Year	Sampling date	Valley	Site number	Transect point	description	Lat (S)	Lon (E)	Distance from site 1 (m)	Thymidine uptake Average (mol thy/cc/hr)	Thymidine uptake Std. Dev. (mol thy/cc/hr)	Acetylene Reduction Average (nmol N/cc/hr)	Acetylene Reduction std.error (nmol N/cc/hr)	Acetylene Reduction with Mo Average (nmol N/cc/hr)	Acetylene Reduction with Mo std.error (nmol N/cc/hr)	Acetylene Reduction with DCMU Average (nmol N/cc/hr)	Acetylene Reduction with DCMU std.error (nmol N/cc/hr)	$^{15}N_2$ Fixatiion Average (nmol/g/hr)	$^{15}N_2$ Fixatiion std.error (nmol/g/hr)	Sulfate reduction velocity Average (1/cc *d))	Sulfate reduction velocity Std. dev (1/cc *d))	Comments
1	1/11/2014	Taylor	1	1	Spaulding pond mat on shore (pink)	77 39.586	163 06.962	0			0.000	0.000					0.045	0.010			
1		Taylor	1	2				0.9			2.987	0.250	1.481	0.795	0.737	0.737	1.307	0.034	0.024	0.015	
1		Taylor	1	3				5			0.000	0.000					0.008	0.008	ND		
1		Taylor	1	4				10.3			0.000						0.017	0.002			
1	1/13/2014	Taylor	2	1	Shade exp location, stream, heavy dark mats	77 34.108	163 08.116	0	1.19546E-12	2.03613E-13	0.000	0.000					1.742	0.294	60.143	16.295	
1		Taylor	2	2				1.5	2.34571E-14	8.40976E-15	0.000	0.000	0.000	0.000	0.000	0.000	0.281	0.011	0.008	0.010	
1		Taylor	2	3				7			0.000						0.128	0.022			
1	1/14/2014	Taylor	3	1a (top)	Stream coming from glacier into SP	77 39.676	163 05.403	0	2.6466E-13	3.11565E-14	16.440	5.467					ND	ND			ND = not detected
1		Taylor	3	1b (bottom)	a - mat only			0	1.68605E-13	2.56455E-14	0.000	0.000					ND	ND			
1		Taylor	3	2	b- sample of sed/sand from under the mat			3.8	3.30714E-13	3.09677E-14	10.317	1.513	13.562	1.434	12.139	1.995	ND	ND			
1		Taylor	3	3a	a = phormidium			9.8			0.000	0.000					ND	ND			
1		Taylor	3	3b	b = sediment			9.8			0.000	0.000					ND	ND			
1	1/15/2014	Taylor	4	1	Lake Chad no visible mats	77 38.639	162 45.408	0	7.33696E-15	1.39994E-15	0.000	0.000					ND	ND			
1		Taylor	4	2				1	2.38742E-14	1.33889E-14	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND			
1		Taylor	4	3				9			0.000	0.000					ND	ND			
1	1/17/2014	Victoria	5	1	Victoria Valley stream, wide area,	77 20.254	161 37.749	0	3.69E-14	1.46641E-14	0.000	0.000					ND	ND	0.004	0.001	
1		Victoria	5	2	upstream bank, no mats			4	3.51429E-14	8.75367E-15	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND		
1		Victoria	5	3				27.6			0.000	0.000					ND	ND			
1		Victoria	5		Nostoc pool			NA			0.000	0.000									NA = not applicable (non-transect)
1	1/17/2014	Victoria	6	1	Victoria Valley stream, wide area,	77 19.682	161 36.706	0	4.54714E-14	1.5165E-14	0.000	0.000					0.038	0.003	0.004	0.003	
1		Victoria	6	2	downstream bank, no mats			3	6.44714E-14	9.4286E-15	0.000	0.000	0.000	0.000	0.000	0.000	0.032	0.004	ND		
