

APPENDIX C Water Chemistry

27 pages

GW = Groundwater
 SP = Springs
 PS = Perennial stream
 L = Lake, pond, or reservoir

See Appendix A for all site locations.

Code	Meaning	Unit
3H	Tritium	Tritium Units (TU)
3H:3He Age	Age of Water using dissolved gases	years
Ag	Silver	mg/L
Al	Aluminum	mg/L
ALK	Alkalinity, Total	mg/L
As	Arsenic	mg/L
B	Boron	mg/L
Ba	Barium	mg/L
Be	Beryllium	mg/L
Br	Bromide	mg/L
C13r	13C:12C ratio	ratio
C14	14C content	percent modern carbon
Ca	Calcium	mg/L
Cd	Cadmium	mg/L
CF	Conductivity, field	us/cm
CFC113	Chlorofluorocarbon-113 age	years
CFC113/12	Chlorofluorocarbon-113/12 ratio age	years
CFC12	Chlorofluorocarbon-12 age	years
Cl	Chloride	mg/L
Co	Cobalt	mg/L
CONDLAB	Conductivity, laboratory (µS)	us/cm
Cr	Chromium	mg/L
Cu	Copper	mg/L
d34S	Sulfate 34 isotope ratio	per mil (o/oo)
DO	Dissolved Oxygen, field	mg/L
F	Fluoride	mg/L
Fe	Iron	mg/L
H2r	Deuterium:Hydrogen ratio	ratio
H2S	Hydrogen Sulfide	mg/L
HCO3	Bicarbonate	mg/L
HRD	Hardness (CaCO3)	mg/L
IONBAL	Ion Balance	%
K	Potassium	mg/L
Li	Lithium	mg/L
Mg	Magnesium	mg/L
Mn	Manganese	mg/L
Mo	Molybdenum	mg/L
Na	Sodium	mg/L
Ni	Nickel	mg/L
NO2	Nitrite (as NO2)	mg/L
NO3	Nitrate (as NO3)	mg/L
O18r	18O:16O ratio	per mil (o/oo)
ORP	Oxidation-Reduction Potential	mV
Pb	Lead	mg/L
pHf	pH, field	pH units
pHL	pH, laboratory	pH units
PO4	Phosphate	mg/L
Sb	Antimony	mg/L
Se	Selenium	mg/L
Si	Silicon	mg/L
SiO2	Silica	mg/L
Sn	Tin	mg/L
SO4	Sulfate	mg/L
Sr	Strontium	mg/L
T	Temperature, field	degrees celsius
TAn	Total Anions	epm
TCat	Total Cations	epm
TDS	Total Dissolved Solids	mg/L
Th	Thorium	mg/L
Ti	Titanium	mg/L
Tl	Thallium	mg/L
U	Uranium (total, by ICP-MS)	mg/L
V	Vanadium	mg/L
Zn	Zinc	mg/L

Appendix C. Water Chemistry

Point_ID	SamplePoint_ID	CollectionDate	SiteType	3H	3H:3He Age	Ag	Al	ALK	As	B	Ba	Be	Br	C13r	C14	Ca	Cd	CF	CFC113	CFC1 13/12	CFC12 13/12
SM-0001	SM-0001A	10-Jul-07	GW	1.3	0	<0.005	<0.005		<0.005	0.051	0.023	<0.005	0.24			195	<0.005	1443	20		
SM-0007	SM-0007A	23-Jul-07	GW	4	10.4	<0.005	<0.005		<0.005	0.028	0.064	<0.005	<0.03			66	<0.005	399	19	17	22
SM-0011	SM-0011A	23-Jul-07	GW	3.2		<0.005	<0.005		<0.005	0.009	0.026	<0.005	<0.03			130	<0.005	695	30	26	34
SM-0012	SM-0012A	25-Jul-07	GW	2.1		<0.005	<0.005		0.033	0.016	0.035	<0.005	0.03			107	<0.005	691			
SM-0016	SM-0016A	24-Jul-07	GW	2.9		<0.005	<0.005		<0.005	0.017	0.034	<0.005	<0.03			106	<0.005	654			
SM-0016	SM-0016B	24-Jul-07	GW			<0.005	<0.005		<0.005	0.016	0.034	<0.005	<0.03			101	<0.005	645			
SM-0018	SM-0018A	28-Aug-07	GW	4.1	1.9	<0.005	<0.005		<0.005	0.007	0.03	<0.005	0.02			66	<0.005	455	23	20	26
SM-0021	SM-0021A	10-Jul-07	GW	3.6	0	<0.005	<0.005		<0.005	0.013	0.021	<0.005	<0.03			74	<0.005	481	20	19	22
SM-0023	SM-0023A	10-Jul-07	GW	0	>50	<0.005	<0.005		<0.005	0.007	0.03	<0.005	<0.03			120	<0.005	687	29		
SM-0026	SM-0026A	29-Aug-07	GW	2.7	0.5	<0.005	<0.005		<0.005	0.016	0.031	<0.005	0.02			109	<0.005	671	27	22	32
SM-0028	SM-0028A	13-Aug-08	GW			<0.005	<0.005		<0.005	0.036	0.03	<0.005	0.04			110	<0.005	834			
SM-0029	SM-0029A	13-Aug-08	GW			<0.01	<0.01		<0.01	0.057	<0.05	<0.01	0.064			200	<0.01	1576			
SM-0032	SM-0032A	13-Aug-08	GW			<0.01	<0.01		<0.01	0.17	<0.05	<0.01	0.17			190	<0.01	1957	27	24	31
SM-0038	SM-0038A	09-Jul-07	GW	2.4	0	<0.005	<0.005		<0.005	0.013	0.037	<0.005	<0.03			97	<0.005	597	19	19	18
SM-0040	SM-0040B	19-Aug-08	GW										0.033			115		788			
SM-0040	SM-0040C	17-Sep-08	GW										0.041			120		791			
SM-0040	SM-0040D	15-Oct-08	GW										0.031			120		790			
SM-0040	SM-0040E	17-Dec-08	GW										0.037			120		782			
SM-0040	SM-0040F	12-Feb-09	GW										0.034			120		779			
SM-0040	SM-0040G	16-Apr-09	GW										0.04			115		779			
SM-0040	SM-0040H	18-Jun-09	GW					350					0.034			110		779			
SM-0040	SM-0040A	09-Jul-07	GW	0.9	>50	<0.005	<0.005		<0.005	0.026	0.024	<0.005	0.03			115	<0.005	749	26	29	21
SM-0042	SM-0042A	24-Jul-07	GW	2.4		<0.005	<0.005		<0.005	0.01	0.035	<0.005	0.04			125	<0.005	676	21		
SM-0044	SM-0044B	09-Jul-07	GW	2.8		<0.005	<0.005		<0.005	0.013	0.033	<0.005	0.04			115	<0.005	652	23	22	25
SM-0044	SM-0044C	14-Aug-08	GW										0.041			115					
SM-0044	SM-0044D	16-Sep-08	GW										<0.01			110					
SM-0044	SM-0044E	15-Oct-08	GW										0.036			110		644			
SM-0044	SM-0044F	17-Dec-08	GW										0.038			110		650			
SM-0044	SM-0044G	12-Feb-09	GW										0.035			125		649			
SM-0044	SM-0044H	15-Apr-09	GW										0.05			120		646			
SM-0044	SM-0044I	19-Jun-09	GW					405					0.04			110		638			
SM-0045	SM-0045A	10-Aug-07	GW	3	6.7	<0.01	<0.01		<0.01	0.019	0.034	<0.01	0.03			103	<0.01	633	27		
SM-0056	SM-0056A	26-Jul-07	GW	2.6		<0.005	<0.005		<0.005	0.013	0.034	<0.005	<0.03			105	<0.005	683	28	22	34
SM-0056	SM-0056B	12-Aug-08	GW										0.033			96		500			
SM-0056	SM-0056C	17-Sep-08	GW										0.038			99		673			
SM-0056	SM-0056D	16-Oct-08	GW										0.037			93		678			
SM-0056	SM-0056E	18-Dec-08	GW										0.048			100		676			
SM-0056	SM-0056F	13-Feb-09	GW										0.037			105		677			
SM-0056	SM-0056G	16-Apr-09	GW										0.05			100		679			
SM-0056	SM-0056H	19-Jun-09	GW					340					0.033			97		663			
SM-0057	SM-0057A	26-Jul-07	GW	2.3	0	<0.005	<0.005		<0.005	0.012	0.03	<0.005	0.03			100	<0.005	685	24	20	30

Point_ID	Cl	Co	CONDLAB	Cr	Cu	d34S	DO	F	Fe	H2r	HCO3	HRD	IONBAL	K	Li	Mg	Mn	Mo	Na	Ni	NO2	NO3	O18r	ORP
SM-0001	78	<0.005	1420	<0.005	<0.005		6.9	<0.5	<0.05	-68	345	749	-1.85	0.48	0.014	66	<0.005	<0.005	42	<0.005	<1	1.4	-10.2	
SM-0007	9.1	<0.005	395	<0.005	0.005	9	5.8	0.2	<0.05	-48	210	198	-0.2	1.7	<0.005	8.8	<0.005	<0.005	6.7	<0.005	<0.1	8.9	-8	
SM-0011	6.5	<0.005	695	<0.005	<0.005	10.7	7.5	<0.1	<0.05	-71	445	399	0.09	0.41	<0.005	20	<0.005	<0.005	7.1	<0.005	<0.1	1.5	-10.9	
SM-0012	20	<0.005	690	<0.005	0.019	11.8	5.7	0.16	<0.05	-61	340	369	1.58	0.45	<0.005	26	<0.005	<0.005	16	<0.005	<0.1	6.3	-9.7	
SM-0016	5.8	<0.005	645	<0.005	0.035			0.18	<0.05	-69	310	352	-0.16	0.51	<0.005	22	<0.005	<0.005	6.3	<0.005	<0.1	1.9	-10.6	
SM-0016	5.7	<0.005	635	<0.005	0.036	11.5		0.18	0.004	-69	295	337	-0.57	0.49	<0.005	22	<0.005	<0.005	6.2	<0.005	<0.2	1.9	-10.7	
SM-0018	3.4	<0.005	420	<0.005	<0.005	10.8	6	0.11	<0.05	-62	275	248	0.14	0.34	<0.005	21	<0.005	<0.005	5.3	<0.005	<0.1	0.46	-10.1	
SM-0021	4.3	<0.005	460	<0.005	0.002	9.5	7.6	0.14	0.71	-67	280	246	-1.43	0.34	<0.005	16	<0.005	<0.005	6.9	<0.005	<0.2	2.6	-10.3	
SM-0023	16	<0.005	660	<0.005	<0.005	10.2	7.5	<0.1	<0.05	-70	425	357	-2.88	0.36	<0.005	15	<0.005	<0.005	7.6	<0.005	<0.2	2.3	-11.1	
SM-0026	5.1	<0.005	615	<0.005	<0.005	11.3	6.3	<0.5	<0.05	-70	325	368	-0.56	0.54	<0.005	24	<0.005	<0.005	4.7	<0.005	<0.5	1.4	-11	
SM-0028	20	<0.005	870	<0.005	<0.005	11.8	3.15	<0.5	<0.25	-69	315	418	-0.96	0.68	0.006	36	<0.025	<0.005	21	<0.005	<0.5	0.78	-10.5	
SM-0029	125	<0.01	1650	<0.01	0.02	11.4	4.8	<2.5	<1	-63	350	742	1.86	1.5	0.015	61	<0.05	<0.01	73	<0.01	<2.5	2.7	-10	
SM-0032	110	<0.01	2020	<0.01	0.011	10	0.72	<2.5	<1	-65	425	824	-0.21	1.8	0.031	87	<0.05	<0.01	145	0.01	<2.5	<2.5	-9.6	
SM-0038	9	<0.005	585		0.014	11.3	5.9	0.11	<0.05	-65	350	320	-1.95	0.54	<0.005	20	0.058	<0.005	8.7	<0.005	<0.2	2.5	-10.1	
SM-0040	12		840				5.12	0.2		-60	325	422	0.88	0.55		34			13		<0.1	2.6	-9.2	
SM-0040	13		855				7.82	0.21		-59	320	440	2.59	0.58		34			13		<0.1	2.7	-9.9	
SM-0040	13		820				9.4	0.2		-60	330	427	-0.23	0.46		31			13		<0.1	2.5	-9.6	
SM-0040	12		805				8.3	0.21		-61	330	440	2.1	0.75		34			14		<0.1	2.5	-9.43	19.1
SM-0040	13		815				8.3	0.21		-62	325	444	2.95	0.57		34			13		<0.1	2.7	-9.87	21.7
SM-0040	13		820				7.9	0.19		-63	300	426	3.76	0.6		34			13		<0.5	2.6	-9.74	19.9
SM-0040	13		820				8.15	0.18		-60		404	-3.5	0.61		31			13		<0.1	2.6	-9.23	75.2
SM-0040	12	<0.005	740	<0.005	<0.005	11.9	4.9	0.2	<0.05	-61	325	409	-1.2	0.55	0.006	31	<0.005	<0.005	12	<0.005	<0.2	2.7	-9.7	
SM-0042	6.1	<0.005	655	<0.005	<0.005	10.6	7.2	0.14	<0.05	-57	415	369	-0.42	0.49	<0.005	16	<0.005	<0.005	6.4	<0.005	<0.1	2.3	-8.9	
SM-0044	5.1	<0.005	620	<0.005	<0.005	10.6	6	0.16	<0.05	-61	420	342	-3.32	0.5	<0.005	15	<0.005	<0.005	4.8	<0.005	<0.2	3.1	-9.3	
SM-0044	6.3		665					<0.5		-56	415	344	-2.3	0.57		15			5.4		<0.5	5.2	-8.2	
SM-0044	6		680					0.16		-53	395	336	-1.08	0.5		15			5.3		<0.1	5.7	-9.2	
SM-0044	5.3		675				11.24	0.15		-56	410	332	-3.64	0.49		14			4.9		<0.1	4.4	-8.8	
SM-0044	4.4		685				8.9	0.16		-59	415	341	-3.41	<2.5		16			5.2		<0.1	3.1	-8.81	116
SM-0044	4.4		815				9.5	0.15		-60	415	374	2.34	0.54		16			5.1		<0.1	3	-9.18	128
SM-0044	4		675				10.7	0.14		-59	390	366	3.81	0.56		16			5		<0.5	2.6	-9.47	59.1
SM-0044	4.1		665				8.9	0.14		-58		336	-2.32	0.51		15			4.7		<0.1	2.4	-8.66	272
SM-0045	7.9	<0.01	600	<0.01	0.013		7.86	0.18	<0.05	-65	295	354	2.2	0.56	<0.01	25	<0.01	<0.01	8.9	<0.01	<0.1	2.2	-10.6	
SM-0056	13	<0.005	660	<0.005	0.006	11.9	7.5	0.15	<0.05	-57	345	365	1.14	0.51	<0.005	26	<0.005	<0.005	15	<0.005	<0.1	2.9	-8.8	
SM-0056	13		705					<0.5		-55	340	342	-1.71	0.53		26			14		<0.5	2.7	-7.8	
SM-0056	13		735				9.7	0.15		-54	335	358	0.68	0.49		27			14		<0.1	2.7	-9.1	
SM-0056	13		710				8.16	0.14		-58	335	335	-2.5	0.51		25			14		<0.1	2.5	-8.5	
SM-0056	14		745				9.7	0.14		-56	320	357	0.83	<2.5		26			20		<0.1	4.4	-8.64	109
SM-0056	13		700				10.7	0.14		-58	335	372	3.54	0.43		27			14		<0.1	3	-9.07	102
SM-0056	13		710				8.7	0.13		-57	320	364	3.38	0.59		28			15		<0.5	2.8	-9.1	89.1
SM-0056	13		720				7.7	0.13		-56		345	-1.72	<0.5		25			14		<0.1	2.8	-8.34	276
SM-0057	13	<0.005	670	<0.005	<0.005	12	7.4	0.15	<0.05	-55	325	352	0.92	0.55	<0.005	26	<0.005	<0.005	19	<0.005	<0.1	4.1	-8.6	

