

APPENDIX 7—Water Chemistry Data

See Appendix 1 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 7. Water Chemistry Data

Point ID	C13r	C14	Ca	Cd	CF	CFC113	CFC 113/12	CFC 12	Cl	Co	COND LAB	Cr	Cu	d34S	DO	F	Fe	H2r	HCO3
SM-0007			66	<0.005	399	19	17	22	9.1	<0.005	395	<0.005	0.005	9	5.8	0.2	<0.05	-48	210
SM-0011			130	<0.005	695	30	26	34	6.5	<0.005	695	<0.005	<0.005	10.7	7.5	<0.1	<0.05	-71	445
SM-0012			107	<0.005	691				20	<0.005	690	<0.005	0.019	11.8	5.7	0.16	<0.05	-61	340
SM-0016			106	<0.005	654				5.8	<0.005	645	<0.005	0.035			0.18	<0.05	-69	310
SM-0016			101	<0.005	645				5.7	<0.005	635	<0.005	0.036	11.5		0.18	0.004	-69	295
SM-0018			66	<0.005	455	23	20	26	3.4	<0.005	420	<0.005	<0.005	10.8	6	0.11	<0.05	-62	275
SM-0021			74	<0.005	481	20	19	22	4.3	<0.005	460	<0.005	0.002	9.5	7.6	0.14	0.71	-67	280
SM-0023			120	<0.005	687	29			16	<0.005	660	<0.005	<0.005	10.2	7.5	<0.1	<0.05	-70	425
SM-0026			109	<0.005	671	27	22	32	5.1	<0.005	615	<0.005	<0.005	11.3	6.3	<0.5	<0.05	-70	325
SM-0038			97	<0.005	597	19	19	18	9	<0.005	585		0.014	11.3	5.9	0.11	<0.05	-65	350
SM-0040			115	<0.005	749	26	29	21	12	<0.005	740	<0.005	<0.005	11.9	4.9	0.2	<0.05	-61	325
SM-0040			115		788				12		840				5.12	0.2		-60	325
SM-0040			120		791				13		855				7.82	0.21		-59	320
SM-0040			120		790				13		820				9.4	0.2		-60.4	330
SM-0040			120		782				12		805				8.3	0.21		-60.7	330
SM-0040			120		779				13		815				8.3	0.21		-62	325
SM-0040			115		779				13		820				7.9	0.19		-63.2	300
SM-0040			110		779				13		820				8.15	0.18		-60.1	350
SM-0042			125	<0.005	676	21			6.1	<0.005	655	<0.005	<0.005	10.6	7.2	0.14	<0.05	-57	415
SM-0044			115	<0.005	652	23	22	25	5.1	<0.005	620	<0.005	<0.005	10.6	6	0.16	<0.05	-61	420
SM-0044			115						6.3		665					<0.5		-56.1	415
SM-0044			110						6		680					0.16		-53.2	395
SM-0044			110		644				5.3		675				11.24	0.15		-55.5	410
SM-0044			110		650				4.4		685				8.9	0.16		-58.7	415
SM-0044			125		649				4.4		815				9.5	0.15		-59.6	415
SM-0044			120		646				4		675				10.7	0.14		-59	390
SM-0044			110		638				4.1		665				8.9	0.14		-58.3	405
SM-0045			103	<0.01	633	27			7.9	<0.01	600	<0.01	0.013		7.86	0.18	<0.05	-65	295
SM-0056			105	<0.005	683	28	22	34	13	<0.005	660	<0.005	0.006	11.9	7.5	0.15	<0.05	-57	345
SM-0056			96		500				13		705					<0.5		-54.5	340
SM-0056			99		673				13		735				9.7	0.15		-53.8	335
SM-0056			93		678				13		710				8.16	0.14		-58.3	335
SM-0056			100		676				14		745				9.7	0.14		-56.2	320
SM-0056			105		677				13		700				10.7	0.14		-57.7	335
SM-0056			100		679				13		710				8.7	0.13		-57.2	320
SM-0056			97		663				13		720				7.7	0.13		-55.6	340
SM-0057			100	<0.005	685	24	20	30	13	<0.005	670	<0.005	<0.005	12	7.4	0.15	<0.05	-55	325
SM-0057			89		500				13		740					<0.5		-52.5	325
SM-0057			95		697				14		760				10	0.14		-51.7	320
SM-0057			93		692				14		720				8.96	0.14		-57.3	325
SM-0057			93		697				13		725				9.4	0.15		-55.1	340
SM-0057			99		696				14		685				11.1	0.14		-55.2	320
SM-0057			100		696				14		745				8.8	0.13		-55.4	305
SM-0057			96		695				14		730				7.62	0.13		-52.6	320
SM-0059			105	<0.005	677	22			11	<0.005	645	<0.005	0.017			0.15	<0.05	-55	360
SM-0064			105		500				10		720					<0.5		-56.7	375
SM-0064			120		709				13		750				4.04	0.14		-58.4	390
SM-0064			110		659				9.1		675				5.8	0.15		-57.2	375

Appendix 7. Water Chemistry Data

Point ID	Hg	HRD	IONBAL	K	Li	Mg	Mn	Mo	Na	Ni	NO2	NO3	O18r	ORP	Pb	pHf	pHL	PO4	Sb
SM-0007		198	-0.2	1.7	<0.005	8.8	<0.005	<0.005	6.7	<0.005	<0.1	8.9	-8		<0.005	7.6	7.5	<0.5	<0.005
SM-0011		399	0.09	0.41	<0.005	20	<0.005	<0.005	7.1	<0.005	<0.1	1.5	-10.9		<0.005	7.5	7.3	<0.5	<0.005
SM-0012		369	1.58	0.45	<0.005	26	<0.005	<0.005	16	<0.005	<0.1	6.3	-9.7		<0.005	7.5	7.3	<0.5	<0.005
SM-0016		352	-0.16	0.51	<0.005	22	<0.005	<0.005	6.3	<0.005	<0.1	1.9	-10.6		<0.005	7.7	7.3	<0.5	<0.005
SM-0016		337	-0.57	0.49	<0.005	22	<0.005	<0.005	6.2	<0.005	<0.2	1.9	-10.7		<0.005	7.8	7.7	<0.5	<0.005
SM-0018		248	0.14	0.34	<0.005	21	<0.005	<0.005	5.3	<0.005	<0.1	0.46	-10.1		<0.005	7.8	7.4	<0.5	<0.005
SM-0021		246	-1.43	0.34	<0.005	16	<0.005	<0.005	6.9	<0.005	<0.2	2.6	-10.3		<0.005	8	7.6	<0.5	<0.005
SM-0023		357	-2.88	0.36	<0.005	15	<0.005	<0.005	7.6	<0.005	<0.2	2.3	-11.1		<0.005	7.8	7.3	<0.5	<0.005
SM-0026		368	-0.56	0.54	<0.005	24	<0.005	<0.005	4.7	<0.005	<0.5	1.4	-11		<0.005	7.5	7.3	<2.5	<0.005
SM-0038		320	-1.95	0.54	<0.005	20	0.058	<0.005	8.7	<0.005	<0.2	2.5	-10.1		<0.005	8.2	7.8	<0.5	<0.005
SM-0040		409	-1.2	0.55	0.006	31	<0.005	<0.005	12	<0.005	<0.2	2.7	-9.7		<0.005	7.5	7.3	<0.5	<0.005
SM-0040		422	0.88	0.55		34			13		<0.1	2.6	-9.2			7.24	7.2	<0.5	
SM-0040		440	2.59	0.58		34			13		<0.1	2.7	-9.9			7.2	7.3	<0.5	
SM-0040		427	-0.23	0.46		31			13		<0.1	2.5	-9.6			7.1	7.3	<0.5	
SM-0040		440	2.1	0.75		34			14		<0.1	2.5	-9.43	19.1		7.4	7.3	<0.5	
SM-0040		444	2.95	0.57		34			13		<0.1	2.7	-9.87	21.7		7.3	7.4	<0.5	
SM-0040		426	3.76	0.6		34			13		<0.5	2.6	-9.74	19.9		7.2	7.3	<2.5	
SM-0040		404	-3.5	0.61		31			13		<0.1	2.6	-9.23	75.2		7.02	7.3	<0.5	
SM-0042		369	-0.42	0.49	<0.005	16	<0.005	<0.005	6.4	<0.005	<0.1	2.3	-8.9		<0.005	7.5	7.3	<0.5	<0.005
SM-0044		342	-3.32	0.5	<0.005	15	<0.005	<0.005	4.8	<0.005	<0.2	3.1	-9.3		<0.005	7.9	7.2	<0.5	<0.005
SM-0044		344	-2.3	0.57		15			5.4		<0.5	5.2	-8.2			7.1	7.3	<2.5	
SM-0044		336	-1.08	0.5		15			5.3		<0.1	5.7	-9.2				7.3	<0.5	
SM-0044		332	-3.64	0.49		14			4.9		<0.1	4.4	-8.8			6.95	7.3	<0.5	
SM-0044		341	-3.41	<2.5		16			5.2		<0.1	3.1	-8.81	115.6		7.3	7.2	<0.5	
SM-0044		374	2.34	0.54		16			5.1		<0.1	3	-9.18	128		7.3	7.4	<0.5	
SM-0044		366	3.81	0.56		16			5		<0.5	2.6	-9.47	59.1		7.1	7.2	<2.5	
SM-0044		336	-2.32	0.51		15			4.7		<0.1	2.4	-8.66	272		7.1	7.2	<0.5	
SM-0045		354	2.2	0.56	<0.01	25	<0.01	<0.01	8.9	<0.01	<0.1	2.2	-10.6		<0.01	7.3	7.5	<0.5	<0.01
SM-0056		365	1.14	0.51	<0.005	26	<0.005	<0.005	15	<0.005	<0.1	2.9	-8.8		<0.005	7.5	7.3	<0.5	<0.005
SM-0056		342	-1.71	0.53		26			14		<0.5	2.7	-7.8			7.2	7.6	<0.5	
SM-0056		358	0.68	0.49		27			14		<0.1	2.7	-9.1			7.3	7.4	<0.5	
SM-0056		335	-2.5	0.51		25			14		<0.1	2.5	-8.5			7.13	7.4	<0.5	
SM-0056		357	0.83	<2.5		26			20		<0.1	4.4	-8.64	109.3		7.4	7.4	<0.5	
SM-0056		372	3.54	0.43		27			14		<0.1	3	-9.07	101.6		7.3	7.4	<0.5	
SM-0056		364	3.38	0.59		28			15		<0.5	2.8	-9.1	89.1		7.4	7.3	<2.5	
SM-0056		345	-1.72	<0.5		25			14		<0.1	2.8	-8.34	276.3		7.15	7.3	<0.5	
SM-0057		352	0.92	0.55	<0.005	26	<0.005	<0.005	19	<0.005	<0.1	4.1	-8.6		<0.005	7.5	7.4	<0.5	<0.005
SM-0057		321	-3.43	0.46		25			18		<0.5	3.8	-7.6			7.3	7.6	<2.5	
SM-0057		340	-1.19	0.5		25			18		<0.1	4.2	-8.8			7.4	7.4	<0.5	
SM-0057		335	-2.09	0.49		25			19		<0.1	4.2	-8.3			7.24	7.4	<0.5	
SM-0057		343	-2.16	<2.5		27			15		<0.1	2.6	-8.38	86		7.5	7.3	<0.5	
SM-0057		348	1.06	0.54		25			19		<0.1	4.8	-8.7	75.2		7.4	7.5	<0.5	
SM-0057		363	3.76	0.62		27			21		<0.5	4.6	-8.82	82.5		7.5	7.4	<0.5	
SM-0057		343	-0.6	0.53		25			19		<0.1	4.5	-8.12	225.3		7.2	7.3	<0.5	
SM-0059		344	-1.53	0.51	0.007	21	0.009	<0.005	13	<0.005	<0.2	1.5	-8.6		<0.005	7.5	7.4	<0.5	<0.005
SM-0064		348	-1.37	0.5		22			8		<0.5	6.1	-8.4			7	7.4	<0.5	
SM-0064		394	1.51	0.61		23			10		<0.1	6.8	-8.9			6.89	7.2	<0.5	
SM-0064		361	0.51	<2.5		21			9.8		<0.1	3.5	-8.99	118.4		7.3	7.2	<0.5	

