

Geochemistry, Geophysics, Geosystems

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Freshwater seepage into sediments of the shelf, shelf edge and continental slope of the Canadian Beaufort Sea

Supplementary Table 1

Location, water depth, core length and environment where each core was collected
followed by a listing of pore waters Cl concentrations, and $\delta^{18}\text{O}$ and δD values

Core Number	Core ID	Latitude	Longitude	Water depth, m	Core Length, cm	Environment
1	WL03-VC32	69.7701	-133.3635	11	354	Shelf
2	WL03-VC35	69.7763	-133.3625	11	325	Shelf
3	WL03-VC33	69.7720	-133.3623	12	341	Shelf
4	WL03-VC34	69.7740	-133.3625	12	289	Shelf
5	WL03-VC78	69.8668	-135.3338	18	307	Shelf
6	WL03-VC77	69.8166	-136.3343	19	233	Shelf
7	WL03-VC64	70.1666	-133.7501	42	438	Shelf
8	WL03-VC19	70.6798	-132.6336	44	84	Shelf
9	WL03-VC51	70.6798	-132.6162	46	102	Shelf
10	WL03-VC62	70.7622	-132.8091	49	389	Shelf
11	WL03-VC52	70.6798	-132.6586	50	40	Shelf
12	WL03-VC01	71.0824	-130.6145	50	228	Shelf
13	WL03-VC40	70.3835	-135.4392	57	485	Shelf
14	WL03-VC65	70.3332	-133.7496	58	435	Shelf
15	WL03-VC42	70.3876	-135.4241	60	336	Shelf
16	WL03-VC41	70.3860	-135.4305	63	460	Shelf
17	WL03-VC36	70.6676	-133.4231	66	289	Shelf
18	WL03-VC48	70.3950	-135.3985	68	470	Shelf
19	WL03-VC66	70.4998	-133.7503	68	463	Shelf
20	WL03-VC67	70.7187	-133.5072	68	153	Shelf
21	2012004PGC-STN031-GC-13	70.6095	-135.7008	72	32	Shelf
22	2012004PGC-STN033-GC-15	70.5879	-135.7975	74	91	Shelf
23	2012004PGC-STN028-PC-09	70.5767	-135.9132	75	80	Shelf
24	2012004PGC-STN032-GC-14	70.6095	-135.7003	75	42	Shelf
25	WL03-VC69	70.9790	-133.1942	79	110	Shelf
26	2012004PGC-STN030-GC-12	70.6183	-135.7167	89	100	Shelf
27	2010-035-WD-01	70.4504	-136.5601	89	144	Shelf
28	2010-035-WD-02	70.4508	-136.5574	90	121	Shelf
29	2010-035-WD-08	70.4791	-136.4367	96	92	Shelf
30	2013005PGC-STN115-GC-45	70.5690	-136.0428	102	46	Shelf edge
31	2012004PGC-STN026-PC-07	70.5693	-136.0362	107	601	Shelf edge
32	2013005PGC-STN113-GC-44	70.5687	-136.0430	110	134	Shelf edge
33	2013005PGC-STN111-GC-43	70.5682	-136.0417	115	125	Shelf edge
34	2012004PGC-STN027-PC-08	70.5731	-136.0437	116	353	Shelf edge
35	2012004PGC-STN025-PC-06	70.5803	-136.0576	138	613	Shelf edge
36	ARA08C-25-GC01	70.8227	-135.1251	125	85	Shelf edge
37	ARA08C-24-GC01	70.8271	-135.0958	129	206	Shelf edge
38	2012004PGC-STN011-GC-7	70.8298	-135.1135	130	80	Shelf edge
39	2012004PGC-STN012-GC-8	70.8298	-135.1136	131	75	Shelf edge
40	2012004PGC-STN010-GC-6	70.8338	-135.1126	132	71	Shelf edge
41	2012004PGC-STN009-GC-5	70.8337	-135.1125	140	64	Shelf edge
42	2012004PGC-STN014-GC-10	70.8288	-135.1060	156	91	Shelf edge
43	2012004PGC-STN013-GC-9	70.8288	-135.1060	156	90	Shelf edge
44	ARA08C-26-GC01	70.8360	-135.1394	164	86	Shelf edge
45	ARA08C-22-GC02	70.8289	-135.1345	166	281	Shelf edge
46	ARA08C-27-GC01	70.8373	-135.1329	166	330	Shelf edge
47	ARA08C-28-GC01	70.8382	-135.1311	167	300	Shelf edge
48	2013005PGC-STN087-GC-32	70.8375	-135.1228	185	140	Shelf edge

