APPENDICES TO WATER QUALITY MONITORING IN MASSACHUSETTS AND CAPE COD BAYS: AUGUST - SEPTEMBER 1994

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APPENDIX A

STATION DATA TABLES AND INSTRUMENT CALIBRATION DATA

Part 1

Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Depth, temperature (Temp), dissolved oxygen (DO), conductivity (Cond), sigma-T, fluorescence (Flu), salinity (Sal), and beam attenuation (Beam) were all obtained electronically from *in situ* readings made during the upcast of vertical profiling, during which water samples were taken by closing bottles. The table values represent a depth-averaged value bracketing the depth interval encompassed by the hydrocast bottle at closing. Dissolved oxygen and fluorescence data represent post-survey calibrated values based on wet chemistry determinations made on a subset of the bottles (Appendix A, Part 2). The other parameters rely on factory calibrations of sensors to calculate values. The dissolved inorganic nutrient data (Table A-1) and additional measurements made at a subset of stations (Table A-2) represent direct analyses of water samples from bottles.

Data from all surveys represented in this report are included in the tables. Table A-1 lists data for the early August nearfield survey, the late August combined farfield/nearfield survey, and the early and late September nearfield surveys. Table A-2 lists data for the combined survey, and the values for analytical replicates of a given bottle.

Note that % saturation for dissolved oxygen has been calculated using an algorithm given on the following page.

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths.

Event	Station	Date	Time (EST)	Depth (M)	Sample id	Temp (C)	Sal (PSU)	DO (mg/L)	Oxy Sat	Oxy Sat (%)	Cond (mmhos/cm) (%)	Sigma t	Flu (ug/L)	Beam (1/M)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
W9410	N01P	08-10-94	0720	26.03	W94100076	9.249	32.093	8.52	9.35	91.10	34.585	24.804	0.7811	0.82748	2.71	0.18	2.92	0.89	7.44
W9410	N01P	08-10-94	0721	18.83	W94100077	12.743	31.817	9.09	8.68	104.68	37.383	23.979	1.3907	0.91713	2.52	0.17	2.74	0.81	6.06
W9410	N01P	08-10-94	0722	11.97	W94100078	14.849	31.786	9.29	8.32	111.72	39.235	23.529	1.8870	1.06744	0.33	0.05	0.56	0.62	7.30
W9410	N01P	08-10-94	0723	6.13	W94100079	15.841	31.601	9.02	8.16	110.54	39.922	23.171	2.2463	1.32095	0.19	0.00	0.11	0.47	3.37
W9410	N01P	08-10-94	0724	1.59	W94100080	16.035	31.542	8.84	8.13	108.71	40.028	23.082	3.1220	1.65102	0.22	0.01	0.16	0.53	3.27
W9410	N02	08-10-94	0746	35.98	W94100089	7.755	31.981	7.99	9.68	82.52	33.190	24.939	0.3767	1.29128	3.61	0.25	4.47	0.98	10.14
W9410	N02	08-10-94	0747	25.16	W94100090	8.654	31.927	8.31	9.49	87.58	33.909	24.766	0.5916	1.05553	3.50	0.25	4.44	0.96	9.18
W9410	N02	08-10-94	0748	16.68	W94100091	13.123	31.872	9.44	8.61	109.62	37.779	23.948	2.1198	1.11280	0.44	0.04	0.52	0.62	4.18
W9410	N02	08-10-94	0749	8.29	W94100092	16.682	31.632	9.20	8.02	114.66	40.722	23.006	1.3436	1.03689	0.23	0.01	0.11	0.48	2.74
W9410	N02	08-10-94	0750	1.70	W94100093	17.409	31.616	8.97	7.91	113.38	41.365	22.824	0.7568	0.96556	0.25	0.01	0.17	0.51	2.39
W9410	N03	08-10-94	0808	39.76	W94100100	8.136	32.045	8.34	9.59	86.93	33.581	24.935	0.4566	0.97827	3.89	0.26	4.97	0.92	8.63
W9410	N03	08-10-94	0810	30.06	W94100101	8.188	32.044	8.37	9.58	87.34	33.620	24.927	0.4553	0.92450	3.89	0.27	5.01	0.92	8.50
W9410	N03	08-10-94	0811	16.99	W94100102	11.634	31.821	9.24	8.89	103.93	36.403	24.189	1.2550	0.94137	2.36	0.21	3.52	0.81	6.70
W9410	N03	08-10-94	0812	8.33	W94100103	15.285	31.741	9.47	8.24	114.86	39.578	23.401	1.0679	0.98696	0.58	0.02	0.15	0.54	3.47
W9410	N03	08-10-94	0813	1.68	W94100104	17.583	31.608	8.90	7.88	112.87	41.515	22.777	0.6998	0.92895	0.20	0.02	0.14	0.52	2.24
W9410	N04P	08-10-94	0831	46.90	W94100111	7.658	32.149	8.17	9.69	84.28	33.268	25.085	0.3336	0.98919	3.55	0.29	5.89	0.99	10.03
W9410	N04P	08-10-94	0833	36.74	W94100112	7.756	32.062	8.35	9.68	86.29	33.267	25.002	0.4063	0.92240	3.36	0.28	5.18	0.97	8.90
W9410	N04P	08-10-94	0835	25.22	W94100113	8.826	32.068	8.73	9.44	92.45	34.193	24.850	0.7503	0.80638	0.22	0.08	1.00	0.64	4.70
W9410	N04P	08-10-94	0837	15.90	W94100114	13.240	31.793	9.41	8.60	109.48	37.799	23.863	2.3647	1.24553	0.24	0.01	0.06	0.51	2.45
W9410	N04P	08-10-94	0838	1.52	W94100115	17.516	31.624	8.77	7.89	111.09	41.472	22.805	0.5844	0.93387	0.69	0.02	0.18	0.52	1.83
W9410	N05	08-10-94	0902	50.10	W94100124	8.109	32.211	8.38	9.59	87.38	33.717	25.069	0.3726	0.88886	3.07	0.28	6.61	1.02	10.05
W9410	N05	08-10-94	0904	37.53	W94100125	8.620	32.107	8.64	9.49	91.09	34.057	24.912	0.5388	0.85548	2.75	0.25	4.25	0.84	6.47
W9410	N05	08-10-94	0905	25.67	W94100126	9.449	31.966	8.79	9.32	94.33	34.636	24.674	1.0490	0.83453	0.62	0.03	0.34	0.55	3.48
W9410	N05	08-10-94	0906	17.63	W94100127	10.593	31.870	9.03	9.09	99.33	35.538	24.410	3.4571	1.44917	0.38	0.03	0.10	0.52	3.18
W9410	N05	08-10-94	0908	1.45	W94100128	17.427	31.693	8.74	7.90	110.57	41.471	22.879	0.4797	0.87905	0.34	0.02	0.08	0.48	2.60
W9410	N06	08-10-94	0929	46.96	W94100137	8.426	32.191	8.47	9.52	88.95	33.973	25.007	0.5335	0.75243	2.82	0.29	5.80	0.92	7.89
W9410	N06	08-10-94	0930	36.20	W94100138	9.320	32.181	8.71	9.33	93.33	34.737	24.862	0.9631	0.77421	2.62	0.21	3.15	0.78	5.67
W9410	N06	08-10-94	0933	16.90	W94100139	10.116	32.028	9.00	9.18	98.06	35.277	24.613	2.8243	1.10978	0.90	0.12	1.60	0.63	4.58
W9410	N06	08-10-94	0934	8.47	W94100140	17.176	31.937	8.92	7.93	112.46	41.528	23.125	0.8827	0.85758	0.21	0.03	0.32	0.50	3.59
W9410	N06	08-10-94	0935	1.64	W94100142	17.820	31.682	8.76	7.85	111.66	41.819	22.777	0.5302	0.89268	0.18	0.01	0.14	0.38	2.54
W9410	N07P	08-10-94	0953	42.49	W94100153	8.236	32.225	8.49	9.56	88.80	33.638	25.061	0.4221	0.86535	2.73	0.27	5.26	0.90	7.42
W9410	N07P	08-10-94	0955	30.40	W94100154	8.791	32.109	8.64	9.45	91.44	34.204	24.888	0.6744	0.82254	2.34	0.17	2.55	0.72	5.13
W9410	N07P	08-10-94	0956	17.71	W94100155	11.462	31.883	9.62	8.92	107.84	36.315	24.269	3.7315	1.47281	0.82	0.11	1.28	0.60	4.55
W9410	N07P	08-10-94	0957	9.06	W94100156	17.312	31.941	8.88	7.91	112.25	41.658	23.096	0.8451	0.84444	0.29	0.02	0.13	0.33	2.56
W9410	N07P	08-10-94	0958	1.68	W94100157	17.992	31.719	8.76	7.82	112.05	42.021	22.764	0.4400	0.85481	0.34	0.02	0.11	0.37	2.57
W9410	N08	08-10-94	1021	27.46	W94100164	8.769	32.049	8.54	9.46	90.31	34.126	24.844	0.5955	0.84564	2.28	0.21	3.18	0.82	5.92
W9410	N08	08-10-94	1022	21.81	W94100165	9.590	31.946	8.56	9.29	92.14	34.738	24.635	0.7250	0.93503	2.50	0.21	3.01	0.77	5.62
W9410	N08	08-10-94	1023	14.36	W94100166	11.420	31.825	9.14	8.93	102.33	36.217	24.230	1.4796	1.03737	0.60	0.10	1.25	0.62	4.63
W9410	N08	08-10-94	1024	7.93	W94100167	16.131	31.568	9.55	8.11	117.69	40.148	23.081	3.0359	1.41559	0.25	0.04	0.27	0.45	3.25
W9410	N08	08-10-94	1025	1.60	W94100168	17.653	31.535	9.55	7.88	121.23	41.492	22.704	1.2229	1.25818	0.43	0.02	0.07	0.38	2.51
W9410	N09	08-10-94	1043	31.86	W94100175	8.917	31.948	8.43	9.43	89.38	34.159	24.742	0.5558	0.87906	2.43	0.23	3.87	0.87	7.51
W9410	N09	08-10-94	1044	24.18	W94100176	10.192	31.878	8.52	9.17	92.90	35.197	24.484	0.7054	0.93215	2.37	0.22	3.39	0.84	7.15
W9410	N09	08-10-94	1045	15.93	W94100177	12.033	31.836	8.85	8.81	100.40	36.771	24.128	1.2917	1.00183	1.60	0.13	1.52	0.76	6.26
W9410	N09	08-10-94	1046	1.66	W94100179	17.765	31.539	9.16	7.86	116.53	41.599	22.681	0.6330	0.97749	0.22	0.05	0.29	0.55	3.74
W9410	N09	08-10-94	1046	8.30	W94100178	15.244	31.627	9.24	8.26	111.90	39.412	23.321	3.0142	1.21672	0.30	0.07	0.44	0.58	4.00
W9410	N10P	08-10-94	0605	15.87	W94100043	15.170	31.590	8.15	8.27	98.53	39.308	23.309	1.7394	1.31218	2.85	0.16	2.17	0.81	7.10
W9410	N10P	08-10-94	0607	9.39	W94100044	15.485	31.570	8.12	8.22	98.78	39.567	23.226	1.7481	1.47197	1.52	0.13	1.30	0.73	5.19
W9410	N10P	08-10-94	0608	5.25	W94100045	15.708	31.561	7.97	8.18	97.39	39.756	23.170	1.7285	1.42962	1.02	0.11	0.92	0.66	4.21
W9410	N10P	08-10-94	0609	1.64	W94100046	16.094	31.532	7.81	8.12	96.15	40.070	23.061	1.8374	1.50171	1.93	0.12	0.95	0.63	4.22
W9410	N11	08-10-94	0634	24.91	W94100053	10.139	31.831	8.16	9.18	88.85	35.104	24.456	0.6151	1.00747	e	e	e	e	e

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths.

Event	Station	Date	Time (EST)	Depth (M)	Sample Id	Temp (C)	Sal (PSU)	DO (mg/L)	Oxy Sat	Oxy Sat (%)	Cond (mmhos/cm) (%)	Sigma t	Flu (ug/L)	Beam (1/M)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
W9410	N11	08-10-94	0636	18.35	W94100054	12.084	31.757	8.46	8.81	96.04	36.735	24.057	1.0132	1.13205	2.94	0.18	2.42	0.85	7.47
W9410	N11	08-10-94	0637	11.90	W94100055	13.878	31.696	8.56	8.49	100.86	38.263	23.661	1.4485	1.16816	2.82	0.17	2.03	0.85	6.88
W9410	N11	08-10-94	0638	1.63	W94100057	16.078	31.476	8.11	8.13	99.78	39.992	23.022	1.9206	1.50967	1.12	0.08	0.23	0.67	5.86
W9410	N11	08-10-94	0638	6.85	W94100056	15.429	31.562	8.35	8.23	101.46	39.506	23.231	1.7213	1.33727	3.38	0.13	1.30	0.70	5.41
W9410	N12	08-10-94	0657	16.09	W94100064	12.412	31.872	9.28	8.74	106.16	37.145	24.085	1.5622	1.05237	2.16	0.15	1.98	0.79	6.94
W9410	N12	08-10-94	0658	12.24	W94100065	14.792	31.740	9.34	8.33	112.16	39.133	23.506	1.7710	1.09076	1.88	0.12	1.32	0.73	6.01
W9410	N12	08-10-94	0659	8.81	W94100066	16.080	31.624	9.16	8.12	112.80	40.165	23.135	1.5172	1.15007	1.05	0.09	0.66	0.64	6.24
W9410	N12	08-10-94	0700	1.75	W94100068	16.131	31.518	8.60	8.12	105.95	40.088	23.043	2.5153	1.55547	0.54	0.08	0.38	0.63	3.58
W9410	N12	08-10-94	0700	3.71	W94100067	16.100	31.516	8.53	8.12	105.02	40.059	23.048	2.4236	1.54928	1.12	0.13	0.78	0.73	3.74
W9410	N13	08-10-94	1211	31.99	W94100211	8.363	31.963	8.25	9.55	86.39	33.695	24.837	0.4465	0.94627	2.41	0.21	3.36	0.88	6.88
W9410	N13	08-10-94	1212	23.93	W94100212	8.856	31.937	8.41	9.44	89.04	34.093	24.743	0.5851	1.10381	2.68	0.19	2.78	0.82	6.88
W9410	N13	08-10-94	1213	14.69	W94100213	12.566	31.771	9.15	8.72	104.94	37.175	23.977	1.7490	1.16518	0.96	0.06	0.67	0.55	3.93
W9410	N13	08-10-94	1214	7.91	W94100214	15.832	31.758	9.28	8.15	113.81	40.092	23.294	1.1898	0.97958	1.05	0.02	0.08	0.57	2.67
W9410	N13	08-10-94	1215	1.71	W94100215	18.057	31.549	9.08	7.82	116.17	41.878	22.618	0.6264	1.02158	0.19	0.03	0.08	0.55	2.28
W9410	N14	08-10-94	1229	32.57	W94100222	8.731	32.090	8.48	9.46	89.62	34.135	24.882	0.5093	0.96030	2.47	0.24	3.84	0.85	6.91
W9410	N14	08-10-94	1230	23.80	W94100223	9.217	31.970	8.64	9.37	92.24	34.438	24.714	0.7826	0.85357	2.51	0.24	3.68	0.85	6.68
W9410	N14	08-10-94	1231	15.80	W94100224	13.259	31.817	9.47	8.59	110.24	37.841	23.879	1.9847	1.20021	1.96	0.13	1.57	0.71	5.30
W9410	N14	08-10-94	1232	7.51	W94100225	17.471	31.665	8.97	7.90	113.55	41.481	22.847	0.7016	0.93186	1.12	0.09	0.62	0.69	4.13
W9410	N14	08-10-94	1233	1.55	W94100226	18.009	31.566	9.10	7.82	116.33	41.855	22.643	0.4648	0.92255	0.77	0.06	0.57	0.61	3.24
W9410	N15	08-10-94	1248	40.82	W94100233	8.478	32.174	8.36	9.51	87.89	34.000	24.986	0.4210	0.72901	2.87	0.28	5.10	0.94	8.13
W9410	N15	08-10-94	1250	30.01	W94100234	8.974	32.088	8.67	9.41	92.13	34.344	24.844	0.6692	0.84798	2.47	0.22	3.09	0.80	6.23
W9410	N15	08-10-94	1251	19.80	W94100235	10.941	31.867	9.32	9.02	103.30	35.841	24.348	3.0248	1.39353	1.38	0.09	0.79	0.64	4.21
W9410	N15	08-10-94	1253	1.60	W94100237	18.065	31.630	8.91	7.81	114.07	41.982	22.678	0.4789	0.92354	0.58	0.03	0.08	0.55	2.07
W9410	N15	08-10-94	1253	8.80	W94100236	17.354	31.757	8.84	7.91	111.72	41.482	22.945	0.7443	0.89640	0.47	0.03	0.14	0.44	2.84
W9410	N16P	08-10-94	1309	40.25	W94100244	8.483	32.228	8.29	9.51	87.20	34.054	25.027	0.4480	0.88635	2.75	0.28	4.93	0.94	9.49
W9410	N16P	08-10-94	1310	29.16	W94100245	9.006	31.988	8.61	9.41	91.50	34.274	24.760	0.6427	0.73814	2.68	0.25	3.90	0.87	6.78
W9410	N16P	08-10-94	1311	18.73	W94100246	10.576	31.931	9.12	9.09	100.32	35.584	24.460	3.9747	1.50271	0.54	0.13	1.48	0.68	4.60
W9410	N16P	08-10-94	1312	9.95	W94100247	17.097	31.834	8.96	7.95	112.72	41.337	23.065	0.8575	0.83721	0.38	0.03	0.12	0.48	3.15
W9410	N16P	08-10-94	1313	1.66	W94100248	18.141	31.559	8.72	7.80	111.76	41.968	22.606	0.4546	0.86062	0.66	0.03	0.10	0.44	2.67
W9410	N17	08-10-94	1335	36.36	W94100257	8.368	32.176	8.35	9.54	87.57	33.904	25.004	0.4139	0.86296	2.52	0.25	3.71	0.83	6.50
W9410	N17	08-10-94	1336	26.94	W94100258	8.744	32.076	8.52	9.46	90.06	34.130	24.869	0.5634	0.86089	2.12	0.18	2.44	0.72	5.88
W9410	N17	08-10-94	1337	16.19	W94100259	11.943	31.880	9.71	8.83	109.98	36.737	24.179	2.6441	1.48194	0.36	0.11	1.31	0.64	4.42
W9410	N17	08-10-94	1338	8.52	W94100260	17.759	31.766	8.87	7.85	112.98	41.865	22.856	0.8810	0.94697	0.15	0.02	0.09	0.42	2.85
W9410	N17	08-10-94	1339	1.66	W94100261	18.385	31.657	8.91	7.76	114.79	42.309	22.621	0.5102	0.87710	0.17	0.02	0.09	0.45	2.22
W9410	N18	08-10-94	1408	24.02	W94100268	9.519	31.985	8.61	9.30	92.56	34.715	24.677	0.7705	0.77976	2.20	0.22	2.68	0.77	5.90
W9410	N18	08-10-94	1409	17.79	W94100269	10.140	31.940	8.90	9.18	96.97	35.211	24.541	1.1359	0.93338	2.40	0.25	3.02	0.81	6.30
W9410	N18	08-10-94	1411	12.04	W94100270	12.772	31.795	9.42	8.68	108.53	37.383	23.956	1.9789	1.12261	1.04	0.15	1.04	0.69	5.30
W9410	N18	08-10-94	1412	1.58	W94100272	17.951	31.545	9.28	7.83	118.49	41.776	22.641	0.8797	1.05294	0.42	0.05	0.12	0.38	2.44
W9410	N18	08-10-94	1412	6.57	W94100271	16.466	31.576	9.64	8.06	119.59	40.460	23.012	2.6054	1.31122	0.41	0.04	0.14	0.47	3.07
W9410	N19	08-10-94	1127	23.53	W94100188	9.579	31.924	8.46	9.29	91.03	34.708	24.620	0.5761	1.03663	0.45	0.06	0.13	0.19	6.05
W9410	N19	08-10-94	1128	18.44	W94100189	11.617	31.864	9.31	8.89	104.70	36.434	24.226	1.2926	1.04702	1.35	0.15	1.35	0.71	8.97
W9410	N19	08-10-94	1129	9.99	W94100190	14.658	31.610	9.32	8.36	111.53	38.868	23.433	3.4216	1.42991	0.84	0.09	0.36	0.60	4.04
W9410	N19	08-10-94	1130	1.65	W94100192	17.881	31.571	9.19	7.84	117.20	41.743	22.677	0.5426	0.95909	0.59	0.05	0.14	0.57	2.90
W9410	N19	08-10-94	1130	5.23	W94100191	17.589	31.563	9.34	7.89	118.44	41.468	22.741	0.9192	1.04331	1.00	0.10	0.17	0.54	3.86
W9410	N20P	08-10-94	1145	29.51	W94100199	9.061	32.066	8.54	9.39	90.91	34.397	24.813	0.5590	0.81720	2.16	0.24	3.06	0.83	6.23
W9410	N20P	08-10-94	1146	23.39	W94100200	9.441	31.974	8.57	9.32	91.96	34.636	24.681	0.6364	0.90006	1.76	0.20	2.02	0.73	5.50
W9410	N20P	08-10-94	1148	10.77	W94100201	13.517	31.695	9.43	8.55	110.28	37.939	23.733	2.8497	1.29667	1.33	0.11	0.71	0.66	4.04
W9410	N20P	08-10-94	1149	1.63	W94100203	17.761	31.619	9.03	7.86	114.93	41.690	22.743	0.5618	0.99096	0.70	0.05	0.22	0.50	2.41
W9410	N20P	08-10-94	1149	5.91	W94100202	16.543	31.593	9.61	8.05	119.41	40.549	23.007	1.7815	1.23513	0.81	0.09	0.43	0.65	3.71
W9410	N21	08-10-94	1427	32.09	W94100280	8.927	32.139	8.47	9.42	89.94	34.352	24.891	0.6070	0.70903	2.52	0.29	4.36	0.89	7.17

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths.

Event	Station	Date	Time (EST)	Depth (M)	Sample id	Temp (C)	Sal (PSU)	DO (mg/L)	Oxy Sat	Oxy Sat (%)	Cond (mmhos/cm) (%)	Sigma t	Flu (ug/L)	Beam (1/M)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
W9410	N21	08-10-94	1428	24.01	W94100281	9.185	32.050	8.49	9.37	90.62	34.488	24.781	0.8262	0.81980	2.12	0.23	3.04	0.78	6.10
W9410	N21	08-10-94	1429	15.62	W94100282	12.148	31.799	9.47	8.79	107.68	36.834	24.078	2.3897	1.29576	0.28	0.04	0.21	0.55	3.73
W9410	N21	08-10-94	1430	8.14	W94100283	15.488	31.708	9.32	8.21	113.48	39.724	23.331	1.7632	1.12096	0.42	0.05	0.11	0.39	2.31
W9410	N21	08-10-94	1431	1.75	W94100284	17.872	31.590	9.16	7.84	116.81	41.758	22.694	0.6073	1.00499	0.41	0.05	0.30	0.45	3.03
W9411	F01P	08-25-94	0918	21.71	W94110543	12.463	31.810	7.30	8.74	83.56	37.127	24.027	1.6680	1.19630	1.77	0.49	1.75	0.68	4.74
W9411	F01P	08-25-94	0919	16.26	W94110544	17.191	31.611	7.96	7.95	100.19	41.165	22.872	3.9213	1.08623	0.46	0.18	0.55	0.48	2.07
W9411	F01P	08-25-94	0920	10.54	W94110545	17.639	31.607	8.08	7.88	102.58	41.567	22.763	3.0514	1.12814	0.13	0.04	0.14	0.37	0.40
W9411	F01P	08-25-94	0921	6.04	W94110546	17.784	31.606	8.19	7.85	104.27	41.698	22.728	1.9799	1.07309	0.12	0.03	0.10	0.35	0.21
W9411	F01P	08-25-94	0922	1.82	W94110547	17.898	31.605	8.13	7.84	103.74	41.798	22.699	0.9699	1.03824	0.14	0.03	0.15	0.35	0.26
W9411	F02P	08-25-94	0730	26.71	W94110517	10.483	31.852	6.27	9.11	68.79	35.427	24.415	0.8434	1.58916	0.53	0.06	0.07	0.33	13.44
W9411	F02P	08-25-94	0731	19.69	W94110519	14.322	31.753	7.50	8.41	89.21	38.727	23.614	2.4778	1.02382	0.16	0.11	1.13	0.22	11.67
W9411	F02P	08-25-94	0734	15.43	W94110520	15.977	31.673	7.89	8.13	96.99	40.131	23.196	3.2141	1.01219	0.12	0.06	0.09	0.21	1.10
W9411	F02P	08-25-94	0735	8.38	W94110521	17.766	31.593	8.01	7.86	101.94	41.666	22.722	1.9859	0.99229	0.11	0.03	0.10	0.23	0.39
W9411	F02P	08-25-94	0737	1.75	W94110522	17.811	31.595	8.05	7.85	102.54	41.707	22.712	1.1588	0.96306	0.13	0.04	0.09	0.17	0.24
W9411	F03	08-25-94	1028	13.14	W94110557	16.465	31.574	8.54	8.06	105.94	40.460	23.011	3.2932	1.08185	0.18	0.05	0.13	0.28	1.30
W9411	F03	08-25-94	1029	10.12	W94110558	16.815	31.536	8.52	8.01	106.40	40.732	22.902	3.1161	1.14149	0.15	0.03	0.12	0.24	0.85
W9411	F03	08-25-94	1030	6.87	W94110559	17.136	31.479	8.62	7.96	108.29	40.956	22.783	3.3350	1.34222	0.17	0.03	0.12	0.20	0.69
W9411	F03	08-25-94	1031	3.71	W94110560	17.174	31.456	8.61	7.96	108.23	40.963	22.757	2.3993	1.36255	0.16	0.04	0.09	0.23	0.50
W9411	F03	08-25-94	1032	1.64	W94110561	17.462	31.414	8.44	7.91	106.66	41.175	22.657	1.3731	1.31218	0.16	0.03	0.11	0.24	0.54
W9411	F05	08-25-94	1211	17.07	W94110576	12.689	31.888	7.54	8.69	86.77	37.409	24.044	1.2135	1.11298	0.33	0.23	0.10	0.38	6.86
W9411	F05	08-25-94	1212	12.67	W94110577	14.499	31.548	7.68	8.39	91.57	38.658	23.419	3.1569	1.34388	0.66	0.39	0.70	0.45	5.47
W9411	F05	08-25-94	1213	11.18	W94110578	15.512	31.318	8.50	8.23	103.30	39.308	23.026	5.9617	1.67292	0.60	0.05	0.16	0.38	1.59
W9411	F05	08-25-94	1214	5.87	W94110579	16.605	31.234	8.93	8.06	110.86	40.191	22.718	4.6980	2.04366	0.11	0.04	0.09	0.16	1.38
W9411	F05	08-25-94	1215	1.94	W94110580	16.913	31.269	8.65	8.00	108.06	40.508	22.674	2.4377	1.63602	0.29	0.03	0.11	0.34	1.34
W9411	F06	08-25-94	1302	29.99	W94110589	9.143	32.108	7.63	9.37	81.40	34.510	24.833	0.5532	1.06362	1.97	0.61	5.98	0.95	8.46
W9411	F06	08-25-94	1303	20.03	W94110590	12.308	31.835	7.74	8.76	88.32	37.016	24.076	1.3220	1.18947	2.04	0.56	3.73	0.86	7.06
W9411	F06	08-25-94	1304	11.52	W94110591	14.798	31.775	8.35	8.32	100.31	39.177	23.531	2.3871	1.11125	0.62	0.20	1.14	0.47	3.52
W9411	F06	08-25-94	1305	5.76	W94110592	16.045	31.505	8.91	8.13	109.57	39.997	23.052	5.1286	1.68148	0.21	0.04	0.25	0.24	1.69
W9411	F06	08-25-94	1306	1.98	W94110593	16.216	31.338	10.01	8.11	123.39	39.959	22.885	3.8676	2.05693	0.20	0.03	0.22	0.26	1.63
W9411	F07	08-25-94	1340	53.74	W94110605	7.800	32.313	7.78	9.65	80.61	33.547	25.193	0.3476	1.97325	0.16	0.04	8.07	0.73	10.97
W9411	F07	08-25-94	1341	38.35	W94110606	7.871	32.305	7.74	9.64	80.32	33.595	25.177	0.3583	2.11678	0.28	0.21	10.68	1.07	11.05
W9411	F07	08-25-94	1343	22.93	W94110607	9.740	32.418	8.25	9.23	89.37	35.332	24.980	0.6599	1.62184	0.16	0.25	7.80	0.81	6.88
W9411	F07	08-25-94	1344	2.28	W94110609	17.458	31.798	8.43	7.90	106.78	41.623	22.952	0.6609	1.04736	0.60	0.03	0.27	0.27	2.05
W9411	F07	08-25-94	1344	13.56	W94110608	13.197	32.030	8.89	8.59	103.49	38.013	24.055	3.0157	1.49609	0.41	0.17	1.90	0.43	3.67
W9411	F10	08-25-94	1516	33.36	W94110640	9.647	32.064	7.54	9.27	81.33	34.908	24.718	0.5137	0.95645	2.41	0.63	5.95	1.00	8.02
W9411	F10	08-25-94	1517	24.26	W94110641	11.003	31.910	7.09	9.01	78.71	35.940	24.370	0.7458	1.01358	2.80	0.67	5.82	1.05	8.13
W9411	F10	08-25-94	1518	14.19	W94110642	14.647	31.558	8.17	8.36	97.71	38.802	23.396	2.9824	1.17874	0.67	0.20	1.25	0.55	3.85
W9411	F10	08-25-94	1519	7.96	W94110643	16.345	31.678	8.77	8.08	108.61	40.467	23.117	3.2039	1.26327	0.16	0.01	0.15	0.29	1.95
W9411	F10	08-25-94	1520	2.30	W94110644	17.465	31.624	8.72	7.90	110.35	41.425	22.817	1.4817	1.20652	0.16	0.01	0.19	0.27	1.75
W9411	F12	08-24-94	1522	88.00	W94110431	5.405	32.320	8.37	10.21	81.97	31.516	25.507	0.2404	2.51057	0.25	0.09	11.31	1.07	13.16
W9411	F12	08-24-94	1524	61.35	W94110432	5.997	32.308	8.33	10.07	82.74	31.996	25.427	0.2623	2.26327	1.26	0.09	5.63	0.66	11.09
W9411	F12	08-24-94	1526	31.51	W94110433	8.546	32.219	8.40	9.49	88.47	34.097	25.011	0.6168	1.44561	0.23	0.20	7.29	0.80	7.04
W9411	F12	08-24-94	1527	13.54	W94110434	14.749	31.786	8.69	8.33	104.29	39.145	23.550	3.9103	1.34573	0.30	0.02	0.18	0.33	2.41
W9411	F12	08-24-94	1528	2.07	W94110435	15.854	31.740	8.99	8.15	110.29	40.090	23.275	1.6423	1.39521	0.51	0.02	0.16	0.27	2.00
W9411	F13P	08-25-94	1603	23.44	W94110651	11.630	31.798	6.46	8.89	72.64	36.379	24.172	0.7414	1.61739	3.51	0.59	4.49	1.11	8.75
W9411	F13P	08-25-94	1604	18.34	W94110652	14.226	31.558	7.57	8.43	89.76	38.427	23.484	1.4987	1.08517	3.14	0.49	3.35	0.95	6.91
W9411	F13P	08-25-94	1605	12.99	W94110654	15.988	31.625	8.40	8.14	103.26	40.084	23.157	2.6352	1.02401	0.82	0.11	0.67	0.50	2.98
W9411	F13P	08-25-94	1608	5.14	W94110655	16.574	31.357	8.99	8.05	111.62	40.306	22.819	5.7756	1.79331	0.35	0.14	0.66	0.43	2.85
W9411	F13P	08-25-94	1609	2.18	W94110656	16.608	31.207	8.76	8.06	108.74	40.162	22.696	5.5002	1.80920	0.73	0.31	1.63	0.64	3.61
W9411	F14	08-23-94	1713	15.48	W94110228	14.436	31.402	7.42	8.41	88.28	38.442	23.320	2.1801	2.27866	3.55	0.39	2.61	0.92	5.57

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths.

Event	Station	Date	Time (EST)	Depth (M)	Sample id	Temp (C)	Sal (PSU)	DO (mg/L)	Oxy Sat	Oxy Sat (%)	Cond (mmhos/cm) (%)	Sigma t	Flu (ug/L)	Beam (1/M)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
W9411	F14	08-23-94	1714	11.76	W94110229	14.963	31.377	8.21	8.32	98.71	38.884	23.190	3.2106	1.44517	2.42	0.30	1.89	0.74	4.14
W9411	F14	08-23-94	1715	8.88	W94110230	15.102	31.295	7.99	8.30	96.29	38.915	23.097	3.1009	1.76064	2.90	0.32	1.97	0.81	4.14
W9411	F14	08-23-94	1716	6.48	W94110231	15.112	31.252	7.74	8.30	93.27	38.875	23.062	4.3706	1.92960	3.07	0.40	2.36	0.90	4.59
W9411	F14	08-23-94	1717	2.20	W94110232	15.489	31.173	7.88	8.24	95.64	39.121	22.919	4.3538	1.83011	3.51	0.43	2.70	0.93	4.76
W9411	F15	08-23-94	1630	31.88	W94110213	9.573	32.042	7.19	9.29	77.41	34.822	24.713	0.7392	1.11948	3.24	0.68	5.29	1.00	9.05
W9411	F15	08-23-94	1632	23.73	W94110214	9.742	32.037	7.30	9.25	78.89	34.961	24.682	0.7788	0.94160	3.35	0.71	5.53	1.03	10.12
W9411	F15	08-23-94	1633	17.37	W94110215	11.959	31.903	7.85	8.82	88.95	36.775	24.193	1.3425	0.89485	2.00	0.47	3.07	0.74	9.10
W9411	F15	08-23-94	1634	9.93	W94110216	15.609	31.419	8.56	8.21	104.30	39.508	23.082	4.4910	1.44041	0.80	0.16	0.94	0.44	2.79
W9411	F15	08-23-94	1635	2.25	W94110217	15.931	31.434	8.86	8.15	108.66	39.812	23.023	5.0435	1.57749	0.23	0.03	0.15	0.35	1.34
W9411	F16	08-23-94	1547	54.44	W94110201	8.269	32.300	7.64	9.55	80.01	33.944	25.116	0.3171	0.95914	0.97	0.41	9.53	0.99	10.04
W9411	F16	08-23-94	1549	40.47	W94110202	8.306	32.304	7.66	9.54	80.28	33.974	25.114	0.3152	0.83986	0.83	0.41	9.55	0.95	10.11
W9411	F16	08-23-94	1550	27.52	W94110203	8.901	32.327	7.78	9.41	82.66	34.508	25.042	0.4069	0.69754	0.65	0.14	3.68	0.59	8.23
W9411	F16	08-23-94	1555	2.48	W94110206	16.169	31.636	8.37	8.11	103.27	40.257	23.125	1.7984	1.11873	0.27	0.02	0.16	0.25	1.42
W9411	F17	08-23-94	1450	73.28	W94110181	7.810	32.431	8.00	9.64	82.97	33.675	25.285	0.2467	1.32958	0.19	0.15	10.63	1.03	11.30
W9411	F17	08-23-94	1451	44.62	W94110182	8.317	32.359	7.91	9.54	82.96	34.037	25.155	0.2820	0.95479	0.21	0.19	10.21	1.01	10.24
W9411	F17	08-23-94	1454	15.02	W94110183	13.991	31.959	8.81	8.45	104.22	38.651	23.841	2.6245	1.08716	0.23	0.09	0.53	0.42	3.24
W9411	F17	08-23-94	1455	8.54	W94110184	14.074	31.938	8.72	8.44	103.31	38.702	23.808	2.7081	1.07465	0.35	0.10	0.68	0.43	3.38
W9411	F17	08-23-94	1456	2.45	W94110185	13.999	31.930	8.66	8.45	102.44	38.623	23.817	1.5752	1.08863	0.17	0.11	0.84	0.39	3.39
W9411	F18	08-23-94	0815	21.55	W94110083	10.465	31.963	7.84	9.11	86.05	35.520	24.505	0.7337	0.83209	3.17	0.58	4.60	0.96	8.45
W9411	F18	08-23-94	0816	15.03	W94110084	14.518	31.452	8.25	8.39	98.34	38.570	23.341	1.8459	1.26503	1.67	0.17	1.23	0.62	3.68
W9411	F18	08-23-94	0817	8.97	W94110085	16.030	31.376	8.73	8.14	107.24	39.838	22.956	2.8214	1.14182	0.47	0.05	0.34	0.38	1.95
W9411	F18	08-23-94	0818	5.09	W94110086	16.102	31.388	8.67	8.13	106.66	39.916	22.949	2.7503	1.15243	0.30	0.05	0.27	0.38	1.96
W9411	F18	08-23-94	0819	2.31	W94110087	16.121	31.390	8.62	8.13	106.09	39.933	22.946	2.0376	1.15518	0.23	0.04	0.30	0.36	1.92
W9411	F19	08-23-94	1335	73.12	W94110168	6.337	32.384	7.95	9.98	79.64	32.360	25.445	0.2300	1.38136	0.81	0.09	12.77	1.06	15.06
W9411	F19	08-23-94	1337	46.93	W94110169	8.384	32.528	8.04	9.51	84.54	34.257	25.278	0.2397	1.03180	0.76	0.08	9.82	0.89	8.11
W9411	F19	08-23-94	1339	20.14	W94110170	11.827	32.308	9.08	8.83	102.86	37.078	24.532	2.3070	0.99125	1.26	0.21	0.76	0.42	3.29
W9411	F19	08-23-94	1340	10.28	W94110171	16.258	31.900	8.42	8.08	104.23	40.644	23.308	2.1504	1.09357	1.19	0.04	0.19	0.28	2.43
W9411	F19	08-23-94	1341	2.87	W94110172	16.540	31.885	8.21	8.03	102.19	40.882	23.232	1.1262	1.05157	1.21	0.04	0.20	0.28	2.54
W9411	F22	08-24-94	1040	76.04	W94110379	5.459	32.345	7.89	10.20	77.39	31.577	25.520	0.2242	1.79674	0.05	0.10	13.24	1.15	16.07
W9411	F22	08-24-94	1042	57.67	W94110380	6.442	32.347	8.19	9.96	82.23	32.410	25.403	0.2915	1.80250	0.03	0.05	12.31	1.06	12.47
W9411	F22	08-24-94	1043	39.43	W94110381	9.254	32.547	8.15	9.32	87.41	35.037	25.159	0.3624	1.20376	0.06	0.06	9.34	0.87	6.17
W9411	F22	08-24-94	1044	19.16	W94110382	16.216	31.912	8.41	8.08	104.03	40.622	23.327	2.2832	1.13761	0.70	0.05	0.48	0.31	3.12
W9411	F22	08-24-94	1045	2.31	W94110383	16.859	31.852	8.33	7.99	104.32	41.135	23.133	0.6838	0.99568	0.02	0.01	0.16	0.22	2.55
W9411	F23P	08-23-94	0637	21.33	W94110054	15.372	30.685	6.96	8.28	84.02	38.474	22.570	1.8561	2.27771	2.65	0.53	3.45	0.64	6.86
W9411	F23P	08-23-94	0638	17.04	W94110055	15.441	30.636	6.95	8.27	83.99	38.477	22.517	1.7579	2.43478	3.34	0.57	3.67	0.75	7.08
W9411	F23P	08-23-94	0640	11.71	W94110056	15.462	30.621	6.95	8.27	84.02	38.478	22.501	1.7637	2.46565	3.95	0.56	4.03	0.80	7.34
W9411	F23P	08-23-94	0642	5.80	W94110057	15.678	30.351	6.91	8.25	83.76	38.358	22.246	1.7984	2.57143	5.32	0.60	4.44	1.01	7.93
W9411	F23P	08-23-94	0643	2.20	W94110058	15.892	30.035	6.88	8.23	83.60	38.183	21.957	1.9586	2.47527	5.28	0.60	4.71	1.00	8.20
W9411	F23P	08-24-94	0643	17.38	W94110300	15.667	30.714	6.87	8.23	83.44	38.766	22.528	1.7554	2.12850	9.93	0.47	3.06	1.26	6.73
W9411	F23P	08-24-94	0644	12.72	W94110301	15.722	30.674	6.86	8.23	83.39	38.767	22.485	1.7183	2.17309	9.83	0.47	3.02	1.31	6.62
W9411	F23P	08-24-94	0645	8.64	W94110302	15.990	30.436	6.72	8.19	82.01	38.728	22.243	1.8398	2.33562	10.03	0.50	3.00	1.21	6.61
W9411	F23P	08-24-94	0646	5.20	W94110303	16.349	29.721	6.67	8.17	81.63	38.218	21.615	1.7950	2.43239	11.34	0.59	4.23	1.44	8.47
W9411	F23P	08-24-94	0647	2.52	W94110304	16.479	29.426	6.65	8.16	81.45	37.986	21.360	1.8399	2.34529	11.78	0.66	4.92	1.47	9.61
W9411	F24	08-23-94	0724	17.62	W94110070	14.547	31.166	7.84	8.40	93.35	38.282	23.115	1.9537	1.45161	6.65	0.38	2.53	1.02	5.40
W9411	F24	08-23-94	0725	12.34	W94110071	14.805	30.989	7.56	8.36	90.39	38.311	22.925	1.7784	1.95240	8.08	0.40	2.56	1.09	5.65
W9411	F24	08-23-94	0726	8.27	W94110072	14.916	30.923	7.37	8.35	88.28	38.334	22.850	1.7283	2.09741	8.81	0.43	2.76	1.09	5.97
W9411	F24	08-23-94	0727	4.15	W94110073	15.026	30.865	7.37	8.33	88.45	38.366	22.782	1.8319	2.07794	8.96	0.45	2.84	1.20	6.20
W9411	F24	08-23-94	0729	1.82	W94110074	15.019	30.862	7.35	8.33	88.19	38.355	22.781	1.6667	2.13850	8.78	0.43	2.87	1.12	6.08
W9411	F25	08-23-94	1827	11.26	W94110261	15.848	30.975	7.06	8.19	86.20	39.220	22.688	2.4565	2.16053	9.56	0.59	4.04	1.34	6.82
W9411	F25	08-23-94	1830	7.96	W94110262	15.852	30.974	7.07	8.19	86.33	39.222	22.687	2.4348	2.14109	9.55	0.57	4.11	1.31	6.81

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths.

Event	Station	Date	Time (EST)	Depth (M)	Sample id	Temp (C)	Sal (PSU)	DO (mg/L)	Oxy Sat	Oxy Sat (%)	Cond (mmhos/cm) (%)	Sigma t	Flu (ug/L)	Beam (1/M)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
W9411	F25	08-23-94	1832	6.31	W94110263	15.857	30.973	7.10	8.19	86.70	39.223	22.685	2.4093	2.12169	9.43	0.56	3.99	1.23	6.65
W9411	F25	08-23-94	1833	1.82	W94110265	15.878	30.969	7.00	8.19	85.52	39.235	22.677	2.4907	2.18341	9.25	0.55	4.01	1.23	6.70
W9411	F25	08-23-94	1833	4.02	W94110264	15.860	30.972	7.05	8.19	86.10	39.224	22.683	2.4512	2.18682	9.53	0.57	4.09	1.31	6.81
W9411	F26	08-24-94	1158	49.88	W94110392	8.696	32.431	7.92	9.45	83.82	34.439	25.155	0.2949	1.65310	0.33	0.21	10.22	0.94	9.86
W9411	F26	08-24-94	1159	35.79	W94110393	9.387	32.300	7.90	9.31	84.84	34.912	24.945	0.4302	1.03535	0.26	0.24	9.34	0.90	8.72
W9411	F26	08-24-94	1200	20.53	W94110394	12.867	31.864	8.18	8.66	94.47	37.544	23.992	1.5217	1.05650	0.99	0.42	3.33	0.70	6.21
W9411	F26	08-24-94	1201	10.70	W94110395	15.828	31.598	8.60	8.16	105.36	39.908	23.172	2.8971	1.24019	0.38	0.03	0.15	0.41	3.78
W9411	F26	08-24-94	1202	2.08	W94110396	16.055	31.119	8.78	8.15	107.74	39.565	22.753	1.2090	1.43306	0.36	0.02	0.16	0.44	4.29
W9411	F27B	08-24-94	1301	104.48	W94110404	7.552	32.636	8.16	9.69	84.24	33.655	25.483	0.2226	1.53981	0.24	0.08	11.70	0.94	9.72
W9411	F27B	08-24-94	1303	75.49	W94110405	8.281	32.579	7.87	9.53	82.58	34.227	25.333	0.2058	0.98588	0.17	0.04	11.47	0.92	8.78
W9411	F27B	08-24-94	1304	51.61	W94110406	8.825	32.517	7.87	9.42	83.58	34.634	25.202	0.3019	0.79509	0.64	0.06	10.32	0.86	7.73
W9411	F27B	08-24-94	1305	24.47	W94110407	13.535	32.192	8.56	8.52	100.45	38.496	24.114	2.5386	0.98231	0.20	0.07	1.21	0.23	3.28
W9411	F27B	08-24-94	1307	2.05	W94110408	17.291	31.969	8.28	7.91	104.64	41.669	23.122	0.6652	0.92517	0.24	0.03	0.11	0.16	2.41
W9411	F28	08-24-94	1426	28.40	W94110419	8.973	32.265	8.84	9.40	94.04	34.512	24.982	0.6898	0.73478	0.26	0.18	7.26	0.76	6.94
W9411	F28	08-24-94	1427	19.75	W94110420	13.981	31.971	8.97	8.45	106.09	38.658	23.853	2.5634	1.06158	0.19	0.11	2.62	0.48	4.32
W9411	F28	08-24-94	1428	14.75	W94110421	14.863	31.981	8.98	8.30	108.15	39.465	23.676	3.4497	1.22041	0.21	0.04	0.63	0.36	3.09
W9411	F28	08-24-94	1429	6.83	W94110422	15.885	31.934	8.96	8.14	110.12	40.340	23.417	1.6001	1.13036	0.20	0.02	0.17	0.30	2.59
W9411	F28	08-24-94	1430	1.99	W94110423	16.816	31.966	8.70	7.99	108.93	41.228	23.231	0.8294	0.98996	0.17	0.01	0.20	0.31	2.50
W9411	F29	08-24-94	1722	59.05	W94110444	7.669	32.315	7.99	9.68	82.54	33.439	25.214	0.3954	2.18456	0.82	0.36	10.77	0.97	10.70
W9411	F29	08-24-94	1723	39.81	W94110445	8.207	32.187	7.82	9.57	81.72	33.775	25.036	0.4461	2.13321	0.73	0.75	9.86	0.96	10.20
W9411	F29	08-24-94	1724	25.25	W94110446	9.163	32.156	8.02	9.37	85.62	34.571	24.867	0.7105	1.17897	1.06	0.65	7.53	0.82	7.26
W9411	F29	08-24-94	1725	12.58	W94110447	14.734	31.843	8.55	8.33	102.62	39.194	23.597	3.4205	1.28249	0.25	0.04	0.12	0.20	3.58
W9411	F29	08-24-94	1726	2.00	W94110448	16.187	31.731	9.05	8.10	111.76	40.382	23.194	3.5120	1.37101	0.22	0.03	0.12	0.15	2.01
W9411	F30B	08-23-94	0540	8.33	W94110035	15.528	30.793	6.70	8.25	81.19	38.729	22.619	1.6309	3.22750	11.87	0.67	4.23	1.49	8.22
W9411	F30B	08-23-94	0542	4.19	W94110036	15.934	30.543	6.72	8.20	81.97	38.800	22.338	1.8539	2.36493	11.26	0.63	3.93	1.36	7.66
W9411	F30B	08-23-94	0543	1.87	W94110037	18.738	28.696	6.05	7.85	77.10	39.038	20.275	1.7631	1.89259	13.73	0.79	5.63	1.54	9.87
W9411	F31B	08-23-94	1904	12.38	W94110276	16.193	30.881	6.95	8.14	85.39	39.420	22.540	2.9412	2.37942	11.46	0.65	4.56	1.41	7.17
W9411	F31B	08-23-94	1906	8.30	W94110278	16.426	30.815	6.90	8.10	85.14	39.550	22.437	3.0748	2.60141	11.03	0.63	4.43	1.36	6.97
W9411	F31B	08-23-94	1907	2.28	W94110279	16.624	30.706	6.78	8.08	83.93	39.596	22.308	2.9888	2.91030	14.70	0.68	4.60	1.52	7.57
W9411	N01P	08-24-94	0738	26.85	W94110318	9.383	32.016	7.23	9.33	77.50	34.629	24.723	0.5054	1.20175	3.35	0.49	4.46	0.89	9.03
W9411	N01P	08-24-94	0739	20.20	W94110319	14.475	31.554	7.78	8.39	92.72	38.646	23.429	1.4869	0.97591	2.22	0.28	2.25	0.67	5.44
W9411	N01P	08-24-94	0740	12.15	W94110320	16.033	31.472	8.41	8.14	103.38	39.951	23.029	2.9444	1.22616	0.54	0.05	0.18	0.32	2.15
W9411	N01P	08-24-94	0741	5.43	W94110321	16.065	31.424	8.45	8.13	103.90	39.923	22.986	3.4400	1.39005	0.69	0.05	0.14	0.38	2.12
W9411	N01P	08-24-94	0742	2.35	W94110322	16.078	31.375	8.44	8.13	103.78	39.877	22.945	3.0316	1.44307	0.76	0.04	0.15	0.33	1.94
W9411	N01P	08-26-94	0755	25.32	W94110718	9.037	32.071	6.96	9.40	74.06	34.379	24.820	0.4305	1.19297	3.77	0.59	6.98	1.22	12.69
W9411	N01P	08-26-94	0756	19.48	W94110719	10.616	31.958	7.13	9.08	78.51	35.647	24.475	0.7596	1.02970	3.87	0.58	5.81	1.13	10.97
W9411	N01P	08-26-94	0758	14.79	W94110720	12.316	31.881	7.59	8.76	86.65	37.069	24.110	1.3562	0.95067	2.80	0.45	3.42	0.92	7.46
W9411	N01P	08-26-94	0759	7.13	W94110721	16.114	31.602	8.31	8.12	102.39	40.171	23.111	2.4720	1.01136	0.59	0.05	0.40	0.44	2.76
W9411	N01P	08-26-94	0800	1.47	W94110722	16.661	31.401	8.21	8.04	102.14	40.434	22.833	2.4552	1.42463	0.54	0.05	0.28	0.46	2.79
W9411	N02	08-26-94	0825	34.13	W94110733	8.647	32.135	7.11	9.48	75.02	34.106	24.930	0.3861	1.44343	2.39	0.51	6.72	1.06	10.62
W9411	N02	08-26-94	0826	23.88	W94110734	10.299	32.124	7.70	9.14	84.29	35.536	24.658	0.7382	0.80991	1.74	0.53	7.01	1.04	9.85
W9411	N02	08-26-94	0827	14.96	W94110735	14.000	31.857	8.43	8.46	99.68	38.549	23.760	2.9301	1.05143	0.73	0.20	1.21	0.58	4.27
W9411	N02	08-26-94	0828	6.39	W94110736	16.797	31.564	8.52	8.01	106.38	40.746	22.927	2.9136	1.28877	0.42	0.01	0.07	0.33	2.20
W9411	N02	08-26-94	0829	1.54	W94110737	16.998	31.559	8.47	7.98	106.17	40.922	22.876	1.4816	1.16676	0.50	0.01	0.08	0.35	2.29
W9411	N03	08-26-94	0857	40.83	W94110748	9.331	32.288	7.66	9.32	82.16	34.853	24.944	0.4224	0.84275	0.70	0.44	8.04	1.02	9.21
W9411	N03	08-26-94	0859	30.35	W94110749	9.643	32.256	7.75	9.26	83.69	35.092	24.870	0.5185	0.76546	0.60	0.47	7.26	0.97	8.22
W9411	N03	08-26-94	0900	19.50	W94110750	11.788	32.109	8.14	8.85	92.02	36.838	24.385	1.3523	0.77291	0.57	0.48	3.54	0.75	5.79
W9411	N03	08-26-94	0901	7.42	W94110751	16.760	31.573	8.47	8.01	105.69	40.725	22.942	3.0610	1.31192	0.42	0.01	0.10	0.37	2.16
W9411	N03	08-26-94	0902	1.66	W94110752	16.743	31.472	8.53	8.02	106.33	40.590	22.869	1.4817	1.27085	0.34	0.01	0.09	0.36	2.00
W9411	N04P	08-24-94	0842	45.82	W94110337	8.870	32.391	7.93	9.41	84.23	34.551	25.097	0.3687	0.90252	0.91	0.40	9.85	0.95	9.51

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths.

Event	Station	Date	Time (EST)	Depth (M)	Sample id	Temp (C)	Sal (PSU)	DO (mg/L)	Oxy Sat	Oxy Sat (%)	Cond (mmhos/cm) (%)	Sigma t	Flu (ug/L)	Beam (1/M)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
W9411	N04P	08-24-94	0843	32.60	W94110338	10.171	32.269	8.17	9.15	89.26	35.571	24.793	0.7573	0.68373	0.65	0.57	6.96	0.80	7.22
W9411	N04P	08-24-94	0845	20.16	W94110339	15.875	31.794	8.59	8.15	105.46	40.178	23.312	2.6136	1.05440	0.76	0.15	0.71	0.36	3.51
W9411	N04P	08-24-94	0846	10.56	W94110340	16.796	31.736	8.43	8.00	105.36	40.947	23.059	1.9474	1.04014	0.58	0.04	0.18	0.27	2.51
W9411	N04P	08-24-94	0847	2.36	W94110341	16.878	31.736	8.40	7.99	105.16	41.019	23.040	0.9269	1.00794	0.48	0.03	0.12	0.25	2.54
W9411	N04P	08-26-94	0927	45.80	W94110763	9.103	32.383	7.81	9.37	83.39	34.748	25.055	0.3459	0.79977	0.24	0.25	7.99	0.96	8.59
W9411	N04P	08-26-94	0929	29.89	W94110764	9.880	32.256	7.82	9.21	84.89	35.300	24.831	0.5760	0.68366	0.24	0.25	7.40	0.92	7.67
W9411	N04P	08-26-94	0931	13.35	W94110765	15.628	31.876	8.36	8.18	102.18	40.042	23.430	2.7687	1.03744	0.22	0.08	0.35	0.42	3.54
W9411	N04P	08-26-94	0932	6.27	W94110766	16.831	31.624	8.43	8.00	105.37	40.847	22.965	2.2999	1.19494	0.20	0.01	0.04	0.34	2.39
W9411	N04P	08-26-94	0933	1.54	W94110767	17.033	31.582	8.29	7.97	104.00	40.981	22.886	1.1521	1.12002	0.21	0.01	0.09	0.33	2.23
W9411	N05	08-26-94	0955	48.93	W94110778	9.032	32.426	7.73	9.38	82.43	34.728	25.099	0.3256	0.82340	0.44	0.19	9.15	1.00	8.96
W9411	N05	08-26-94	0956	32.19	W94110779	9.581	32.313	7.85	9.27	84.68	35.095	24.924	0.5013	0.70938	0.22	0.22	1.26	0.54	4.21
W9411	N05	08-26-94	0957	8.24	W94110781	17.000	31.689	8.39	7.97	105.26	41.077	22.976	2.1363	1.16527	0.19	0.01	0.06	0.33	2.51
W9411	N05	08-26-94	0957	16.66	W94110780	13.516	32.203	8.56	8.52	100.42	38.488	24.126	2.5579	0.98298	0.23	0.14	8.34	0.96	8.16
W9411	N05	08-26-94	0958	1.81	W94110782	17.628	31.661	8.28	7.88	105.14	41.618	22.806	0.7791	1.06158	0.19	0.01	0.06	0.35	2.42
W9411	N06	08-26-94	1019	46.81	W94110794	8.961	32.456	7.85	9.39	83.59	34.693	25.134	0.3547	0.79636	0.31	0.10	9.01	0.96	8.36
W9411	N06	08-26-94	1020	30.45	W94110795	9.941	32.416	8.20	9.19	89.22	35.511	24.945	0.6398	0.67111	0.27	0.12	6.28	0.79	5.60
W9411	N06	08-26-94	1021	8.27	W94110797	16.980	31.749	8.30	7.97	104.12	41.129	23.026	1.8894	1.12691	0.32	0.02	0.05	0.30	2.48
W9411	N06	08-26-94	1021	15.86	W94110796	14.748	31.795	8.25	8.33	99.02	39.155	23.557	4.0301	1.25925	0.46	0.03	0.08	0.32	2.64
W9411	N06	08-26-94	1022	1.68	W94110798	17.518	31.767	8.11	7.89	102.82	41.642	22.914	0.6064	0.86837	0.34	0.02	0.05	0.30	2.38
W9411	N07P	08-23-94	1217	43.92	W94110150	8.392	32.232	7.81	9.53	81.98	33.981	25.044	0.3885	0.78138	0.91	0.17	5.85	0.81	10.38
W9411	N07P	08-23-94	1218	30.25	W94110151	9.170	32.139	7.84	9.37	83.70	34.563	24.853	0.6089	0.78438	2.15	0.57	6.86	1.07	9.77
W9411	N07P	08-23-94	1220	19.37	W94110152	11.243	32.239	8.93	8.94	99.86	36.485	24.584	1.7495	0.79387	0.56	0.32	2.02	0.61	4.51
W9411	N07P	08-23-94	1221	9.34	W94110153	16.247	31.619	8.74	8.09	107.99	40.312	23.094	2.3332	1.05521	0.16	0.01	0.17	0.33	1.56
W9411	N07P	08-23-94	1223	2.43	W94110154	16.342	31.616	8.59	8.08	106.33	40.393	23.071	1.2787	1.03874	0.20	0.01	0.08	0.26	1.34
W9411	N07P	08-26-94	1048	41.90	W94110807	8.552	32.397	7.38	9.48	77.83	34.277	25.150	0.3015	1.08941	0.25	0.23	8.75	0.99	9.00
W9411	N07P	08-26-94	1050	29.76	W94110808	9.315	32.418	8.00	9.32	85.84	34.961	25.048	0.4790	0.81323	0.24	0.12	8.65	0.95	8.04
W9411	N07P	08-26-94	1051	19.75	W94110809	11.956	32.145	8.69	8.81	98.62	37.024	24.381	1.8407	0.92564	0.30	0.18	1.74	0.57	4.30
W9411	N07P	08-26-94	1052	9.32	W94110810	17.088	31.755	8.24	7.95	103.59	41.235	23.006	1.7613	1.05938	0.17	0.01	0.05	0.31	2.56
W9411	N07P	08-26-94	1053	1.69	W94110811	17.286	31.765	8.25	7.92	104.13	41.425	22.967	0.7679	0.97674	0.24	0.02	0.06	0.31	2.49
W9411	N08	08-26-94	1119	30.96	W94110820	9.495	32.223	7.47	9.29	80.38	34.930	24.867	0.5239	0.76503	1.12	0.40	6.45	0.92	8.25
W9411	N08	08-26-94	1121	22.48	W94110821	10.650	32.022	7.40	9.07	81.58	35.742	24.519	0.8844	0.93268	1.64	0.44	4.00	0.83	6.99
W9411	N08	08-26-94	1122	17.34	W94110822	12.942	32.053	8.40	8.63	97.28	37.810	24.123	2.4441	1.01303	0.61	0.25	1.75	0.58	4.70
W9411	N08	08-26-94	1123	9.64	W94110823	16.987	31.790	8.23	7.97	103.28	41.183	23.056	1.5804	0.94363	0.20	0.01	0.14	0.30	2.15
W9411	N08	08-26-94	1125	1.74	W94110824	17.804	31.739	8.15	7.85	103.89	41.872	22.825	0.6491	0.84926	0.14	0.00	0.11	0.26	2.05
W9411	N09	08-26-94	1148	27.68	W94110835	9.790	32.074	7.11	9.24	76.94	35.041	24.703	0.6056	1.18322	3.51	0.62	5.82	1.07	10.02
W9411	N09	08-26-94	1149	21.45	W94110836	11.301	31.985	7.52	8.95	84.06	36.279	24.376	1.1078	0.96874	3.06	0.60	5.26	1.00	8.97
W9411	N09	08-26-94	1150	16.21	W94110837	12.707	31.859	7.65	8.69	88.05	37.394	24.019	1.5559	0.98726	2.82	0.42	2.96	0.86	6.22
W9411	N09	08-26-94	1151	9.61	W94110838	16.571	31.644	8.38	8.04	104.22	40.635	23.040	2.3210	0.93667	1.56	0.11	0.83	0.52	3.23
W9411	N09	08-26-94	1152	1.73	W94110839	17.683	31.315	8.53	7.88	108.20	41.260	22.528	3.0040	1.64219	0.64	0.07	0.35	0.44	2.69
W9411	N10P	08-23-94	1749	19.94	W94110241	15.673	31.580	8.40	8.19	102.58	39.753	23.193	3.0338	1.21150	0.54	0.04	0.28	0.50	2.41
W9411	N10P	08-23-94	1751	15.25	W94110242	15.806	31.591	8.44	8.17	103.35	39.883	23.172	3.3240	1.24434	0.35	0.03	0.18	0.42	2.31
W9411	N10P	08-23-94	1752	10.39	W94110243	15.582	31.417	8.28	8.21	100.83	39.482	23.087	2.8678	1.53729	2.17	0.14	0.95	0.58	3.22
W9411	N10P	08-23-94	1753	5.42	W94110244	15.203	31.164	7.55	8.29	91.10	38.857	22.974	2.2574	1.82649	5.10	0.35	2.31	1.05	5.05
W9411	N10P	08-23-94	1754	1.82	W94110245	15.344	31.081	7.37	8.27	89.14	38.888	22.880	2.3622	1.89853	6.49	0.43	2.89	1.12	5.77
W9411	N10P	08-26-94	0612	21.19	W94110675	10.635	31.960	6.83	9.08	75.24	35.666	24.473	0.6188	1.29339	4.48	0.64	4.93	1.15	10.23
W9411	N10P	08-26-94	0614	16.38	W94110676	12.904	31.710	6.81	8.66	78.63	37.412	23.865	1.0124	1.28800	5.22	0.56	4.40	1.15	8.90
W9411	N10P	08-26-94	0615	11.75	W94110677	15.640	31.273	7.35	8.21	89.53	39.372	22.963	2.6721	1.42178	4.55	0.40	2.58	0.95	5.69
W9411	N10P	08-26-94	0616	6.25	W94110678	16.059	31.203	7.90	8.14	97.00	39.666	22.817	4.5991	1.71205	3.23	0.37	2.15	0.76	4.29
W9411	N10P	08-26-94	0617	1.77	W94110679	16.153	31.152	7.71	8.13	94.81	39.690	22.757	4.0073	1.66697	4.24	0.39	2.41	0.89	4.65
W9411	N11	08-26-94	0641	26.15	W94110688	10.860	31.926	6.93	9.04	76.70	35.831	24.408	0.5926	1.29416	3.76	0.54	4.02	1.01	8.63

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths.

Event	Station	Date	Time (EST)	Depth (M)	Sample id	Temp (C)	Sal (PSU)	DO (mg/L)	Oxy Sat	Oxy Sat (%)	Cond (mmhos/cm) (%)	Sigma t	Flu (ug/L)	Beam (1/M)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
W9411	N11	08-26-94	0642	19.32	W94110689	11.548	31.851	7.00	8.91	78.60	36.359	24.228	0.7161	1.18922	3.93	0.58	4.32	1.06	9.08
W9411	N11	08-26-94	0643	13.30	W94110690	14.130	31.562	7.34	8.45	86.86	38.343	23.506	1.3705	1.03645	2.92	0.32	2.32	0.79	5.94
W9411	N11	08-26-94	0645	1.83	W94110692	16.585	31.031	7.65	8.07	94.81	39.937	22.566	3.5319	1.75376	5.39	0.27	1.45	0.90	4.44
W9411	N11	08-26-94	0645	4.66	W94110691	16.448	31.109	7.84	8.09	96.95	39.906	22.657	3.5026	1.72613	1.96	0.12	0.65	0.51	2.99
W9411	N12	08-26-94	0709	19.03	W94110701	11.016	31.922	7.15	9.00	79.40	35.963	24.378	0.6754	1.34220	3.71	0.50	4.23	0.97	8.86
W9411	N12	08-26-94	0710	14.78	W94110702	13.626	31.671	7.25	8.53	84.97	38.013	23.693	1.0848	1.11099	2.84	0.31	2.41	0.78	6.28
W9411	N12	08-26-94	0711	9.03	W94110703	16.358	31.366	8.13	8.09	100.52	40.122	22.875	2.7598	1.27801	1.86	0.10	0.54	0.52	2.85
W9411	N12	08-26-94	0712	4.97	W94110704	16.434	31.195	8.02	8.08	99.20	39.993	22.726	3.5620	1.60748	3.44	0.14	0.75	0.65	3.40
W9411	N12	08-26-94	0713	1.85	W94110705	16.431	31.087	7.86	8.09	97.15	39.865	22.644	3.5252	1.68875	4.17	0.16	0.90	0.68	3.66
W9411	N13	08-26-94	1257	31.19	W94110874	9.772	32.240	7.66	9.24	82.94	35.191	24.836	0.5827	0.78164	1.42	0.48	5.51	0.87	7.73
W9411	N13	08-26-94	1258	20.05	W94110875	11.079	31.921	7.23	8.99	80.40	36.017	24.365	0.9844	0.96165	2.98	0.55	4.51	0.93	8.22
W9411	N13	08-26-94	1259	14.86	W94110876	13.570	31.686	7.57	8.54	88.62	37.979	23.715	1.7833	1.04924	2.29	0.37	2.58	0.76	5.92
W9411	N13	08-26-94	1300	6.49	W94110877	17.313	31.687	8.38	7.92	105.77	41.361	22.901	1.6170	1.01638	0.61	0.01	0.08	0.29	2.08
W9411	N13	08-26-94	1301	1.72	W94110878	17.783	31.502	8.45	7.86	107.51	41.573	22.648	0.8644	1.19297	0.31	0.01	0.09	0.29	2.15
W9411	N14	08-26-94	1320	31.00	W94110887	9.744	32.258	7.88	9.24	85.28	35.183	24.855	0.5609	0.76309	0.75	0.34	4.23	0.71	6.11
W9411	N14	08-26-94	1321	25.11	W94110888	10.646	32.192	8.06	9.06	88.94	35.910	24.652	0.9536	0.77027	1.39	0.48	6.29	1.36	7.72
W9411	N14	08-26-94	1322	17.63	W94110889	12.483	32.068	8.57	8.72	98.30	37.414	24.223	2.5625	1.00215	0.45	0.31	1.51	0.57	4.59
W9411	N14	08-26-94	1323	9.06	W94110890	17.305	31.724	8.47	7.92	106.92	41.398	22.932	1.5686	0.97799	0.33	0.03	0.07	0.28	2.42
W9411	N14	08-26-94	1324	1.76	W94110891	17.393	31.594	8.46	7.91	106.89	41.323	22.811	0.8415	1.10627	0.31	0.01	0.09	0.28	1.99
W9411	N15	08-26-94	1345	41.63	W94110902	9.217	32.352	7.69	9.34	82.30	34.816	25.012	0.3893	0.75574	0.38	0.31	6.82	0.85	7.57
W9411	N15	08-26-94	1346	29.18	W94110903	9.400	32.294	7.71	9.31	82.82	34.915	24.938	0.4496	0.82521	0.43	0.32	8.16	0.94	8.55
W9411	N15	08-26-94	1347	9.60	W94110905	17.118	31.737	8.41	7.95	105.78	41.242	22.986	2.1330	1.08659	0.41	0.03	0.09	0.30	2.28
W9411	N15	08-26-94	1347	19.29	W94110904	12.754	31.906	8.25	8.68	95.08	37.487	24.046	2.7664	1.20580	0.48	0.43	2.88	0.78	5.40
W9411	N15	08-26-94	1348	1.68	W94110906	17.838	31.581	8.46	7.85	107.81	41.715	22.695	0.8019	1.04077	0.40	0.02	0.10	0.31	2.20
W9411	N16P	08-23-94	1024	34.64	W94110119	9.168	32.074	7.64	9.37	81.53	34.501	24.803	0.6805	1.00689	3.38	0.65	5.96	1.15	10.41
W9411	N16P	08-23-94	1025	25.17	W94110120	9.837	32.017	7.84	9.24	84.89	35.025	24.651	0.8241	0.88662	2.95	0.61	5.17	1.03	8.93
W9411	N16P	08-23-94	1027	18.39	W94110121	14.858	31.776	8.61	8.31	103.56	39.236	23.518	2.1481	1.01025	0.86	0.14	0.99	0.47	3.54
W9411	N16P	08-23-94	1029	7.62	W94110123	16.897	31.803	8.40	7.98	105.24	41.116	23.087	1.4917	0.95073	0.36	0.01	0.12	0.32	2.27
W9411	N16P	08-23-94	1031	2.71	W94110124	16.901	31.784	8.29	7.98	103.86	41.096	23.072	0.9551	1.20723	0.30	0.00	0.09	0.31	2.11
W9411	N16P	08-24-94	0922	37.88	W94110361	8.649	32.210	7.37	9.47	77.80	34.180	24.988	0.3997	0.94819	1.83	0.53	7.04	1.09	9.93
W9411	N16P	08-24-94	0923	28.81	W94110362	9.950	32.104	7.60	9.21	82.55	35.211	24.700	0.6960	0.84871	2.17	0.60	5.63	1.00	8.50
W9411	N16P	08-24-94	0924	18.93	W94110363	15.307	31.788	8.15	8.24	98.92	39.654	23.432	2.3815	1.03463	0.98	0.21	1.52	0.56	4.29
W9411	N16P	08-24-94	0926	8.35	W94110364	16.682	31.774	8.43	8.02	105.15	40.885	23.114	1.3805	0.95067	0.23	0.02	0.15	0.33	2.11
W9411	N16P	08-24-94	0927	2.20	W94110365	16.824	31.743	8.37	8.00	104.68	40.978	23.058	0.6578	0.87662	0.27	0.01	0.10	0.28	1.76
W9411	N16P	08-26-94	1408	38.78	W94110917	9.030	32.325	7.74	9.38	82.48	34.624	25.020	0.3781	0.82340	0.41	0.25	8.73	0.97	8.98
W9411	N16P	08-26-94	1409	29.78	W94110918	9.584	32.306	7.98	9.27	86.08	35.088	24.918	0.4938	0.78028	0.19	0.13	8.37	0.91	7.82
W9411	N16P	08-26-94	1410	22.27	W94110919	11.922	32.005	8.36	8.83	94.72	36.851	24.280	2.1018	0.97878	0.26	0.31	2.64	0.64	5.02
W9411	N16P	08-26-94	1411	10.44	W94110920	17.124	31.754	8.45	7.95	106.31	41.269	22.997	1.9420	1.06998	0.18	0.00	0.15	0.30	2.39
W9411	N16P	08-26-94	1412	1.87	W94110921	18.050	31.653	8.26	7.81	105.73	41.996	22.700	0.6677	0.97467	0.11	0.01	0.09	0.30	2.24
W9411	N17	08-26-94	1451	37.94	W94110933	9.158	32.343	7.85	9.36	83.90	34.754	25.015	0.3948	0.76083	0.26	0.19	6.90	0.85	7.39
W9411	N17	08-26-94	1452	27.09	W94110934	9.660	32.387	8.02	9.25	86.71	35.234	24.969	0.6265	1.07892	0.17	0.18	8.12	0.93	7.70
W9411	N17	08-26-94	1453	20.64	W94110935	13.123	32.080	8.74	8.60	101.62	38.002	24.109	3.1720	1.24972	e	e	e	e	e
W9411	N17	08-26-94	1454	7.87	W94110936	17.273	31.765	8.35	7.93	105.36	41.416	22.970	1.6117	1.03066	0.18	0.01	0.09	0.31	2.35
W9411	N17	08-26-94	1455	1.80	W94110937	18.286	31.750	8.23	7.77	105.89	42.329	22.716	0.5287	0.83121	0.19	0.01	0.10	0.33	2.29
W9411	N18	08-26-94	1515	26.52	W94110946	9.729	32.161	7.20	9.25	77.85	35.073	24.781	0.5246	1.09237	1.48	0.37	5.05	0.88	7.72
W9411	N18	08-26-94	1516	19.93	W94110947	11.054	32.073	7.57	8.99	84.22	36.149	24.488	1.1333	0.91433	1.83	0.49	5.92	1.01	8.82
W9411	N18	08-26-94	1518	16.88	W94110948	11.963	31.950	7.50	8.82	85.02	36.827	24.229	1.6460	1.02959	1.35	0.35	2.76	0.78	6.26
W9411	N18	08-26-94	1519	8.88	W94110949	17.334	31.696	8.39	7.92	105.95	41.392	22.903	1.8122	1.01219	0.17	0.03	0.12	0.34	2.17
W9411	N18	08-26-94	1520	1.74	W94110951	17.870	31.685	8.28	7.84	105.64	41.869	22.768	0.8795	0.97051	0.22	0.02	0.08	0.31	2.07
W9411	N19	08-26-94	1210	22.77	W94110848	10.725	31.987	7.17	9.06	79.15	35.773	24.479	0.7630	1.01240	2.93	0.55	4.66	1.00	8.72

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths.

Event	Station	Date	Time (EST)	Depth (M)	Sample id	Temp (C)	Sal (PSU)	DO (mg/L)	Oxy Sat	Oxy Sat (%)	Cond (mmhos/cm) (%)	Sigma t	Flu (ug/L)	Beam (1/M)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
W9411	N19	08-26-94	1211	8.95	W94110850	16.849	31.644	8.35	8.00	104.42	40.888	22.976	2.3738	1.03104	0.19	0.02	0.09	0.33	2.37
W9411	N19	08-26-94	1211	15.87	W94110849	13.499	31.716	7.50	8.55	87.69	37.949	23.753	1.7733	0.95669	1.45	0.47	3.75	0.87	7.47
W9411	N19	08-26-94	1212	5.10	W94110851	17.174	31.549	8.43	7.95	106.03	41.072	22.828	3.3527	1.33809	0.24	0.03	0.12	0.34	2.35
W9411	N19	08-26-94	1213	1.68	W94110852	17.432	31.481	8.44	7.91	106.64	41.227	22.716	2.7272	1.43318	0.55	0.04	0.25	0.35	2.41
W9411	N20P	08-23-94	0930	25.37	W94110103	10.764	31.961	7.76	9.05	85.73	35.783	24.452	0.9346	1.06814	3.18	0.55	3.91	0.96	7.90
W9411	N20P	08-23-94	0931	21.00	W94110104	12.601	31.853	8.18	8.71	93.94	37.296	24.034	1.3927	0.93192	1.55	0.30	1.84	0.66	4.45
W9411	N20P	08-23-94	0932	14.31	W94110105	15.928	31.681	8.51	8.14	104.52	40.095	23.214	2.3508	1.04410	0.48	0.07	0.36	0.37	2.60
W9411	N20P	08-23-94	0934	7.84	W94110106	16.494	31.687	8.52	8.05	105.83	40.614	23.091	2.0582	1.05143	0.26	0.02	0.10	0.34	2.29
W9411	N20P	08-23-94	0935	2.61	W94110107	16.508	31.686	8.50	8.05	105.61	40.623	23.086	1.3248	1.07136	0.27	0.02	0.10	0.29	2.22
W9411	N20P	08-26-94	1232	29.10	W94110861	9.894	32.148	7.39	9.22	80.19	35.206	24.744	0.5842	0.94128	2.26	0.53	6.32	0.99	9.70
W9411	N20P	08-26-94	1233	18.76	W94110862	11.260	31.882	6.93	8.96	77.35	36.136	24.303	0.7290	1.22465	3.57	0.54	4.95	1.02	9.77
W9411	N20P	08-26-94	1235	13.65	W94110863	15.486	31.534	7.85	8.22	95.48	39.529	23.197	2.6122	0.98941	1.88	0.24	1.96	0.65	5.38
W9411	N20P	08-26-94	1236	6.72	W94110864	17.324	31.668	8.30	7.92	104.77	41.350	22.884	1.8293	1.06935	0.09	0.00	0.10	0.28	2.08
W9411	N20P	08-26-94	1237	1.66	W94110865	17.941	31.237	8.47	7.85	107.93	41.401	22.407	1.0879	1.27264	0.11	0.01	0.09	0.30	2.21
W9411	N21	08-26-94	1540	32.91	W94110960	9.449	32.280	7.67	9.30	82.48	34.945	24.919	0.4800	0.73224	0.41	0.31	5.81	0.81	7.05
W9411	N21	08-26-94	1541	24.38	W94110961	10.065	32.227	7.84	9.18	85.44	35.432	24.778	0.6859	0.73344	0.48	0.40	7.48	0.91	8.05
W9411	N21	08-26-94	1542	8.72	W94110963	17.489	31.756	8.29	7.89	105.04	41.604	22.912	1.2586	0.90322	0.19	0.00	0.17	0.27	2.18
W9411	N21	08-26-94	1542	17.13	W94110962	13.632	31.880	8.13	8.52	95.41	38.245	23.853	3.1596	1.19834	0.70	0.25	1.92	0.61	4.85
W9411	N21	08-26-94	1543	1.48	W94110964	19.454	31.722	7.96	7.60	104.69	43.377	22.405	0.8293	0.86207	0.20	0.00	0.16	0.26	2.12
W9412	N01P	09-08-94	0735	25.86	W94120219	14.656	31.844	7.16	8.35	85.80	39.131	23.615	1.1282	1.26721	0.46	0.07	0.69	0.46	3.33
W9412	N01P	09-08-94	0736	20.26	W94120220	15.650	31.867	8.19	8.18	100.14	40.056	23.418	1.9575	0.93561	0.30	0.03	0.40	0.41	2.68
W9412	N01P	09-08-94	0737	12.51	W94120221	15.697	31.813	8.18	8.17	100.08	40.034	23.366	2.2282	1.12345	0.16	0.00	0.12	0.38	1.81
W9412	N01P	09-08-94	0738	7.39	W94120222	15.697	31.794	8.20	8.17	100.32	40.011	23.352	2.2438	1.16337	0.19	0.00	0.13	0.36	1.57
W9412	N01P	09-08-94	0739	1.84	W94120223	15.701	31.794	8.16	8.17	99.84	40.012	23.350	1.5297	1.16994	0.50	0.00	0.12	0.33	1.58
W9412	N02	09-08-94	0804	34.35	W94120234	12.138	31.989	6.22	8.79	70.79	37.031	24.227	0.8994	1.66237	1.03	0.25	2.89	0.74	7.05
W9412	N02	09-08-94	0805	25.91	W94120235	14.732	31.920	7.91	8.33	94.98	39.284	23.658	1.2804	0.85196	0.67	0.13	1.29	0.55	4.42
W9412	N02	09-08-94	0806	20.44	W94120236	15.196	31.919	8.11	8.25	98.30	39.701	23.557	2.0175	0.91153	0.23	0.02	0.18	0.40	2.56
W9412	N02	09-08-94	0807	9.44	W94120237	15.806	31.862	8.13	8.15	99.72	40.187	23.379	2.1239	1.09285	0.20	0.00	0.13	0.35	1.95
W9412	N02	09-08-94	0808	1.64	W94120238	15.823	31.858	8.10	8.15	99.38	40.195	23.373	1.4499	1.10579	0.26	0.01	0.15	0.36	1.87
W9412	N03	09-08-94	0827	38.98	W94120245	10.668	32.128	5.85	9.06	64.56	35.872	24.599	0.9758	1.93430	0.98	0.41	5.60	0.98	10.73
W9412	N03	09-08-94	0828	29.05	W94120246	14.978	31.920	8.04	8.29	97.02	39.507	23.605	1.3595	0.80118	0.39	0.06	0.51	0.44	2.99
W9412	N03	09-08-94	0829	19.21	W94120247	15.689	31.941	8.03	8.17	98.31	40.174	23.467	2.1393	0.92775	0.29	0.02	0.15	0.36	2.12
W9412	N03	09-08-94	0830	8.07	W94120248	15.851	31.852	8.10	8.15	99.43	40.216	23.362	2.4831	1.20637	0.31	0.01	0.14	0.35	1.80
W9412	N03	09-08-94	0831	2.34	W94120249	15.883	31.848	8.12	8.14	99.74	40.239	23.352	1.7077	1.24769	0.49	0.02	0.13	0.35	1.79
W9412	N04P	09-08-94	0850	44.79	W94120258	10.689	32.163	6.34	9.06	70.01	35.928	24.623	0.8932	1.32120	0.79	0.54	6.73	1.01	10.73
W9412	N04P	09-08-94	0851	31.60	W94120259	13.982	31.957	7.06	8.46	83.50	38.648	23.842	1.1247	0.98459	0.80	0.29	2.64	0.67	5.35
W9412	N04P	09-08-94	0852	20.53	W94120260	15.793	31.851	8.02	8.16	98.34	40.169	23.375	1.7807	0.93766	0.22	0.02	0.14	0.36	1.92
W9412	N04P	09-08-94	0853	10.01	W94120261	15.883	31.831	8.17	8.14	100.34	40.222	23.338	2.5359	1.19416	0.16	0.01	0.10	0.35	1.52
W9412	N04P	09-08-94	0854	1.79	W94120262	15.933	31.826	8.15	8.13	100.20	40.258	23.323	1.8847	1.26877	0.18	0.01	0.13	0.34	1.43
W9412	N05	09-08-94	0922	51.91	W94120269	9.974	32.285	6.72	9.19	73.11	35.421	24.838	0.6937	1.12512	0.45	0.41	8.74	1.08	10.92
W9412	N05	09-08-94	0923	38.27	W94120270	10.266	32.229	6.85	9.14	74.98	35.617	24.746	0.7532	0.97602	0.27	0.40	8.69	1.04	10.71
W9412	N05	09-08-94	0924	26.12	W94120271	14.252	31.931	7.59	8.41	90.25	38.861	23.766	0.9210	0.77021	0.65	0.17	1.41	0.53	3.64
W9412	N05	09-08-94	0925	12.44	W94120272	15.629	31.897	7.91	8.18	96.70	40.067	23.445	1.7553	0.84891	0.21	0.03	0.23	0.39	2.36
W9412	N05	09-08-94	0926	1.86	W94120273	16.044	31.863	8.03	8.11	98.96	40.402	23.327	1.2150	1.10222	0.16	0.01	0.13	0.36	1.79
W9412	N06	09-08-94	0949	48.28	W94120280	9.714	32.326	6.62	9.24	71.63	35.230	24.913	0.6028	1.28020	0.43	0.40	8.53	1.05	11.13
W9412	N06	09-08-94	0950	37.68	W94120281	10.801	32.248	7.35	9.03	81.41	36.109	24.669	1.1079	0.69587	0.31	0.37	8.25	1.01	9.66
W9412	N06	09-08-94	0951	23.65	W94120282	14.611	31.908	7.81	8.35	93.54	39.160	23.674	0.9386	0.68559	0.68	0.13	0.98	0.51	2.82
W9412	N06	09-08-94	0952	1.47	W94120284	15.980	31.874	8.06	8.12	99.21	40.357	23.350	1.0650	1.01743	0.35	0.05	0.17	0.38	1.83
W9412	N06	09-08-94	0952	8.99	W94120283	15.745	31.931	7.92	8.16	97.07	40.210	23.446	1.9365	0.85167	0.32	0.05	0.26	0.38	2.57
W9412	N07P	09-08-94	1014	46.03	W94120291	10.005	32.266	6.40	9.19	69.67	35.427	24.818	0.6188	1.39247	0.57	0.49	8.21	1.06	11.36

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths.

Event	Station	Date	Time (EST)	Depth (M)	Sample id	Temp (C)	Sal (PSU)	DO (mg/L)	Oxy Sat	Oxy Sat (%)	Cond (mmhos/cm) (%)	Sigma t	Flu (ug/L)	Beam (1/M)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
W9412	N07P	09-08-94	1015	34.18	W94120292	11.577	32.098	6.67	8.89	75.06	36.645	24.415	0.7698	0.79484	0.45	0.53	6.95	0.99	9.15
W9412	N07P	09-08-94	1016	23.56	W94120293	14.340	31.935	7.79	8.39	92.80	38.944	23.751	0.9133	0.68647	0.50	0.19	1.42	0.53	3.35
W9412	N07P	09-08-94	1017	10.13	W94120294	15.675	31.976	7.92	8.17	96.96	40.197	23.496	1.9957	0.86793	0.38	0.06	0.28	0.39	2.61
W9412	N07P	09-08-94	1018	2.30	W94120295	16.066	31.885	8.07	8.11	99.51	40.448	23.339	0.9529	1.02492	0.27	0.03	0.20	0.36	1.84
W9412	N08	09-08-94	1116	24.59	W94120316	15.039	31.932	8.00	8.28	96.66	39.574	23.601	1.3705	0.80640	0.64	0.10	0.77	0.46	3.27
W9412	N08	09-08-94	1116	30.25	W94120315	13.825	31.983	7.42	8.48	87.49	38.534	23.894	0.8096	0.76787	0.54	0.12	1.12	0.48	3.65
W9412	N08	09-08-94	1117	14.49	W94120317	15.513	31.976	8.06	8.20	98.35	40.050	23.531	2.6650	0.96082	0.29	0.03	0.14	0.38	2.57
W9412	N08	09-08-94	1118	6.52	W94120318	15.838	31.941	8.16	8.14	100.20	40.304	23.433	1.4424	0.97120	0.24	0.02	0.14	0.37	2.40
W9412	N08	09-08-94	1119	1.74	W94120319	16.144	31.951	8.04	8.09	99.33	40.593	23.372	0.8074	0.91341	0.25	0.02	0.14	0.37	2.28
W9412	N09	09-08-94	1140	34.68	W94120326	12.288	32.026	6.47	8.76	73.89	37.203	24.227	0.7065	1.61690	1.18	0.30	3.84	0.85	8.49
W9412	N09	09-08-94	1141	15.15	W94120328	15.423	31.897	8.09	8.21	98.49	39.880	23.490	2.4235	1.00200	0.16	0.01	0.14	0.38	2.33
W9412	N09	09-08-94	1141	22.61	W94120327	15.008	31.951	8.04	8.28	97.10	39.566	23.622	1.6340	0.82740	0.32	0.06	0.73	0.48	3.40
W9412	N09	09-08-94	1142	7.31	W94120329	15.817	31.887	8.18	8.15	100.37	40.225	23.396	1.5461	0.98429	0.11	0.00	0.15	0.36	2.05
W9412	N09	09-08-94	1143	1.60	W94120330	16.170	31.895	8.04	8.09	99.35	40.554	23.323	0.7337	0.93307	0.10	0.01	0.13	0.34	2.01
W9412	N10P	09-08-94	0616	14.57	W94120187	15.441	31.493	6.83	8.23	82.98	39.442	23.176	1.0980	1.66170	5.79	0.21	1.28	0.97	3.35
W9412	N10P	09-08-94	0616	19.28	W94120186	15.416	31.516	6.97	8.23	84.65	39.447	23.199	1.0995	1.56489	5.74	0.20	1.28	0.96	3.35
W9412	N10P	09-08-94	0617	8.81	W94120188	15.463	31.473	6.85	8.23	83.25	39.438	23.156	1.0736	1.75595	5.91	0.21	1.32	1.01	3.40
W9412	N10P	09-08-94	0618	4.02	W94120189	15.531	31.439	6.81	8.22	82.86	39.458	23.115	1.0969	1.77309	6.70	0.22	1.26	1.05	3.30
W9412	N10P	09-08-94	0619	1.69	W94120190	15.541	31.433	6.79	8.22	82.63	39.460	23.108	1.0922	1.76285	7.07	0.23	1.34	1.05	3.27
W9412	N11	09-08-94	0646	19.07	W94120197	15.060	31.790	7.29	8.28	88.05	39.433	23.487	1.2229	1.12423	1.21	0.13	1.18	0.59	3.86
W9412	N11	09-08-94	0647	14.76	W94120198	15.295	31.741	7.66	8.24	92.93	39.588	23.398	1.3443	1.13927	1.23	0.10	0.93	0.54	3.17
W9412	N11	09-08-94	0648	9.96	W94120199	15.606	31.717	7.89	8.19	96.30	39.841	23.312	1.8206	1.21814	1.13	0.07	0.43	0.48	2.31
W9412	N11	09-08-94	0649	1.82	W94120201	15.605	31.694	7.76	8.19	94.70	39.811	23.294	1.4783	1.25322	1.29	0.07	0.47	0.48	2.24
W9412	N11	09-08-94	0649	5.14	W94120200	15.598	31.697	7.83	8.20	95.54	39.810	23.298	1.8433	1.24981	1.28	0.06	0.46	0.49	2.32
W9412	N12	09-08-94	0708	15.18	W94120208	15.560	31.925	8.13	8.19	99.27	40.036	23.482	1.9934	0.93857	0.18	0.02	0.11	0.35	1.70
W9412	N12	09-08-94	0709	9.66	W94120209	15.800	31.813	8.19	8.16	100.41	40.126	23.343	1.8351	1.10312	0.38	0.03	0.13	0.33	1.69
W9412	N12	09-08-94	0710	6.14	W94120210	15.801	31.805	8.22	8.16	100.78	40.117	23.337	1.8571	1.11252	0.46	0.01	0.11	0.34	1.53
W9412	N12	09-08-94	0711	1.83	W94120212	15.802	31.805	8.16	8.16	100.04	40.116	23.336	1.3964	1.11743	0.17	0.01	0.09	0.33	1.53
W9412	N12	09-08-94	0711	3.08	W94120211	15.803	31.804	8.20	8.16	100.54	40.116	23.335	1.5179	1.11856	0.29	0.01	0.09	0.33	1.62
W9412	N13	09-08-94	1252	29.52	W94120360	13.854	31.936	7.21	8.48	85.04	38.509	23.852	0.9896	0.90813	0.61	0.16	1.67	0.59	4.54
W9412	N13	09-08-94	1253	15.11	W94120362	15.642	31.948	8.20	8.18	100.30	40.137	23.482	2.2241	0.99609	0.11	0.00	0.10	0.36	2.18
W9412	N13	09-08-94	1253	21.70	W94120361	15.178	31.919	8.11	8.25	98.26	39.685	23.561	2.2471	1.00830	0.17	0.02	0.22	0.41	2.32
W9412	N13	09-08-94	1254	7.80	W94120363	15.952	31.902	8.12	8.13	99.91	40.364	23.377	1.9939	1.05329	0.11	0.00	0.10	0.35	1.81
W9412	N13	09-08-94	1255	1.77	W94120364	16.245	31.874	8.16	8.08	100.97	40.599	23.290	1.2374	1.07845	0.13	0.01	0.09	0.34	1.69
W9412	N14	09-08-94	1311	21.97	W94120372	14.762	31.922	7.93	8.32	95.28	39.312	23.652	1.4461	0.81580	0.46	0.08	0.66	0.47	3.18
W9412	N14	09-08-94	1311	32.06	W94120371	11.409	32.102	6.34	8.92	71.09	36.498	24.448	0.7737	1.18845	0.86	0.33	4.61	0.86	8.38
W9412	N14	09-08-94	1312	12.47	W94120373	15.542	31.952	8.16	8.19	99.61	40.049	23.507	2.5794	1.01839	0.17	0.01	0.11	0.37	2.32
W9412	N14	09-08-94	1313	6.36	W94120374	16.113	31.867	8.27	8.10	102.06	40.472	23.315	1.6608	1.19657	0.16	0.01	0.09	0.35	1.85
W9412	N14	09-08-94	1314	1.86	W94120375	16.375	31.854	8.21	8.06	101.84	40.695	23.245	0.9874	1.23695	0.65	0.01	0.15	0.32	1.66
W9412	N15	09-08-94	1331	42.29	W94120382	10.510	32.195	6.45	9.09	70.97	35.801	24.678	0.7666	1.10410	0.57	0.45	7.25	1.04	10.36
W9412	N15	09-08-94	1332	32.02	W94120383	13.161	31.964	7.05	8.60	81.97	37.917	24.012	0.9503	0.88069	0.76	0.37	4.63	0.85	7.53
W9412	N15	09-08-94	1333	21.81	W94120384	15.110	31.910	7.96	8.27	96.31	39.613	23.569	1.2272	0.72574	0.41	0.06	0.36	0.41	2.66
W9412	N15	09-08-94	1335	12.66	W94120385	15.714	31.927	8.06	8.16	98.72	40.178	23.450	2.5413	0.99931	0.18	0.01	0.10	0.37	2.26
W9412	N15	09-08-94	1336	1.43	W94120386	16.366	31.853	8.16	8.06	101.20	40.685	23.247	1.0736	1.18831	0.18	0.01	0.07	0.34	1.63
W9412	N16P	09-08-94	1353	30.77	W94120394	13.766	31.952	7.44	8.49	87.60	38.449	23.882	0.9057	0.78658	e	e	e	e	e
W9412	N16P	09-08-94	1353	40.47	W94120393	10.555	32.183	6.41	9.08	70.59	35.828	24.661	0.6973	1.20496	0.70	0.37	5.55	0.91	8.80
W9412	N16P	09-08-94	1354	20.76	W94120395	15.185	31.896	7.95	8.25	96.32	39.665	23.542	1.1471	0.72278	0.45	0.05	0.32	0.40	2.39
W9412	N16P	09-08-94	1355	1.88	W94120397	16.473	31.881	8.13	8.04	101.06	40.815	23.244	0.8582	1.01560	0.16	0.01	0.08	0.34	1.72
W9412	N16P	09-08-94	1355	11.75	W94120396	15.774	31.907	8.11	8.16	99.44	40.210	23.421	2.1707	0.99114	0.22	0.01	0.08	0.36	2.20
W9412	N17	09-08-94	1415	39.00	W94120404	11.465	32.125	6.79	8.91	76.24	36.575	24.456	0.6458	0.93046	0.58	0.27	3.30	0.70	5.80

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths.

Event	Station	Date	Time (EST)	Depth (M)	Sample id	Temp (C)	Sal (PSU)	DO (mg/L)	Oxy Sat	Oxy Sat (%)	Cond (mmhos/cm) (%)	Sigma t	Flu (ug/L)	Beam (1/M)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
W9412	N17	09-08-94	1416	30.45	W94120405	14.091	31.943	7.60	8.44	90.08	38.731	23.809	0.8555	0.72912	0.65	0.28	3.18	0.69	5.71
W9412	N17	09-08-94	1417	20.63	W94120406	15.354	31.943	8.05	8.22	97.90	39.872	23.542	1.5229	0.78739	0.48	0.06	0.25	0.41	2.53
W9412	N17	09-08-94	1418	11.15	W94120407	15.956	31.881	8.24	8.13	101.38	40.347	23.361	2.1884	1.08589	0.14	0.01	0.05	0.35	1.81
W9412	N17	09-08-94	1419	1.91	W94120408	16.465	31.906	8.17	8.04	101.56	40.837	23.265	0.8037	0.97606	0.16	0.03	0.06	0.33	1.84
W9412	N18	09-08-94	1441	22.81	W94120423	14.419	31.948	7.72	8.38	92.12	39.029	23.744	1.2371	0.81497	0.50	0.10	0.90	0.49	3.63
W9412	N18	09-08-94	1442	17.29	W94120424	15.072	31.932	8.05	8.27	97.33	39.601	23.593	2.4087	0.94504	0.23	0.04	0.28	0.42	2.83
W9412	N18	09-08-94	1443	11.79	W94120425	15.355	31.925	8.24	8.22	100.20	39.848	23.527	2.5809	1.02146	0.10	0.01	0.10	0.36	2.30
W9412	N18	09-08-94	1444	1.74	W94120427	15.923	31.915	8.15	8.13	100.23	40.351	23.394	1.0589	0.97101	0.10	0.01	0.09	0.33	2.22
W9412	N18	09-08-94	1444	5.85	W94120426	15.778	31.927	8.24	8.15	101.05	40.234	23.436	1.4858	0.98545	0.12	0.02	0.10	0.35	2.25
W9412	N19	09-08-94	1203	17.96	W94120338	15.141	31.899	7.96	8.26	96.36	39.627	23.554	1.9181	0.97698	0.81	0.09	0.77	0.48	3.25
W9412	N19	09-08-94	1203	24.62	W94120337	14.011	31.930	7.40	8.45	87.56	38.642	23.815	1.0418	0.97259	0.30	0.07	0.70	0.44	3.10
W9412	N19	09-08-94	1204	11.47	W94120340	15.361	31.921	8.19	8.22	99.60	39.849	23.523	2.3030	1.04281	0.22	0.02	0.15	0.39	2.40
W9412	N19	09-08-94	1205	1.87	W94120342	16.118	31.927	8.11	8.10	100.13	40.543	23.360	0.6845	0.93810	0.19	0.02	0.11	0.34	2.17
W9412	N19	09-08-94	1205	5.19	W94120341	15.628	31.922	8.21	8.18	100.38	40.091	23.465	1.0840	0.98948	0.13	0.01	0.12	0.36	2.27
W9412	N20P	09-08-94	1225	29.00	W94120349	13.656	31.940	7.07	8.51	83.05	38.335	23.895	0.8696	1.04140	0.99	0.23	2.26	0.68	5.58
W9412	N20P	09-08-94	1226	21.18	W94120350	14.785	31.900	7.87	8.32	94.59	39.307	23.631	1.7790	0.94779	0.31	0.09	0.77	0.50	3.33
W9412	N20P	09-08-94	1227	16.25	W94120351	15.299	31.906	8.20	8.23	99.59	39.778	23.525	2.4114	1.03945	0.16	0.01	0.12	0.37	2.29
W9412	N20P	09-08-94	1228	1.94	W94120353	15.859	31.878	8.16	8.14	100.20	40.250	23.380	0.9009	0.94219	0.26	0.03	0.09	0.36	2.03
W9412	N20P	09-08-94	1228	7.86	W94120352	15.407	31.890	8.29	8.22	100.89	39.856	23.489	1.4803	1.01060	0.30	0.02	0.11	0.37	2.18
W9412	N21	09-08-94	1502	31.85	W94120434	13.291	31.987	7.20	8.58	83.96	38.059	24.004	0.7452	0.82099	0.73	0.22	2.70	0.68	5.74
W9412	N21	09-08-94	1503	24.66	W94120435	14.410	31.938	7.74	8.38	92.34	39.011	23.739	1.1764	0.79365	0.58	0.13	1.31	0.54	4.03
W9412	N21	09-08-94	1504	14.40	W94120436	15.224	31.926	8.24	8.25	99.93	39.731	23.556	2.4847	1.00452	0.15	0.02	0.12	0.38	2.41
W9412	N21	09-08-94	1505	7.39	W94120437	15.531	31.945	8.24	8.19	100.56	40.029	23.504	2.1968	1.02380	0.15	0.01	0.11	0.37	2.33
W9412	N21	09-08-94	1506	1.94	W94120438	16.175	31.960	8.08	8.09	99.90	40.633	23.372	0.9432	0.95440	0.18	0.01	0.11	0.33	2.22
W9413	N01P	09-28-94	0756	28.03	W94130073	13.933	32.134	7.00	8.45	82.80	38.794	23.988	0.9638	0.89863	0.87	0.31	2.20	0.66	4.10
W9413	N01P	09-28-94	0757	20.81	W94130074	15.327	31.942	7.35	8.23	89.33	39.846	23.547	1.5314	0.89008	0.64	0.17	0.79	0.47	2.26
W9413	N01P	09-28-94	0758	13.34	W94130075	15.933	31.826	7.83	8.13	96.26	40.264	23.324	3.1437	1.35123	0.71	0.06	0.19	0.41	0.96
W9413	N01P	09-28-94	0759	1.60	W94130077	16.258	31.634	8.11	8.09	100.23	40.337	23.103	7.2478	2.11975	0.59	0.06	0.22	0.51	0.40
W9413	N01P	09-28-94	0759	5.74	W94130076	16.153	31.658	7.76	8.11	95.72	40.269	23.145	4.7670	1.69073	0.23	0.01	0.08	0.32	0.48
W9413	N02	09-28-94	0825	32.32	W94130086	13.663	32.155	7.03	8.50	82.70	38.575	24.060	0.9052	0.94186	0.50	0.28	1.88	0.44	2.94
W9413	N02	09-28-94	0826	23.52	W94130087	14.658	32.029	7.58	8.34	90.94	39.335	23.757	1.3057	0.84422	0.41	0.03	0.06	0.25	3.37
W9413	N02	09-28-94	0827	15.70	W94130088	15.232	31.931	7.75	8.24	94.01	39.745	23.558	2.0140	1.00585	0.22	0.01	0.07	0.30	1.73
W9413	N02	09-28-94	0828	7.70	W94130089	15.648	31.828	8.04	8.18	98.28	40.004	23.389	3.8245	1.40629	0.18	0.01	0.05	0.30	0.93
W9413	N02	09-28-94	0829	1.48	W94130090	15.905	31.743	8.24	8.14	101.19	40.140	23.266	5.1959	1.83011	0.19	0.01	0.03	0.45	0.65
W9413	N03	09-28-94	0846	39.79	W94130097	12.323	32.255	6.31	8.74	72.22	37.476	24.399	0.6125	1.04978	0.55	0.43	5.14	0.82	6.49
W9413	N03	09-28-94	0847	29.88	W94130098	13.772	32.147	7.46	8.48	87.95	38.664	24.031	0.9258	0.76563	0.41	0.40	3.56	0.69	4.41
W9413	N03	09-28-94	0848	20.04	W94130099	14.614	32.090	7.86	8.34	94.25	39.362	23.813	1.3821	0.81961	0.56	0.26	0.62	0.46	2.02
W9413	N03	09-28-94	0849	9.84	W94130100	15.246	31.951	7.86	8.24	95.38	39.778	23.571	2.2569	1.03503	0.55	0.18	0.66	0.49	1.92
W9413	N03	09-28-94	0850	1.47	W94130101	15.938	31.700	8.29	8.14	101.85	40.121	23.226	4.1175	1.82826	0.50	0.04	0.11	0.42	0.58
W9413	N04P	09-28-94	0911	44.63	W94130121	10.936	32.383	6.11	8.99	67.93	36.369	24.751	0.4020	1.06777	0.72	0.40	9.44	1.07	11.63
W9413	N04P	09-28-94	0912	33.42	W94130122	12.652	32.414	7.41	8.67	85.48	37.936	24.459	0.5132	0.64143	0.26	0.21	6.55	0.84	6.45
W9413	N04P	09-28-94	0913	21.96	W94130123	14.972	31.843	7.20	8.29	86.83	39.414	23.547	1.1786	0.84633	0.67	0.42	2.88	0.74	4.75
W9413	N04P	09-28-94	0915	1.72	W94130125	16.015	31.749	8.09	8.12	99.57	40.247	23.246	4.3962	1.66757	0.45	0.04	0.13	0.52	2.40
W9413	N04P	09-28-94	0915	10.86	W94130124	15.677	31.828	7.58	8.18	92.71	40.032	23.382	1.7913	0.91740	0.58	0.22	0.76	0.60	2.93
W9413	N05	09-28-94	0937	48.20	W94130132	10.548	32.396	6.14	9.07	67.70	36.038	24.828	0.3294	1.01303	0.57	0.39	9.91	1.07	12.32
W9413	N05	09-28-94	0938	36.97	W94130133	11.588	32.320	6.17	8.87	69.55	36.883	24.585	0.4716	0.96762	1.07	0.20	5.10	0.69	12.47
W9413	N05	09-28-94	0939	25.27	W94130134	13.784	32.090	7.03	8.48	82.87	38.611	23.985	0.9803	0.77437	0.25	0.44	4.59	0.75	5.41
W9413	N05	09-28-94	0940	12.34	W94130135	15.271	31.820	7.45	8.24	90.38	39.655	23.465	1.8063	0.94284	0.59	0.23	1.25	0.61	3.27
W9413	N05	09-28-94	0941	1.75	W94130136	15.969	31.715	8.38	8.13	103.03	40.165	23.230	5.6231	2.07553	0.10	0.05	0.10	0.47	1.13
W9413	N06	09-28-94	0958	47.60	W94130143	10.587	32.394	5.98	9.06	65.99	36.071	24.820	0.3495	1.24052	0.47	0.38	8.56	1.02	10.65

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths.

Event	Station	Date	Time (EST)	Depth (M)	Sample id	Temp (C)	Sal (PSU)	DO (mg/L)	Oxy Sat	Oxy Sat (%)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Beam (1/M)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
W9413	N06	09-28-94	0959	35.06	W94130144	12.107	32.374	7.02	8.77	80.04	37.404	24.531	0.5111	0.76193	0.39	0.30	8.20	0.95	8.93
W9413	N06	09-28-94	1000	23.94	W94130145	13.637	32.136	7.15	8.51	84.05	38.527	24.050	0.7791	0.71160	0.40	0.03	0.05	0.24	5.05
W9413	N06	09-28-94	1001	12.05	W94130146	15.687	31.816	7.75	8.17	94.81	40.027	23.370	3.3657	1.31119	0.21	0.03	0.06	0.33	2.64
W9413	N06	09-28-94	1002	1.71	W94130147	16.145	31.739	8.46	8.10	104.39	40.353	23.209	3.8301	1.89790	0.49	0.05	0.13	0.46	0.58
W9413	N07P	09-28-94	1021	44.48	W94130182	11.620	32.292	6.09	8.87	68.68	36.887	24.558	0.5670	0.93771	0.45	0.49	8.30	1.05	10.10
W9413	N07P	09-28-94	1022	32.74	W94130183	12.420	32.263	6.52	8.72	74.78	37.569	24.386	0.5818	0.86388	0.42	0.53	7.26	1.00	9.09
W9413	N07P	09-28-94	1023	22.28	W94130184	13.746	32.190	7.31	8.48	86.16	38.683	24.069	0.7265	0.67920	0.34	0.42	4.55	0.75	5.12
W9413	N07P	09-28-94	1024	11.44	W94130185	15.841	31.875	7.97	8.15	97.83	40.234	23.382	3.2801	1.29192	0.21	0.02	0.08	0.26	1.18
W9413	N07P	09-28-94	1025	1.69	W94130186	16.105	31.721	8.48	8.11	104.54	40.296	23.204	2.5976	1.90543	0.48	0.07	0.10	0.43	0.27
W9413	N08	09-28-94	1052	20.77	W94130194	14.395	32.016	6.99	8.38	83.40	39.082	23.802	1.2081	0.89992	0.96	0.42	3.40	0.78	5.56
W9413	N08	09-28-94	1052	28.75	W94130193	13.456	32.084	6.23	8.54	72.94	38.310	24.046	0.8489	1.07943	1.00	0.49	4.70	0.91	7.37
W9413	N08	09-28-94	1053	14.07	W94130195	15.708	31.882	7.82	8.17	95.74	40.123	23.417	3.2988	1.26086	0.33	0.13	0.56	0.51	1.60
W9413	N08	09-28-94	1054	6.30	W94130196	15.900	31.843	8.05	8.14	98.91	40.250	23.344	4.6860	1.64690	0.52	0.06	0.13	0.44	0.69
W9413	N08	09-28-94	1055	1.76	W94130197	16.102	31.837	8.20	8.11	101.16	40.426	23.294	3.0167	1.70924	0.30	0.06	0.10	0.47	0.45
W9413	N09	09-28-94	1111	33.13	W94130204	12.792	32.095	5.38	8.66	62.13	37.727	24.185	0.7521	1.56547	1.97	0.55	5.18	1.02	9.74
W9413	N09	09-28-94	1112	16.05	W94130206	16.024	31.796	8.01	8.12	98.63	40.314	23.281	4.2858	1.51156	0.61	0.05	0.29	0.51	0.87
W9413	N09	09-28-94	1112	24.03	W94130205	15.096	31.921	7.15	8.27	86.49	39.613	23.580	1.5497	0.93765	1.74	0.49	4.15	0.93	7.92
W9413	N09	09-28-94	1113	7.72	W94130207	16.051	31.760	8.10	8.12	99.77	40.294	23.246	5.8835	1.70266	2.63	0.60	0.14	0.61	7.85
W9413	N09	09-28-94	1114	1.59	W94130208	16.205	31.737	8.51	8.09	105.13	40.405	23.194	4.4414	2.11440	2.00	0.55	5.19	1.04	9.82
W9413	N10P	09-28-94	0633	21.37	W94130019	14.552	31.943	6.29	8.36	75.26	39.144	23.713	1.2478	2.01812	3.90	0.39	2.97	0.91	6.45
W9413	N10P	09-28-94	0634	15.96	W94130020	15.149	31.894	6.88	8.26	83.30	39.628	23.548	1.5829	1.44026	3.80	0.33	2.39	0.77	5.53
W9413	N10P	09-28-94	0635	9.49	W94130021	15.674	31.712	6.97	8.18	85.19	39.898	23.294	2.1886	1.47973	3.22	0.29	1.72	0.79	2.89
W9413	N10P	09-28-94	0636	3.12	W94130022	16.233	31.372	7.19	8.11	88.68	40.014	22.908	4.5734	2.04678	2.64	0.11	1.63	0.62	2.73
W9413	N10P	09-28-94	0637	1.64	W94130023	16.250	31.367	7.16	8.11	88.33	40.024	22.900	4.5017	2.05329	2.99	0.02	0.11	0.46	2.54
W9413	N11	09-28-94	0704	27.45	W94130030	14.326	31.952	5.97	8.40	71.11	38.951	23.767	1.1329	1.38481	2.40	0.51	4.19	1.01	8.41
W9413	N11	09-28-94	0705	20.43	W94130031	15.394	31.889	7.10	8.22	86.38	39.848	23.491	1.7168	1.07445	1.98	0.29	2.07	0.71	4.48
W9413	N11	09-28-94	0706	11.95	W94130032	15.851	31.838	7.97	8.15	97.83	40.202	23.351	3.3107	1.40675	0.65	0.04	0.27	0.49	0.88
W9413	N11	09-28-94	0707	4.56	W94130033	16.088	31.688	8.02	8.12	98.82	40.244	23.183	5.4175	1.96388	0.85	0.06	0.38	0.53	0.61
W9413	N11	09-28-94	0708	1.86	W94130034	16.137	31.476	7.48	8.12	92.14	40.046	23.009	4.9330	1.93508	2.59	0.19	1.00	0.68	1.02
W9413	N12	09-28-94	0733	21.77	W94130041	14.316	31.951	6.09	8.40	72.52	38.940	23.768	1.4383	1.85664	1.63	0.30	2.39	0.80	5.24
W9413	N12	09-28-94	0735	9.32	W94130043	16.107	31.712	7.98	8.11	98.38	40.291	23.197	5.2799	1.75614	0.09	0.04	0.08	0.43	0.35
W9413	N12	09-28-94	0735	17.01	W94130042	15.656	31.875	7.25	8.18	88.67	40.068	23.423	3.0620	1.43218	0.85	0.11	0.62	0.58	1.63
W9413	N12	09-28-94	0736	5.39	W94130044	16.129	31.651	7.79	8.11	96.04	40.239	23.145	5.0771	1.73641	0.12	0.05	0.23	0.33	0.27
W9413	N12	09-28-94	0737	1.66	W94130045	16.153	31.615	8.05	8.11	99.27	40.219	23.112	6.7432	2.18861	0.62	0.02	0.11	0.42	0.39
W9413	N13	09-28-94	1253	29.81	W94130239	12.829	32.195	5.66	8.65	65.45	37.864	24.256	0.7285	1.19310	0.99	0.47	4.94	0.95	8.46
W9413	N13	09-28-94	1254	23.08	W94130240	14.889	32.009	7.70	8.30	92.80	39.523	23.692	1.4044	0.87548	0.91	0.28	1.48	0.62	3.08
W9413	N13	09-28-94	1255	14.36	W94130241	15.882	31.810	7.71	8.14	94.68	40.199	23.323	3.1049	1.21418	0.70	0.08	0.34	0.54	1.14
W9413	N13	09-28-94	1256	1.54	W94130243	16.540	31.702	8.52	8.04	105.93	40.671	23.092	3.9983	2.33843	0.73	0.06	0.15	0.47	0.74
W9413	N13	09-28-94	1256	6.99	W94130242	16.111	31.792	8.39	8.11	103.49	40.385	23.257	5.6111	1.87497	0.24	0.02	0.13	0.47	0.58
W9413	N14	09-28-94	1316	24.43	W94130251	14.339	32.074	7.81	8.39	93.12	39.095	23.858	1.1516	0.79479	0.78	0.38	1.92	0.59	3.19
W9413	N14	09-28-94	1316	31.94	W94130250	13.250	32.202	6.89	8.57	80.38	38.252	24.179	0.7517	0.88265	0.69	0.46	3.87	0.74	5.73
W9413	N14	09-28-94	1317	16.68	W94130252	14.995	31.975	7.89	8.28	95.28	39.579	23.643	1.8270	0.92461	0.64	0.17	0.58	0.52	2.02
W9413	N14	09-28-94	1318	8.50	W94130253	15.585	31.838	8.19	8.19	100.00	39.959	23.410	4.1287	1.34085	0.36	0.05	0.19	0.52	1.17
W9413	N14	09-28-94	1319	1.61	W94130254	16.016	31.735	8.53	8.13	104.98	40.231	23.235	2.7275	1.88163	0.39	0.03	0.11	0.51	0.92
W9413	N15	09-28-94	1338	40.07	W94130261	11.677	32.295	6.13	8.86	69.22	36.939	24.550	0.4732	1.12003	0.61	0.53	8.03	1.03	11.69
W9413	N15	09-28-94	1339	29.67	W94130262	12.695	32.251	6.77	8.67	78.09	37.802	24.324	0.6500	0.88748	0.50	0.52	7.04	0.95	9.96
W9413	N15	09-28-94	1340	19.56	W94130263	14.420	32.095	7.75	8.37	92.56	39.190	23.857	1.0403	0.75978	0.41	0.38	1.53	0.53	2.77
W9413	N15	09-28-94	1341	9.62	W94130264	15.663	31.853	8.52	8.18	104.20	40.047	23.404	4.7418	1.74469	0.23	0.03	0.10	0.46	0.90
W9413	N15	09-28-94	1342	1.73	W94130265	16.326	31.756	8.70	8.07	107.75	40.537	23.181	3.5684	2.04939	0.46	0.03	0.09	0.48	0.62
W9413	N16P	09-28-94	1358	41.01	W94130273	11.625	32.251	5.55	8.87	62.58	36.848	24.525	0.4869	1.22715	e	e	e	e	e

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths.

Event	Station	Date	Time (EST)	Depth (M)	Sample id	Temp (C)	Sal (PSU)	DO (mg/L)	Oxy Sat	Oxy Sat (%)	Cond (mmhos/cm) (%)	Sigma t	Flu (ug/L)	Beam (1/M)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
W9413	N16P	09-28-94	1359	30.26	W94130274	12.780	32.269	6.95	8.65	80.32	37.899	24.322	0.6618	0.80291	0.31	0.56	7.03	0.97	9.81
W9413	N16P	09-28-94	1400	19.85	W94130275	14.001	32.114	7.57	8.44	89.65	38.831	23.959	0.9616	0.75059	0.19	0.44	3.00	0.60	4.02
W9413	N16P	09-28-94	1401	10.30	W94130276	15.870	31.804	8.47	8.15	103.98	40.180	23.320	5.0860	1.77682	0.13	0.03	0.11	0.40	0.59
W9413	N16P	09-28-94	1402	1.55	W94130277	16.754	31.738	8.59	8.01	107.28	40.907	23.070	3.3858	1.89980	0.12	0.03	0.13	0.49	1.07
W9413	N17	09-28-94	1424	36.37	W94130284	12.032	32.253	6.01	8.79	68.36	37.212	24.452	0.5269	1.03170	0.44	0.53	6.72	1.01	9.45
W9413	N17	09-28-94	1425	27.48	W94130285	12.814	32.217	6.61	8.65	76.42	37.873	24.275	0.6304	0.85014	0.40	0.55	6.59	0.98	9.80
W9413	N17	09-28-94	1426	8.57	W94130287	15.872	31.804	8.15	8.15	100.06	40.180	23.320	5.0130	1.69520	0.22	0.02	0.15	0.46	0.81
W9413	N17	09-28-94	1426	17.54	W94130286	14.622	32.064	7.78	8.34	93.29	39.339	23.791	1.4171	0.82707	0.24	0.38	2.23	0.62	3.35
W9413	N17	09-28-94	1427	1.62	W94130288	16.442	31.761	8.67	8.06	107.63	40.648	23.159	4.6415	2.05264	0.15	0.02	0.11	0.46	0.95
W9413	N18	09-28-94	1443	28.72	W94130295	12.593	32.131	5.44	8.69	62.57	37.584	24.251	0.6756	1.57789	1.09	0.50	5.09	0.93	8.77
W9413	N18	09-28-94	1444	22.03	W94130296	14.303	32.072	7.40	8.39	88.16	39.060	23.864	1.1432	0.82254	0.77	0.39	2.38	0.62	4.17
W9413	N18	09-28-94	1445	13.82	W94130297	15.249	31.930	8.03	8.24	97.44	39.759	23.554	2.4186	1.03902	0.33	0.08	0.21	0.42	1.35
W9413	N18	09-28-94	1446	1.59	W94130299	16.558	31.768	8.59	8.04	106.88	40.763	23.138	4.1035	1.94078	0.26	0.04	0.11	0.52	0.39
W9413	N18	09-28-94	1446	7.70	W94130298	15.884	31.810	8.36	8.14	102.67	40.199	23.322	6.0452	1.97499	0.24	0.02	0.12	0.46	0.55
W9413	N19	09-28-94	1211	14.95	W94130218	15.926	31.821	8.13	8.14	99.93	40.253	23.322	3.6258	1.34852	0.73	0.07	0.21	0.49	0.99
W9413	N19	09-28-94	1211	21.40	W94130217	14.998	31.959	7.34	8.28	88.63	39.566	23.630	1.4256	0.96257	0.64	0.11	0.49	0.55	1.48
W9413	N19	09-28-94	1212	9.76	W94130219	16.030	31.786	8.30	8.12	102.21	40.306	23.272	5.1726	1.63868	0.33	0.05	0.12	0.52	0.55
W9413	N19	09-28-94	1213	1.48	W94130221	16.386	31.725	8.70	8.07	107.86	40.557	23.144	3.7286	2.07881	0.59	0.05	0.11	0.45	0.39
W9413	N19	09-28-94	1213	5.03	W94130220	16.115	31.738	8.45	8.11	104.20	40.325	23.215	6.6786	2.04430	0.32	0.04	0.12	0.52	0.49
W9413	N20P	09-28-94	1230	28.79	W94130228	12.985	32.068	5.45	8.63	63.18	37.869	24.127	0.8135	1.61031	1.84	0.51	5.06	1.01	9.72
W9413	N20P	09-28-94	1231	13.81	W94130230	15.810	31.813	7.67	8.15	94.06	40.137	23.341	3.2801	1.31347	1.02	0.12	0.54	0.61	1.62
W9413	N20P	09-28-94	1231	20.66	W94130229	15.143	31.818	6.35	8.26	76.84	39.540	23.491	1.4586	1.43558	2.36	0.39	2.82	0.92	6.41
W9413	N20P	09-28-94	1232	6.90	W94130231	16.106	31.738	8.27	8.11	101.97	40.319	23.217	6.0587	1.83966	0.57	0.06	0.21	0.51	0.63
W9413	N20P	09-28-94	1233	1.70	W94130232	16.579	31.692	8.57	8.04	106.63	40.695	23.075	3.1315	2.05462	0.87	0.06	0.11	0.52	0.22
W9413	N21	09-28-94	1509	33.93	W94130306	12.733	32.187	6.07	8.67	70.05	37.771	24.268	0.6529	1.11265	0.90	0.46	4.39	0.79	6.84
W9413	N21	09-28-94	1510	25.54	W94130307	13.476	32.159	6.97	8.53	81.68	38.407	24.100	0.7681	0.78747	0.48	0.50	4.45	0.78	6.30
W9413	N21	09-28-94	1511	8.04	W94130309	15.868	31.806	8.24	8.15	101.16	40.180	23.323	5.8703	1.95470	0.28	0.06	0.18	0.43	0.92
W9413	N21	09-28-94	1511	16.41	W94130308	14.798	32.015	7.82	8.31	94.08	39.444	23.716	1.7507	0.89699	0.39	0.30	1.29	0.52	2.61
W9413	N21	09-28-94	1512	1.77	W94130310	16.336	31.756	8.72	8.07	108.02	40.547	23.179	4.3913	2.07225	0.32	0.03	0.13	0.41	0.34

Table A2. Chemical and Biological Parameters at Two Depths of Bioproductivity Stations and Special Stations F24 and F25.

