-09		19-Aug-09		21-Aug-09		21-Aug-09		19-Aug-09		18-Aug-09		21-Aug-09		21-Aug-09		21-Aug-09		22-Aug-09		18 to 22 Aug-09	
	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)
Cyanobacteria																						
Anabaena flos-aquae Brebisson	7,292	6.87	-	-	-	-	-	-	-	-	-	-	-	29,171	30.79	-	-	-	-	5,834	6.16	
Anabaena inaequalis (Kuetzing) Borner & Flahault	7,292	12.37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Anabaenopsis sp.	-	-	-	-	-	-	14,585	22.00	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aphanocapsa delicatissima West & West	773,056	388.58	7,292	6.11	14,585	3.06	116,687	101.91	9,723	4.68	9,723	5.30	4,861	4.07	-	-	7,292	6.11	6,320	4.03		
Aphanocapsa elachista W. & G.S. West	65,636	152.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aphanothece clathrata W & G.S. West	-	-	-	-	-	-	-	-	-	-	-	-	4,861	13.75	-	-	-	-	972	2.75		
Aphanothece sp.	21,878	151.22	-	-	-	-	29,171	11.00	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chroococcus limneticus Lemmermann	29,171	52.79	7,292	3.91	-	-	58,343	324.83	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gomphosphaeria aponina Kuetzing	-	-	-	-	-	-	14,585	68.74	-	-	-	-	-	-	-	-	-	-	-	-	-	
Limnothrix redekei (Van Goor) Meffert	-	-	-	-	7,292	9.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Limnothrix sp.	87,515	38.72	43,757	7.45	7,292	2.64	72,929	28.64	4,861	1.53	9,723	5.35	4,861	1.53	7,292	1.15	7,292	3.44	6,806	2.60		
Merismopedia tenuissima Lemmermann	51,050	13.81	-	-	-	-	29,171	5.13	-	-	-	-	-	-	7,292	0.12	7,292	0.24	2,917	0.07		
Microcystis ichthyoblabe Kuetzing	14,585	27.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Phormidium sp.	7,292	24.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Planktolyngya limnetica Lemmermann	7,292	2.29	-	-	-	-	14,585	8.02	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pseudanabaena limnetica Komarek	14,585	10.31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rhabdoderma lineare Schmidle & Lauterborn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,292	4.95	14,585	6.19	4,375	2.23		
Snowella lacustris (Chodat) Komarek et Hindak	65,636	197.96	7,292	8.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Woronichinia sp.	-	-	-	-	-	-	14,585	58.65	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cyanobacteria subtotal	1,152,280	1079.75	65,633	25.71	29,169	14.86	364,641	628.91	14,584	6.21	19,446	10.64	43,754	50.14	21,876	6.22	36,461	15.98	27,224	17.84		
Chlorophyceae (Cocoid Greens, Desmids, etc.)																						
Ankistrodesmus bernardii Komarek	-	-	-	-	-	-	-	-	4,861	1.47	-	-	-	-	-	-	-	-	972	0.29		
Ankistrodesmus falcatus (Corda) Ralfs	-	-	7,292	0.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ankistrodesmus falcatus var. mirabilis West	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,292	0.48	1,458	0.10		
Ankistrodesmus fusiformis Corda	-	-	-	-	-	-	-	-	4,861	0.92	-	-	-	-	-	-	-	-	972	0.18		
Ankistrodesmus gracilis (Reinsch) Kors.	-	-	7,292	0.48	-	-	-	-	-	-	-	-	9,723	0.46	7,292	0.20	7,292	0.45	4,861	0.22		
Ankistrodesmus spiralis (Turner) Lemmermann	-	-	-	-	-	-	14,585	7.42	-	-	4,861	2.02	4,861	1.63	7,292	3.85	-	-	3,403	1.50		
Arthrodesmus incus (Brebisson) Hassall	-	-	-	-	-	-	-	-	-	-	4,861	7.98	9,723	13.97	-	-	-	-	2,917	4.39		
Botryococcus sudeticus Lemmermann	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chamydomonas frigida Skuja	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,292	0.28	1,458	0.06		
Chlamydomonas sp.	-	-	7,292	6.60	-	-	-	-	-	-	-	-	-	-	14,585	4.89	-	-	2,917	0.98		
Coenocystis sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,292	1.38	1,458	0.28		
Cosmarium regnesii Reinsch	-	-	-	-	7,292	2.44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cosmarium bioculatum Brebisson	14,585	13.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Crucegenia crucifera (Wolle) Collins	-	-	-	-	-	-	-	-	4,861	0.98	-	-	-	-	-	-	-	-	972	0.20		
Crucegenia quadrata Morren	21,878	5.87	14,585	3.91	-	-	29,171	19.55	4,861	10.43	-	-	-	-	7,292	1.96	-	-	2,431	2.48		
Crucegenia rectangularis (A. Braun) Gay	7,292	2.20	-	-	-	-	-	-	-	-	-	-	4,861	1.47	-	-	-	-	972	0.29		
Crucegenia tetrapedia (Kirchner) W. & G.S. West	-	-	-	-	7,292	30.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dispora sp.	-	-	-	-	-	-	29,171	9.07	-	-	-	-	-	-	-	-	-	-	-	-	-	
Elakatothrix gelatinosa Wille	-	-	-	-	-	-	-	-	-	-	-	-	4,861	0.16	-	-	-	-	972	0.03		
Elakatothrix genevensis (Reverdin) Hindak	-	-	7,292	0.98	-	-	160,445	3.42	9,723	0.45	24,309	0.60	9,723	0.24	65,636	1.69	36,464	0.92	29,171	0.78		
Euastrum insulare (Wittrock) Roy	-	-	7,292	17.96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Euastrum sp.	-	-	-	-	-	-	14,585	29.94	-	-	-	-	-	-	-	-	-	-	-	-	-	
Eudorina sp.	-	-	-	-	-	-	-	-	9,723	20.37	-	-	-	-	-	-	-	-	1,945	4.07		
Franceia Droescheri (Lemm.) G.M. Smith	-	-	-	-	-	-	14,585	5.87	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gloeotilia sp.	-	-	-	-	-	-	14,585	5.50	9,723	3.67	53,481	20.16	34,033	12.83	43,757	16.50	-	-	28,199	10.63		
Microspora sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,292	274.94	1,458	54.99		
Monoraphidium braunii Naegeli	21,878	0.62	7,292	0.24	7,292	0.21	72,929	0.99	4,861	0.07	4,861	0.06	4,861	0.05	21,878	0.72	14,585	0.21	10,209	0.22		
Monoraphidium contortum (Thuret) Komarkova-Legenerova	-	-	29,171	1.79	36,464	0.76	14,585	0.89	-	-	9,723	0.31	19,447	0.53	72,929	1.99	503,215	10.01	121,063	2.57		
Monoraphidium griffithii (Berkeley) Komarkova-Legenerova	-	-	21,878	2.78	14,585	1.72	-	-	38,895	4.49	68,067	7.86	34,033	3.93	43,757	5.16	43,757	5.16	45,702	5.32		
Monoraphidium irregulare (G.M. Smith) Komarkova-Legenerova	29,171	4.40	7,292	0.52	7,292	0.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Monoraphidium minutum (Nag.) Komarkova-Legenerova	-	-	-	-	7,292	0.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Oocystis borgei Snow	21,878	25.57	-	-	-	-	-	-	-	-	-	-	4,861	2.61	-	-	-	-	972	1.00		
Oocystis gigas Archer	7,292	37.12	-	-	-	-	14,585	131.73	-	-	-	-	-	-	-	-	-	-	-	-	-	
Oocystis parva W. & G.S. West	94,808	20.16	43,757	6.05	116,687	0.98	29,171	4.89	-	-	-	-	-	-	7,292	2.44	14,585	1.22	4,375	0.73		
Oocystis pusilla Hansgirg	-	-	29,171	2.44	7,292	0.61	-	-	14,585	1.22	-	-	4,861	0.41	14,585	1.22	-	-	6,806	0.57		
Oocystis solitaria Wittrock	14,585	8.80	-	-	7,292	3.91	-	-	-	-	-	-	-	-	7,292	3.91	21,878	14.89	5,834	3.76		
Pediastrum boryanum (Turpin) Meneghini	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Quadrigula closteriodes (Bohlin) Printz	7,292	9.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Scenedesmus arcuatus var. platydiscus G. M. Smith	7,292	5.87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Table X.VII-3
Phytoplankton Density and Biomass for Lakes in the Kiggavik Project Area, 2009

Taxa	Willow Lake Sub-Basin						Lower Lake Sub-Basin		Judge Sissons Lake Sub-Basin													
	Sik Sik Lake		Rock Lake		Willow Lake		Andrew Lake		Judge Sissons Lake													
	SSL-PP001-F09		ROL-PP001-F09		WIL-PP001-F09		ANL-PP001-F09		JSL-PP001-F09		JSL-PP002-F09		JSL-PP006-F09		JSL-PP006-F09		JSL-PP007-F09		JSL-PP008-F09		JSL Mean	
	18-Aug-09		19-Aug-09		21-Aug-09		21-Aug-09		19-Aug-09		18-Aug-09		21-Aug-09		21-Aug-09		21-Aug-09		22-Aug-09		18 to 22 Aug-09	
	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)	Density (cells/L)	Biomass (µg/m ³)
<i>Scenedesmus bijuga</i> (Turp.) Lagerheim	7,292	3.82	-	-	-	-	-	14,585	4.58	-	-	-	-	-	-	7,292	3.85	-	-	1,458	0.77	
<i>Scenedesmus obliquus</i> (Turpin) Kuetzing	7,292	2.44	7,292	2.44	7,292	6.60	14,585	44.91	9,723	8.80	4,861	6.99	4,861	6.99	-	-	29,170	34.15	9,723	11.38		
<i>Scenedesmus</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	4,861	1.30	-	-	-	-	972	-		
<i>Scenedesmus ecornis</i> var. <i>bicellularis</i> (Ehrenberg) Chodat	36,464	1.38	14,585	1.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Spondylosium planum</i> (Wolle) W. & G.S. West	7,292	3.82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Tetraedron caudatum</i> (Corda) Hansgirg	-	-	-	-	-	-	14,585	0.96	4,861	0.32	-	-	19,447	1.27	-	-	-	-	-	4,862	0.32	
<i>Tetraedron minimum</i> var. <i>tetralobulatum</i> Reins	-	-	-	-	-	-	14,585	0.96	4,861	0.32	-	-	19,447	1.27	-	-	-	-	-	4,862	0.32	
<i>Tetraedron minimum</i> (A. Braun) Hansgirg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Chlorophyceae subtotal</i>	306,291	144.73	211,483	47.74	226,072	48.42	466,737	270.67	126,399	53.48	175,024	45.97	194,464	49.12	320,879	48.36	700,114	344.08	303,374	108.43		
Chrysophyceae																						
<i>Bitrichia chodatii</i> (Reverdin) Chodat	29,171	1.47	-	-	-	-	14,585	0.86	4,861	0.29	-	-	4,861	0.24	14,585	0.48	7,292	0.43	6,320	0.29		
<i>Chromulina</i> sp.	21,878	0.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<i>Chrysolykos skujae</i> (Nauwerck) Bourrelly	175,031	32.99	58,343	12.10	175,030	26.70	87,515	13.75	38,895	7.33	34,033	5.77	38,895	7.33	116,686	13.71	72,928	12.65	60,287	9.36		
<i>Codonosigopsis</i> sp.	-	-	-	-	-	-	14,585	0.34	-	-	-	-	9,723	0.23	29,171	0.69	-	-	7,779	0.18		
<i>Dicronema</i> cf. <i>vlkianum</i> Prauser	-	-	-	-	7,292	0.28	-	-	-	-	4,861	0.18	4,861	0.41	-	-	-	-	1,944	0.12		
<i>Dinobryon acuminatum</i> Ruttner	80,221	57.19	7,292	1.34	-	-	14,585	14.32	9,722	9.42	24,308	10.95	34,032	8.40	43,756	24.97	-	-	22,364	10.75		
<i>Dinobryon bavaricum</i> Imhof	14,585	0.55	7,292	0.34	7,292	0.61	87,515	6.60	9,723	0.37	24,309	0.92	24,309	0.92	-	-	-	-	11,668	0.44		
<i>Dinobryon bavaricum</i> var. <i>medium</i> (Lemmermann) Krieger	-	-	-	-	-	-	-	-	-	-	14,585	40.32	-	-	-	-	7,292	2.20	4,375	8.50		
<i>Dinobryon borgei</i> Lemmermann	-	-	-	-	-	-	-	-	9,723	0.28	-	-	9,723	0.32	7,292	0.61	7,292	0.61	6,806	0.36		
<i>Dinobryon cylindricum</i> Imhof	-	-	-	-	-	-	72,929	11.46	48,619	7.64	9,723	1.78	9,723	0.82	36,464	3.67	7,292	1.15	22,364	3.01		
<i>Dinobryon dilatatum</i> Hillard	-	-	-	-	-	-	-	-	4,861	0.41	-	-	-	-	-	-	-	-	972	0.08		
<i>Dinobryon setularia</i> Ehrenberg	-	-	-	-	-	-	437,578	180.12	-	-	-	-	4,861	1.63	7,292	26.73	7,292	0.67	3,889	6.00		
<i>Dinobryon sociale</i> Ehrenberg	-	-	-	-	7,292	0.24	14,585	0.48	-	-	34,033	1.28	14,585	0.55	-	-	-	-	9,724	0.37		
<i>Dinobryon sociale</i> var. <i>americana</i> (Brunthaler) Bachmann	240,668	31.50	598,024	153.43	1,093,947	128.88	1,021,017	192.46	350,063	89.81	233,375	43.99	359,787	67.82	444,871	83.86	627,196	160.92	403,058	89.28		
<i>Dinobryon</i> sp (loose monad)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,292	0.79	-	-	1,458	0.16		
<i>Epipyxis</i> sp.	211,496	4.98	87,515	2.06	233,375	5.50	510,508	12.03	136,135	3.21	165,307	3.90	116,687	2.75	226,082	5.33	218,789	5.16	172,600	4.07		
<i>Kephyrion boreale</i> Skuja	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21,878	1.43	-	-	4,376	0.29		
<i>Mallomonas</i> sp.	21,878	0.52	-	-	7,292	0.06	58,342	1.71	34,032	0.44	19,447	0.46	38,894	0.62	102,100	1.65	-	-	38,895	0.63		
<i>Monosiga varians</i> Skuja	-	-	-	-	-	-	-	-	4,861	0.55	-	-	4,861	0.55	-	-	-	-	1,944	0.22		
<i>Ochromonas</i> sp.	36,464	221.48	-	-	-	-	-	-	-	-	9,723	10.18	9,723	15.27	-	-	-	-	3,889	5.09		
<i>Pseudokephyron aureoreum</i> Nicholls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,292	0.83	-	-	1,458	0.17		
<i>Pseudokephyron minutissimum</i> Conrad	87,515	20.21	72,929	13.75	196,910	33.41	218,788	151.68	4,861	7.33	53,481	8.07	136,134	27.09	80,222	15.12	43,757	8.25	63,691	13.17		
<i>Spiniferomonas</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,292	1.96	-	-	1,458	-		
<i>Stichogloea doederleinii</i> (Schmidle) Wille	-	-	-	-	685,540	45.95	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<i>Stichogloea globosa</i> Starmach	-	-	-	-	-	-	102,101	6.84	14,585	0.98	-	-	228,513	15.32	7,292	0.49	7,292	0.49	51,536	3.00		
<i>Synura</i> sp.	-	-	-	-	-	-	-	-	9,723	27.94	4,861	14.97	-	-	7,292	17.60	-	-	4,375	12.00		
Unidentified naked Chrysophyte sp (<i>Ochromonas/Chromulina</i>)-large	7,292	7.64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Unidentified naked Chrysophyte sp (<i>Ochromonas/Chromulina</i>)-small	7,292	6.19	-	-	-	-	-	-	9,723	10.18	14,585	15.27	4,861	5.09	-	-	-	-	5,834	6.00		
<i>Uroglena</i> sp.	-	-	-	-	-	-	-	-	-	-	9,723	5.21	-	-	-	-	-	-	1,945	1.00		
<i>Chrysophyceae subtotal</i>	933,491	385.22	831,395	183.02	2,413,970	241.62	2,654,633	592.63	690,387	166.17	656,354	163.26	1,055,033	155.34	1,166,859	199.90	1,006,422	192.51	915,009	174.54		
Cryptophyceae (Flagellates)																						
<i>Cryptomonas erosa</i> Ehrenberg	-	-	-	-	-	-	-	-	14,585	15.27	-	-	-	-	-	-	-	-	2,917	3.00		
<i>Cryptomonas marsonii</i> Skuja	7,292	2.99	7,292	2.62	-	-	-	-	-	-	4,861	32.99	-	-	7,292	61.10	-	-	2,431	19.00		
<i>Cryptomonas rostratiformis</i> Skuja	51,050	7.35	43,757	6.30	51,050	7.35	87,515	13.75	63,205	9.10	4,861	0.70	24,309	3.50	36,464	5.25	36,464	5.25	33,061	4.76		
<i>Cryptomonas tenuis</i> Pascher	14,585	2.29	58,343	8.40	72,929	10.50	29,171	4.20	58,343	13.20	24,309	3.50	68,067	10.69	36,464	5.25	123,980	25.71	62,233	11.67		
<i>Katablepharis ovalis</i> Skuja	-	-	7,292	5.73	-	-	-	-	-	-	-	-	-	-	-	-	7,292	2.44	1,458	0.49		
<i>Rhodomonas minuta</i> Skuja	7,292	17.60	7,292	17.60	-	-	14,585	44.91	-	-	-	-	9,723	17.96	7,292	13.47	-	-	3,403	6.29		
<i>Cryptophyceae subtotal</i>	80,219	30.23	123,976	40.65	123,979	17.85	131,271	62.85	121,548	22.30	34,031	37.19	102,099	32.16	87,512	85.07	167,736	33.40	102,586	42.21		
Dinophyceae (Dinoflagellates)																						
<i>Amphidinium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,585	15.40	2,917	3.08		
<i>Glenodinium</i> sp.	-	-	14,585	10.69	7,292	3.91	-	-	9,723	2.50	-	-	-	-	21,878	16.04	14,585	10.69	9,237	5.85		
<i>Gymnodinium lantzschii</i> Utermohl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,585	80.83	2,917	16.17		
<i>Gymnodinium ordinatum</i> Skuja	-	-	7,292	13.47	7,292	11.98	-	-	-	-	-	-	-	-	7,292	6.11	7,292	6.11	2,917	2.00		
<i>Gymnodinium</i> sp.	-	-	14,584	33.02	14,584	36.72	-	-	-	-	-	-	-	-	7,							

Table X.VII-3
Phytoplankton Density and Biomass for Lakes in the Kiggavik Project Area, 2009

Taxa	Willow Lake Sub-Basin						Lower Lake Sub-Basin		Judge Sissons Lake Sub-Basin													
	Sik Sik Lake		Rock Lake		Willow Lake		Andrew Lake		Judge Sissons Lake													
	SSL-PP001-F09		ROL-PP001-F09		WIL-PP001-F09		ANL-PP001-F09		JSL-PP001-F09		JSL-PP002-F09		JSL-PP006-F09		JSL-PP006-F09		JSL-PP007-F09		JSL-PP008-F09		JSL Mean	
	18-Aug-09		19-Aug-09		21-Aug-09		21-Aug-09		19-Aug-09		18-Aug-09		21-Aug-09		21-Aug-09		21-Aug-09		22-Aug-09		18 to 22 Aug-09	
	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)	Density (cells/L)	Biomass (µg/m³)
Diatoms																						
<i>Achnanthes minutissima</i> Kuetzing	14,585	1.05	21,878	0.79	-	-	58,343	1.84	-	-	-	-	-	-	-	-	-	14,585	0.59	2,917	0.12	
<i>Asterionella formosa</i> Hansall	-	-	-	-	-	-	-	-	-	-	-	-	-	4,861	16.63	-	-	-	-	972	3.33	
<i>Cocconeis</i> sp.	-	-	14,585	5.73	7,292	2.86	14,585	5.73	-	-	4,861	1.91	14,585	5.73	7,292	2.86	14,585	5.73	8,265	3.25		
<i>Cyclotella bodanica</i> Grunow	-	-	-	-	-	-	-	-	-	-	4,861	33.56	-	-	7,292	50.34	-	-	2,431	16.78		
<i>Cyclotella</i> /Stephanodiscus (4 µm)	-	-	-	-	-	-	-	-	-	-	-	-	19,447	0.49	-	-	-	-	3,889	0.10		
<i>Cymbella minuta</i> var. <i>silesiaca</i> (Bleisch ex. Rabenhorst) C.W. Reimer	-	-	7,292	0.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Cymbella</i> sp.	-	-	7,292	8.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Navicula</i> sp.	-	-	21,878	14.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Rhizosolenia longiseta</i> Ehrenberg	-	-	-	-	-	-	-	-	82,653	1.04	58,343	0.73	72,929	0.92	87,515	1.10	7,292	0.09	61,746	0.78		
<i>Synedra</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	24,309	2.41	-	-	-	-	9,723	2.07		
<i>Synedra</i> /Nitzschia sp.	21,878	2.98	36,463	6.24	7,292	0.99	43,755	8.99	19,446	4.47	9,722	1.95	4,861	0.78	7,292	1.28	7,292	1.87	4,862	0.48		
<i>Tabellaria flocculosa</i> (Roth) Kuetzing	-	-	7,292	2.10	-	-	-	-	4,861	1.93	4,861	9.80	-	-	7,292	13.07	-	-	3,403	4.96		
<i>Diatoms subtotal</i>	36,463	4.03	116,680	38.56	14,584	3.86	116,683	16.55	106,960	7.44	82,648	47.95	140,992	26.95	116,683	68.65	43,754	8.28	98,208	31.87		
Other																						
Haptophyte	-	-	7,292	0.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Other subtotal</i>	-	-	7,292	0.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total	2,508,744	1,643.96	1,400,212	412.89	2,844,234	403.95	3,733,965	1,571.62	1,069,601	258.10	967,503	305.01	1,536,342	313.70	1,750,271	436.47	2,012,826	713.39	1,467,306	404.43		

Notes: Station Codes are composed of the Stream Code-Event Code-Sample-Season-Year; Date is in Day-Month-Year format.
cells/L = cells per Litre; µm = micrometre; µg/m³ = microgram per cubic metre; sp. = species singular; Aug = August; - = none.

