

Oceanographic Observation Data

(H. Hasumoto, T. Miura, T. Nagata, J. Nishikawa and K. Furuya)

St 1R		Date July 11				Lat. 41 00.33N				Depth 5153m				CTD		Up		CAST					
CTD Cast		Time(L) 04:30- 05:50				Long. 147 00.46E								P		T		S		O ₂		Sigma-T	
Botlle	Depth	Pres	T	S	O ₂	SiO ₂	NH ₄	NO ₂	NO ₃	PO ₄	Chl-a	CTD(S)	P	T	S	O ₂	Sigma-T						
No.	m	db	°C	psu	ml/L	μM	μM	μM	μM	μM	μg/L	psu	db	°C	psu	ml/L							
0	0		13.4	32.801	6.11	3.33	0.51	0.12	3.72	0.74	0.792		2	12.918	32.807	5.73	24.711						
36	10	10	12.067	32.814	6.47	3.43	0.55	0.12	4.29	0.76	0.608	32.800	10	11.954	32.796	5.87	24.886						
35	20	20	8.050	32.887	6.99	4.85	1.17	0.15	6.61	0.96	0.542	32.887	20	7.837	32.882	6.52	25.634						
34	30	30	6.884	32.980	7.12	8.32	1.26	0.17	8.33	1.10	0.623	32.989	30	6.828	32.989	6.68	25.858						
33	50	51	2.831	33.039	6.88	27.6	1.89	0.53	17.4	1.75	0.440	33.035	40	4.191	33.022	6.72	26.194						
32	74	75	2.111	33.145	6.50	41.3	0.05	0.17	23.7	2.01	0.072	33.147	50	2.818	33.037	6.65	26.334						
31	100	101	2.186	33.264	6.16	47.9	0.02	0.03	24.6	2.05	0.028	33.260	75	2.111	33.148	6.36	26.480						
30	123	124	2.326	33.351	5.24	55.6	0.03	0.03	27.8	2.24	0.024	33.350	100	2.192	33.262	5.82	26.564						
29	149	150	2.190	33.444	4.16	65.7	0.03	0.04	30.3	2.43	0.019	33.445	125	2.307	33.360	4.77	26.634						
28	174	176	2.522	33.546	3.51	73.0	0.03	0.05	32.9	2.59	0.018	33.550	150	2.220	33.454	3.95	26.716						
27	199	201	2.886	33.647	2.96	77.8	0.03	0.14	34.4	2.66	0.014	33.648	175	2.566	33.557	3.25	26.771						
26	248	250	3.198	33.784	2.39	88.4	0.02	0.02	36.7	2.80		33.789	200	2.901	33.651	2.85	26.817						
25	300	303	3.462	33.906	1.85	97.5	N.D.	0.03	38.3	2.90		33.927	250	3.249	33.797	1.99	26.902						
24	398	401	3.461	34.071	1.14	113	N.D.	0.02	40.2	3.02		34.073	300	3.470	33.929	1.48	26.986						
23	497	501	3.362	34.170	0.97	124	N.D.	0.02	41.8	3.12		34.171	400	3.460	34.072	0.91	27.101						
22	598	604	3.164	34.240	0.86	133	N.D.	0.02	41.1	3.08		34.246	500	3.362	34.170	0.69	27.189						
21	795	802	2.833	34.346	0.86	149	N.D.	N.D.	42.1	3.14		34.350	600	3.169	34.245	0.60	27.267						
20	992	1002	2.521	34.433	0.85	160	N.D.	0.02	42.0	3.14		34.433	700	2.916	34.306	0.54	27.339						
19	10	10	12.266	32.817								32.793	800	2.834	34.350	0.56	27.381						
18	20	20	8.098	32.901			N.D. (Not detected)					32.882	1000	2.521	34.433	0.64	27.475						
17	30	30	6.896	33.008			SiO ₂ <0.42 μM					32.976	1036	2.479	34.443	0.66	27.486						
16	39	39	4.309	33.032			NH ₄ <0.01 μM					33.019											
15	74	75	2.114	33.149			NO ₂ <0.01 μM					33.148											
14	99	100	2.196	33.268			NO ₃ <0.13 μM					33.264											
13	124	125	2.314	33.362			PO ₄ <0.02 μM					33.354											
12	148	150	2.208	33.454								33.452											
11	173	174	2.532	33.549								33.551											
10	199	201	2.912	33.654								33.653											
9	247	249	3.144	33.786								33.783											
8	300	302	3.460	33.913								33.927											
7	397	400	3.463	34.076								34.073											
6	496	501	3.364	34.175								34.171											
5	596	601	3.174	34.246								34.244											
4	794	802	2.835	34.352								34.350											
3	991	1002	2.521	34.433								34.433											
2	992	1002	2.521	34.433								34.433											
1	990	1000	2.521	34.433								34.433											

St2-3R		Date July 12				Lat. 43 05.36N				Depth 5381m				CTD		Up		CAST					
Deep Cast		Time(L) 16:03- 19:48				Long. 155 05.61E								P		T		S		O ₂		Sigma-T	
Botlle	Depth	Pres	T	S	O ₂	SiO ₂	NH ₄	NO ₂	NO ₃	PO ₄	Chl-a	CTD(S)	P	T	S	O ₂	Sigma-T						
No.	m	db	°C	psu	ml/L	μM	μM	μM	μM	μM	μg/L	psu	db	°C	psu	ml/L							
0	0		10.4	33.775	6.67	23.5	0.25	0.25	9.33	0.89	0.520		2	9.982	33.775	5.93	25.998						
36	10	10	9.967	33.775	6.55	23.7	0.23	0.24	9.48	0.90	0.506	33.775	10	9.973	33.775	5.92	26.000						
35	20	20	9.694	33.775	6.49	24.2	0.22	0.23	9.59	0.91	0.601	33.775	20	9.693	33.775	5.94	26.047						
34	30	30	9.524	33.798	6.07	24.6	0.49	0.28	9.77	0.93	0.473	33.782	30	9.534	33.782	5.92	26.078						
33	50	50	8.832	33.860	6.59	25.9	0.70	0.32	10.3	0.98	0.308	33.852	40	9.225	33.806	5.88	26.147						
32	74	75	8.294	34.004	6.36	24.7	N.D.	0.09	12.1	1.03	0.075	33.998	50	8.834	33.850	5.84	26.244						
31	99	100	7.029	33.879	6.70	26.3	N.D.	0.02	14.4	1.21	0.031	33.870	75	8.311	34.000	5.74	26.442						
30	124	125	6.635	33.832	6.40	28.0	N.D.	N.D.	15.1	1.26	0.017	33.831	100	7.084	33.876	5.79	26.522						
29	149	150	5.868	33.743	6.69	28.0	N.D.	N.D.	15.9	1.34	0.019	33.740	125	6.640	33.831	5.81	26.547						
28	174	175	5.625	33.731	6.24	26.8	N.D.	N.D.	16.1	1.35	0.010	33.732	150	5.889	33.741	5.96	26.572						
27	199	200	5.676	33.752	6.19	26.1	N.D.	0.09	15.8	1.32	0.009	33.751	175	5.625	33.732	5.94	26.597						
26	248	251	5.884	33.800	6.04	35.4	N.D.	0.05	15.2	1.28		33.799	200	5.674	33.751	5.92	26.606						
25	299	301	5.643	33.794	5.41	71.7	N.D.	0.02	18.8	1.53		33.793	250	5.889	33.800	5.83	26.618						
24	399	402	4.060	33.804	3.19	94.2	N.D.	0.06	32.4	2.45		33.803	300	5.627	33.791	5.10	26.644						
23	497	502	3.778	33.957	1.79	108	N.D.	0.04	37.9	2.83		33.956	400	4.064	33.804	2.76	26.828						
22	595	601	3.680	34.071	1.32	130	N.D.	0.03	40.0	2.96		34.070	500	3.786	33.957	1.60	26.978						
21	795	803	3.327	34.243	0.76	142	N.D.	0.28	41.9	3.07		34.243	600	3.693	34.072	1.05	27.079						
20	992	1003	2.986	34.357	0.93	156	N.D.	N.D.	41.3	3.06		34.356	700	3.599	34.174	0.80	27.169						
19	1237	1251	2.593	34.443	0.88	162	N.D.	N.D.	41.7	3.08		34.442	800	3.349	34.243	0.63	27.249						
18	1485	1502	2.339	34.501	1.08	168	N.D.	N.D.	41.1	3.03		34.499	1000	2.989	34.355	0.61	27.371						
17	1975	2001	1.980	34.584	1.65	167	N.D.	0.02	40.3	2.94		34.583	1250	2.591	34.443	0.66	27.476						
16	2467	2501	1.724	34.633	2.28	162	N.D.	0.04	38.7	2.80		34.631	1500	2.339	34.499	0.81	27.543						
15	2956	3001	1.576	34.659	2.49	153	N.D.	0.03	36.7	2.67		34.657	1750	2.150	34.544	1.02	27.594						
14	3933	4001	1.475	34.682	3.80	154	N.D.	N.D.	33.9	2.44		34.680	2000	1.979	34.583	1.32	27.639						
13	4904	5001	1.515	34.690	3.77	158	N.D.	0.07	34.1	2.46		34.687	2250	1.836	34.610	1.63	27.672						
12	5363	5475	1.569	34.690	3.29	158	N.D.	0.02	34.6	2.46		34.688	2500	1.724	34.631	1.91	27.697						
11	2956	3001	1.576	34.658								34.657	2750	1.636	34.646	2.18	27.716						
10	2956	3001	1.576	34.659			N.D. (Not detected)					34.657	3000	1.576	34.657	2.38	27.729						
9	798	806	3.316	34.245			SiO ₂ <0.42 μM					34.244	3250	1.543	34.664	2.55	27.737						
8	800	808	3.310	34.243			NH ₄ <0.01 μM					34.244	3500	1.510	34.671	2.69	27.745						
7	200	202	5.676	33.756			NO ₂ <0.01 μM					33.751	3750	1.487	34.676	2.83	27.751						
6	201	202	5.673	33.755			NO ₃ <0.13 μM					33.751	4000	1.474	34.680	2.94	27.755						
5	50	51	8.833	33.876			PO ₄ <0.02 μM					33.851	4250	1.475	34.682	3.03	27.757						
4	50	50	8.832	33.863								33.854	4500	1.478	34.685	3.10	27.759						
3	30	30	9.526	33.797								33.784	4750	1.492	34.687	3.16	27.759						
2	20	20	9.694	33.778								33.775	5000	1.515	34.687	3.20	27.7						

St 4R	Date	July 14	48 01.38N	Lat.	48 01.38N	Depth	5945m	CTD	Up	CAST							
Deep Cast	Time(L)	14:28-18:25	Long. 165 03.53E	Long. 165 03.53E				T	S	O ₂							
Bottle	Pres	T	S	O ₂	SiO ₂	NH ₄	NO ₂	NO ₃	PO ₄	Chl-a	CTD(S)	P	db	°C	psu	ml/L	Sigma-T
No.	m	°C	psu	ml/L	μM	μM	μM	μM	μM	μg/L	psu	db	°C	psu	ml/L		
0	0	7.9	32.866	7.52	31.5	0.29	0.17	15.4	1.20	2.237		2	7.822	32.877	6.68	25.632	
36	11	7.822	32.881	7.63	31.9	0.22	0.17	15.4	1.18	2.381	32.877	10	7.822	32.878	6.66	25.633	
35	20	7.481	32.899	6.88	33.7	0.46	0.19	16.3	1.26	2.189	32.882	20	7.690	32.869	6.62	25.645	
34	30	5.541	32.940	7.41	41.6	1.40	0.21	20.4	1.80	0.557	32.932	30	5.561	32.933	6.62	25.973	
33	49	3.664	33.005	8.19	44.5	1.06	0.24	23.2	1.96	0.279	32.996	40	4.805	32.951	6.72	26.072	
32	73	2.845	33.023	7.26	46.2	0.50	0.59	24.7	1.97	0.159	33.022	50	3.612	32.995	6.82	26.229	
31	100	2.182	33.054	7.61	46.9	N.D.	0.03	26.6	1.96	0.067	33.056	75	2.861	33.020	6.83	26.316	
30	123	2.057	33.132	6.57	51.6	N.D.	N.D.	28.6	2.12	0.029	33.151	100	2.240	33.051	6.78	26.392	
29	150	3.309	33.676	2.51	87.8	N.D.	N.D.	42.0	2.99	0.024	33.710	125	2.019	33.139	5.94	26.480	
28	173	3.429	33.830	1.23	99.9	N.D.	N.D.	45.2	3.41	0.010	33.827	150	3.249	33.681	1.87	26.809	
27	199	3.534	33.904	0.68	104	N.D.	N.D.	46.4	3.44	0.010	33.903	175	3.429	33.827	0.85	26.909	
26	248	3.521	33.979	0.58	111	N.D.	N.D.	46.2	3.40		33.980	200	3.534	33.902	0.45	26.959	
25	298	3.504	34.038	0.49	116	N.D.	N.D.	45.8	3.40		34.037	250	3.521	33.980	0.33	27.023	
24	396	3.354	34.130	0.46	126	N.D.	N.D.	45.1	3.38		34.130	300	3.504	34.036	0.28	27.069	
23	495	3.232	34.206	0.52	133	N.D.	N.D.	45.2	3.36		34.206	400	3.353	34.130	0.72	27.158	
22	594	3.117	34.268	0.46	141	N.D.	N.D.	45.2	3.36		34.268	500	3.230	34.207	0.25	27.231	
21	792	2.540	34.366	0.50	154	N.D.	N.D.	45.0	3.37		34.365	600	2.964	34.321	0.24	27.346	
20	989	2.268	34.496	0.94	170	N.D.	N.D.	44.6	3.10		34.497	800	2.812	34.365	0.26	27.395	
19	1235	2.076	34.545	1.35	172	N.D.	N.D.	43.6	3.09		34.544	1000	2.542	34.433	0.37	27.473	
18	1482	1.807	34.608	2.23	174	N.D.	N.D.	42.1	3.04		34.607	1250	2.269	34.496	0.64	27.547	
17	1974	1.624	34.645	2.56	169	N.D.	N.D.	40.3	2.83		34.643	1500	2.076	34.544	0.87	27.601	
16	2465	1.524	34.639	3.15	163	N.D.	N.D.	39.0	2.61		34.663	1750	1.931	34.580	1.19	27.640	
15	2954	1.465	34.681	3.47	158	N.D.	N.D.	37.5	2.21		34.681	2000	1.808	34.606	1.50	27.671	
14	3929	1.524	34.687	3.88	157	N.D.	N.D.	37.0	2.52		34.686	2250	1.701	34.627	1.79	27.696	
13	4900	1.637	34.690	3.69	158	N.D.	N.D.	36.9	2.53		34.687	2500	1.625	34.643	2.07	27.714	
12	5816	1.525	34.664								34.663	2750	1.569	34.654	2.31	27.727	
11	2955	3001	1.525	34.663							34.663	3000	1.525	34.663	2.50	27.738	
10	2954	3000	1.525	34.663							34.663	3250	1.497	34.668	2.62	27.744	
9	2954	3000	1.525	34.663							34.663	3500	1.477	34.674	2.76	27.750	
8	2954	3000	1.525	34.663							34.663	3750	1.466	34.678	2.87	27.754	
7	11	11	7.827	32.883							32.877	4000	1.465	34.681	2.94	27.756	
6	10	10	7.819	32.885							32.878	4250	1.474	34.682	3.01	27.757	
5	11	11	7.818	32.883							32.878	4500	1.485	34.684	3.07	27.758	
4	10	10	7.823	32.883							32.878	4750	1.502	34.685	3.12	27.758	
3	50	51	3.638	33.003							32.997	5000	1.524	34.686	3.16	27.757	
2	31	31	5.630	32.938							32.930	5250	1.548	34.687	3.20	27.756	
1	20	20	7.765	32.893							32.877	5500	1.577	34.687	3.23	27.754	
	Pinger-Bottom		25m														

St. 5R	Date		July 21		Lat.		47 59.52N		Depth		4827m		CTD		Up		CAST	
	CTD Cast	Time(L)	Pres	T	S	O ₂	SiO ₂	NH ₄	NO ₂	NO ₃	PO ₄	Chl-a	CTD(S)	P	T	S	O ₂	Sigma-T
Bottle	Depth	m	db	°C	psu	ml/L	µM	µM	µM	µM	µM	µg/L	psu	db	°C	psu	ml/L	
No.	0	0		9.7	32.823		30.6	0.46	0.19	17.2	1.31	0.389		2	8.622	32.820	6.11	25.470
36	9	9	9	8.611	32.822	6.57	30.6	0.51	0.17	17.3	1.34	0.352	32.819	10	8.618	32.819	6.05	25.469
35	20	20	20	8.588	32.823	6.80	32.8	0.44	0.18	17.3	1.32	0.301	32.820	20	8.564	32.816	6.08	25.475
34	28	29	29	7.230	32.847	6.92	30.6	0.67	0.17	17.2	1.34	0.469	32.842	30	6.610	32.859	6.52	25.784
33	49	50	50	4.830	32.920	6.87	33.1	0.76	0.24	19.8	1.48	No Data	32.918	40	5.365	32.912	6.62	25.979
32	74	75	75	3.998	32.926	6.82	34.5	0.73	0.52	21.3	1.57	No Data	32.920	50	4.728	32.922	6.60	26.058
31	100	100	100	3.404	33.025	6.95	36.2	0.04	N.D.	23.2	1.61	0.097	33.020	75	3.895	32.922	6.46	26.144
30	125	126	126	3.082	33.266	5.82	46.6	N.D.	N.D.	27.3	1.85	0.031	33.270	100	3.378	33.034	6.34	26.282
29	148	149	149	3.136	33.550	3.50	71.2	N.D.	N.D.	37.0	2.42	0.042	33.551	125	3.107	33.314	4.86	26.530
28	173	174	174	3.155	33.647	3.04	76.6	N.D.	N.D.	38.0	2.47	0.015	33.645	150	3.107	33.559	3.00	26.725
27	200	201	201	3.289	33.737	2.26	82.9	N.D.	N.D.	40.0	2.90	0.004	33.736	175	3.153	33.656	2.31	26.798
26	248	250	250	3.347	33.822	1.40	93.3	N.D.	N.D.	44.3	3.16		33.823	200	3.297	33.736	2.03	26.849
25	298	300	300	3.458	33.917	1.00	99.9	N.D.	N.D.	45.7	3.26		33.923	250	3.341	33.824	1.16	26.915
24	395	398	398	3.441	34.034	0.69	111	N.D.	N.D.	45.6	3.19		34.038	300	3.464	33.924	0.68	26.983
23	495	500	500	3.309	34.136	0.59	121	N.D.	N.D.	45.4	3.21		34.137	400	3.441	34.038	0.51	27.076
22	595	601	601	3.243	34.219	0.47	129	N.D.	N.D.	45.5	3.22		34.218	500	3.309	34.137	0.47	27.167
21	795	803	803	2.986	34.318	0.53	140	N.D.	N.D.	45.4	3.19		34.318	600	3.228	34.218	0.36	27.240
20	987	998	998	2.668	34.403	0.55	152	N.D.	N.D.	45.5	3.20		34.403	700	3.112	34.274	0.43	27.296
19	9	9	9	8.615	32.821										2.987	34.317	0.38	27.341
18	20	20	20	8.597	32.826										2.660	34.405	0.40	27.440
17	28	29	29	7.113	32.877										2.643	34.409	0.41	27.445
16	49	49	49	4.793	32.923													
15	74	74	74	3.992	32.933													
14	99	100	100	3.405	33.041													
13	124	125	125	3.076	33.302													
12	147	148	148	3.135	33.553													
11	173	175	175	3.162	33.655													
10	199	200	200	3.299	33.736													
9	247	250	250	3.346	33.824													
8	296	299	299	3.472	33.922													
7	395	399	399	3.439	34.038													
6	495	500	500	3.309	34.139													
5	594	600	600	3.241	34.218													
4	793	802	802	2.987	34.317													
3	988	999	999	2.668	34.403													
2	989	999	999	2.667	34.403													
1	39	39	39	5.370	32.907													

St 6R	Date	July 21		48 00.75N		Lat.		48 00.75N		Depth		4822m		CTD	Up	CAST	Sigma-T
		Time(L)	17:15- 20:24	Pres	S	O ₂	SiO ₂	NH ₄	NO ₂	NO ₃	PO ₄	Chl-a	CTD(S)				
Deep Cast	Depth	m	psu	°C	psu	ml/L	μM	μM	μM	μM	μM	μM	μM	°C	psu	ml/L	
0	0	8.9	32.834	6.83	30.1	0.41	0.19	16.6	1.45	0.301	2	8.833	32.827	6.00	25.443		
36	11	8.827	32.830	7.16	29.5	0.34	0.20	16.6	1.42	0.293	10	8.825	32.827	5.99	25.444		
35	19	8.819	32.832	6.53	32.8	0.34	0.20	16.7	1.44	0.293	20	8.794	32.826	6.00	25.448		
34	29	8.271	32.856	7.20	32.5	0.36	0.17	16.7	1.45	0.330	30	7.859	32.850	6.29	25.606		
33	49	5.437	32.911	6.96	34.4	0.57	0.20	18.8	1.60	0.440	40	5.866	32.898	6.63	25.908		
32	74	4.213	32.916	7.12	34.2	0.75	0.40	20.6	1.73	0.396	50	5.302	32.905	6.59	25.980		
31	98	3.414	33.018	6.39	37.4	N.D.	N.D.	23.7	1.86	0.087	75	4.198	32.910	6.51	26.104		
30	123	3.204	33.366	4.61	59.5	N.D.	N.D.	32.9	2.44	0.033	100	3.417	33.010	6.18	26.260		
29	148	3.109	33.582	2.88	76.7	N.D.	N.D.	40.2	3.04	0.021	125	3.206	33.386	3.81	26.578		
28	172	3.231	33.709	2.14	85.0	N.D.	N.D.	42.3	3.02	0.017	150	3.113	33.589	2.30	26.748		
27	197	3.330	33.790	1.64	89.9	N.D.	N.D.	43.4	3.07	0.005	175	3.242	33.710	1.70	26.833		
26	247	3.360	33.883	1.08	98.6	N.D.	N.D.	44.9	3.17		200	3.327	33.788	1.32	26.888		
25	296	3.460	33.966	0.48	107	N.D.	N.D.	45.5	3.30		250	3.361	33.881	0.82	26.959		
24	395	3.402	34.079	0.82	114	N.D.	N.D.	44.6	3.18		300	3.460	33.965	0.34	27.016		
23	494	3.324	34.156	0.67	128	N.D.	N.D.	44.6	3.16		34.156	3.399	34.077	0.57	27.112		
22	593	3.225	34.231	0.65	129	N.D.	N.D.	44.6	3.16		34.229	3.323	34.157	0.49	27.182		
21	791	2.942	34.339	0.72	140	N.D.	N.D.	44.2	3.14		34.338	3.225	34.229	0.46	27.249		
20	988	2.644	34.410	0.64	153	N.D.	N.D.	45.1	3.18		34.408	3.117	34.292	0.52	27.309		
19	1235	2.372	34.477	0.78	160	N.D.	N.D.	44.7	3.13		34.475	2.941	34.338	0.49	27.362		
18	1481	2.156	34.527	1.18	165	N.D.	N.D.	44.1	3.06		34.528	2.643	34.408	0.37	27.444		
17	1974	1.853	34.598	1.70	166	N.D.	N.D.	42.2	2.95		34.598	2.371	34.475	0.54	27.521		
16	2463	1.660	34.634	2.24	164	N.D.	N.D.	39.8	2.82		34.635	1.500	34.528	0.77	27.581		
15	2954	1.549	34.655	2.59	161	N.D.	N.D.	38.7	2.96		34.657	1.750	34.568	1.08	27.626		
14	3929	1.460	34.679	3.42	154	N.D.	N.D.	37.1	2.54		34.681	2.000	34.598	1.39	27.661		
13	4711	1.503	34.683	3.28	152	N.D.	N.D.	37.0	2.40		34.686	2.250	34.620	1.69	27.687		
12	4710	1.503	34.685								34.686	2.500	34.635	1.92	27.706		
11	4710	4804	1.503	34.687							34.686	2.750	34.647	2.15	27.719		
10	20	8.813	32.834								32.827	3.000	34.658	2.35	27.732		
9	3929	3999	1.460	34.681							34.681	3.250	34.665	2.53	27.740		
8	3929	4000	1.460	34.682							34.681	3.500	34.672	2.70	27.748		
7	2954	3000	1.550	34.659							34.657	3.750	34.676	2.82	27.752		
6	2954	3000	1.550	34.659							34.657	4.000	34.681	2.94	27.757		
5	1975	2001	1.853	34.599							34.598	4.250	34.683	3.03	27.759		
4	1974	2000	1.853	34.598							34.598	4.500	34.685	3.09	27.759		
3	50	5.446	32.908								32.910	4.750	34.686	3.15	27.758		
2	29	8.280	32.843								32.836	4.804	34.686	3.16	27.758		
1	10	8.825	32.829								32.827						
	Pinger-Bottom		43m														