Point_ID	SamplePoint_ID	CollectionDate	SiteType	3H	3H:3He Age	Ag	Al	ALK	As	B	Ba	Be	Br	C13r	C14	Ca	Cd	CF	CFC113	CFC1 13/12	CFC12 13/12
SM-0057	SM-0057B	12-Aug-08	GW										0.044			89		500			
SM-0057	SM-0057C	17-Sep-08	GW										0.046			95		697			
SM-0057	SM-0057D	16-Oct-08	GW										0.04			93		692			
SM-0057	SM-0057E	18-Dec-08	GW										0.04			93		697			
SM-0057	SM-0057F	13-Feb-09	GW										0.043			99		696			
SM-0057	SM-0057G	16-Apr-09	GW										0.05			100		696			
SM-0057	SM-0057H	19-Jun-09	GW					320					0.047			96		695			
SM-0059	SM-0059A	11-Jul-07	GW	2.9		<0.005	<0.005		<0.005	0.014	0.033	<0.005	<0.03			105	<0.005	677	22		
SM-0064	SM-0064A	14-Aug-08	GW										0.046			105		500			
SM-0064	SM-0064B	15-Oct-08	GW										0.047			120		709			
SM-0064	SM-0064C	17-Dec-08	GW										0.043			110		659			
SM-0064	SM-0064D	12-Feb-09	GW										0.042			110		633			
SM-0064	SM-0064E	15-Apr-09	GW										0.05			100		615			
SM-0064	SM-0064F	18-Jun-09	GW					360					0.034			96		616			
SM-0068	SM-0068A	10-Aug-07	GW	1.7		<0.01	<0.01		<0.01	0.022	0.028	<0.01	0.04			110	<0.01	776	31	24	36
SM-0069	SM-0069A	11-Jul-07	GW	1.7		<0.005	<0.005		<0.005	0.03	0.023	<0.005	<0.03			135	<0.005	892			
SM-0072	SM-0072A	28-Aug-07	GW	2.5		<0.005	<0.005		<0.005	0.019	0.029	<0.005	0.04			107	<0.005	750			
SM-0074	SM-0074A	24-Jul-07	GW	2	0	<0.005	<0.005		<0.005	0.01	0.03	<0.005	0.04			125	<0.005	664	22	22	22
SM-0076	SM-0076A	25-Jul-07	GW	0.1	>50	<0.01	<0.01		<0.01	0.083	0.01	<0.01	0.03			195	<0.01	1405	38	17	47
SM-0079	SM-0079A	25-Sep-08	GW	1.1		<0.005	<0.005		<0.005	0.034	0.03	<0.005	0.05			135	<0.005	914			
SM-0083	SM-0083A	25-Jul-07	GW			<0.005	<0.005		<0.005	0.013	0.029	<0.005	<0.03			94	<0.005	670			
SM-0085	SM-0085A	24-Jul-07	GW	7.2	14.9	<0.005	<0.005		<0.005	0.007	0.017	<0.005	<0.03			106	<0.005	547	21	21	23
SM-0086	SM-0086A	25-Jul-07	GW	0		<0.005	<0.005		<0.005	0.014	0.035	<0.005	0.05			88	<0.005	602	23	21	26
SM-0092	SM-0092A	13-Aug-08	GW			<0.005	<0.005		<0.005	0.025	0.042	<0.005	0.049			125	<0.005	891	26	26	26
SM-0092	SM-0092B	26-Sep-08	GW	1.9														821			
SM-0133	SM-0133A	14-Aug-07	GW	0		<0.01	<0.01		<0.01	0.045	0.023	<0.01	0.05	-7.4	49.4	105	<0.01	803			
SM-0138	SM-0138A	16-Aug-07	GW	2		<0.01	<0.01		<0.01	0.013	0.036	<0.01	0.03	-8.9	85.8	90	<0.01	529			
SM-0140	SM-0140A	16-Aug-07	GW	2.2		<0.01	<0.01		<0.01	0.015	0.033	<0.01	0.03	-8.9	80.9	101	<0.01	613			
SM-0143	SM-0143A	16-Aug-07	GW			<0.01	<0.01		<0.01	0.026	0.023	<0.01	0.04			112	<0.01	712			
SM-0144	SM-0144A	07-Aug-07	GW	0.9		<0.01	<0.01		<0.01	0.012	0.039	<0.01	0.04	-8.3	70.5	83	<0.01	558			
SM-0148	SM-0148A	07-Aug-07	GW			<0.01	<0.01		<0.01	0.2	0.041	<0.01	0.04			100	<0.01	678			
SM-0151	SM-0151A	07-Aug-07	GW	1		<0.01	0.011		<0.01	0.041	0.033	<0.01	0.03	-7.9	58.7	125	<0.01	833			
SM-0152	SM-0152A	07-Aug-07	GW	0.8		<0.01	<0.01		<0.01	0.017	0.036	<0.01	0.03	-8.5	65.7	91		605	38	38	38
SM-0153	SM-0153A	25-Jul-07	GW	1.9		<0.005	<0.005		<0.005	0.014	0.035	<0.005	<0.03			105	<0.005	680	24	22	27
SM-0156	SM-0156A	20-Nov-08	GW	0.5		<0.01	<0.01		<0.01	<0.05	<0.05	<0.01	0.05			120	<0.01	794			
SM-0158	SM-0158A	08-Aug-07	GW	0.7	29.1	<0.01	<0.01		<0.01	0.04	0.033	<0.01	0.07	-7.4	52.9	120	<0.01	838	27	30	23
SM-0162	SM-0162A	08-Aug-07	GW	0.4		<0.01	<0.01		<0.01	0.054	0.023	<0.01	0.04	-6.7	48.9	150	<0.01	990			
SM-0165	SM-0165A	08-Aug-07	GW	0.2		<0.01	<0.01		<0.01	0.063	0.013	<0.01	0.04	-6.3	14.8	130	<0.01	950			
SM-0166	SM-0166A	08-Aug-07	GW			<0.01	<0.01		<0.01	0.023	0.051	<0.01	0.07			56	<0.01	480			
SM-0167	SM-0167A	15-Aug-07	GW	0.4		<0.01	<0.01		<0.01	0.042	0.027	<0.01	0.05	-6.9	48	119	<0.01	849			
SM-0168	SM-0168A	15-Aug-07	GW			<0.01	<0.01		<0.01	0.045	0.026	<0.01	0.05			133	<0.01	931			

Point_ID	Cl	Co	CONDLAB	Cr	Cu	d34S	DO	F	Fe	H2r	HCO3	HRD	IONBAL	K	Li	Mg	Mn	Mo	Na	Ni	NO2	NO3	O18r	ORP
SM-0057	13		740					<0.5		-53	325	321	-3.43	0.46		25			18		<0.5	3.8	-7.6	
SM-0057	14		760				10	0.14		-52	320	340	-1.19	0.5		25			18		<0.1	4.2	-8.8	
SM-0057	14		720				8.96	0.14		-57	325	335	-2.09	0.49		25			19		<0.1	4.2	-8.3	
SM-0057	13		725				9.4	0.15		-55	340	343	-2.16	<2.5		27			15		<0.1	2.6	-8.38	86
SM-0057	14		685				11.1	0.14		-55	320	348	1.06	0.54		25			19		<0.1	4.8	-8.7	75.2
SM-0057	14		745				8.8	0.13		-55	305	363	3.76	0.62		27			21		<0.5	4.6	-8.82	82.5
SM-0057	14		730				7.62	0.13		-53		343	-0.6	0.53		25			19		<0.1	4.5	-8.12	225
SM-0059	11	<0.005	645	<0.005	0.017			0.15	<0.05	-55	360	344	-1.53	0.51	0.007	21	0.009	<0.005	13	<0.005	<0.2	1.5	-8.6	
SM-0064	10		720					<0.5		-57	375	348	-1.37	0.5		22			8		<0.5	6.1	-8.4	
SM-0064	13		750				4.04	0.14		-58	390	394	1.51	0.61		23			10		<0.1	6.8	-8.9	
SM-0064	9.1		675				5.8	0.15		-57	375	361	0.51	<2.5		21			9.8		<0.1	3.5	-8.99	118
SM-0064	7.6		625				7.1	0.16		-59	365	358	3.01	0.59		21			8.7		<0.1	2.9	-9.5	74
SM-0064	7		645				8.4	0.13		-59	340	339	3.11	0.59		22			8.3		<0.5	2.5	-9.49	86.2
SM-0064	7.2		650				7.01	0.14		-56		323	-1.81	<0.5		20			7.6		<0.1	2.5	-8.63	235
SM-0068	16	<0.01	720	<0.01	<0.01	12.1	7.23	0.23	<0.05	-56	320	396	-1.95	0.61	<0.01	31	<0.01	<0.01	15	<0.01	<0.1	2	-8.8	
SM-0069	15	<0.005	830	<0.005	0.007			0.27	<0.05	-61	335	463	-2.18	0.62	0.008	32	<0.005	<0.005	13	<0.005	<0.2	2.2	-9.4	
SM-0072	16	<0.005	690	<0.005	0.008	11.9		<0.5	<0.05	-54	335	382	-0.98	0.55	0.006	29	<0.005	<0.005	17	<0.005	<0.5	2.1	-8.8	
SM-0074	4.5	<0.005	655	<0.005	<0.005	10.2	8.2	0.14	<0.05	-59	425	373	0.03	0.45	<0.005	16	<0.005	<0.005	6	<0.005	<0.1	1.8	-9.4	
SM-0076	38	<0.01	1370	<0.01	<0.01	12.7		1.1	<0.05	-65	260	784	1.91	1.1	0.012	74	0.019	<0.01	29	<0.01	<0.5	<0.5	-10	
SM-0079	20	<0.005	900	<0.005	<0.005		5	0.29	<0.5	-57	290	506	3.24	0.88	0.006	41	<0.025	<0.005	19	<0.005	<0.1	4.7	-9.1	
SM-0083	17	<0.005	670	<0.005	<0.005			0.14	<0.05	-55	290	346	1.46	0.57	<0.005	28	<0.005	<0.005	20	<0.005	<0.01	3.6	-8.5	
SM-0085	2.3	<0.005	540	<0.005	<0.005	9.6		<0.1	0.005	-69	355	300	-1.08	0.37	<0.005	9.9	<0.005	<0.005	2.6	<0.005	<0.1	2.2	-10.7	
SM-0086	9.8	<0.005	590	<0.005	<0.005		7	0.18	<0.05	-57	320	320	0.26	0.42	<0.005	26	<0.005	<0.005	11	<0.005	<0.1	2.8	-9.1	
SM-0092	27	<0.005	975	<0.005	0.006	11.5	5.45	<0.5	<0.25	-59	345	463	0.33	0.96	0.007	38	<0.025	<0.005	21	<0.005	<0.5	4.1	-9.2	
SM-0092							5.25																	
SM-0133	10	<0.01	730	<0.01	<0.01	12	1.6	<0.5	1.1	-58	255	412	0.72	0.78	0.01	38	0.12	<0.01	14	0.029	<0.5	<0.5	-9.2	
SM-0138	5.9	<0.01	530	<0.01	<0.01	10.7	7.5	0.12	<0.05	-60	350	300	-2.45	0.49	<0.01	19	<0.01	<0.01	6	<0.01	<0.1	4.4	-9	
SM-0140	6.2	<0.01	580	<0.01	0.022	11.3	6.45	0.17	<0.05	-58	360	329	-0.99	0.51	<0.01	20	0.049	<0.01	6.4	<0.01	<0.1	3.7	-8.7	
SM-0143	5.7	<0.01	665	<0.01	<0.01		7	0.32	<0.05	-59		305	1.06	0.58	<0.01	27	<0.01	<0.01	7.3	<0.01	<0.1	3.5	-9.1	
SM-0144	4.2	<0.01	505	<0.01	<0.01	9.9	3.72	0.29	1.7	-56	340	305	1.86	0.55	<0.01	24	0.099	<0.01	4.6	<0.01	<0.1	<0.1	-9	
SM-0148	8.1	<0.01	620	<0.01	<0.01	11.9	6.45	0.3	0.074	-57	325	349	0.06	0.9	<0.01	25	0.023	<0.01	10	<0.01	<0.1	16	-9	
SM-0151	5.8	<0.01	765	<0.01	0.017	12.8	4.28	0.44	0.62	-60	315	442	-1.06	0.69	<0.01	33	0.06	<0.01	7.6	0.012	<0.1	4.3	-9.1	
SM-0152	5.2	<0.01	560	<0.01	<0.01	12.2	7.5	0.25	<0.05	-58	325	312	-0.99	0.84	<0.01	22	<0.01	<0.01	6.9	<0.01	<0.1	4.2	-9.1	
SM-0153	11	<0.005	670	<0.005	<0.005	11	6.8	0.18	<0.05	-67	375	365	0.36	0.29	0.007	26	<0.005	<0.005	12	<0.005	<0.1	16	-10.3	
SM-0156	13	<0.01	810	<0.01	<0.01	11.7	3.9	0.67	<0.05	-59	265	452	1.5	0.91	0.01	37	0.05	<0.01	13	0.012	<0.5	4.5	-9.23	
SM-0158	9.1	<0.01	770	<0.01	<0.01	12.2	6.96	0.61	<0.05	-58	265	459	1.42	0.9	0.01	40		<0.01	11	<0.01	<0.1	6.5	-9.4	
SM-0162	8.9	<0.01	910	<0.01	<0.01	12.7		0.71	0.096	-59	265	564	1.74	1	0.012	48	0.05	<0.01	11	0.013	<0.5	4	-9.2	
SM-0165	8	<0.01	855	<0.01	<0.01	12.6		1.2	<0.05	-60	240	520	1.16	1.4	0.023	49	0.039	<0.01	13	<0.01	<0.5	<0.5	-9.4	
SM-0166	5.5	<0.01	445	<0.01	0.029		6.03	0.25	<0.05	-59	260	246	1.53	1	<0.01	27	0.019	<0.01	7.9	<0.01	<0.1	16	-9.7	
SM-0167	8.7	<0.01	780	<0.01	<0.01		7.2	0.73	<0.05	-57	265	455	-1.01	0.87	<0.01	40	0.011	<0.01	10	<0.01	<0.5	5.3	-9.6	
SM-0168	14	<0.01	865	<0.01	<0.01	12	7.6	0.53	0.19	-59	260	495	0.49	0.86	<0.01	41	0.019	<0.01	14	0.058	<0.5	4.5	-9.2	