EVENT	STATION	DATE	TIME (EST)	DEPTH (M)	SAMPLE ID	REP	CHLA (ug/L)	DOC (uM)	PHA (ug/L)	PON (uM)	POC (uM)	TDN (uM)	TDP (uM)	TSS (mg/L)
W9411	F01P	08-25-94	919	16.26	W94110544	1	4.38	129.17	1.47	2.94	10.78	16.81	0.46	1.07
W9411	F01P	08-25-94	919	16.26	W94110544	2	3.81	122.5	1.55	2.56	10.78	16.5	0.5	0.66
W9411	F01P	08-25-94	922	1.82	W94110547	1	1.72	121.67	1.09	2.49	9.48	16.9	0.41	0.68
W9411	F01P	08-25-94	922	1.82	W94110547	2	1.24	115.83	0.91	2.51	10.85	15.36	0.36	0.73
W9411	F02P	08-25-94	734	15.43	W94110520	1	2.6	e	1.28	2.5	9.51	16.08	0.36	1.07
W9411	F02P	08-25-94	734	15.43	W94110520	2	1.93	e	1.23	2.22	9.67	16.49	0.36	0.64
W9411	F02P	08-25-94	737	1.75	W94110522	1	1.32	130	0.9	2.44	8.29	16.14	0.24	0.81
W9411	F02P	08-25-94	737	1.75	W94110522	2	1.24	125	0.96	2.01	6.94	14.45	0.34	1.02
W9411	F06	08-25-94	1305	5.76	W94110592	1	3.44	131.67	1.69	3.08	15.52	15.3	0.39	0.84
W9411	F06	08-25-94	1305	5.76	W94110592	2	3.95	125	2.01	3.31	17.23	14.41	0.23	0.73
W9411	F06	08-25-94	1306	1.98	W94110593	1	6.56	119.17	2.57	3.86	20.77	13.7	0.28	1.04
W9411	F06	08-25-94	1306	1.98	W94110593	2	7.54	114.17	2.36	4.65	24.13	15.47	0.31	1.74
W9411	F13P	08-25-94	1608	5.14	W94110655	1	4.3	129.17	2.42	3.21	16.07	14.97	0.43	1.41
W9411	F13P	08-25-94	1608	5.14	W94110655	2	4.09	126.67	2.45	3.24	18.33	15	0.41	1.04
W9411	F13P	08-25-94	1609	2.18	W94110656	1	5.61	131.67	2.8	4.19	22.37	20.3	0.72	1.37
W9411	F13P	08-25-94	1609	2.18	W94110656	2	5.92	132.5	2.88	3.98	22.99	19.36	0.56	1.67
W9411	F23P	08-23-94	640	11.71	W94110056	1	1.98	300.83	3.85	3.51	28.13	18.96	1.02	3.69
W9411	F23P	08-23-94	640	11.71	W94110056	2	1.86	296.67	4.03	3.19	22.03	18.49	1.01	4.76
W9411	F23P	08-23-94	643	2.2	W94110058	1	2.2 s	159.17	2.9 s	3.13	20.35	22.89	1.14	3.37
W9411	F23P	08-23-94	643	2.2	W94110058	2	1.9 s	166.67	3.07 s	2.46	14.89	23.3	1.63	3.27
W9411	F23P	08-24-94	645	8.64	W94110302	1	1.48	160	2.52	2.77	16.92	26.2	1.16	2.54
W9411	F23P	08-24-94	645	8.64	W94110302	2	1.43	158.33	2.6	2.76	16.23	27.95	1.17	2.79
W9411	F23P	08-24-94	647	2.52	W94110304	1	1.24 s	188.33	2.32 s	2.44	14.15	30.91	1.36	2.72
W9411	F23P	08-24-94	647	2.52	W94110304	2	1.39 s	183.33	2.29 s	2.09	10.06	33.6	1.31	2.3
W9411	F24	08-23-94	726	8.27	W94110072	1	1.25	144.17	3.11	2.54	14.66	17.89	0.83	2.77
W9411	F24	08-23-94	726	8.27	W94110072	2	1.57	145.83	3.16	2.95	17.09	17.28	0.85	2.75
W9411	F24	08-23-94	729	1.82	W94110074	1	1.64	147.5	2.62	2.71	16.33	18.38	0.9	2.8
W9411	F24	08-23-94	729	1.82	W94110074	2	1.49	145.83	2.57	3.33	20.63	19.07	0.83	2.95
W9411	F25	08-23-94	1832	6.31	W94110263	1	1.43	158.33	2.78	2.98	17.93	21.07	1.05	3.23
W9411	F25	08-23-94	1832	6.31	W94110263	2	0.46	178.33	3.58	2.72	15.89	22.55	4.54 s	2.93
W9411	F25	08-23-94	1833	1.82	W94110265	1	2.54	319.17	2.66	2.79	15.41	19.37	0.92	2.94
W9411	F25	08-23-94	1833	1.82	W94110265	2	2.11	306.67	2.8	2.81	16.86	18.95	1.08	2.91
W9411	F27B	08-24-94	1305	24.47	W94110407	1	0.91	129.17	1.37	1.88	6.84	11.37	0.38	0.59
W9411	F27B	08-24-94	1305	24.47	W94110407	2	0.88	130.83	1.43	1.82	6.38	13.06	0.39	0.32
W9411	F27B	08-24-94	1307	2.05	W94110408	1	0.42	124.17	0.68	2.14	9.73	10.5	0.33	0.55
W9411	F27B	08-24-94	1307	2.05	W94110408	2	0.28	115.83	0.72	1.81	6.99	12.68	0.44	0.34
W9411	F30B	08-23-94	542	4.19	W94110036	1	1.05	176.67	3.01	2.51	14.95	19.46	1.11	3.56
W9411	F30B	08-23-94	542	4.19	W94110036	2	1.55	167.5	2.85	2.55	15.99	20.88	1.07	3.34
W9411	F30B	08-23-94	543	1.87	W94110037	1	0.98	285	2.59	2.34	12.72	24.75	1.31	1.74
W9411	F30B	08-23-94	543	1.87	W94110037	2	0.94	290	3.05	2.29	13.48	22.1	1.27	1.88
W9411	F31B	08-23-94	1906	8.3	W94110278	1	1.87	196.67	2.94	3.26	20.71	19.42	1.09	4.16
W9411	F31B	08-23-94	1906	8.3	W94110278	2	1.92	180	2.85	3.2	19.72	19.13	1.1	3.23

Table A2. Chemical and Biological Parameters at Two Depths of Bioproductivity Stations and Special Stations F24 and F25.

EVENT	STATION	DATE	TIME (EST)	DEPTH (M)	SAMPLE ID	REP	CHLA (ug/L)	DOC (uM)	PHA (ug/L)	PON (uM)	POC (uM)	TDN (uM)	TDP (uM)	TSS (mg/L)
W9411	F31B	08-23-94	1907	2.28	W94110279	1	1.76	184.17	4.09	4.26	27.94	25.03	1.25	3.75
W9411	F31B	08-23-94	1907	2.28	W94110279	2	1.96	185	3.39	3.99	27.76	25.29	1.21	3.81
W9411	N01P	08-24-94	740	12.15	W94110320	1	2.55	120	2.1	2.16	10.12	12.26	0.48	0.61
W9411	N01P	08-24-94	740	12.15	W94110320	2	2.65	135	1.88	2.14	9.84	13	0.42	0.82
W9411	N01P	08-24-94	742	2.35	W94110322	1	2.6	120	2.2	2.98	15.04	12.83	0.45	1.31
W9411	N01P	08-24-94	742	2.35	W94110322	2	2.68	119.17	2.27	3.02	15.1	5.38	0.49	0.82
W9411	N04P	08-24-94	845	20.16	W94110339	1	1.76	119.17	1.73	1.93	8.36	11.31	0.48	0.93
W9411	N04P	08-24-94	845	20.16	W94110339	2	1.89	104.17	1.68	1.93	8.44	12.92	0.71	0.62
W9411	N04P	08-24-94	847	2.36	W94110341	1	1.01	e	1.21	1.72	8.64	10.56	0.38	1.01
W9411	N04P	08-24-94	847	2.36	W94110341	2	0.99	e	1.09	1.89	8.12	12.28	0.38	0.98
W9411	N07P	08-23-94	1220	19.37	W94110152	1	1.01	133.33	1.53	1.81	6.69	5.33	0.55	0.65
W9411	N07P	08-23-94	1220	19.37	W94110152	2	1.25	135	1.58	1.72	6.89	7.1	0.61	0.34
W9411	N07P	08-23-94	1223	2.43	W94110154	1	1.46	135.83	1.42	2.13	8.29	6.26	1.65	0.55
W9411	N07P	08-23-94	1223	2.43	W94110154	2	1.44	130.83	1.42	2.4	10.72	e	0.86	1.66
W9411	N10P	08-23-94	1752	10.39	W94110243	1	2.16	126.67	1.92	2.48	12.58	6.17	0.39	1.71
W9411	N10P	08-23-94	1752	10.39	W94110243	2	2.42	128.33	2.35	2.27	11.26	7.22	0.41	1.34
W9411	N10P	08-23-94	1754	1.82	W94110245	1	2.19	135.83	2.52	2.59	14.03	9.91	1.38	2.71
W9411	N10P	08-23-94	1754	1.82	W94110245	2	2.07	130.83	2.48	2.64	15.33	14.16	0.88	2.95
W9411	N16P	08-23-94	1027	18.39	W94110121	1	1.33	144.17	1.42	1.71	5.73	4.11	0.18	0.56
W9411	N16P	08-23-94	1027	18.39	W94110121	2	1.45	143.33	1.46	1.87	7.77	5	0.21	0.39
W9411	N16P	08-23-94	1031	2.71	W94110124	1	1.15	133.33	1.26	1.71	7.9	8.22	0.19	0.43
W9411	N16P	08-23-94	1031	2.71	W94110124	2	1.13	143.33	1.15	1.91	9.2	1.95	0.09	0.49
W9411	N16P	08-24-94	924	18.93	W94110363	1	1.68	124.17	1.36	1.7	6.4	12.38	0.52	0.66
W9411	N16P	08-24-94	924	18.93	W94110363	2	1.6	128.33	1.28	1.76	6.64	15.02	0.56	0.07 s
W9411	N16P	08-24-94	927	2.2	W94110365	1	0.63	122.5	0.91	2.07	9.35	11.49	0.39	0.39
W9411	N16P	08-24-94	927	2.2	W94110365	2	0.65	119.17	1.05	1.78	7.73	8.19	0.45	0.48
W9411	N20P	08-23-94	932	14.31	W94110105	1	1.57	134.17	1.31	1.96	8.68	2.06	0.13	0.86
W9411	N20P	08-23-94	932	14.31	W94110105	2	1.44	141.67	1.32	1.94	8.33	4.47	0.15	0.6
W9411	N20P	08-23-94	935	2.61	W94110107	1	1.65	139.17	1.45	2.54	13.73	1.76	0.1	0.67
W9411	N20P	08-23-94	935	2.61	W94110107	2	1.35	141.67	1.32	2.04	9.88	3.08	0.08	0.94

Saturation Values of Oxygen is Sea Water (mg/L) based on Weiss (1970)

Temperature (°C)

Salinity PPT	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
0	14.60	14.20	13.81	13.45	13.09	12.76	12.44	12.13	11.83	11.55	11.28	11.02	10.77	10.53	10.29	10.07	9.86	9.65	9.45	9.26	9.08
1	14.50	14.10	13.72	13.36	13.01	12.67	12.35	12.05	11.76	11.47	11.21	10.95	10.70	10.46	10.23	10.01	9.80	9.59	9.40	9.21	9.02
2	14.40	14.01	13.63	13.27	12.92	12.59	12.27	11.97	11.68	11.40	11.13	10.88	10.63	10.40	10.17	9.95	9.74	9.54	9.34	9.15	8.97
3	14.31	13.91	13.54	13.18	12.84	12.51	12.19	11.89	11.61	11.33	11.06	10.81	10.57	10.33	10.11	9.89	9.68	9.48	9.28	9.10	8.92
4	14.21	13.82	13.45	13.09	12.75	12.43	12.11	11.82	11.53	11.26	10.99	10.74	10.50	10.27	10.04	9.83	9.62	9.42	9.23	9.04	8.86
5	14.11	13.72	13.36	13.00	12.67	12.34	12.04	11.74	11.46	11.18	10.92	10.67	10.43	10.20	9.98	9.77	9.56	9.36	9.17	8.99	8.81
6	14.02	13.63	13.27	12.92	12.58	12.26	11.96	11.66	11.38	11.11	10.86	10.61	10.37	10.14	9.92	9.71	9.50	9.31	9.12	8.94	8.76
7	13.92	13.54	13.18	12.83	12.50	12.18	11.88	11.59	11.31	11.04	10.79	10.54	10.30	10.08	9.86	9.65	9.45	9.25	9.06	8.88	8.71
8	13.82	13.45	13.09	12.75	12.42	12.10	11.80	11.51	11.24	10.97	10.72	10.47	10.24	10.01	9.80	9.59	9.39	9.20	9.01	8.83	8.66
9	13.73	13.36	13.00	12.66	12.33	12.02	11.72	11.44	11.16	10.90	10.65	10.41	10.18	9.95	9.74	9.53	9.33	9.14	8.96	8.78	8.61
10	13.64	13.27	12.91	12.58	12.25	11.94	11.65	11.36	11.09	10.83	10.58	10.34	10.11	9.89	9.68	9.47	9.28	9.09	8.90	8.73	8.56
11	13.54	13.18	12.83	12.49	12.17	11.87	11.57	11.29	11.02	10.76	10.52	10.28	10.05	9.83	9.62	9.42	9.22	9.03	8.85	8.67	8.51
12	13.45	13.09	12.74	12.41	12.09	11.79	11.50	11.22	10.95	10.70	10.45	10.21	9.99	9.77	9.56	9.36	9.16	8.98	8.80	8.62	8.46
13	13.36	13.00	12.66	12.33	12.01	11.71	11.42	11.15	10.88	10.63	10.38	10.15	9.92	9.71	9.50	9.30	9.11	8.92	8.74	8.57	8.41
14	13.27	12.91	12.57	12.24	11.93	11.63	11.35	11.07	10.81	10.56	10.32	10.09	9.86	9.65	9.44	9.24	9.05	8.87	8.69	8.52	8.36
15	13.18	12.82	12.49	12.16	11.85	11.56	11.27	11.00	10.74	10.49	10.25	10.02	9.80	9.59	9.38	9.19	9.00	8.82	8.64	8.47	8.31
16	13.09	12.74	12.40	12.08	11.77	11.48	11.20	10.93	10.67	10.42	10.19	9.96	9.74	9.53	9.33	9.13	8.94	8.76	8.59	8.42	8.26
17	13.00	12.65	12.32	12.00	11.70	11.41	11.13	10.86	10.60	10.36	10.12	9.90	9.68	9.47	9.27	9.08	8.89	8.71	8.54	8.37	8.21
18	12.91	12.57	12.24	11.92	11.62	11.33	11.05	10.79	10.54	10.29	10.06	9.83	9.62	9.41	9.21	9.02	8.84	8.66	8.49	8.32	8.16
19	12.82	12.48	12.15	11.84	11.54	11.26	10.98	10.72	10.47	10.23	9.99	9.77	9.56	9.35	9.16	8.97	8.78	8.61	8.44	8.27	8.11
20	12.74	12.40	12.07	11.76	11.47	11.18	10.91	10.65	10.40	10.16	9.93	9.71	9.50	9.30	9.10	8.91	8.73	8.55	8.39	8.22	8.07
21	12.65	12.31	11.99	11.68	11.39	11.11	10.84	10.58	10.33	10.10	9.87	9.65	9.44	9.24	9.04	8.86	8.68	8.50	8.33	8.17	8.02
22	12.56	12.23	11.91	11.61	11.32	11.04	10.77	10.51	10.27	10.03	9.81	9.59	9.38	9.18	8.99	8.80	8.62	8.45	8.29	8.13	7.97
23	12.48	12.15	11.83	11.53	11.24	10.96	10.70	10.45	10.20	9.97	9.74	9.53	9.32	9.12	8.93	8.75	8.57	8.40	8.24	8.08	7.92
24	12.39	12.07	11.75	11.45	11.17	10.89	10.63	10.38	10.14	9.90	9.68	9.47	9.26	9.07	8.88	8.69	8.52	8.35	8.19	8.03	7.88
25	12.31	11.98	11.67	11.38	11.09	10.82	10.56	10.31	10.07	9.84	9.62	9.41	9.21	9.01	8.82	8.64	8.47	8.30	8.14	7.98	7.83
26	12.23	11.90	11.59	11.30	11.02	10.75	10.49	10.24	10.01	9.78	9.56	9.35	9.15	8.96	8.77	8.59	8.42	8.25	8.09	7.93	7.78
27	12.14	11.82	11.52	11.23	10.95	10.68	10.42	10.18	9.94	9.72	9.50	9.29	9.09	8.90	8.71	8.54	8.37	8.20	8.04	7.89	7.74
28	12.06	11.74	11.44	11.15	10.87	10.61	10.35	10.11	9.88	9.65	9.44	9.23	9.04	8.84	8.66	8.48	8.31	8.15	7.99	7.84	7.69
29	11.98	11.66	11.36	11.08	10.80	10.54	10.29	10.05	9.81	9.59	9.38	9.18	8.98	8.79	8.61	8.43	8.26	8.10	7.94	7.79	7.65
30	11.90	11.58	11.29	11.00	10.73	10.47	10.22	9.98	9.75	9.53	9.32	9.12	8.92	8.74	8.55	8.38	8.21	8.05	7.90	7.75	7.60
31	11.81	11.51	11.21	10.93	10.66	10.40	10.15	9.92	9.69	9.47	9.26	9.06	8.87	8.68	8.50	8.33	8.16	8.00	7.85	7.70	7.56
32	11.73	11.43	11.14	10.86	10.59	10.33	10.09	9.85	9.63	9.41	9.20	9.00	8.81	8.63	8.45	8.28	8.11	7.96	7.80	7.66	7.51
33	11.65	11.35	11.06	10.78	10.52	10.26	10.02	9.79	9.56	9.35	9.14	8.95	8.76	8.57	8.40	8.23	8.07	7.91	7.76	7.61	7.47
34	11.58	11.27	10.99	10.71	10.45	10.20	9.96	9.73	9.50	9.29	9.09	8.89	8.70	8.52	8.35	8.18	8.02	7.86	7.71	7.57	7.43
35	11.50	11.20	10.91	10.64	10.38	10.13	9.89	9.66	9.44	9.23	9.03	8.83	8.65	8.47	8.29	8.13	7.97	7.81	7.66	7.52	7.38
36	11.42	11.12	10.84	10.57	10.31	10.06	9.83	9.60	9.38	9.17	8.97	8.78	8.59	8.42	8.24	8.08	7.92	7.77	7.62	7.48	7.34
37	11.34	11.05	10.77	10.50	10.24	10.00	9.76	9.54	9.32	9.11	8.92	8.72	8.54	8.36	8.19	8.03	7.87	7.72	7.57	7.43	7.29
38	11.26	10.97	10.70	10.43	10.18	9.93	9.70	9.48	9.26	9.06	8.86	8.67	8.49	8.31	8.14	7.98	7.82	7.67	7.53	7.39	7.25
39	11.19	10.90	10.62	10.36	10.11	9.87	9.64	9.41	9.20	9.00	8.80	8.61	8.43	8.26	8.09	7.93	7.78	7.63	7.48	7.34	7.21
40	11.11	10.82	10.55	10.29	10.04	9.80	9.57	9.35	9.14	8.94	8.75	8.56	8.38	8.21	8.04	7.88	7.73	7.58	7.44	7.30	7.17

OXsat=1.429*EXP(-173.4292+249.6339*(100/(273.15+T))+143.3483*LN((T+273.15)/100)
-21.8492*((T+273.15)/100)+Salinity*(-0.033096+0.014259*((T+273.15)/100)-0.0017*((T+273.15)/100)^2))

% Saturation =100*DO/OXsat

Reference

Weiss, R.F., 1970 The Solubility of Nitrogen, Oxygen, and Argon in Water and Seawater Deep-Sea Res., 17, 721-735

APPENDIX A

STATION DATA TABLES AND INSTRUMENT CALIBRATION DATA

Part 2

Instrument Calibration Data for Fluorescence and Dissolved Oxygen

The average value of individual analytical replicates from chlorophyll (n=2) and dissolved oxygen determinations (n=2) was used to post-calibrate *in situ* sensor readings, where the CTD value is regarded as dependent on the bottle value. All regressions were forced through zero (top regression of statistics block and ANOVA table accompanying each survey and parameter). Tests of intercept significance (regression statistics and ANOVA table) suggest whether the intercept model had intercepts not significantly different from zero.

For the survey series, to allow easy comparison of trends in calibration over time, all survey chlorophyll calibrations are given, followed by all survey dissolved oxygen calibrations. The sequence of surveys, coded as follows, is:

W9410 = Early August 1994 nearfield survey
W9411 = Late August 1994 combined survey
W9412 = Early September 1994 nearfield survey
W9413 = Late September 1994 nearfield survey.

Survey W9410 Chlorophyll a Calibration

Marker	Station_ID	Depth	CTD_Chla	Bottle_Chla	Predict_Chla	Residual
42	N10P	19.03	2.47	2.09	1.61	0.47
44	N10P	8.35	2.68	1.91	1.75	0.17
46	N10P	1.13	2.81	1.90	1.84	0.06
76	N01P	25.18	1.20	0.59	0.78	-0.19
78	N01P	11.04	2.89	1.89	1.89	0.00
80	N01P	1.56	4.78	3.76	3.12	0.63
111	N04P	46.03	0.51	0.23	0.33	-0.11
114	N04P	14.93	3.62	1.86	2.36	-0.51
115	N04P	1.59	0.90	0.50	0.58	-0.08
153	N07P	41.56	0.65	0.44	0.42	0.02
155	N07P	16.70	5.72	2.75	3.73	-0.98
157	N07P	1.64	0.67	0.45	0.44	0.01

SUMMARY OUTPUT

Standard Deviation of Residual: 0.41572996

Regression Statistics

Multiple R	0.92682924
R Square	0.85901244
Adjusted R Square	0.76810335
Standard Error	0.64033277
Observations	12

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	27.480384	27.480384	67.0210672	9.6158E-06
Residual	11	4.51028664	0.41002606		
Total	12	31.9906706			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.000%*	*Upper 95.000%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
X Variable 1	1.53174011	0.09954881	15.3868243	8.7147E-09	1.312634537	1.75084568	1.312634537	1.75084568

SUMMARY OUTPUT

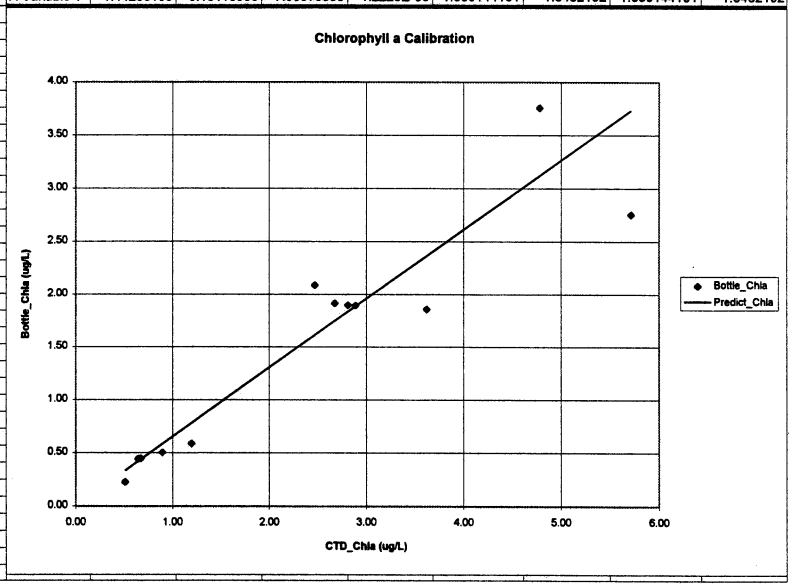
Regression Statistics

Multiple R	0.92944071
R Square	0.86386004
Adjusted R Square	0.85024604
Standard Error	0.65994004
Observations	12

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	27.635462	27.635462	63.4538193	1.22251E-05
Residual	10	4.35520861	0.43552086		
Total	11	31.9906706			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.000%*	*Upper 95.000%*
Intercept	0.20067408	0.33629518	0.59672008	0.56395866	-0.5486384	0.94998656	-0.5486384	0.94998656
X Variable 1	1.44268165	0.18110966	7.96579056	1.2225E-05	1.039144101	1.8462192	1.039144101	1.8462192



Survey W9411 Chlorophyll a Calibration

Marker	Station_ID	Depth	CTD_Chla	Bottle_Chla	Predict_Chla	Residual
36	F30	3.24	2.26	1.30	1.85	-0.55
37	F30	1.22	2.15	0.96	1.76	-0.80
54	F23P	20.18	2.26	1.62	1.86	-0.24
55	F23P	15.97	2.14	1.74	1.76	-0.02
56	F23P	10.66	2.15	1.92	1.76	0.16
57	F23P	4.87	2.19	2.00	1.80	0.20
71	F24	11.34	2.17	1.66	1.78	-0.12
72	F24	7.40	2.11	1.41	1.73	-0.32
74	F24	2.07	2.03	1.57	1.67	-0.10
104	N20P	20.67	1.70	1.08	1.39	-0.31
105	N20P	14.29	2.87	1.51	2.35	-0.85
107	N20P	2.00	1.61	1.50	1.32	0.18
119	N16P	34.56	0.83	0.58	0.68	-0.10
120	N16P	25.34	1.00	0.62	0.82	-0.21
121	N16P	17.77	2.62	1.39	2.15	-0.76
123	N16P	8.00	1.82	1.01	1.49	-0.48
124	N16P	2.30	1.16	1.14	0.96	0.18
152	N07P	19.09	2.13	1.13	1.75	-0.62
154	N07P	2.66	1.56	1.45	1.28	0.17
243	N10P	9.24	3.50	2.29	2.87	-0.58
245	N10P	1.18	2.88	2.13	2.36	-0.23
263	F25	5.18	2.94	0.95	2.41	-1.46
265	F25	1.13	3.04	2.33	2.49	-0.17
278	F31B	7.20	3.75	1.90	3.07	-1.18
279	F31B	1.50	3.64	1.86	2.99	-1.13
300	F23P	16.46	2.14	1.20	1.76	-0.56
301	F23P	11.70	2.09	1.35	1.72	-0.37
302	F23P	7.69	2.24	1.46	1.84	-0.38
303	F23P	4.20	2.19	1.39	1.79	-0.41
320	N01P	11.19	3.59	2.60	2.94	-0.34
322	N01P	2.31	3.69	2.64	3.03	-0.39
339	N04P	19.07	3.19	1.83	2.61	-0.79
341	N04P	1.58	1.13	1.00	0.93	0.07
361	N16P	37.03	0.49	0.29	0.40	-0.11
362	N16P	28.44	0.85	0.37	0.70	-0.33
363	N16P	17.95	2.90	1.64	2.38	-0.74
364	N16P	7.42	1.68	0.86	1.38	-0.52
365	N16P	1.40	0.80	0.64	0.66	-0.02
407	F27	23.76	3.09	0.90	2.54	-1.64
408	F27	1.37	0.81	0.35	0.67	-0.32
520	F02P	14.60	3.92	2.27	3.21	-0.95
522	F02P	1.13	1.41	1.28	1.16	0.12
544	F01P	15.31	4.78	4.10	3.92	0.17
547	F01P	1.14	1.18	1.48	0.97	0.51
592	F06	4.85	6.25	3.70	5.13	-1.43
593	F06	1.29	4.71	7.05	3.87	3.18
655	F13P	4.30	7.04	4.20	5.78	-1.58
656	F13P	2.13	6.70	5.77	5.50	0.26
675	N10P	20.34	0.75	0.42	0.62	-0.20
678	N10P	5.35	5.61	5.73	4.60	1.13
679	N10P	1.14	4.88	5.32	4.01	1.31
718	N01P	24.40	0.52	0.34	0.43	-0.09
721	N01P	6.21	3.01	1.78	2.47	-0.69
722	N01P	1.39	2.99	2.51	2.46	0.05
763	N04P	45.45	0.42	0.25	0.35	-0.10
765	N04P	12.50	3.37	1.74	2.77	-1.03
767	N04P	1.04	1.40	1.46	1.15	0.30
807	N07P	40.87	0.37	0.29	0.30	-0.01
809	N07P	18.89	2.24	1.81	1.84	-0.04
811	N07P	1.14	0.94	0.72	0.77	-0.05

SUMMARY OUTPUT

Regression Statistics

Multiple R	0.7920
R Square	0.6272
Adjusted R Square	0.6103
Standard Error	0.9339
Observations	60

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	86.576	86.576	99.268	3.55635E-14
Residual	59	51.457	0.872		
Total	60	138.032			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.000%*	*Upper 95.000%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
X Variable 1	1.2188	0.0530	22.9938	3.86E-31	1.1128	1.3249	1.1128	1.3249

SUMMARY OUTPUT

Regression Statistics

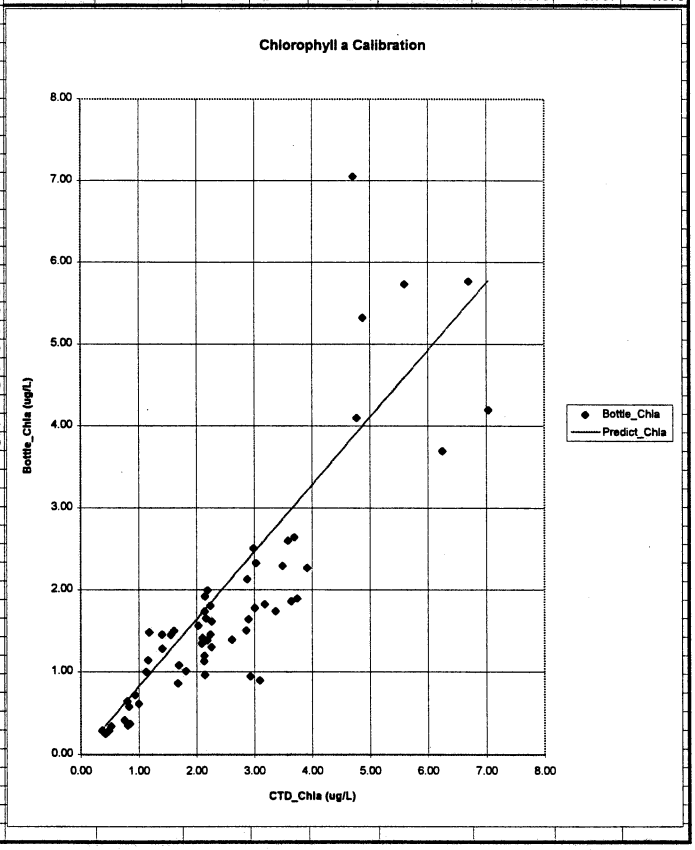
Multiple R	0.8595
R Square	0.7388
Adjusted R Square	0.7343
Standard Error	0.7884
Observations	60

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	101.98	101.98	164.07	1.48885E-18
Residual	58	36.05	0.62		
Total	59	138.03			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.000%*	*Upper 95.000%*
Intercept	0.8246	0.1656	4.9784	6.08E-06	0.493	1.156	0.493	1.156
X Variable 1	0.9328	0.0728	12.8089	1.49E-18	0.787	1.079	0.787	1.079

Standard Deviation of Residual: 0.722



Survey W9412 Chlorophyll a Calibration

Marker	Station_ID	Depth	CTD_Chla	Bottle_Chla	Predict_Chla	Residual
186	N10P	18.44	1.46	0.94	1.10	-0.16
188	N10P	7.86	1.43	1.00	1.07	-0.08
190	N10P	1.16	1.45	1.08	1.09	-0.02
219	N01P	24.73	1.50	1.34	1.13	0.21
221	N01P	12.25	2.96	1.68	2.22	-0.55
223	N01P	1.79	2.04	1.58	1.53	0.05
258	N04P	43.85	1.19	1.35	0.89	0.45
261	N04P	8.94	3.37	1.74	2.54	-0.80
262	N04P	1.95	2.51	2.52	1.88	0.64
291	N07P	45.11	0.82	0.71	0.62	0.09
294	N07P	9.26	2.66	1.74	2.00	-0.26
295	N07P	2.21	1.27	1.26	0.95	0.30

SUMMARY OUTPUT

Standard Deviation of Residual: 0.40245253

Regression Statistics

Multiple R	0.744360314
R Square	0.554072276
Adjusted R Square	0.463163185
Standard Error	0.536561674
Observations	12

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	3.934902069	3.934902069	13.66767464	0.004129002
Residual	11	3.166882729	0.28789843		
Total	12	7.101784798			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.000%*	*Upper 95.000%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
X Variable 1	1.330613927	0.104427828	12.74194774	6.26415E-08	1.100769711	1.560458143	1.100769711	1.560458143

SUMMARY OUTPUT

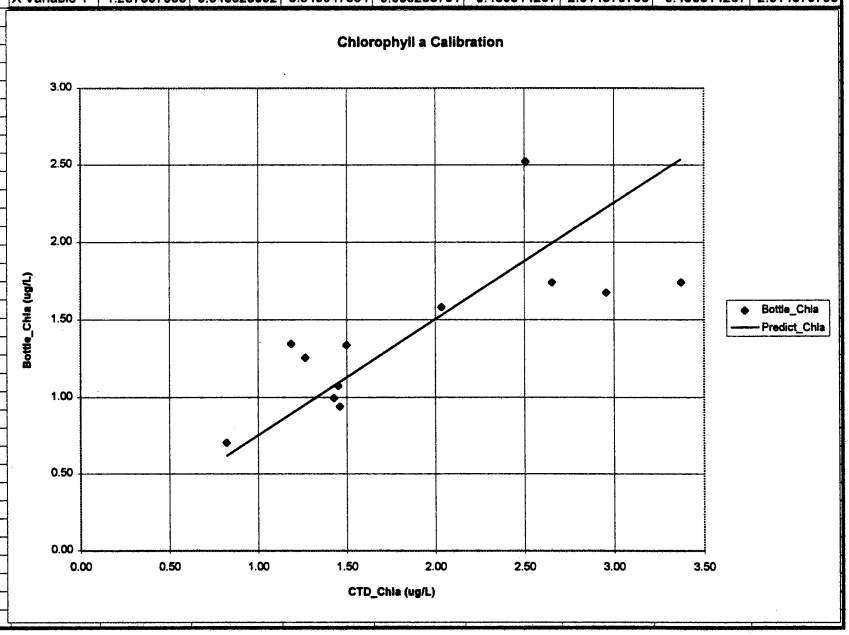
Regression Statistics

Multiple R	0.746701963
R Square	0.557563822
Adjusted R Square	0.513320204
Standard Error	0.560543176
Observations	12

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	3.959698276	3.959698276	12.60212998	0.005268701
Residual	10	3.142086522	0.314208652		
Total	11	7.101784798			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.000%*	*Upper 95.000%*
Intercept	0.145262531	0.517094658	0.280920579	0.784497851	-1.006896367	1.297421428	-1.006896367	1.297421428
X Variable 1	1.237597003	0.348623992	3.549947884	0.005268701	0.460814207	2.014379798	0.460814207	2.014379798



Survey W9413 Chlorophyll a Calibration

Marker	Station_ID	Depth	CTD_Chla	Bottle_Chla	Predict_Chla	Residual
19	N10P	20.58	1.58	1.32	1.24779356	0.07
21	N10P	9.22	2.78	2.05	2.18859726	-0.14
23	N10P	1.70	5.72	4.47	4.50177292	-0.04
73	N01P	27.08	1.22	1.16	0.96379471	0.19
75	N01P	12.27	3.99	2.29	3.14367024	-0.86
77	N01P	1.66	9.20	8.19	7.24783423	0.94
121	N04P	44.28	0.51	0.14	0.40198862	-0.26
123	N04P	21.04	1.50	0.59	1.17863627	-0.59
125	N04P	1.71	5.58	2.58	4.3962365	-1.82
182	N07P	43.54	0.72	0.21	0.56703457	-0.36
184	N07P	21.50	0.92	0.31	0.72645643	-0.42
186	N07P	1.66	3.30	2.46	2.59765878	-0.14

SUMMARY OUTPUT

Standard Deviation of Residual: 0.657

Regression Statistics

Multiple R	0.9379
R Square	0.8797
Adjusted R Square	0.7888
Standard Error	0.9160
Observations	12

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	67.4795	67.4795	80.4309	4.27126E-06
Residual	11	9.2287	0.8390		
Total	12	76.7083			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.000%*	*Upper 95.000%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
X Variable 1	1.26993	0.08628	14.71915	1.3903E-08	1.0800	1.4598	1.0800	1.4598

SUMMARY OUTPUT

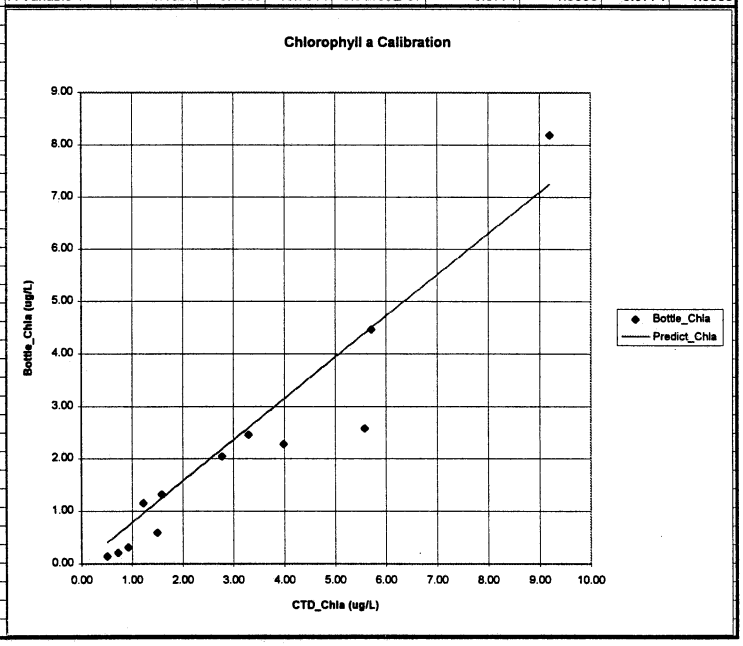
Regression Statistics

Multiple R	0.9590
R Square	0.9197
Adjusted R Square	0.9117
Standard Error	0.7849
Observations	12

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	70.548	70.548	114.519	8.51109E-07
Residual	10	6.160	0.616		
Total	11	76.708			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.000%*	*Upper 95.000%*
Intercept	0.7082	0.3173	2.2318	0.049692598	0.0012	1.4153	0.0012	1.4153
X Variable 1	1.1081	0.1035	10.7014	8.51109E-07	0.8774	1.3388	0.8774	1.3388



Survey W9410 Dissolved Oxygen Calibration

Marker	Station_ID	Depth	CTD_DO	Bottle_DO	Predict_DO	Residual
42	N10P	19.02739	7.941141	8.20717	8.2033257	0.00384
43	N10P	14.9161	7.886652	8.1802	8.1470377	0.03316
44	N10P	8.345291	7.856576	8.12449	8.1159687	0.00852
45	N10P	4.374701	7.71835	8.0313	7.973179	0.05812
46	N10P	1.132271	7.561954	7.89454	7.8116194	0.08292
76	N01P	25.18241	8.249812	8.50338	8.5221878	-0.0188
77	N01P	17.98573	8.801445	9.04949	9.0920335	-0.0425
78	N01P	11.03626	8.994328	9.13539	9.2912847	-0.1559
79	N01P	5.178509	8.735826	9.11382	9.024248	0.08957
80	N01P	1.558604	8.56041	8.93084	8.8430405	0.0878
111	N04P	46.02725	7.909014	9.8986	8.170138	1.72846
112	N04P	35.83972	8.083504	7.89025	8.3503889	-0.4601
113	N04P	24.16211	8.446106	8.39324	8.7249626	-0.3317
114	N04P	14.93364	9.11368	9.18044	9.4145772	-0.2341
115	N04P	1.592649	8.493323	8.96538	8.7737385	0.19164
153	N07P	41.55517	8.220832	8.34844	8.492251	-0.1438
154	N07P	29.59071	8.362673	8.2962	8.638775	-0.3426
155	N07P	16.70325	9.316047	9.08367	9.6236256	-0.54
156	N07P	8.12724	8.598234	9.13692	8.8821133	0.25481
157	N07P	1.639075	8.477362	8.84981	8.7572506	0.09256
199	N20P	28.56571	8.263115	8.44425	8.53593	-0.0917
200	N20P	22.31341	8.300808	8.18353	8.5748674	-0.3913
201	N20P	9.89854	9.127215	9.15143	9.4285591	-0.2771
202	N20P	5.007029	9.304679	9.46755	9.6118822	-0.1443
203	N20P	1.710006	8.739592	9.25833	9.0281383	0.23019
244	N16P	39.24393	8.023945	8.08756	8.2888635	-0.2013
245	N16P	28.17193	8.334396	8.30734	8.6095644	-0.3022
247	N16P	9.170928	8.670079	9.1623	8.9563303	0.20597
248	N16P	1.659834	8.443357	8.99039	8.7221228	0.26827

SUMMARY OUTPUT

Regression Statistics

Multiple R	0.550562689
R Square	0.303119274
Adjusted R Square	0.267404989
Standard Error	0.38877026
Observati	29

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regressio	1	1.840768615	1.840768615	12.17904207	0.001676671
Residual	28	4.231984824	0.151142315		
Total	29	6.072753439			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.000%*	*Upper 95.000%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
X Variable	0.968039221	0.008284211	116.853518	3.37821E-39	0.951069764	0.985008677	0.951069764	0.985008677

Standard Deviation of Residual: 0.40142678

SUMMARY OUTPUT

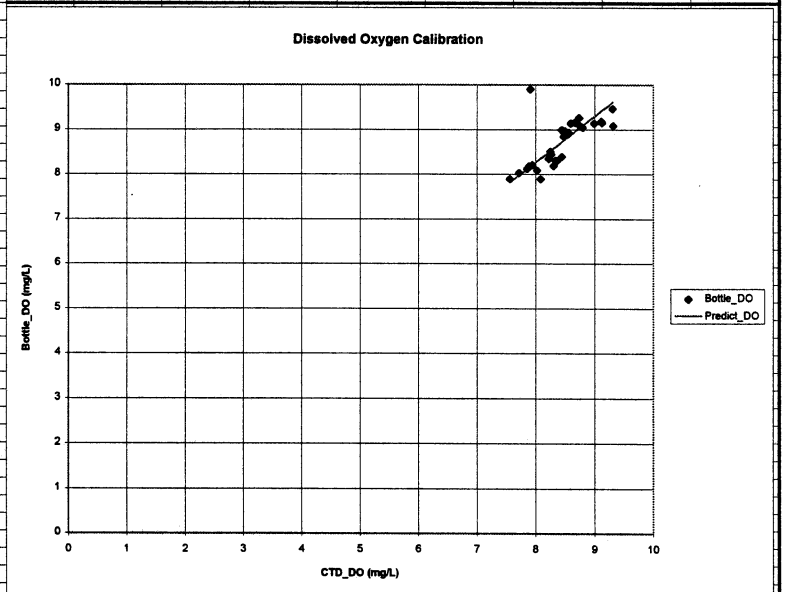
Regression Statistics

Multiple R	0.689975386
R Square	0.476066033
Adjusted R Square	0.456661071
Standard Error	0.343280568
Observati	29

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regressio	1	2.891031637	2.891031637	24.53321159	3.45467E-05
Residual	27	3.181721802	0.117841548		
Total	28	6.072753439			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.000%*	*Upper 95.000%*
Intercept	3.174621568	1.063388954	2.985381365	0.005955175	0.992729122	5.356514014	0.992729122	5.356514014
X Variable	0.604402807	0.122025128	4.95310121	3.45467E-05	0.354028094	0.854777519	0.354028094	0.854777519



Survey W9411 Dissolved Oxygen Calibration

Marker	Station_ID	Depth	CTD_DO	Bottle_DO	Predict_DO	Residual
36	F30	3.24	6.29	6.59	6.72	-0.13
37	F30	1.22	5.66	6.27	6.05	0.22
55	F23P	15.97	6.50	6.98	6.95	0.03
56	F23P	10.66	6.51	6.95	6.95	-0.01
58	F23P	2.06	6.44	6.92	6.88	0.04
104	N20P	20.67	7.65	8.08	8.18	-0.10
105	N20P	14.29	7.96	8.42	8.51	-0.09
107	N20P	2.00	7.95	8.48	8.50	-0.01
120	N16P	25.34	7.33	7.58	7.84	-0.25
121	N16P	17.77	8.05	8.36	8.61	-0.25
124	N16P	2.30	7.76	8.52	8.29	0.22
151	N07P	29.51	7.34	7.34	7.84	-0.51
152	N07P	19.09	8.36	8.61	8.93	-0.33
154	N07P	2.66	8.04	8.65	8.59	0.06
169	F19	47.14	7.52	7.71	8.04	-0.33
170	F19	19.94	8.49	9.13	9.08	0.06
172	F19	2.68	7.68	8.66	8.21	0.45
242	N10P	15.06	7.90	8.62	8.44	0.18
243	N10P	9.24	7.74	8.28	8.28	0.00
245	N10P	1.18	6.90	7.61	7.37	0.23
278	F31B	7.20	6.46	7.17	6.90	0.27
279	F31B	1.50	6.34	7.09	6.78	0.31
301	F23P	11.70	6.42	7.07	6.86	0.21
302	F23P	7.69	6.28	7.02	6.72	0.30
304	F23P	1.43	6.23	6.95	6.65	0.30
319	N01P	19.23	7.28	7.81	7.78	0.04
320	N01P	11.19	7.87	8.43	8.41	0.02
322	N01P	2.31	7.90	8.54	8.44	0.10
338	N04P	32.13	7.65	7.71	8.17	-0.46
339	N04P	19.07	8.04	8.56	8.59	-0.04
341	N04P	1.58	7.86	8.50	8.40	0.11
362	N16P	28.44	7.11	7.52	7.60	-0.08
363	N16P	17.95	7.62	8.19	8.15	0.04
365	N16P	1.40	7.83	8.54	8.37	0.17
405	F27	74.50	7.36	7.64	7.87	-0.23
407	F27	23.76	8.01	8.72	8.56	0.16
408	F27	1.37	7.75	8.54	8.28	0.26
445	F29	39.26	7.31	7.34	7.82	-0.48
447	F29	11.69	8.00	8.31	8.55	-0.25
448	F29	1.22	8.47	8.92	9.05	-0.14
519	F02P	18.83	7.02	6.62	7.50	-0.88
520	F02P	14.60	7.39	8.28	7.89	0.38
522	F02P	1.13	7.53	8.37	8.05	0.32
544	F01P	15.31	7.45	7.96	7.96	-0.01
545	F01P	9.60	7.56	8.31	8.08	0.23
547	F01P	1.14	7.61	8.50	8.13	0.37
590	F06	19.12	7.24	7.43	7.74	-0.32
592	F06	4.85	8.33	8.93	8.91	0.02
593	F06	1.29	9.37	9.69	10.01	-0.32
606	F07	37.39	7.24	7.24	7.74	-0.50
608	F07	12.64	8.32	8.60	8.89	-0.29
609	F07	1.53	7.89	8.61	8.43	0.18
652	F13P	17.36	7.08	7.35	7.57	-0.22
655	F13P	4.30	8.41	8.96	8.99	-0.03
656	F13P	2.13	8.19	8.93	8.76	0.17
675	N10P	20.34	6.39	6.78	6.83	-0.05
676	N10P	15.49	6.37	6.82	6.81	0.00
677	N10P	10.87	6.88	7.53	7.35	0.17
678	N10P	5.35	7.39	8.06	7.90	0.17
679	N10P	1.14	7.22	7.95	7.71	0.24
718	N01P	24.40	6.52	6.86	6.96	-0.11
719	N01P	18.60	6.67	6.97	7.13	-0.16
720	N01P	13.94	7.10	7.40	7.59	-0.19
721	N01P	6.21	7.77	8.37	8.31	0.07
722	N01P	1.39	7.68	8.43	8.21	0.22
763	N04P	45.45	7.31	7.63	7.81	-0.18
764	N04P	29.02	7.31	7.55	7.82	-0.27
765	N04P	12.50	7.82	8.39	8.36	0.03
766	N04P	5.39	7.89	8.57	8.43	0.14
767	N04P	1.04	7.76	8.59	8.29	0.30
807	N07P	40.87	6.90	7.58	7.38	0.20
808	N07P	28.81	7.48	7.64	8.00	-0.35
809	N07P	18.89	8.13	8.60	8.69	-0.09
810	N07P	8.38	7.71	8.54	8.24	0.30
811	N07P	1.14	7.71	8.47	8.25	0.22
917	N16P	37.89	7.25	7.40	7.74	-0.34
918	N16P	28.83	7.47	7.59	7.98	-0.39
919	N16P	22.04	7.82	8.24	8.36	-0.13
920	N16P	9.53	7.91	8.62	8.45	0.16
921	N16P	1.18	7.73	8.60	8.26	0.34

SUMMARY OUTPUT

Regression Statistics

Multiple R	0.93070
R Square	0.86620
Adjusted R Square	0.85354
Standard Error	0.24007
Observations	80

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	29.4768	29.4768	511.4339	5.3607E-36
Residual	79	4.5532	0.0576		
Total	80	34.0300			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.000%*	*Upper 95.000%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
X Variable 1	0.935614	0.003356	278.794759	0.000000	0.928934	0.942293	0.928934	0.942293

Standard Deviation of Residual: 0.257

SUMMARY OUTPUT

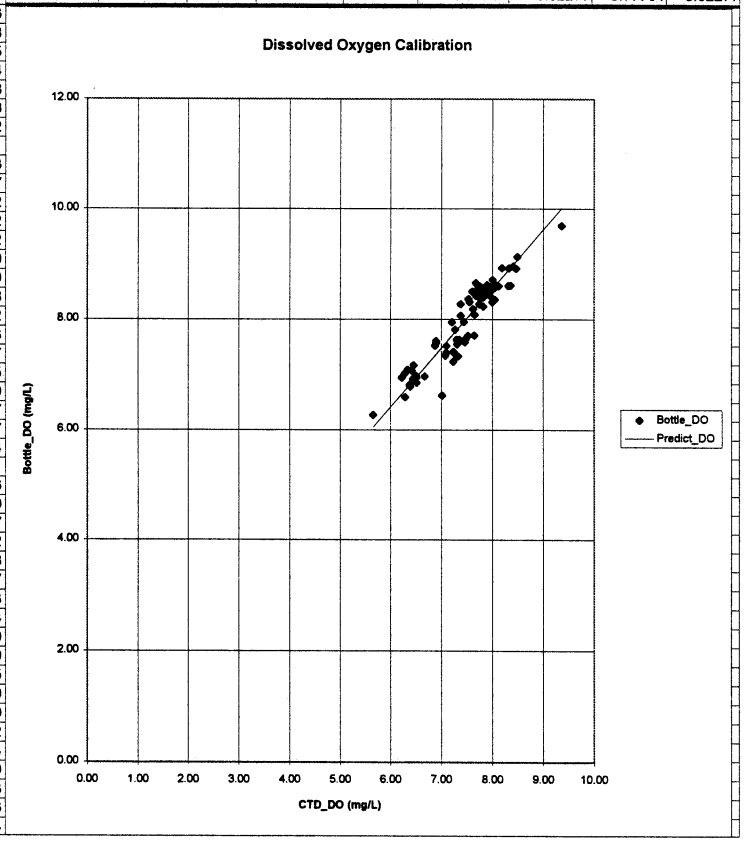
Regression Statistics

Multiple R	0.93545
R Square	0.87507
Adjusted R Square	0.87347
Standard Error	0.23346
Observations	80

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	29.779	29.779	546.357	5.656E-37
Residual	78	4.251	0.055		
Total	79	34.030			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.000%*	*Upper 95.000%*
Intercept	0.6848	0.2910	2.3535	0.0211	0.1055	1.2641	0.1055	1.2641
X Variable 1	0.85034	0.03638	23.37428	0.00000	0.77791	0.92277	0.77791	0.92277



Survey W9412 Dissolved Oxygen Calibration

Marker	Station_ID	Depth	CTD_DO	Bottle_DO	Predict_DO	Residual
186	N10P	18.44	6.75	7.04	6.97	0.07
187	N10P	13.67	6.62	7.04	6.83	0.21
188	N10P	7.86	6.64	6.95	6.85	0.10
189	N10P	3.18	6.60	6.92	6.81	0.11
190	N10P	1.16	6.58	6.90	6.79	0.10
219	N01P	24.73	6.93	7.55	7.16	0.39
220	N01P	19.31	7.93	7.86	8.19	-0.33
221	N01P	12.25	7.92	8.05	8.18	-0.13
222	N01P	6.50	7.95	8.13	8.20	-0.07
223	N01P	1.79	7.90	8.12	8.16	-0.04
258	N04P	43.85	6.14	6.31	6.34	-0.03
259	N04P	30.68	6.84	7.04	7.06	-0.02
260	N04P	20.25	7.76	7.95	8.02	-0.06
261	N04P	8.94	7.92	8.10	8.17	-0.07
262	N04P	1.95	7.89	8.11	8.15	-0.04
291	N07P	45.11	6.20	6.51	6.40	0.11
292	N07P	33.01	6.46	6.64	6.67	-0.03
293	N07P	22.87	7.54	7.74	7.79	-0.05
294	N07P	9.26	7.67	7.92	7.91	0.01
295	N07P	2.21	7.81	8.13	8.07	0.07
349	N20P	28.04	6.85	7.45	7.07	0.38
350	N20P	20.25	7.62	7.67	7.87	-0.19
351	N20P	15.32	7.94	8.07	8.20	-0.13
352	N20P	6.90	8.02	8.25	8.29	-0.04
353	N20P	1.92	7.90	8.18	8.16	0.02
393	N16P	39.63	6.21	6.87	6.41	0.46
394	N16P	29.93	7.20	6.95	7.44	-0.49
395	N16P	19.77	7.70	7.84	7.95	-0.11
396	N16P	10.71	7.86	8.02	8.11	-0.09
397	N16P	1.79	7.87	8.14	8.13	0.02

SUMMARY OUTPUT

Regression Statistics

Multiple R	0.95856644
R Square	0.91884962
Adjusted R Square	0.88436686
Standard Error	0.18614339
Observations	30

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	11.3775076	11.37750762	328.3612	5.30607E-17
Residual	29	1.00483149	0.034649362		
Total	30	12.3823391			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.000%*	*Upper 95.000%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
X Variable 1	0.96846672	0.00448839	215.7716077	4.81E-48	0.959286934	0.97764651	0.959286934	0.97764651

SUMMARY OUTPUT

Regression Statistics

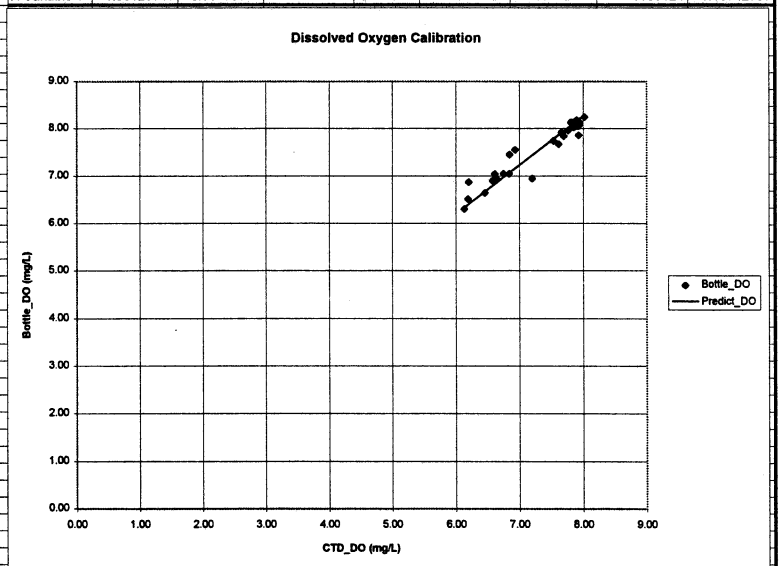
Multiple R	0.96156931
R Square	0.92461555
Adjusted R Square	0.92192324
Standard Error	0.18258421
Observations	30

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	11.4489032	11.44890324	343.4294	2.96671E-17
Residual	28	0.93343587	0.033336995		
Total	29	12.3823391			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.000%*	*Upper 95.000%*
Intercept	-0.62856233	0.42951248	-1.46343206	0.154486	-1.50837975	0.25125509	-1.50837975	0.25125509
X Variable 1	1.05123041	0.05672561	18.53184741	2.97E-17	0.935033124	1.16742769	0.935033124	1.16742769

Standard Deviation of Residual: 0.192



Survey W9413 Dissolved Oxygen Calibration

Marker	Station_I	Depth	CTD_DO	Bottle_D	Predict_DO	Residual
19	N10P	20.58	5.89	6.60	6.29	0.316
20	N10P	15.05	6.45	6.78	6.88	-0.100
21	N10P	9.22	6.53	7.13	6.97	0.156
22	N10P	2.09	6.74	7.32	7.19	0.126
23	N10P	1.70	6.71	7.24	7.16	0.082
73	N01P	27.08	6.56	7.32	7.00	0.320
74	N01P	19.81	6.89	7.55	7.35	0.195
75	N01P	12.27	7.34	7.80	7.83	-0.037
76	N01P	4.89	7.27	8.01	7.76	0.249
77	N01P	1.66	7.60	8.03	8.11	-0.084
121	N04P	44.28	5.73	6.41	6.11	0.301
122	N04P	32.57	6.94	7.06	7.41	-0.350
123	N04P	21.04	6.74	7.16	7.20	-0.037
124	N04P	9.78	7.11	7.52	7.58	-0.067
125	N04P	1.71	7.58	8.09	8.09	0.003
182	N07P	43.54	5.70	6.27	6.09	0.186
183	N07P	32.39	6.11	6.33	6.52	-0.186
184	N07P	21.50	6.85	7.09	7.31	-0.220
185	N07P	10.63	7.47	7.86	7.97	-0.117
186	N07P	1.66	7.95	8.45	8.48	-0.027
228	N20P	27.86	5.11	6.24	5.45	0.786
229	N20P	19.67	5.95	6.50	6.35	0.151
230	N20P	12.79	7.18	7.55	7.67	-0.117
231	N20P	5.97	7.74	8.00	8.27	-0.263
232	N20P	1.75	8.03	8.42	8.57	-0.148
274	N16P	29.31	6.51	6.44	6.95	-0.513
275	N16P	19.01	7.09	7.36	7.57	-0.207
276	N16P	9.31	7.93	8.27	8.47	-0.200
277	N16P	1.68	8.05	8.58	8.59	-0.006

SUMMARY OUTPUT

Regression Statistics

Multiple R	0.95063
R Square	0.90371
Adjusted R Square	0.86799
Standard Error	0.23823
Observations	29

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	14.9140	14.9140	262.7761	1.93873E-15
Residual	28	1.5892	0.0568		
Total	29	16.5032			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*pper 95*	*Lower 95.000%*	*Upper 95.000%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
X Variable 1	0.93692	0.00599	156.544	9.5E-43	0.92466146	0.94918	0.92466	0.94918

SUMMARY OUTPUT

Regression Statistics

Multiple R	0.95463
R Square	0.91131
Adjusted R Square	0.90802
Standard Error	0.23283
Observations	29

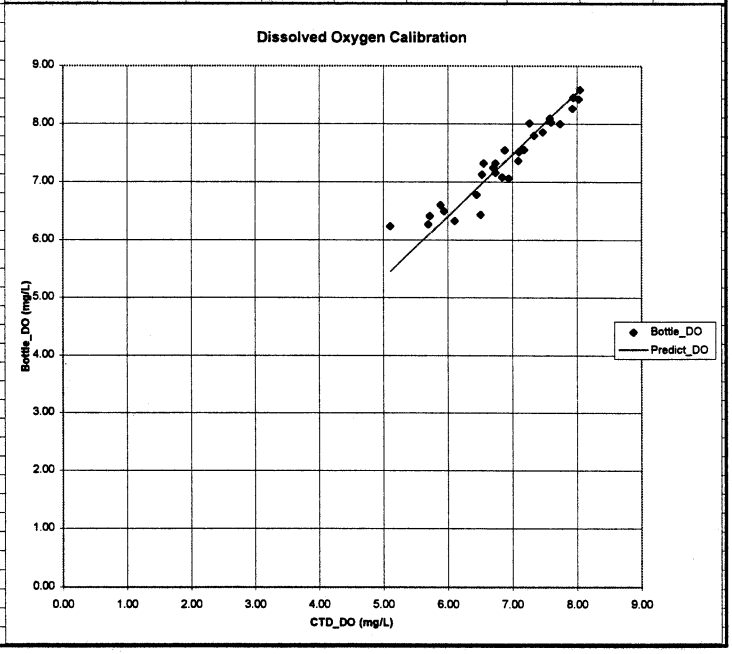
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	15.0395	15.0395	277.4292	9.9381E-16
Residual	27	1.4637	0.0542		
Total	28	16.5032			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*pper 95*	*Lower 95.000%*	*Upper 95.000%*
Intercept	-0.6959	0.45737	-1.5214	0.13978	-1.63430092	0.24259	-1.6343	0.24259
X Variable 1	1.0306	0.06188	16.6562	9.9E-16	0.903679423	1.1576	0.90368	1.1576

Standard Deviation of Residual

0.254



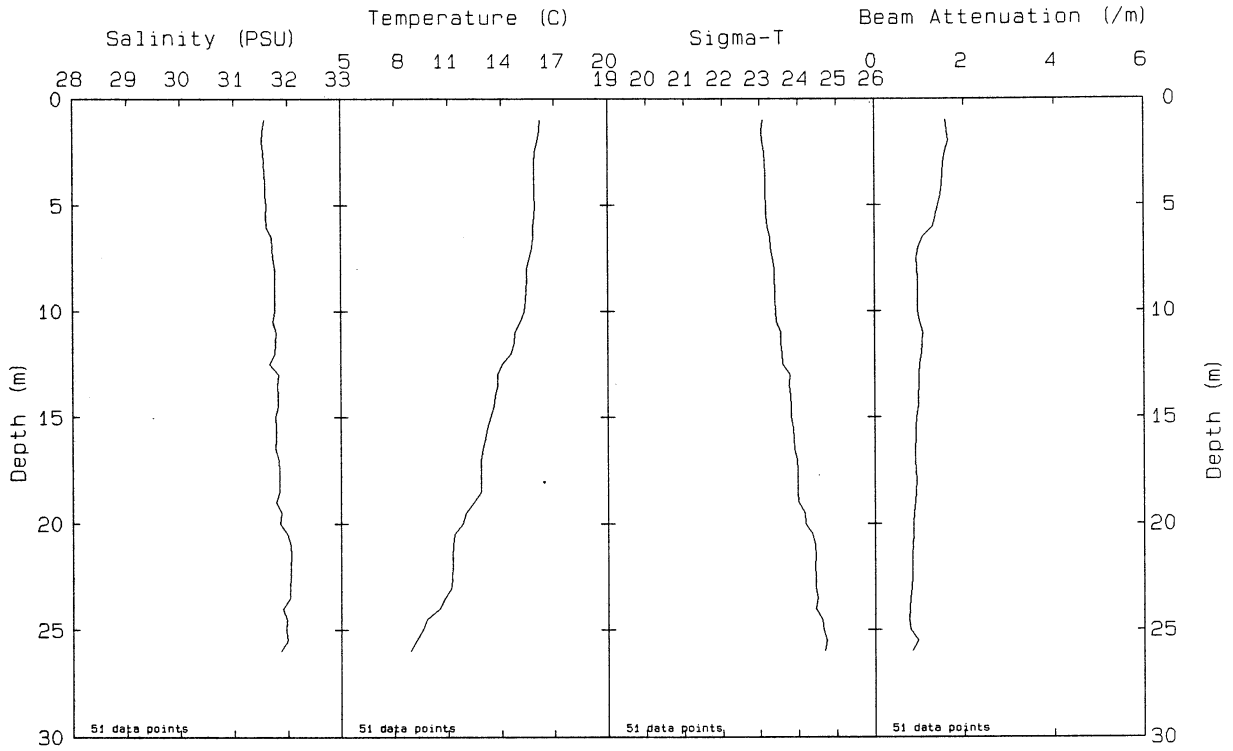
APPENDIX B

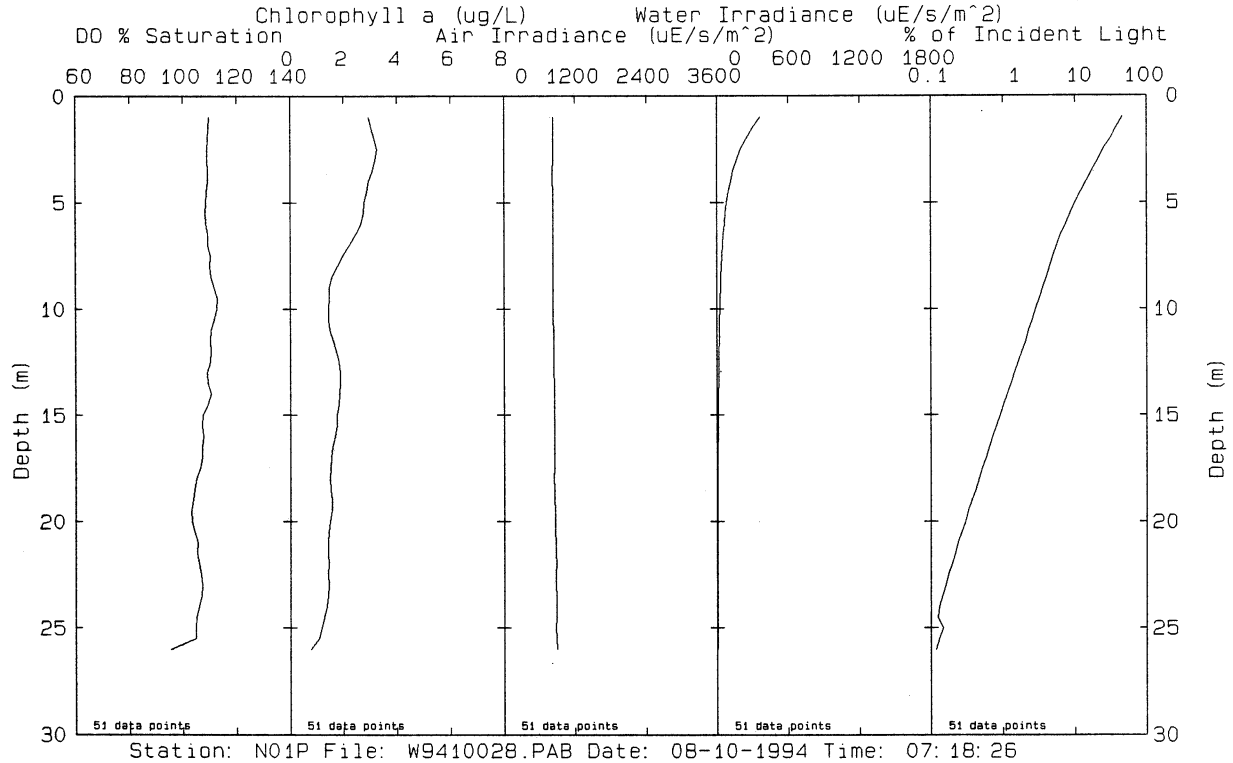
VERTICAL PROFILE DATA FROM FARFIELD AND NEARFIELD STATIONS

Only post-survey calibrated data are presented, where calibrations have been performed as given in Appendix A. The data are from the downcast at stations and, therefore, may not match precisely the data in Appendix A because bottles were closed on the upcast.

For each station occupation, there is a one-page set of profiles, with station, cruise code, date and time listed across the bottom.

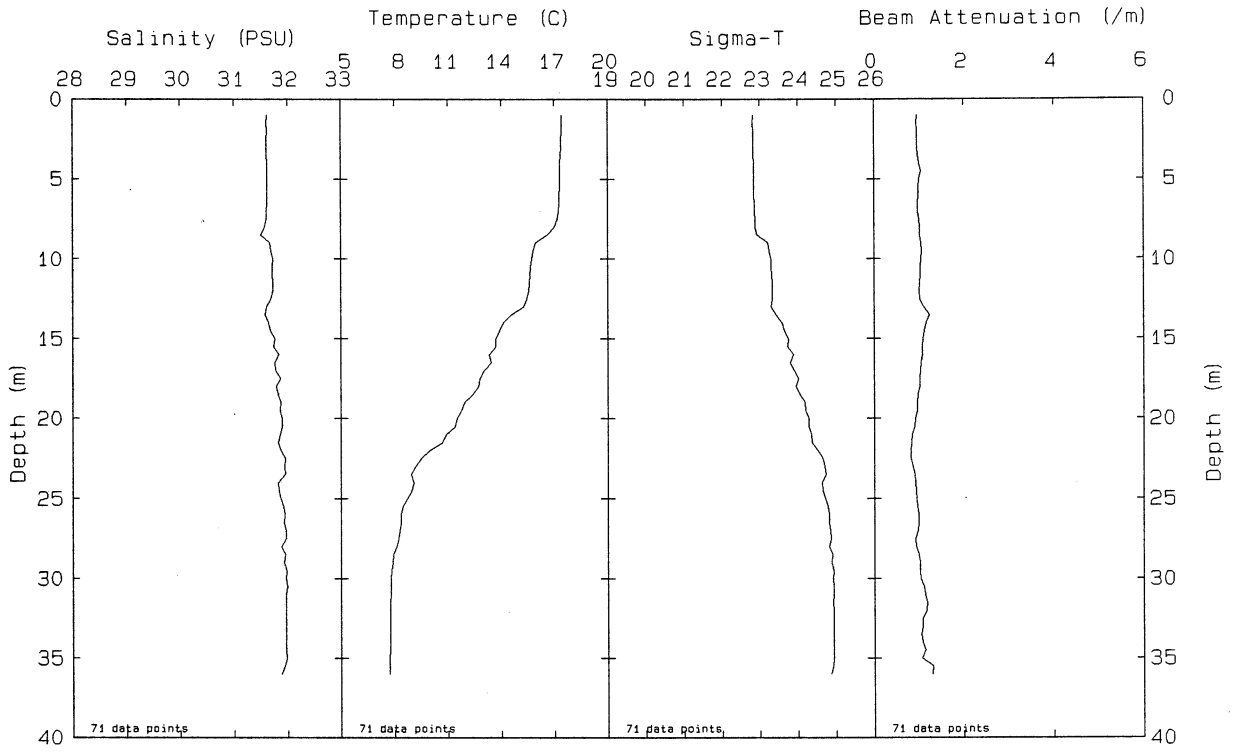
Early August 1994 Profiles

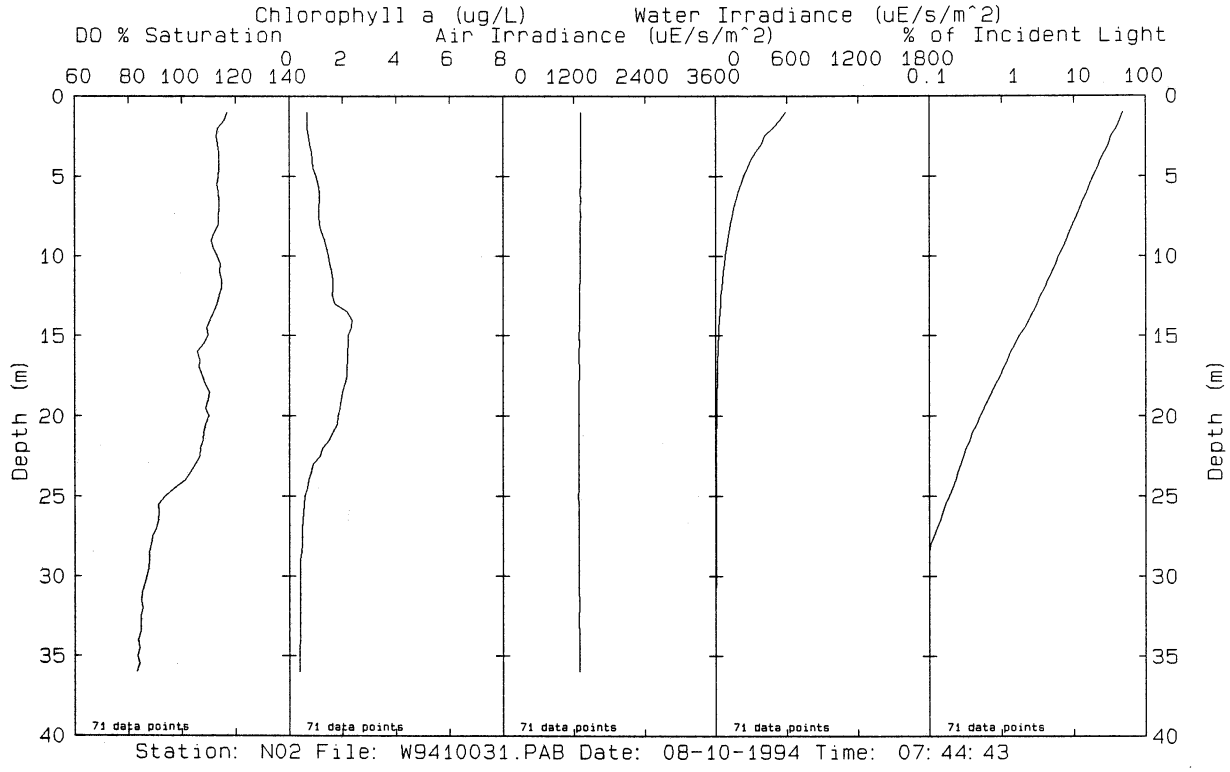




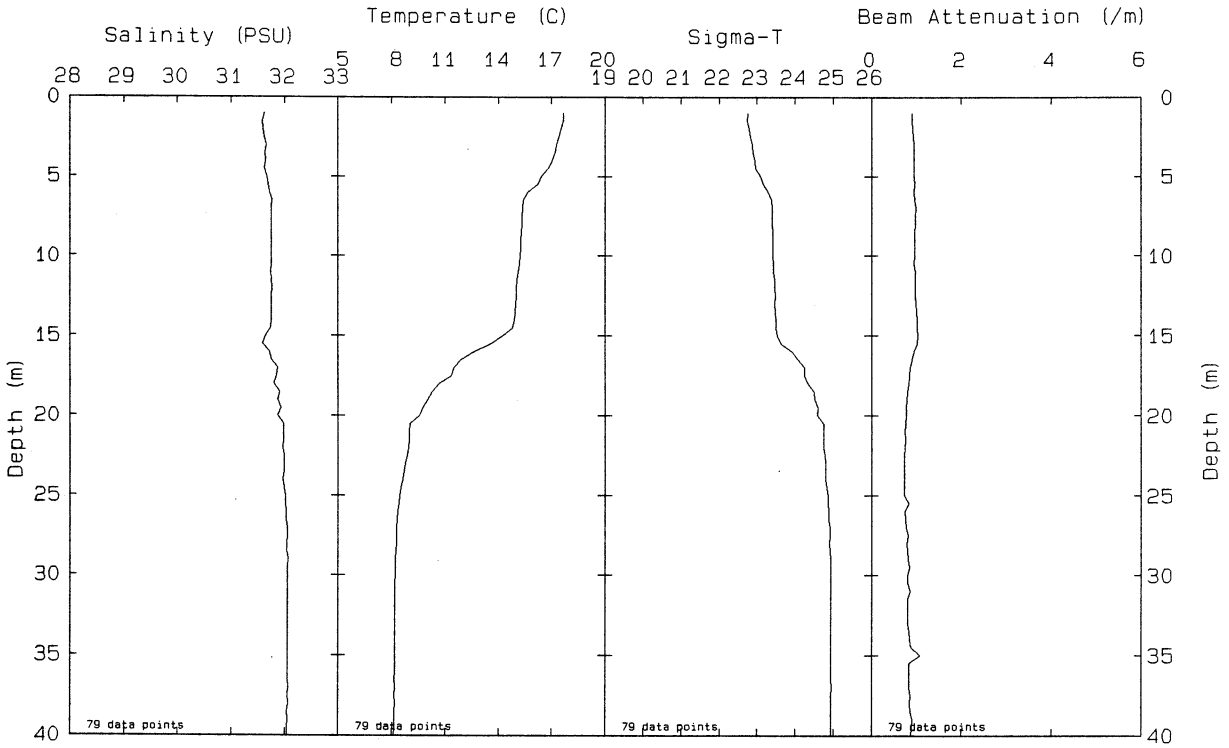
Station: N01P File: W9410028.PAB Date: 08-10-1994 Time: 07:18:26

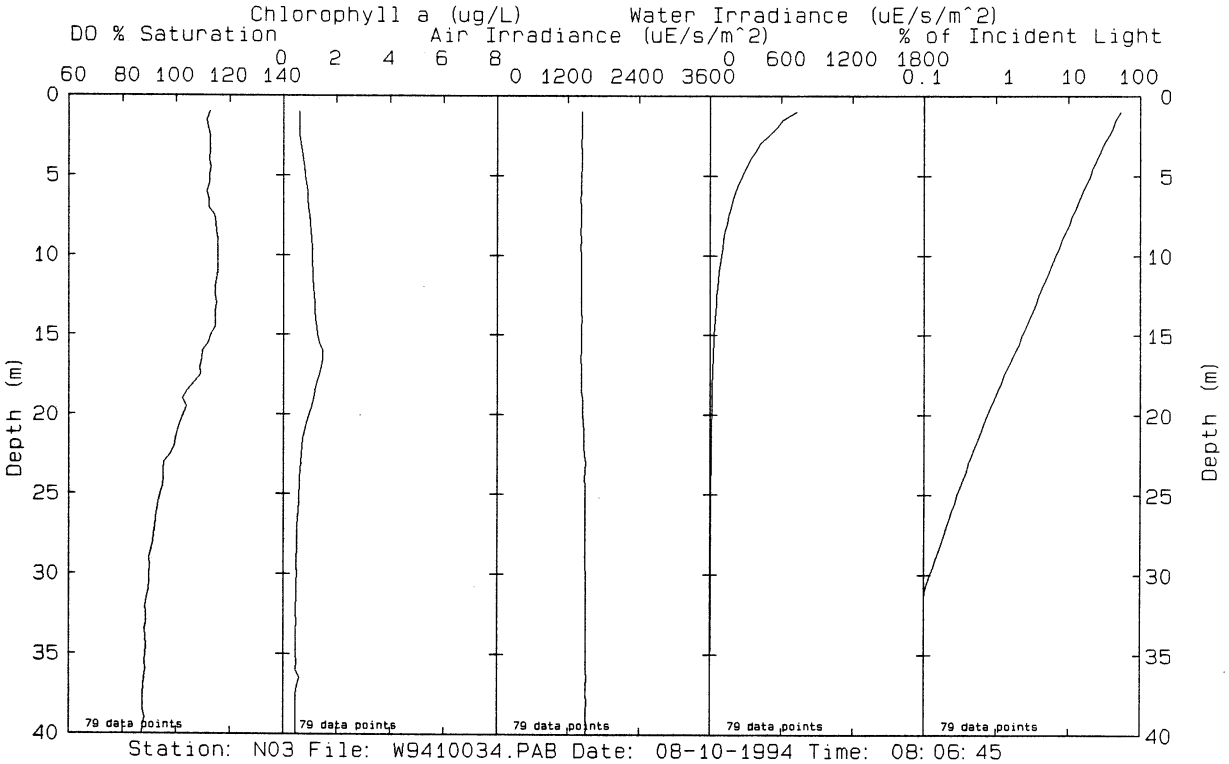
01-19-1995 09:14:05 Battelle



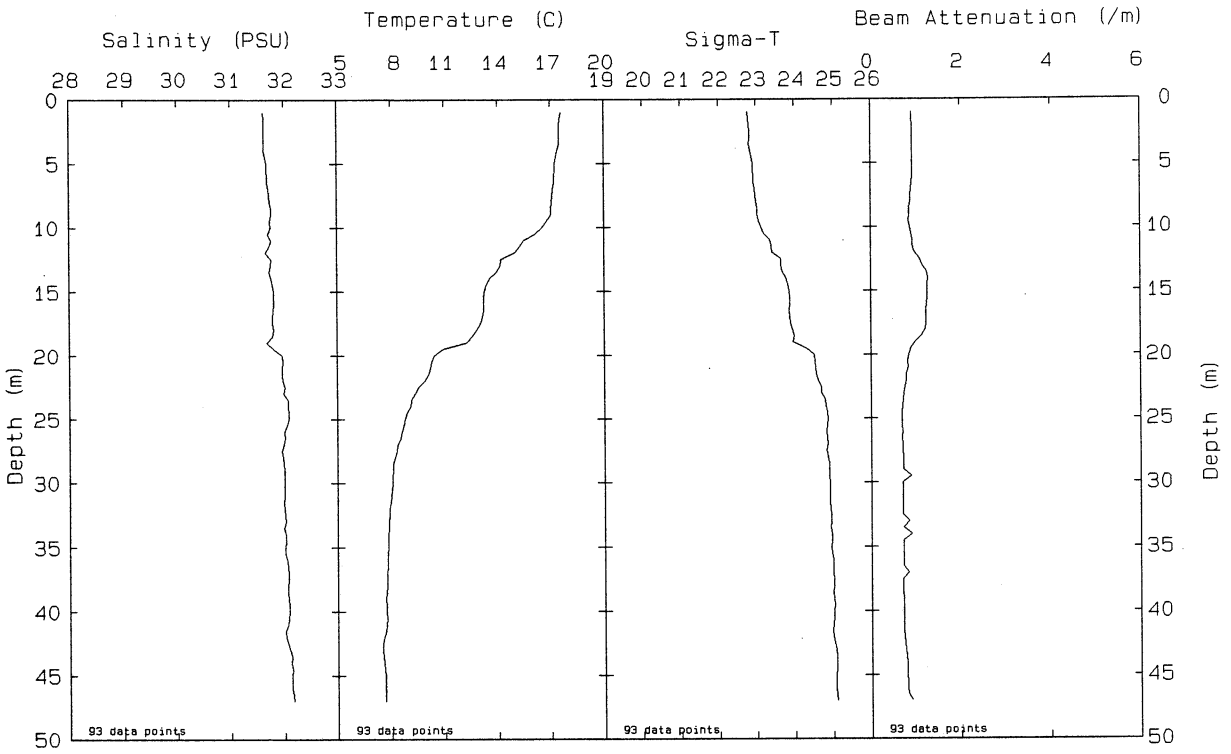


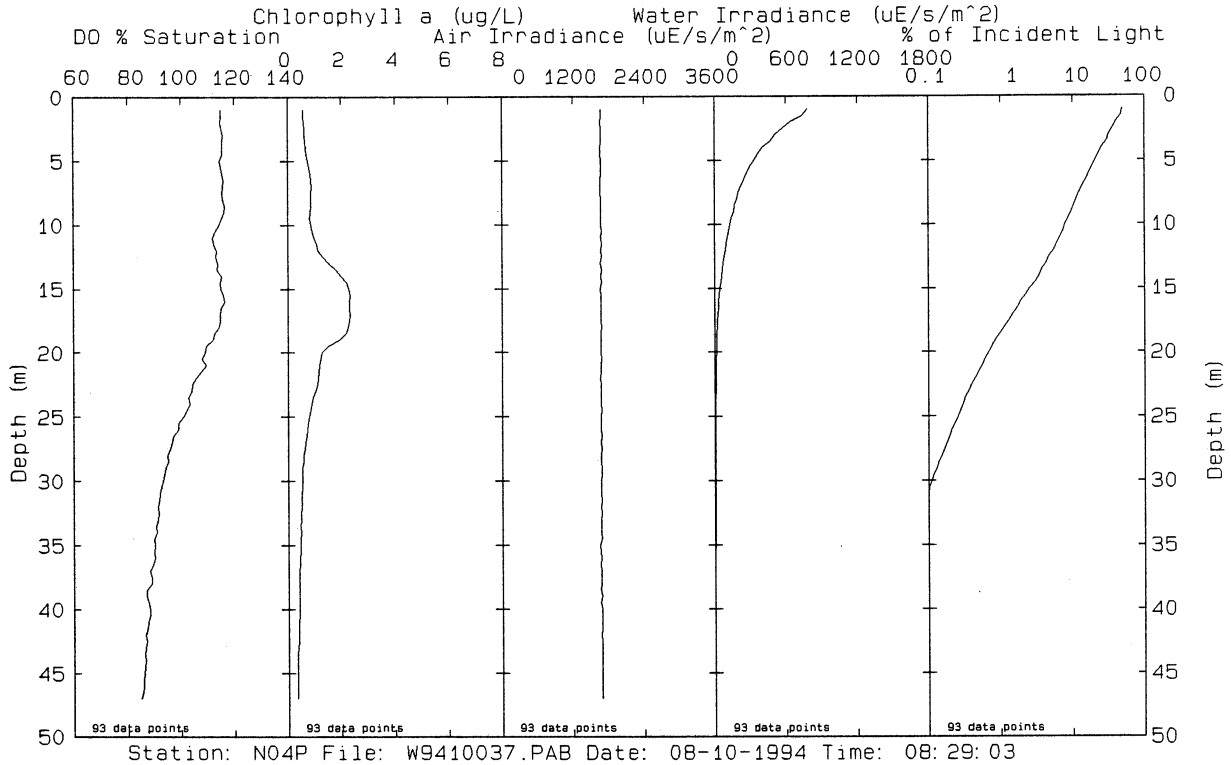
Station: N02 File: W9410031.PAB Date: 08-10-1994 Time: 07:44:43



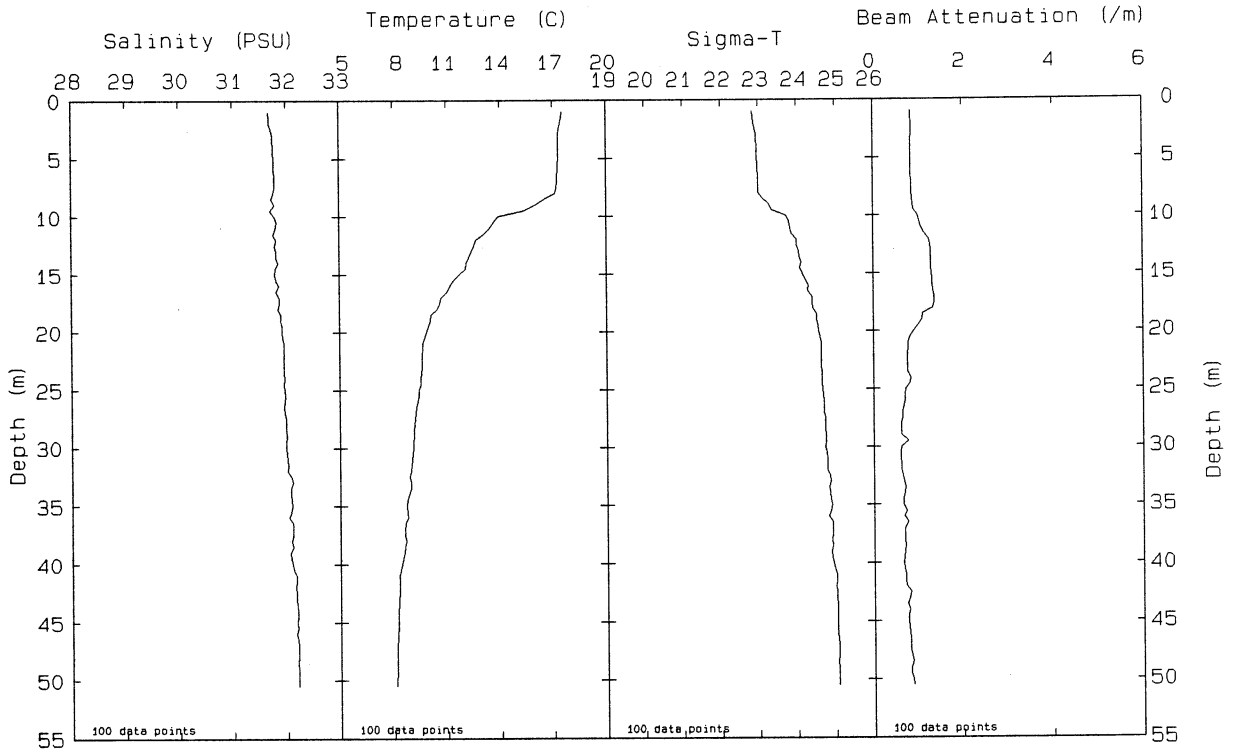


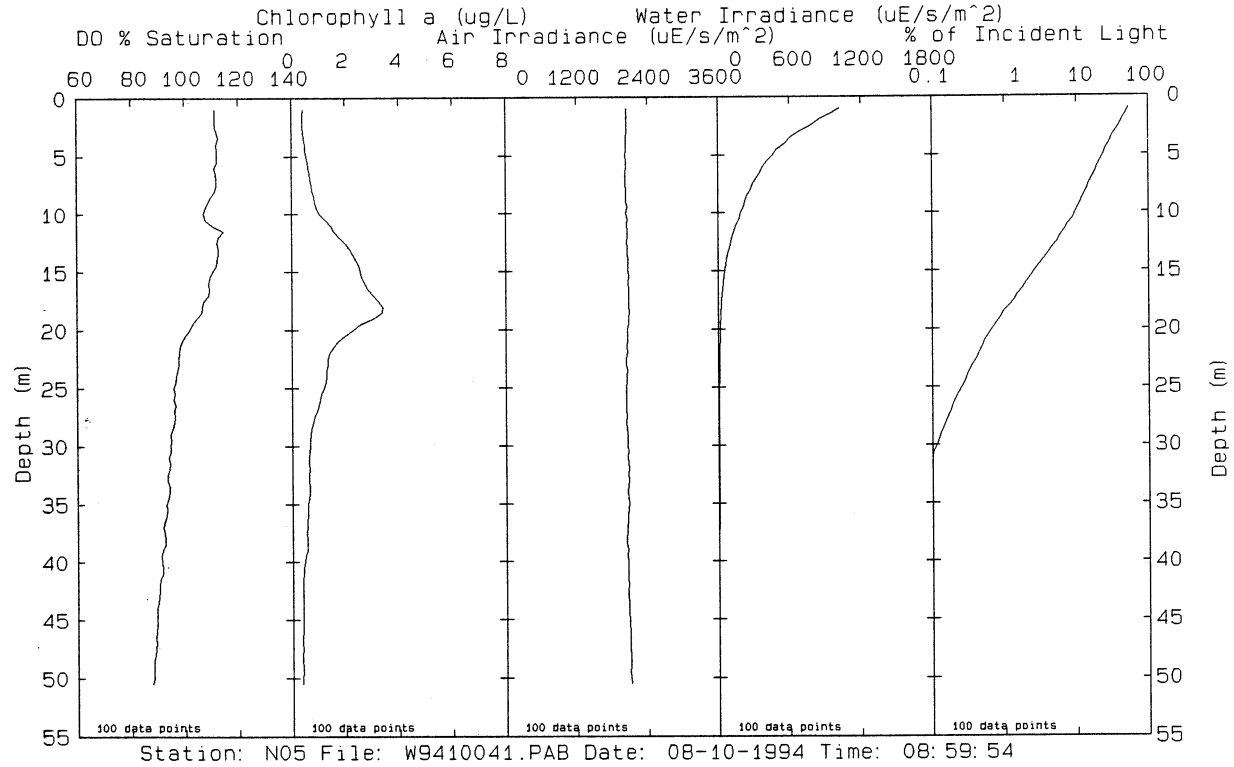
Station: N03 File: W9410034.PAB Date: 08-10-1994 Time: 08:06:45



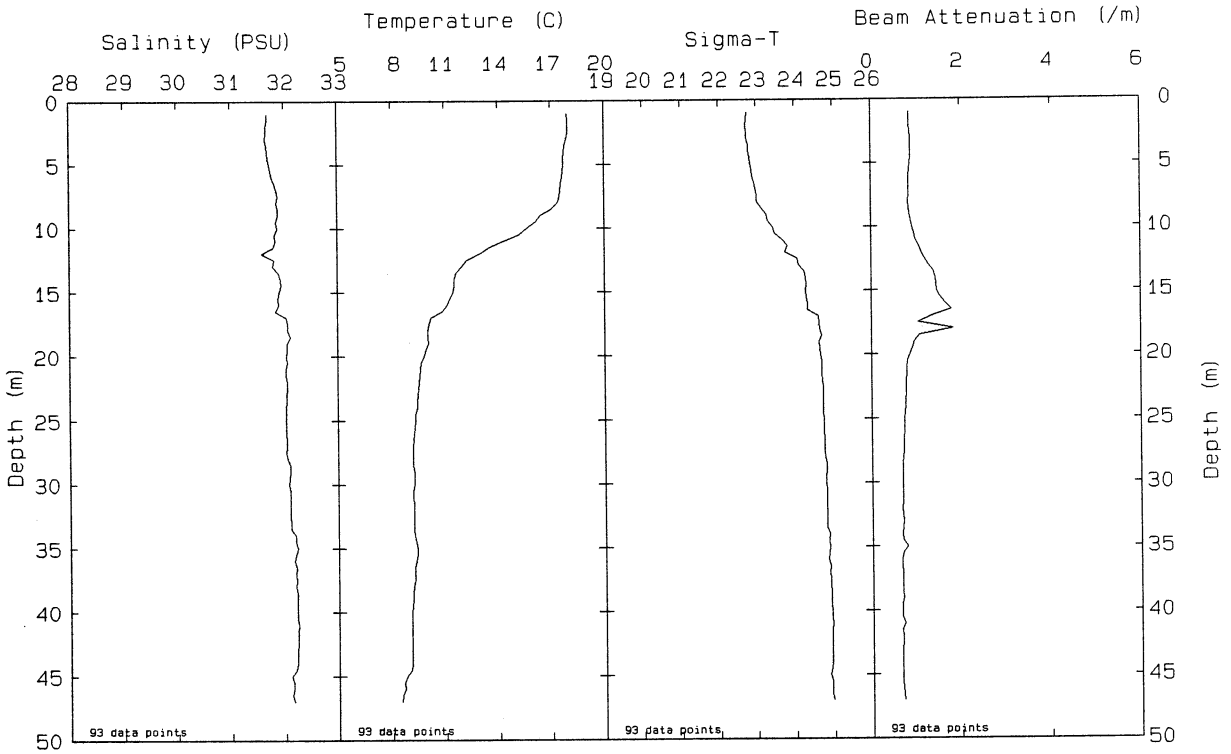


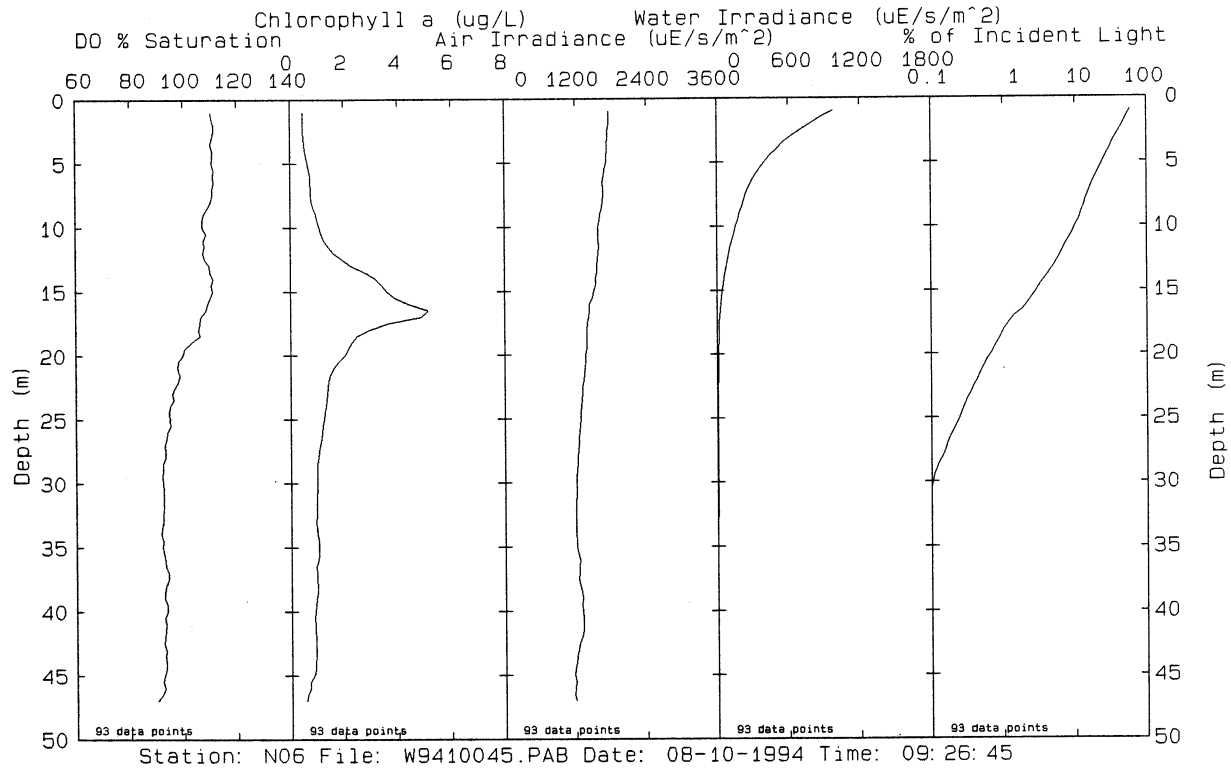
Station: N04P File: W9410037.PAB Date: 08-10-1994 Time: 08:29:03





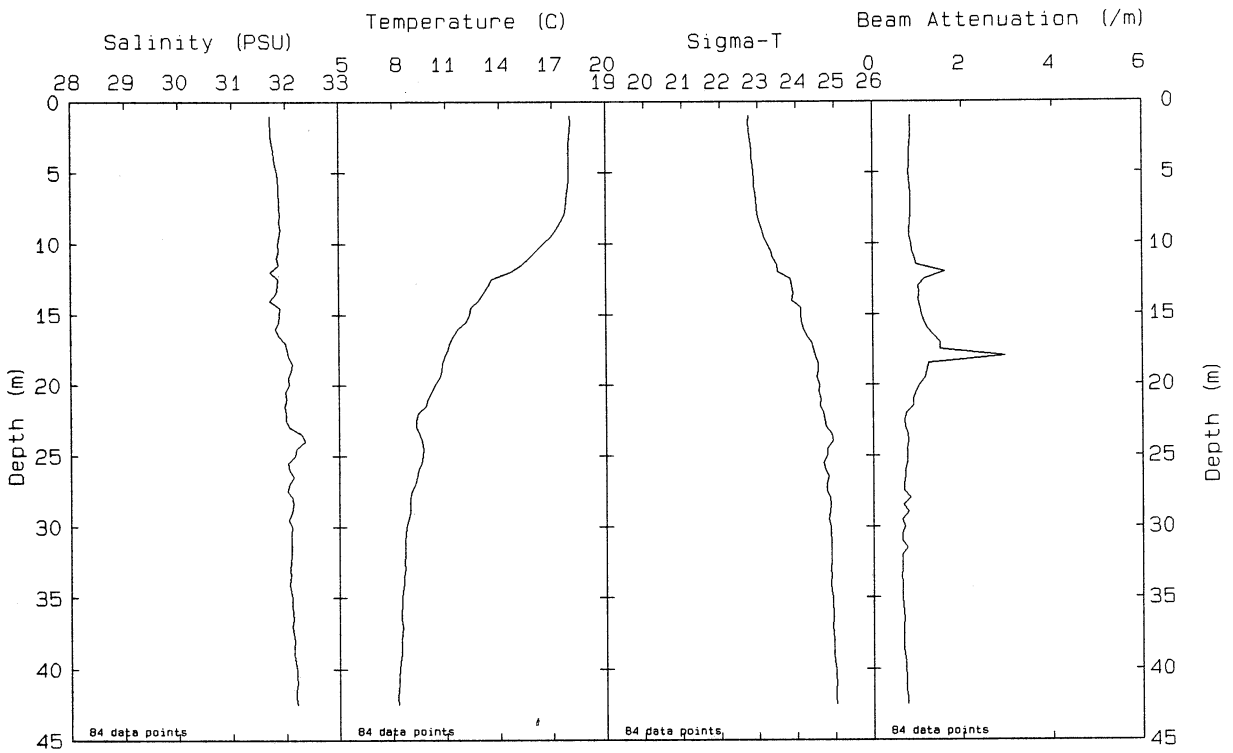
Station: N05 File: W9410041.PAB Date: 08-10-1994 Time: 08:59:54

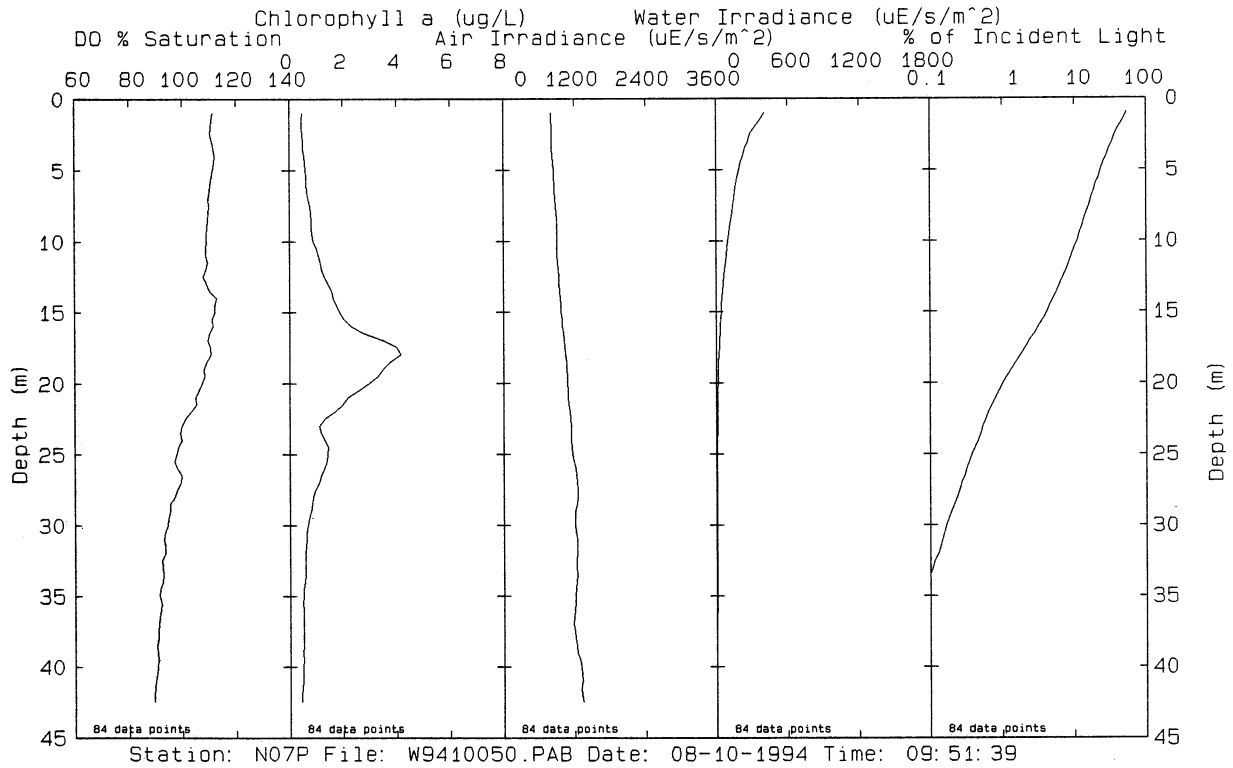




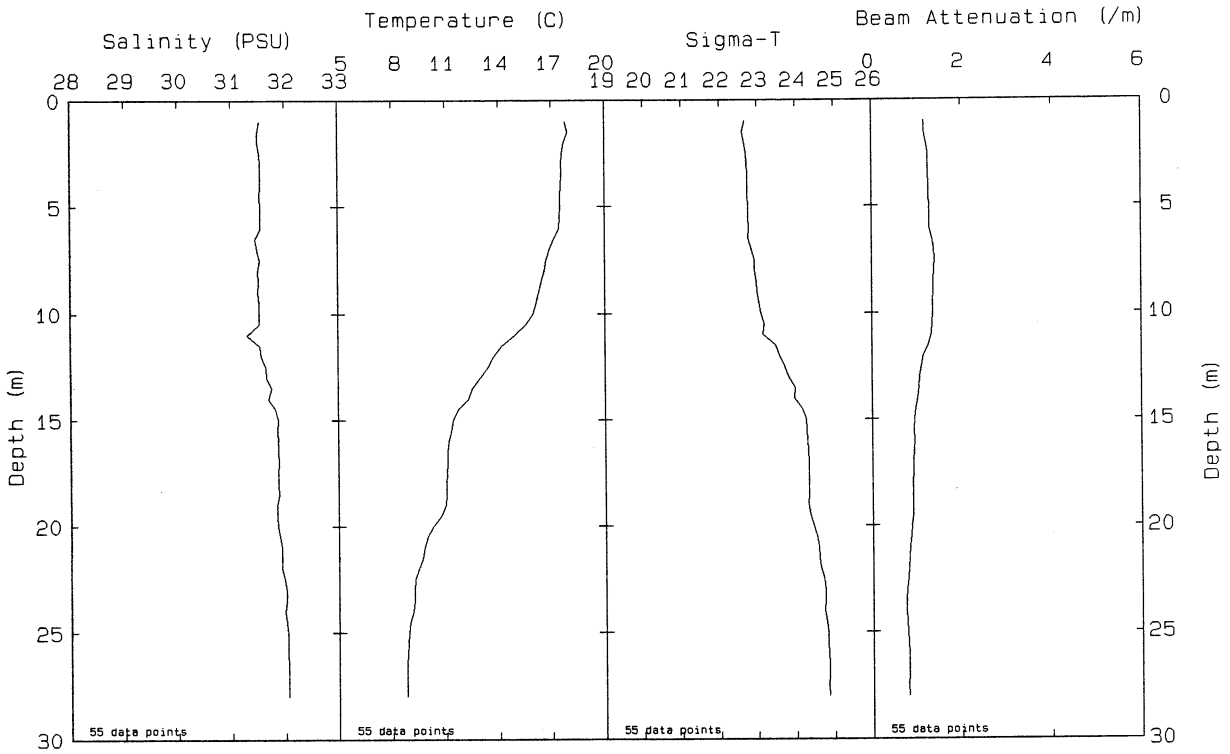
Station: N06 File: W9410045.PAB Date: 08-10-1994 Time: 09:26:45

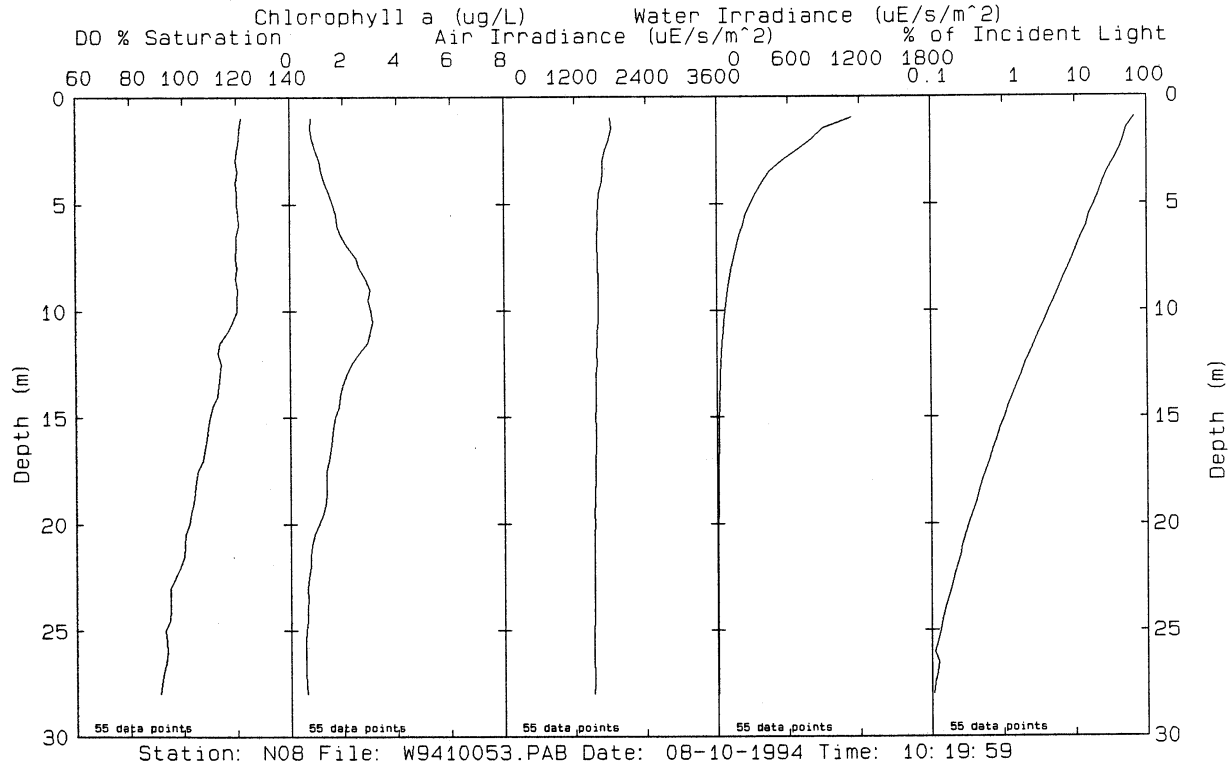
01-19-1995 09:14:23 Battelle



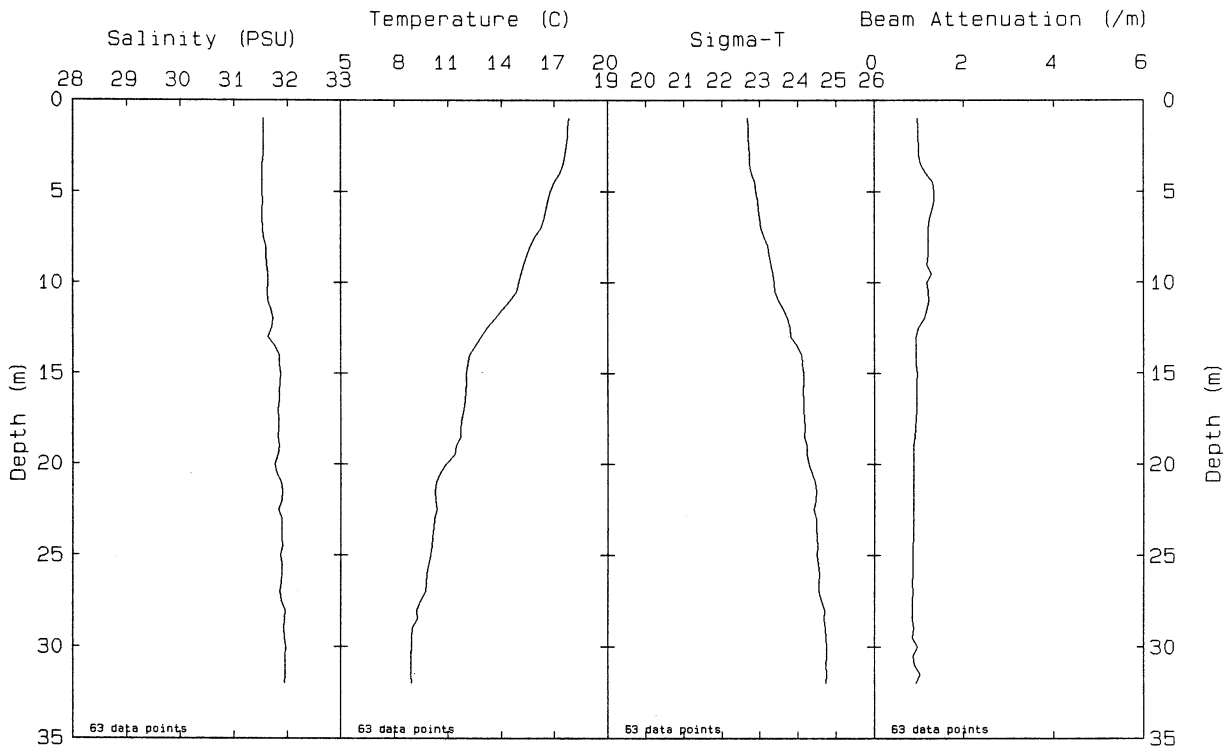


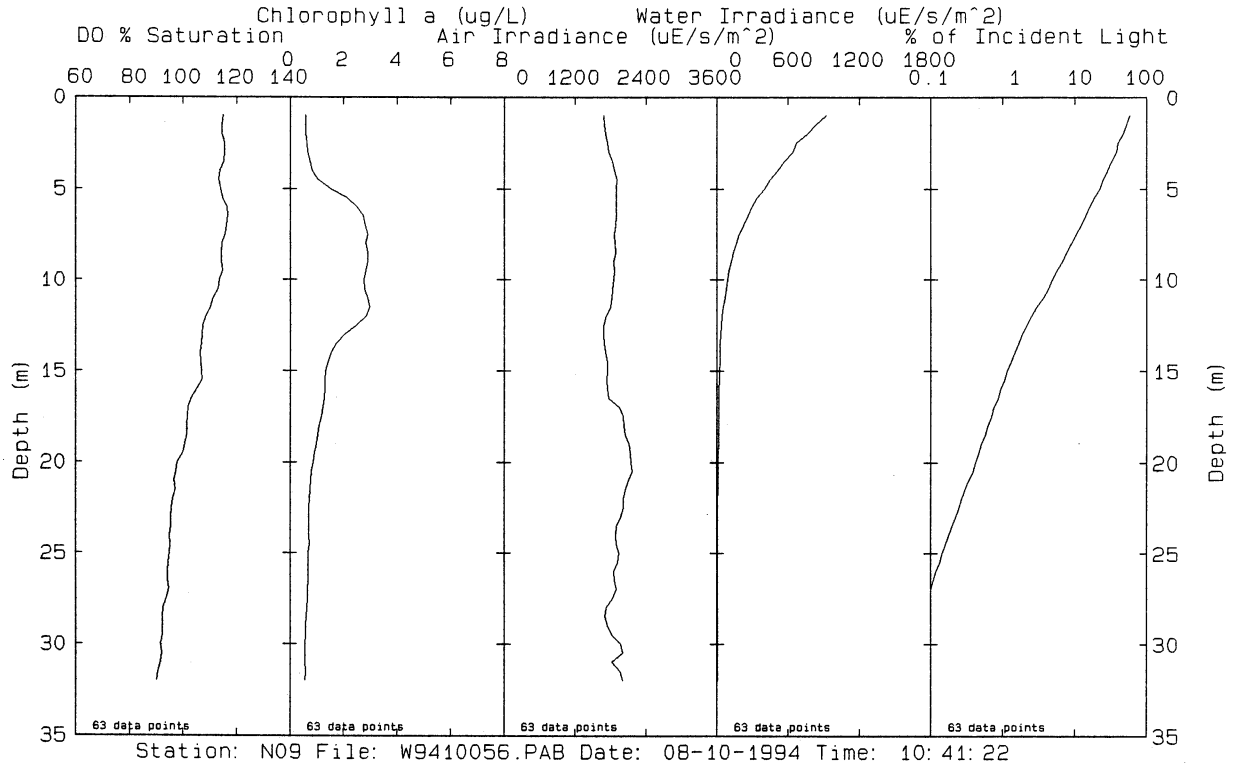
Station: N07P File: W9410050.PAB Date: 08-10-1994 Time: 09:51:39