Appendix 7. Water Chemistry Data

Point ID	Se	Si	SiO2	Sn	SO4	Sr	T	TAn	TCat	TDS	Th	Ti	TI	U	V	Zn
SM-0007	<0.005	11	24	<0.005	22	0.3	15.7	4.31	4.29	253	<0.005	<0.005	<0.005	<0.005	0.008	0.05
SM-0011	<0.005	3.3	7.1	<0.005	38	0.42	9	8.29	8.31	433	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0012	<0.005	4.9	11	<0.005	76	0.56	12.1	7.83	8.08	433	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0016	<0.005	4.2	9.2	<0.005	100	0.79	10.9	7.37	7.34	408	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0016	<0.005	4.3	9.2	<0.005	100	0.79		7.12	7.04	395	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0018	<0.005	4.1	8.7	<0.005	27	0.34	9.2	5.18	5.19	270	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0021	<0.005	3.8	8	<0.005	32	0.34	7.3	5.43	5.27	285	<0.005	<0.005	<0.005	<0.005	<0.005	0.015
SM-0023	<0.005	3.5	7.4	<0.005	23	0.28	9.5	7.93	7.49	405	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0026	<0.005	4.3	9.3	<0.005	105	0.93	13.1	7.68	7.59	423	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0038	<0.005	3.9	8.4	<0.005	50	0.43	11.7	7.08	6.81	372	<0.005	<0.005	<0.005	<0.005	<0.005	0.31
SM-0040	<0.005	5	11	<0.005	155	1.1	12.9	8.95	8.73	503	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0040					150		12.57	8.84	9	489						
SM-0040					155		12.9	8.89	9.37	498						
SM-0040					160		12.6	9.16	9.12	505						
SM-0040					150		12.7	8.92	9.31	498						
SM-0040					150		11.6	8.86	9.4	507						
SM-0040					150		11.8	8.45	9.11	485						
SM-0040					150		13	9.27	8.64	507						
SM-0042	<0.005	4.6	10	<0.005	35	0.34	12.6	7.75	7.68	408	<0.005	<0.005	<0.005	<0.005	<0.005	0.031
SM-0044	<0.005	4.6	10	<0.005	22	0.31	14.5	7.54	7.06	385	<0.005	<0.005	<0.005	<0.005	<0.005	0.02
SM-0044					18			7.44	7.1	372						
SM-0044					18			7.12	6.97	358						
SM-0044					21		14.3	7.39	6.87	365						
SM-0044					21		13.7	7.42	6.93	367						
SM-0044					21		13.3	7.43	7.79	393						
SM-0044					21		13.8	6.99	7.55	370						
SM-0044					22			7.26	6.93	371						
SM-0045	<0.01	4.6	10	<0.01	99	0.75	11.4	7.16	7.49	404	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SM-0056	<0.005	5.2	11	<0.005	82	0.45	12	7.78	7.96	428	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0056					83		12.3	7.71	7.45	405						
SM-0056					85		11.4	7.68	7.78	409						
SM-0056					86		11.9	7.7	7.32	402						
SM-0056					99		10.9	7.78	7.91	424						
SM-0056					80		11.3	7.56	8.12	422						
SM-0056					84		11.3	7.42	7.94	416						
SM-0056					86		11.7	7.77	7.51	420						
SM-0057	<0.005	5.8	12	<0.005	95	0.39	12.1	7.75	7.89	433	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0057					94		12.4	7.71	7.2	405						
SM-0057					99		11.9	7.78	7.59	416						
SM-0057					99		11.6	7.86	7.54	417						
SM-0057					85		10.3	7.76	7.43	406						
SM-0057					92		11.7	7.64	7.81	428						
SM-0057					100		11.5	7.57	8.16	429						
SM-0057					100		12.2	7.8	7.7	433						
SM-0059	<0.005	5.8	12	<0.005	69	0.39	12.1	7.68	7.45	414	<0.005	<0.005	<0.005	<0.005	<0.005	0.018
SM-0064					47		13.2	7.51	7.3	386						
SM-0064					58		11.97	8.08	8.33	427						
SM-0064					48		11.6	7.47	7.54	389						

Appendix 7. Water Chemistry Data

Point ID	X UTM NAD83	Y UTM NAD83	Sample Point ID	Sample Type	Collection Date	Site Types	3H	3H:3He Age	Ag	Al	As	B	Ba	Be	Br
SM-0064	448699	3629266	SM-0064D	RE	2/12/09	GW									0.042
SM-0064	448699	3629266	SM-0064E	RE	4/15/09	GW									0.05
SM-0064	448699	3629266	SM-0064F	RE	6/18/09	GW									0.034
SM-0068	461945	3650277	SM-0068A	SD	8/10/07	GW	1.71		<0.01	<0.01	<0.01	0.022	0.028	<0.01	0.04
SM-0069	454116	3649582	SM-0069A	SD	7/11/07	GW	1.67		<0.005	<0.005	<0.005	0.03	0.023	<0.005	<0.03
SM-0072	444156	3645361	SM-0072A	SD	8/28/07	GW	2.52		<0.005	<0.005	<0.005	0.019	0.029	<0.005	0.04
SM-0074	452270	3625835	SM-0074A	SD	7/24/07	GW	1.97	0	<0.005	<0.005	<0.005	0.01	0.03	<0.005	0.04
SM-0076	455411	3639460	SM-0076A	SD	7/25/07	GW	0.13	>50	<0.01	<0.01	<0.01	0.083	0.01	<0.01	0.03
SM-0079	478447	3639644	SM-0079A	SD	9/25/08	GW	1.11		<0.005	<0.005	<0.005	0.034	0.03	<0.005	0.05
SM-0083	449223	3650626	SM-0083A	SD	7/25/07	GW			<0.005	<0.005	<0.005	0.013	0.029	<0.005	<0.03
SM-0085	435326	3625244	SM-0085A	SD	7/24/07	GW	7.2	14.9	<0.005	<0.005	<0.005	0.007	0.017	<0.005	<0.03
SM-0086	442034	3640746	SM-0086A	SD	7/25/07	GW	0		<0.005	<0.005	<0.005	0.014	0.035	<0.005	0.05
SM-0092	463142	3643023	SM-0092A	SD	8/13/08	GW			<0.005	<0.005	<0.005	0.025	0.042	<0.005	0.049
SM-0092	463142	3643023	SM-0092B	SD	9/26/08	GW	1.86								
SM-0133	475444	3635270	SM-0133A	SD	8/14/07	GW	0		<0.01	<0.01	<0.01	0.045	0.023	<0.01	0.05
SM-0138	454503	3629773	SM-0138A	SD	8/16/07	GW	2.01		<0.01	<0.01	<0.01	0.013	0.036	<0.01	0.03
SM-0140	457216	3630304	SM-0140A	SD	8/16/07	GW	2.18		<0.01	<0.01	<0.01	0.015	0.033	<0.01	0.03
SM-0143	462962	3633486	SM-0143A	SD	8/16/07	GW			<0.01	<0.01	<0.01	0.026	0.023	<0.01	0.04
SM-0144	470081	3636255	SM-0144A	SD	8/7/07	GW	0.89		<0.01	<0.01	<0.01	0.012	0.039	<0.01	0.04
SM-0148	467940	3638843	SM-0148A	SD	8/7/07	GW			<0.01	<0.01	<0.01	0.02	0.041	<0.01	0.04
SM-0151	465000	3634677	SM-0151A	SD	8/7/07	GW	0.99		<0.01	0.011	<0.01	0.041	0.033	<0.01	0.03
SM-0152	462342	3632204	SM-0152A	SD	8/7/07	GW	0.75		<0.01	<0.01	<0.01	0.017	0.036	<0.01	0.03
SM-0153	430114	3642574	SM-0153A	SD	7/25/07	GW	1.85		<0.005	<0.005	<0.005	0.014	0.035	<0.005	<0.03
SM-0156	510643	3627514	SM-0156A	SD	11/20/08	GW	0.53		<0.01	<0.01	<0.01	<0.05	<0.05	<0.01	0.05
SM-0158	501621	3620389	SM-0158A	SD	8/8/07	GW	0.68	29.1	<0.01	<0.01	<0.01	0.04	0.033	<0.01	0.07
SM-0162	493144	3619931	SM-0162A	SD	8/8/07	GW	0.42		<0.01	<0.01	<0.01	0.054	0.023	<0.01	0.04
SM-0165	488598	3620997	SM-0165A	SD	8/8/07	GW	0.17		<0.01	<0.01	<0.01	0.063	0.013	<0.01	0.04
SM-0166	487257	3617285	SM-0166A	SD	8/8/07	GW			<0.01	<0.01	<0.01	0.023	0.051	<0.01	0.07
SM-0167	510054	3616772	SM-0167A	SD	8/15/07	GW	0.41		<0.01	<0.01	<0.01	0.042	0.027	<0.01	0.05
SM-0168	508951	3620792	SM-0168A	SD	8/15/07	GW			<0.01	<0.01	<0.01	0.045	0.026	<0.01	0.05
SM-0169	511247	3620962	SM-0169A	SD	8/15/07	GW			<0.01	<0.01	<0.01	0.04	0.027	<0.01	0.04
SM-0174	470949	3646129	SM-0174A	SD	8/14/08	GW			<0.005	<0.005	<0.005	<0.025	0.04	<0.005	0.043
SM-0174	470949	3646129	SM-0174B	SD	9/25/08	GW	1.63								
SM-0175	516826	3635484	SM-0175A	SD	9/25/08	GW			<0.005	<0.005	<0.005	0.032	0.026	<0.005	0.06
SM-0176	517552	3632746	SM-0176A	SD	9/25/08	GW	1.08		<0.005	<0.005	<0.005	0.047	0.04	<0.005	0.11
SM-0180	516871	3625427	SM-0180A	SD	11/21/08	GW			<0.01	<0.01	<0.01	<0.05	<0.05	<0.01	0.054
SM-0181	520739	3626262	SM-0181A	SD	11/21/08	GW			<0.01	<0.01	<0.01	0.057	<0.05	<0.01	0.082
SM-0187	480958	3631023	SM-0187A	SD	8/30/07	GW			<0.005	<0.005	<0.005	0.053	0.023	<0.005	0.04
SM-0193	504336	3644880	SM-0193A	SD	11/20/08	GW	0.7		<0.01	<0.01	<0.01	<0.05	<0.05	<0.01	0.048
SM-0197	505077	3641731	SM-0197A	SD	11/20/08	GW	0.7		<0.01	<0.01	<0.01	<0.05	<0.05	<0.01	0.046
SM-0200	509603	3613910	SM-0200A	SD	8/15/07	GW	0.26		<0.01	<0.01	<0.01	0.033	0.036	<0.01	0.05
SM-0201	434130	3612313	SM-0201A	SD	8/29/07	GW	2.06	0	<0.005	<0.005	<0.005	0.011	0.047	<0.005	0.05
SM-0202	483899	3628361	SM-0202A	SD	8/30/07	GW	0.34	0	<0.005	<0.005	<0.005	0.041	0.03	<0.005	0.06
SM-0203	480387	3624472	SM-0203A	SD	8/30/07	GW	0		<0.005	<0.005	<0.005	0.024	0.042	<0.005	0.05
SM-0204	470468	3627149	SM-0204A	SD	8/30/07	GW			<0.005	<0.005	<0.005	0.022	0.045	<0.005	0.04
SM-0207	468471	3626452	SM-0207A	SD	8/30/07	GW	0.86			<0.005	<0.005	0.031	0.036	<0.005	0.04
SM-0214	474838	3668783	SM-0214A	SD	9/24/08	GW	0.05		<0.005	<0.005	<0.005	<0.025	0.033	<0.005	0.05
SM-0216	478559	3667718	SM-0216A	SD	9/24/08	GW			<0.005	<0.005	<0.005	0.039	0.024	<0.005	0.05