Point_ID	Pb	pHf	pHL	PO4	Sb	Se	Si	SiO2	Sn	SO4	Sr	T	TAn	TCat	TDS	Th	Ti	TI	U	V	Zn
SM-0057		7.3	7.6	<2.5						94		12.4	7.71	7.2	405						
SM-0057		7.4	7.4	<0.5						99		11.9	7.78	7.59	448						
SM-0057		7.2	7.4	<0.5						99		11.6	7.86	7.54	450						
SM-0057		7.5	7.3	<0.5						85		10.3	7.76	7.43	406						
SM-0057		7.4	7.5	<0.5						92		11.7	7.64	7.81	428						
SM-0057		7.5	7.4	<0.5						100		11.5	7.57	8.16	429						
SM-0057		7.2	7.3	<0.5						100		12.2	7.8	7.7	433						
SM-0059	<0.005	7.5	7.4	<0.5	<0.005	<0.005	6	12	<0.005	69	0.4	12.1	7.68	7.45	414	<0.005	<0.005	<0.005	<0.005	<0.005	0.018
SM-0064		7	7.4	<0.5						47		13.2	7.51	7.3	386						
SM-0064		6.9	7.2	<0.5						58		11.97	8.08	8.33	466						
SM-0064		7.3	7.2	<0.5						48		11.6	7.47	7.54	389						
SM-0064		7.2	7.3	<0.5						44		11.7	7.18	7.62	388						
SM-0064		7.1	7.3	<2.5						42		11.9	6.71	7.14	368						
SM-0064		6.9	7.2	<0.5						43		12.1	7.04	6.79	368						
SM-0068	<0.01	7.2	7.5	<0.5	<0.01	<0.01	5	11	<0.01	155	0.9	15	8.97	8.63	502	<0.01	<0.01	<0.01	<0.01	<0.01	0.025
SM-0069	<0.005	7.5	7.3	<0.5	<0.005	<0.005	5	11	<0.005	210	1.5	14.1	10.3	9.89	588	<0.005	<0.005	<0.005	<0.005	<0.005	0.033
SM-0072	<0.005	8.6	7.4	<2.5	<0.005	<0.005	6	13	<0.005	125	0.8		8.58	8.41	477	<0.005	<0.005	<0.005	<0.005	<0.005	0.41
SM-0074	<0.005	7.4	7.3	<0.5	<0.005	<0.005	5	10	<0.005	29	0.3	12.5	7.73	7.74	406	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0076	<0.01	7.3	7.2	<2.5	<0.01	<0.01	10	22	<0.01	530	3.9	17.5	16.4	17.1	1025	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
SM-0079	<0.005	7.1	7.3	<0.5	<0.025	<0.025	6	13	<0.005	235	1.4	15.5	10.3	11	630	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0083	<0.005	7.8	7.7	<0.5	<0.005	<0.005	6	12	<0.005	110	0.4		7.59	7.81	431	<0.005	<0.005	<0.005	<0.005	<0.005	0.006
SM-0085	<0.005	7.8	7.7	<0.5	<0.005	<0.005	3	7.2	<0.005	16	0.2	9	6.25	6.12	324	<0.005	<0.005	<0.005	<0.005	<0.005	0.006
SM-0086	<0.005	7.6	7.4	<0.5	<0.005	<0.005	5	11	<0.005	62	0.4	11.8	6.87	6.9	371	<0.005	<0.005	<0.005	<0.005	<0.005	0.088
SM-0092	<0.005	7.1	7.4	<2.5	<0.025	<0.025	6	14	<0.005	175	1.2	14.1	10.1	10.2	577	<0.005	<0.005	<0.005	<0.005	<0.005	0.023
SM-0092		7.1										13.9									
SM-0133	<0.01	7.9	7.6	<2.5	<0.01	<0.01	5	11	<0.01	210	1.1	18.5	8.83	8.96	518	<0.01	<0.01	<0.01	<0.01	<0.01	0.53
SM-0138	<0.01	7.7	7.3	<0.5	<0.01	<0.01	4	9.4	<0.01	29	0.3	12.7	6.58	6.27	340	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SM-0140	<0.01	7.4	7.3	<0.5	<0.01	<0.01	5	10	<0.01	44	0.5	13.5	7.06	6.92	372	<0.01	<0.01	<0.01	<0.01	<0.01	1.4
SM-0143	<0.01	7	7.3	<0.5	<0.01	<0.01	4	9.3	<0.01	130	1.1	16.2	7.94	8.11	450	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SM-0144	<0.01	7.3	7.4	<0.5	<0.01	<0.01	4	7.9	<0.01	24	0.3	15.9	6.21	6.44	321	<0.01	<0.01	<0.01	<0.01	<0.01	0.87
SM-0148	<0.01	7.3	7.4	<0.5	<0.01	<0.01	5	11	<0.01	79	0.6	17	7.47	7.48	414	<0.01	<0.01	<0.01	<0.01	<0.01	0.46
SM-0151	<0.01	7.4	7.3	<0.5	<0.01	<0.01	5	10	<0.01	195	1.4	16.3	9.48	9.28	542	<0.01	<0.01	<0.01	<0.01	<0.01	0.99
SM-0152	<0.01	7.4	7.5	<0.5	<0.01	<0.01	4	10	<0.01	55	0.5	18	6.7	6.57	357	<0.01	<0.01	<0.01	<0.01	<0.01	0.093
SM-0153	<0.005	7.4	7.4	<0.5	<0.005	<0.005	5	11	<0.005	50	0.4	9.8	7.77	7.82	419	<0.005	<0.005	<0.005	<0.005	<0.005	0.011
SM-0156	<0.01	7.4	7.7	<2.5	<0.05	<0.05	5	10	<0.01	215	1.2	13	9.29	9.58	538	<0.01	<0.01	<0.01	<0.01	<0.01	0.26
SM-0158	<0.01	7.6	7.5	<0.1	<0.01	<0.01	6	13	<0.01	225	1.4	21.4	9.42	9.69	560	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SM-0162	<0.01	7.7	7.2	<2.5	<0.01	<0.01	6	13	<0.01	325	2.1	20.6	11.5	11.9	696	<0.01	<0.01	<0.01	<0.01	<0.01	1.5
SM-0165	<0.01	7.6	7.4	<0.25	<0.01	<0.01	6	13	<0.01	315	2	22.1	10.8	11	653	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SM-0166	<0.01	6.9	6.9	<0.5	<0.01	<0.01	6	12	<0.01	22	0.1	19.4	5.15	5.31	277	<0.01	<0.01	<0.01	<0.01	<0.01	0.3
SM-0167	<0.01	7.4	7.4	<2.5	<0.01	<0.01	6	13	<0.01	245	1.5	21.5	9.81	9.62	576	<0.01	<0.01	<0.01	<0.01	<0.01	0.68
SM-0168	<0.01	7.3	7.4	<2.5	<0.01	<0.01	6	13	<0.01	275	1.7	19.5	10.5	10.6	628	<0.01	<0.01	<0.01	<0.01	<0.01	0.12

Appendix C. Water Chemistry

Point_ID	SamplePoint_ID	CollectionDate	SiteType	3H	3H:3He Age	Ag	Al	ALK	As	B	Ba	Be	Br	C13r	C14	Ca	Cd	CF	CFC113	CFC1 13/12	CFC12
SM-0169	SM-0169A	15-Aug-07	GW			<0.01	<0.01		<0.01	0.04	0.027	<0.01	0.04			130	<0.01	906			
SM-0174	SM-0174A	14-Aug-08	GW			<0.005	<0.005		<0.005	<0.025	0.04	<0.005	0.043			100	<0.005	742			
SM-0174	SM-0174B	25-Sep-08	GW	1.6														738	23	25	17
SM-0175	SM-0175A	25-Sep-08	GW			<0.005	<0.005		<0.005	0.032	0.026	<0.005	0.06			105	<0.005	795			
SM-0176	SM-0176A	25-Sep-08	GW	1.1		<0.005	<0.005		<0.005	0.047	0.04	<0.005	0.11			96	<0.005	807			
SM-0180	SM-0180A	21-Nov-08	GW			<0.01	<0.01		<0.01	<0.05	<0.05	<0.01	0.054			130	<0.01	854			
SM-0181	SM-0181A	21-Nov-08	GW			<0.01	<0.01		<0.01	0.057	<0.05	<0.01	0.082			160	<0.01	1040			
SM-0187	SM-0187A	30-Aug-07	GW			<0.005	<0.005		<0.005	0.053	0.023	<0.005	0.04			165	<0.005	1085			
SM-0193	SM-0193A	20-Nov-08	GW	0.7		<0.01	<0.01		<0.01	<0.05	<0.05	<0.01	0.048			105	<0.01	750	22		33
SM-0197	SM-0197A	20-Nov-08	GW	0.7		<0.01	<0.01		<0.01	<0.05	<0.05	<0.01	0.046			105	<0.01	716			
SM-0200	SM-0200A	15-Aug-07	GW	0.3		<0.01	<0.01		<0.01	0.033	0.036	<0.01	0.05	-7.6	43.9	87	<0.01	678			
SM-0201	SM-0201A	29-Aug-07	GW	2.1	0	<0.005	<0.005		<0.005	0.011	0.047	<0.005	0.05			89	<0.005	584	27	23	33
SM-0202	SM-0202A	30-Aug-07	GW	0.3	0	<0.005	<0.005		<0.005	0.041	0.03	<0.005	0.06	-7.2	53.4	130	<0.005	897	25	25	24
SM-0203	SM-0203A	30-Aug-07	GW	0		<0.005	<0.005		<0.005	0.024	0.042	<0.005	0.05	-7.4	45.6	72	<0.005	550			
SM-0204	SM-0204A	30-Aug-07	GW			<0.005	<0.005		<0.005	0.022	0.045	<0.005	0.04			125	<0.005	755			
SM-0207	SM-0207A	30-Aug-07	GW	0.9			<0.005		<0.005	0.031	0.036	<0.005	0.04	-8.2	62.8	140	<0.005	898			29
SM-0214	SM-0214A	24-Sep-08	GW	0.1		<0.005	<0.005		<0.005	<0.025	0.033	<0.005	0.05			75	<0.005	572			
SM-0216	SM-0216A	24-Sep-08	GW			<0.005	<0.005		<0.005	0.039	0.024	<0.005	0.05			130	<0.005	910			
SM-0217	SM-0217A	24-Sep-08	GW	0		<0.005	<0.02		<0.02	0.58	<0.1	<0.02	0.099			515	<0.02	3269	40		59
SM-0219	SM-0219A	24-Sep-08	GW	0.6		<0.005	<0.005		<0.005	0.061	<0.025	<0.005	0.04			230	<0.005	1379			
SM-0233	SM-0233A	14-Aug-08	GW			<0.005	<0.005		<0.005	<0.025	0.04	<0.005	0.065			115	<0.005	808			
SM-0234	SM-0234A	13-Aug-08	GW			<0.005	<0.005		<0.005	<0.025	0.035	<0.005	0.053			114	<0.005	790			
SM-0235	SM-0235A	12-Aug-08	GW			<0.005	<0.005		<0.005	0.03	0.023	<0.005	0.033			115	<0.005	817			
SM-0236	SM-0236A	12-Aug-08	GW			<0.005	<0.005		<0.005	<0.025	0.056	<0.005	0.075			140	<0.005	873			
SM-0244	SM-0244A	26-Sep-08	GW	1.5		<0.005	<0.005		<0.005	0.034	0.024	<0.005	0.04			115	<0.005	822			
SM-0254	SM-0254A	19-Nov-08	GW			<0.01	0.043		<0.01	<0.05	<0.05	<0.01	0.049			110	<0.01				
SM-0260	SM-0260A	15-Jul-09	GW										0.05			100		666			
SM-0261	SM-0261A	15-Jul-09	GW										0.04			97		649			
SM-1007	SM-1007A	24-Oct-06	SP	4.4		<0.001	<0.001		0.001	0.011	0.035	<0.001	0.02	-12	91.8	120	<0.001	717	21	19	25
SM-1007	SM-1007B	08-May-07	SP			<0.001	<0.001		<0.001	0.014	0.03	<0.001	0.03			120	<0.001	740			
SM-1009	SM-1009A	22-Mar-06	SP															446			
SM-1009	SM-1009B	23-Oct-06	SP	4.3		<0.001	<0.001		<0.001	0.009	0.035	<0.001	0.02	-12.9	92.7	120	<0.001	644	20	18	24
SM-1009	SM-1009C	08-Apr-09	SP			<0.001	0.018		<0.001	0.011	0.031	<0.001	0.025			115	<0.001	649			
SM-1010	SM-1010A	22-Mar-06	SP															416.7			
SM-1010	SM-1010B	08-Apr-09	SP			<0.001	<0.001		<0.001	0.011	0.033	<0.001	0.028			115	<0.001	614			
SM-1011	SM-1011A	22-Mar-06	SP															300.3			
SM-1011	SM-1011B	08-Apr-09	SP			<0.001	0.049		<0.001	0.012	0.032	<0.001	0.03			66	<0.001	433			
SM-1012	SM-1012A	22-Mar-06	SP															255.6			
SM-1012	SM-1012B	08-Apr-09	SP			<0.001	0.01		<0.001	0.011	0.035	<0.001	0.021			87	<0.001	536			
SM-1013	SM-1013A	22-Mar-06	SP															413.7			
SM-1013	SM-1013B	20-Jun-06	SP	6.1		<0.001	0.015		<0.001	0.005	0.026	<0.001	<0.1			125	<0.001	256.5	20	17	24