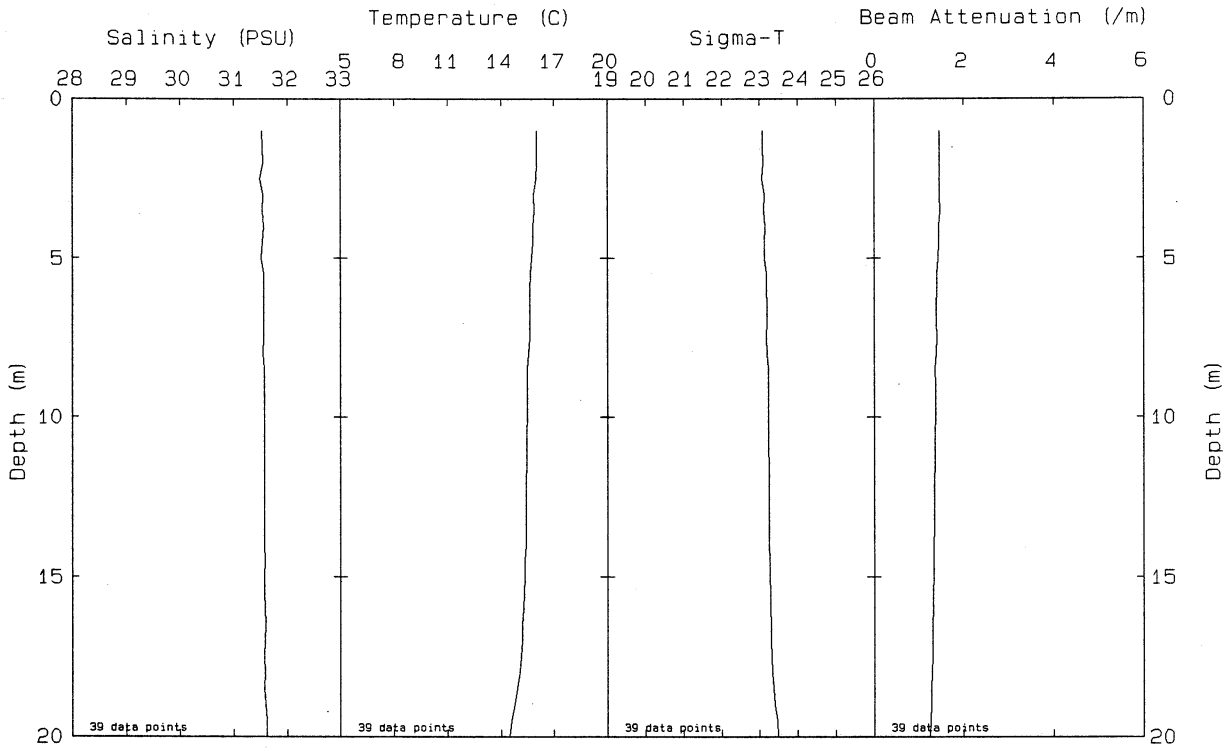


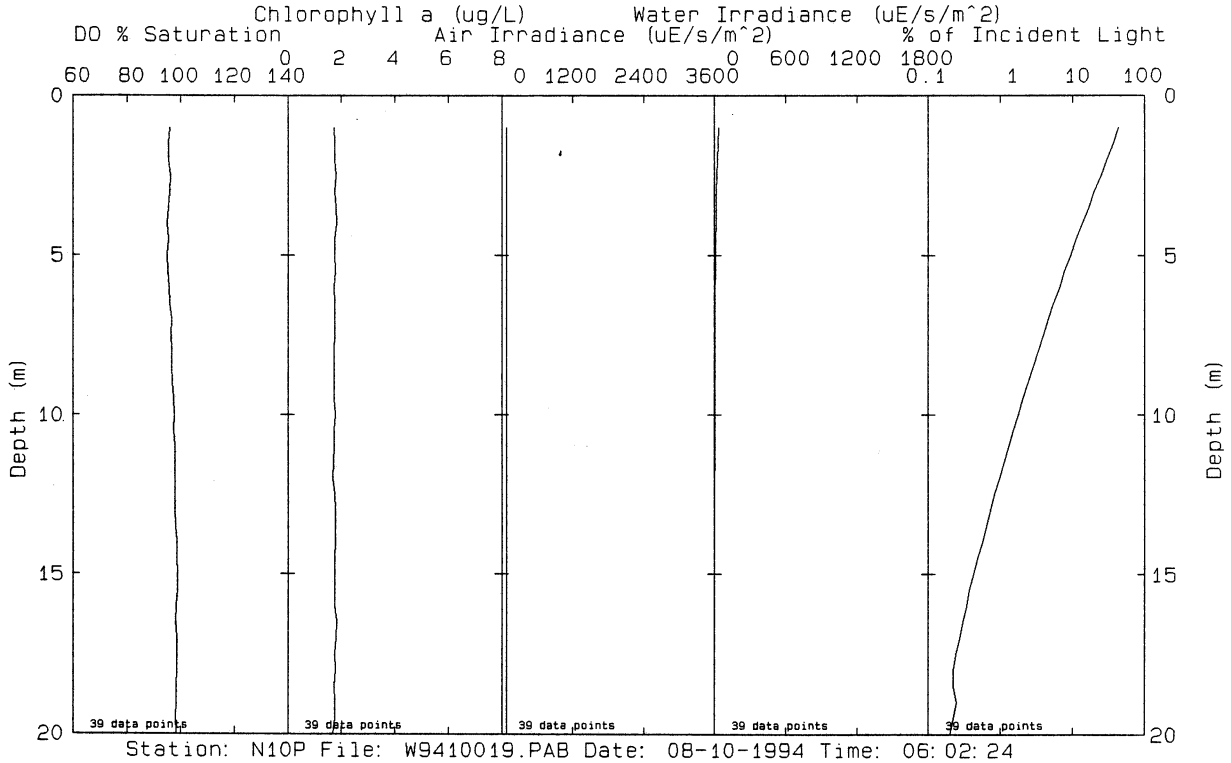
Station: N08 File: W9410053.PAB Date: 08-10-1994 Time: 10:19:59



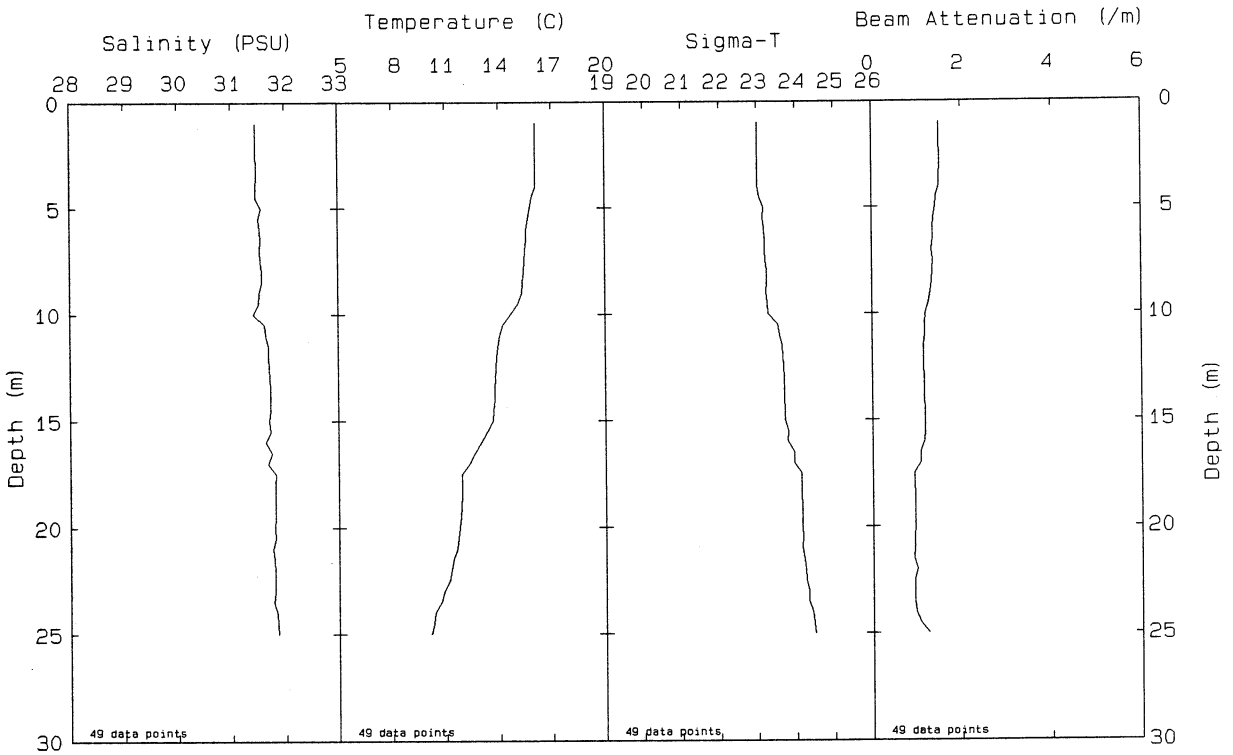


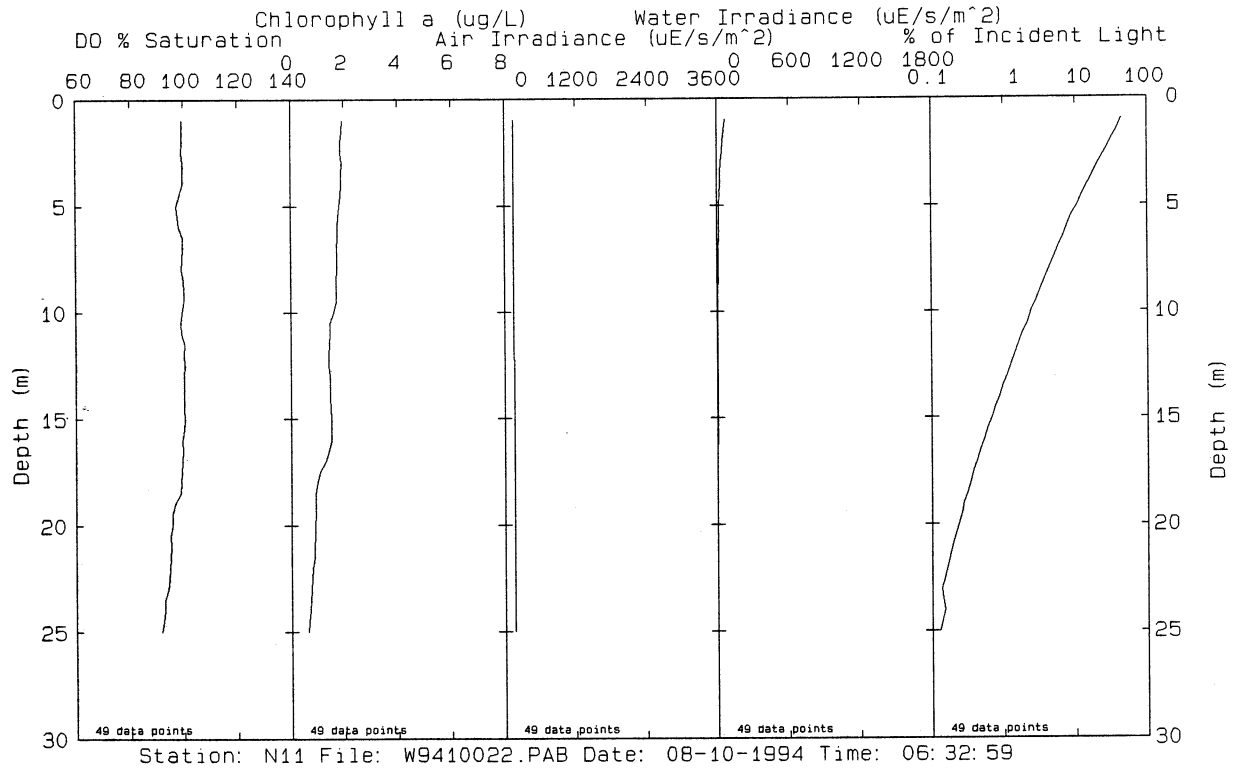
Station: N09 File: W9410056.PAB Date: 08-10-1994 Time: 10:41:22



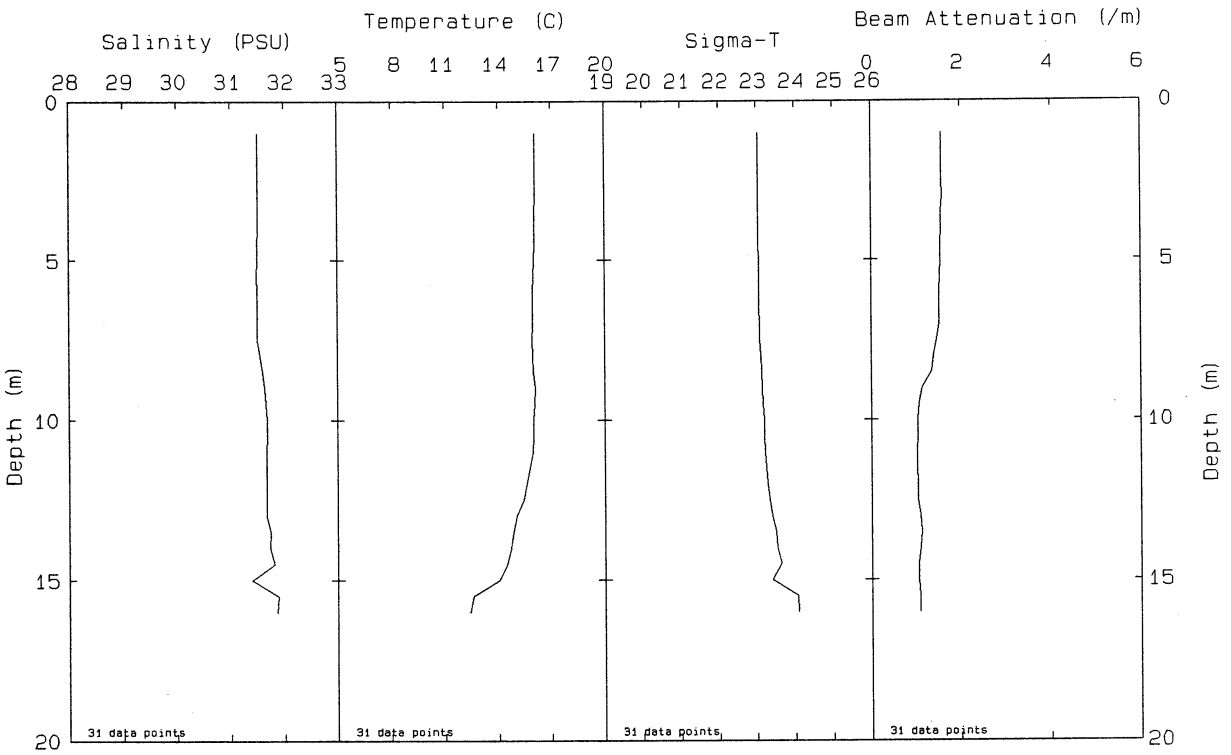


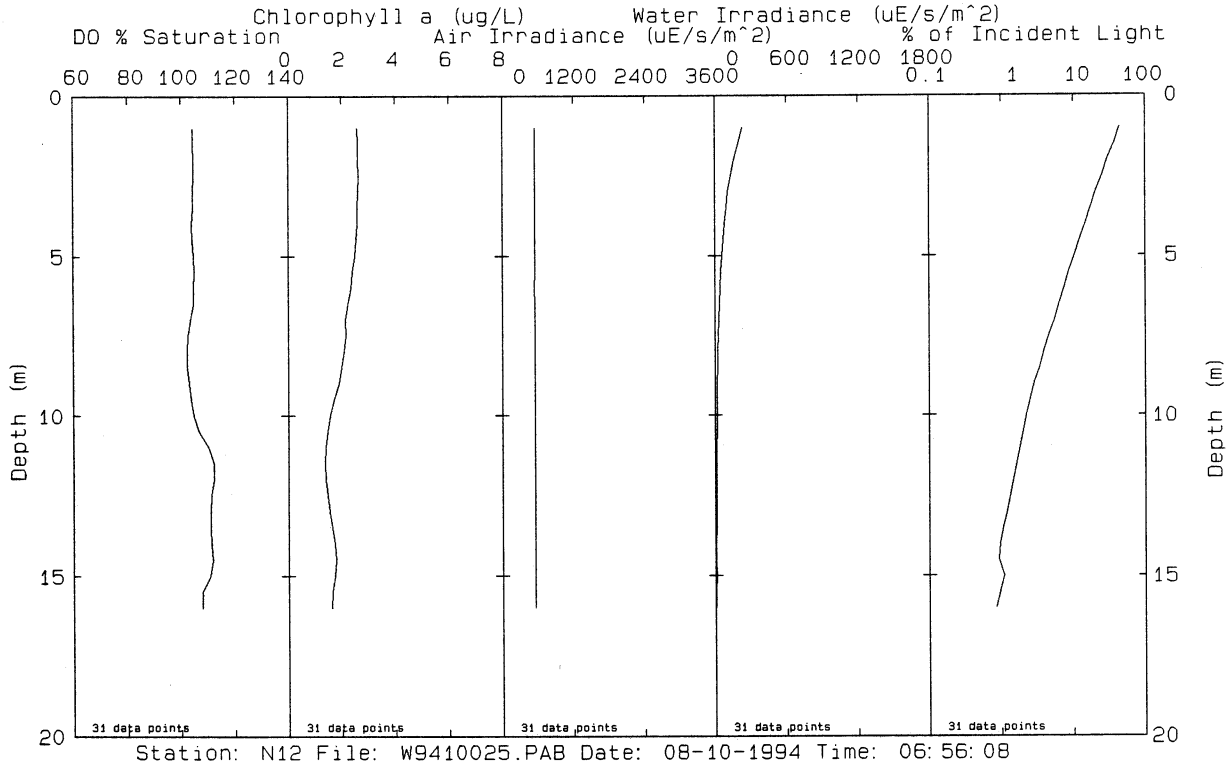
Station: N10P File: W9410019.PAB Date: 08-10-1994 Time: 06:02:24



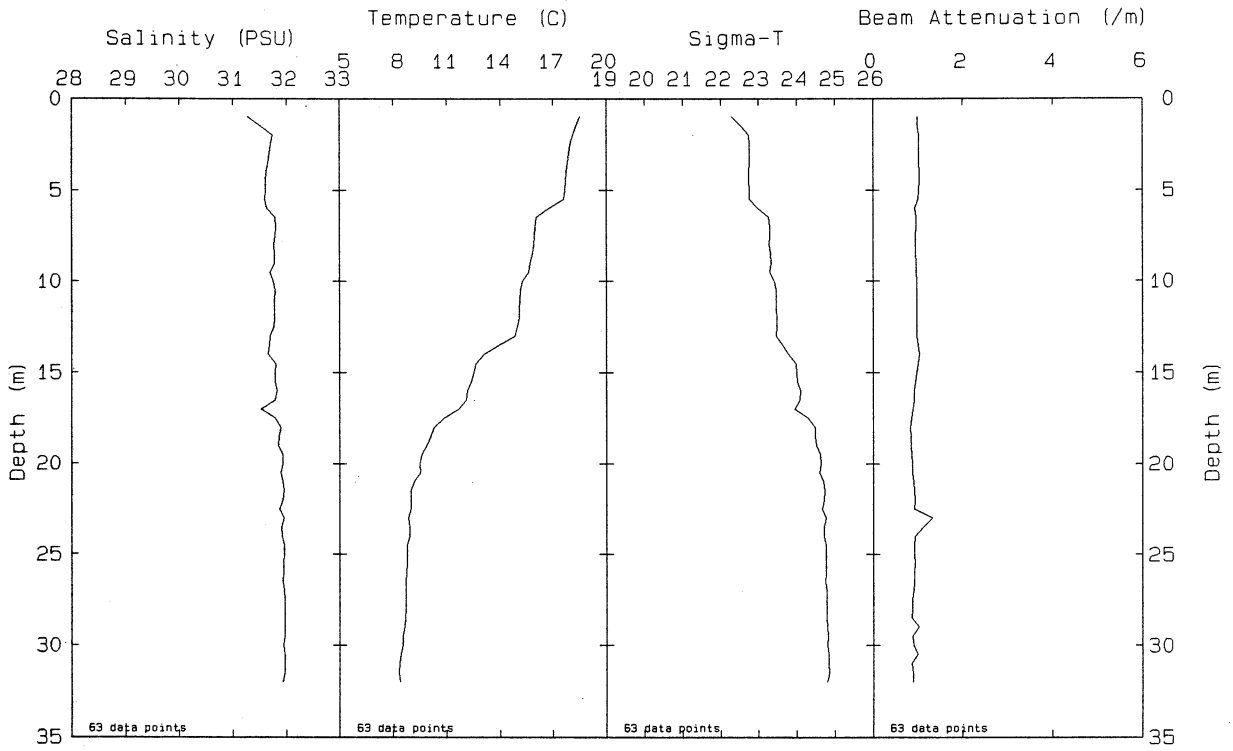


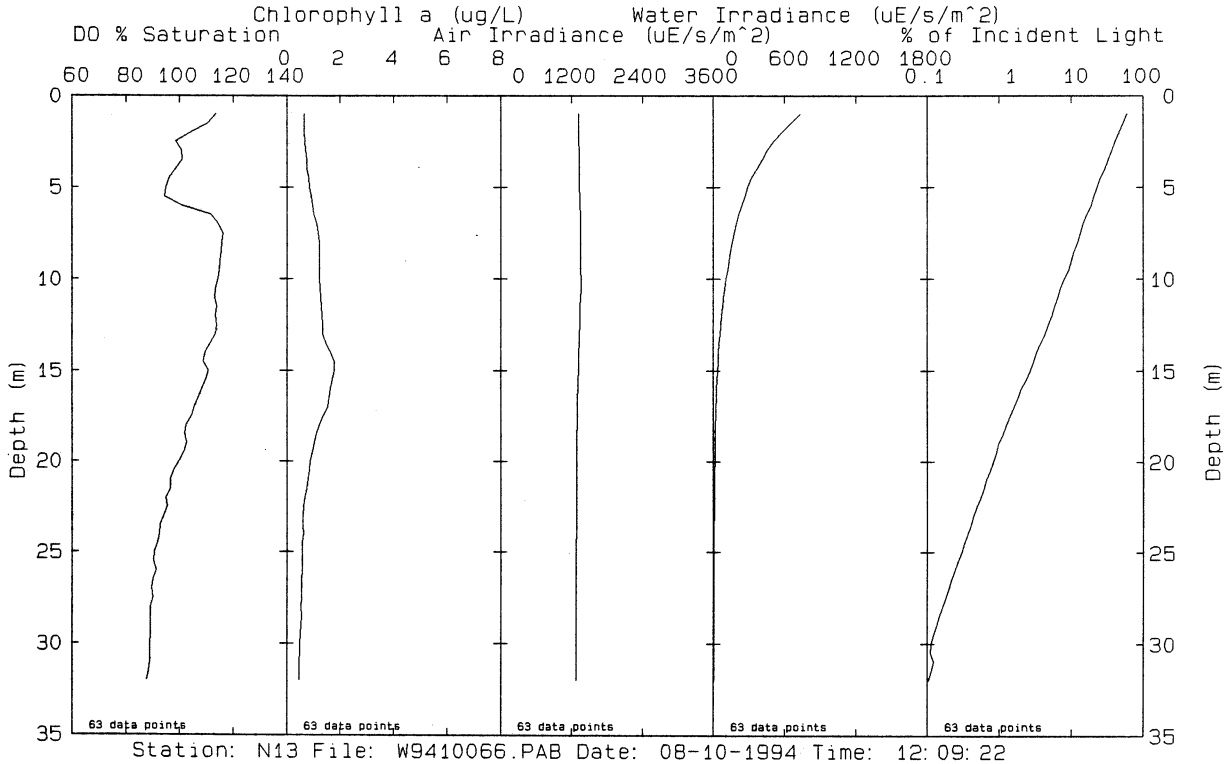
Station: N11 File: W9410022.PAB Date: 08-10-1994 Time: 06:32:59



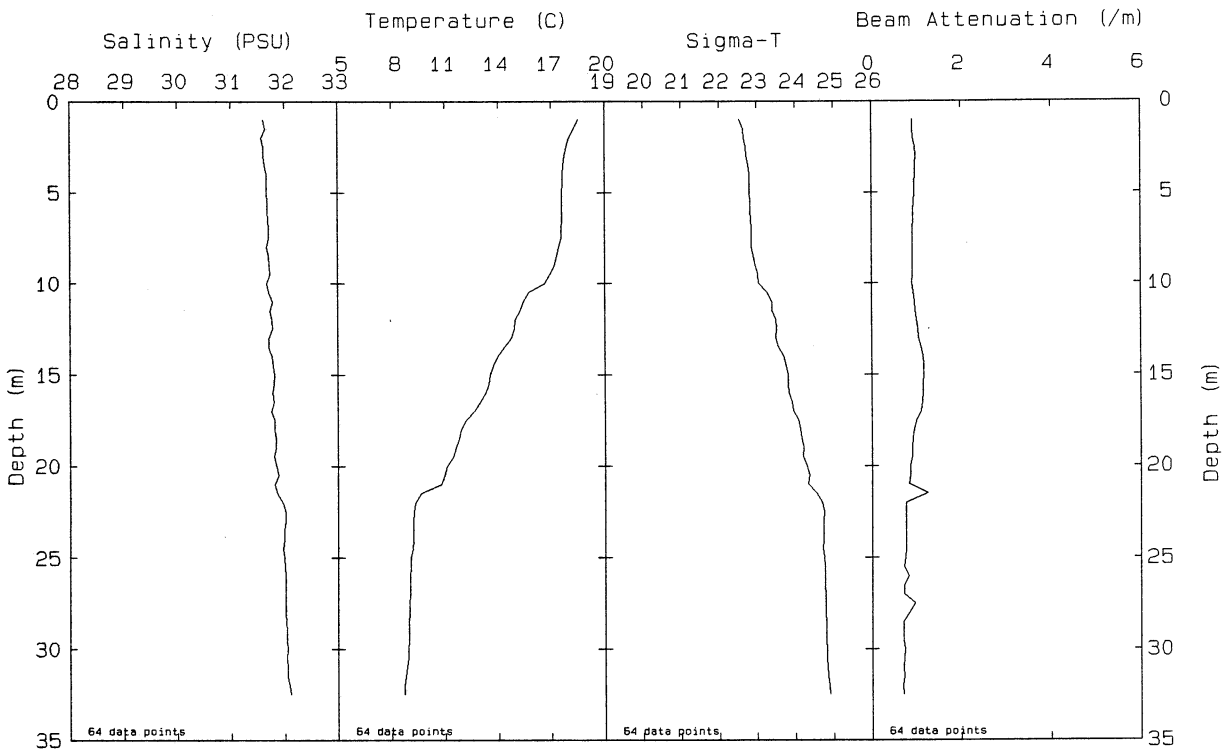


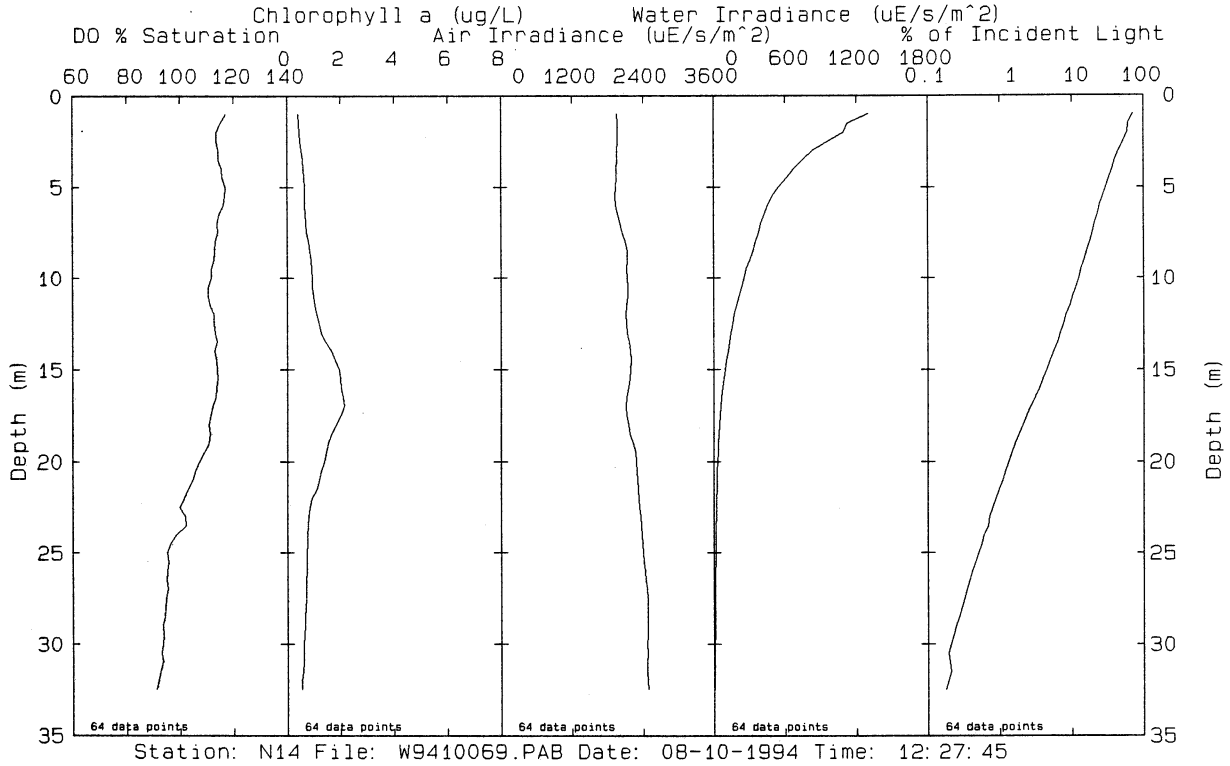
Station: N12 File: W9410025.PAB Date: 08-10-1994 Time: 06:56:08



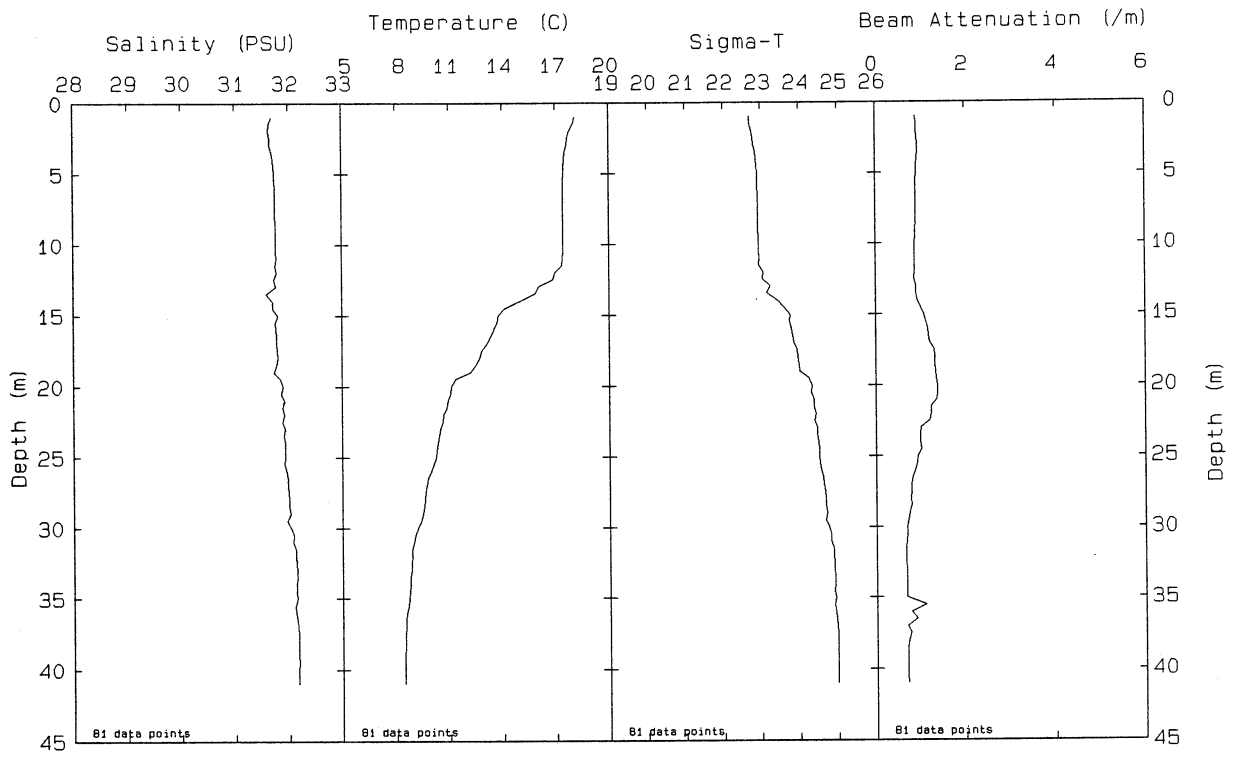


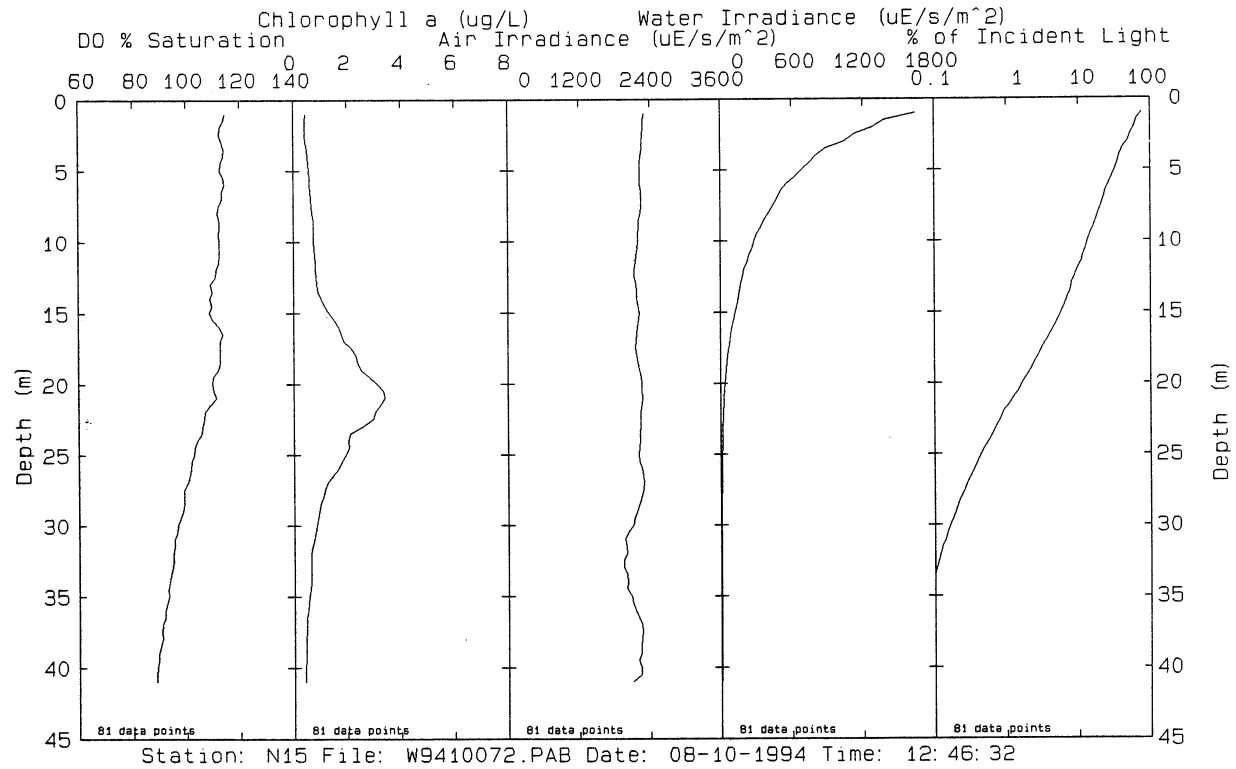
Station: N13 File: W9410066.PAB Date: 08-10-1994 Time: 12:09:22



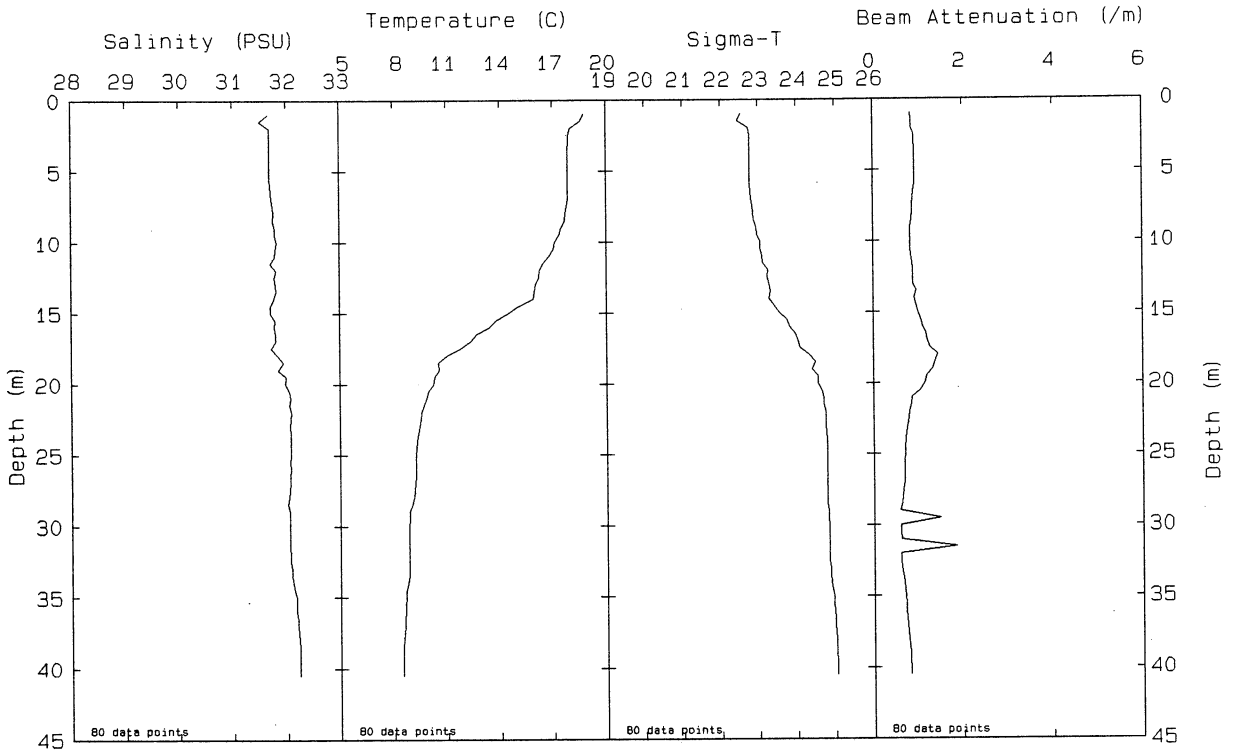


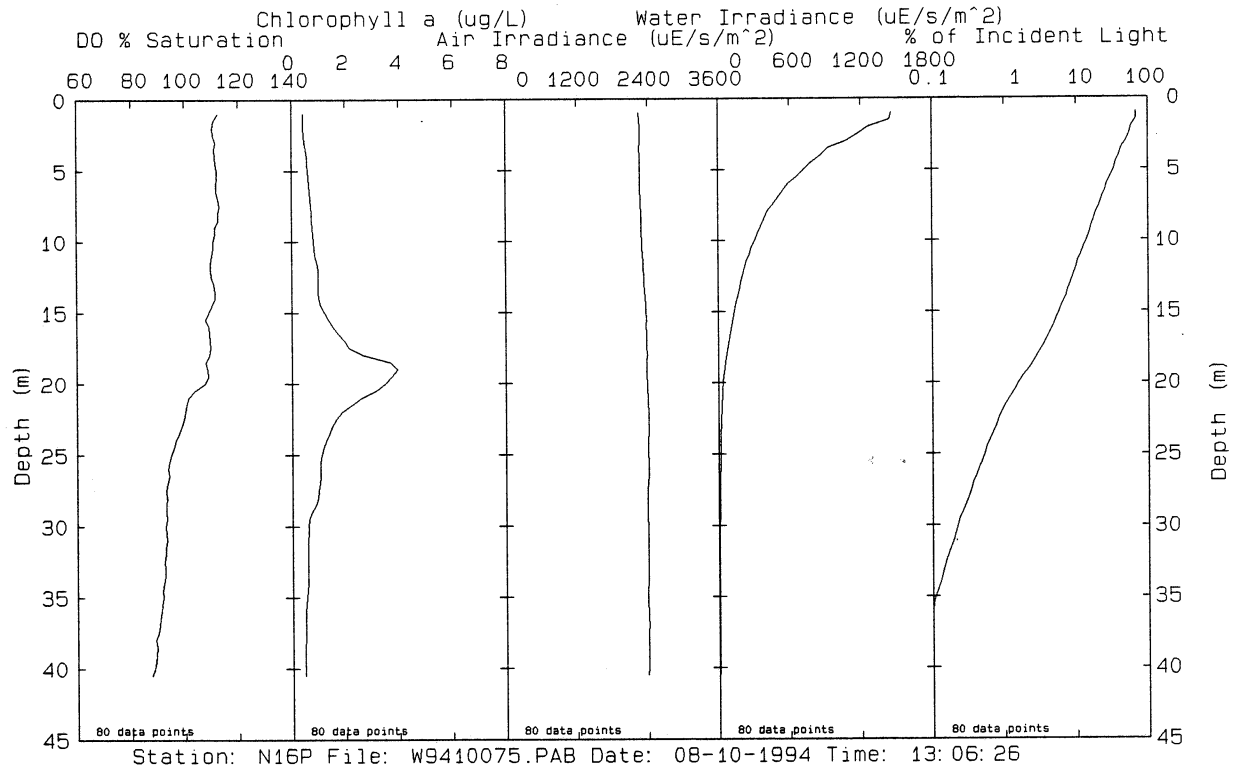
Station: N14 File: W9410069.PAB Date: 08-10-1994 Time: 12:27:45



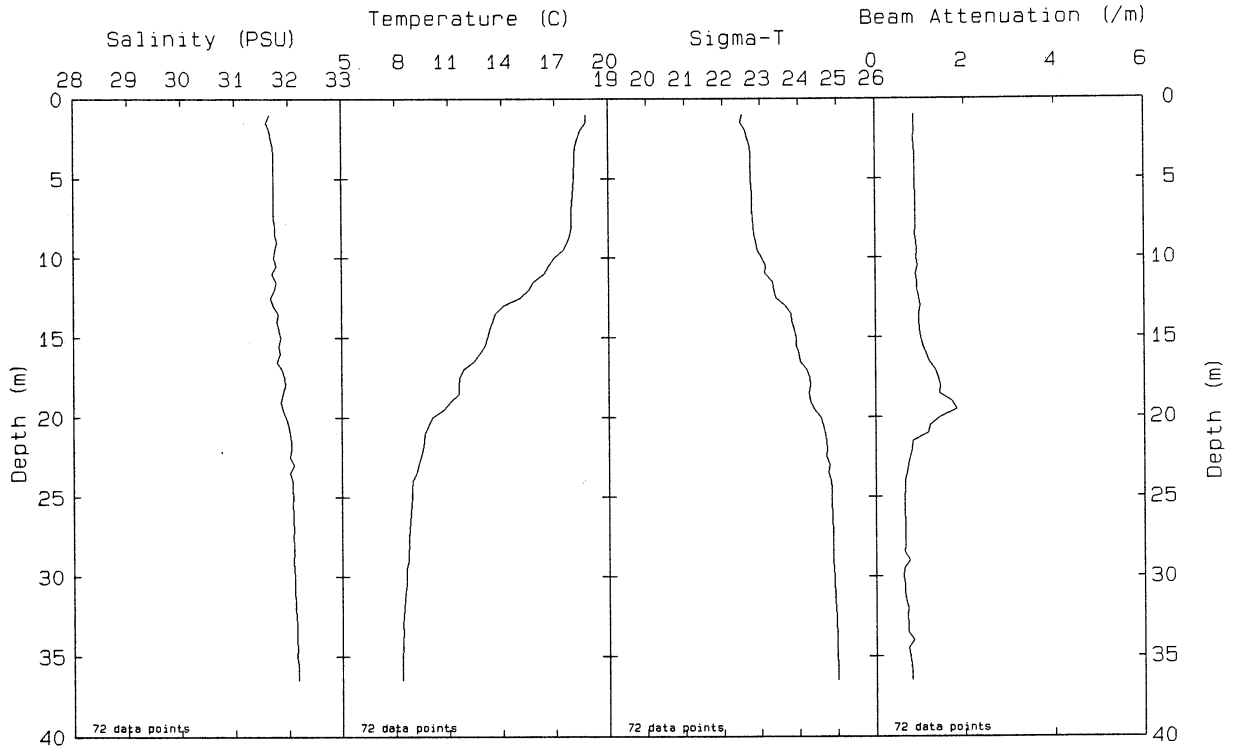


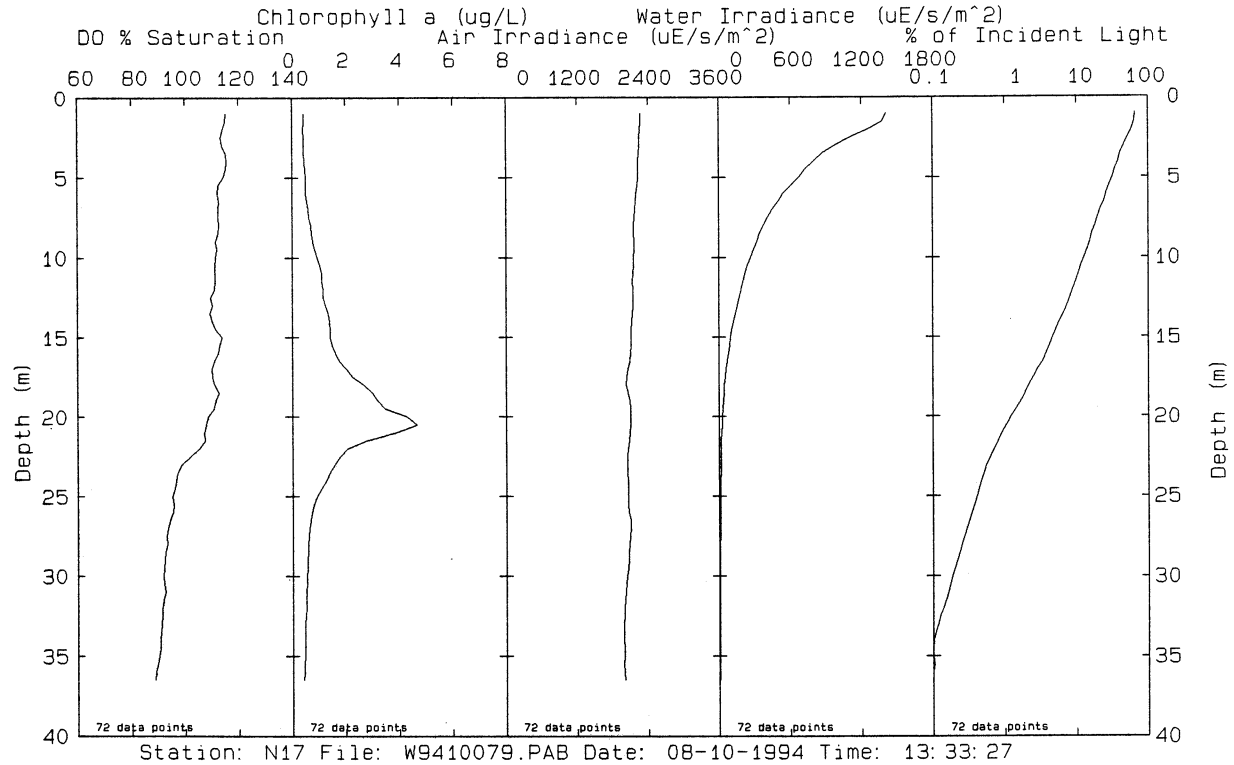
Station: N15 File: W9410072.PAB Date: 08-10-1994 Time: 12:46:32



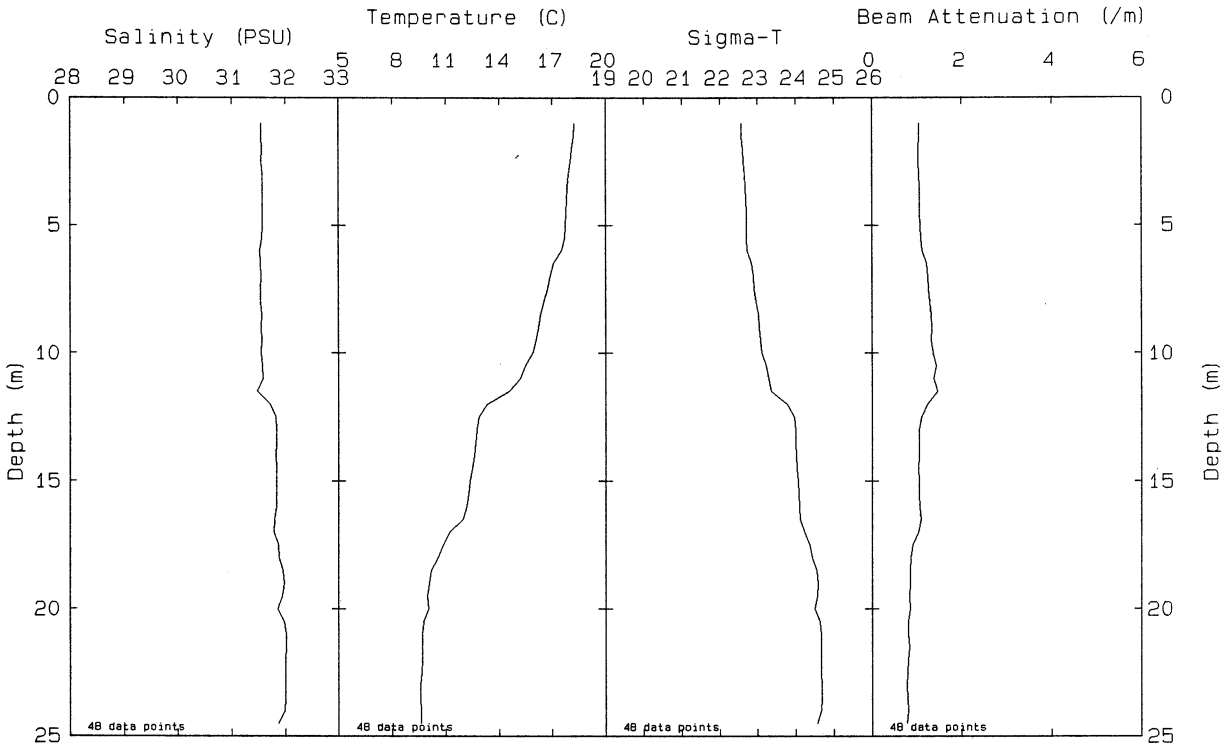


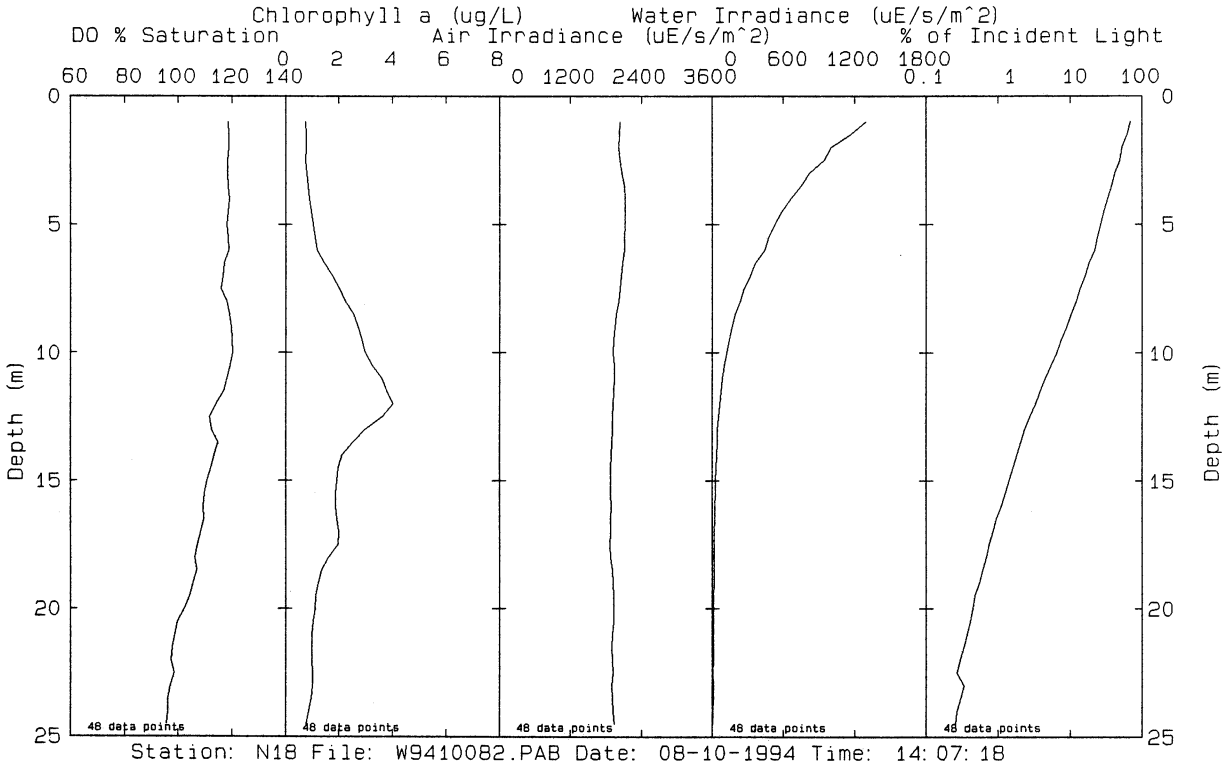
Station: N16P File: W9410075.PAB Date: 08-10-1994 Time: 13:06:26



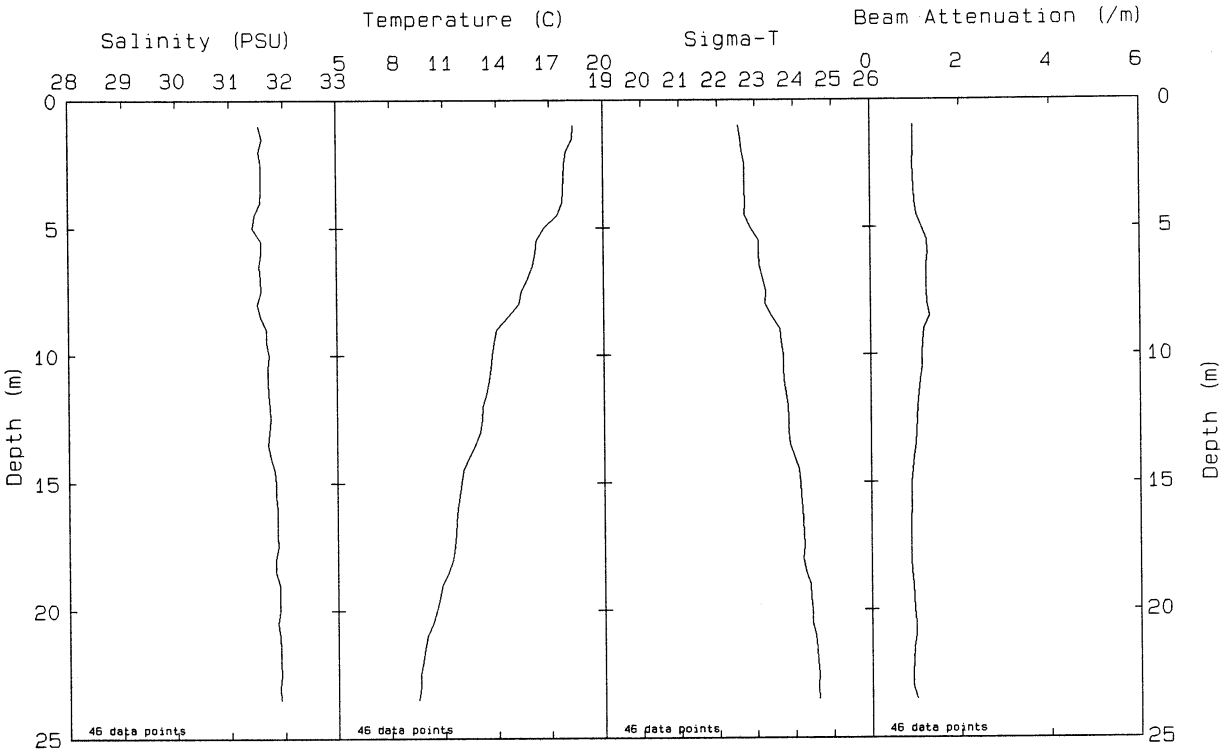


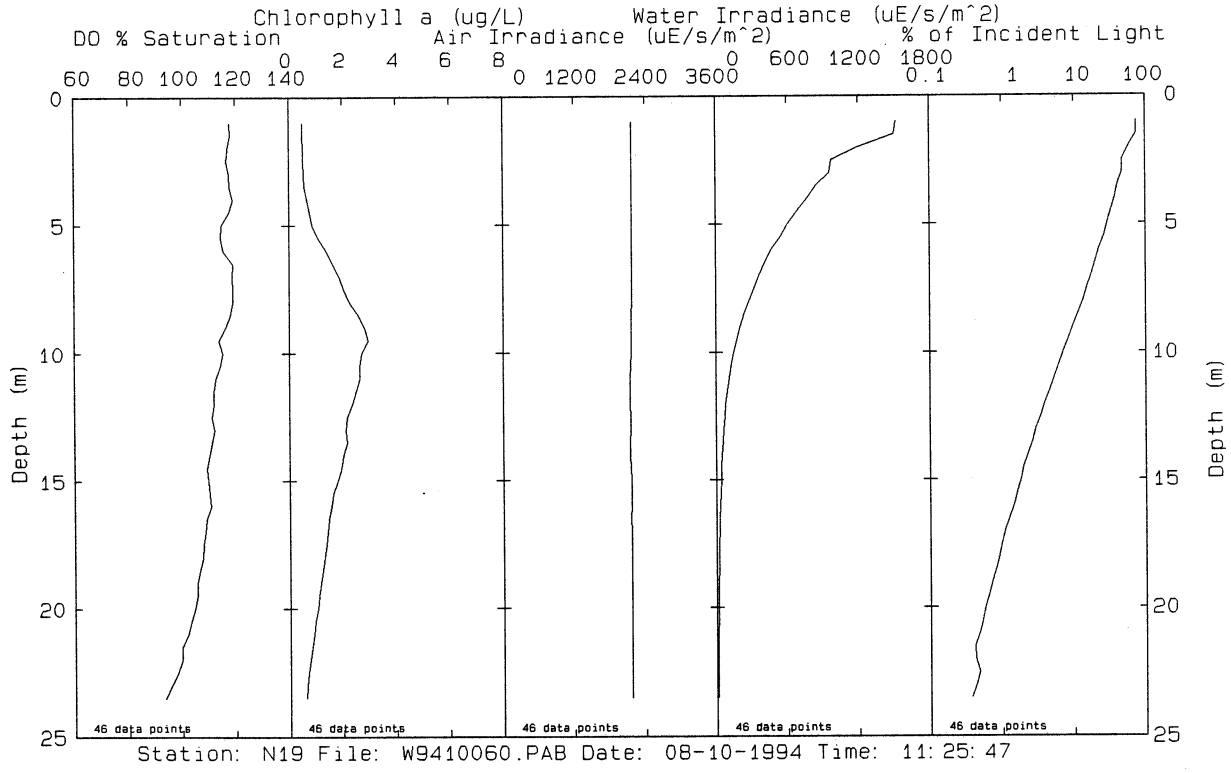
Station: N17 File: W9410079.PAB Date: 08-10-1994 Time: 13:33:27





Station: N18 File: W9410082.PAB Date: 08-10-1994 Time: 14:07:18

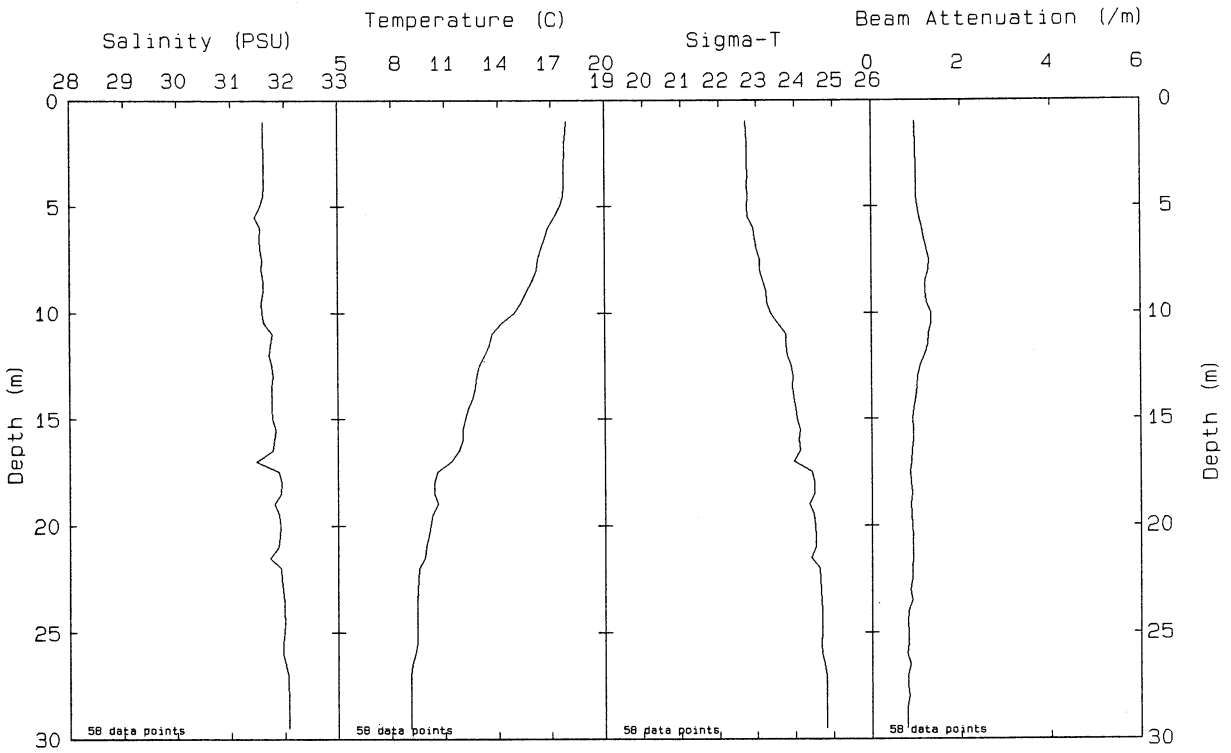


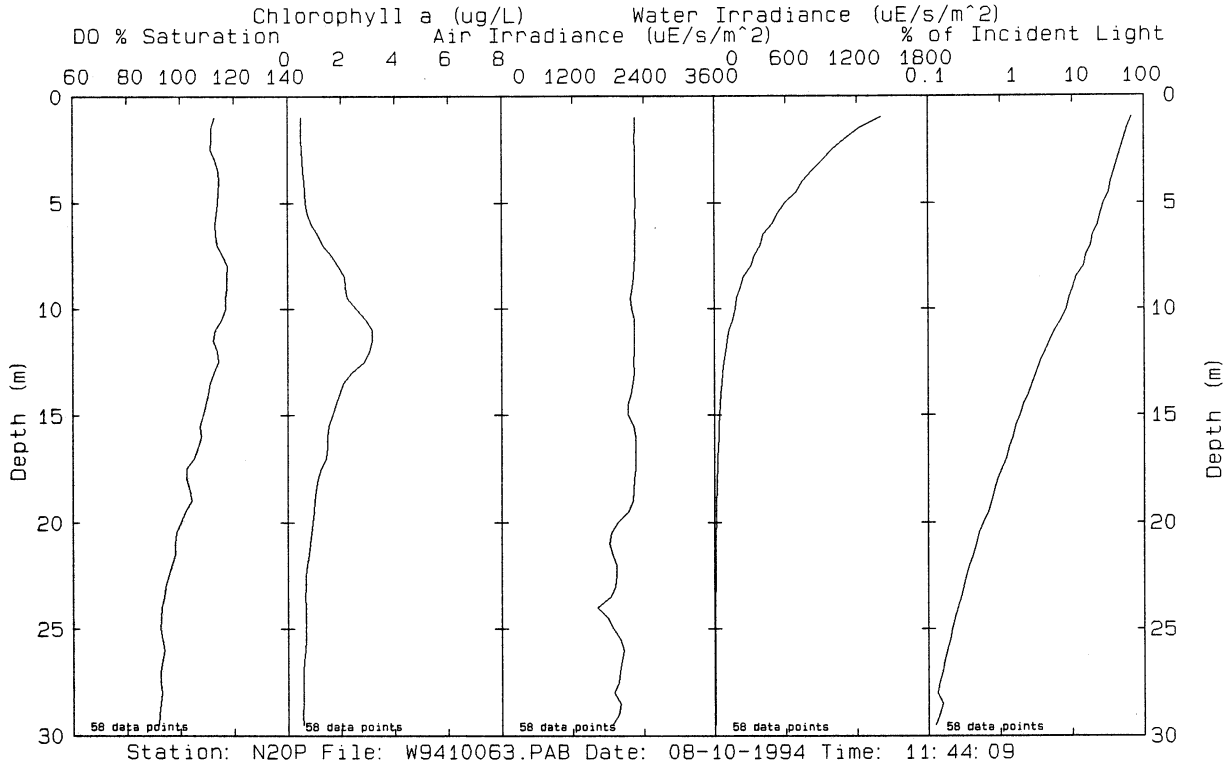


Station: N19 File: W9410060.PAB Date: 08-10-1994 Time: 11:25:47

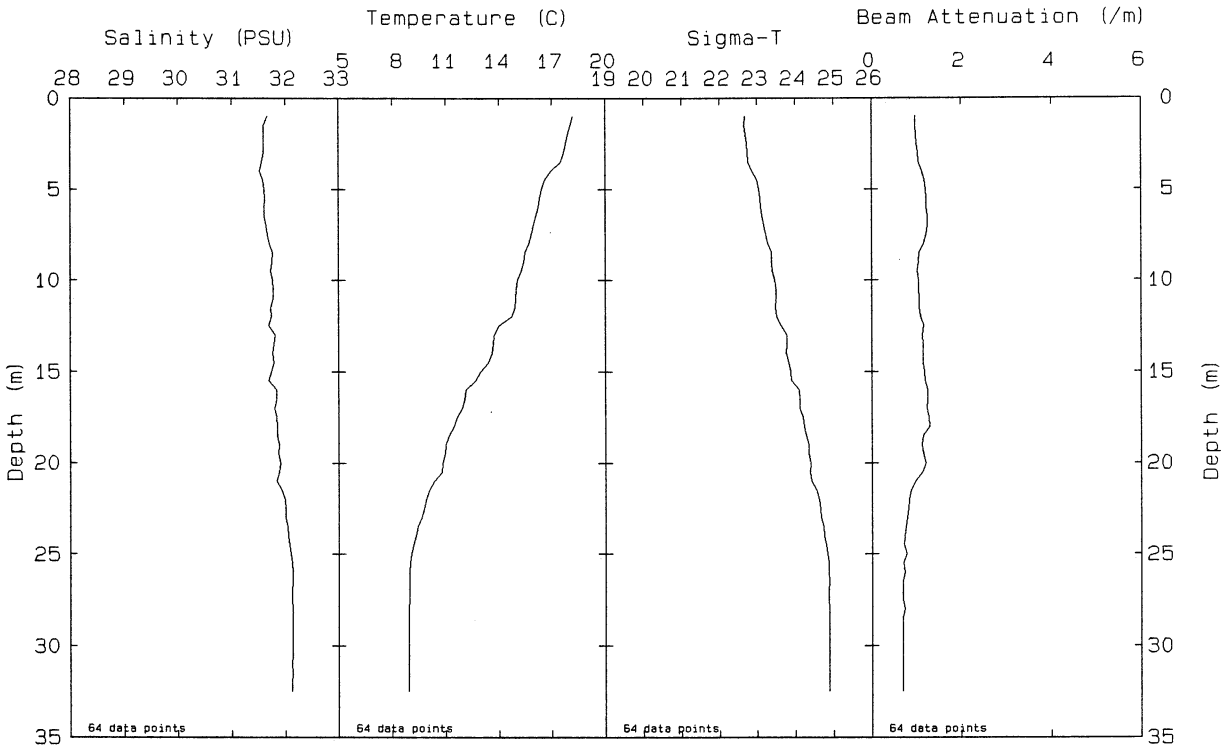
01-19-1995 09:14:34 Battelle

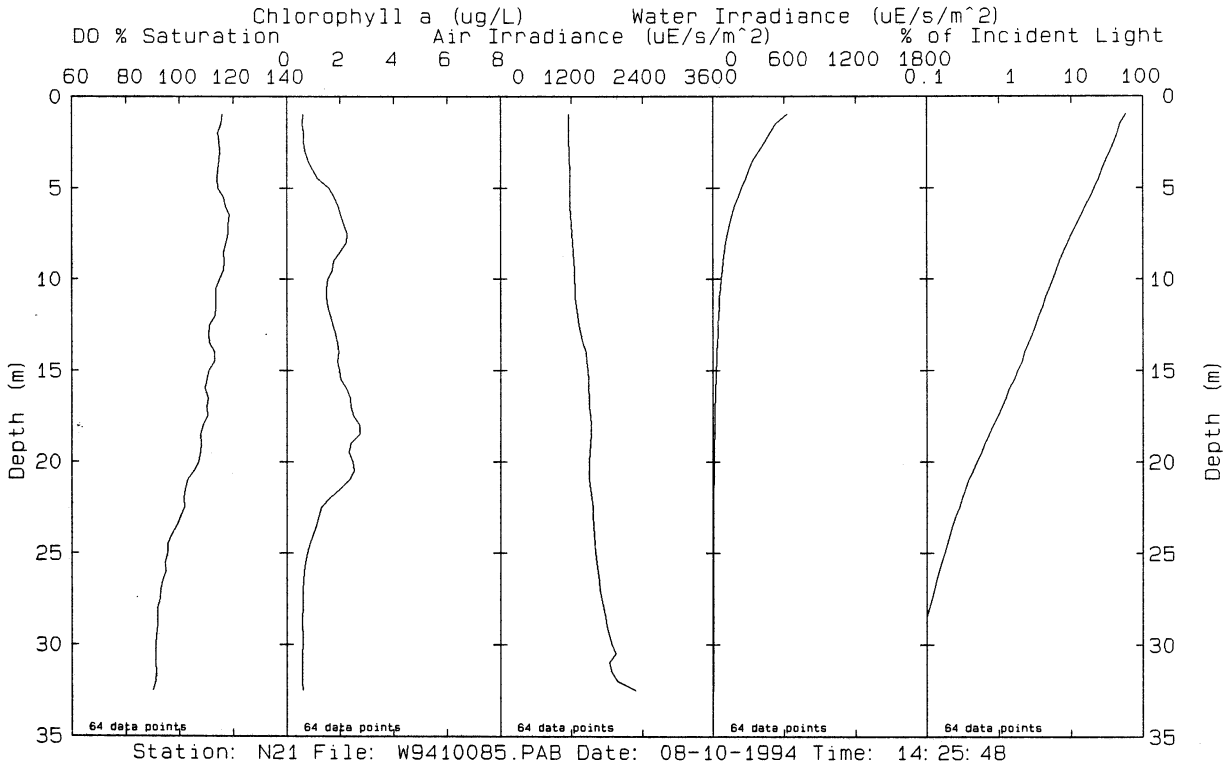
000045





Station: N20P File: W9410063.PAB Date: 08-10-1994 Time: 11:44:09





Station: N21 File: W9410085.PAB Date: 08-10-1994 Time: 14:25:48

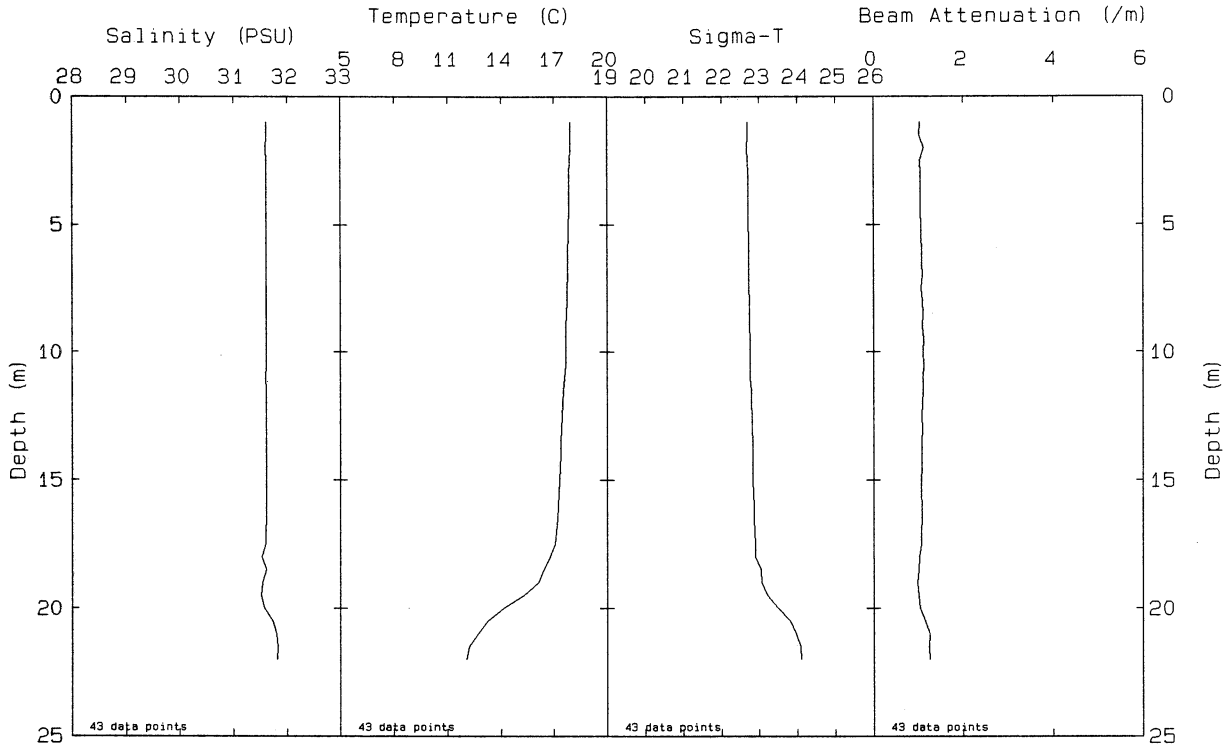
01-19-1995 09:14:58 Battelle

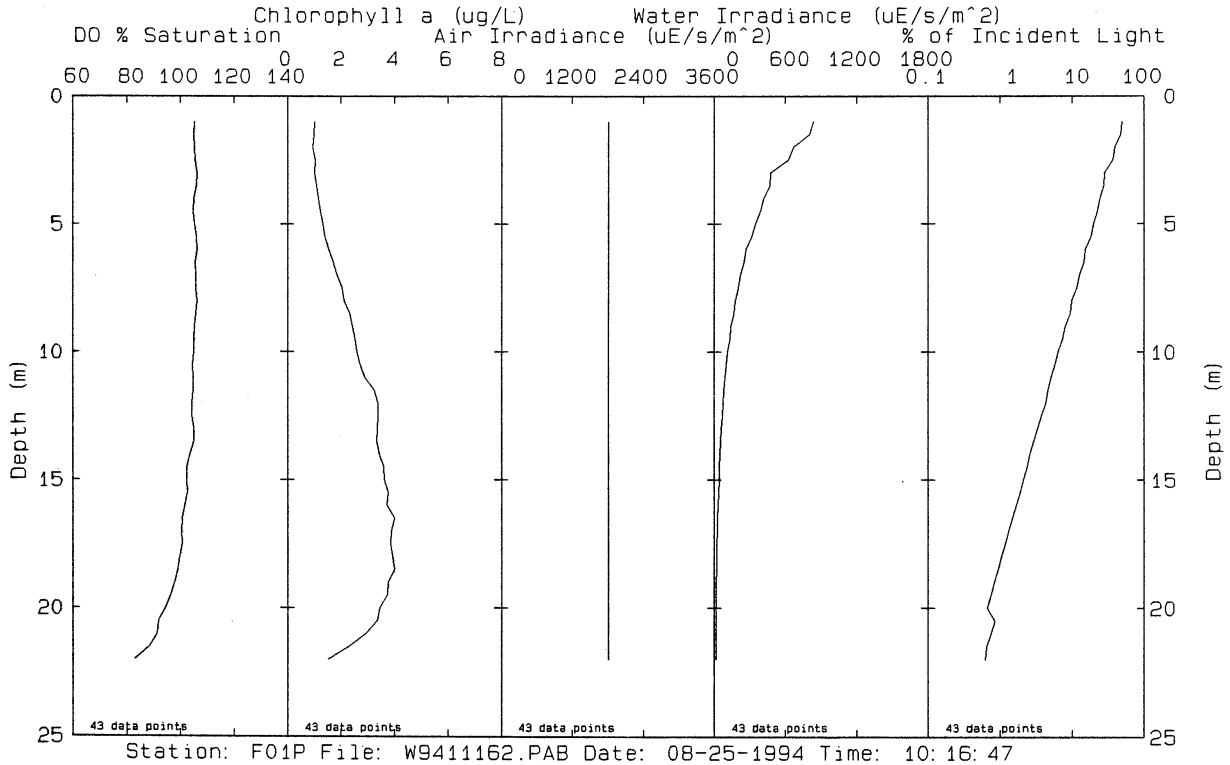
Late August 1994 Profiles

The profiles for the following August 26, 1994 stations are reported as Eastern Standard Time. All others are as Eastern Daylight Savings Time.

Station

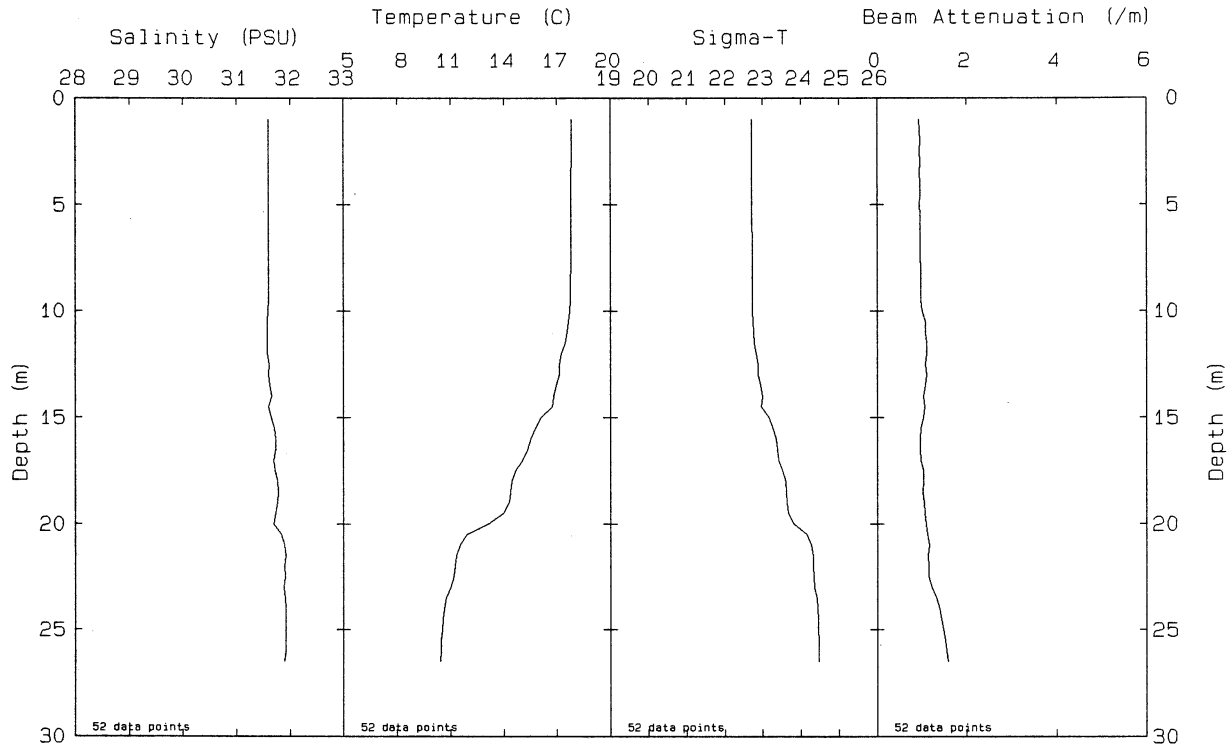
N06
N07P
N08
N09
N19
N20P
N13
N14
N15
N16P
N17
N18
N21

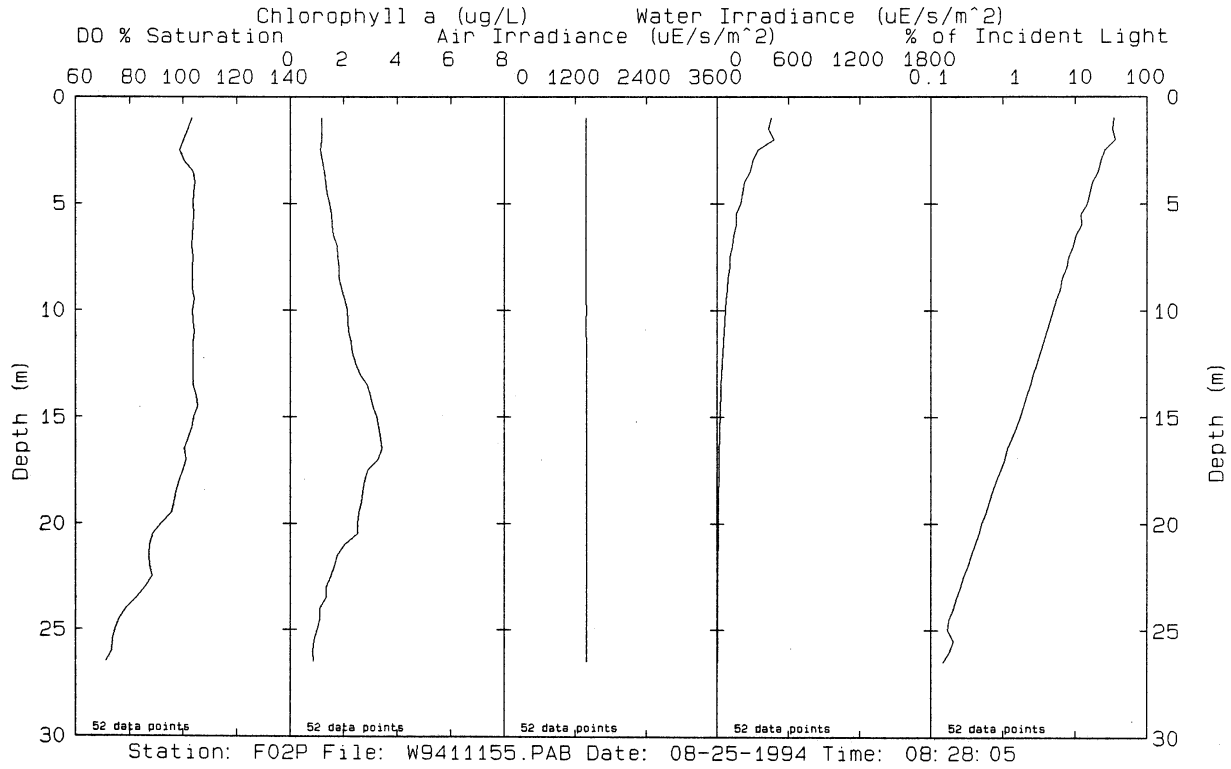




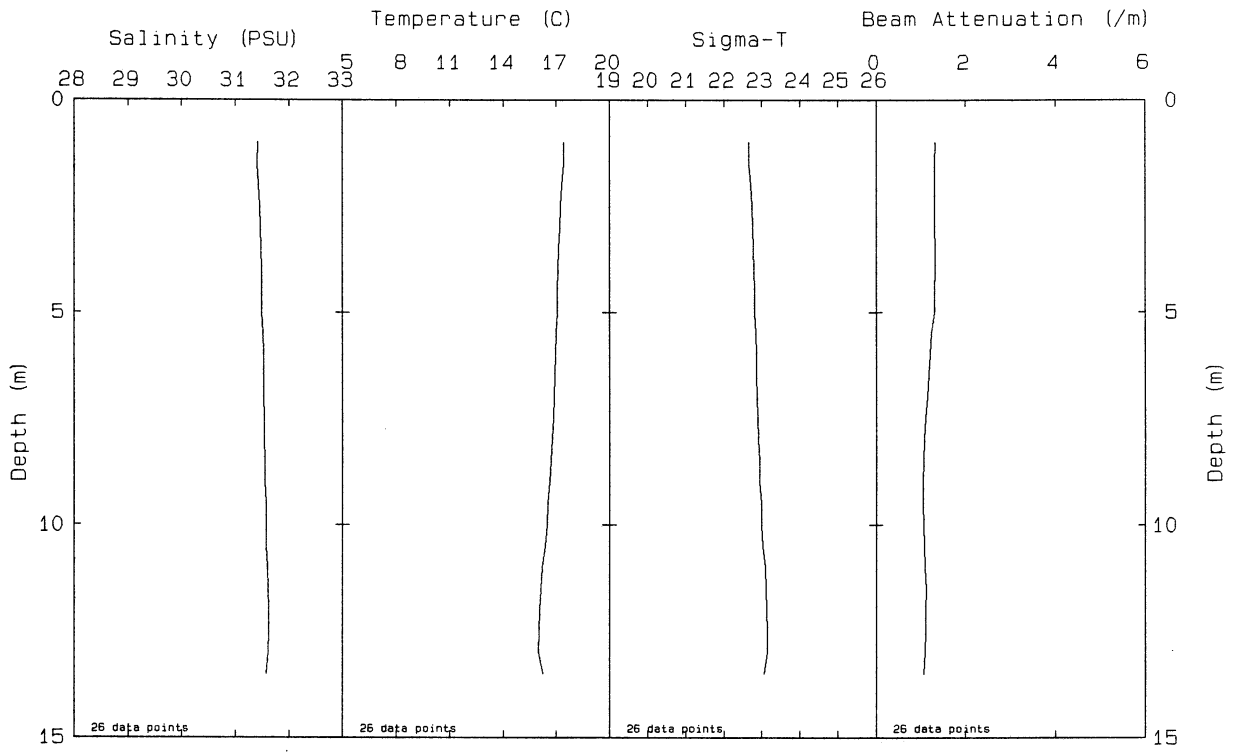
Station: F01P File: W9411162.PAB Date: 08-25-1994 Time: 10:16:47

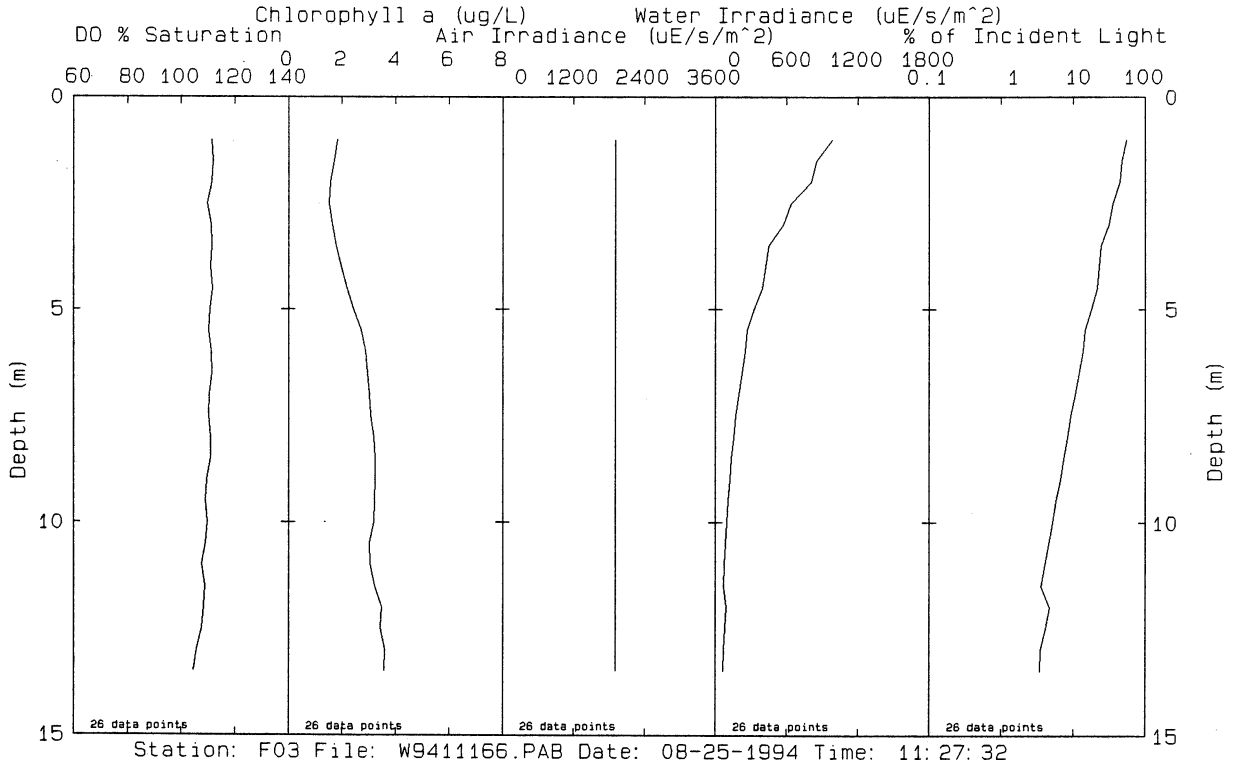
01-19-1995 09:16:26 Battelle





Station: F02P File: W9411155.PAB Date: 08-25-1994 Time: 08:28:05

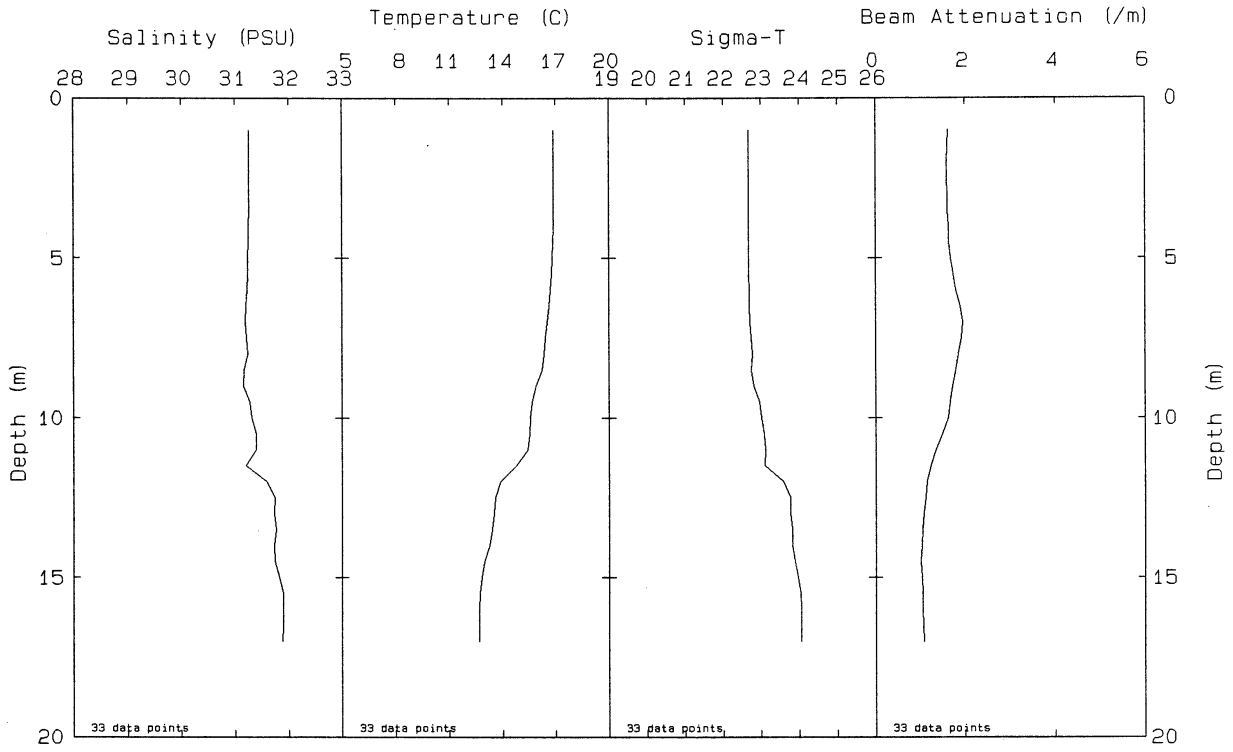


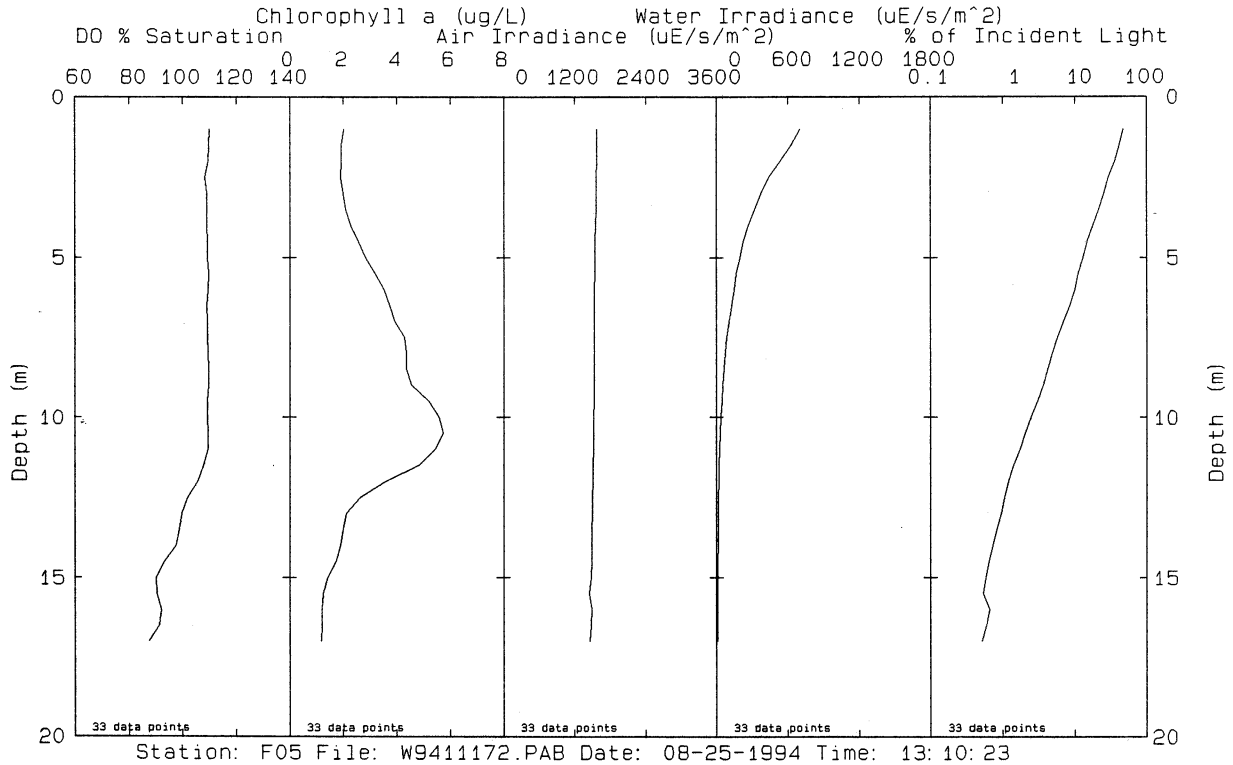


Station: F03 File: W9411166.PAB Date: 08-25-1994 Time: 11:27:32

01-19-1995 09:16:28 Battelle

000052

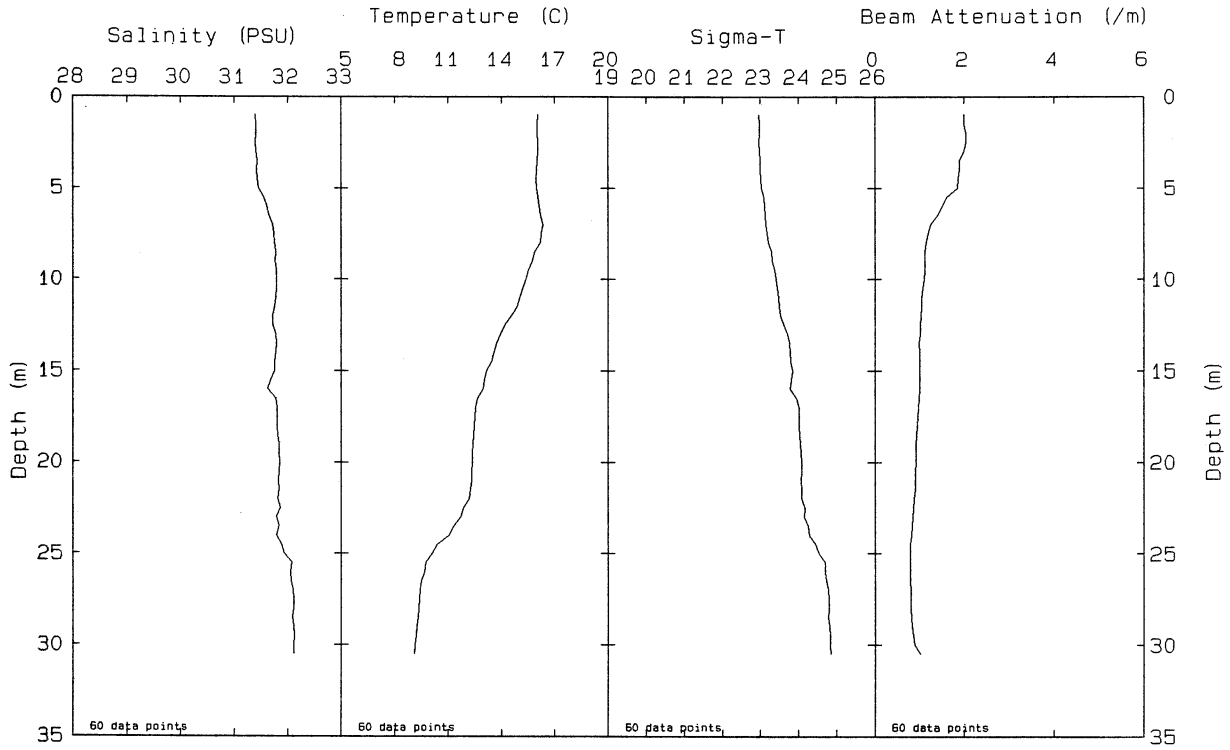


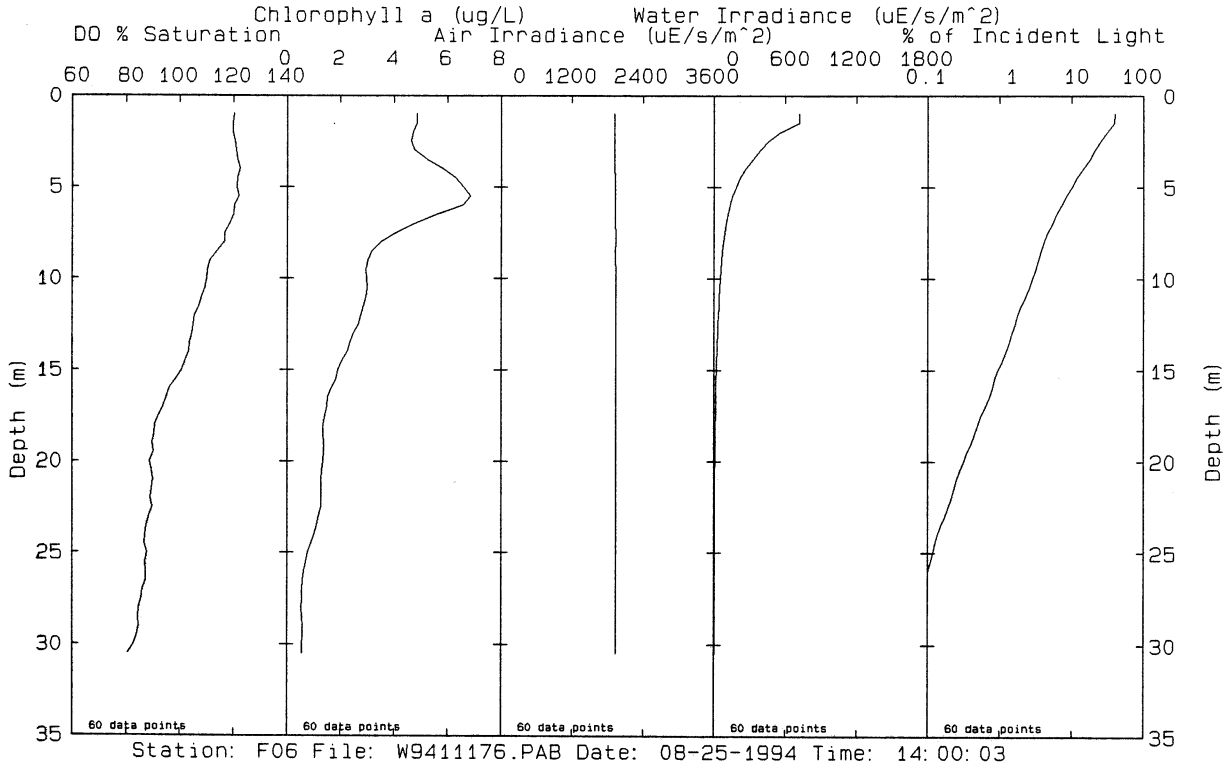


Station: F05 File: W9411172.PAB Date: 08-25-1994 Time: 13:10:23

01-19-1995 09:16:30 Battelle

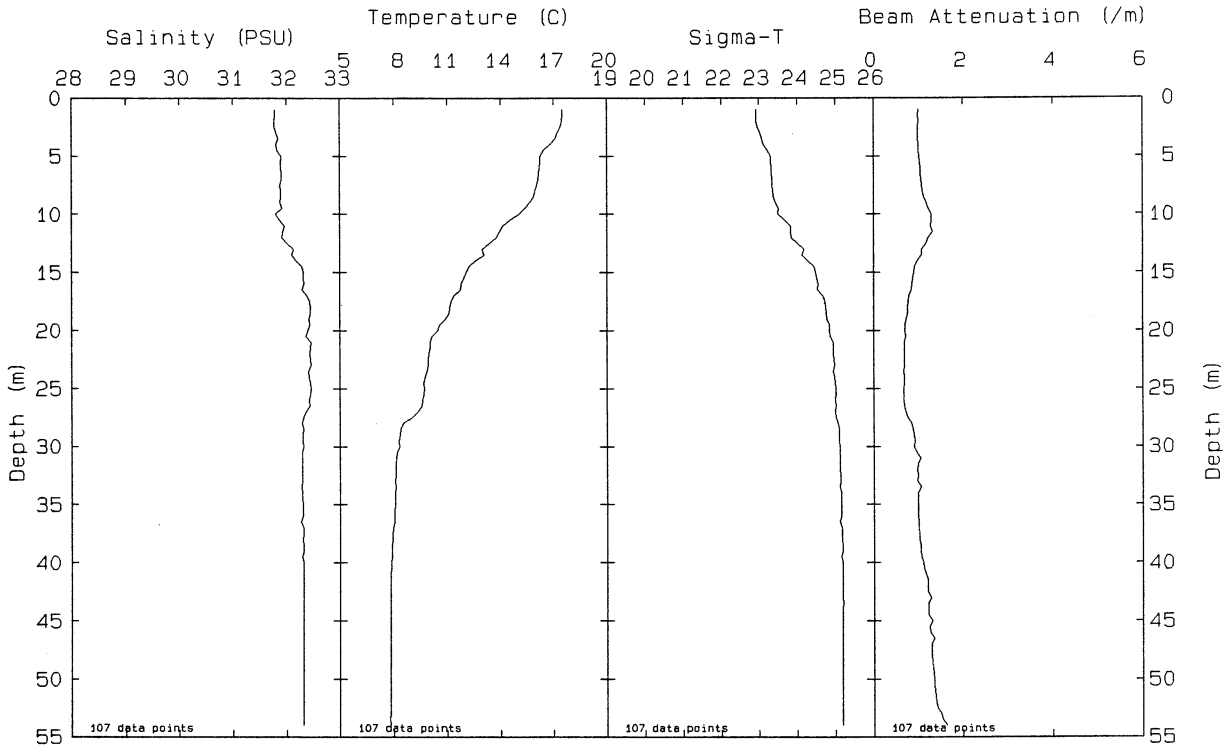
000053

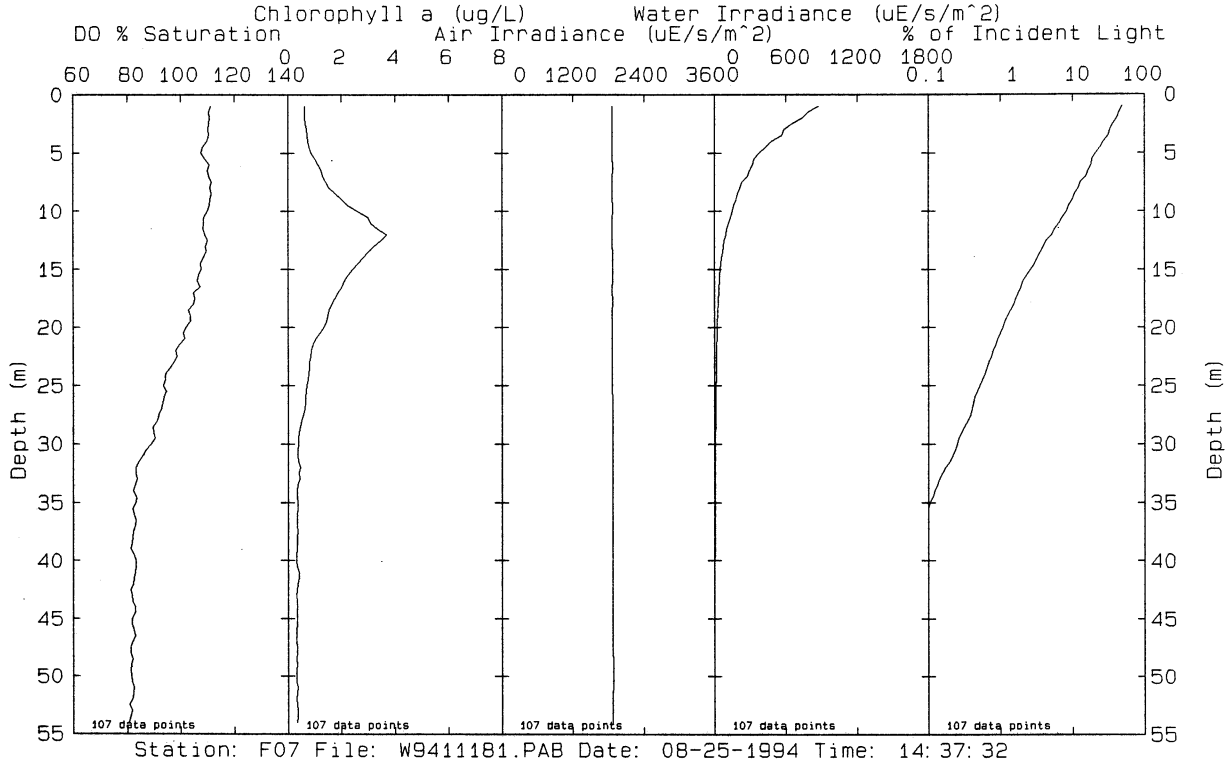




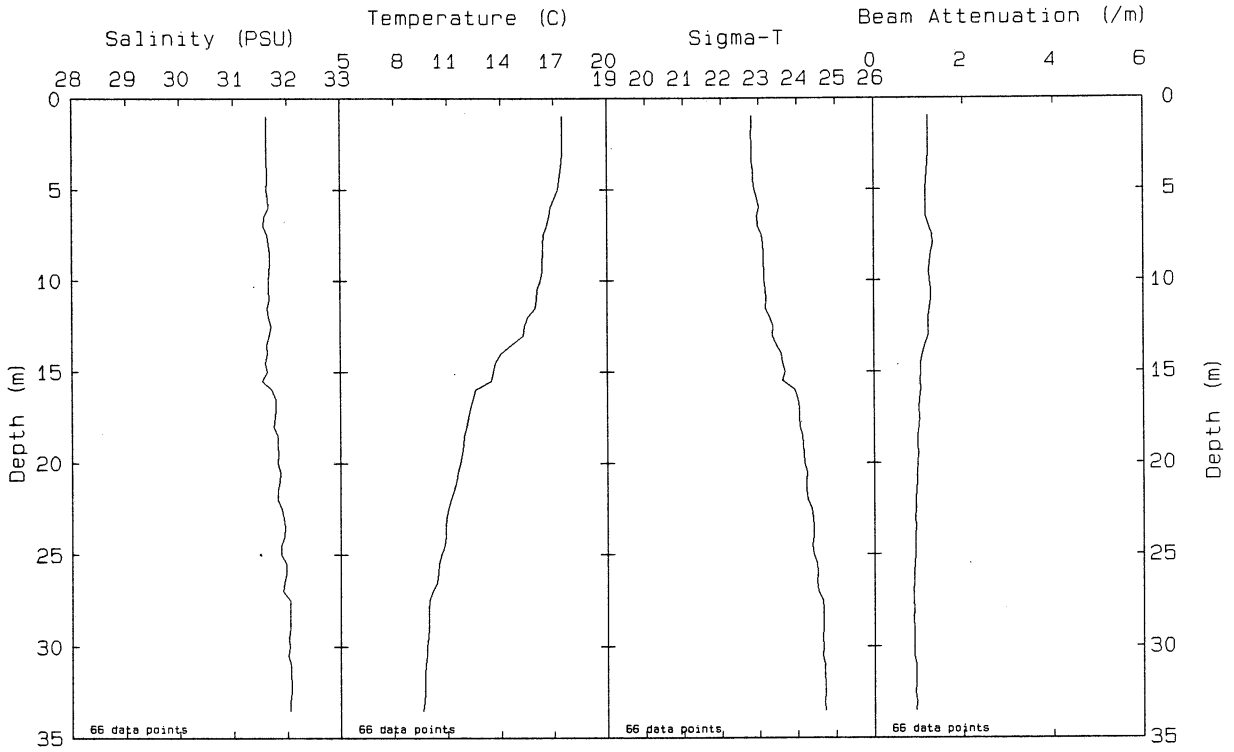
Station: F06 File: W9411176.PAB Date: 08-25-1994 Time: 14:00:03

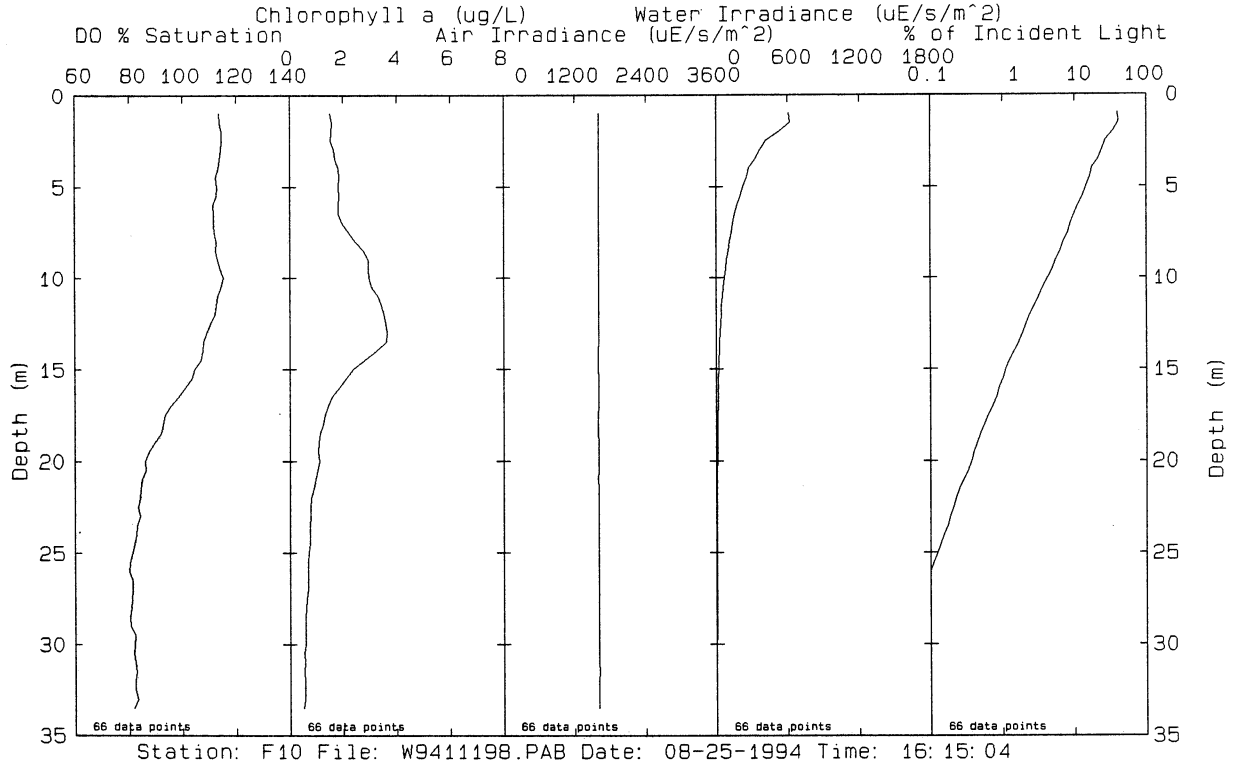
01-19-1995 09:16:32 Battelle



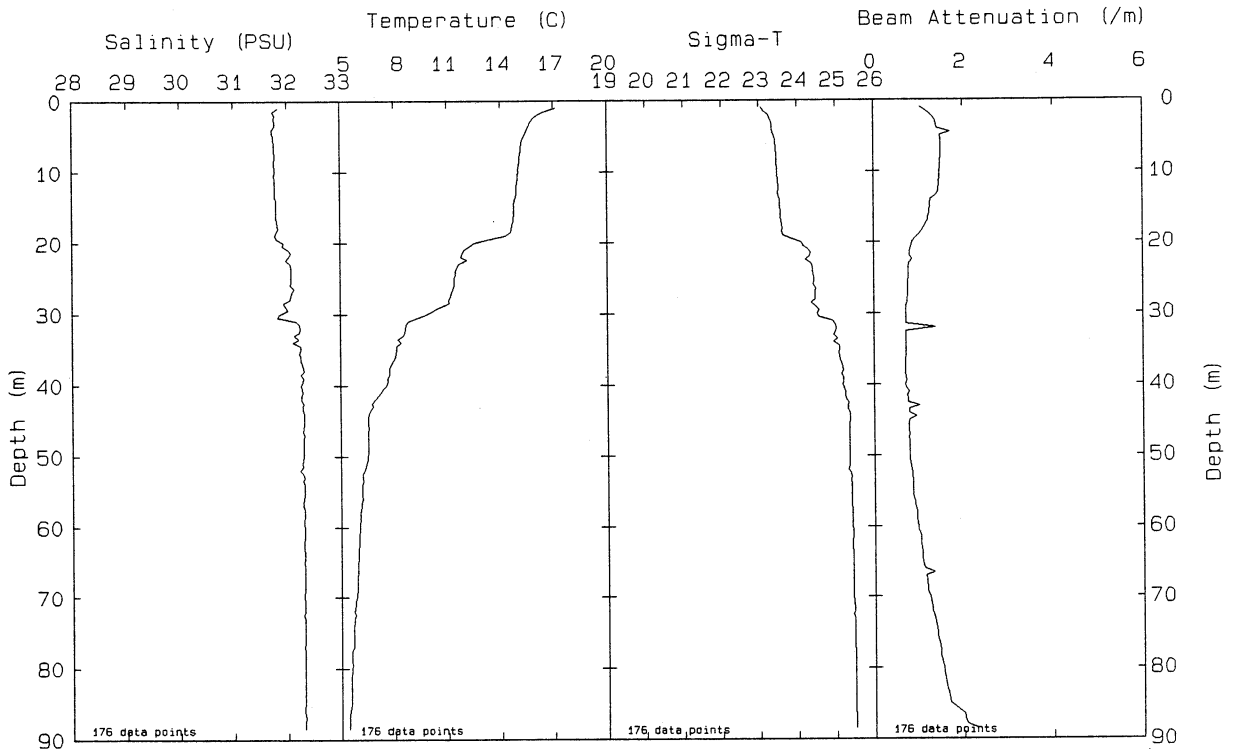


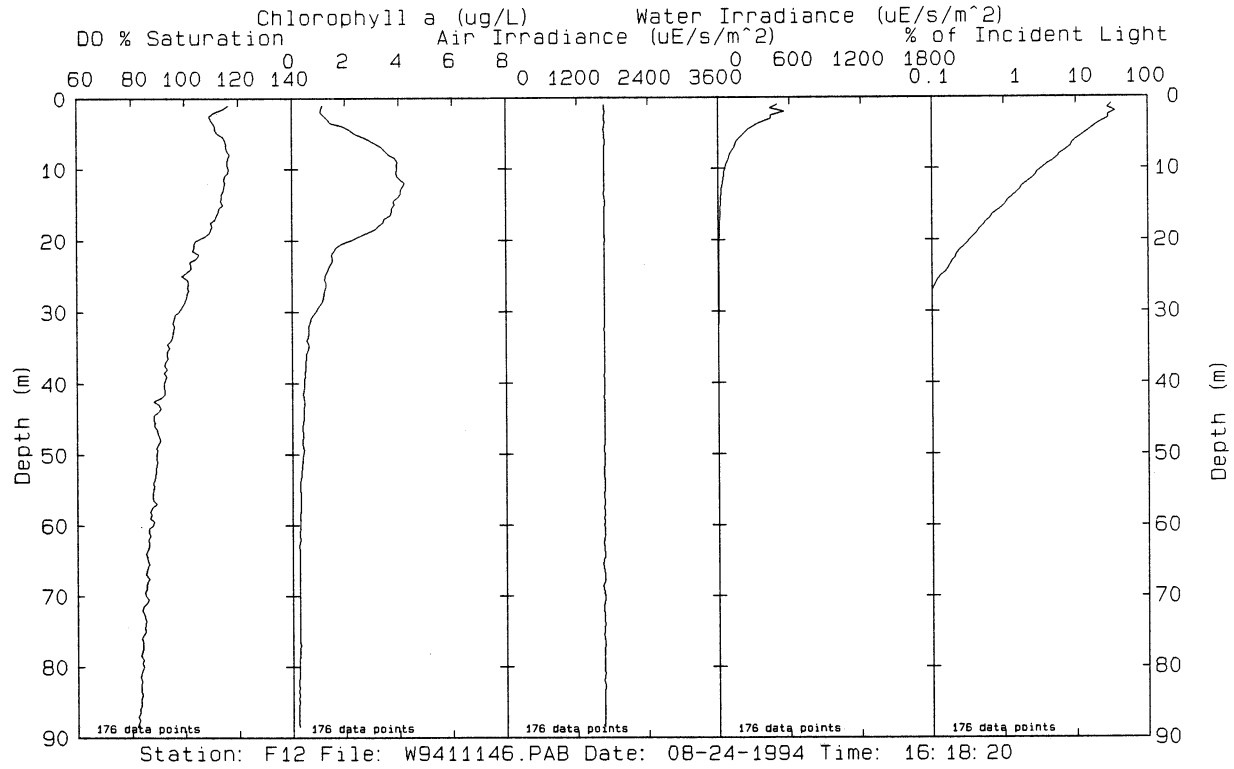
Station: F07 File: W9411181.PAB Date: 08-25-1994 Time: 14:37:32