St 7R	CTD Cast	Depth m	Date		July 24(A)		Time(L) 12:12- 13:27		O ₂ ml/L	Lat. Long.	50 00.07N				5863m				CTD		Up		CAST							
			Pres	db	T	°C	S	psu			S	psu	SiO ₂	µM	NH ₄	µM	NO ₂	µM	NO ₃	µM	PO ₄	µM	Chl-a	µg/L	CTD(S)	psu	P	db	T	°C
0	0	0			9.0	32.717	7.31	18.2	0.23	0.14	11.9	1.15	0.542	2	8.831	32.711	6.05	25.352												
36	10	10	8.734	32.717	6.88	18.2	0.42	0.14	12.0	1.18	0.535	32.712	10	8.715	32.713	6.01	25.372													
35	19	19	8.561	32.724	6.63	18.6	0.30	0.15	11.9	1.20	0.594	32.721	20	8.559	32.721	6.03	25.401													
34	29	30	8.424	32.726	7.39	18.8	0.38	0.14	11.8	1.20	0.645	32.721	30	8.382	32.720	6.08	25.428													
33	50	50	4.994	32.792	6.61	27.5	1.19	0.28	16.7	1.54	0.374	32.786	40	7.483	32.723	6.16	25.560													
32	74	75	4.380	32.803	6.72	28.6	0.58	0.61	17.9	1.56	0.092	32.800	50	5.003	32.788	6.39	25.921													
31	99	100	4.222	32.852	6.69	31.0	N.D.	0.17	20.1	1.63	0.052	32.848	75	4.368	32.801	6.38	26.000													
30	124	125	3.855	32.965	6.07	36.1	N.D.	N.D.	22.5	1.73	0.029	32.952	100	4.260	32.845	6.31	26.046													
29	149	150	3.655	33.339	4.20	58.7	N.D.	N.D.	31.8	2.37	0.026	33.348	125	3.857	32.950	5.76	26.170													
28	173	175	3.601	33.565	2.99	73.0	N.D.	N.D.	37.5	2.63	0.009	33.565	150	3.658	33.341	3.82	26.500													
27	198	200	3.582	33.690	2.00	82.0	N.D.	N.D.	40.4	2.91	0.005	33.688	175	3.600	33.572	2.51	26.690													
26	****	****	****	33.868	0.98	97.2	N.D.	N.D.	44.3	3.10	****	****	200	3.583	33.687	1.85	26.783													
25	297	300	3.690	33.987	0.68	106	N.D.	N.D.	44.9	3.18	33.988	250	3.652	33.875	0.77	26.926														
24	396	400	3.521	34.165	0.39	124	N.D.	N.D.	44.8	3.18	34.159	300	3.690	33.989	0.42	27.013														
23	495	500	3.237	34.260	0.44	136	N.D.	N.D.	44.8	3.19	34.261	400	3.520	34.159	0.26	27.165														
17	594	600	2.985	34.331	0.50	146	N.D.	N.D.	44.6	3.15	34.330	500	3.236	34.261	0.23	27.274														
21	791	799	2.623	34.414	0.56	158	N.D.	N.D.	44.6	3.15	34.417	600	2.980	34.331	0.26	27.353														
20	990	1001	2.382	34.473	0.76	165	N.D.	N.D.	44.2	3.00	34.474	700	2.784	34.378	0.31	27.408														
19	989	1000	2.382	34.474							34.474	800	2.621	34.417	0.38	27.454														
18	792	801	2.622	34.416			N.D. (Not detected)				34.417	1000	2.381	34.474	0.51	27.519														
22	594	600	2.985	****			SiO ₂ <0.42 µM				34.330	1018	2.360	34.479	0.53	27.525														
16	495	500	3.241	34.262			NH ₄ <0.01 µM				34.260																			
15	298	300	3.690	33.990			NO ₂ <0.01 µM				33.986																			
14	199	201	3.582	33.691			NO ₃ <0.13 µM				33.687																			
13	174	175	3.601	33.574			PO ₄ <0.02 µM				33.568																			
12	149	151	3.657	33.379							33.343																			
11	125	126	3.857	33.009			No Data				32.951																			
10	100	101	4.260	32.850							32.845																			
9	74	75	4.382	32.805							32.799																			
8	59	60	4.554	32.797							32.793																			
7	50	50	5.026	32.791							32.787																			
6	39	39	7.429	32.759							32.728																			
5	29	30	8.496	32.725							32.722																			
4	25	25	8.532	32.726							32.721																			
3	19	19	8.566	32.725							32.721																			
2	10	10	8.728	32.718							32.713																			
1	4	4	8.826	32.715							32.710																			

St BR	Deep Cast	Date	July 24(B)	Lat.	53 29.91N	Long.	179 59.46W	Depth	763m	CTD	Up	CAST
Botl	Depth	Time(L)	04:30- 05:32	SI ₂	NH ₄	NO ₂	NO ₃	PO ₄	Chl-a	P	T	S
No.	m	Pres	db	μM	μM	μM	μM	μM	μg/L	db	°C	psu
0	0			12.0	0.33	0.22	12.9	1.28	0.660	2	8.442	32.945
36	10	10	8.447	6.85	0.27	0.22	13.0	1.29	0.667	10	8.439	32.943
35	19	19	7.949	6.99	0.34	0.22	13.7	1.34	0.733	20	7.962	32.956
34	30	30	6.215	7.18	1.35	0.27	14.9	1.49	0.711	30	6.581	32.970
33	48	48	4.926	7.10	2.04	0.42	18.0	1.74	0.608	40	5.285	32.994
32	73	74	4.197	6.81	0.23	0.28	22.8	1.89	0.166	50	4.926	33.022
31	98	99	3.890	6.67	N.D.	N.D.	24.7	1.97	0.074	75	4.170	33.061
30	123	125	3.602	6.42	N.D.	N.D.	26.1	2.07	0.017	100	3.870	33.087
29	148	149	3.879	5.46	N.D.	N.D.	28.5	2.20	0.015	125	3.615	33.128
28	171	172	3.595	5.03	N.D.	N.D.	30.7	2.35	0.011	150	3.919	33.239
27	198	199	3.847	4.28	N.D.	N.D.	32.9	2.49	0.013	175	3.593	33.277
26	247	250	3.846	3.14	N.D.	N.D.	36.7	2.72		200	3.787	33.364
25	297	300	3.836	2.31	N.D.	N.D.	39.9	2.89		250	3.830	33.544
24	396	400	3.707	1.16	N.D.	N.D.	42.8	3.12		300	3.835	33.679
23	495	500	3.593	0.86	N.D.	N.D.	43.6	3.21		400	3.704	33.911
22	593	599	3.461	0.62	N.D.	N.D.	44.3	3.23		500	3.595	34.020
21	707	715	3.466	0.50	N.D.	N.D.	44.4	3.27		600	3.461	34.112
20	595	601	3.462							700	3.367	34.164
19	398	402	3.709		N.D. (Not detected)					33.905	3.346	34.176
18	298	301	3.836		SI ₂ <0.42 μM					33.676		
17	248	250	3.834		NH ₄ <0.01 μM					33.543		
16	196	198	3.802		NO ₂ <0.01 μM					33.366		
15	149	150	3.884		NO ₃ <0.13 μM					33.228		
14	124	126	3.587		PO ₄ <0.02 μM					33.120		
13	99	100	3.910							33.086		
12	73	74	4.198							33.056		
11	48	49	4.923							33.017		
10	38	38	5.444							32.991		
9	29	30	6.707							32.970		
8	19	20	7.989							32.957		
7	9	10	8.433							32.945		
6	74	74	4.194							33.054		
5	48	48	4.918							33.015		
4	38	38	5.504							32.991		
3	30	30	6.706							32.973		
2	19	19	7.992							32.958		
1	9	9	8.433							32.945		
Pinger-Bottom												42m

ST 9R	Date	July 25	Lat.	57 24.31N	Long.	179 53.77E	Depth	3807m	CTD	Up	CAST
Deep Cast	Time(L)	04:43- 07:28	SiO ₂	NH ₄	NO ₂	NO ₃	PO ₄	CTD(S)	T	S	O ₂
Bottle	Pres	db	μM	μM	μM	μM	μM	psu	°C	psu	ml/L
No.	Depth	m	O ₂	S	σ _t	chl-a	P	db	°C	psu	ml/L
			ml/L	psu		μg/L					
0	0		6.88	32.904	9.1	0.455	2		9.003	32.894	6.00
36	10	10	7.28	32.899	8.994	0.418	10		8.989	32.887	6.03
35	19	19	8.08	32.926	6.374	0.733	20		6.265	32.918	7.14
34	29	29	7.75	32.930	5.638	0.872	30		5.602	32.925	6.92
33	49	49	7.43	32.948	3.233	0.726	40		5.227	32.921	6.64
32	74	74	7.23	32.960	2.921	0.220	50		3.236	32.946	6.75
31	98	99	7.43	32.959	2.357	0.136	75		2.926	32.955	6.71
30	123	124	7.40	32.984	1.890	0.050	100		2.319	32.955	6.78
29	147	149	7.36	33.000	1.632	0.022	125		1.899	32.984	6.74
28	172	174	4.50	33.302	3.292	0.016	150		1.616	32.998	6.67
27	197	199	3.50	33.456	3.617	0.016	175		3.311	33.298	3.98
26	247	249	2.46	33.615	3.696	0.016	200		3.619	33.458	3.08
25	296	299	1.80	33.738	3.753	0.016	250		3.699	33.616	2.16
24	395	399	0.91	33.926	3.690	0.016	300		3.753	33.741	1.54
23	494	499	0.60	34.041	3.574	0.016	400		3.688	33.929	0.71
22	593	599	0.44	34.133	3.440	0.016	500		3.576	34.043	0.43
21	790	799	0.35	34.259	3.148	0.016	600		3.438	34.134	0.30
20	987	999	0.36	34.341	2.875	0.016	700		3.313	34.202	0.25
19	1234	1249	0.43	34.423	2.562	0.016	800		3.147	34.258	0.22
18	1479	1499	0.65	34.490	2.283	0.016	1000		2.873	34.341	0.22
17	1971	1999	1.16	34.576	1.909	0.016	1250		2.561	34.424	0.28
16	2462	2499	1.67	34.621	1.710	0.016	1500		2.281	34.490	0.46
15	2950	2999	2.01	34.647	1.617	0.016	1750		2.071	34.539	0.68
14	3439	3500	2.18	34.663	1.593	0.016	2000		1.908	34.577	0.91
13	3741	3809	2.30	34.666	1.604	0.016	2250		1.795	34.604	1.14
12	3739	3808		34.666	1.604	0.016	2500		1.710	34.624	1.35
11	3738	3807		34.668	1.604	0.016	2750		1.654	34.638	1.53
10	2953	3001		34.652	1.617	0.016	3000		1.616	34.649	1.67
9	2954	3003		34.650	1.617	0.016	3250		1.595	34.657	1.79
8	1974	2002		34.578	1.908	0.016	3500		1.593	34.662	1.84
7	1973	2001		34.579	1.908	0.016	34.577		1.599	34.667	1.95
6	1482	1501		34.489	2.281	0.016	34.490		1.604	34.667	1.94
5	1481	1500		34.490	2.282	0.016	34.490				
4	39	39		32.937	5.288	0.418	32.920				
3	29	30		32.929	5.651	0.733	32.920				
2	19	19		32.923	6.384	0.872	32.920				
1	10	10		32.898	8.998	0.455	32.893				
	Pinger-Bottom				38m						

St.13R		Date	Aug.06		55 32.68N		Lat.		55 32.68N		4758m		CTD		Up		CAST	
CTD Cast		Time(L)	07:09- 08:35		151 26.06W		Long.		151 26.06W		Depth		T		S		O ₂	
CTD	Depth	Pres	T	S	O ₂	SiO ₂	NH ₄	NO ₂	NO ₃	PO ₄	Chl-a	CTD(S)	P	T	S	O ₂	Sigma-T	
No.	m	db	°C	psu	ml/L	μM	μM	μM	μM	μM	μg/L	psu	db	°C	psu	ml/L		
0	0	0	15.5	32.342	5.94	4.07	N.D.	N.D.	N.D.	0.32	0.359	2	15.325	32.340	5.12	23.852		
36	9	9	15.155	32.363	6.23	2.68	0.04	N.D.	N.D.	0.28	0.440	10	15.275	32.331	5.25	23.856		
35	20	20	9.997	32.571	7.63	12.4	0.07	0.12	6.76	0.87	1.564	20	9.986	32.535	6.91	25.030		
34	30	30	7.682	32.587	7.40	16.9	0.08	0.15	9.87	0.97	0.890	30	7.694	32.577	6.75	25.415		
33	49	49	5.962	32.633	6.92	20.5	0.05	0.44	13.6	1.20	0.462	40	6.687	32.598	6.44	25.568		
32	73	74	5.132	32.836	6.06	28.4	N.D.	0.03	19.7	1.47	0.242	50	5.932	32.625	6.31	25.685		
31	99	100	5.784	33.368	4.11	42.4	N.D.	N.D.	28.5	1.99	0.053	60	5.396	32.657	6.19	25.773		
30	123	124	6.039	33.729	3.00	51.0	N.D.	N.D.	33.1	2.23	0.022	75	5.160	32.837	5.56	25.943		
29	146	147	5.761	33.813	2.71	56.6	N.D.	N.D.	34.9	2.30	0.016	100	5.790	33.353	3.72	26.272		
28	172	173	5.420	33.856	2.44	64.2	N.D.	N.D.	36.6	2.35	0.006	125	6.024	33.743	2.61	26.557		
27	197	199	5.079	33.866	2.25	68.3	N.D.	N.D.	38.3	2.58	0.004	150	5.702	33.816	2.41	26.654		
26	246	248	4.492	33.879	1.82	77.9	N.D.	N.D.	41.2	2.85		175	5.418	33.856	2.12	26.719		
25	296	299	4.254	33.933	1.34	87.2	N.D.	N.D.	43.2	2.94		200	5.068	33.863	1.95	26.766		
24	396	400	4.085	34.032	0.88	98.6	N.D.	N.D.	44.9	3.02		250	4.477	33.885	1.50	26.849		
23	494	499	3.851	34.102	0.61	111	N.D.	N.D.	45.8	3.08		300	4.247	33.937	1.08	26.915		
22	593	600	3.705	34.188	0.45	120	N.D.	N.D.	46.0	2.98		34.185	4.086	34.033	0.66	27.008		
21	790	799	3.322	34.286	0.39	136	N.D.	N.D.	46.2	3.08		34.289	3.852	34.101	0.42	27.086		
20	989	1000	2.961	****	****	****	****	****	****	****		34.365	3.703	34.186	0.29	27.168		
19	989	1001	2.962	34.364	0.43	149	N.D.	N.D.	46.3	3.14		34.365	3.492	34.246	0.24	27.237		
18	791	800	3.326	34.290								34.288	3.321	34.289	0.22	27.288		
17	594	600	3.706	34.187								34.185	2.962	34.365	0.24	27.381		
16	495	500	3.853	34.101								34.101	2.930	34.374	0.25	27.391		
15	98	99	5.791	33.335								33.351						
14	99	99	5.789	33.337								33.351						
13	73	74	5.110	32.800								32.796						
12	73	74	5.113	32.818								32.798						
11	50	50	5.980	32.629								32.623						
10	49	49	5.971	32.636								32.624						
9	40	41	6.690	32.600								32.599						
8	40	41	6.587	32.607								32.599						
7	29	30	7.874	32.585								32.579						
6	29	30	7.819	32.588								32.578						
5	19	19	11.365	32.517								32.480						
4	20	20	10.746	32.525								32.507						
3	8	9	15.403	32.341								32.335						
2	9	9	15.411	32.344								32.336						
1	4	4	15.300	32.340								32.339						

St.15R Deep Cast	Date		Aug.08		Time(L) 05:30- 09:01		Lat.		49 53.20N		144 54.11W		Depth		4263m		CTD		Up		CAST	
	Bottle	Depth	Pres	T	S	O ₂	SiO ₂	NH ₄	NO ₂	NO ₃	PO ₄	chl-a	CTD(S)	P	T	S	O ₂	Sigma-T				
No.	m	db	°C	psu	ml/L	μM	μM	μM	μM	μM	μM	μg/L	psu	db	°C	psu	ml/L					
0	0		14.4	32.527	6.05	16.3	0.13	0.10	8.65	0.88	0.235		2	14.204	32.526	5.19	24.233					
36	10	10	14.208	32.533	6.12	16.3	0.09	0.10	8.77	0.88	0.235	32.522	10	14.193	32.517	5.27	24.229					
35	20	20	9.870	32.634	6.96	14.8	0.09	0.07	9.17	0.92	0.257	32.647	20	9.574	32.646	6.23	25.184					
34	29	29	8.639	32.671	7.15	15.3	0.09	0.09	10.1	0.97	0.235	32.664	30	8.625	32.661	6.30	25.345					
33	49	49	7.567	32.685	7.28	16.8	0.15	0.13	11.8	1.09	0.315	32.679	40	7.617	32.674	6.42	25.502					
32	74	74	5.561	32.719	7.07	18.2	0.17	0.40	13.6	1.24	0.293	32.717	50	6.803	32.671	6.43	25.611					
31	98	98	5.336	32.927	6.48	23.7	N.D.	N.D.	18.1	1.45	0.188	32.962	60	6.327	32.687	6.38	25.685					
30	122	123	5.063	33.561	4.86	43.4	N.D.	N.D.	27.9	1.96	0.045	33.554	75	5.544	32.720	6.32	25.806					
29	147	149	4.681	33.706	4.04	54.9	N.D.	N.D.	31.6	2.22	0.019	33.708	100	5.337	32.979	5.54	26.035					
28	172	174	4.472	33.759	3.46	64.4	N.D.	N.D.	34.5	2.39	0.044	33.757	125	5.044	33.603	4.14	26.563					
27	197	199	4.273	33.791	2.99	70.2	N.D.	N.D.	36.8	2.55	0.007	33.788	150	4.678	33.709	3.52	26.688					
26	247	249	4.094	33.846	2.35	79.4	N.D.	N.D.	39.6	2.72		33.845	175	4.458	33.759	2.97	26.751					
25	297	300	3.977	33.905	1.91	87.8	N.D.	N.D.	41.2	2.83		33.904	200	4.259	33.789	2.56	26.796					
24	396	400	3.906	34.036	1.34	101	N.D.	N.D.	42.9	2.98		34.037	250	4.093	33.844	2.02	26.857					
23	495	500	3.804	34.133	1.03	112	N.D.	N.D.	43.7	3.02		34.133	300	3.984	33.906	1.62	26.918					
22	594	600	3.575	34.193	0.72	122	N.D.	N.D.	44.8	3.12		34.191	400	3.902	34.039	1.10	27.031					
21	792	800	3.199	34.297	0.52	138	N.D.	N.D.	45.4	3.15		34.295	500	3.804	34.133	0.80	27.116					
20	989	1000	2.916	34.364	0.47	148	N.D.	N.D.	45.9	3.20		34.367	600	3.569	34.193	0.54	27.187					
19	1235	1249	2.573	34.446	0.46	160	N.D.	N.D.	46.5	3.19		34.445	700	3.364	34.248	0.40	27.251					
18	1482	1501	2.312	34.504	0.63	169	N.D.	N.D.	46.2	3.12		34.501	800	3.199	34.295	0.35	27.304					
17	1973	2000	1.945	34.582	1.31	174	N.D.	N.D.	44.3	3.02		34.579	1000	2.916	34.366	0.31	27.387					
16	2463	2500	1.717	34.627	1.99	175	N.D.	N.D.	42.4	2.88		34.624	1250	2.572	34.445	0.27	27.480					
15	2954	3001	1.575	34.657	2.58	174	N.D.	N.D.	40.6	2.72		34.652	1500	2.312	34.501	0.41	27.547					
14	3931	4002	1.492	34.683	3.22	173	N.D.	N.D.	38.8	2.59		34.678	1750	2.091	34.548	0.74	27.602					
13	4007	4080	1.496	34.677	3.28	173	N.D.	N.D.	38.8	2.60		34.679	2000	1.945	34.579	1.02	27.639					
12	4009	4082	1.496	34.683								34.679	2250	1.828	34.603	1.31	27.667					
11	3932	4003	1.492	34.682								34.678	2500	1.717	34.624	1.62	27.693					
10	2951	2998	1.575	34.656								34.652	2750	1.640	34.639	1.89	27.710					
9	1971	1998	1.945	34.584								34.579	3000	1.575	34.652	2.15	27.726					
8	988	999	2.918	34.369								34.366	3250	1.533	34.662	2.36	27.736					
7	58	59	6.376	32.685								32.684	3500	1.509	34.669	2.53	27.744					
6	49	50	6.989	32.684								32.679	3750	1.495	34.674	2.67	27.749					
5	39	40	7.473	32.680								32.675	4000	1.491	34.679	2.79	27.753					
4	30	30	8.670	32.671								32.665	4080	1.496	34.679	2.81	27.753					
3	20	20	10.475	32.633								32.525										
2	10	10	14.182	32.533								32.526										
1	5	5	14.206	32.532																		
Pinger-Bottom																						
4m																						

St.16R	Date	Aug.13		49 59.50N		Lat.		49 59.50N		Depth		3960m		CTD		CAST		
		Time(L)	Pres	T	S	O ₂	SiO ₂	NO ₂	NH ₄	NO ₂	NO ₃	PO ₄	Chl-a	CTD(S)	P	T	S	O ₂
Deep Cast	Depth	m	db	°C	psu	ml/L	μM	μM	μM	μM	μM	μg/L	psu	db	°C	psu	ml/L	
0	0	15.6	32.354	5.87	11.6	0.16	0.06	3.96	0.58	0.161	2	15.753	32.347	5.07	23.763			
36	10	14.818	32.360	6.02	12.0	0.12	0.06	4.05	0.56	0.236	5	15.678	32.347	5.09	23.780			
35	20	13.444	32.418	6.39	11.7	0.10	0.06	4.40	0.58	0.235	10	14.770	32.353	5.26	23.981			
34	29	9.408	32.561	7.16	13.6	0.08	0.05	6.39	0.69	0.477	20	13.653	32.384	5.53	24.237			
33	49	7.466	32.624	6.88	14.4	0.17	0.19	9.46	0.91	0.594	30	9.509	32.555	6.48	25.123			
32	73	6.544	33.049	5.59	23.4	N.D.	0.04	18.4	1.37	0.279	40	8.106	32.584	6.38	25.361			
31	100	6.172	33.638	4.47	37.7	N.D.	N.D.	26.8	1.79	0.037	33.638	50	7.562	32.619	6.13	25.467		
30	123	6.107	33.797	3.60	45.4	N.D.	N.D.	30.7	2.02	0.016	33.794	75	6.540	33.071	4.99	25.960		
29	150	5.879	33.859	3.08	52.7	N.D.	N.D.	33.6	2.18	0.009	33.864	100	6.195	33.628	3.96	26.444		
28	174	5.568	33.878	2.73	58.5	N.D.	N.D.	35.7	2.34	0.006	33.876	150	5.917	33.859	2.72	26.661		
27	199	5.241	33.883	2.44	64.1	N.D.	N.D.	37.3	2.44	0.007	33.884	200	5.257	33.883	2.13	26.760		
26	246	4.809	33.910	1.86	73.8	N.D.	N.D.	40.7	2.64		33.909	300	4.545	33.946	1.23	26.890		
25	297	4.546	33.946	1.44	82.3	N.D.	N.D.	42.7	2.48		33.946	400	4.156	34.035	0.74	27.002		
24	395	4.157	34.035	0.96	97.1	N.D.	N.D.	45.1	2.89		34.034	500	3.938	34.115	0.45	27.089		
23	494	3.942	34.114	0.68	108	N.D.	N.D.	45.9	3.01		34.114	600	3.702	34.187	0.33	27.170		
22	594	3.700	34.188	0.44	118	N.D.	N.D.	46.7	3.05		34.188	800	3.300	34.300	0.21	27.299		
21	792	3.299	34.296	0.37	134	N.D.	N.D.	47.1	3.08		34.300	1000	2.966	34.373	0.18	27.387		
20	987	2.966	34.372	0.36	146	N.D.	N.D.	47.5	2.88		34.372	1500	2.325	34.499	0.43	27.544		
19	1236	2.619	34.440	0.44	158	N.D.	N.D.	47.5	3.08		34.441	2000	1.915	34.583	1.07	27.644		
18	1481	2.325	34.498	0.66	165	N.D.	N.D.	47.1	3.05		34.499	2500	1.685	34.628	1.69	27.698		
17	1973	2.000	34.583	1.36	173	N.D.	N.D.	44.8	2.89		34.583	3000	1.557	34.654	2.19	27.728		
16	2464	2.500	34.629	2.00	175	N.D.	N.D.	43.0	2.77		34.628	3500	1.516	34.667	2.49	27.742		
15	2952	2.999	34.653	2.58	173	N.D.	N.D.	41.6	2.62		34.654	3967	1.525	34.673	2.64	27.746		
14	3442	3.500	34.668	2.91	173	N.D.	N.D.	40.5	2.55		34.667							
13	3897	3.968	34.674	2.64	175	N.D.	N.D.	40.3	2.51		34.673							
12	2953	3.000	34.655								34.654							
11	2953	3.000	34.655								34.654							
10	989	1.000	34.372								34.372							
9	989	999	34.372								34.372							
8	494	499	34.117								34.115							
7	495	500	34.117								34.115							
6	199	201	33.882								33.883							
5	198	199	33.883								33.883							
4	100	100	33.634								33.650							
3	99	100	33.627								33.618							
2	988	999	34.373								34.372							
1	494	499	34.115								34.114							
	Pinger-Bottom			28m														