1		Victoria	6	3				10			0.000	0.000					ND	ND			
1	1/18/2014	Taylor	7	1a (top)	Stream in airfield, slow water, nostoc	77 39.476	163 05.774	0	4.43786E-13	7.46307E-14	11.129	1.759					8.461	1.292	0.385	0.129	
1		Taylor	7	1b (bottom)	a - mat only			0	1.96888E-12	9.95563E-14	0.000	0.000					0.024	0.008			
1		Taylor	7	2	b- sample of sed/sand from under the mat			1.5	4.64929E-13	1.12363E-13	0.000	0.000	0.000	0.000	0.000	0.000	0.522	0.121	0.045	0.016	
1		Taylor	7	3				9			3.465						0.338	0.048			
1		Taylor	7	4				30			0.000						0.004	0.004			
1	1/20/2014	Taylor	8	1		77 38.654	163 10.467	0	3.33393E-13	2.79674E-14	35.640	3.713	19.747	1.408	13.495	1.449	1.709	0.228	0.237	0.159	
1		Taylor	8	2				3	8.2796E-13	7.39567E-14	11.350	2.105					0.699	0.115	0.197	0.149	
1		Taylor	8	3				9			0.000	0.000					ND	ND			
1		Taylor			stream 6; outside mat			NA			0.000	0.000									
1		Taylor			stream 6; mat			NA			9.625	1.213									
1		Taylor			stream 7; mat			NA			14.439	1.296									
1		Taylor			stream 9; surface			NA			8.081	0.723									
1		Taylor			stream 9; sediment			NA			0.000	0.000									
1	1/21/2014	Taylor	9	1		77 37.491	163 03.931	0	1.3305E-12	4.45148E-13	0.658	0.658					0.629	0.226	0.783	0.376	
1		Taylor	9	2				2	7.33545E-13	3.40618E-13	4.324	1.176					0.192	0.036	0.237	0.017	
1		Taylor	9	3				7			0.000	0.000					ND	ND			
1		Taylor	9		Nostoc			NA			14.288	1.131	18.321	0.699	19.342	1.793	3.440	0.327			
1		Taylor			stream 10; Nostoc			NA			18.942	2.097									
1		Taylor			stream 10; brown mat			NA			11.743										
1	1/22/2014	Taylor	10	1	New Harbor area, thick nostoc, phormidium	77 41.064	162 35.494	0	2.84062E-13	1.53938E-13	0.000	0.000					1.082	0.683	0.024	0.019	
1		Taylor	10	2	and moss			1	5.15387E-13	8.6257E-14	2.809	0.283	0.000	0.000	0.880	0.741	1.351	0.128	0.046	0.027	
1		Taylor	10	3				16			0.000	0.000					0.050	0.027			
1		Taylor			stream 11 "Bonnie"; mat			NA			0.000	0.000									
1		Taylor			stream 11 "Bonnie"; no mat			NA			0.000	0.000									
1		Taylor			stream 12 "Sollas"			NA			32.133	2.099									
1		Taylor			stream 13 "La Croix"			NA			0.000	0.000									
1	1/23/2014	Taylor	11	1		77 38.541	163 12.361	0	1.21969E-13	2.20252E-14	4.005	1.093	5.872	0.295	4.443	0.608	0.292	0.020	0.535	0.268	
1		Taylor	11	2				4	2.59814E-13	5.25071E-14	2.942	0.742					0.282	0.043	0.152	0.121	
1		Taylor	11	3				25			0.000	0.000					0.027	0.007			
1	1/24/2014	Taylor	12	1	Stream coming from Commonwealth glacier	77 35.817	163 16.436	0	2.80077E-13	3.16975E-14	1.246	0.746					0.149	0.062	ND		
1		Taylor	12	2	into Frywell			13	2.36157E-13	6.67874E-14	1.555	0.179	3.388	1.718	3.828	0.827	0.070	0.009	0.522	0.220	