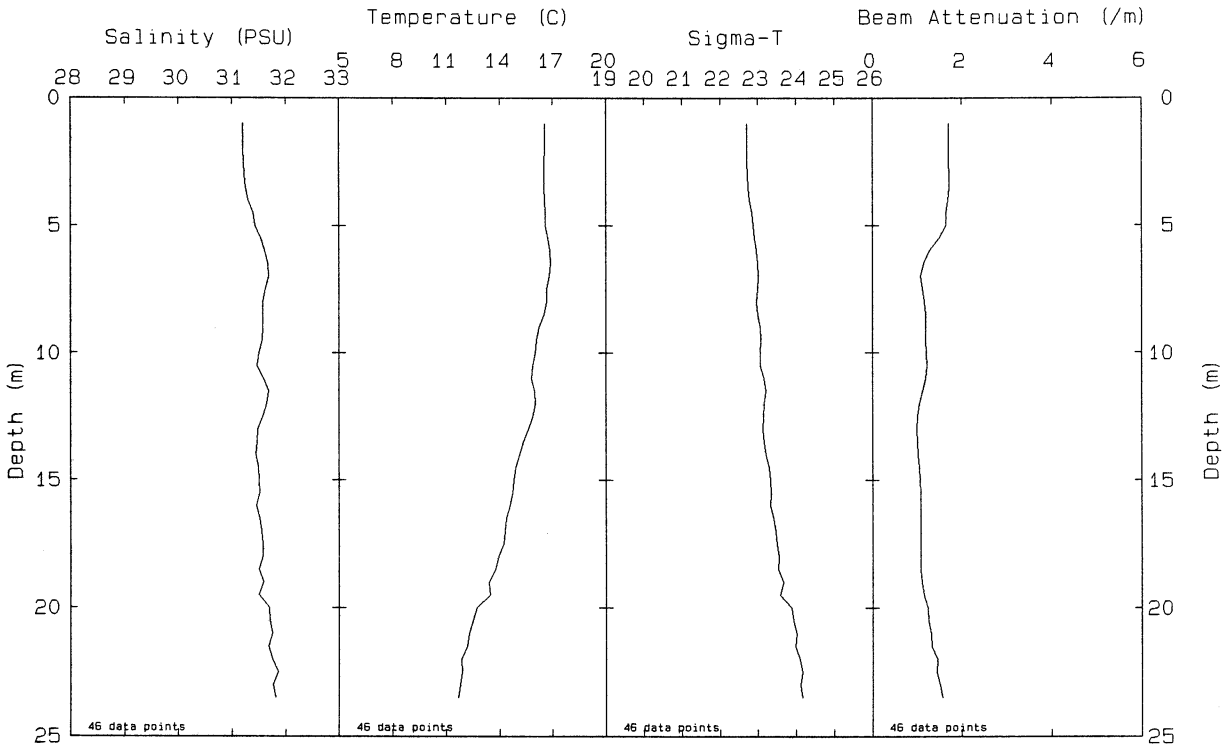
Station: F10 File: W9411198.PAB Date: 08-25-1994 Time: 16:15:04

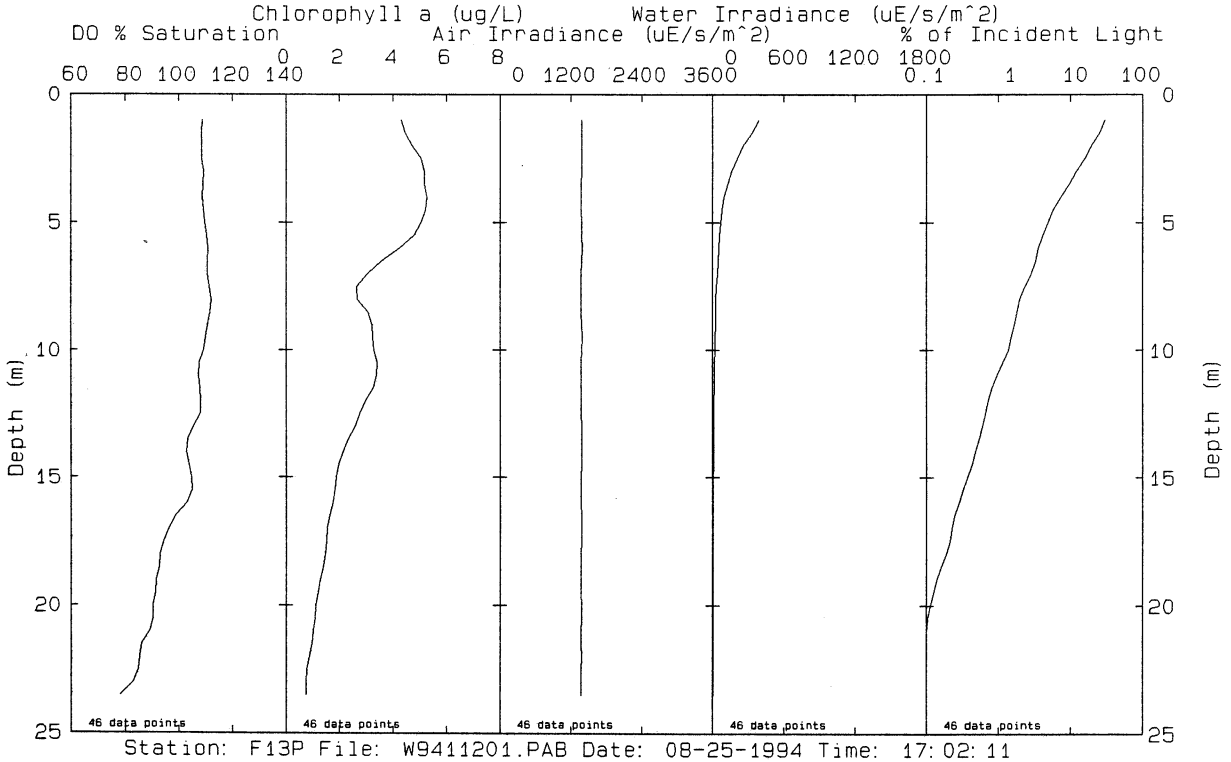




Station: F12 File: W9411146.PAB Date: 08-24-1994 Time: 16:18:20

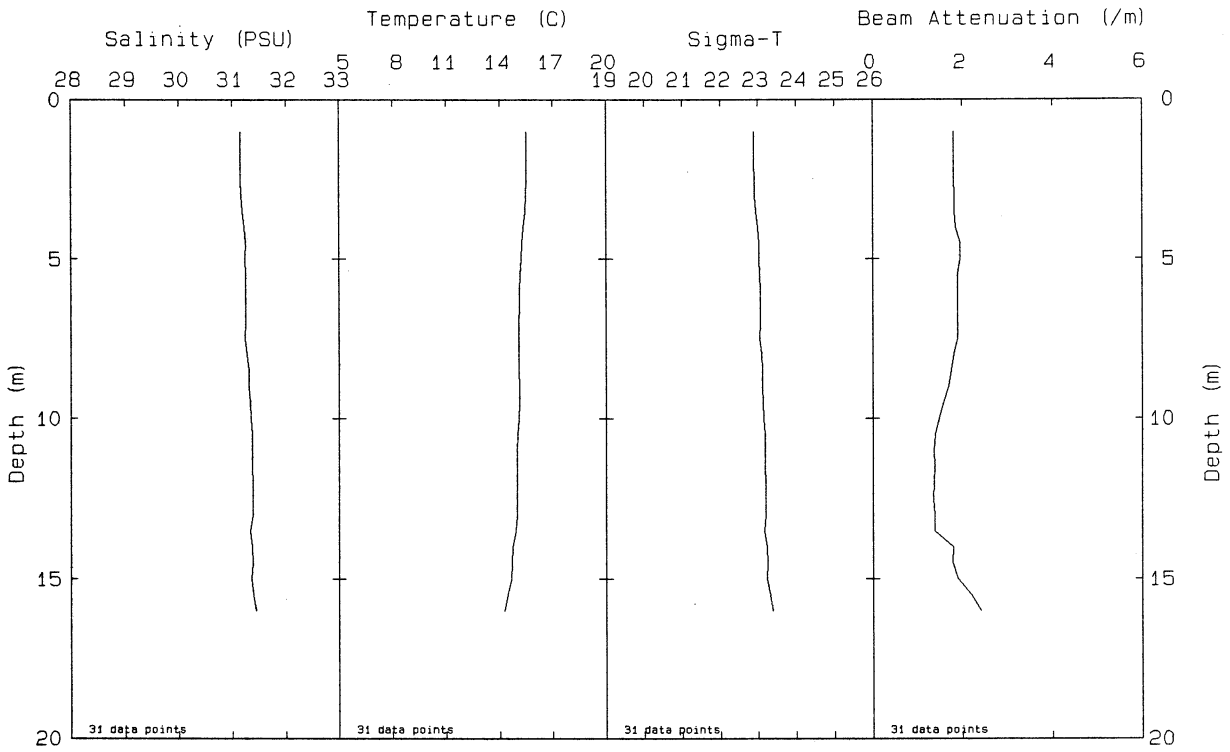
01-19-1995 09:16:17 Battelle

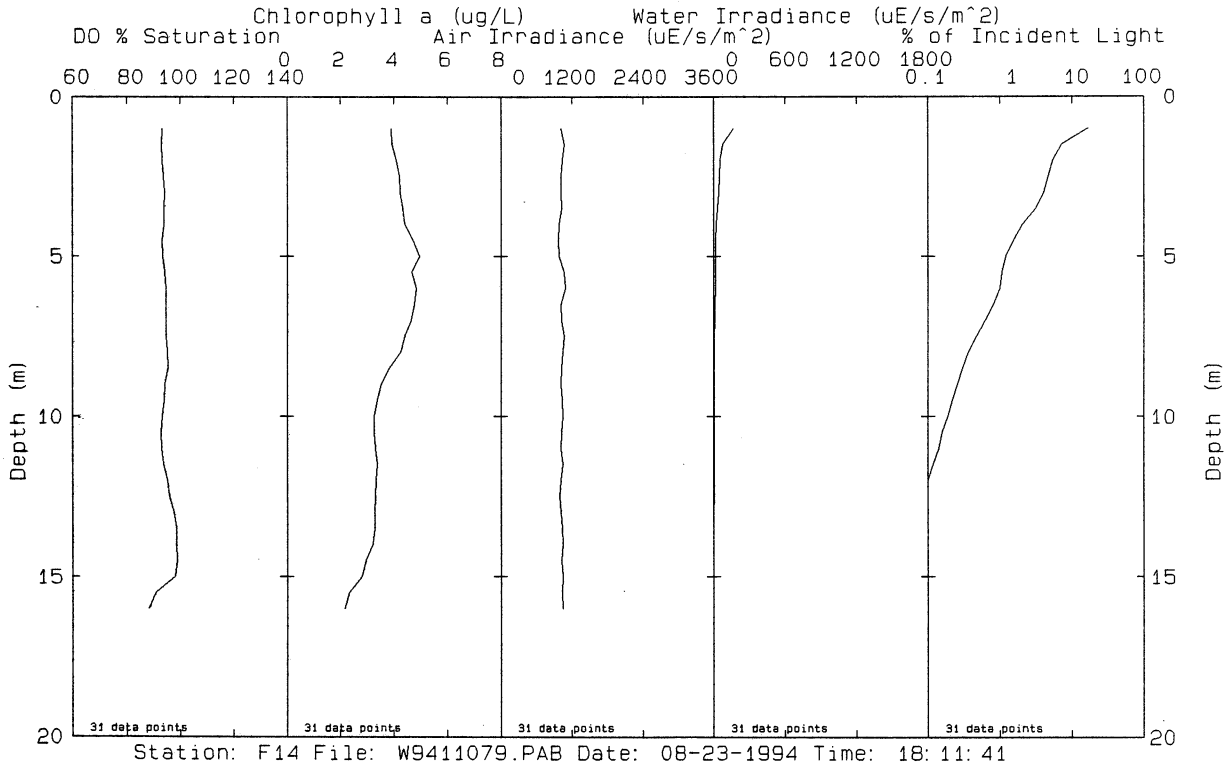




Station: F13P File: W9411201.PAB Date: 08-25-1994 Time: 17:02:11

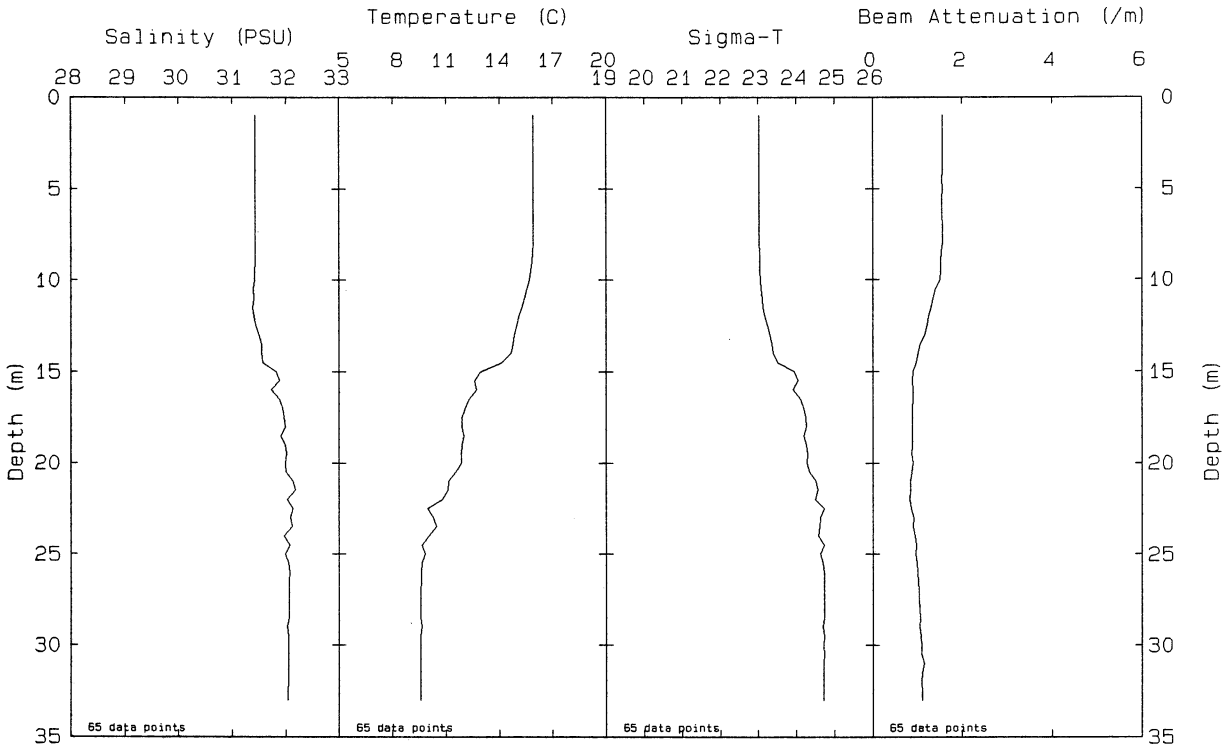
01-19-1995 09:16:42 Battelle

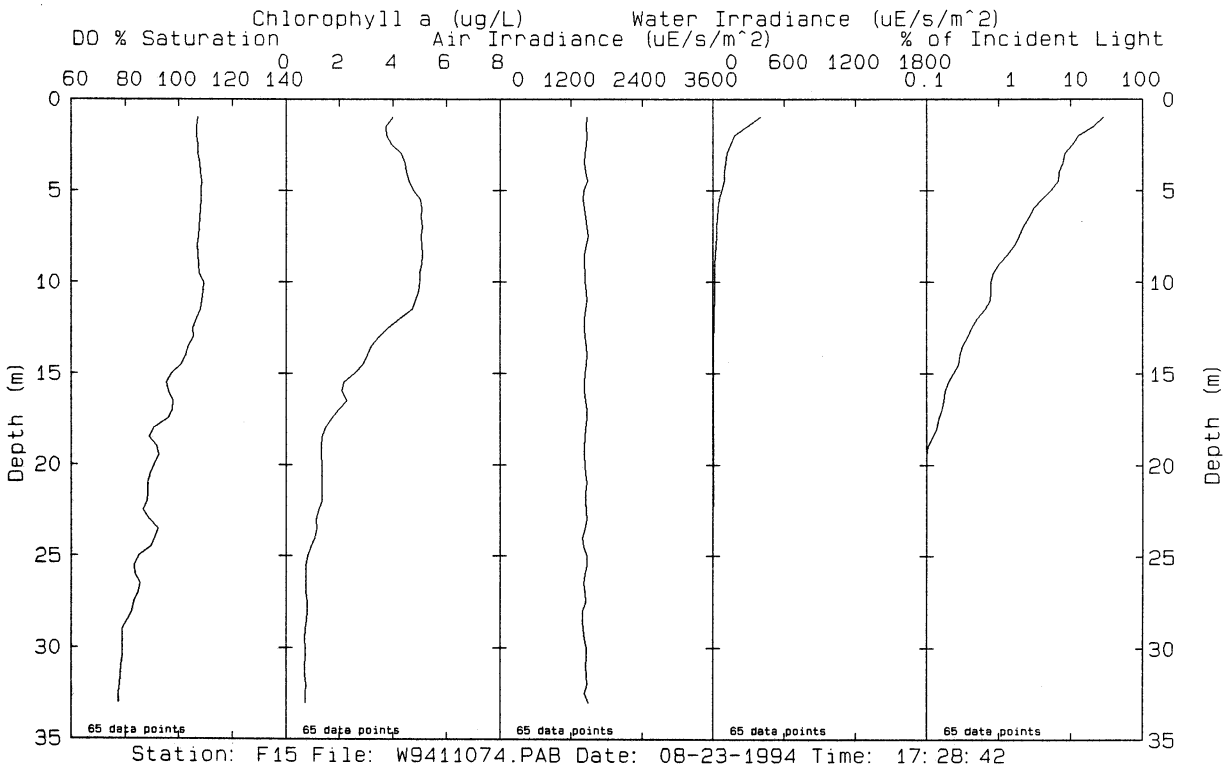




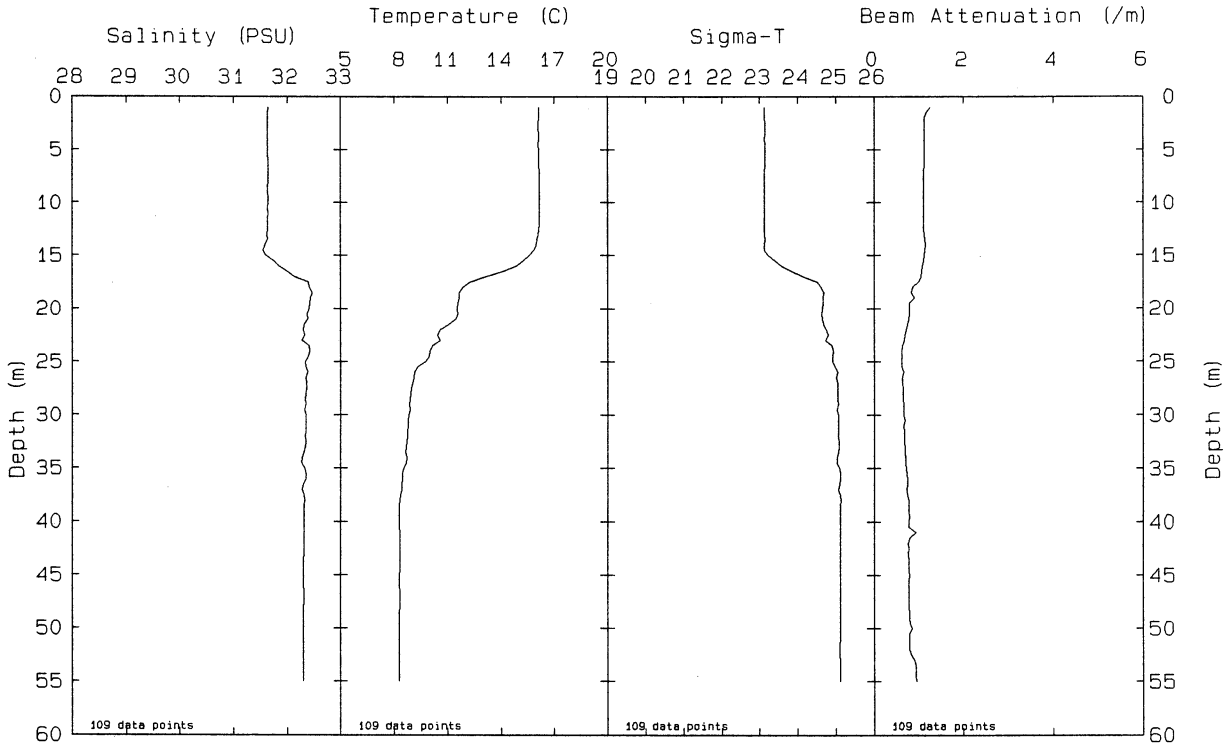
Station: F14 File: W9411079.PAB Date: 08-23-1994 Time: 18:11:41

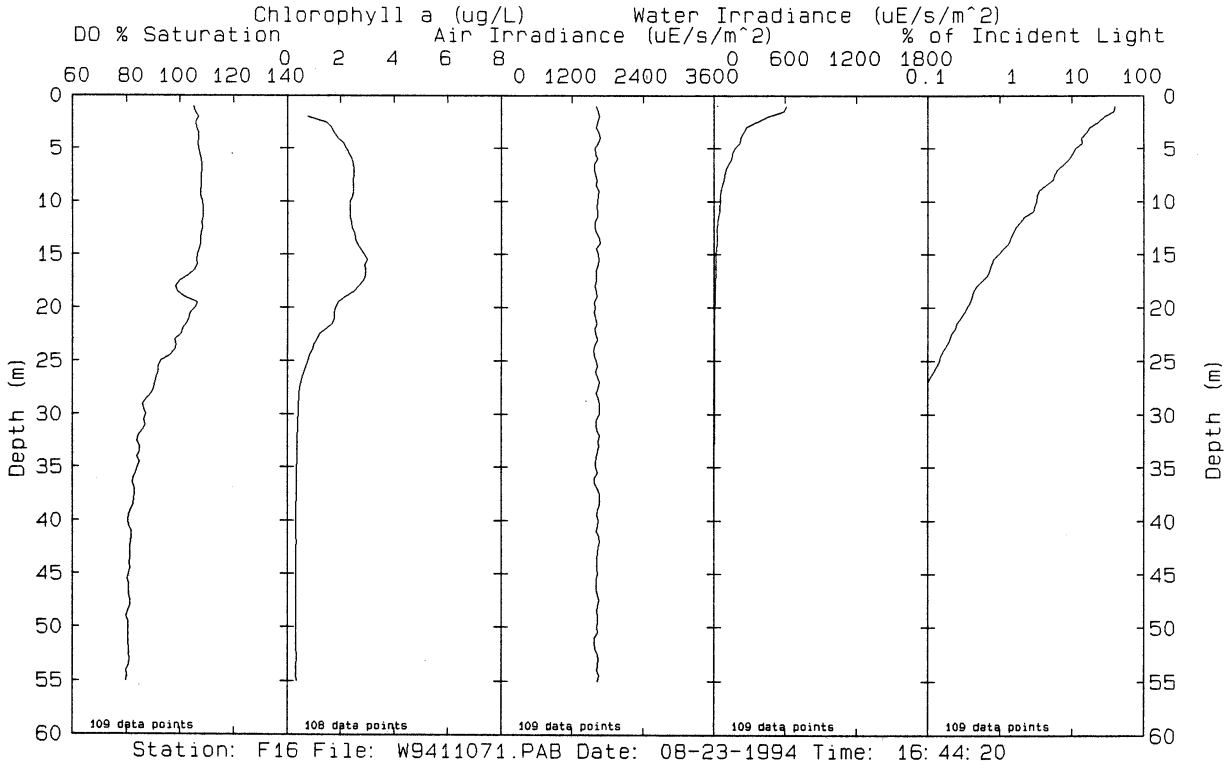
01-19-1995 09:15:35 Battelle



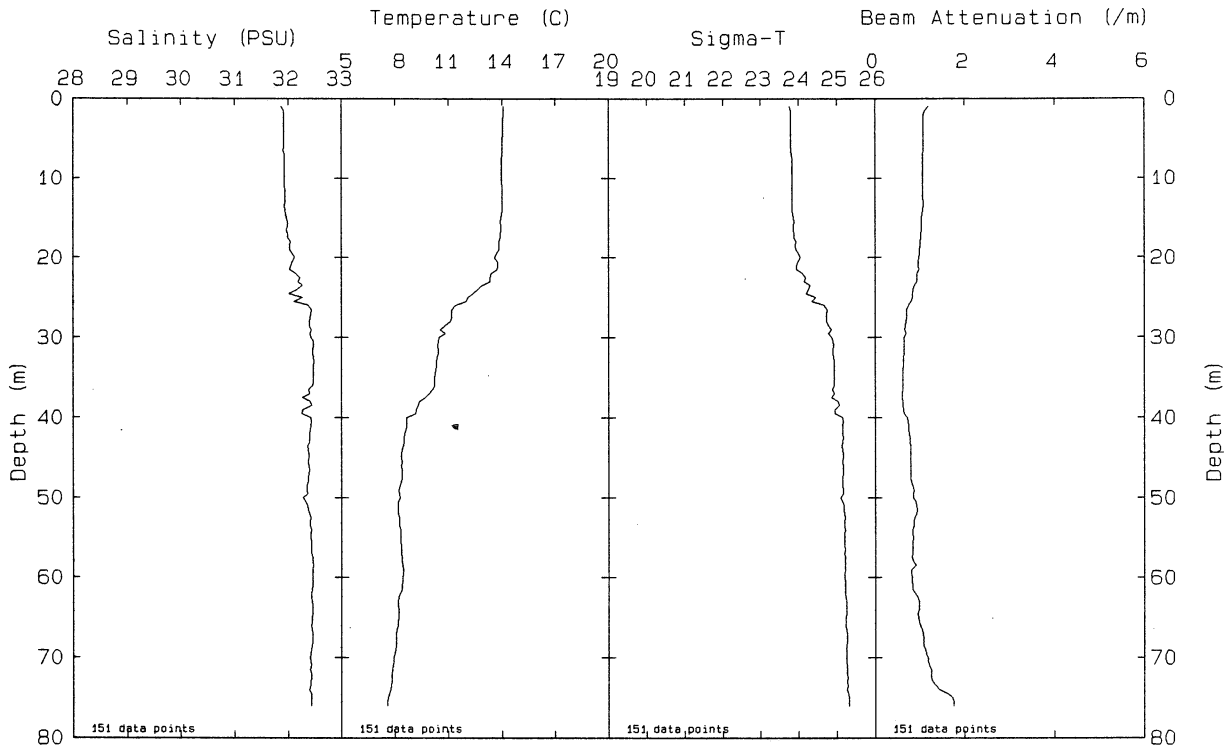


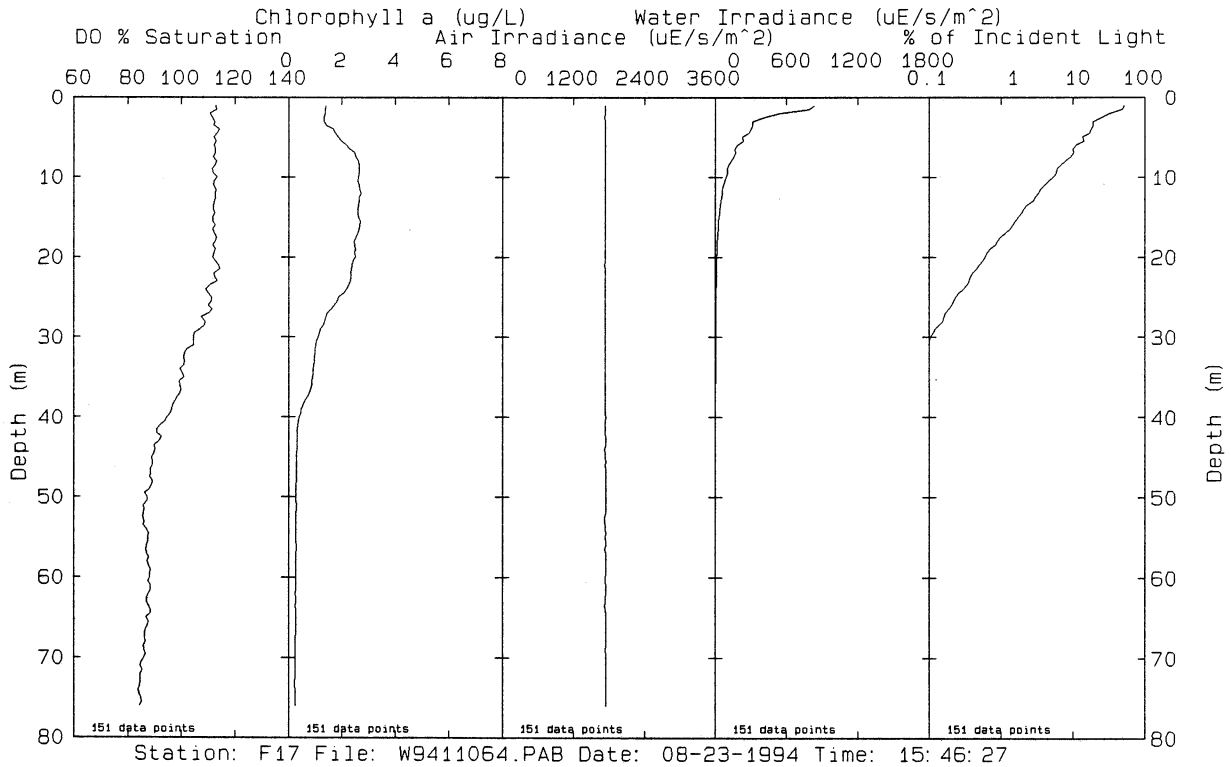
Station: F15 File: W9411074.PAB Date: 08-23-1994 Time: 17:28:42



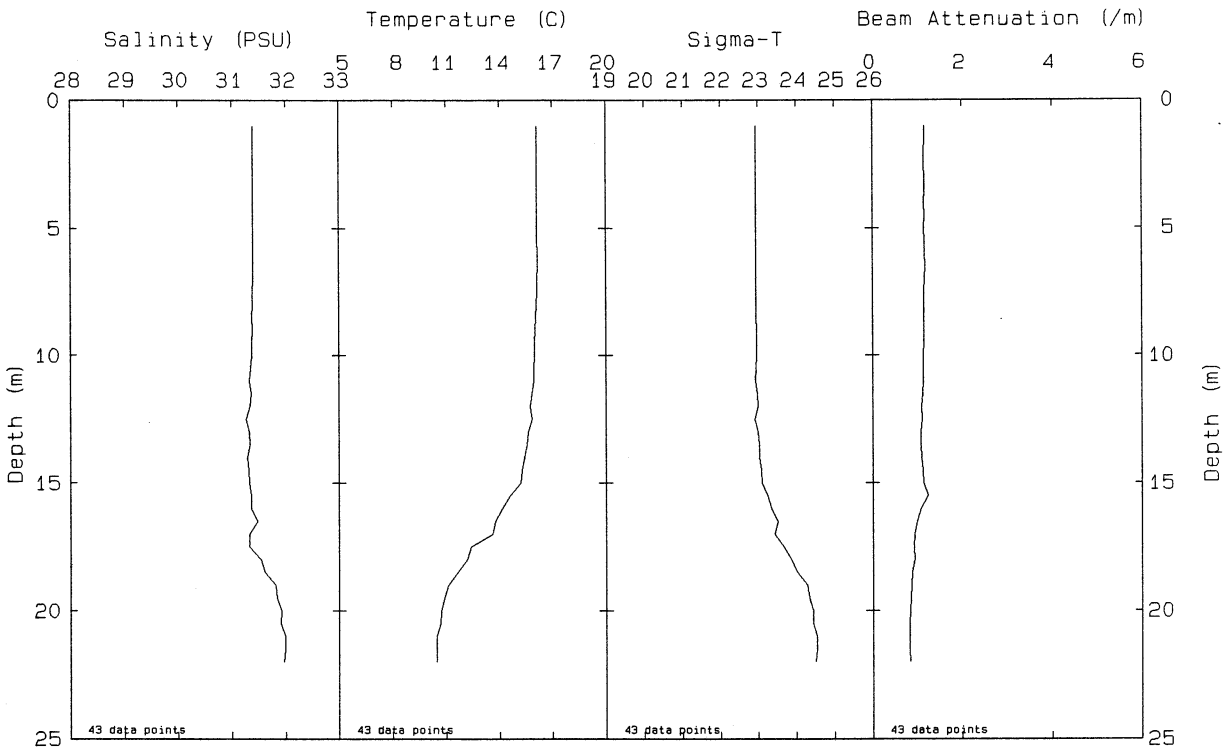


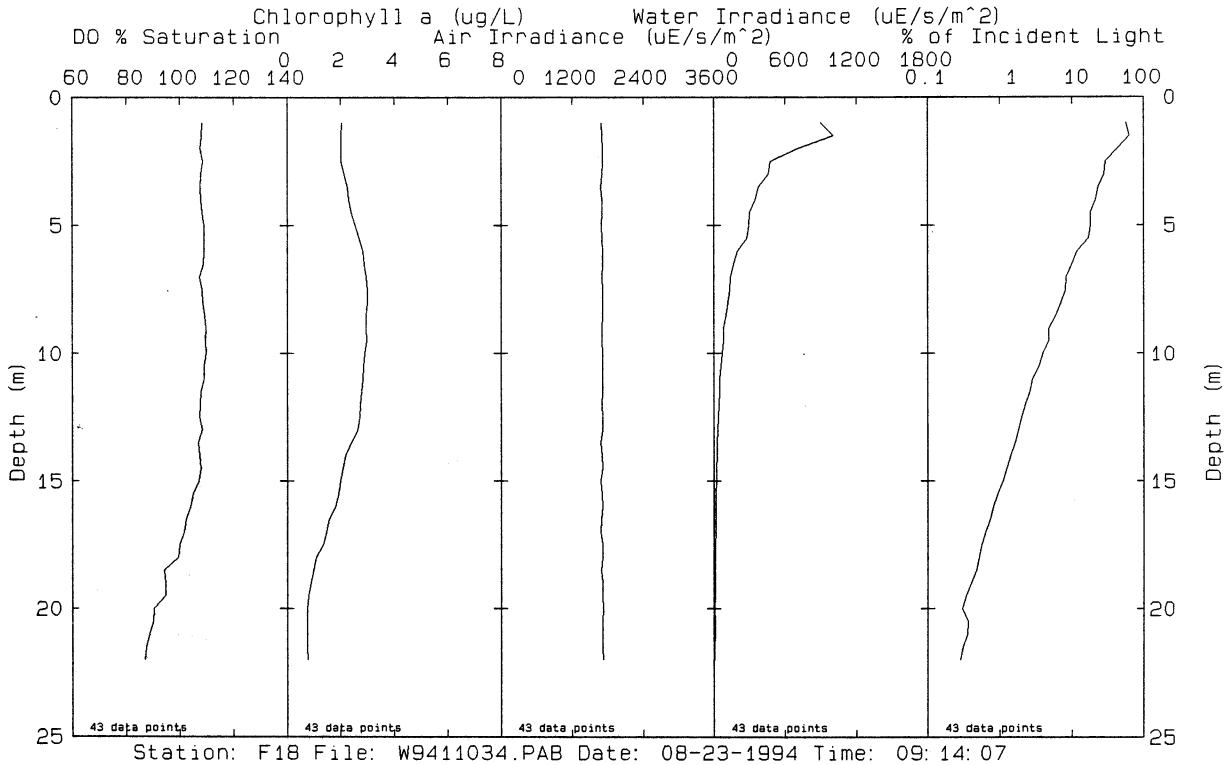
Station: F16 File: W9411071.PAB Date: 08-23-1994 Time: 16:44:20





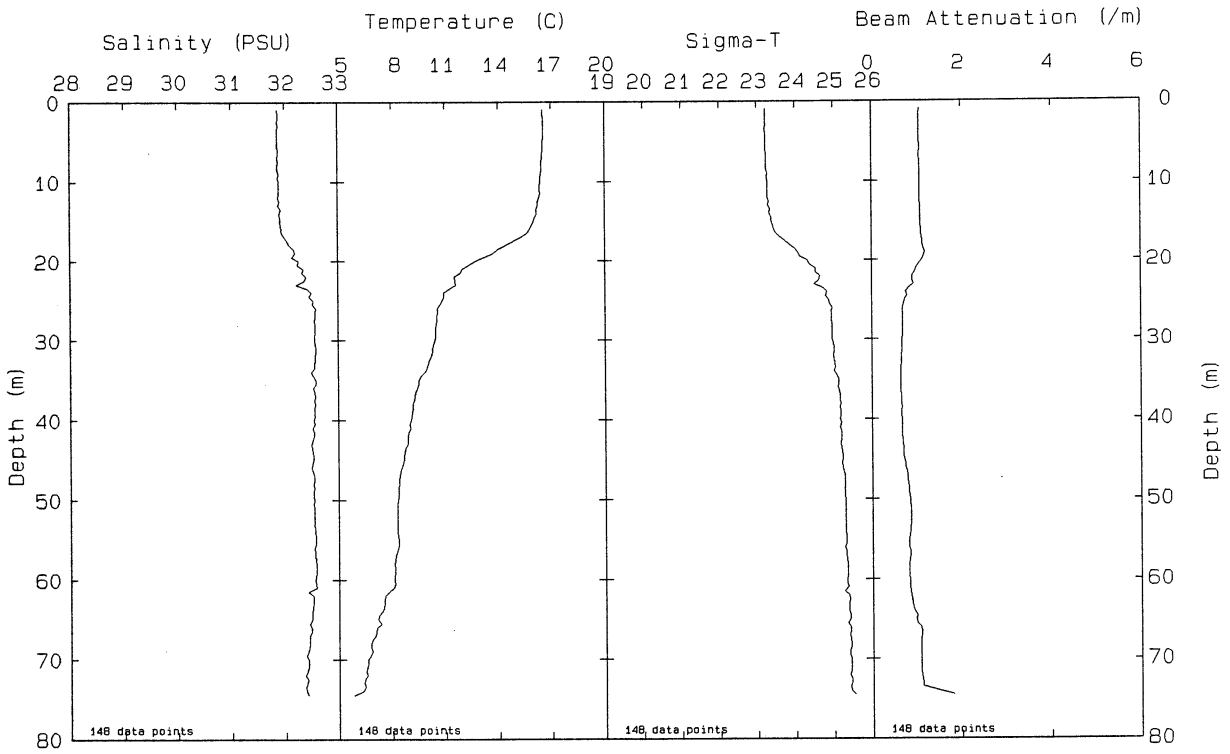
Station: F17 File: W9411064.PAB Date: 08-23-1994 Time: 15:46:27

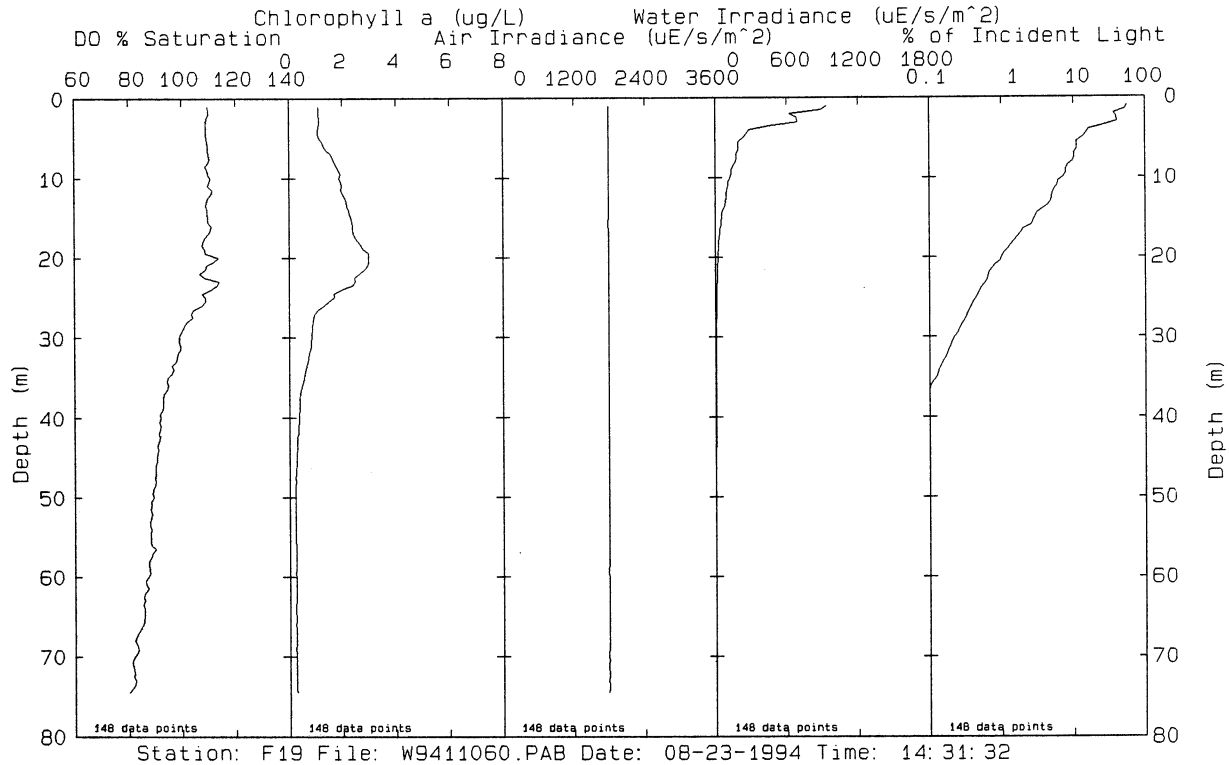




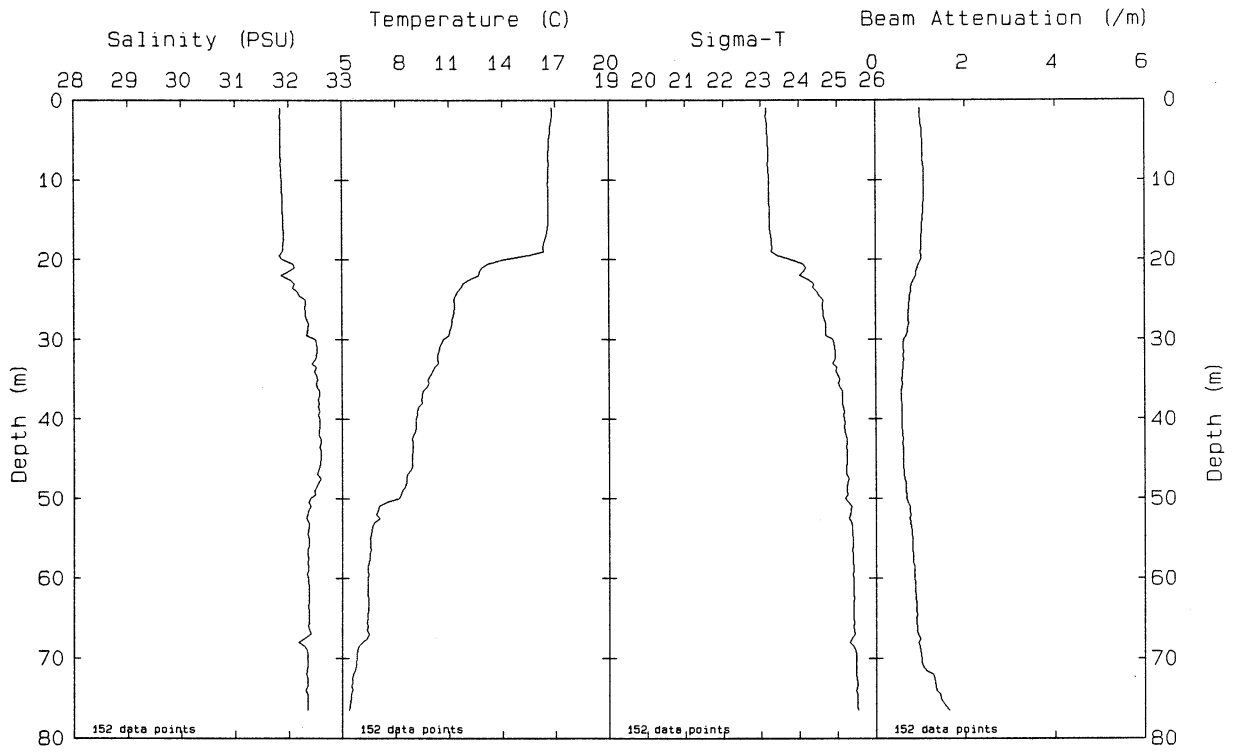
Station: F18 File: W9411034.PAB Date: 08-23-1994 Time: 09:14:07

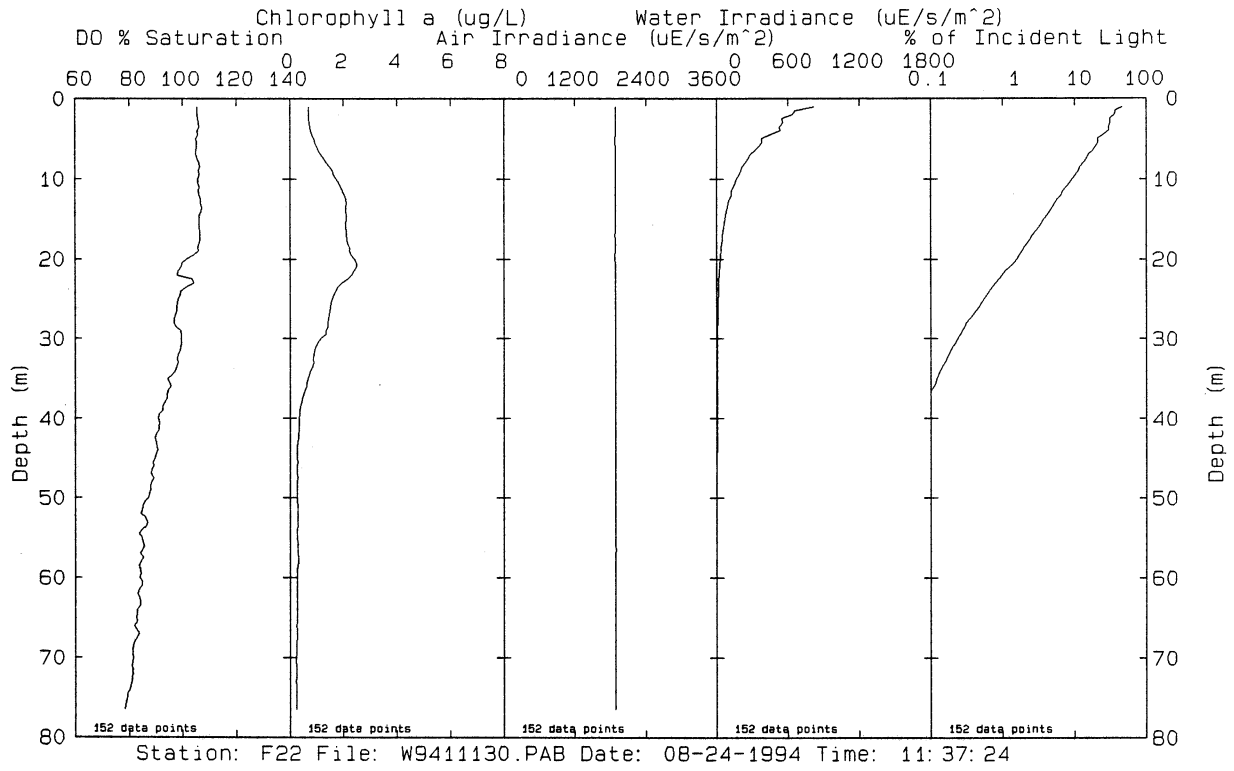
01-19-1995 09:15:05 Battelle





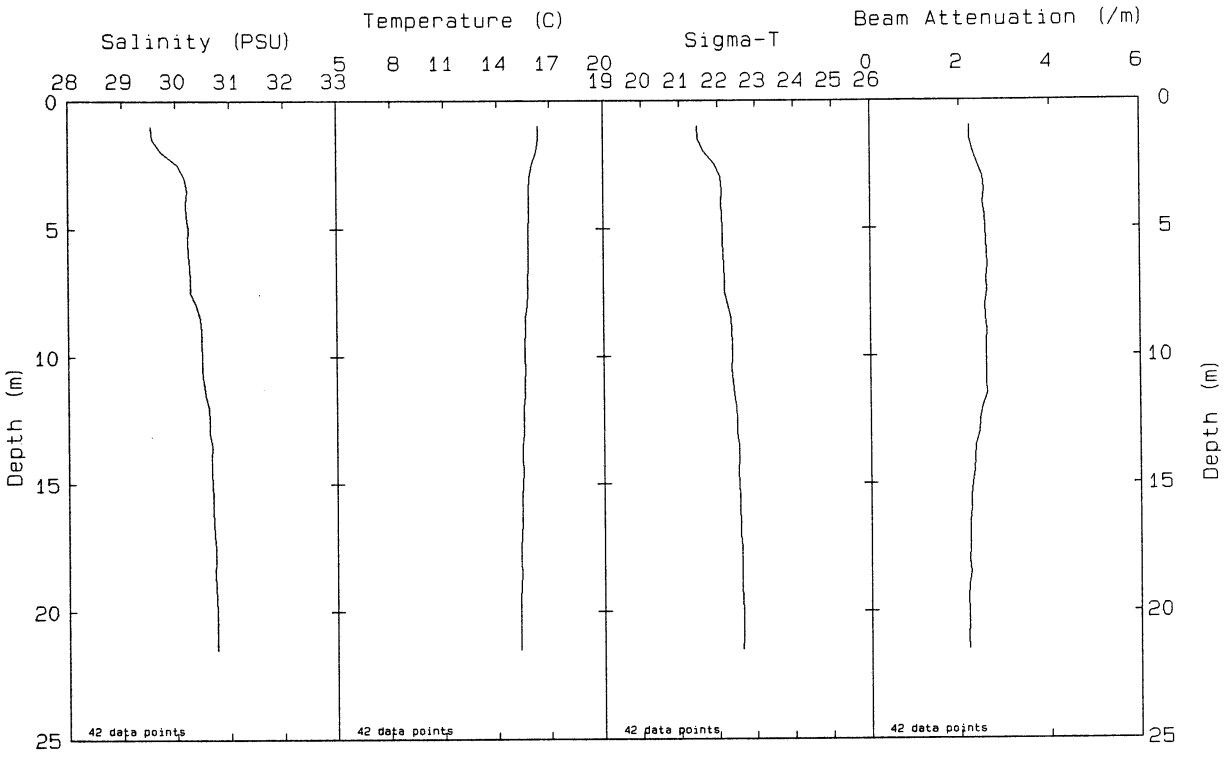
Station: F19 File: W9411060.PAB Date: 08-23-1994 Time: 14:31:32

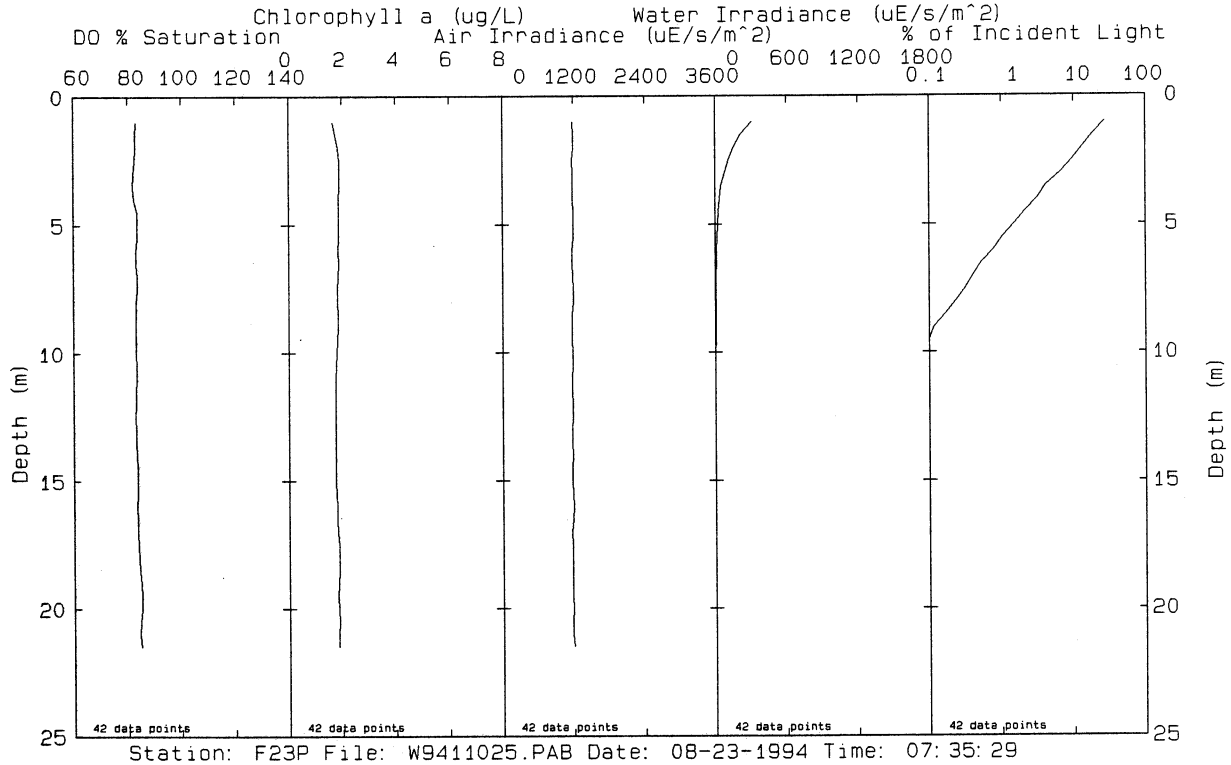




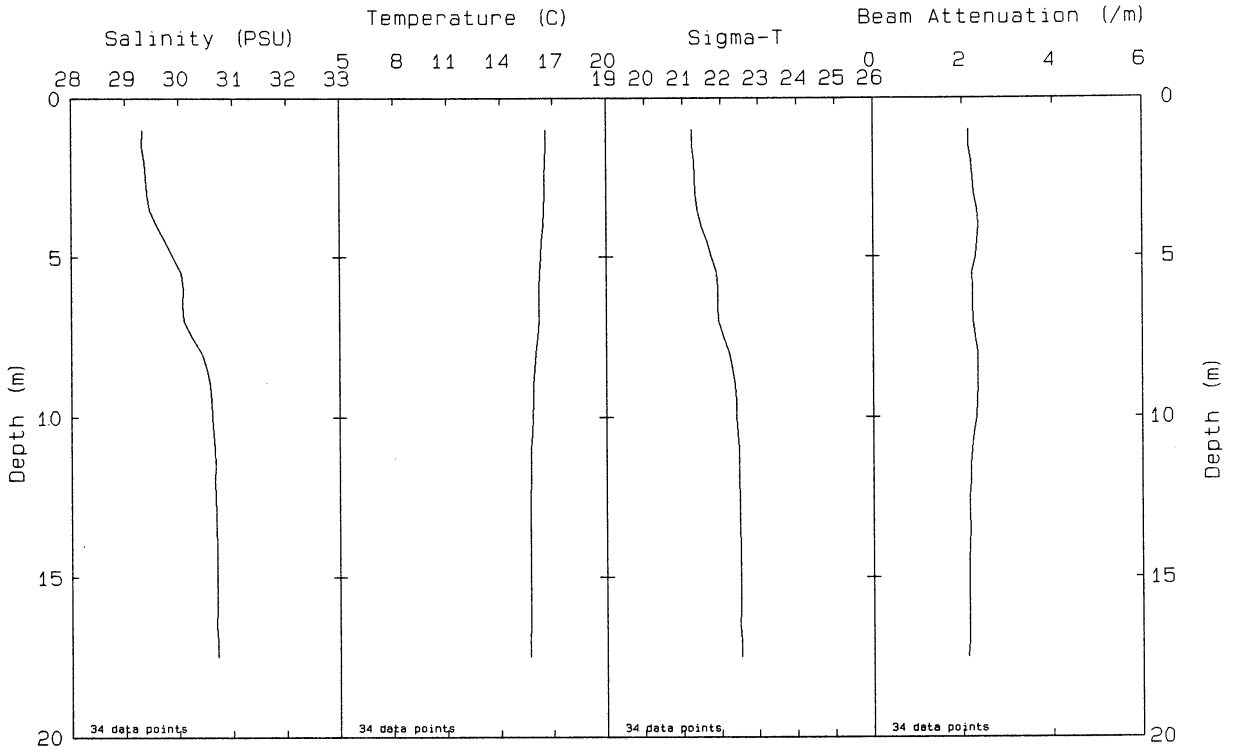
Station: F22 File: W9411130.PAB Date: 08-24-1994 Time: 11:37:24

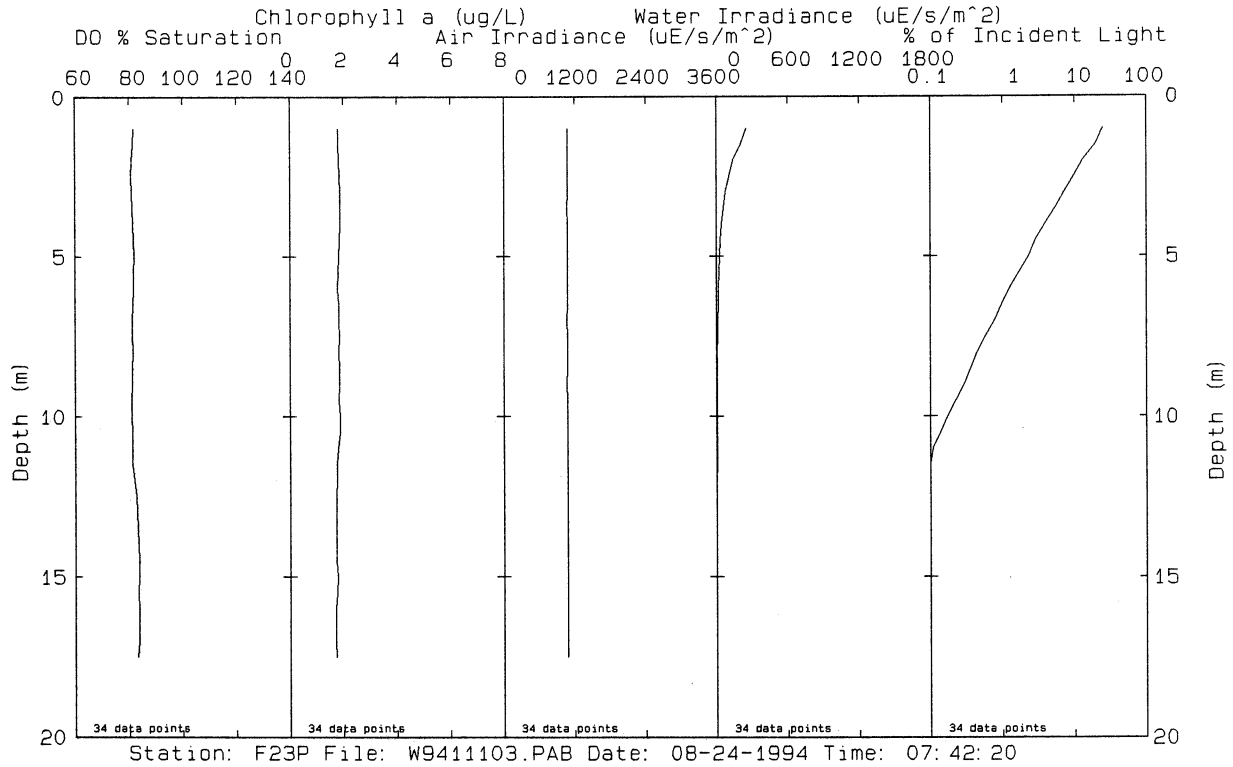
01-19-1995 09:15:57 Battelle





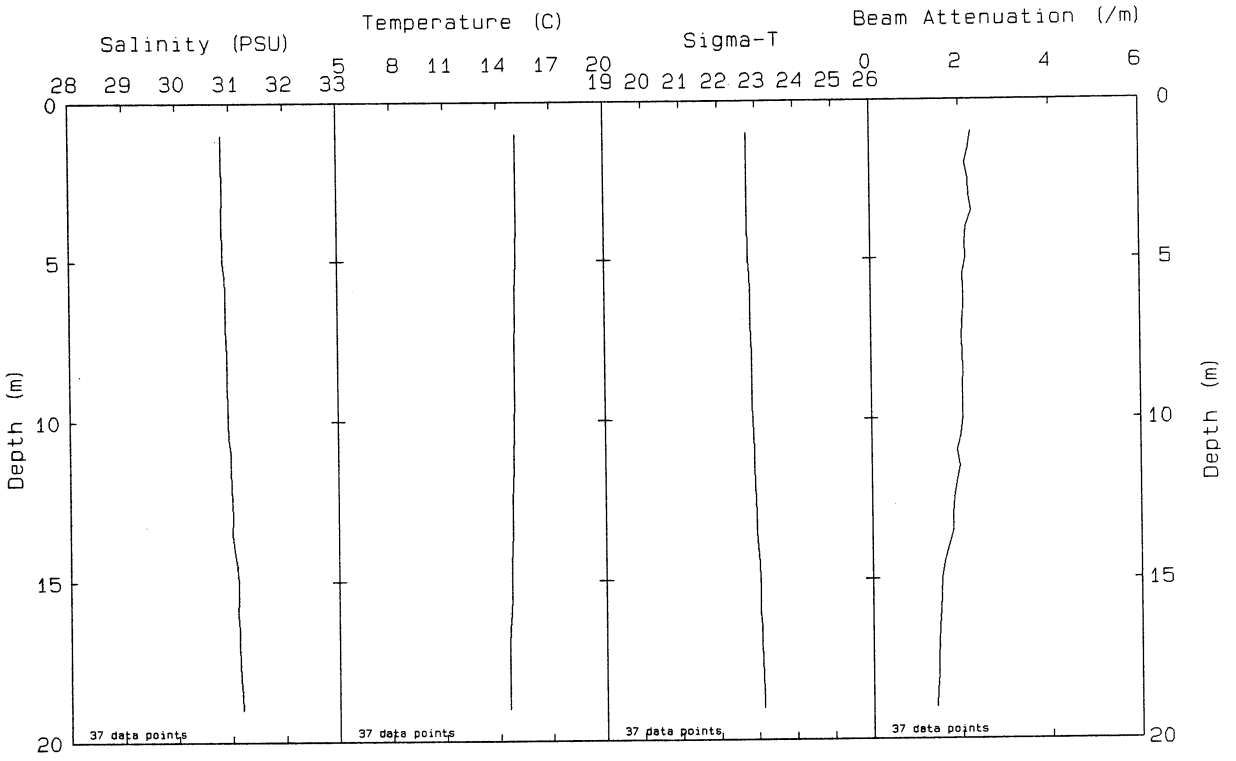
Station: F23P File: W9411025.PAB Date: 08-23-1994 Time: 07:35:29

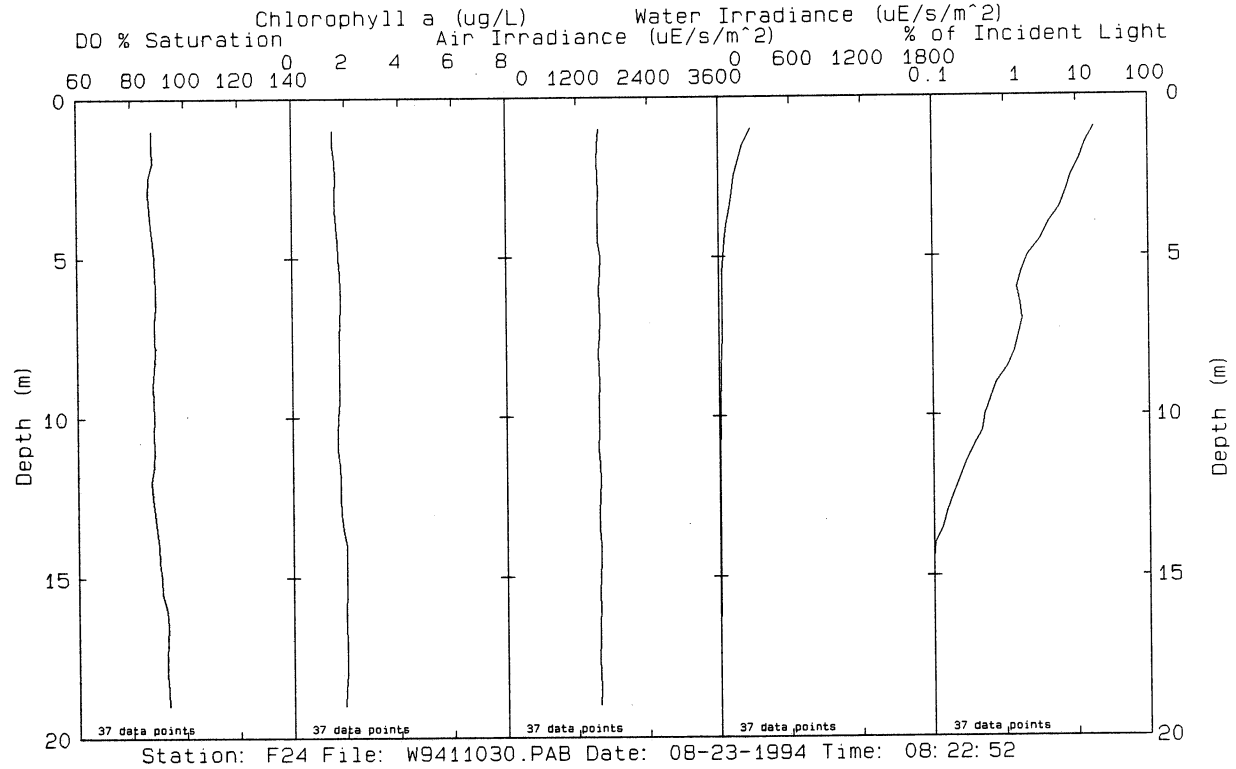




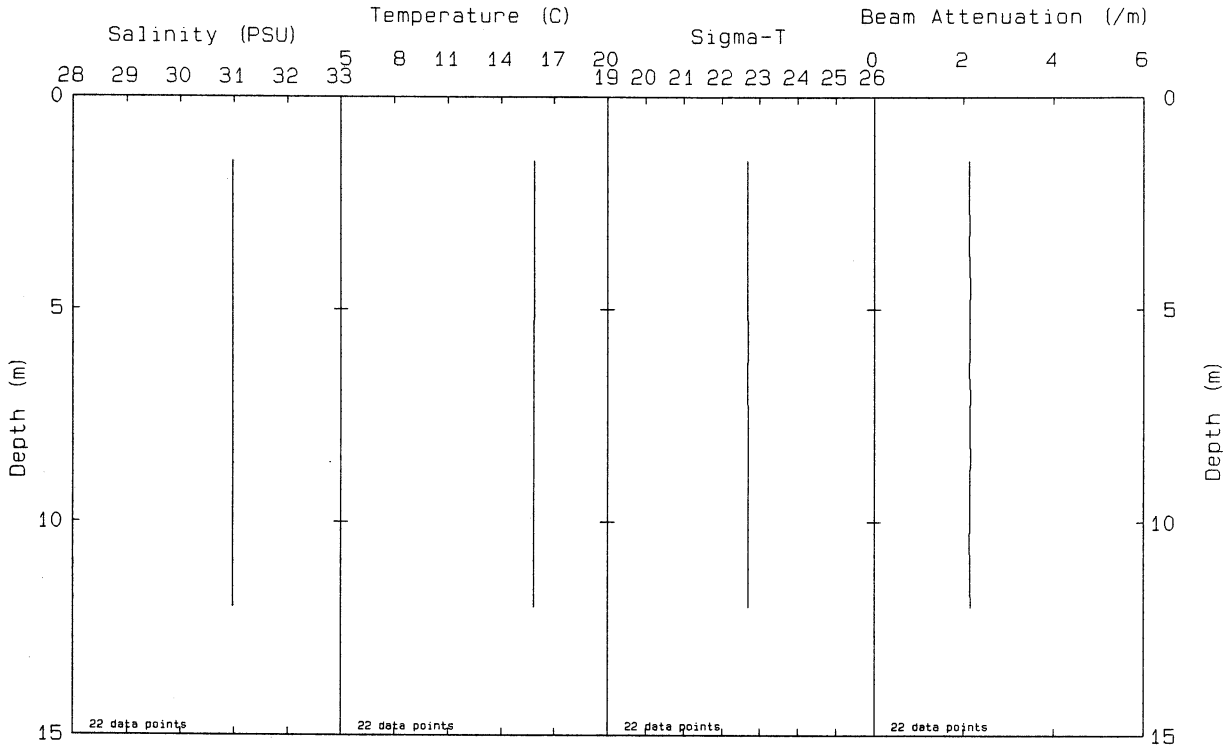
Station: F23P File: W9411103.PAB Date: 08-24-1994 Time: 07:42:20

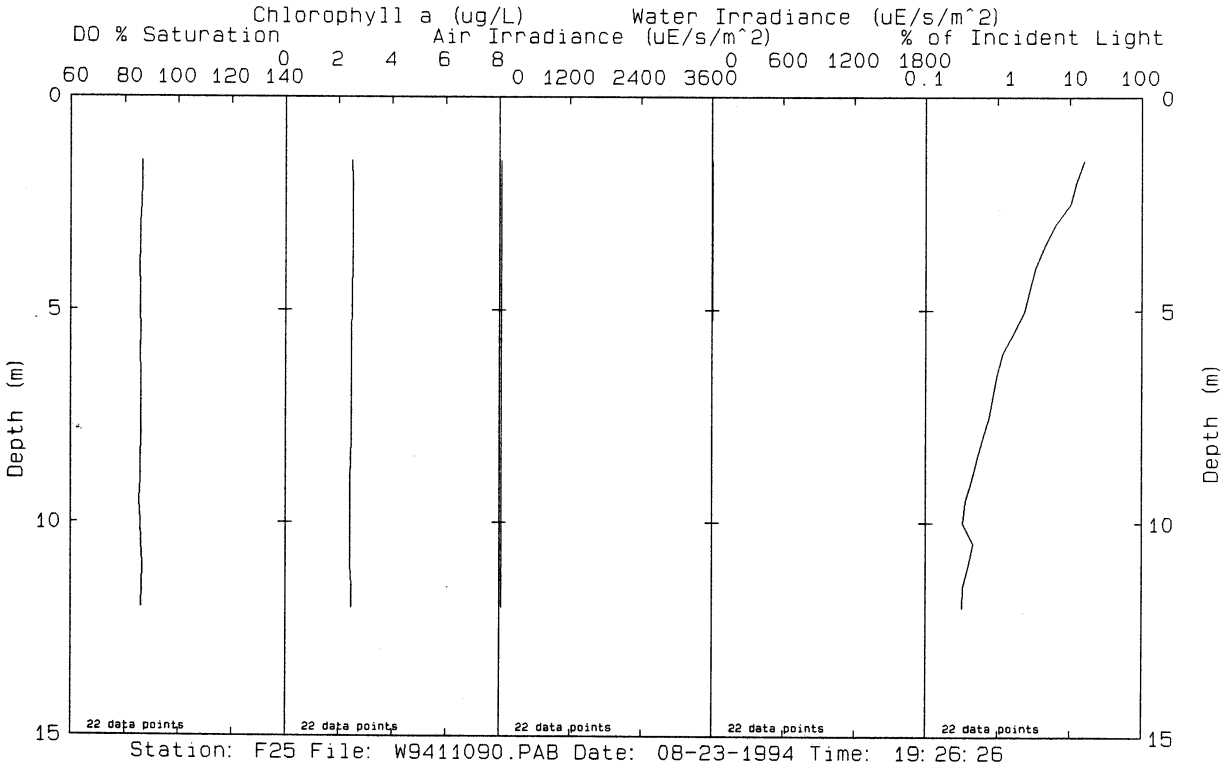
01-19-1995 09:15:41 Battelle





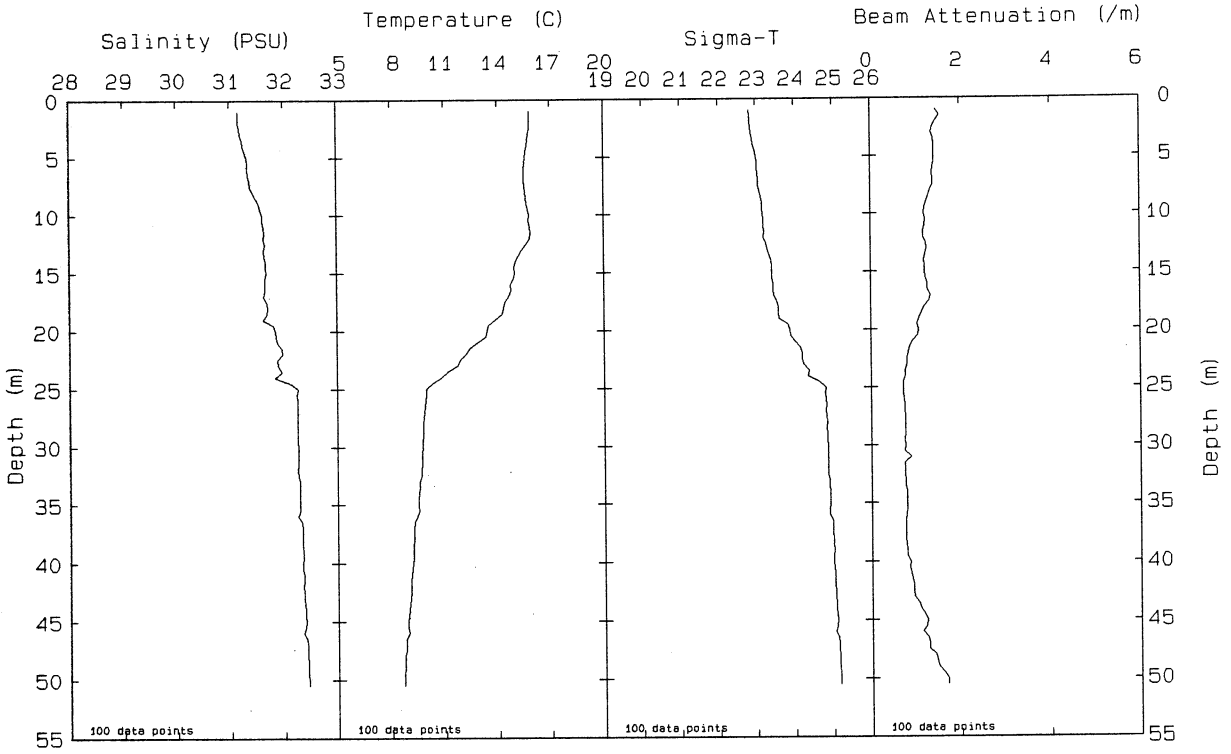
Station: F24 File: W9411030.PAB Date: 08-23-1994 Time: 08:22:52

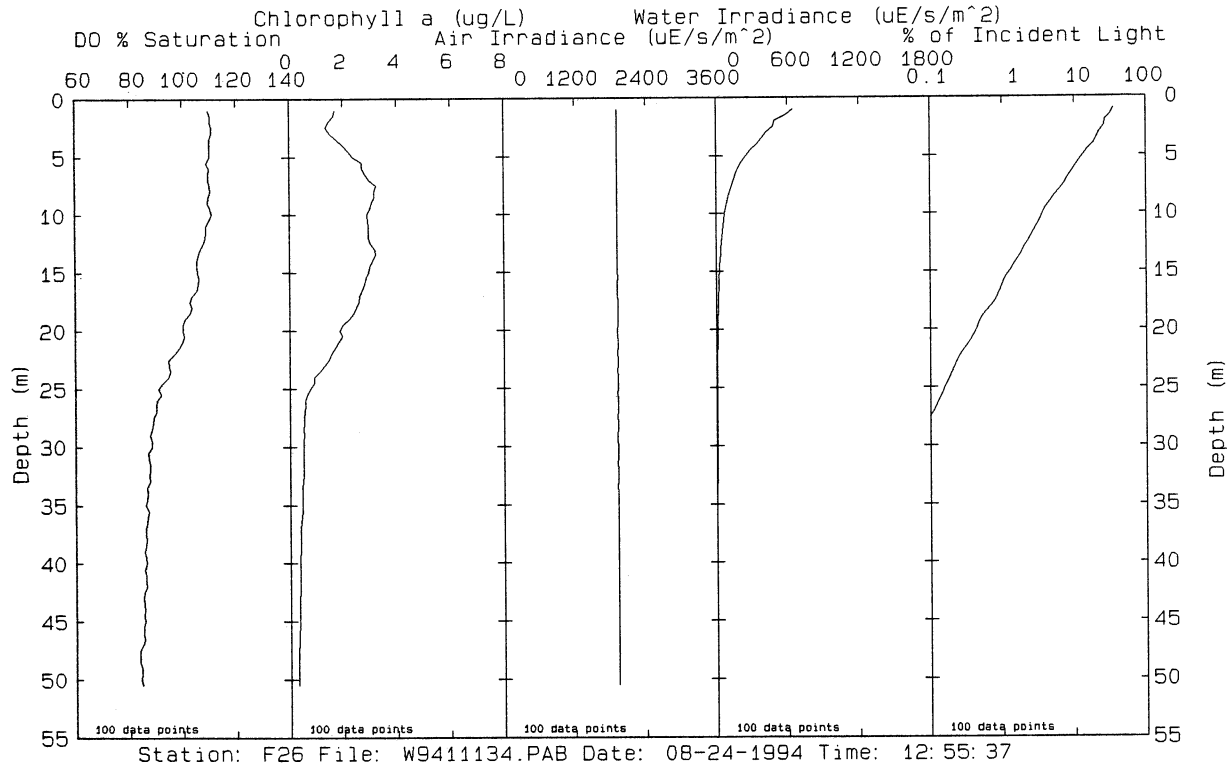




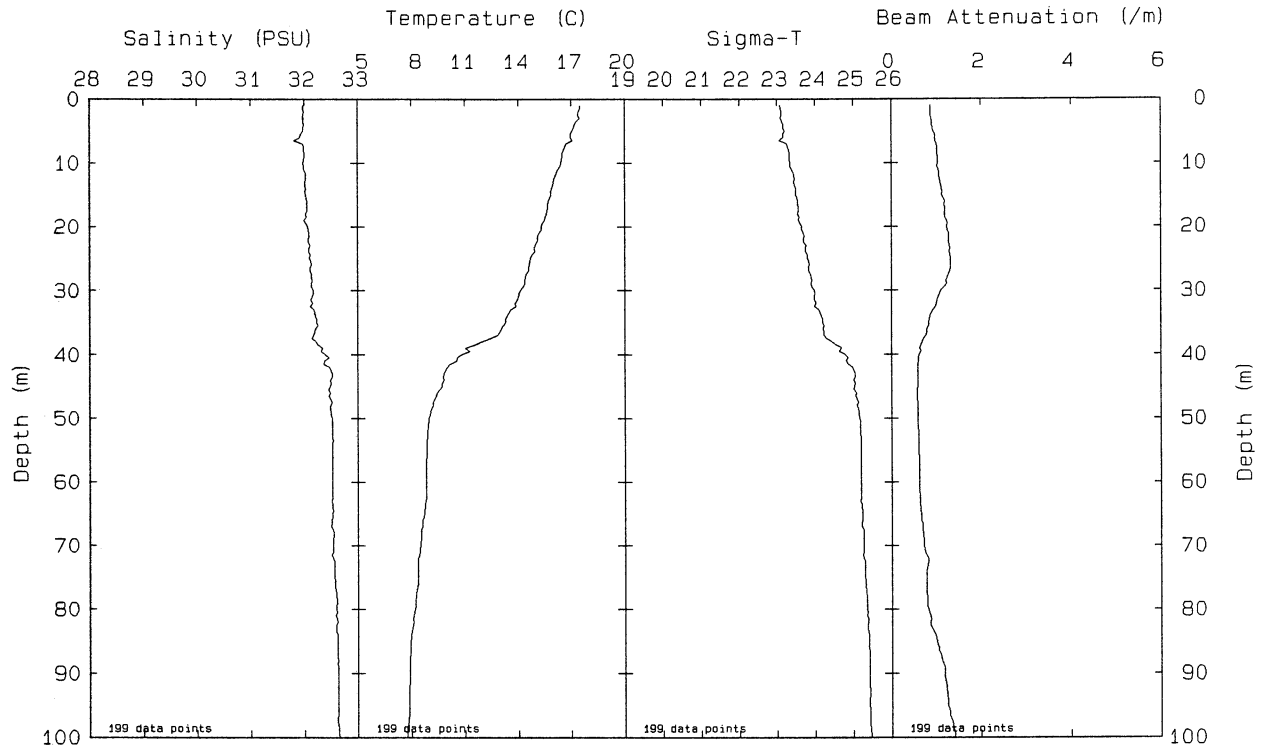
Station: F25 File: W9411090.PAB Date: 08-23-1994 Time: 19:26:26

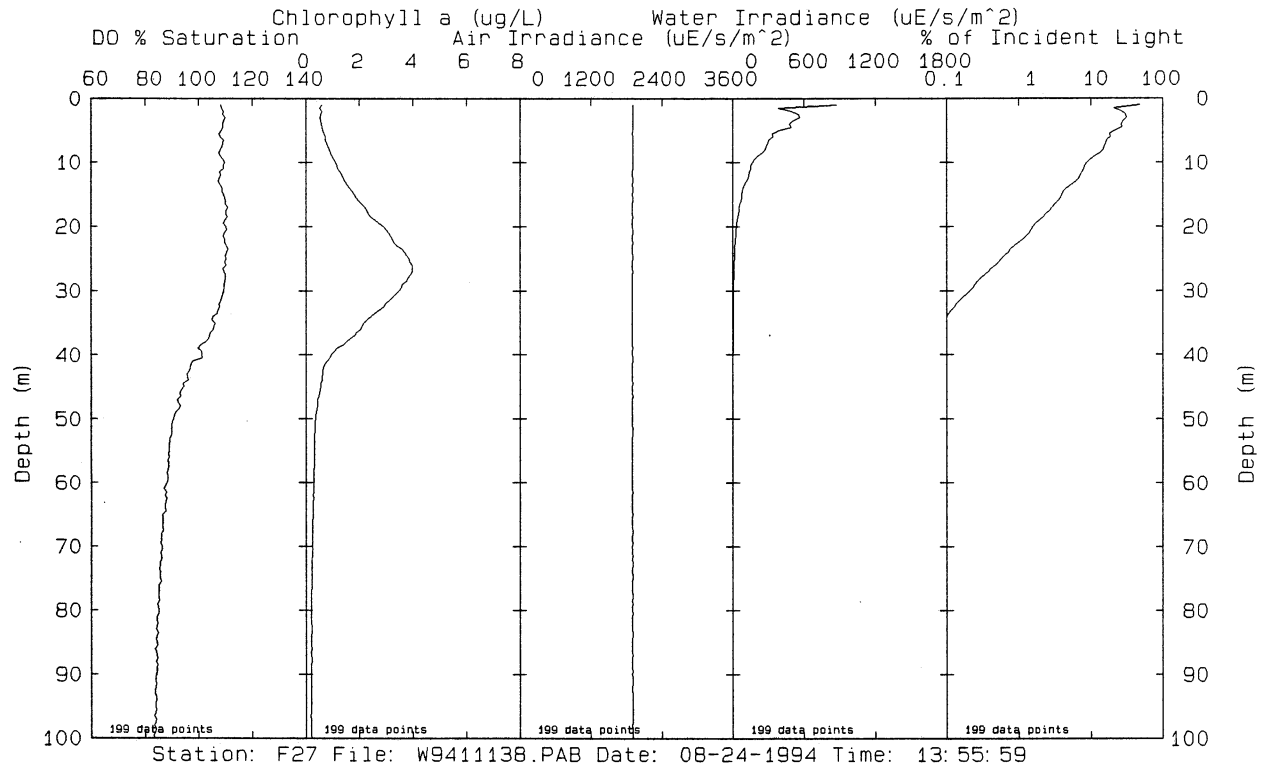
01-19-1995 09:15:38 Battelle





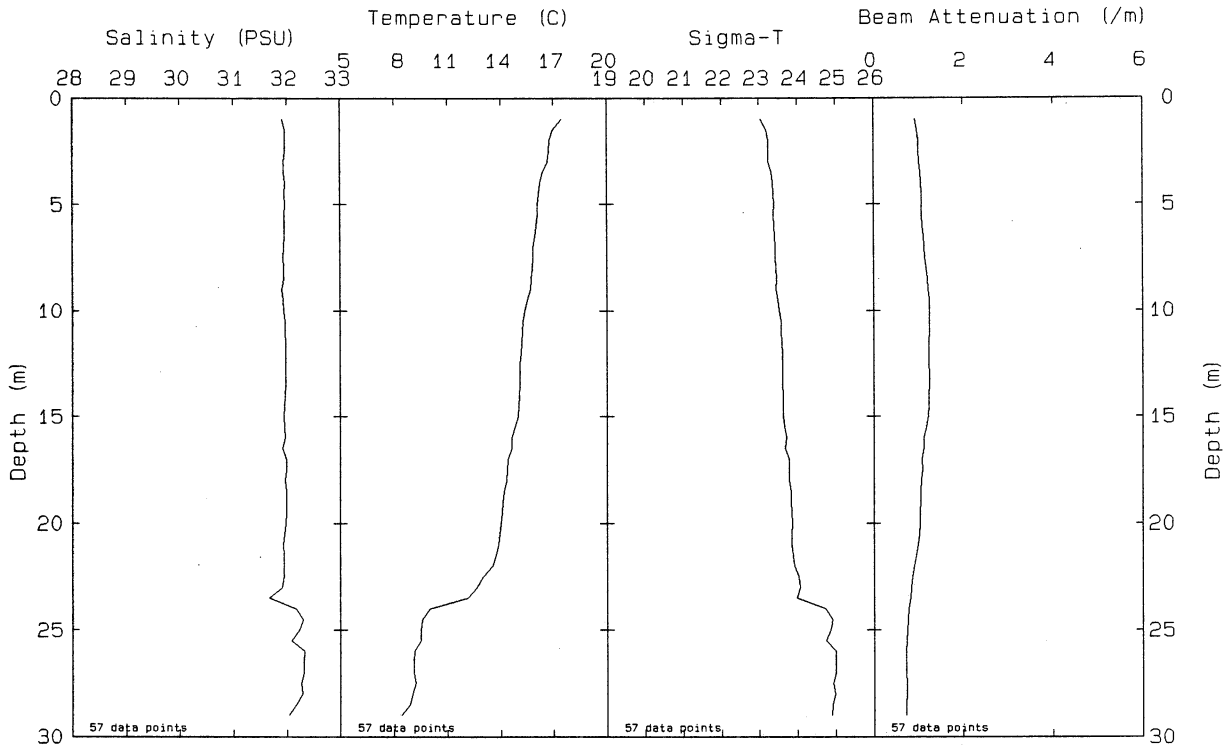
Station: F26 File: W9411134.PAB Date: 08-24-1994 Time: 12:55:37

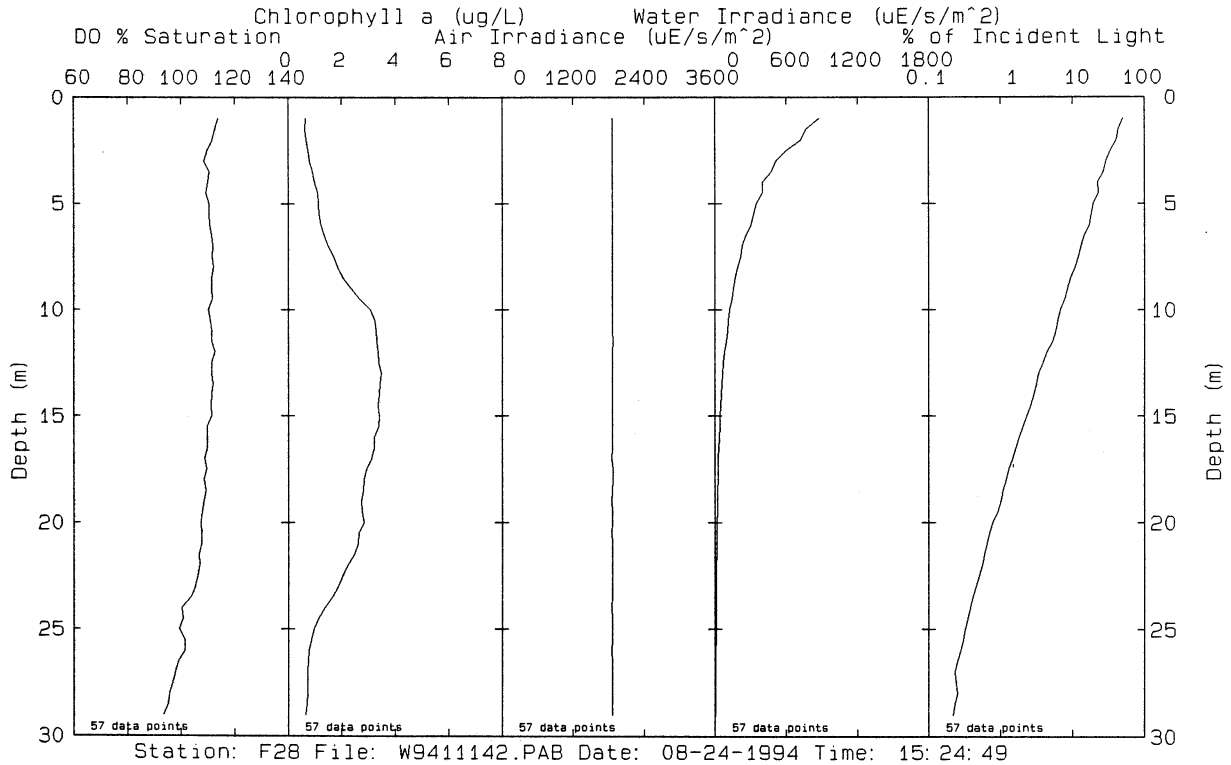




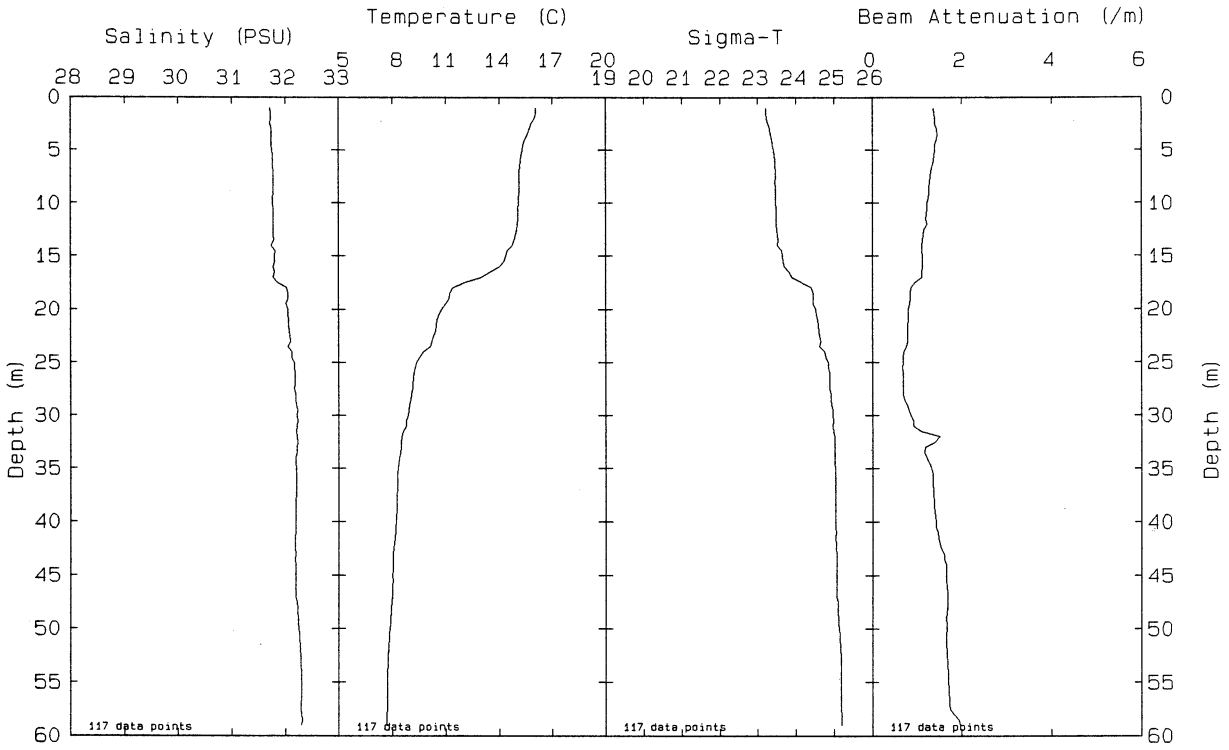
Station: F27 File: W9411138.PAB Date: 08-24-1994 Time: 13:55:59

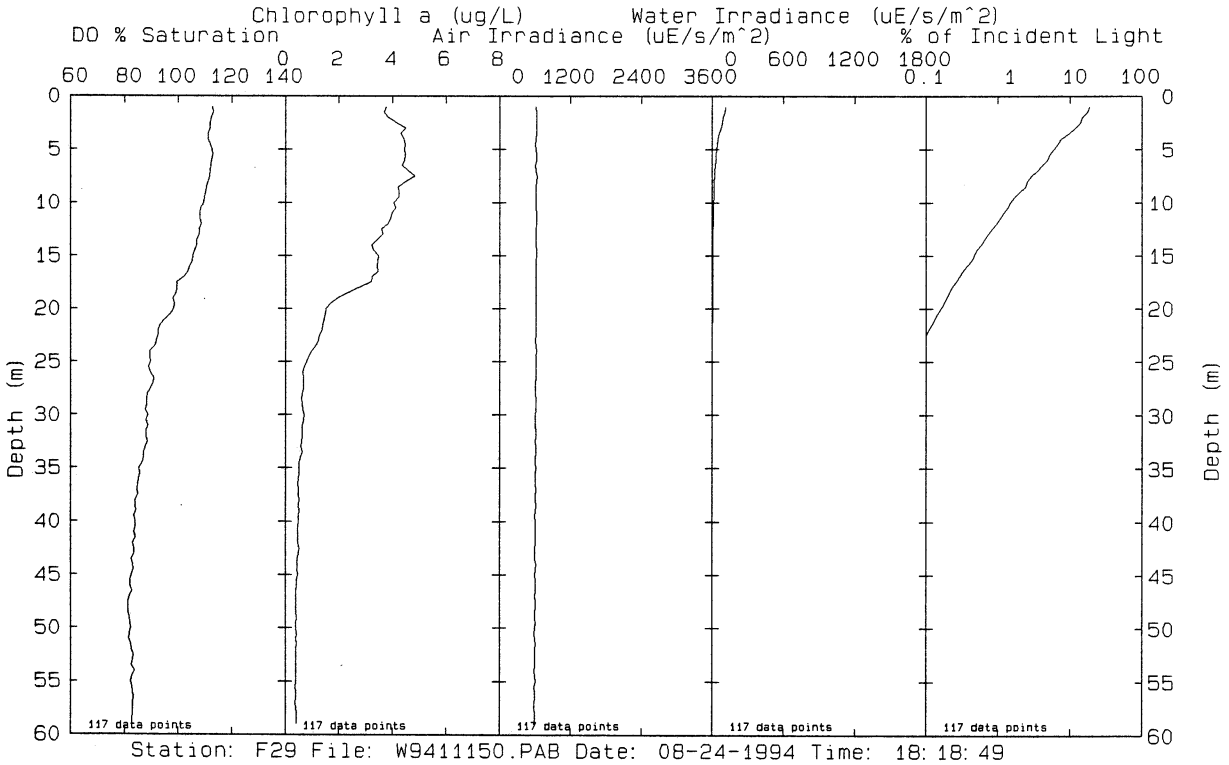
01-19-1995 09:16:08 Battelle





Station: F28 File: W9411142.PAB Date: 08-24-1994 Time: 15:24:49

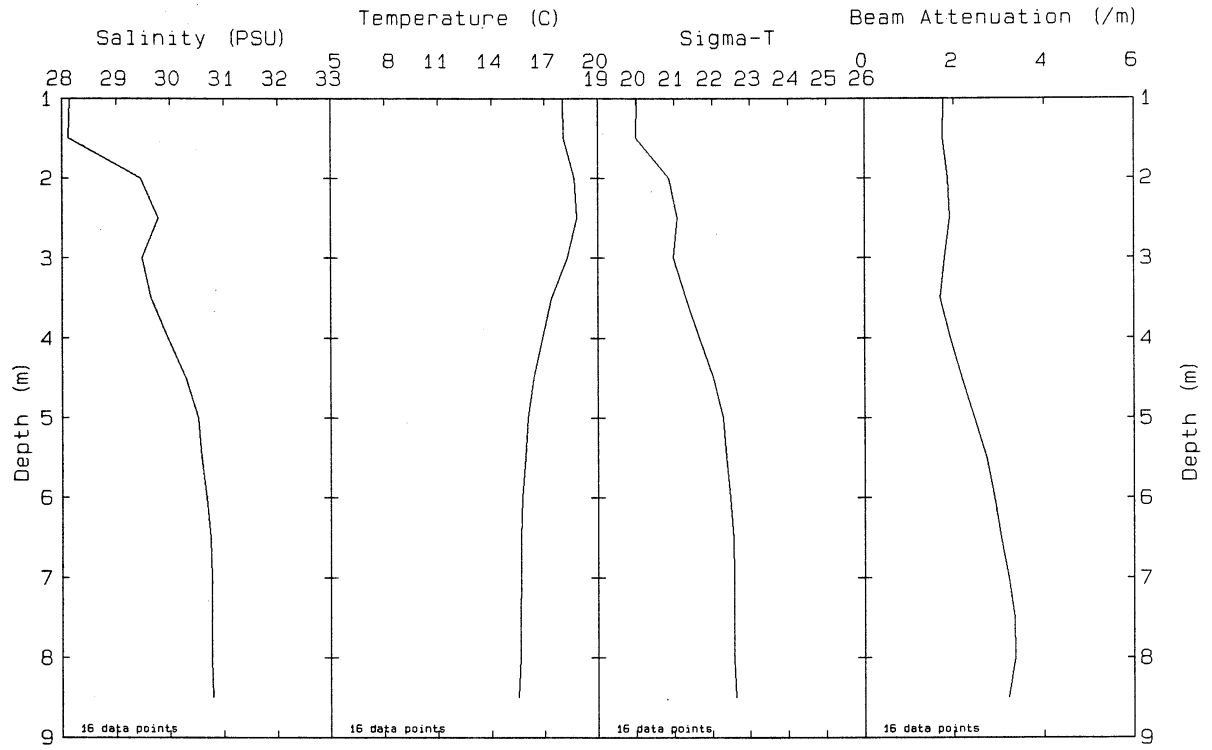


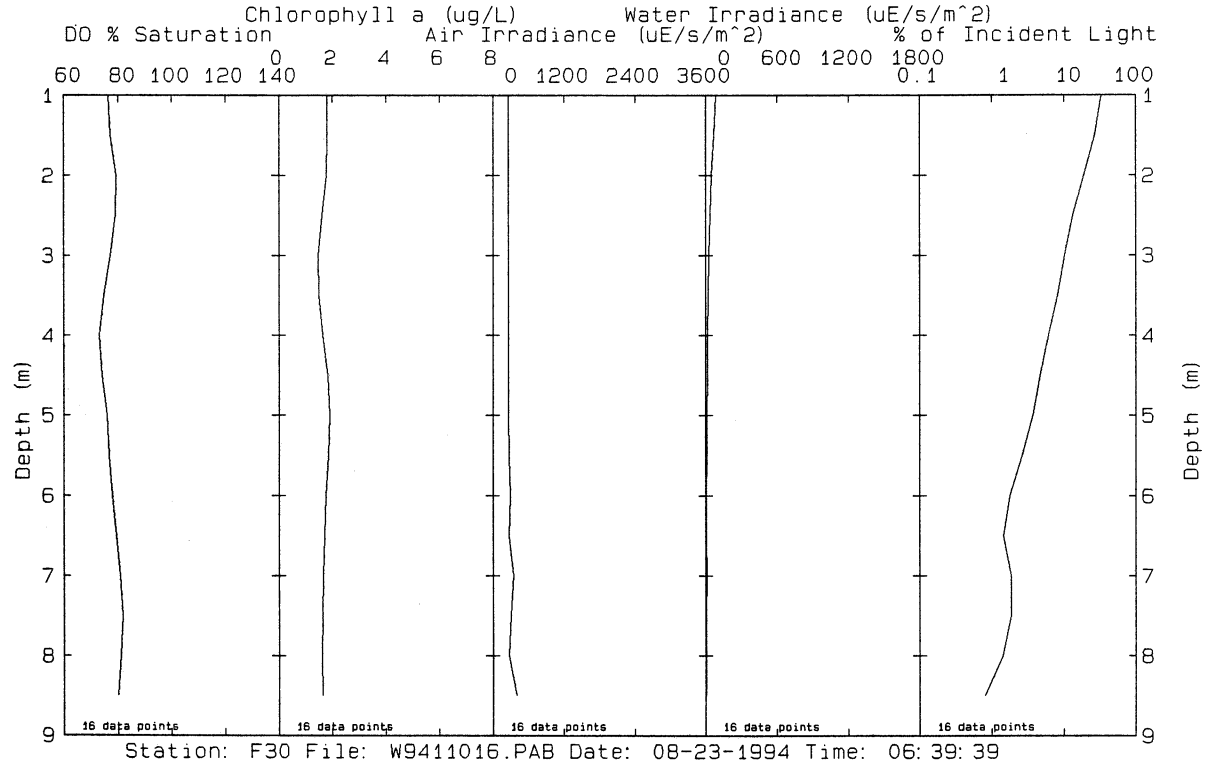


Station: F29 File: W9411150.PAB Date: 08-24-1994 Time: 18:18:49

01-19-1995 09:16:22 Battelle

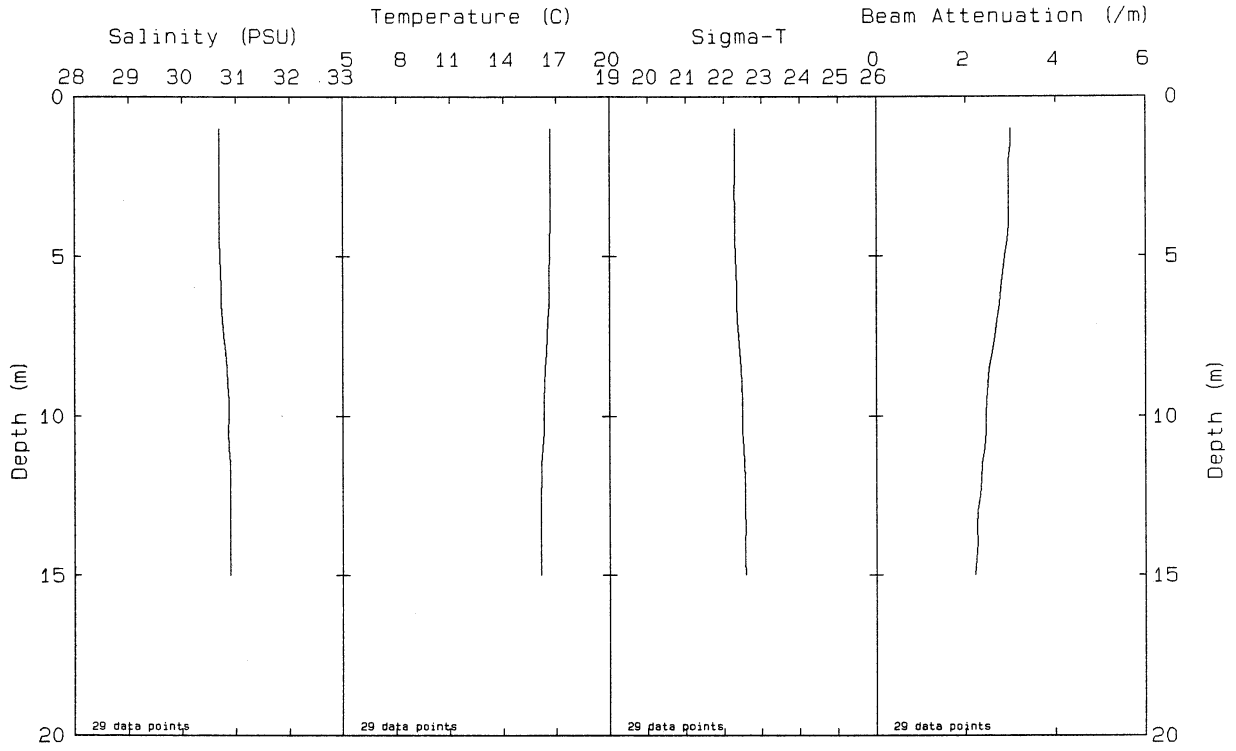
000073

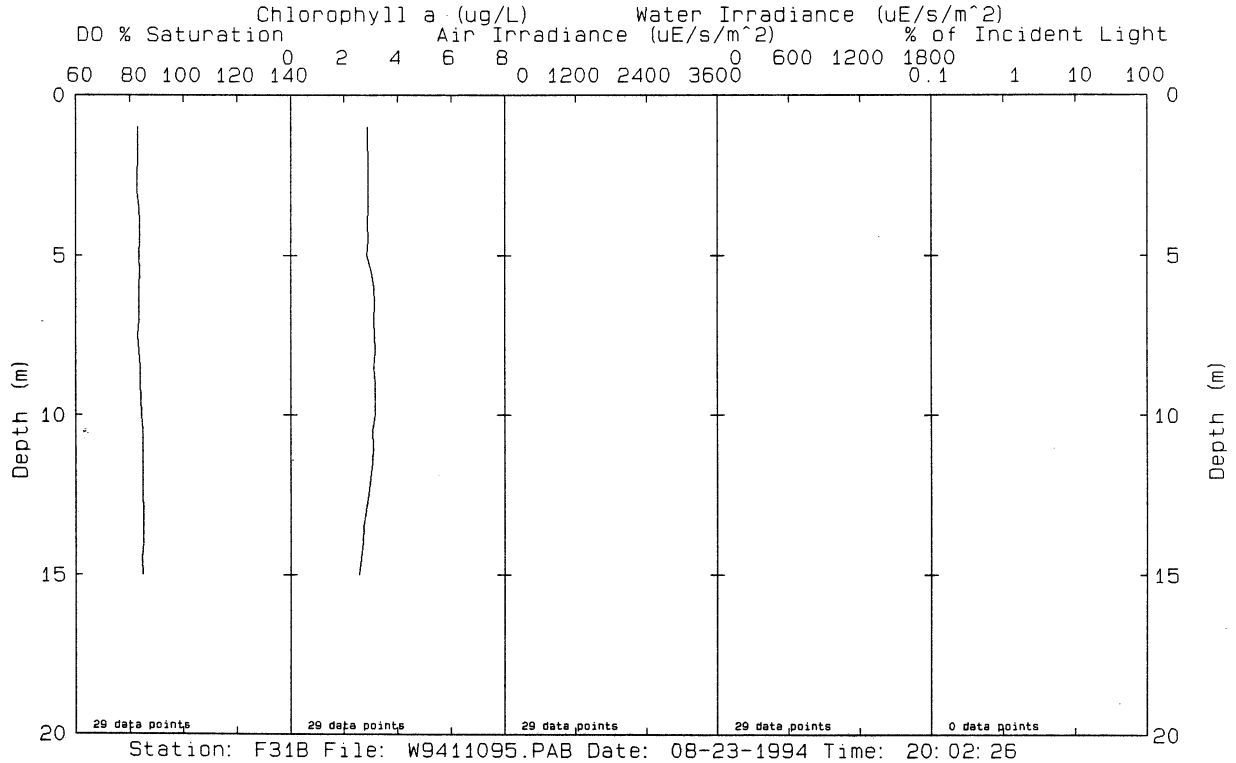




Station: F30 File: W9411016.PAB Date: 08-23-1994 Time: 06:39:39

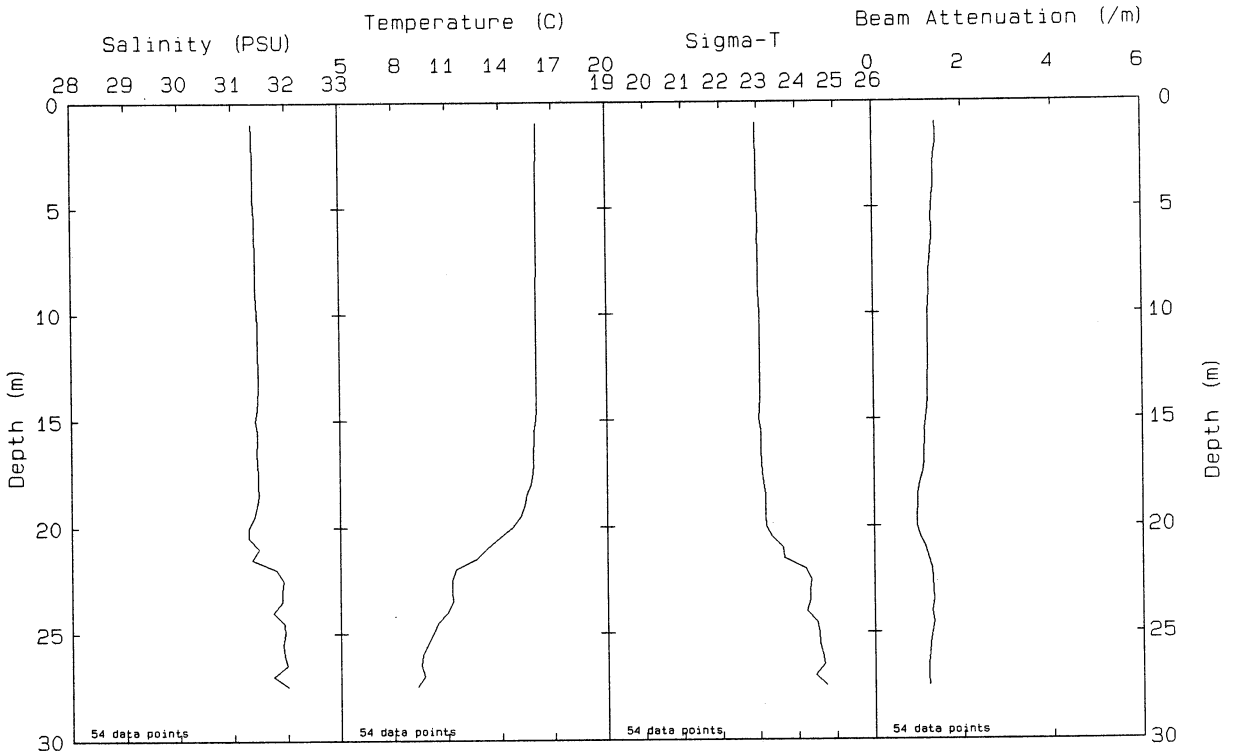
01-19-1995 09:14:59 Battelle

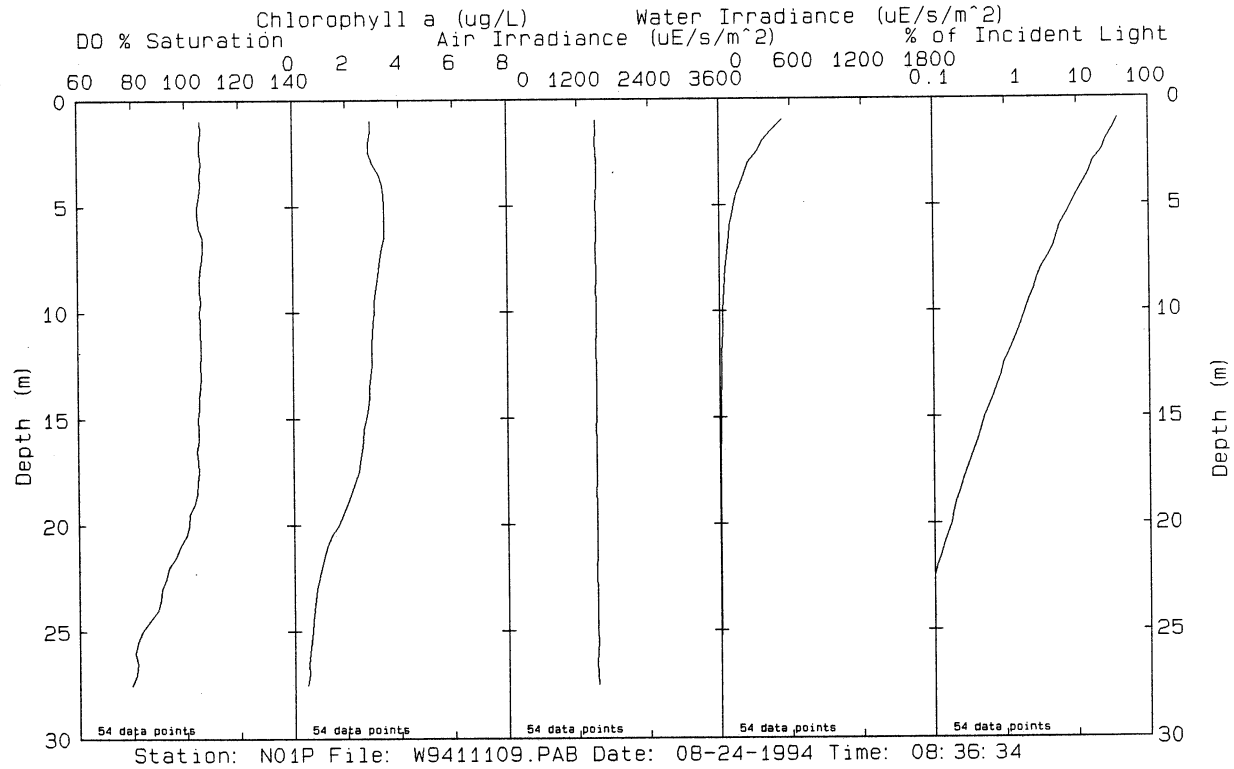




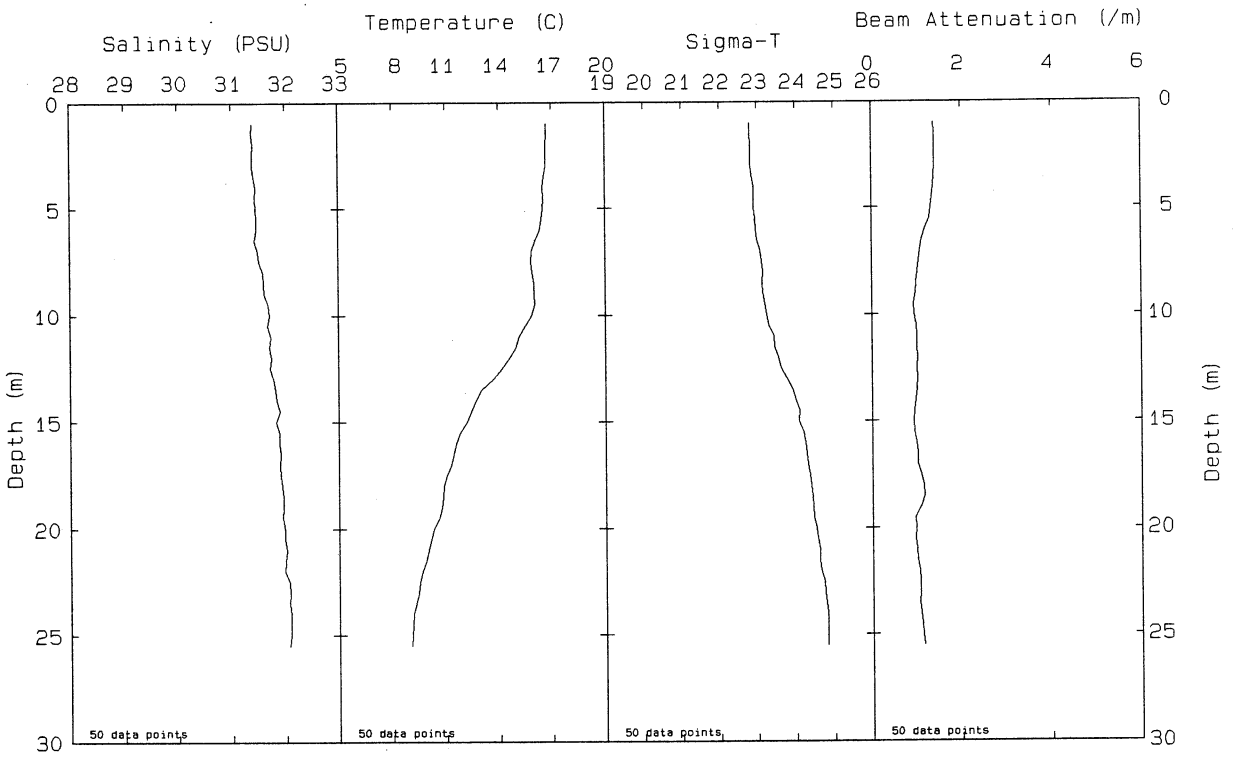
Station: F31B File: W9411095.PAB Date: 08-23-1994 Time: 20:02:26