St.17R	Date Time(L)	Aug.24 18:10-21:30	Lat.		44 59.50N		44 59.87W		Depth	4392m		CTD	Up		CAST	
			Long.	SI ₂	NH ₄	NO ₂	NO ₃	PO ₄		Chi-a	CTD(S)		P	T		S
Deep Cast Bottle	Pres	O ₂	ml/L	μM	μM	μM	μM	μM	μM	μM	μM	°C	psu	S	O ₂	
No.	m	db	°C	psu	S	ml/L	μM	μM	μM	μM	μM	°C	psu	S	ml/L	
0	0	16.8	32.594	5.78	4.42	0.08	N.D.	N.D.	0.36	0.374	2	16.879	32.585	4.99	23.690	
36	10	10	16.875	32.594	5.85	3.55	N.D.	N.D.	0.29	0.389	10	16.878	32.584	4.99	23.689	
35	19	19	13.851	32.668	7.15	3.95	N.D.	N.D.	0.31	0.880	20	13.693	32.665	6.29	24.446	
34	29	30	12.118	32.713	7.10	7.98	0.07	0.04	1.21	1.660	30	12.069	32.705	6.18	24.794	
33	49	49	9.479	32.802	6.45	9.63	1.13	0.27	5.09	0.213	40	10.752	32.743	5.66	25.062	
32	74	75	8.260	32.869	6.55	11.2	0.69	0.44	6.95	0.90	50	9.389	32.806	5.77	25.339	
31	100	101	7.553	33.111	6.10	15.4	N.D.	N.D.	12.5	1.13	60	8.863	32.827	5.86	25.438	
30	125	126	7.746	33.591	5.30	22.0	N.D.	N.D.	18.2	1.38	75	8.285	32.870	5.87	25.560	
29	149	150	7.720	33.804	5.05	25.4	N.D.	N.D.	20.2	1.54	100	7.557	33.107	5.44	25.851	
28	173	175	7.701	33.909	4.77	29.9	N.D.	N.D.	21.7	1.48	125	7.758	33.560	4.66	26.178	
27	200	202	7.529	33.946	4.42	34.4	N.D.	N.D.	23.5	1.65	150	7.720	33.810	4.45	26.380	
26	248	250	6.979	33.937	3.67	44.8	N.D.	N.D.	27.6	1.92	175	7.705	33.911	4.17	26.462	
25	299	301	5.994	33.934	3.07	55.3	N.D.	N.D.	32.0	2.21	200	7.531	33.945	3.90	26.514	
24	396	399	4.983	33.939	2.25	72.5	N.D.	N.D.	37.6	2.68	250	6.978	33.962	3.22	26.604	
23	496	500	4.403	33.996	1.41	89.1	N.D.	N.D.	42.1	2.93	300	6.031	33.937	2.71	26.708	
22	593	599	4.084	34.083	0.90	104	N.D.	N.D.	44.3	3.05	400	4.978	33.941	1.96	26.838	
21	788	796	3.545	34.230	0.57	125	N.D.	N.D.	45.6	3.11	500	4.405	33.999	1.18	26.947	
20	990	1000	3.103	34.341	0.35	143	N.D.	N.D.	46.8	3.25	600	4.082	34.088	0.72	27.053	
19	1235	1248	2.724	34.432	0.31	158	N.D.	N.D.	47.2	3.22	700	3.810	34.167	0.48	27.143	
18	1480	1497	2.389	34.501	0.54	168	N.D.	N.D.	46.9	3.19	800	3.532	34.231	0.32	27.222	
17	1975	2001	1.953	34.587	1.32	178	N.D.	N.D.	44.7	2.93	1000	3.105	34.341	0.15	27.349	
16	2466	2501	1.739	34.628	1.94	180	N.D.	N.D.	43.1	2.87	1250	2.721	34.434	0.16	27.458	
15	2953	2998	1.561	34.656	2.56	176	N.D.	N.D.	41.6	2.76	1500	2.388	34.496	0.36	27.536	
14	3929	3999	1.509	34.678	3.09	177	N.D.	N.D.	39.9	2.65	1750	2.145	34.546	0.68	27.596	
13	4330	4411	1.549	34.680	3.09	182	N.D.	N.D.	40.1	2.66	2000	1.954	34.588	1.06	27.646	
12	1976	2001	1.954	34.591							2250	1.843	34.612	1.36	27.673	
11	10	10	16.876	32.603			N.D. (Not detected)				2500	1.739	34.628	1.60	27.694	
10	3931	4000	1.510	34.678			SI ₂ <0.42 μM				2750	1.628	34.641	1.90	27.713	
9	3929	3999	1.509	34.682			NH ₄ <0.01 μM				3000	1.560	34.653	2.17	27.728	
8	2956	3001	1.561	34.661			NO ₂ <0.01 μM				3250	1.525	34.662	2.36	27.737	
7	2953	2999	1.561	34.659			NO ₃ <0.13 μM				3500	1.505	34.668	2.51	27.743	
6	1974	1999	1.954	34.594			PO ₄ <0.02 μM				3750	1.499	34.673	2.64	27.748	
5	1976	2002	1.954	34.591							4000	1.509	34.676	2.70	27.749	
4	989	1000	3.109	34.341							4250	1.531	34.678	2.72	27.749	
3	991	1001	3.104	34.339							4411	1.549	34.678	2.71	27.748	
2	742	749	3.663	34.203												
1	743	750	3.662	34.204												
	Pinger-Bottom		48m													

St.18R	Date	Aug.26	Lat.	46 28.02N	Depth	5163m	CTD	Up	CAST
CTD Cast	Time(L)	09:10-10:27	Long.	149 59.56W			T	S	O ₂
Depth	Pres	S	SiO ₂	NH ₄	NO ₂	NO ₃	P	psu	ml/L
No.	db	°C	μM	μM	μM	μM	db	psu	ml/L
0	0	14.7	6.01	0.18	0.05	1.60	2	32.877	5.23
36	10	14.577	6.03	0.06	0.05	1.60	5	32.874	5.23
35	20	14.564	6.07	0.19	0.05	1.52	10	32.878	5.21
34	30	13.536	6.34	0.17	0.05	1.94	20	32.873	5.22
33	49	9.307	6.78	0.52	0.07	5.81	30	33.070	6.18
32	74	7.778	6.72	11.9	0.68	7.44	40	33.057	25.253
31	98	7.381	6.60	13.0	N.D.	9.46	50	33.106	6.07
30	124	7.357	5.83	19.0	N.D.	14.5	75	33.468	25.564
29	148	7.195	5.03	N.D.	N.D.	20.2	100	33.830	6.01
28	173	6.907	4.53	N.D.	N.D.	23.2	150	33.887	5.78
27	197	6.544	4.13	N.D.	N.D.	25.5	200	33.902	26.465
26	247	5.901	3.35	N.D.	N.D.	29.6	300	33.917	26.610
25	297	5.366	2.76	N.D.	N.D.	34.4	400	33.923	26.776
24	395	4.584	1.97	N.D.	N.D.	40.2	500	33.970	26.904
23	495	4.233	1.38	N.D.	N.D.	41.5	600	34.052	1.11
22	594	3.897	0.91	N.D.	N.D.	40.5	800	34.138	0.72
21	792	3.382	0.45	128	N.D.	41.7	1000	34.271	27.107
20	991	3.021	0.31	142	N.D.	42.1	1000	34.355	27.366
19	30	13.467	32.937					32.937	0.19
18	30	13.296	32.950					32.945	27.384
17	29	13.387	32.986					32.933	
16	29	13.187	33.000					32.943	
15	29	12.704	33.023					32.963	
14	990	3.022	34.354					34.352	
13	990	3.023	34.356					34.351	
12	989	3.022	34.353					34.352	
11	989	3.020	34.354					34.352	
10	9	14.575	32.874					32.869	
9	16	14.568	32.877					32.869	
8	20	14.560	32.885					32.869	
7	24	14.390	32.909					32.879	
6	29	11.172	33.053					33.030	
5	39	9.785	33.065					33.060	
4	49	9.199	33.069					33.065	
3	59	8.472	33.059					33.055	
2	78	7.631	33.056					33.053	
1	98	7.375	33.106					33.103	

St.20R	CTD Cast	Date	Aug.29		Lat.	46 42.77N				Depth	5459m		CTD	Up		CAST
			Time(L)	T		Long.	SI0 ₂	O ₂	NH ₄		NO ₂	NO ₃		PO ₄	Chl-a	
Depth	Pres	Time(L)	Temp	Sal	SI0 ₂	O ₂	NH ₄	NO ₂	NO ₃	PO ₄	Chl-a	CTD(S)	P	T	S	O ₂
No.	m	db	°C	psu	µM	ml/L	µM	µM	µM	µM	µg/L	psu	db	°C	psu	ml/L
0	0		15.0	32.622	19.2	6.10	0.32	0.11	9.35	0.85	0.433		2	14.955	32.617	5.19
36	9	10	14.876	32.644	19.3	6.17	0.24	0.10	9.39	0.99	0.455	10	10	14.862	32.614	5.21
35	19	19	13.475	32.756	18.6	6.46	0.23	0.10	9.66	0.98	0.132	20	20	12.925	32.789	5.64
34	30	30	9.252	33.042	18.4	7.10	0.37	0.14	11.9	1.15	0.315	30	30	9.957	33.000	6.10
33	50	51	6.120	33.076	19.0	7.31	0.55	0.16	12.9	1.25	0.191	40	40	6.762	33.075	6.53
32	74	75	5.831	33.133	18.4	7.10	0.41	0.32	13.4	1.27	0.124	50	50	6.155	33.077	6.54
31	99	100	6.063	33.248	16.9	6.90	N.D.	0.11	13.6	1.21	0.109	60	60	5.913	33.087	6.50
30	122	123	6.063	33.301	16.9	6.84	N.D.	N.D.	13.9	1.20	0.112	75	75	5.831	33.137	6.37
29	148	150	5.857	33.426	20.8	6.51	N.D.	N.D.	16.1	1.32	0.015	100	100	6.141	33.265	6.11
28	173	175	5.745	33.666	31.1	5.77	N.D.	N.D.	21.2	1.56	0.015	125	125	5.994	33.297	6.04
27	198	199	5.237	33.683	39.3	5.24	N.D.	N.D.	24.5	1.78	0.015	150	150	5.862	33.449	5.67
26	248	250	4.579	33.742	57.2	3.93	N.D.	N.D.	31.6	2.25		175	175	5.681	33.678	4.99
25	298	301	4.106	33.786	69.0	3.23	N.D.	N.D.	35.8	2.54		200	200	5.243	33.688	4.54
24	397	400	3.946	33.902	85.0	2.20	N.D.	N.D.	40.0	2.79		250	250	4.584	33.744	3.42
23	495	500	3.949	34.029	96.2	1.61	N.D.	N.D.	42.0	2.95		300	300	4.129	33.787	2.76
22	594	600	3.830	34.134	107	1.17	N.D.	N.D.	43.6	3.09		400	400	3.945	33.910	1.88
21	792	800	3.337	34.269	128	0.78	N.D.	N.D.	45.2	3.15		500	500	3.948	34.028	1.32
20	989	999	2.951	34.364	141	0.73	N.D.	N.D.	45.8	3.16		600	600	3.830	34.131	0.96
19	990	1001	2.949	34.365								700	700	3.570	34.211	0.71
18	990	1000	2.952	34.364								800	800	3.339	34.267	0.61
17	990	1000	2.952	34.365								1000	1000	2.950	34.363	0.52
16	9	10	14.886	32.627								1021	1021	2.927	34.368	0.52
15	10	10	14.887	32.633												
14	20	20	13.090	32.789												
13	20	20	13.356	32.773												
12	30	30	10.270	33.003												
11	30	30	10.153	33.018												
10	40	41	6.781	33.078												
9	40	40	6.698	33.078												
8	51	52	6.151	33.081												
7	51	51	6.165	33.081												
6	60	60	5.938	33.089												
5	59	60	5.947	33.091												
4	70	70	5.787	33.114												
3	70	70	5.796	33.127												
2	79	80	5.829	33.151												
1	99	100	6.055	33.251												

St.21R	CTD Cast	Date	Aug.30		45 30.41N		179 59.91W		NO ₃	NO ₂	NO ₃	PO ₄	Chl-a	5004m	CTD	Up		CAST	
			Time(L)	15:30- 16:41	Lat.	Long.	SI0 ₂	O ₂								S	T	P	S
Depth	Pres	db	°C	psu	µM	µM	µM	µM	µM	µM	µM	µM	µg/L	psu	°C	db	psu	ml/L	Sigma-T
0	0	0	14.4	32.872	15.8	0.21	0.09	7.89	0.74	0.403	2	14.377	32.866	5.29	24.460				
36	10	10	14.247	32.918	14.7	0.24	0.09	7.53	0.79	0.381	10	14.120	32.929	5.37	24.562				
35	20	20	12.177	33.082	14.2	0.39	0.09	8.06	0.82	0.352	20	12.365	33.069	5.70	25.020				
34	29	29	10.285	33.218	15.3	0.45	0.11	9.46	0.92	0.352	30	10.151	33.209	6.01	25.529				
33	50	50	7.793	33.359	15.0	0.77	0.14	10.5	0.88	0.242	40	8.380	33.340	6.13	25.913				
32	74	75	7.080	33.377	15.1	0.54	0.50	11.0	1.07	0.195	50	7.797	33.355	6.16	26.012				
31	99	99	6.790	33.451	15.6	N.D.	N.D.	12.6	1.05	0.036	60	7.348	33.357	6.13	26.077				
30	124	125	7.164	33.667	17.4	N.D.	N.D.	12.9	1.07	0.014	75	7.040	33.371	6.07	26.130				
29	148	149	7.708	33.838	17.7	N.D.	N.D.	13.0	1.02	0.012	100	6.782	33.455	5.94	26.231				
28	174	175	7.459	33.851	23.0	N.D.	N.D.	15.6	1.19	0.005	125	7.172	33.667	5.67	26.345				
27	198	199	6.671	33.809	32.0	N.D.	N.D.	20.3	1.55	0.005	150	7.707	33.837	5.53	26.403				
26	247	250	6.022	33.854	44.1	N.D.	N.D.	26.0	1.88		175	7.435	33.845	5.19	26.448				
25	297	300	5.142	33.851	57.7	N.D.	N.D.	30.8	2.21		200	6.668	33.819	4.70	26.533				
24	395	399	4.331	33.908	77.2	N.D.	N.D.	36.7	2.62		250	6.035	33.849	3.85	26.639				
23	495	500	4.083	34.010	92.8	N.D.	N.D.	39.7	2.77		300	5.157	33.845	3.21	26.742				
22	594	600	3.838	34.115	107	N.D.	N.D.	42.2	2.80		400	4.334	33.905	2.25	26.881				
21	792	800	3.448	34.259	127	N.D.	N.D.	43.7	3.00		500	4.084	34.006	1.59	26.987				
20	990	1000	3.016	34.351	147	N.D.	N.D.	44.4	3.13		600	3.839	34.110	1.03	27.095				
19	198	200	6.745	33.828							700	3.825	34.192	0.80	27.179				
18	495	500	4.084	34.008							800	3.446	34.255	0.67	27.249				
17	20	20	12.895	33.051							1000	3.015	34.351	0.57	27.365				
16	20	21	12.907	33.053							1018	3.007	34.357	0.58	27.371				
15	20	20	12.996	33.064															
14	20	20	12.817	33.062															
13	20	20	12.822	33.074															
12	9	10	14.252	32.900															
11	15	15	13.938	33.010															
10	20	20	12.801	33.083															
9	25	25	11.251	33.170															
8	29	29	10.331	33.223															
7	35	35	8.918	33.324															
6	40	40	8.357	33.348															
5	45	46	8.099	33.357															
4	49	50	7.801	33.357															
3	59	60	7.338																
2	69	70	7.167	33.374															
1	99	100	6.790	33.454															

St.22R	Date		Sep.01		Lat.		45 06.99N		Long.		169 59.18E		Depth		3108m		CAST																
	CTD	Cast	Time(L)	Time(S)	Pres	T	°C	S	psu	O ₂	ml/L	SiO ₂	µM	NH ₄	µM	NO ₂	µM	NO ₃	µM	PO ₄	µM	chl-a	µg/L	CTD(S)	P	db	T	°C	Up	S	psu	O ₂	ml/L
0			0		0	10.9	32.817	6.58	23.6	0.12	0.16	12.6	1.22	0.814	2	10.738	32.812	5.92	25.118														
36	10	10	10.734	32.816	6.57	23.3	0.10	0.16	12.8	1.24	0.806	32.812	10	10.730	32.812	5.91	25.119																
35	20	20	10.616	32.816	6.63	23.4	0.09	0.17	12.9	1.25	0.814	32.809	20	10.621	32.809	5.88	25.136																
34	30	31	9.685	32.823	6.66	24.3	0.37	0.19	13.9	1.34	0.814	32.816	30	9.716	32.816	5.85	25.294																
33	49	49	6.900	32.918	7.09	31.8	0.88	0.27	17.5	1.62	0.513	32.905	40	8.345	32.857	6.12	25.540																
32	73	74	4.332	32.969	7.26	36.2	0.62	0.70	21.1	1.85	0.293	32.962	50	6.755	32.907	6.35	25.803																
31	99	100	3.095	33.058	6.80	38.5	N.D.	N.D.	23.4	1.92	0.084	33.057	60	5.366	32.940	6.55	26.001																
30	123	124	2.890	33.190	6.32	44.7	N.D.	N.D.	26.1	2.04	0.039	33.195	75	4.264	32.962	6.57	26.138																
29	147	148	3.193	33.534	3.86	66.6	N.D.	N.D.	34.0	2.56	0.016	33.531	100	3.127	33.055	6.45	26.322																
28	172	174	3.220	33.673	2.78	78.5	N.D.	N.D.	38.2	2.82	0.011	33.670	125	2.881	33.198	5.51	26.457																
27	197	198	3.264	33.748	2.26	84.9	N.D.	N.D.	40.1	2.91	0.006	33.748	150	3.124	33.565	3.07	26.728																
26	246	249	3.397	33.871	1.42	96.2	N.D.	N.D.	43.2	3.13		33.872	175	3.221	33.674	2.44	26.807																
25	297	299	3.383	33.945	1.08	105	N.D.	N.D.	43.7	3.18		33.941	200	3.266	33.752	1.94	26.865																
24	397	401	3.436	34.074	0.84	115	N.D.	N.D.	44.3	3.21		34.074	250	3.399	33.873	1.17	26.949																
23	496	501	3.308	34.173	0.70	126	N.D.	N.D.	44.8	3.12		34.171	300	3.377	33.946	0.87	27.009																
22	594	600	3.218	34.239	0.67	133	N.D.	N.D.	44.8	3.23		34.238	400	3.436	34.074	0.66	27.106																
21	791	799	2.855	34.350	0.75	147	N.D.	N.D.	45.1	3.21		34.348	500	3.305	34.171	0.50	27.195																
20	989	999	2.572	34.424	0.66	156	N.D.	N.D.	45.1	3.21		34.422	600	3.218	34.239	0.50	27.257																
19	198	199	3.264	33.749								33.748	700	3.060	34.295	0.49	27.317																
18	494	499	3.309	34.173								34.170	800	2.848	34.349	0.43	27.379																
17	4	4	10.738	32.818								32.812	1000	2.571	34.422	0.51	27.461																
16	11	11	10.734	32.817								32.812	1022	2.542	34.429	0.52	27.470																
15	11	11	10.740	32.817								32.811																					
14	15	15	10.706	32.817								32.811																					
13	15	15	10.707	32.817								32.811																					
12	20	20	10.630	32.815								32.809																					
11	20	20	10.633	32.815								32.809																					
10	24	25	10.491	32.814								32.805																					
9	25	25	10.294	32.813								32.805																					
8	32	32	9.660	32.820								32.815																					
7	31	31	9.681	32.826								32.816																					
6	35	35	9.190	32.841								32.836																					
5	39	40	8.887	32.851								32.845																					
4	39	39	8.948	32.860								32.838																					
3	50	50	7.040	32.915								32.906																					
2	50	50	7.035	32.919								32.904																					
1	74	75	4.368	32.969								32.962																					

St.23R	CTD Cast	Date	Sep.02		Lat.	44 04.79N				Depth	55.48m		CTD	Up		CAST	
			Time(L)	T		SI0 ₂	NH ₄	NO ₂	NO ₃		PO ₄	CTD(S)		P	S		O ₂
Bottle	Depth	Pres	S	O ₂	SI0 ₂	NH ₄	NO ₂	NO ₃	PO ₄	Chi-a	CTD(S)	db	T	psu	S	O ₂	
No.	m	db	°C	ml/L	µM	µM	µM	µM	µM	µg/L	psu		°C			ml/L	
0	0		13.3	33.148	6.41	17.1	0.14	0.08	6.54	0.67		2	13.261	33.156	5.61	24.913	
36	10	10	13.062	33.151	6.50	17.9	0.14	0.04	6.79	0.68	33.147	10	13.070	33.148	5.63	24.945	
35	20	20	12.806	33.139	6.41	18.0	0.15	0.08	7.26	0.62	33.137	20	12.624	33.129	5.49	25.017	
34	30	31	11.387	33.248	6.35	20.5	0.21	0.77	9.00	0.94	33.212	30	11.756	33.182	5.42	25.223	
33	50	50	7.957	33.483	6.66	22.8	0.64	0.77	13.1	1.21	33.481	40	8.366	33.449	5.85	26.001	
32	75	75	5.845	33.550	6.76	24.9	N.D.	N.D.	16.8	1.24	0.057	50	8.037	33.472	5.84	26.068	
31	99	100	5.274	33.563	6.69	25.0	N.D.	N.D.	17.7	1.24	0.030	60	7.089	33.530	5.87	26.249	
30	125	126	5.221	33.595	6.52	30.1	N.D.	N.D.	19.0	1.49	0.022	75	5.711	33.491	6.01	26.396	
29	148	149	5.029	33.626	6.15	35.2	N.D.	N.D.	21.0	1.57	0.013	100	5.386	33.560	5.93	26.489	
28	174	175	4.681	33.652	5.21	46.1	N.D.	N.D.	25.3	1.87	0.005	125	5.201	33.591	5.78	26.535	
27	200	202	4.361	33.669	4.47	54.1	N.D.	N.D.	28.8	2.12	0.006	150	5.004	33.625	5.37	26.585	
26	248	250	4.195	33.772	3.45	68.3	N.D.	N.D.	33.6	2.45		175	4.666	33.651	4.55	26.643	
25	299	302	3.726	33.796	2.90	77.7	N.D.	N.D.	36.3	2.68		200	4.388	33.668	3.98	26.686	
24	397	400	3.725	33.911	1.88	92.4	N.D.	N.D.	40.6	2.83		250	4.195	33.771	3.01	26.789	
23	496	500	3.636	34.052	1.24	106	N.D.	N.D.	43.2	3.05		300	3.730	33.794	2.50	26.854	
22	595	601	3.712	34.182	1.11	116	N.D.	N.D.	43.1	3.06		400	3.726	33.936	1.59	26.967	
21	792	800	3.277	34.306	0.97	132	N.D.	N.D.	44.1	3.11		500	3.644	34.051	1.02	27.067	
20	990	1000	2.875	34.381	0.92	144	N.D.	N.D.	44.8	3.10		600	3.706	34.182	0.89	27.166	
19	991	1001	2.874	34.382								700	3.523	34.257	0.78	27.243	
18	99	100	5.393	33.562								800	3.276	34.304	0.70	27.304	
17	10	10	13.064	33.151								1000	2.873	34.380	0.66	27.402	
16	10	10	13.068	33.151								1026	2.837	34.389	0.66	27.412	
15	15	15	13.012	33.149													
14	20	20	12.713	33.140													
13	25	25	12.383	33.139													
12	31	31	11.875	33.193													
11	40	40	8.468	33.446													
10	50	50	8.073	33.482													
9	10	10	13.064	33.149													
8	15	15	13.018	33.146													
7	20	20	12.755	33.142													
6	25	25	12.364	33.168													
5	31	31	11.836	33.227													
4	35	35	9.117	33.386													
3	39	40	8.450	33.452													
2	49	49	8.075	33.480													
1	75	76	5.743	33.524													