Appendix 7. Water Chemistry Data

Point ID	C13r	C14	Ca	Cd	CF	CFC113	CFC 113/12	CFC 12	Cl	Co	COND LAB	Cr	Cu	d34S	DO	F	Fe	H2r	HCO3
SM-0064			110		633				7.6		625				7.1	0.16		-58.9	365
SM-0064			100		615				7		645				8.4	0.13		-58.8	340
SM-0064			96		616				7.2		650				7.01	0.14		-56.4	360
SM-0068			110	<0.01	776	31	24	36	16	<0.01	720	<0.01	<0.01	12.1	7.23	0.23	<0.05	-56	320
SM-0069			135	<0.005	892				15	<0.005	830	<0.005	0.007			0.27	<0.05	-61	335
SM-0072			107	<0.005	750				16	<0.005	690	<0.005	0.008	11.9		<0.5	<0.05	-54	335
SM-0074			125	<0.005	664	22	22	22	4.5	<0.005	655	<0.005	<0.005	10.2	8.2	0.14	<0.05	-59	425
SM-0076			195	<0.01	1405	38	17	47	38	<0.01	1370	<0.01	<0.01	12.7		1.1	<0.05	-65	260
SM-0079			135	<0.005	914				20	<0.005	900	<0.005	<0.005		5	0.29	<0.5	-57.1	290
SM-0083			94	<0.005	670				17	<0.005	670	<0.005	<0.005			0.14	<0.05	-55	290
SM-0085			106	<0.005	547	21	21	23	2.3	<0.005	540	<0.005	<0.005	9.6		<0.1	0.005	-69	355
SM-0086			88	<0.005	602	23	21	26	9.8	<0.005	590	<0.005	<0.005		7	0.18	<0.05	-57	320
SM-0092			125	<0.005	891	26	26	26	27	<0.005	975	<0.005	0.006	11.5	5.45	<0.5	<0.25	-59.3	345
SM-0092					821										5.25				
SM-0133	-7.4	49.35	105	<0.01	803				10	<0.01	730	<0.01	<0.01	12	1.6	<0.5	1.1	-58	255
SM-0138	-8.9	85.76	90	<0.01	529				5.9	<0.01	530	<0.01	<0.01	10.7	7.5	0.12	<0.05	-60	350
SM-0140	-8.9	80.89	101	<0.01	613				6.2	<0.01	580	<0.01	0.022	11.3	6.45	0.17	<0.05	-58	360
SM-0143			112	<0.01	712				5.7	<0.01	665	<0.01	<0.01		7	0.32	<0.05	-59	305
SM-0144	-8.3	70.54	83	<0.01	558				4.2	<0.01	505	<0.01	<0.01	9.9	3.72	0.29	1.7	-56	340
SM-0148			100	<0.01	678				8.1	<0.01	620	<0.01	<0.01	11.9	6.45	0.3	0.074	-57	325
SM-0151	-7.9	58.67	125	<0.01	833				5.8	<0.01	765	<0.01	0.017	12.8	4.28	0.44	0.62	-60	315
SM-0152	-8.5	65.71	91		605	38	38	38	5.2	<0.01	560	<0.01	<0.01	12.2	7.5	0.25	<0.05	-58	325
SM-0153			105	<0.005	680	24	22	27	11	<0.005	670	<0.005	<0.005	11	6.8	0.18	<0.05	-67	375
SM-0156			120	<0.01	794				13	<0.01	810	<0.01	<0.01	11.7	3.9	0.67	<0.05	-59	265
SM-0158	-7.4	52.91	120	<0.01	838	27	30	23	9.1	<0.01	770	<0.01	<0.01	12.2	6.96	0.61	<0.05	-58	265
SM-0162	-6.7	48.92	150	<0.01	990				8.9	<0.01	910	<0.01	<0.01	12.7		0.71	0.096	-59	265
SM-0165	-6.3	14.81	130	<0.01	950				8	<0.01	855	<0.01	<0.01	12.6		1.2	<0.05	-60	240
SM-0166			56	<0.01	480				5.5	<0.01	445	<0.01	0.029		6.03	0.25	<0.05	-59	260
SM-0167	-6.9	47.95	119	<0.01	849				8.7	<0.01	780	<0.01	<0.01		7.2	0.73	<0.05	-57	265
SM-0168			133	<0.01	931				14	<0.01	865	<0.01	<0.01	12	7.6	0.53	0.19	-59	260
SM-0169			130	<0.01	906				14	<0.01	825	<0.01	<0.01		7.6	<0.5	<0.05	-58	260
SM-0174			100	<0.005	742				22	<0.005	770	<0.005	<0.005	10.8	4.3	<0.5	<0.25	-59.1	265
SM-0174					738	23	25	17							3.9				
SM-0175			105	<0.005	795				17	<0.005	790	<0.005	<0.005	11.5	5.3	0.68	<0.5	-55	230
SM-0176			96	<0.005	807				24	<0.005	790	<0.005	<0.005		2.65	0.67	<0.5	-53.9	250
SM-0180			130	<0.01	854				13	<0.01	890	<0.01	<0.01	10.5	4.1	0.6	<0.05	-59.8	270
SM-0181			160	<0.01	1040				10	<0.01	1040	<0.01	<0.01	7.1	2.9	0.99	<0.05	-56.3	290
SM-0187			165	<0.005	1085				16	<0.005	995	<0.005	<0.005	12.5	3.29	0.57	0.044	-58	290
SM-0193			105	<0.01	750	22		33	13	<0.01	770	<0.01	<0.01	11.9	4.84	<0.5	<0.05	-57	255
SM-0197			105	<0.01	716				13	<0.01	770	<0.01	0.01	11.7	4	0.52	<0.5	-57.1	280
SM-0200	-7.6	43.9	87	<0.01	678				5.5	<0.01	620	<0.01	<0.01	11.9	8	0.76	<0.05	-58	235
SM-0201			89	<0.005	584	27	23	33	9.5	<0.005	540	<0.005	0.006	10.8	8	0.15	<0.05	-67	325
SM-0202	-7.2	53.44	130	<0.005	897	25	25	24	12	<0.005	805	<0.005	<0.005	12.2	7.7	0.55	<0.05	-58	285
SM-0203	-7.4	45.57	72	<0.005	550				5.4	<0.005	505	<0.005	0.008	11.9	10.8	0.58	<0.05	-60	265
SM-0204			125	<0.005	755				6.4	<0.005	695	<0.005	<0.005	12.6	7.8	<0.5	<0.05	-60	350
SM-0207	-8.2	62.75	140	<0.005	898			29	6.9	<0.005	825	<0.005	0.01		6.8	<0.1	<0.05	-60	330
SM-0214			75	<0.005	572				15	<0.005	565	<0.005	<0.005		6.3	0.43	0.28	-55.1	210
SM-0216			130	<0.005	910				16	<0.005	900	<0.005	0.005	12.2	4.6	0.43	<0.5	-52.3	255