49	2013005PGC-STN083-GC-30	70.8412	-135.1307	210	122	Shelf edge	Central cluster
50	2013005PGC-STN081-GC-29	70.8438	-135.1385	230	144	Shelf edge	Central cluster
51	2012004PGC-STN006-GC-2	70.8446	-135.1484	240	126	Shelf edge	Central cluster
52	2013005PGC-STN007-GC-3	70.9334	-134.4307	125	163	Shelf edge	East cluster
53	2013005PGC-STN005-GC-2	70.9385	-134.4196	128	174	Shelf edge	East cluster
54	WL03-VC50	70.9871	-133.7356	110	207	Shelf edge	
55	2010-035-WD-05	70.4534	-136.5710	133	166	Shelf edge	
56	ARA05C-23-GC01	70.6356	-135.6814	94	189	Shelf edge	
57	2010-035-WD-09	70.4859	-136.4481	231	146	Slope	
58	ARA04C-32-GC001	70.9849	-134.6047	260	426	Slope	
59	2010-035-WD-24	70.6459	-135.9401	282	135	Slope	
60	2013005PGC-STN019-GC-8	70.6462	-135.9393	285	173	Slope	
61	2010-035-WD-23	70.6478	-135.9476	292	120	Slope	
62	ARA05C-2-GC03	70.7061	-135.8163	406	425	Slope	
63	2012004PGC-STN018-PC-04	70.7999	-135.5929	460	737	Slope	
64	2012004PGC-STN119-GC-11	70.7757	-135.6709	520	163	Slope	
65	2013005PGC-STN040-PC-01	70.8377	-135.4061	568	563	Slope	
66	2013005PGC-STN032-GC-14	70.7005	-136.2335	685	154	Slope	
67	2012004PGC-STN004-PC-02	70.7807	-136.0823	748	583	Slope	
68	2012004PGC-STN005-GC-01	70.8120	-136.1115	790	117	Slope	
69	ARA05C-17-GC03	70.8563	-136.2124	850	373	Slope	
70	2013005PGC-STN073-PC-02	71.0064	-135.7558	863	196	Slope	
71	2013005PGC-STN074-PC-03	71.0040	-135.7495	870	284	Slope	
72	ARA05C-16-GC02	70.9356	-136.4176	1016	385	Slope	
73	2013005PGC-STN094-GC-35	70.7771	-136.5749	1025	30	Slope	
74	2013005PGC-STN127-GC-51	69.9906	-137.2581	43	28	Gary Knolls	
75	2013005PGC-STN123-GC-49	69.9901	-137.2609	45	59	Gary Knolls	
76	2013005PGC-STN121-GC-48	69.9899	-137.2619	48	68	Gary Knolls	
77	2013005PGC-STN119-GC-47	69.9882	-137.2673	52	142	Gary Knolls	
78	2013005PGC-STN129-GC-52	69.9916	-137.2528	52	54	Gary Knolls	
79	2013005PGC-STN125-GC-50	69.9904	-137.2593	53	79	Gary Knolls	
80	ARA04C-42-GC001	69.9879	-137.2693	55	300	Gary Knolls	
81	2013005PGC-STN117-GC-46	69.9865	-137.2747	55	160	Gary Knolls	
82	ARA04C-43-GC001	69.9710	-137.2299	57	496	Gary Knolls	
83	WL03-VC29	69.7502	-133.3636	13	358	Kugmalit pockmarks	
84	WL03-VC28	69.7501	-133.3636	14	378	Kugmalit pockmarks	
85	WL03-VC31	69.7500	-133.3620	15	394	Kugmalit pockmarks	
86	WL03-VC27	69.7501	-133.3637	16	410	Kugmalit pockmarks	
87	WL03-VC30	69.7500	-133.3637	18	377	Kugmalit pockmarks	
88	WL03-VC16	70.6798	-132.6408	24	178	Mid-shelf PLF	Admiral Finger B
89	WL03-VC61	70.7673	-132.8656	24	223	Mid-shelf PLF	Admiral Finger Z
90	WL03-VC79	70.7671	-132.8664	25	281	Mid-shelf PLF	Admiral Finger Z
91	WL03-VC20	70.6798	-132.6432	26	321	Mid-shelf PLF	Admiral Finger B
92	WL03-VC17	70.6799	-132.6446	29	366	Mid-shelf PLF	Admiral Finger B
93	WL03-VC58	70.6544	-132.6591	31	328	Mid-shelf PLF	Admiral Finger C
94	WL03-VC63	70.7677	-132.8661	31	230	Mid-shelf PLF	Admiral Finger Z
95	WL03-VC60	70.7630	-132.6909	44	136	Mid-shelf PLF	Admiral Finger Z
96	WL03-VC03	70.8751	-130.8426	42	483	Mid-shelf PLF	Kaglulik
97	WL03-VC02	70.8759	-130.8397	44	228	Mid-shelf PLF	Kaglulik
98	WL03-VC11	70.8778	-130.8371	44	268	Mid-shelf PLF	Kaglulik
99	WL03-VC13	70.8779	-130.8406	46	120	Mid-shelf PLF	Kaglulik
100	WL03-VC10	70.8787	-130.8342	50	284	Mid-shelf PLF	Kaglulik
101	WL03-VC38	70.3899	-135.4191	40	441	Mid-shelf PLF	Kopanoar
102	WL03-VC39	70.3892	-135.4168	41	160	Mid-shelf PLF	Kopanoar
103	WL03-VC37	70.3896	-135.4181	41	455	Mid-shelf PLF	Kopanoar
104	WL03-VC49	70.3893	-135.4165	42	401	Mid-shelf PLF	Kopanoar
105	ARA04C-41-GC001	69.9887	-137.5456	70	70	Mackenzie Trough	
106	ARA04C-5-GC001	69.9903	-137.7362	87	367	Mackenzie Trough	
107	ARA04C-6-GC001	69.9912	-137.8180	110	371	Mackenzie Trough	
108	ARA04C-7-GC001	69.9834	-137.8676	127	415	Mackenzie Trough	
109	ARA08C-40-GC01	70.4777	-138.8876	760	551	Mackenzie Trough	
110	ARA08C-39-GC01	70.5286	-138.8703	1080	300	Mackenzie Trough	