Table X.VII-4
Historical Zooplankton Density for Lakes in the Kiggavik Project Area, 1979 to 1991

Taxa	Willow Lake Sub-Basin														Lower Lake Sub-Basin					Caribou Lake Sub-Basin		Judge Sissons Lake Sub-Basin						
	Scotch Lake	Jaeger Lake		Pointer Lake											Mushroom Lake		Cigar Lake		Shack Lake	Bear Island Lake	Lower Lake	Ridge Lake	Cirque Lake	Judge Sissons Lake				
	27-Aug-79	27-Aug-79	Aug-89	3-Jul-79	6-Jul-79	12-Jul-79	19-Jul-79	24-Jul-79	31-Jul-79	3-Aug-79	7-Aug-79	25-Aug-79	Aug-89	Jul-91	Jul-90	Jul-91	Jul-90	Jul-91	Jul-90	Jul-90	Jul-90	Aug-89	Aug-89	10-Aug-79	16-Aug-79	24-Aug-79	Aug-89	Jul-91
Rotifera ^(a)																												
Asplancha sp.	-	-	0.0025	-	-	-	-	-	-	-	-	-	0.0086	-	-	-	C	-	-	-	-	0.02243	-	-	-	-	-	R
Collotheca sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-
Conochilus sp.	-	-	0.0089	-	-	-	-	-	-	-	-	-	0.13	A	R	A	A	R	R	-	A	-	-	-	-	-	0.201	A
Euchlanis sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	C	-	-	-	-	-	-	-
Gastropus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	-	-	R
Kellicottia longispina	-	-	0.293	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.235	0.217	-	-	-	0.241	-
Kellicottia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	A	R	A	C	R	-	-	A	-	-	-	-	-	-	A
Keratella serrulata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-	-	-	-	-
Keratella sp.	-	-	0.0127	-	-	-	-	-	-	-	-	-	0.5044	C	-	R	-	-	-	-	-	0.3369	0.0611	-	-	-	0.0157	R
Lecane lunaris	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	R	-	-	-	-	-	-	-
Lepadella ovalis	-	-	0.0025	-	-	-	-	-	-	-	-	-	0.0052	-	-	-	-	-	-	-	-	0.0674	0.0611	-	-	-	-	-
Notholca sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	-
Notommata sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	-
Ploesoma lenticulare	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-
Polyarthra sp	-	-	-	-	-	-	-	-	-	-	-	-	-	C	R	-	-	-	-	-	C	1.2803	-	-	-	-	0.0047	-
Synchaeta sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	R	C	-	-	-	-	-	A	-	-	-	-	-	-	-
Testudinella sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-
Rotifera subtotal	0	0	0.320	0	0	0	0	0	0	0	0	0	0.648	0	0	0	0	0	0	0	0.022	4.920	0.339	0	0	0	0.462	0
Crustacea																												
Acroperus harpae	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0543	-	0.0022	0.0009	0.0146	-	-	-	-	-	-	-
Alona guttata	-	-	-	-	-	-	0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alona sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0024	-	-	-	-	-	-	-	-	-	-	-
Alonella sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0045	-	0.0034	-	-	-	-	-	-	-
Bosmina coregoni	-	-	-	-	-	-	-	-	-	-	-	-	0.0071	-	-	-	0.0036	-	-	0.0009	-	-	-	-	-	-	0.011	-
Bosmina longirostris	0.301	0.518	0.0076	0.032	0.149	0.391	0.036	0.018	0.038	0.030	0.158	0.162	0.173	0.8135	0.0009	0.0472	0.3442	0.0849	0.0210	0.0149	-	-	0.0611	0.118	0.060	0.412	-	0.0063
Bosmina longispina	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0071	0.0176	0.8252	-	-	-	-	-	-	-	-	-	-	-	0.0063
Calanoid copepodids	0.332	0.027	-	0.003	0.012	0.012	0.141	0.305	0.293	0.271	1.040	0.013	-	6.6210	0.0018	0.5423	0.1123	2.1268	-	0.0047	0.0045	16.000	0.556	1.593	3.094	2.893	0.333	0.9557
Calanoid nauplius	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0283	-	-	0.0024	-	-	-	-	-	-	-	-	-	-	0.0440
Ceriodaphnia sp	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0283	-	-	0.0036	-	-	-	-	-	-	-	-	-	-	-
Chydorus sphaericus	0.006	0.048	0.039	0.040	0.016	0.003	0.012	0.001	0.001	0.001	0.008	0.003	-	0.0424	0.0053	-	0.0133	0.0094	0.0067	0.0047	0.0157	-	0.647	-	-	-	0.0063	-
Cyclopoid copepodids	0.573	0.021	-	0.012	0.064	0.024	0.006	0.001	0.002	0.001	0.015	0.007	-	0.0495	0.0009	5.8733	0.1739	0.0047	0.0076	0.0159	0.0022	0.202	0.186	2.110	2.672	4.340	-	1.0689
Cyclopoid nauplius	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0354	0.0079	-	0.0036	-	0.0013	0.0037	0.0011	-	-	-	-	-	-	0.1509
Cyclops scutifer	0.090	0.003	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1061	0.0145	0.0236	-	-	-	-	-	0.301	0.241	0.151	-	0.1446
Cyclops venustoides	-	-	-	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia dubia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0024	-	-	-	-	-	-	-	-	-	-	-
Daphnia galeata mendotae	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0071	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia longiremis	-	0.627	-	-	0.010	0.005	0.006	0.004	0.003	0.002	0.008	0.006	-	-	-	0.8842	0.0350	0.0566	-	0.0019	0.0034	-	0.122	0.646	1.055	0.069	0.011	0.7168
Daphnia pulex	0.018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diacyclops thomasi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0060	-	-	-	0.0022	-	-	-	-	-	-	-
Diaptomus pribilofensis	0.006	0.003	-	-	-	-	-	-	-	-	-	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diaptomus minutus	0.440	1.549	-	-	-	-	-	-	-	-	-	0.251	-	-	-	-	-	-	-	-	-	4.110	-	-	0.010	0.020	0.013	-
Epischura lacustris	0.042	-	-	-	-	-	-	-	-	-	-	-	0.0069	0.0990	-	0.0589	0.0085	0.1226	0.0004	0.0009	0.0022	-	-	-	-	-	0.016	0.0063
Epischura nevadensis	-	0.006	-	-	-	-	-	0.001	0.001	0.002	0.008	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eurycercus glacialis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.067	-	-	-	-	-	-
Eurycercus lamellatus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0036	-	-	0.0009	-	-	-	-	-	-	-	-
Heterocope septentrionalis	-	0.003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.135	-	-	-	0.610	-	-
Holopedium gibberum	0.006	0.054	-	0.007	0.169	0.134	0.208	0.066	0.047	0.053	0.301	0.045	-	0.4456	0.0009	0.0472	0.0024	0.4904	-	0.0009	0.0011	-	-	0.409	1.195	0.593	0.0016	0.1446
Leptodiaptomas ashlandi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0133	-	-	-	-	-	-	-	-	-	-	-
Leptodiaptomus minutus	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0354	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptodiaptomus sicilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0118	0.0024	-	-	0.7264	0.0034	-	-	-	-	-	-	0.0189
Macrocyclus fuscus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0094	-
Nauplii	2.025	0.012	-	2.382	7.892	4.018	1.071	0.153	0.012	0.010	0.030	-	-	-	-	-	-	-	-									

Notes: Station Codes are composed of the Stream Code-Event Code-Sample-Season-Year; Date is in Day-Month-Year format. Density is measured in number of units per litre.

^(a) = Sample counts not enumerated due to small size are represented by the following codes: A = abundant; C = common; R = rare.

- = none; Jul = July; sp. = species singular; Aug = August.

Table X.VII-5
Zooplankton Density and Biomass for Lakes in the Kiggavik Project Area, 2008

Taxa	Willow Lake Sub-Basin				Lower Lake Sub-Basin								Caribou Lake Sub-Basin							
	Pointer Lake				Mushroom Lake				Lower Lake				Fox Lake				Caribou Lake			
	PRL-ZP001-U08		PRL-ZP001-F08		MSL-ZP001-U08		MSL-ZP001-F08		LWL-ZP001-U08		LWL-ZP001-F08		FXL-ZP001-U08		FXL-ZP001-F08		CBL-ZP001-U08		CBL-ZP001-F08	
	27-Jul-08		2-Sep-08		25-Jul-08		4-Sep-08		28-Jul-08		5-Sep-08		3-Aug-08		7-Sep-08		2-Aug-08		6-Sep-08	
	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)
Calanoida																				
Calanoida copepodid	2,800	6,107.25	234	510.48	1,479	3,226.47	-	-	-	-	-	-	211	459.19	-	-	14	30.86	18	38.27
Calanoida nauplii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	447	1,729.32
<i>Epischura nevadensis</i> Lilljeborg	277	4,923.05	-	-	92	1,641.79	5	95.29	-	-	-	-	1,719	30,531.55	13	236.17	14	251.25	-	-
<i>Heterocope septentrionalis</i> Juday & Muttkowski	-	-	-	-	-	-	-	-	-	-	-	-	211	11,817.53	-	-	-	-	-	-
<i>Leptodiaptomus minutus</i> Lilljeborg	-	-	-	-	-	-	-	-	30	163.68	-	-	-	-	-	-	-	-	-	-
<i>Leptodiaptomus sicilis</i> S.A. Forbes	-	-	-	-	6,657	42,532.88	123	788.57	-	-	6	35.55	351	2,241.96	-	-	410	2,621.64	-	-
<i>Calanoida subtotal</i>	3,077	11,030.30	234	510.48	8,228	47,401.14	129	883.85	30	163.68	6	35.55	2,491	45,050.23	13	236.17	439	2,903.75	464	1,767.59
Cyclopoida																				
<i>Acanthocyclops vernalis</i> Fischer	28	311.19	-	-	2,774	31,133.54	1,084	12,166.82	-	-	11	124.90	-	-	-	-	14	158.81	-	-
Cyclopoida copepodid	-	-	702	795.00	925	1,046.82	5	6.08	-	-	22	25.20	-	-	53	60.23	28	32.04	18	19.86
Cyclopoida nauplii	558	740.37	-	-	11,728	15,555.09	2,580	3,421.52	-	-	-	-	11,168	14,811.57	11,157	14,796.76	1,943	2,577.21	-	-
<i>Cyclops bicuspidatus thomasi</i> S. A. Forbes	721	4,086.61	468	2,653.86	-	-	-	-	-	-	-	-	-	-	13	75.40	-	-	-	-
<i>Cyclops scutifer</i> Sars	-	-	-	-	92	1,332.49	-	-	-	-	-	-	281	4,045.65	-	-	-	-	-	-
<i>Cyclopoida subtotal</i>	1,307	5,138.17	1,170	3,448.86	15,519	49,067.93	3,669	15,594.42	-	-	33	150.10	11,448	18,857.22	11,223	14,932.40	1,986	2,768.07	18	19.86
Cladocera																				
<i>Alonella</i> sp.	-	-	-	-	-	-	-	-	-	-	122	39.47	-	-	-	-	-	-	35	11.31
<i>Bosmina longirostris</i> O.F. Muller	2,717	3,230.48	7,255	8,627.03	12,666	15,060.72	622	740.12	13,760	16,360.97	3,277	3,896.38	35	41.72	53	63.26	2,066	2,456.19	851	1,011.75
<i>Chydorus sphaericus</i> (O.F. Muller)	-	-	1,170	5,949.58	-	-	16	81.84	30	153.41	22	113.14	-	-	-	-	-	-	61	312.19
Cladocera immature	-	-	-	-	185	79.74	5	2.31	1,629	702.64	-	-	70	30.26	-	-	14	6.10	-	-
<i>Comptocercus</i> spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Daphnia longiremis</i> Sars	55	165.50	-	-	14,145	42,221.32	880	2,626.65	91	270.20	28	83.03	-	-	-	-	-	-	-	-
<i>Daphnia middendorffiana</i> Fisher	-	-	-	-	-	-	-	-	-	-	-	-	7,368	321,961.68	1,623	70,895.86	-	-	-	-
<i>Holopedium gibberum</i> Zaddach	776	3,610.66	-	-	740	3,440.35	5	24.96	60	280.71	-	-	1,158	5,385.94	-	-	3,509	16,321.02	-	-
<i>Cladocera subtotal</i>	3,549	7,006.64	8,426	14,576.61	27,736	60,802.12	1,529	3,475.89	15,570	17,767.93	3,449	4,132.02	8,632	327,419.60	1,676	70,959.12	5,589	18,783.31	947	1,335.25
Rotifera																				
<i>Asplanchna brightwellei</i> Gosse	558	3,659.45	13,995	91,745.75	-	-	-	-	-	-	-	-	-	-	1,240	8,126.27	1,943	12,738.48	3,574	23,427.10
<i>Asplanchna herricki</i> de Guerne	-	-	-	-	-	-	-	-	-	-	461	1,419.99	-	-	-	-	972	2,995.73	-	-
<i>Asplanchna</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Brachionus angularis</i> Gosse	-	-	-	-	-	-	-	-	413	301.10	-	-	-	-	-	-	-	-	447	325.60
<i>Collotheca mutabilis</i> Haring	3,908	1,330.79	160,946	54,812.61	-	-	5,160	1,757.17	-	-	921	313.69	5,584	1,901.67	3,719	1,266.51	4,858	1,654.45	3,127	1,064.94
<i>Collotheca pelagica</i> Rousselet	-	-	-	-	782	301.05	-	-	413	159.05	-	-	-	-	-	-	-	-	-	-
<i>Conochilus unicornis</i> Rousselet	87,083	74,452.62	41,986	35,896.07	17,983	15,375.03	28,377	24,261.54	59,898	51,210.04	921	787.48	23,452	20,050.61	-	-	48,580	41,533.40	21,889	18,713.90
<i>Filinia terminalis</i> Plate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gastropus hyptopus</i> Ehrenberg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gastropus stylifer</i> Imhof	1,675	920.95	-	-	1,564	859.96	19,348	10,640.16	826	454.34	461	253.26	1,117	614.14	2,479	1,363.40	2,915	1,602.91	447	245.66
<i>Kellicotia longispina</i> Kellicott	25,120	18,889.57	167,943	126,287.72	138,394	104,067.64	39,986	30,068.49	2,065	1,553.14	30,856	23,202.69	7,817	5,878.42	16,115	12,117.94	40,807	30,685.34	129,099	97,077.88
<i>Keratella cochlearis</i> Gosse	1,116	736.88	48,983	32,330.02	14,856	9,805.15	41,276	27,243.19	-	-	12,895	8,510.98	-	-	1,240	818.17	10,687	7,053.95	8,487	5,601.88
<i>Keratella hiemalis</i> Carlin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Keratella serrulata</i> Ehrenberg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Lecane flexilis</i> Gosse	-	-	-	-	-	-	-	-	-	-	-	-	1,117	429.99	-	-	-	-	-	-
<i>Lecane intrasinuata</i> Olofsson	-	-	-	-	-	-	-	-	-	-	461	251.94	-	-	-	-	-	-	447	244.37
<i>Lecane</i> sp.	558	344.71	-	-	-	-	-	-	826	510.00	461	284.00	-	-	-	-	-	-	-	-
<i>Lepadella</i> sp.	-	-	-	-	-	-	-	-	413	301.10	-	-	-	-	-	-	-	-	-	-
<i>Lophocharis</i> sp.	-	-	-	-	-	-	-	-	413	301.10	-	-	-	-	-	-	-	-	-	-
<i>Monostyla bulla</i> Gosse	-	-	-	-	-	-	-	-	826	666.58	-	-	-	-	-	-	-	-	-	-
<i>Monostyla lunaris</i> Ehrenberg	-	-	-	-	782	427.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Notomata</i> sp.	-	-	6,998	5,167.57	-	-	12,899	9,525.46	67,333	49,723.89	1,382	1,020.28	-	-	-	-	-	-	447	329.88
<i>Polyathra dolicoptera</i> Idelson	-	-	-	-	3,128	1,987.86	1,290	819.85	-	-	4,145	2,634.45	-	-	-	-	-	-	447	283.93
<i>Polyathra major</i> Burckhardt	-	-	-	-	15,638	13,358.07	36,117	30,851.72	413	352.87	5,987	5,114.21	-	-	7,438	6,353.43	4,858	4,149.76	2,234	1,907.94
<i>Polyathra vulgaris</i> Carlin	-	-	-	-	3,128	2,776.03	3,870	3,434.74	-	-	-	-	2,234	1,982.51	-	-	972	862.39	-	-
<i>Synchaeta</i> sp.	-	-	-	-	-	-	1,290	2,977.45	1,239	2,860.60	13,356	30,828.79	-	-	3,719	8,584.24	2,915	6,728.19	2,234	5,155.70
<i>Testudinella</i> sp.	-	-	-	-	-	-	-	-	826	634.09	-	-	-	-	-	-	-	-	-	-
<i>Trichocerca</i> sp.	558	518.62	-	-	-	-	1,290	1,198.36	-	-	-	-	-	-	-	-	-	-	-	-
<i>Trichotria</i> sp.	-	-	-	-	-	-	-	-	-	-	461	427.86	-	-	-	-	-	-	-	-
<i>Rotifera subtotal</i>	120,577	100,853.59	440,851	346,239.75	196,254	148,958.53	190,903	142,778.13	135,906	108,726.96	72,765	75,050.00	41,321	30,857.34	35,949	38,629.96	119,506	110,004.62	172,876	154,053.17
Other																				
<i>Opercularia</i> sp. (Ciliophora)	-	-	48,983	6,334.65	-	-	24,508	3,169.41	-	-	-	-	-	-	-	-	-	-	-	-
<i>Vorticella</i> sp. (Ciliophora)	1,116	205.14	34,988	6,428.81	782	143.67	12,899	2,370.07	413	75.90	461	84.62	2,234	410.40	-	-	55,381	10,175.77	-	-
<i>Other subtotal</i>	1,116	205.14	83,972	12,763.46	782	143.67	37,407	5,539.47	413	75.90	461	84.62	2,234	410.40	-	-	55,381	10,175.77	-	-
Total	128,510	124,028.70	450,681	364,775.70	247,737	306,229.73	196,230	162,732.29	151,506	126,658.58	76,253	79,367.67	63,892	422,184.39	48,861	124,757.65	127,518	134,459.74	174,305	157,175.87