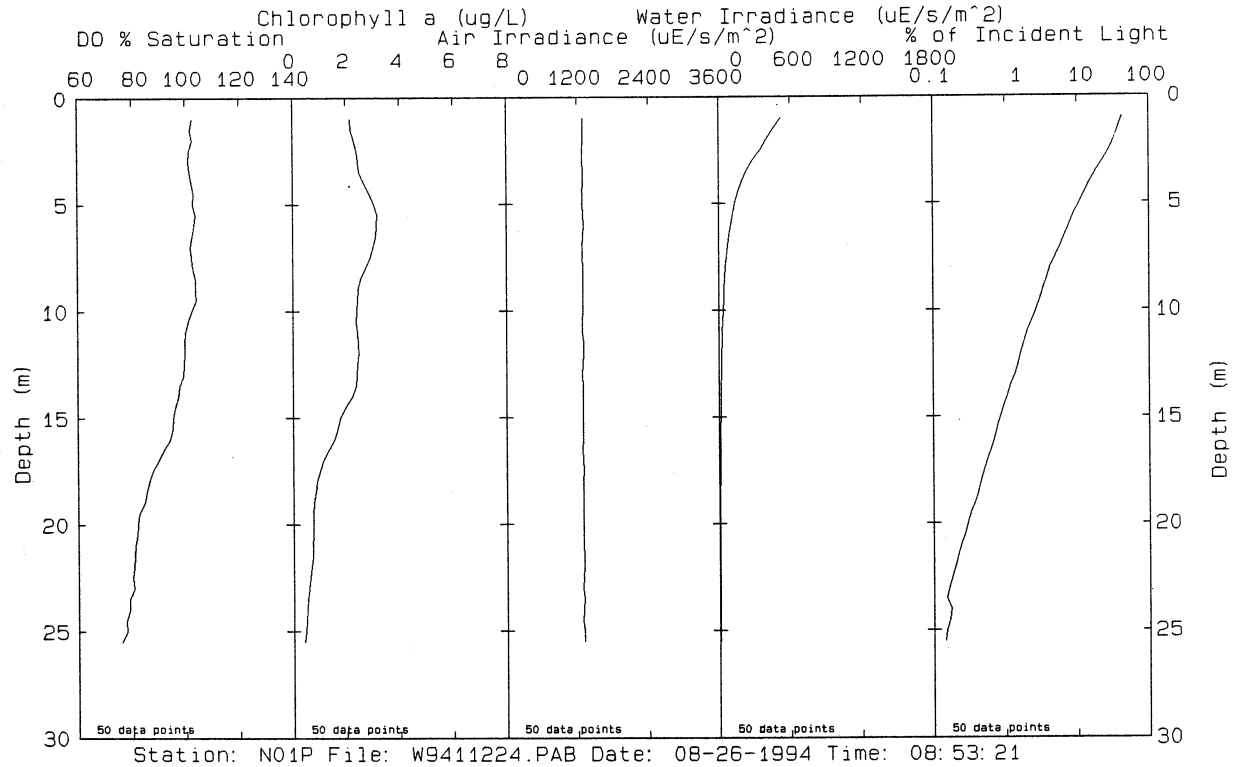
01-19-1995 09:15:39 Battelle





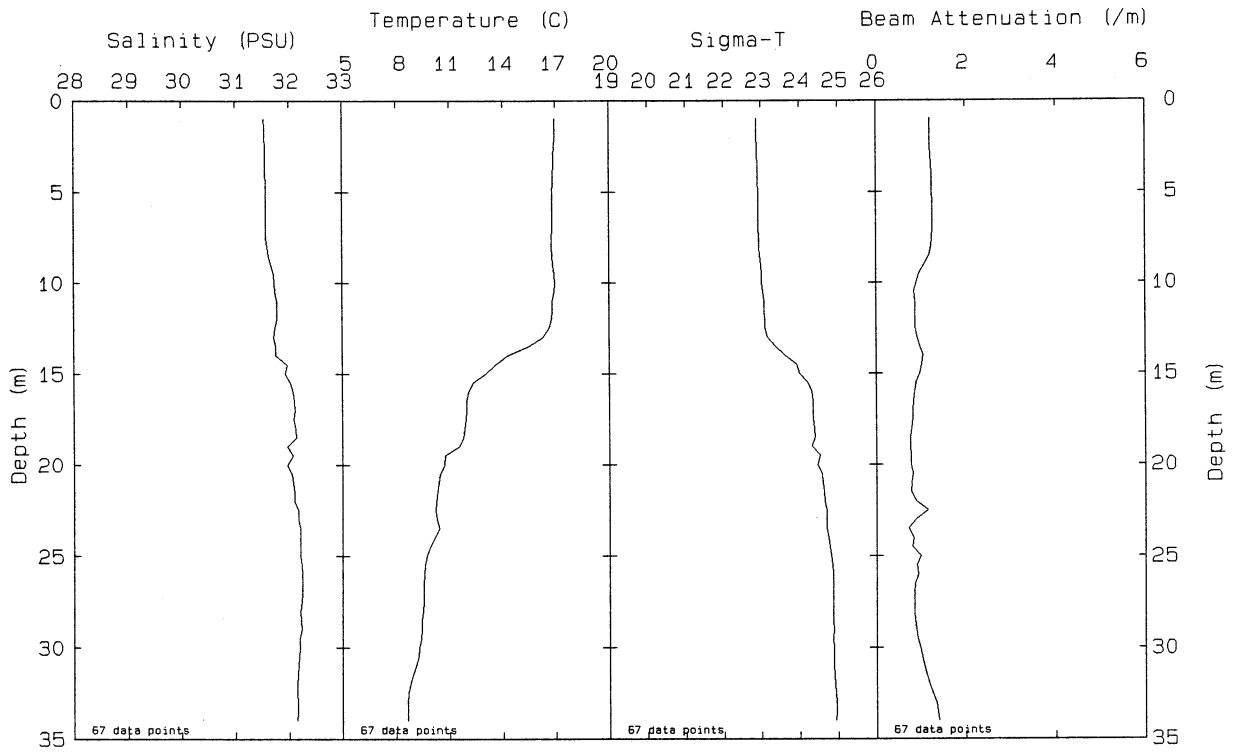
Station: N01P File: W9411109.PAB Date: 08-24-1994 Time: 08:36:34

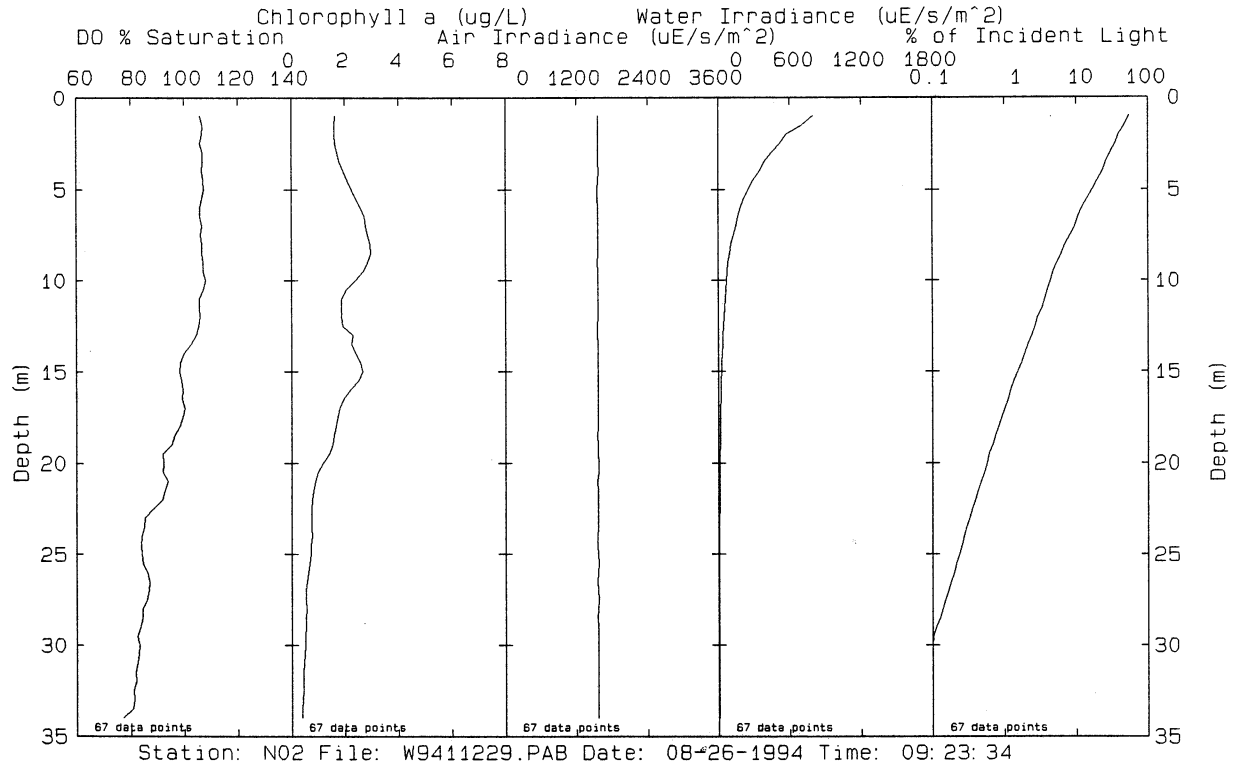




Station: N01P File: W9411224.PAB Date: 08-26-1994 Time: 08:53:21

01-19-1995 09:16:49 Battelle

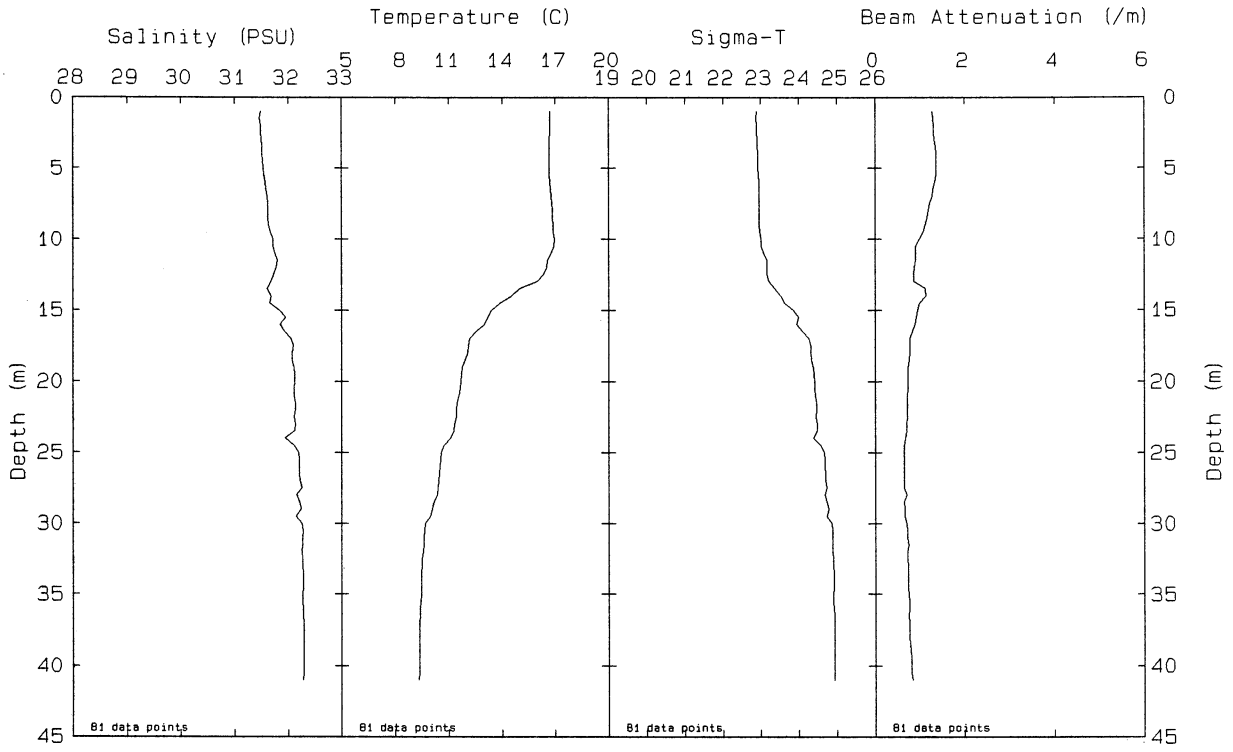


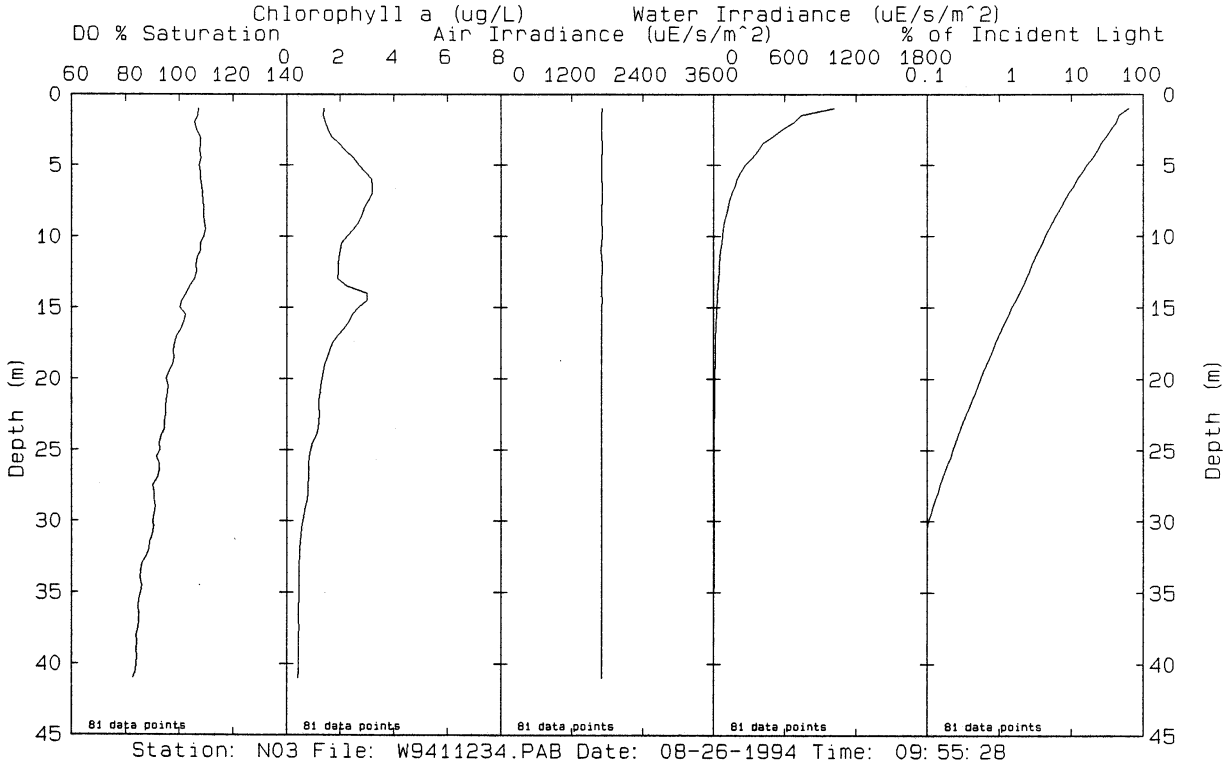


Station: N02 File: W9411229.PAB Date: 08-26-1994 Time: 09:23:34

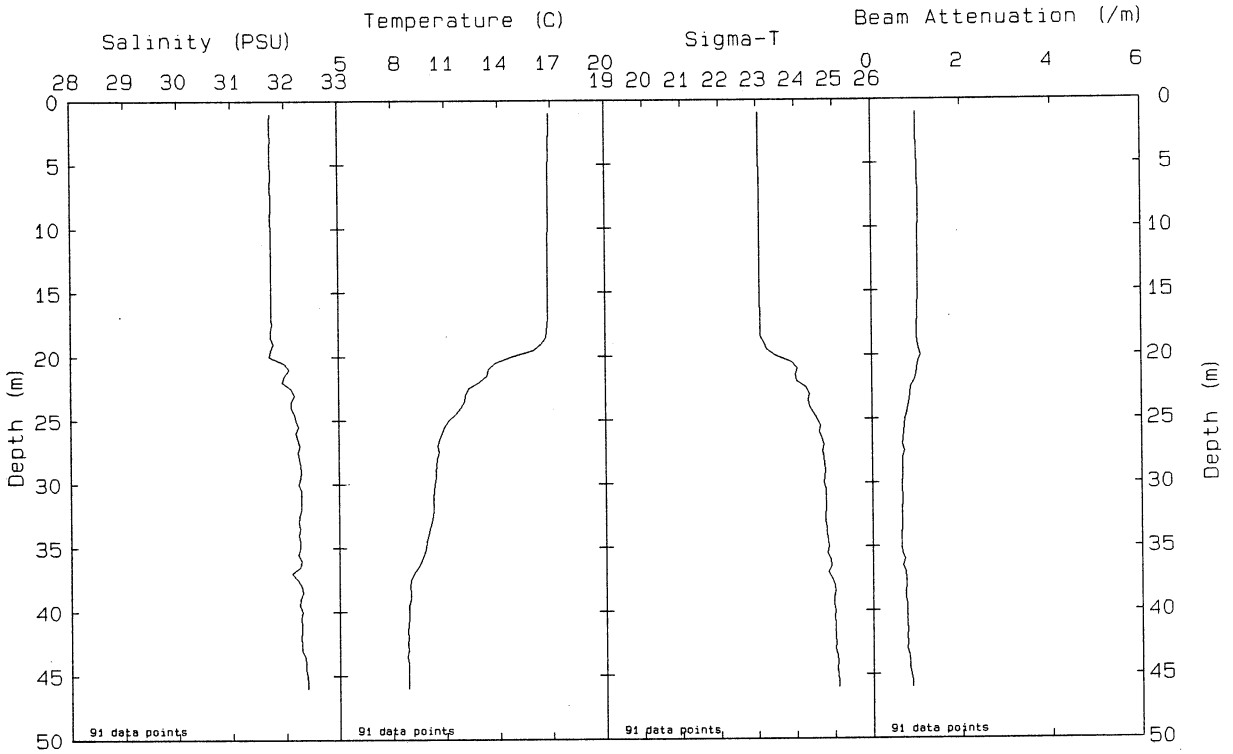
01-19-1995 09:16:52 Battelle

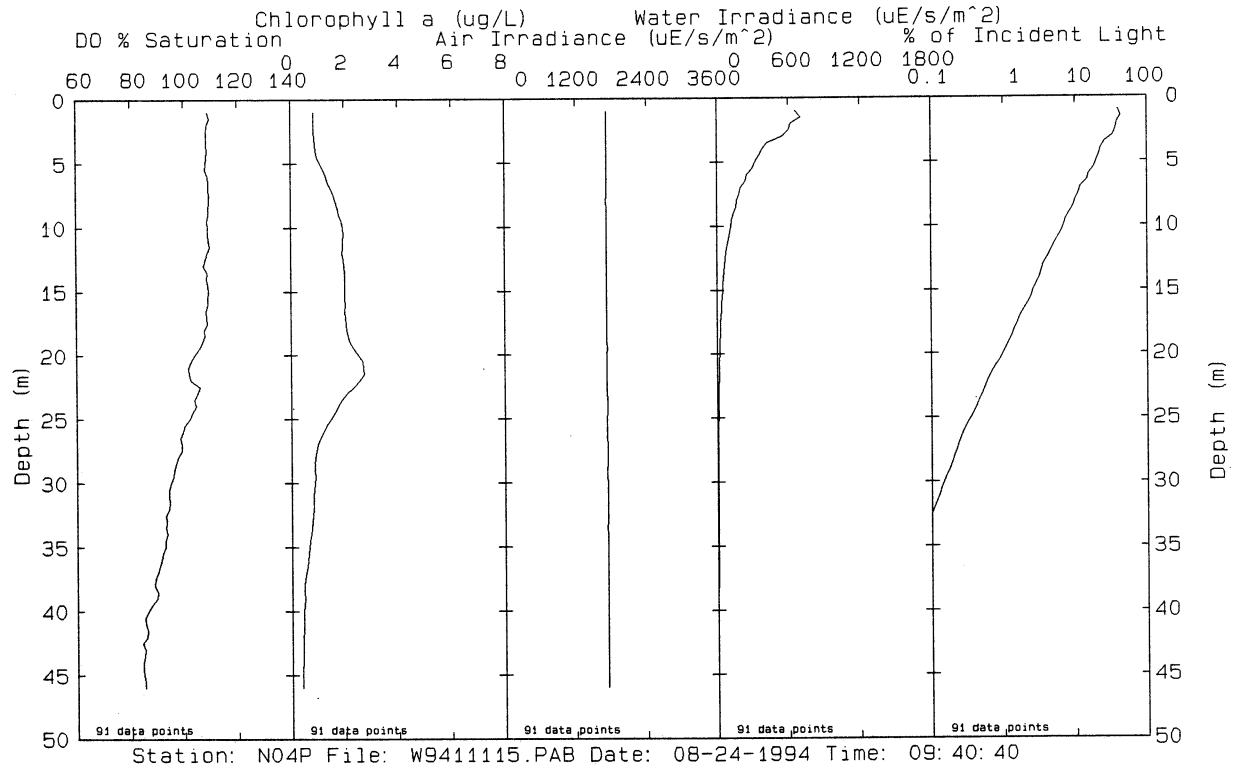
000078





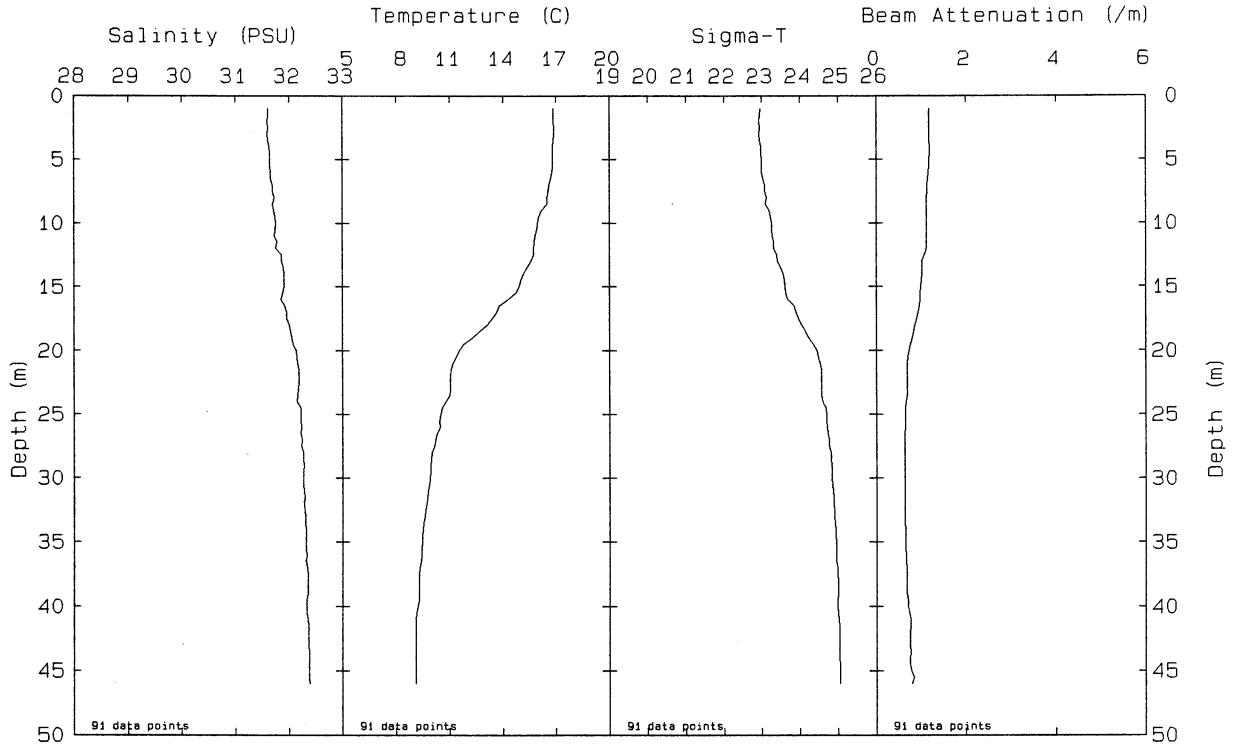
Station: N03 File: W9411234.PAB Date: 08-26-1994 Time: 09:55:28

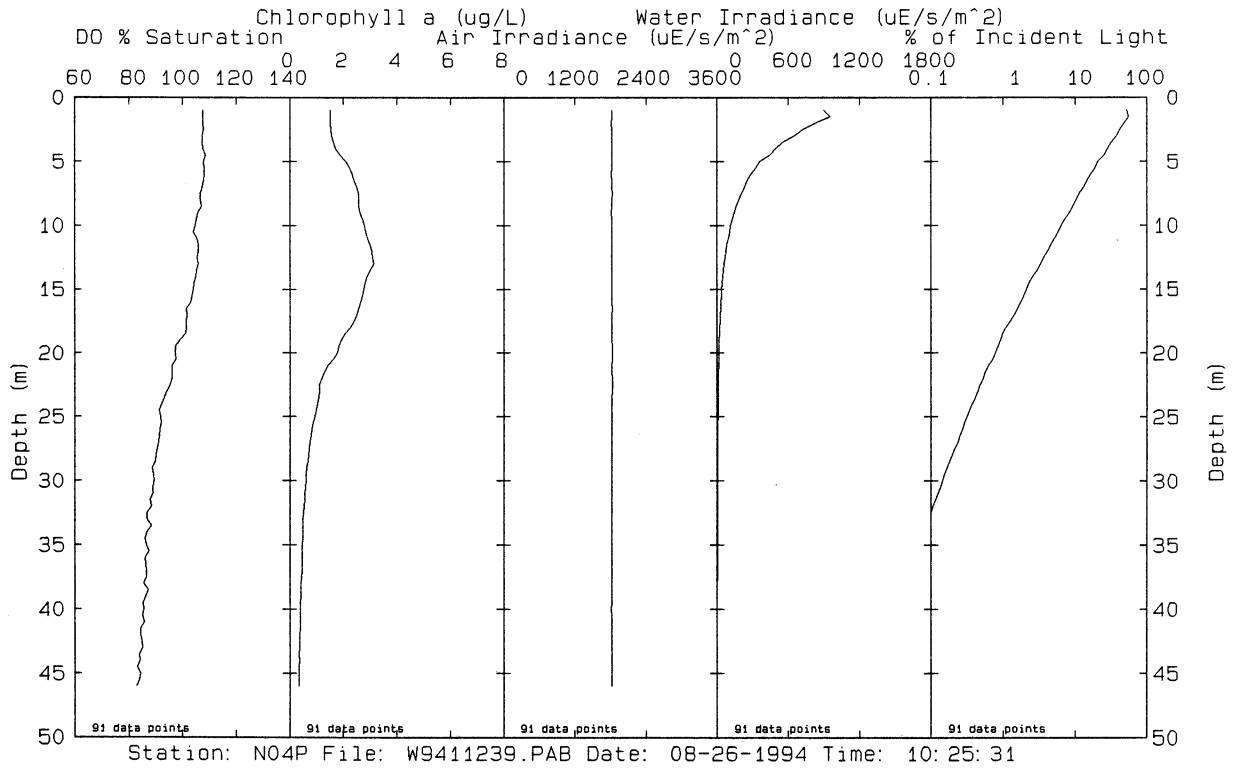




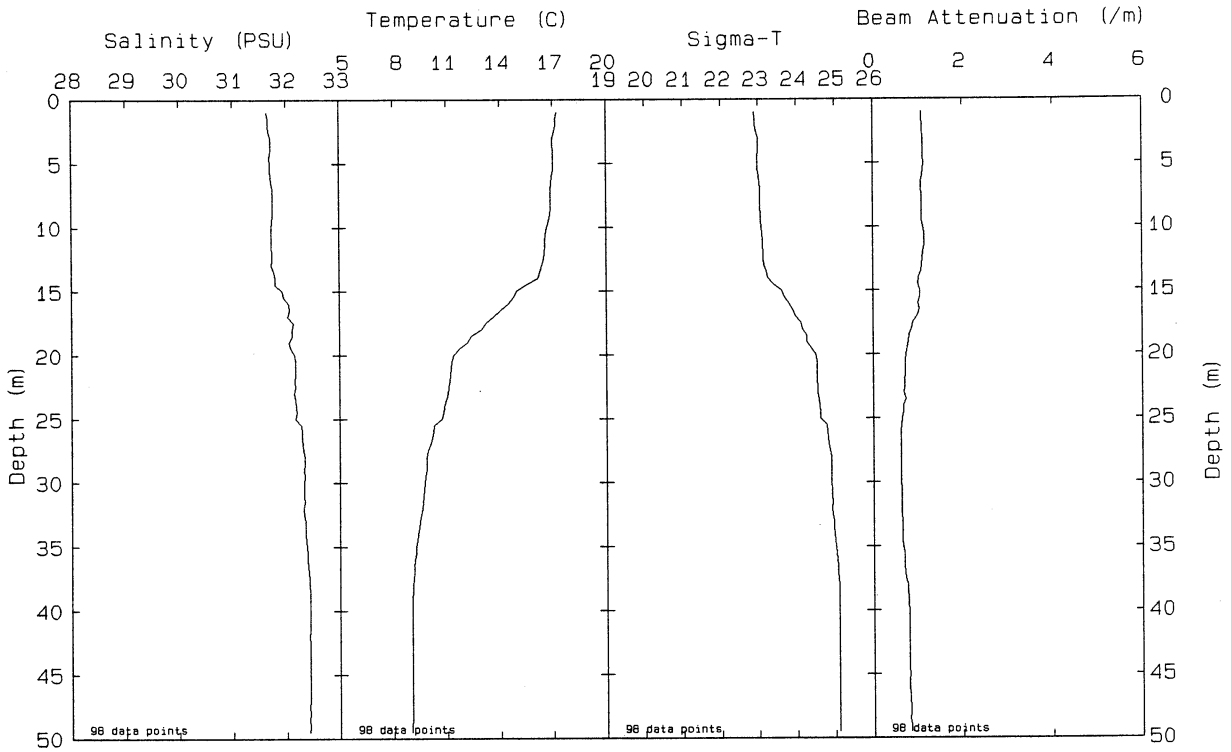
Station: N04P File: W9411115.PAB Date: 08-24-1994 Time: 09:40:40

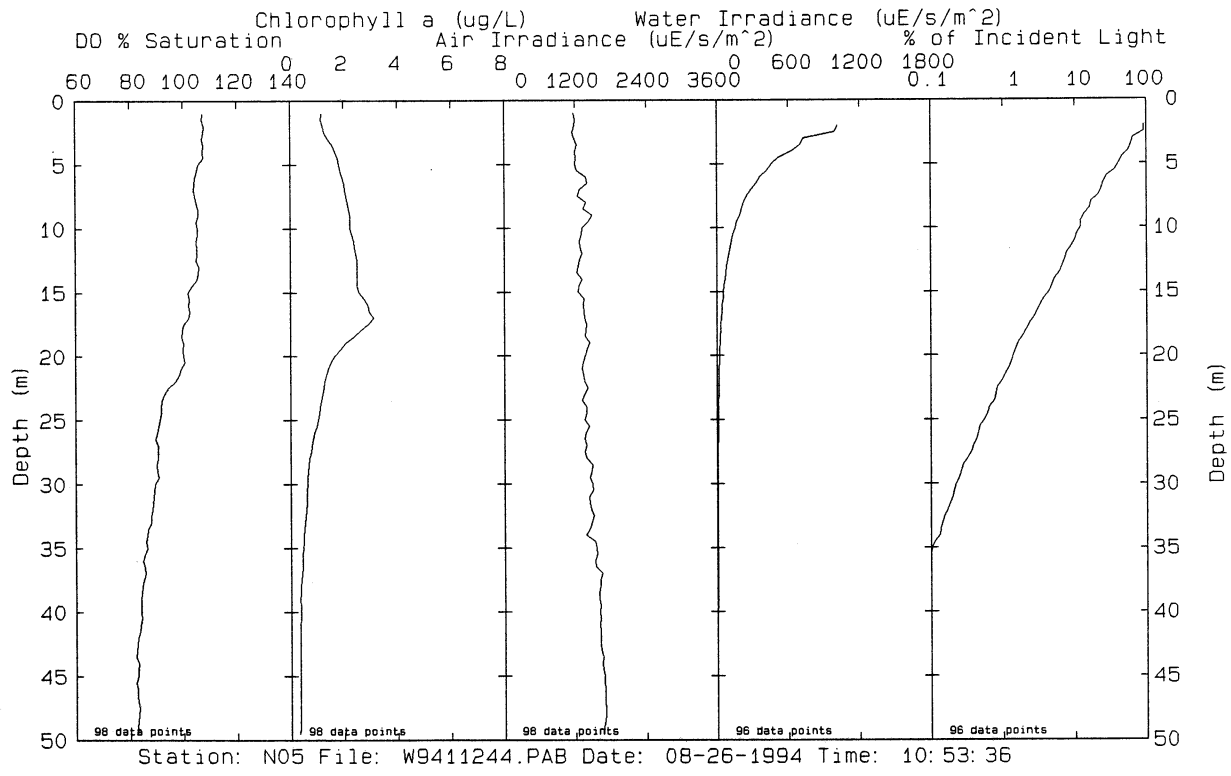
01-19-1995 09:15:47 Battelle



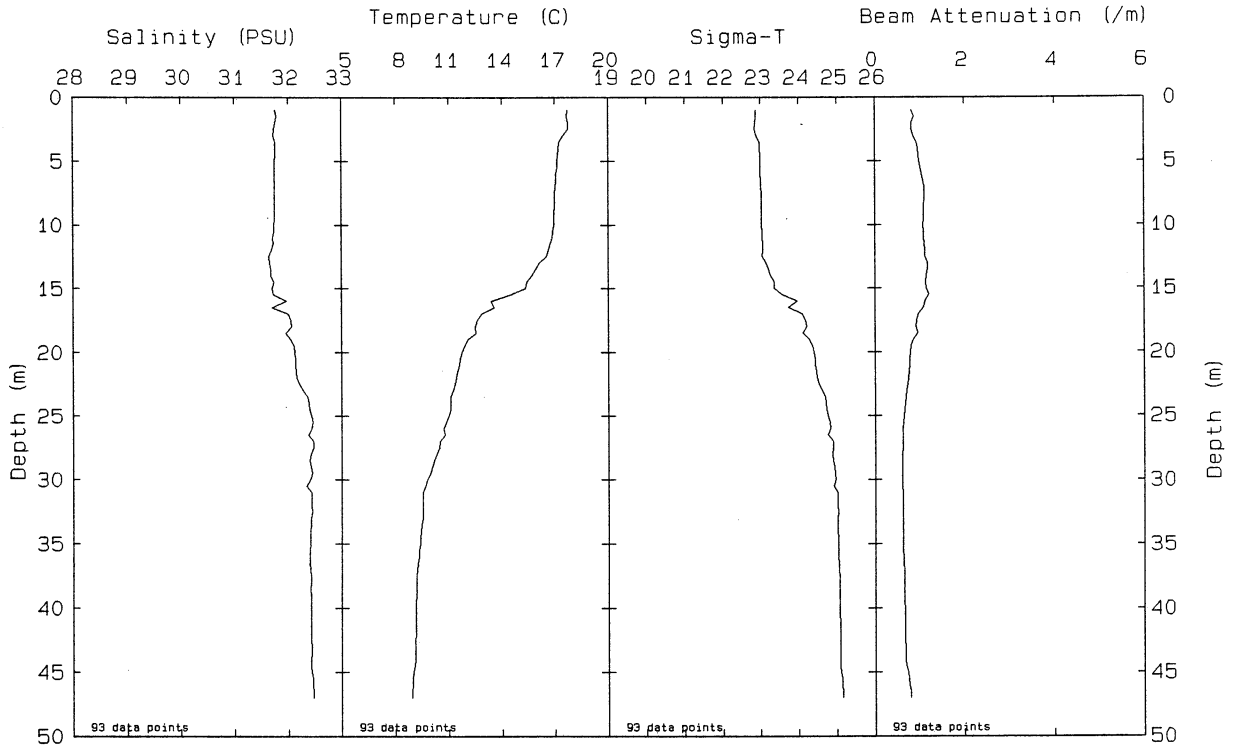


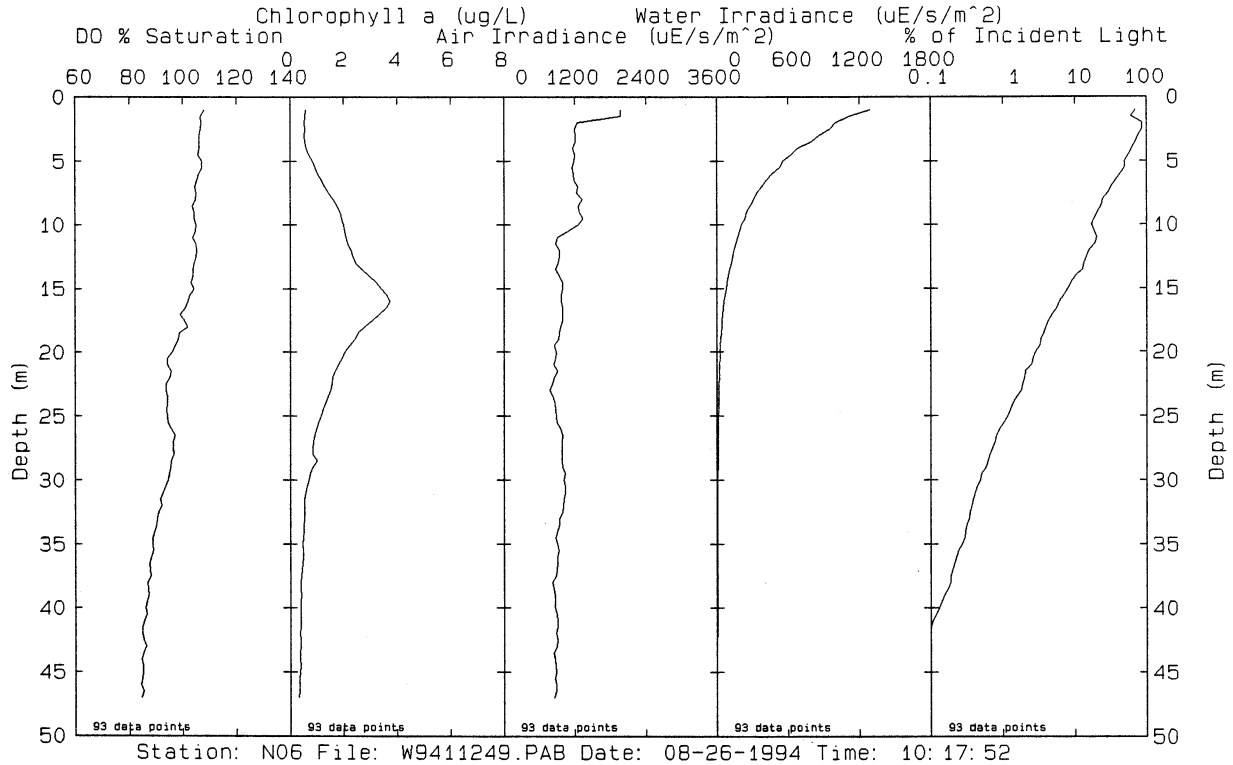
Station: N04P File: W9411239.PAB Date: 08-26-1994 Time: 10:25:31



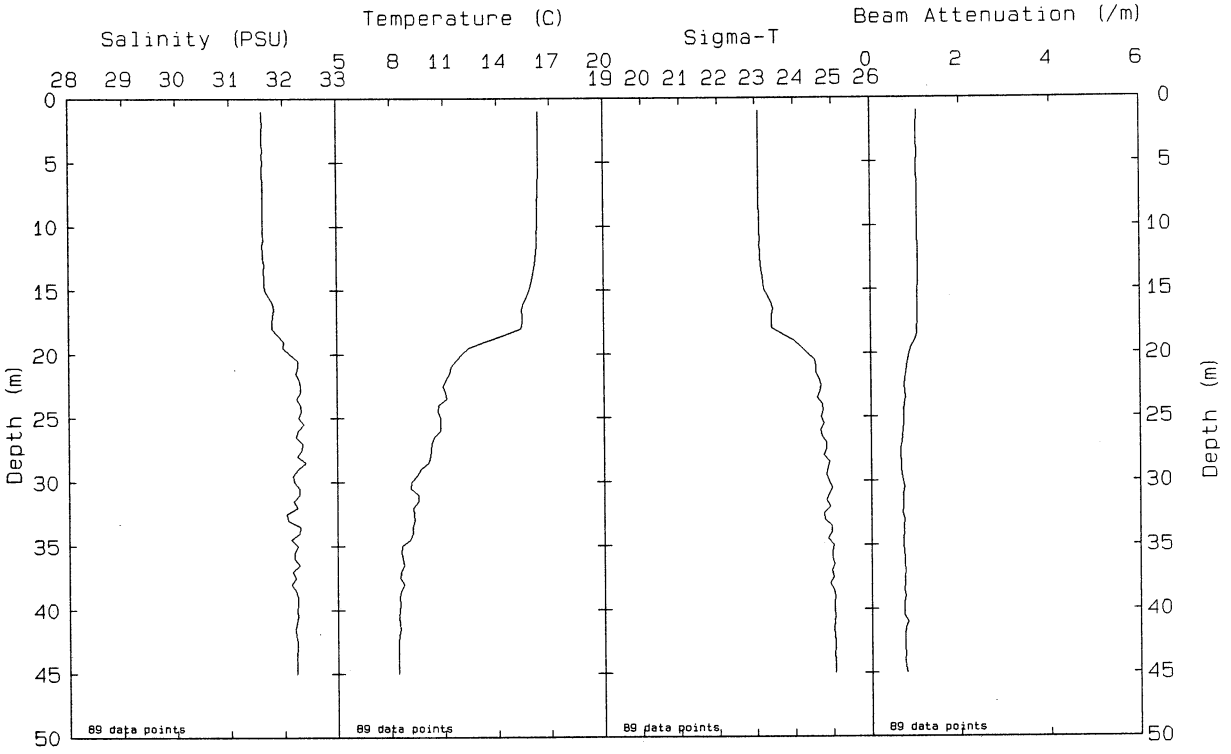


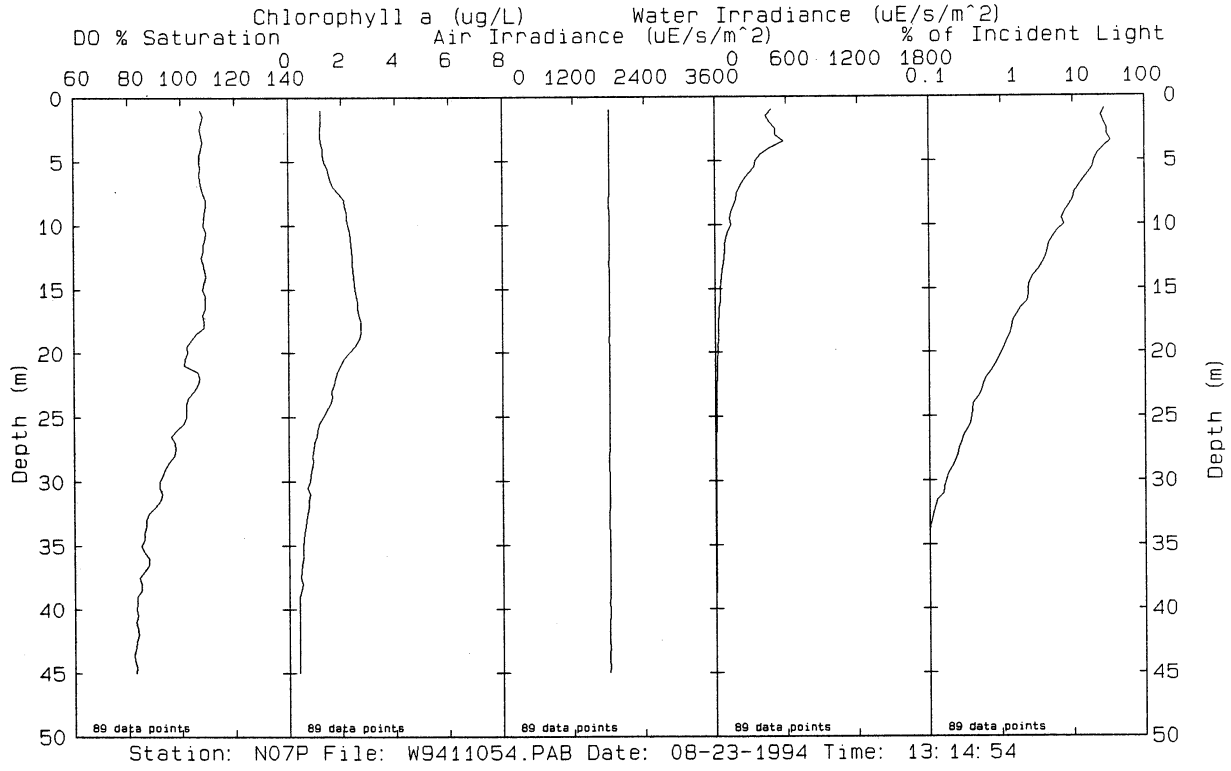
Station: N05 File: W9411244.PAB Date: 08-26-1994 Time: 10:53:36





Station: N06 File: W9411249.PAB Date: 08-26-1994 Time: 10:17:52





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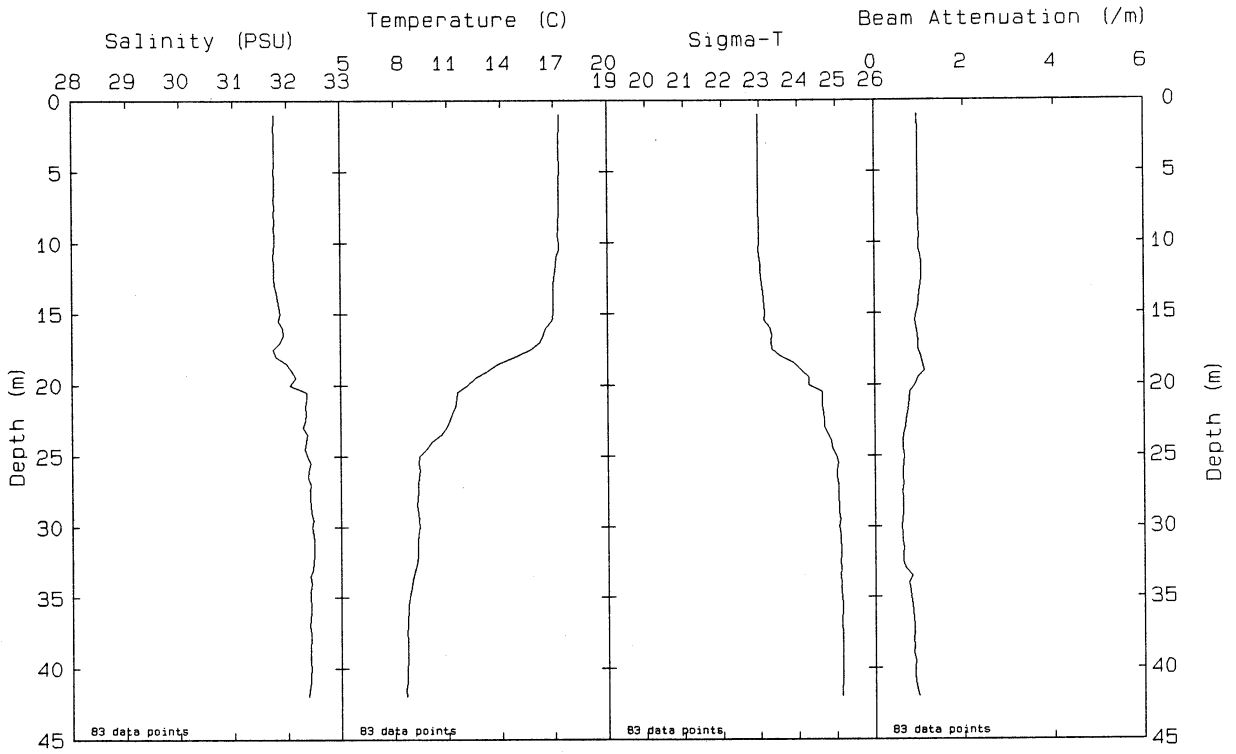
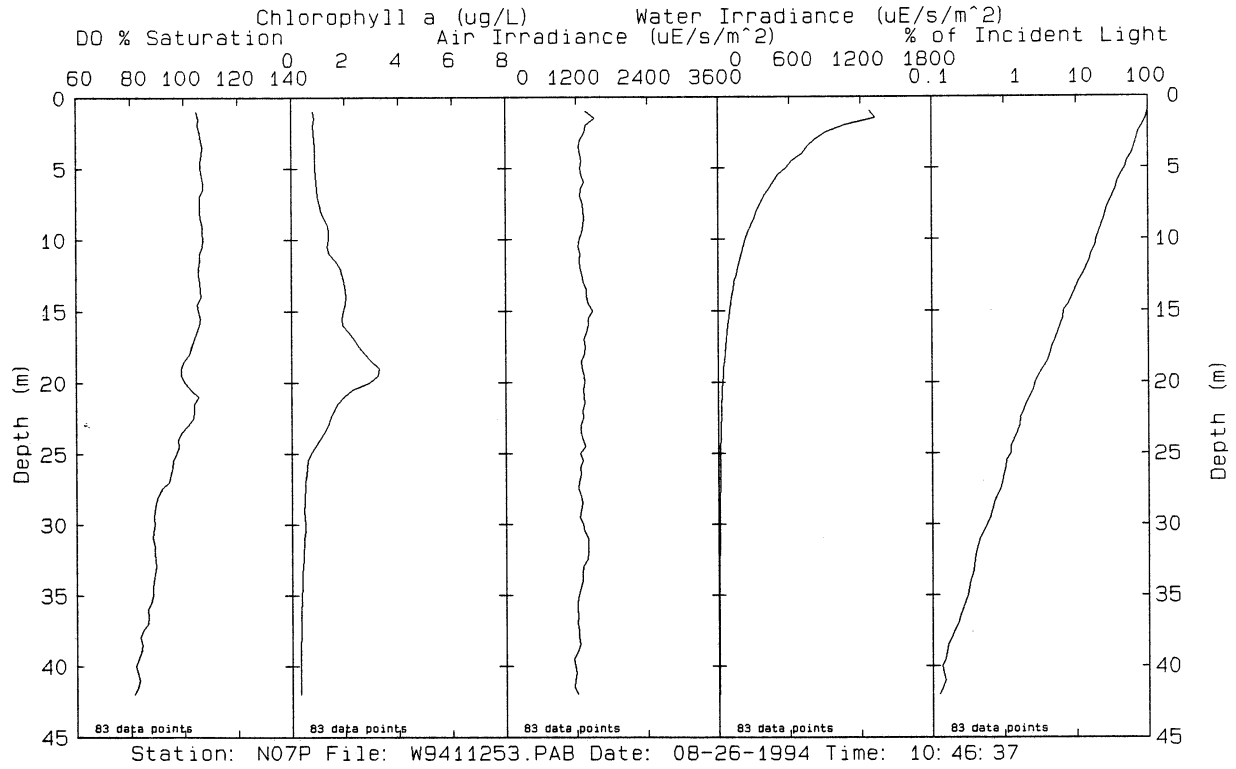
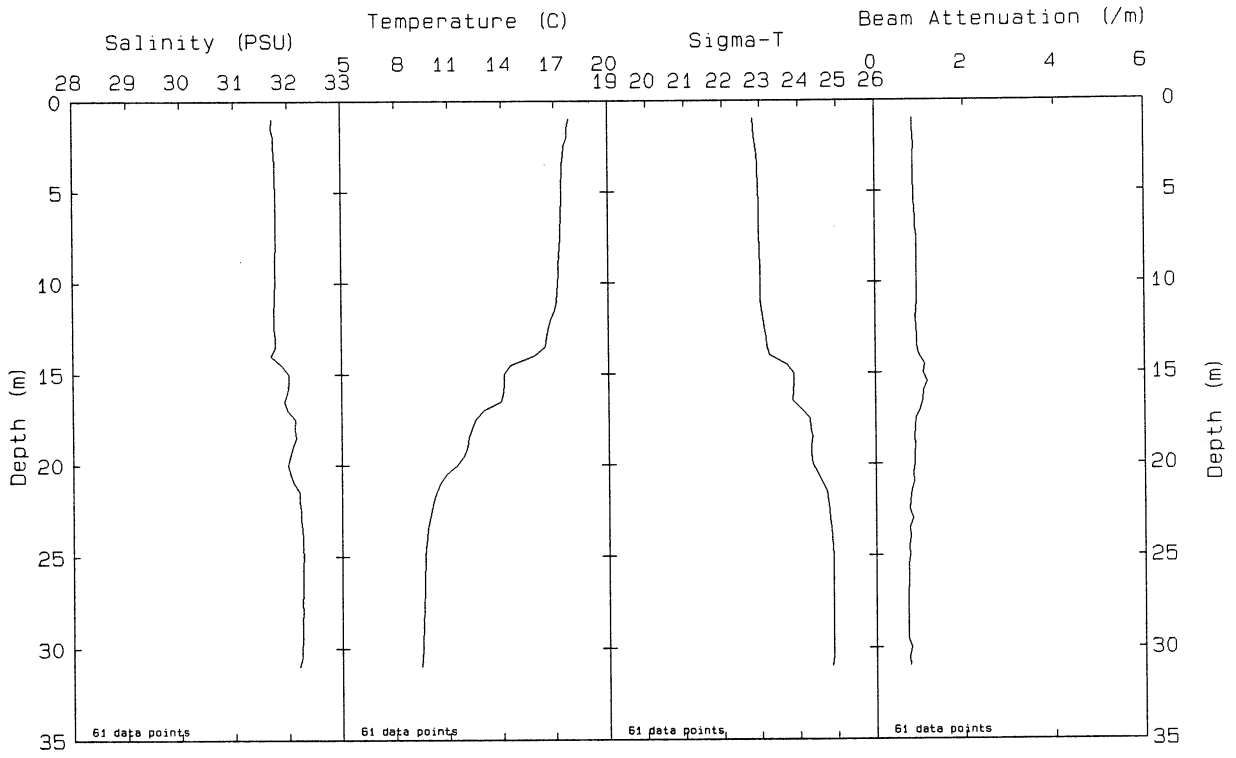
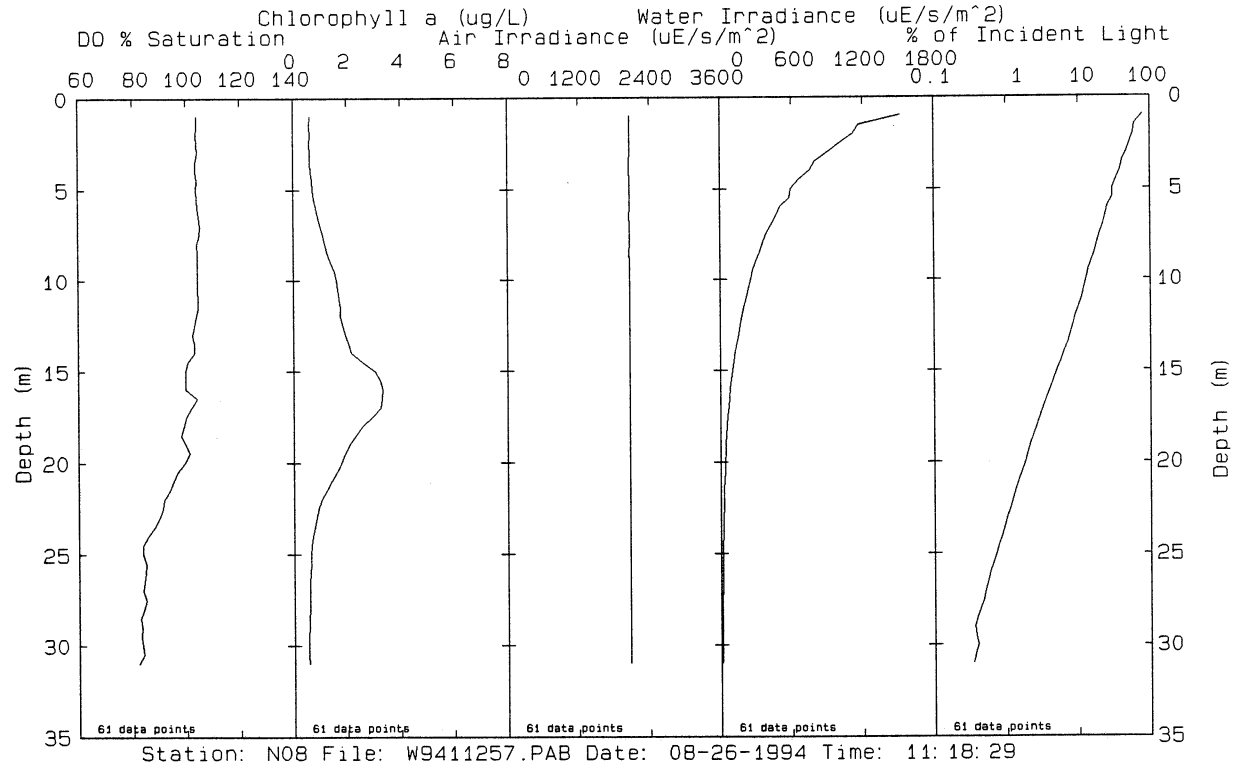




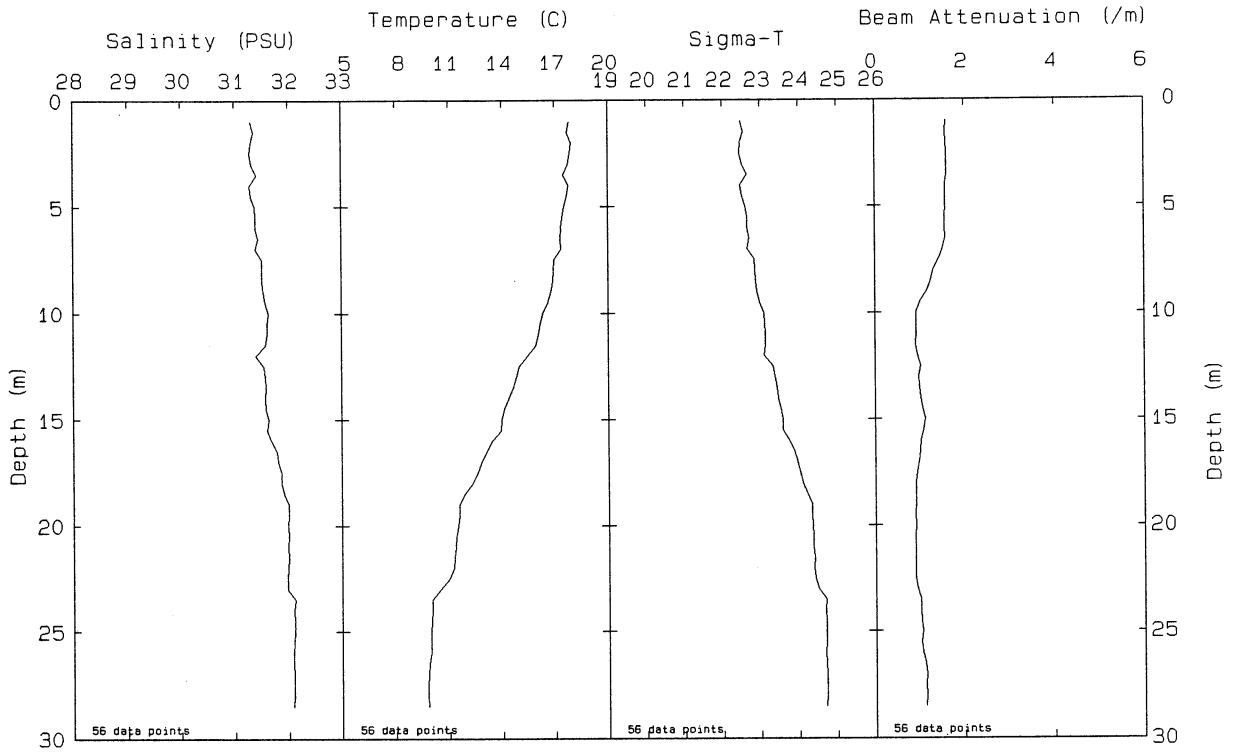
Station: N07P File: W9411253.PAB Date: 08-26-1994 Time: 10:46:37

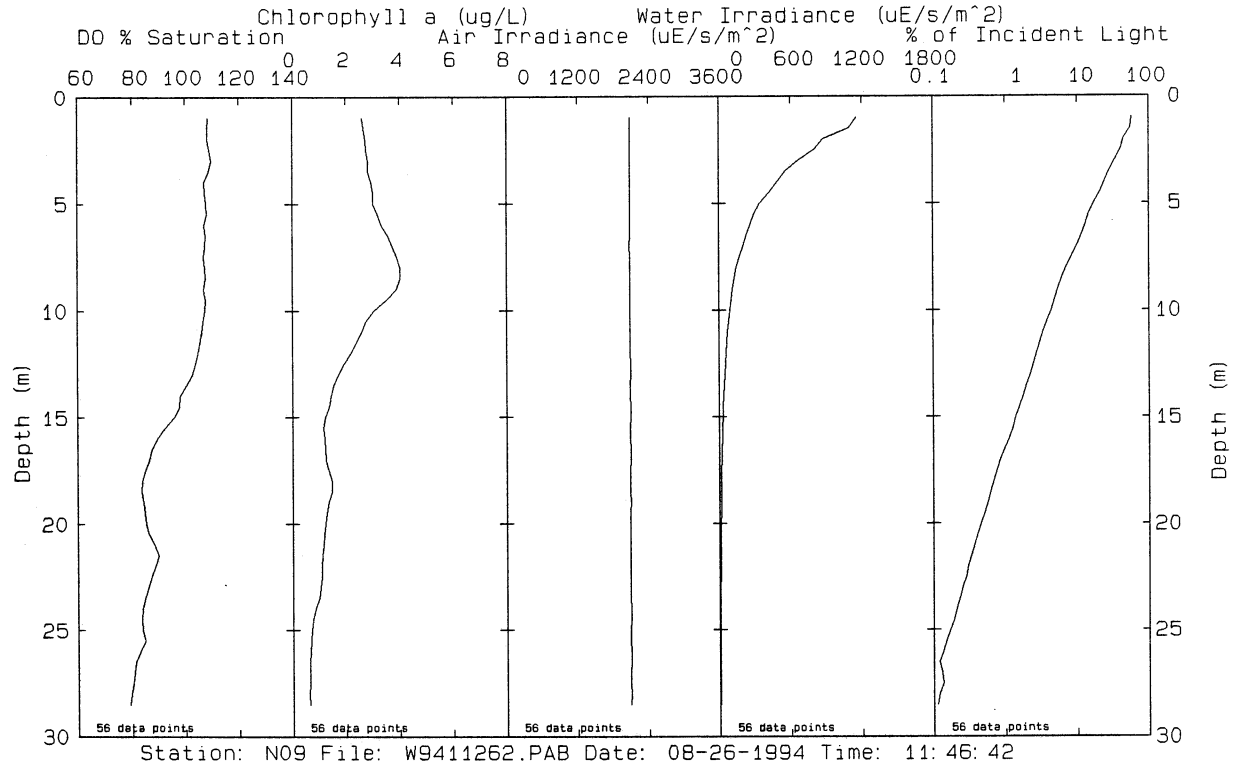
01-19-1995 09:17:11 Battelle





Station: N08 File: W9411257.PAB Date: 08-26-1994 Time: 11:18:29





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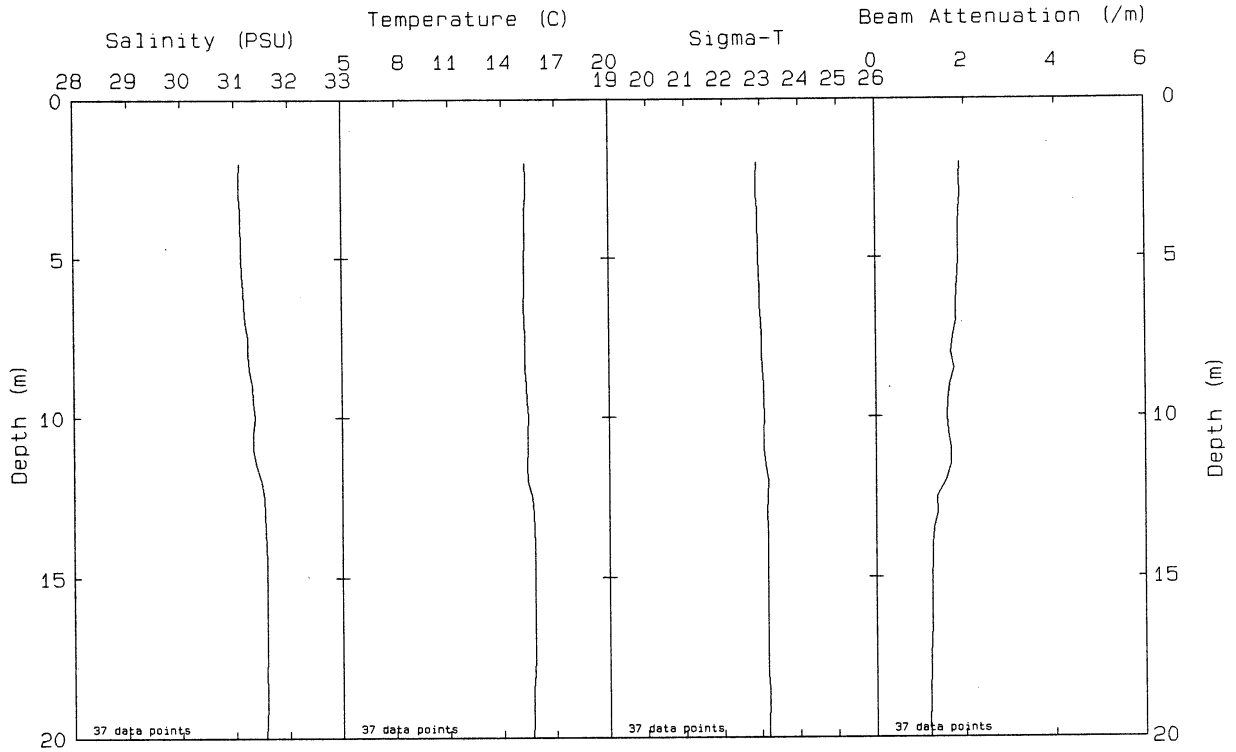

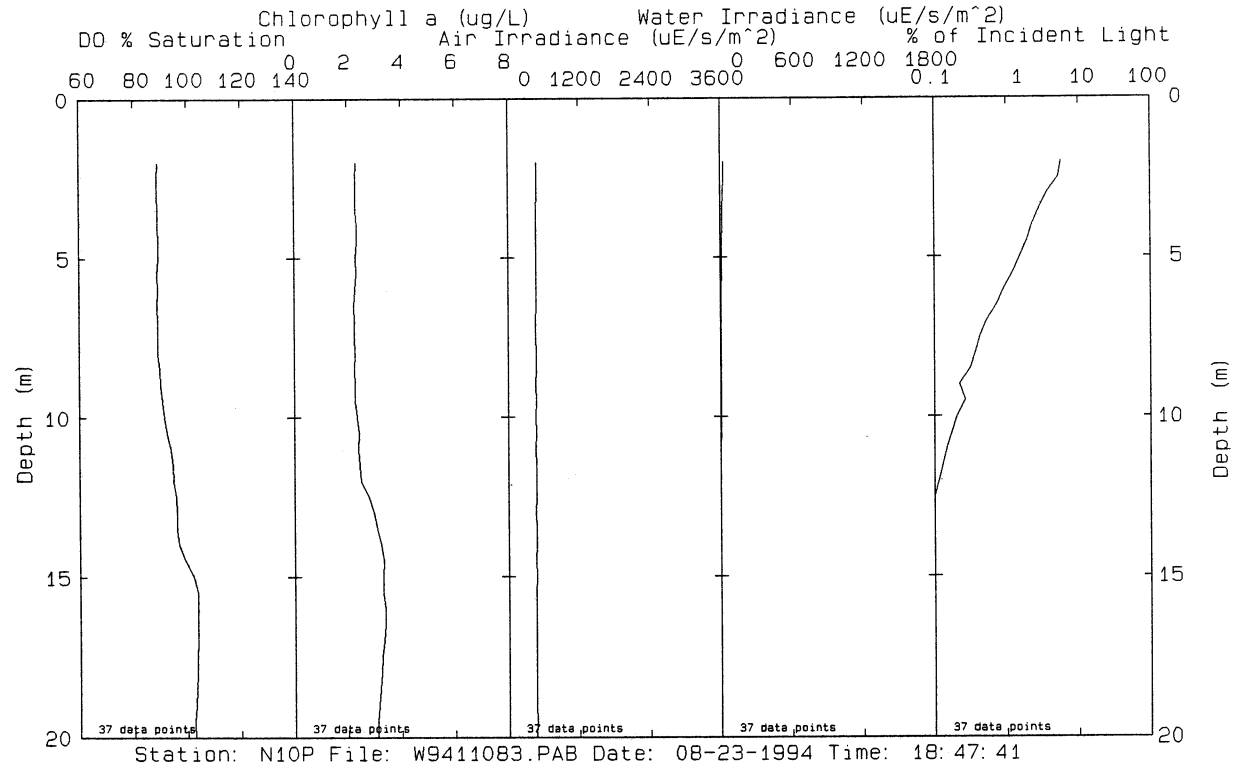

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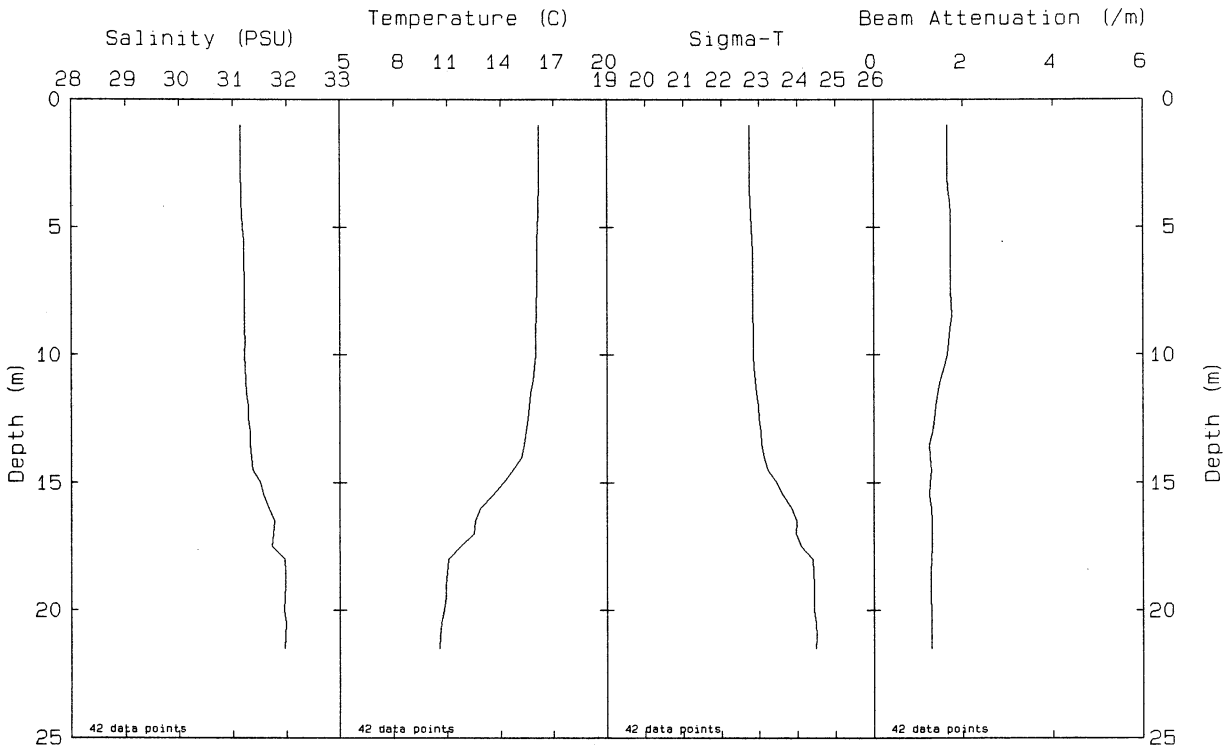
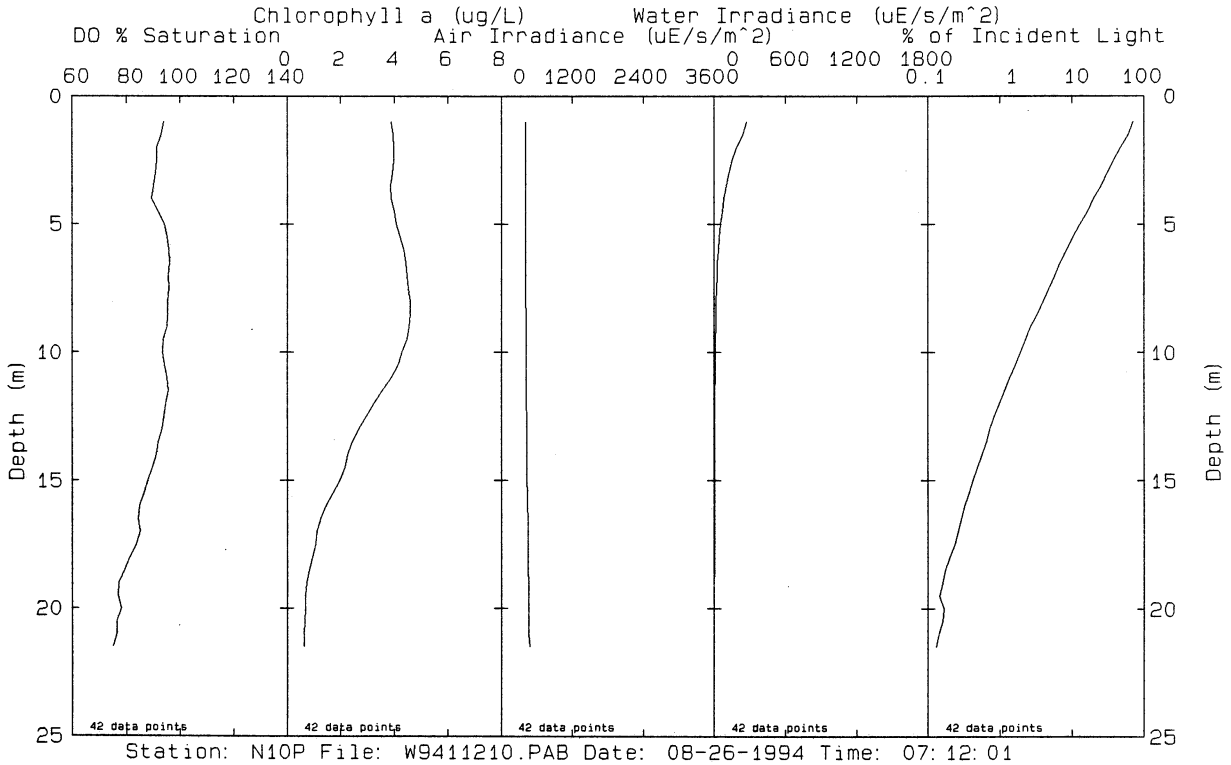
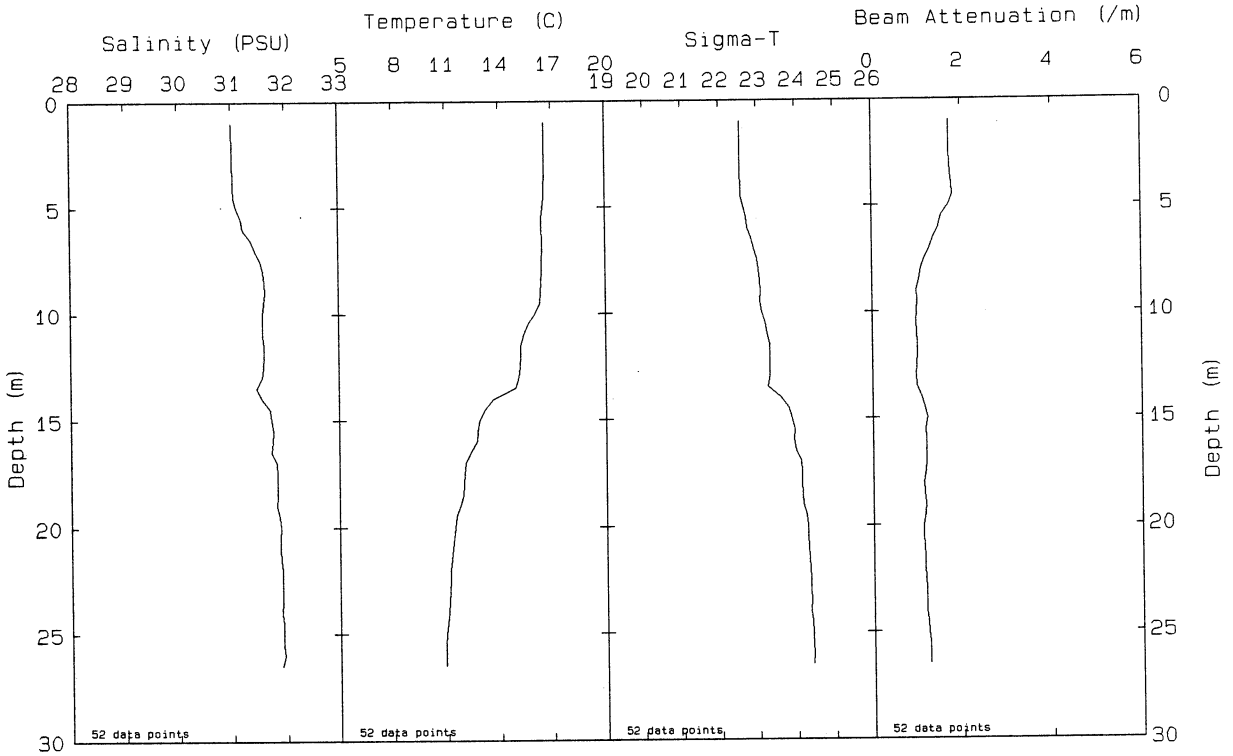
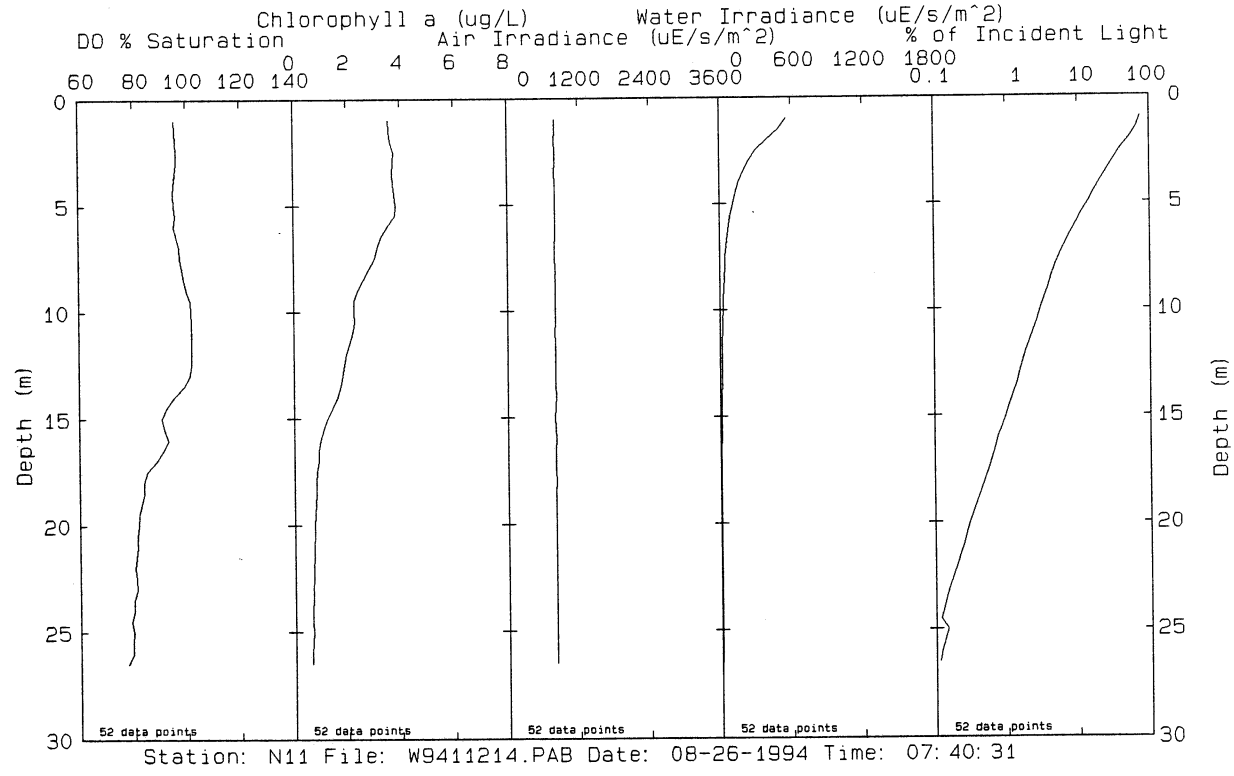




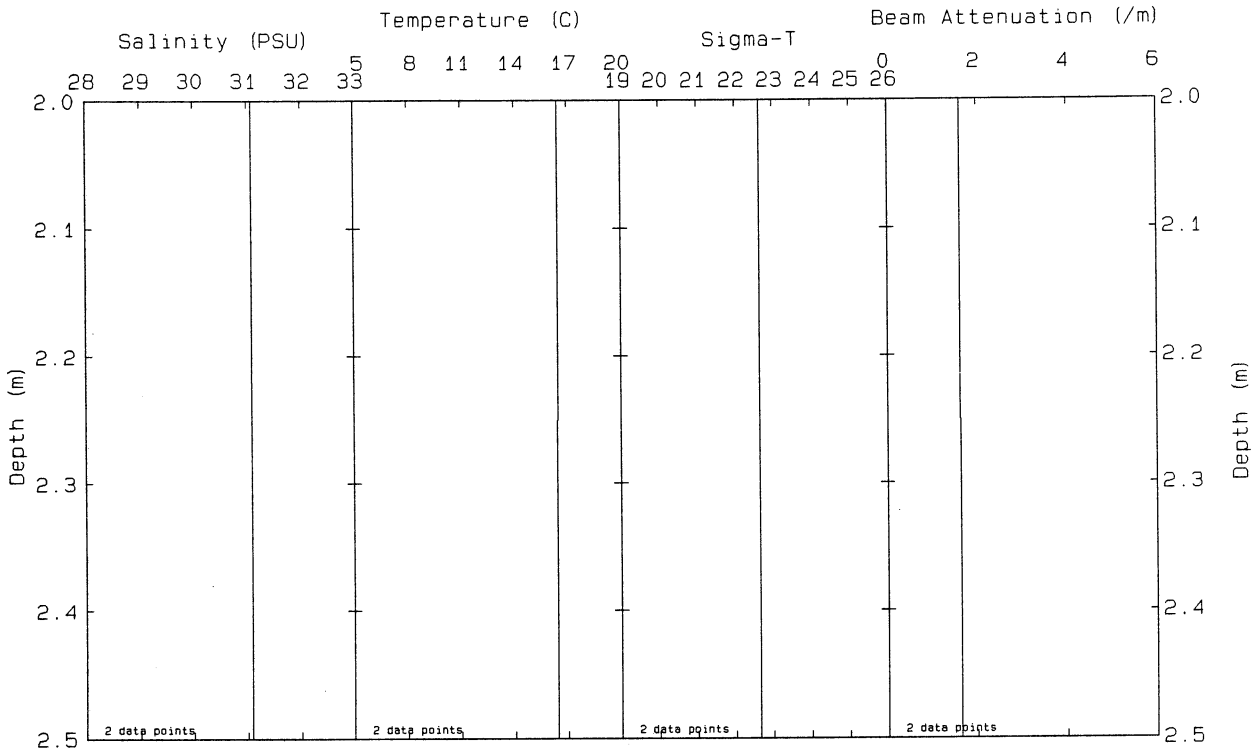
Station: N10P File: W9411210.PAB Date: 08-26-1994 Time: 07:12:01

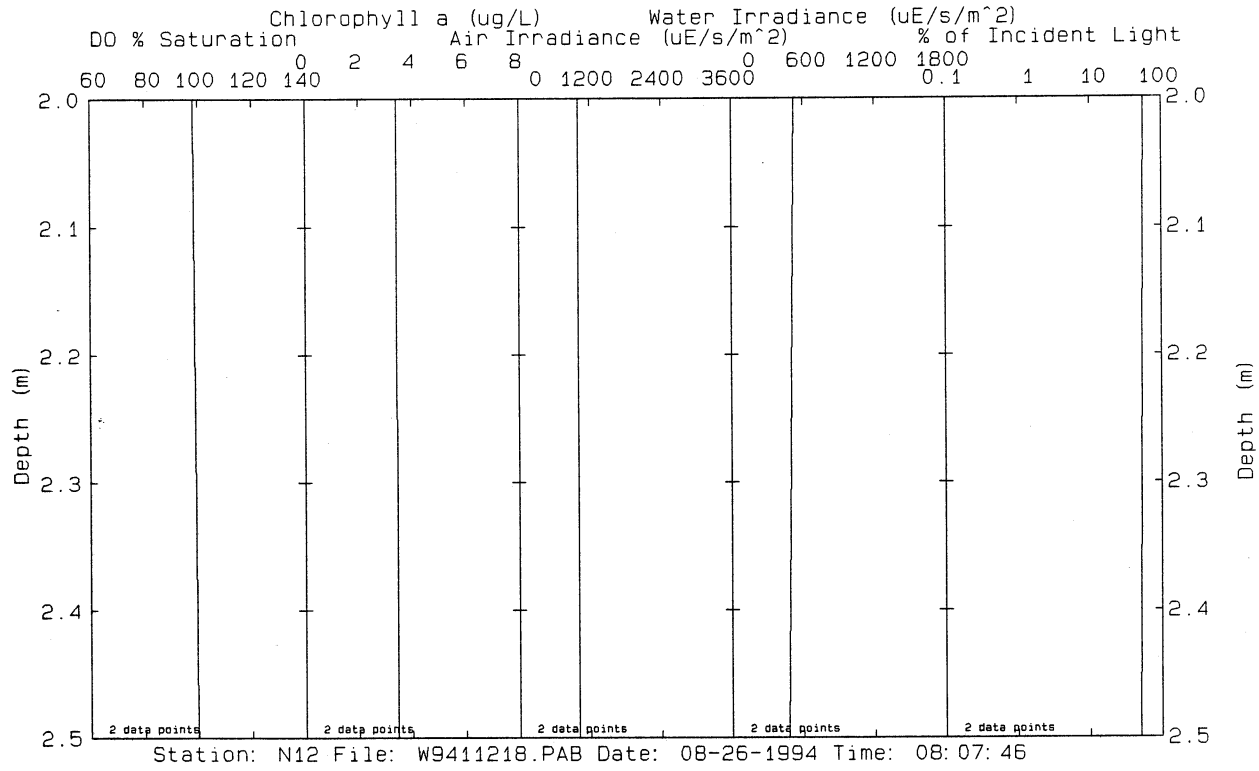
01-19-1995 09:15:44 Battelle



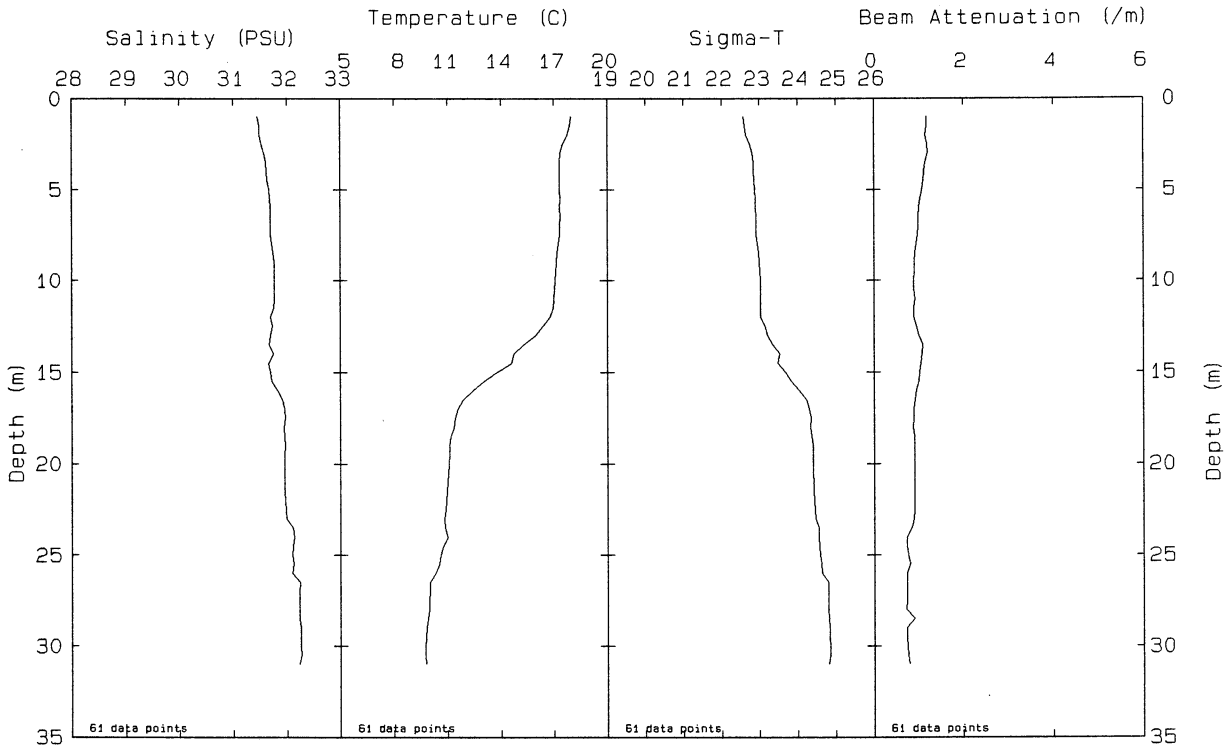


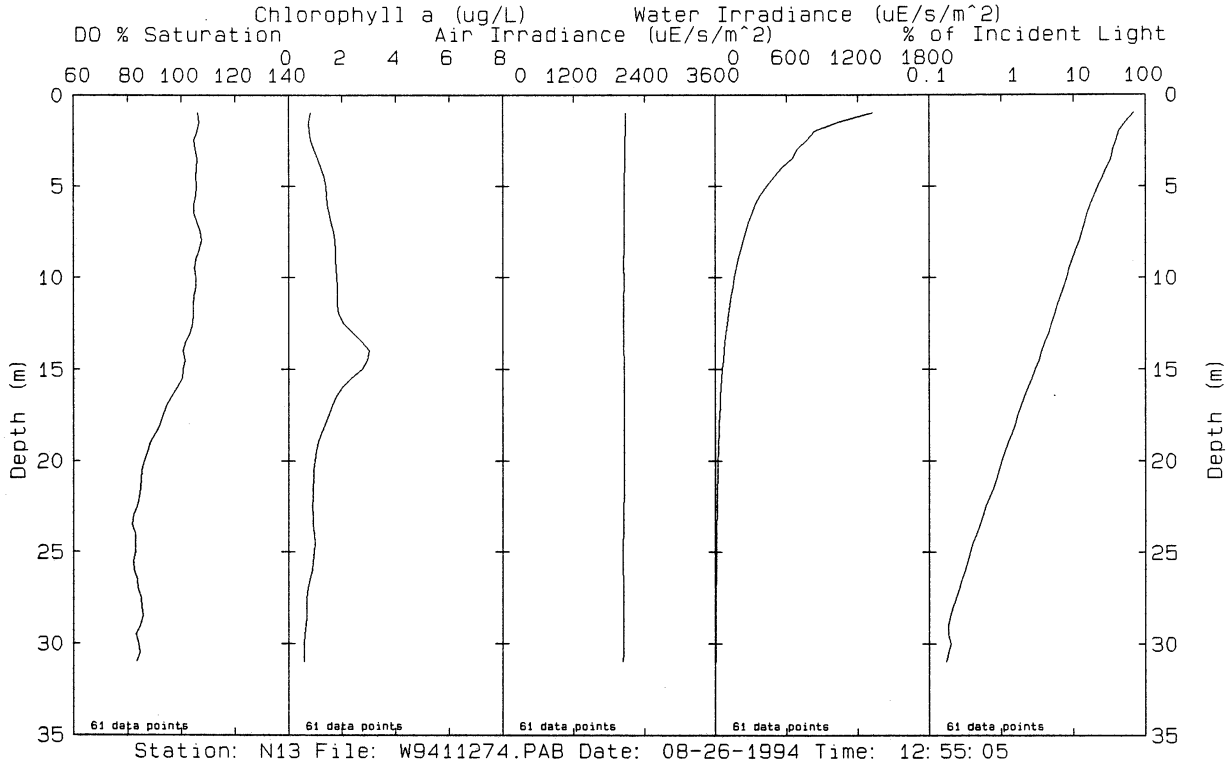
Station: N11 File: W9411214.PAB Date: 08-26-1994 Time: 07:40:31



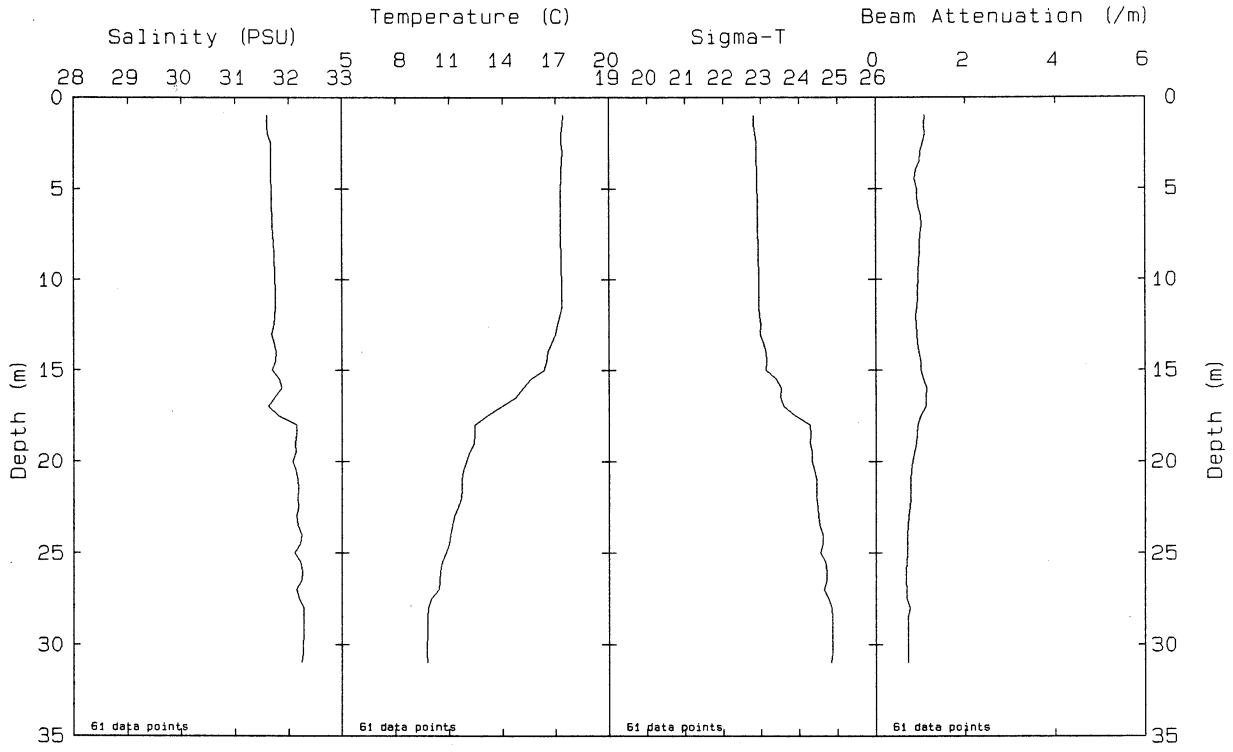


Station: N12 File: W9411218.PAB Date: 08-26-1994 Time: 08:07:46

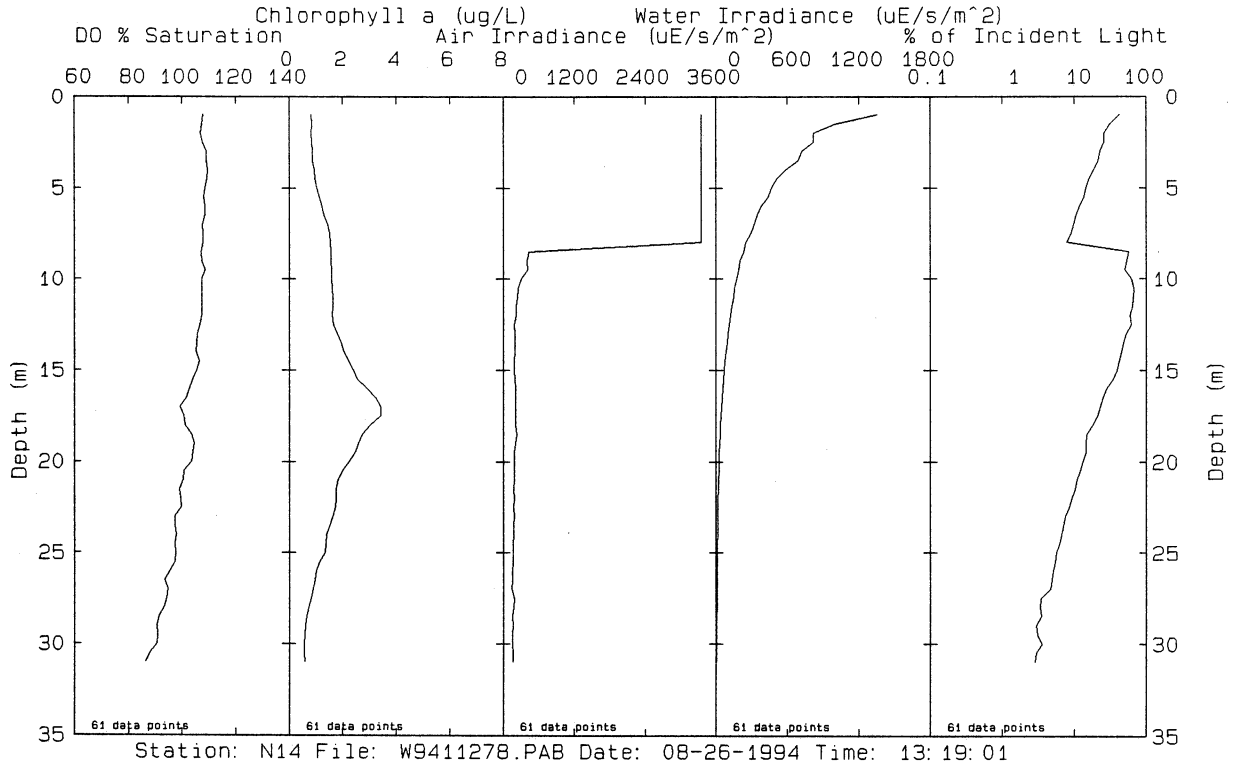




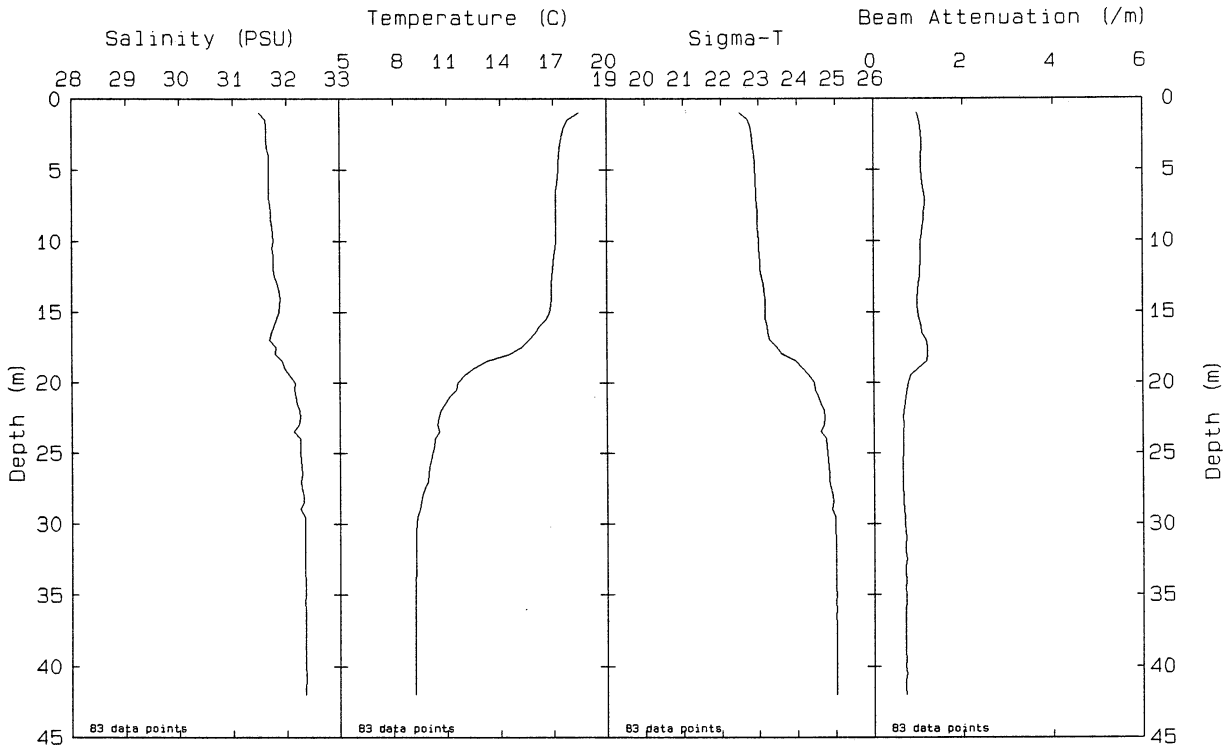
Station: N13 File: W9411274.PAB Date: 08-26-1994 Time: 12:55:05

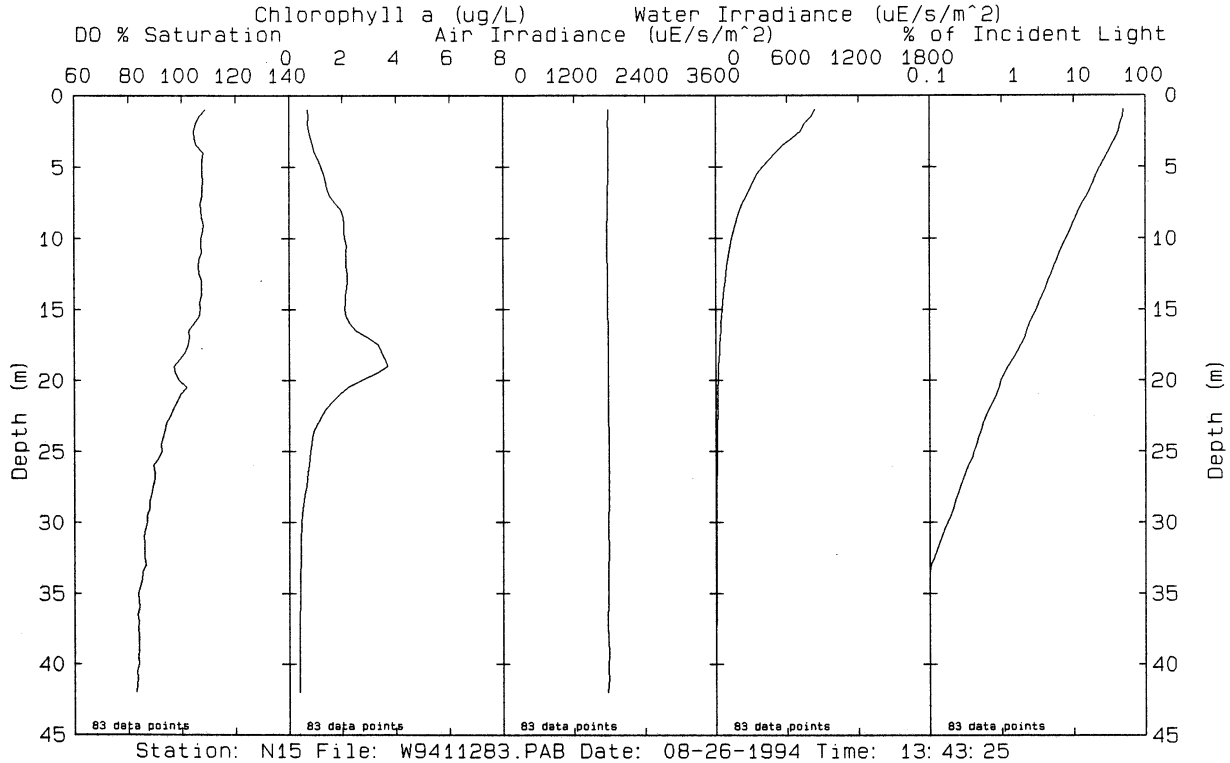


Questionable Air Irradiance

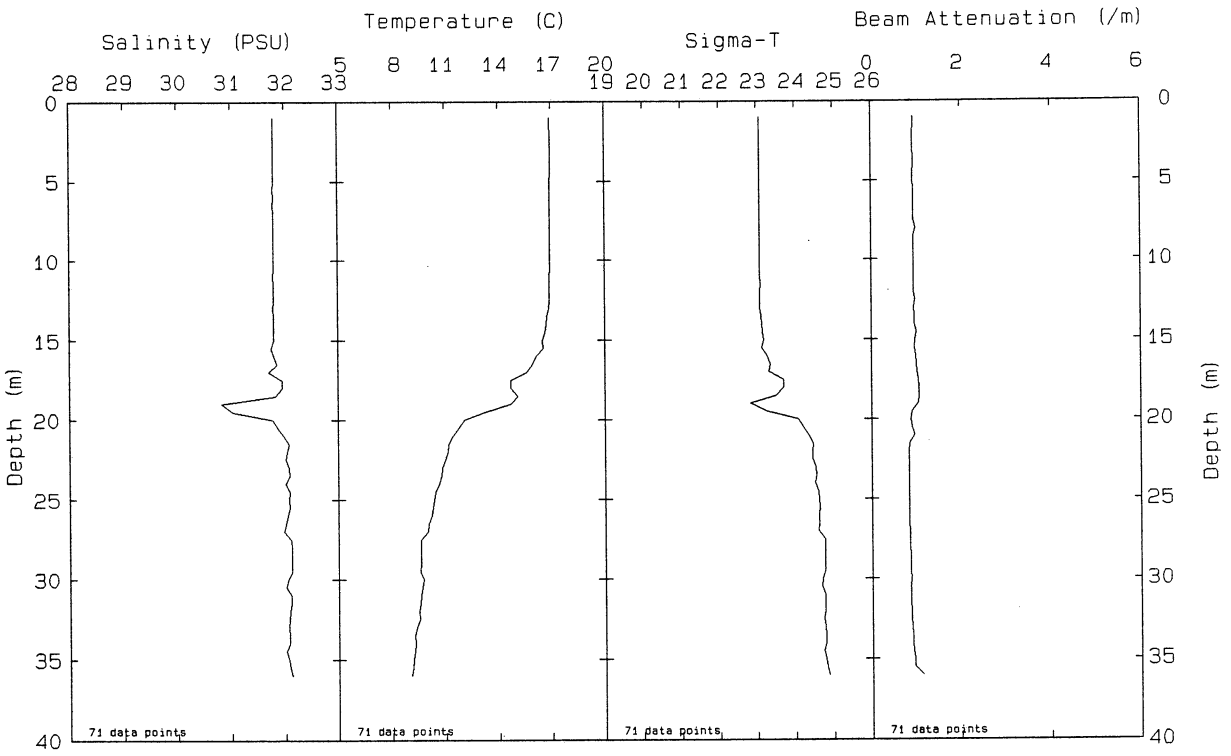


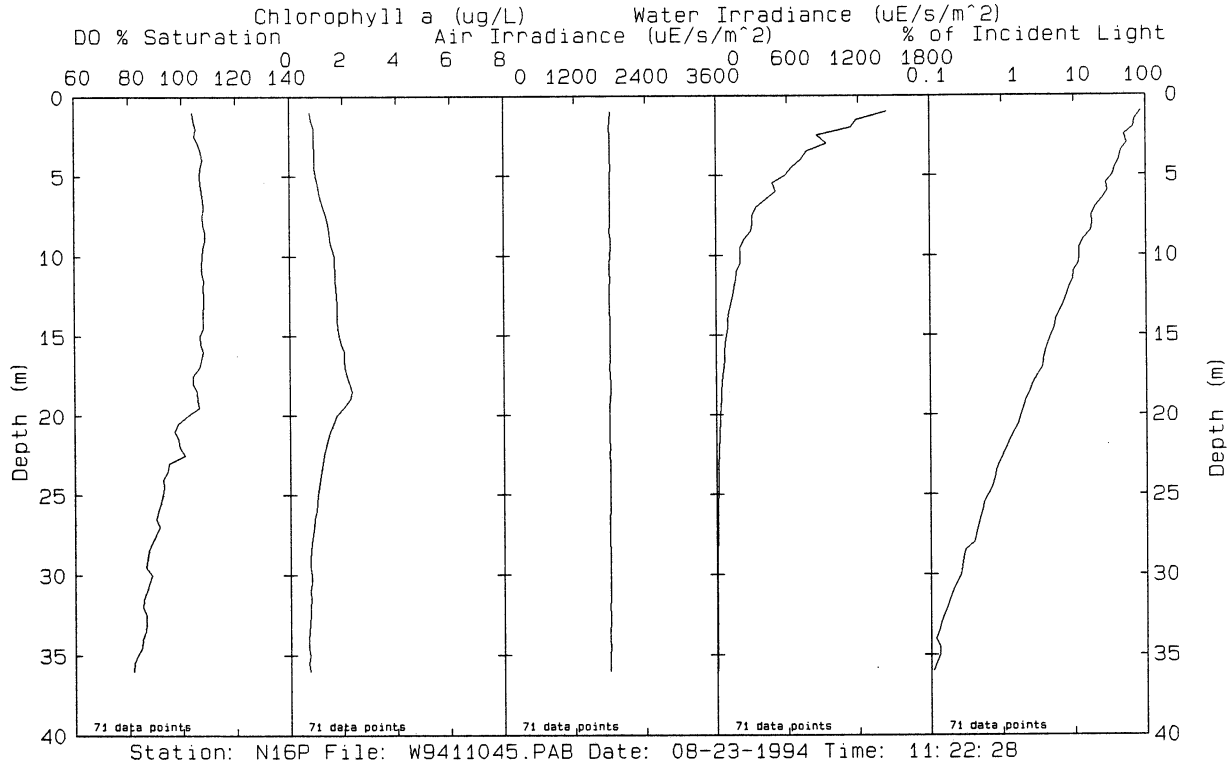
Station: N14 File: W9411278.PAB Date: 08-26-1994 Time: 13:19:01



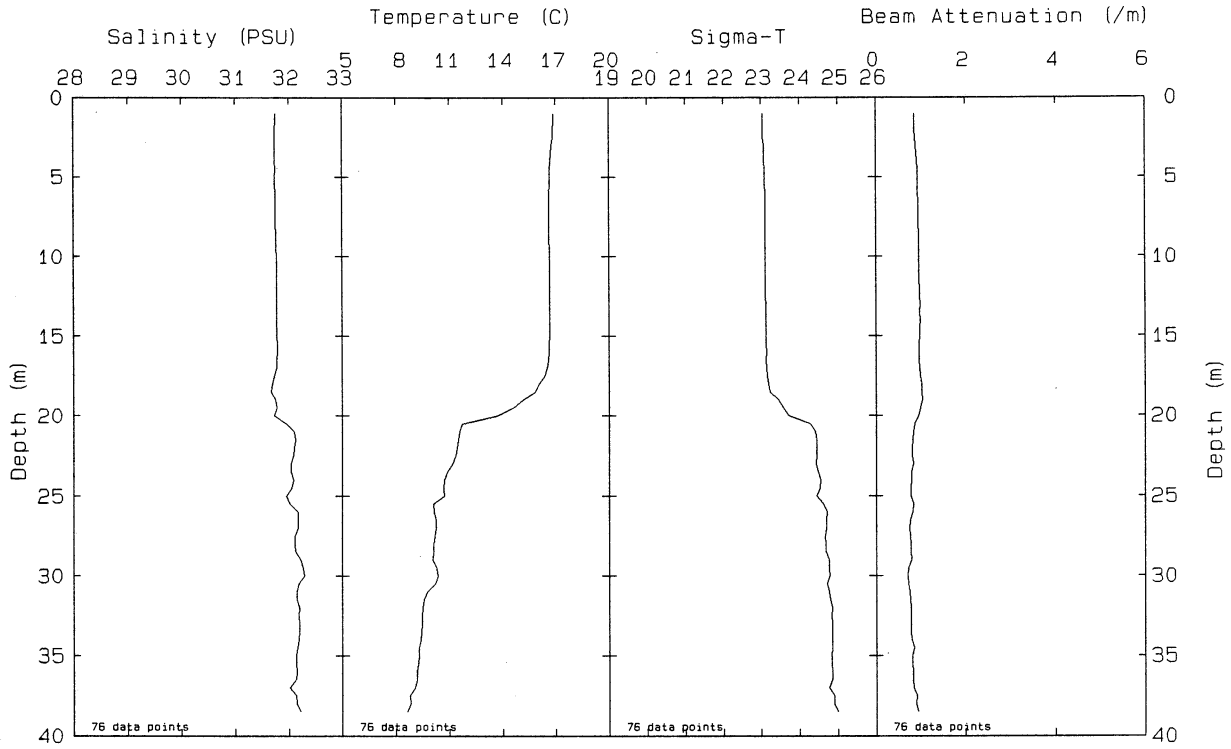


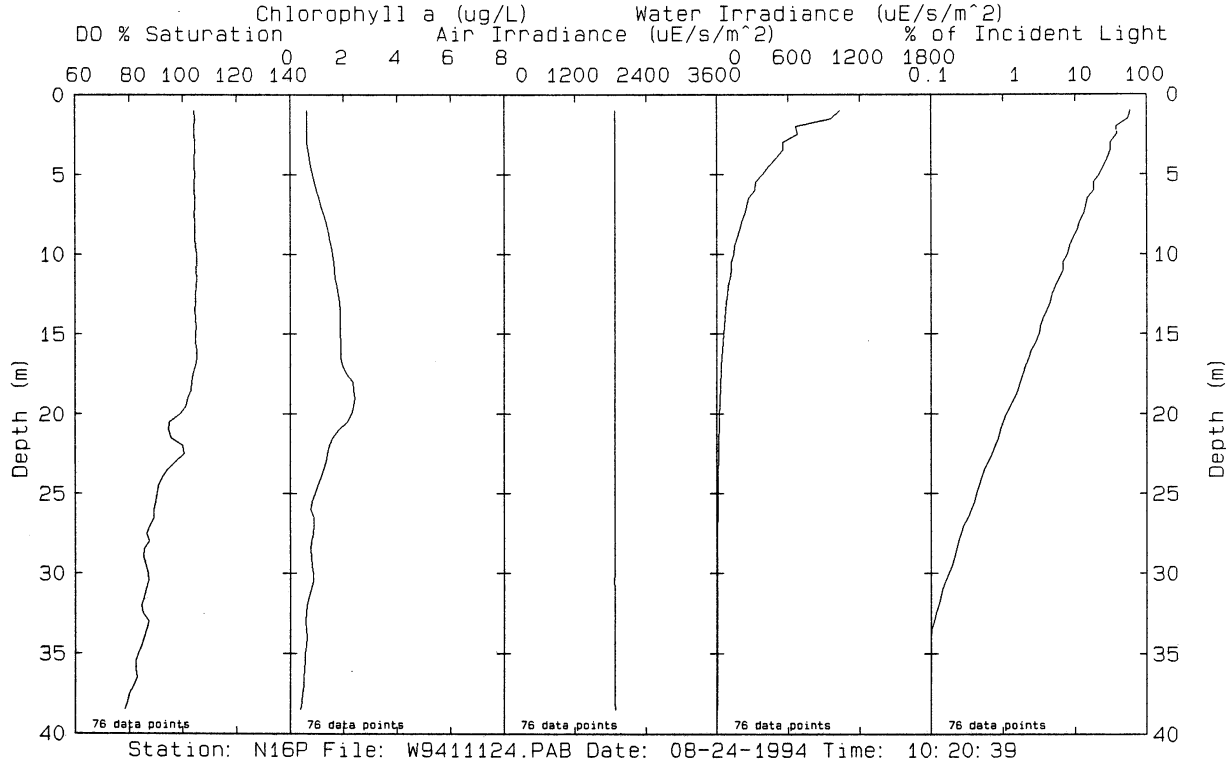
Station: N15 File: W9411283.PAB Date: 08-26-1994 Time: 13:43:25