111	ARA08C-38-GC01	70.5360	-138.8685	1160	215	Mackenzie Trough
112	ARA08C-37-GC01	70.5461	-138.8891	1207	188	Mackenzie Trough
113	ARA08C-13-GC01	70.5518	-138.8752	1257	245	Mackenzie Trough
114	ARA08C-41-GC01	70.6415	-138.6000	1360	288	Mackenzie Trough
115	ARA08C-12-GC01	70.6236	-138.9757	1457	300	Mackenzie Trough
116	ARA04C-39-GC01	70.6563	-139.0390	1540	387	Mackenzie Trough
117	ARA08C-11-GC02	70.8077	-139.0127	1750	469	Mackenzie Trough
118	ARA08C-23-GC01	70.8308	-135.1266	167	229	Shelf edge Central cluster

Shelf

CORE NUMBER	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
105	ARA04C-41-GC001	60	523		
		80	524		
		102	525	-19.5	-2.07
		122	523		
		143	526		
		164	524	-18.9	-2.26
		200	523		
		230	522	-19.8	-2.29
		250	524		
		270	522		
		290	521	-20.6	-2.43
	310	521	-20.9	-2.47	
106	ARA04C-5-GC001	20	524		
		60	523		
		100	523		
		120	525		
		140	522	-20.3	-2.08
		160	522		
		180	524	-18.5	-2.06
		200	523		
		240	525	-18.5	-2.09
		280	525	-18.5	-2.24
		340	525	-19	-2.32
	360	522			
107	ARA04C-6-GC001	60	528		
		100	532		
		140	535		
		160	530		
		180	531	-15	-1.62
		200	532		
		215	532		
		240	533		
		260	534	-14.4	-1.66
		300	534	-13.8	-1.69
		320	535	-13.7	-1.58
	340	536			
	360	536	-15.7	-1.75	
108	ARA04C-7-GC001	20	535		
		40	527		
		60	531		
		80	530		
		100	532	-13.7	-1.49
		140	527		

160	533		
180	533		
200	533	-13.5	-1.43
260	532		
300	531	-13.2	-1.51
320	534		
340	533	-12.9	-1.5
360	536	-12.2	-1.44

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
109	ARA08C-40-GC01	40	575		
		85	557		
		148	560.2		
		198	557.8		
		238	559.4		
		278	555.7		
		318	558.9		
		358	558.3		
		393	555.9		
		428	554.5		
		463	558.8		
		498	556.5		
		533	560.4		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
110	ARA08C-39-GC01	35	561.6		
		62	563		
		87	561.6		
		112	559		
		147	561.7		
		177	560.9		
		207	559.2		
		232	563.9		
		257	566.6		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
111	ARA08C-38-GC01	38	556		
		80	565.6		
		100	557		
		120	560.8		
		140	558.1		
		160	552.6		
		179	542.5		
		198	543.1		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
112	ARA08C-37-GC01	20	555.3		
		68	557.5		
		93	555.8		
		118	552.9		
		143	554.6		
		155	553.8		
		168	558		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
113	ARA08C-13-GC01	19	546.7		
		49	545.9		
		80	546.4		
		110	547.2		
		140	546.3		