Table X.VII-5
Zooplankton Density and Biomass for Lakes in the Kiggavik Project Area, 2008

Taxa	Judge Sissons Lake Sub-Basin																			
	Judge Sisson Lake																			
	JSL-ZP001-U08		JSL-ZP001-F08		JSL-ZP002-U08		JSL-ZP002-F08		JSL-ZP003-U08		JSL-ZP004-U08		JSL-ZP005-U08		JSL-ZP006-F06		JSL-ZP007-F08		JSL-ZP008-F08	
	25-Jul-08		28-Aug-08		25-Jul-08		26-Aug-08		27-Jul-08		27-Jul-08		26-Jul-08		28-Aug-08		29-Aug-08		30-Aug-08	
	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)	Density (org/m ³)	Biomass (µg/m ³)
Calanoida																				
Calanoida copepodid	7,577	16,527.46	-	-	5,206	11,354.03	231	504.29	9,799	21,372.62	7,057	15,391.58	10,316	22,500.24	25	53.47	139	304.19	43	94.10
Calanoida nauplii	14,775	57,199.30	-	-	1,551	6,003.37	-	-	4,654	18,017.18	-	-	5,585	21,620.62	-	-	-	-	387	1,497.69
Epischura nevadensis Lilljeborg	-	-	-	-	28	502.39	92	1,642.28	1,934	34,343.59	160	2,848.01	44	776.22	4	72.56	49	874.09	17	306.43
Heterocope septentrionalis Juday & Muttkowski	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptodiaptomus minutus Lilljeborg	-	-	33	180.52	-	-	1,225	6,647.08	645	3,496.97	-	-	-	-	45	243.82	123	667.52	17	93.61
Leptodiaptomus sicilis S.A. Forbes	247	1,578.79	55	354.39	127	813.45	902	5,761.38	1,289	8,238.13	214	1,366.32	306	1,955.05	61	391.63	254	1,624.96	95	606.42
Calanoida subtotal	22,600	75,305.54	89	534.90	6,912	18,673.23	2,451	14,555.02	18,321	85,468.50	7,431	19,605.91	16,250	46,852.13	135	761.49	566	3,470.76	559	2,598.25
Cyclopoida																				
Acanthocyclops vernalis Fischer	2,718	30,509.26	-	-	877	9,844.50	-	-	2,321	26,050.51	1,283	14,401.91	3,191	35,817.69	225	2,522.67	1,075	12,063.32	104	1,162.19
Cyclopoida copepodid	3,267	3,699.19	133	150.72	1,938	2,194.25	116	130.89	1,805	2,043.79	1,123	1,271.14	3,497	3,959.39	53	60.15	148	167.20	302	341.92
Cyclopoida nauplii	3,283	4,354.75	1,642	2,177.38	775	1,028.37	5,315	7,049.71	-	-	2,327	3,086.33	1,862	2,469.06	3,312	4,392.86	4,241	5,624.43	1,451	1,924.96
Cyclops bicuspidatus thomasi S. A. Forbes	412	2,334.82	1,198	6,792.21	311	1,764.37	4,693	26,609.62	3,610	20,467.65	695	3,940.20	481	2,726.05	159	903.50	1,345	7,627.91	147	831.60
Cyclops scutifer Sars	-	-	-	-	14	203.87	-	-	-	-	-	-	87	1,259.97	-	-	49	709.42	-	-
Cyclopoida subtotal	9,680	40,898.03	2,973	9,120.30	3,916	15,035.36	10,124	33,790.22	7,736	48,561.95	5,428	22,699.57	9,118	46,232.16	3,749	7,879.18	6,858	26,192.28	2,004	4,260.67
Cladocera																				
Alonella sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	2.65	104	33.39
Bosmina longirostris O.F. Muller	55	65.29	22	26.38	-	-	162	192.44	2,579	3,066.14	267	317.83	-	-	25	29.15	402	477.98	3,330	3,960.07
Chydorus sphaericus (O.F. Muller)	-	-	111	563.97	-	-	69	352.64	129	655.51	-	-	44	222.23	8	41.55	57	291.96	78	394.80
Cladocera immature	329	142.07	22	9.57	311	134.20	185	79.76	645	277.99	-	-	219	94.25	-	-	49	21.23	43	18.60
Comptocercus spp.	-	-	11	37.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	28.80
Daphnia longiremis Sars	1,016	3,032.02	144	430.43	905	2,702.18	786	2,346.33	1,547	4,618.04	2,352	7,020.93	2,273	6,784.40	53	158.55	213	636.65	1,329	3,965.99
Daphnia middendorffiana Fisher	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Holopedium gibberum Zaddach	2,910	13,536.54	11	51.60	1,117	5,197.97	46	215.09	5,802	26,987.43	1,230	5,719.29	1,530	7,116.20	-	-	16	76.32	-	-
Cladocera subtotal	4,310	16,775.91	322	1,118.97	2,334	8,034.35	1,248	3,186.25	10,701	35,605.11	3,849	13,058.05	4,065	14,217.07	86	229.25	747	1,506.78	4,892	8,401.64
Rotifera																				
Asplanchna brightwellei Gosse	3,283	21,524.38	-	-	2,326	15,248.90	1,642	10,762.19	-	-	-	-	3,723	24,407.83	-	-	212	1,390.00	1,741	11,412.66
Asplanchna herricki de Guerne	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asplanchna sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brachionus angularis Gosse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collotheca mutabilis Harring	-	-	1,642	559.11	775	264.07	7,973	2,715.35	-	-	2,327	792.51	-	-	1,242	423.00	1,484	505.49	5,416	1,844.59
Collotheca pelagica Rousselet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conochilus unicornis Rousselet	77,160	65,968.74	111,636	95,444.14	18,609	15,909.93	41,194	35,219.25	172,201	147,224.70	72,138	61,675.21	22,340	19,099.42	414	353.97	26,717	22,841.58	14,895	12,734.29
Filinia terminalis Plate	-	-	-	-	775	977.84	-	-	-	-	-	-	1,862	2,347.75	-	-	-	-	-	-
Gastropus hyptopus Ehrenberg	-	-	-	-	1,551	1,313.28	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gastropus stylifer Imhof	6,567	3,611.28	9,850	5,416.92	3,877	2,132.00	3,987	2,192.30	-	-	2,327	1,279.71	13,031	7,166.35	1,242	683.04	1,908	1,049.44	2,902	1,595.65
Kellicotia longispina Kellicott	13,134	9,876.08	31,192	23,455.69	3,877	2,915.29	26,577	19,984.93	18,616	13,998.87	20,943	15,748.73	14,893	11,199.10	4,140	3,113.28	15,479	11,639.45	12,573	9,454.78
Keratella cochlearis Gosse	11,492	7,584.91	8,209	5,417.80	3,877	2,558.82	6,644	4,385.31	9,308	6,143.58	13,962	9,215.36	9,308	6,143.58	1,656	1,093.04	4,665	3,078.86	5,223	3,447.15
Keratella hiemalis Carlin	-	-	-	-	775	424.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Keratella serrulata Ehrenberg	-	-	-	-	775	565.16	-	-	-	-	-	-	1,862	1,356.93	-	-	-	-	-	-
Lecane flexilis Gosse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lecane intrasinuata Olofsson	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lecane sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	424	261.87	193	119.45
Lepadella sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lophocharis sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Monostyla bulla Gosse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Monostyla lunaris Ehrenberg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Notomata sp.	1,642	1,212.36	3,283	2,424.72	775	572.59	1,329	981.32	-	-	-	-	1,862	1,374.77	-	-	424	313.17	-	-
Polyathra dolicoptera Idelson	-	-	-	-	1,551	985.66	-	-	-	-	-	-	-	-	-	-	-	-	387	245.90
Polyathra major Burckhardt	1,642	1,402.38	3,283	2,804.76	775	662.34	-	-	4,654	3,975.62	-	-	-	-	414	353.66	636	543.38	1,741	1,487.14
Polyathra vulgaris Carlin	-	-	1,642	1,457.19	-	-	-	-	-	-	2,327	2,065.50	-	-	-	-	212	188.21	-	-
Synchaeta sp.	-	-	1,642	3,789.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,675	8,483.73
Testudinella sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichocerca sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichotria sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rotifera subtotal	114,920	111,180.13	172,379	<																

Table X.VII-6

Zooplankton Density and Biomass for Lakes in the Kiggavik Project Area, 2009

Taxa	Willow Lake Sub-Basin						Lower Lake Sub-Basin		Judge Sissons Lake Sub-Basin											
	Sik Sik Lake		Rock Lake		Willow Lake		Andrew Lake		Judge Sissons Lake											
	SSL-ZP001-F09		ROL-ZP001-F09		WIL-ZP001-F09		ANL-ZP001-F09		JSL-ZP001-F09		JSL-ZP002-F09		JSL-ZP006-F09		JSL-ZP007-F09		JSL-ZP008-F09		JSL-ZP001-F09 (QA/QC)	
	18-Aug-09		19-Aug-09		20-Aug-09		21-Aug-09		19-Aug-09		18-Aug-09		20-Aug-09		21-Aug-09		22-Aug-09		19-Aug-09	
	Density	Biomass	Density	Biomass	Density	Biomass	Density	Biomass	Density	Biomass	Density	Biomass	Density	Biomass	Density	Biomass	Density	Biomass	Density	Biomass
	(org/m ³)	(µg/m ³)	(org/m ³)	(µg/m ³)	(org/m ³)	(µg/m ³)	(org/m ³)	(µg/m ³)	(org/m ³)	(µg/m ³)	(org/m ³)	(µg/m ³)	(org/m ³)	(µg/m ³)	(org/m ³)	(µg/m ³)	(org/m ³)	(µg/m ³)	(org/m ³)	(µg/m ³)
Calanoida																				
Calanoid copepodid	22	48.33	12	26.22	30	66.33	20	43.71	79	172.39	100	218.12	32	69.13	-	-	18	40.32	82	179.65
Calanoid nauplii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Epischura nevadensis</i> Lilljeborg	-	-	-	-	51	981.67	10	194.05	132	2,551.33	417	8,070.25	296	5,729.10	148	2,857.24	185	3,580.69	302	5,849.25
<i>Hetercope septentrionalis</i> Juday & Muttkowski	122	12,606.27	-	-	-	-	20	2,072.60	-	-	-	-	-	-	-	-	-	-	-	-
<i>Leptodiaptomus minutus</i> Lilljeborg	-	-	24	175.26	963	7,019.09	872	6,353.27	685	4,992.65	300	2,186.66	222	1,617.00	61	442.75	37	269.50	577	4,202.31
<i>Leptodiaptomus sicilis</i> S.A. Forbes	7,302	106,173.06	168	2,447.54	-	-	250	3,642.17	553	8,044.87	650	9,451.81	254	3,686.75	78	1,135.65	240	3,494.73	412	5,988.28
Calanoida subtotal	7,446	118,827.67	204	2,649.02	1,044	8,067.10	1,172	12,305.79	1,449	15,761.23	1,467	19,926.84	803	11,101.97	286	4,435.64	481	7,385.24	1,373	16,219.50
Cladocera																				
Alonella sp.	-	-	-	-	10	3.27	10	3.23	-	-	-	-	-	-	-	-	18	5.96	-	-
<i>Bosmina longirostris</i> O.F. Muller	-	-	4,208	5,309.92	12,154	15,336.89	160	202.28	132	166.22	317	399.60	169	213.29	121	153.30	10,482	13,227.32	165	207.86
<i>Chydorus sphaericus</i> (O.F. Muller)	-	-	409	2,078.26	10	51.54	20	101.88	-	-	-	-	21	107.42	17	88.24	18	93.99	-	-
Cladocera immature	122	308.39	-	-	-	-	-	-	105	266.65	200	506.07	53	133.65	26	65.87	-	-	82	208.41
Comptocercus spp.	-	-	-	-	-	-	10	33.45	-	-	-	-	-	-	52	173.81	-	-	-	-
<i>Daphnia longiremis</i> Sars	-	-	-	-	41	201.78	30	149.58	1,396	6,948.62	1,950	9,704.20	475	2,365.74	312	1,554.63	6,951	34,592.44	1,181	5,874.93
<i>Daphnia medditorrfiana</i>	1,263	90,554.20	48	3,447.75	-	-	321	22,985.02	-	-	-	-	-	-	-	-	-	-	-	-
<i>Holopedium gibberum</i> Zaddach	44	390.21	36	317.56	233	2,052.76	30	264.64	316	2,783.50	400	3,521.86	74	651.09	-	-	-	-	302	2,658.97
Cladocera subtotal	1,429	91,252.81	4,701	11,153.50	12,448	17,646.24	581	23,740.06	1,950	10,164.99	2,867	14,131.72	792	3,471.20	529	2,035.85	17,470	47,919.71	1,730	8,950.18
Cyclopoida																				
<i>Acanthocyclops vernalis</i> Fischer	66	335.42	-	-	-	-	-	-	1,344	6,779.20	1,317	6,643.33	813	4,104.22	677	3,415.11	684	3,451.28	906	4,571.23
Cyclopoid copepodid	-	-	36	40.84	41	45.91	-	-	53	59.66	317	358.55	127	143.54	121	137.56	536	607.04	220	248.69
Cyclopoid nauplii	-	-	-	-	-	-	1,026	1,360.43	-	-	991	1,314.78	2,814	3,732.52	6,153	8,161.18	-	-	18,768	16,658.31
<i>Cyclops bicuspidatus thomasi</i> S. A. Forbes	-	-	24	156.86	-	-	-	-	1,502	9,796.02	1,333	8,697.93	634	4,134.84	633	4,132.38	1,350	8,803.76	1,098	7,163.85
<i>Cyclops scutifer</i> Sars	-	-	-	-	-	-	-	-	26	379.70	-	-	32	456.77	-	-	18	266.45	-	-
Cyclopoida subtotal	66	335.42	60	197.70	41	45.91	1,026	1,360.43	2,924	17,014.58	3,958	17,014.59	4,420	12,571.88	7,585	15,846.22	2,588	13,128.53	20,991	28,642.08
Rotifera																				
<i>Asplanchna brightwellei</i> Gosse	-	-	544	3,567.96	262	1,715.37	-	-	-	-	-	-	-	-	324	2,123.08	787	5,161.28	-	-
<i>Brachionus angularis</i> Gosse	-	-	544	396.71	262	190.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gastropus stylifer</i> Imhof	-	-	-	-	1,570	863.39	3,077	1,692.25	-	-	991	545.15	2,111	1,160.73	1,295	712.41	1,575	865.94	-	-
<i>Collotheca mutabilis</i> Haring	6,782	2,309.88	1,089	370.72	523	178.23	-	-	-	-	991	337.61	1,055	359.42	-	-	-	-	-	-
<i>Collotheca pelagica</i> Rousselet	-	-	-	-	523	201.50	1,026	394.94	-	-	-	-	-	-	-	-	3,149	1,212.57	-	-
<i>Conochilus unicornis</i> Rousselet	565	483.23	6,531	5,583.95	48,932	41,834.86	2,051	1,753.93	25,118	21,474.93	11,896	10,170.44	5,629	4,812.15	34,977	29,904.05	9,448	8,077.53	75,071	41,283.40
<i>Encentrum</i> sp.	-	-	544	37,989.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Kellicotia longispina</i> Kellicott	-	-	1,089	818.55	12,037	9,051.25	9,232	6,941.92	22,163	16,665.88	21,809	16,399.68	-	-	-	-	19,289	14,505.00	56,303	21,678.32
<i>Keratella cochlearis</i> Gosse	-	-	-	-	1,570	1,036.24	5,642	3,723.55	5,910	3,900.81	5,948	3,925.74	13,016	8,590.78	12,307	8,122.73	3,149	2,078.59	31,279	26,742.58
<i>Lecane flexilis</i> Gosse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	324	236.06	-	-	-	-
<i>Lepadella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17,812	12,983.34	-	-	-	-
<i>Monostyla bulla</i> Gosse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	648	472.12	787	573.87	-	-
<i>Monostyla closterocerca</i> Schmarda	-	-	-	-	-	-	1,539	592.41	-	-	-	-	-	-	-	-	1,575	606.29	-	-
<i>Monostyla lunaris</i> Ehrenberg	-	-	-	-	-	-	-	-	-	-	-	-	-	704	486.17	-	-	-	-	-
<i>Notholca acuminata</i> Ehrenberg	565	920.57	-	-	-	-	513	835.33	-	-	-	-	-	-	-	-	-	-	-	-
<i>Notomata</i> sp.	-	-	544	401.93	-	-	513	378.74	2,955	2,182.24	-	-	704	519.56	972	717.49	-	-	-	-
<i>Polyathra dolicoptera</i> Idelson	-	-	-	-	-	-	-	-	-	-	-	-	-	-	324	205.85	394	250.21	-	-
<i>Polyathra major</i> Burckhardt	-	-	-	-	-	-	513	438.11	-	-	-	-	352	300.50	648	553.30	2,362	2,017.64	-	-
<i>Polyathra vulgaris</i> Carlin	-	-	-	-	-	-	-	-	-	-	-	-	352	312.24	324	287.46	787	698.83	-	-
<i>Synchaeta</i> sp.	-	-	1,089	2,512.69	-	-	4,103	9,470.91	-	-	-	-	-	-	-	-	-	-	-	-
<i>Testudinella parva</i> Ternetz	-	-	-	-	-	-	1,026	787.25	-	-	-	-	-	-	-	-	-	-	-	-
<i>Trichocerca cylindrica</i> Imhof	-	-	544	505.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rotifera subtotal	7,913	3,713.67	12,518	52,147.57	65,679	55,071.57	29,234	27,009.36	56,146	44,223.87	41,635	31,378.63	23,921	16,541.56	69,954	56,317.90	43,303	36,047.76	162,653	89,704.30
Others (Ciliophora)																				
Opercularia	10,739	1,388.78	-	-	-	-	3,077	397.95	-	-	-	-	-	-	-	-	26,375	3,410.91	6,256	3,863.03
<i>Vorticella</i> sp.	34,478	6,334.98	-	-	4,187	769.28	5,642	1,036.60	13,298	2,443.38	13,878	2,550.07	-	-	9,392	1,725.72	81,488	14,972.79	87,582	55,667.23
Other subtotal	45,216	7,723.76	0	0	4,187	769.28	8,719	1,434.55	13,298	2,443.38	13,878	2,550.07	0	0	9,392	1,725.72	107,863	18,383.71	93,838	59,530.26
Total	62,071	221,853.32	17,484	66,147.79	83,398	81,600.08	40,732	65,850.20	75,767	89,608.05	63,805	85,001.85	29,936	43,686.61	87,747	80,361.33	171,705	122,864.94	280,585	203,046.32

Notes: Station Codes are composed of the Stream Code-Event Code-Sample-Season-Year; Date is in Day-Month-Year format.
Aug = August; QA/QC = quality assurance/quality control; org/m³ = number of organisms per cubic metre; µg/m³ = micrograms per cubic metre; sp = species singular; spp = species plural ; - = none.