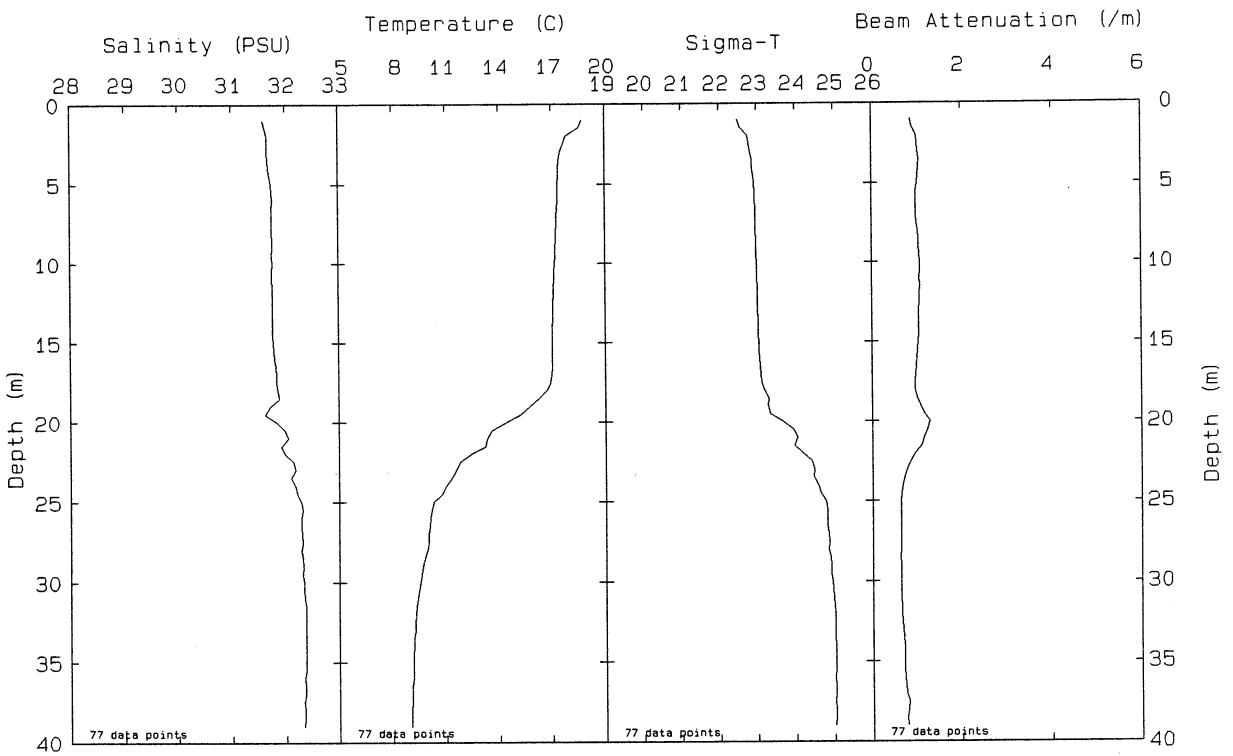
Station: N16P File: W9411045.PAB Date: 08-23-1994 Time: 11:22:28

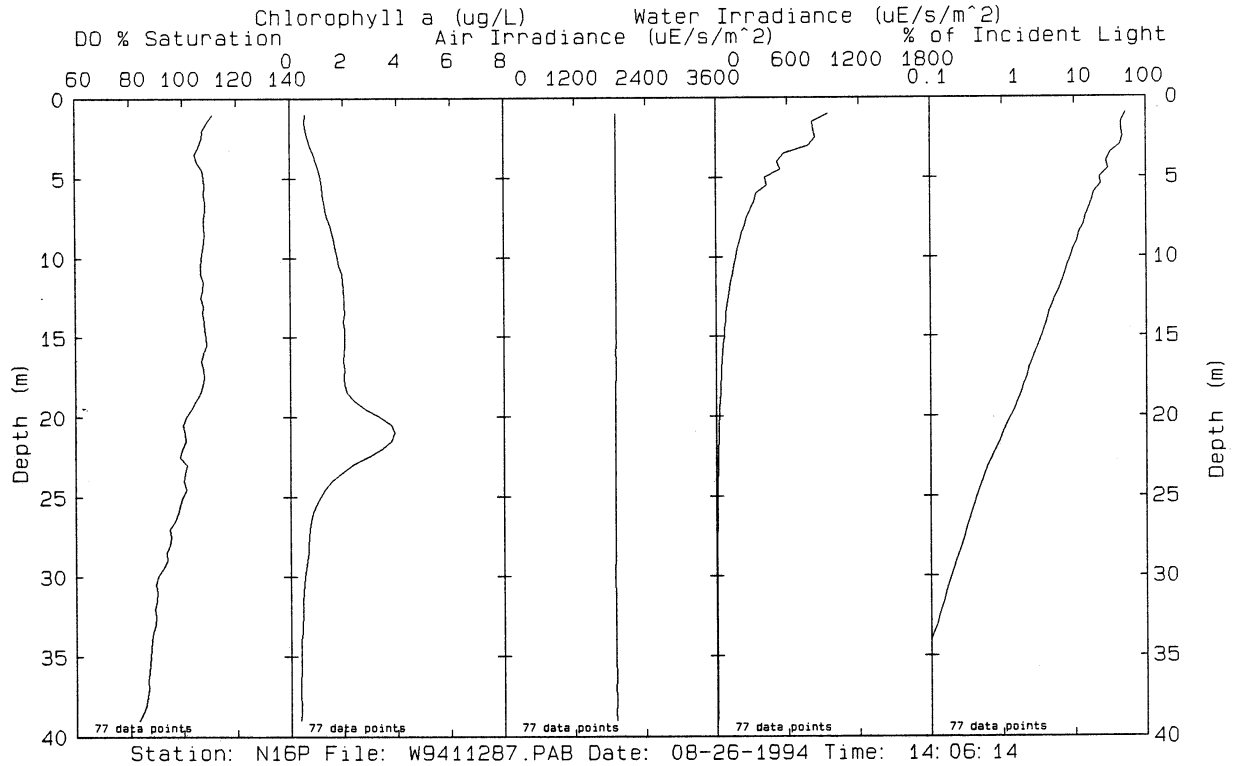




Station: N16P File: W9411124.PAB Date: 08-24-1994 Time: 10:20:39

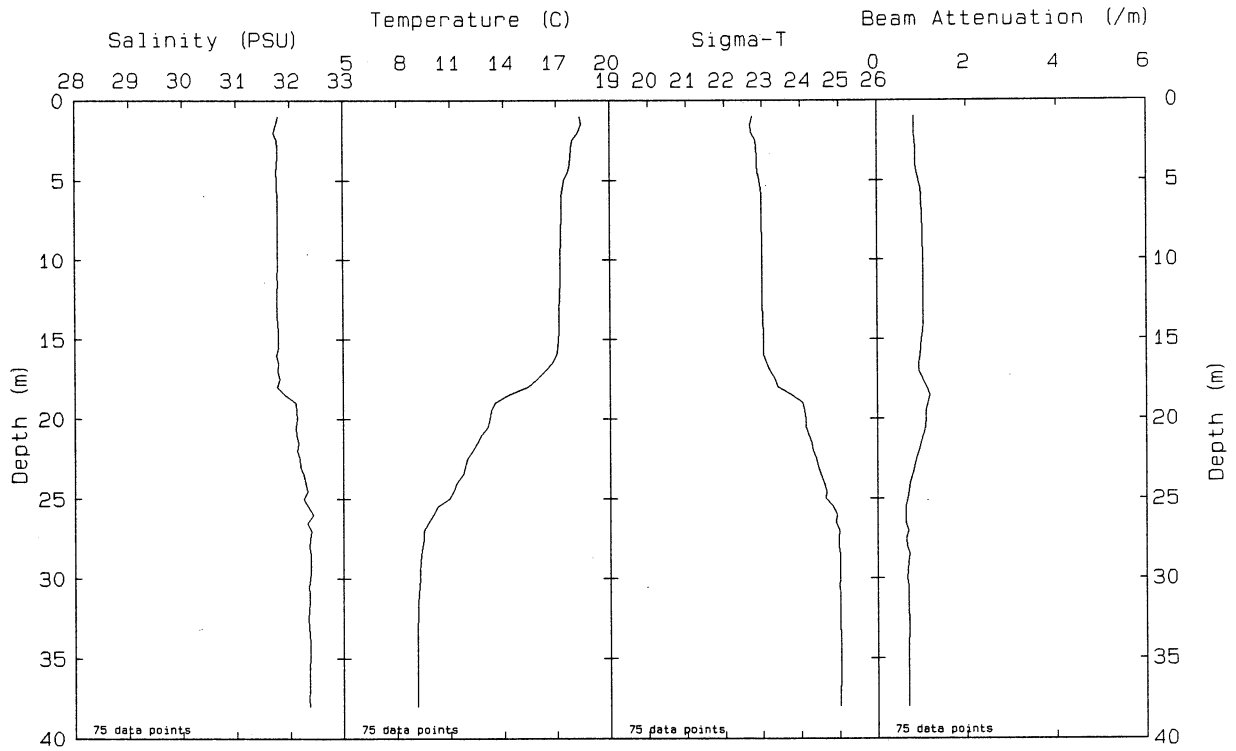
01-19-1995 09:15:51 Battelle

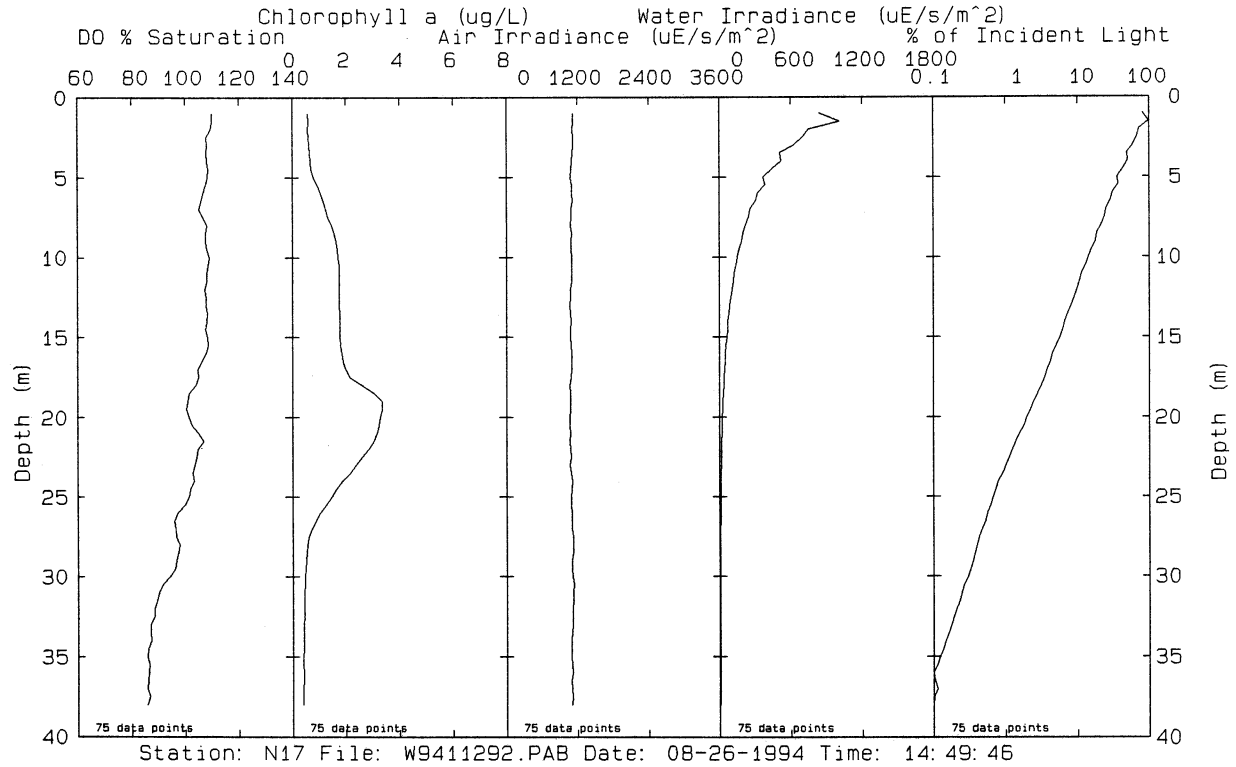




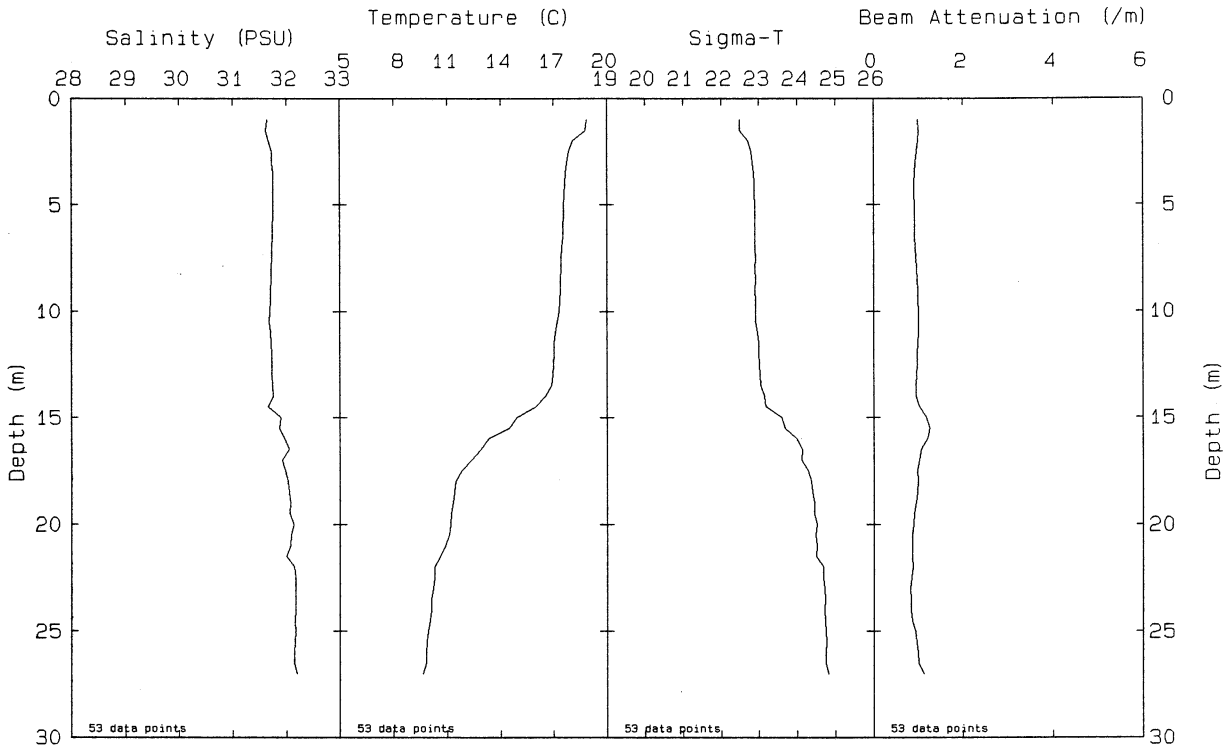
Station: N16P File: W9411287.PAB Date: 08-26-1994 Time: 14:06:14

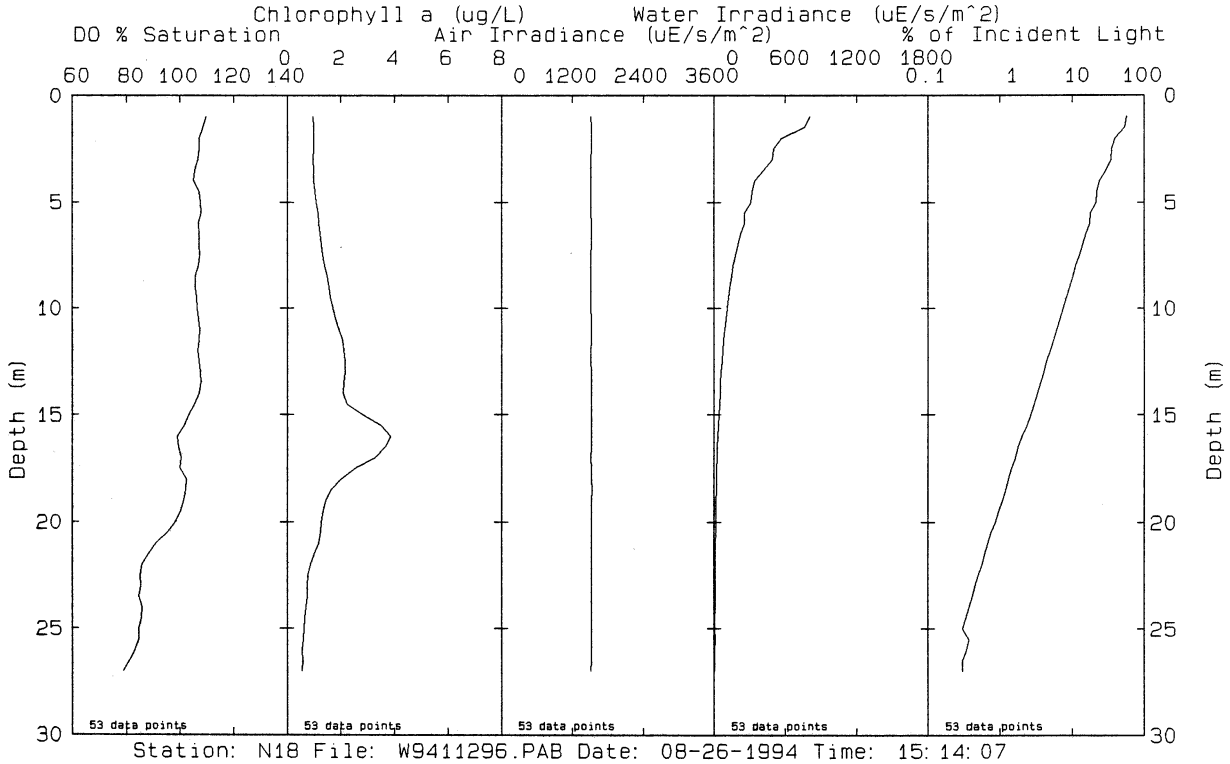
01-19-1995 09:17:34 Battelle





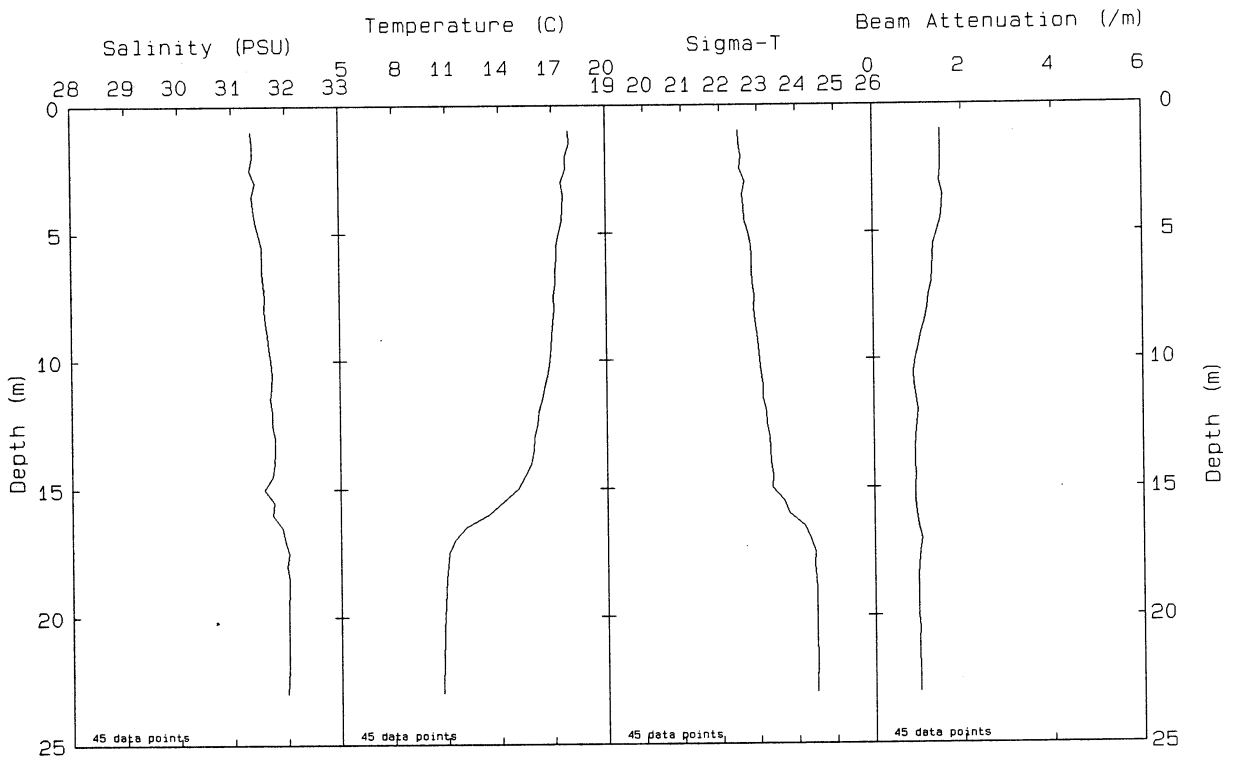
Station: N17 File: W9411292.PAB Date: 08-26-1994 Time: 14:49:46

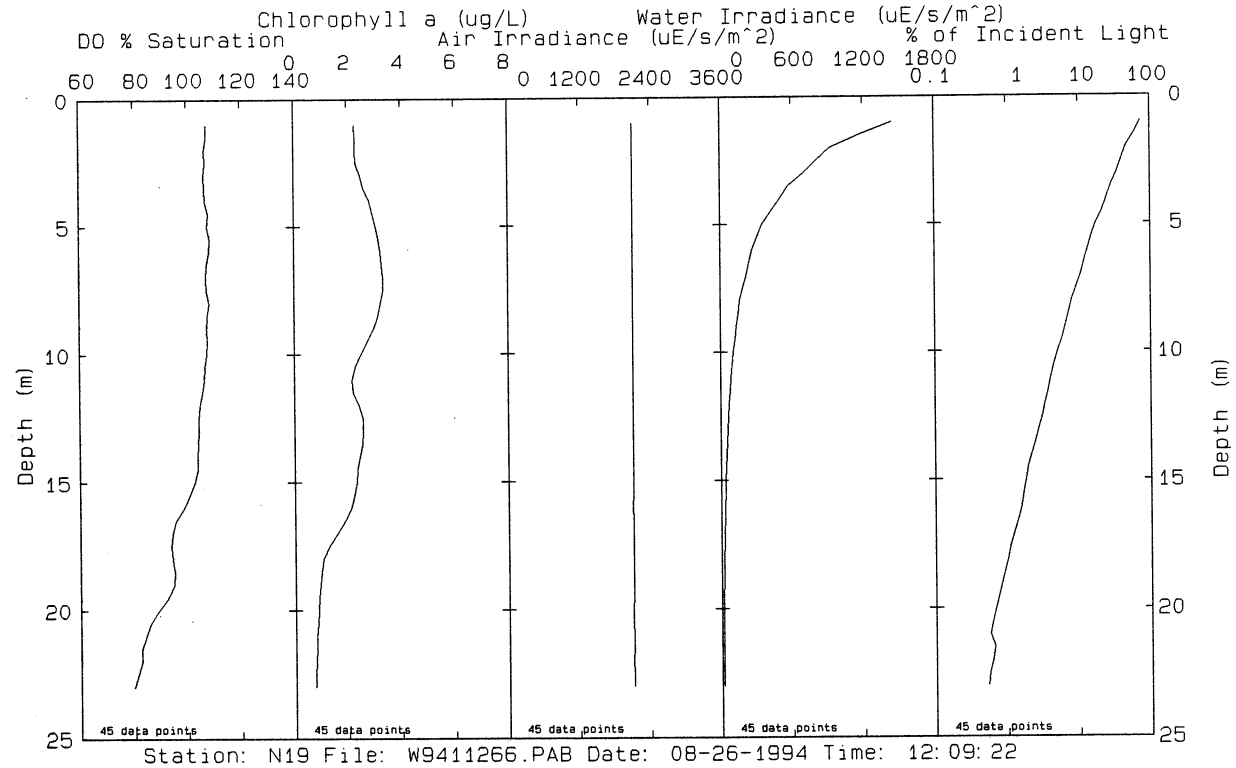


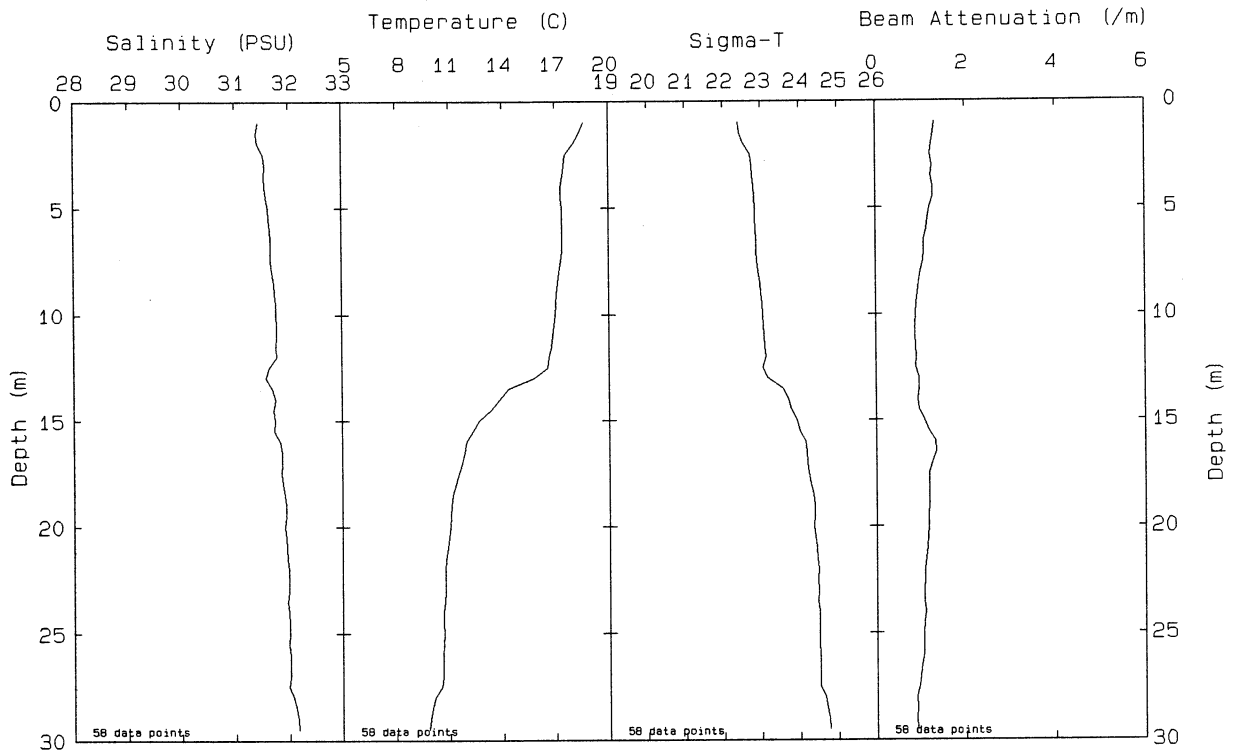


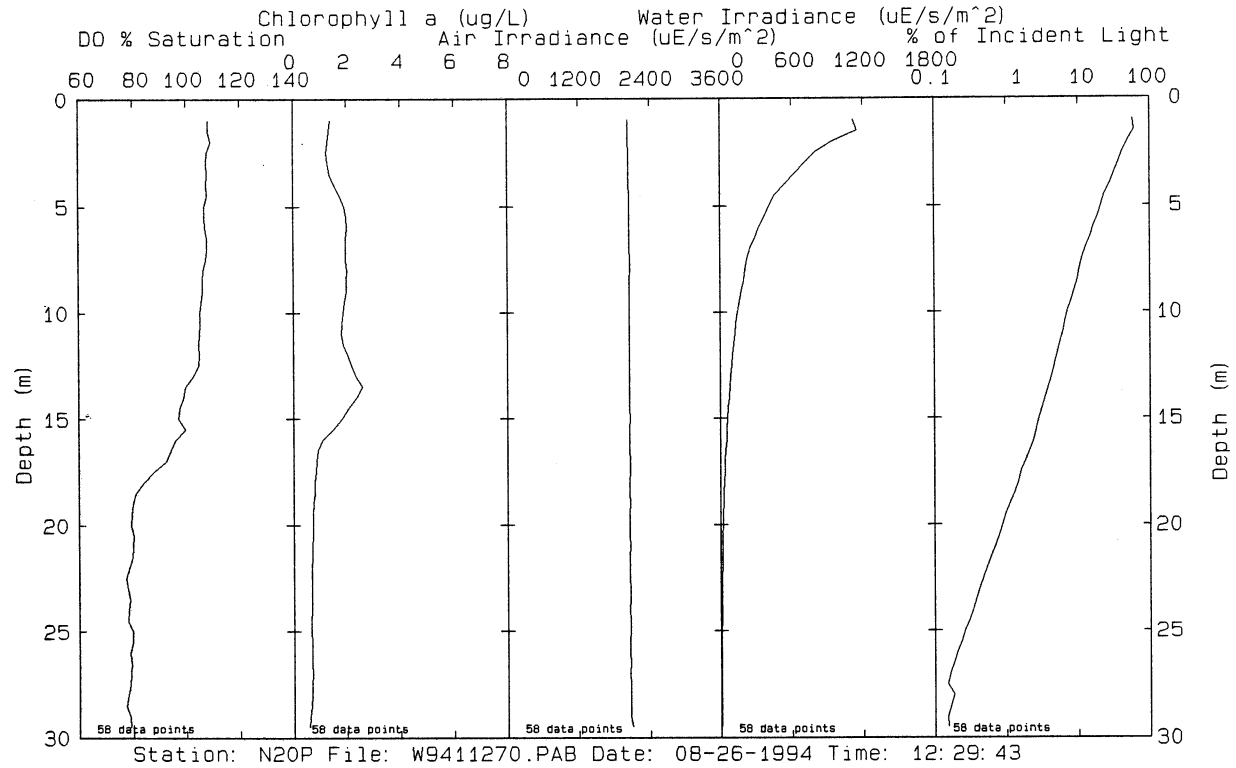
Station: N18 File: W9411296.PAB Date: 08-26-1994 Time: 15:14:07

01-19-1995 09:17:39 Battelle

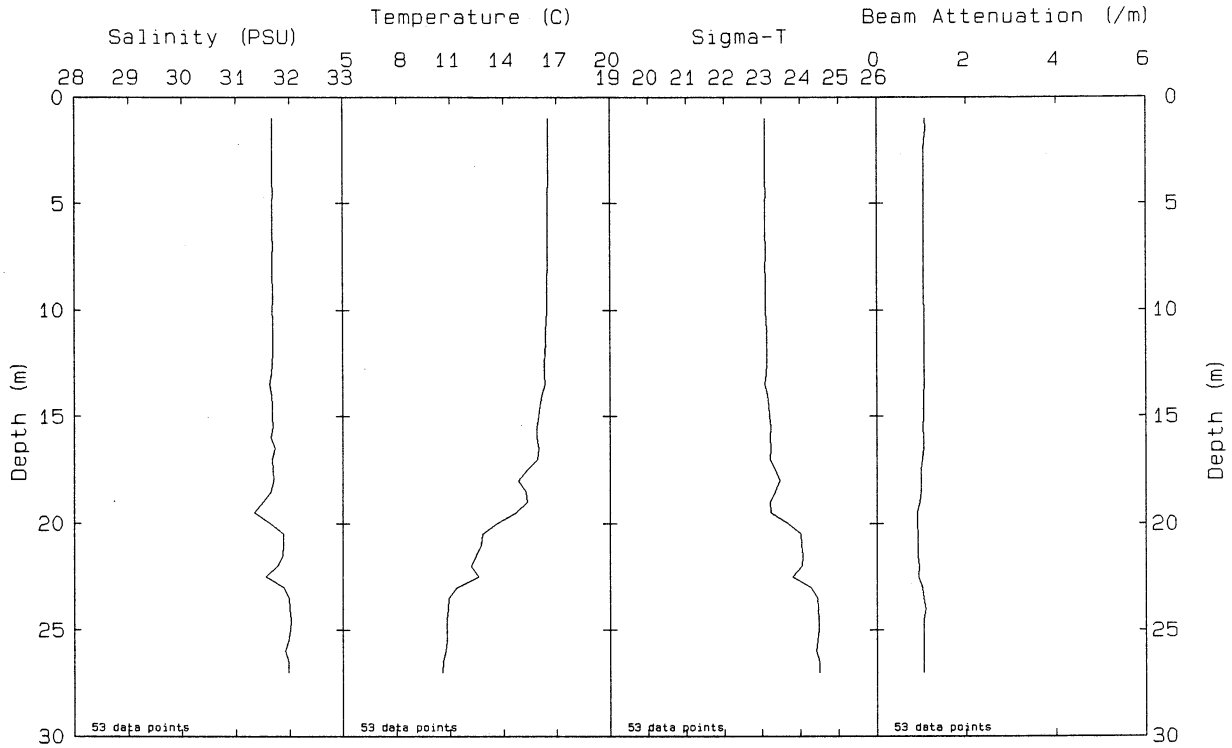

Salinity (PSU)
28 29 30 31 32 33
Temperature (C)
5 8 11 14 17 20
Sigma-T
19 20 21 22 23 24 25 26
Beam Attenuation (/m)
0 2 4 6
Depth (m)
0 5 10 15 20 25
45 data points
45 data points
45 data points
45 data points

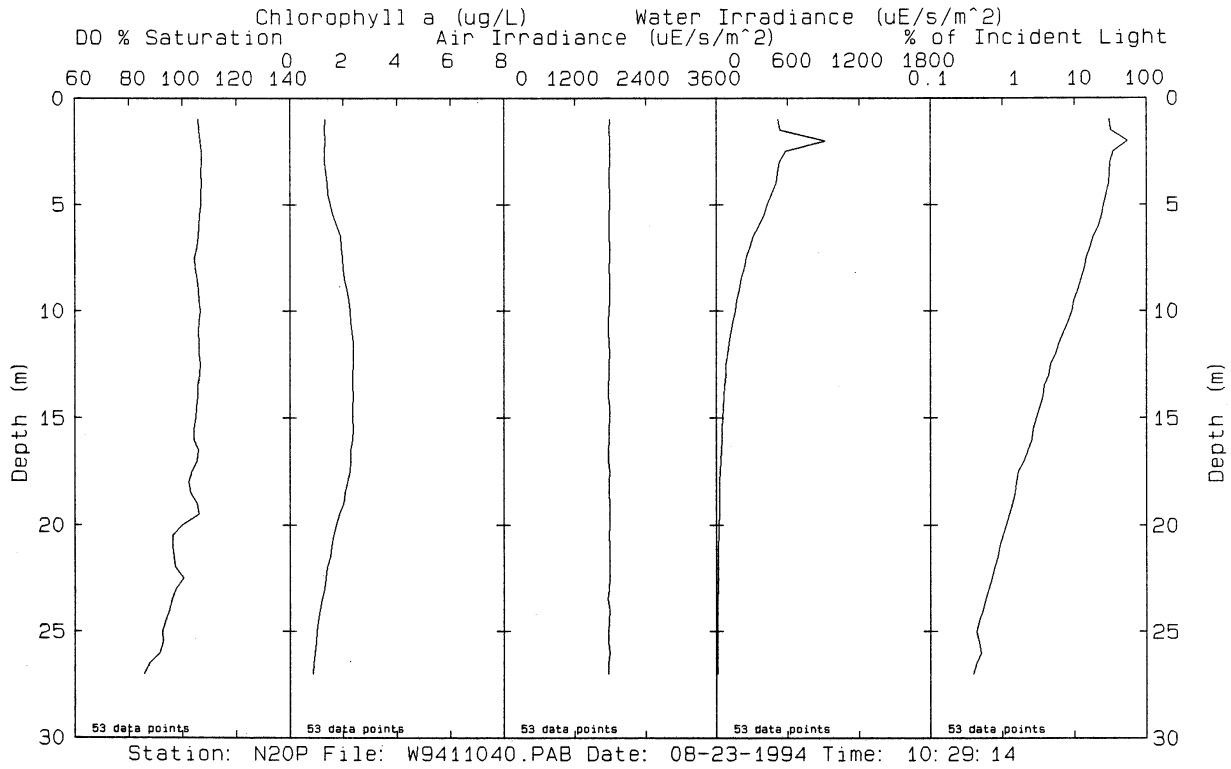

DO % Saturation
60 80 100 120 140
Chlorophyll a (ug/L)
0 2 4 6 8
Air Irradiance (uE/s/m^2)
0 1200 2400 3600
Water Irradiance (uE/s/m^2)
0 600 1200 1800
% of Incident Light
0.1 1 10 100
Depth (m)
0 5 10 15 20 25
45 data points
45 data points
45 data points
45 data points
45 data points
Station: N19 File: W9411266.PAB Date: 08-26-1994 Time: 12:09:22



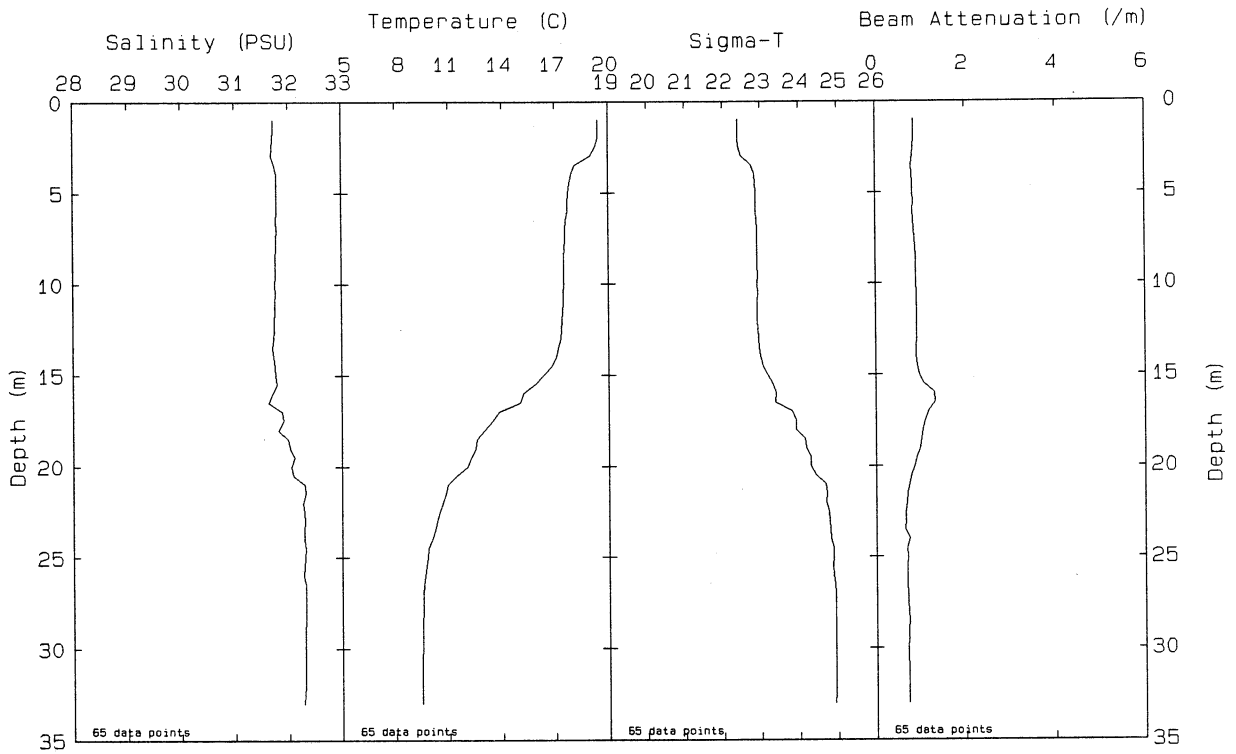


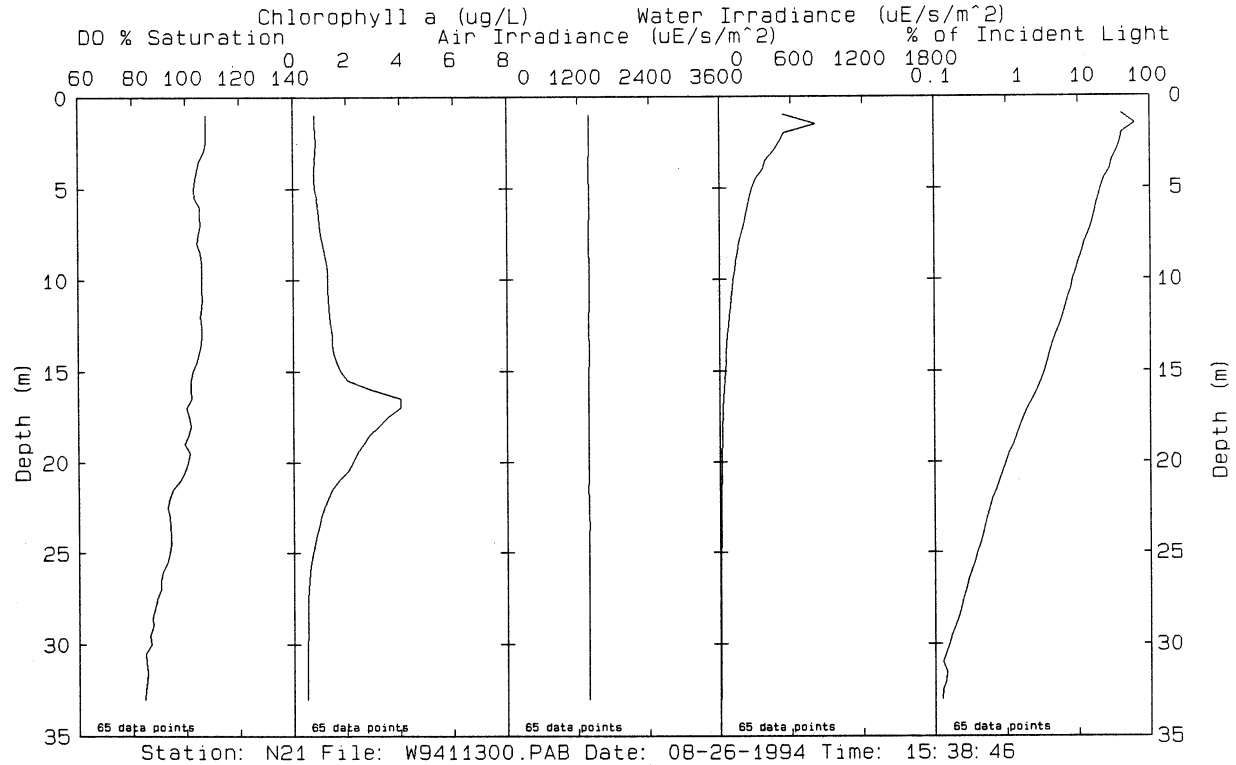
Station: N20P File: W9411270.PAB Date: 08-26-1994 Time: 12:29:43





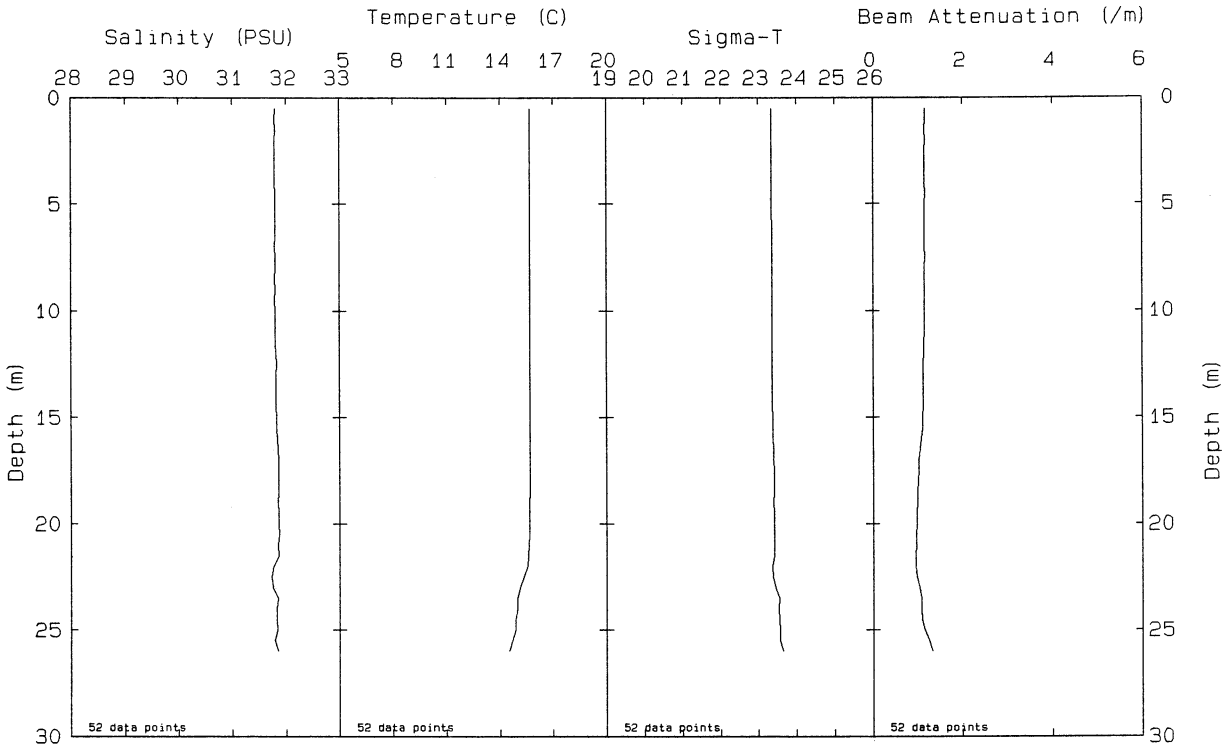
Station: N20P File: W9411040.PAB Date: 08-23-1994 Time: 10:29:14

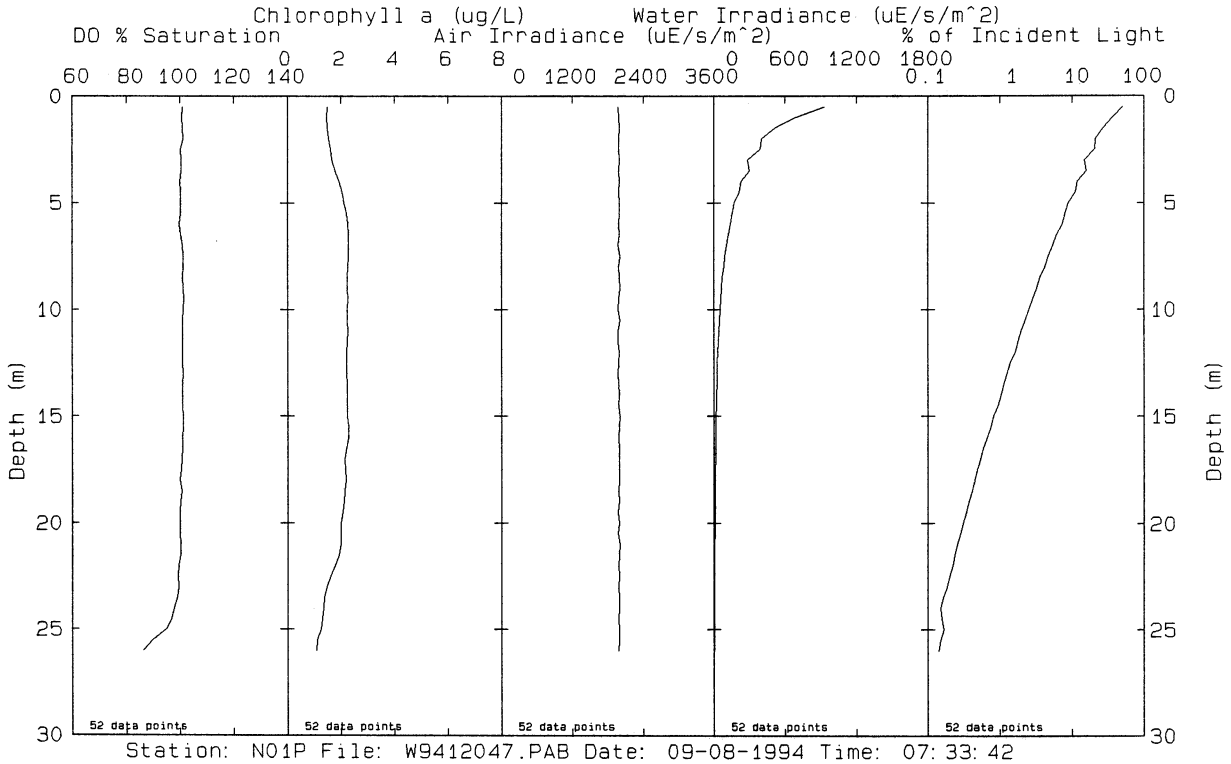




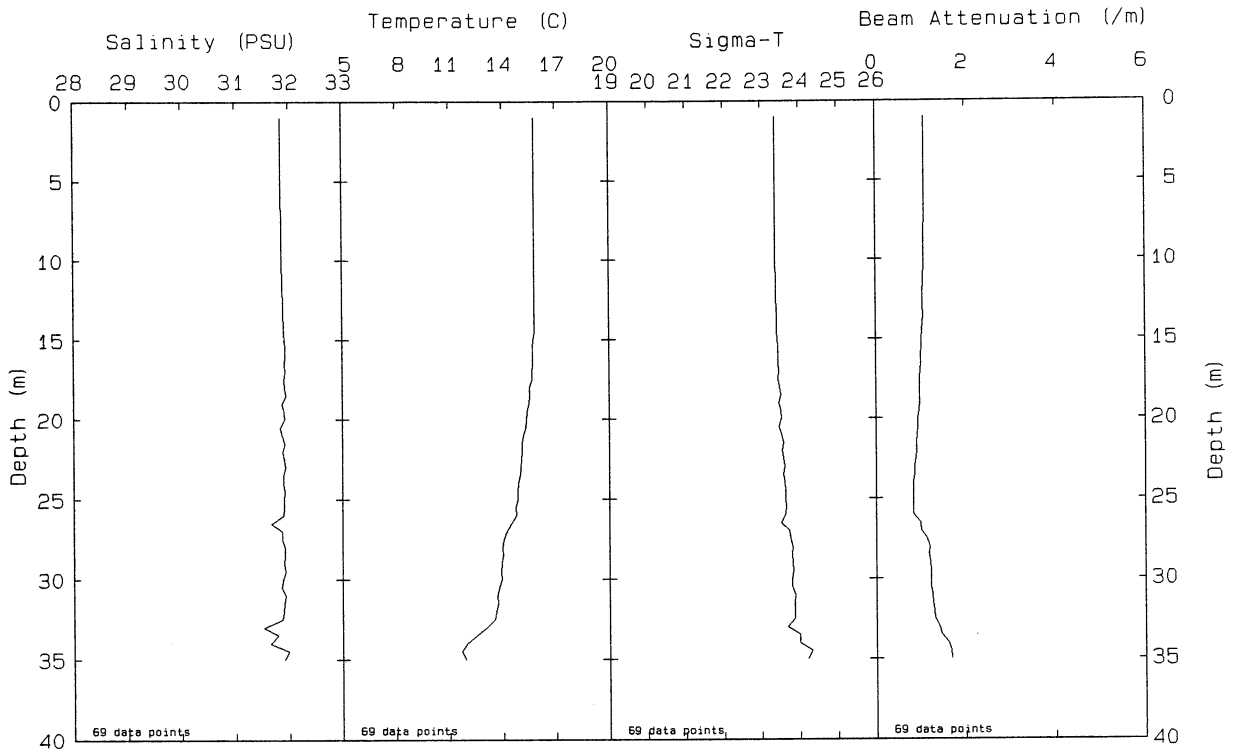
Station: N21 File: W9411300.PAB Date: 08-26-1994 Time: 15:38:46

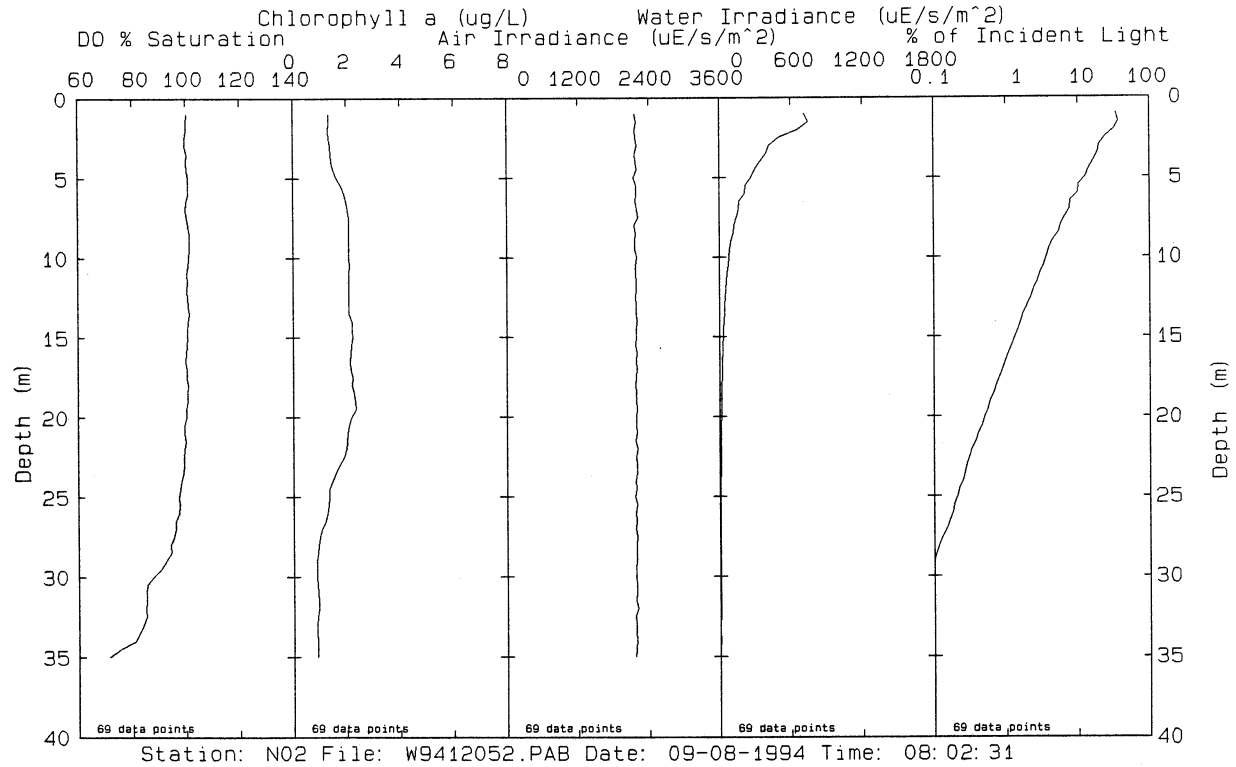
Early September 1994 Profiles



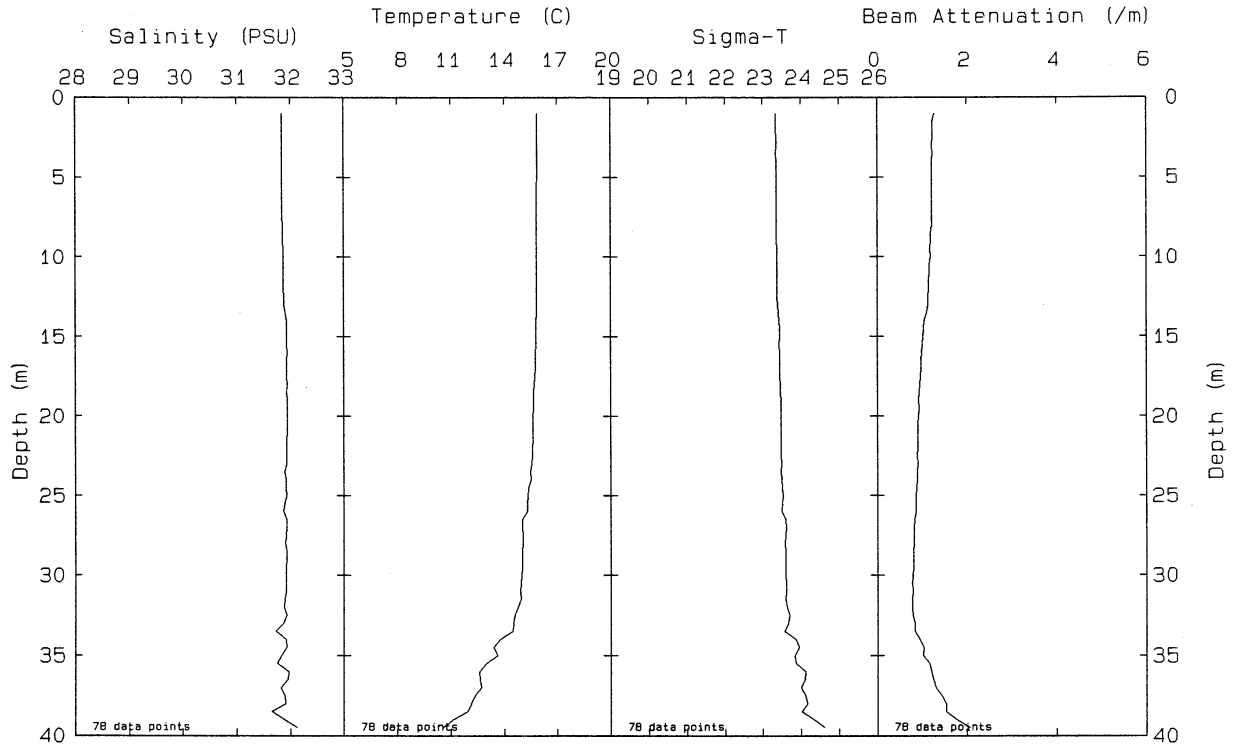


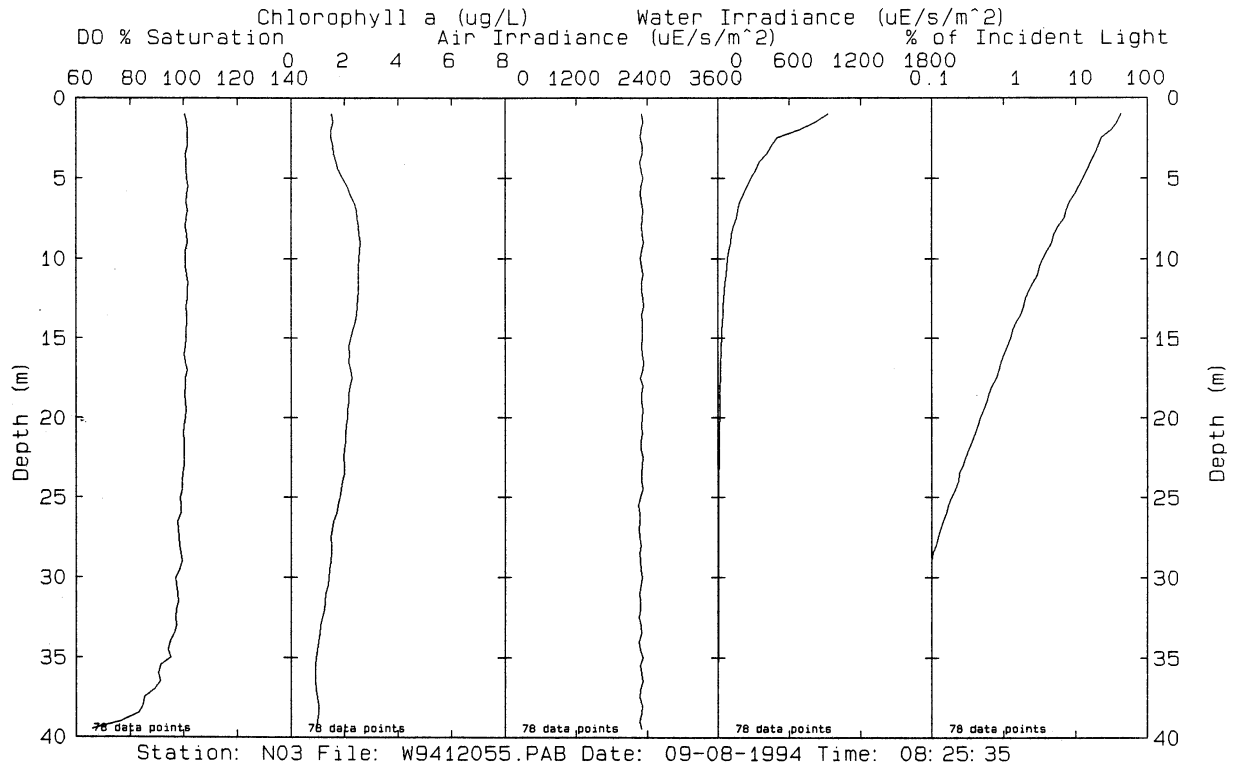
Station: N01P File: W9412047.PAB Date: 09-08-1994 Time: 07:33:42

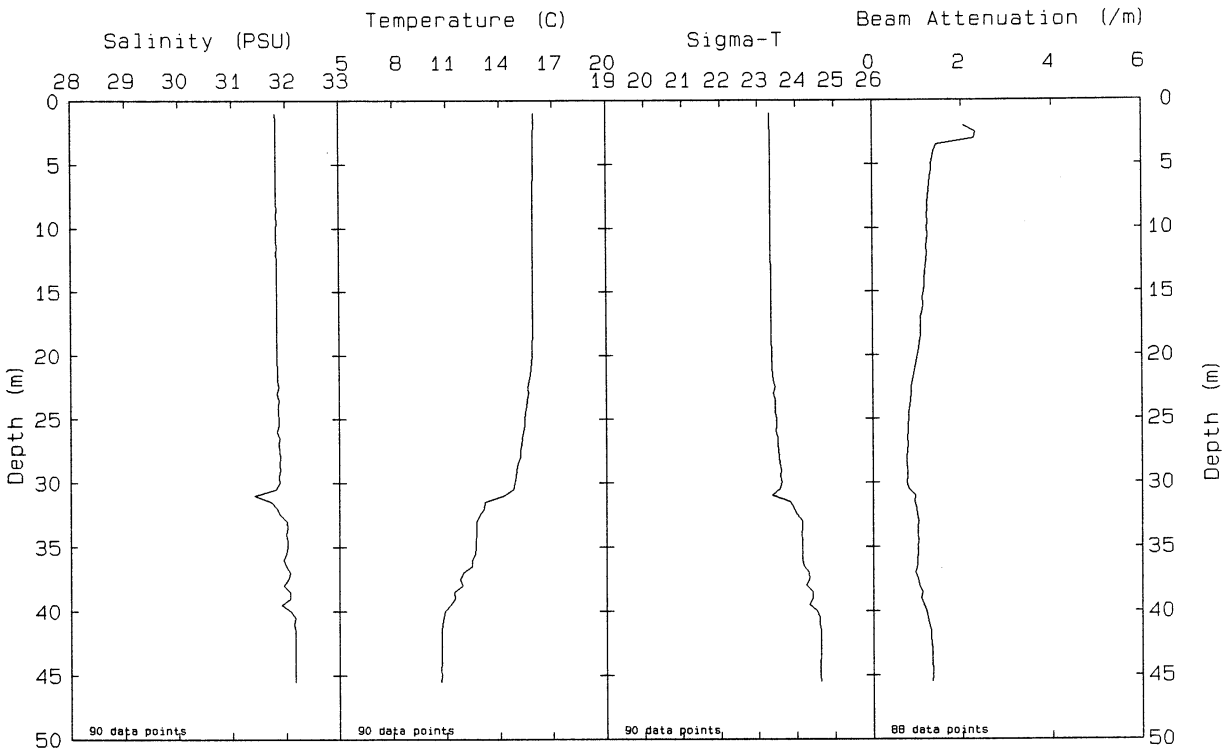


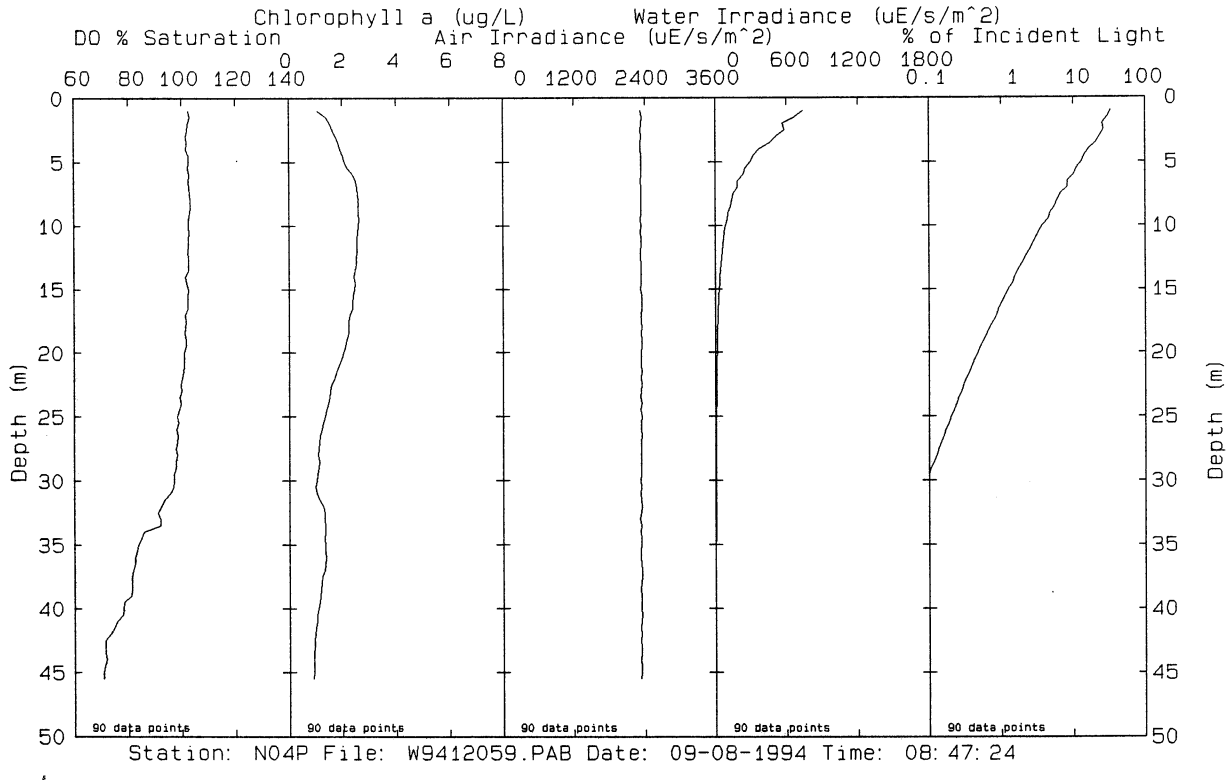


Station: N02 File: W9412052.PAB Date: 09-08-1994 Time: 08:02:31

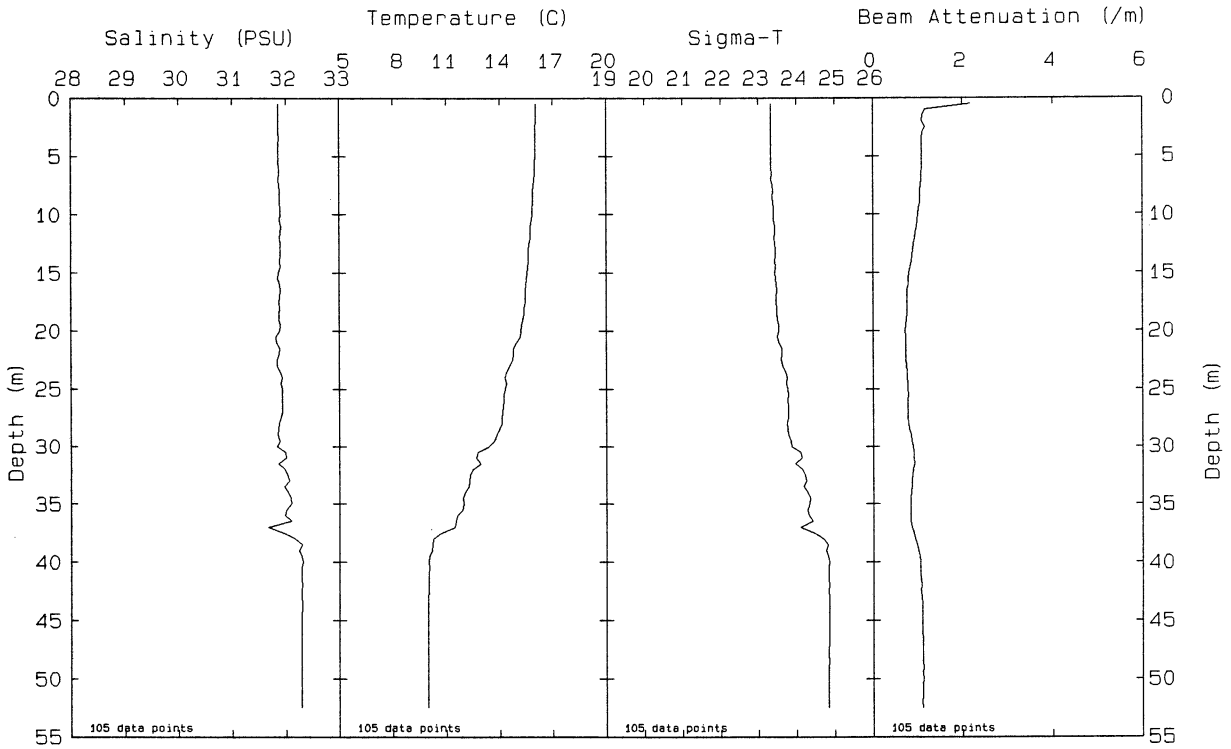

Salinity (PSU)
28 29 30 31 32 33
Temperature (C)
5 8 11 14 17 20
Sigma-T
19 20 21 22 23 24 25 26
Beam Attenuation (/m)
0 2 4 6
Depth (m)
0 5 10 15 20 25 30 35 40
78 data points

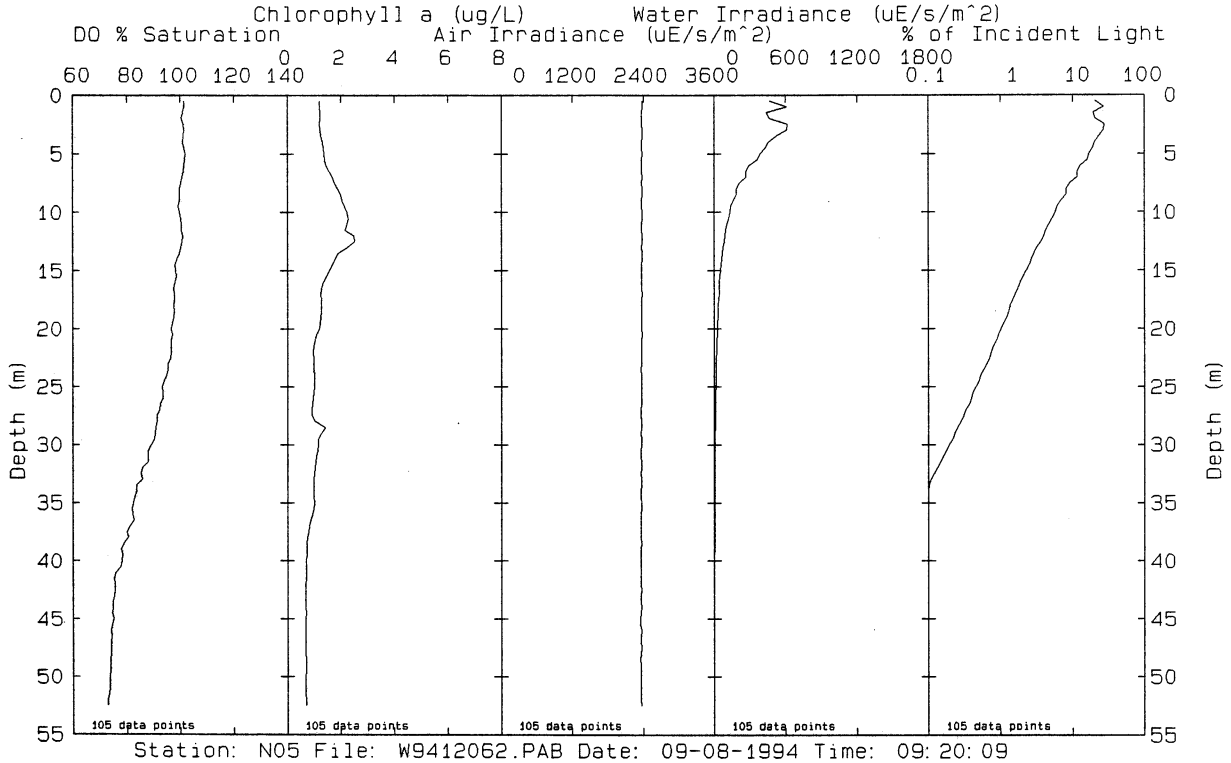

DO % Saturation
60 80 100 120 140
Chlorophyll a (ug/L)
0 2 4 6 8
Air Irradiance (uE/s/m^2)
0 1200 2400 3600
Water Irradiance (uE/s/m^2)
0 600 1200 1800
% of Incident Light
0.1 1 10 100
Depth (m)
0 5 10 15 20 25 30 35 40
78 data points
Station: N03 File: W9412055.PAB Date: 09-08-1994 Time: 08:25:35



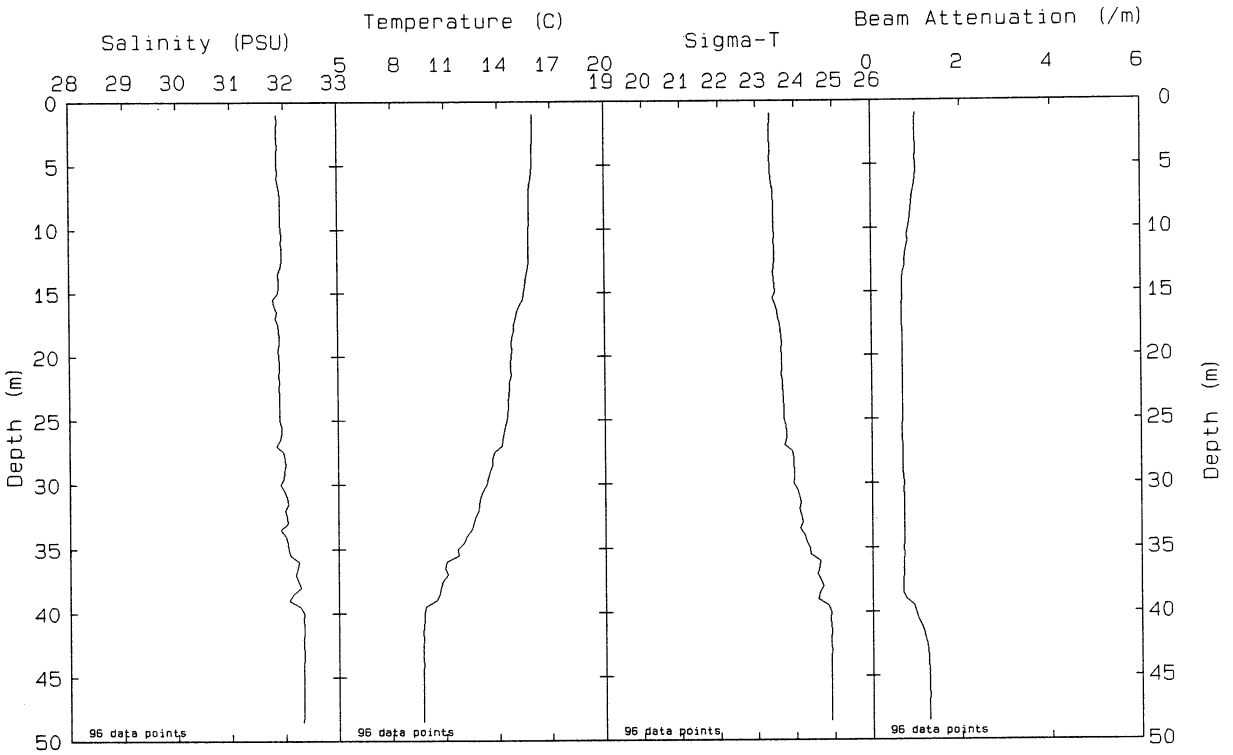


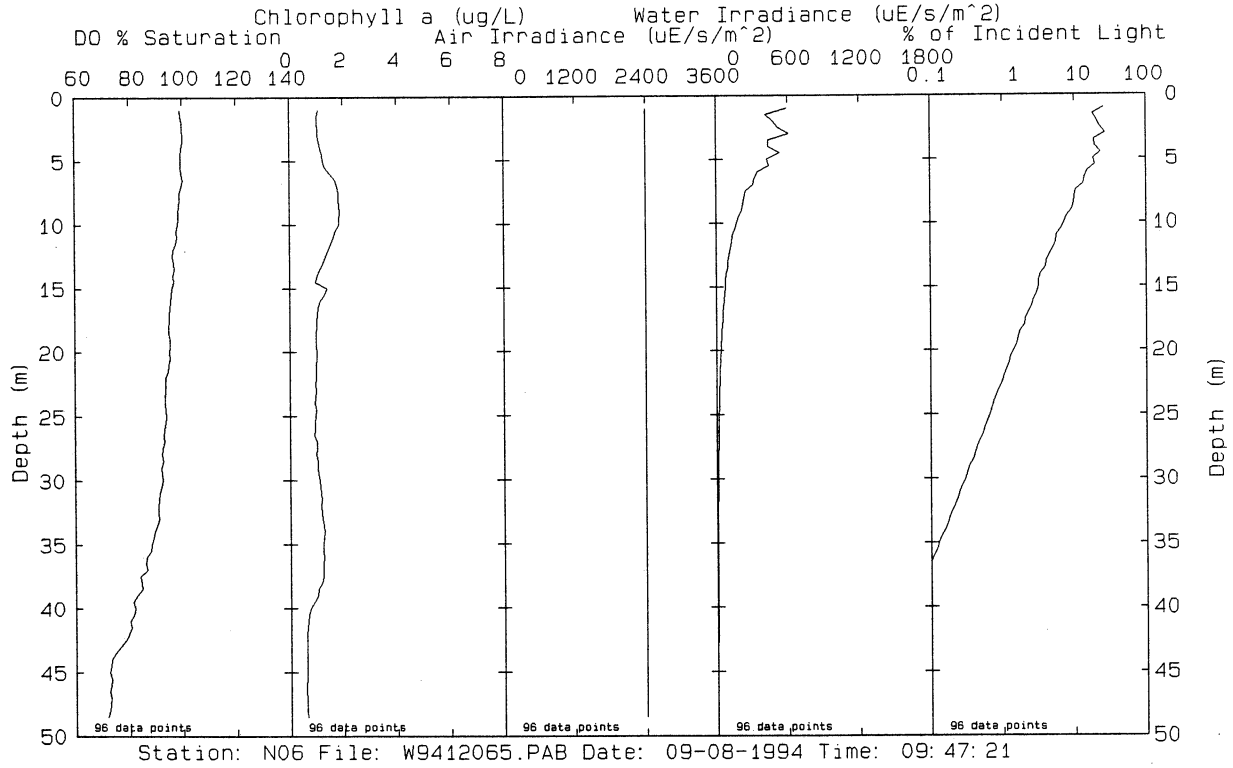
Station: N04P File: W9412059.PAB Date: 09-08-1994 Time: 08:47:24



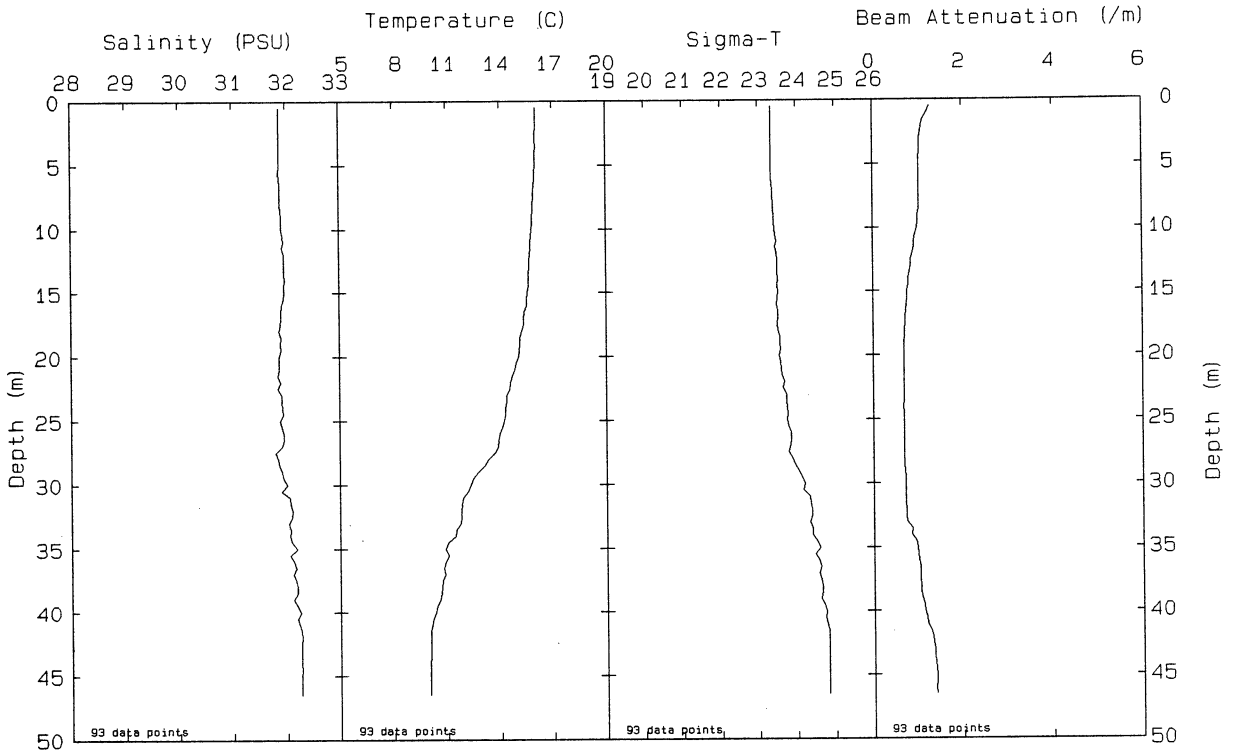


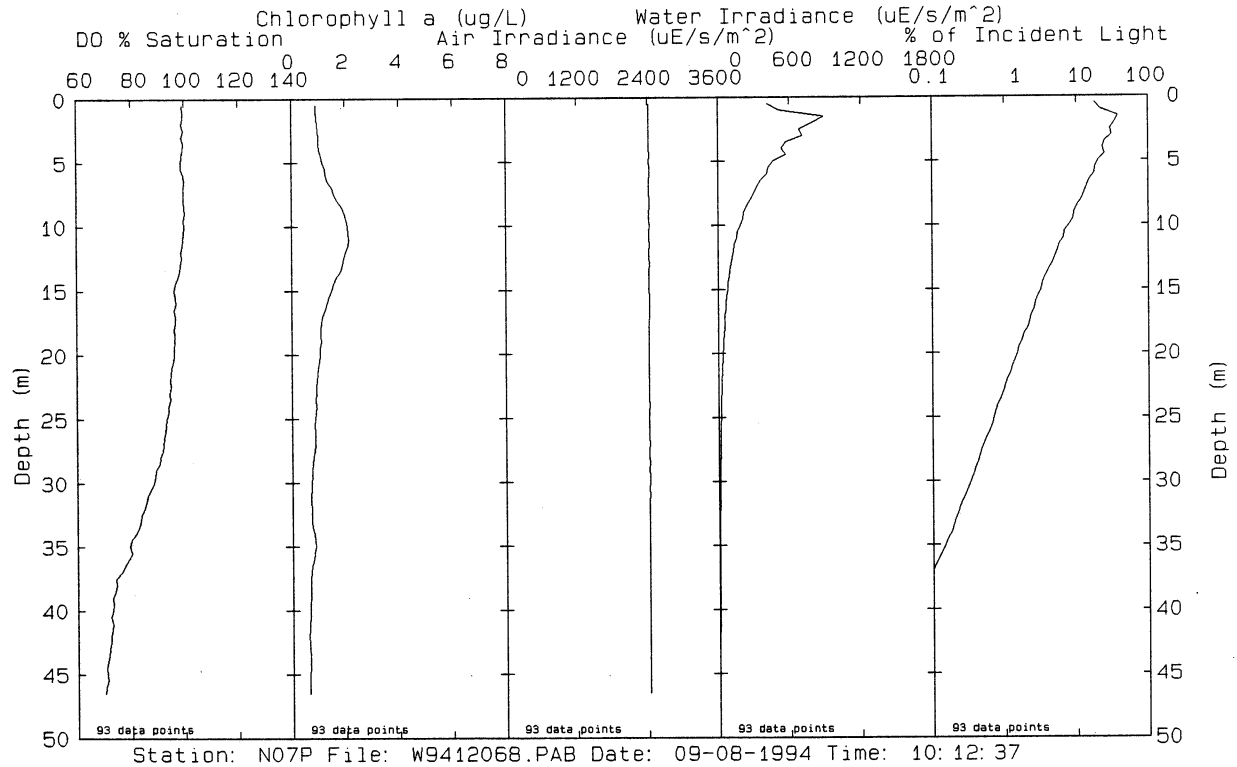
Station: N05 File: W9412062.PAB Date: 09-08-1994 Time: 09:20:09



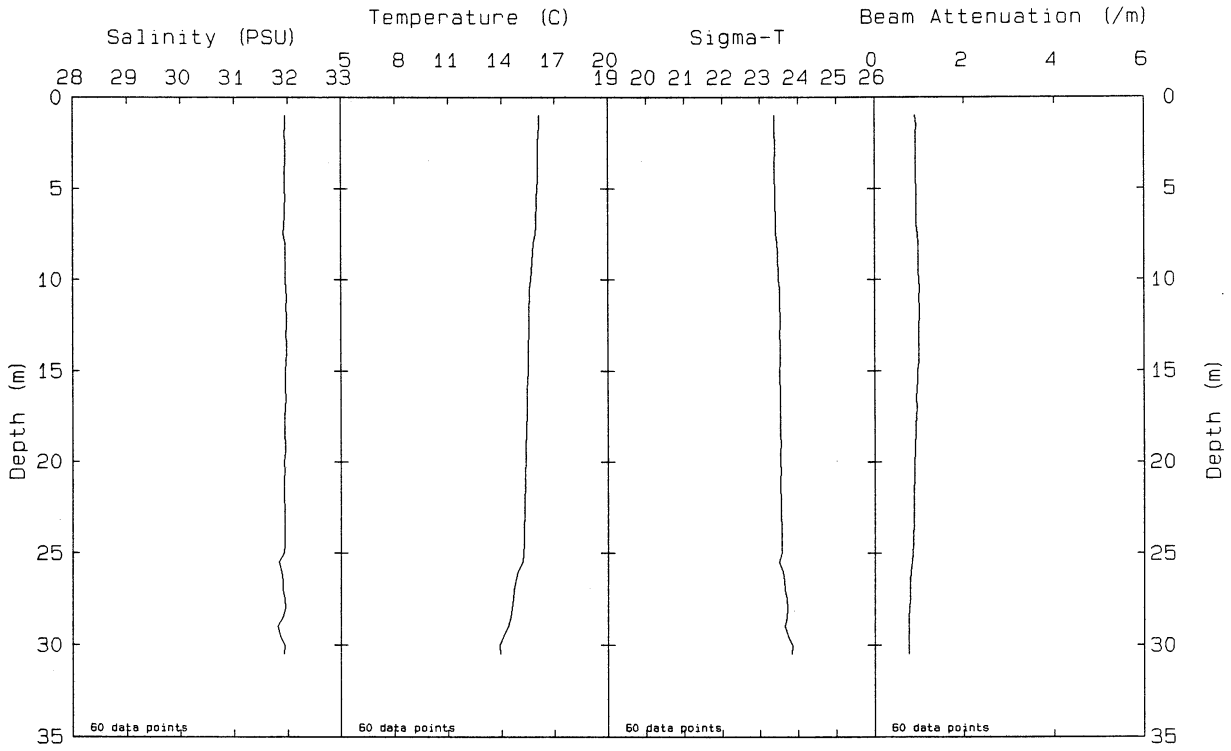


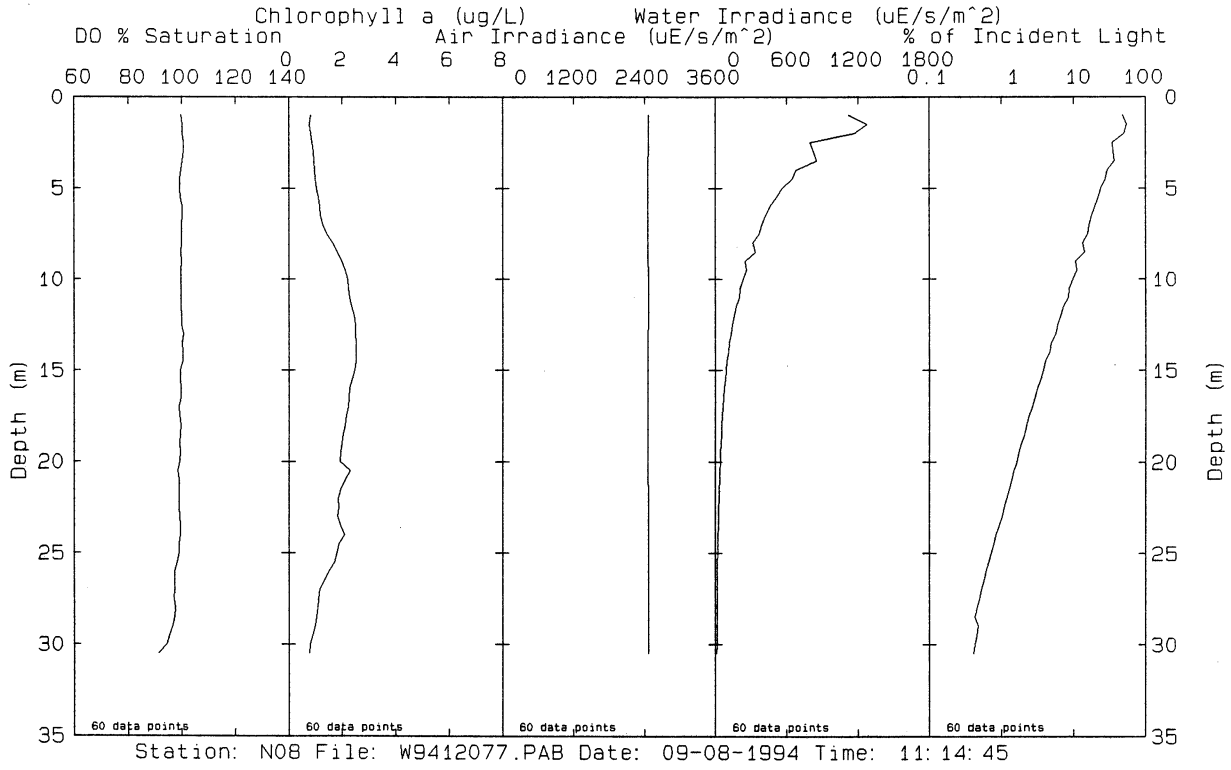
Station: N06 File: W9412065.PAB Date: 09-08-1994 Time: 09:47:21



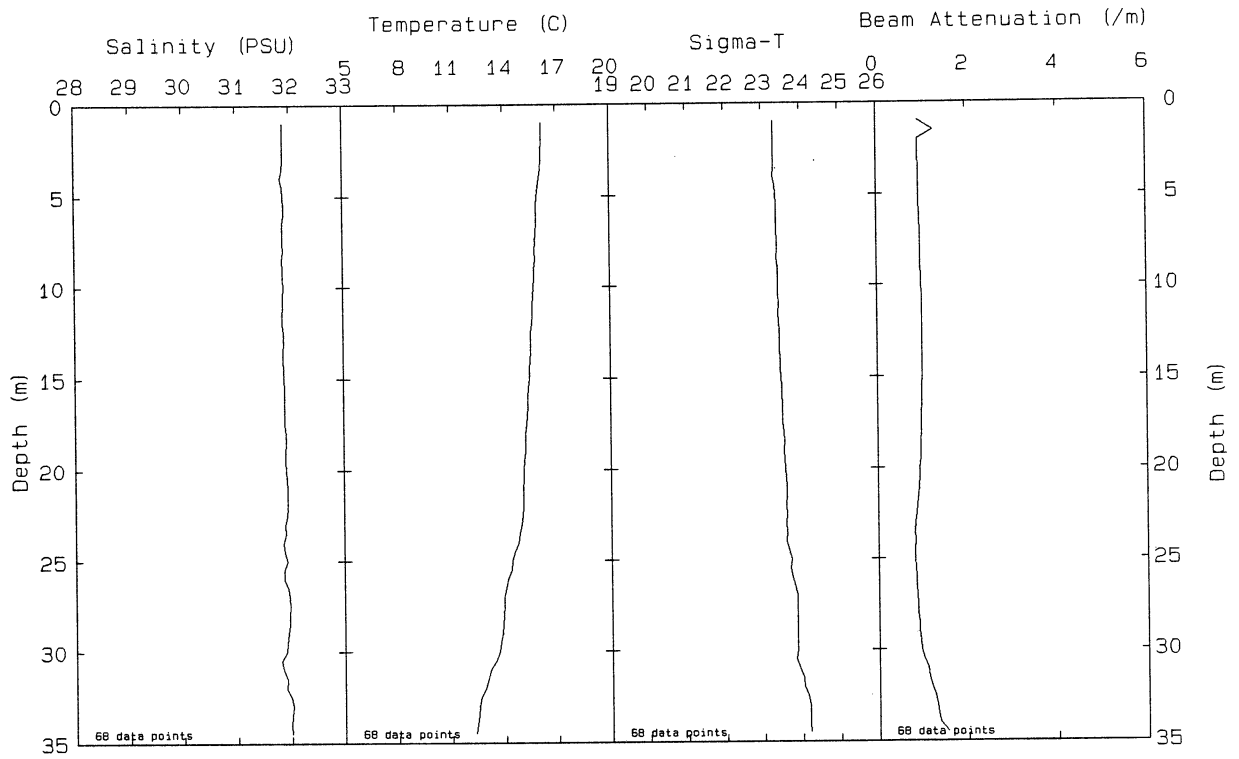


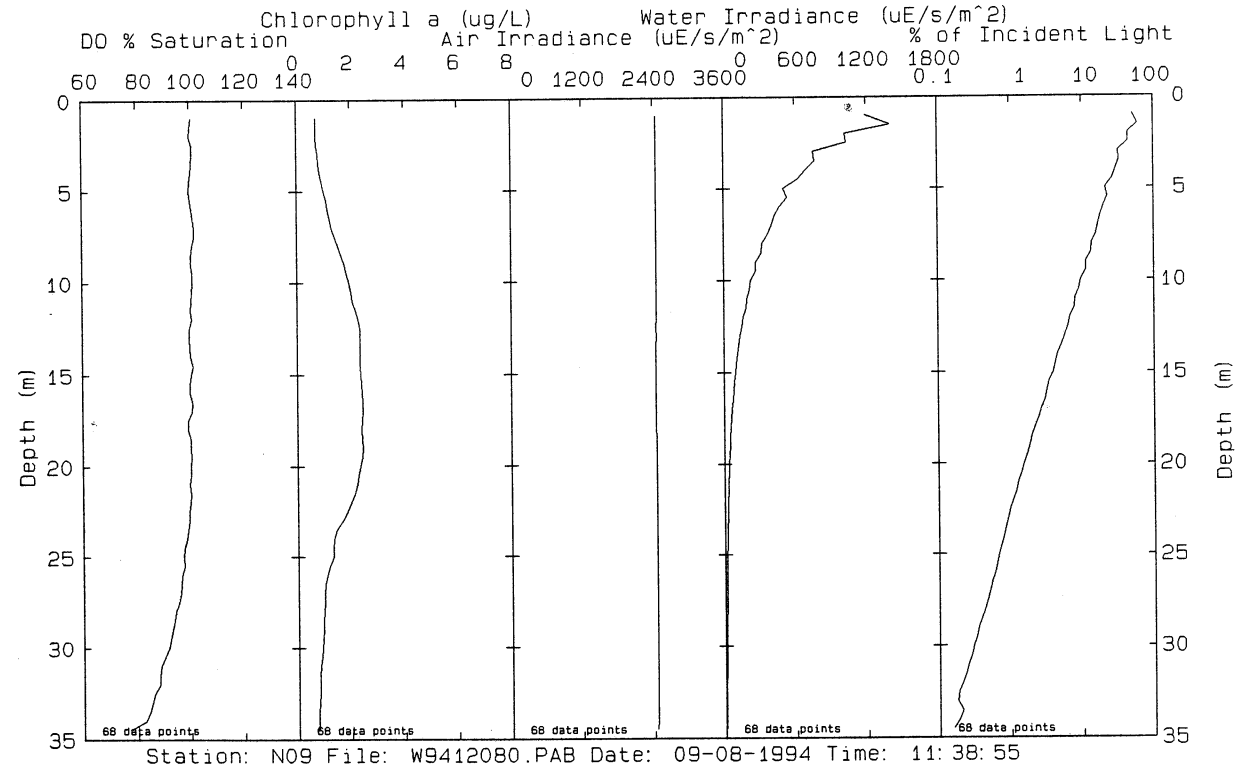
Station: N07P File: W9412068.PAB Date: 09-08-1994 Time: 10:12:37



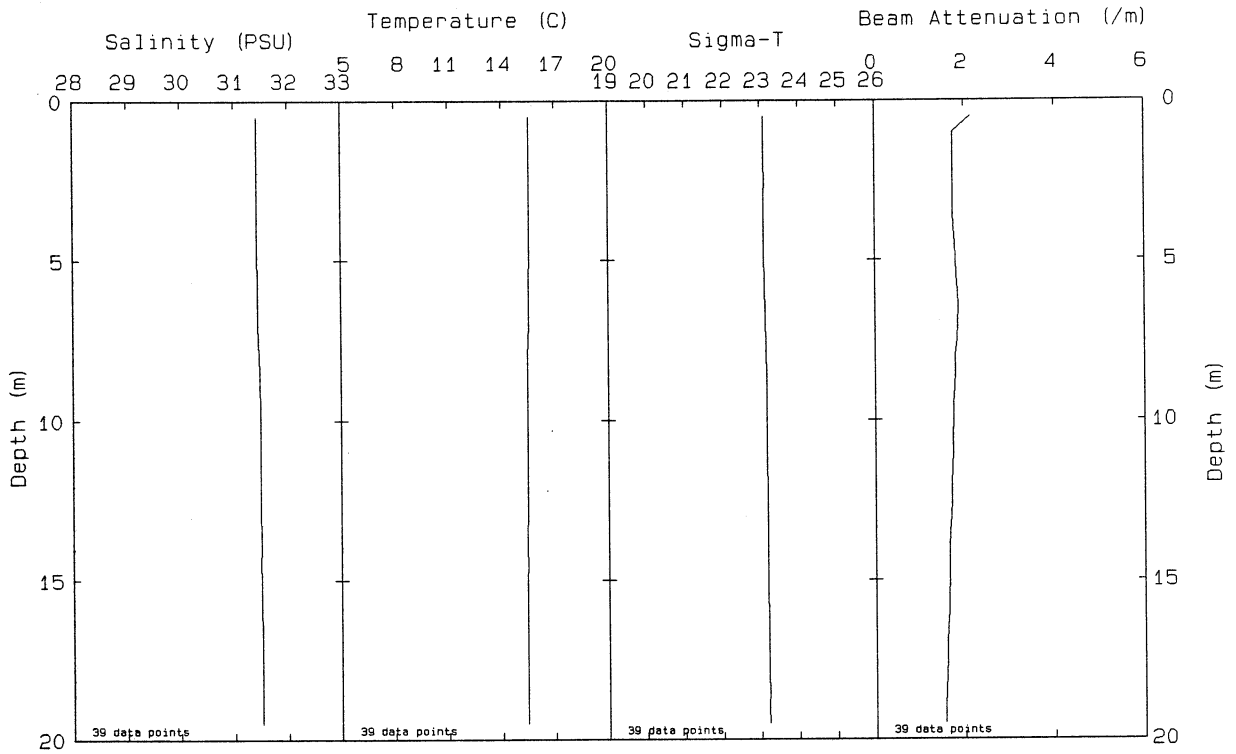


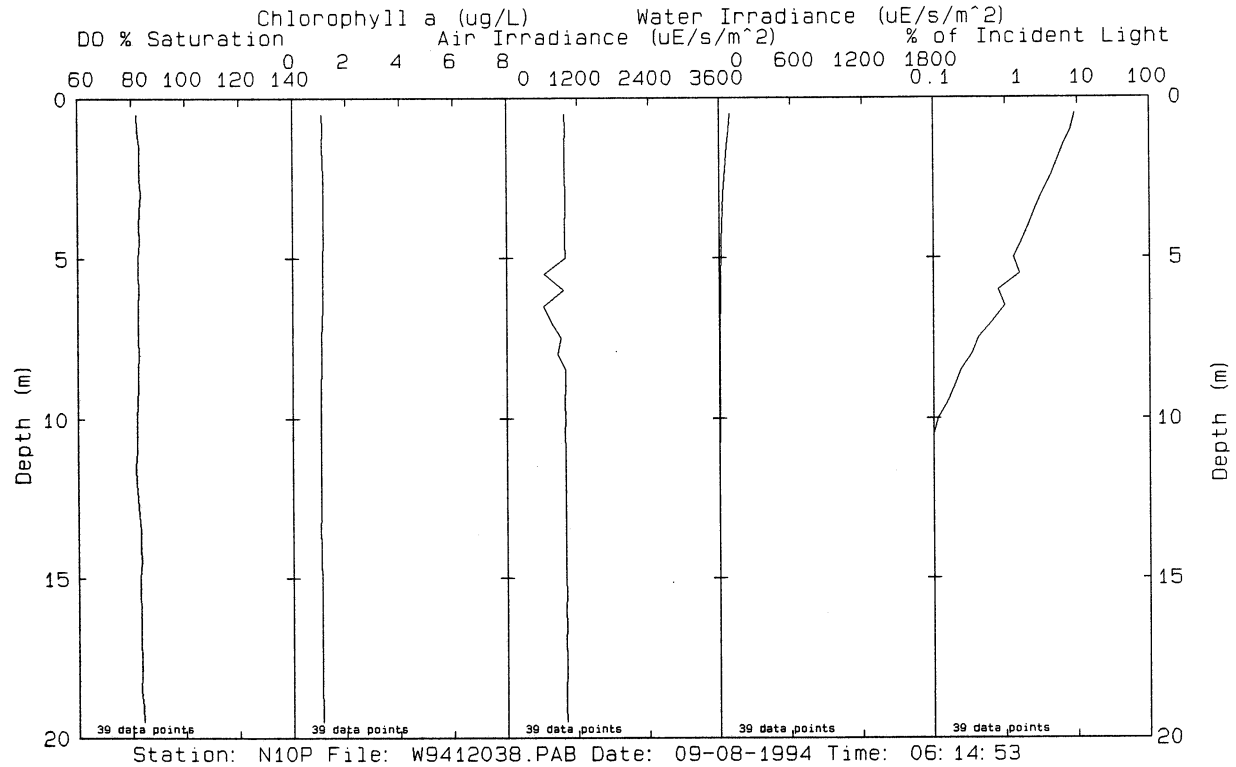
Station: N08 File: W9412077.PAB Date: 09-08-1994 Time: 11:14:45



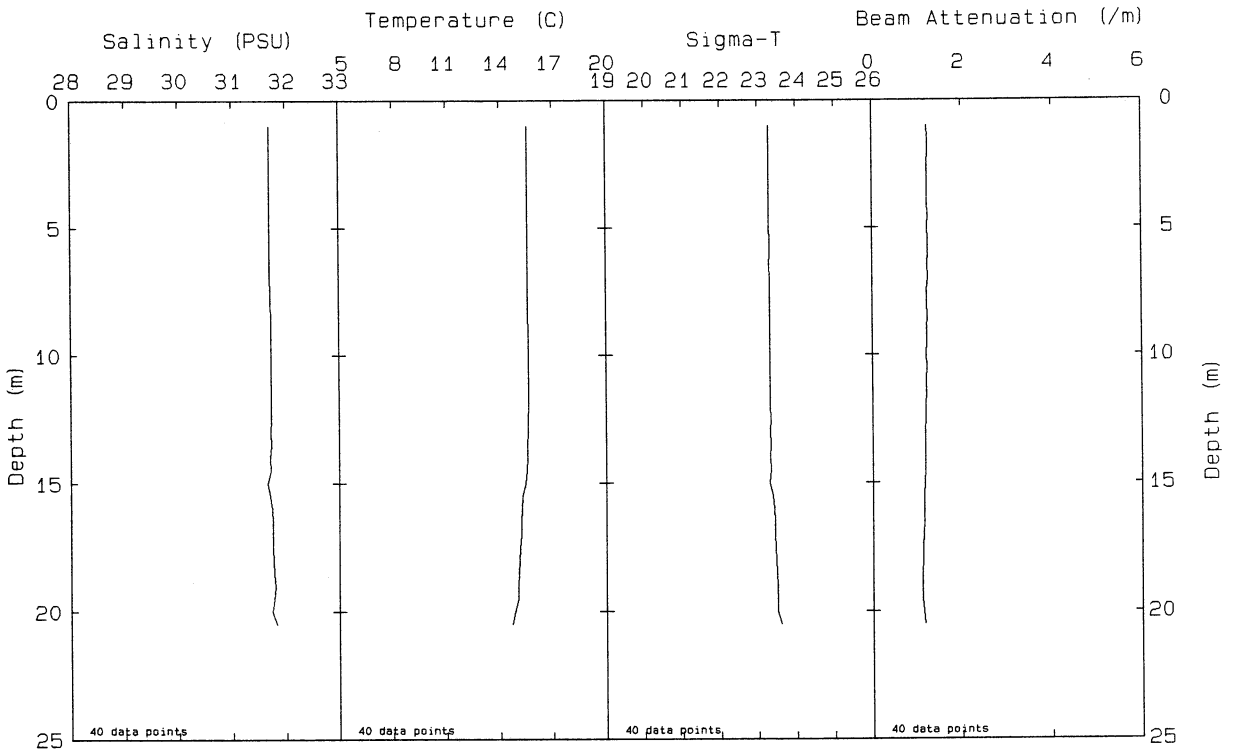


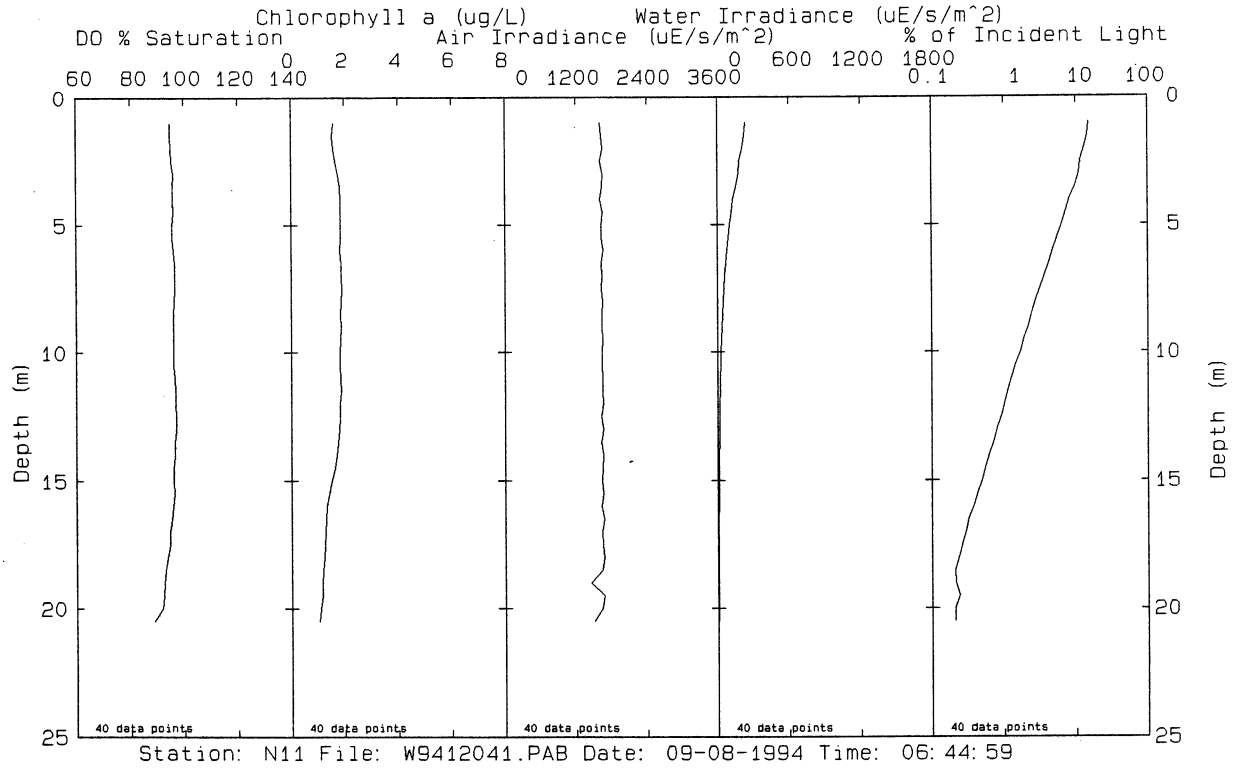
Station: N09 File: W9412080.PAB Date: 09-08-1994 Time: 11:38:55



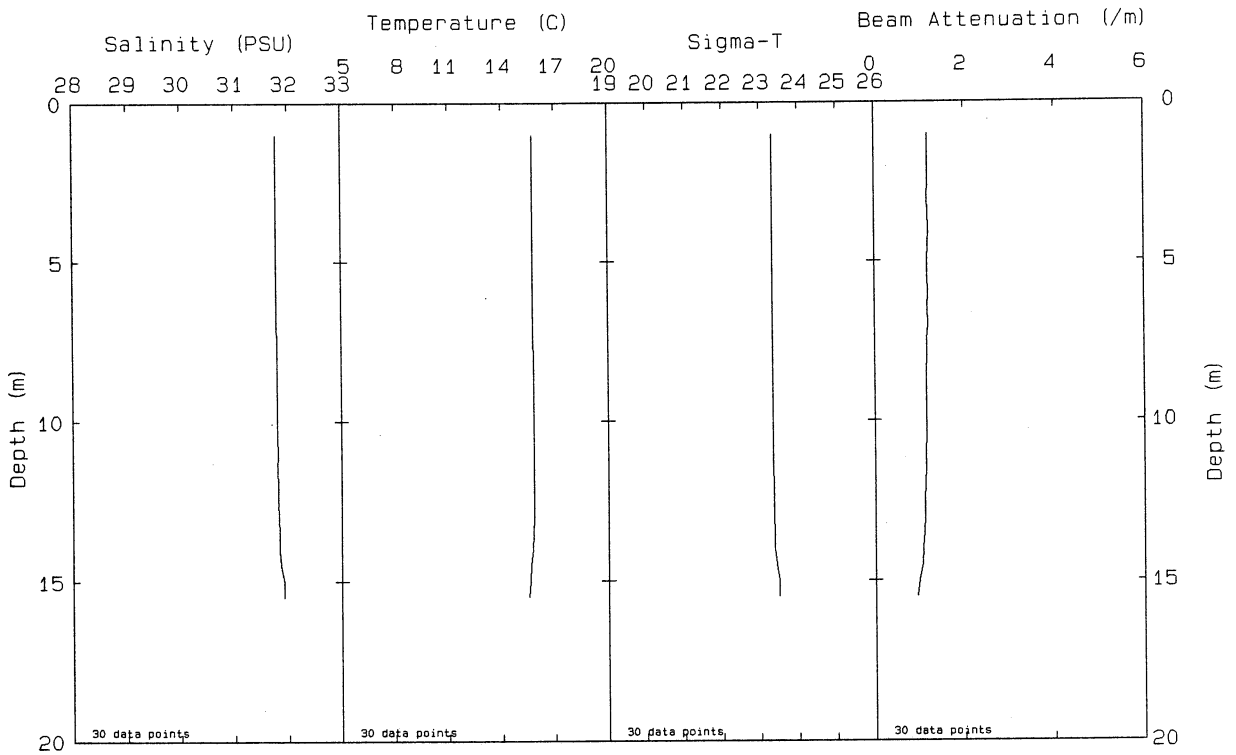


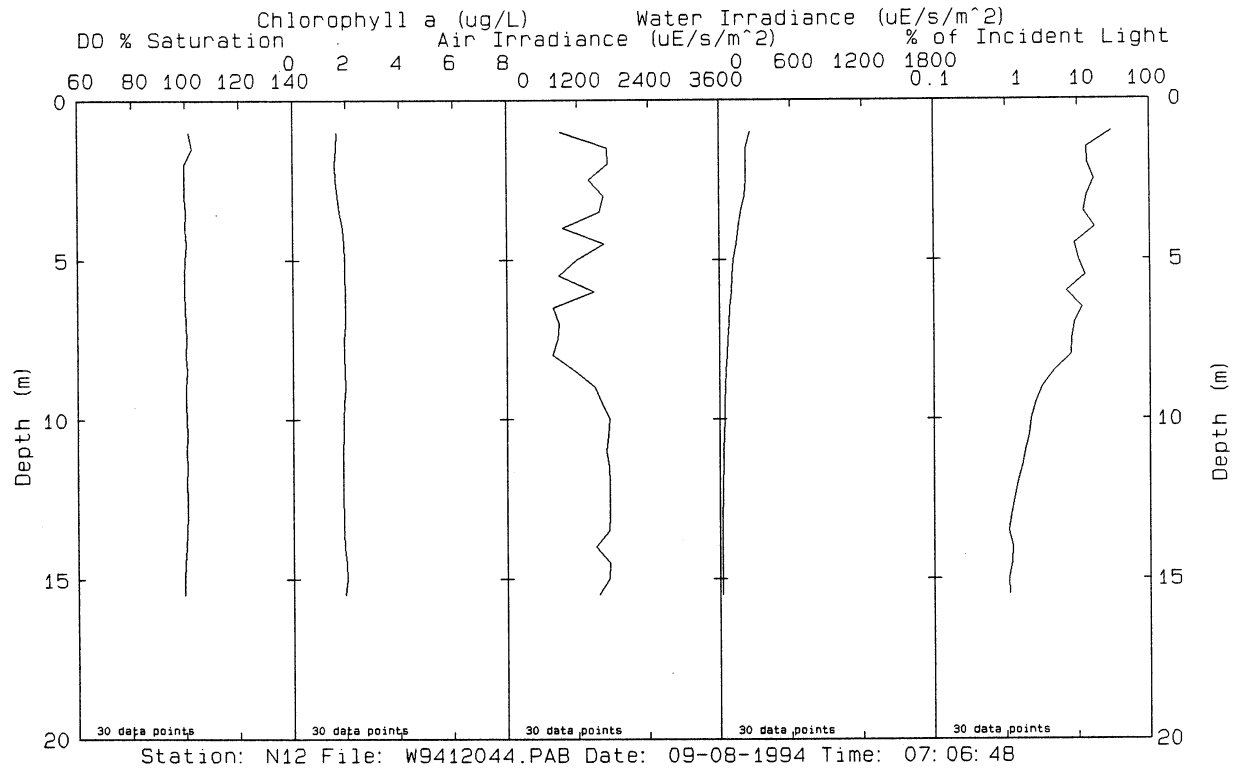
Station: N10P File: W9412038.PAB Date: 09-08-1994 Time: 06:14:53