Point_ID	Cl	Co	CONDLAB	Cr	Cu	d34S	DO	F	Fe	H2r	HCO3	HRD	IONBAL	K	Li	Mg	Mn	Mo	Na	Ni	NO2	NO3	O18r	ORP
SM-0169	14	<0.01	825	<0.01	<0.01		7.6	<0.5	<0.05	-58	260	484	0.66	0.85	<0.01	40	<0.01	<0.01	15	<0.01	<0.5	4.2	-9.1	
SM-0174	22	<0.005	770	<0.005	<0.005	10.8	4.3	<0.5	<0.25	-59	265	373	-0.79	0.88	<0.005	31	<0.025	<0.005	17	<0.005	<0.5	2.7	-9.3	
SM-0174							3.9																	
SM-0175	17	<0.005	790	<0.005	<0.005	11.5	5.3	0.68	<0.5	-55	230	431	2.66	1	0.008	41	<0.025	<0.005	17	<0.005	<0.1	3.8	-8.9	
SM-0176	24	<0.005	790	<0.005	<0.005		2.65	0.67	<0.5	-54	250	413	3.03	1.4	0.01	42	0.044	<0.005	24	0.008	<0.1	17	-8.6	
SM-0180	13	<0.01	890	<0.01	<0.01	10.5	4.1	0.6	<0.05	-60	270	489	2.7	0.98	0.01	40	<0.05	0.01	14	<0.01	<0.5	4.7	-8.86	
SM-0181	10	<0.01	1040	<0.01	<0.01	7.1	2.9	0.99	<0.05	-56	290	605	1.2	1.4	<0.01	50	<0.05	0.012	13	<0.01	<0.5	10	-8.64	
SM-0187	16	<0.005	995	<0.005	<0.005	12.5	3.29	0.57	0.044	-58	290	591	-0.14	0.89	0.011	45	0.005	<0.005	17	<0.005	<0.5	3	-9.2	
SM-0193	13	<0.01	770	<0.01	<0.01	11.9	4.84	<0.5	<0.05	-57	255	410	3.66	0.85	0.01	36	<0.05	<0.01	15	<0.01	<0.5	6.5	-8.95	
SM-0197	13	<0.01	770	<0.01	0.01	11.7	4	0.52	<0.5	-57	280	410	1.03	0.88	0.01	36	<0.05	<0.01	15	<0.01	<0.5	6.4	-8.9	
SM-0200	5.5	<0.01	620	<0.01	<0.01	11.9	8	0.76	<0.05	-58	235	358	0.28	0.79	<0.01	35	<0.01	<0.01	7.8	<0.01	<0.1	7.2	-8.8	
SM-0201	9.5	<0.005	540	<0.005	0.006	10.8	8	0.15	<0.05	-67	325	319	0.07	0.65	<0.005	24	<0.005	<0.005	6.7	<0.005	<0.1	1.9	-10.8	
SM-0202	12	<0.005	805	<0.005	<0.005	12.2	7.7	0.55	<0.05	-58	285	479	-1	0.99	0.008	39	<0.005	<0.005	12	<0.005	<0.5	4.4	-9.4	
SM-0203	5.4	<0.005	505	<0.005	0.008	11.9	10.8	0.58	<0.05	-60	265	287	-0.62	0.73	0.007	27	0.02	<0.005	7.6	0.013	<0.1	4.8	-9.7	
SM-0204	6.4	<0.005	695	<0.005	<0.005	12.6	7.8	<0.5	<0.05	-60	350	423	0.53	0.65	<0.005	28	<0.005	<0.005	7	<0.005	<0.5	3.4	-9.4	
SM-0207	6.9	<0.005	825	<0.005	0.01		6.8	<0.1	<0.05	-60	330	492	-2.62	0.7	0.006	36	<0.005	<0.005	7.2	<0.005	<0.1	3	-9.3	
SM-0214	15	<0.005	565	<0.005	<0.005		6.3	0.43	0.28	-55	210	294	2.34	0.62	<0.005	26	<0.025	<0.005	14	0.011	<0.1	3.7	-8.9	
SM-0216	16	<0.005	900	<0.005	0.005	12.2	4.6	0.43	<0.5	-52	255	506	3.98	0.85	0.008	44	<0.025	<0.005	16	<0.005	<0.1	4.4	-8.7	
SM-0217	28	<0.02	3200	<0.02	<0.02		0.5	1.8	<2	-57	200	2406	2.61	3	0.097	272	<0.1	<0.02	42	<0.02	<0.1	<1	-9.5	
SM-0219	27	<0.005	1370	<0.005	<0.005	12.3	3	0.39	<0.5	-53	285	817	3.62	1	0.015	59	0.027	<0.005	25	0.005	<0.1	1.3	-8.7	
SM-0233	21	<0.005	860	<0.005	<0.005		4.25	<0.5	<0.25	-58	330	414	0.2	0.67	0.007	32	<0.025	<0.005	21	<0.005	<0.5	2.2	-8.4	
SM-0234	20	<0.005	835	<0.005	<0.005	9.2	5.05	<0.5	<0.25	-60	340	415	0.79	0.5	0.006	33	<0.025	<0.005	18	<0.005	<0.5	1.5	-9.1	
SM-0235	15	<0.005	850	<0.005	<0.005	11.8	5.85	<0.5	<0.25	-60	310	430	-0.91	0.58	0.008	36	<0.025	<0.005	14	<0.005	<0.5	2.8	-9	
SM-0236	18	<0.005	955	<0.005	<0.005			<0.5	<0.25		395	483	6.4	0.55	0.005	34	<0.025	<0.005	19	<0.005	3.3	<0.5		
SM-0244	21	<0.005	800	<0.005	<0.005			0.3	<0.5		240	444	2.94	0.98	0.005	38	<0.025	<0.005	18	<0.005	<0.1	1.7		
SM-0254	13	<0.01	730	<0.01	0.013	12		<0.5	<0.05	-60	315	398	3.67	0.84	0.01	30	<0.05	<0.01	13	<0.01	<0.5	3.7	-9.38	
SM-0260	10		710				4.8	0.15			355	354	0.86	1.3		25			12		<0.1	<0.1		136
SM-0261	11		740				5.5	0.17			345	355	1.53	0.9		27			11		<0.1	<0.1		53.7
SM-1007	9.5	<0.001	705	0.001	<0.001		6.2	0.15	<0.05	-57	405	377	-1.07	0.39	0.002	20	<0.001	0.001	10	0.003	<0.1	1.4	-9.5	
SM-1007	10	<0.001	720	0.002	0.005	10.9	8.2	0.18	<0.01	-56	395	386	0.45	0.42	0.002	22	<0.001	0.001	11	0.003	<0.1	1.5	-9	
SM-1009							7																	
SM-1009	5.3	<0.001	640	0.001	0.007		6.3	0.1	<0.05	-60	400	348	-0.91	0.37	0.001	13	<0.001	<0.001	5.7	0.003	<0.1	1	-10.2	
SM-1009	5.3		640	0.003	0.001		8.4	0.01	0.015	-63	375	339	-0.26	0.45	0.001	13	<0.001	<0.001	5.8	0.004	<0.5	0.92	-10.2	303
SM-1010							7.47																	
SM-1010	5.1	<0.001	630	0.002	0.001		9.1	0.1	0.035	-64	360	348	3.05	0.42	0.001	15	<0.001	0.001	6.2	0.006	<0.5	0.8	-10.2	294
SM-1011							8.28																	
SM-1011	5.5	<0.001	435	0.001	0.001		13.6	0.13	0.02	-64	220	227	2.79	0.5	0.001	15	0.002	0.001	7.7	0.002	<0.5	1.5	-9.96	306
SM-1012							7.52																	
SM-1012	3.6	<0.001	550	0.002	<0.001		9.5	0.1	0.015	-65	310	287	1.37	0.49	0.001	17	0.001	<0.001	4.9	0.002	<0.5	1.4	-10.5	306
SM-1013							8.23																	
SM-1013	3.6	<0.001	635	0.003	0.008		8.1	<0.1	0.43	-67	405	348	-0.4	0.34	<0.001	10	0.001	<0.001	3.9	0.001	<0.1	1	-10.5	

Point_ID	Pb	pHf	pHL	PO4	Sb	Se	Si	SiO2	Sn	SO4	Sr	T	TAn	TCat	TDS	Th	Ti	TI	U	V	Zn
SM-0169	<0.01	7.6	7.4	<2.5	<0.01	<0.01	6	12	<0.01	265	1.5	19	10.2	10.4	613	<0.01	<0.01	<0.01	<0.01	<0.01	0.31
SM-0174	<0.005	7.3	7.5	<2.5	<0.025	<0.025	5	11	<0.005	160	0.8	15.1	8.34	8.21	477	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0174		7.3										15.4									
SM-0175	<0.005	7.3	7.4	<0.5	<0.025	<0.025	6	12	<0.005	220	1.5	21.2	8.93	9.41	543	<0.005	<0.005	<0.005	<0.005	<0.005	0.041
SM-0176	<0.005	7.3	7.4	<0.5	<0.025	<0.025	6	12	<0.005	180	1	20.4	8.83	9.38	535	<0.005	<0.005	<0.005	<0.005	<0.005	1
SM-0180	<0.01	7.6	7.6	<2.5	<0.05	<0.05	6	12	<0.01	235	1.6	19.1	9.79	10.3	588	<0.01	<0.01	<0.01	<0.01	<0.01	0.078
SM-0181	<0.01	7.3	7.2	<2.5	<0.05	<0.05	7	14	<0.01	340	1.7	17.9	12.3	12.6	747	<0.01	<0.01	<0.01	<0.01	<0.01	1.1
SM-0187	<0.005	7.2	7.2	<2.5	<0.005	<0.005	7	14	<0.005	355	2.4	20.2	12.7	12.6	764	<0.005	<0.005	<0.005	<0.005	<0.005	0.65
SM-0193	<0.01	7.4	7.4	<2.5	<0.05	<0.05	5	10	<0.01	170	0.9	19.2	8.19	8.81	486	<0.01	<0.01	<0.01	<0.01	<0.01	0.38
SM-0197	<0.01	7.6	7.7	<2.5	<0.05	<0.05	5	11	<0.01	170	0.9	15.4	8.63	8.81	500	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
SM-0200	<0.01	7.4	7.5	<0.5	<0.01	<0.01	6	13	<0.01	160	1	20.7	7.49	7.54	435	<0.01	<0.01	<0.01	<0.01	<0.01	0.27
SM-0201	<0.005	7.7	7.3	<0.5	<0.005	<0.005	6	12	<0.005	50	0.5	13.9	6.67	6.68	357	<0.005	<0.005	<0.005	<0.005	<0.005	0.018
SM-0202	<0.005	7.5	7.4	<2.5	<0.005	<0.005	6	14	<0.005	255	1.7	21	10.4	10.2	612	<0.005	<0.005	<0.005	<0.005	<0.005	1.3
SM-0203	<0.005	7.5	7.5	<0.5	<0.005	<0.005	6	13	<0.005	75	0.6	18.8	6.17	6.09	240	<0.005	<0.005	<0.005	<0.005	<0.005	0.022
SM-0204	<0.005	7.5	7.3	<2.5	<0.005	<0.005	5	11	<0.005	130	0.9	15.9	8.68	8.77	487	<0.005	<0.005	<0.005	<0.005	<0.005	0.006
SM-0207	<0.005	7.5	7.4	<0.5	<0.005	<0.005	5	11	<0.005	245	1.5	15.8	10.8	10.2	617	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0214	<0.005	7.7	7.7	<0.5	<0.025	<0.025	5	10	<0.005	110	0.5	16.2	6.24	6.54	371	<0.005	<0.005	<0.005	<0.005	<0.005	0.076
SM-0216	<0.005	7.2	7.3	<0.5	<0.025	<0.025	6	13	<0.005	255	1.4	18	10	10.9	620	<0.005	<0.005	<0.005	<0.005	<0.005	0.21
SM-0217	<0.02	7	7.1	<0.5	<0.01	<0.1	12	25	<0.02	2090	1.1	18.5	47.7	50.2	3072	<0.02	<0.02	<0.02	<0.02	<0.02	0.12
SM-0219	<0.005	7.2	7.2	<0.5	<0.025	<0.025	7	14	<0.005	520	2.6	16.9	16.3	17.5	1035	<0.005	<0.005	<0.005	<0.005	<0.005	0.65
SM-0233	<0.005	7.4	7.4	<2.5	<0.025	<0.025	6	13	<0.005	150	0.6	13.5	9.16	9.2	520	<0.005	<0.005	<0.005	<0.005	<0.005	0.006
SM-0234	<0.005	7.1	7.3	<2.5	<0.025	<0.025	6	13	<0.005	135	0.8	13.2	8.97	9.11	505	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0235	<0.005	7.2	7.4	<2.5	<0.025	<0.025	6	12	<0.005	185	1.1	14.8	9.4	9.23	536	<0.005	<0.005	<0.005	<0.005	<0.005	0.013
SM-0236	<0.005	7.2	7.4	<2.5	<0.025	<0.025	7	14	<0.005	105	0.9		9.24	10.5	532	<0.005	<0.005	<0.005	<0.005	<0.005	0.016
SM-0244	<0.005	7.6	7.6	<0.5	<0.025	<0.025	5	11	<0.005	220	1.3		9.15	9.7	559	<0.005	<0.005	<0.005	<0.005	<0.005	0.009
SM-0254	<0.01		7.4	<2.5	<0.05	<0.05	5	12	<0.01	110	0.9		7.88	8.48	450	<0.01	<0.01	<0.01	<0.01	<0.01	0.23
SM-0260		6.3	7.2	<0.5				11		65		13.6	7.48	7.61	403						
SM-0261		6.5	7.3	<0.5				13		68		13	7.39	7.61	401						
SM-1007	<0.001	7.4	7.5	<0.5	<0.001	0.001	5	11	<0.001	62	0.7	10.3	8.23	8.05	439	<0.001	0.001	<0.001	0.002	0.003	0.002
SM-1007	<0.001	6.6	7.7	<0.5	<0.001	<0.001	5	11	<0.001	65	0.5	9.9	8.14	8.22	440	<0.001	0.001	<0.001	0.001	0.003	0.001
SM-1009		7.4										9									
SM-1009	<0.001	8.5	7.4	<0.5	<0.001	0.001	5	10	<0.001	33	0.4	9.6	7.41	7.28	390	<0.001	0.001	<0.001	0.001	0.002	0.002
SM-1009	<0.001	7.3	7.4	<2.5	<0.001	0.001	4		<0.001	36	0.4	9.4	7.07	7.03	373	<0.001	0.001	<0.001	0.001	0.003	0.001
SM-1010		7.5										8.7									
SM-1010	<0.001	7.4	7.5	<2.5	<0.001	<0.001	5		<0.001	36	0.4	8.5	6.81	7.24	367	<0.001	0.001	<0.001	0.001	0.002	0.001
SM-1011		8										8.4									
SM-1011	<0.001	7.8	7.9	<2.5	<0.001	0.001	5		<0.001	39	0.3	8.8	4.61	4.88	255	<0.001	0.001	<0.001	0.001	0.003	0.001
SM-1012		7.4										6.7									
SM-1012	<0.001	7.3	7.4	<2.5	<0.001	0.001	4		<0.001	28	0.3	6.9	5.8	5.96	308	<0.001	0.001	<0.001	0.001	0.002	0.001
SM-1013		7.5										7.2									
SM-1013	<0.001		7.9	<0.5	<0.001	<0.001	4	8.8	<0.001	22	0.3	8.6	7.21	7.16	378	<0.001	<0.001	<0.001	0.001	0.002	0.005