Table X.VII-7
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2008

Taxa	Willow Lake Sub-Basin																							
	Northeast Inflow of Pointer Lake						Northwest Inflow of Pointer Lake						Pointer/Rock Stream						Rock/Willow Stream					
	NEPLS-PE002-F08						NWPLS-PE002-F08						PRROS-PE002-F08						ROWIS-PE002-F08					
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C	
	29-Aug-08						30-Aug-08						30-Aug-08						30-Aug-08					
	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)
Cyanobacteria																								
Anabaena sp.	-	-	-	-	5,756	0.432	5,624	0.422	-	-	-	-	26	0.002	-	-	-	-	-	-	2,491	0.187	7,741	0.581
Chroococcus sp.	862	0.108	5,937	0.742	-	-	4,218	0.527	6,969	0.871	3,112	0.389	20	0.002	2,268	0.284	5	0.001	495	0.062	1,661	0.208	-	-
Coccoid Cyanobacteria	202,512	1.013	63,075	0.315	-	-	51,554	0.258	113,245	0.566	38,904	0.195	1,782	0.009	83,167	0.416	249	0.001	113,783	0.569	62,287	0.311	56,009	0.280
Filamentous Cyanobacteria	5,171	0.517	3,710	0.371	2,214	0.221	6,561	0.656	7,840	0.784	7,003	0.700	46	0.005	-	-	24	0.002	3,958	0.396	830	0.083	16,848	1.685
Gloetrichia sp.	3,447	172.350	2,968	148.413	1,328	66.417	2,343	117.168	5,227	261.335	4,669	233.426	-	-	756	37.803	-	-	495	24.735	1,246	62.287	1,821	91.071
Limnothrix sp.	-	-	-	-	39,850	0.399	10,311	0.103	-	-	-	-	-	-	-	-	-	-	-	-	41,525	0.415	3,188	0.032
Merismopedia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,288	0.266	-	-
Nostoc sp.	60,323	0.905	89,048	1.336	-	-	42,180	0.633	17,422	0.261	46,685	0.700	78	0.001	-	-	-	-	-	-	1,246	0.019	-	-
Cyanobacteria subtotal	272,313	174.892	164,738	151.177	49,148	67.468	122,792	119.767	150,703	263.818	100,373	235.410	1,951	0	86,191	38.503	278	0.004	118,730	25.762	124,574	63.776	85,607	93.649
Chlorophyceae (Coccoid Greens, Desmids, etc.)																								
Acanthosphaera sp.	3,447	0.238	-	-	-	-	-	-	-	-	-	-	-	-	1,512	0.104	-	-	2,968	0.205	-	-	-	-
Ankistrodesmus sp.	-	-	-	-	-	-	-	-	-	-	-	-	13	0.001	-	-	-	-	-	-	-	-	1,821	0.146
Bulbochaete sp.	2,585	12.926	-	-	-	-	469	2.343	-	-	-	-	7	0.033	-	-	-	-	495	2.474	830	4.152	1,821	9.107
Closterium sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	415	0.415	-	-
Coccoid Chlorophyceae	573,065	42.980	289,405	21.705	132,391	9.929	229,649	17.224	347,576	26.068	599,904	44.993	1,177	0.088	109,629	8.222	1,375	0.103	132,087	9.907	549,373	41.203	362,920	27.219
Coelastrum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cosmarium botrytis	-	-	-	-	-	-	-	-	871	0.871	778	0.778	13	0.013	-	-	-	-	-	-	2,491	2.491	1,821	1.821
Cosmarium sp.	-	-	-	-	443	0.133	2,812	0.844	1,742	0.523	1,556	0.467	13	0.004	-	-	5	0.001	495	0.148	3,737	1.121	2,732	0.820
Crucigenia irregularis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crucigenia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Elakatothrix sp. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Euastrum sp.	-	-	742	0.594	-	-	-	-	871	0.697	-	-	7	0.005	-	-	-	-	-	-	415	0.332	911	0.729
Filamentous Chlorophyceae (medium)	4,309	1.293	9,647	2.894	28,781	8.634	7,030	2.109	4,356	1.307	4,669	1.401	46	0.014	-	-	10	0.003	4,452	1.336	4,152	1.246	11,384	3.415
Filamentous Chlorophyceae (small)	14,650	2.197	8,905	1.336	30,552	4.583	11,717	1.758	11,325	1.699	19,452	2.918	91	0.014	-	-	15	0.002	7,915	1.187	9,135	1.370	17,304	2.596
Geminella sp.	-	-	-	-	-	-	5,155	12.888	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Monoraphidium sp.	862	0.129	-	-	-	-	-	-	-	-	-	-	46	0.007	756	0.113	-	-	989	0.148	-	-	911	0.137
Mougeotia sp.	12,926	51.705	4,452	17.810	2,214	8.856	3,749	14.997	3,484	13.938	-	-	59	0.234	-	-	-	-	1,484	5.937	830	3.322	13,661	54.643
Oocystis sp.	4,309	0.646	1,484	0.223	-	-	5,155	0.773	-	-	-	-	-	-	-	-	-	-	-	-	7,890	1.183	1,366	0.205
Pediastrum sp.	-	-	-	-	-	-	-	-	-	-	778	0.778	-	-	-	-	-	-	-	-	830	0.830	-	-
Scenedesmus sp.	-	-	-	-	-	-	-	-	-	-	-	-	7	0.001	-	-	-	-	-	-	1,661	0.166	2,732	0.273
Sphaerocystis sp.	862	0.3016	-	-	886	0.3099	937	0.3281	-	-	1,556	0.5447	26	0.009	-	-	-	-	-	-	830	0.291	1,821	0.638
Spirogyra sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spondylosium sp.	-	-	-	-	-	-	1,875	0.4687	-	-	-	-	-	-	-	-	-	-	-	-	830	0.208	1,821	0.455
Staurastrum sp.	-	-	-	-	-	-	-	-	871	0.8711	778	0.7781	-	-	-	-	-	-	-	-	415	0.415	2,277	2.277
Stichococcus minutissimus	245,599	1.7192	-	-	-	-	-	-	56,623	0.3964	46,685	0.3268	260	0.002	-	-	975	0.007	76,680	0.537	-	-	-	-
Stigonema sp.	-	-	111,310	83.4821	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetraedron sp.	-	-	-	-	-	-	469	0.0937	-	-	-	-	-	-	-	-	-	-	-	-	-	-	455	0.091
Ulothrix sp.	11,203	1.1203	-	-	19,482	1.9482	22,496	2.2496	-	-	5,447	0.5447	20	0.002	-	-	-	-	2,968	0.297	-	-	24,589	2.459
Zygnema sp.	-	-	-	-	-	-	1,406	5.6241	-	-	-	-	4,818	19.273	94,508	378.032	2,077	8.308	8,410	33.640	7,890	31.559	52,366	209.464
Chlorophyceae subtotal	873,816	115	425,944	128	214,747	34	292,920	62	427,719	46	681,603	54	6,600	19.699	206,406	386.472	4,456	8.424	238,944	55.815	591,728	90.306	502,714	316.494
Chrysophyceae & Cryptophyceae (Flagellates)																								
Kephyrion sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trachelomonas sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysophyceae & Cryptophyceae subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dinophyceae (Dinoflagellates)																								
Gymnodinium sp. 1	-	-	-	-	443	0.221	469	0.234	-	-	1,556	0.778	-	-	-	-	5	0.002	495	0.247	-	-	455	0.228
Peridinium spp.	-	-	-	-	-	-	-	-	-	-	778	0.272	-	-	-	-	-	-	-	-	-	-	-	-
Dinophyceae subtotal	-	-	-	-	443	0	469	0	-	-	2,334	1.050	-	-	-	-	5	0	495	0.247	-	-	455	0

Table X.VII-7
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2008

Taxa	Willow Lake Sub-Basin																							
	Northeast Inflow of Pointer Lake						Northwest Inflow of Pointer Lake						Pointer/Rock Stream						Rock/Willow Stream					
	NEPLS-PE002-F08						NWPLS-PE002-F08						PRROS-PE002-F08						ROWIS-PE002-F08					
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C	
	29-Aug-08						30-Aug-08						30-Aug-08						30-Aug-08					
	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)
Diatoms																								
<i>Achnanthidium exiguum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthidium minutissimum</i>	70,816	3.541	148,790	7.440	68,649	3.432	22,979	1.149	31,597	1.580	15,728	0.786	309	0.015	145	0.007	64	0.003	1,894	0.095	7,539	0.377	48,014	2.401
<i>Achnanthidium</i> sp.	5,110	0.409	15,754	1.260	12,044	0.963	3,064	0.245	2,689	0.215	1,180	0.094	34	0.003	41	0.003	-	-	53	0.004	419	0.034	2,515	0.201
<i>Achnathidium pusilla</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Amphora ovalis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Amphora</i> sp.	730	0.128	-	-	1,204	0.211	511	0.089	672	0.118	393	0.069	-	-	21	0.004	-	-	105	0.018	670	0.117	1,600	0.280
<i>Anomoeneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Anomoeneis vitrea</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Asterionella ralfsii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aulicoseira distans</i>	730	0.256	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	229	0.080
<i>Caloneis undosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	229	0.057
<i>Caloneis ventricosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cocconeis fluviatilis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	0.017	-	-
<i>Cocconeis placentula</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	0.009	229	0.025
<i>Cyclotella comta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella glomerata</i>	-	-	-	-	-	-	511	0.026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella perglabra</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella radiosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> sp. (small)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella stelligera</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella cuspidata</i>	730	0.438	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	251	0.151	-	-
<i>Cymbella lunata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella</i> sp.	-	-	-	-	-	-	511	0.128	672	0.168	-	-	-	-	-	-	-	-	-	-	503	0.126	1,372	0.343
<i>Cymbella</i> sp. (large)	-	-	-	-	-	-	1,021	0.511	336	0.168	-	-	-	-	-	-	-	-	-	-	-	-	229	0.114
<i>Cymbella</i> sp. (small)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	0.004	32	0.006	105	0.018	-	-	-	-
<i>Denticula</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatoma tenue</i> v. <i>elongatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatoma vulgare</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diploneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Encocconeis flexella</i>	730	0.256	7,002	2.451	9,635	3.372	1,532	0.536	1,345	0.471	590	0.206	-	-	21	0.007	-	-	-	-	168	0.059	229	0.080
<i>Eunotia bigibba</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia maior</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia</i> sp. (large)	6,571	2.464	19,255	7.221	14,452	5.420	2,553	0.957	2,689	1.008	2,359	0.885	-	-	-	-	32	0.012	-	-	503	0.188	1,372	0.514
<i>Eunotia</i> sp. (small)	6,571	1.478	22,756	5.120	14,452	3.252	4,596	1.034	7,731	1.740	2,949	0.664	69	0.015	21	0.005	32	0.007	105	0.024	503	0.113	2,058	0.463
<i>Fragilaria acus</i>	730	0.073	-	-	-	-	-	-	-	-	197	0.020	-	-	-	-	-	-	-	-	335	0.034	457	0.046
<i>Fragilaria capucina</i>	2,190	0.219	-	-	-	-	511	0.051	-	-	983	0.098	-	-	-	-	-	-	53	0.005	754	0.075	1,829	0.183
<i>Fragilaria construens</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria crotonensis</i>	730	0.088	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	457	0.055
<i>Fragilaria intermedia</i>	730	0.062	7,002	0.595	-	-	2,043	0.174	336	0.029	786	0.067	-	-	-	-	-	-	158	0.013	168	0.014	2,515	0.214
<i>Fragilaria ulna</i>	5,110	5.110	26,257	26.257	8,431	8.431	2,043	2.043	2,689	2.689	393	0.393	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria vaucheriae</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Frustulia rhomboides</i>	2,920	1.387	-	-	3,613	1.716	511	0.243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Frustulia</i> sp. (large)	-	-	-	-	-	-	511	0.383	-	-	-	-	-	-	-	-	-	-	-	-	-	-	229	0.171
<i>Frustulia</i> sp. (small)	1,460	0.730	21,006	10.503	9,635	4.817	-	-	-	-	197	0.098	34	0.017	21	0.010	-	-	53	0.026	-	-	457	0.229
<i>Gomphonema</i> sp. (large)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema</i> sp. (small)	-	-	-	-	-	-	511	0.128	1,008	0.252	197	0.049	-	-	-	-	-	-	-	-	251	0.063	-	-
<i>Hannea arcus</i>	-	-	1,750	0.394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	229	0.051

Table X.VII-7
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2008

Taxa	Willow Lake Sub-Basin																							
	Northeast Inflow of Pointer Lake						Northwest Inflow of Pointer Lake						Pointer/Rock Stream						Rock/Willow Stream					
	NEPLS-PE002-F08						NWPLS-PE002-F08						PRROS-PE002-F08						ROWIS-PE002-F08					
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C	
	29-Aug-08						30-Aug-08						30-Aug-08						30-Aug-08					
	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)
<i>Meridion circulare</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula pupula</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula</i> sp. (large)	730	0.621	-	-	3,613	3.071	-	-	336	0.286	-	-	-	-	-	-	-	-	-	-	251	0.214	457	0.389
<i>Navicula</i> sp. (small)	45,994	22.997	24,507	12.253	21,679	10.839	8,170	4.085	5,378	2.689	3,932	1.966	137	0.069	104	0.052	-	-	316	0.158	4,523	2.262	9,145	4.573
<i>Neidium affine</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Neidium hitchcockii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	0.029	-	-
<i>Neidium iridis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Neidium</i> sp.	1,460	0.365	-	-	-	-	511	0.128	1,008	0.252	393	0.098	34	0.009	-	-	-	-	105	0.026	586	0.147	-	-
<i>Nitzschia</i> sp. (large)	2,190	0.876	-	-	2,409	0.963	2,043	0.817	-	-	590	0.236	-	-	-	-	-	-	-	-	335	0.134	1,143	0.457
<i>Nitzschia</i> sp. (small)	40,883	8.177	38,510	7.702	10,839	2.168	20,936	4.187	24,202	4.840	5,898	1.180	275	0.055	187	0.037	64	0.013	1,526	0.305	5,026	1.005	7,316	1.463
<i>Peronia herbaudi</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pinnularia</i> sp.	2,190	4.380	5,251	10.503	1,204	2.409	1,532	3.064	1,008	2.017	1,180	2.359	34	0.069	21	0.041	32	0.064	53	0.105	503	1.005	686	1.372
<i>Rhopalodia gibba</i>	-	-	-	-	-	-	-	-	-	-	197	0.236	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stauroneis anceps</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stauroneis kreigeri</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	0.025	229	0.069
<i>Stauroneis livingstonii</i>	-	-	-	-	-	-	-	-	336	0.134	197	0.079	34	0.014	-	-	-	-	53	0.021	251	0.101	686	0.274
<i>Stauroneis phoenicenteron</i>	-	-	-	-	-	-	1,532	1.302	-	-	-	-	-	-	-	-	-	-	-	-	84	0.071	-	-
<i>Staurosira ansata</i>	-	-	1,750	0.613	2,409	0.843	-	-	672	0.235	393	0.138	-	-	-	-	-	-	-	-	-	-	229	0.080
<i>Staurosira construens</i>	-	-	1,750	0.210	12,044	1.445	4,596	0.551	1,681	0.202	3,146	0.377	34	0.004	166	0.020	-	-	105	0.013	84	0.010	3,430	0.412
<i>Staurosirella leptostauron</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Staurosirella pinnata</i>	1,460	0.073	10,503	0.525	16,861	0.843	2,553	0.128	336	0.017	1,769	0.088	69	0.003	-	-	-	-	53	0.003	168	0.008	3,887	0.194
<i>Suriella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	229	0.114
<i>Tabellaria fenestrata</i>	2,190	1.095	3,501	1.750	-	-	-	-	-	-	590	0.295	206	0.103	83	0.041	64	0.032	105	0.053	84	0.042	1,143	0.572
<i>Tabellaria flocculosa</i>	91,258	45.629	376,352	188.176	283,027	141.513	116,935	58.468	19,832	9.916	34,209	17.104	447	0.223	290	0.145	350	0.175	473	0.237	10,554	5.277	8,231	4.115
<i>Diatoms subtotal</i>	294,215	100.851	731,698	282.973	496,200	195.710	202,211	80.425	106,557	29.026	78,444	27.586	1,719	0.600	1,140	0.377	669	0.311	5,314	1.125	34,846	11.706	101,057	19.592
Total	1,440,344	390.999	1,322,381	562.193	760,538	297.792	618,392	262.127	684,980	339.214	862,754	317.575	10,269	20.318	293,737	425.352	5,408	8.742	363,483	82.949	751,149	165.788	689,834	429.962