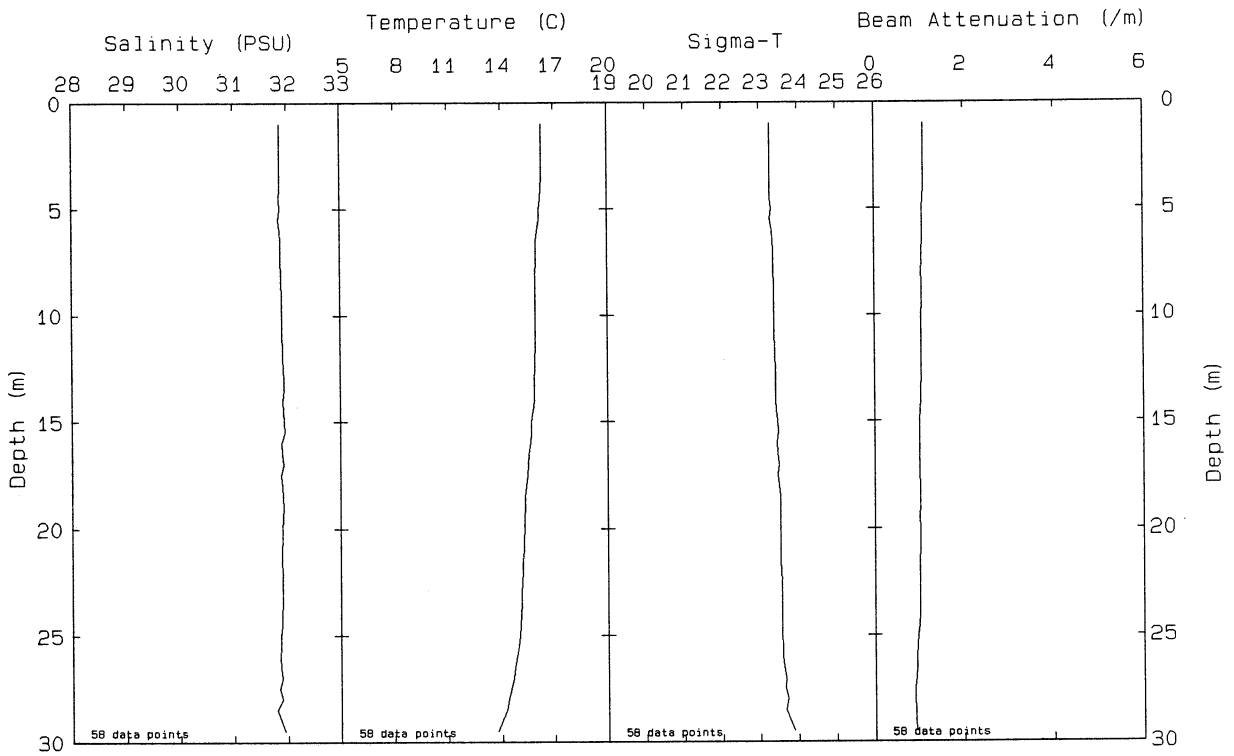


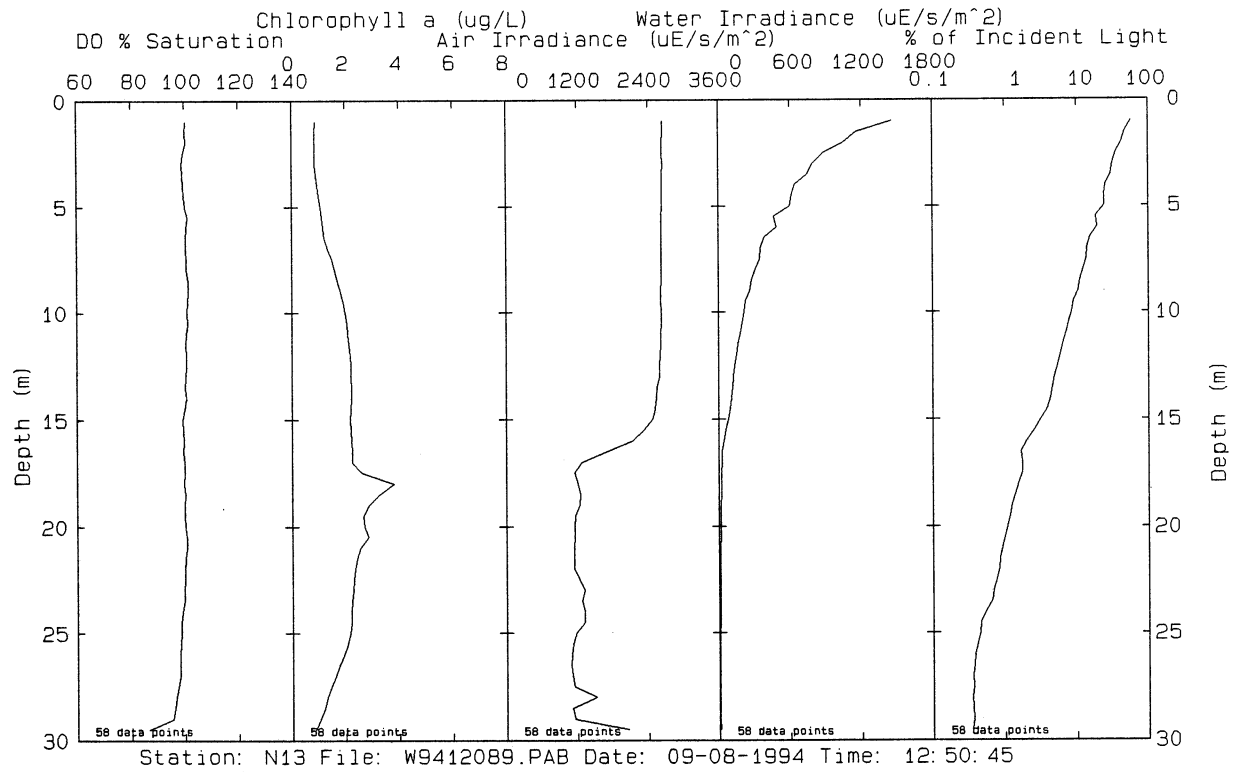
Station: N11 File: W9412041.PAB Date: 09-08-1994 Time: 06:44:59



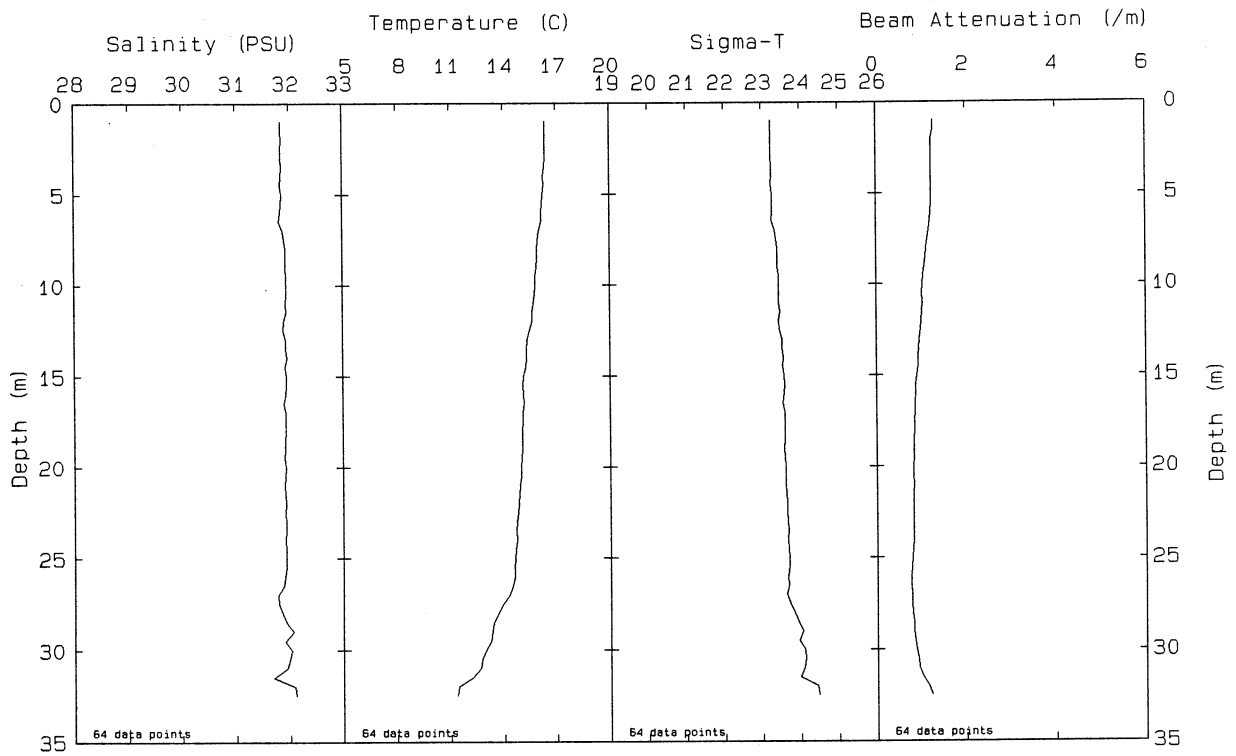


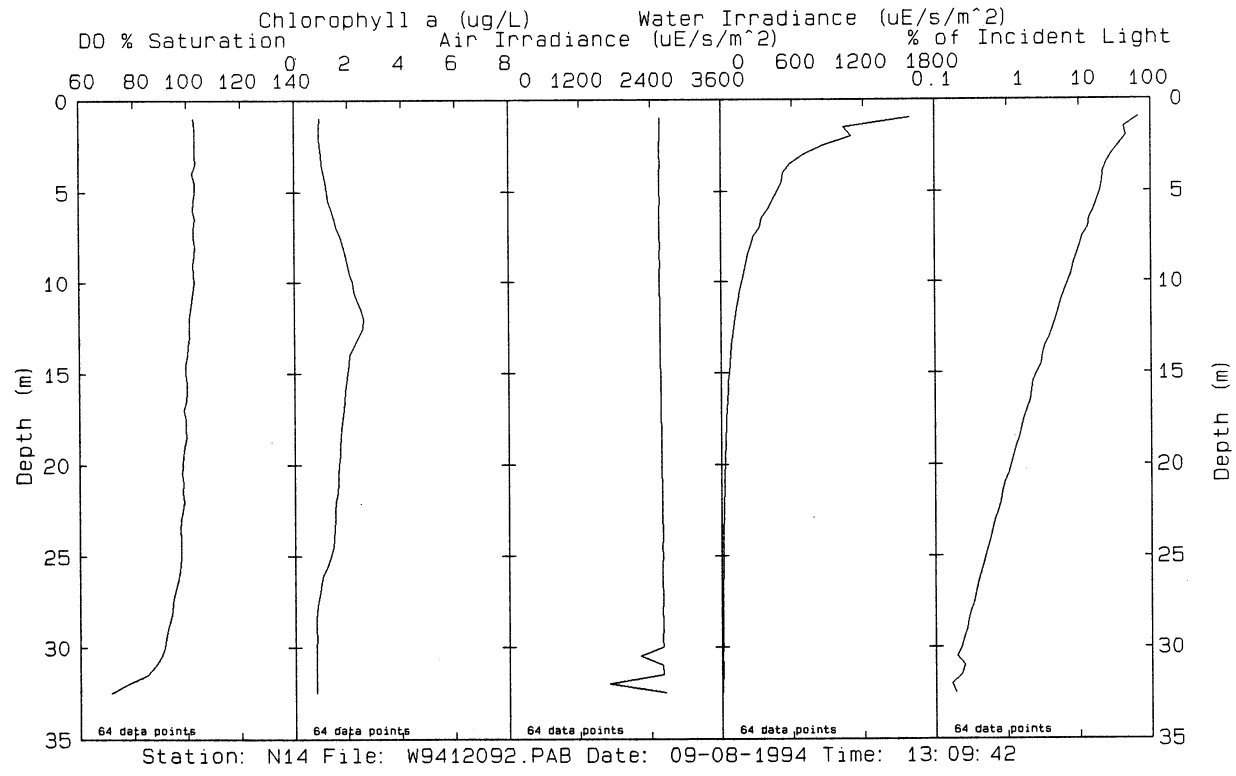
Station: N12 File: W9412044.PAB Date: 09-08-1994 Time: 07:06:48





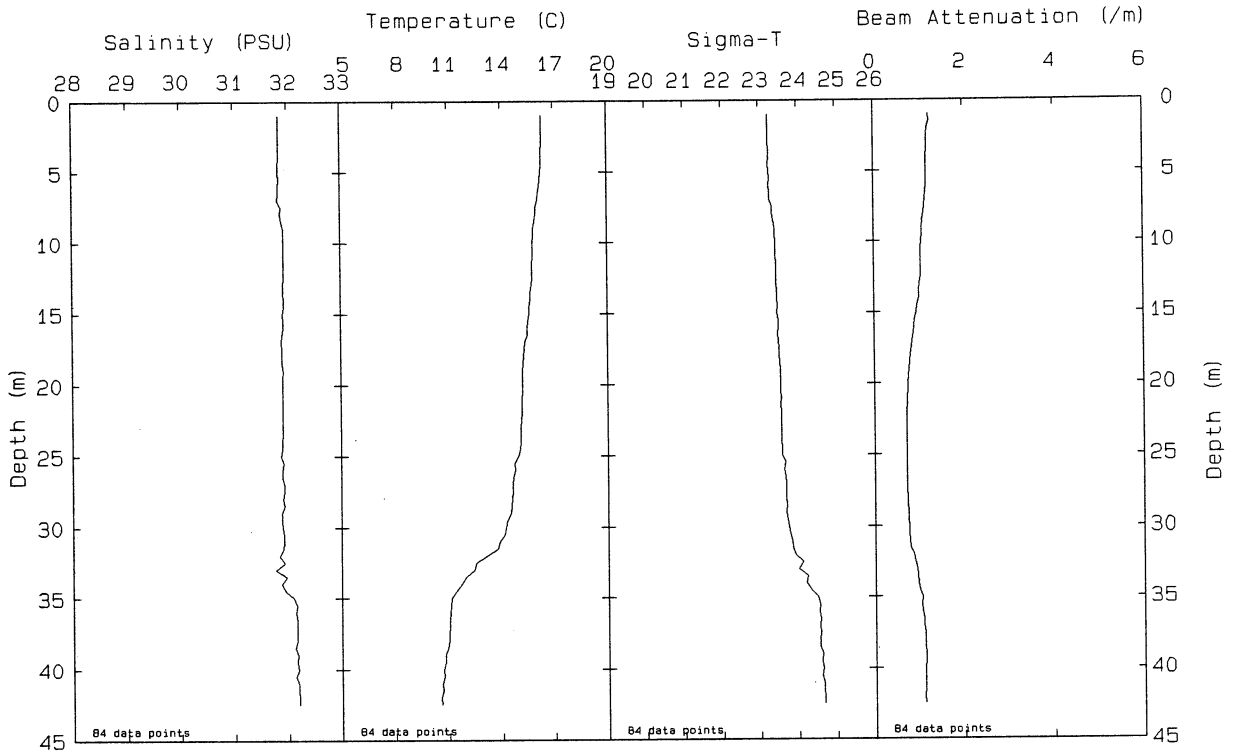
Station: N13 File: W9412089.PAB Date: 09-08-1994 Time: 12:50:45

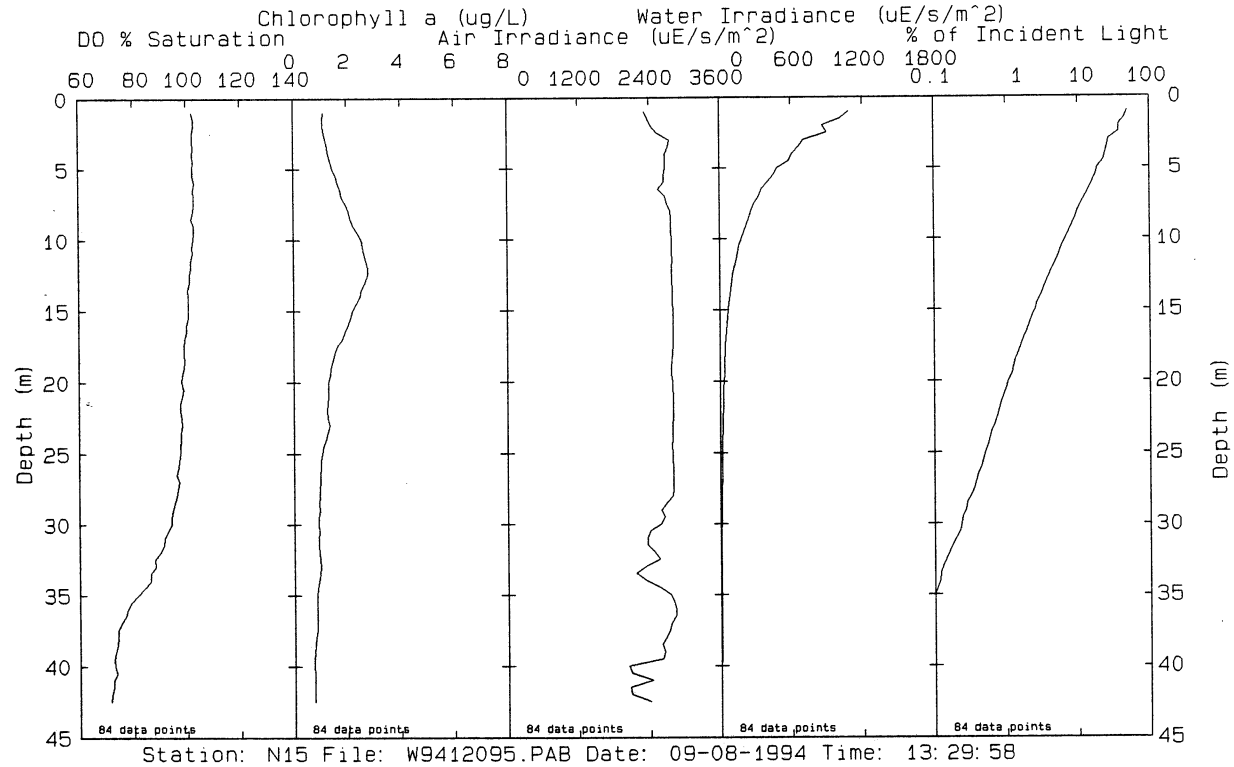




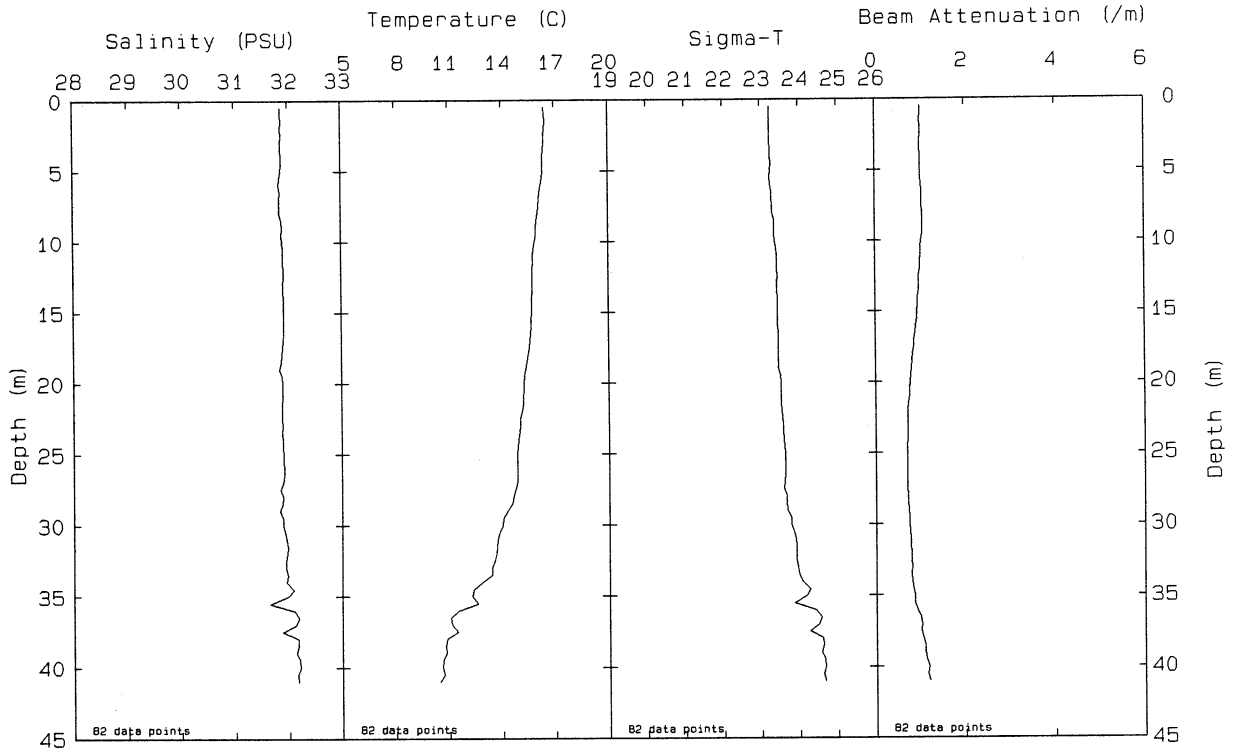
Station: N14 File: W9412092.PAB Date: 09-08-1994 Time: 13:09:42

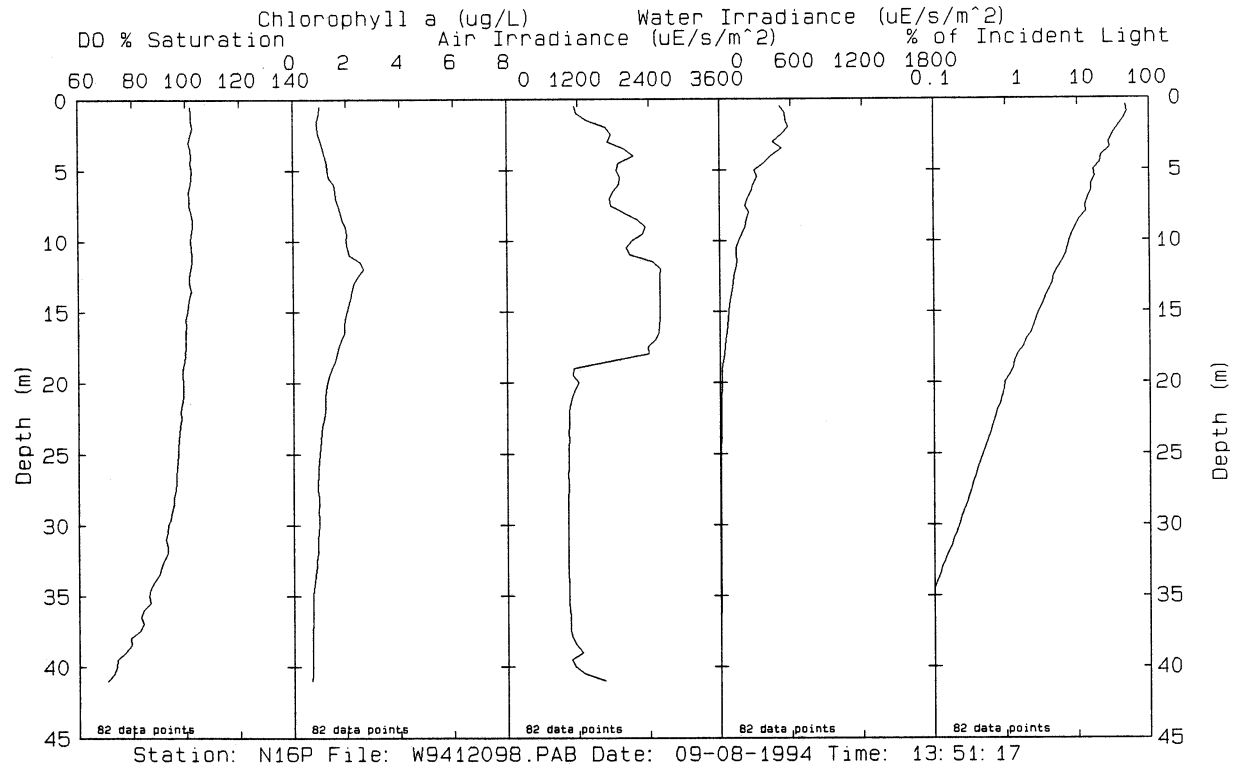
01-19-1995 09:18:28 Battelle



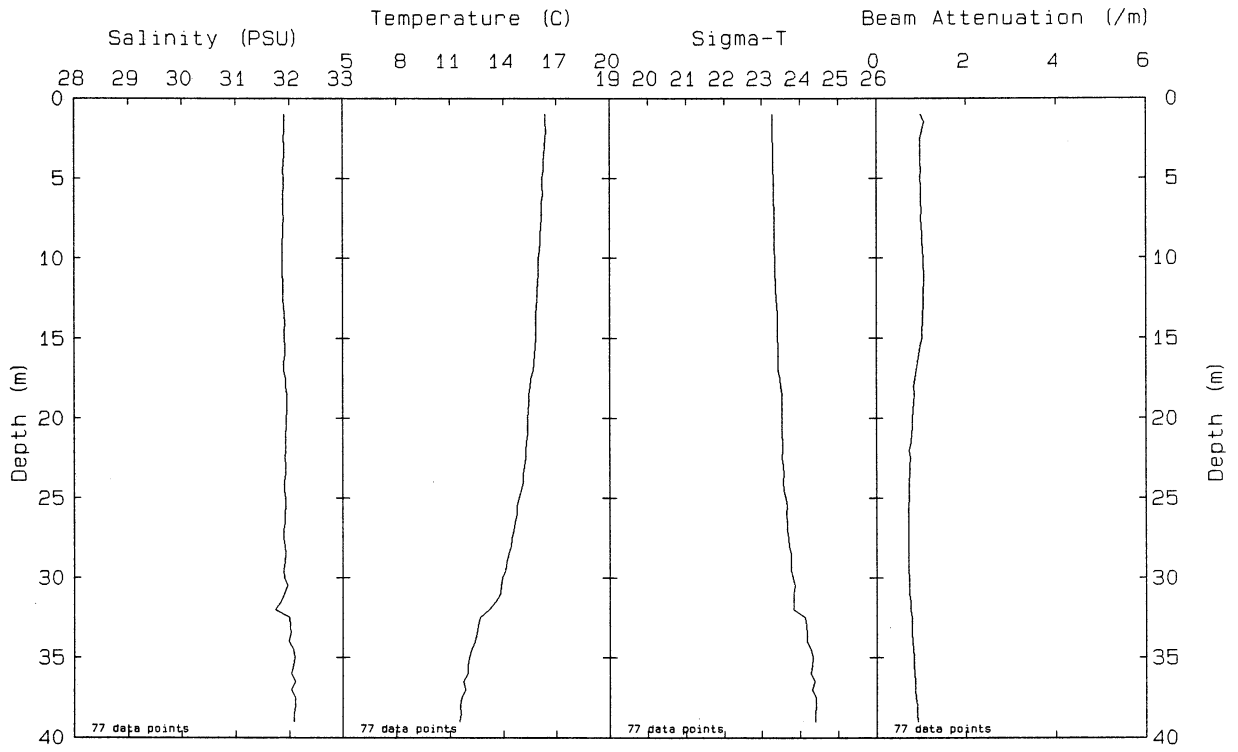


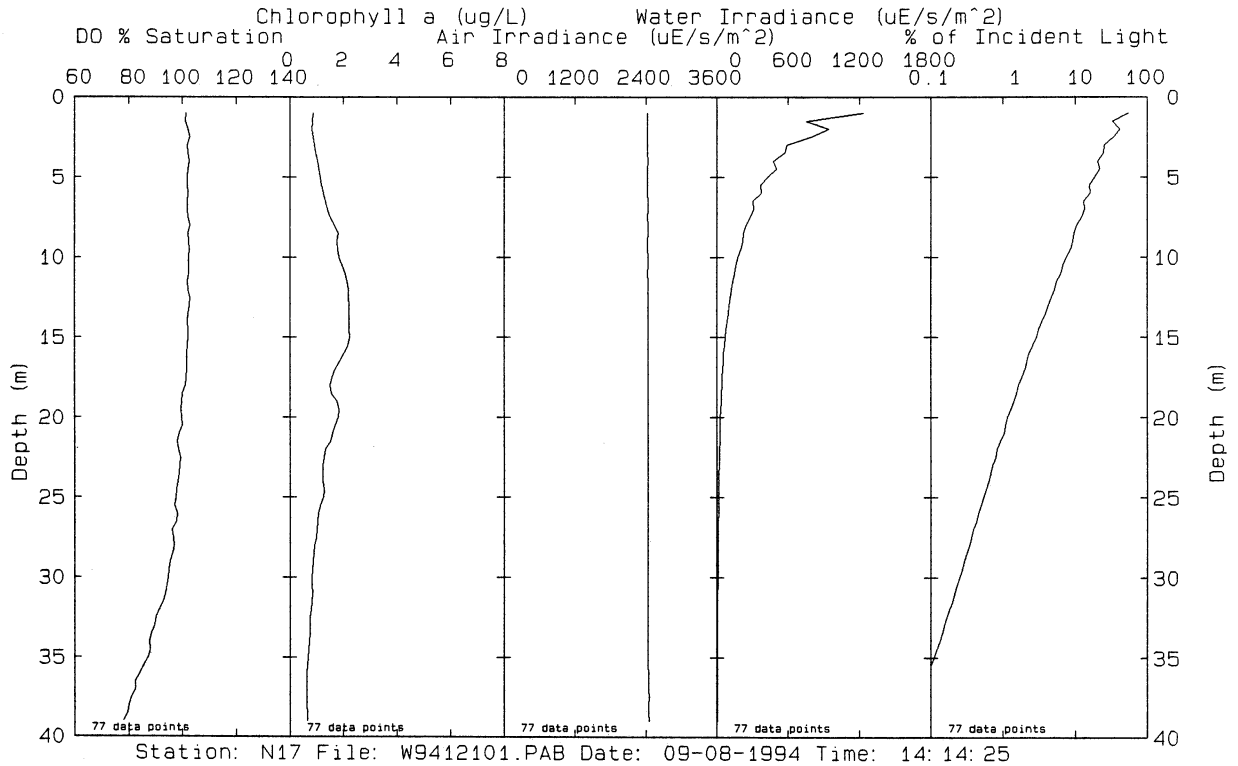
Station: N15 File: W9412095.PAB Date: 09-08-1994 Time: 13:29:58



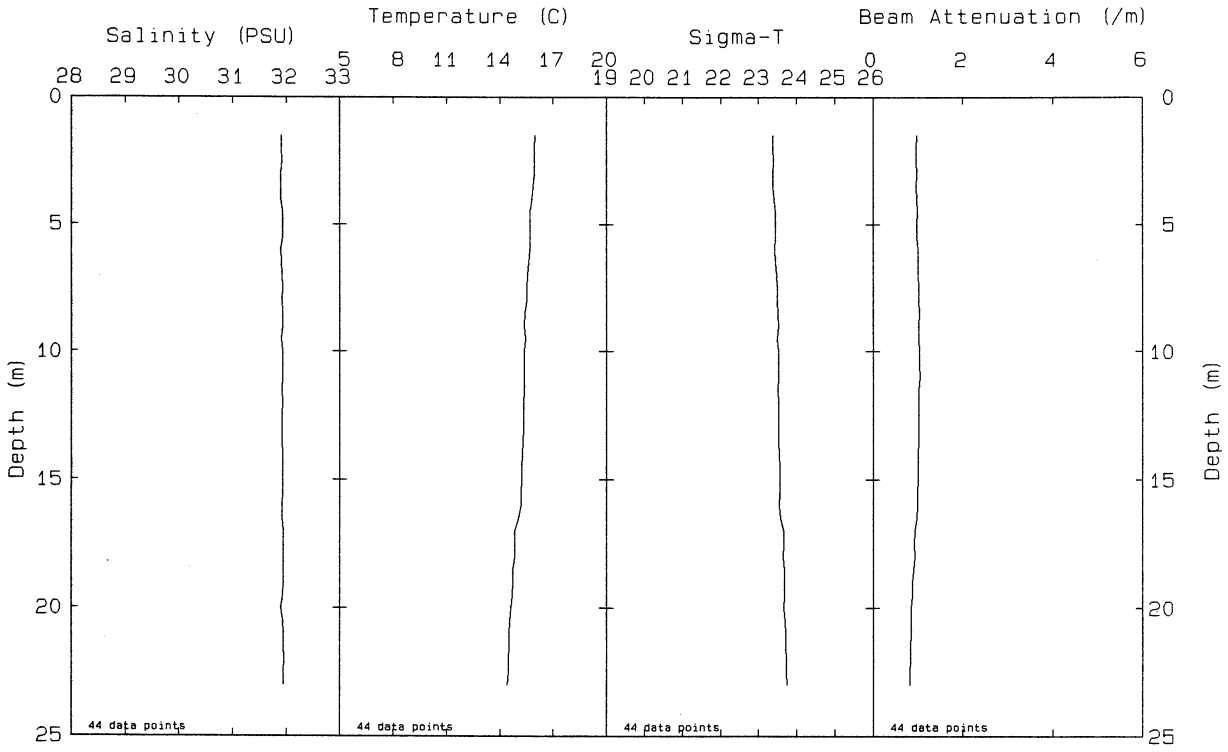


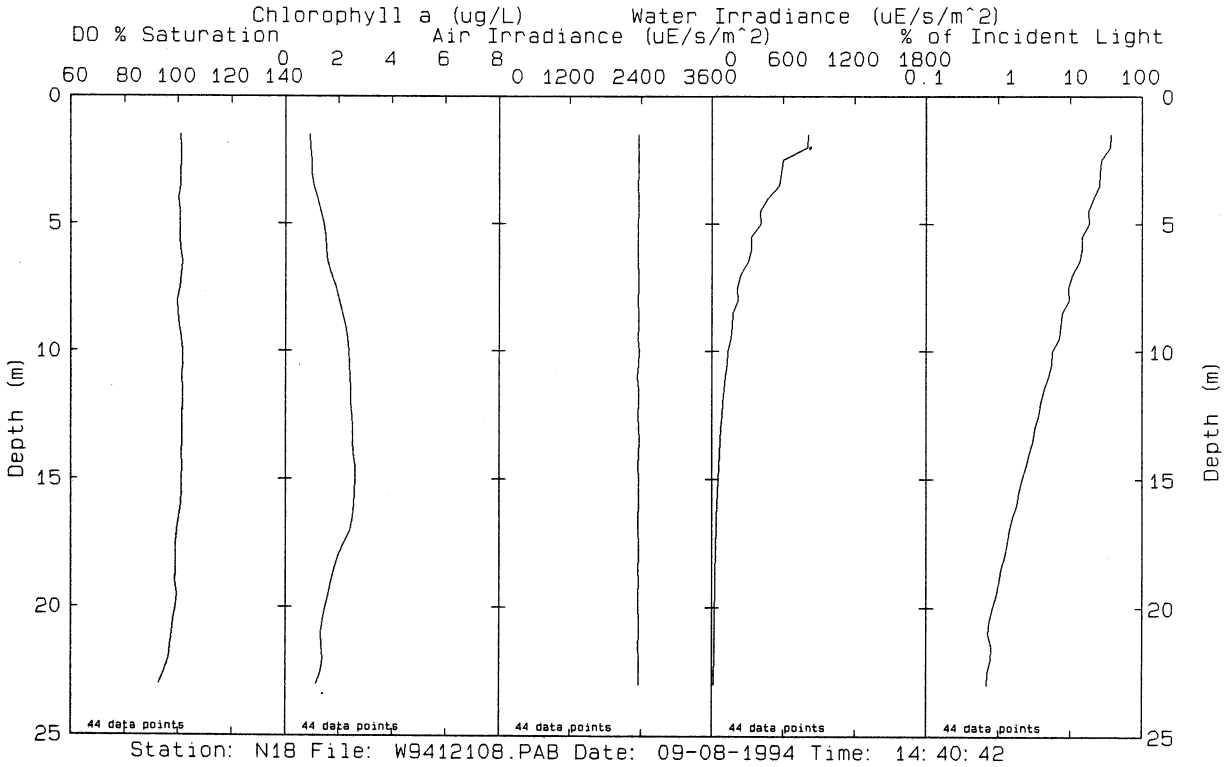
Station: N16P File: W9412098.PAB Date: 09-08-1994 Time: 13:51:17



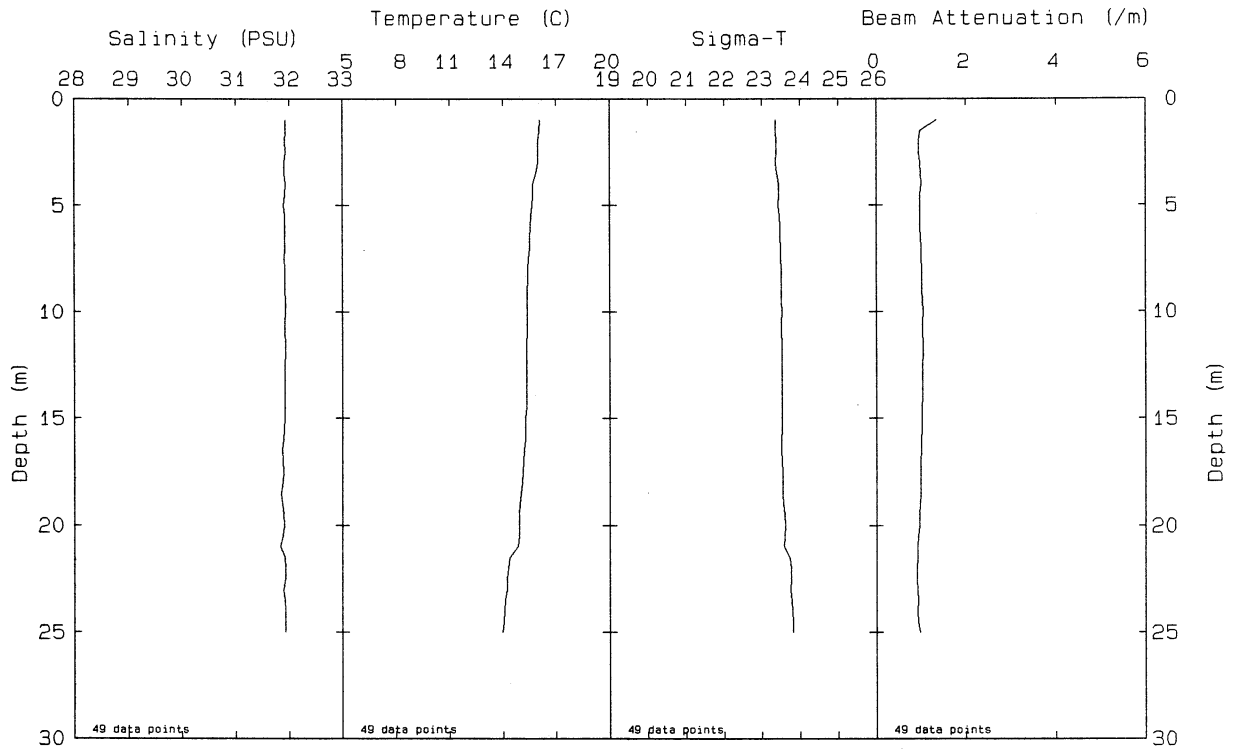


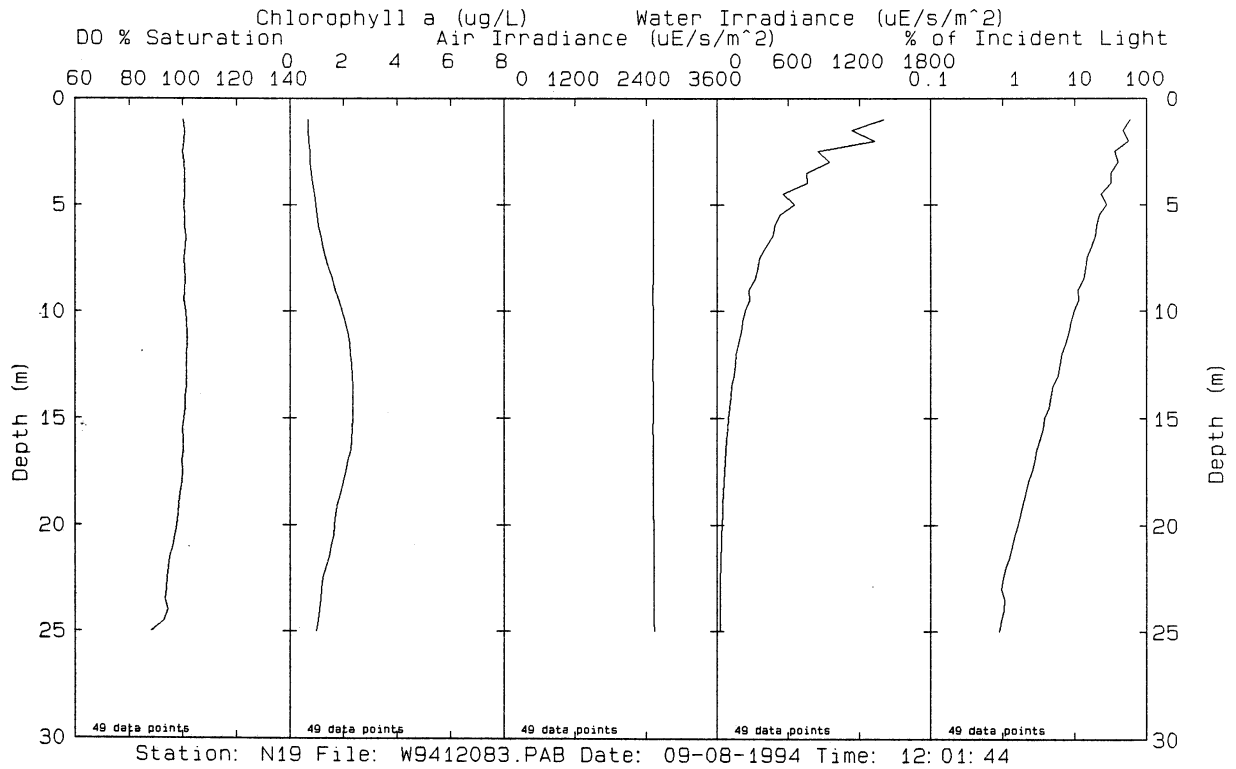
Station: N17 File: W9412101.PAB Date: 09-08-1994 Time: 14:14:25



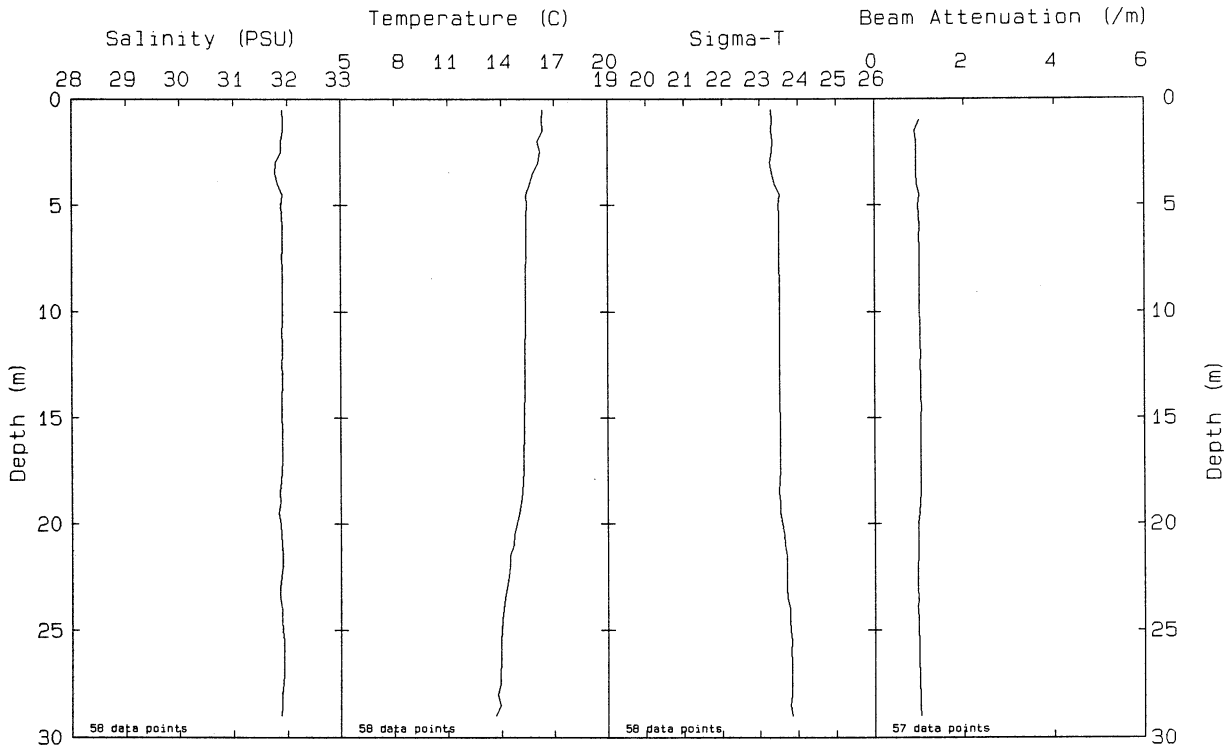


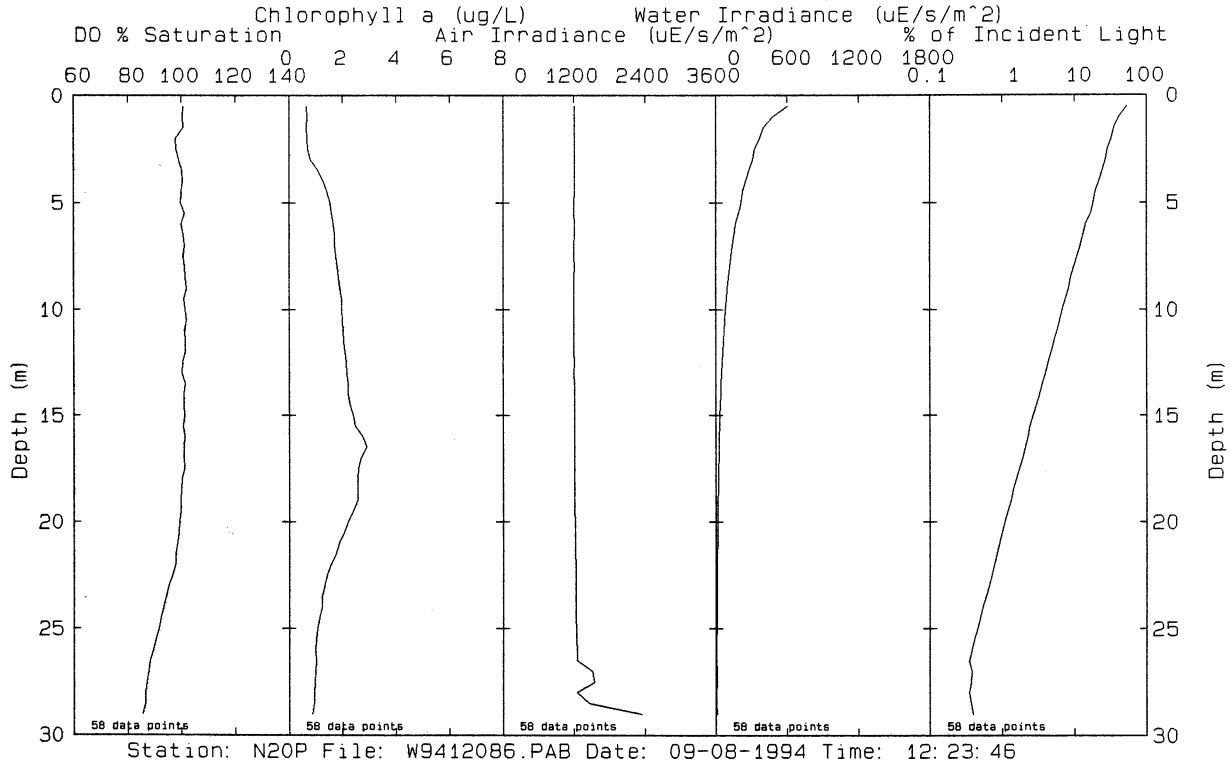
Station: N18 File: W9412108.PAB Date: 09-08-1994 Time: 14:40:42



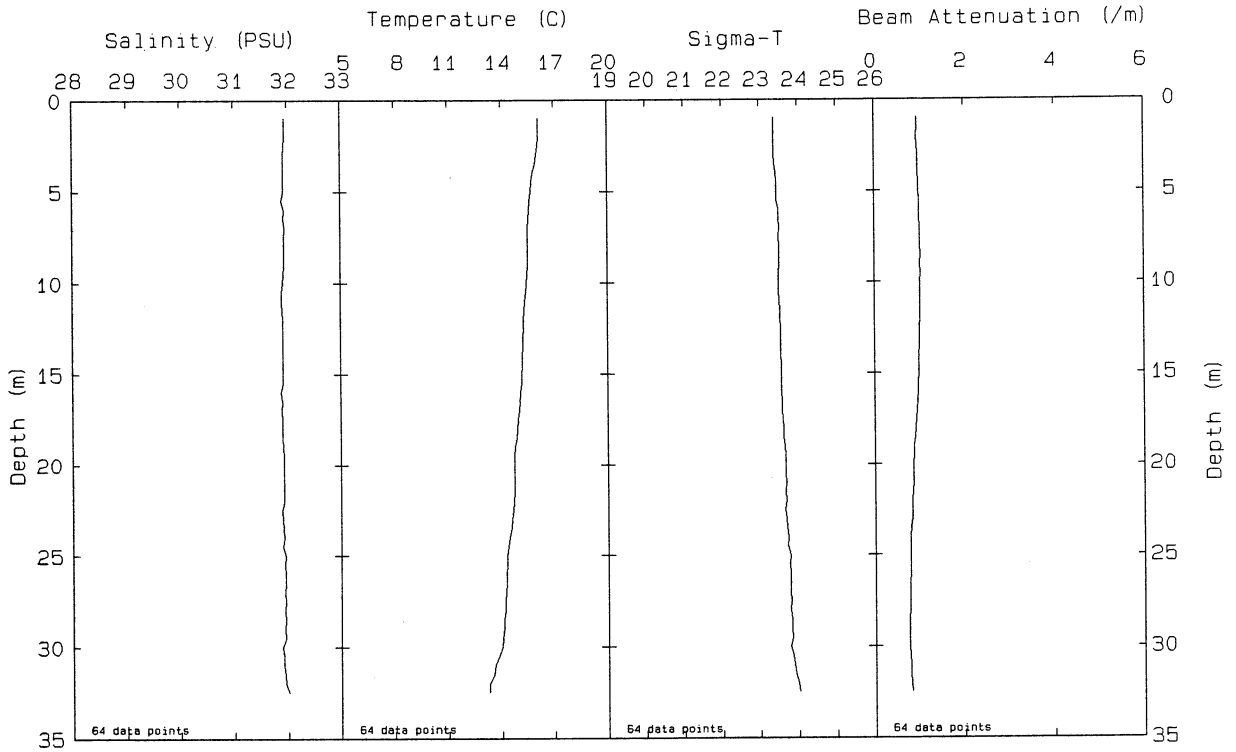


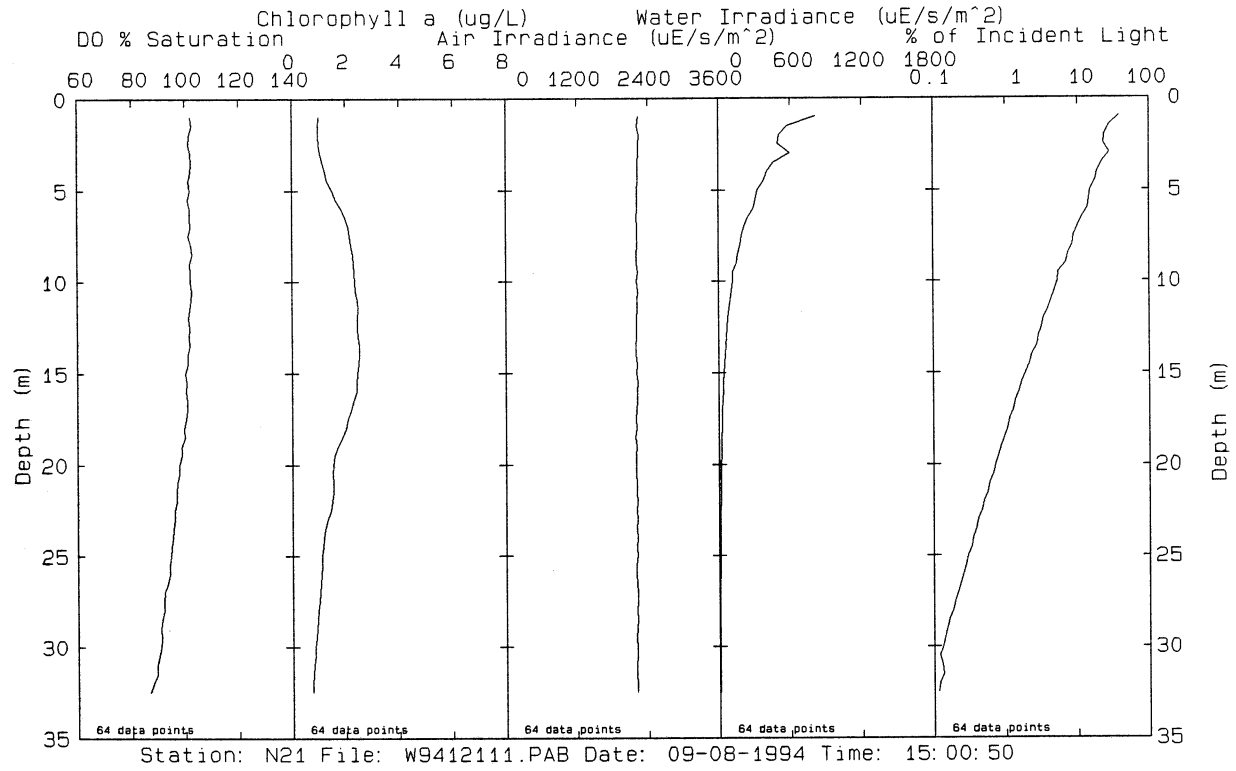
Station: N19 File: W9412083.PAB Date: 09-08-1994 Time: 12:01:44





Station: N20P File: W9412086.PAB Date: 09-08-1994 Time: 12:23:46

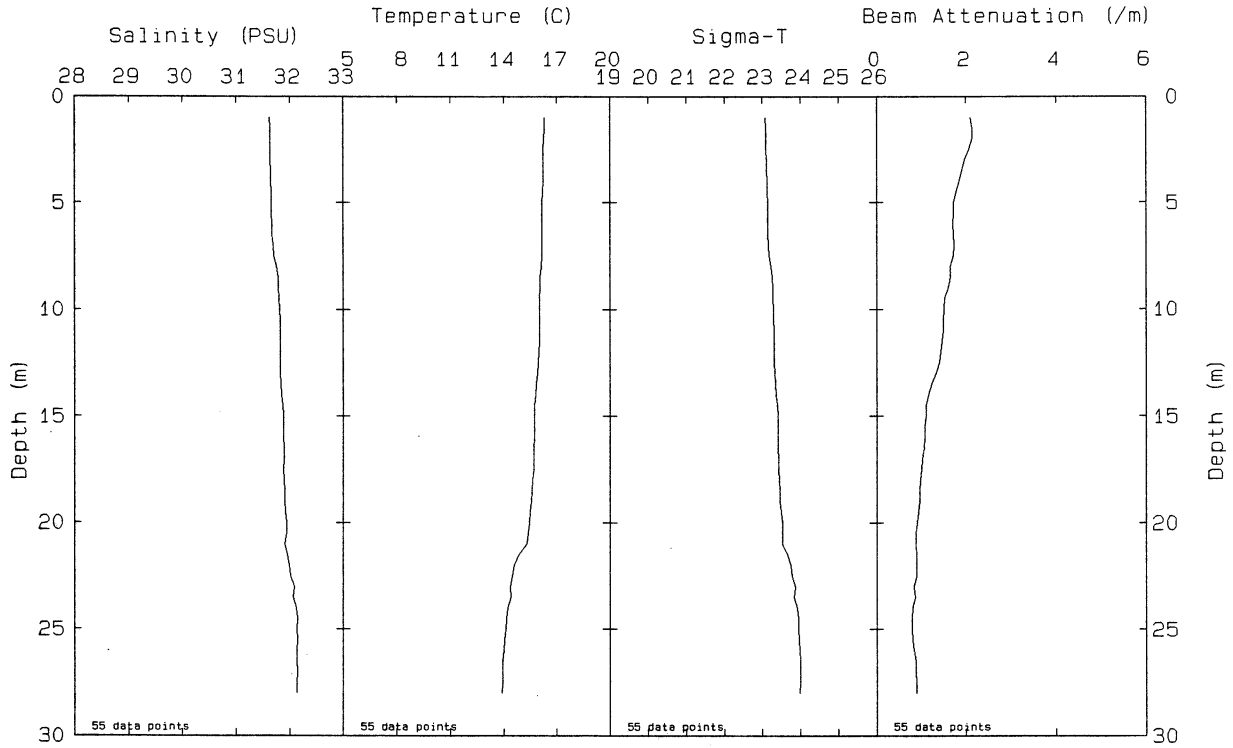


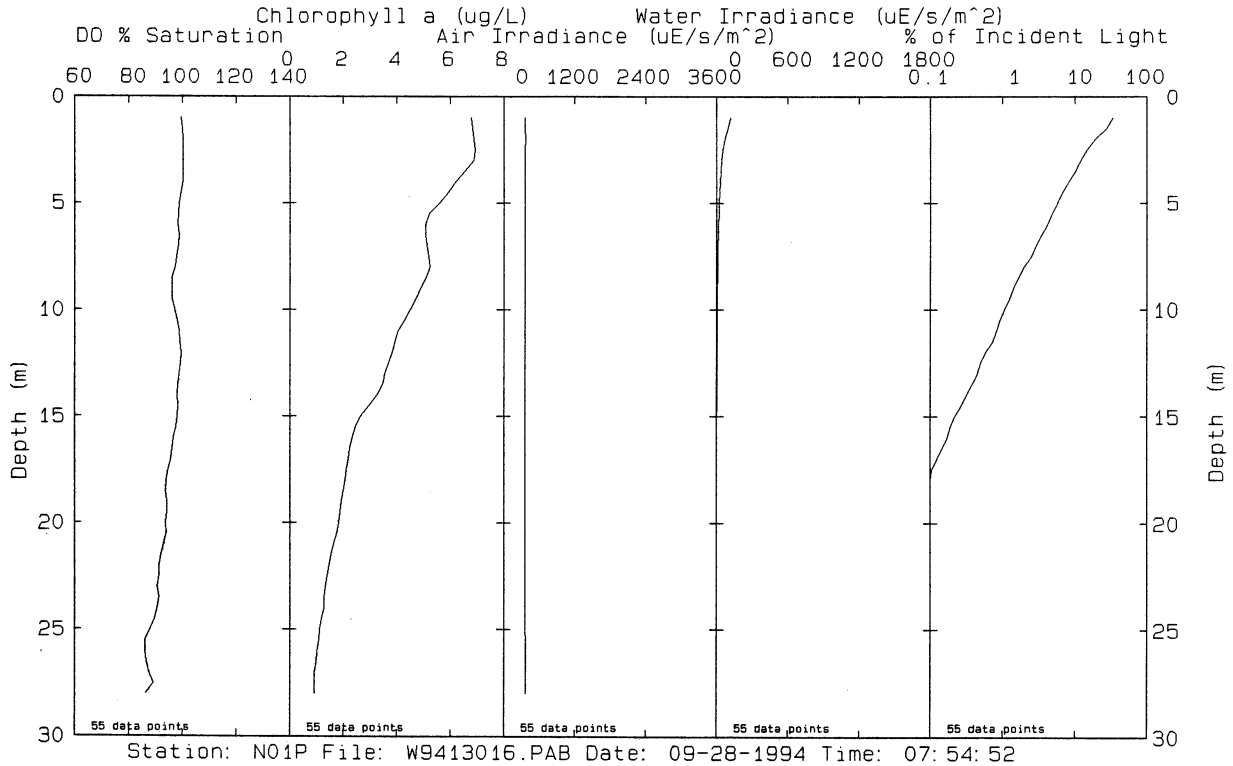


Station: N21 File: W9412111.PAB Date: 09-08-1994 Time: 15:00:50

01-19-1995 09:18:42 Battelle

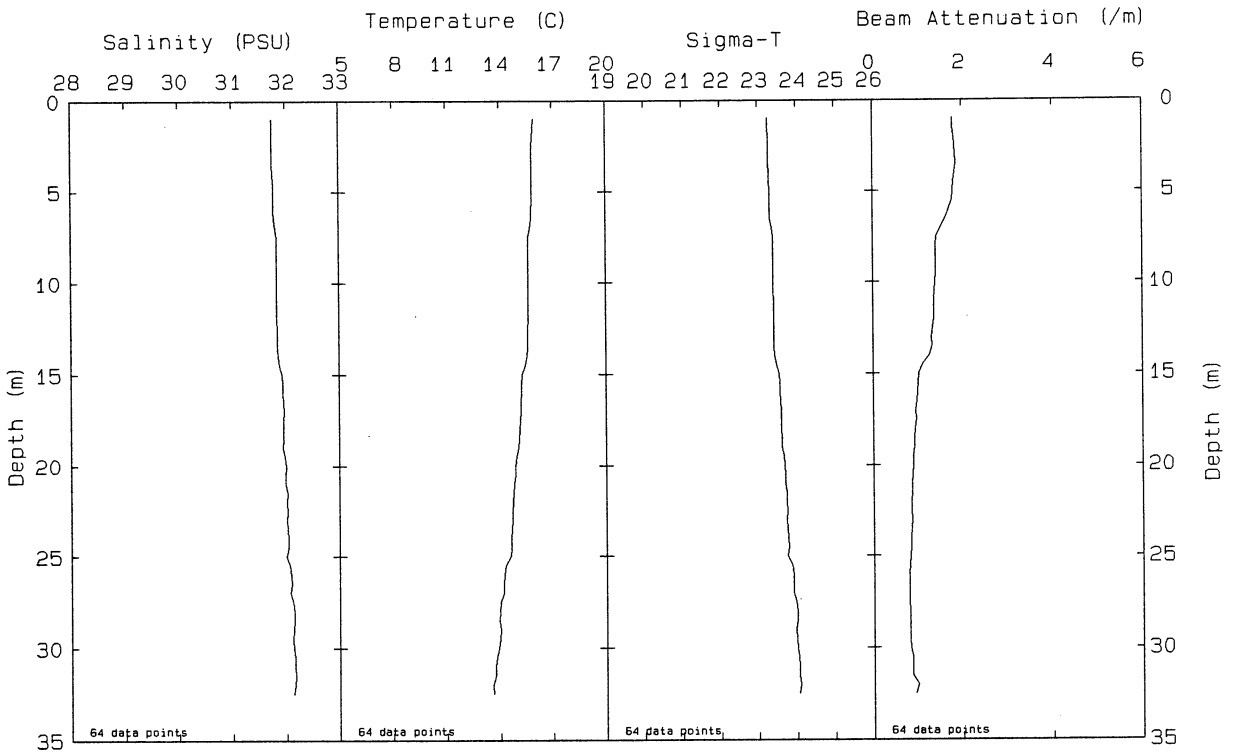
Late September 1994 Profiles

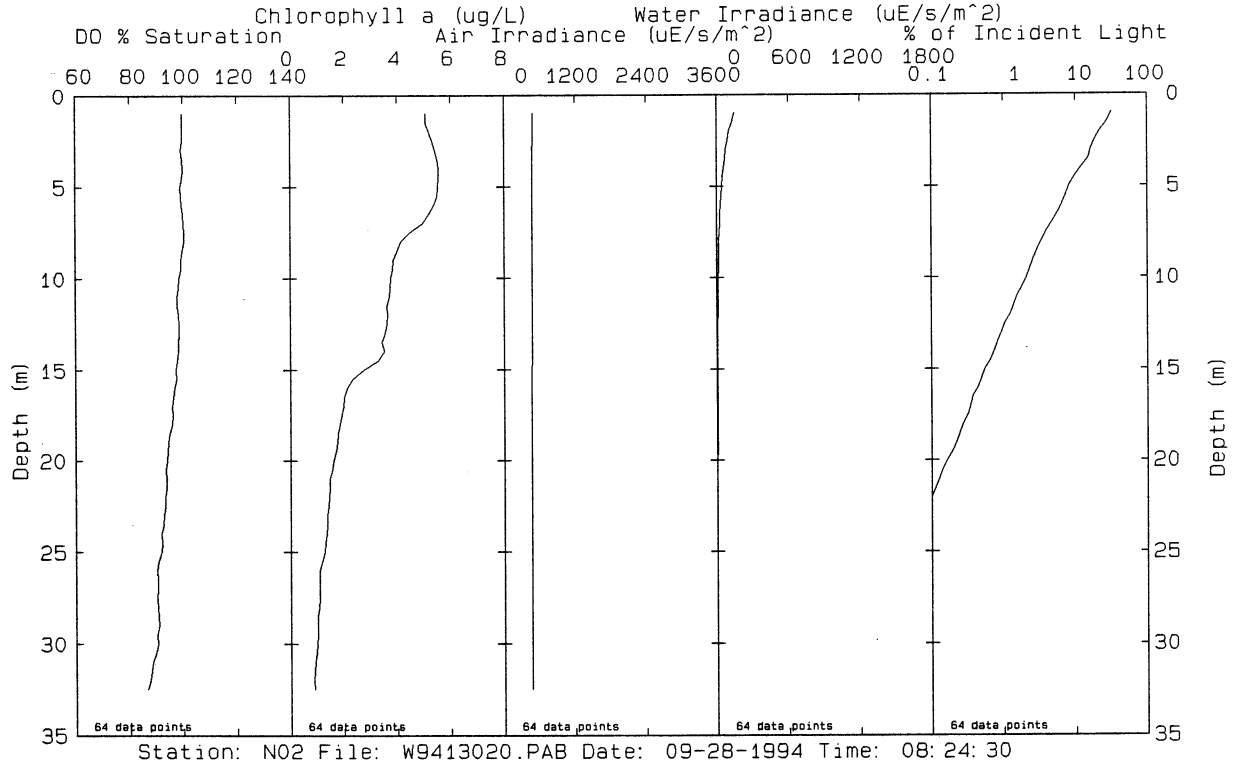




Station: N01P File: W9413016.PAB Date: 09-28-1994 Time: 07:54:52

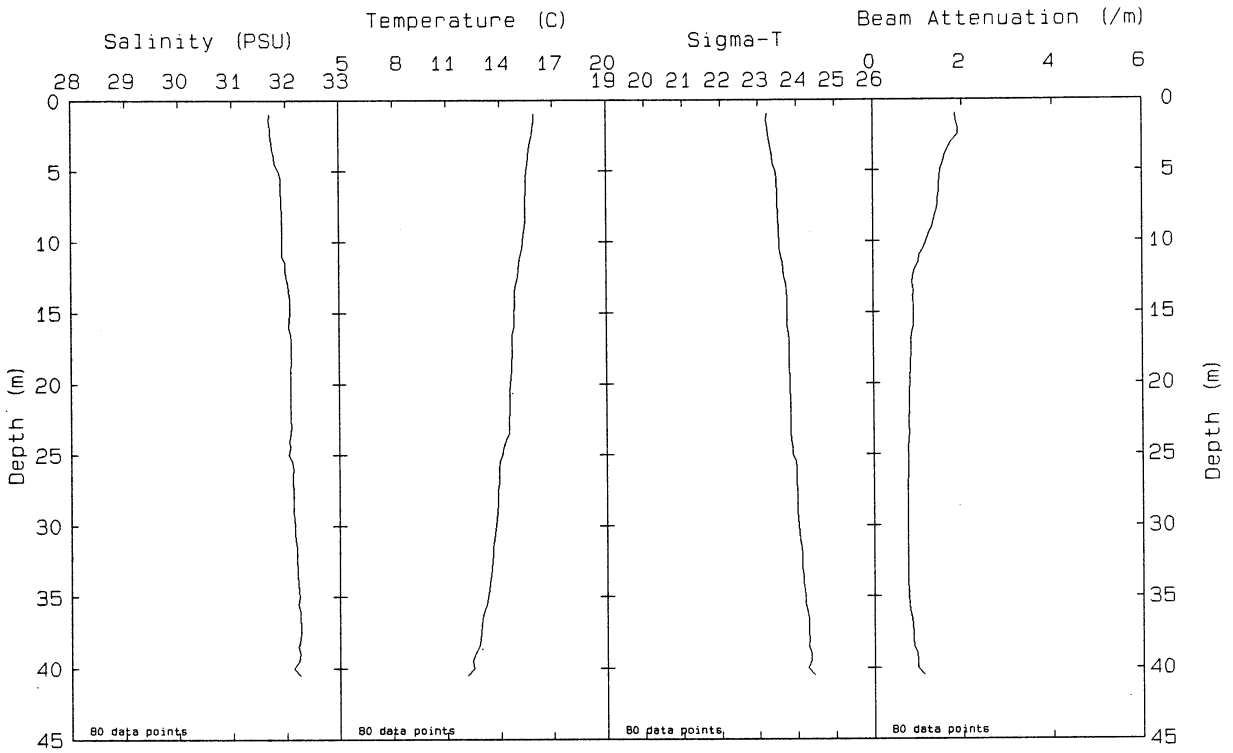
01-19-1995 09:18:52 Battelle

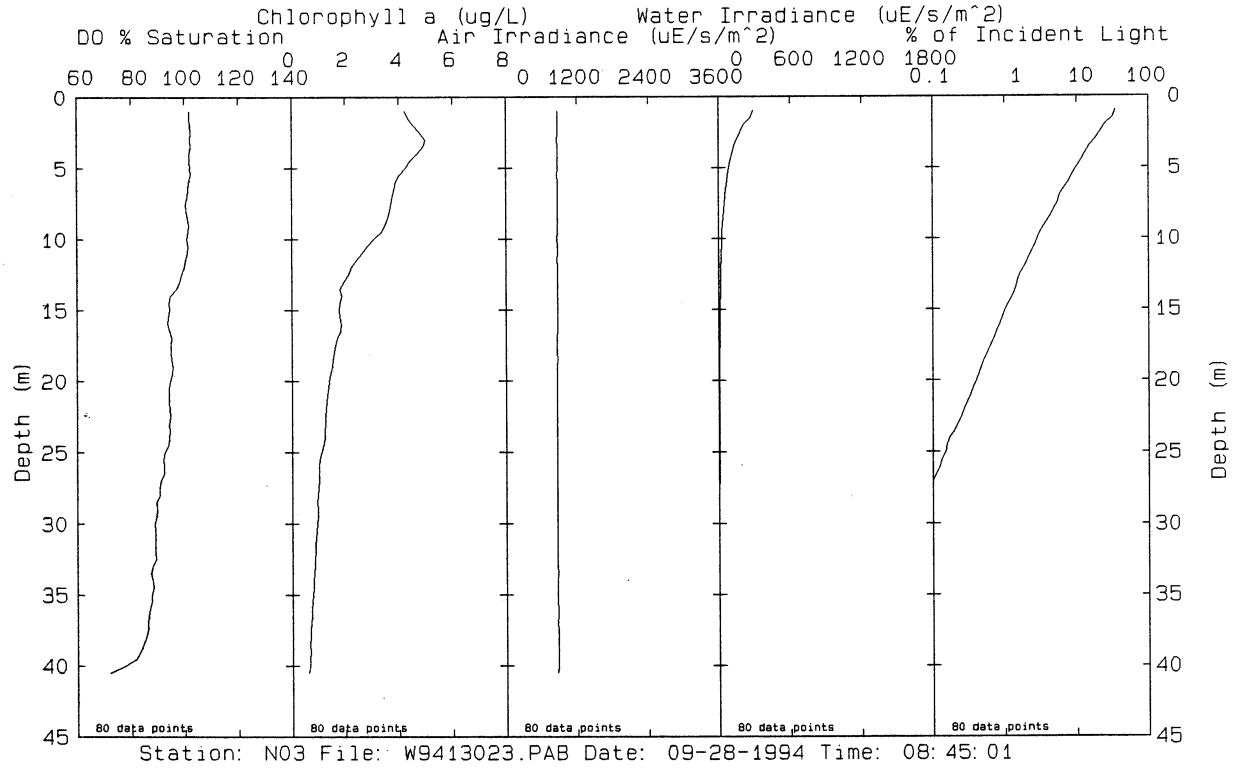




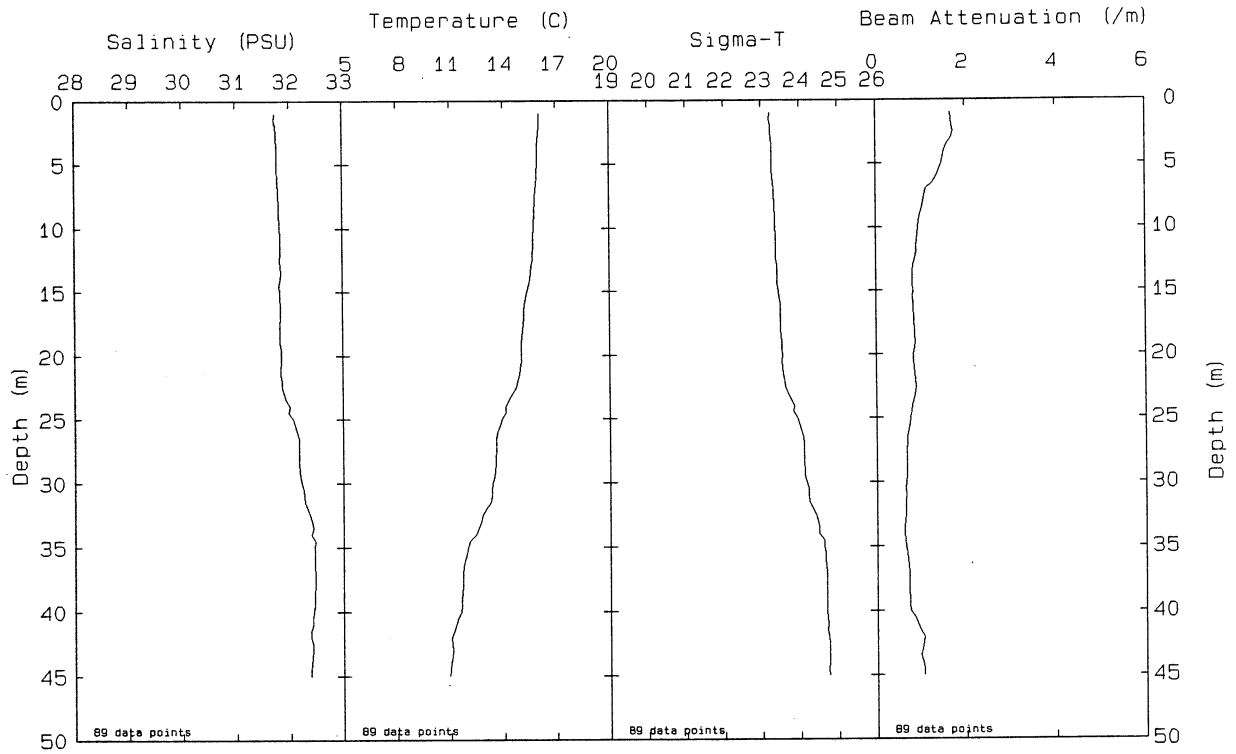
Station: N02 File: W9413020.PAB Date: 09-28-1994 Time: 08:24:30

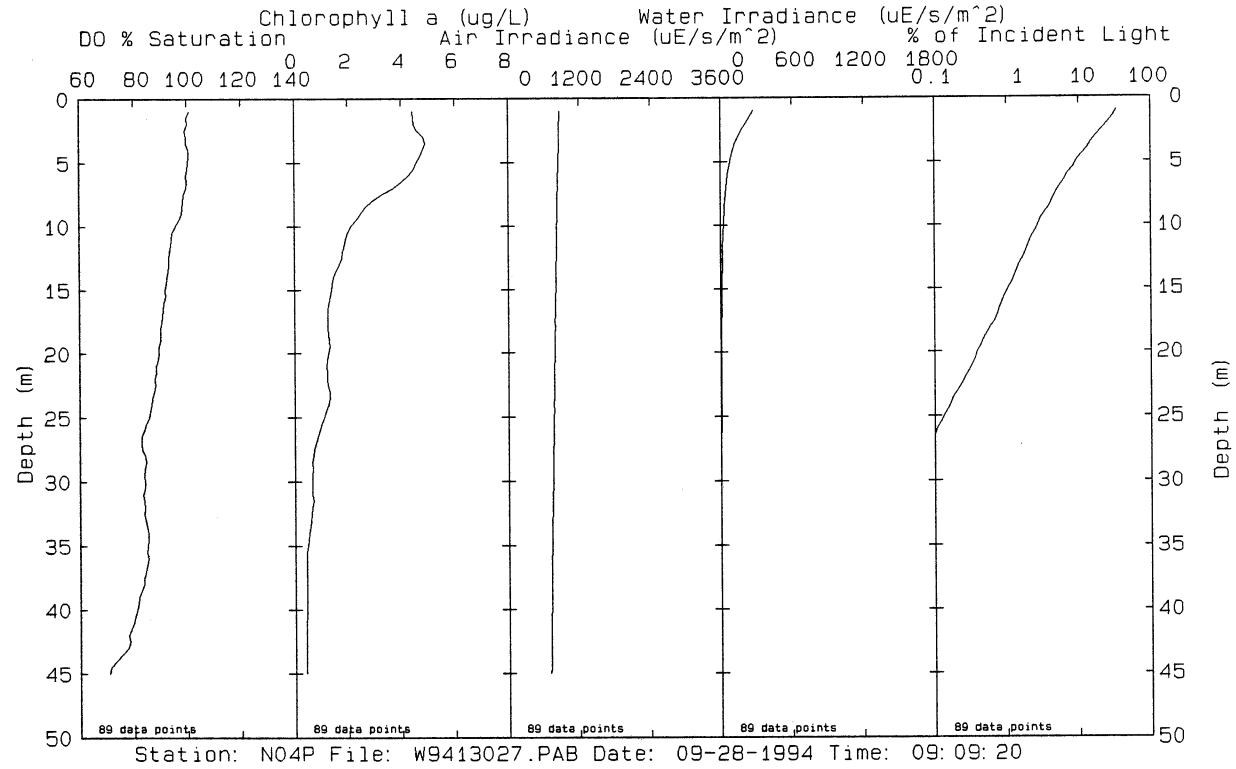
01-19-1995 09:18:55 Battelle



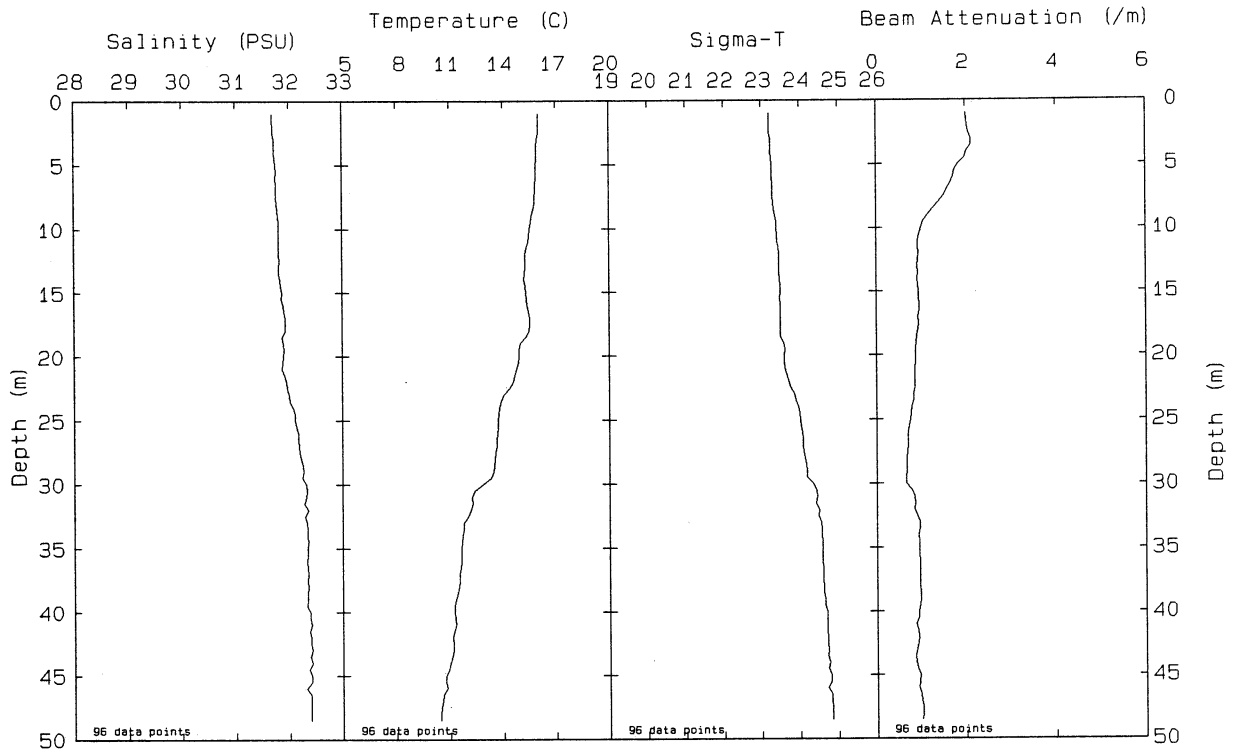


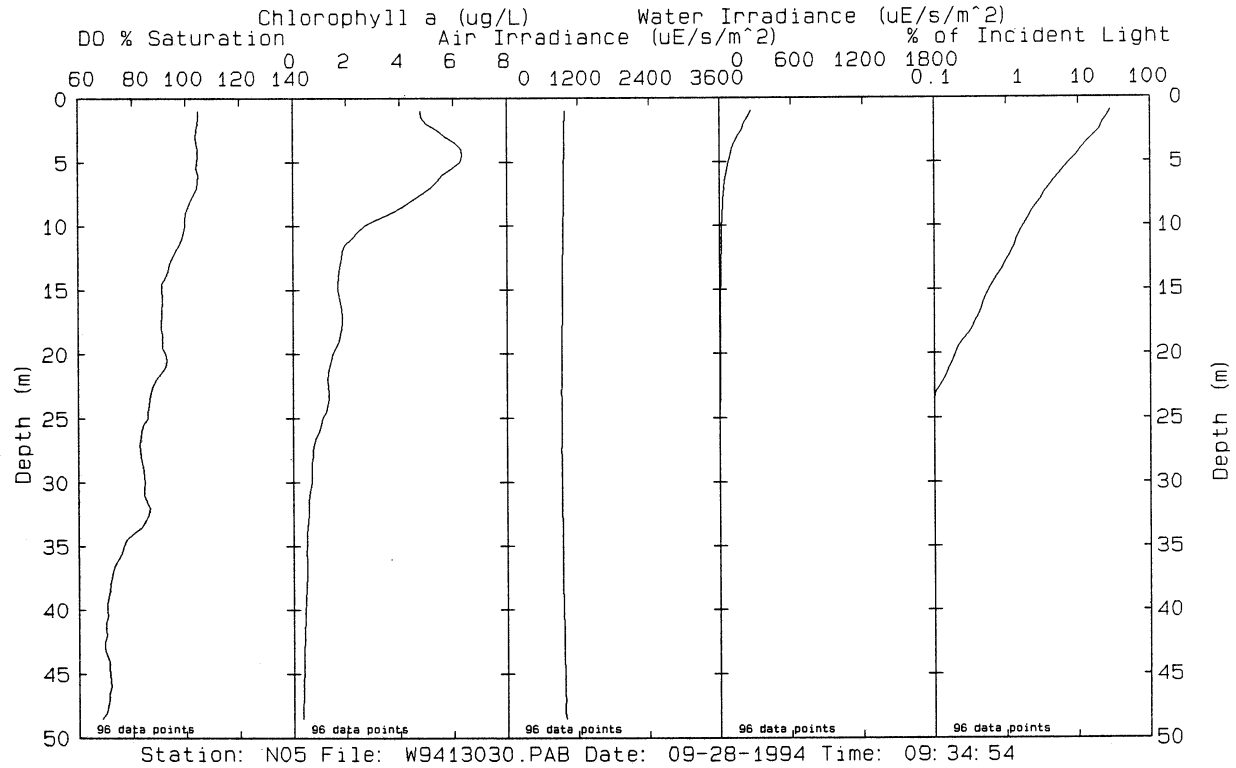
Station: N03 File: W9413023.PAB Date: 09-28-1994 Time: 08:45:01



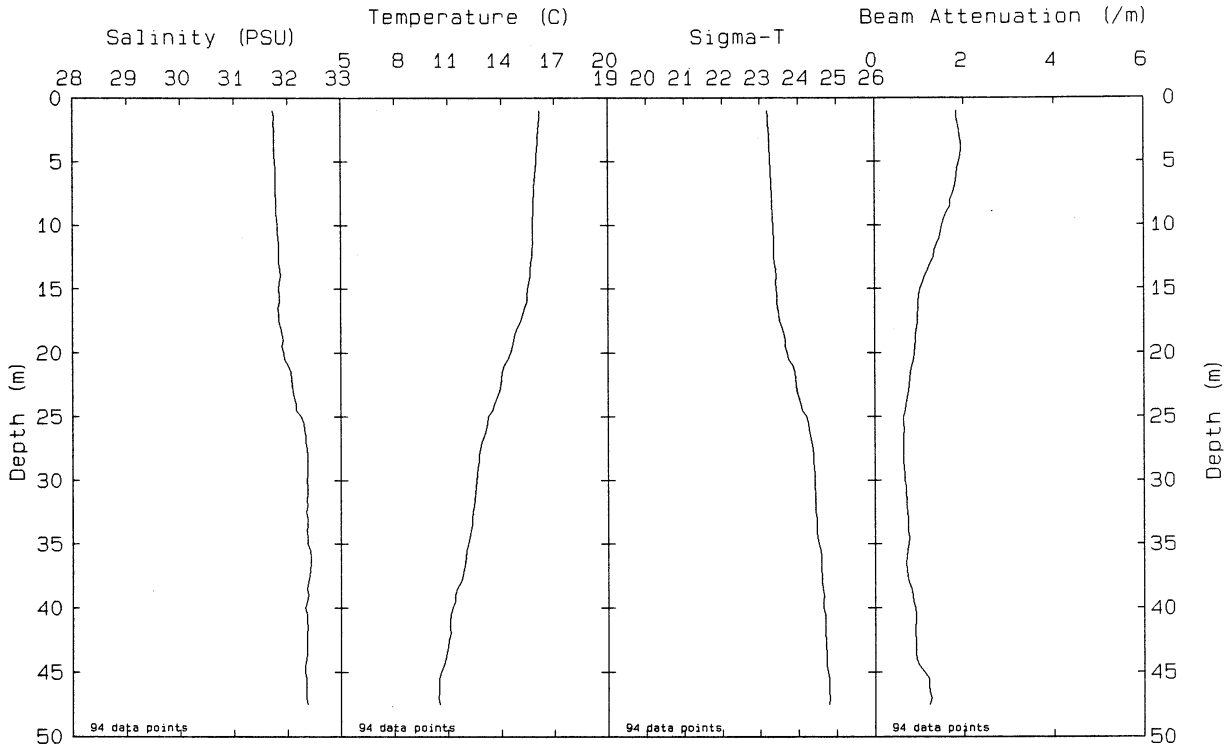


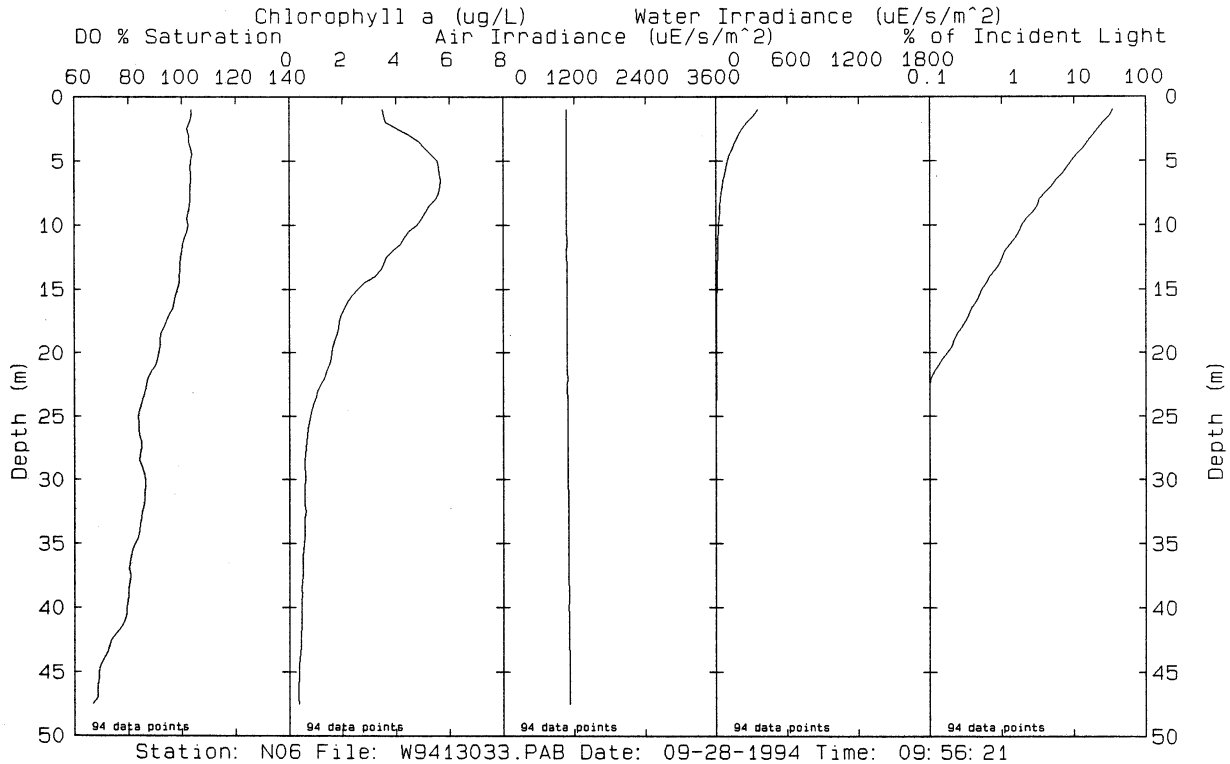
Station: N04P File: W9413027.PAB Date: 09-28-1994 Time: 09:09:20





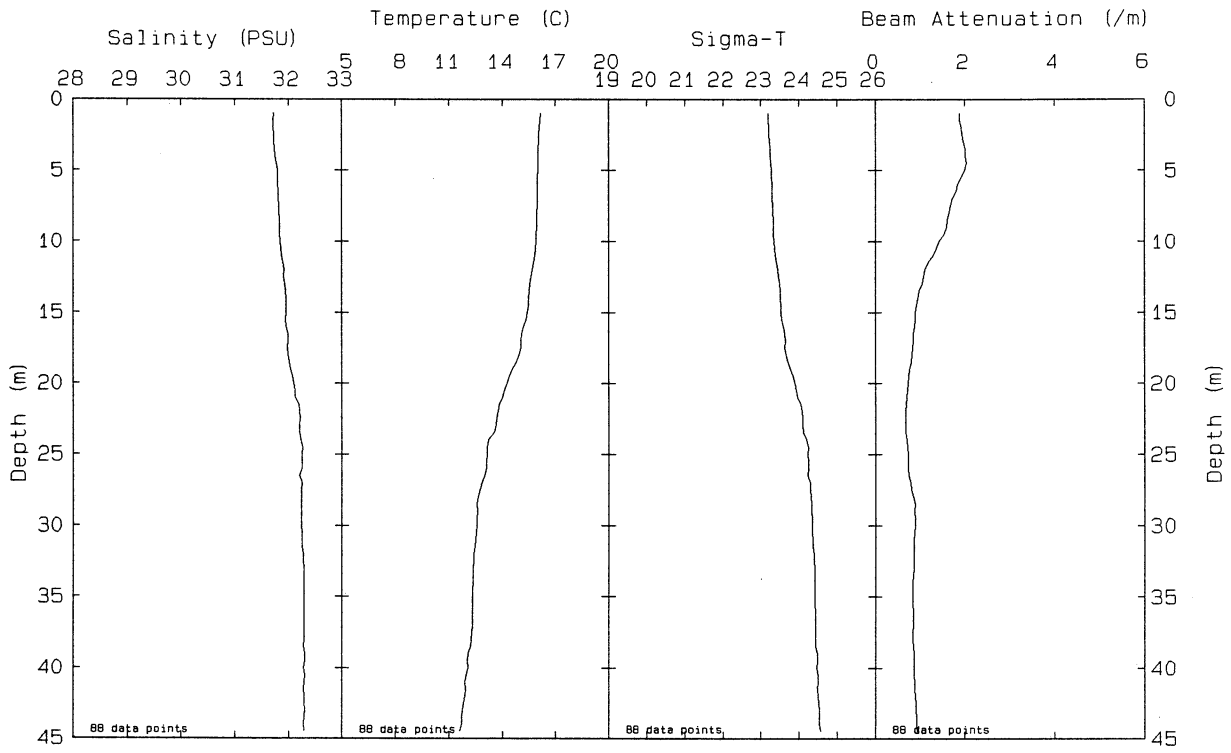
Station: N05 File: W9413030.PAB Date: 09-28-1994 Time: 09:34:54

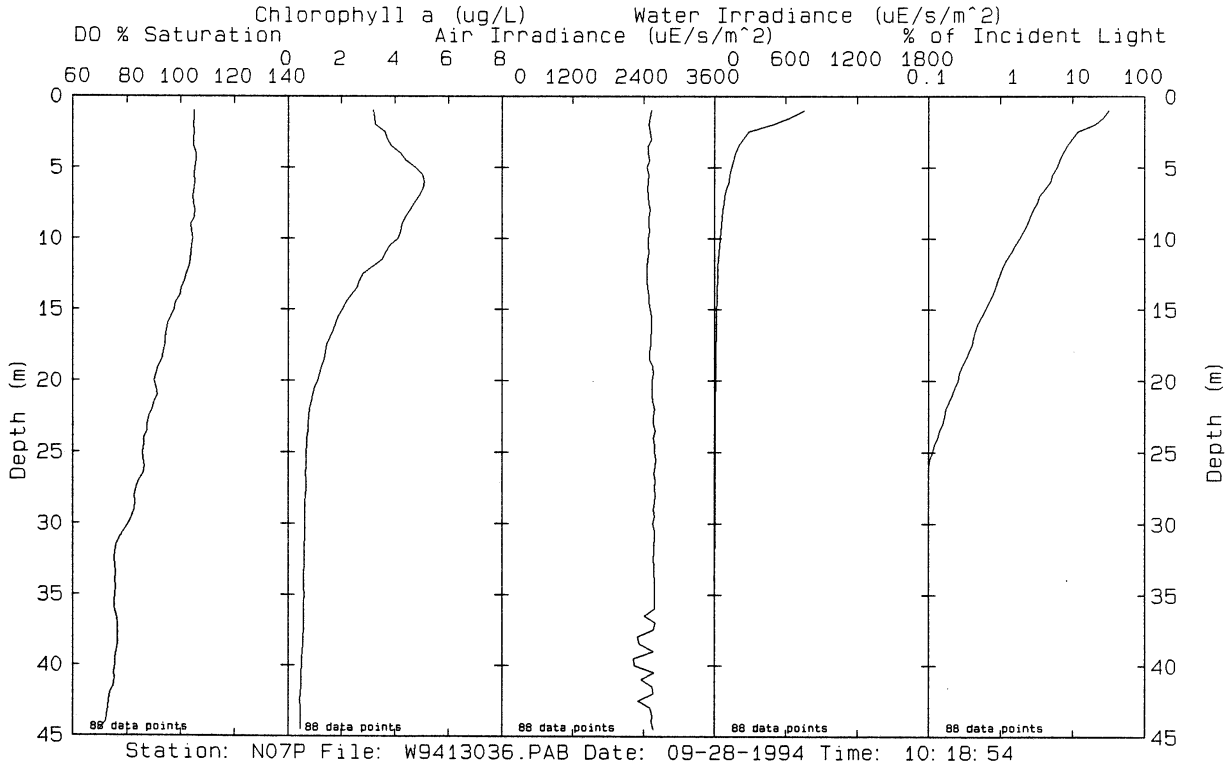




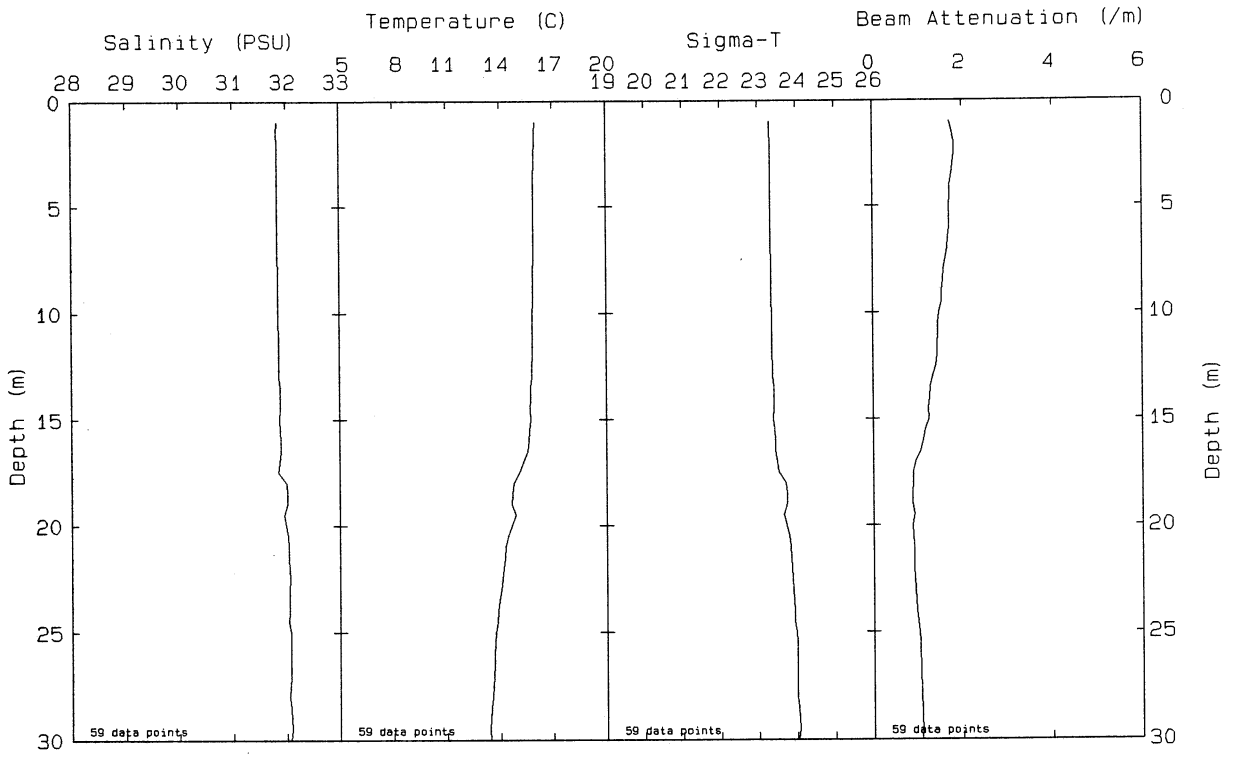
Station: N06 File: W9413033.PAB Date: 09-28-1994 Time: 09:56:21

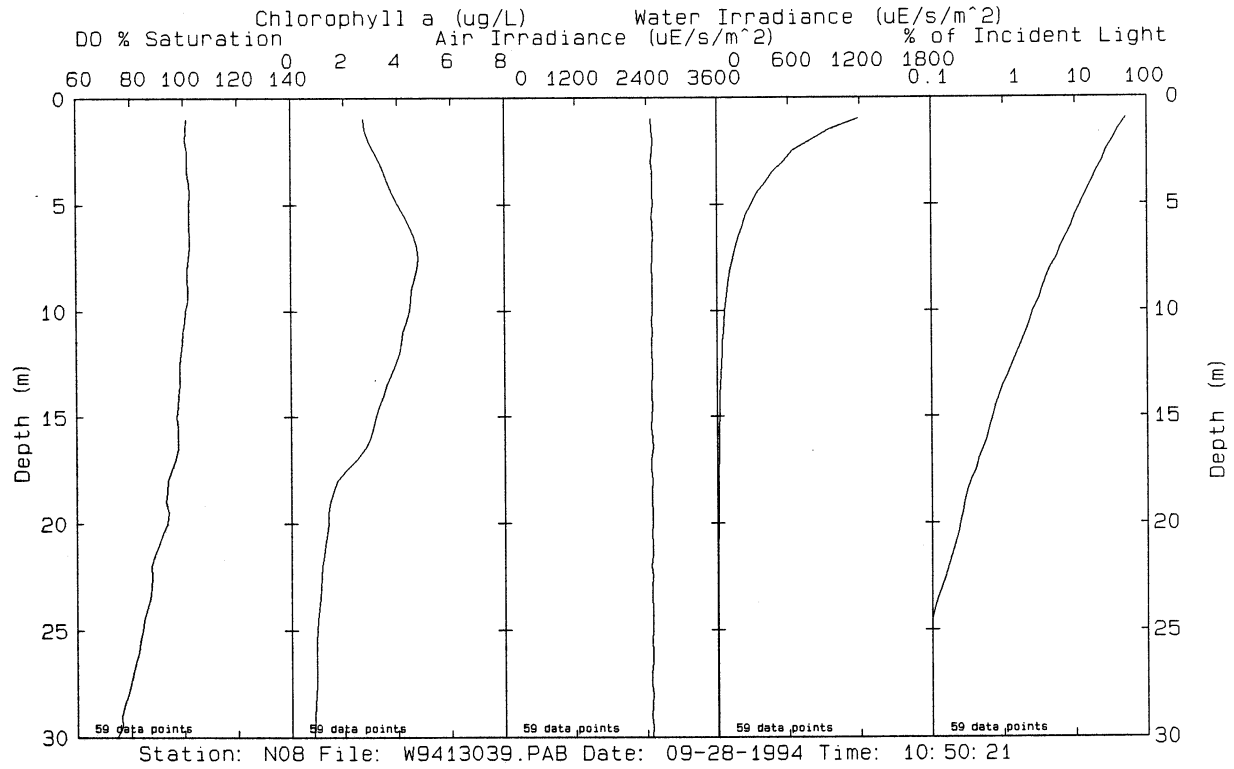
01-19-1995 09:19:10 Battelle



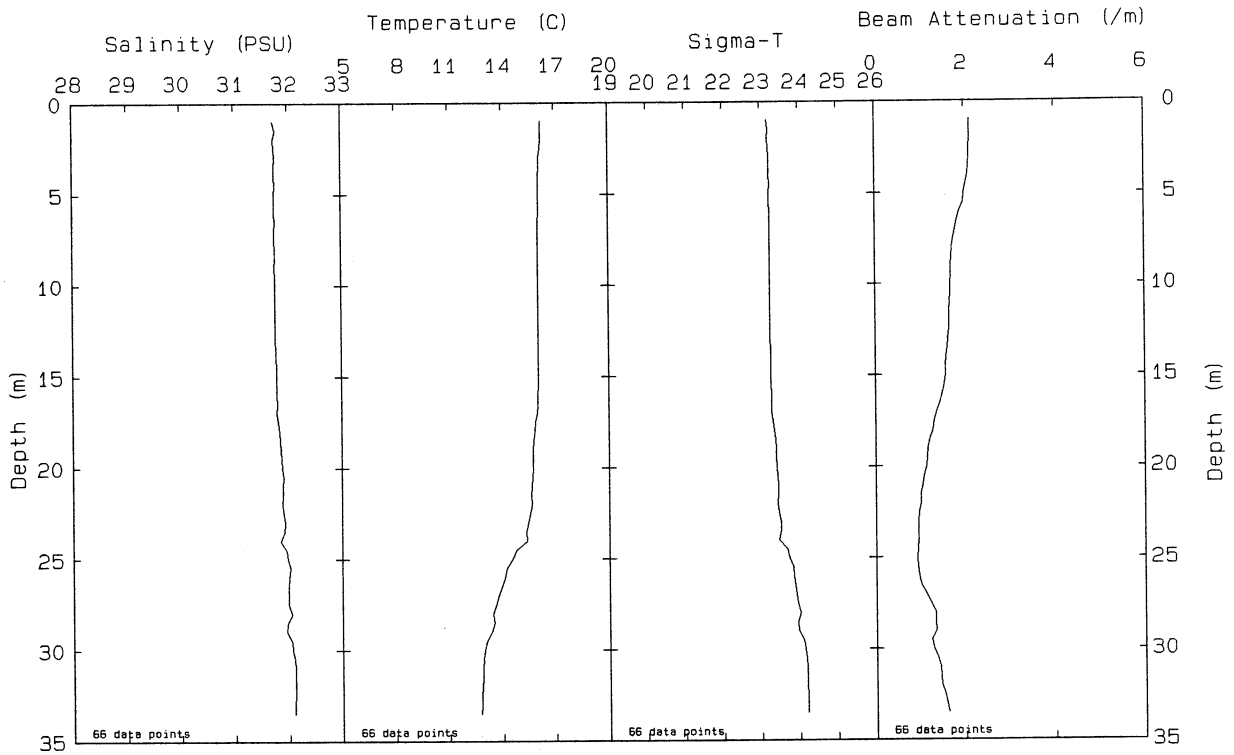


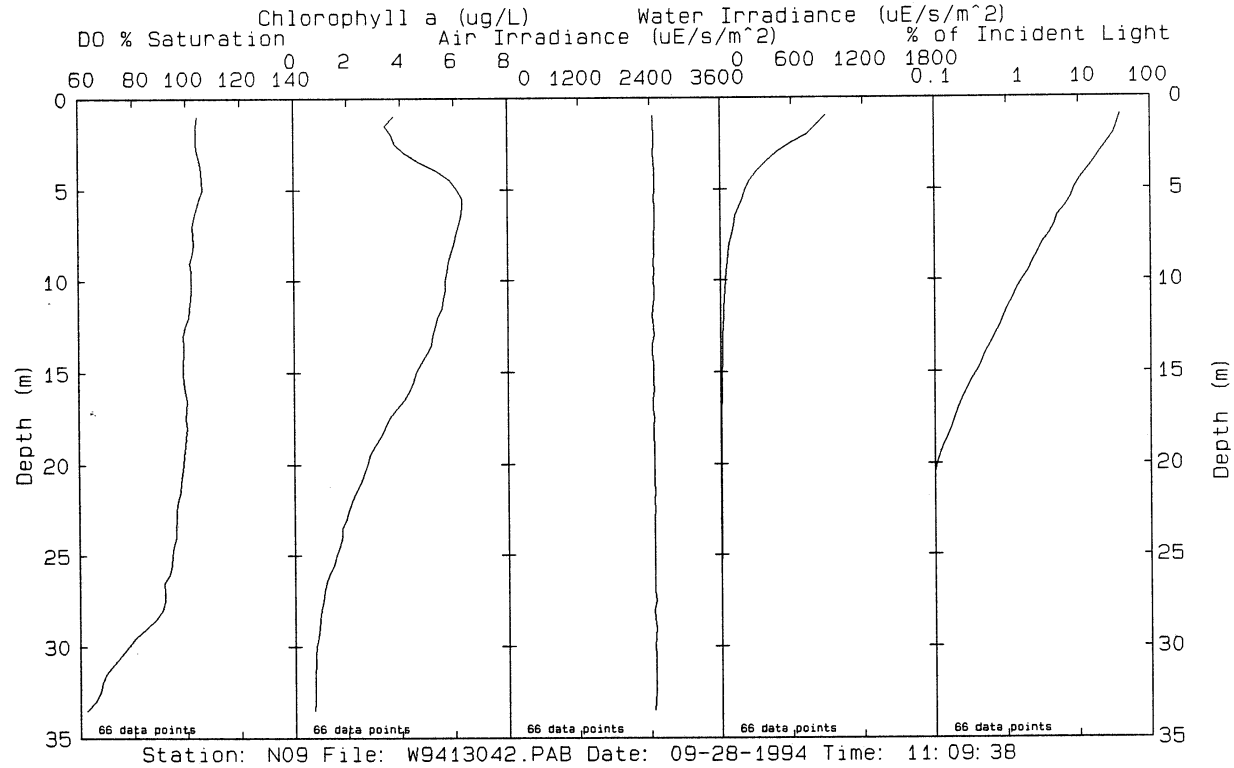
Station: N07P File: W9413036.PAB Date: 09-28-1994 Time: 10:18:54





Station: N08 File: W9413039.PAB Date: 09-28-1994 Time: 10:50:21





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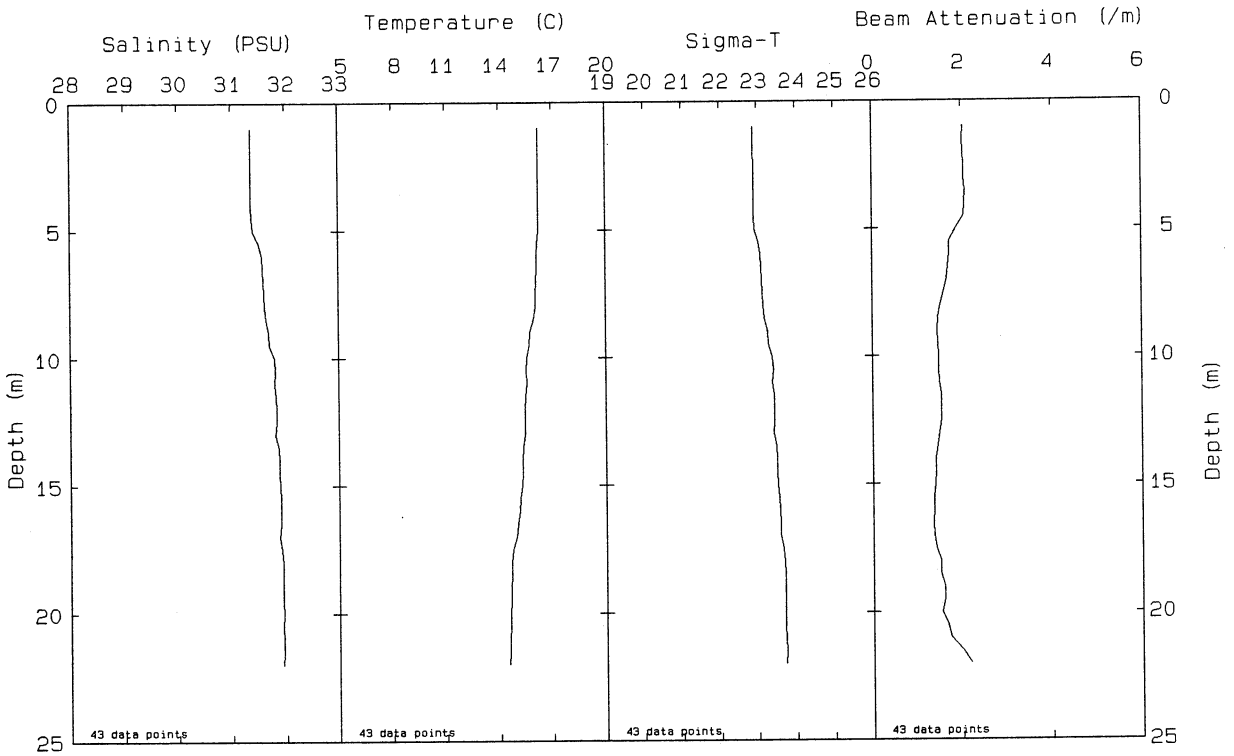
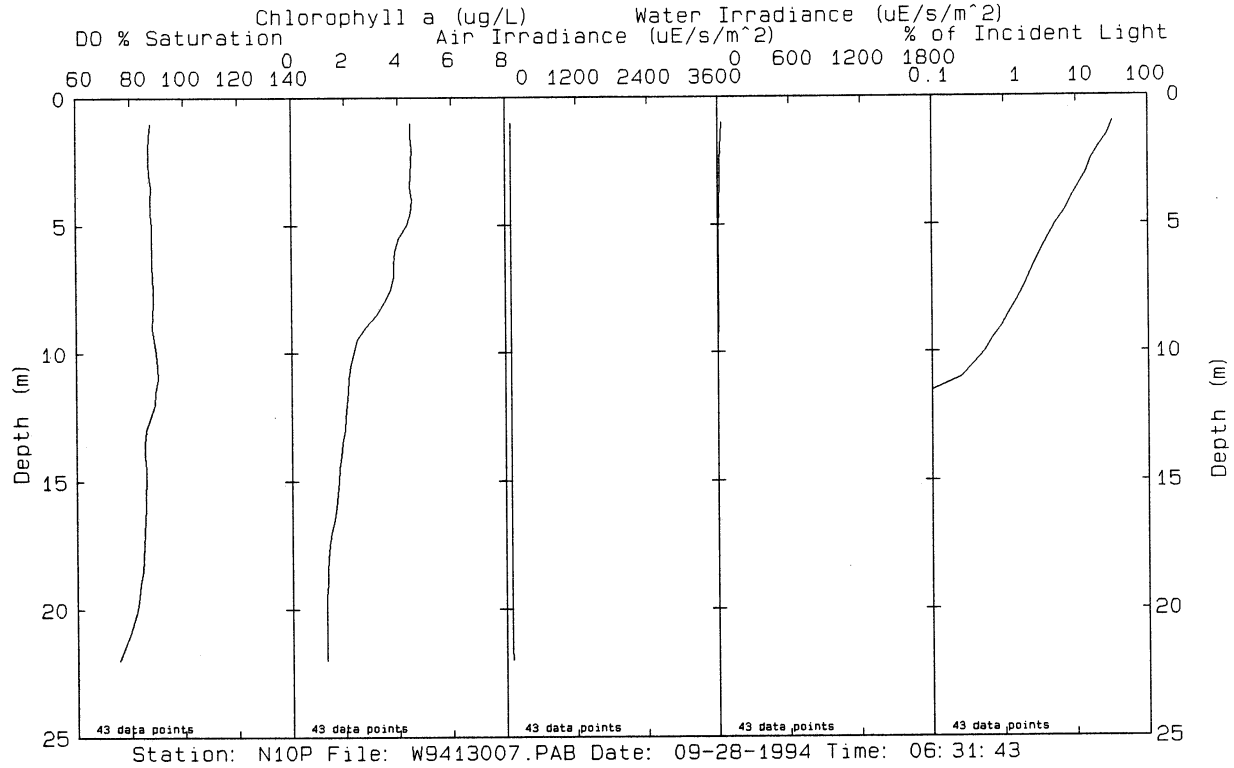
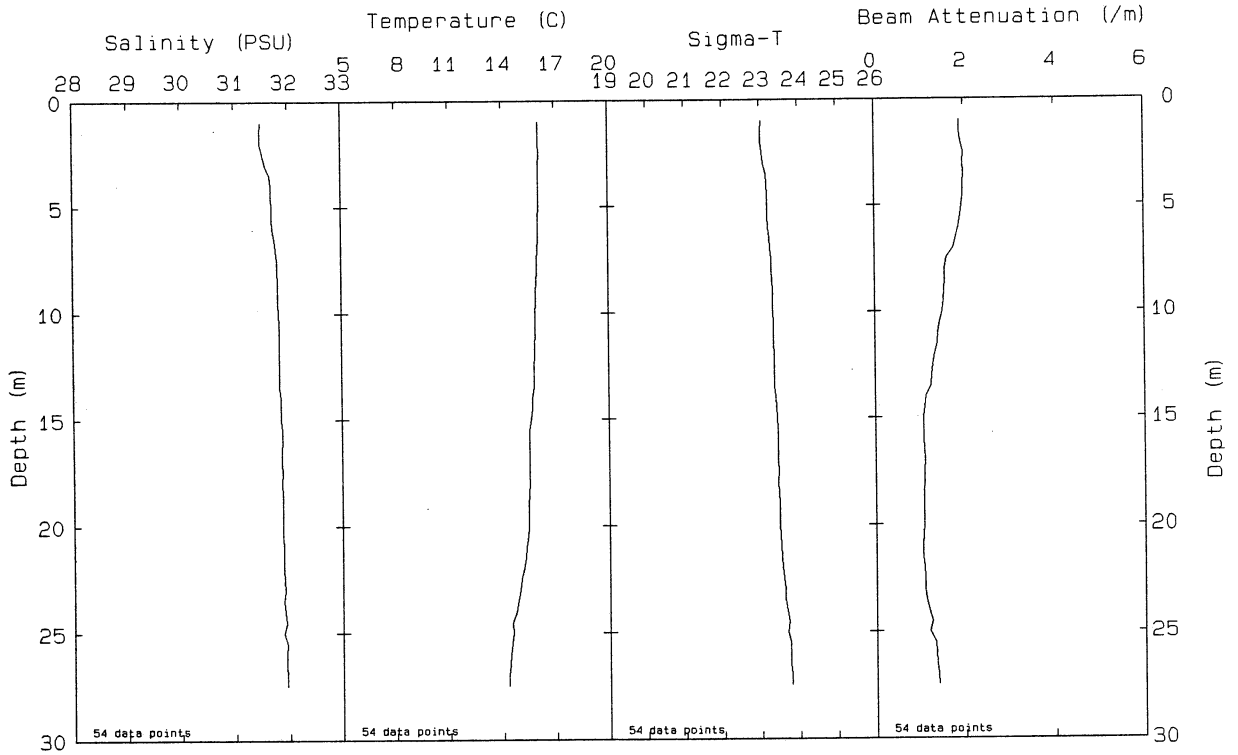
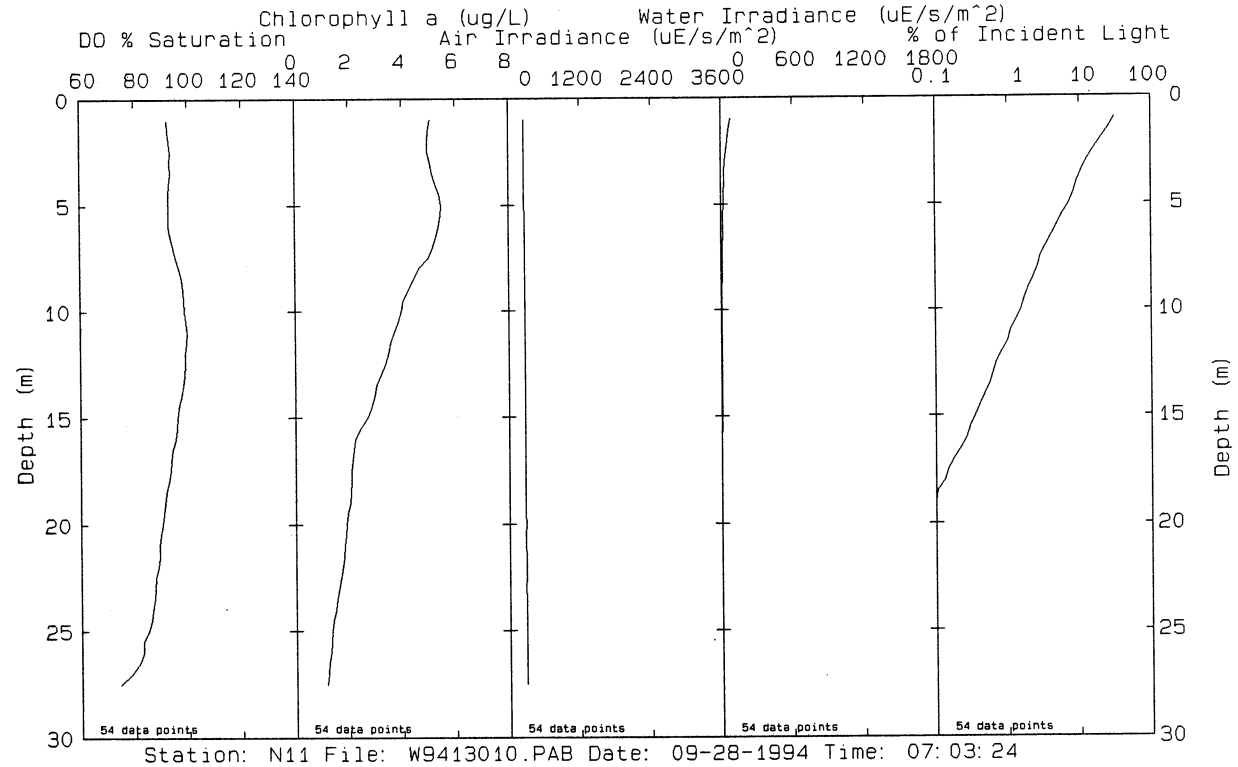