Appendix 7. Water Chemistry Data

Point ID	Hg	HRD	IONBAL	K	Li	Mg	Mn	Mo	Na	Ni	NO2	NO3	O18r	ORP	Pb	pHF	pHL	PO4	Sb
SM-0064		358	3.01	0.59		21			8.7		<0.1	2.9	-9.5	74		7.2	7.3	<0.5	
SM-0064		339	3.11	0.59		22			8.3		<0.5	2.5	-9.49	86.2		7.1	7.3	<2.5	
SM-0064		323	-1.81	<0.5		20			7.6		<0.1	2.5	-8.63	235.1		6.9	7.2	<0.5	
SM-0068		396	-1.95	0.61	<0.01	31	<0.01	<0.01	15	<0.01	<0.1	2	-8.8		<0.01	7.19	7.5	<0.5	<0.01
SM-0069		463	-2.18	0.62	0.008	32	<0.005	<0.005	13	<0.005	<0.2	2.2	-9.4		<0.005	7.5	7.3	<0.5	<0.005
SM-0072		382	-0.98	0.55	0.006	29	<0.005	<0.005	17	<0.005	<0.5	2.1	-8.8		<0.005	8.6	7.4	<2.5	<0.005
SM-0074		373	0.03	0.45	<0.005	16	<0.005	<0.005	6	<0.005	<0.1	1.8	-9.4		<0.005	7.4	7.3	<0.5	<0.005
SM-0076		784	1.91	1.1	0.012	74	0.019	<0.01	29	<0.01	<0.5	<0.5	-10		<0.01	7.3	7.2	<2.5	<0.01
SM-0079		506	3.24	0.88	0.006	41	<0.025	<0.005	19	<0.005	<0.1	4.7	-9.1		<0.005	7.1	7.3	<0.5	<0.025
SM-0083		346	1.46	0.57	<0.005	28	<0.005	<0.005	20	<0.005	<0.01	3.6	-8.5		<0.005	7.8	7.7	<0.5	<0.005
SM-0085		300	-1.08	0.37	<0.005	9.9	<0.005	<0.005	2.6	<0.005	<0.1	2.2	-10.7		<0.005	7.8	7.7	<0.5	<0.005
SM-0086		320	0.26	0.42	<0.005	26	<0.005	<0.005	11	<0.005	<0.1	2.8	-9.1		<0.005	7.6	7.4	<0.5	<0.005
SM-0092		463	0.33	0.96	0.007	38	<0.025	<0.005	21	<0.005	<0.5	4.1	-9.2		<0.005	7.1	7.4	<2.5	<0.025
SM-0092																7.1			
SM-0133		412	0.72	0.78	0.01	38	0.12	<0.01	14	0.029	<0.5	<0.5	-9.2		<0.01	7.9	7.6	<2.5	<0.01
SM-0138		300	-2.45	0.49	<0.01	19	<0.01	<0.01	6	<0.01	<0.1	4.4	-9		<0.01	7.7	7.3	<0.5	<0.01
SM-0140		329	-0.99	0.51	<0.01	20	0.049	<0.01	6.4	<0.01	<0.1	3.7	-8.7		<0.01	7.4	7.3	<0.5	<0.01
SM-0143		305	1.06	0.58	<0.01	27	<0.01	<0.01	7.3	<0.01	<0.1	3.5	-9.1		<0.01	7	7.3	<0.5	<0.01
SM-0144		305	1.86	0.55	<0.01	24	0.099	<0.01	4.6	<0.01	<0.1	<0.1	-9		<0.01	7.3	7.4	<0.5	<0.01
SM-0148		349	0.06	0.9	<0.01	25	0.023	<0.01	10	<0.01	<0.1	16	-9		<0.01	7.3	7.4	<0.5	<0.01
SM-0151		442	-1.06	0.69	<0.01	33	0.06	<0.01	7.6	0.012	<0.1	4.3	-9.1		<0.01	7.4	7.3	<0.5	<0.01
SM-0152		312	-0.99	0.84	<0.01	22	<0.01	<0.01	6.9	<0.01	<0.1	4.2	-9.1		<0.01	7.4	7.5	<0.5	<0.01
SM-0153		365	0.36	0.29	0.007	26	<0.005	<0.005	12	<0.005	<0.1	16	-10.3		<0.005	7.4	7.4	<0.5	<0.005
SM-0156		452	1.5	0.91	0.01	37	0.05	<0.01	13	0.012	<0.5	4.5	-9.23		<0.01	7.4	7.7	<2.5	<0.05
SM-0158		459	1.42	0.9	0.01	40		<0.01	11	<0.01	<0.1	6.5	-9.4		<0.01	7.6	7.5	<0.1	<0.01
SM-0162		564	1.74	1	0.012	48	0.05	<0.01	11	0.013	<0.5	4	-9.2		<0.01	7.7	7.2	<2.5	<0.01
SM-0165		520	1.16	1.4	0.023	49	0.039	<0.01	13	<0.01	<0.5	<0.5	-9.4		<0.01	7.6	7.4	<0.25	<0.01
SM-0166		246	1.53	1	<0.01	27	0.019	<0.01	7.9	<0.01	<0.1	16	-9.7		<0.01	6.9	6.9	<0.5	<0.01
SM-0167		455	-1.01	0.87	<0.01	40	0.011	<0.01	10	<0.01	<0.5	5.3	-9.6		<0.01	7.4	7.4	<2.5	<0.01
SM-0168		495	0.49	0.86	<0.01	41	0.019	<0.01	14	0.058	<0.5	4.5	-9.2		<0.01	7.25	7.4	<2.5	<0.01
SM-0169		484	0.66	0.85	<0.01	40	<0.01	<0.01	15	<0.01	<0.5	4.2	-9.1		<0.01	7.6	7.4	<2.5	<0.01
SM-0174		373	-0.79	0.88	<0.005	31	<0.025	<0.005	17	<0.005	<0.5	2.7	-9.3		<0.005	7.3	7.5	<2.5	<0.025
SM-0174																7.3			
SM-0175		431	2.66	1	0.008	41	<0.025	<0.005	17	<0.005	<0.1	3.8	-8.9		<0.005	7.3	7.4	<0.5	<0.025
SM-0176		413	3.03	1.4	0.01	42	0.044	<0.005	24	0.008	<0.1	17	-8.6		<0.005	7.3	7.4	<0.5	<0.025
SM-0180		489	2.7	0.98	0.01	40	<0.05	0.01	14	<0.01	<0.5	4.7	-8.86		<0.01	7.6	7.6	<2.5	<0.05
SM-0181		605	1.2	1.4	<0.01	50	<0.05	0.012	13	<0.01	<0.5	10	-8.64		<0.01	7.3	7.2	<2.5	<0.05
SM-0187		591	-0.14	0.89	0.011	45	0.005	<0.005	17	<0.005	<0.5	3	-9.2		<0.005	7.2	7.2	<2.5	<0.005
SM-0193		410	3.66	0.85	0.01	36	<0.05	<0.01	15	<0.01	<0.5	6.5	-8.95		<0.01	7.4	7.4	<2.5	<0.05
SM-0197		410	1.03	0.88	0.01	36	<0.05	<0.01	15	<0.01	<0.5	6.4	-8.9		<0.01	7.6	7.7	<2.5	<0.05
SM-0200		358	0.28	0.79	<0.01	35	<0.01	<0.01	7.8	<0.01	<0.1	7.2	-8.8		<0.01	7.4	7.5	<0.5	<0.01
SM-0201		319	0.07	0.65	<0.005	24	<0.005	<0.005	6.7	<0.005	<0.1	1.9	-10.8		<0.005	7.7	7.3	<0.5	<0.005
SM-0202		479	-1	0.99	0.008	39	<0.005	<0.005	12	<0.005	<0.5	4.4	-9.4		<0.005	7.5	7.4	<2.5	<0.005
SM-0203		287	-0.62	0.73	0.007	27	0.02	<0.005	7.6	0.013	<0.1	4.8	-9.7		<0.005	7.5	7.5	<0.5	<0.005
SM-0204		423	0.53	0.65	<0.005	28	<0.005	<0.005	7	<0.005	<0.5	3.4	-9.4		<0.005	7.5	7.3	<2.5	<0.005
SM-0207		492	-2.62	0.7	0.006	36	<0.005	<0.005	7.2	<0.005	<0.1	3	-9.3		<0.005	7.5	7.4	<0.5	<0.005
SM-0214		294	2.34	0.62	<0.005	26	<0.025	<0.005	14	0.011	<0.1	3.7	-8.9		<0.005	7.7	7.7	<0.5	<0.025
SM-0216		506	3.98	0.85	0.008	44	<0.025	<0.005	16	<0.005	<0.1	4.4	-8.7		<0.005	7.2	7.3	<0.5	<0.025

Appendix 7. Water Chemistry Data

Point ID	Se	Si	SiO2	Sn	SO4	Sr	T	TAn	TCat	TDS	Th	Ti	TI	U	V	Zn
SM-0064					44		11.7	7.18	7.62	388						
SM-0064					42		11.9	6.71	7.14	368						
SM-0064					43		12.1	7.04	6.79	368						
SM-0068	<0.01	5.4	11	<0.01	155	0.89	15	8.97	8.63	502	<0.01	<0.01	<0.01	<0.01	<0.01	0.025
SM-0069	<0.005	5	11	<0.005	210	1.5	14.1	10.34	9.89	588	<0.005	<0.005	<0.005	<0.005	<0.005	0.033
SM-0072	<0.005	5.9	13	<0.005	125	0.77		8.58	8.41	477	<0.005	<0.005	<0.005	<0.005	<0.005	0.41
SM-0074	<0.005	4.7	10	<0.005	29	0.31	12.5	7.73	7.74	406	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0076	<0.01	10	22	<0.01	530	3.9	17.5	16.43	17.07	1025	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
SM-0079	<0.025	6.3	13	<0.005	235	1.4	15.5	10.3	10.99	601	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0083	<0.005	5.5	12	<0.005	110	0.43		7.59	7.81	431	<0.005	<0.005	<0.005	<0.005	<0.005	0.006
SM-0085	<0.005	3.4	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	5.2	11	<0.005	62	0.44	11.8	6.87	6.9	371	<0.005	<0.005	<0.005	<0.005	<0.005	0.088
SM-0092	<0.025	6.4	14	<0.005	175	1.2	14.1	10.13	10.19	577	<0.005	<0.005	<0.005	<0.005	<0.005	0.023
SM-0092							13.9									
SM-0133	<0.01	5.3	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	4.4	9.4	<0.01	29	0.31	12.7	6.58	6.27	340	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SM-0140	<0.01	4.5	10	<0.01	44	0.47	13.5	7.06	6.92	372	<0.01	<0.01	<0.01	<0.01	<0.01	1.4
SM-0143	<0.01	4.3	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	3.7	7.9	<0.01	24	0.25	15.9	6.21	6.44	321	<0.01	<0.01	<0.01	<0.01	<0.01	0.87
SM-0148	<0.01	5.3	11	<0.01	79	0.56	17	7.47	7.48	414	<0.01	<0.01	<0.01	<0.01	<0.01	0.46
SM-0151	<0.01	4.8	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	4.4	10	<0.01	55	0.49	18	6.7	6.57	357	<0.01	<0.01	<0.01	<0.01	<0.01	0.093
SM-0153	<0.005	5.3	11	<0.005	50	0.41	9.8	7.77	7.82	419	<0.005	<0.005	<0.005	<0.005	<0.005	0.011
SM-0156	<0.05	4.8	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	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	6.1	13	<0.01	325	2.1	20.6	11.46	11.87	696	<0.01	<0.01	<0.01	<0.01	<0.01	1.5
SM-0165	<0.01	6.3	13	<0.01	315	2	22.1	10.78	11.03	653	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SM-0166	<0.01	5.5	12	<0.01	22	0.14	19.4	5.15	5.31	277	<0.01	<0.01	<0.01	<0.01	<0.01	0.3
SM-0167	<0.01	6.1	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	6	13	<0.01	275	1.7	19.5	10.48	10.59	628	<0.01	<0.01	<0.01	<0.01	<0.01	0.12
SM-0169	<0.01	5.8	12	<0.01	265	1.5	19	10.24	10.38	613	<0.01	<0.01	<0.01	<0.01	<0.01	0.31
SM-0174	<0.025	5	11	<0.005	160	0.82	15.1	8.34	8.21	477	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0174							15.4									
SM-0175	<0.025	5.8	12	<0.005	220	1.5	21.2	8.93	9.41	520	<0.005	<0.005	<0.005	<0.005	<0.005	0.041
SM-0176	<0.025	5.6	12	<0.005	180	0.98	20.4	8.83	9.38	510	<0.005	<0.005	<0.005	<0.005	<0.005	1
SM-0180	<0.05	5.5	12	<0.01	235	1.6	19.1	9.79	10.33	588	<0.01	<0.01	<0.01	<0.01	<0.01	0.078
SM-0181	<0.05	6.6	14	<0.01	340	1.7	17.9	12.33	12.63	747	<0.01	<0.01	<0.01	<0.01	<0.01	1.1
SM-0187	<0.005	6.6	14	<0.005	355	2.4	20.2	12.67	12.64	764	<0.005	<0.005	<0.005	<0.005	<0.005	0.65
SM-0193	<0.05	4.9	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	<0.05	5.1	11	<0.01	170	0.91	15.4	8.63	8.81	500	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
SM-0200	<0.01	5.9	13	<0.01	160	0.96	20.7	7.49	7.54	435	<0.01	<0.01	<0.01	<0.01	<0.01	0.27
SM-0201	<0.005	5.6	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	6.3	14	<0.005	255	1.7	21	10.42	10.21	612	<0.005	<0.005	<0.005	<0.005	<0.005	1.3
SM-0203	<0.005	6.2	13	<0.005	75	0.57	18.8	6.17	6.09	240	<0.005	<0.005	<0.005	<0.005	<0.005	0.022
SM-0204	<0.005	5.1	11	<0.005	130	0.87	15.9	8.68	8.77	487	<0.005	<0.005	<0.005	<0.005	<0.005	0.006
SM-0207	<0.005	5.4	11	<0.005	245	1.5	15.8	10.75	10.2	617	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SM-0214	<0.025	4.9	10	<0.005	110	0.53	16.2	6.24	6.54	350	<0.005	<0.005	<0.005	<0.005	<0.005	0.076
SM-0216	<0.025	6.3	13	<0.005	255	1.4	18	10.03	10.86	594	<0.005	<0.005	<0.005	<0.005	<0.005	0.21