175	542.4
220	530

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
114	ARA08C-41-GC01	28	566.4		
		58	561.7		
		88	557.4		
		118	561.3		
		153	557.6		
		178	564.1		
		218	567		
		238	562.8		
		263	563.1		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
115	ARA08C-12-GC01	20	548.1		
		80	548.6		
		110	550.5		
		130	549.3		
		160	550.5		
		187	551.2		
		224	551.1		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
116	ARA04C-39-GC01	24	558		
		40	559		
		80	557	-1.7	0.25
		140	559		
		180	555		
		200	559	-1.5	0.02
		220	560		
		250	558	-2	0.04
		270	555		
		330	554	-4.2	-0.28

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
117	ARA08C-11-GC02	42	538.3		
		92	547.8		
		142	550.8		
		199	547.5		
		249	545.8		
		294	544.3		
		349	538		
		389	532.8		
		424	534.7		

SHELF EDGE

CORE NUMBER	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
30	2013005PGC-STN115-GC-45	16	516		
		26	493		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
31	2012004PGC-STN026-PC-07	30	517.3	-15.4	-1.8
		60	514.5		
		90	511.6		
		120	509.4	-20.4	-2.5
		190	504.8	-22.7	-2.5
		235	501.8		
		280	506	-25.7	-3.2

	356	496.6	-26.3	-3.1
	386	492.6		
	426	489.6		
	436	487		
	446	486.1		
	456	485.1		
	466	485	-30.3	-3.6

	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
32	2013005PGC-STN113-GC-44	24	527		
		54	523		
		84	521		
		104	513		
		114	508		

	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
33	2013005PGC-STN111-GC-43	27	531		
		57	536		
		87	532		
		97	529		

	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
34	2012004PGC-STN027-PC-08	30	506.5	-19.8	-2.3
		67	499.4	-27.6	-3.2
		97	498.2		
		127	493.3	-30.5	-3.7
		147	490.6		
		187	488.9	-34.3	-4.2
		221	485.3		
		251	484.3	-38.4	-4.7
		281	479.8		
		311	478.3	-42.8	-5.3

	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
35	2012004PGC-STN025-PC-06	13	522	-12.1	-1.1
		43	519.2		
		84	518.2		
		104	513.7	-16.1	-1.8
		134	511		
		208	503	-19.4	-2.3
		239	502.4		
		268	501.8		
		298	497.9	-22.2	-2.6
		329	493.8		
		391	479.4		
		421	475.5	-28.8	-3.4
		451	475.4		
		461	473.9		
		471	472.2		
		481	469.1	-29.3	-3.7

	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
36	ARA08C-25-GC-01	11	510.2	-24.1	-3.05
		21	503.1	-32.3	-4.03
		31	478	-49.7	-6.3
		41	459.5	-65.3	-8.26
		51	437.9	-79.7	-10.1
		61	421.1	-90.8	-11.5
		71	398.8	-106.5	-13.54

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
37	ARA08C-24-GC-01	32	530.8	-10.7	-1.28
		76	525.4	-11.7	-1.4
		106	523.9	-13.3	-1.65
		131	523.1	-14.2	-1.71
		166	517.2	-16.6	-2.01
		191	506.1	-19.2	-2.43

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
38	2012004PGC-STN011-GC-07	12	522.8	-11.6	-1.3
		22	503.8	-10.8	-1.36
		32	523.3		
		42	522.8		
		52	522.9		
		62	515.8	-15	-1.8

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
39	2012004PGC-STN012-GC-08	15	525.6	-11.1	-1.2
		25	524.9		
		35	513.6		
		45	519.4	-11.7	-1.51
		55	516.1		
		60	515.5	-15.9	-1.8

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
40	2012004PGC-STN010-GC-06	8	519.9	-11.8	-1.4
		18	516.8		
		28	499.4	-18.7	-2.16
		38	496.2		
		48	482.2	-24.8	-2.9

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
41	2012004PGC-STN009-GC-05	9	523.5		
		21	522.2	-15.2	-1.61
		31	511.8	-15.6	-1.69
		41	491	-15.4	-1.8
		51	494.8		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
42	2012004PGC-STN014-GC-10	15	526.8	-9.4	-1
		25	525.3		
		35	524		
		45	518.4		
		55	517.6		
		65	510.6	-17.1	-2.12
		74	502.3	-18.8	-2.1