Appendix C. Water Chemistry
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Point_ID	SamplePoint_ID	CollectionDate	SiteType	3H	3H:3He Age	Ag	Al	ALK	As	B	Ba	Be	Br	C13r	C14	Ca	Cd	CF	CFC113	CFC1 13/12	CFC12
SM-1013	SM-1013C	08-Apr-09	SP			<0.001	<0.001		<0.001	0.008	0.022	<0.001	0.02			125	<0.001	638			
SM-1014	SM-1014A	22-Mar-06	SP															373.4			
SM-1014	SM-1014B	25-Oct-06	SP	4.5		<0.001	<0.001		<0.001	0.009	0.028	<0.001	0.02			110	<0.001	135	21	19	24
SM-1014	SM-1014C	08-May-07	SP			<0.001	<0.001		<0.001	0.012	0.023	<0.001	0.03			112	<0.001	629			
SM-1014	SM-1014D	19-Mar-08	SP										0.021			125		620			
SM-1014	SM-1014E	10-Sep-08	SP			<0.005	<0.005		<0.005	<0.025	0.024	<0.005	0.023			110	<0.005	606			
SM-1014	SM-1014F	07-Apr-09	SP			<0.001	0.128		<0.001	0.012	0.026	<0.001	0.021			110	<0.001	355			
SM-1015	SM-1015A	22-Mar-06	SP															395			
SM-1016	SM-1016A	22-Mar-06	SP															646			
SM-1016	SM-1016B	02-Aug-06	SP															466			
SM-1017	SM-1017A	22-Mar-06	SP															373.6			
SM-1017	SM-1017B	20-Jun-06	SP	4.1		<0.001	0.001		<0.001	0.006	0.035	<0.001	<0.1			100	<0.001	369.6	21	19	25
SM-1018	SM-1018A	22-Mar-06	SP															449.5			
SM-1018	SM-1018B	24-Oct-06	SP	4.5		<0.001	<0.001		<0.001	0.01	0.03	<0.001	0.01			120	<0.001	680	23	21	26
SM-1018	SM-1018C	18-Mar-08	SP	4.3									0.017			135		688			
SM-1018	SM-1018D	10-Sep-08	SP			<0.005	<0.005		<0.005	<0.025	0.026	<0.005	0.013			123	<0.005	681			
SM-1018	SM-1018E	07-Apr-09	SP			<0.001	<0.001		<0.001	0.012	0.026	<0.001	0.023			125	<0.001	695			
SM-1019	SM-1019A	21-Mar-06	SP															963			
SM-1022	SM-1022A	21-Mar-06	SP															943			
SM-1023	SM-1023A	21-Mar-06	SP															542			
SM-1023	SM-1023B	13-Nov-06	SP	3		<0.001	0.004		<0.001	0.019	0.031	<0.001	<0.04			135	<0.001	891	21	21	22
SM-1025	SM-1025A	21-Mar-06	SP																		
SM-1025	SM-1025B	06-Nov-06	SP	1.6		<0.001	<0.001		<0.001	0.063	0.031	<0.001	<0.5	-9.6	62.1	180	<0.001	2578			
SM-1026	SM-1026A	20-Jun-06	SP	4.3		<0.001	0.01		<0.001	0.004	0.028	<0.001	<0.1			135	<0.001	470	28	21	34
SM-1027	SM-1027A	21-Jun-06	SP	5.1		<0.001	0.007		<0.001	0.005	0.022	<0.001	<0.1			125	<0.001	405.5			
SM-1028	SM-1028A	02-Aug-06	SP															610			
SM-1029	SM-1029A	02-Aug-06	SP															800.9			
SM-1030	SM-1030A	02-Aug-06	SP															618.6			
SM-1031	SM-1031A	02-Aug-06	SP															619.4			
SM-1032	SM-1032A	02-Aug-06	SP															591.8			
SM-1033	SM-1033A	02-Aug-06	SP															514.8			
SM-1036	SM-1036A	03-Aug-06	SP															418.5			
SM-1037	SM-1037A	03-Aug-06	SP															343.6			
SM-1038	SM-1038A	03-Aug-06	SP															571.8			
SM-1039	SM-1039A	03-Aug-06	SP															531.3			
SM-1039	SM-1039B	07-Nov-06	SP	4.9		<0.001	<0.001		<0.001	0.009	0.032	<0.001	0.02			97	<0.001	527	22	21	25
SM-1039	SM-1039C	07-May-07	SP			<0.001	<0.001		<0.001	0.01	0.028	<0.001	0.02			97	<0.001	560			
SM-1039	SM-1039D	19-Mar-08	SP										0.019			105		519			
SM-1039	SM-1039E	10-Sep-08	SP			<0.005	<0.005		<0.005	<0.025	0.029	<0.005	0.027			98	<0.005	548			
SM-1039	SM-1039F	08-Apr-09	SP			<0.001	<0.001		<0.001	0.01	0.028	<0.001	0.02			92	<0.001	546			
SM-1040	SM-1040A	03-Aug-06	SP															556.1			

Point_ID	SamplePoint_ID	CollectionDate	SiteType	3H	3H:3He Age	Ag	Al	ALK	As	B	Ba	Be	Br	C13r	C14	Ca	Cd	CF	CFC113	CFC1 13/12	CFC12
SM-1040	SM-1040B	08-Apr-09	SP			<0.001	0.006		<0.001	0.008	0.019	<0.001	0.018			105	<0.001	572			
SM-1041	SM-1041A	03-Aug-06	SP															694.9			
SM-1042	SM-1042A	03-Aug-06	SP															677.7			
SM-1042	SM-1042B	07-Nov-06	SP	1.9		<0.001	<0.001		<0.001	0.012	0.073	<0.001	0.03			115	<0.001	675	21	20	24
SM-1042	SM-1042C	07-May-07	SP			<0.001	<0.001		<0.001	0.013	0.057	<0.001	0.03			105	<0.001	680			
SM-1042	SM-1042D	19-Mar-08	SP										0.038			120		662			
SM-1042	SM-1042E	10-Sep-08	SP			<0.005	<0.005		<0.005	<0.025	0.06	<0.005	0.041			110	<0.005	674			
SM-1042	SM-1042F	08-Apr-09	SP			<0.001	0.07		<0.001	0.013	0.065	<0.001	0.035			110	<0.001	668			
SM-1043	SM-1043A	04-Aug-06	SP															629			
SM-1044	SM-1044A	04-Aug-06	SP															627.9			
SM-1044	SM-1044B	23-Oct-06	SP	4.3		<0.001	<0.001		<0.001	0.007	0.034	<0.001	0.03			115	<0.001	645	20	19	23
SM-1045	SM-1045A	04-Aug-06	SP															588.4			
SM-1046	SM-1046A	04-Aug-06	SP															592.1			
SM-1046	SM-1046B	23-Oct-06	SP			<0.001	<0.001		<0.001	0.008	0.028	<0.001	0.02			115	<0.001	615			
SM-1047	SM-1047A	04-Aug-06	SP															647.6			
SM-1048	SM-1048A	04-Aug-06	SP															588.1			
SM-1050	SM-1050A	23-Aug-06	SP															1371.8			
SM-1051	SM-1051A	23-Aug-06	SP															591.7			
SM-1051	SM-1051B	06-Nov-06	SP	2.9		<0.001	0.002		<0.001	0.012	0.037	<0.001	0.03			92	<0.001	580	21	20	22
SM-1053	SM-1053A	23-Aug-06	SP															2643.6			
SM-1054	SM-1054A	23-Aug-06	SP															505.1			
SM-1055	SM-1055A	23-Aug-06	SP															319.7			
SM-1056	SM-1056A	24-Aug-06	SP															535.9			
SM-1057	SM-1057A	24-Aug-06	SP															564.1			
SM-1058	SM-1058A	24-Aug-06	SP															642			
SM-1058	SM-1058B	15-Nov-06	SP	4.2		<0.001	0.001		<0.001	0.01	0.04	<0.001	0.03			100	<0.001	643	20	19	22
SM-1058	SM-1058C	17-Jan-08	SP										0.016			92		610			
SM-1058	SM-1058D	20-Mar-08	SP	4.6									0.024			92		619			
SM-1058	SM-1058E	21-May-08	SP										0.037			94		631			
SM-1058	SM-1058F	25-Jul-08	SP										0.027			97		663			
SM-1058	SM-1058H	20-Aug-08	SP										0.023			89		642			
SM-1058	SM-1058G	25-Sep-08	SP										0.03			96		635			
SM-1058	SM-1058I	12-Nov-08	SP										0.022			100		632			
SM-1058	SM-1058J	18-Dec-08	SP										0.022			95		627			
SM-1058	SM-1058K	10-Jan-09	SP															627			
SM-1058	SM-1058L	19-Feb-09	SP										0.03			92		629			
SM-1058	SM-1058M	12-Mar-09	SP										0.02			92		638			
SM-1058	SM-1058N	16-Apr-09	SP										0.03			92		634			
SM-1058	SM-1058O	14-May-09	SP										0.02			97		640			
SM-1058	SM-1058P	25-Jun-09	SP					320					<0.1			95		639			
SM-1058	SM-1058Q	14-Jul-09	SP															639			

Appendix C. Water Chemistry
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Point_ID	SamplePoint_ID	CollectionDate	SiteType	3H	3H:3He Age	Ag	Al	ALK	As	B	Ba	Be	Br	C13r	C14	Ca	Cd	CF	CFC113	CFC1 13/12	CFC12 13/12
SM-1059	SM-1059A	24-Aug-06	SP															591.8			
SM-1059	SM-1059B	15-Nov-06	SP	2.2		<0.001	<0.001		<0.001	0.014	0.035	<0.001	0.03	-11	82.7	105	<0.001	644			
SM-1059	SM-1059C	17-Jan-08	SP										0.02			101		635			
SM-1059	SM-1059D	20-Mar-08	SP	1.9									0.037			100		590			
SM-1059	SM-1059E	21-May-08	SP										0.024			105		303.3			
SM-1059	SM-1059F	25-Jul-08	SP										0.034			95		651			
SM-1059	SM-1059H	20-Aug-08	SP										0.025			100		626			
SM-1059	SM-1059G	25-Sep-08	SP										0.03			110		667			
SM-1059	SM-1059I	12-Nov-08	SP										0.026			115		664			
SM-1059	SM-1059J	18-Dec-08	SP										0.023			110		653			
SM-1059	SM-1059K	11-Jan-09	SP															652			
SM-1059	SM-1059L	19-Feb-09	SP										0.02			105		647			
SM-1059	SM-1059M	12-Mar-09	SP										0.02			100		651			
SM-1059	SM-1059N	16-Apr-09	SP										0.03			105		643			
SM-1059	SM-1059O	14-May-09	SP										0.023			105		644			
SM-1059	SM-1059P	25-Jun-09	SP					380					<0.1			100		643			
SM-1059	SM-1059Q	15-Jul-09	SP															646			
SM-1060	SM-1060A	24-Aug-06	SP															830.3			
SM-1060	SM-1060B	25-Oct-06	SP	5		<0.001	<0.001		<0.001	0.011	0.042	<0.001	0.02			130	<0.001	766	19	18	20
SM-1060	SM-1060C	20-Mar-08	SP	4.5									0.034			145		760			
SM-1060	SM-1060D	10-Sep-08	SP			<0.005	<0.005		<0.005	<0.025	0.038	<0.005	0.018			132	<0.005	773			
SM-1060	SM-1060E	07-Apr-09	SP			<0.001	<0.001		<0.001	0.012	0.033	<0.001	0.026			130	<0.001	776			
SM-1061	SM-1061A	24-Aug-06	SP															634.1			
SM-1062	SM-1062A	24-Aug-06	SP															554.6			
SM-1062	SM-1062B	25-Oct-06	SP	3.7		<0.001	<0.001		<0.001	0.011	0.04	<0.001	0.02			91	<0.001	485	22	20	26
SM-1062	SM-1062C	08-May-07	SP			<0.001	<0.001		<0.001	0.013	0.035	<0.001	<0.02			91	<0.001	576			
SM-1063	SM-1063A	24-Aug-06	SP															561.7			
SM-1064	SM-1064A	24-Aug-06	SP															728			
SM-1065	SM-1065A	25-Aug-06	SP															539.1			
SM-1066	SM-1066A	25-Aug-06	SP															535.3			
SM-1067	SM-1067A	25-Aug-06	SP															516.6			
SM-1067	SM-1067B	23-Oct-06	SP	4.3		<0.001	<0.001		<0.001	0.007	0.021	<0.001	0.01			90	<0.001	507	21	20	25
SM-1068	SM-1068A	25-Aug-06	SP															590.4			
SM-1068	SM-1068B	19-Mar-08	SP										0.009			135		641			
SM-1069	SM-1069A	25-Aug-06	SP															631.9			
SM-1069	SM-1069B	23-Oct-06	SP	5.3		<0.001	<0.001		<0.001	0.008	0.025	<0.001	0.01			120	<0.001	633	21	20	24
SM-1069	SM-1069C	19-Mar-08	SP	5.3									0.005			130		625			
SM-1070	SM-1070A	25-Aug-06	SP															658.7			
SM-1072	SM-1072A	21-Sep-06	SP															610			
SM-1073	SM-1073B	12-Sep-06	SP															480			
SM-1073	SM-1073A	24-Oct-06	SP	3.5		<0.001	<0.001		<0.001	0.009	0.038	<0.001	0.03	-11	82.9	115	<0.001	651	24	21	28