Appendix 7. Water Chemistry Data

Point ID	C13r	C14	Ca	Cd	CF	CFC113	CFC 113/12	CFC 12	Cl	Co	COND LAB	Cr	Cu	d34S	DO	F	Fe	H2r	HCO3
SM-0217			515	<0.02	3269	>40		59	28	<0.02	3200	<0.02	<0.02		0.5	1.8	<2	-56.9	200
SM-0219			230	<0.005	1379				27	<0.005	1370	<0.005	<0.005	12.3	3	0.39	<0.5	-52.7	285
SM-0233			115	<0.005	808				21	<0.005	860	<0.005	<0.005		4.25	<0.5	<0.25	-57.6	330
SM-0234			114	<0.005	790				20	<0.005	835	<0.005	<0.005	9.2	5.05	<0.5	<0.25	-60	340
SM-0235			115	<0.005	817				15	<0.005	850	<0.005	<0.005	11.8	5.85	<0.5	<0.25	-60.2	310
SM-0236			140	<0.005	873				18	<0.005	955	<0.005	<0.005			<0.5	<0.25		395
SM-0244			115	<0.005	822				21	<0.005	800	<0.005	<0.005			0.3	<0.5		240
SM-0254			110	<0.01					13	<0.01	730	<0.01	0.013	12		<0.5	<0.05	-60.4	315
SM-1007	-12	91.84	120	<0.001	717	21	19	25	9.5	<0.001	705	0.001	<0.001		6.2	0.15	<0.05	-57	405
SM-1007			120	<0.001	740				10	<0.001	720	0.002	0.005	10.9	8.2	0.18	<0.01	-56	395
SM-1009					446										7				
SM-1009	-12.9	92.65	120	<0.001	644	20	18	24	5.3	<0.001	640	0.001	0.007		6.3	0.1	<0.05	-60	400
SM-1009			115	<0.001	649				5.3		640	0.003	0.001		8.4	0.01	0.015	-63.3	375
SM-1010					417										7.47				
SM-1010			115	<0.001	614				5.1	<0.001	630	0.002	0.001		9.1	0.1	0.035	-63.6	360
SM-1011					300										8.28				
SM-1011			66	<0.001	433				5.5	<0.001	435	0.001	0.001		13.6	0.13	0.02	-64	220
SM-1012					256										7.52				
SM-1012			87	<0.001	536				3.6	<0.001	550	0.002	<0.001		9.5	0.1	0.015	-65.1	310
SM-1013					414										8.23				
SM-1013			125	<0.001	257	20	17	24	3.6	<0.001	635	0.003	0.008		8.1	<0.1	0.43	-67	405
SM-1013			125	<0.001	638				3.3	<0.001	665	0.003	<0.001		10	0.069	0.01	-67.2	385
SM-1014					373										7.85				
SM-1014			110	<0.001	135	21	19	24	6.4	<0.001	600	0.001	0.002		8.2	0.12	<0.05	-71	350
SM-1014			112	<0.001	629				6.4	<0.001	600	0.002	0.004	10.7	6.9	0.13	<0.01	-71	350
SM-1014			125		620				6.5		615				7.56	0.12		-72	340
SM-1014			110	<0.005	606				6.2	<0.005	655	<0.005	<0.005		6.4	0.1	<0.5	-69.1	355
SM-1014			110	<0.001	355				6.5	<0.001	620	0.003	0.001		11	0.11	0.03	-71.7	335
SM-1015					395										6.75				
SM-1016					646										8.2				
SM-1016					466										6.56				
SM-1017					374										7.94				
SM-1017			100	<0.001	370	21	19	25	4.9	<0.001	570	0.003	0.001		9.58	0.12	0.33	-70	350
SM-1018					450										7.76				
SM-1018			120	<0.001	680	23	21	26	14	<0.001	690	0.001	0.002		9.3	<0.1	<0.05	-67	405
SM-1018			135		688				11		645				7.3	0.1		-70	350
SM-1018			123	<0.005	681				10	<0.005	735	<0.005	<0.005		7.9	<0.1	<0.5	-66.1	400
SM-1018			125	<0.001	695				8.3	<0.001	685	0.003	<0.001		9.4	0.086	0.005	-70.1	370
SM-1026			135	<0.001	470	28	21	34	2.9	<0.001	660	0.003	0.005		7.36	0.12	0.45	-67	455
SM-1027			125	<0.001	406				2.4	<0.001	625	0.003	0.003		6.86	<0.1	0.42	-69	420
SM-1028					610										7.15				
SM-1029					801										8.4				
SM-1030					619										5.8				
SM-1031					619										7.1				
SM-1032					592										6.02				
SM-1033					515										7.5				
SM-1036					419										3.06				
SM-1037					344										4.27				

Appendix 7. Water Chemistry Data

Point ID	Hg	HRD	IONBAL	K	Li	Mg	Mn	Mo	Na	Ni	NO2	NO3	O18r	ORP	Pb	pHf	pHL	PO4	Sb
SM-0217		2406	2.61	3	0.097	272	<0.1	<0.02	42	<0.02	<0.1	<1	-9.5		<0.02	7	7.1	<0.5	<0.01
SM-0219		817	3.62	1	0.015	59	0.027	<0.005	25	0.005	<0.1	1.3	-8.7		<0.005	7.2	7.2	<0.5	<0.025
SM-0233		414	0.2	0.67	0.007	32	<0.025	<0.005	21	<0.005	<0.5	2.2	-8.4		<0.005	7.4	7.4	<2.5	<0.025
SM-0234		415	0.79	0.5	0.006	33	<0.025	<0.005	18	<0.005	<0.5	1.5	-9.1		<0.005	7.14	7.3	<2.5	<0.025
SM-0235		430	-0.91	0.58	0.008	36	<0.025	<0.005	14	<0.005	<0.5	2.8	-9		<0.005	7.2	7.4	<2.5	<0.025
SM-0236		483	6.4	0.55	0.005	34	<0.025	<0.005	19	<0.005	3.3	<0.5			<0.005	7.2	7.4	<2.5	<0.025
SM-0244		444	2.94	0.98	0.005	38	<0.025	<0.005	18	<0.005	<0.1	1.7			<0.005	7.6	7.6	<0.5	<0.025
SM-0254		398	3.67	0.84	0.01	30	<0.05	<0.01	13	<0.01	<0.5	3.7	-9.38		<0.01		7.4	<2.5	<0.05
SM-1007		377	-1.07	0.39	0.002	20	<0.001	0.001	10	0.003	<0.1	1.4	-9.5		<0.001	7.44	7.5	<0.5	<0.001
SM-1007		386	0.45	0.42	0.002	22	<0.001	0.001	11	0.003	<0.1	1.5	-9		<0.001	6.6	7.7	<0.5	<0.001
SM-1009																7.37			
SM-1009		348	-0.91	0.37	0.001	13	<0.001	<0.001	5.7	0.003	<0.1	1	-10.2		<0.001	8.51	7.4	<0.5	<0.001
SM-1009		339	-0.26	0.45	0.001	13	<0.001	<0.001	5.8	0.004	<0.5	0.92	-10.15	302.6	<0.001	7.25	7.4	<2.5	<0.001
SM-1010																7.53			
SM-1010		348	3.05	0.42	0.001	15	<0.001	0.001	6.2	0.006	<0.5	0.8	-10.24	293.6	<0.001	7.4	7.5	<2.5	<0.001
SM-1011																7.99			
SM-1011		227	2.79	0.5	0.001	15	0.002	0.001	7.7	0.002	<0.5	1.5	-9.96	306.2	<0.001	7.8	7.9	<2.5	<0.001
SM-1012																7.39			
SM-1012		287	1.37	0.49	0.001	17	0.001	<0.001	4.9	0.002	<0.5	1.4	-10.54	305.8	<0.001	7.3	7.4	<2.5	<0.001
SM-1013																7.45			
SM-1013		348	-0.4	0.34	<0.001	10	0.001	<0.001	3.9	0.001	<0.1	1	-10.5		<0.001		7.9	<0.5	<0.001
SM-1013		355	2.33	0.36	0.001	10	<0.001	<0.001	3.8	0.003	<0.5	1.1	-10.41	371.6	<0.001	7.3	7.5	<2.5	<0.001
SM-1014																7.57			
SM-1014		315	-0.95	0.51	0.001	11	<0.001	0.001	6.4	0.002	<0.1	2	-11.5		<0.001	7.7	7.7	<0.5	<0.001
SM-1014		324	-0.1	0.51	0.001	12	<0.001	0.001	6.9	0.003	<0.1	2.1	-11.2		<0.001	7.3	7.7	<0.5	<0.001
SM-1014		359	5.32	0.56		13			6.8		<0.1	1.6	-10.7			7.46	7.8	<0.5	
SM-1014		328	-0.35	0.55	<0.005	13	<0.025	<0.005	6.9	<0.005	<0.1	2.3	-11.3		<0.005	7.6	7.4	<0.5	<0.025
SM-1014		326	1.36	0.66	0.002	12	0.008	<0.001	7.1	0.003	<0.5	2.2	-11.19	305.5	<0.001	7.3	7.4	<2.5	<0.001
SM-1015																7.42			
SM-1016																7.59			
SM-1016																7.67			
SM-1017																7.54			
SM-1017		307	-0.93	0.44	0.001	15	<0.001	<0.001	5.5	0.001	<0.1	1.5	-10.7		<0.001		7.9	<0.5	<0.001
SM-1018																7.46			
SM-1018		352	-2.01	0.46	0.001	14	<0.001	<0.001	10	0.003	<0.1	2.5	-11.5		<0.001	7.8	7.6	<0.5	<0.001
SM-1018		393	8.42	0.47		15			7.9		<0.1	1.5	-10.3			7.46	7.8	<0.5	
SM-1018		373	0.94	0.5	<0.005	16	<0.025	<0.005	8.7	<0.005	<0.1	2.4	-11		<0.005	7.5	7.4	<0.5	<0.025
SM-1018		375	4	0.51	0.001	15	<0.001	<0.001	7.4	0.003	<0.5	2.1	-11.02	329.4	<0.001	7.2	7.4	<2.5	<0.001
SM-1026		385	0.05	0.41	<0.001	13	0.001	<0.001	2.9	0.001	<0.1	1.8	-10.5		<0.001		7.8	<0.5	<0.001
SM-1027		352	-0.45	0.37	<0.001	11	<0.001	<0.001	2.4	0.001	<0.1	2.2	-10.7		<0.001	7.3	7.8	<0.5	<0.001
SM-1028																7.76			
SM-1029																7.85			
SM-1030																7.69			
SM-1031																7.74			
SM-1032																7.83			
SM-1033																7.65			
SM-1036																7.4			
SM-1037																7.41			