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
43	2012004PGC-STN013-GC-09	17	526		
		27	527.3		
		37	521.5		
		47	518.7		
		57	525.6	-13.5	-1.62
		67	512.4	-15.4	-1.7
		79	503.3	-20.4	-2.64

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
44	ARA08C-26-GC-01	15	498.3	-18	-1.93
		25	464.8	-27.1	-3.29

	35	418.7	-39.7	-4.9
	45	371.8	-50.7	-6.27
	55	328.5	-61.7	-7.65
	65	294.3	-71.6	-8.86
	74	286.1	-72.5	-8.96

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
45	ARA08C-22-GC-02	45	533.7	-7.5	-0.95
		75	534.5	-8.1	-1
		110	532.5	-9.3	-1.15
		159	534.1	-10.9	-1.29
		189	526.7	-14.3	-1.69
		229	522.9	-15.2	-1.85

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
46	ARA08C-27-GC-01	30	537.2	-8.4	-1.04
		60	534.1	-8.7	-1.1
		135	529.6	-11.1	-1.4
		175	537.8		
		210	522.3	-14	-1.82
		230	523.7		
		250	513.6	-17.6	-2.18
		270	514.3	-18.3	-1.93
		285	514.7		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
47	ARA08C-28-GC-01	25	527.8	-13.1	-1.52
		60	509.9	-20.9	-2.59
		100	500.2	-23.9	-2.99
		130	485.1	-26.9	-3.38
		170	476.3	-31.7	-4
		190	467.6	-35.7	-4.54
		220	456.5	-39.3	-4.99
		240	452.5	-41.7	-5.27
		260	451.8	-44.7	-5.63
		275	441.6	-46.3	-5.76

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
48	2013005PGC-STN087-GC-32	22	544		
		52	544		
		82	539		
		102	541		
		112	536		
		122	534		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
49	2013005PGC-STN083-GC-30	30	545		
		50	541		
		70	541		
		100	530		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
50	2013005PGC-STN081-GC-29	28	561		
		48	559		
		68	554		
		88	551		
		103	549		
		113	551		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
51	2012004PGC-STN006-GC-02	19	541.7	-1.7	0
		39	542.2		
		59	543.6		
		79	542		
		89	541.1		
		99	539.1	-3.8	-0.5

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
52	2013005PGC-STN007-GC-03	27	521	-16.8	-1.95
		77	508		
		107	504	-24.3	-3.04
		137	492		
		147	489	-27.6	-3.61

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
53	2013005PGC-STN005-GC-02	25	529	-14.7	-1.76
		55	524		
		85	518	-18.4	-2.33
		115	512		
		145	507	-24.6	-2.89
		160	508		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
54	WL03-VC50	47.5	509.8		
		97.5	508.52		
		147.5	506.58	-22.7	-2.69
		172.5	502.35		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
55	2010-035-WD-05	20	522.23	-10.7	-1.37
		40	529.85	-10	-1.27
		60	519.97	-11.7	-1.41
		80	522.12	-12.3	-1.56
		100	518.59	-12.3	-1.28
		120	520.62	-12.4	-1.33
		140	523.32	-13.6	-1.48
		155	517.71	-13	-1.33

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
56	ARA05C--23-GC01	6	514		
		15	521	-14.6	-2.03
		28	520		
		45	510		
		64	500	-21.5	-2.84
		89	469		
		109	483		
		131	452	-38.6	-4.98
		148	429		
		169	392	-64.7	-8.38
		179	175	-68	-8.41

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
118	ARA08C-23-GC01	28	538.5	-7.6	-0.9
		53	537.8	-8.6	-1.05
		73	535.9	-9.8	-1.21
		113	531.6	-11.5	-1.43
		148	530.5	-13.1	-1.63

	173	517.8	-14.9	-1.86
	193	515.9	-16.5	-2.03

SLOPE

CORE NUMBER	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
57	2010-035-WD-09	20	537.81	-1.8	-0.01
		40	539.06	-1.7	0.19
		60	538.28	-2.5	-0.17
		80	541.55	-3.4	-0.22
		100	534.89	-3	-0.11
		120	536.08	-3	-0.09
		135	534.78	-4.2	-0.15