Point_ID	Cl	Co	CONDLAB	Cr	Cu	d34S	DO	F	Fe	H2r	HCO3	HRD	IONBAL	K	Li	Mg	Mn	Mo	Na	Ni	NO2	NO3	O18r	ORP
SM-1059							8.19																	
SM-1059	8.2	<0.001	690	0.001	0.007		7.44	0.09	0.044	-57	385	352	-0.75	0.54	0.001	23	<0.001	0.001	8.6	0.003	<0.03	1.5	-9.2	
SM-1059	8.6		690				7.2	<0.5		-60	380	338	-1.57	0.82		22			7.8		<0.5	1.4	-9.3	
SM-1059	7.3		640				6.69	0.14		-60	380	340	-1.27	0.57		23			8		<0.1	1.4	-8.9	
SM-1059	7.5		705				3.72	0.12		-64	375	348	0.01	0.89		22			7.5		<0.1	1.4	-9.5	
SM-1059	9.6		695					0.12		-58	350	348	1.2	0.5		28			10		<0.1	1.1	-8.7	
SM-1059	7.5		680				9.8	0.12		-57	385	344	-1.52	0.53		24			8		<0.1	1.4	-8.3	101
SM-1059	8.5		660				8.5	0.12		-60	385	382	2.4	0.66		26			9.6		<0.1	1.6	-9.1	-54.7
SM-1059	8.2		910				9.4	0.12		-60	380	390	3.97	0.6		25			8.9		<0.1	1.5	-9.13	22.3
SM-1059	7.9		700				9.3	0.12		-59	385	378	1.73	<2.5		25			8.8		<0.1	1.5	-9.35	135
SM-1059							4.6			-59													-9.48	224
SM-1059	7.6		629				8.2	0.12		-60	380	362	1.09	0.7		24			8.6		<0.1	1.6	-9.76	210
SM-1059	7.7		705				9.8	0.13		-59	355	347	1.85	<2.5		24			8.2		<0.1	1.6	-9.25	121
SM-1059	8		675				9.6	0.13		-61	360	365	3.96	0.64		25			8.5		<0.5	1.5	-9.54	85.3
SM-1059	7		625				10.8	0.12		-60	350	358	4.14	0.56		23			8.2		<0.1	1.5	-9.64	10
SM-1059	7.3		665				9.8	0.12				343	-1.08	0.6		23			8.1		<0.1	1.5		238
SM-1059							9.5																	190
SM-1060							6.63																	
SM-1060	12	<0.001	750	0.001	0.001		6.1	0.16	<0.05	-57	405	393	-1.01	0.3	0.002	18	0.001		13	0.003	<0.1	0.87	-10.1	
SM-1060	12		695				5.69	0.15		-58	325	438	11.19	0.29		20			12		<0.1	0.63	-8.9	
SM-1060	12	<0.005	825	<0.005	<0.005		6.9	0.14	<0.5	-56	405	412	0.2	0.48	<0.005	20	<0.025	<0.005	13	<0.005	<0.1	1	-9.5	
SM-1060	12	<0.001	765	0.002	<0.001		10.6	0.14	0.03	-59	380	408	1.75	0.32	0.001	20	<0.001	0.001	13	0.004	<0.5	0.88	-9.08	283
SM-1061							7.68																	
SM-1062							9.06																	
SM-1062	6.8	<0.001	560	0.001	0.001		7.9	0.14	<0.05	-67	320	289	-1.29	0.44	0.002	16	<0.001	0.001	7.1	0.002	<0.1	1.2	-10.4	
SM-1062	6.5	<0.001	560	0.002	0.003	10.7	5.56	0.15	<0.01	-69	315	294	-0.17	0.44	0.002	17	<0.001	0.001	7.5	0.002	<0.1	1.3	-10.3	
SM-1063							4.84																	
SM-1064							4.95																	
SM-1065							4.91																	
SM-1066							6.95																	
SM-1067							7.59																	
SM-1067	3	<0.001	510	0.001	<0.001		6.8	<0.1	<0.05	-68	320	270	-1.2	0.39	0.001	12	<0.001	<0.001	2.9	0.002	<0.1	5	-11.2	
SM-1068							3.83																	
SM-1068	2.4		565			12.1	5.88	<0.1		-69	350	380	11.32	0.38		12			2.6		<0.1	1	-10.2	
SM-1069							6.17																	
SM-1069	3	<0.001	650	0.001	0.003		6.46	<0.1	<0.05	-66	420	340	-2.27	0.34	0.001	11	<0.001	<0.001	3	0.002	<0.1	1.1	-11.3	
SM-1069	2.3		535				5.5	0.1		-70	325	368	13.18	0.44		12			2.6		<0.1	0.6	-10.4	
SM-1070							6.98																	
SM-1072							6.15																	
SM-1073							7.72																	
SM-1073	4.6	<0.001	665	0.001	<0.001		7.92	0.15	<0.05	-57	415	336	-3.65	0.39	0.002	13	<0.001	0.001	4.7	0.003	<0.1	1.5	-9.8	

Point_ID	Pb	pHf	pHL	PO4	Sb	Se	Si	SiO2	Sn	SO4	Sr	T	TAn	TCat	TDS	Th	Ti	TI	U	V	Zn
SM-1059		7.6										9.8									
SM-1059	0.001	7.2	7.6	<0.1	<0.001	0.001	6	12	<0.001	50	0.5	9.2	7.61	7.5	403	<0.001	0.001	<0.001	0.002	0.003	0.002
SM-1059		8.3	7.2	<2.5						41		9.1	7.35	7.12	373						
SM-1059		7.6	6.8	<0.5						42		9.1	7.34	7.15	372						
SM-1059		7.6	7.6	<0.5						44		14.2	7.3	7.3	376						
SM-1059		7.6	7.5	<0.5						57		11.4	7.22	7.39	376						
SM-1059		7.3	7.5	<0.5						43		9.4	7.45	7.22	377						
SM-1059		7.2	7.6	<0.5						53		9.5	7.69	8.06	440						
SM-1059		7.3	7.5	<0.5						52		9.4	7.57	8.2	439						
SM-1059		7.4	7.5	<0.5						48		9.5	7.56	7.83	394						
SM-1059		7.5										9.3									
SM-1059		7.6	7.5	<0.5						47		9.3	7.45	7.61	396						
SM-1059		7.4	7.5	<0.5						46		9.3	7.03	7.3	376						
SM-1059		7.6	7.5	<2.5						45		9.2	7.09	7.67	384						
SM-1059		7.5	7.7	<0.5						45		7.4	6.92	7.52	376						
SM-1059		6.8	7.8	<0.5						44		9.3	7.37	7.21	386						
SM-1059		6.2										9.4									
SM-1060		7.3										13									
SM-1060	<0.001	7.4	7.7	<0.5	<0.001	0.001	6	12		81	0.7	9.8	8.69	8.51	472	<0.001	0.001	<0.001	0.003	0.003	0.001
SM-1060		7.7	7.8	<0.5						83		5.8	7.41	9.28	436						
SM-1060	<0.005	7.5	7.4	<0.5	<0.025	<0.025	6	12	<0.005	86	0.7	11.4	8.79	8.83	508	<0.005	<0.005	<0.005	<0.005	<0.005	0.005
SM-1060	<0.001	7.5	7.5	<2.5	<0.001	0.001	5		<0.001	87	0.6	6.9	8.41	8.71	467	<0.001	0.001	<0.001	0.002	0.002	0.001
SM-1061		7.6										11.7									
SM-1062		7.5										9.2									
SM-1062	<0.001	7.5	8	<0.5	<0.001	<0.001	5	10	<0.001	41	0.4	8.1	6.32	6.16	335	<0.001	0.001	<0.001	0.001	0.002	<0.001
SM-1062	<0.001	6.9	7.8	<0.5	<0.001	0.001	5	10	<0.001	42	0.4	7.7	6.25	6.23	334	<0.001	0.001	<0.001	0.001	0.002	<0.001
SM-1063		6.8										11.4									
SM-1064		7.2										10.4									
SM-1065		7.3										14.5									
SM-1066		7.4										9.1									
SM-1067		7.3										8.5									
SM-1067	<0.001	7.6	7.7	<0.5	<0.001	0.001	4	8.2	<0.001	15	0.2	8.3	5.72	5.59	298	<0.001	<0.001	<0.001	0.001	0.001	0.001
SM-1068		7.5										16.1									
SM-1068		7.4	7.8	<0.5						16		8	6.15	7.73	344						
SM-1069		7.2										10.3									
SM-1069	<0.001	7.4	7.4	<0.5	<0.001	0.001	4	9	<0.001	16	0.2	9.8	7.32	6.99	375	<0.001	<0.001	<0.001	0.001	0.002	0.001
SM-1069		7.5	7.7	<0.5						16		8.8	5.74	7.48	327						
SM-1070		7.2										10.4									
SM-1072		7.5										12.3									
SM-1073		7.2										12.3									
SM-1073	<0.001	7.4	7.4	<0.5	<0.001	0.001	5	10	<0.001	27	0.4	11.5	7.53	7	385	<0.001	0.001	<0.001	0.001	0.003	0.001

Point_ID	SamplePoint_ID	CollectionDate	SiteType	3H	3H:3He Age	Ag	Al	ALK	As	B	Ba	Be	Br	C13r	C14	Ca	Cd	CF	CFC113	CFC1 13/12	CFC12 13/12	
SM-1076	SM-1076A	25-Aug-06	SP															607.2				
SM-1076	SM-1076B	24-Oct-06	SP	5.1		<0.001	<0.001		<0.001	0.007	0.023	<0.001	0.04	-12.2	89	125	<0.001	632	24	22	27	
SM-1077	SM-1077B	12-Sep-06	SP															890.8				
SM-1077	SM-1077A	24-Oct-06	SP	4.3		<0.001	<0.001		0.001	0.016	0.04	<0.001	0.04			115	<0.001	805	21	17	26	
SM-1077	SM-1077C	20-Mar-08	SP										0.052			145		855				
SM-1078	SM-1078A	12-Sep-06	SP															568.2				
SM-1079	SM-1079A	12-Sep-06	SP															827.9				
SM-1079	SM-1079B	09-Aug-07	SP	0.9		<0.01	<0.01		<0.01	0.03	0.024	<0.01	0.04			120	<0.01	814				
SM-1079	SM-1079C	12-Nov-08	SP															817	31	34	29	
SM-1080	SM-1080B	12-Sep-06	SP															632.4				
SM-1080	SM-1080A	24-Oct-06	SP	3.6		<0.001	<0.001		0.001	0.012	0.033	<0.001	0.03			99	<0.001	592				
SM-1080	SM-1080C	08-May-07	SP			<0.001	<0.001		<0.001	0.013	0.028	<0.001	0.03			103	<0.001	617				
SM-1080	SM-1080D	19-Mar-08	SP										0.037			113		576				
SM-1080	SM-1080E	10-Sep-08	SP			<0.005	<0.005		<0.005	<0.025	0.029	<0.005	0.032			99	<0.005	609				
SM-1080	SM-1080F	08-Apr-09	SP			<0.001	<0.001		0.001	0.013	0.029	<0.001	0.027			100	<0.001	598				
SM-1081	SM-1081A	12-Sep-06	SP															753.4				
SM-1082	SM-1082A	12-Sep-06	SP															634.3				
SM-1083	SM-1083A	12-Sep-06	SP															696.2				
SM-1084	SM-1084B	12-Sep-06	SP															655.2				
SM-1084	SM-1084A	25-Oct-06	SP	3.2		<0.001	<0.001		<0.001	0.011	0.045	<0.001	0.03	-11.8	86.6	110	<0.001	470	24	23	25	
SM-1084	SM-1084C	19-Mar-08	SP										0.038			125		646				
SM-1085	SM-1085A	13-Sep-06	SP															866.5				
SM-1086	SM-1086A	13-Sep-06	SP															710.7				
SM-1087	SM-1087B	13-Sep-06	SP															682.6				
SM-1087	SM-1087A	07-Nov-06	SP	4.2		<0.001	0.006		0.001	0.014	0.05	<0.001	0.06	-14.9	105	120	<0.001	713	23	21	26	
SM-1088	SM-1088A	13-Sep-06	SP															695.6				
SM-1089	SM-1089A	13-Sep-06	SP															497.5				
SM-1090	SM-1090A	14-Nov-06	SP	4.5		<0.001	<0.001		<0.001	0.009	0.033	<0.001	<0.04			105	<0.001	911	21	19	25	
SM-1090	SM-1090B	18-Mar-08	SP										0.022			113		891				
SM-1091	SM-1091A	09-Aug-07	SP	1		<0.01	<0.01		<0.01	0.039	0.025	<0.01	0.04			140	<0.01	926				
SM-1091	SM-1091B	19-Aug-08	SP										0.052			135		936				
SM-1091	SM-1091C	12-Nov-08	SP	1.1														856	23	23	24	
SM-1096	SM-1096A	17-Jan-08	SP										0.021			98		602				
SM-1096	SM-1096B	20-Mar-08	SP										0.03			98		601				
SM-1096	SM-1096C	21-May-08	SP										0.026			89		254.3				
SM-1096	SM-1096D	25-Jul-08	SP										0.017			89		579				
SM-1096	SM-1096E	25-Sep-08	SP										0.03			105		611				
SM-1096	SM-1096F	18-Dec-08	SP										0.021			78		584				
SM-1096	SM-1096G	10-Jan-09	SP															542				
SM-1096	SM-1096H	19-Feb-09	SP										0.02			89		577				
SM-1096	SM-1096I	12-Mar-09	SP										0.02			98		610				