St.24R	Date		Sep.05		Lat.		41 59.96 N		Long.		147 59.32 E		5280m	Depth	CTD(S)		P	CTD		CAST	
	CTD Cast	Time(L)	Time(P)	T	S	O ₂	SiO ₂	NH ₄	NO ₂	NO ₃	PO ₄	Chl-a			psu	T		psu	S	O ₂	Sigma-T
Bottle	Depth	Pres	db	°C	psu	ml/L	μM	μM	μM	μM	μM	μg/L	psu	db	°C	psu	S	ml/L			
0	0			17.3								1.13	2	16.578	32.463	5.03	23.666				
36	10	10	14.349			5.78						1.18	10	15.483	32.388	5.41	23.854				
35	20	20	5.371			6.55						1.08	20	5.388	32.826	6.58	25.908				
34	29	29	4.119			6.28						1.01	30	4.075	32.883	6.23	26.095				
33	48	49	2.916			6.03						0.43	40	3.157	32.960	5.98	26.243				
32	74	75	2.406			5.82						0.11	50	2.877	32.979	6.02	26.283				
31	99	100	2.007			5.53						0.03	60	2.624	33.009	5.82	26.328				
30	124	125	2.051			5.24						0.02	75	2.404	33.037	5.82	26.368				
29	149	150	1.732			4.69						0.02	100	1.961	33.145	5.55	26.489				
28	174	175	2.056			4.18						0.01	125	1.887	33.249	5.16	26.578				
27	198	200	2.287			3.79						0.01	150	1.738	33.328	4.66	26.652				
26	247	249	2.448			2.99							175	2.064	33.411	4.18	26.694				
25	297	300	3.096			1.83							200	2.339	33.490	3.76	26.735				
24	397	401	3.331			1.01							250	2.445	33.601	2.97	26.816				
23	496	500	3.250			0.59							300	3.107	33.820	1.82	26.934				
22	596	601	3.152			0.50							400	3.333	33.994	1.01	27.052				
21	792	800	2.872			0.54							500	3.249	34.129	0.59	27.167				
20	989	999	2.582			0.58							600	3.116	34.209	0.46	27.243				
19	992	1003	2.582			0.58							700	3.022	34.286	0.54	27.313				
18	992	1002	2.582			0.58							800	2.872	34.334	0.54	27.365				
17	992	1002	2.582			0.58							1000	2.582	34.411	0.58	27.452				
16	991	1002	2.583			0.58							1024	2.564	34.418	0.60	27.459				
15	991	1001	2.583			0.58							34.411								
14	990	1000	2.583			0.58							34.411								
13	990	1000	2.583			0.58							34.411								
12	989	999	2.583			0.58							32.447								
11	5	5	16.402			5.09							32.432								
10	10	11	15.075			5.56							32.779								
9	15	15	7.437			6.72							32.827								
8	19	20	5.492			6.59							32.864								
7	24	24	4.645			6.43							32.882								
6	29	29	4.135			6.31							32.955								
5	38	39	3.225			5.98							32.978								
4	48	49	2.934			6.03							33.011								
3	59	59	2.606			5.82							33.036								
2	75	75	2.406			5.82							33.147								
1	99	100	2.011			5.52															

St.4 A1	Date		July 15		Lat.		48 01.94N		Depth		5825m		St.4 A2		Date		July 15		Lat.		48 02.93N		Depth		5725m	
A	Time(L)		01:04-01:30		Long.		165 06.05E		CTD(S)		Up		A		Time(L)		05:00-05:27		Long.		165 04.51E		CTD		Up	
Bottle	Depth	Pres	T	CTD(S)	CTD(O ₂)	P	db	°C	psu	No.	O ₂	ml/L	Depth	Bottle	Depth	Pres	T	CTD(S)	CTD(O ₂)	P	db	°C	T	S	O ₂	
No.	m	db	°C	psu	ml/L	db	°C	psu	ml/L	No.	ml/L	m	No.	m	db	°C	psu	ml/L	ml/L	db	°C	psu	ml/L	psu	ml/L	
0	0		7.9			2	7.725	32.862	6.68	0	0	0														
18	9	9	7.722	32.861	6.68	10	7.724	32.860	6.68	32	6.61	9	9	9	7.673	32.861	6.61			10	7.670	32.859	6.66			
2	23	23	6.326	32.921	6.64	20	6.675	32.907	6.67	14	6.62	9	10	9	7.671	32.861	6.62			20	7.540	32.853	6.66			
1	22	22	6.769	32.900	6.74	30	5.752	32.938	6.70	6	6.63	9	9	9	7.666	32.861	6.63			30	6.056	32.925	6.66			
17	59	60	3.305	32.984	6.88	40	4.511	32.966	6.84	24	6.67	13	13	13	7.656	32.858	6.67			40	4.922	32.953	6.80			
						50	3.682	32.994	6.90	28	6.64	19	20	20	7.554	32.855	6.64			50	3.827	32.951	6.85			
						75	2.683	32.985	6.74	10	6.60	23	24	24	6.563	32.907	6.60			75	2.953	32.999	6.89			
						100	2.251	33.059	6.65	20	6.64	29	29	29	6.100	32.924	6.64			100	2.453	33.038	6.80			
						125	2.786	33.444	3.33	2	6.91	59	60	60	3.204	32.961	6.91			125	1.995	33.131	6.04			
						150	3.357	33.771	1.12											150	2.965	33.541	2.56			
						175	3.515	33.871	0.62											175	3.499	33.841	0.75			
						200	3.527	33.927	0.44											200	3.505	33.902	0.49			
						250	3.543	33.997	0.29											250	3.494	33.982	0.33			
						300	3.479	34.054	0.33											300	3.487	34.049	0.33			
						400	3.390	34.141	0.35											400	3.377	34.153	0.33			
						500	3.239	34.217	0.32											500	3.253	34.219	0.27			
						524	3.218	34.234	0.29											517	3.215	34.234	0.26			

St.4 A3		Date		July 15		Lat.		48 04.25N		Depth		5737m		St.4 A4		Date		July 15		Lat.		48 00.35N		Depth		5823m		
A		Time(L)		10:30-11:25		165 05.71E		165 05.71E		CTD		Up		A		Time(L)		16:14-17:01		165 06.56E		CTD		Up		S		
Bottle	Depth	Pres	T	CTD(S)	psu	°C	°C	P	db	T	°C	S	psu	Bottle	Depth	Pres	T	CTD(S)	psu	P	db	T	°C	S	psu	ml/L	O ₂	
No.	m	db	°C	psu	ml/L	°C	°C	db	ml/L	°C	°C	psu	ml/L	No.	m	db	°C	psu	ml/L	db	°C	psu	ml/L	ml/L	ml/L	ml/L	ml/L	
0	0		8.0					2	7.849	32.860	6.56	0		0	0		7.9											
36	10	10	7.845	32.861	6.56			10	7.825	32.860	6.56	22	11	11	11	11	7.814	32.869	6.63									
35	9	9	7.841	32.861	6.57			20	7.184	32.877	6.54	21	11	11	11	11	7.832	32.868	6.62									
34	10	10	7.844	32.859	6.56			30	5.426	32.911	6.60	20	15	15	15	15	7.731	32.867	6.62									
33	20	20	7.344	32.876	6.57			40	4.203	32.925	6.73	19	21	21	21	21	6.963	32.880	6.50									
32	20	20	7.313	32.874	6.56			50	3.603	32.944	6.77	4	25	25	25	25	5.856	32.922	6.62									
31	20	20	7.010	32.889	6.56			75	2.992	32.972	6.75	3	30	30	30	30	5.533	32.933	6.61									
30	28	28	5.893	32.927	6.56			100	2.298	33.127	5.96	2	38	39	39	39	4.966	32.950	6.73									
29	29	29	5.792	32.925	6.59			125	2.978	33.538	2.79	1	60	60	60	60	3.645	32.998	6.83									
1	29	29	5.245	32.916	6.61			150	3.455	33.811	0.95																	
28	49	49	3.771	32.937	6.76			175	3.494	33.884	0.56																	
27	49	50	3.706	32.937	6.76			200	3.490	33.920	0.44																	
26	58	58	3.440	32.943	6.75			250	3.497	33.989	0.33																	
25	75	75	2.970	32.973	6.76			300	3.485	34.056	0.26																	
24	74	75	2.972	32.972	6.75			400	3.365	34.159	0.32																	
23	100	101	2.339	33.109	6.08			500	3.233	34.223	0.25																	
22	100	101	2.311	33.103	5.92			536	3.188	34.241	0.25																	
21	125	126	2.970	33.532	3.00																							
20	124	125	3.052	33.578	2.53																							
19	150	151	3.458	33.812	0.96																							
18	149	151	3.461	33.815	0.94																							
17	175	177	3.491	33.882	0.60																							
16	173	175	3.500	33.890	0.55																							
15	197	198	3.491	33.918	0.44																							
14	200	202	3.490	33.920	0.44																							
13	248	250	3.499	33.990	0.33																							
12	248	250	3.497	33.995	0.34																							
11	299	301	3.484	34.057	0.26																							
10	298	301	3.484	34.057	0.26																							
9	396	400	3.367	34.157	0.32																							
8	396	400	3.364	34.159	0.32																							
7	492	497	3.240	34.220	0.24																							
6	493	497	3.239	34.221	0.24																							
5	493	498	3.237	34.221	0.24																							
4	493	497	3.237	34.222	0.24																							
3	493	498	3.235	34.222	0.24																							
2	493	498	3.232	34.223	0.24																							

St.4 A5		Date		July 15		Lat.		47 58.77N		Depth		5847m		St.4 A6		Date		July 16		Lat.		47 56.91N		Depth		5906m									
A		Time(L)		22:27- 23:07		Long.		165 09.62E		CTD		Up		A		Time(L)		01:40- 02:26		Long.		165 11.68E		CTD		Up									
Bottle		Depth		Pres		T		P		°C		°C		No.		Depth		Pres		T		P		°C		psu		O ₂							
No.		m		db		°C		db		°C		psu		ml/L		m		db		°C		db		°C		psu		ml/L							
0		0		7.9								6.51		0		0		7.8						2		7.854		32.869		6.49					
36	10	10	10	7.917	32.877	6.51	10	7.885	32.873	6.46	26	10	10	7.854	32.869	6.47	10	7.854	32.869	6.47	10	7.854	32.869	6.42	10	7.854	32.869	6.42	10	7.854	32.869	6.42			
35	10	10	10	7.917	32.877	6.50	20	6.827	32.890	6.63	25	9	9	7.855	32.869	6.47	20	7.682	32.871	6.41	20	7.682	32.871	6.41	20	7.682	32.871	6.41	20	7.682	32.871	6.41			
33	10	10	10	7.916	32.877	6.49	30	4.602	32.968	6.79	18	8	8	7.853	32.870	6.46	30	5.687	32.935	6.64	30	5.687	32.935	6.64	30	5.687	32.935	6.64	30	5.687	32.935	6.64			
31	10	10	10	7.916	32.877	6.48	40	3.579	32.996	6.85	35	10	10	7.853	32.869	6.47	40	4.421	32.969	6.76	40	4.421	32.969	6.76	40	4.421	32.969	6.76	40	4.421	32.969	6.76			
30	10	10	10	7.917	32.877	6.48	50	3.112	33.008	6.84	34	9	9	7.854	32.869	6.43	50	3.383	32.992	6.80	50	3.383	32.992	6.80	50	3.383	32.992	6.80	50	3.383	32.992	6.80			
29	10	10	10	7.917	32.876	6.48	75	2.607	33.037	6.80	17	15	15	7.853	32.869	6.40	75	2.733	33.013	6.75	75	2.733	33.013	6.75	75	2.733	33.013	6.75	75	2.733	33.013	6.75			
28	10	10	10	7.916	32.876	6.46	100	1.967	33.086	6.51	16	15	15	7.850	32.869	6.39	100	2.331	33.054	6.77	100	2.331	33.054	6.77	100	2.331	33.054	6.77	100	2.331	33.054	6.77			
27	10	10	10	7.916	32.877	6.45	125	2.743	33.460	3.27	15	15	15	7.846	32.869	6.39	125	2.023	33.120	6.19	125	2.023	33.120	6.19	125	2.023	33.120	6.19	125	2.023	33.120	6.19			
24	10	10	10	7.914	32.877	6.46	150	3.345	33.748	1.26	33	14	15	7.829	32.869	6.39	150	2.562	33.371	3.85	150	2.562	33.371	3.85	150	2.562	33.371	3.85	150	2.562	33.371	3.85			
23	10	10	10	7.914	32.877	6.44	175	3.477	33.878	0.60	32	19	19	7.749	32.871	6.38	175	3.328	33.756	1.29	175	3.328	33.756	1.29	175	3.328	33.756	1.29	175	3.328	33.756	1.29			
22	9	10	10	7.913	32.876	6.43	200	3.544	33.929	0.35	31	20	20	7.746	32.870	6.38	200	3.462	33.854	0.71	200	3.462	33.854	0.71	200	3.462	33.854	0.71	200	3.462	33.854	0.71			
21	9	9	9	7.913	32.876	6.43	250	3.510	34.003	0.34	14	25	25	7.257	32.895	6.49	250	3.546	33.950	0.35	250	3.546	33.950	0.35	250	3.546	33.950	0.35	250	3.546	33.950	0.35			
20	10	10	10	7.912	32.876	6.42	300	3.484	34.056	0.29	13	25	25	7.144	32.892	6.48	300	3.556	34.027	0.24	300	3.556	34.027	0.24	300	3.556	34.027	0.24	300	3.556	34.027	0.24			
19	10	10	10	7.911	32.876	6.40	400	3.335	34.143	0.27	12	25	25	7.282	32.883	6.51	400	3.384	34.128	0.28	400	3.384	34.128	0.28	400	3.384	34.128	0.28	400	3.384	34.128	0.28			
18	10	10	10	7.909	32.876	6.40	500	3.207	34.215	0.27	30	24	25	7.110	32.883	6.50	500	3.223	34.205	0.28	500	3.223	34.205	0.28	500	3.223	34.205	0.28	500	3.223	34.205	0.28			
17	9	10	10	7.908	32.876	6.39	522	3.202	34.227	0.24	29	29	29	5.761	32.927	6.62	522	3.191	34.220	0.28	522	3.191	34.220	0.28	522	3.191	34.220	0.28	522	3.191	34.220	0.28			
15	10	10	10	7.908	32.876	6.39					11	50	50	3.474	32.993	6.79																			
13	9	10	10	7.901	32.876	6.39					10	49	50	3.484	32.993	6.81																			
12	10	10	10	7.903	32.876	6.38					9	50	50	3.477	32.993	6.80																			
11	10	10	10	7.904	32.876	6.38					28	49	49	3.475	32.990	6.78																			
10	10	10	10	7.903	32.876	6.37					36	59	59	3.072	32.999	6.79																			
9	10	10	10	7.902	32.876	6.38					27	73	74	2.720	33.012	6.76																			
6	10	10	10	7.901	32.876	6.39					8	98	99	2.338	33.054	6.77																			
5	10	10	10	7.898	32.875	6.41					7	101	102	2.322	33.056	6.78																			
4	9	10	10	7.894	32.875	6.42					6	101	102	2.322	33.056	6.78																			
3	10	10	10	7.894	32.874	6.44					24	100	101	2.301	33.057	6.78																			
2	19	19	19	7.433	32.861	6.50																													
1	58	58	58	2.857	33.021	6.84																													

St.6 A1		Date		July 22		July 23		July 23		48 01.56N		48 03.69N		5509m	
A		Time(L)		00:14-00:58		03:37-04:25		03:37-04:25		176 59.83E		176 55.99E		CTD	
Bottle		Pres		CTD(S)		CTD(S)		CTD(S)		P		P		Up	
Depth		db		psu		psu		psu		db		db		S	
No.		°C		ml/L		ml/L		ml/L		°C		°C		ml/L	
0	0	9.0	32.837	6.11	6.13	0	0	9.2	32.837	5.92	5.92	2	9.184	32.836	5.93
1	9	10 8.858	32.837	6.11	6.04	6	5	9.175	32.837	5.92	5.92	10	9.057	32.836	5.97
18	10	10 8.857	32.837	6.11	6.12	5	5	9.175	32.837	5.92	5.92	20	8.786	32.835	6.05
17	10	10 8.857	32.837	6.10	6.55	4	5	9.177	32.836	5.92	5.92	30	5.998	32.868	6.61
35	9	9 8.859	32.837	6.09	6.64	3	9	9.102	32.837	5.96	5.96	40	4.800	32.878	6.58
34	9	9 8.861	32.837	6.09	6.63	2	19	8.812	32.838	6.03	6.03	50	4.516	32.885	6.54
33	9	9 8.862	32.837	6.08	6.53	1	24	7.947	32.825	6.33	6.33	75	4.120	32.911	6.45
32	10	10 8.861	32.837	6.09	5.77	24	28	6.662	32.847	6.50	6.50	100	3.329	33.038	5.57
31	10	10 8.863	32.837	6.08	3.80	23	38	5.118	32.873	6.53	6.53	125	3.140	33.388	3.80
30	9	10 8.858	32.837	6.07	2.45	22	299	3.467	33.984	0.44	0.44	150	3.179	33.598	2.40
29	10	10 8.869	32.837	6.06	1.58	21	297	3.466	33.984	0.44	0.44	175	3.230	33.699	1.80
28	10	10 8.870	32.837	6.06	1.11	20	988	2.652	34.406	0.40	0.40	200	3.320	33.809	0.96
27	10	10 8.870	32.837	6.05	0.78	19	988	2.651	34.406	0.40	0.40	250	3.400	33.910	0.68
26	9	9 8.871	32.837	6.05								300	3.466	33.985	0.44
25	9	9 8.871	32.837	6.05								400	3.435	34.090	0.33
24	9	9 8.860	32.837	6.04								500	3.316	34.176	0.35
23	10	10 8.860	32.837	6.04								600	3.155	34.245	0.44
16	25	26 7.738	32.855	6.29								700	3.056	34.306	0.52
15	26	26 7.768	32.854	6.28								800	2.892	34.343	0.49
14	25	26 7.755	32.853	6.29								1000	2.649	34.407	0.41
22	25	25 7.621	32.853	6.31								1022	2.619	34.415	0.43
13	35	35 6.249	32.917	6.60											
12	34	34 6.285	32.914	6.60											
11	32	33 6.376	32.905	6.58											
21	31	32 6.247	32.908	6.62											
10	55	56 4.599	32.930	6.58											
9	55	56 4.613	32.929	6.60											
8	54	55 4.638	32.928	6.59											
20	55	55 4.536	32.922	6.58											
7	88	89 3.738	32.978	6.50											
6	88	89 3.633	32.979	6.37											
5	93	93 3.661	32.980	6.41											
19	92	92 3.694	32.979	6.52											
36	146	147 3.284	33.598	2.53											
4	144	146 3.307	33.590	2.56											
3	146	147 3.271	33.600	2.51											
2	147	149 3.265	33.599	2.51											

St.9 A1	Date	July 26	Lat.	57 14.23N	Depth	3811m	St.9 A2	Date	July 26	Lat.	57 25.09N	Depth	3804m
A	Time(L)	00:10-00:53	Long.	179 57.91W	CTD	Up	A	Time(L)	16:06-17:13	Long.	179 56.25W	CTD	Up
Bottle	Depth	Pres	Temp	CTD(S)	Sal	Temp	Bottle	Depth	Pres	Temp	Sal	Temp	Sal
No.	m	db	°C	psu	ml/L	°C	No.	m	db	°C	psu	°C	psu
0	0		9.3				0	0		9.5			
24	10	10	9.132	32.892	6.21	2	21	20	20	6.216	32.924	2	9.328
23	10	10	9.134	32.892	6.20	10	20	20	20	6.032	32.928	10	9.280
18	10	10	9.134	32.892	6.20	20	20	20	20	6.032	32.928	20	9.280
17	10	10	9.129	32.892	6.21	30	19	28	28	5.310	32.932	30	4.743
11	21	21	8.454	32.897	6.54	40	3	28	28	5.432	32.927	40	3.043
15	15	15	9.131	32.892	6.15	50	2	39	40	3.225	32.945	50	2.903
36	15	15	9.107	32.892	6.13	75	1	39	39	3.201	32.943	75	2.578
35	15	15	9.125	32.892	6.11	100						100	2.170
34	15	15	9.131	32.892	6.10	125						125	2.295
33	15	15	9.127	32.892	6.09	150						150	2.655
32	15	15	9.125	32.892	6.09	175						175	3.468
31	15	15	9.123	32.892	6.08	200						200	3.557
30	15	15	9.121	32.892	6.08	223						250	3.718
29	15	15	9.118	32.892	6.06							300	3.744
28	15	15	9.114	32.892	6.05							400	3.687
27	14	14	9.109	32.892	6.04							500	3.580
26	15	15	9.107	32.892	6.05							600	3.455
25	15	15	9.119	32.892	6.04							700	3.299
22	15	15	9.123	32.892	6.03							800	3.151
16	15	15	9.122	32.892	6.05							1000	2.866
14	14	14	9.100	32.891	6.07							1020	2.844
21	20	20	8.364	32.899	6.50								
13	20	20	7.878	32.917	6.45								
12	20	20	8.158	32.906	6.40								
20	40	40	3.728	32.943	6.68								
10	40	40	3.833	32.943	6.72								
9	39	39	3.896	32.939	6.69								
8	39	39	3.759	32.938	6.67								
19	71	72	2.766	32.971	6.67								
7	71	71	2.768	32.970	6.68								
6	70	70	2.788	32.968	6.69								
5	69	70	2.789	32.966	6.70								
4	147	148	1.730	33.016	6.42								
3	150	151	1.773	33.023	6.60								
2	149	150	1.745	33.019	6.62								
1	150	151	1.790	33.029	6.41								

St.9 A3		Date		July 26		57 26.41N		Depth		3805m		St.9 A4		Date		July 27		57 26.94N		Depth		3804m		
A		Time(L)		22:40-23:30		179 51.87W		CTD		CTD(O ₂)		A		Time(L)		01:10-01:57		179 53.52W		CTD		Up		
Bottle		Pres		T		P		°C		psu		Bottle		Pres		T		P		°C		S		
Depth		db		°C		db		°C		psu		No.		db		°C		db		°C		psu		
m		db		°C		db		°C		psu		No.		db		°C		db		°C		psu		
No.		db		°C		db		°C		psu		No.		db		°C		db		°C		psu		
0	0			9.5		2	9.323	32.896	6.01	0	0	0	0					2	9.348	32.896	6.00			
21	19	19	7.789	32.899	6.72	10	9.325	32.894	6.02	21	21	21	7.164	32.911	6.81			10	9.334	32.892	6.04			
20	18	19	7.614	32.894	6.87	20	6.577	32.917	7.05	20	21	21	6.140	32.924	7.10			20	7.268	32.915	6.76			
19	29	29	5.742	32.925	6.83	30	5.619	32.927	6.74	9	29	30	5.643	32.929	6.87			30	5.683	32.924	6.91			
3	28	29	5.704	32.925	6.78	40	5.144	32.931	6.69	3	30	30	5.684	32.925	6.92			40	3.617	32.930	6.78			
2	38	39	5.346	32.931	6.67	50	3.276	32.932	6.85	2	40	40	3.829	32.940	6.74			50	2.952	32.938	6.80			
1	39	39	5.295	32.934	6.68	75	2.501	32.954	6.74	1	41	41	3.394	32.937	6.83			75	2.682	32.955	6.73			
						100	2.175	32.975	6.69										100	2.354	32.976	6.67		
						125	1.866	32.985	6.67										125	1.829	32.983	6.70		
						150	1.653	33.008	6.50										150	1.766	33.015	6.48		
						175	2.979	33.279	4.08										175	2.891	33.268	4.15		
						200	3.563	33.458	3.00										200	3.519	33.452	3.06		
						250	3.719	33.623	2.10										250	3.719	33.623	2.10		
						300	3.737	33.766	1.43										300	3.743	33.746	1.53		
						400	3.646	33.940	0.72										400	3.659	33.930	0.73		
						500	3.516	34.055	0.45										500	3.552	34.047	0.43		
						600	3.382	34.144	0.32										600	3.457	34.129	0.30		
						700	3.267	34.201	0.26										700	3.311	34.194	0.26		
						800	3.113	34.257	0.24										800	3.129	34.253	0.24		
						1000	2.839	34.344	0.24										1000	2.856	34.343	0.23		
						1024	2.814	34.353	0.25										1005	2.854	34.345	0.23		