Appendix 7. Water Chemistry Data

Point ID	C13r	C14	Ca	Cd	CF	CFC113	CFC 113/12	CFC 12	Cl	Co	COND LAB	Cr	Cu	d34S	DO	F	Fe	H2r	HCO3
SM-1038					572										4.87				
SM-1039					531										7				
SM-1039			97	<0.001	527	22	21	25	3.4	<0.001	545	<0.001	0.021	9	4.8	0.08	<0.01	-67	335
SM-1039			97	<0.001	560				3	<0.001	550	0.002	0.003		6.4	0.12	<0.01	-70	335
SM-1039			105		519				2.8		555				6.87	<0.1		-69	335
SM-1039			98	<0.005	548				2.9	<0.005	585	<0.005	<0.005		7	<0.1	<0.5	-66.5	340
SM-1039			92	<0.001	546				2.9	<0.001	545	0.002	<0.001		8.9	0.085	0.01	-69.9	310
SM-1040					556										5.88				
SM-1040			105	<0.001	572				2.6	<0.001	570	0.002	<0.001		7.55	0.078	0.015	-71	345
SM-1041					695										5.4				
SM-1042					678										4.5				
SM-1042			115	<0.001	675	21	20	24	9.1	<0.001	615	<0.001	0.038		6	0.12	<0.01	-63	400
SM-1042			105	<0.001	680				4.2	<0.001	660	0.002	0.003	11.1	3.3	0.13	<0.01	-67	370
SM-1042			120		662				9.1		600				5.94	0.12		-65	310
SM-1042			110	<0.005	674				9.3	<0.005	705	<0.005	<0.005		7.1	0.11	<0.5	-62.4	385
SM-1042			110	<0.001	668				9.4	<0.001	675	0.002	0.001		8.4	0.11	0.01	-64.9	375
SM-1043					629										4.94				
SM-1044					628										5.48				
SM-1044			115	<0.001	645	20	19	23	4.9	<0.001	590	0.001	0.003		7.55	0.13	<0.05	-64	405
SM-1045					588										5.44				
SM-1046					592										5.1				
SM-1046			115	<0.001	615				4.3	<0.001	640	0.001	0.002		4.9	0.11	<0.05	-68	405
SM-1047					648										5.5				
SM-1048					588										4.45				
SM-1054					505										4.5				
SM-1055					320										3.73				
SM-1056					536										5.83				
SM-1057					564										8.35				
SM-1058					642										6.96				
SM-1058			100	<0.001	643	20	19	22	13	<0.001	685	0.001	0.015		6.13	0.11	<0.01	-55	325
SM-1058			92		619				11		630				6.37	0.16		-57	315
SM-1059					592										8.19				
SM-1059	-11	82.72	105	<0.001	644				8.2	<0.001	690	0.001	0.007		7.44	0.09	0.044	-57	385
SM-1059			100		590				7.3		640				6.69	0.14		-60	380
SM-1060					830										6.63				
SM-1060			130	<0.001	766	19	18	20	12	<0.001	750	0.001	0.001		6.1	0.16	<0.05	-57	405
SM-1060			145		760				12		695				5.69	0.15		-58	325
SM-1060			132	<0.005	773				12	<0.005	825	<0.005	<0.005		6.9	0.14	<0.5	-55.9	405
SM-1060			130	<0.001	776				12.4	<0.001	765	0.002	<0.001		10.6	0.14	0.03	-58.9	380
SM-1061					634										7.68				
SM-1062					555										9.06				
SM-1062			91	<0.001	485	22	20	26	6.8	<0.001	560	0.001	0.001		7.9	0.14	<0.05	-67	320
SM-1062			91	<0.001	576				6.5	<0.001	560	0.002	0.003	10.7	5.56	0.15	<0.01	-69	315
SM-1063					562										4.84				
SM-1064					728										4.95				
SM-1065					539										4.91				
SM-1066					535										6.95				
SM-1067					517										7.59				

Appendix 7. Water Chemistry Data

Point ID	Hg	HRD	IONBAL	K	Li	Mg	Mn	Mo	Na	Ni	NO2	NO3	O18r	ORP	Pb	pHf	pHL	PO4	Sb
SM-1038																7.06			
SM-1039																6.94			
SM-1039		296	-0.2	0.4	0.001	14	<0.001	<0.001	4	0.002	<0.02	2.7	-11.1		<0.001	7.6	7.6	<0.25	<0.001
SM-1039		294	-0.48	0.45	0.001	14	<0.001	<0.001	3.9	0.003	<0.1	2.1	-10.9		<0.001	7.1	7.7	<0.5	<0.001
SM-1039		315	6.14	0.48		14			3.5		<0.1	1.2	-10.4			7.6	8.1	<0.5	
SM-1039		302	0.27	0.47	<0.005	14	<0.025	<0.005	3.9	<0.005	<0.1	2.6	-11.2		<0.005	7.5	7.4	<0.5	<0.025
SM-1039		284	1.49	0.6	0.001	13	<0.001	<0.001	3.7	0.002	<0.5	1.9	-11.09	318.2	<0.001	7.3	7.5	<2.5	<0.001
SM-1040																6.95			
SM-1040		307	0.99	0.45	<0.001	11	<0.001	0.001	3.4	0.003	<0.5	1.7	-11.48	297.1	<0.001	7.4	7.4	<2.5	0.001
SM-1041																7.12			
SM-1042																7.14			
SM-1042		364	-0.68	0.5	0.002	20	<0.001	0.001	9.7	0.002	<0.1	0.99	-9.9		<0.001	7.6	7.8	<0.5	<0.001
SM-1042		346	0.8	0.58	0.002	22	<0.001	<0.001	10	0.003	<0.1	1	-10.5		<0.001	6.8	7.7	<0.5	<0.001
SM-1042		385	11.77	0.53		22			9.3		<0.1	0.98	-9.7			7.4	7.9	<0.5	
SM-1042		365	0.37	0.56	<0.005	22	<0.025	<0.005	9.9	<0.005	<0.1	1	-10.1		<0.005	7.5	7.4	<0.5	<0.025
SM-1042		362	0.75	0.62	0.003	21	0.008	<0.001	10	0.003	<0.5	1.2	-10.7	307.2	<0.001	7.4	7.9	<2.5	<0.001
SM-1043																7.04			
SM-1044																7.2			
SM-1044		344	-1.84	0.4	0.001	15	<0.001	0.001	5.2	0.002	<0.1	1	-10.9		<0.001	7.68	7.4	<0.5	<0.001
SM-1045																6.98			
SM-1046																7.1			
SM-1046		365	-2.26	0.48	0.001	13	<0.001	<0.001	3.9	0.002	<0.1	1.7	-11.2		<0.001	7.8	7.5	<0.5	<0.001
SM-1047																6.8			
SM-1048																7			
SM-1054																7.65			
SM-1055																7.76			
SM-1056																7.63			
SM-1057																7.69			
SM-1058																7.51			
SM-1058		344	-0.05	0.42	0.002	24	<0.001	0.001	12	0.002	<0.03	1.2	-8.8		<0.001	7.1	7.6	0.1	<0.001
SM-1058		320	-69	0.3		23			12		<0.1	0.2	-8.5			7.9	7.3	<0.5	
SM-1059																7.59			
SM-1059		352	-0.75	0.54	0.001	23	<0.001	0.001	8.6	0.003	<0.03	1.5	-9.2		0.001	7.15	7.6	<0.1	<0.001
SM-1059		340	-1.27	0.57		23			8		<0.1	1.4	-8.9			7.6	6.8	<0.5	
SM-1060																7.3			
SM-1060		393	-1.01	0.3	0.002	18	0.001		13	0.003	<0.1	0.87	-10.1		<0.001	7.4	7.7	<0.5	<0.001
SM-1060		438	11.19	0.29		20			12		<0.1	0.63	-8.9			7.7	7.8	<0.5	
SM-1060		412	0.2	0.48	<0.005	20	<0.025	<0.005	13	<0.005	<0.1	1	-9.5		<0.005	7.5	7.4	<0.5	<0.025
SM-1060		408	1.75	0.32	0.001	20	<0.001	0.001	13	0.004	<0.5	0.88	-9.08	282.9	<0.001	7.45	7.5	<2.5	<0.001
SM-1061																7.59			
SM-1062																7.47			
SM-1062		289	-1.29	0.44	0.002	16	<0.001	0.001	7.1	0.002	<0.1	1.2	-10.4		<0.001	7.47	8	<0.5	<0.001
SM-1062		294	-0.17	0.44	0.002	17	<0.001	0.001	7.5	0.002	<0.1	1.3	-10.3		<0.001	6.9	7.8	<0.5	<0.001
SM-1063																6.75			
SM-1064																7.15			
SM-1065																7.33			
SM-1066																7.4			
SM-1067																7.34			