Table X.VII-7
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2008

Taxa	Willow Lake Sub-Basin						Lower Lake Sub-Basin																	
	Willow/Judge Sissons Stream						Mushroom/End Grid Stream						End Grid/Shack Stream						Cigar/Lunch Stream					
	WIJSS-PE002-F08						MSEGS-PE002-F08						EGSHS-PE002-F08						CGLUS-PE002-F08					
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C	
	30-Aug-08						29-Aug-08						29-Aug-08						28-Aug-08					
	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)
Cyanobacteria																								
Anabaena sp.	1,154	0.087	-	-	7,633	0.572	9,932	0.745	3,588	0.269	15,121	1.134	7,209	0.541	11,097	0.832	16,325	1.224	-	-	-	-	-	-
Chroococcus sp.	-	-	3,523	0.440	4,770	0.596	-	-	2,392	0.299	3,780	0.473	1,696	0.212	822	0.103	-	-	-	-	376	0.047	6,935	0.867
Coccoid Cyanobacteria	2,821	0.014	136,507	0.683	143,112	0.716	3,425	0.017	2,392	0.012	43,096	0.215	12,721	0.064	31,646	0.158	322,798	1.614	35,943	0.180	3,763	0.019	46,236	0.231
Filamentous Cyanobacteria	1,154	0.115	5,284	0.528	6,679	0.668	3,425	0.342	3,588	0.359	8,317	0.832	3,816	0.382	8,631	0.863	2,226	0.223	971	0.097	3,386	0.339	4,624	0.462
Gloetrichia sp.	385	19.234	1,321	66.052	4,770	238.520	1,027	51.374	1,196	59.808	3,780	189.016	-	-	1,233	61.648	-	-	3,400	170.000	1,129	56.439	3,853	192.651
Limnothrix sp.	3,077	0.031	11,009	0.110	-	-	8,562	0.086	27,512	0.275	22,682	0.227	-	-	-	-	-	-	20,400	0.204	30,477	0.305	-	-
Merismopedia sp.	13,849	0.277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nostoc sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanobacteria subtotal	22,440	19.758	157,644	67.813	166,964	241.073	26,372	52.564	40,670	61.022	96,776	191.897	25,442	1.198	53,429	63.605	341,349	3.061	60,714	170.481	39,131	57.148	61,648	194.212
Chlorophyceae (Coccoid Greens, Desmids, etc.)																								
Acanthosphaera sp.	-	-	-	-	5,724	0.395	-	-	-	-	-	-	4,240	0.293	-	-	3,710	0.256	-	-	-	-	-	-
Ankistrodesmus sp.	-	-	-	-	-	-	-	-	-	-	-	-	424	0.034	-	-	-	-	486	0.039	-	-	-	-
Bulbochaete sp.	256	1.282	2,202	11.009	2,862	14.311	-	-	-	-	-	-	-	-	3,699	18.495	5,194	25.972	486	2.429	3,010	15.050	-	-
Closterium sp.	128	0.128	-	-	-	-	-	-	598	0.598	1,512	1.512	-	-	-	-	-	-	-	-	-	-	2,312	2.312
Coccoid Chlorophyceae	85,913	6.443	350,075	26.256	543,827	40.787	91,445	6.858	79,545	5.966	289,573	21.718	339,653	25.474	613,607	46.020	426,687	32.001	77,714	5.829	92,936	6.970	477,775	35.833
Coelastrum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cosmarium botrytis	256	0.256	1,761	1.761	-	-	342	0.342	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cosmarium sp.	769	0.231	6,165	1.849	954	0.286	-	-	1,196	0.359	-	-	1,272	0.382	1,644	0.493	-	-	486	0.146	376	0.113	-	-
Crucigenia irregularis	-	-	-	-	30,531	1.221	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crucigenia sp.	1,667	0.333	-	-	-	-	-	-	-	-	-	-	6,785	1.357	-	-	-	-	-	-	-	-	-	-
Elakatothrix sp. 3	128	0.032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Euastrum sp.	256	0.205	440	0.352	1,908	1.527	342	0.274	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Filamentous Chlorophyceae (medium)	769	0.231	2,202	0.661	12,403	3.721	1,712	0.514	5,383	1.615	9,073	2.722	848	0.254	5,754	1.726	742	0.223	6,314	1.894	3,763	1.129	3,853	1.156
Filamentous Chlorophyceae (small)	3,975	0.596	14,972	2.246	17,173	2.576	6,165	0.925	6,579	0.987	21,926	3.289	8,481	1.272	6,576	0.986	2,968	0.445	9,714	1.457	7,525	1.129	10,788	1.618
Geminella sp.	-	-	1,761	4.403	-	-	-	-	8,373	20.933	-	-	-	-	4,110	10.275	-	-	6,314	15.786	5,644	14.110	-	-
Monoraphidium sp.	385	0.058	-	-	-	-	342	0.051	-	-	-	-	848	0.127	-	-	4,452	0.668	-	-	-	-	771	0.116
Mougeotia sp.	1,282	5.129	7,046	28.182	6,679	26.714	2,397	9.590	16,746	66.985	12,853	51.412	-	-	2,466	9.864	-	-	-	-	-	-	1,541	6.165
Oocystis sp.	513	0.077	1,761	0.264	-	-	-	-	1,794	0.269	3,780	0.567	3,392	0.509	-	-	-	-	-	-	-	-	-	-
Pediastrum sp.	-	-	440	0.440	954	0.954	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scenedesmus sp.	385	0.038	-	-	954	0.095	-	-	-	-	-	-	424	0.042	-	-	742	0.074	-	-	-	-	-	-
Sphaerocystis sp.	769	0.269	440	0.154	-	-	342	0.120	1,794	0.628	756	0.265	-	-	1,233	0.432	742	0.260	-	-	753	0.263	1,541	0.539
Spirogyra sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	753	3.010	-	-
Spondylosium sp.	513	0.128	881	0.220	1,908	0.477	342	0.086	-	-	756	0.189	-	-	411	0.103	-	-	-	-	-	-	-	-
Staurastrum sp.	513	0.513	440	0.440	954	0.954	342	0.342	-	-	-	-	424	0.424	-	-	-	-	-	-	-	-	-	-
Stichococcus minutissimus	-	-	88,069	0.616	66,786	0.468	-	-	-	-	-	-	156,893	1.098	16,440	0.115	211,488	1.480	-	-	-	-	-	-
Stigonema sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetraedron sp.	-	-	440	0.088	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ulothrix sp.	2,180	0.218	2,642	0.264	-	-	25,687	2.569	121,410	12.141	30,999	3.100	9,753	0.975	5,343	0.534	-	-	-	-	-	-	19,265	1.927
Zygnema sp.	4,488	17.952	-	-	-	-	-	-	-	-	-	-	1,696	6.785	-	-	-	-	5,343	21.371	2,258	9.030	1,541	6.165
Chlorophyceae subtotal	105,147	34.122	481,738	79.207	693,617	94.487	129,462	21.671	243,419	110.481	371,228	84.774	535,134	39.026	661,281	89.043	656,726	61.380	106,857	48.950	117,016	50.804	519,387	55.830
Chrysophyceae & Cryptophyceae (Flagellates)																								
Kephyrion sp.	-	-	-	-	-	-	-	-	-	-	1,512	0.076	-	-	411	0.021	-	-	-	-	-	-	-	-
Trachelomonas sp.	-	-	-	-	954	0.143	-	-	-	-	756	0.113	1,272	0.191	-	-	742	0.111	-	-	376	0.056	771	0.116
Chrysophyceae & Cryptophyceae subtotal	-	-	-	-	954	0	-	-	-	-	2,268	0.189	1,272	0.191	411	0.021	742	0.111	-	-	376	0.056	771	0.116
Dinophyceae (Dinoflagellates)																								
Gymnodinium sp. 1	128	0.064	-	-	-	-	342	0.171	1,196	0.598	1,512	0.756	-	-	-	-	742	0.371	486	0.243	376	0.188	-	-
Peridinium spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dinophyceae subtotal	128	0	-	-	-	-	342	0	1,196	0.598	1,512	0.756	-	-	-	-	742	0.371	486	0.243	376	0	-	-

Table X.VII-7
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2008

Taxa	Willow Lake Sub-Basin						Lower Lake Sub-Basin																	
	Willow/Judge Sissons Stream						Mushroom/End Grid Stream						End Grid/Shack Stream						Cigar/Lunch Stream					
	WIJSS-PE002-F08						MSEGS-PE002-F08						EGSHS-PE002-F08						CGLUS-PE002-F08					
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C	
	30-Aug-08						29-Aug-08						29-Aug-08						28-Aug-08					
	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)
Diatoms																								
<i>Achnanthidium exiguum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthidium minutissimum</i>	3,745	0.187	304,282	15.214	3,218	0.161	288,635	14.432	867,277	43.364	535,039	26.752	15,768	0.788	12,111	0.606	9,347	0.467	3,708	0.185	1,090,978	54.549	631,278	31.564
<i>Achnanthidium</i> sp.	535	0.043	20,285	1.623	-	-	19,242	1.539	73,719	5.897	56,476	4.518	2,345	0.188	1,186	0.095	1,059	0.085	218	0.017	89,262	7.141	61,422	4.914
<i>Achnathidium pusilla</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Amphora ovalis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,959	0.744	-	-
<i>Amphora</i> sp.	936	0.164	7,607	1.331	293	0.051	2,405	0.421	4,336	0.759	2,972	0.520	323	0.057	169	0.030	125	0.022	218	0.038	4,959	0.868	-	-
<i>Anomoeneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	323	0.040	-	-	-	-	-	-	-	-	-	-
<i>Anomoeneis vitrea</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	436	0.131	-	-	-	-	-	-
<i>Asterionella ralfsii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aulicoseira distans</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Caloneis undosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Caloneis ventricosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cocconeis fluviatilis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cocconeis placentula</i>	67	0.007	1,268	0.139	-	-	-	-	-	-	-	-	-	-	85	0.009	62	0.007	-	-	-	-	-	-
<i>Cyclotella comta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella glomerata</i>	67	0.003	-	-	-	-	9,621	0.481	39,027	1.951	5,945	0.297	81	0.004	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella perglabra</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella radiosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> sp. (small)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella stelligera</i>	-	-	-	-	-	-	-	-	13,009	1.951	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella cuspidata</i>	334	0.201	-	-	117	0.070	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella lunata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella</i> sp.	1,337	0.334	5,071	1.268	176	0.044	2,405	0.601	-	-	-	-	162	0.040	339	0.085	125	0.031	-	-	4,959	1.240	-	-
<i>Cymbella</i> sp. (large)	-	-	-	-	-	-	2,405	1.203	-	-	-	-	647	0.323	169	0.085	187	0.093	-	-	4,959	2.479	-	-
<i>Cymbella</i> sp. (small)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Denticula</i> sp.	67	0.007	-	-	-	-	-	-	-	-	-	-	809	0.081	1,779	0.178	872	0.087	-	-	-	-	-	-
<i>Diatoma tenue</i> v. <i>elongatum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatoma vulgare</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diploneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Encocconeis flexella</i>	-	-	-	-	-	-	-	-	-	-	5,945	2.081	323	0.113	169	0.059	748	0.262	218	0.076	14,877	5.207	3,412	1.194
<i>Eunotia bigibba</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia maior</i>	-	-	-	-	-	-	-	-	8,673	2.602	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia</i> sp. (large)	936	0.351	13,946	5.230	702	0.263	26,458	9.922	26,018	9.757	23,780	8.917	566	0.212	423	0.159	312	0.117	1,527	0.573	39,672	14.877	44,360	16.635
<i>Eunotia</i> sp. (small)	1,672	0.376	19,018	4.279	1,170	0.263	40,890	9.200	39,027	8.781	11,890	2.675	566	0.127	593	0.133	249	0.056	763	0.172	59,508	13.389	40,948	9.213
<i>Fragilaria acus</i>	201	0.020	5,071	0.507	59	0.006	7,216	0.722	13,009	1.301	2,972	0.297	81	0.008	-	-	62	0.006	-	-	-	-	3,412	0.341
<i>Fragilaria capucina</i>	535	0.053	2,536	0.254	234	0.023	21,648	2.165	30,355	3.035	32,697	3.270	404	0.040	254	0.025	312	0.031	-	-	-	-	3,412	0.341
<i>Fragilaria construens</i>	-	-	-	-	-	-	7,216	0.577	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria crotonensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85	0.010	-	-	-	-	-	-	-	-
<i>Fragilaria intermedia</i>	-	-	11,411	0.970	176	0.015	26,458	2.249	-	-	20,807	1.769	1,213	0.103	1,948	0.166	1,682	0.143	218	0.019	-	-	30,711	2.610
<i>Fragilaria ulna</i>	-	-	-	-	-	-	9,621	9.621	-	-	8,917	8.917	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria vaucheriae</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,412	0.512
<i>Frustulia rhomboides</i>	-	-	-	-	-	-	16,837	7.998	4,336	2.060	-	-	-	-	-	-	62	0.030	-	-	44,631	21.200	-	-
<i>Frustulia</i> sp. (large)	-	-	-	-	-	-	2,405	1.804	-	-	11,890	8.917	-	-	-	-	62	0.047	218	0.164	-	-	-	-
<i>Frustulia</i> sp. (small)	-	-	1,268	0.634	-	-	-	-	-	-	2,972	1.486	243	0.121	-	-	62	0.031	109	0.055	14,877	7.438	-	-
<i>Gomphonema</i> sp. (large)	-	-	-	-	-	-	-	-	-	-	-	-	81	0.061	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema</i> sp. (small)	267	0.067	2,536	0.634	-	-	-	-	13,009	3.252	-	-	404	0.101	169	0.042	62	0.016	-	-	-	-	-	-
<i>Hannea arcus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Taxa	Willow Lake Sub-Basin						Lower Lake Sub-Basin																	
	Willow/Judge Sissons Stream						Mushroom/End Grid Stream						End Grid/Shack Stream						Cigar/Lunch Stream					
	WIJSS-PE002-F08						MSEGS-PE002-F08						EGSHS-PE002-F08						CGLUS-PE002-F08					
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C	
	30-Aug-08						29-Aug-08						29-Aug-08						28-Aug-08					
	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)
<i>Meridion circulare</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Navicula pupula</i>	-	-	-	-	176	0.026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Navicula</i> sp. (large)	201	0.171	7,607	6.466	-	-	2,405	2.044	8,673	7.372	8,917	7.580	243	0.206	339	0.288	249	0.212	327	0.278	24,795	21.076	13,649	11.602
<i>Navicula</i> sp. (small)	2,340	1.170	44,374	22.187	1,229	0.614	40,890	20.445	78,055	39.027	80,256	40.128	3,558	1.779	5,505	2.753	3,240	1.620	1,745	0.873	128,934	64.467	150,142	75.071
<i>Neidium affine</i>	-	-	1,268	0.380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Neidium hitchcockii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Neidium iridis</i>	-	-	-	-	234	0.129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Neidium</i> sp.	267	0.067	-	-	-	-	2,405	0.601	-	-	-	-	485	0.121	-	-	62	0.016	-	-	-	-	-	-
<i>Nitzschia</i> sp. (large)	602	0.241	3,804	1.521	293	0.117	2,405	0.962	8,673	3.469	29,724	11.890	404	0.162	-	-	187	0.075	-	-	4,959	1.984	-	-
<i>Nitzschia</i> sp. (small)	2,742	0.548	43,107	8.621	2,223	0.445	117,859	23.572	82,391	16.478	124,843	24.969	4,124	0.825	2,795	0.559	2,493	0.499	1,636	0.327	153,729	30.746	85,308	17.062
<i>Peronia herbaudi</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Pinnularia</i> sp.	535	1.070	6,339	12.678	59	0.117	9,621	19.242	17,346	34.691	17,835	35.669	1,536	3.073	423	0.847	312	0.623	327	0.654	14,877	29.754	13,649	27.299
<i>Rhopalodia gibba</i>	-	-	-	-	-	-	-	-	-	-	-	-	162	0.194	254	0.305	249	0.299	-	-	-	-	-	-
<i>Stauroneis anceps</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Stauroneis kreigeri</i>	201	0.060	-	-	117	0.035	-	-	-	-	-	-	81	0.024	169	0.051	-	-	-	-	4,959	1.488	10,237	3.071
<i>Stauroneis livingstonii</i>	201	0.080	3,804	1.521	59	0.023	-	-	-	-	-	-	323	0.129	169	0.068	62	0.025	327	0.131	-	-	-	-
<i>Stauroneis phoenicenteron</i>	-	-	-	-	176	0.149	-	-	-	-	2,972	2.527	243	0.206	-	-	62	0.053	-	-	-	-	6,825	5.801
<i>Staurosira ansata</i>	67	0.023	1,268	0.444	59	0.020	-	-	13,009	4.553	5,945	2.081	243	0.085	-	-	62	0.022	109	0.038	-	-	3,412	1.194
<i>Staurosira construens</i>	736	0.088	10,143	1.217	351	0.042	21,648	2.598	13,009	1.561	38,642	4.637	2,668	0.320	762	0.091	1,869	0.224	327	0.039	9,918	1.190	47,772	5.733
<i>Staurosirella leptostauron</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Staurosirella pinnatta</i>	134	0.007	5,071	0.254	59	0.003	9,621	0.481	17,346	0.867	-	-	81	0.004	-	-	561	0.028	-	-	-	-	-	-
<i>Suriella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	109	0.055	-	-	-	-
<i>Tabellaria fenestrata</i>	134	0.067	2,536	1.268	176	0.088	-	-	-	-	-	-	323	0.162	254	0.127	436	0.218	-	-	-	-	-	-
<i>Tabellaria flocculosa</i>	8,358	4.179	16,482	8.241	2,691	1.346	355,983	177.991	364,256	182.128	243,740	121.870	728	0.364	593	0.296	499	0.249	9,816	4.908	74,385	37.192	109,194	54.597
<i>Diatoms subtotal</i>	27,215	9.585	540,100	96.882	14,042	4.052	1,046,300	310.871	1,734,553	374.859	1,275,177	321.767	39,542	10.064	30,743	7.066	26,172	5.824	21,922	8.601	1,790,196	317.028	1,262,557	268.754
Total	154,931	63.529	1,179,482	243.902	875,578	339.754	1,202,476	385.278	2,019,838	546.959	1,746,961	599.382	601,390	50.479	745,864	159.734	1,025,731	70.747	189,979	228.275	1,947,096	425.225	1,844,363	518.911