St.9 A	Date		July 27		July 27		July 27		Date		July 27		Lat.		57 28.22N		179 52.98E		Depth		3810m		
	Time(L)	Pres	T	°C	CTD(S)	CTD(O ₂)	Time(L)	Pres	T	°C	CTD(S)	CTD(O ₂)	Time(L)	Pres	T	°C	CTD(S)	CTD(O ₂)	Time(L)	Pres	T	°C	
0	0	0	9.5	32.895	5.97	5.97	0	0	9.3	32.890	6.01	6.01	2	9.198	32.890	6.01	6.01	2	9.198	32.890	6.01	6.01	
25	5	5	9.409	32.893	5.98	5.98	2	1	9.197	32.891	6.05	6.05	10	9.113	32.893	6.06	6.06	10	9.113	32.893	6.06	6.06	
24	5	5	9.403	32.893	5.99	5.99	30	10	9.153	32.891	6.15	6.15	20	5.981	32.922	7.00	7.00	20	5.981	32.922	7.00	7.00	
23	5	5	9.377	32.893	6.05	6.05	30	5.290	32.918	6.75	6.75	6.84	30	5.574	32.924	6.84	6.84	30	5.574	32.924	6.84	6.84	
3	5	5	9.309	32.886	6.05	6.05	40	3.397	32.933	6.80	6.80	6.77	40	4.203	32.935	6.77	6.77	40	4.203	32.935	6.77	6.77	
22	10	10	7.871	32.903	6.69	6.69	50	2.954	32.941	6.69	6.69	6.68	50	2.524	32.953	6.68	6.68	50	2.524	32.953	6.68	6.68	
21	10	10	7.517	32.893	6.89	6.89	75	2.567	32.944	6.75	6.75	6.76	75	2.524	32.953	6.76	6.76	75	2.524	32.953	6.76	6.76	
26	20	20	5.640	32.918	7.15	7.15	100	2.420	32.985	6.60	6.60	6.71	100	2.093	32.976	6.71	6.71	100	2.093	32.976	6.71	6.71	
20	20	20	5.683	32.917	7.18	7.18	125	1.994	32.998	6.53	6.53	6.68	125	1.840	32.987	6.68	6.68	125	1.840	32.987	6.68	6.68	
7	30	30	5.102	32.925	6.71	6.71	150	2.711	33.191	4.59	4.59	6.49	150	1.667	33.015	6.49	6.49	150	1.667	33.015	6.49	6.49	
6	29	30	5.282	32.917	6.75	6.75	175	3.452	33.396	3.37	3.37	3.96	175	3.018	33.291	3.96	3.96	175	3.018	33.291	3.96	3.96	
5	40	40	3.586	32.932	6.81	6.81	200	3.564	33.484	2.90	2.90	2.96	200	3.573	33.473	2.96	2.96	200	3.573	33.473	2.96	2.96	
4	39	39	3.396	32.932	6.80	6.80	250	3.729	33.641	2.00	2.00	2.05	250	3.756	33.642	2.05	2.05	250	3.756	33.642	2.05	2.05	
8	49	50	2.974	32.941	6.69	6.69	300	3.742	33.772	1.39	1.39	1.52	300	3.763	33.749	1.52	1.52	300	3.763	33.749	1.52	1.52	
2	49	50	2.954	32.941	6.69	6.69	400	3.674	33.933	0.73	0.73	0.74	400	3.655	33.933	0.74	0.74	400	3.655	33.933	0.74	0.74	
							500	3.575	34.049	0.41	0.41	0.39	500	3.575	34.056	0.39	0.39	500	3.575	34.056	0.39	0.39	
							600	3.458	34.129	0.31	0.31	0.29	600	3.451	34.136	0.29	0.29	600	3.451	34.136	0.29	0.29	
							700	3.317	34.205	0.25	0.25	0.25	700	3.250	34.209	0.25	0.25	700	3.250	34.209	0.25	0.25	
							800	3.166	34.253	0.23	0.23	0.25	800	3.108	34.255	0.25	0.25	800	3.108	34.255	0.25	0.25	
							1000	2.872	34.336	0.24	0.24	0.25	1000	2.910	34.322	0.25	0.25	1000	2.910	34.322	0.25	0.25	
							1009	2.858	34.340	0.24	0.24	0.24	1018	2.887	34.330	0.25	0.25	1018	2.887	34.330	0.25	0.25	
							24	297	300	3.764	33.748	1.53	1.53										
							25	989	1001	2.913	34.322	0.24	0.24										
							26	989	1000	2.913	34.321	0.24	0.24										
							27	988	1000	2.913	34.321	0.24	0.24										
							28	987	999	2.917	34.320	0.24	0.24										
							29	987	999	2.917	34.320	0.24	0.24										

St.15 A3		Date		Aug.09		Lat.		49 53.06N		Depth		4230m		St.15 A4		Date		Aug.09		Lat.		49 54.52N		Depth		4204m				
A		Time(L)		02:40-03:35		Long.		144 47.50W		CTD		Up		A		Time(L)		05:30-06:13		Long.		144 45.20W		CTD		Up				
Bottle	Depth	Pres	T	CTD(S)	psu	CTD(O ₂)	ml/L	P	db	T	°C	S	psu	Bottle	Depth	Pres	T	CTD(S)	psu	CTD(O ₂)	ml/L	P	db	T	°C	S	psu			
No.	m	db	°C					db	°C	°C	psu	ml/L	db	m	db	°C	°C	psu	ml/L	ml/L	db	db	°C	°C	psu	psu	ml/L	ml/L		
0	0		14.4											0	0															
3	15	15	14.285	32.526	5.28	5.28	5.28	2	14.296	14.296	32.526	5.28	5.28	21	21	22	12.903	32.547	5.60	5.60	10	14.272	14.272	32.524	32.524	5.24	5.24	5.24		
2	15	15	14.271	32.525	5.30	5.30	5.30	20	12.360	12.360	32.553	5.80	5.80	3	21	21	12.947	32.540	5.64	5.64	20	12.954	12.954	32.546	32.546	5.58	5.58	5.58		
1	15	15	14.237	32.523	5.31	5.31	5.31	30	8.592	8.592	32.659	6.41	6.41	20	72	73	5.466	32.705	6.38	6.38	30	9.435	9.435	32.640	32.640	6.38	6.38	6.38		
36	20	20	12.712	32.551	5.69	5.69	5.69	40	7.383	7.383	32.675	6.51	6.51	2	70	70	5.504	32.702	6.38	6.38	40	7.883	7.883	32.667	32.667	6.46	6.46	6.46		
35	20	20	12.732	32.550	5.71	5.71	5.71	50	6.344	6.344	32.700	6.50	6.50	19	93	93	5.332	32.799	6.09	6.09	50	6.620	6.620	32.681	32.681	6.48	6.48	6.48		
34	19	19	12.582	32.555	5.76	5.76	5.76	60	5.777	5.777	32.717	6.45	6.45	1	91	91	5.258	32.768	6.18	6.18	60	5.827	5.827	32.687	32.687	6.44	6.44	6.44		
29	20	20	12.516	32.554	5.77	5.77	5.77	75	5.457	5.457	32.723	6.36	6.36								75	5.390	5.390	32.708	32.708	6.35	6.35	6.35		
4	20	21	12.184	32.551	5.88	5.88	5.88	100	5.262	5.262	33.139	5.25	5.25								100	5.270	5.270	33.082	33.082	5.31	5.31	5.31		
28	30	30	8.843	32.659	6.39	6.39	6.39	125	4.938	4.938	33.619	4.05	4.05								125	4.965	4.965	33.618	33.618	4.01	4.01	4.01		
13	31	31	8.737	32.661	6.40	6.40	6.40	150	4.627	4.627	33.715	3.48	3.48								150	4.807	4.807	33.726	33.726	3.54	3.54	3.54		
12	29	30	8.819	32.658	6.40	6.40	6.40	175	4.463	4.463	33.766	2.97	2.97								175	4.590	4.590	33.767	33.767	3.01	3.01	3.01		
11	30	31	8.750	32.659	6.39	6.39	6.39	200	4.288	4.288	33.787	2.65	2.65								200	4.387	4.387	33.797	33.797	2.65	2.65	2.65		
5	31	31	8.603	32.655	6.42	6.42	6.42	250	4.107	4.107	33.844	2.06	2.06								250	4.123	4.123	33.856	33.856	2.01	2.01	2.01		
6	40	40	7.403	32.680	6.51	6.51	6.51	300	4.014	4.014	33.917	1.64	1.64								300	4.012	4.012	33.913	33.913	1.65	1.65	1.65		
27	49	49	6.655	32.690	6.52	6.52	6.52	400	3.901	3.901	34.039	1.12	1.12								400	3.925	3.925	34.013	34.013	1.22	1.22	1.22		
7	50	50	6.603	32.690	6.52	6.52	6.52	500	3.783	3.783	34.139	0.78	0.78								500	3.847	3.847	34.113	34.113	0.87	0.87	0.87		
8	59	60	5.787	32.717	6.45	6.45	6.45	516	3.739	3.739	34.144	0.72	0.72								514	3.816	3.816	34.122	34.122	0.83	0.83	0.83		
22	69	70	5.573	32.720	6.43	6.43	6.43																							
16	69	70	5.572	32.720	6.43	6.43	6.43																							
15	70	71	5.560	32.720	6.42	6.42	6.42																							
14	70	70	5.563	32.720	6.42	6.42	6.42																							
9	70	71	5.540	32.719	6.42	6.42	6.42																							
10	87	88	5.401	32.843	5.88	5.88	5.88																							
21	112	113	5.128	33.447	4.61	4.61	4.61																							
19	110	111	5.132	33.438	4.61	4.61	4.61																							
18	110	111	5.133	33.435	4.63	4.63	4.63																							
17	108	109	5.131	33.436	4.56	4.56	4.56																							
20	148	149	4.649	33.710	3.55	3.55	3.55																							
26	201	203	4.297	33.790	2.66	2.66	2.66																							
25	200	202	4.295	33.789	2.66	2.66	2.66																							
24	199	201	4.294	33.787	2.67	2.67	2.67																							
23	198	200	4.293	33.785	2.68	2.68	2.68																							

St.15 A5		Date		Aug.09		Time(L) 11:20- 12:30		Lat.		49 54.87N		144 46.42W		Depth		4212m		St.15 A6		Date		Aug.09		Time(L) 17:32- 18:05		Lat.		49 57.18N		144 44.53W		Depth		4216m	
A		Pres		T		CTD(S)		Long.		P		CTD(O ₂)		°C		°C		A		Pres		T		CTD(S)		Long.		P		T		S			
Depth		db		°C		psu		ml/L		db		ml/L		°C		°C		Bottle		db		°C		psu		ml/L		db		°C		psu			
m		db		°C		psu		ml/L		db		ml/L		°C		°C		No.		db		°C		psu		ml/L		db		°C		psu			
0		3		14.5		32.529		5.15		2		5.15		14.6		14.6		0		20		14.6		32.531		5.13		2		14.408		32.531			
3		10		14.332		32.529		5.15		10		5.15		13.933		13.933		21		20		13.933		32.531		5.15		10		14.409		32.530			
10		21		14.331		32.529		5.16		10		5.16		12.681		12.681		3		20		12.681		32.554		5.64		20		12.931		32.524			
21		21		14.202		32.523		5.29		30		5.29		5.706		5.706		20		69		5.706		32.684		6.33		30		9.187		32.650			
21		21		13.671		32.518		5.46		40		5.46		5.682		5.682		2		69		5.682		32.687		6.47		40		7.599		32.645			
20		20		13.558		32.517		5.52		50		5.52		6.09		6.09		19		90		6.09		32.755		6.43		50		6.663		32.651			
32		32		9.297		32.657		6.21		60		6.21		5.205		5.205		1		90		5.205		32.748		6.09		60		6.076		32.668			
32		32		9.352		32.651		6.20		75		6.20		6.22		6.22												75		5.504		32.703			
38		38		8.067		32.664		6.38		100		6.38		4.94		4.94												100		5.091		32.929			
48		48		6.882		32.656		6.45		125		6.45		3.74		3.74												125		5.249		33.626			
47		47		6.872		32.657		6.43		150		6.43		3.23		3.23												150		4.911		33.749			
47		47		6.842		32.656		6.43		175		6.43		2.82		2.82												175		4.761		33.788			
47		47		6.811		32.658		6.42		200		6.42		2.53		2.53												200		4.546		33.811			
48		48		6.762		32.658		6.42		250		6.42		1.88		1.88												250		4.162		33.866			
48		48		6.781		32.656		6.42		300		6.42		1.52		1.52												300		4.054		33.911			
48		48		6.783		32.658		6.42		400		6.42		1.07		1.07												400		3.920		34.025			
49		49		6.597		32.662		6.41		500		6.41		0.75		0.75												500		3.785		34.114			
49		49		6.494		32.665		6.42		600		6.42		0.47		0.47												600		3.538		34.194			
59		59		5.835		32.685		6.34		700		6.34		0.39		0.39												700		3.344		34.253			
69		69		5.482		32.703		6.28		800		6.28		0.35		0.35												800		3.169		34.302			
70		70		5.474		32.703		6.26		1000		6.26		0.30		0.30												1000		2.855		34.382			
74		74		5.305		32.714		6.23		1028		6.23		0.29		0.29												1028		2.824		34.388			
77		77		5.174		32.731		6.17				6.17																							
87		87		5.077		32.808		5.93				5.93																							
88		88		5.079		32.811		5.93				5.93																							
99		99		5.140		33.184		5.05				5.05																							
99		99		5.153		33.195		4.92				4.92																							
118		118		5.089		33.652		3.99				3.99																							
147		147		4.667		33.743		3.29				3.29																							
992		992		2.853		34.382		0.30				0.30																							
992		992		2.854		34.382		0.30				0.30																							
990		990		2.855		34.382		0.29				0.29																							
989		989		2.854		34.382		0.30				0.30																							
989		989		2.853		34.382		0.30				0.30																							
994		994		2.854		34.382		0.30				0.30																							
990		990		2.858		34.381		0.30				0.30																							

St.15/A7	A	Date		Aug.09	Lat.	49 57.20N		Depth	4199m		ST.15/A8		Date	Aug.10	Lat.	49 57.37N		Depth	4201m	
		Time(L)	Time(S)			Time(L)	Time(S)		Time(L)	Time(S)	Time(L)	Time(S)				Time(L)	Time(S)			
Bottle		Depth		CTD(S)		CTD(O ₂)		CTD		A		Pres		CTD(S)		CTD		S		
No.	m	°C	psu	°C	psu	°C	psu	°C	psu	No.	m	°C	psu	°C	psu	°C	psu	°C	psu	
0	0	14.5				2	14.346	32.531	5.10	0	0	14.5				2	14.346	32.528	5.15	
1	10	14.340	32.530	5.12		10	14.338	32.528	5.14	30	10	14.338	32.528	5.18		10	14.229	32.534	5.26	
7	19	12.801	32.557	5.57		20	12.156	32.548	5.75	29	10	14.333	32.528	5.19		20	10.085	32.607	6.19	
2	19	12.123	32.567	5.75		30	7.806	32.657	6.46	28	9	14.320	32.528	5.22		30	8.047	32.644	6.43	
3	27	8.504	32.634	6.31		40	6.667	32.657	6.41	21	8	14.264	32.528	5.23		40	6.814	32.656	6.43	
4	49	6.055	32.670	6.29		50	5.940	32.676	6.31	10	9	14.296	32.521	5.26		50	6.185	32.669	6.36	
8	69	5.428	32.699	6.19		60	5.609	32.686	6.25	27	20	10.563	32.589	6.12		60	5.817	32.683	6.31	
5	74	5.359	32.707	6.13		75	5.329	32.711	6.12	9	19	10.387	32.599	6.16		75	5.367	32.707	6.17	
9	87	5.160	32.854	5.63		100	5.067	33.206	4.81	3	20	20	9.690	32.620	6.17		100	5.073	33.135	5.08
6	97	5.086	33.155	5.05		125	5.098	33.669	3.87	20	26	26	8.593	32.634	6.39		125	5.116	33.692	3.83
27	297	300	4.137	33.928	1.59	150	4.822	33.746	3.27	26	31	31	7.835	32.639	6.44		150	4.867	33.754	3.26
26	297	300	4.137	33.928	1.59	175	4.716	33.798	2.79	8	31	7.642	32.643	6.47		175	4.675	33.803	2.74	
25	296	299	4.134	33.929	1.59	200	4.558	33.817	2.49	25	40	40	6.955	32.650	6.45		200	4.423	33.823	2.40
24	495	500	3.750	34.123	0.66	250	4.206	33.864	1.94	19	40	40	6.819	32.652	6.43		250	4.150	33.865	1.89
23	494	499	3.753	34.122	0.67	300	4.136	33.929	1.59	7	40	40	6.766	32.656	6.43		300	4.014	33.943	1.47
22	493	498	3.748	34.124	0.66	400	3.943	34.030	1.12	24	50	50	6.200	32.669	6.34		400	3.944	34.044	1.07
21	989	1000	2.893	34.374	0.29	500	3.743	34.125	0.65	12	52	52	6.111	32.669	6.36		500	3.755	34.121	0.68
20	989	1000	2.895	34.374	0.29	600	3.535	34.188	0.45	6	52	52	6.111	32.670	6.33		523	3.711	34.136	0.63
19	989	1000	2.896	34.373	0.29	700	3.353	34.260	0.34	23	59	59	5.802	32.683	6.30					
						800	3.177	34.305	0.32	22	70	70	5.434	32.698	6.21					
						1000	2.894	34.374	0.29	2	70	70	5.414	32.700	6.21					
						1014	2.880	34.377	0.29	11	76	76	5.365	32.707	6.18					
										5	75	75	5.357	32.708	6.16					
										1	89	90	5.149	32.872	5.70					
										4	100	101	5.069	33.180	5.01					

St.15 A9	Date		Aug.10		Date		Aug.10		49 56.72N		49 56.78N		4204m	
	Depth	Time(L)	Pres	T	CTD(S)	CTD(S)	Time(L)	Pres	T	CTD(S)	CTD(S)	Lat.	Long.	Depth
A	m	05:20-	db	°C	psu	psu	12:35-	db	°C	psu	psu	144 41.96W	144 41.96W	CTD
Bottle	No.	0	P	O ₂	St.15 A10	A	Bottle	No.	O ₂	St.15 A10	A	Bottle	No.	O ₂
Depth	m	0	db	ml/L	Depth	m	No.	ml/L	Depth	m	No.	ml/L	Depth	m
Up	S	S	db	ml/L	Up	S	0	5.13	Up	S	0	5.13	Up	S
CTD	T	T	°C	CTD(O ₂)	CTD	T	°C	CTD(O ₂)	CTD	T	°C	CTD(O ₂)	CTD	T
P	db	db	°C	ml/L	P	db	°C	ml/L	P	db	°C	ml/L	P	db
Lat.	Long.	Lat.	Long.	Lat.	Long.	Lat.	Long.	Lat.	Long.	Lat.	Long.	Lat.	Long.	Lat.
49 56.72N	144 39.98W	49 56.72N	144 39.98W	49 56.72N	144 39.98W	49 56.72N	144 39.98W	49 56.72N	144 39.98W	49 56.78N	144 41.96W	49 56.78N	144 41.96W	4204m
21	19	19	13.628	32.536	5.37	10	14.346	32.527	5.16	36	10	14.397	32.529	5.10
3	19	19	13.453	32.548	5.47	20	12.399	32.550	5.70	35	11	14.397	32.529	5.11
20	70	70	5.619	32.692	6.27	30	9.332	32.622	6.30	34	11	14.399	32.529	5.12
2	69	70	5.603	32.692	6.25	40	7.047	32.647	6.48	32	20	13.064	32.551	5.51
19	89	90	5.170	32.823	5.86	50	6.581	32.654	6.39	31	20	12.813	32.559	5.57
1	90	90	5.164	32.839	5.84	60	5.956	32.675	6.30	30	20	12.694	32.559	5.62
						75	5.369	32.706	6.19	29	20	12.730	32.541	5.63
						100	5.073	33.106	5.10	27	30	9.198	32.649	6.24
						125	5.020	33.689	3.79	26	30	9.092	32.648	6.26
						150	4.814	33.745	3.32	25	30	9.043	32.642	6.30
						175	4.559	33.777	2.89	23	49	5.043	32.663	6.38
						200	4.422	33.815	2.45	22	49	5.043	32.663	6.39
						250	4.212	33.868	1.94	21	51	5.101	32.706	6.24
						300	4.039	33.912	1.64	19	70	5.431	32.706	6.24
						400	3.947	34.034	1.13	18	73	5.415	32.705	6.20
						500	3.778	34.113	0.71	17	77	5.306	32.721	6.18
						527	3.714	34.135	0.64	16	77	5.268	32.728	6.13
										14	89	5.129	32.933	5.59
										13	100	5.066	33.155	5.09
										12	100	5.066	33.179	5.06
										11	98	5.067	33.178	5.01
										9	122	5.101	33.648	4.03
										8	122	5.098	33.649	4.02
										7	149	4.901	33.739	3.48
										6	149	4.901	33.739	3.48
										4	172	4.608	33.758	3.14
										3	173	4.607	33.759	3.12
										2	198	4.484	33.798	2.69
										1	199	4.456	33.796	2.69

St.2.3 F		Date		July 12		Lat.		43 03.35N		Depth		5356m		St.4 B1		Date		July 15		Lat.		48 03.70N		Depth		5731m		
CTD-F Cast		Time(L)		14:35- 15:17		155 04.91E		155 04.91E		CTD		Up		Bottle		Time(L)		07:40- 08:24		165 04.81E		CTD		Up		5731m		
Bottle	Depth	Pres	T	°C	psu	CTD(S)	P	db	°C	T	°C	S	psu	No.	Cast	Depth	Pres	T	°C	P	db	T	°C	S	psu	O ₂	ml/L	
0	0			10.5					2	10.048				0	0				7.6									
36	10	10	10.027	33.772	5.98				10	10.029				31	10	10	7.639	32.868	6.74									
35	10	10	10.033	33.772	5.97				20	9.716				30	11	11	7.638	32.868	6.72									
34	10	10	10.031	33.772	5.98				30	9.451				29	10	10	7.637	32.868	6.72									
33	10	10	10.021	33.772	5.98				40	9.294				28	9	10	7.635	32.868	6.71									
32	15	15	9.860	33.777	6.01				50	9.019				27	15	15	7.608	32.869	6.69									
31	15	15	9.866	33.777	6.00				75	8.077				26	16	16	7.631	32.868	6.69									
30	15	15	9.866	33.777	6.00				100	7.044				25	16	16	7.633	32.868	6.67									
29	15	15	9.868	33.777	6.00				125	6.218				24	14	14	7.638	32.868	6.66									
28	19	20	9.753	33.780	6.01				150	5.709				23	18	18	7.641	32.868	6.66									
27	19	20	9.754	33.780	6.01				175	5.638				22	19	20	7.636	32.867	6.66									
26	20	20	9.748	33.780	6.01				200	5.668				21	19	19	7.634	32.867	6.65									
25	20	20	9.736	33.780	6.00				250	5.876				20	26	26	7.237	32.882	6.63									
24	25	25	9.661	33.777	5.99				300	5.794				19	26	26	7.113	32.885	6.64									
23	25	25	9.586	33.777	5.99				323	5.209				18	26	26	7.010	32.892	6.62									
22	30	31	9.447	33.773	5.98									17	25	26	6.487	32.906	6.62									
21	30	31	9.443	33.773	5.97									16	29	29	6.002	32.924	6.65									
20	31	31	9.439	33.773	5.97									15	31	31	5.956	32.923	6.66									
19	30	31	9.428	33.773	5.97									14	34	34	5.288	32.948	6.72									
18	34	35	9.378	33.791	5.95									13	36	36	4.985	32.953	6.73									
17	34	35	9.376	33.792	5.95									12	38	38	4.385	32.943	6.79									
16	40	41	9.304	33.803	5.94									11	39	39	4.123	32.940	6.80									
15	40	40	9.296	33.804	5.93									10	50	50	3.555	32.943	6.85									
14	45	45	9.223	33.811	5.93									9	49	49	3.509	32.944	6.85									
13	45	45	9.213	33.811	5.91									8	49	50	3.467	32.943	6.85									
12	50	50	9.026	33.829	5.89									7	59	60	3.088	32.956	6.83									
11	50	50	9.015	33.829	5.89									6	64	64	3.032	32.955	6.83									
10	50	50	9.013	33.829	5.89									5	64	64	3.024	32.955	6.84									
9	49	50	8.986	33.829	5.89									4	81	82	2.679	32.982	6.74									
8	60	61	8.797	33.860	5.87									3	81	82	2.676	32.982	6.74									
7	60	61	8.763	33.863	5.87									2	97	98	2.362	33.083	6.21									
6	81	82	7.150	33.800	5.96									1	98	99	2.390	33.095	6.08									
5	81	81	7.161	33.801	5.96																							
4	81	82	7.128	33.799	5.96																							
3	81	81	7.097	33.799	5.95																							
2	101	102	7.005	33.870	5.82																							
1	101	101	6.977	33.866	5.82																							