Appendix 7. Water Chemistry Data

Point ID	X UTM NAD83	Y UTM NAD83	Sample Point ID	Sample Type	Collection Date	Site Types	3H	3H:3He Age	Ag	Al	As	B	Ba	Be	Br
SM-1067	436485	3625470	SM-1067B	SD	10/23/06	SP	4.26		<0.001	<0.001	<0.001	0.007	0.021	<0.001	0.01
SM-1068	440182	3623040	SM-1068A	FP	8/25/06	SP									
SM-1068	440182	3623040	SM-1068B	SD	3/19/08	SP									0.009
SM-1069	440129	3622956	SM-1069A	FP	8/25/06	SP									
SM-1069	440129	3622956	SM-1069B	SD	10/23/06	SP	5.25		<0.001	<0.001	<0.001	0.008	0.025	<0.001	0.01
SM-1069	440129	3622956	SM-1069C	SD	3/19/08	SP	5.32								0.005
SM-1070	440803	3617798	SM-1070A	FP	8/25/06	SP									
SM-1072	448637	3629250	SM-1072A	FP	9/21/06	SP									
SM-1073	449325	3630361	SM-1073A	SD	10/24/06	SP	3.49		<0.001	<0.001	<0.001	0.009	0.038	<0.001	0.03
SM-1073	449325	3630361	SM-1073B	FP	9/12/06	SP									
SM-1076	438399	3615789	SM-1076A	FP	8/25/06	SP									
SM-1076	438399	3615789	SM-1076B	SD	10/24/06	SP	5.11		<0.001	<0.001	<0.001	0.007	0.023	<0.001	0.04
SM-1077	444060	3644834	SM-1077A	SD	10/24/06	SP	4.27		<0.001	<0.001	0.001	0.016	0.04	<0.001	0.04
SM-1077	444060	3644834	SM-1077B	FP	9/12/06	SP									
SM-1077	444060	3644834	SM-1077C	SD	3/20/08	SP									0.052
SM-1078	444212	3645680	SM-1078A	FP	9/12/06	SP									
SM-1079	454763	3638504	SM-1079A	FP	9/12/06	SP									
SM-1079	454763	3638504	SM-1079B	SD	8/9/07	SP	0.87		<0.01	<0.01	<0.01	0.03	0.024	<0.01	0.04
SM-1079	454763	3638504	SM-1079C	SD	11/12/08	SP									
SM-1080	449136	3634479	SM-1080A	RE	10/24/06	SP	3.64		<0.001	<0.001	0.001	0.012	0.033	<0.001	0.03
SM-1080	449136	3634479	SM-1080B	FP	9/12/06	SP									
SM-1080	449136	3634479	SM-1080C	RE	5/8/07	SP			<0.001	<0.001	<0.001	0.013	0.028	<0.001	0.03
SM-1080	449136	3634479	SM-1080D	RE	3/19/08	SP									0.037
SM-1080	449136	3634479	SM-1080E	RE	9/10/08	SP			<0.005	<0.005	<0.005	<0.025	0.029	<0.005	0.032
SM-1080	449136	3634479	SM-1080F	RE	4/8/09	SP			<0.001	<0.001	0.001	0.013	0.029	<0.001	0.027
SM-1081	447577	3633503	SM-1081A	FP	9/12/06	SP									
SM-1082	451034	3636417	SM-1082A	FP	9/12/06	SP									
SM-1083	447725	3638038	SM-1083A	FP	9/12/06	SP									
SM-1084	446471	3637398	SM-1084A	SD	10/25/06	SP	3.2		<0.001	<0.001	<0.001	0.011	0.045	<0.001	0.03
SM-1084	446471	3637398	SM-1084B	FP	9/12/06	SP									
SM-1084	446471	3637398	SM-1084C	SD	3/19/08	SP									0.038
SM-1085	450375	3634275	SM-1085A	FP	9/13/06	SP									
SM-1086	448175	3616264	SM-1086A	FP	9/13/06	SP									
SM-1087	450656	3616748	SM-1087A	SD	11/7/06	SP	4.23		<0.001	0.006	0.001	0.014	0.05	<0.001	0.06
SM-1087	450656	3616748	SM-1087B	FP	9/13/06	SP									
SM-1088	444888	3627273	SM-1088A	FP	9/13/06	SP									
SM-1089	441607	3626932	SM-1089A	FP	9/13/06	SP									
SM-1090	425046	3628784	SM-1090A	SD	11/14/06	SP	4.53		<0.001	<0.001	<0.001	0.009	0.033	<0.001	<0.04
SM-1090	425046	3628784	SM-1090B	SD	3/18/08	SP									0.022
SM-1091	479003	3639529	SM-1091A	SD	8/9/07	SP	1.04		<0.01	<0.01	<0.01	0.039	0.025	<0.01	0.04
SM-1091	479003	3639529	SM-1091B	SD	8/19/08	SP									0.052
SM-1091	479003	3639529	SM-1091C	SD	11/12/08	SP	1.1								
SM-1096	442189	3642617	SM-1096E	SD	9/25/08	SP									0.03
SM-1097	444431	3641046	SM-1097A	SD	8/28/07	SP	1.88		<0.005	<0.005	<0.005	0.014	0.039	<0.005	0.03
SM-1098	478480	3652708	SM-1098A	FP	3/6/08	SP									
SM-1098	478480	3652708	SM-1098B	RE	9/11/08	SP			<0.005	<0.005	<0.005	0.027	0.048	<0.005	0.04
SM-1098	478480	3652708	SM-1098C	RE	4/9/09	SP									0.039
SM-1099	473173	3645251	SM-1099A	SD	8/19/08	SP	1.21		<0.005	<0.005	<0.005	<0.025	0.03	<0.005	0.047

Appendix 7. Water Chemistry Data

Point ID	C13r	C14	Ca	Cd	CF	CFC113	CFC 113/12	CFC 12	Cl	Co	COND LAB	Cr	Cu	d34S	DO	F	Fe	H2r	HCO3
SM-1067			90	<0.001	507	21	20	25	3	<0.001	510	0.001	<0.001		6.8	<0.1	<0.05	-68	320
SM-1068					590										3.83				
SM-1068			135		641				2.4		565			12.1	5.88	<0.1		-69	350
SM-1069					632										6.17				
SM-1069			120	<0.001	633	21	20	24	3	<0.001	650	0.001	0.003		6.46	<0.1	<0.05	-66	420
SM-1069			130		625				2.3		535				5.5	0.099		-70	325
SM-1070					659										6.98				
SM-1072					610										6.15				
SM-1073	-11	82.93	115	<0.001	651	24	21	28	4.6	<0.001	665	0.001	<0.001		7.92	0.15	<0.05	-57	415
SM-1073					480										7.72				
SM-1076					607										8.54				
SM-1076	-12.2	89.03	125	<0.001	632	24	22	27	2.6	<0.001	645	0.001	0.002		7	<0.1	<0.05	-67	425
SM-1077			115	<0.001	805	21	17	26	16	<0.001	770	0.001	0.001	11.7	7.7	0.23	<0.05	-51	375
SM-1077					891										7.58				
SM-1077			145		855				20		840				6.39	0.21		-54	325
SM-1078					568										5.77				
SM-1079					828										6.14				
SM-1079			120	<0.01	814				21	<0.01	770	<0.01	<0.01	11.5	4.77	0.23	<0.05	-64	305
SM-1079					817	31	34	29							5.16				
SM-1080			99	<0.001	592				7.2	<0.001	595	0.001	0.001		4.55	0.16	<0.05	-54	340
SM-1080					632										7.57				
SM-1080			103	<0.001	617				6.6	<0.001	595	0.002	0.003	10.6	6.4	0.19	<0.01	-57	335
SM-1080			113		576				6.7		600				5.43	0.17		-56	330
SM-1080			99	<0.005	609				6.9	<0.005	640	<0.005	<0.005		5.95	0.15	<0.5	-53.1	340
SM-1080			100	<0.001	598				6.7	<0.001	585	0.002	<0.001		9.4	0.15	0.015	-56	315
SM-1081					753										8.11				
SM-1082					634										6.49				
SM-1083					696										8.5				
SM-1084	-11.8	86.62	110	<0.001	470	24	23	25	7.4	<0.001	640	0.001	0.001	10.7	7.3	0.15	<0.05	-55	365
SM-1084					655										7.64				
SM-1084			125		646				7.3		655				5.38	0.15		-56	370
SM-1085					867										2.46				
SM-1086					711										6.69				
SM-1087	-14.9	104.9	120	<0.001	713	23	21	26	5.4	0.001	645	<0.001	0.011		1.6	0.25	0.032	-56	450
SM-1087					683										4.12				
SM-1088					696										7.71				
SM-1089					498										7.06				
SM-1090			105	<0.001	911	21	19	25	107	<0.001	950	0.001	0.022	10.4	7.26	0.1	<0.01	-65	355
SM-1090			113		891				115		890				5.44	0.1		-69	310
SM-1091			140	<0.01	926				19	<0.01	865	<0.01	<0.01	10.8	5.9	<0.5	<0.05	-58	300
SM-1091			135		936				22		985			9.7	6.8	0.27		-57	295
SM-1091					856	23	23	24							5.98				
SM-1096			105		611				8.9		605				10.7	0.12		-58.8	335
SM-1097			100	<0.005	655	24	21	27	10	<0.005	705	<0.005	<0.005	11.7	7.8	0.13	<0.05	-58	370
SM-1098					808										2.19				
SM-1098			117	<0.005	813				14	<0.005	860	<0.005	<0.005		4.2	0.28	<0.5	-57.1	315
SM-1098			110		785				14		765				4.1	0.3		-60.5	290
SM-1099			58	<0.005	440	23	22	24	8.1	<0.005	465	<0.005	<0.005	11.1	8.3	0.28	<0.25	-55.9	195

Appendix 7. Water Chemistry Data

Point ID	Hg	HRD	IONBAL	K	Li	Mg	Mn	Mo	Na	Ni	NO2	NO3	O18r	ORP	Pb	pHf	pHL	PO4	Sb
SM-1067		270	-1.2	0.39	0.001	12	<0.001	<0.001	2.9	0.002	<0.1	5	-11.2		<0.001	7.6	7.7	<0.5	<0.001
SM-1068																7.53			
SM-1068		380	11.32	0.38		12			2.6		<0.1	1	-10.2			7.4	7.8	<0.5	
SM-1069																7.22			
SM-1069		340	-2.27	0.34	0.001	11	<0.001	<0.001	3	0.002	<0.1	1.1	-11.3		<0.001	7.38	7.4	<0.5	<0.001
SM-1069		368	13.18	0.44		12			2.6		<0.1	0.6	-10.4			7.5	7.7	<0.5	
SM-1070																7.18			
SM-1072																7.45			
SM-1073		336	-3.65	0.39	0.002	13	<0.001	0.001	4.7	0.003	<0.1	1.5	-9.8		<0.001	7.4	7.4	<0.5	<0.001
SM-1073																7.23			
SM-1076																7.21			
SM-1076		352	-0.83	0.39	0.001	11	<0.001	<0.001	2.2	0.003	<0.1	2.5	-11.3		<0.001	7.35	7.5	<0.5	<0.001
SM-1077		393	-1.34	0.55	0.005	27	<0.001	0.001	19	0.003	<0.1	0.88	-8.9		<0.001	7.4	7.7	<0.5	<0.001
SM-1077																7.51			
SM-1077		479	6.92	0.47		30			21		<0.1	0.68	-8.1			7.5	7.9	<0.5	
SM-1078																7.54			
SM-1079																7.28			
SM-1079		436	0.07	0.73	<0.01	34	0.017	<0.01	17	<0.01	<0.1	2.4	-10		<0.01	7.9	7.4	<0.5	<0.01
SM-1079														98.5		7			
SM-1080		300	-2.34	0.34	0.002	14	<0.001	0.001	8.9	0.002	<0.1	0.82	-9.1		<0.001	7.44	7.6	<0.5	<0.001
SM-1080																7.31			
SM-1080		316	0.5	0.37	0.002	15	<0.001	0.001	8.2	0.003	<0.1	0.54	-9.3		<0.001	6.2	7.7	<0.5	<0.001
SM-1080		339	3.95	0.39		15			7.6		<0.1	0.39	-8.4			7.5	8.2	<0.5	
SM-1080		309	-1.92	0.55	<0.005	15	<0.025	<0.005	8.3	<0.005	<0.1	1.3	-8.8		<0.005	7.45	7.4	<0.5	<0.025
SM-1080		313	2.04	0.47	0.002	15	0.001	0.001	8.2	0.003	<0.5	0.62	-9.24	262.3	<0.001	7.45	7.4	<2.5	<0.001
SM-1081																7.68			
SM-1082																7.28			
SM-1083																7.37			
SM-1084		336	-0.85	0.41	0.002	16	<0.001	0.001	7.8	0.003	<0.1	1.9	-9.1		<0.001	7.4	7.5	<0.5	<0.001
SM-1084																7.46			
SM-1084		368	2.38	0.4		15			7.6		<0.1	1.4	-8.3			7.35	8	<0.5	
SM-1085																7.36			
SM-1086																7.08			
SM-1087		397	0.04	0.6	0.001	25	0.149	0.001	6	0.004	<0.02	0.19	-9.4		<0.001	7.3	7.3	<0.25	<0.001
SM-1087																7.1			
SM-1088																7.23			
SM-1089																7.33			
SM-1090		307	0.59	0.46	0.001	12	<0.001	<0.001	76	0.002	<0.06	7	-10.5		<0.001	7.2	7.6	<0.2	<0.001
SM-1090		331	1.62	0.33		13			59		<0.1	4.9	-10.6			7.9	8.1	<0.5	
SM-1091		504	1.01	0.8	<0.01	39	<0.01	<0.01	19	<0.01	<0.5	2.9	-9.5		<0.01	7.3	7.4	<2.5	<0.01
SM-1091		496	0.38	0.84		40			19		<0.1	4.9	-9			7.2	7.2	<0.05	
SM-1091																-21.6	7		
SM-1096		345	2.71	0.43		20			9.6		<0.1	0.9	-9.3	-82.3		6.8	7.4	<0.5	
SM-1097		361	0.17	0.5	<0.005	28	<0.005	<0.005	11	<0.005	<0.1	0.91	-9.2		<0.005	8.3	7.4	<0.5	<0.005
SM-1098																7.53			
SM-1098		432	0.76	1.1	<0.005	34	0.19	<0.005	13	<0.005	<0.1	1.2	-9		<0.005	7.45	7.4	<0.5	<0.025
SM-1098		409	-0.02	0.8		33			13		<0.5	2.9	-9.15	253.6		7.3	7.4	2.5	
SM-1099		208	-1.48	0.54	<0.005	16	<0.025	<0.005	8.2	<0.005	<0.1	11	-8.6		<0.005	7.2	7.7	<0.5	<0.025