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
58	ARA04C-32-GC001	20	561		
		40	551		
		60	546		
		80	556		
		100	535		
		150	532	-9.6	-0.79
		190	525		
		210	521		
		250	515	-14.5	-1.49
		270	510		
		300	500		
		320	492	-20.9	-2.36
		340	480		
		360	468	-27.9	-3.32
380	453				
420	442	-36.9	-4.48		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
59	2010-35-WD-24	20	542.59	0	0.29
		40	539.21	-0.8	0.04
		60	537.24	-0.4	0.15
		80	532.26	-1.6	-0.14
		100	529.73	-2.6	-0.27
		120	527.45	-3.2	-0.35
		125	527.77	-4.1	-0.36

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
60	2013005PGC-STN019-GC-8	21	558		
		51	558		
		81	559		
		111	556		
		136	555		
		146	554		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
61	2010-35-WD-23	20	532	-1.4	-0.1
		40	527.42	-3.6	-0.08
		60	519.17	-5	-0.45
		80	507.94	-6.4	-0.63
		100	505.93	-7.3	-0.67
		110	498.78	-8.5	-0.79

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
62	ARA05C-2-GC03	10	551		
		30	552	-2.8	-0.2

65	549		
85	549		
100	549		
110	551		
145	546	-3	-0.46
175	544		
205	543		
235	544		
265	540		
295	539	-6.3	-0.86
340	530		
380	520	-12	-1.49
415	515	-14	-1.67

	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
63	2012004PGC-STN018-PC-04	20	545.4		
		60	547.5		
		100	547.5		
		140	539.7	0.6	0.3
		173	544.6		
		213	546.3		
		253	545.5		
		293	544	0.8	0.1
		327	543.1		
		367	542.1		
		407	542.2		
		447	540.5	-0.1	0.2
		480	541.9	-1.1	0
		520	538.4		
		560	540.4		
		580	541.7		
590	541				
600	538.4	-0.3	0		

	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
64	2012004PGC-STN119-GC-11	20	549		
		45	546.4		
		70	550.4		
		95	545		
		120	543.6		
		145	541	-0.9	0.2

	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
65	2013005PGC-STN040-PC-01	23	606		
		53	562		
		83	561		
		93	561		
		123	560		
		153	561		
		183	564		
		213	564		
		223	564		
		253	560		
		283	563		
		313	564		
		343	560		
		353	561		
		383	561		
		413	552		
		443	551		
		463	551		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
66	2013005PGC-STN032-GC-14	24	558	-2	-0.13
		54	562	-2.2	-0.18
		84	558	-5.8	-0.44
		114	542	-6.8	-0.75
		124	538	-7.4	-0.83
		134	532	-8.9	-1.03

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
67	2012004PGC-STN004-PC-02	31	546	-2.1	0
		61	536.3		
		91	529.8	-4.9	-0.4
		125	521.2		
		165	511	-11.3	-1.4
		205	500	-13.4	-1.7
		245	494.9	-15	-2.1
		287	486.7	-15.9	-2.1
		327	484.5		
		367	477	-19	-2.5
		407	473.1		
		451	466	-21.7	-2.8
		491	464		
		531	457.7	-24.8	-3.1
		541	458		
551	455.6	-25.2	-3.3		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
68	2012004PGC-STN005-GC-01	33	545.4	-0.6	0.1
		53	545.2		
		68	543.9	-0.7	0
		79	543.5		
		88	538.6	-3.2	-0.2

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
69	ARA05C-17-GC03	11	551	-2.4	0.06
		21	543		
		36	548		
		61	540		
		82	542		
		117	534		
		147	531	-7.4	-0.82
		177	523		
		207	512		
		231	500	-17.1	-2.04
		261	479		
		291	462	-29.5	-3.7
		326	444	-33.2	-4.18
		341	444		
354	444				

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
70	2013005PGC-SNT073-PC-02	27	565		
		57	559	-2.7	-0.27
		87	555	-3.3	-0.36
		117	539	-5.8	-0.94
		142	542		
		152	539	-6.8	-1.49
		162	541	-8.8	-1.33

172	540
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	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
71	2013005PGC-SNT074-PC-03	27	556		
		57	558	-1.4	-0.08
		87	557	-2	-0.01
		117	561	-2.7	-0.14
		132	558	-7.1	-0.53
		162	552		
		192	544		
		222	544		
		232	542	-5.6	-0.68
		242	543	-6	-0.91
		252	542		
262	542	-4.9	-0.64		

	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
72	ARA05C-16-GC02	6	552		
		21	551		
		36	547	-2.9	-0.1
		56	549		
		76	545		
		111	541		
		141	540		
		171	538	-8.4	-0.59
		196	535		
		226	528		
		242	528		
		262	526	-8.5	-0.99
		282	522		
		308	515		
		326	510	-12.3	-1.76
346	506				
371	501	-16.3	-2.11		

	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
73	2013005PGC-SNT094-GC-35	19	559		
		29	561		