1		Taylor	12	3				29.5			0.000	0.000					0.004	0.003			
2	1/12/2015	Garwood	13	1		78° 01.523	163° 49.998	1	1.88339E-15		0.000						ND	ND	0.00077	0.00108	
2		Garwood	13	2				2.8	7.42531E-15	2.32019E-15	0.000						ND	ND	ND		
2		Garwood	13	3				8.1			0.000						ND	ND			
2	1/15/2015	Garwood	14	1	nostoc mats up hillside - fed by snowmelt	78° 01.399	163° 55.049	0	9.79706E-14	4.75783E-14	0.000	0.000	0.000	0.000	0.000	0.000	0.169	0.031	0.00319	0.00116	
2		Garwood	14	2				9.8	2.09615E-13	6.86822E-14	0.000	0.000					0.006	0.003	0.00413	0.00101	
2		Garwood	14	3				52			0.000	0.000					0.013	0.013			
2	1/17/2015	Garwood	15	1		78° 01.389	163° 54.938	15	4.99576E-13	8.05965E-14	1.420	0.363	1.253	0.237	1.272	0.069			0.09621	0.07210	
2	1/18/2015	Garwood	16	1		78° 01.380	163° 54.117	0	1.09623E-12	1.50385E-13	4.384	0.653					7.801	0.820	438.184	276.888	
2		Garwood	16	2				0.7	1.03558E-12	2.72134E-13	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	143.026	35.034	
2		Garwood	16	3				2.95	5.49831E-13	8.71736E-14	0.000	0.000					ND	ND	0.05280	0.03098	
2		Garwood	16	4				19.2	6.44851E-14	5.22285E-15	0.000						ND	ND			
2	1/19/2015	Garwood	17	1		78° 01.622	164° 08.221	0	1.04238E-14	5.25453E-15	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	0.00478	0.00383	
2		Garwood	17	2				17	1.20751E-15	8.31948E-16	0.000						ND	ND			
2	1/20/2015	Taylor	18	1	sample in stream from Howard Glacier (same site at St 3, Yr 1)	77° 39.66	163° 05.511	0	7.05294E-13	2.61771E-13	0.000	0.000					ND	ND	70.706	122.214	
2		Taylor	18	2				3	2.25829E-13	4.1046E-14	2.716	0.355	1.986	0.626	2.083	0.298	2.647	0.354	0.07832	0.11234	
2		Taylor	18	3				8	1.70021E-14	3.37973E-15	0.000	0.000					0.024	0.005			
2	1/20/2015	Taylor	19	1	sample in stream coming from Spaulding pond	77° 39.435	163° 07.895	0	1.82658E-13	4.73761E-14	0.000						ND	ND	0.04924	0.06247	
2	1/21/2015	Nostoc flats	20	1		78° 02.748	163° 40.487	0	BD		0.000	0.000					0.089	0.019	0.21011	0.12662	
2		Nostoc flats	20	2				4	BD		6.477	0.832	2.282	0.290	2.385	0.324	15.854	4.163	1.764	2.113	
2		Nostoc flats	20	3				9.1	6.29781E-14	5.04329E-14	0.000						0.170	0.002			
2		Nostoc flats	20	4				16.1	BD		0.000						0.835	0.076			
2	1/21/2105	Miers	21	1		78° 05.615	163° 49.912	0	1.65065E-13	5.19861E-15	3.415	1.211					1.541	0.279	0.24648	0.17987	
2		Miers	21	2				4	1.02029E-12	1.78136E-13	0.000	0.000	0.000	0.000	0.000	0.000	0.075	0.032	0.04345	0.07525	
2		Miers	21	3				7	BD		0.000						0.084	0.008			
2	1/23/2015	Garwood	22	1		78° 01.452	163° 53.270	0													
2	1/26/2015	Garwood	23	1	pools at the bootom (opening) of Garwood Valley	78° 01.737	164° 15.038	0													
2		Garwood	23	2				1													
2		Garwood	23	3				18													