Appendix 7. Water Chemistry Data

Point ID	Hg	HRD	IONBAL	K	Li	Mg	Mn	Mo	Na	Ni	NO2	NO3	O18r	ORP	Pb	pHf	pHL	PO4	Sb
SM-1100		483	-0.06	0.88	0.007	34	<0.025	<0.005	25	<0.005	<0.1	3.6	-9.9		<0.005	7	7.2	<0.5	<0.025
SM-1101		340	3.16	0.31	<0.005	9.9	<0.025	<0.005	2.6	<0.005	<0.1	2.7	-11.04	120.4	<0.005	7.1	7.5	<0.5	<0.025
SM-1102		436	0.68	<2.5		30			28		<0.1	2.4	-10.65	65		7.26	7.3	<0.5	
SM-2005													-10.1						
SM-2005													-7.9						
SM-2005													-16.9						
SM-2005													-3.4						
SM-2005													-12.8						
SM-2005													-7.7						
SM-2005													-12.1						
SM-2005													-14.8						
SM-2005													-8.8						
SM-2005													-9.64						
SM-2005													-13.59						
SM-2005													-7.98						
SM-2006													-8.3						
SM-2006													-10.6						
SM-2006													-14.2						
SM-2006													-8.4						
SM-2006													-8.6						
SM-2006													-9.9						
SM-2006													-12.5						
SM-2006													-15.4						
SM-2006													-12.5						
SM-2006													-8.5						
SM-2006													-9.47						
SM-2006													-12.53						
SM-2006													-9.49						
SM-2007													-13.5						
SM-2007													-8.4						
SM-2008													-16.2						
SM-2008													-7.4						
SM-2008													-7.8						
SM-2008													-7.6						
SM-2008													-11.8						
SM-2008													-12.9						
SM-2008													-11						
SM-2008													-8						
SM-2008													-9.19						
SM-2008													-13.03						
SM-2008													-7.72						
SM-2009													-8.7						
SM-2009													-11.3						
SM-2009													-13.4						
SM-2009													-8.2						
SM-2009													-9.6						
SM-2009													-11.4						
SM-2009													-13.8						

Appendix 7. Water Chemistry Data

Point ID	C13r	C14	Ca	Cd	CF	CFC113	CFC 113/12	CFC 12	Cl	Co	COND LAB	Cr	Cu	d34S	DO	F	Fe	H2r	HCO3	
SM-2009																			-123	
SM-2009																			-89	
SM-2009																			-57.4	
SM-2009																			-71.6	
SM-2009																			-74	
SM-2009																			-71.2	
SM-2010																			-47	
SM-2010																			-47	
SM-2010																			-80	
SM-2010																			-100.2	
SM-2010																			-77.2	
SM-2010																			-52.2	
SM-2010																			-68.6	
SM-2010																			-47.1	
SM-2011																			-103	
SM-2012																			-95	
SM-2012																			-119.6	
SM-2012																			-78.5	
SM-2012																			-50.2	
SM-2012																			-69.4	
SM-2012																			-94.2	
SM-2012																			-60.36	
SM-3015																			-60	
SM-3015																			-62	
SM-3015			105		734				17		760				7.8	0.24			-57.4	245
SM-3015			110		862				22		845				10.4	0.28			-61.6	235
SM-3021					416										9				-67	
SM-3021			60		424				4.4		425				8	<0.1			-68.2	225
SM-3021			55		408				4.5		405				8.5	0.08			-70.4	210
SM-3022					480										8.87				-67	
SM-3022			80		510				5.9		515				8	<0.1			-66.8	285
SM-3022			71		478				5.3		455				9.6	0.079			-69.5	245
SM-3023					586										8				-68	
SM-3024					808										2.19				-59	
SM-3025					756										9.5				-59	
SM-3025			98		775				14		805				7.22	0.29			-55.4	225
SM-3025			105		779				15		785				11.2	0.32			-59.3	225
SM-3028			77		492				3.7		500				7.6	0.11			-63.9	280
SM-3028			63		471				4.4		435				9.3	0.13			-62.1	240
SM-3029			76		482				3.1		500				7.5	0.1			-65.4	285
SM-3029			76		510				4.2		505				8.7	0.13			-64.2	295
SM-3030			120		791				21		895				5.95	0.27			-58.7	290
SM-3030			105		792				23		780				6	0.28			-62.9	255
SM-3031			108		796				28		825				7.2	0.17			-64.1	260
SM-3031			96		755				26		700				9	0.18			-66.9	240
SM-3032			110		592				5.2		635				7.2	<0.1			-67.4	370
SM-3049			94		565				5.2		540				8.2	0.088			-68.8	300

Appendix 7. Water Chemistry Data

Point ID	Hg	HRD	IONBAL	K	Li	Mg	Mn	Mo	Na	Ni	NO2	NO3	O18r	ORP	Pb	pHf	pHL	PO4	Sb
SM-2009													-17.6						
SM-2009													-13.4						
SM-2009													-10.6						
SM-2009													-11.83						
SM-2009													-12.05						
SM-2009													-11.74						
SM-2010													-8.2						
SM-2010													-7.8						
SM-2010													-11.9						
SM-2010													-14.3						
SM-2010													-11.2						
SM-2010													-9.5						
SM-2010													-11.2						
SM-2010													-8.29						
SM-2011													-14.6						
SM-2012													-9.4						
SM-2012													-17						
SM-2012													-12.1						
SM-2012													-14						
SM-2012													-11.2						
SM-2012													-14.23						
SM-2012													-10.41						
SM-3015													-9.5						
SM-3015													-9.2						
SM-3015	386	1.02	1.4			30			14		<0.1	2	-9.7			8.4	8.2	<0.5	
SM-3015	441	2.01	0.88			37			18		<0.5	2	-9.53	245		8.2	8	<2.5	
SM-3021													-9.9				8.65		
SM-3021	203	-0.58	0.49			13			3.8		<0.1	1.3	-11.2			8.4	7.9	<0.5	
SM-3021	192	-1.49	0.47			13			3.9		<0.5	0.84	-10.54	328.5		8.2	8.3	<2.5	
SM-3022													-10.2				8.4		
SM-3022	249	-1.41	0.58			12			4		<0.1	<0.1	-11.2			8.4	7.8	<0.5	
SM-3022	222	-0.57	0.55			11			4.1		<0.5	0.12	-10.72	285.7		8.15	7.9	<2.5	
SM-3023													-10.2				8.2		
SM-3024													-8.6				7.5		
SM-3025													-8.6				8.4		
SM-3025	393	0.46	0.86			36			14		<0.1	2.5	-9.2			8.3	8.2	<0.5	
SM-3025	405	0.72	0.69			35			14		<0.5	2.5	-8.89	249.3		8.2	8	<2.5	
SM-3028	258	1.13	0.55			16			4.5		<0.1	1.8	-10.4			8.45	8	<0.5	
SM-3028	230	1.19	0.55			18			5.6		<0.5	0.76	-10.08	288.3		8.3	7.8	<2.5	
SM-3029	252	-0.59	0.57			15			3.4		<0.1	1.8	-10.7			8	7.9	<0.5	
SM-3029	263	-0.76	0.61			18			5		<0.5	1.6	-10.35	297.3		7.8	7.9	<2.5	
SM-3030	444	-0.18	0.84			35			17		<0.1	2.2	-9.7			7.61	7.4	<0.5	
SM-3030	392	-0.13	1			31			17		<0.5	3.1	-9.86	220		7.3	7.4	<2.5	
SM-3031	389	1.98	0.74			29			22		<0.1	1.3	-10.8			8.4	7.9	<0.5	
SM-3031	347	3.24	0.68			26			20		<0.5	1.4	-10.82	250.9		8.2	7.9	<2.5	
SM-3032	324	0.06	0.61			12			4.4		<0.1	0.42	-11			7.5	7.5	<0.5	
SM-3049	284	2.74	0.65			12			4.2		<0.5	0.48	-11.17	284.3		8.1	7.9	<2.5	

Appendix 7. Water Chemistry Data

Point ID	Se	Si	SiO2	Sn	SO4	Sr	T	TAn	TCat	TDS	Th	Ti	TI	U	V	Zn
SM-2009																
SM-2009																
SM-2009																
SM-2009																
SM-2009																
SM-2009																
SM-2010																
SM-2010																
SM-2010																
SM-2010																
SM-2010																
SM-2010																
SM-2010																
SM-2010																
SM-2011																
SM-2012																
SM-2012																
SM-2012																
SM-2012																
SM-2012																
SM-2012																
SM-2012																
SM-2012																
SM-3015																
SM-3015																
SM-3015					175		16.8	8.18	8.35	467						
SM-3015					227		10	9.24	9.62	553						
SM-3021							4.4									
SM-3021					22		11.9	4.29	4.24	217						
SM-3021					26		11.5	4.14	4.02	217						
SM-3022							5.1									
SM-3022					23		12.4	5.32	5.17	268						
SM-3022					25		11.4	4.69	4.63	246						
SM-3023							9.8									
SM-3024							12.7									
SM-3025							7.2									
SM-3025					205		17.8	8.41	8.48	483						
SM-3025					213		8.3	8.6	8.73	508						
SM-3028					25		14.2	5.25	5.37	269						
SM-3028					32		14.2	4.73	4.85	253						
SM-3029					22		13	5.25	5.19	264						
SM-3029					28		14.7	5.57	5.49	290						
SM-3030					205		16.6	9.66	9.63	546						
SM-3030					180		12	8.63	8.6	499						
SM-3031					160		14.8	8.41	8.75	479						
SM-3031					127		13.9	7.33	7.82	426						
SM-3032					22		13.5	6.68	6.68	340						
SM-3049					23		17.2	5.55	5.87	297						