St.4 B2		Date		July 15		Lat.		48 00.28N		Depth		5828m		St.4 B3		Date		July 15		Lat.		47 58.60N		Depth		5845m			
CTD-F Cast		Time(L)		13:33- 14:33		Long.		165 07.11E		CTD		Up		CTD-F Cast		Time(L)		19:59- 20:42		Long.		165 10.10E		CTD		Up			
Bottle	Depth	Pres	T	CTD(S)	psu	O ₂	CTD(O ₂)	P	T	°C	db	psu	S	O ₂	Bottle	Depth	Pres	T	CTD(S)	psu	O ₂	CTD(O ₂)	P	T	°C	db	psu	S	O ₂
No.	m	db	°C	psu	ml/L	ml/L	ml/L	db	°C	db	psu	ml/L	ml/L	ml/L	No.	m	db	°C	psu	ml/L	ml/L	ml/L	db	°C	db	psu	ml/L	ml/L	ml/L
0	0		8.0			6.67	6.67	0	0	0				0	0		8.0						2	7.829	32.878	6.54			
36	5	5	7.849	32.877	6.75	6.63	6.63	31	5	5	7.824	32.879	6.54	31	5	5	7.824	32.879	6.54	6.54	6.54	10	7.822	32.878	6.51				
35	10	10	7.820	32.877	6.76	6.64	6.64	30	11	11	7.819	32.879	6.52	30	11	11	7.819	32.879	6.52	6.52	6.52	20	7.724	32.880	6.48				
34	10	10	7.808	32.879	6.65	6.58	6.58	29	11	11	7.812	32.879	6.51	29	11	11	7.812	32.879	6.51	6.51	6.51	30	5.879	32.927	6.57				
33	11	11	7.807	32.878	6.75	6.65	6.65	28	11	11	7.819	32.879	6.51	28	11	11	7.819	32.879	6.51	6.51	6.51	40	4.538	32.973	6.74				
32	10	10	7.815	32.878	6.64	6.64	6.64	27	11	11	7.820	32.879	6.50	27	11	11	7.820	32.879	6.50	6.50	6.50	50	3.582	33.000	6.82				
31	15	15	7.769	32.880	6.64	6.64	6.64	26	16	16	7.789	32.878	6.47	26	16	16	7.789	32.878	6.47	6.47	6.47	75	2.791	33.029	6.82				
30	15	15	7.766	32.880	6.64	6.64	6.64	25	15	15	7.803	32.879	6.47	25	15	15	7.803	32.879	6.47	6.47	6.47	100	2.280	33.055	6.73				
29	15	15	7.756	32.880	6.63	6.63	6.63	24	16	16	7.785	32.880	6.46	24	16	16	7.785	32.880	6.46	6.46	6.46	125	2.152	33.174	5.60				
28	20	20	7.576	32.883	6.62	6.62	6.62	23	20	20	7.749	32.880	6.48	23	20	20	7.749	32.880	6.48	6.48	6.48	150	3.178	33.665	1.79				
27	20	20	7.514	32.889	6.63	6.63	6.63	22	20	20	7.736	32.880	6.48	22	20	20	7.736	32.880	6.48	6.48	6.48	175	3.430	33.828	0.81				
26	20	21	7.294	32.891	6.63	6.63	6.63	21	20	20	7.729	32.879	6.48	21	20	20	7.729	32.879	6.48	6.48	6.48	200	3.475	33.909	0.45				
25	20	20	7.498	32.887	6.64	6.64	6.64	20	24	25	7.563	32.884	6.51	20	24	25	7.563	32.884	6.51	6.51	6.51	250	3.514	33.985	0.36				
24	26	26	6.281	32.923	6.63	6.63	6.63	19	24	25	7.363	32.887	6.50	19	24	25	7.363	32.887	6.50	6.50	6.50	300	3.496	34.041	0.31				
23	25	25	6.331	32.918	6.61	6.61	6.61	18	29	30	6.382	32.914	6.56	18	29	30	6.382	32.914	6.56	6.56	6.56	400	3.340	34.139	0.28				
22	25	25	6.269	32.920	6.60	6.60	6.60	17	29	29	6.212	32.919	6.57	17	29	29	6.212	32.919	6.57	6.57	6.57	500	3.213	34.212	0.27				
21	31	31	5.905	32.928	6.59	6.59	6.59	16	29	30	5.958	32.926	6.55	16	29	30	5.958	32.926	6.55	6.55	6.55	518	3.202	34.225	0.24				
20	31	31	5.891	32.927	6.59	6.59	6.59	15	35	36	5.440	32.945	6.61	15	35	36	5.440	32.945	6.61	6.61	6.61								
19	30	31	5.890	32.927	6.59	6.59	6.59	14	35	35	5.405	32.946	6.61	14	35	35	5.405	32.946	6.61	6.61	6.61								
18	30	30	5.895	32.926	6.57	6.57	6.57	13	35	35	5.345	32.944	6.63	13	35	35	5.345	32.944	6.63	6.63	6.63								
17	35	36	5.626	32.931	6.59	6.59	6.59	12	41	41	4.509	32.976	6.73	12	41	41	4.509	32.976	6.73	6.73	6.73								
16	35	35	5.589	32.930	6.58	6.58	6.58	11	41	41	4.501	32.977	6.75	11	41	41	4.501	32.977	6.75	6.75	6.75								
15	40	40	5.202	32.949	6.63	6.63	6.63	10	41	41	4.511	32.976	6.75	10	41	41	4.511	32.976	6.75	6.75	6.75								
14	40	40	5.169	32.950	6.65	6.65	6.65	9	50	51	3.603	33.001	6.82	9	50	51	3.603	33.001	6.82	6.82	6.82								
13	40	40	5.034	32.954	6.67	6.67	6.67	8	49	50	3.589	33.001	6.82	8	49	50	3.589	33.001	6.82	6.82	6.82								
12	51	51	3.856	32.996	6.81	6.81	6.81	7	57	58	3.232	33.000	6.77	7	57	58	3.232	33.000	6.77	6.77	6.77								
11	51	51	3.836	32.996	6.82	6.82	6.82	6	66	67	2.931	33.017	6.81	6	66	67	2.931	33.017	6.81	6.81	6.81								
10	51	51	3.732	32.996	6.81	6.81	6.81	5	65	65	2.924	33.017	6.82	5	65	65	2.924	33.017	6.82	6.82	6.82								
9	60	60	3.306	33.007	6.80	6.80	6.80	4	81	81	2.726	33.034	6.82	4	81	81	2.726	33.034	6.82	6.82	6.82								
8	65	65	3.167	33.008	6.81	6.81	6.81	3	79	80	2.718	33.034	6.82	3	79	80	2.718	33.034	6.82	6.82	6.82								
7	64	65	3.024	33.013	6.81	6.81	6.81	2	99	99	2.344	33.054	6.77	2	99	99	2.344	33.054	6.77	6.77	6.77								
6	75	75	2.792	33.021	6.81	6.81	6.81	1	98	99	2.302	33.055	6.74	1	98	99	2.302	33.055	6.74	6.74	6.74								
5	78	79	2.707	33.025	6.81	6.81	6.81																						
4	79	80	2.691	33.025	6.82	6.82	6.82																						
3	79	80	2.621	33.028	6.82	6.82	6.82																						
2	101	102	2.108	33.061	6.79	6.79	6.79																						
1	101	102	2.107	33.060	6.78	6.78	6.78																						

St.6 B1		Date		July 23		48 06.94N		Depth		5284m		St.6 B2		Date		July 23		48 08.84N		Depth		5113m	
CTD-F Cast		Time(L)		08:25- 09:10		176 54.92E		CTD		Up		CTD-F Cast		Time(L)		12:00- 12:45		176 48.16E		CTD		Up	
Bottle	Depth	Pres	T	CTD(S)	psu	P	O ₂	T	S	O ₂	No.	Bottle	Depth	Pres	T	CTD(S)	psu	P	T	S	O ₂		
m	m	db	°C		ml/L	db	ml/L	°C	psu	ml/L	ml/L	m	db	°C		ml/L	db	°C	psu	ml/L			
0	0		9.2		6.09	2	9.037	32.836	6.09	0	0	0	0	9.4		2	9.181	32.839	6.08				
36	10	10	9.019	32.838	6.08	10	9.017	32.838	6.08	36	9	9	9.138	32.840	6.07	10	8.884	32.839	6.11				
34	10	10	9.018	32.838	6.08	20	8.860	32.836	6.06	35	9	9	9.136	32.840	6.07	20	8.697	32.834	6.09				
33	10	11	8.973	32.838	6.08	30	8.161	32.843	6.21	34	10	10	9.133	32.839	6.07	30	6.805	32.879	6.55				
30	15	15	8.882	32.836	6.09	40	6.659	32.881	6.53	33	14	14	8.804	32.839	6.10	40	5.511	32.906	6.64				
29	15	15	8.874	32.836	6.09	50	5.283	32.904	6.64	32	14	14	8.799	32.838	6.09	50	4.445	32.889	6.55				
28	20	20	8.864	32.836	6.08	75	4.216	32.912	6.55	30	19	19	8.790	32.838	6.08	75	3.793	32.972	6.49				
27	20	20	8.866	32.836	6.07	100	3.370	33.027	5.89	29	19	19	8.780	32.838	6.08	100	3.234	33.078	6.25				
26	20	20	8.861	32.836	6.06	125	3.103	33.273	4.30	31	19	19	8.762	32.838	6.08	125	3.138	33.464	3.88				
24	24	24	8.852	32.836	6.06	150	3.244	33.550	2.85	28	24	25	7.969	32.842	6.26	150	3.145	33.637	2.68				
23	24	25	8.799	32.835	6.07	175	3.149	33.669	2.38	27	25	25	7.871	32.842	6.29	175	3.200	33.731	1.99				
22	29	29	8.610	32.836	6.10	200	3.246	33.754	1.77	26	25	25	7.692	32.854	6.32	200	3.369	33.824	1.57				
21	29	30	8.545	32.837	6.12	250	3.479	33.904	1.29	25	30	30	7.460	32.853	6.39	250	3.459	33.911	1.14				
18	33	33	7.856	32.849	6.27	300	3.494	33.978	0.96	24	30	30	7.297	32.861	6.43	300	3.470	33.971	0.93				
17	33	33	7.839	32.848	6.26	310	3.489	33.984	0.94	23	29	30	7.300	32.861	6.41	310	3.498	33.991	0.96				
16	40	40	6.704	32.895	6.52					22	29	29	7.276	32.859	6.43								
14	40	40	6.243	32.887	6.62					21	34	34	6.075	32.886	6.62								
13	49	50	5.354	32.913	6.64					20	34	35	5.989	32.882	6.61								
12	50	50	5.272	32.903	6.63					19	40	40	5.603	32.907	6.64								
9	59	60	4.478	32.886	6.55					18	40	41	5.613	32.902	6.64								
8	59	60	4.479	32.886	6.55					17	39	40	5.523	32.908	6.65								
7	69	69	4.308	32.899	6.56					16	39	40	5.489	32.907	6.64								
6	69	69	4.311	32.898	6.57					15	49	49	4.550	32.895	6.57								
4	85	85	3.866	32.931	6.42					14	49	49	4.508	32.894	6.56								
3	84	85	3.825	32.928	6.41					13	49	49	4.448	32.893	6.55								
2	99	99	3.389	33.019	5.91					12	60	61	4.285	32.920	6.53								
1	100	100	3.356	33.034	5.88					11	59	60	4.236	32.918	6.53								
										10	59	60	4.215	32.918	6.52								
										9	70	70	3.974	32.926	6.47								
										8	69	69	3.921	32.942	6.47								
										7	80	81	3.583	32.984	6.49								
										6	85	85	3.427	32.998	6.48								
										5	85	85	3.375	33.008	6.47								
										4	100	100	3.228	33.083	6.24								
										3	100	101	3.240	33.075	6.24								
										2	100	100	3.193	33.109	6.17								
										1	148	149	3.143	33.629	2.78								

St. 6 B3	CTD-F Bottle	Cast Depth	Date Time(L)	July 23		Lat.	48 05.77N		Depth	5355m	
				Pres	T		Long.	P		CTD(S)	CTD
No.	m	db	°C	psu	ml/L	db	°C	psu	ml/L		
0	0		9.4			2	9.519	32.826	6.09		
35	10	10	9.121	32.827	6.11	10	9.173	32.827	6.10		
34	10	10	9.090	32.827	6.10	20	8.807	32.825	6.12		
33	10	10	9.001	32.824	6.12	30	7.338	32.865	6.45		
31	15	15	8.832	32.825	6.13	40	6.294	32.915	6.67		
30	15	15	8.826	32.825	6.12	50	4.898	32.870	6.62		
28	20	20	8.811	32.825	6.12	75	4.238	32.901	6.61		
27	20	20	8.804	32.825	6.12	100	3.509	32.963	6.24		
26	26	26	8.658	32.833	6.16	125	3.226	33.341	3.99		
25	26	26	8.485	32.838	6.21	150	3.241	33.603	2.46		
22	30	31	7.319	32.865	6.45	175	3.171	33.703	1.74		
21	30	31	6.947	32.867	6.51	200	3.314	33.803	1.13		
20	35	35	6.681	32.881	6.57	250	3.446	33.928	0.48		
19	35	35	6.629	32.878	6.57	300	3.471	33.998	0.41		
17	39	40	6.295	32.918	6.68	322	3.473	34.019	0.34		
16	40	40	6.232	32.920	6.66						
15	50	50	4.986	32.871	6.63						
14	50	50	4.849	32.868	6.63						
11	59	60	4.521	32.881	6.57						
10	59	60	4.522	32.881	6.59						
9	60	60	4.516	32.885	6.60						
8	69	70	4.333	32.893	6.59						
7	70	70	4.301	32.893	6.59						
5	84	85	3.966	32.905	6.54						
4	84	85	3.994	32.902	6.53						
3	84	85	3.885	32.908	6.51						
2	99	100	3.484	32.970	6.11						
1	99	100	3.474	32.974	6.13						

St.8 F	Date		July 24(B)		53 52.95N		Depth		843m		St.9 B1		Date		July 26		57 19.22N		Depth		3805m		
CTD-F Cast	Time(L)	08:48-	09:27	Lat.	179 53.19W	CTD	Up	S	psu	843m	CTD-F Cast	Depth	Time(L)	10:29-	11:06	Long.	179 51.25W	P	db	°C	CTD	Up	
Bottle	Depth	Pres	T	CTD(S)	CTD(O ₂)	P	T	O ₂	O ₂	843m	Bottle	Depth	Pres	T	CTD(S)	CTD(O ₂)	P	db	°C	T	S	O ₂	
No.	m	db	°C	psu	ml/L	db	°C	ml/L	ml/L	843m	No.	m	db	°C	psu	ml/L	db	°C	°C	psu	psu	ml/L	
0	0		8.7			2	8.585	32.931	6.21	0	0	0											
35	10	10	8.575	32.931	6.20	10	8.575	32.931	6.20	36	4	5	9.253	32.891	6.02								
34	10	10	8.547	32.930	6.22	20	7.837	32.938	6.33	35	11	11	9.248	32.892	6.01								
32	15	16	8.043	32.934	6.33	30	6.815	32.962	6.52	34	11	11	9.240	32.890	6.02								
31	16	16	8.038	32.934	6.34	40	5.728	32.972	6.50	33	10	11	9.051	32.893	6.11								
29	20	20	7.856	32.938	6.33	50	5.048	32.985	6.48	32	14	14	8.956	32.894	6.15								
28	20	20	7.781	32.940	6.35	75	3.911	33.003	6.47	31	14	15	8.484	32.892	6.64								
26	25	25	7.434	32.948	6.39	100	3.467	33.007	6.52	30	20	21	6.471	32.921	7.06								
25	25	25	7.172	32.953	6.44	125	3.162	33.041	6.46	29	20	20	6.332	32.920	7.03								
23	30	31	6.826	32.962	6.52	150	3.078	33.070	6.24	28	20	20	6.188	32.921	7.02								
22	30	30	6.638	32.965	6.52	175	3.316	33.161	5.42	27	24	24	5.919	32.925	6.97								
20	35	35	6.357	32.968	6.54	200	3.547	33.287	4.41	26	26	26	5.782	32.926	6.92								
19	34	35	6.023	32.970	6.55	250	3.735	33.491	3.09	25	30	30	5.516	32.929	6.74								
17	39	40	5.836	32.972	6.52	300	3.861	33.638	2.28	24	31	31	5.567	32.924	6.71								
16	39	40	5.735	32.968	6.49	316	3.853	33.672	2.13	23	30	30	5.230	32.921	6.64								
14	49	49	5.051	32.985	6.48					22	30	31	5.252	32.924	6.71								
13	50	51	5.049	32.985	6.48					21	34	34	4.400	32.935	6.70								
11	59	59	4.895	32.987	6.49					20	34	34	4.485	32.927	6.69								
10	58	59	4.862	32.984	6.48					19	41	41	3.456	32.940	6.72								
8	69	70	4.067	33.000	6.45					18	40	41	3.314	32.938	6.72								
7	74	74	3.951	33.003	6.46					17	50	51	3.032	32.945	6.66								
5	84	85	3.685	33.003	6.50					16	49	50	3.007	32.947	6.66								
4	84	84	3.680	33.003	6.50					15	60	60	2.873	32.961	6.67								
2	98	99	3.465	33.007	6.51					14	59	59	2.853	32.959	6.67								
1	99	100	3.465	33.007	6.52					13	69	69	2.710	32.962	6.70								
										12	69	69	2.720	32.961	6.71								
										11	85	85	2.533	32.978	6.70								
										10	85	85	2.495	32.977	6.71								
										9	99	100	2.235	32.985	6.71								
										8	98	99	2.237	32.984	6.68								

St.9 B2	Date	July 26		Lat.	57 22.80N		Depth	3805m		St.9 B3	Date	July 26		Lat.	57 25.58N		Depth	3805m													
		Time(L)	Pres		T	CTD(S)		Long.	P			CTD(O ₂)	Up		S	CTD-F		Cast	Time(L)	Pres	T	CTD(S)	Long.	P	CTD(O ₂)	Up	S				
CTD-F	Cast	Time(L)	Pres	°C	psu	ml/L	°C	psu	O ₂	Bottle	Depth	Time(L)	Pres	°C	psu	ml/L	°C	psu	O ₂	Bottle	Depth	Time(L)	Pres	°C	psu	ml/L	°C	psu	O ₂		
0	0			9.4			2	9.199	32.894	6.06	0	0																			
36	10	11	9.171	32.895	6.06		10	9.138	32.896	6.08	34	4	4	9.334	32.898	6.03															
35	11	11	9.157	32.895	6.08		20	5.608	32.919	7.15	33	10	10	9.320	32.897	6.06															
34	10	10	9.074	32.893	6.14		30	5.139	32.931	6.64	32	10	10	9.321	32.897	6.06															
33	15	15	7.494	32.908	6.92		40	3.276	32.943	6.76	31	10	10	9.097	32.898	6.13															
32	15	15	7.159	32.907	7.06		50	3.024	32.951	6.65	28	15	15	9.019	32.877	6.35															
31	15	15	6.183	32.908	7.31		75	2.763	32.973	6.70	27	14	15	7.669	32.889	6.80															
30	20	20	5.785	32.919	7.26		100	2.260	32.973	6.76	26	20	20	6.202	32.921	7.11															
29	20	20	5.772	32.918	7.25		125	1.886	32.983	6.79	24	19	20	6.171	32.918	7.17															
28	20	20	5.673	32.918	7.18		150	1.693	32.997	6.75	23	20	20	6.035	32.917	7.28															
27	26	26	5.522	32.920	7.06		175	2.764	33.227	4.56	22	24	25	5.600	32.917	7.28															
26	25	26	5.517	32.920	7.02		200	3.502	33.449	3.11	21	25	25	5.550	32.916	7.19															
25	25	26	5.473	32.920	6.94		250	3.725	33.637	2.05	19	30	31	5.438	32.921	6.88															
24	31	31	5.335	32.924	6.77		300	3.740	33.763	1.50	18	30	30	5.338	32.921	6.80															
23	30	31	5.345	32.924	6.78		313	3.733	33.783	1.44	17	35	35	5.109	32.924	6.72															
22	30	31	5.353	32.924	6.78						16	34	35	4.773	32.932	6.67															
21	30	31	5.184	32.926	6.64						14	38	39	3.982	32.937	6.74															
20	35	36	4.716	32.935	6.66						13	39	39	3.845	32.938	6.74															
19	35	35	4.298	32.934	6.69						12	49	50	2.993	32.939	6.80															
18	40	40	3.382	32.938	6.79						11	49	50	2.991	32.938	6.78															
17	39	40	3.374	32.941	6.79						9	58	59	2.928	32.953	6.69															
16	41	41	3.317	32.943	6.77						8	59	59	2.921	32.953	6.69															
15	40	40	3.273	32.943	6.71						7	70	70	2.778	32.960	6.72															
14	49	50	3.077	32.950	6.66						6	69	70	2.769	32.959	6.72															
13	50	51	3.069	32.950	6.66						4	84	84	2.538	32.966	6.73															
12	50	50	3.047	32.950	6.65						3	83	84	2.547	32.968	6.72															
11	50	51	3.020	32.951	6.65						2	98	99	2.388	32.976	6.73															
10	60	61	2.915	32.953	6.64						1	99	99	2.384	32.977	6.73															
9	60	60	2.918	32.957	6.65																										
8	70	71	2.855	32.967	6.68																										
7	69	69	2.855	32.966	6.69																										
6	74	75	2.770	32.972	6.69																										
5	83	83	2.609	32.977	6.70																										
4	82	83	2.613	32.976	6.70																										
3	99	100	2.284	32.973	6.75																										
2	99	100	2.265	32.974	6.76																										
1	148	149	1.725	32.997	6.75																										

St.10 F	Date	July 26		Lat.	57 00.44N		Depth	995m		St.11 F	Date		July 29		Lat.	56 59.92N		Depth	76m	
		Time(L)	Pres		Time(L)	Pres		Time(L)	Pres		Time(L)	Pres	Time(L)	Pres		Time(L)	Pres		Time(L)	Pres
CTD-F Cast	Depth	16:23-16:55		Long.	174 00.88W		CTD	Up		CTD-F Cast	Depth	17:52-18:12		Long.	165 59.26W		CTD	Up		
Bottle	No.	T	S	CTD(S)	P	T	°C	O ₂	ml/L	Bottle	No.	T	S	CTD(S)	P	T	°C	O ₂	ml/L	
0	0	4	4	10.112	32.555	6.18	2	10.125	32.555	6.17	0	0	0	11.4			2	11.294	31.309	5.58
36	4	10	10	10.112	32.558	6.18	10	10.015	32.557	6.18	34	9	9	10.959	31.337	5.70	10	10.734	31.357	5.83
34	10	10	10	10.062	32.558	6.17	20	9.295	32.568	6.13	33	9	10	10.550	31.349	5.76	20	2.496	31.456	7.14
33	10	10	10	10.062	32.558	6.17	30	5.565	32.734	6.04	30	15	15	9.383	31.336	6.11	30	1.481	31.462	6.90
32	11	11	11	9.919	32.559	6.20	40	4.666	32.810	6.09	29	15	15	4.641	31.356	7.00	40	1.472	31.460	6.97
30	14	14	14	9.957	32.557	6.19	50	4.372	32.868	6.27	26	20	20	2.887	31.442	7.22	50	1.471	31.518	7.04
29	14	14	14	9.981	32.556	6.20	75	4.072	32.914	6.06	25	20	20	2.572	31.436	7.23	60	1.469	31.520	7.18
28	14	14	14	10.007	32.553	6.20	100	3.924	32.946	5.96	22	25	25	1.599	31.469	6.92	64	1.469	31.520	7.22
26	20	20	20	9.499	32.560	6.16	125	3.803	32.986	5.74	21	25	25	1.520	31.477	6.90				
25	20	20	20	9.426	32.557	6.15	150	3.754	33.039	5.56	18	29	30	1.487	31.474	6.88				
24	20	21	21	8.525	32.643	6.05	175	3.784	33.091	5.25	17	29	29	1.487	31.464	6.89				
22	23	24	24	8.175	32.652	6.03	200	3.968	33.170	4.62	14	35	35	1.483	31.458	6.92				
21	24	24	24	8.472	32.634	6.03	250	4.019	33.381	3.48	13	34	34	1.475	31.463	6.92				
19	23	23	23	8.490	32.628	5.99	300	3.998	33.523	2.78	10	39	40	1.472	31.462	6.93				
18	29	29	29	5.690	32.728	6.04	324	3.912	33.582	2.56	9	39	40	1.472	31.460	6.97				
17	29	30	30	5.632	32.729	6.02					6	49	50	1.471	31.518	7.03				
15	35	36	36	5.016	32.754	6.00					5	49	49	1.471	31.518	7.03				
14	35	36	36	4.878	32.773	6.02					2	59	59	1.469	31.520	7.11				
13	40	41	41	4.702	32.806	6.05					1	59	60	1.470	31.520	7.12				
12	39	40	40	4.687	32.808	6.09														
10	50	50	50	4.414	32.858	6.19														
9	49	49	49	4.389	32.864	6.26														
8	59	59	59	4.282	32.884	6.33														
7	58	59	59	4.284	32.884	6.31														
4	78	79	79	4.065	32.918	5.88														
3	78	79	79	4.060	32.920	5.85														
2	100	101	101	3.925	32.946	5.97														
1	99	100	100	3.925	32.946	5.95														