Table X.VII-7
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2008

Taxa	Lower Lake Sub-Basin																								
	Knee/Lunch Stream						Lunch/Andrew Stream						Andrew/Shack Stream						Shack/Lower Stream						
	KNLUS-PE002-F08						LUANS-PE002-F08						ANSHS-PE002-F08						SHLWS-PE002-F08						
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		
	28-Aug-08						28-Aug-08						28-Aug-08						29-Aug-08						
	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	
Cyanobacteria																									
Anabaena sp.	102	0.008	-	-	-	-	-	-	-	-	-	6,931	0.520	4,554	0.342	-	-	-	-	10,788	0.809	11,314	0.849	-	-
Chroococcus sp.	-	-	-	-	729	0.091	-	-	-	-	-	6,065	0.758	7,286	0.911	2,764	0.345	10,341	1.293	2,312	0.289	1,886	0.236	4,828	0.603
Coccoid Cyanobacteria	51	0.000	410	0.002	109,286	0.546	282,408	1.412	25,308	0.127	56,317	0.282	255,000	1.275	-	-	267,143	1.336	146,415	0.732	136,714	0.684	289,673	1.448	
Filamentous Cyanobacteria	5	0.001	19	0.002	1,457	0.146	3,816	0.382	7,592	0.759	14,729	1.473	5,464	0.546	4,606	0.461	3,447	0.345	3,082	0.308	17,914	1.791	4,828	0.483	
Gloetrichia sp.	-	-	-	-	-	-	2,290	114.490	1,687	84.361	3,032	151.622	-	-	-	-	-	-	1,541	77.060	943	47.143	2,897	144.836	
Limnothrix sp.	407	0.004	-	-	-	-	-	-	-	-	-	-	-	19,125	0.191	23,951	0.240	-	-	-	-	-	-	-	
Merismopedia sp.	-	-	-	-	-	-	-	-	40,493	0.810	-	-	-	-	-	-	258,525	5.171	-	-	22,629	0.453	-	-	
Nostoc sp.	-	-	-	-	-	-	-	-	-	-	22,527	0.338	31,875	0.478	-	-	-	-	61,648	0.925	-	-	-	-	
Cyanobacteria subtotal	564	0.012	429	0.004	111,471	0.783	288,514	116.283	75,081	86.057	109,601	154.992	323,304	3.743	31,320	1.046	539,456	8.144	225,787	80.124	191,400	51.155	302,225	147.371	
Chlorophyceae (Coccoid Greens, Desmids, etc.)																									
Acanthosphaera sp.	-	-	24	0.002	4,371	0.302	3,053	0.211	844	0.058	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ankistrodesmus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bulbochaete sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,541	7.706	-	-	13,518	67.590	
Closterium sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	943	0.943	-	-	
Coccoid Chlorophyceae	36	0.003	1,380	0.103	205,457	15.409	457,959	34.347	302,012	22.651	398,115	29.859	546,429	40.982	819,852	61.489	1,085,806	81.435	452,345	33.926	843,857	63.289	1,409,742	105.731	
Coelastrum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cosmarium botrytis	-	-	-	-	-	-	-	-	844	0.844	-	-	911	0.911	-	-	1,724	1.724	-	-	1,886	1.886	-	-	
Cosmarium sp.	-	-	-	-	-	-	-	-	-	-	433	0.130	2,732	0.820	-	-	6,894	2.068	-	-	1,886	0.566	-	-	
Crucigenia irregularis	-	-	-	-	-	-	-	-	-	-	-	-	29,143	1.166	-	-	-	-	-	-	-	-	-	-	
Crucigenia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Elakatothrix sp. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Euastrum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,842	1.474	862	0.689	-	-	-	-	-	-	
Filamentous Chlorophyceae (medium)	15	0.005	10	0.003	729	0.219	2,290	0.687	7,592	2.278	5,198	1.560	6,375	1.913	6,448	1.934	2,585	0.776	6,165	1.849	8,486	2.546	3,862	1.159	
Filamentous Chlorophyceae (small)	20	0.003	5	0.001	3,643	0.546	3,053	0.458	15,185	2.278	21,227	3.184	14,571	2.186	15,660	2.349	3,447	0.517	10,018	1.503	23,571	3.536	11,587	1.738	
Geminella sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,369	18.424	-	-	12,330	30.824	5,657	14.143	12,552	31.381	
Monoraphidium sp.	-	-	-	-	729	0.109	-	-	-	-	-	-	911	0.137	1,842	0.276	-	-	771	0.116	943	0.141	-	-	
Mougeotia sp.	-	-	-	-	-	-	-	-	-	-	1,300	5.198	4,554	18.214	12,897	51.586	-	-	8,477	33.907	1,886	7.543	6,759	27.036	
Oocystis sp.	-	-	-	-	-	-	-	-	3,374	0.506	2,599	0.390	-	-	-	-	10,341	1.551	-	-	9,429	1.414	-	-	
Pediastrum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,541	1.541	-	-	-	-	
Scenedesmus sp.	-	-	-	-	729	0.073	-	-	-	-	-	-	-	-	-	-	2,585	0.259	2,312	0.231	2,829	0.283	966	0.097	
Sphaerocystis sp.	-	-	-	-	-	-	-	-	-	-	5,632	1.971	-	-	-	-	-	-	771	0.270	-	-	2,897	1.014	
Spirogyra sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Spondylosium sp.	-	-	-	-	-	-	-	-	-	-	-	-	4,554	1.138	-	-	-	-	-	-	-	-	-	-	
Staurastrum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	862	0.862	-	-	-	-	-	-	
Stichococcus minutissimus	-	-	-	-	-	-	61,061	0.427	25,308	0.177	30,324	0.212	100,179	0.701	-	-	353,318	2.473	-	-	-	-	-	-	
Stigonema sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tetraedron sp.	-	-	-	-	-	-	-	-	-	-	-	-	911	0.182	-	-	-	-	-	-	-	-	-	-	
Ulothrix sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,369	0.737	12,926	1.293	40,071	4.007	2,829	0.283	-	-	
Zygnema sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,606	18.424	57,737	230.949	-	-	-	-	-	-	
Chlorophyceae subtotal	71	0.010	1,418	0.109	215,657	16.658	527,416	36.130	355,159	28.792	464,829	42.504	711,268	68.349	877,887	156.693	1,539,088	324.596	536,341	115.880	904,200	96.572	1,461,883	235.746	
Chrysophyceae & Cryptophyceae (Flagellates)																									
Kephyrion sp.	-	-	5	0.000	-	-	-	-	-	-	-	-	911	0.046	-	-	-	-	-	-	-	-	-	-	
Trachelomonas sp.	-	-	14	0.002	-	-	-	-	-	-	-	-	911	0.137	-	-	-	-	-	-	-	-	-	-	
Chrysophyceae & Cryptophyceae subtotal	-	-	19	0.002	-	-	-	-	-	-	-	-	1,821	0.182	-	-	-	-	-	-	-	-	-	-	
Dinophyceae (Dinoflagellates)																									
Gymnodinium sp. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,842	0.921	862	0.431	771	0.385	943	0.471	-	-	
Peridinium spp.	-	-	5	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dinophyceae subtotal	-	-	5	0.002	-	-	-	-	-	-	-	-	-	-	1,842	0.921	862	0	771	0.385	943	0	-	-	

Table X.VII-7
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2008

Taxa	Lower Lake Sub-Basin																							
	Knee/Lunch Stream						Lunch/Andrew Stream						Andrew/Shack Stream						Shack/Lower Stream					
	KNLUS-PE002-F08						LUANS-PE002-F08						ANSHS-PE002-F08						SHLWS-PE002-F08					
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C	
	28-Aug-08						28-Aug-08						28-Aug-08						29-Aug-08					
	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)
Diatoms																								
<i>Achnanthidium exiguum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthidium minutissimum</i>	33	0.002	33	0.002	4,418	0.221	1,039	0.052	4,827	0.241	7,257	0.363	1,717,680	85.884	187,864	9.393	20,020	1.001	1,203,748	60.187	1,091,626	54.581	939,232	46.962
<i>Achnanthidium</i> sp.	-	-	-	-	687	0.055	130	0.010	443	0.035	382	0.031	138,620	11.090	15,371	1.230	2,591	0.207	133,046	10.644	100,066	8.005	85,756	6.860
<i>Achnanthidium pusilla</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Amphora ovalis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Amphora</i> sp.	-	-	-	-	393	0.069	65	0.011	99	0.017	76	0.013	6,027	1.055	2,562	0.448	1,178	0.206	12,671	2.217	4,548	0.796	20,418	3.573
<i>Anomoeneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,251	1.531
<i>Anomoeneis vitrea</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Asterionella ralfsii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aulicoseira distans</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Caloneis undosa</i>	-	-	-	-	-	-	-	-	-	-	306	0.076	-	-	-	-	-	-	-	-	-	-	-	-
<i>Caloneis ventricosa</i>	-	-	-	-	-	-	-	-	-	-	306	0.053	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cocconeis fluviatilis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cocconeis placentula</i>	-	-	-	-	196	0.022	32	0.004	-	-	76	0.008	-	-	854	0.094	-	-	-	-	-	-	-	-
<i>Cyclotella comta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	854	0.299	-	-	-	-	-	-	-	-
<i>Cyclotella glomerata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,708	0.085	-	-	-	-	-	-	-	-
<i>Cyclotella perglabra</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella radiosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> sp. (small)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella stelligera</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella cuspidata</i>	-	-	-	-	98	0.059	-	-	-	-	-	-	-	-	-	-	471	0.283	-	-	-	-	-	-
<i>Cymbella lunata</i>	-	-	-	-	98	0.039	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella</i> sp.	-	-	-	-	-	-	32	0.008	49	0.012	-	-	-	-	1,708	0.427	-	-	6,336	1.584	-	-	8,167	2.042
<i>Cymbella</i> sp. (large)	-	-	-	-	98	0.049	32	0.016	-	-	-	-	-	-	-	-	-	-	6,336	3.168	-	-	12,251	6.125
<i>Cymbella</i> sp. (small)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Denticula</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	471	0.047	-	-	-	-	-	-
<i>Diatoma tenue</i> v. <i>elongatum</i>	-	-	-	-	-	-	-	-	49	0.006	-	-	-	-	-	-	-	-	6,336	0.824	-	-	-	-
<i>Diatoma vulgare</i>	-	-	-	-	196	0.030	32	0.005	-	-	-	-	-	-	-	-	-	-	6,336	0.982	-	-	-	-
<i>Diploneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Encocconeis flexella</i>	-	-	33	0.011	491	0.172	97	0.034	99	0.034	458	0.160	18,081	6.328	1,708	0.598	1,884	0.659	-	-	9,097	3.184	4,084	1.429
<i>Eunotia bigibba</i>	-	-	-	-	-	-	-	-	49	0.022	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia maior</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia</i> sp. (large)	33	0.013	33	0.012	295	0.110	195	0.073	246	0.092	458	0.172	18,081	6.780	11,955	4.483	2,120	0.795	57,020	21.382	27,291	10.234	53,087	19.908
<i>Eunotia</i> sp. (small)	33	0.008	-	-	491	0.110	195	0.044	148	0.033	458	0.103	36,162	8.136	11,101	2.498	1,413	0.318	88,697	19.957	18,194	4.094	40,836	9.188
<i>Fragilaria acus</i>	-	-	-	-	-	-	-	-	49	0.005	-	-	6,027	0.603	1,708	0.171	471	0.047	-	-	-	-	8,167	0.817
<i>Fragilaria capucina</i>	-	-	-	-	98	0.010	-	-	99	0.010	76	0.008	-	-	2,562	0.256	1,884	0.188	-	-	9,097	0.910	40,836	4.084
<i>Fragilaria construens</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria crotonensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria intermedia</i>	-	-	-	-	-	-	97	0.008	296	0.025	-	-	12,054	1.025	11,101	0.944	2,826	0.240	-	-	27,291	2.320	57,171	4.860
<i>Fragilaria ulna</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,084	4.084
<i>Fragilaria vaucheriae</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Frustulia rhomboides</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Frustulia</i> sp. (large)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Frustulia</i> sp. (small)	-	-	-	-	-	-	-	-	-	-	153	0.076	-	-	854	0.427	-	-	12,671	6.336	-	-	-	-
<i>Gomphonema</i> sp. (large)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema</i> sp. (small)	-	-	-	-	-	-	-	-	148	0.037	76	0.019	-	-	1,708	0.427	-	-	6,336	1.584	4,548	1.137	-	-
<i>Hannea arcus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table X.VII-7

Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2008

Taxa	Lower Lake Sub-Basin																							
	Knee/Lunch Stream						Lunch/Andrew Stream						Andrew/Shack Stream						Shack/Lower Stream					
	KNLUS-PE002-F08						LUANS-PE002-F08						ANSHS-PE002-F08						SHLWS-PE002-F08					
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C	
	28-Aug-08						28-Aug-08						28-Aug-08						29-Aug-08					
	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)
<i>Meridion circulare</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula pupula</i>	-	-	-	-	393	0.059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula</i> sp. (large)	-	-	-	-	-	-	-	-	296	0.251	458	0.390	6,027	5.123	1,708	1.452	1,884	1.602	31,678	26.926	18,194	15.465	32,669	27.769
<i>Navicula</i> sp. (small)	67	0.033	65	0.033	2,749	1.375	877	0.438	1,625	0.813	2,750	1.375	156,701	78.350	35,865	17.932	15,781	7.890	171,059	85.529	109,163	54.581	102,090	51.045
<i>Neidium affine</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Neidium hitchcockii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Neidium iridis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Neidium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	854	0.213	471	0.118	-	-	-	-	24,502	6.125
<i>Nitzschia</i> sp. (large)	-	-	-	-	196	0.079	32	0.013	49	0.020	153	0.061	12,054	4.822	5,124	2.049	471	0.188	31,678	12.671	31,839	12.736	4,084	1.633
<i>Nitzschia</i> sp. (small)	-	-	65	0.013	1,669	0.334	682	0.136	1,281	0.256	3,132	0.626	192,862	38.572	22,202	4.440	13,425	2.685	190,066	38.013	141,002	28.200	269,519	53.904
<i>Peronia herbaudi</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pinnularia</i> sp.	33	0.067	33	0.065	393	0.786	357	0.714	542	1.084	1,451	2.903	18,081	36.162	5,124	10.247	1,649	3.297	19,007	38.013	27,291	54.581	49,003	98.007
<i>Rhopalodia gibba</i>	-	-	-	-	-	-	32	0.039	-	-	-	-	-	-	-	-	-	-	6,336	7.603	-	-	-	-
<i>Stauroneis anceps</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stauroneis kreigeri</i>	-	-	-	-	-	-	-	-	-	-	153	0.046	-	-	854	0.256	-	-	-	-	-	-	4,084	1.225
<i>Stauroneis livingstonii</i>	-	-	-	-	196	0.079	162	0.065	-	-	-	-	-	-	2,562	1.025	-	-	-	-	-	-	12,251	4.900
<i>Stauroneis phoenicenteron</i>	-	-	-	-	-	-	97	0.083	99	0.084	153	0.130	6,027	5.123	-	-	471	0.400	-	-	-	-	4,084	3.471
<i>Staurosira ansata</i>	-	-	-	-	98	0.034	-	-	49	0.017	229	0.080	-	-	5,977	2.092	-	-	12,671	4.435	9,097	3.184	8,167	2.859
<i>Staurosira construens</i>	-	-	-	-	-	-	-	-	246	0.030	2,903	0.348	66,296	7.956	12,809	1.537	942	0.113	31,678	3.801	95,517	11.462	171,512	20.581
<i>Staurosirella leptostauron</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Staurosirella pinnatta</i>	-	-	-	-	-	-	32	0.002	345	0.017	1,375	0.069	12,054	0.603	10,247	0.512	1,178	0.059	76,026	3.801	63,678	3.184	12,251	0.613
<i>Suriella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria fenestrata</i>	-	-	-	-	-	-	-	-	49	0.025	76	0.038	6,027	3.013	5,977	2.989	1,649	0.824	-	-	9,097	4.548	8,167	4.084
<i>Tabellaria flocculosa</i>	33	0.017	65	0.033	-	-	1,072	0.536	1,478	0.739	764	0.382	265,186	132.593	20,494	10.247	34,858	17.429	63,355	31.678	40,936	20.468	28,585	14.293
<i>Diatoms subtotal</i>	234	0.139	327	0.169	13,255	3.691	5,294	2.293	12,659	3.906	23,680	7.531	2,694,046	433.217	383,413	76.772	108,108	38.599	2,173,082	381.335	1,837,570	293.670	2,017,307	401.971
Total	870	0.162	2,199	0.286	340,384	21.132	821,224	154.706	442,899	118.755	598,109	205.027	3,730,439	505.491	1,294,463	235.432	2,187,514	371.769	2,935,981	577.723	2,934,113	441.868	3,781,416	785.088

Table X.VII-7
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2008

Taxa	Lower Lake Sub-Basin						Caribou Lake Sub-Basin											
	Lower/Judge Sissons Stream						Ridge/Crash Stream						Cirque/Crash Stream					
	LWJSS-PE002-F08						RDCRS-PE002-F08						CQCRS-PE002-F08					
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C	
	29-Aug-08						31-Aug-08						31-Aug-08					
	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)
Cyanobacteria																		
Anabaena sp.	3,468	0.260	-	-	5,820	0.437	-	-	-	-	-	-	-	-	-	-	-	-
Chroococcus sp.	-	-	6,286	0.786	-	-	4,110	0.514	2,558	0.320	17,457	2.182	3	0.000	-	-	1,652	0.207
Coccoid Cyanobacteria	109,426	0.547	919,286	4.596	26,864	0.134	38,530	0.193	29,840	0.149	206,308	1.032	557	0.003	30,161	0.151	15,285	0.076
Filamentous Cyanobacteria	5,780	0.578	3,143	0.314	5,820	0.582	3,082	0.308	6,394	0.639	4,761	0.476	16	0.002	2,585	0.259	4,131	0.413
Gloetrichia sp.	2,312	115.591	6,286	314.286	895	44.773	2,055	102.747	426	21.315	1,587	79.349	3	0.164	862	43.088	413	20.655
Limnothrix sp.	-	-	-	-	-	-	-	-	5,116	0.051	-	-	23	0.000	14,219	0.142	19,003	0.190
Merismopedia sp.	21,577	0.432	-	-	7,164	0.143	-	-	-	-	-	-	-	-	-	-	-	-
Nostoc sp.	-	-	157,143	2.357	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanobacteria subtotal	142,562	117.407	1,092,143	322.339	46,563	46	47,777	104	44,334	22	230,113	83	603	0	47,827	44	40,485	22
Chlorophyceae (Coccoid Greens, Desmids, etc.)																		
Acanthosphaera sp.	-	-	-	-	-	-	3,596	0.248	-	-	793	0.055	-	-	-	-	-	-
Ankistrodesmus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bulbochaete sp.	4,624	23.118	61,286	306.429	12,536	62.682	-	-	-	-	-	-	154	0.770	8,618	43.088	-	-
Closterium sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coccoid Chlorophyceae	248,520	18.639	2,137,143	160.286	149,988	11.249	320,058	24.004	175,632	13.172	427,693	32.077	2,076	0.156	80,574	6.043	84,274	6.321
Coelastrum sp.	15,412	0.616	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cosmarium botrytis	-	-	3,143	3.143	1,343	1.343	-	-	426	0.426	793	0.793	-	-	431	0.431	-	-
Cosmarium sp.	1,156	0.347	1,571	0.471	2,686	0.806	514	0.154	426	0.128	1,587	0.476	-	-	-	-	413	0.124
Crucigenia irregularis	12,330	0.493	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crucigenia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Elakatothrix sp. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Euastrum sp.	1,156	0.925	6,286	5.029	-	-	-	-	-	-	793	0.635	-	-	-	-	-	-
Filamentous Chlorophyceae (medium)	1,156	0.347	1,571	0.471	3,582	1.075	5,651	1.695	4,263	1.279	3,967	1.190	23	0.007	2,154	0.646	2,479	0.744
Filamentous Chlorophyceae (small)	5,394	0.809	9,429	1.414	4,925	0.739	15,412	2.312	11,936	1.790	7,141	1.071	46	0.007	4,740	0.711	8,675	1.301
Geminella sp.	17,724	44.310	9,429	23.571	4,030	10.074	-	-	-	-	-	-	-	-	-	-	-	-
Monoraphidium sp.	771	0.116	1,571	0.236	1,791	0.269	-	-	-	-	793	0.119	3	0.000	-	-	-	-
Mougeotia sp.	14,641	58.566	11,000	44.000	14,775	59.100	-	-	-	-	-	-	-	-	-	-	-	-
Oocystis sp.	3,468	0.520	6,286	0.943	4,030	0.604	2,055	0.308	3,410	0.512	3,174	0.476	-	-	431	0.065	826	0.124
Pediastrum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scenedesmus sp.	385	0.039	3,143	0.314	1,343	0.134	514	0.051	-	-	-	-	3	0.000	431	0.043	413	0.041
Sphaerocystis sp.	771	0.270	6,286	2.200	895	0.313	1,541	0.539	5,116	1.790	-	-	20	0.007	862	0.302	1,652	0.578
Spirogyra sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spondylosium sp.	771	0.193	-	-	1,343	0.336	-	-	-	-	-	-	-	-	-	-	-	-
Staurastrum sp.	385	0.385	3,143	3.143	1,343	1.343	-	-	-	-	-	-	-	-	-	-	-	-
Stichococcus minutissimus	57,795	0.405	-	-	-	-	-	-	12,789	0.090	47,610	0.333	-	-	-	-	-	-
Stigonema sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetraedron sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ulothrix sp.	18,880	1.888	-	-	6,268	0.627	16,440	1.644	-	-	-	-	-	-	-	-	1,652	0.165
Zygnema sp.	-	-	9,429	37.714	12,984	51.936	-	-	-	-	-	-	-	-	-	-	-	-
Chlorophyceae subtotal	405,338	151.984	2,270,714	589.364	223,863	202.629	365,780	30.957	213,998	19.187	494,347	37.226	2,325	0.947	98,240	51.328	100,385	9.398
Chrysophyceae & Cryptophyceae (Flagellates)																		
Kephyrion sp.	-	-	-	-	-	-	-	-	-	-	-	-	3	0.000	-	-	-	-
Trachelomonas sp.	385	0.058	-	-	-	-	-	-	-	-	-	-	-	-	862	0.129	-	-
Chrysophyceae & Cryptophyceae subtotal	385	0.058	-	-	-	-	-	-	-	-	-	-	3	0	862	0	-	-
Dinophyceae (Dinoflagellates)																		
Gymnodinium sp. 1	385	0.193	-	-	448	0.224	-	-	853	0.426	-	-	-	-	-	-	-	-
Peridinium spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dinophyceae subtotal	385	0	-	-	448	0	-	-	853	0	-	-	-	-	-	-	-	-