Point_ID	Cl	Co	CONDLAB	Cr	Cu	d34S	DO	F	Fe	H2r	HCO3	HRD	IONBAL	K	Li	Mg	Mn	Mo	Na	Ni	NO2	NO3	O18r	ORP
SM-1076							8.54																	
SM-1076	2.6	<0.001	645	0.001	0.002		7	<0.1	<0.05	-67	425	352	-0.83	0.39	0.001	11	<0.001	<0.001	2.2	0.003	<0.1	2.5	-11.3	
SM-1077							7.58																	
SM-1077	16	<0.001	770	0.001	0.001	11.7	7.7	0.23	<0.05	-51	375	393	-1.34	0.55	0.005	27	<0.001	0.001	19	0.003	<0.1	0.88	-8.9	
SM-1077	20		840				6.39	0.21		-54	325	479	6.92	0.47		30			21		<0.1	0.68	-8.1	
SM-1078							5.77																	
SM-1079							6.14																	
SM-1079	21	<0.01	770	<0.01	<0.01	11.5	4.77	0.23	<0.05	-64	305	436	0.07	0.73	<0.01	34	0.017	<0.01	17	<0.01	<0.1	2.4	-10	
SM-1079							5.16																	98.5
SM-1080							7.57																	
SM-1080	7.2	<0.001	595	0.001	0.001		4.55	0.16	<0.05	-54	340	300	-2.34	0.34	0.002	14	<0.001	0.001	8.9	0.002	<0.1	0.82	-9.1	
SM-1080	6.6	<0.001	595	0.002	0.003	10.6	6.4	0.19	<0.01	-57	335	316	0.5	0.37	0.002	15	<0.001	0.001	8.2	0.003	<0.1	0.54	-9.3	
SM-1080	6.7		600				5.43	0.17		-56	330	339	3.95	0.39		15			7.6		<0.1	0.39	-8.4	
SM-1080	6.9	<0.005	640	<0.005	<0.005		5.95	0.15	<0.5	-53	340	309	-1.92	0.55	<0.005	15	<0.025	<0.005	8.3	<0.005	<0.1	1.3	-8.8	
SM-1080	6.7	<0.001	585	0.002	<0.001		9.4	0.15	0.015	-56	315	313	2.04	0.47	0.002	15	0.001	0.001	8.2	0.003	<0.5	0.62	-9.24	262
SM-1081							8.11																	
SM-1082							6.49																	
SM-1083							8.5																	
SM-1084							7.64																	
SM-1084	7.4	<0.001	640	0.001	0.001	10.7	7.3	0.15	<0.05	-55	365	336	-0.85	0.41	0.002	16	<0.001	0.001	7.8	0.003	<0.1	1.9	-9.1	
SM-1084	7.3		655				5.38	0.15		-56	370	368	2.38	0.4		15			7.6		<0.1	1.4	-8.3	
SM-1085							2.46																	
SM-1086							6.69																	
SM-1087							4.12																	
SM-1087	5.4	0.001	645	<0.001	0.011		1.6	0.25	0.032	-56	450	397	0.04	0.6	0.001	25	0.149	0.001	6	0.004	<0.02	0.19	-9.4	
SM-1088							7.71																	
SM-1089							7.06																	
SM-1090	107	<0.001	950	0.001	0.022	10.4	7.26	0.1	<0.01	-65	355	307	0.59	0.46	0.001	12	<0.001	<0.001	76	0.002	<0.06	7	-10.5	
SM-1090	115		890				5.44	0.1		-69	310	331	1.62	0.33		13			59		<0.1	4.9	-10.6	
SM-1091	19	<0.01	865	<0.01	<0.01	10.8	5.9	<0.5	<0.05	-58	300	504	1.01	0.8	<0.01	39	<0.01	<0.01	19	<0.01	<0.5	2.9	-9.5	
SM-1091	22		985			9.7	6.8	0.27		-57	295	496	0.38	0.84		40			19		<0.1	4.9	-9	
SM-1091							5.98																	-21.6
SM-1096	9.3		655				6.7	<0.5		-58	330	314	-1.01	0.46		18			8.8		<0.5	1.1	-8.9	
SM-1096	8.8		610				6.83	0.14		-59	335	319	-0.87	0.42		19			9		<0.1	0.95	-8.8	
SM-1096	11		635				7.04	0.13		-63	295	292	-0.21	2.1		18			9.3		<0.1	0.58	-9.2	
SM-1096	8.8		595				4.04	0.12		-58	295	296	0.73	0.45		19			9		<0.1	0.6	-8.8	
SM-1096	8.9		605				10.7	0.12		-59	335	345	2.71	0.43		20			9.6		<0.1	0.9	-9.3	-82.3
SM-1096	8.8		600				10.8	0.12		-59	280	277	-1.39	<2.5		20			9.4		<0.1	0.72	-8.94	135
SM-1096							10.7			-59													-9.43	212
SM-1096	8.9		647				10	0.13		-58	290	302	2.02	0.5		19			9.5		<0.1	0.87	-9.5	260
SM-1096	8.9		660				9.3	0.13		-58	305	323	3	<2.5		19			9.1		<0.1	1	-9.13	62.6

Point_ID	Pb	pHf	pHL	PO4	Sb	Se	Si	SiO2	Sn	SO4	Sr	T	TAn	TCat	TDS	Th	Ti	TI	U	V	Zn
SM-1076		7.2										9.1									
SM-1076	<0.001	7.4	7.5	<0.5	<0.001	0.001	4	8.1	<0.001	12	0.2	8.5	7.33	7.21	378	<0.001	0.001	<0.001	0.001	0.002	0.003
SM-1077		7.5										10.2									
SM-1077	<0.001	7.4	7.7	<0.5	<0.001	0.001	7	14	<0.001	115	0.7	10.2	9.02	8.78	497	<0.001	0.001	<0.001	0.003	0.004	0.001
SM-1077		7.5	7.9	<0.5						155		9.7	9.14	10.5	535						
SM-1078		7.5										12									
SM-1079		7.3										14.7									
SM-1079	<0.01	7.9	7.4	<0.5	<0.01	<0.01	5	11	<0.01	185	1.1	14.7	9.49	9.51	546	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SM-1079		7										14.3									
SM-1080		7.3										11.7									
SM-1080	<0.001	7.4	7.6	<0.5	<0.001	0.001	6	13	<0.001	47	0.5	10	6.78	6.47	362	<0.001	0.001	<0.001	0.002	0.005	<0.001
SM-1080	<0.001	6.2	7.7	<0.5	<0.001	0.001	6	13	<0.001	45	0.4	9.8	6.63	6.7	361	<0.001	0.001	<0.001	0.001	0.004	<0.001
SM-1080		7.5	8.2	<0.5						46		11.6	6.57	7.11	354						
SM-1080	<0.005	7.5	7.4	<0.5	<0.025	<0.005	6	13	<0.005	49	0.4	12.3	6.82	6.56	384	<0.005	<0.005	<0.005	<0.005	<0.005	0.005
SM-1080	<0.001	7.5	7.4	<2.5	<0.001	0.001	6		<0.001	48	0.4	13.1	6.36	6.63	349	<0.001	0.001	<0.001	0.001	0.004	<0.001
SM-1081		7.7										12.6									
SM-1082		7.3										13.5									
SM-1083		7.4										11.6									
SM-1084		7.5										11.8									
SM-1084	<0.001	7.4	7.5	<0.5	<0.001	0.001	5	11	<0.001	49	0.5	11.2	7.25	7.13	388	<0.001	0.001	<0.001	0.002	0.003	<0.001
SM-1084		7.4	8	<0.5						50		10.7	7.34	7.7	392						
SM-1085		7.4										14.7									
SM-1086		7.1										11.1									
SM-1087		7.1										13.6									
SM-1087	<0.001	7.3	7.3	<0.25	<0.001	0.001	7	15	<0.001	36	0.3	13	8.29	8.3	435	<0.001	0.001	<0.001	0.001	0.001	0.001
SM-1088		7.2										9.9									
SM-1089		7.3										9.9									
SM-1090	<0.001	7.2	7.6	<0.2	<0.001	0.001	4	9.3	<0.001	22	0.3	7.8	9.41	9.52	518	<0.001	0.001	<0.001	0.001	0.002	0.001
SM-1090		7.9	8.1	<0.5						23		6.3	8.89	9.18	483						
SM-1091	<0.01	7.3	7.4	<2.5	<0.01	<0.01	6	13	<0.01	250	1.4	15.2	10.7	10.9	634	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SM-1091		7.2	7.2	<0.05						245		16.2	10.7	10.7	614						
SM-1091		7										15.2									
SM-1096		7.8	7.3	<2.5						54		9.2	6.81	6.68	355						
SM-1096		7.5	7.3	<0.5						54		9	6.89	6.77	358						
SM-1096		8.3	8.2	<0.5						56		19.6	6.33	6.3	334						
SM-1096		8.7	8	<0.5						54		15.8	6.22	6.32	328						
SM-1096		6.8	7.4	<0.5						56		9.4	6.93	7.31	402						
SM-1096			8	<0.5						57		7.5	6.04	5.88	314						
SM-1096		7.9										5.4									
SM-1096		8	8	<0.5						57		7	6.21	6.47	342						
SM-1096		7.4	7.4	<0.5						57		9.3	6.45	6.85	356						

Point_ID	SamplePoint_ID	CollectionDate	SiteType	3H	3H:3He Age	Ag	Al	ALK	As	B	Ba	Be	Br	C13r	C14	Ca	Cd	CF	CFC113	CFC1 13/12	CFC12 13/12
SM-1096	SM-1096J	16-Apr-09	SP										0.03			105		609			
SM-1096	SM-1096K	14-May-09	SP										0.019			100		607			
SM-1096	SM-1096L	26-Jun-09	SP					330					<0.1			98		607			
SM-1096	SM-1096M	14-Jul-09	SP															607			
SM-1097	SM-1097A	28-Aug-07	SP	1.9		<0.005	<0.005		<0.005	0.014	0.039	<0.005	0.03			100	<0.005	655	24	21	27
SM-1097	SM-1097B	17-Jan-08	SP										0.04			96		650			
SM-1097	SM-1097C	20-Mar-08	SP										0.033			96		644			
SM-1097	SM-1097D	25-Jul-08	SP										0.027			105		656			
SM-1097	SM-1097E	25-Sep-08	SP										0.04			100		660			
SM-1097	SM-1097F	12-Nov-08	SP										0.034			105		661			
SM-1097	SM-1097G	18-Dec-08	SP										0.041			100		663			
SM-1097	SM-1097H	11-Jan-09	SP															659			
SM-1097	SM-1097I	19-Feb-09	SP										0.03			98		658			
SM-1097	SM-1097J	12-Mar-09	SP										0.03			97		660			
SM-1097	SM-1097K	16-Apr-09	SP										0.04			100		658			
SM-1097	SM-1097L	14-May-09	SP										0.022			100		669			
SM-1097	SM-1097M	25-Jun-09	SP					365					<0.1			97		66.8			
SM-1097	SM-1097N	14-Jul-09	SP															663			
SM-1098	SM-1098A	06-Mar-08	SP															808			
SM-1098	SM-1098B	11-Sep-08	SP			<0.005	<0.005		<0.005	0.027	0.048	<0.005	0.04			117	<0.005	813			
SM-1098	SM-1098C	09-Apr-09	SP										0.039			110		785			
SM-1099	SM-1099A	19-Aug-08	SP	1.2		<0.005	<0.005		<0.005	<0.025	0.03	<0.005	0.047			58	<0.005	440	23	22	24
SM-1100	SM-1100A	19-Aug-08	SP			<0.005	<0.005		<0.005	0.026	0.05	<0.005	0.064			140	<0.005	956			
SM-1101	SM-1101A	12-Nov-08	SP	4.7		<0.005	<0.005		<0.005	0.024	0.086	<0.005	0.016			120	<0.005	593			
SM-1102	SM-1102A	17-Dec-08	SP										0.035			125		868			
SM-1103	SM-1103A	15-Jul-09	SP										0.04			95		639			
SM-3015	SM-3015A	19-Jun-07	PS																		
SM-3015	SM-3015B	15-Sep-07	PS																		
SM-3015	SM-3015C	11-Sep-08	PS										0.025			105		734			
SM-3015	SM-3015D	09-Apr-09	PS										0.039			110		862			
SM-3021	SM-3021A	04-Mar-08	PS															416			
SM-3021	SM-3021B	10-Sep-08	PS										0.023			60		424			
SM-3021	SM-3021C	07-Apr-09	PS										0.02			55		408			
SM-3022	SM-3022A	04-Mar-08	PS															479.7			
SM-3022	SM-3022B	10-Sep-08	PS										0.016			80		510			
SM-3022	SM-3022C	07-Apr-09	PS										0.025			71		478			
SM-3023	SM-3023A	04-Mar-08	PS															586			
SM-3024	SM-3024A	06-Mar-08	PS															808			
SM-3025	SM-3025A	06-Mar-08	PS															756			
SM-3025	SM-3025B	11-Sep-08	PS										0.035			98		775			
SM-3025	SM-3025C	09-Apr-09	PS										0.03			105		779			

Point_ID	Cl	Co	CONDLAB	Cr	Cu	d34S	DO	F	Fe	H2r	HCO3	HRD	IONBAL	K	Li	Mg	Mn	Mo	Na	Ni	NO2	NO3	O18r	ORP
SM-1096	9		640				10.6	0.12		-9.4	320	345	4.66	0.47		20			10		<0.5	0.92	-59.2	128
SM-1096	9		585				35	0.12		-58	315	328	2.76	0.46		19			9.4		<0.1	0.92	-9.1	65.8
SM-1096	8.9		625				9.1	0.12				321	-0.04	0.5		19			9.4		<0.1	0.84		282
SM-1096							10.1																	192
SM-1097	10	<0.005	705	<0.005	<0.005	11.7	7.8	0.13	<0.05	-58	370	361	0.17	0.5	<0.005	28	<0.005	<0.005	11	<0.005	<0.1	0.91	-9.2	
SM-1097	10		715				7.2	<0.5		-59	365	342	-1.33	0.51		26			10		<0.5	0.93	-8.9	
SM-1097	9.5		660				7.4	0.15		-59	365	347	-0.61	0.49		27			10		<0.1	1.1	-8.7	
SM-1097	11		690				5.56	0.12		-59	385	352	-0.32	4		23			7.7		<0.1	1.4	-9.3	
SM-1097	10		660				9.5	0.14		-59	360	377	3.02	0.53		31			11		<0.1	1.2	-8.9	-57.2
SM-1097	10		885				10.1	0.14		-59	360	386	3.91	0.57		30			11		<0.1	1.2	-9	113
SM-1097	10		700				9.2	0.14		-59	360	373	1.99	<2.5		30			11		<0.1	1.1	-8.92	150
SM-1097							4.85			-58													-9.34	211
SM-1097	10		657				9.3	0.15		-60	355	361	1.46	0.6		28			11		<0.1	1.2	-9.52	143
SM-1097	10		720				9.7	0.15		-59	350	259	1.57	<2.5		29			11		<0.1	1.2	-9.26	78.6
SM-1097	10		680				10.3	0.14		-59	345	375	4.21	0.58		30			11		<0.5	1.2	-9.33	82.3
SM-1097	11		635				16.4	0.14		-58	330	365	4.55	0.46		28			11		<0.1	1.2	-9.4	110
SM-1097	10		695				13.3	0.14				354	-0.5	0.5		27			11		<0.1	1.2		218
SM-1097							10.2																	184
SM-1098							2.19																	
SM-1098	14	<0.005	860	<0.005	<0.005		4.2	0.28	<0.5	-57	315	432	0.76	1.1	<0.005	34	0.19	<0.005	13	<0.005	<0.1	1.2	-9	
SM-1098	14		765				4.1	0.3		-61	290	409	-0.02	0.8		33			13		<0.5	2.9	-9.15	254
SM-1099	8.1	<0.005	465	<0.005	<0.005	11.1	8.3	0.28	<0.25	-56	195	208	-1.48	0.54	<0.005	16	<0.025	<0.005	8.2	<0.005	<0.1	1.1	-8.6	
SM-1100	35	<0.005	1000	<0.005	0.007	9.7	2.7	0.14	<0.25	-64	365	483	-0.06	0.88	0.007	34	<0.025	<0.005	25	<0.005	<0.1	3.6	-9.9	
SM-1101	2	<0.005	835	<0.005	0.088	9.3	8.9	<0.1	3.1	-72	375	340	3.16	0.31	<0.005	9.9	<0.025	<0.005	2.6	<0.005	<0.1	2.7	-11	120
SM-1102	35		915				9.5	0.18		-67	305	436	0.68	<2.5		30			28		<0.1	2.4	-10.7	65
SM-1103	11		655				7.2	0.14			345	343	0.41	0.7		26			11		<0.1	0.18		170
SM-3015										-60														-9.5
SM-3015										-62														-9.2
SM-3015	17		760				7.8	0.24		-57	245	386	1.02	1.4		30			14		<0.1	2	-9.7	
SM-3015	22		845				10.4	0.28		-62	235	441	2.01	0.88		37			18		<0.5	2	-9.53	245
SM-3021							9			-67														-9.9
SM-3021	4.4		425				8	<0.1		-68	225	203	-0.58	0.49		13			3.8		<0.1	1.3	-11.2	
SM-3021	4.5		405				8.5	0.08		-70	210	192	-1.49	0.47		13			3.9		<0.5	0.84	-10.5	329
SM-3022							8.87			-67														-10.2
SM-3022	5.9		515				8	<0.1		-67	285	249	-1.41	0.58		12			4		<0.1	<0.1	-11.2	
SM-3022	5.3		455				9.6	0.08		-70	245	222	-0.57	0.55		11			4.1		<0.5	0.12	-10.7	286
SM-3023							8			-68														-10.2
SM-3024							2.19			-59														-8.6
SM-3025							9.5			-59														-8.6
SM-3025	14		805				7.22	0.29		-55	225	393	0.46	0.86		36			14		<0.1	2.5	-9.2	
SM-3025	15		785				11.2	0.32		-59	225	405	0.72	0.69		35			14		<0.5	2.5	-8.89	249