St.15 B1			Date			Aug.09			Lat.			49 54.26N			Depth			4222m			St.15 B2			Date			Aug.09			Lat.			49 56.16N			Depth			4219m																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
CTD-F Cast			Time(L) 08:30- 09:10			CTD(S)			Long.			144 46.82W			P			CTD			CTD(F)			Time(L) 14:50- 15:29			CTD(S)			Long.			144 46.96W			CTD			Up																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Bottle			Depth			Pres			T			°C			db			°C			psu			db			°C			psu			db			°C			psu																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
No.	m	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000	1005	1010	1015	1020	1025	1030	1035	1040	1045	1050	1055	1060	1065	1070	1075	1080	1085	1090	1095	1100	1105	1110	1115	1120	1125	1130	1135	1140	1145	1150	1155	1160	1165	1170	1175	1180	1185	1190	1195	1200	1205	1210	1215	1220	1225	1230	1235	1240	1245	1250	1255	1260	1265	1270	1275	1280	1285	1290	1295	1300	1305	1310	1315	1320	1325	1330	1335	1340	1345	1350	1355	1360	1365	1370	1375	1380	1385	1390	1395	1400	1405	1410	1415	1420	1425	1430	1435	1440	1445	1450	1455	1460	1465	1470	1475	1480	1485	1490	1495	1500	1505	1510	1515	1520	1525	1530	1535	1540	1545	1550	1555	1560	1565	1570	1575	1580	1585	1590	1595	1600	1605	1610	1615	1620	1625	1630	1635	1640	1645	1650	1655	1660	1665	1670	1675	1680	1685	1690	1695	1700	1705	1710	1715	1720	1725	1730	1735	1740	1745	1750	1755	1760	1765	1770	1775	1780	1785	1790	1795	1800	1805	1810	1815	1820	1825	1830	1835	1840	1845	1850	1855	1860	1865	1870	1875	1880	1885	1890	1895	1900	1905	1910	1915	1920	1925	1930	1935	1940	1945	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070	2075	2080	2085	2090	2095	2100	2105	2110	2115	2120	2125	2130	2135	2140	2145	2150	2155	2160	2165	2170	2175	2180	2185	2190	2195	2200	2205	2210	2215	2220	2225	2230	2235	2240	2245	2250	2255	2260	2265	2270	2275	2280	2285	2290	2295	2300	2305	2310	2315	2320	2325	2330	2335	2340	2345	2350	2355	2360	2365	2370	2375	2380	2385	2390	2395	2400	2405	2410	2415	2420	2425	2430	2435	2440	2445	2450	2455	2460	2465	2470	2475	2480	2485	2490	2495	2500	2505	2510	2515	2520	2525	2530	2535	2540	2545	2550	2555	2560	2565	2570	2575	2580	2585	2590	2595	2600	2605	2610	2615	2620	2625	2630	2635	2640	2645	2650	2655	2660	2665	2670	2675	2680	2685	2690	2695	2700	2705	2710	2715	2720	2725	2730	2735	2740	2745	2750	2755	2760	2765	2770	2775	2780	2785	2790	2795	2800	2805	2810	2815	2820	2825	2830	2835	2840	2845	2850	2855	2860	2865	2870	2875	2880	2885	2890	2895	2900	2905	2910	2915	2920	2925	2930	2935	2940	2945	2950	2955	2960	2965	2970	2975	2980	2985	2990	2995	3000	3005	3010	3015	3020	3025	3030	3035	3040	3045	3050	3055	3060	3065	3070	3075	3080	3085	3090	3095	3100	3105	3110	3115	3120	3125	3130	3135	3140	3145	3150	3155	3160	3165	3170	3175	3180	3185	3190	3195	3200	3205	3210	3215	3220	3225	3230	3235	3240	3245	3250	3255	3260	3265	3270	3275	3280	3285	3290	3295	3300	3305	3310	3315	3320	3325	3330	3335	3340	3345	3350	3355	3360	3365	3370	3375	3380	3385	3390	3395	3400	3405	3410	3415	3420	3425	3430	3435	3440	3445	3450	3455	3460	3465	3470	3475	3480	3485	3490	3495	3500	3505	3510	3515	3520	3525	3530	3535	3540	3545	3550	3555	3560	3565	3570	3575	3580	3585	3590	3595	3600	3605	3610	3615	3620	3625	3630	3635	3640	3645	3650	3655	3660	3665	3670	3675	3680	3685	3690	3695	3700	3705	3710	3715	3720	3725	3730	3735	3740	3745	3750	3755	3760	3765	3770	3775	3780	3785	3790	3795	3800	3805	3810	3815	3820	3825	3830	3835	3840	3845	3850	3855	3860	3865	3870	3875	3880	3885	3890	3895	3900	3905	3910	3915	3920	3925	3930	3935	3940	3945	3950	3955	3960	3965	3970	3975	3980	3985	3990	3995	4000	4005	4010	4015	4020	4025	4030	4035	4040	4045	4050	4055	4060	4065	4070	4075	4080	4085	4090	4095	4100	4105	4110	4115	4120	4125	4130	4135	4140	4145	4150	4155	4160	4165	4170	4175	4180	4185	4190	4195	4200	4205	4210	4215	4220	4225	4230	4235	4240	4245	4250	4255	4260	4265	4270	4275	4280	4285	4290	4295	4300	4305	4310	4315	4320	4325	4330	4335	4340	4345	4350	4355	4360	4365	4370	4375	4380	4385	4390	4395	4400	4405	4410	4415	4420	4425	4430	4435	4440	4445	4450	4455	4460	4465	4470	4475	4480	4485	4490	4495	4500	4505	4510	4515	4520	4525	4530	4535	4540	4545	4550	4555	4560	4565	4570	4575	4580	4585	4590	4595	4600	4605	4610	4615	4620	4625	4630	4635	4640	4645	4650	4655	4660	4665	4670	4675	4680	4685	4690	4695	4700	4705	4710	4715	4720	4725	4730	4735	4740	4745	4750	4755	4760	4765	4770	4775	4780	4785	4790	4795	4800	4805	4810	4815	4820	4825	4830	4835	4840	4845	4850	4855	4860	4865	4870	4875	4880	4885	4890	4895	4900	4905	4910	4915	4920	4925	4930	4935	4940	4945	4950	4955	4960	4965	4970	4975	4980	4985	4990	4995	5000	5005	5010	5015	5020	5025	5030	5035	5040	5045	5050	5055	5060	5065	5070	5075	5080	5085	5090	5095	5100	5105	5110	5115	5120	5125	5130	5135	5140	5145	5150	5155	5160	5165	5170	5175	5180	5185	5190	5195	5200	5205	5210	5215	5220	5225	5230	5235	5240	5245	5250	5255	5260	5265	5270	5275	5280	5285	5290	5295	5300	5305	5310	5315	5320	5325	5330	5335	5340	5345	5350	5355	5360	5365	5370	5375	5380	5385	5390	5395	5400	5405	5410	5415	5420	5425	5430	5435	5440	5445	5450	5455	5460	5465	5470	5475	5480	5485	5490	5495	5500	5505	5510	5515	5520	5525	5530	5535	5540	5545	5550	5555	5560	5565	5570	5575	5580	5585	5590	5595	5600	5605	5610	5615	5620	5625	5630	5635	5640	5645	5650	5655	5660	5665	5670	5675	5680	5685	5690	5695	5700	5705	5710	5715	5720	5725	5730	5735	5740	5745	5750	5755	5760	5765	5770	5775	5780	5785	5790	5795	5800	5805	5810	5815	5820	5825	5830	5835	5840	5845	5850	5855	5860	5865	5870	5875	5880	5885	5890	5895	5900	5905	5910	5915	5920	5925	5930	5935	5940	5945	5950	5955	5960	5965	5970	5975	5980	5985	5990	5995	600

St.15 B3		Date		Aug.09		Lat.		49 56.95 N		Depth		4206m		St.15 B4		Date		Aug. 10		Lat.		49 55.38 N		Depth		4201m	
CTD-F Cast		Time(L)		20:30- 21:00		Long.		144 41.84 W		CTD		Up		CTD-F Cast		Time(L)		08:50- 09:33		Long.		144 43.57 W		CTD		Up	
Bottle		Depth		CTD(S)		CTD(O ₂)		P		T		S		Bottle		Pres		T		CTD(S)		P		T		S	
No.	m	db	°C	psu	ml/L	°C	psu	db	°C	psu	ml/L	db	°C	No.	m	db	°C	psu	ml/L	db	°C	psu	ml/L	db	°C	psu	ml/L
0	0		14.5											0	0		14.5										
35	10	10	14.399	32.532	5.17	10	14.392	32.532	5.16	36	9	9	14.370	32.528	5.18	10	14.368	32.528	5.16	10	14.368	32.528	5.16	10	14.368	32.528	5.16
34	9	10	14.398	32.532	5.16	20	14.307	32.529	5.23	35	10	10	14.371	32.528	5.17	20	14.317	32.526	5.22	20	14.317	32.526	5.22	20	14.317	32.526	5.22
32	19	19	14.374	32.531	5.20	30	12.414	32.549	5.72	33	10	10	14.369	32.528	5.17	30	11.442	32.586	5.97	30	11.442	32.586	5.97	30	11.442	32.586	5.97
31	18	19	14.352	32.531	5.22	40	9.169	32.630	6.38	34	10	10	14.367	32.528	5.17	40	8.933	32.655	6.28	40	8.933	32.655	6.28	40	8.933	32.655	6.28
29	31	31	12.261	32.567	5.68	50	7.493	32.643	6.51	32	20	20	14.354	32.529	5.18	50	7.640	32.657	6.48	50	7.640	32.657	6.48	50	7.640	32.657	6.48
28	30	30	12.718	32.552	5.65	60	6.223	32.668	6.40	31	20	20	14.354	32.528	5.19	60	6.521	32.663	6.44	60	6.521	32.663	6.44	60	6.521	32.663	6.44
26	39	39	10.399	32.614	6.14	75	5.839	32.687	6.38	30	21	21	14.348	32.526	5.21	75	5.669	32.685	6.32	75	5.669	32.685	6.32	75	5.669	32.685	6.32
25	38	39	10.062	32.620	6.21	100	5.250	32.736	6.10	29	30	30	12.453	32.562	5.68	100	5.246	32.734	6.12	100	5.246	32.734	6.12	100	5.246	32.734	6.12
21	50	50	7.768	32.647	6.49	125	5.092	33.360	4.65	28	30	30	12.272	32.565	5.72	125	5.217	33.445	4.48	125	5.217	33.445	4.48	125	5.217	33.445	4.48
19	50	50	7.737	32.648	6.48	150	5.009	33.711	3.76	27	29	30	12.275	32.558	5.71	150	4.893	33.694	3.79	150	4.893	33.694	3.79	150	4.893	33.694	3.79
23	59	60	6.450	32.660	6.45	175	4.699	33.753	3.24	26	41	41	9.151	32.659	6.22	175	4.749	33.769	3.14	175	4.749	33.769	3.14	175	4.749	33.769	3.14
18	59	60	6.474	32.660	6.44	200	4.540	33.803	2.71	25	41	41	9.087	32.656	6.24	200	4.477	33.770	2.91	200	4.477	33.770	2.91	200	4.477	33.770	2.91
17	58	59	6.431	32.662	6.42	250	4.254	33.852	2.13	22	50	50	7.975	32.660	6.40	250	4.093	33.834	2.11	250	4.093	33.834	2.11	250	4.093	33.834	2.11
16	69	70	5.996	32.681	6.39	300	4.043	33.895	1.78	21	49	50	7.986	32.660	6.40	300	4.025	33.904	1.71	300	4.025	33.904	1.71	300	4.025	33.904	1.71
15	69	69	5.990	32.681	6.38	307	4.041	33.903	1.75	20	58	59	6.589	32.663	6.44	307	4.011	33.916	1.67	307	4.011	33.916	1.67	307	4.011	33.916	1.67
22	78	78	5.727	32.687	6.36					19	59	60	6.476	32.666	6.44												
12	77	78	5.713	32.688	6.35					16	70	70	5.933	32.681	6.37												
11	78	78	5.684	32.690	6.35					15	69	70	5.928	32.681	6.36												
9	88	89	5.385	32.708	6.27					14	78	78	5.602	32.691	6.31												
8	88	89	5.376	32.709	6.24					13	77	78	5.599	32.692	6.31												
7	99	100	5.271	32.731	6.19					10	89	89	5.370	32.710	6.27												
6	99	100	5.253	32.737	6.13					9	88	89	5.368	32.710	6.26												
4	119	120	5.105	33.127	5.20					8	99	100	5.265	32.728	6.17												
3	119	120	5.100	33.153	5.08					7	99	100	5.220	32.744	6.13												
2	148	150	5.021	33.701	3.85					4	120	121	5.188	33.283	4.86												
1	148	149	5.007	33.708	3.83					3	119	120	5.190	33.281	4.82												
										2	149	150	4.921	33.690	3.83												
										1	149	150	4.908	33.691	3.83												

St.15 B5			Date			Aug.10			Lat.			49 56.65 N			Depth			4207m			St.15 B6			Date			Aug.10			Lat.			49 55.41 N			Depth			4193m		
CTD-F Cast			Time(L)			14:40- 15:16			Long.			144 42.64 W			CTD			Up			CTD-F Cast			Time(L)			19:15- 19:55			Long.			144 40.78 W			CTD			Up		
Bottle	Depth	No.	Pres	T	CTD(S)	psu	°C	°C	psu	ml/L	CTD(O ₂)	P	T	S	psu	ml/L	O ₂	Bottle	Depth	No.	Pres	T	CTD(S)	psu	°C	°C	psu	ml/L	CTD(O ₂)	P	T	S	psu	ml/L	O ₂						
m	m		db	°C							db	°C	°C	db	°C	db	°C	m	m		db	°C		psu	°C	°C	psu	ml/L	db	°C	psu	ml/L	ml/L								
0	0			14.5																																					
36	10		10	14.425	32.527	5.13	10	14.414	32.524	5.14	34	10	10	14.327	31.323	3.20																									
35	10		10	14.424	32.527	5.13	20	11.668	32.564	5.82	33	10	10	14.242	31.168	3.23																									
34	10		10	14.425	32.525	5.15	30	8.096	31.489	3.32	32	10	10	14.130	30.877	3.23																									
33	10		10	14.403	32.524	5.15	40	6.351	32.410	3.68	30	20	20	12.983	30.575	3.38																									
31	20		20	12.187	32.567	5.68	50	6.000	32.649	4.46	29	19	20	12.032	30.786	3.50																									
30	20		20	12.181	32.567	5.68	60	5.885	32.683	6.33	27	29	29	10.176	31.523	3.83																									
29	20		20	12.142	32.565	5.70	75	5.586	32.691	6.28	26	28	29	9.844	31.672	3.90																									
27	29		29	9.143	32.657	6.16	100	5.063	33.102	5.19	24	40	40	8.498	32.661	6.33																									
26	28		28	8.994	32.651	6.16	125	5.117	33.681	3.96	23	40	40	8.418	32.660	6.34																									
25	28		28	8.731	32.646	6.08	150	4.793	33.753	3.29	20	49	49	7.056	32.678	6.41																									
24	37		38	7.340	31.803	3.46	175	4.654	33.799	2.77	19	49	50	6.977	32.683	6.40																									
23	37		38	6.564	32.262	3.63	200	4.357	33.805	2.53	18	59	60	6.357	32.692	6.39																									
21	49		50	6.066	32.589	4.04	250	4.127	33.857	1.98	17	59	59	6.359	32.691	6.39																									
20	50		50	6.007	32.638	4.49	300	4.004	33.920	1.62	16	70	70	5.655	32.692	6.35																									
19	59		59	5.916	32.682	6.34	300	4.005	33.933	1.63	15	68	69	5.641	32.692	6.34																									
18	58		59	5.912	32.682	6.33					12	79	80	5.359	32.710	6.29																									
15	69		69	5.712	32.687	6.31					11	79	80	5.357	32.710	6.28																									
14	69		69	5.706	32.688	6.30					9	90	91	5.270	32.755	6.15																									
13	80		80	5.479	32.700	6.27					8	90	91	5.268	32.758	6.12																									
12	78		79	5.511	32.696	6.26					7	99	100	5.252	32.965	5.62																									
9	89		89	5.168	32.783	6.00					6	98	99	5.206	32.993	5.51																									
8	87		88	5.171	32.773	5.97					4	118	120	5.178	33.577	4.25																									
7	98		99	5.078	33.010	5.41					3	119	120	5.174	33.582	4.25																									
6	99		100	5.073	33.012	5.38					2	150	152	4.974	33.720	3.70																									
4	118		119	5.180	33.616	4.14					1	149	150	4.978	33.720	3.72																									
3	118		119	5.160	33.624	4.07																																			
2	148		149	4.824	33.751	3.33																																			
1	147		149	4.823	33.751	3.32																																			

St.16 F CTD-F Bottle	Cast Depth	Date		Aug.13		49 59.85 N		Depth 3955m			
		Time(L)	Pres	T	CTD(S)	Long.	CTD(O ₂)	P	CTD	Up	
No.	m	db	°C	psu	ml/L	db	°C	psu	ml/L		
0	0		15.8								
36	11	11	14.717	32.355	5.23		2	15.418	32.355	5.14	
35	11	11	14.738	32.355	5.22			10	14.730	32.355	5.23
34	11	11	14.726	32.354	5.22			20	13.796	32.374	5.53
33	11	11	14.718	32.354	5.23			30	9.253	32.561	6.49
32	20	20	14.170	32.371	5.35			40	8.123	32.582	6.45
31	20	20	14.176	32.372	5.37			50	7.411	32.614	6.18
30	20	20	14.197	32.368	5.38			60	6.919	32.678	5.93
29	20	20	14.103	32.369	5.46			75	6.778	32.818	5.59
28	30	31	9.272	32.563	6.47			100	6.224	33.557	4.12
27	30	30	9.197	32.563	6.50			125	6.026	33.752	3.59
26	30	30	9.216	32.561	6.50			150	5.960	33.843	2.95
25	40	41	8.122	32.582	6.44			175	5.531	33.866	2.61
24	41	42	8.090	32.582	6.44			200	5.293	33.880	2.23
23	41	42	8.068	32.582	6.44			250	4.737	33.906	1.65
22	40	40	7.961	32.583	6.39			300	4.612	33.955	1.22
21	50	51	7.396	32.616	6.17			313	4.573	33.967	1.17
20	50	50	7.400	32.615	6.18						
18	59	59	6.972	32.656	6.03						
17	59	60	6.974	32.655	6.02						
16	59	59	6.982	32.652	6.04						
15	59	59	6.945	32.666	6.00						
14	70	70	6.801	32.732	5.80						
13	70	70	6.797	32.736	5.79						
12	70	70	6.794	32.740	5.79						
11	79	79	6.659	32.962	5.30						
10	78	79	6.663	32.966	5.28						
9	79	80	6.575	33.012	5.14						
8	89	89	6.425	33.355	4.50						
7	88	89	6.410	33.376	4.40						
6	98	99	6.239	33.539	4.18						
5	99	99	6.227	33.554	4.15						
4	119	120	6.063	33.712	3.76						
3	118	119	6.050	33.733	3.71						
2	150	151	5.967	33.834	3.08						
1	149	150	5.959	33.833	3.03						

St.17 F		Date		Aug.24		44 57.56N		Lat.		4394m		St.19 F		Date		Aug.28		46 58.07N		Lat.		5127m	
CTD-F Cast		Time(L)		23:04- 23:59		139 59.49W		Long.		Up		CTD-F Cast		Time(L)		07:00- 08:15		160 10.85W		Long.		Up	
Bottle Depth		Pres		T		P		CTD(S)		S		Bottle Depth		Pres		T		P		CTD(S)		S	
No.	m	db	°C	psu	°C	db	°C	psu	ml/L	°C	T	db	°C	psu	db	°C	psu	db	°C	psu	°C	psu	ml/L
0	0		16.9									0				14.4							
36	9	9	16.863	32.590	4.97	2	16.867	32.589	4.96	0	10	14.193	32.931	5.29	2	14.212	32.928	5.29	2	14.212	32.928	5.29	
33	10	10	16.864	32.589	4.96	5	16.870	32.589	4.96	18	10	14.199	32.930	5.28	10	14.191	32.931	5.26	10	14.191	32.931	5.26	
27	9	10	16.864	32.589	4.96	20	16.858	32.589	4.98	19	10	14.200	32.929	5.27	20	14.167	32.931	5.28	20	14.167	32.931	5.28	
16	9	9	16.860	32.589	4.97	20	13.529	32.658	6.33	20	10	14.204	32.929	5.27	30	12.564	32.942	5.73	30	12.564	32.942	5.73	
15	9	10	16.863	32.589	4.97	30	11.799	32.710	6.13	36	10	14.192	32.931	5.27	40	9.697	33.043	6.33	40	9.697	33.043	6.33	
26	14	14	16.437	32.597	5.33	40	11.162	32.745	5.81	15	20	14.173	32.932	5.27	50	8.534	33.079	6.32	50	8.534	33.079	6.32	
35	18	18	14.697	32.629	6.09	50	10.041	32.801	5.58	16	20	14.172	32.932	5.26	60	7.879	33.083	6.23	60	7.879	33.083	6.23	
32	20	20	13.929	32.664	6.18	75	8.654	32.871	5.88	17	20	14.174	32.932	5.26	75	7.152	33.095	6.09	75	7.152	33.095	6.09	
25	19	20	13.948	32.658	6.21	100	7.576	33.092	5.47	35	20	14.173	32.932	5.27	100	6.857	33.139	5.95	100	6.857	33.139	5.95	
14	20	20	14.093	32.655	6.14	150	7.729	33.873	4.28	12	29	13.478	32.934	5.45	125	6.649	33.276	5.52	125	6.649	33.276	5.52	
13	19	19	14.024	32.659	6.20	200	7.525	33.950	3.79	13	29	13.386	32.938	5.48	150	6.686	33.768	4.52	150	6.686	33.768	4.52	
24	25	25	12.126	32.703	6.24	300	6.027	33.935	2.70	14	29	13.304	32.937	5.52	175	6.379	33.820	4.19	175	6.379	33.820	4.19	
34	30	30	11.878	32.710	6.19	400	4.854	33.935	1.85	33	29	13.259	32.938	5.54	200	5.889	33.813	3.89	200	5.889	33.813	3.89	
31	31	32	11.854	32.712	6.19	500	4.388	34.010	1.17	34	29	13.277	32.935	5.54	250	5.096	33.824	3.14	250	5.096	33.824	3.14	
23	30	30	11.877	32.710	6.19	513	4.371	34.017	1.13	10	39	40	10.236	33.022	6.25	300	4.678	33.875	2.43	300	4.678	33.875	2.43
12	31	31	11.821	32.712	6.15					11	39	40	10.140	33.024	6.27	400	4.211	33.960	1.66	400	4.211	33.960	1.66
11	29	29	11.817	32.711	6.11					8	50	51	8.585	33.081	6.33	500	4.072	34.065	1.16	500	4.072	34.065	1.16
22	34	34	11.560	32.726	5.97					9	50	50	8.582	33.081	6.33	600	3.860	34.157	0.81	600	3.860	34.157	0.81
30	37	38	11.505	32.733	5.94					31	49	50	8.579	33.080	6.34	700	3.595	34.227	0.62	700	3.595	34.227	0.62
21	36	36	11.459	32.732	5.87					32	49	50	8.577	33.079	6.33	800	3.354	34.276	0.49	800	3.354	34.276	0.49
29	50	50	10.287	32.796	5.54					6	59	59	7.938	33.085	6.25	1000	2.948	34.363	0.40	1000	2.948	34.363	0.40
20	49	49	10.295	32.791	5.54					7	59	59	7.917	33.085	6.24	1029	2.906	34.373	0.39	1029	2.906	34.373	0.39
10	49	49	10.270	32.790	5.55					5	68	69	7.370	33.090	6.16								
9	49	50	10.016	32.803	5.58					4	78	78	7.110	33.098	6.08								
28	59	60	9.498	32.823	5.67					3	89	89	6.934	33.105	6.04								
19	59	59	9.505	32.822	5.69					2	99	100	6.907	33.131	5.99								
8	73	74	8.855	32.857	5.85					29	98	99	6.911	33.131	5.99								
7	73	74	8.742	32.870	5.86					30	99	100	6.905	33.131	5.98								
18	79	79	8.095	32.886	5.79					1	118	119	6.694	33.198	5.80								
17	99	100	7.582	33.073	5.51					27	198	200	5.932	33.815	3.94								
6	99	100	7.573	33.096	5.46					28	197	198	5.948	33.815	3.94								
5	102	102	7.567	33.141	5.35					25	297	300	4.676	33.875	2.44								
4	249	251	6.900	33.965	3.17					26	298	301	4.680	33.875	2.45								
3	249	251	6.872	33.963	3.16					23	493	498	4.072	34.065	1.16								
2	495	500	4.398	34.006	1.19					24	496	501	4.071	34.066	1.17								
1	494	499	4.393	34.008	1.17					21	989	999	2.943	34.364	0.40								
										22	990	1001	2.948	34.364	0.40								