Table X.VII-7
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2008

Taxa	Lower Lake Sub-Basin						Caribou Lake Sub-Basin											
	Lower/Judge Sissons Stream						Ridge/Crash Stream						Cirque/Crash Stream					
	LWJSS-PE002-F08						RDCRS-PE002-F08						CQCRS-PE002-F08					
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C	
	29-Aug-08						31-Aug-08						31-Aug-08					
	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)
Diatoms																		
<i>Achnanthyidum exiguum</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthyidum minutissimum</i>	286,301	14.315	2,225,900	111.295	1,585,915	79.296	19,682	0.984	11,466	0.573	43,053	2.153	818	0.041	2,686	0.134	1,699	0.085
<i>Achnanthyidum</i> sp.	6,269	0.502	125,207	10.017	112,336	8.987	895	0.072	1,048	0.084	3,690	0.295	136	0.011	117	0.009	151	0.012
<i>Achnathidium pusilla</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Amphora ovalis</i>	4,180	0.627	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Amphora</i> sp.	-	-	55,648	9.738	6,608	1.156	537	0.094	262	0.046	1,230	0.215	-	-	117	0.020	38	0.007
<i>Anomoeneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Anomoeneis vitrea</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Asterionella ralfsii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	0.018
<i>Aulicoseira distans</i>	-	-	-	-	-	-	358	0.125	66	0.023	-	-	-	-	-	-	-	-
<i>Caloneis undosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Caloneis ventricosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cocconeis fluviatilus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cocconeis placentula</i>	-	-	13,912	1.530	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella comta</i>	-	-	-	-	-	-	716	0.250	262	0.092	-	-	-	-	-	-	-	-
<i>Cyclotella glomerata</i>	-	-	-	-	-	-	716	0.036	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella perglabra</i>	-	-	-	-	-	-	179	0.013	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella radiosa</i>	-	-	-	-	-	-	-	-	-	-	1,845	0.157	-	-	-	-	-	-
<i>Cyclotella</i> sp. (small)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella stelligera</i>	-	-	-	-	-	-	179	0.027	-	-	-	-	-	-	-	-	-	-
<i>Cymbella cuspidata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	0.023
<i>Cymbella lunata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella</i> sp.	-	-	-	-	-	-	-	-	131	0.033	-	-	-	-	-	-	-	-
<i>Cymbella</i> sp. (large)	-	-	13,912	6.956	6,608	3.304	-	-	66	0.033	-	-	-	-	-	-	-	-
<i>Cymbella</i> sp. (small)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Denticula</i> sp.	-	-	-	-	-	-	-	-	786	0.079	1,230	0.123	-	-	-	-	-	-
<i>Diatoma tenue</i> v. <i>elongatum</i>	6,269	0.815	83,471	10.851	26,432	3.436	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diatoma vulgare</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diploneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Encocconeis flexella</i>	-	-	27,824	9.738	13,216	4.626	-	-	-	-	-	-	-	-	-	-	76	0.026
<i>Eunotia bigibba</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia maior</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia</i> sp. (large)	2,090	0.784	69,559	26.085	19,824	7.434	358	0.134	655	0.246	1,230	0.461	-	-	701	0.263	340	0.127
<i>Eunotia</i> sp. (small)	4,180	0.940	41,736	9.391	26,432	5.947	1,074	0.242	917	0.206	4,305	0.969	-	-	1,284	0.289	944	0.212
<i>Fragilaria acus</i>	2,090	0.209	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria capucina</i>	2,090	0.209	41,736	4.174	33,040	3.304	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria construens</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria crotonensis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria intermedia</i>	-	-	69,559	5.913	19,824	1.685	1,431	0.122	393	0.033	-	-	-	-	2,102	0.179	-	-
<i>Fragilaria ulna</i>	-	-	-	-	-	-	-	-	197	0.197	1,230	1.230	-	-	-	-	-	-
<i>Fragilaria vaucheriae</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Frustulia rhomboides</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	467	0.222	-	-
<i>Frustulia</i> sp. (large)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Frustulia</i> sp. (small)	-	-	55,648	27.824	-	-	537	0.268	131	0.066	1,845	0.923	-	-	-	-	113	0.057
<i>Gomphonema</i> sp. (large)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema</i> sp. (small)	-	-	13,912	3.478	6,608	1.652	-	-	-	-	-	-	-	-	-	-	-	-
<i>Hannea arcus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table X.VII-7
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2008

Taxa	Lower Lake Sub-Basin						Caribou Lake Sub-Basin											
	Lower/Judge Sissons Stream						Ridge/Crash Stream						Cirque/Crash Stream					
	LWJSS-PE002-F08						RDCRS-PE002-F08						CQCRS-PE002-F08					
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C	
	29-Aug-08						31-Aug-08						31-Aug-08					
	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)
<i>Meridion circulare</i>	-	-	-	-	-	-	-	-	66	0.008	-	-	-	-	-	-	-	-
<i>Navicula pupula</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula</i> sp. (large)	12,539	10.658	83,471	70.951	19,824	16.850	-	-	197	0.167	1,230	1.046	-	-	-	-	151	0.128
<i>Navicula</i> sp. (small)	60,604	30.302	445,180	222.590	151,983	75.992	1,968	0.984	1,245	0.622	7,381	3.690	182	0.091	2,102	1.051	1,019	0.510
<i>Neidium affine</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Neidium hitchcockii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Neidium iridis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Neidium</i> sp.	-	-	-	-	-	-	-	-	-	-	1,230	0.308	-	-	-	-	76	0.019
<i>Nitzschia</i> sp. (large)	4,180	1.672	55,648	22.259	6,608	2.643	179	0.072	-	-	-	-	-	-	-	-	-	-
<i>Nitzschia</i> sp. (small)	48,065	9.613	264,326	52.865	171,807	34.361	6,262	1.252	5,045	1.009	41,823	8.365	363	0.073	3,736	0.747	1,435	0.287
<i>Peronia herbaudi</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	234	0.029	-
<i>Pinnularia</i> sp.	6,269	12.539	97,383	194.766	19,824	39.648	537	1.074	393	0.786	615	1.230	-	-	-	-	189	0.378
<i>Rhopalodia gibba</i>	-	-	-	-	6,608	7.930	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stauroneis anceps</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stauroneis kreigeri</i>	-	-	-	-	-	-	-	-	-	-	-	-	45	0.014	-	-	-	-
<i>Stauroneis livingstonii</i>	2,090	0.836	41,736	16.694	-	-	-	-	-	-	-	-	-	-	-	-	38	0.015
<i>Stauroneis phoenicenteron</i>	2,090	1.776	-	-	-	-	179	0.152	131	0.111	615	0.523	91	0.077	-	-	38	0.032
<i>Staurosira ansata</i>	8,359	2.926	-	-	19,824	6.938	895	0.313	-	-	615	0.215	-	-	350	0.123	38	0.013
<i>Staurosira construens</i>	6,269	0.752	222,590	26.711	92,512	11.101	7,873	0.945	590	0.071	2,460	0.295	-	-	1,751	0.210	453	0.054
<i>Staurosirella leptostauron</i>	2,090	0.313	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Staurosirella pinnatta</i>	14,629	0.731	111,295	5.565	39,648	1.982	5,368	0.268	983	0.049	4,305	0.215	-	-	-	-	-	-
<i>Suriella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Tabellaria fenestrata</i>	2,090	1.045	-	-	6,608	3.304	895	0.447	721	0.360	4,920	2.460	-	-	-	-	-	-
<i>Tabellaria flocculosa</i>	31,347	15.673	695,594	347.797	132,160	66.080	3,579	1.789	655	0.328	4,305	2.153	863	0.432	8,874	4.437	793	0.396
<i>Diatoms subtotal</i>	514,087	107.237	4,855,245	1197.187	2,524,247	387.657	54,394	9.664	26,404	5.221	129,160	27.025	2,499	0.738	24,520	7.713	7,778	2.400
Total	1,062,758	376.880	8,218,102	2,108.890	2,795,121	636.579	467,951	144.382	285,589	47.309	853,620	147.290	5,429	1.853	171,448	102.810	148,648	33.340

Table X.VII-7
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2008

Taxa	Caribou Lake Sub-Basin																							
	Crash/Fox Stream						Fox/Caribou Stream						Caribou/Calf Stream						Calf/Judge Sissons Stream					
	CRFXS-PE002-F08						FXCBS-PE002-F08						CBCFS-PE002-F08						CFJSS-PE002-F08					
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C	
	31-Aug-08						31-Aug-08						31-Aug-08						31-Aug-08					
	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)
Cyanobacteria																								
Anabaena sp.	14,365	1.077	9,590	0.719	12,393	0.929	-	-	1,390	0.104	38	0.003	-	-	-	-	-	-	7,204	0.540	-	-	22,540	1.691
Chroococcus sp.	-	-	2,055	0.257	4,131	0.516	-	-	1,390	0.174	-	-	-	-	-	-	966	0.121	4,052	0.507	1,945	0.243	4,174	0.522
Coccoid Cyanobacteria	37,803	0.189	315,092	1.575	87,579	0.438	863	0.004	46,325	0.232	-	-	24,786	0.124	226	0.001	76,763	0.384	63,034	0.315	97,261	0.486	116,875	0.584
Filamentous Cyanobacteria	6,805	0.680	6,850	0.685	9,915	0.991	5	0.001	2,780	0.278	57	0.006	7,436	0.744	11	0.001	-	-	4,052	0.405	3,890	0.389	10,853	1.085
Gloetrichia sp.	3,024	151.213	2,740	136.996	4,131	206.554	5	0.270	1,390	69.488	19	0.955	-	-	-	-	-	-	-	-	1,167	58.356	-	-
Limnothrix sp.	61,997	0.620	-	-	11,567	0.116	-	-	16,214	0.162	-	-	24,786	0.248	-	-	-	-	-	-	-	-	-	-
Merismopedia sp.	33,267	0.665	10,960	0.219	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29,716	0.594	-	-	-	-
Nostoc sp.	90,728	1.361	-	-	24,786	0.372	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cyanobacteria subtotal	247,989	156	347,286	140.452	154,502	209.916	874	0	69,488	70.438	115	0.963	57,009	1.115	238	0	77,729	0.505	108,058	2.362	104,264	59.475	154,442	3.882
Chlorophyceae (Coccoid Greens, Desmids, etc.)																								
Acanthosphaera sp.	-	-	2,740	0.189	-	-	81	0.006	-	-	-	-	-	-	11	0.001	-	-	-	-	1,556	0.107	835	0.058
Ankistrodesmus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	389	0.031	-	-
Bulbochaete sp.	-	-	9,590	47.949	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,501	17.507	-	-
Closterium sp.	-	-	685	0.685	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	389	0.389	-	-
Coccoid Chlorophyceae	787,819	59.086	500,037	37.503	615,530	46.165	1,619	0.121	252,936	18.970	741	0.056	338,748	25.406	1,613	0.121	335,538	25.165	275,097	20.632	293,727	22.030	797,254	59.794
Coelastrum sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cosmarium botrytis	-	-	2,055	2.055	826	0.826	-	-	-	-	-	-	-	-	-	-	-	-	450	0.450	778	0.778	1,670	1.670
Cosmarium sp.	2,268	0.680	3,425	1.027	1,652	0.496	-	-	-	-	4	0.001	-	-	6	0.002	483	0.145	3,602	1.081	1,945	0.584	3,339	1.002
Crucigenia irregularis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crucigenia sp.	-	-	-	-	6,610	1.322	-	-	-	-	-	-	6,610	1.322	-	-	-	-	-	-	-	-	-	-
Elakatothrix sp. 3	-	-	-	-	1,652	0.413	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Euastrum sp.	2,268	1.815	-	-	826	0.661	-	-	463	0.371	-	-	-	-	6	0.005	-	-	-	-	778	0.622	-	-
Filamentous Chlorophyceae (medium)	13,609	4.083	6,850	2.055	6,610	1.983	11	0.003	1,390	0.417	-	-	4,131	1.239	-	-	7,725	2.317	2,251	0.675	1,167	0.350	3,339	1.002
Filamentous Chlorophyceae (small)	6,049	0.907	18,495	2.774	19,829	2.974	11	0.002	5,559	0.834	57	0.009	29,744	4.462	28	0.004	19,794	2.969	12,157	1.823	9,337	1.401	15,862	2.379
Geminella sp.	10,585	26.462	-	-	4,957	12.393	-	-	-	-	-	-	5,784	14.459	153	0.382	-	-	-	-	-	-	-	-
Monoraphidium sp.	756	0.113	685	0.103	-	-	-	-	463	0.069	-	-	1,652	0.248	-	-	966	0.145	900	0.135	-	-	3,339	0.501
Mougeotia sp.	2,268	9.073	26,029	104.117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	900	3.602	-	-	4,174	16.696
Oocystis sp.	-	-	-	-	3,305	0.496	-	-	-	-	-	-	-	-	-	-	-	-	3,602	0.540	2,334	0.350	-	-
Pediastrum sp.	756	0.756	-	-	-	-	-	-	-	-	4	0.004	-	-	-	-	-	-	-	-	389	0.389	-	-
Scenedesmus sp.	1,512	0.151	1,370	0.137	4,131	0.413	-	-	-	-	4	0.000	-	-	-	-	-	-	2,701	0.270	-	-	1,670	0.167
Sphaerocystis sp.	-	-	2,055	0.719	1,652	0.578	11	0.004	2,316	0.811	8	0.003	-	-	-	-	-	-	2,701	0.946	-	-	-	-
Spirogyra sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spondylosium sp.	6,049	1.512	2,740	0.685	-	-	-	-	-	-	11	0.003	1,652	0.413	-	-	-	-	2,251	0.563	1,945	0.486	-	-
Staurastrum sp.	-	-	2,055	2.055	826	0.826	-	-	-	-	-	-	-	-	6	0.006	-	-	-	-	-	-	-	-
Stichococcus minutissimus	15,121	0.106	27,399	0.192	-	-	216	0.002	18,530	0.130	-	-	-	-	-	-	-	-	-	-	-	-	29,219	0.205
Stigonema sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetraedron sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,351	0.270	-	-	-	-
Ulothrix sp.	38,559	3.856	33,564	3.356	39,658	3.966	-	-	3,706	0.371	61	0.006	-	-	-	-	7,242	0.724	-	-	3,501	0.350	25,045	2.504
Zygnema sp.	-	-	4,110	16.440	-	-	49	0.194	-	-	8	0.031	32,222	128.890	2,116	8.465	29,450	117.800	-	-	-	-	-	-
Chlorophyceae subtotal	887,620	108.601	643,883	222.041	708,066	73.512	1,997	0.331	285,364	21.972	897	0.112	420,543	176.438	3,938	8.985	401,197	149.266	307,965	30.988	321,739	45.374	885,746	85.977
Chrysophyceae & Cryptophyceae (Flagellates)																								
Kephyrion sp.	-	-	685	0.034	826	0.041	-	-	-	-	-	-	-	-	-	-	966	0.048	-	-	-	-	-	-
Trachelomonas sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	389	0.058	-	-
Chrysophyceae & Cryptophyceae subtotal	-	-	685	0.034	826	0	-	-	-	-	-	-	-	-	-	-	966	0.048	-	-	389	0.058	-	-
Dinophyceae (Dinoflagellates)																								
Gymnodinium sp. 1	756	0.378	685	0.342	2,479	1.239	-	-	463	0.232	-	-	-	-	-	-	483	0.241	900	0.450	389	0.195	-	-
Peridinium spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dinophyceae subtotal	756	0	685	0	2,479	1.239	-	-	463	0	-	-	-	-	-	-	483	0	900	0.450	389	0.195	-	-

Table X.VII-7
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2008

Taxa	Caribou Lake Sub-Basin																							
	Crash/Fox Stream						Fox/Caribou Stream						Caribou/Calf Stream						Calf/Judge Sissons Stream					
	CRFXS-PE002-F08						FXCBS-PE002-F08						CBCFS-PE002-F08						CFJSS-PE002-F08					
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C	
	31-Aug-08						31-Aug-08						31-Aug-08						31-Aug-08					
	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)	Density (cells/cm²)	Biomass (mg/cm²)
Diatoms																								
<i>Achnanthidium exiguum</i>	-	-	-	-	7,803	2.536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Achnanthidium minutissimum</i>	1,439,745	71.987	379,531	18.977	124,853	6.243	199	0.010	18,375	0.919	198	0.010	6,160	0.308	327	0.016	1,040	0.052	6,865	0.343	30,922	1.546	23,410	1.170
<i>Achnanthidium</i> sp.	-	-	11,329	0.906	11,705	0.936	37	0.003	967	0.077	-	-	350	0.028	14	0.001	156	0.012	624	0.050	1,767	0.141	2,830	0.226
<i>Achnathidium pusilla</i>	307,146	30.715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Amphora ovalis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Amphora</i> sp.	9,598	1.680	5,665	0.991	15,607	2.731	25	0.004	193	0.034	99	0.017	140	0.025	14	0.002	156	0.027	535	0.094	631	0.110	1,286	0.225
<i>Anomoeneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Anomoeneis vitrea</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Asterionella ralfsii</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Aulicoseira distans</i>	-	-	-	-	3,902	1.366	25	0.009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Caloneis undosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Caloneis ventricosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cocconeis fluviatilis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89	0.018	-	-	-	-
<i>Cocconeis placentula</i>	-	-	-	-	-	-	-	-	-	-	-	-	70	0.008	-	-	-	-	89	0.010	-	-	257	0.028
<i>Cyclotella comta</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella glomerata</i>	-	-	-	-	-	-	-	-	97	0.005	-	-	70	0.004	-	-	-	-	89	0.004	379	0.019	-	-
<i>Cyclotella perglabra</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella radiosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclotella</i> sp. (small)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	0.001	-	-	-	-	-	-	-	-
<i>Cyclotella stelligera</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella cuspidata</i>	-	-	2,832	1.699	-	-	-	-	-	-	-	-	-	-	-	-	-	-	267	0.160	-	-	515	0.309
<i>Cymbella lunata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cymbella</i> sp.	-	-	-	-	-	-	-	-	97	0.024	-	-	210	0.053	-	-	260	0.065	446	0.111	379	0.095	772	0.193
<i>Cymbella</i> sp. (large)	19,197	9.598	5,665	2.832	3,902	1.951	37	0.019	-	-	-	-	-	-	-	-	156	0.078	-	-	-	-	-	-
<i>Cymbella</i> sp. (small)	-	-	-	-	15,607	2.731	25	0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Denticula</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	535	0.053	-	-	257	0.026
<i>Diatoma tenue</i> v. <i>elongatum</i>	-	-	2,832	0.368	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	257	0.033
<i>Diatoma vulgare</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diploneis</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89	0.022	-	-	-	-
<i>Encocconeis flexella</i>	9,598	3.359	5,665	1.983	7,803	2.731	-	-	-	-	-	-	70	0.025	14	0.005	156	0.055	446	0.156	-	-	257	0.090
<i>Eunotia bigibba</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia maior</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eunotia</i> sp. (large)	38,393	14.397	14,162	5.311	35,115	13.168	12	0.005	2,901	1.088	148	0.056	140	0.053	14	0.005	52	0.020	535	0.201	-	-	1,801	0.675
<i>Eunotia</i> sp. (small)	76,786	17.277	19,826	4.461	19,508	4.389	74	0.017	3,868	0.870	297	0.067	630	0.142	14	0.003	104	0.023	802	0.181	505	0.114	1,801	0.405
<i>Fragilaria acus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	535	0.053	1,641	0.164	1,029	0.103
<i>Fragilaria capucina</i>	19,197	1.920	11,329	1.133	-	-	25	0.002	290	0.029	-	-	210	0.021	27	0.003	-	-	446	0.045	631	0.063	1,286	0.129
<i>Fragilaria construens</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Fragilaria crotonensis</i>	19,197	2.304	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89	0.011	-	-	515	0.062
<i>Fragilaria intermedia</i>	95,983	8.159	39,652	3.370	3,902	0.332	-	-	1,161	0.099	49	0.004	140	0.012	14	0.001	52	0.004	357	0.030	505	0.043	772	0.066
<i>Fragilaria ulna</i>	-	-	-	-	-	-	-	-	-	-	49	0.049	-	-	-	-	-	-	-	-	-	-	257	0.257
<i>Fragilaria vaucheriae</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Frustulia rhomboides</i>	-	-	-	-	-	-	25	0.012	-	-	-	-	-	-	14	0.006	-	-	-	-	-	-	-	-
<i>Frustulia</i> sp. (large)	9,598	7.199	-	-	3,902	2.926	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	257	0.193
<i>Frustulia</i> sp. (small)	-	-	2,832	1.416	-	-	-	-	193	0.097	-	-	70	0.035	-	-	-	-	89	0.045	-	-	-	-
<i>Gomphonema</i> sp. (large)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Gomphonema</i> sp. (small)	38,393	9.598	11,329	2.832	-	-	-	-	97	0.024	-	-	140	0.035	-	-	-	-	89	0.022	126	0.032	772	0.193
<i>Hannea arcus</i>	-	-	2,832	0.637	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table X.VII-7
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2008