Gary Knolls

CORE NUMBER	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
74	2013005PGC-STN127-GC-51	11	432	-71.7	-9.11

	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
75	2013005PGC-STN123-GC-49	9	419	-36	-4.05
		19	262	-36.1	-4.27

	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
76	2013005PGC-STN121-GC-48	13	515		
		23	512		
		33	515		
		43	508		
		53	511		

	Core	Depth, cm	Cl, mM	$\delta D, \text{‰}$	$\delta^{18}O, \text{‰}$
77	2013005PGC-STN119-GC-47	19	509		
		49	498		
		79	496		
		109	488		

119	490
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	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
78	2013005PGC-STN129-GC-52	12	523		
		22	518		
		32	522		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
79	2013005PGC-STN125-GC-50	13	521		
		23	525		
		33	529		
		43	521		
		53	519		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
80	ARA04C-42-GC001	20	502		
		42	498	-27.5	-3.31
		62	490		
		82	482	-32.5	-3.9
		100	477		
		120	471		
		142	464		
		160	458	-40.8	-5.13
		180	455		
		200	450	-45	-5.65
		220	449		
		240	441	-51.3	-6.43

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
81	2013005PGC-STN117-GC-46	20	519		
		50	509		
		80	503		
		110	495		
		130	485		
		140	480		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
82	ARA04C-43-GC001	15	516		
		100	507	-26.1	-2.87
		120	503		
		180	496		
		210	492		
		230	493		
		250	488	-28.8	-3.5
		270	487		
		290	483		
		310	479	-31.3	-3.86
		330	475		
		380	468	-36.4	-4.42
		400	467		
		420	459		
		440	459		
462	458	-42.4	-5.31		

Kugmalit Pockmarks

CORE NUMBER	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
83	WL03-VC29	52.5	412.09		
		107.5	408.93		
		162.5	401.48		

	217.5	419.09		
	272.5	408.12		
	327.5	411.31	-46.4	-5.93

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
84	WL03-VC28	52.5	400.18		
		107.5	413.81		
		162.5	411.65		
		217.5	400.97		
		272.5	412.9		
		337.5	403.64		
		341.5	407.02	-48.5	-6.36

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
85	WL03-VC31	52.5	401.17	-48	-6.09
		107.5	386.98	-48.2	-6.16
		162.5	360.26	-47.6	-6.27
		217.5	330.48	-44.5	-6.16
		272.5	322.88	-44.7	-6.19
		327.5	300.02	-42.5	-6.24
		362.5	286.34	-42.7	-6.5

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
86	WL03-VC27	102.5	368.92		
		207.5	374.63		
		312.5	349.19		
		372.5	298.11		
		382.5	291.59	-42	-6.25

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
87	WL03-VC30	52.5	394.26		
		107.5	399.39		
		162.5	410.93		
		217.5	411.72		
		272.5	407.82		
		327.5	412.44	-48.8	-6.28

Mid-shelf PLFs

CORE NUMBER	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
88	WL03-VC16	102.5	557.46		
		142.5	501.58	-32.6	-5.47

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
89	WL03-VC61	47.5	283.34		
		97.5	314.12		
		147.5	380.73		
		187.5	390.3	-15.5	-3.41

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
90	WL03-VC79	47.5	339.37		
		97.5	372.81		
		197.5	444.94		
		247.5	468.09	-34.3	-5.57

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
91	WL03-VC20	102.5	499.02		
		212.5	480.82		
		287.5	511.68	-39.6	-6.02

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
92	WL03-VC17	102.5	490.23	-33	-4.88
		207.5	488.34		
		312.5	503.18	-32.5	-4.66

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
93	WL03-VC58	47.5	445.46		
		97.5	425.42		
		147.5	426.43		
		197.5	424		
		247.5	423.01		
		292.5	341.18	-23	-3.05

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
94	WL03-VC63	47.5	471.79	-27.8	-3.95
		97.5	467.09	-32.5	-4.75
		147.5	461.62	-30.8	-4.7
		182.5	455.78	-32.5	-4.84
		187.5	455.47	-32.7	-4.76

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
95	WL03-VC60	97.5	281.26		
		117.5	242.39	-24.2	-4.42

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
96	WL03-VC03	102.5	433.84		
		207.5	315.87		
		312.5	390.54		
		417.5	364.79		
		452.5	364.96	-43.2	-6.1

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
97	WL03-VC02	102.5	474.12		
		190.5	281.74	-10.8	-1.76

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
98	WL03-VC11	102.5	470.02		
		207.5	316.5		
		242.5	234.61	-10.3	-1.99