St.4	C3	Date		July 18	Lat.	47 44.91N		5860m		
		Time(L)	Time(S)			165 52.17E	CTD	Up	O ₂	
Bottle	Depth	Time(L) 04:00-07:54		CTD(S)	Long.	CTD(O ₂)	P	T	S	
		Pres	db							°C
0	0		8.2				2	7.923	32.855	6.20
36	247	249	3.462	33.939	0.44		10	7.921	32.853	6.24
35	249	252	3.466	33.945	0.44		20	7.762	32.844	6.34
34	296	299	3.414	34.005	0.58		30	4.831	32.951	6.65
33	297	300	3.414	34.008	0.58		40	3.737	32.979	6.69
32	394	398	3.410	34.120	0.46		50	3.344	32.995	6.70
31	396	399	3.407	34.121	0.41		75	2.742	33.032	6.63
30	492	497	3.267	34.183	0.25		100	2.217	33.086	6.53
29	496	500	3.264	34.185	0.25		125	2.245	33.177	5.68
28	592	598	3.124	34.253	0.23		150	2.910	33.535	2.83
27	594	600	3.123	34.255	0.22		175	3.196	33.730	1.57
26	790	798	2.814	34.354	0.33		200	3.296	33.818	1.11
25	792	800	2.813	34.354	0.32		250	3.464	33.947	0.45
24	988	999	2.571	34.421	0.44		300	3.414	34.006	0.58
23	990	1000	2.569	34.421	0.42		400	3.409	34.120	0.41
22	1236	1250	2.332	34.485	0.71		500	3.263	34.185	0.25
21	1235	1249	2.331	34.485	0.72		600	3.124	34.254	0.22
20	1483	1500	2.135	34.534	0.90		700	2.974	34.310	0.24
19	1481	1499	2.135	34.534	0.91		800	2.812	34.354	0.34
18	1972	1999	1.828	34.603	1.44		1000	2.568	34.421	0.44
17	1974	2000	1.828	34.603	1.44		1250	2.331	34.485	0.72
16	2463	2498	1.640	34.640	2.02		1500	2.135	34.535	0.91
15	2463	2499	1.638	34.641	2.02		1750	1.973	34.574	1.17
14	2955	3001	1.542	34.660	2.41		2000	1.828	34.603	1.44
13	2953	2999	1.541	34.660	2.42		2250	1.721	34.625	1.75
12	3443	3501	1.481	34.673	2.71		2500	1.638	34.641	2.02
11	3441	3499	1.481	34.673	2.72		2750	1.582	34.652	2.25
10	3928	3999	1.466	34.680	2.90		3000	1.540	34.660	2.42
9	3929	4000	1.465	34.680	2.90		3250	1.506	34.667	2.59
8	4413	4497	1.482	34.684	3.03		3500	1.481	34.673	2.72
7	4415	4499	1.482	34.684	3.03		3750	1.469	34.677	2.82
6	4901	5000	1.518	34.687	3.12		4000	1.465	34.680	2.90
5	4900	4999	1.518	34.687	3.12		4250	1.473	34.682	2.98
4	5385	5500	1.574	34.687	3.18		4500	1.482	34.684	3.03
3	5384	5499	1.574	34.687	3.18		4750	1.497	34.686	3.08
2	5837	5968	1.637	34.687	3.23		5000	1.517	34.687	3.12
1	5836	5967	1.637	34.687	3.23		5250	1.544	34.687	3.16
Pinger-Bottom			47m				5500	1.574	34.687	3.18
							5967	1.637	34.687	3.23

St.9 C1		Date		July 25		57 15.17N		Lat.		Depth		3820m		St.9 C2		Date		July 26		57 15.63N		Lat.		Depth		3807m	
Deep Cast		Time(L)		19:10- 22:10		175 55.95E		Long.		CTD		Up		Bottle		Time(L)		04:30- 07:25		179 49.68W		Long.		CTD		Up	
Depth		Pres		T		P		CTD(S)		°C		S		No.		Pres		T		P		CTD(S)		°C		S	
m		db		°C		db		psu		ml/L		psu		m		db		°C		db		psu		°C		psu	
0		0		9.4		2		6.06		6.06		0		0		0		9.4		2		9.155		32.882		5.51	
36		10		8.857		10		32.885		6.19		32.885		36		9		8.811		10		8.805		32.716		5.93	
35		10		7.864		10		32.885		6.73		32.885		35		9		8.691		20		5.868		32.901		6.63	
34		20		5.403		30		32.924		6.75		32.924		34		28		5.641		30		5.615		32.885		6.35	
33		20		5.376		40		32.923		6.74		32.923		33		28		5.635		40		4.977		32.822		6.23	
32		29		3.370		50		32.943		6.66		32.943		32		48		3.916		50		3.720		32.820		6.45	
31		30		3.307		75		32.945		6.69		32.945		31		49		3.910		75		2.710		32.916		6.51	
30		48		2.905		100		32.948		6.62		32.948		30		73		2.680		100		2.394		32.968		6.50	
29		49		2.898		125		32.948		6.62		32.948		29		73		2.680		125		2.048		32.976		6.53	
28		74		2.686		150		32.973		6.64		32.973		28		100		2.372		150		1.771		33.038		6.23	
27		74		2.684		175		32.973		6.65		32.973		27		99		2.392		175		3.061		33.329		3.84	
26		99		2.201		200		32.981		6.69		32.981		26		148		1.724		200		3.503		33.446		2.95	
25		99		1.295		250		32.981		6.68		32.981		25		148		1.770		250		3.703		33.611		1.97	
24		148		1.707		300		33.021		6.50		33.021		24		198		2.000		300		3.757		33.744		1.25	
23		148		2.013		400		33.065		6.21		33.065		23		197		3.496		400		3.673		33.920		0.55	
22		199		3.521		500		33.464		3.04		33.464		22		294		3.750		500		3.554		34.046		0.42	
21		198		3.561		600		33.482		3.00		33.482		21		297		3.758		600		3.427		34.134		0.24	
20		297		3.751		700		33.786		1.35		33.786		20		396		3.676		700		3.288		34.201		0.19	
19		300		3.750		800		33.788		1.33		33.788		19		395		3.675		800		3.151		34.259		0.21	
18		496		5.01		1000		34.054		0.40		34.054		18		496		3.557		1000		2.869		34.341		0.21	
17		495		5.00		1250		34.055		0.40		34.055		17		495		3.557		1250		2.567		34.421		0.28	
16		741		7.50		1500		34.228		0.22		34.228		16		594		3.432		1500		2.289		34.487		0.45	
15		741		7.50		1750		34.229		0.22		34.229		15		592		3.430		1750		2.065		34.542		0.69	
14		989		10.00		2000		34.347		0.21		34.347		14		792		3.154		2000		1.911		34.576		0.90	
13		988		10.00		2250		34.347		0.22		34.347		13		791		3.156		2250		1.795		34.603		1.12	
12		1480		15.00		2500		34.496		0.48		34.496		12		986		2.872		2500		1.713		34.623		1.33	
11		1480		15.00		2750		34.496		0.48		34.496		11		989		2.869		2750		1.658		34.637		1.51	
10		1973		20.01		3000		34.581		0.93		34.581		10		1480		2.289		3000		1.620		34.648		1.65	
9		1972		20.00		3250		34.581		0.93		34.581		9		1481		2.290		3250		1.597		34.656		1.79	
8		2464		25.02		3500		34.624		1.33		34.624		8		1973		1.912		3500		1.593		34.662		1.85	
7		2462		25.00		3750		34.624		1.35		34.624		7		1971		1.999		3750		1.597		34.667		1.94	
6		2952		30.01		3828		34.649		1.67		34.649		6		2463		1.713		3801		1.603		34.667		1.94	
5		2952		30.00				34.649		1.68		34.649		5		2462		1.713									
4		3438		34.98				34.662		1.86		34.662		4		2951		1.620									
3		3440		35.00				34.662		1.86		34.662		3		2951		1.620									
2		3761		38.30				34.667		1.92		34.667		2		3735		1.603									
1		3760		38.29				34.667		1.91		34.667		1		3733		1.603									
Pinger-Bottom				25m										Pinger-Bottom				36m									

St.15 C1		Date		Aug.08		49 48.98N		Depth		4245m		St.15 C2		Date		Aug.11		49 53.78N		Depth		4202m		
Deep Cast		Time(L)		15:00- 18:12		144 51.32W		CTD		Up		Deep Cast		Time(L)		18:00- 20:56		144 44.86W		CTD		UP		
Bottle		Pres		T		P		°C		S		Bottle		Pres		T		P		°C		S		
Depth		db		psu		db		°C		psu		Depth		db		°C		db		°C		psu		
No.		m		ml/L		ml/L		ml/L		ml/L		No.		m		ml/L		ml/L		ml/L		ml/L		
0	0	14.4	14.4	32.517	5.22	14.303	32.518	5.22	0	0	0	0	14.6	14.6	14.514	32.519	5.10	2	14.514	32.519	5.10	2		
36	11	14.255	14.255	32.517	5.24	14.230	32.518	5.25	29	10	10	14.505	32.519	5.12	10	14.505	32.519	5.12	10	14.505	32.519	5.12		
35	10	14.218	14.218	32.517	5.28	20.11.592	32.581	5.90	36	10	10	14.508	32.518	5.10	20	14.282	32.503	5.27	20	14.282	32.503	5.27		
34	20	11.777	11.777	32.578	5.84	30	9.331	32.659	6.37	35	10	14.491	32.519	5.12	30	10.147	32.632	6.09	30	10.147	32.632	6.09		
33	20	11.632	11.632	32.576	5.90	40	7.469	32.674	6.42	2	20	14.377	32.511	5.21	40	8.069	32.662	6.31	40	8.069	32.662	6.31		
32	29	9.481	9.481	32.661	6.36	50	6.528	32.698	6.41	1	19	13.973	32.514	5.27	50	6.851	32.682	6.34	50	6.851	32.682	6.34		
31	29	9.382	9.382	32.661	6.39	60	6.016	32.745	6.30	4	30	10.338	32.624	6.06	60	6.140	32.700	6.30	60	6.140	32.700	6.30		
30	51	6.560	6.560	32.701	6.42	75	5.761	32.759	6.20	3	30	9.454	32.659	6.16	75	5.543	32.723	6.24	75	5.543	32.723	6.24		
29	49	6.536	6.536	32.700	6.42	100	5.454	32.825	5.99	6	50	6.861	32.683	6.34	100	5.365	32.856	5.82	100	5.365	32.856	5.82		
28	73	5.805	5.805	32.759	6.21	125	5.099	33.517	4.40	5	49	50	6.757	32.686	6.34	125	5.055	33.557	4.15	125	5.055	33.557	4.15	
27	74	5.787	5.787	32.760	6.20	150	4.785	33.694	3.72	8	99	100	5.364	32.861	5.82	150	4.679	33.700	3.51	150	4.679	33.700	3.51	
26	100	5.442	5.442	32.845	5.93	175	4.531	33.729	3.28	7	99	100	5.361	32.866	5.73	175	4.503	33.753	3.01	175	4.503	33.753	3.01	
25	100	5.425	5.425	32.878	5.90	200	4.355	33.772	2.81	10	199	201	4.355	33.787	2.68	200	4.352	33.788	2.64	200	4.352	33.788	2.64	
24	148	4.794	4.794	33.684	3.77	250	4.141	33.837	2.13	9	198	199	4.347	33.789	2.64	250	4.120	33.845	2.02	250	4.120	33.845	2.02	
23	147	4.785	4.785	33.693	3.74	300	4.043	33.899	1.71	30	295	298	4.026	33.902	1.64	300	4.016	33.908	1.63	300	4.016	33.908	1.63	
22	198	4.353	4.353	33.773	2.82	400	3.915	34.009	1.19	12	297	300	4.015	33.909	1.63	400	3.983	34.025	1.14	400	3.983	34.025	1.14	
21	198	4.350	4.350	33.774	2.82	500	3.832	34.120	0.84	11	298	300	4.018	33.907	1.62	500	3.786	34.129	0.75	500	3.786	34.129	0.75	
20	295	4.047	4.047	33.896	1.73	600	3.612	34.188	0.59	14	495	500	3.787	34.129	0.75	600	3.555	34.190	0.50	600	3.555	34.190	0.50	
19	297	4.041	4.041	33.900	1.72	700	3.402	34.241	0.46	13	494	499	3.786	34.129	0.75	700	3.342	34.251	0.41	700	3.342	34.251	0.41	
18	493	3.835	3.835	34.119	0.84	800	3.203	34.288	0.39	16	988	999	2.884	34.374	0.29	800	3.191	34.296	0.35	800	3.191	34.296	0.35	
17	496	3.832	3.832	34.121	0.84	1000	2.873	34.375	0.30	15	989	999	2.883	34.374	0.29	1000	2.882	34.374	0.30	1000	2.882	34.374	0.30	
16	740	3.306	3.306	34.265	0.42	1250	2.551	34.449	0.68	18	1973	2000	1.944	34.578	1.02	1250	2.547	34.449	0.27	1250	2.547	34.449	0.27	
15	742	3.295	3.295	34.268	0.43	1500	2.306	34.502	0.42	17	1973	1999	1.943	34.578	1.02	1500	2.307	34.501	0.43	1500	2.307	34.501	0.43	
14	989	2.875	2.875	34.375	0.30	1750	2.090	34.548	0.74	32	2953	3000	1.576	34.651	2.13	1750	2.115	34.542	0.70	1750	2.115	34.542	0.70	
13	989	2.873	2.873	34.375	0.30	2000	1.931	34.581	1.05	31	2953	3000	1.575	34.651	2.13	2000	1.943	34.578	1.02	2000	1.943	34.578	1.02	
12	1480	2.310	2.310	34.502	0.42	2250	1.805	34.606	1.35	20	2953	2999	1.575	34.651	2.13	2250	1.815	34.604	1.33	2250	1.815	34.604	1.33	
11	1481	2.307	2.307	34.502	0.42	2500	1.716	34.624	1.61	19	2952	2999	1.575	34.651	2.14	2500	1.718	34.623	1.62	2500	1.718	34.623	1.62	
10	1972	1.932	1.932	34.581	1.04	2750	1.627	34.641	1.92	22	3928	4000	1.497	34.677	2.75	2750	1.643	34.638	1.87	2750	1.643	34.638	1.87	
9	1972	1.930	1.930	34.581	1.05	3000	1.570	34.653	2.16	21	3928	3999	1.497	34.677	2.75	3000	1.575	34.651	2.14	3000	1.575	34.651	2.14	
8	2463	1.718	1.718	34.624	1.60	3250	1.525	34.663	2.38	23	4095	4171	1.506	34.678	2.79	3250	1.534	34.660	2.35	3250	1.534	34.660	2.35	
7	2463	1.717	1.717	34.624	1.61	3500	1.501	34.669	2.53	24	4143	4221	1.510	34.679	2.80	3500	1.512	34.667	2.51	3500	1.512	34.667	2.51	
6	2953	1.570	1.570	34.653	2.15	3750	1.491	34.674	2.67	25	4161	4239	1.511	34.679	2.80	3750	1.496	34.673	2.66	3750	1.496	34.673	2.66	
5	2952	1.570	1.570	34.653	2.16	4000	1.495	34.678	2.76	34	4170	4248	1.512	34.679	2.81	4000	1.496	34.677	2.75	4000	1.496	34.677	2.75	
4	3442	1.501	1.501	34.669	2.53	4250	1.510	34.680	2.81	33	4171	4249	1.512	34.679	2.81	4250	1.512	34.679	2.81	4250	1.512	34.679	2.81	
3	3441	1.501	1.501	34.669	2.53	4265	1.512	34.680	2.81	26	4170	4248	1.512	34.679	2.81	4265	1.513	34.679	2.81	4265	1.513	34.679	2.81	
2	4189	1.512	1.512	34.680	2.80					28	4180	4259	1.513	34.679	2.81									
1	4188	1.512	1.512	34.680	2.80					27	4179	4258	1.513	34.679	2.81									
Pinger-Bottom				7 m								Pinger-Bottom				10m								

St.15 C3	Date	Aug.12		Lat.	49 53.99N		Depth 4197m						
		Time(L)	05:35-08:37		Long.	144 43.57W	CTD	Up					
Deep Cast	Pres	db	°C	CTD(S)	psu	P	db	T	°C	S	psu	O ₂	ml/L
Bottle	Depth	m											
No.	0	0	14.6					2	14.500	32.519	5.11		
36	8	8	14.500	32.519	5.09			5	14.503	32.519	5.10		
35	8	8	14.499	32.519	5.09			10	14.497	32.519	5.09		
34	19	19	14.485	32.520	5.11			20	14.455	32.505	5.18		
33	19	20	14.480	32.520	5.11			30	10.685	32.602	6.04		
32	30	30	11.132	32.600	5.94			40	8.330	32.659	6.36		
31	30	30	11.075	32.601	5.95			50	7.144	32.672	6.36		
30	49	50	7.274	32.674	6.38			75	5.527	32.720	6.25		
29	50	50	7.211	32.675	6.37			100	5.385	32.851	5.83		
28	75	76	5.556	32.721	6.26			150	4.753	33.685	3.67		
27	74	75	5.535	32.720	6.25			200	4.308	33.781	2.65		
26	100	101	5.378	32.834	5.92			300	4.007	33.914	1.60		
25	100	101	5.381	32.847	5.88			400	3.978	34.029	1.14		
24	149	151	4.755	33.686	3.69			500	3.766	34.129	0.71		
23	149	150	4.758	33.686	3.70			600	3.554	34.189	0.49		
22	198	200	4.308	33.780	2.63			800	3.179	34.295	0.35		
21	201	203	4.302	33.782	2.65			1000	2.877	34.374	0.30		
20	299	301	4.007	33.914	1.60			1500	2.301	34.502	0.43		
19	298	300	4.007	33.914	1.60			2000	1.919	34.582	1.06		
18	394	398	3.979	34.028	1.14			2500	1.704	34.625	1.64		
17	396	400	3.981	34.026	1.16			3000	1.574	34.651	2.14		
16	493	498	3.772	34.127	0.71			3500	1.510	34.667	2.51		
15	495	500	3.766	34.129	0.71			4000	1.496	34.676	2.76		
14	743	750	3.268	34.271	0.37			4227	1.508	34.679	2.81		
13	743	750	3.268	34.270	0.37								
12	987	998	2.885	34.372	0.31								
11	989	1000	2.880	34.373	0.30								
10	1481	1499	2.306	34.501	0.43								
9	1482	1500	2.300	34.502	0.43								
8	1974	2001	1.920	34.582	1.06								
7	1973	2000	1.920	34.582	1.06								
6	2463	2499	1.705	34.625	1.63								
5	2464	2500	1.705	34.625	1.64								
4	2951	2997	1.574	34.651	2.13								
3	2951	2997	1.575	34.651	2.13								
2	4151	4229	1.508	34.679	2.80								
1	4150	4227	1.508	34.679	2.80								
Pinger-Bottom			22.4m										

St.19 C1		Date		Aug.27		46 59.20N		Depth		5145m		St.19 C2		Date		Aug.28		46 57.89N		Depth		5127m	
Deep Cast		Time(L)		20:22- 00:07		160 01.16W		CTD		Up		Deep Cast		Time(L)		02:00- 05:31		160 08.01W		CTD(S)		T	
Bottle		Pres		T		P		°C		S		Bottle		Pres		T		P		°C		S	
Depth		db		°C		db		°C		psu		Depth		db		°C		db		°C		psu	
No.		m		14.3		0		14.178		32.958		No.		m		14.4		0		14.178		32.958	
0		0		14.3		0		14.178		32.958		0		0		14.4		0		14.178		32.958	
36		10		14.179		5.24		5.14.178		32.958		36		10		14.179		5.24		5.14.178		32.958	
35		10		14.184		5.23		10.14.171		32.957		35		10		14.184		5.23		10.14.171		32.957	
34		20		14.163		5.25		20.14.160		32.955		34		20		14.163		5.25		20.14.160		32.955	
33		20		14.166		5.27		30.12.447		32.940		33		20		14.166		5.27		30.12.447		32.940	
32		29		13.167		5.58		40.9.012		33.055		32		30		13.167		5.58		40.9.012		33.055	
31		29		12.818		5.76		50.8.242		33.081		31		30		12.818		5.76		50.8.242		33.081	
30		50		8.258		6.31		75.7.021		33.084		30		50		8.258		6.31		75.7.021		33.084	
29		49		8.226		6.30		100.6.728		33.115		29		50		8.226		6.30		100.6.728		33.115	
28		74		7.121		6.13		150.6.626		33.817		28		74		7.121		6.13		150.6.626		33.817	
27		74		7.047		6.13		200.5.739		33.817		27		74		7.047		6.13		200.5.739		33.817	
26		100		6.691		5.97		300.4.656		33.875		26		99		6.691		5.97		300.4.656		33.875	
25		99		6.725		5.95		400.4.238		33.968		25		99		6.725		5.95		400.4.238		33.968	
24		148		6.663		4.44		500.4.057		34.082		24		124		6.663		4.44		500.4.057		34.082	
23		148		6.656		4.43		600.3.844		34.161		23		124		6.656		4.43		600.3.844		34.161	
22		199		5.768		3.77		800.3.362		34.275		22		149		5.768		3.77		800.3.362		34.275	
21		198		5.777		3.76		1000.2.971		34.359		21		149		5.777		3.76		1000.2.971		34.359	
20		299		4.652		2.40		1500.2.330		34.497		20		173		4.652		2.40		1500.2.330		34.497	
19		301		4.655		2.40		2000.1.966		34.578		19		173		4.655		2.40		2000.1.966		34.578	
18		495		4.065		1.08		2500.1.736		34.623		18		198		4.065		1.08		2500.1.736		34.623	
17		495		4.065		1.08		3000.1.589		34.650		17		198		4.065		1.08		3000.1.589		34.650	
16		742		3.485		0.51		3500.1.506		34.667		16		297		3.485		0.51		3500.1.506		34.667	
15		742		3.485		0.51		4000.1.483		34.676		15		297		3.485		0.51		4000.1.483		34.676	
14		989		2.973		0.37		4500.1.509		34.680		14		396		2.973		0.37		4500.1.509		34.680	
13		989		2.973		0.37		5000.1.560		34.682		13		396		2.973		0.37		5000.1.560		34.682	
12		1483		2.331		0.45		5211.1.581		34.682		12		495		2.331		0.45		5211.1.581		34.682	
11		1482		2.331		0.45						11		495		2.331		0.45					
10		1975		1.967		0.86						10		742		1.967		0.86					
9		1974		1.968		0.86						9		742		1.968		0.86					
8		2954		3.000		2.10						8		989		3.000		2.10					
7		2955		3.001		2.09						7		989		3.001		2.09					
6		3929		4.000		2.76						6		1974		4.000		2.76					
5		3929		4.000		2.76						5		1974		4.000		2.76					
4		4903		5.002		2.93						4		2954		5.002		2.93					
3		4901		5.000		2.93						3		2954		5.000		2.93					
2		5107		5213		3.01						2		4901		5107		3.01					
1		5106		5211		2.97						1		4901		5106		2.97					
Pinger-Bottom				40m																			
				14.4																			
				14.179		5.24																	
				14.184		5.23																	
				14.163		5.25																	
				14.166		5.27																	
				13.167		5.58																	
				12.818		5.76																	
				8.258		6.31																	
				8.226		6.30																	
				7.121		6.13																	
				7.047		6.13																	
				6.691		5.97																	
				6.725		5.95																	
				6.663		4.44																	
				6.656		4.43																	
				5.768		3.77																	
				5.777		3.76																	
				4.652		2.40																	
				4.655		2.40																	
				4.065		1.08																	
				3.485		0.51																	
				3.485		0.51																	
				2.973		0.37																	
				2.973		0.37																	
				2.331		0.45																	
				2.331		0.45																	
				1.967		0.86																	
				1.968		0.86																	
				1.588		2.10																	
				1.589		2.09																	
				1.483		2.76																	
				1.484		2.76																	
				1.560		2.93																	
				1.560		2.93																	
				1.582		3.01																	
				1.582		2.97																	