Taxa	Caribou Lake Sub-Basin																							
	Crash/Fox Stream						Fox/Caribou Stream						Caribou/Calf Stream						Calf/Judge Sissons Stream					
	CRFXS-PE002-F08						FXCBS-PE002-F08						CBCFS-PE002-F08						CFJSS-PE002-F08					
	Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C		Rep A		Rep B		Rep C	
	31-Aug-08						31-Aug-08						31-Aug-08						31-Aug-08					
	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)
<i>Meridion circulare</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Navicula pupula</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	0.016	-	-	-	-	-	-
<i>Navicula</i> sp. (large)	57,590	48.951	2,832	2.407	-	-	12	0.011	193	0.164	-	-	-	-	-	-	-	-	89	0.076	252	0.215	1,029	0.875
<i>Navicula</i> sp. (small)	575,898	287.949	121,790	60.895	120,952	60.476	87	0.043	2,031	1.015	99	0.049	2,380	1.190	27	0.014	260	0.130	5,171	2.586	6,311	3.155	57,367	28.683
<i>Neidium affine</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Neidium hitchcockii</i>	-	-	-	-	-	-	-	-	-	-	-	-	70	0.025	-	-	-	-	-	-	-	-	-	-
<i>Neidium iridis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Neidium</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	70	0.018	14	0.003	-	-	892	0.223	-	-	515	0.129
<i>Nitzschia</i> sp. (large)	38,393	15.357	8,497	3.399	-	-	-	-	-	-	-	-	-	-	14	0.005	-	-	624	0.250	883	0.353	1,801	0.720
<i>Nitzschia</i> sp. (small)	268,752	53.750	73,640	14.728	113,148	22.630	223	0.045	3,965	0.793	346	0.069	3,850	0.770	136	0.027	312	0.062	6,687	1.337	3,534	0.707	15,178	3.036
<i>Peronia herbaudi</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Pinnularia</i> sp.	86,385	172.769	5,665	11.329	35,115	70.230	-	-	677	1.354	99	0.198	-	-	14	0.027	104	0.208	981	1.961	1,010	2.019	2,058	4.116
<i>Rhopalodia gibba</i>	-	-	-	-	-	-	-	-	97	0.116	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Stauroneis anceps</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	0.023	-	-	-	-	-	-
<i>Stauroneis kreigeri</i>	-	-	-	-	3,902	1.170	-	-	-	-	-	-	-	-	-	-	-	-	89	0.027	-	-	-	-
<i>Stauroneis livingstonii</i>	-	-	-	-	-	-	-	-	-	-	49	0.020	-	-	-	-	-	-	267	0.107	379	0.151	1,029	0.412
<i>Stauroneis phoenicenteron</i>	19,197	16.317	11,329	9.630	7,803	6.633	-	-	-	-	-	-	-	-	-	-	-	-	89	0.076	252	0.215	-	-
<i>Staurosira ansata</i>	19,197	6.719	22,659	7.930	11,705	4.097	12	0.004	-	-	-	-	70	0.025	-	-	104	0.036	89	0.031	126	0.044	257	0.090
<i>Staurosira construens</i>	67,188	8.063	45,317	5.438	15,607	1.873	25	0.003	2,128	0.255	148	0.018	420	0.050	41	0.005	208	0.025	535	0.064	1,010	0.121	1,029	0.123
<i>Staurosirella leptostauron</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	252	0.038	-	-
<i>Staurosirella pinnatta</i>	-	-	2,832	0.142	23,410	1.170	-	-	580	0.029	-	-	70	0.004	-	-	-	-	713	0.036	631	0.032	2,830	0.141
<i>Suriella</i> sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	257	0.129
<i>Tabellaria fenestrata</i>	-	-	-	-	3,902	1.951	12	0.006	97	0.048	-	-	-	-	-	-	-	-	178	0.089	-	-	772	0.386
<i>Tabellaria flocculosa</i>	307,146	153.573	107,628	53.814	124,853	62.427	186	0.093	870	0.435	346	0.173	2,030	1.015	68	0.034	520	0.260	7,757	3.878	5,048	2.524	8,489	4.245
<i>Diatoms subtotal</i>	3,522,575	941.641	917,672	216.630	714,005	274.697	1,042	0.290	38,878	7.477	1,928	0.730	17,360	3.841	790	0.160	3,797	1.098	37,178	12.350	57,174	11.901	130,940	47.468
Total	4,658,940	1,206.426	1,910,210	579.500	1,579,878	559.406	3,913	0.896	394,194	100.118	2,940	1.805	494,912	181.395	4,966	9.148	484,171	151.158	454,101	46.150	483,954	117.003	1,171,128	137.327

Notes: Station Codes are composed of the Stream Code-Event Code-Sample-Season-Year; Date is in Day-Month-Year format.
Rep A = Replicate sample A; Rep B = Replicate sample B; Rep C = Replicate sample C; sp. = species singular; spp. = species plural; Aug = August; Rep = replicate sample; cells/cm² = cells per square centimetre; mg/cm² = milligram per square centimetre; - = none.

Table X.VII-8
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2009

Taxa	Willow Lake Sub-Basin												Aniguq River Sub-Basin							
	Northeast Inflow of Pointer Lake				Rock/Willow Stream				Willow/Judge Sissons Stream				Aniguq River							
	NEPLS-PE002-F09				ROWIS-PE002-F09				WIJSS-PE002-F09				AQR-PE001-F09				AQR-PE002-F09			
	A		B		A		B		A		B		A		B		A		B	
	24-Aug-09				23-Aug-09				22-Aug-09				24-Aug-09							
	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)
Cyanophyta (Blue-greens)																				
Anabaena sp.	-	-	-	-	-	-	-	-	-	-	-	-	1,030	0.077	-	-	-	-	-	-
Chroococcus sp.	-	-	884	0.110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coelosphaeria sp.	235	0.176	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gloetrichia	1,173	58.633	884	44.187	186	9.295	462	23.098	224	11.209	224	11.209	618	30.901	-	-	-	-	-	-
Limnothrix redekei	18,763	0.469	16,570	0.414	-	-	-	-	-	-	-	-	824	0.021	1,547	0.039	-	-	-	-
Lyngbya sp. 2	3,753	0.019	5,523	0.028	930	0.005	279,946	1.400	-	-	3,139	0.016	4,326	0.022	17,454	0.087	5,768	0.029	11,200	0.056
Microcystis sp.	14,072	0.070	-	-	-	-	23,098	0.115	-	-	-	-	19,571	0.098	17,675	0.088	-	-	-	-
Planktothrix agardhii	-	-	-	-	5,577	0.139	32,337	0.808	-	-	-	-	13,597	0.340	-	-	-	-	-	-
Planktothrix limnetica	-	-	-	-	-	-	-	-	-	-	1,121	0.028	19,159	0.479	22,756	0.569	-	-	-	-
Planktothrix rubescens	-	-	-	-	930	0.023	27,717	0.693	-	-	-	-	-	-	-	-	-	-	-	-
Cyanophyta subtotal	37,994	59.367	23,861	44.739	7,622	9.463	363,560	26.114	224	11.209	4,484	11.253	59,124	31.937	59,432	0.783	5,768	0.029	11,200	0.056
Chlorophyceae (Coccoid Greens, Desmids etc.)																				
Botryococcus	-	-	-	-	-	-	-	-	-	-	-	-	36,051	0.361	-	-	-	-	-	-
Bulbochaete	-	-	-	-	186	0.372	2,772	5.543	-	-	-	-	-	-	4,198	8.396	-	-	-	-
Chlorococcum	1,379,047	172.381	815,253	101.907	1,165,652	145.706	157,527	19.691	2,246,332	280.791	2,441,372	305.172	1,137,162	142.145	1,451,548	181.443	2,416,470	302.059	2,212,018	276.502
Cladophora	-	-	221	1.767	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cosmarium sp.	704	0.211	-	-	186	0.056	1,386	0.416	-	-	-	-	206	0.062	221	0.066	206	0.062	-	-
Dichtyosphaerium	2,814	0.028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Euastrum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	206	0.165	-	-
Mougeotia (SM)	5,629	0.844	-	-	1,301	0.195	9,239	1.386	-	-	448	0.067	4,944	0.742	4,640	0.696	412	0.062	2,489	0.373
Mougeotiopsis	-	-	11,047	0.221	-	-	-	-	-	-	2,466	0.049	-	-	-	-	-	-	-	-
Oedogonium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	412	1.030	-	-
Oocystis sp.	-	-	-	-	-	-	-	-	-	-	-	-	412	0.062	884	0.133	-	-	-	-
Spirogyra	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,209	1.105	-	-	-	-
Spondylosium sp.	-	-	-	-	-	-	-	-	-	-	-	-	2,266	0.567	-	-	-	-	-	-
Staurastrum sp.	-	-	-	-	-	-	924	0.924	-	-	-	-	824	0.824	-	-	412	0.412	-	-
Ulothrix	1,642	0.164	-	-	2,975	0.297	11,087	1.109	-	-	-	-	7,004	0.700	1,326	0.133	3,296	0.330	1,867	0.187
Zygnema	-	-	-	-	1,301	0.651	-	-	-	-	1,345	0.673	1,442	0.721	4,640	2.320	-	-	-	-
Chlorophyceae subtotal	1,389,835	173.629	826,521	103.895	1,171,601	147.277	182,935	29.069	2,246,332	280.791	2,445,632	305.961	1,190,312	146.183	1,469,664	194.291	2,421,414	304.119	2,216,373	277.062
Chrysophyceae & Cryptophyceae (Flagellates)																				
Chrysococcus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	884	0.088	-	-	-	-
Chrysophyceae & Cryptophyceae subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	884	0.088	-	-	-	-
Dinophyceae (Dinoflagellates)																				
Gymnodinium sp1	-	-	-	-	-	-	-	-	-	-	-	-	206	0.103	-	-	-	-	-	-
Dinophyceae subtotal	-	-	-	-	-	-	-	-	-	-	-	-	206	0.103	-	-	-	-	-	-
Diatoms																				
Achnanthydium exiguum	-	-	-	-	-	-	-	-	-	-	-	-	78	0.025	-	-	-	-	-	-
Achnanthydium minutissimum	1,121	0.056	372	0.019	4,078	0.204	43,754	2.188	405	0.020	764	0.038	1,558	0.078	716	0.036	9,393	0.470	143	0.007
Amphora	-	-	-	-	60	0.010	365	0.064	-	-	-	-	234	0.041	168	0.029	357	0.062	-	-
Asterionella formosa	-	-	-	-	-	-	-	-	-	-	-	-	78	0.008	-	-	238	0.024	-	-
Aulacoseira italica	259	0.052	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclotella comta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	238	0.083	-	-
Cyclotella glomerata	86	0.004	-	-	420	0.021	912	0.046	101	0.005	109	0.005	78	0.004	-	-	476	0.024	48	0.002
Cyclotella stelligera	-	-	-	-	180	0.027	182	0.027	-	-	-	-	156	0.023	-	-	238	0.036	-	-
Cymbella sp.	-	-	-	-	60	0.015	365	0.091	-	-	-	-	312	0.097	42	0.011	238	0.059	-	-
Diatoma vulgare	-	-	-	-	-	-	-	-	-	-	-	-	78	0.012	-	-	-	-	96	0.015
Diploneis elliptica	-	-	-	-	-	-	365	0.091	-	-	-	-	-	-	-	-	-	-	-	-
Encocconeis flexella	172	0.060	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table X.VII-8
Periphyton Density and Biomass for Streams in the Kiggavik Project Area, 2009

Taxa	Willow Lake Sub-Basin												Aniguq River Sub-Basin							
	Northeast Inflow of Pointer Lake				Rock/Willow Stream				Willow/Judge Sissons Stream				Aniguq River							
	NEPLS-PE002-F09				ROWIS-PE002-F09				WIJSS-PE002-F09				AQR-PE001-F09				AQR-PE002-F09			
	A		B		A		B		A		B		A		B		A		B	
	24-Aug-09				23-Aug-09				22-Aug-09				24-Aug-09							
	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)	Density (cells/cm ²)	Biomass (mg/cm ²)
Eunotia sp.	3,104	0.905	-	-	360	0.090	7,657	2.106	-	-	-	-	78	0.018	-	-	238	0.071	48	0.011
Fragilaria acus	86	0.009	-	-	-	-	182	0.018	-	-	-	-	-	-	42	0.004	238	0.024	48	0.005
Fragilaria capucina	86	0.009	-	-	180	0.018	547	0.055	51	0.005	-	-	78	0.008	-	-	119	0.012	-	-
Fragilaria construens	345	0.028	-	-	420	0.034	2,552	0.204	-	-	-	-	312	0.025	-	-	594	0.048	-	-
Fragilaria intermedia	172	0.015	-	-	180	0.015	729	0.062	152	0.013	55	0.005	234	0.020	-	-	832	0.071	-	-
Fragilaria ulna	172	0.172	212	0.212	60	0.060	-	-	-	-	-	-	78	0.078	-	-	-	-	-	-
Frustulia sp.	345	0.172	-	-	-	-	-	-	-	-	55	0.041	78	0.058	-	-	238	0.149	-	-
Gomphonema sp. (Small)	-	-	-	-	-	-	729	0.182	-	-	-	-	-	-	-	-	-	-	-	-
Navicula sp.	1,293	0.677	159	0.080	480	0.261	3,282	1.641	203	0.119	218	0.109	390	0.222	84	0.042	1,189	0.636	48	0.024
Nitzschia sp.	345	0.069	-	-	180	0.036	1,094	0.219	-	-	-	-	390	0.125	84	0.017	1,189	0.333	-	-
Pinnularia sp.	-	-	-	-	-	-	182	0.365	-	-	55	0.109	-	-	-	-	238	0.476	48	0.096
Pleurosigma sp.	-	-	-	-	60	0.042	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rhoicosphenia curvata	-	-	-	-	-	-	182	0.027	-	-	-	-	-	-	-	-	-	-	-	-
Stauroneis kreigeri	-	-	-	-	60	0.018	-	-	-	-	55	0.016	-	-	-	-	119	0.036	-	-
Staurosira ansata	-	-	-	-	120	0.042	547	0.191	101	0.035	-	-	78	0.027	-	-	-	-	-	-
Staurosira construens	-	-	53	0.006	-	-	-	-	-	-	-	-	78	0.009	-	-	119	0.014	48	0.006
Staurosirella leptostauron	-	-	-	-	-	-	-	-	-	-	-	-	78	0.012	-	-	476	0.071	-	-
Staurosirella pinnatta	-	-	106	0.005	-	-	912	0.046	152	0.008	109	0.005	701	0.035	-	-	1,427	0.071	-	-
Tabellaria fenestrata	-	-	-	-	-	-	-	-	-	-	-	-	1,636	0.818	42	0.021	2,854	1.427	48	0.024
Tabellaria flocculosa	18,624	9.312	2,230	1.115	3,539	1.769	10,209	5.105	1,165	0.582	218	0.109	2,182	1.091	758	0.379	3,924	1.962	143	0.072
Diatoms subtotal	26,211	11.540	3,132	1.437	10,436	2.662	74,747	12.727	2,330	0.788	1,638	0.439	8,961	2.834	1,937	0.539	24,969	6.158	717	0.261
Total	1,454,041	244.535	853,514	150.072	1,189,659	159.403	621,241	67.910	2,248,886	292.789	2,451,753	317.652	1,258,604	181.058	1,531,917	195.702	2,452,151	310.305	2,228,291	277.379
Species Richness	24	-	13	-	26	-	30	-	10	-	16	-	39	-	21	-	30	-	14	-

Notes: Station Codes are composed of the Stream Code-Event Code-Sample-Season-Year; Date is in Day-Month-Year format.
cells/cm² = cells per square centimetre; mg/cm² = milligrams per square centimetre; sp. = species singular; Aug = August.

Jacques Whitford-Baker Lake Zooplankton Data 2008

Project Number 1038926.04

Prepared by Biologica Environmental Services Ltd.

TAXON	STAGE	No. of individuals	Site 1	Site 2	Site 3	Site 4	Site 5
ROTIFERA							
<i>Asplanchna</i> sp.		470				440	30
<i>Conochilus</i> sp.	colony	329			1	320	8
<i>Filinia</i> sp.		10				10	
<i>Kellicottia longispina</i>		2240	510	100	310	1150	170
<i>Keratella cochlearis</i>		1560	90	140	150	1130	50
<i>Keratella quadrata</i>		13	5	3	2	3	
<i>Polyarthra</i>		424				420	4
Unidentified Rotifera		176		1		170	5
CLADOCERA							
Bosminidae							
<i>Bosmina longirostris</i>		93	2	2		78	11
*Chydoridae							
<i>Chydorus sphaericus</i>		13		1		12	
Daphniidae							
<i>Daphnia longiremis</i>		1					1
<i>Daphnia</i> sp.		7		1		1	5
Holopediidae							
<i>Holopedium gibberum</i>		3	1	1	1		
Macrothricidae							
<i>Drepanopus dentata</i>		1		1			
COPEPODA							
Calanoida							
Diaptomidae							
<i>Leptodiaptomus ashlandi</i>	M	7		2	2	1	2
<i>Leptodiaptomus ashlandi</i>	F	3		1	1	1	
<i>Leptodiaptomus pribilofensis</i>	M	2			2		
<i>Leptodiaptomus pribilofensis</i>	F	2	2				
<i>Leptodiaptomus sicilis</i>	M	44	16	21	5	2	
<i>Leptodiaptomus sicilis</i>	F	49	11	16	18	4	
<i>Leptodiaptomus</i> sp.	CV	48	20	22	5	1	
<i>Leptodiaptomus</i> sp.	CI	1	1				
Temoridae							
<i>Hetercope septentrionalis</i>	M	8	4	2	2		
<i>Hetercope septentrionalis</i>	F	1		1			
<i>Limnocalanus macrurus</i>	M	74	9	24	39	1	1
<i>Limnocalanus macrurus</i>	F	67	7	16	37	5	2
<i>Limnocalanus macrurus</i>	CV	5	2	3			
Unidentified Calanoida	nauplius	40	4	3		30	3
Cyclopoida							
Unidentified Cyclopoida	copepodite	37	2	6	1	25	3
Unidentified Cyclopoida	nauplius	75	2	4	3	60	6
TOTAL		5806	688	371	579	3867	301

Notes: C stands for copepodite stages I through V

* Chydoridae - Meiobenthic habitus