Appendix C. Water Chemistry
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Point_ID	Pb	pHf	pHL	PO4	Sb	Se	Si	SiO2	Sn	SO4	Sr	T	TAn	TCat	TDS	Th	Ti	TI	U	V	Zn
SM-1096		7.4	7.5	<2.5						56		9.3	6.69	7.35	373						
SM-1096		7.3	7.7	<0.5						56		9.3	6.6	6.98	363						
SM-1096		7.1	7.7	<0.5						55		9.3	6.84	6.83	368						
SM-1096		5.5										9.1									
SM-1097	<0.005	8.3	7.4	<0.5	<0.005	<0.005	6	13	<0.005	63	0.5	10	7.68	7.71	412	<0.005	<0.005	<0.005	<0.005	<0.005	0.005
SM-1097		7.9	7.2	<2.5						58		9.5	7.49	7.29	384						
SM-1097		7.4	7.1	<0.5						57		9.8	7.46	7.37	384						
SM-1097		7.9	7.6	<0.5						42		12.4	7.52	7.48	387						
SM-1097		6.8	7.3	<0.5						65		10.1	7.56	8.03	435						
SM-1097		7.4	7.4	<0.5						66		9.9	7.58	8.2	440						
SM-1097		7.4	7.4	<0.5						64		9.9	7.54	7.85	396						
SM-1097		7.1										9.6									
SM-1097		7.7	7.5	<0.5						65		9.7	7.48	7.7	403						
SM-1097		7.5	7.4	<0.5						64		9.75	7.4	7.64	399						
SM-1097		7.3	7.4	<2.5						64		9.9	7.32	7.96	403						
SM-1097		7.2	7.6	<0.5						66		10.1	7.1	7.78	394						
SM-1097		6.5	7.5	<0.5						64		10.2	7.64	7.57	407						
SM-1097		5.9										10.3									
SM-1098		7.5										12.7									
SM-1098	<0.005	7.5	7.4	<0.5	<0.025	<0.025	6	13	<0.005	170	1.2	15.8	9.13	9.27	540	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-1098		7.3	7.4	2.5						171		13.5	8.76	8.76	501						
SM-1099	<0.005	7.2	7.7	<0.5	<0.025	<0.025	5	10	<0.005	50	0.3	17.2	4.66	4.52	260	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-1100	<0.005	7	7.2	<0.5	<0.025	<0.025	6	12	<0.005	180	1.1	18.4	10.8	10.8	613	<0.005	<0.005	<0.005	<0.005	<0.005	0.013
SM-1101	<0.005	7.1	7.5	<0.5	<0.025	<0.025	3	7	<0.005	15	0.2	7.7	6.56	6.99	350	<0.005	<0.005	<0.005	<0.005	<0.005	0.029
SM-1102		7.3	7.3	<0.5						175		11	9.68	9.81	548						
SM-1103		6.3	7.4	<0.5				12		64		11.9	7.3	7.37	392						
SM-3015																					
SM-3015																					
SM-3015		8.4	8.2	<0.5						175		16.8	8.18	8.35	492						
SM-3015		8.2	8	<2.5						227		10	9.24	9.62	553						
SM-3021		8.7										4.4									
SM-3021		8.4	7.9	<0.5						22		11.9	4.29	4.24	240						
SM-3021		8.2	8.3	<2.5						26		11.5	4.14	4.02	217						
SM-3022		8.4										5.1									
SM-3022		8.4	7.8	<0.5						23		12.4	5.32	5.17	296						
SM-3022		8.2	7.9	<2.5						25		11.4	4.69	4.63	246						
SM-3023		8.2										9.8									
SM-3024		7.5										12.7									
SM-3025		8.4										7.2									
SM-3025		8.3	8.2	<0.5						205		17.8	8.41	8.48	506						
SM-3025		8.2	8	<2.5						213		8.3	8.6	8.73	508						

Point_ID	SamplePoint_ID	CollectionDate	SiteType	3H	3H:3He Age	Ag	Al	ALK	As	B	Ba	Be	Br	C13r	C14	Ca	Cd	CF	CFC113	CFC1 13/12	CFC12 13/12	
SM-3026	SM-3026B	26-Oct-07	L																			
SM-3026	SM-3026A	20-Mar-08	L	5.7									0.135			19		195				
SM-3026	SM-3026C	21-May-08	L										0.26			39		198.7				
SM-3026	SM-3026D	25-Jul-08	L										0.066			12		164				
SM-3026	SM-3026F	20-Aug-08	L										0.014			8.4		94				
SM-3026	SM-3026E	25-Sep-08	L										0.02			9.6		89				
SM-3026	SM-3026G	12-Nov-08	L										0.027			9.7		108				
SM-3026	SM-3026H	18-Dec-08	L										0.033			9.4		153				
SM-3026	SM-3026I	10-Jan-09	L															186				
SM-3026	SM-3026J	19-Feb-09	L										0.03			5.2		93				
SM-3026	SM-3026K	12-Mar-09	L										0.04			10		109				
SM-3026	SM-3026L	16-Apr-09	L										0.06			10		141				
SM-3026	SM-3026M	14-May-09	L										0.14			25		297				
SM-3026	SM-3026N	25-Jun-09	L															426				
SM-3026	SM-3026O	15-Jul-09	L															292				
SM-3027	SM-3027A	20-Mar-08	L	7.8									0.374			41		373				
SM-3027	SM-3027B	25-Jul-08	L										0.14			17		162				
SM-3027	SM-3027D	20-Aug-08	L										0.006			9.3		83				
SM-3027	SM-3027C	25-Sep-08	L										0.03			14		110				
SM-3027	SM-3027E	12-Nov-08	L										0.087			22		165				
SM-3027	SM-3027F	18-Dec-08	L										0.14			14		126				
SM-3027	SM-3027G	10-Jan-09	L															121				
SM-3027	SM-3027H	15-Jul-09	L															234				
SM-3028	SM-3028A	11-Sep-08	PS										0.026			77		492				
SM-3028	SM-3028B	08-Apr-09	PS										0.025			63		471				
SM-3029	SM-3029A	11-Sep-08	PS										0.028			76		482				
SM-3029	SM-3029B	08-Apr-09	PS										0.024			76		510				
SM-3030	SM-3030A	11-Sep-08	PS										0.042			120		791				
SM-3030	SM-3030B	09-Apr-09	PS										0.034			105		792				
SM-3031	SM-3031A	10-Sep-08	PS										0.034			108		796				
SM-3031	SM-3031B	08-Apr-09	PS										0.036			96		755				
SM-3032	SM-3032A	10-Sep-08	PS										0.014			110		592				
SM-3049	SM-3049A	07-Apr-09	PS										0.017			94		565				

Point_ID	Cl	Co	CONDLAB	Cr	Cu	d34S	DO	F	Fe	H2r	HCO3	HRD	IONBAL	K	Li	Mg	Mn	Mo	Na	Ni	NO2	NO3	O18r	ORP
SM-3026										-28													-2.1	
SM-3026	24		200				2.68	0.15		-33	68	63	0.48	6.6		3.9			11		<0.1	<0.1	-2.2	
SM-3026	83		475				11.5	0.21		19	110	126	-2.7	14		7.3			26		<0.1	<0.1	11.2	
SM-3026	18		195				3.37	0.1		-91	31	39	-3.25	10		2.4			7.7		0.52	4	-10.8	
SM-3026	4.1		97				3.5	0.1		-64	11	28	-8.4	5.5		1.7			3		0.34	0.58	-8.5	35.4
SM-3026	3.4		94				4.15	0.11		-59	49	33.4	-2.79	5.2		2.3			2.7		<0.1	<0.1	-7.7	-69.6
SM-3026	11		370				15.9	0.11		-49	40	32	0.8	5.6		2			6.1		<0.1	<0.1	-5.67	17.4
SM-3026	8.9		130				3.5	<0.1		-57	38	31	0.65	4.8		1.8			5.8		<0.1	0.43	-7.18	134
SM-3026										-52													-6.73	177
SM-3026	8.2		62				12.6	<0.1		-48	16	18	1.73	3.2		1.2			3.7		0.17	0.35	-6.04	186
SM-3026	13		160				12.5	0.1		-48	35	35	4.02	7		2.7			6.5		<0.1	<0.1	-5.57	29
SM-3026	21		155				13.3	0.14		-24	27	34	-0.71	7.17		2.2			9.5		<0.5	0.08	-0.04	62.9
SM-3026	42		280				7.8	0.2		22	62	81	1.29	13		4.4			17		<0.1	9.2	10.8	-195
SM-3026							6.3																	45
SM-3026							0.87																	-36
SM-3027	21		370				4.3	0.26		-18	180	154	0.65	6.6		13			16		<0.1	<0.1	3.6	
SM-3027	5.1		195				3.52	0.22		-67	75	63	1.28	5.5		5.2			5.9		<0.1	0.18	-6	
SM-3027	1		91				4.4	0.12		-52	51	51	-4.44	3		3			1.6		<0.1	<0.1	-7.4	-1.2
SM-3027	1.4		115				2.94	0.15		-50	72	55.1	2.23	3.7		4.9			2.7		<0.1	<0.1	-6.6	-101
SM-3027	2.8		305				8.21	0.17		-31	96	82	5.35	3.8		6.6			3.3		<0.1	<0.1	-1.95	-4.2
SM-3027	6.5		165				14.3	0.15		-52	67	54	1.17	3.9		4.6			6.8		<0.1	0.43	-10.7	
SM-3027							0.64			-48													-5.89	192
SM-3027							2.6																	89
SM-3028	3.7		500				7.6	0.11		-64	280	258	1.13	0.55		16			4.5		<0.1	1.8	-10.4	
SM-3028	4.4		435				9.3	0.13		-62	240	230	1.19	0.55		18			5.6		<0.5	0.76	-10.1	288
SM-3029	3.1		500				7.5	0.1		-65	285	252	-0.59	0.57		15			3.4		<0.1	1.8	-10.7	
SM-3029	4.2		505				8.7	0.13		-64	295	263	-0.76	0.61		18			5		<0.5	1.6	-10.4	297
SM-3030	21		895				5.95	0.27		-59	290	444	-0.18	0.84		35			17		<0.1	2.2	-9.7	
SM-3030	23		780				6	0.28		-63	255	392	-0.13	1		31			17		<0.5	3.1	-9.86	220
SM-3031	28		825				7.2	0.17		-64	260	389	1.98	0.74		29			22		<0.1	1.3	-10.8	
SM-3031	26		700				9	0.18		-67	240	347	3.24	0.68		26			20		<0.5	1.4	-10.8	251
SM-3032	5.2		635				7.2	<0.1		-67	370	324	0.06	0.61		12			4.4		<0.1	0.42	-11	
SM-3049	5.2		540				8.2	0.09		-69	300	284	2.74	0.65		12			4.2		<0.5	0.48	-11.2	284

Appendix C. Water Chemistry
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Point_ID	Pb	pHf	pHL	PO4	Sb	Se	Si	SiO2	Sn	SO4	Sr	T	TAn	TCat	TDS	Th	Ti	TI	U	V	Zn
SM-3026																					
SM-3026		7.5	7.1	<0.5						4		12.9	1.88	1.9	103						
SM-3026		9.6	7.5	<0.1						3.3		28.8	4.23	4	228						
SM-3026		8	8.1	<0.5						18		24	1.47	1.38	88						
SM-3026		6.9	7.7	<0.5						5.6		19.5	0.98	0.82	51						
SM-3026		7	7.5	<0.5						3.2		11.3	0.97	0.92	56						
SM-3026		7.4	8.1	<0.5						3.3		2.9	1.04	1.06	62						
SM-3026		7.2	7.9	<0.5						4.4		0.65	0.97	0.99	55						
SM-3026		8.7										0.01									
SM-3026		8.3	7.4	<0.5						3.7		6.9	0.58	0.6	40						
SM-3026		8.8	7.4	<0.5						6		12.9	1.07	1.16	113						
SM-3026		7.9	7.1	<2.5						13		11.2	1.3	1.28	84						
SM-3026		7.4	8	<0.5						11		26.6	2.59	2.66	161						
SM-3026		7										31.7									
SM-3026		6.7										18.6									
SM-3027		7.9	7.9	<0.5						16		20.4	3.89	3.95	204						
SM-3027		8.2	8.2	<0.5						11		26.4	1.66	1.62	88						
SM-3027		7.3	7.8	<0.1						2.8		20.1	0.93	0.85	46						
SM-3027		7.2	7.3	<0.5						1.4		8.3	1.26	1.31	71						
SM-3027		7.9	7.6	<0.5						1.4		5.4	1.69	1.88	98						
SM-3027		8.8	8.1	<0.5						6.2		6	1.43	1.46	76						
SM-3027		7.7										2									
SM-3027		6.9										19.3									
SM-3028		8.5	8	<0.5						25		14.2	5.25	5.37	297						
SM-3028		8.3	7.8	<2.5						32		14.2	4.73	4.85	253						
SM-3029		8	7.9	<0.5						22		13	5.25	5.19	293						
SM-3029		7.8	7.9	<2.5						28		14.7	5.57	5.49	290						
SM-3030		7.6	7.4	<0.5						205		16.6	9.66	9.63	575						
SM-3030		7.3	7.4	<2.5						180		12	8.63	8.6	499						
SM-3031		8.4	7.9	<0.5						160		14.8	8.41	8.75	505						
SM-3031		8.2	7.9	<2.5						127		13.9	7.33	7.82	426						
SM-3032		7.5	7.5	<0.5						22		13.5	6.68	6.68	337						
SM-3049		8.1	7.9	<2.5						23		17.2	5.55	5.87	297						