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
99	WL03-VC13	102.5	358.89	-50	-7.06

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
100	WL03-VC10	102.5	203.44		
		207.5	267.83		
		257.5	172.71	-24.6	-3.71

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
101	WL03-VC38	97.5	259.1		
		197.5	231.81		
		297.5	336.09		
		397.5	285.05		
		407.5	219.88	-46.4	-6.55

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
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102	WL03-VC39	132.5	184.66		
		142.5	199.78	-60.5	-7.75

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
103	WL03-VC37	97.5	209.41	-34.1	-4.96
		192.5	185.85	-34.3	-4.82
		297.5	239.36	-37.8	-5.4
		397.5	224.48	-37	-5.27
		422.5	248.82	-38.2	-5.46

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
104	WL03-VC49	47.5	201.54	-45.2	-5.98
		97.5	192.55	-51.3	-6.95
		147.5	254.08	-54.6	-7.4
		197.5	155.01	-49.9	-6.81
		247.5	168.26	-51.9	-7.03
		297.5	178.26	-52.6	-7.07
		347.5	241.69	-54	-7.4
		372.5	175.85	-51.3	-7.01
		Ice in core	97.5	44.53	-43

Mackenzie Trough

CORE NUMBER	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
105	ARA04C-41-GC001	60	523		
		80	524		
		102	525	-19.5	-2.07
		122	523		
		143	526		
		164	524	-18.9	-2.26
		200	523		
		230	522	-19.8	-2.29
		250	524		
		270	522		
		290	521	-20.6	-2.43
		310	521	-20.9	-2.47

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
106	ARA04C-5-GC001	20	524		
		60	523		
		100	523		
		120	525		
		140	522	-20.3	-2.08
		160	522		
		180	524	-18.5	-2.06
		200	523		
		240	525	-18.5	-2.09
		280	525	-18.5	-2.24
		340	525	-19	-2.32
		360	522		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
107	ARA04C-6-GC001	60	528		
		100	532		
		140	535		
		160	530		
		180	531	-15	-1.62
		200	532		
		215	532		
		240	533		

	260	534	-14.4	-1.66
	300	534	-13.8	-1.69
	320	535	-13.7	-1.58
	340	536		
	360	536	-15.7	-1.75

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
108	ARA04C-7-GC001	20	535		
		40	527		
		60	531		
		80	530		
		100	532	-13.7	-1.49
		140	527		
		160	533		
		180	533		
		200	533	-13.5	-1.43
		260	532		
		300	531	-13.2	-1.51
		320	534		
		340	533	-12.9	-1.5
		360	536	-12.2	-1.44

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
109	ARA08C-40-GC01	40	575		
		85	557		
		148	560.2		
		198	557.8		
		238	559.4		
		278	555.7		
		318	558.9		
		358	558.3		
		393	555.9		
		428	554.5		
		463	558.8		
		498	556.5		
		533	560.4		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
110	ARA08C-39-GC01	35	561.6		
		62	563		
		87	561.6		
		112	559		
		147	561.7		
		177	560.9		
		207	559.2		
		232	563.9		
		257	566.6		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
111	ARA08C-38-GC01	38	556		
		80	565.6		
		100	557		
		120	560.8		
		140	558.1		
		160	552.6		
		179	542.5		
		198	543.1		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
112	ARA08C-37-GC01	20	555.3		

68	557.5
93	555.8
118	552.9
143	554.6
155	553.8
168	558

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
113	ARA08C-13-GC01	19	546.7		
		49	545.9		
		80	546.4		
		110	547.2		
		140	546.3		
		175	542.4		
		220	530		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
114	ARA08C-41-GC01	28	566.4		
		58	561.7		
		88	557.4		
		118	561.3		
		153	557.6		
		178	564.1		
		218	567		
		238	562.8		
263	563.1				

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
115	ARA08C-12-GC01	20	548.1		
		80	548.6		
		110	550.5		
		130	549.3		
		160	550.5		
		187	551.2		
		224	551.1		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
116	ARA04C-39-GC01	24	558		
		40	559		
		80	557	-1.7	0.25
		140	559		
		180	555		
		200	559	-1.5	0.02
		220	560		
		250	558	-2	0.04
		270	555		
330	554	-4.2	-0.28		

	Core	Depth, cm	Cl, mM	δD , ‰	$\delta^{18}O$, ‰
117	ARA08C-11-GC02	42	538.3		
		92	547.8		
		142	550.8		
		199	547.5		
		249	545.8		
		294	544.3		
		349	538		
		389	532.8		
		424	534.7		