Station: N10P File: W9413007.PAB Date: 09-28-1994 Time: 06:31:43





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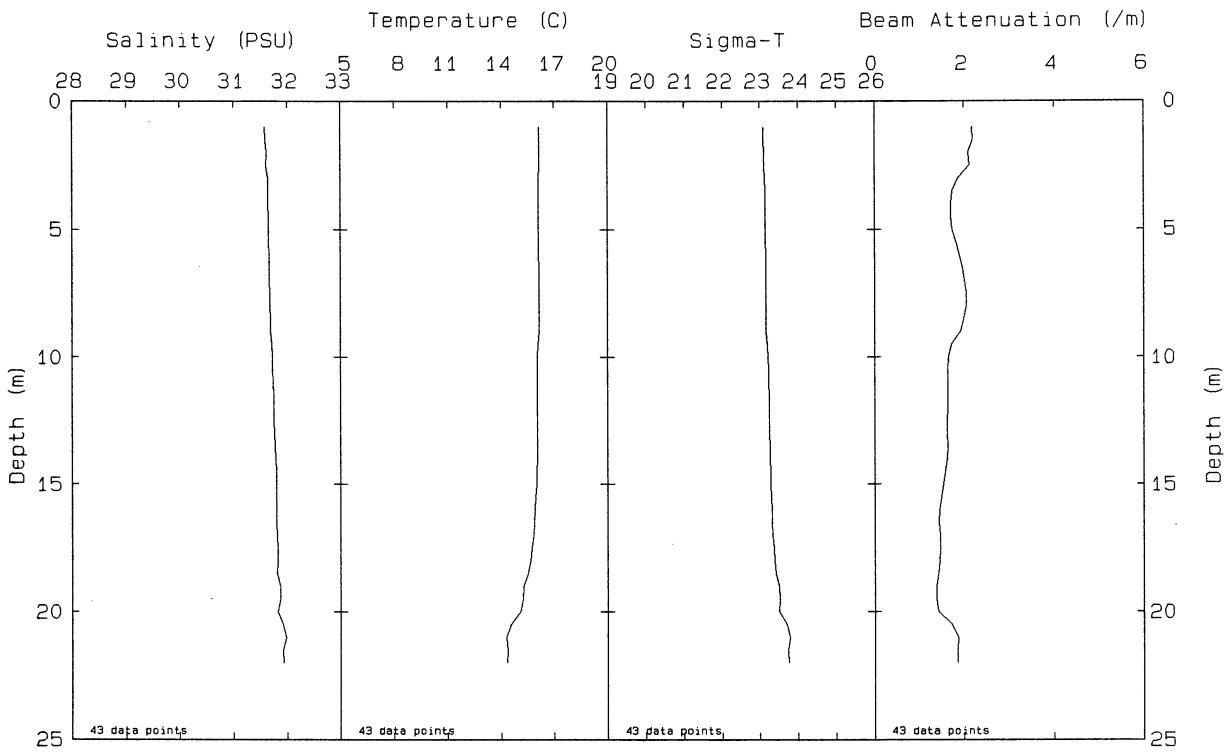

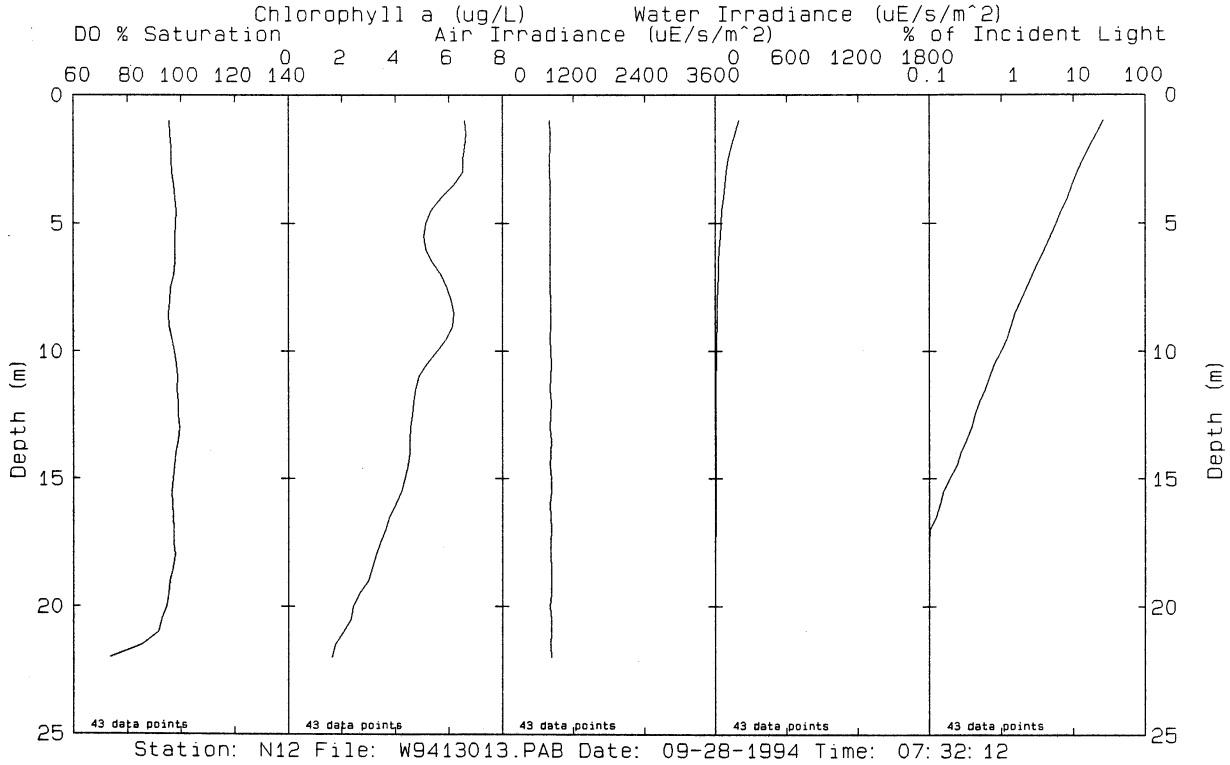

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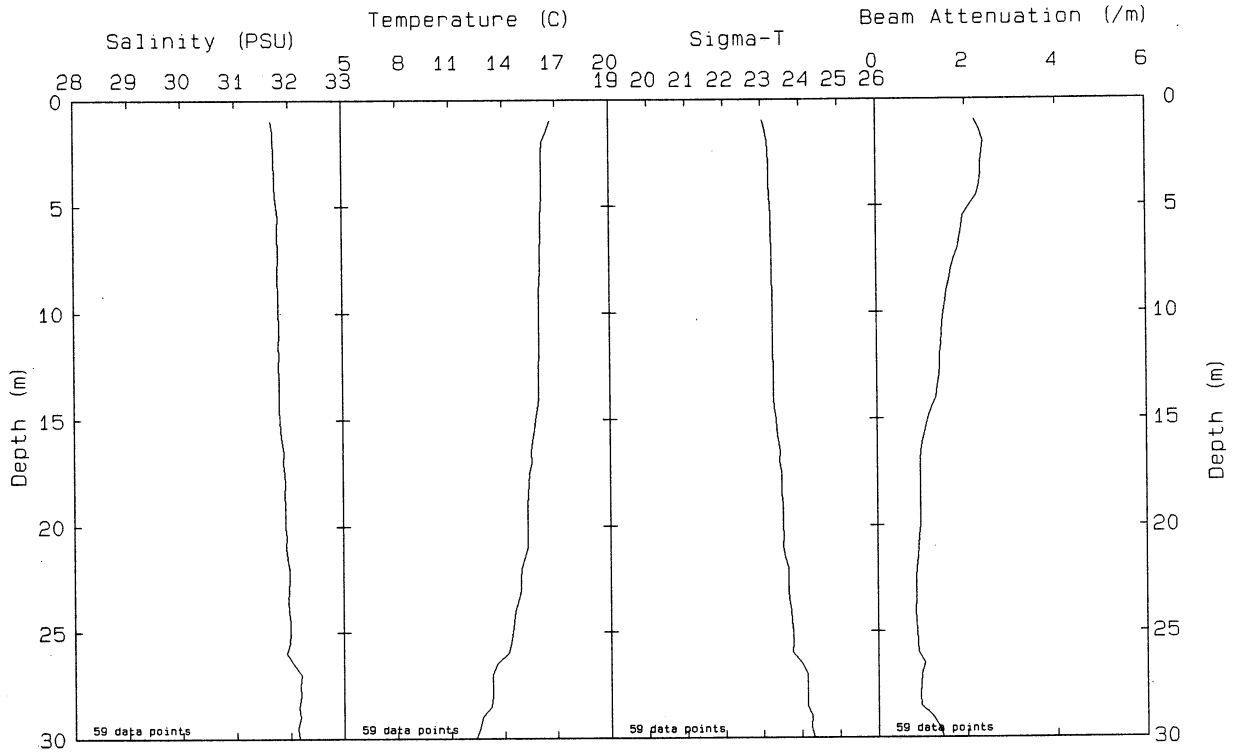

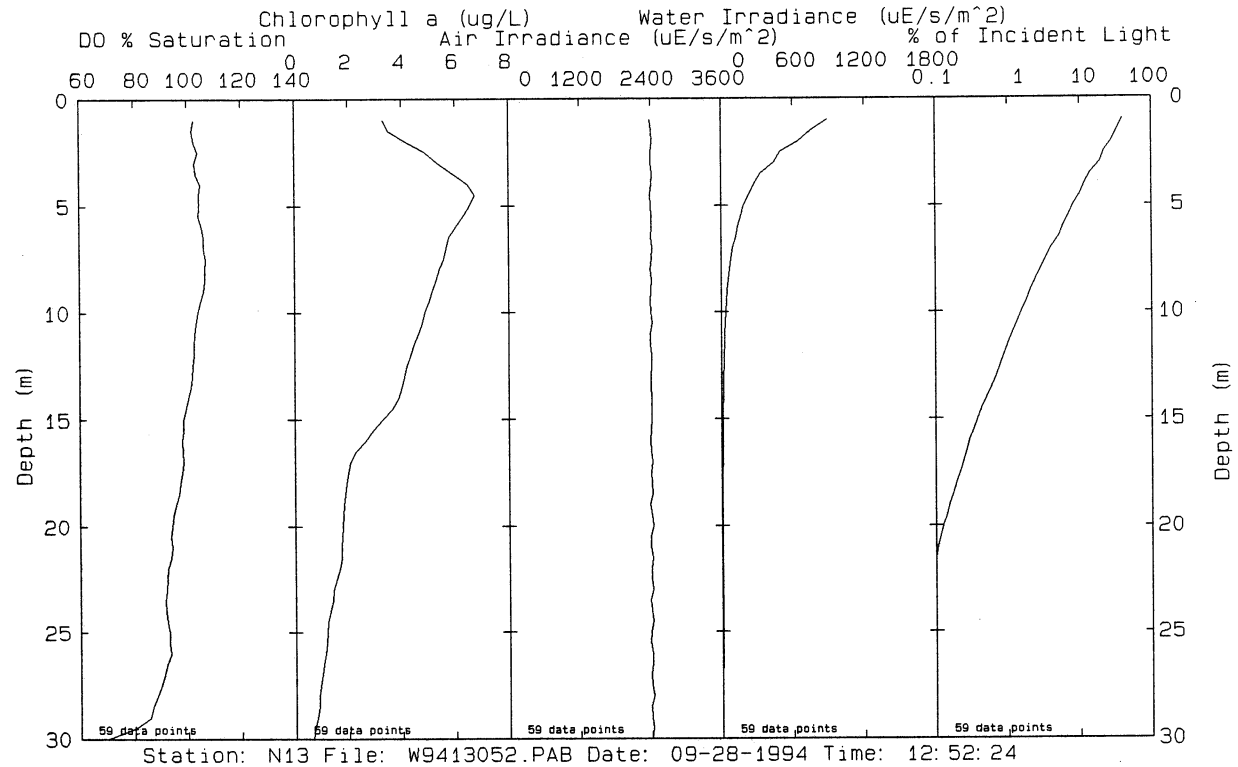

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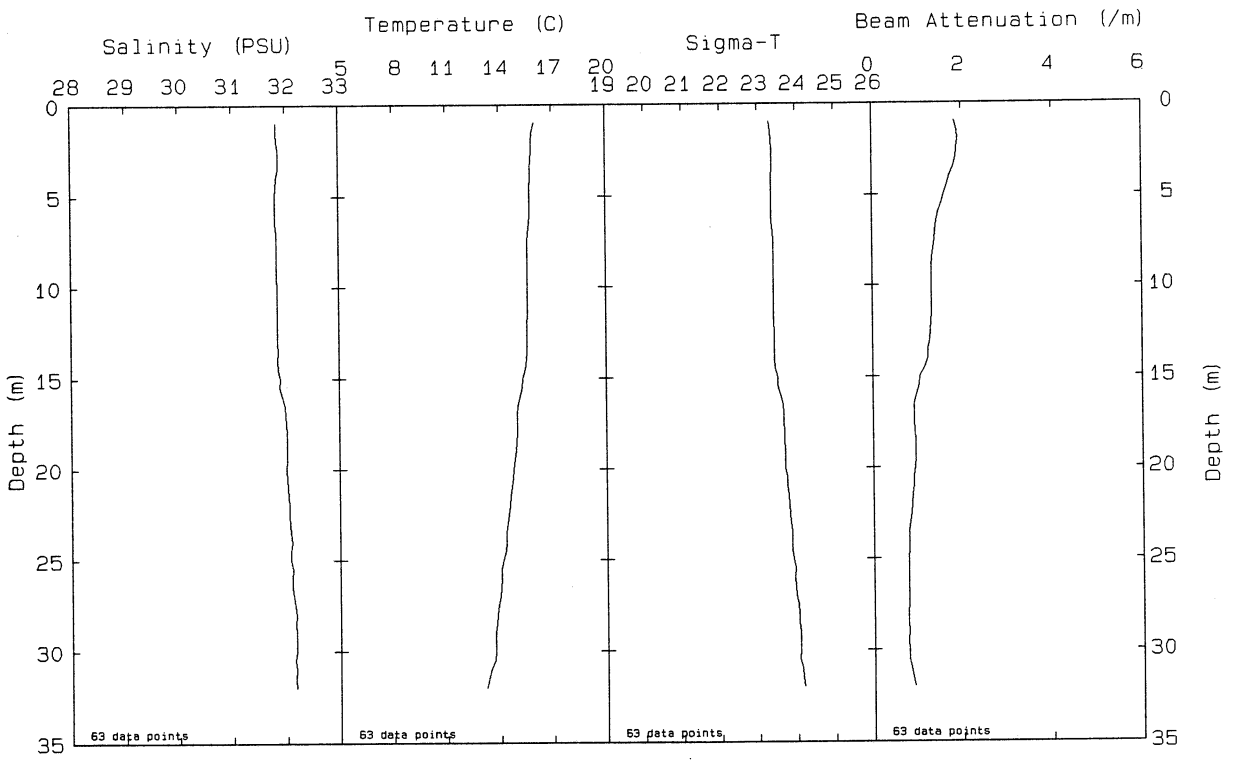

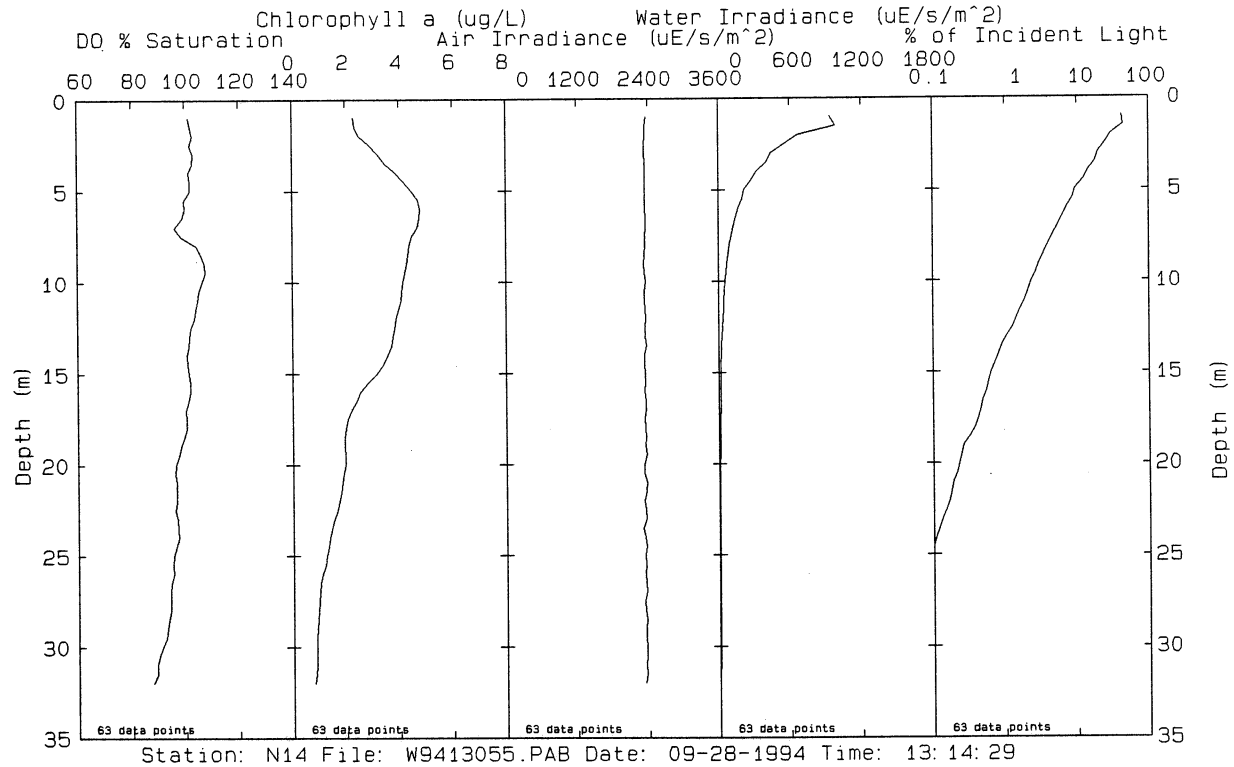

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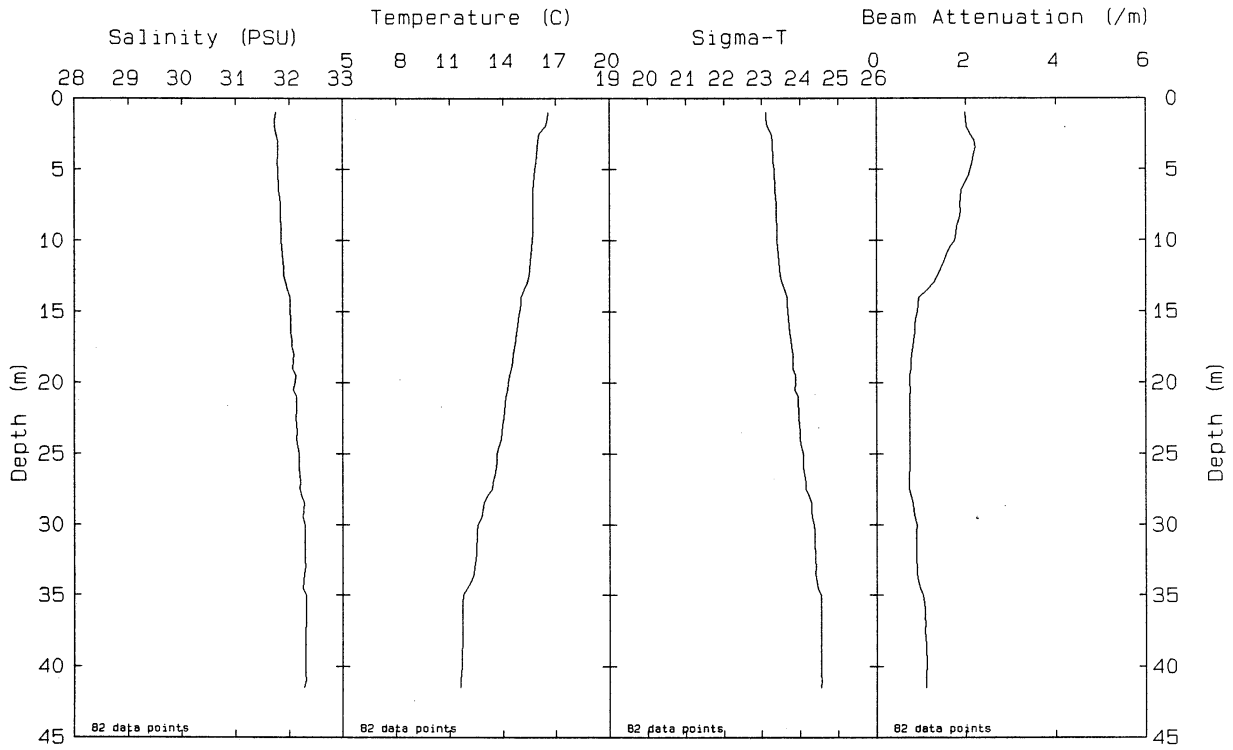

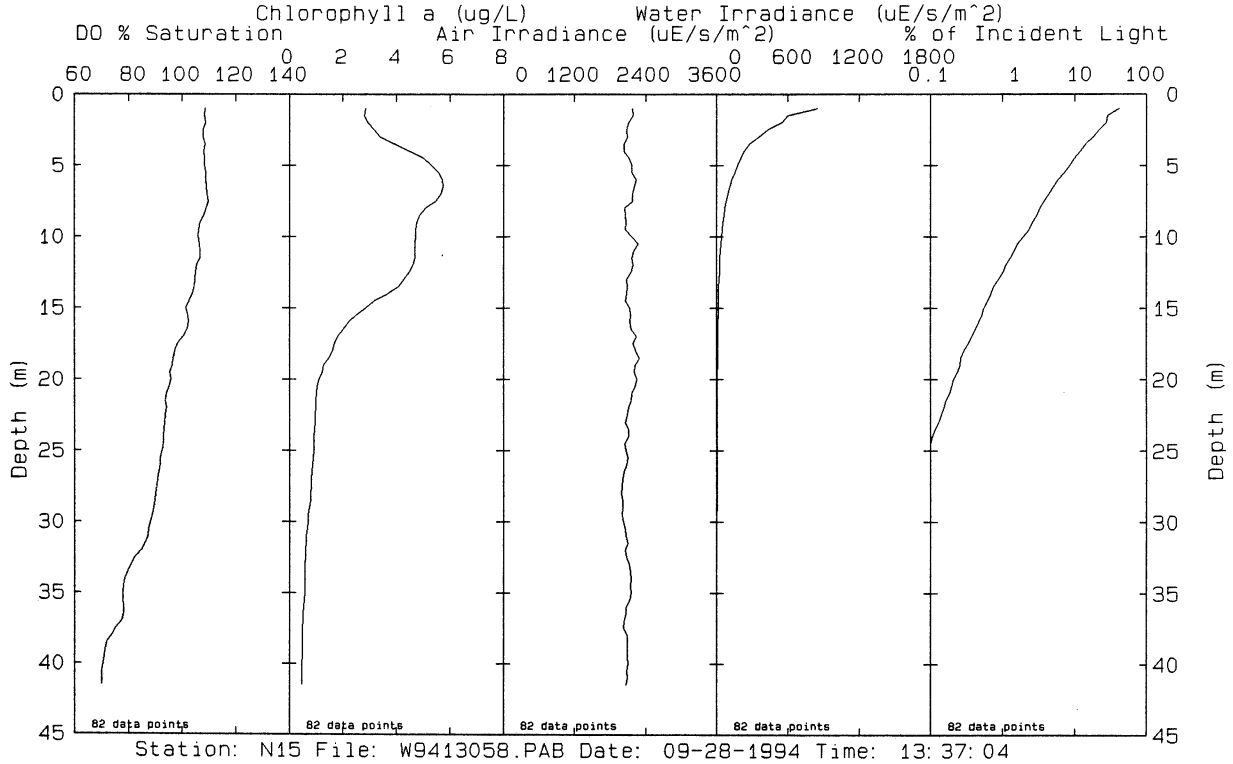

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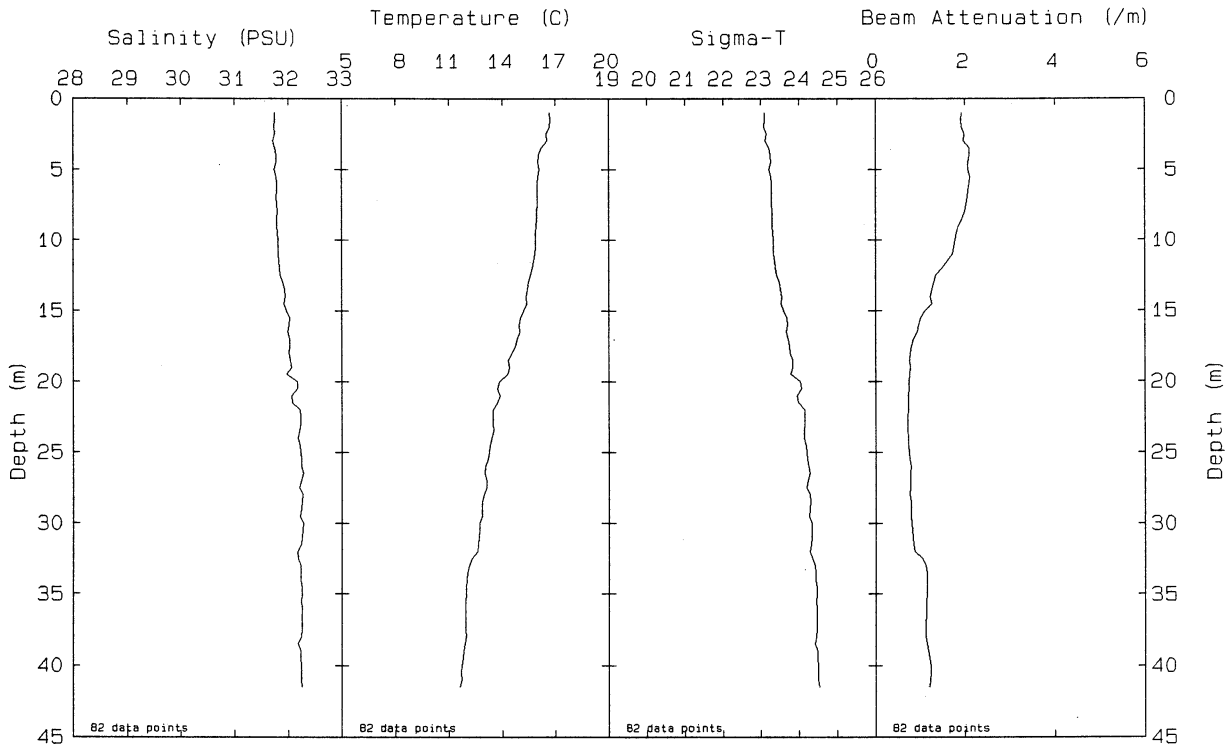

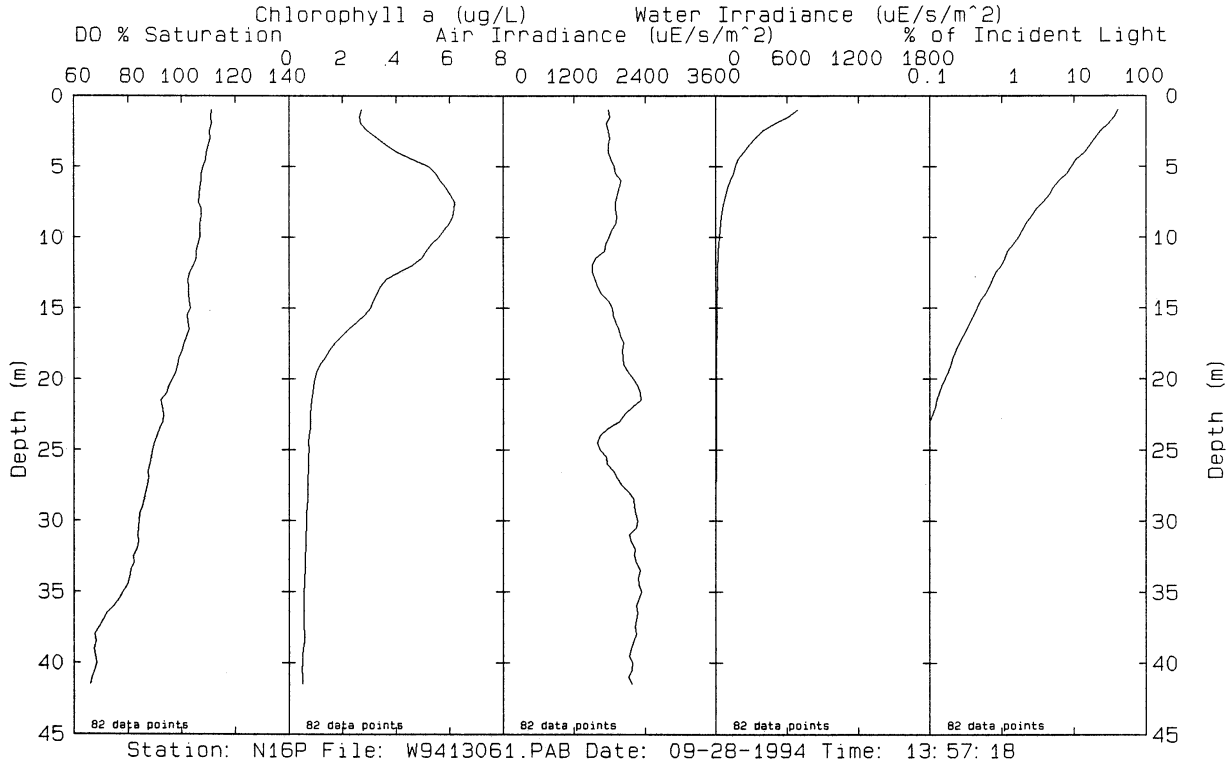

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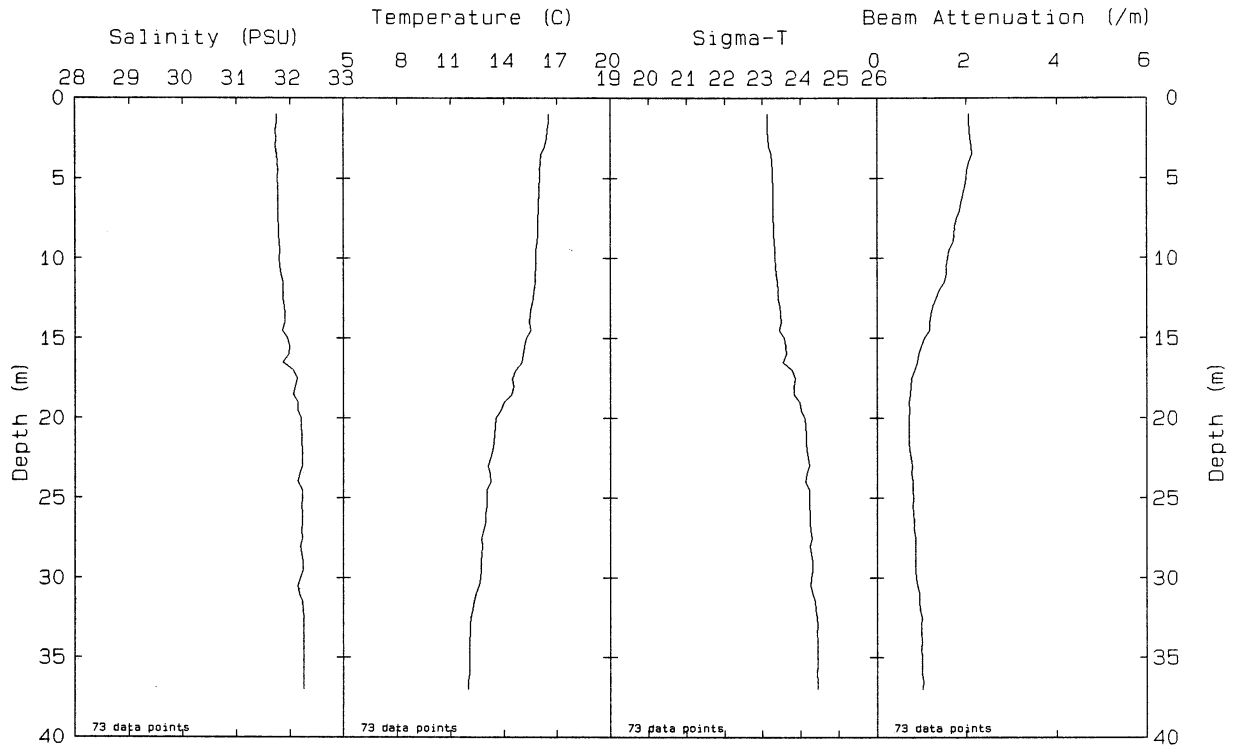

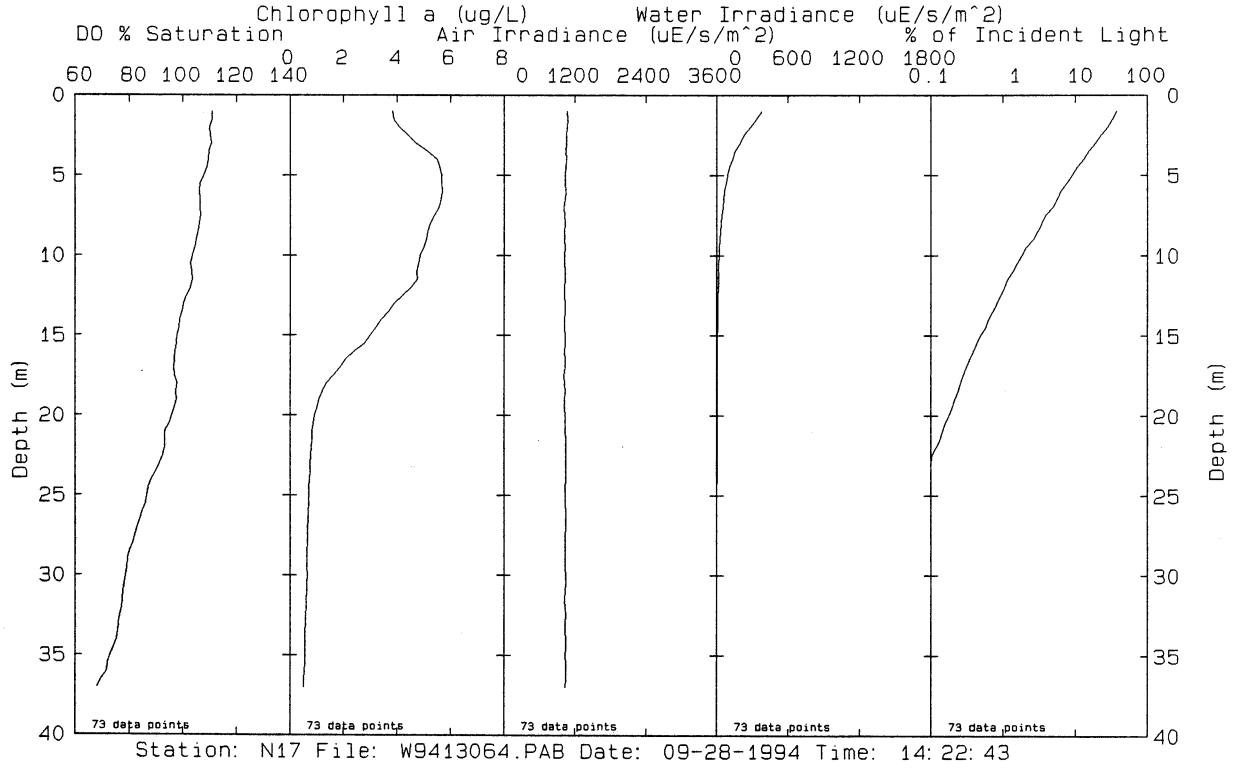

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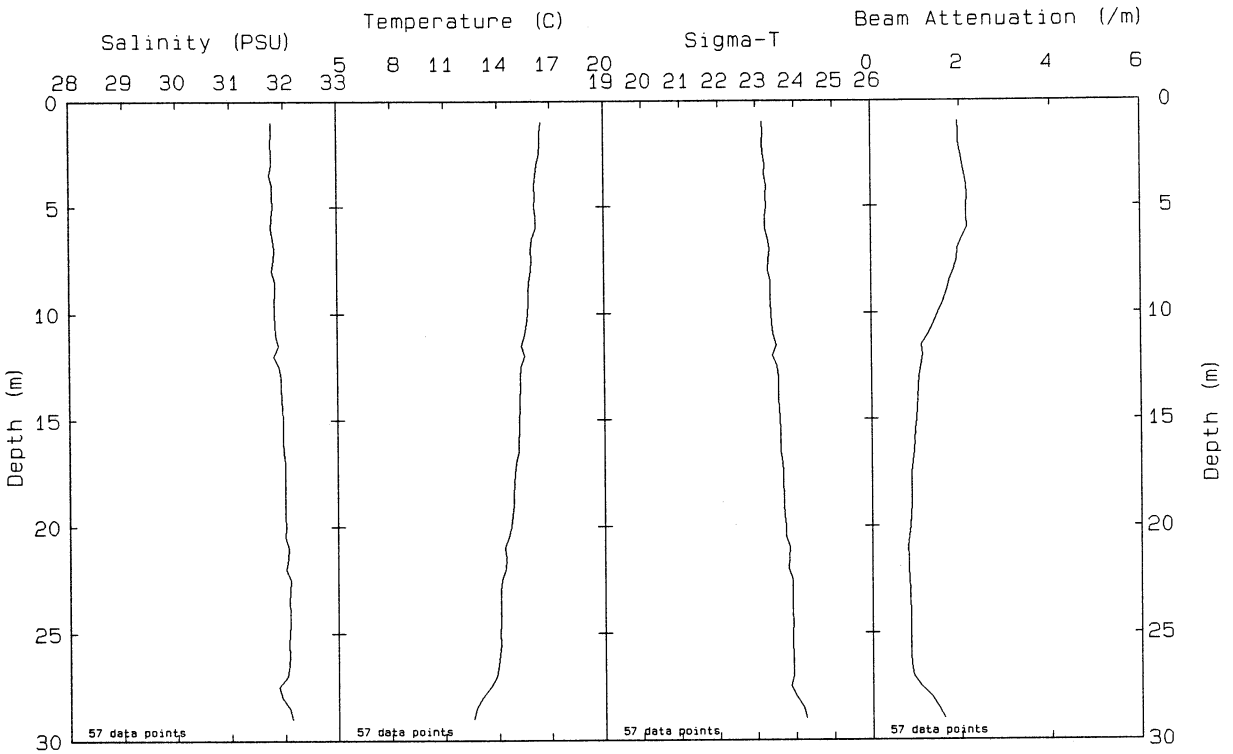

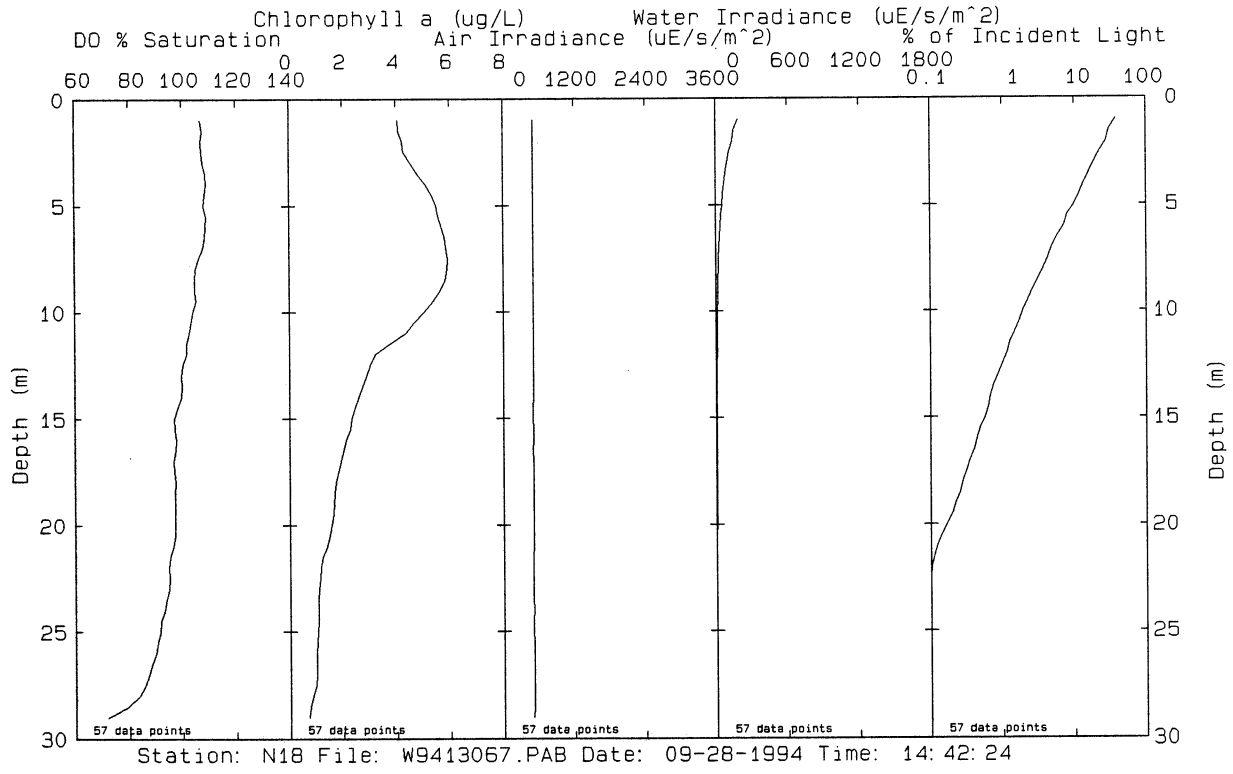

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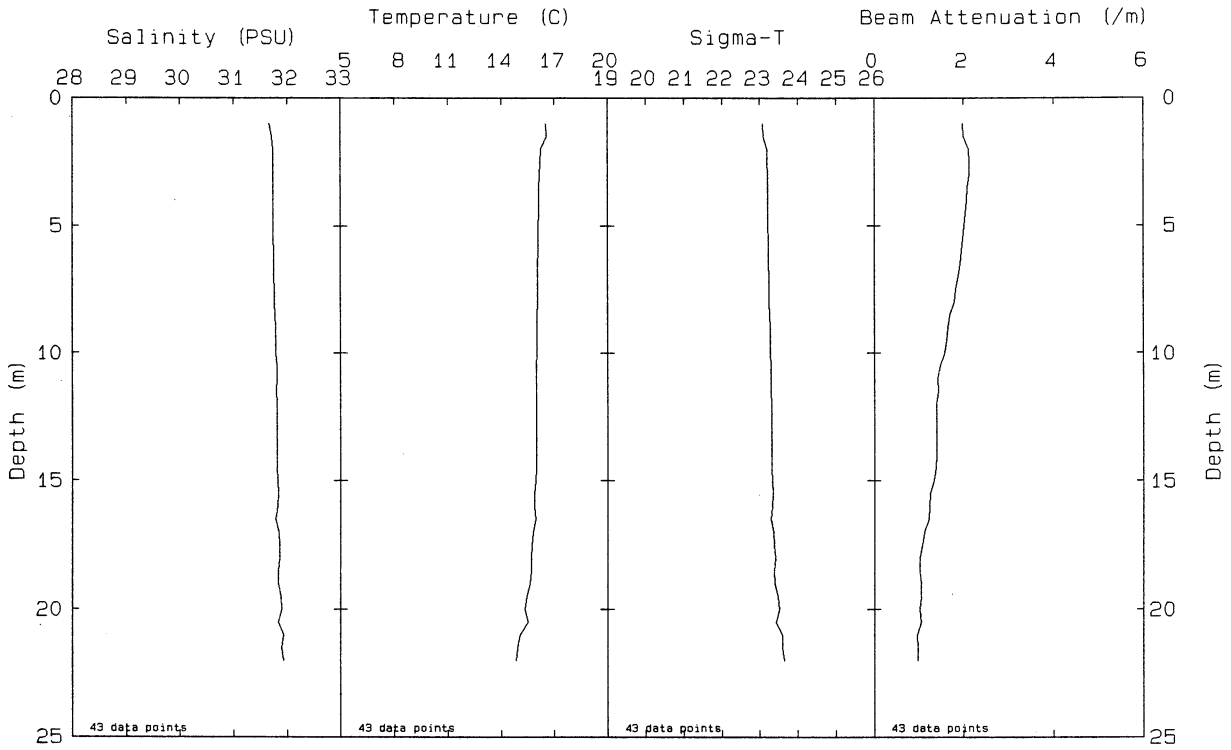

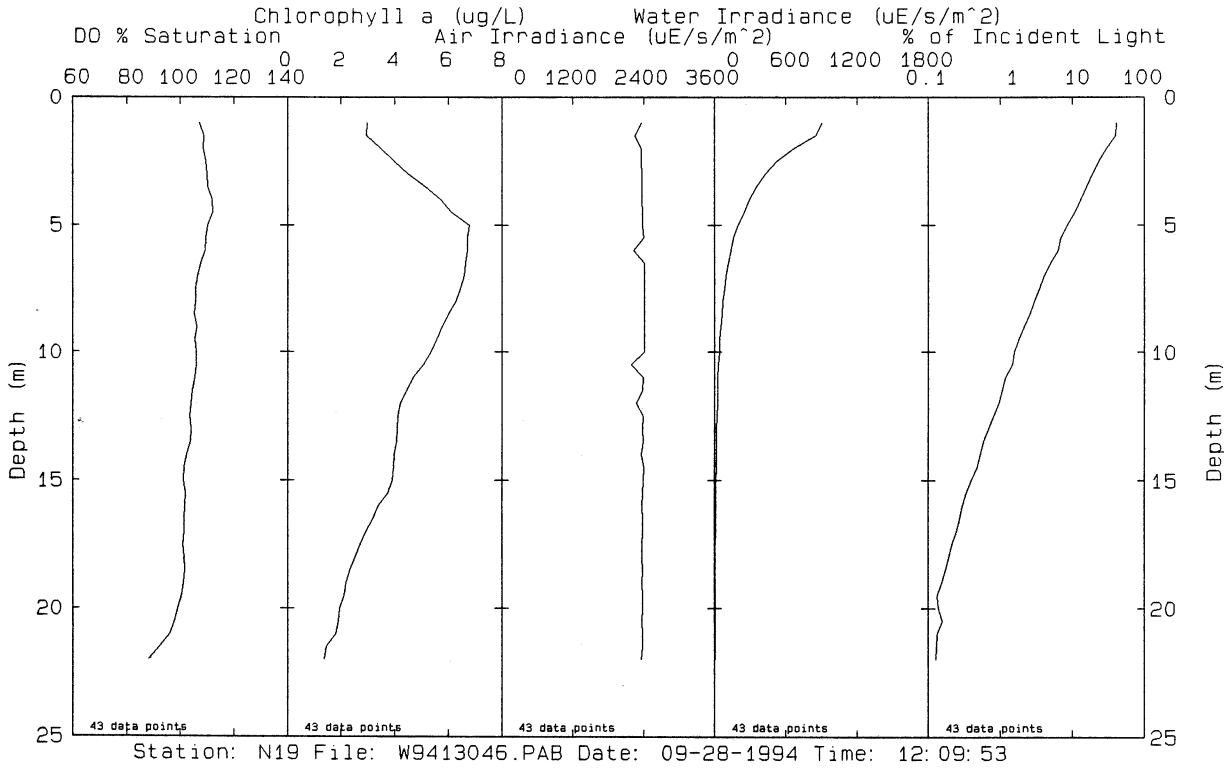

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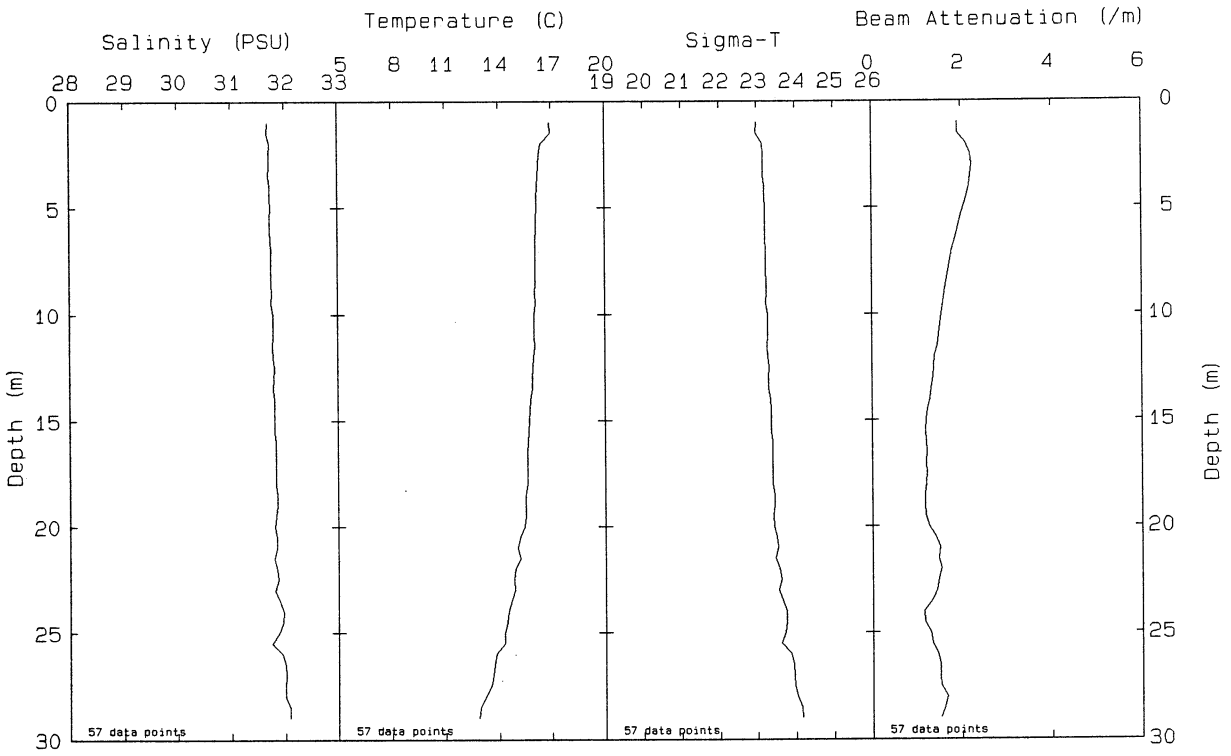
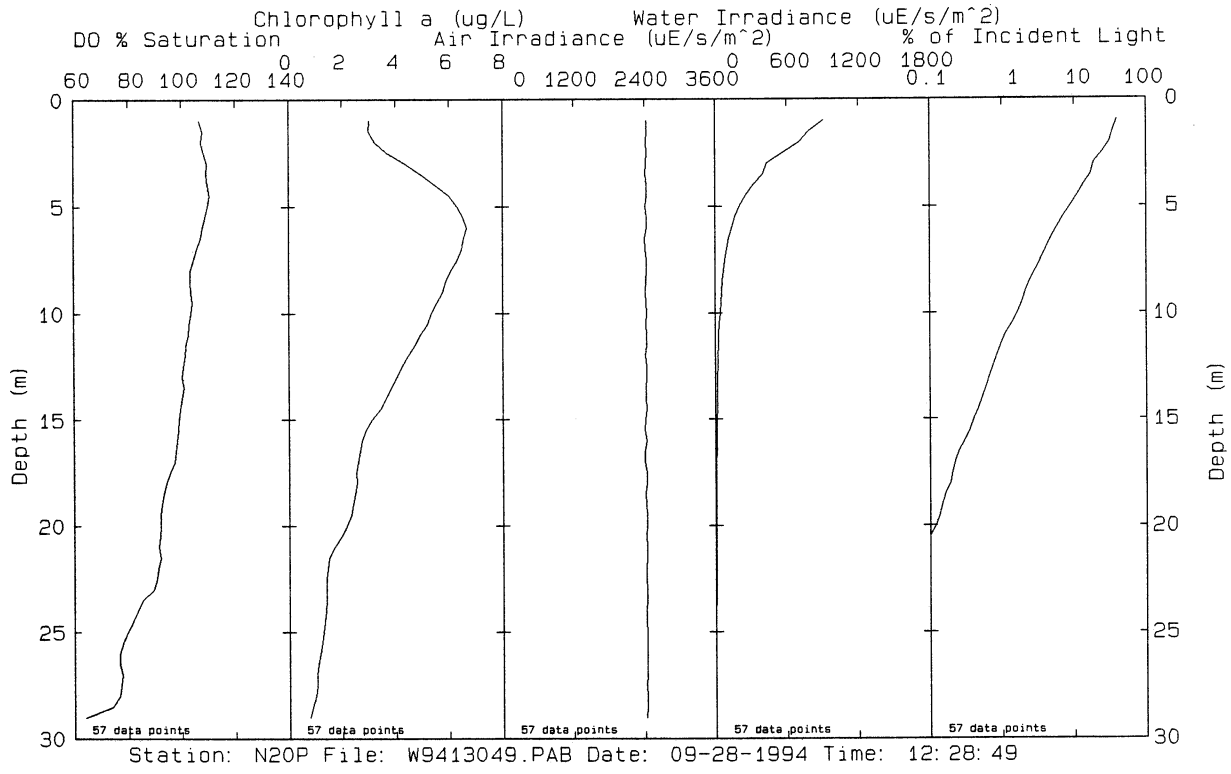
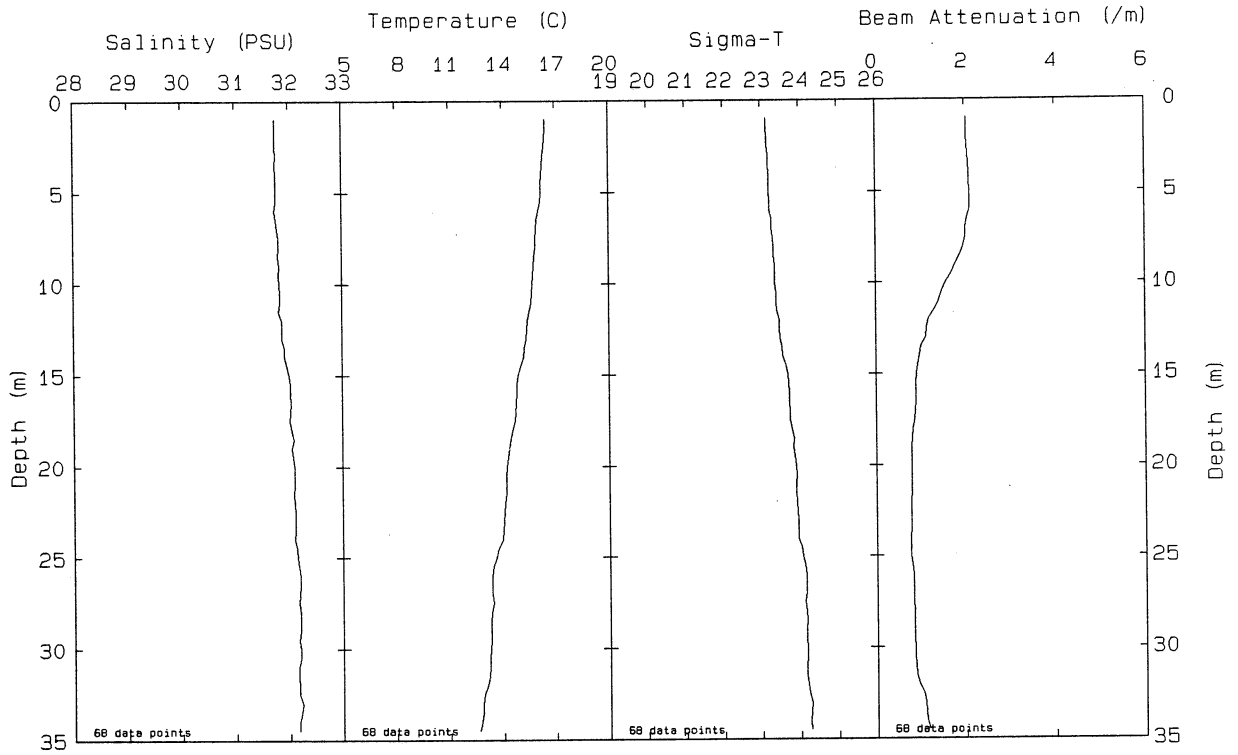
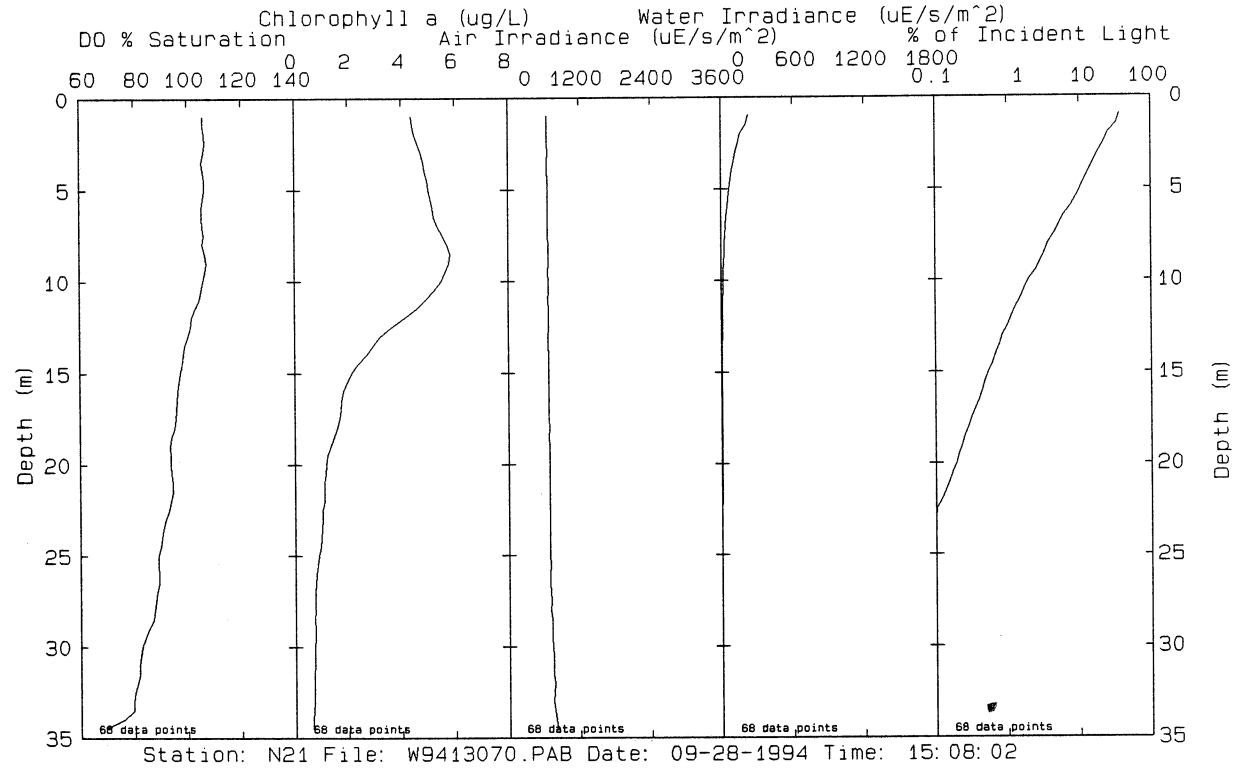




Station: N20P File: W9413049.PAB Date: 09-28-1994 Time: 12:28:49





Station: N21 File: W9413070.PAB Date: 09-28-1994 Time: 15:08:02

01-19-1995 09:19:45 Battelle

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APPENDIX C

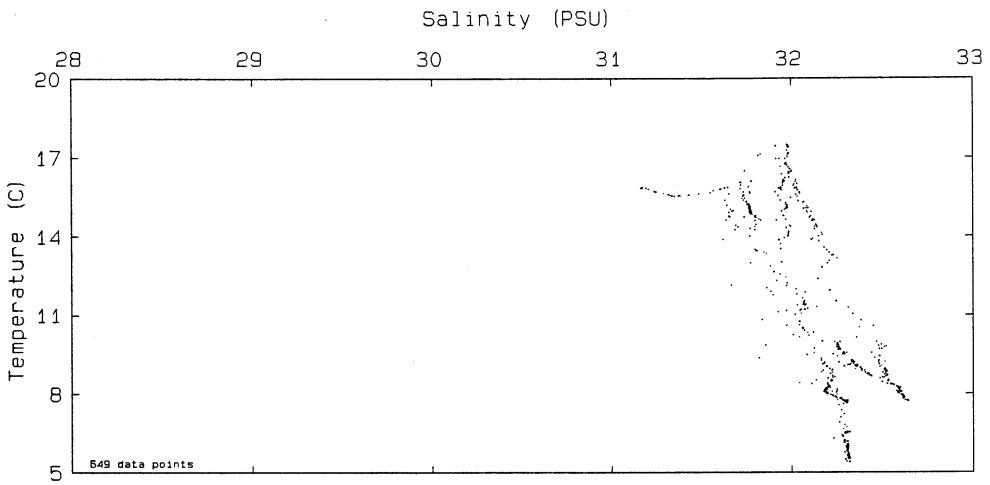
COMPARISON OF VERTICAL PROFILE DATA: SCATTER PLOTS

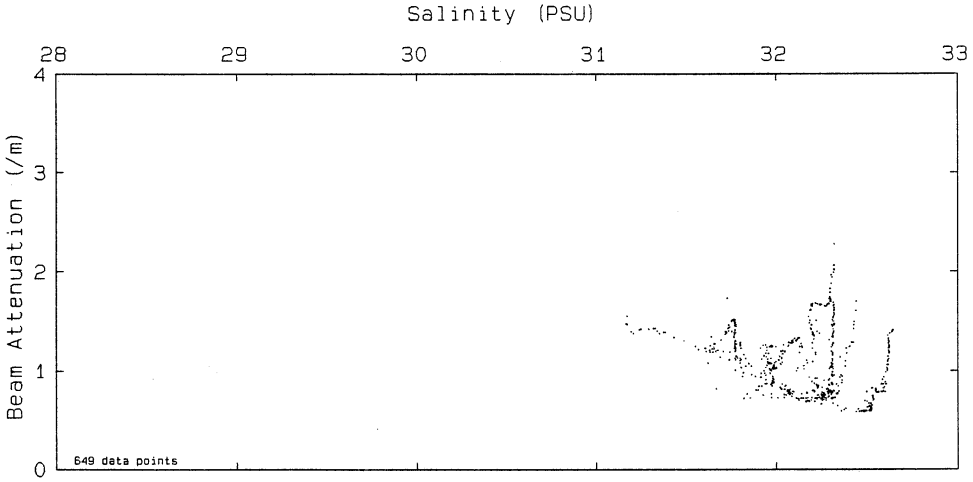
Parameter-Parameter Plots of Vertical Profile Data, Combined Surveys

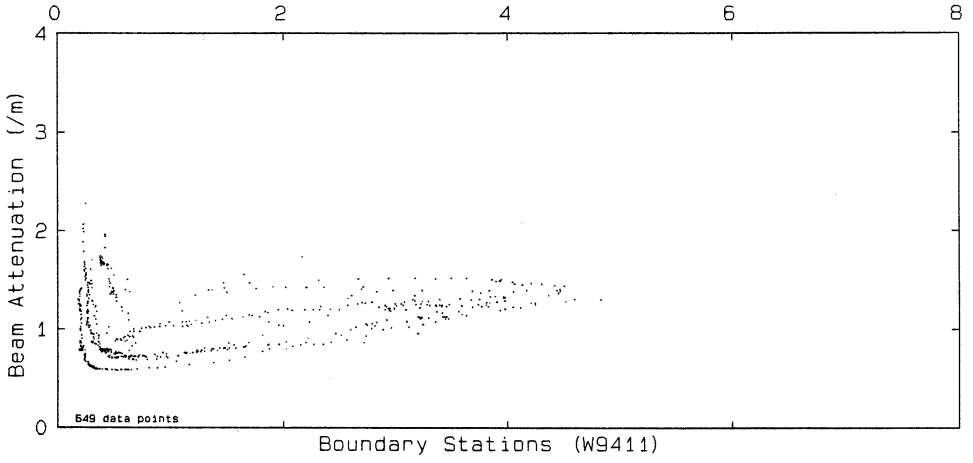
Note that for nearfield surveys, all plots are given as figures in the accompanying text report. For the combined survey, composite plots (all stations) are given as figures in the accompanying text report.

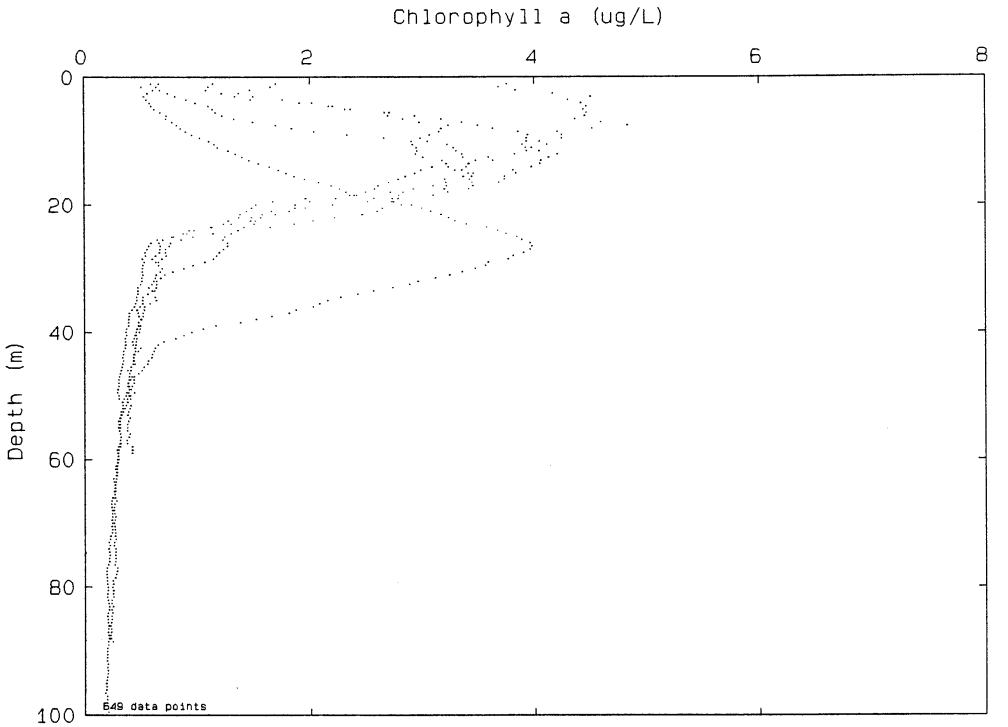
The plots for the late August (W9411) survey given here separate stations by station groups as defined in the text report.

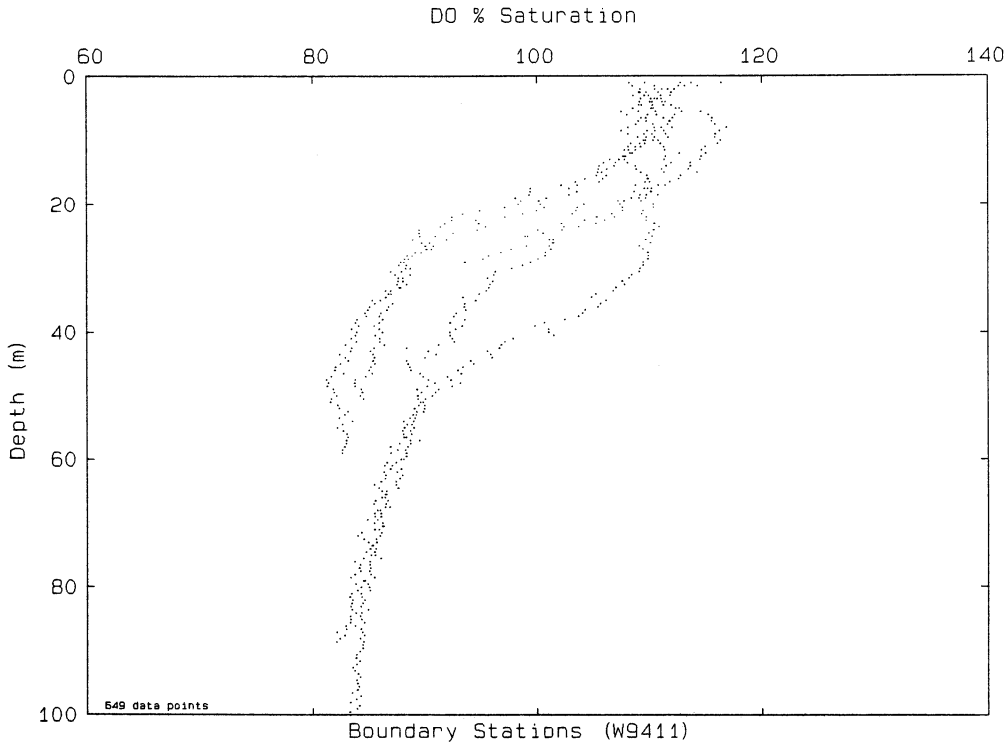
Data are as described in Appendix B and include the entire profile at each station.


Salinity (PSU)
28
29
30
31
32
33
20
17
14
11
8
5
Temperature (C)
649 data points

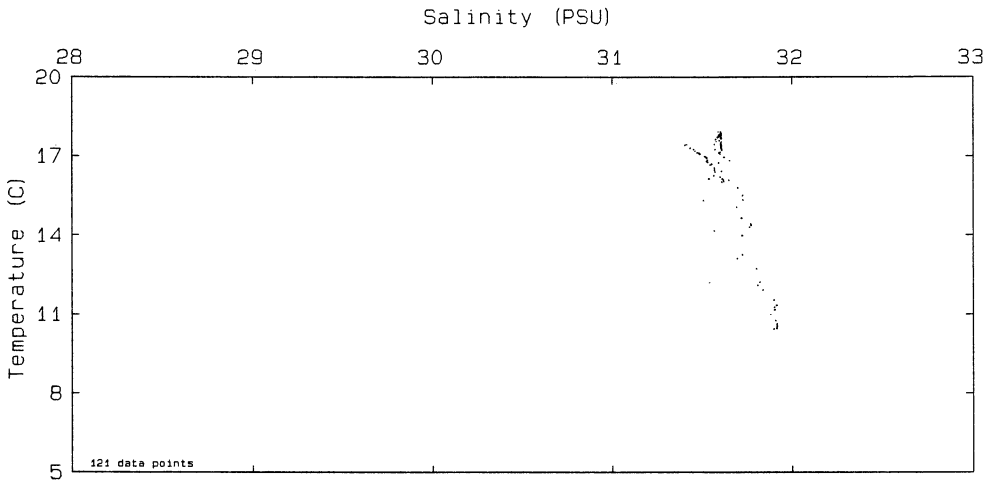

Salinity (PSU)
28
29
30
31
32
33
4
3
2
1
0
Beam Attenuation (/m)
649 data points

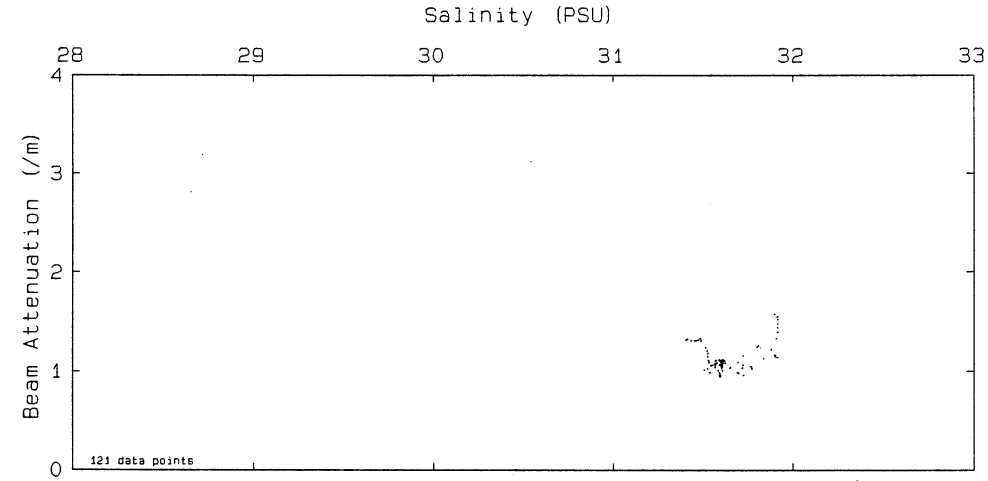

Chlorophyll a (ug/L)
0
2
4
6
8
4
3
2
1
0
Beam Attenuation (/m)
649 data points
Boundary Stations (W9411)

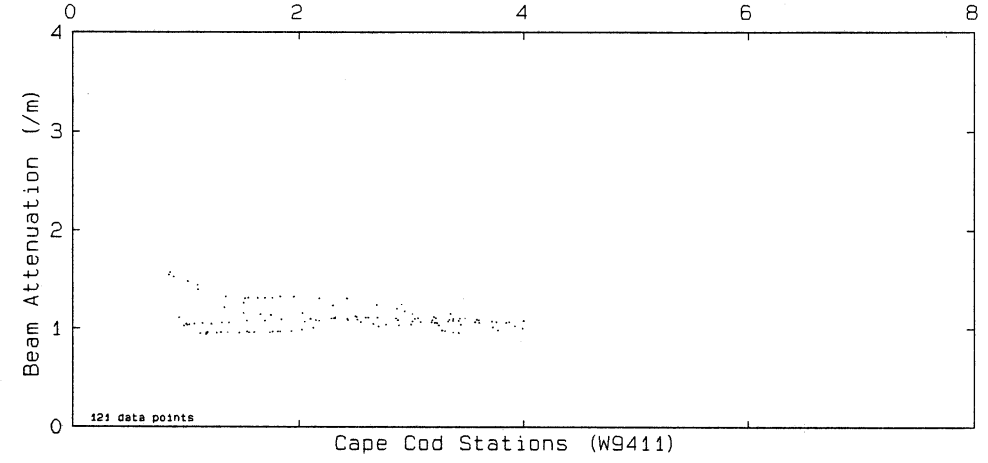




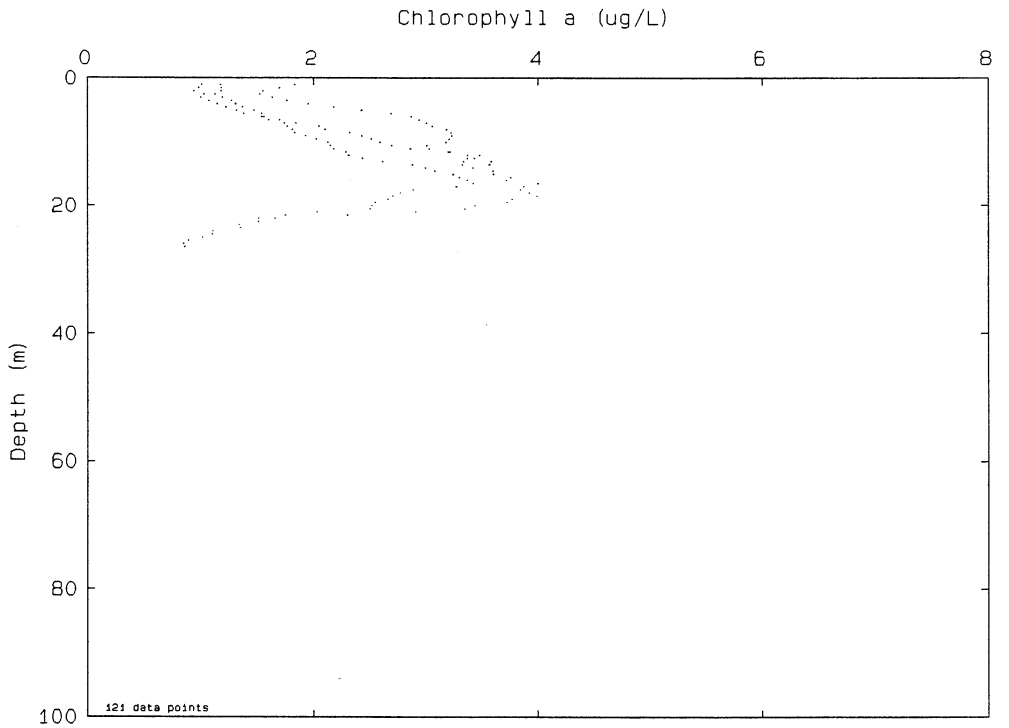
01-19-1995 20:15:59 Battelle

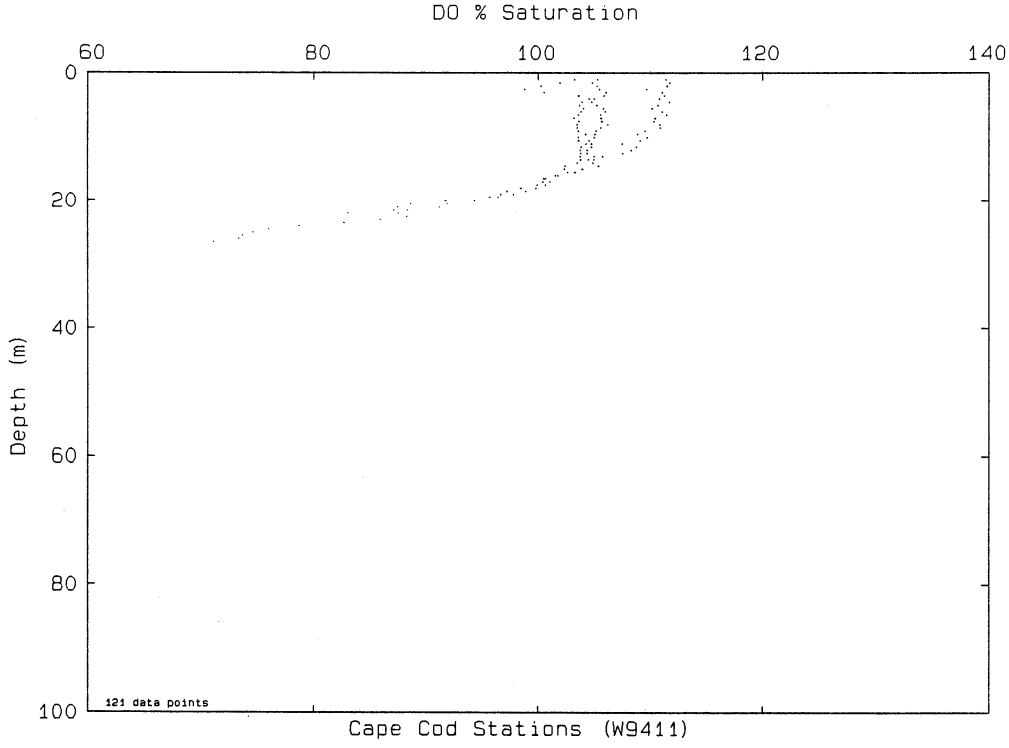




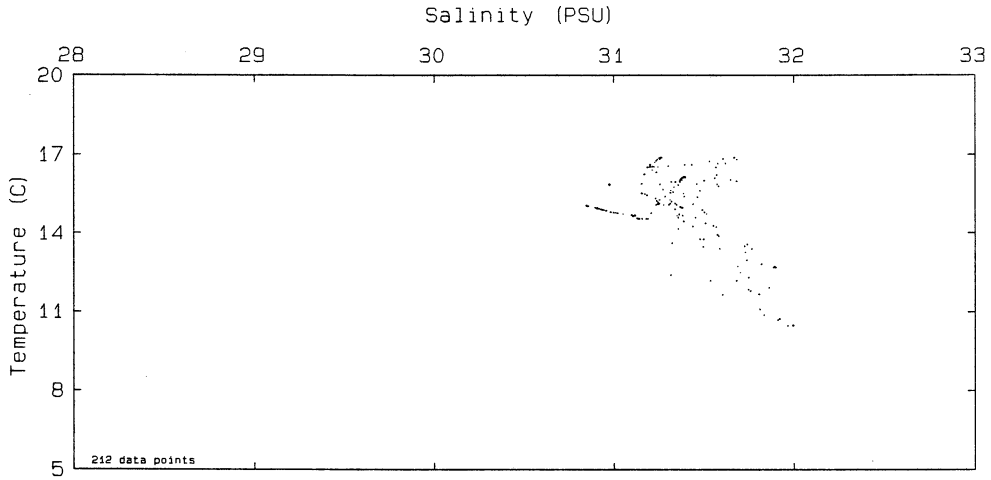


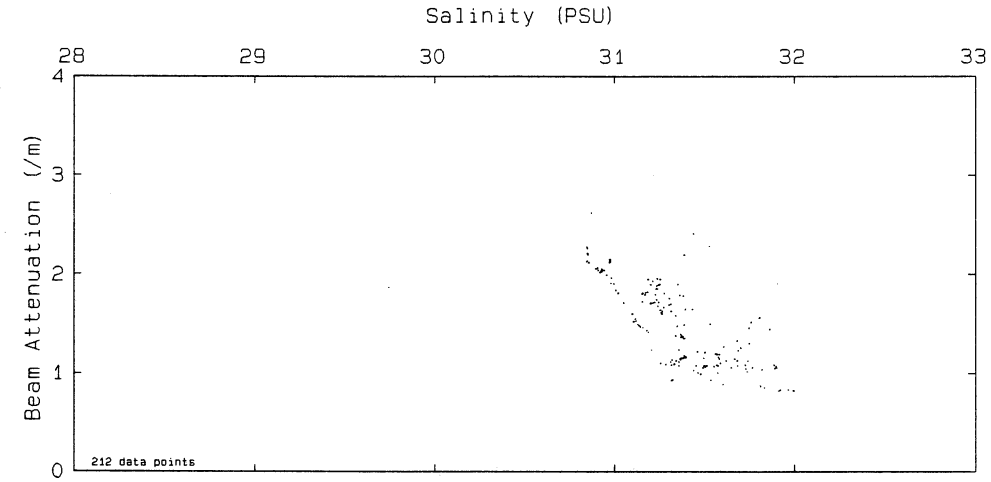
01-19-1995 20:14:48 Battelle

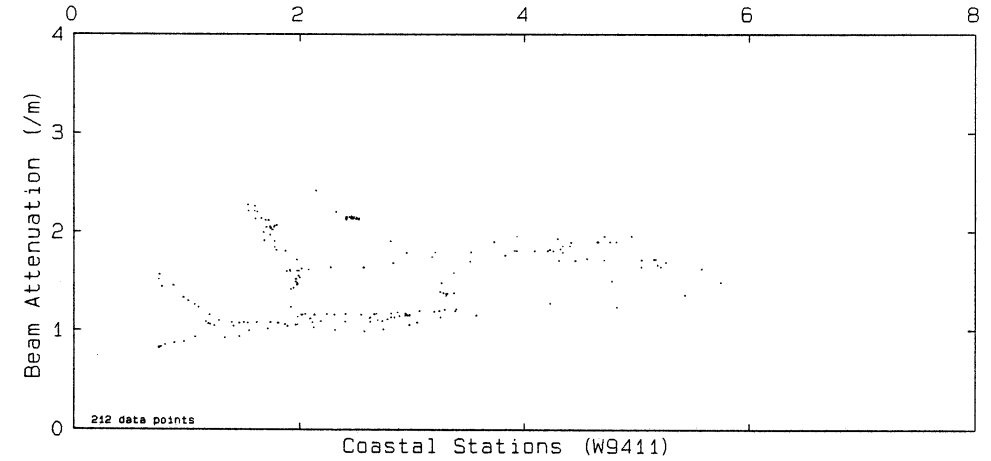


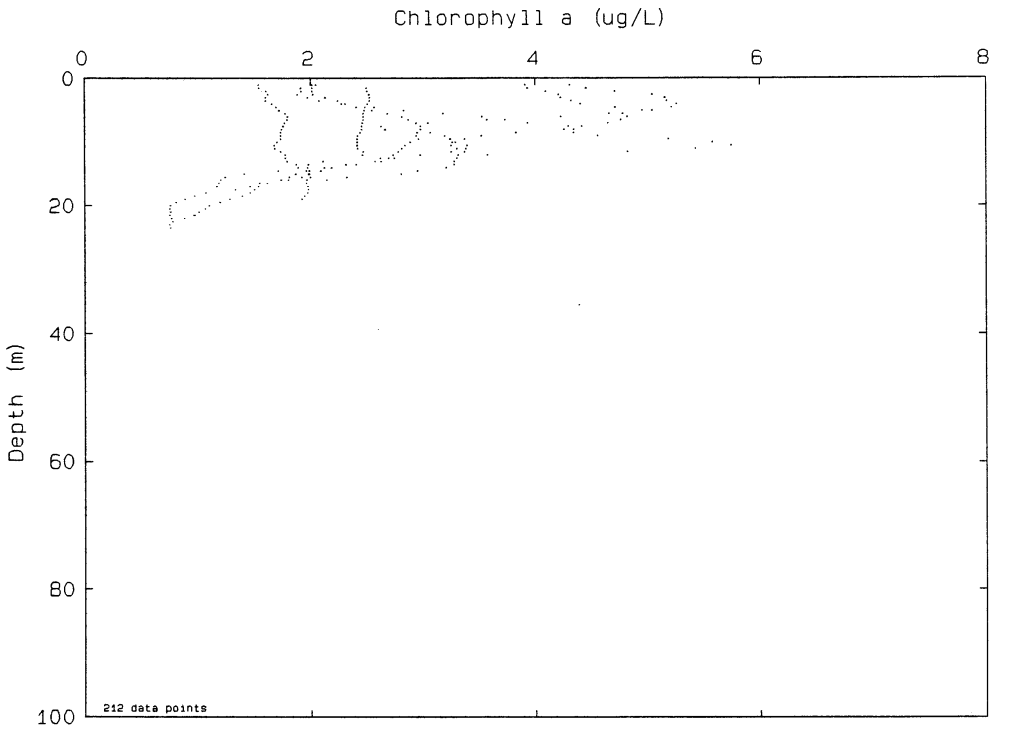


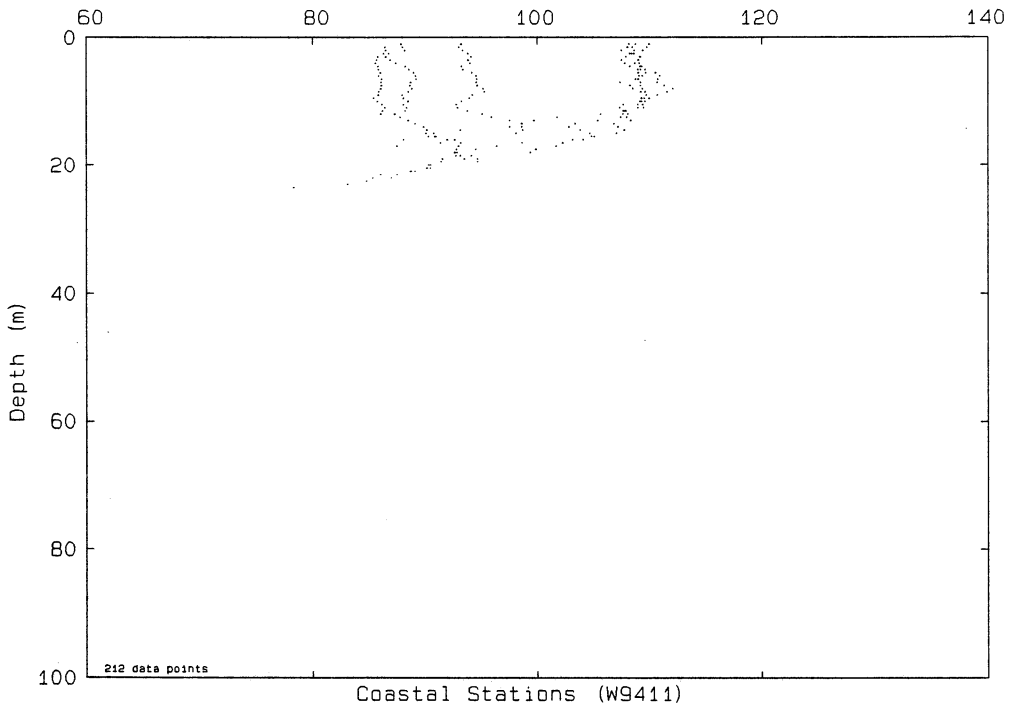
01-19-1995 20:14:27 Battelle

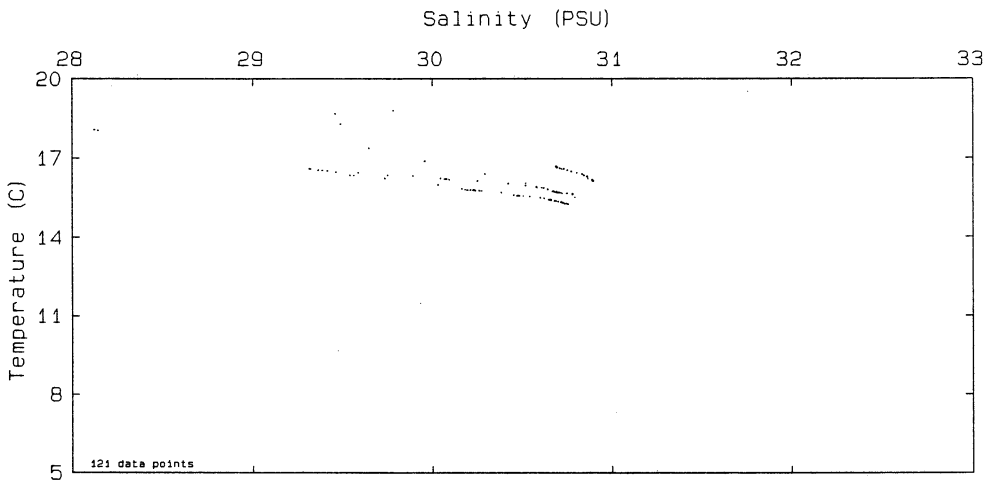

Salinity (PSU)
28
29
30
31
32
33
20
17
14
11
8
5
Temperature (C)
212 data points

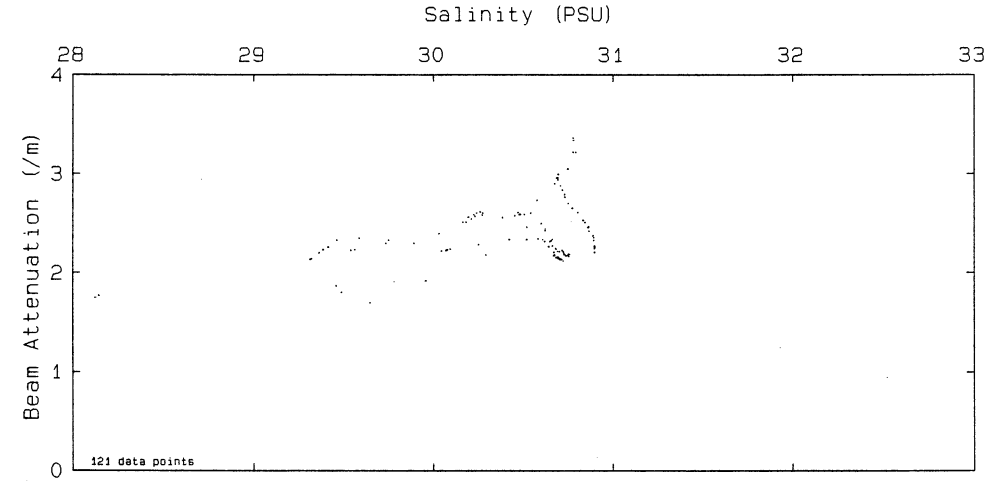

Salinity (PSU)
28
29
30
31
32
33
4
3
2
1
0
Beam Attenuation (/m)
212 data points

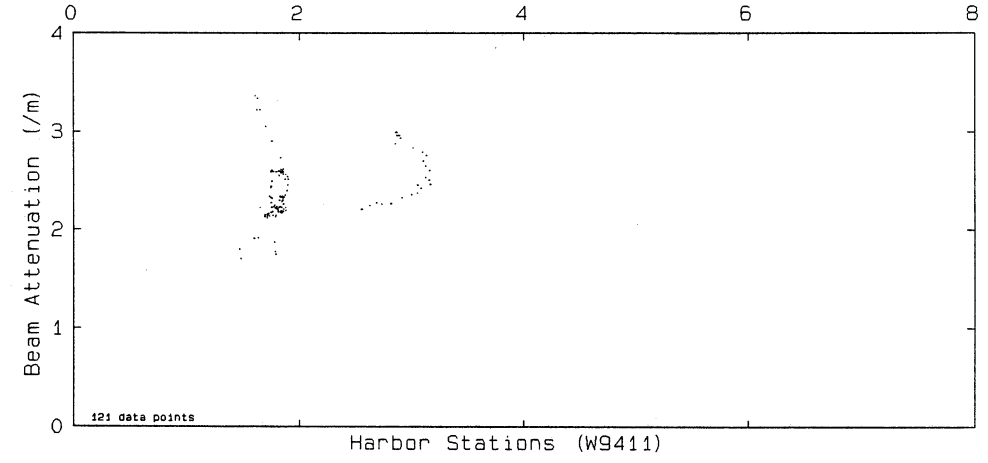

Chlorophyll a (ug/L)
0
2
4
6
8
4
3
2
1
0
Beam Attenuation (/m)
212 data points
Coastal Stations (W9411)

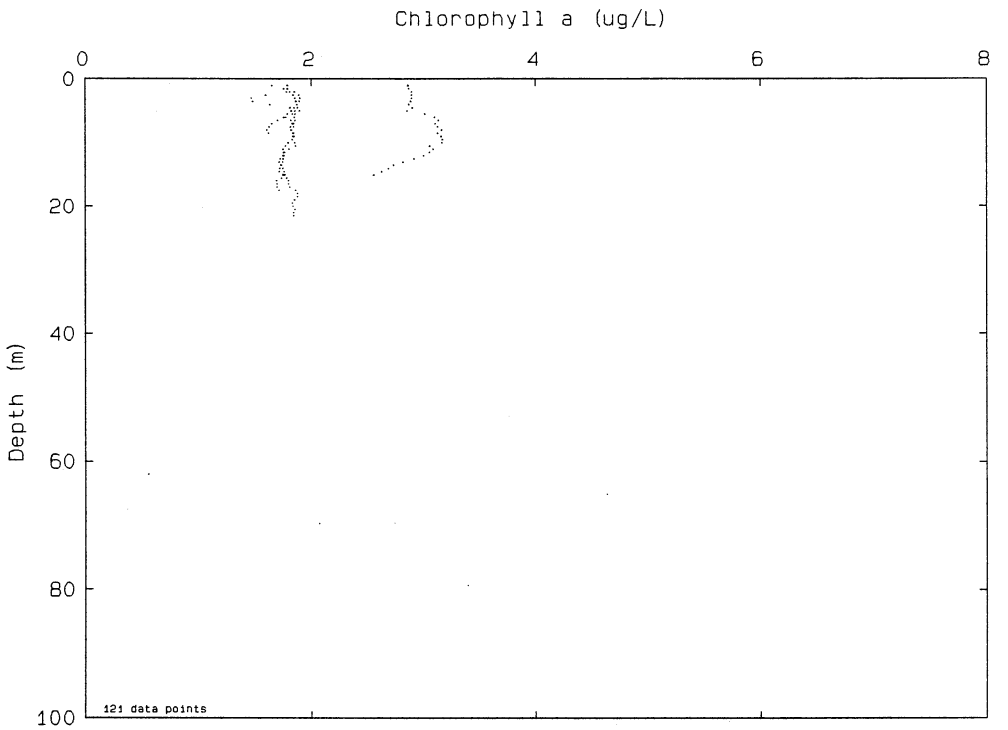

Chlorophyll a (ug/L)
0
2
4
6
8
0
20
40
60
80
100
Depth (m)
212 data points

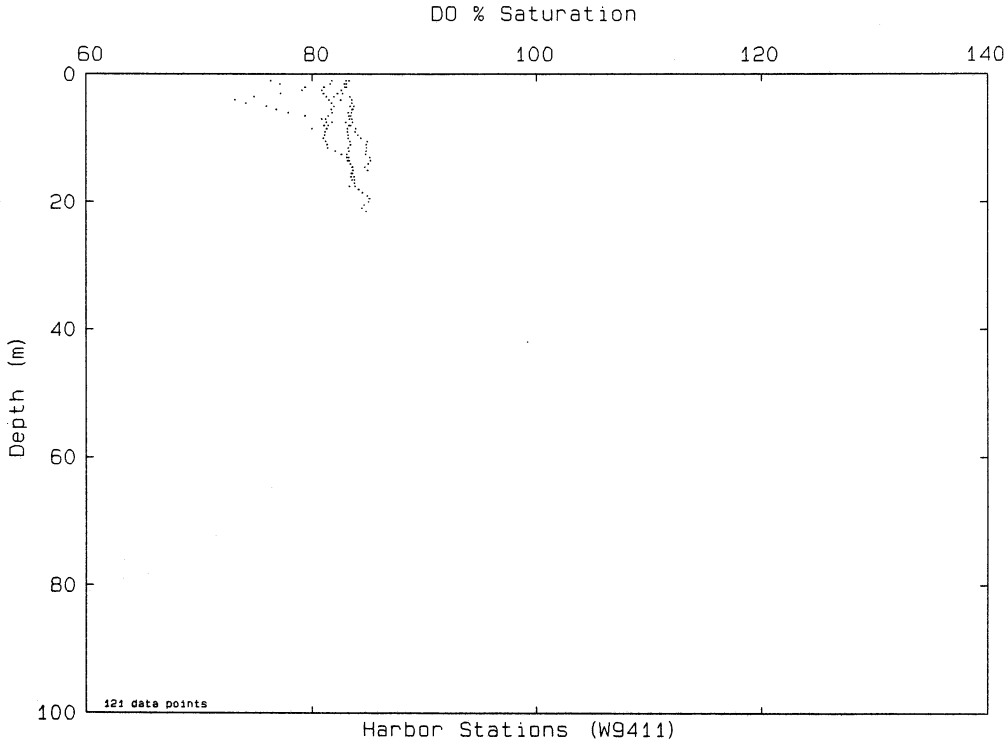

DO % Saturation
60
80
100
120
140
0
20
40
60
80
100
Depth (m)
212 data points
Coastal Stations (W9411)

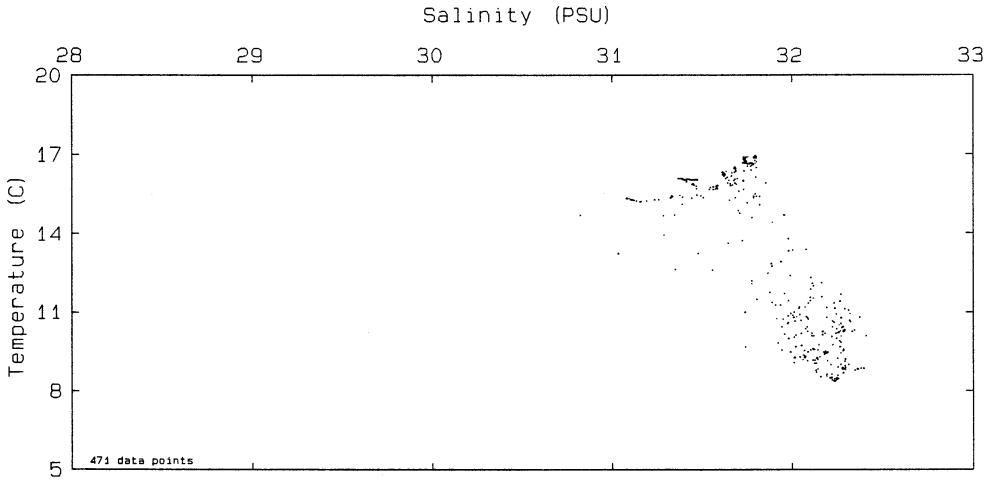

Salinity (PSU)
28
29
30
31
32
33
20
17
14
11
8
5
Temperature (C)
121 data points

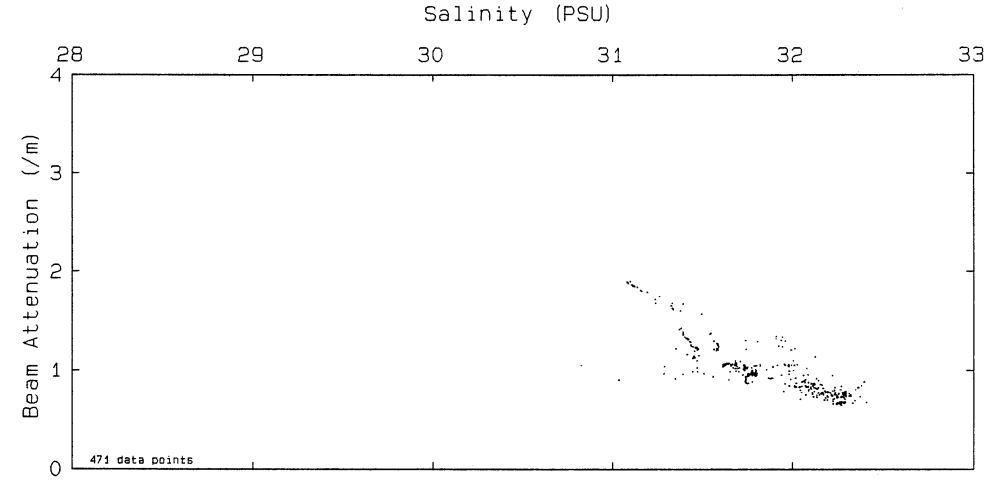

Salinity (PSU)
28
29
30
31
32
33
4
3
2
1
0
Beam Attenuation (/m)
121 data points

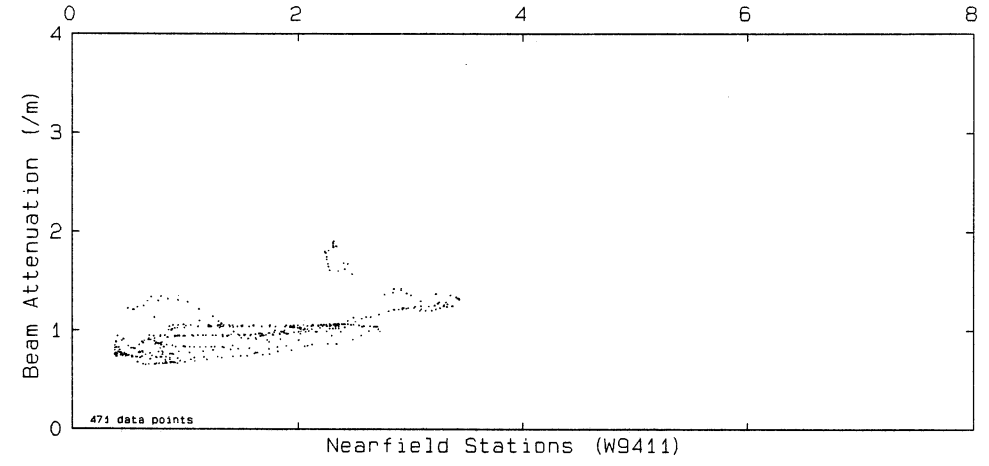

Chlorophyll a (ug/L)
0
2
4
6
8
4
3
2
1
0
Beam Attenuation (/m)
121 data points
Harbor Stations (W9411)

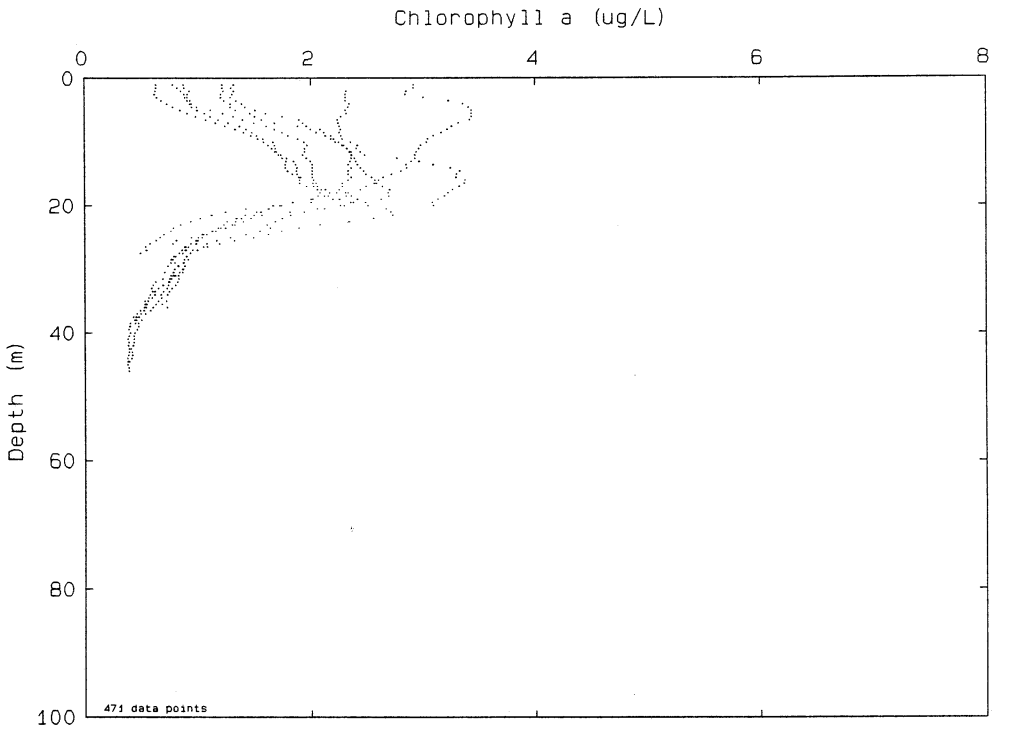

Chlorophyll a (ug/L)
0
2
4
6
8
0
20
40
60
80
100
Depth (m)
121 data points

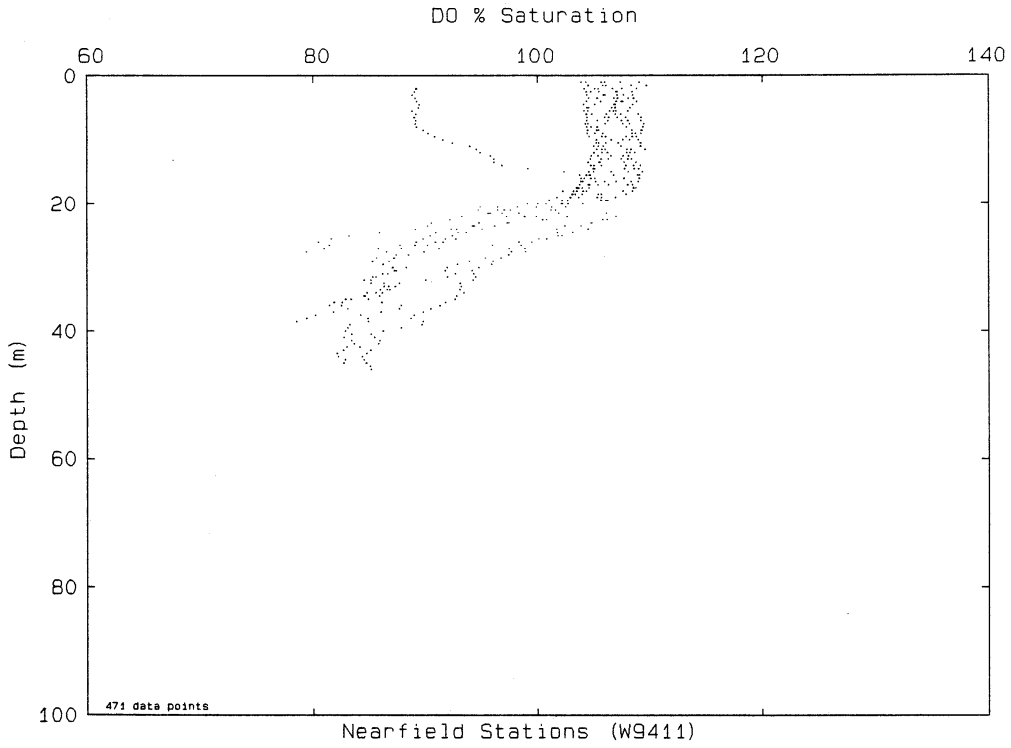

DO % Saturation
60
80
100
120
140
0
20
40
60
80
100
Depth (m)
121 data points
Harbor Stations (W9411)

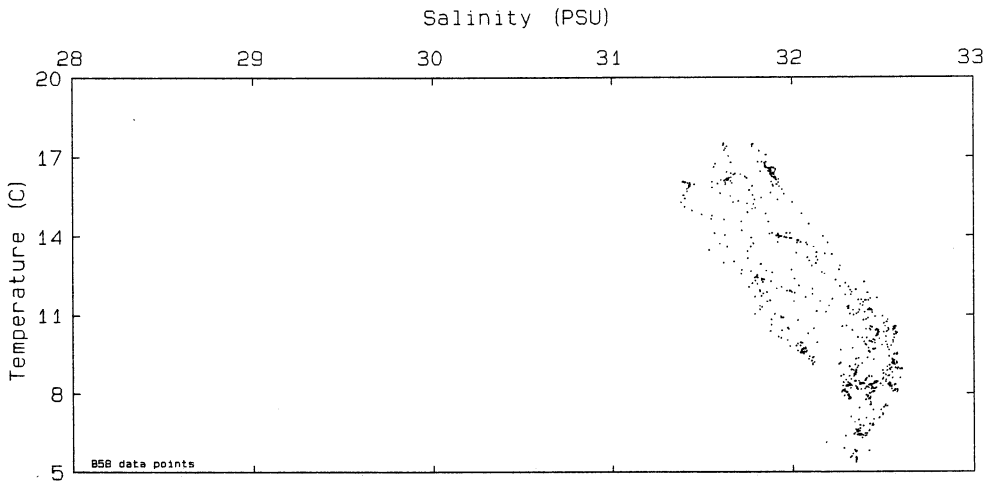

Salinity (PSU)
28
29
30
31
32
33
20
17
14
11
8
5
Temperature (C)
471 data points

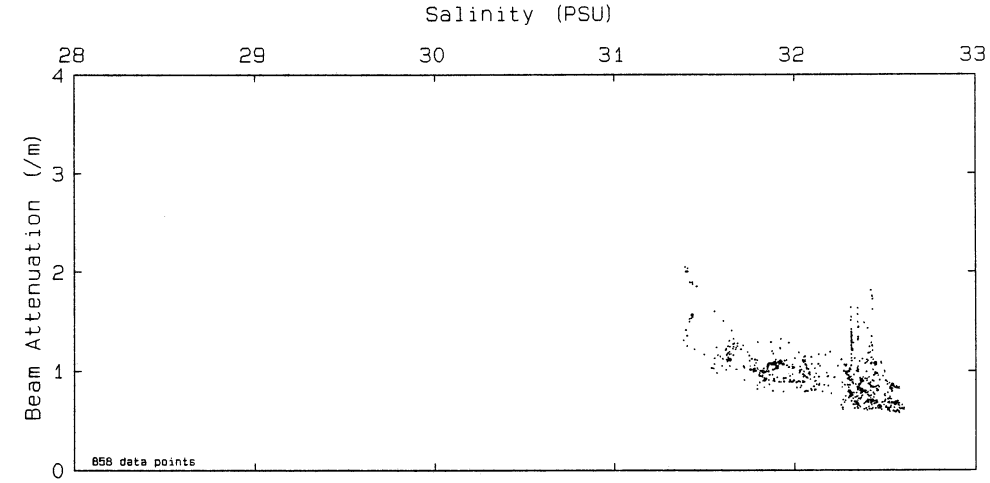

Salinity (PSU)
28
29
30
31
32
33
4
3
2
1
0
Beam Attenuation (/m)
471 data points

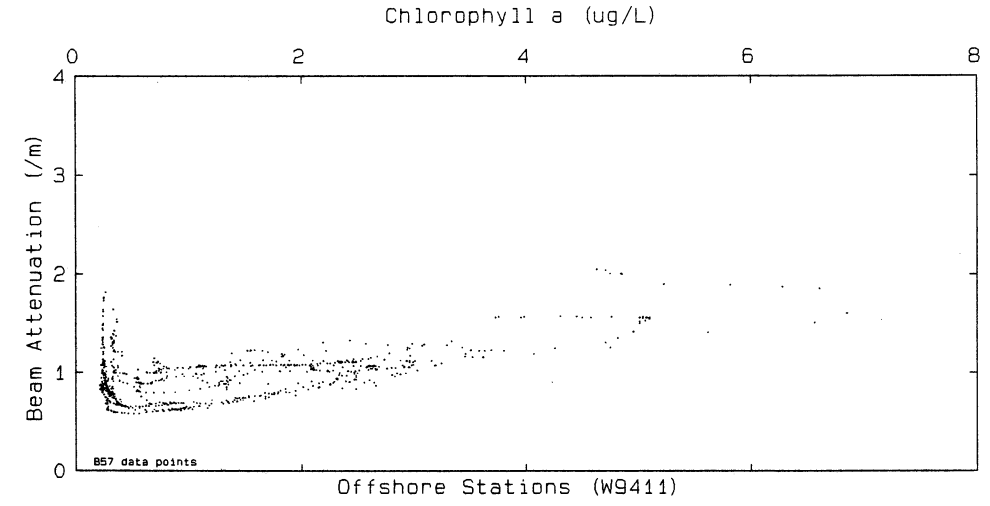

Chlorophyll a (ug/L)
0
2
4
6
8
4
3
2
1
0
Beam Attenuation (/m)
471 data points
Nearfield Stations (W9411)

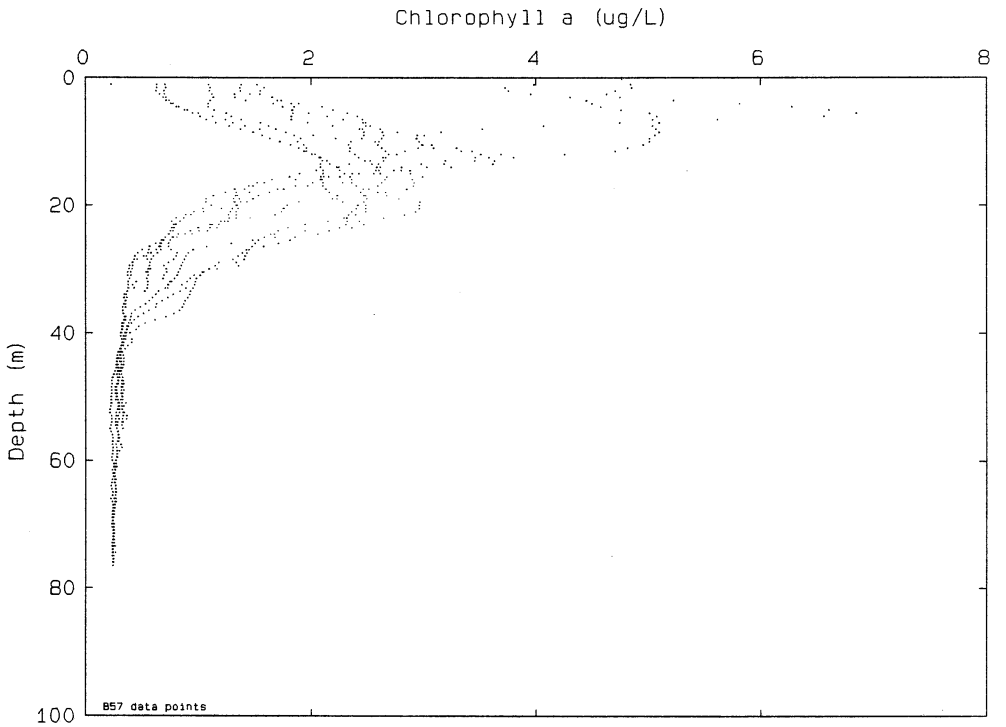

Chlorophyll a (ug/L)
0
2
4
6
8
0
20
40
60
80
100
Depth (m)
471 data points

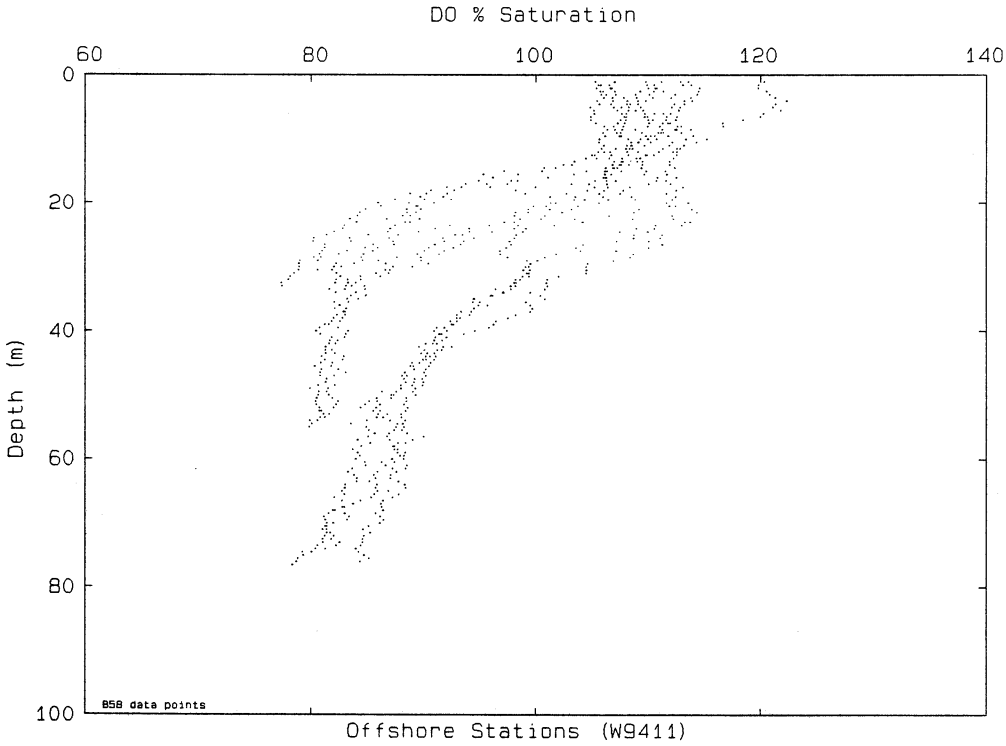

DO % Saturation
60
80
100
120
140
0
20
40
60
80
100
Depth (m)
471 data points
Nearfield Stations (W9411)


Salinity (PSU)
28
29
30
31
32
33
20
17
14
11
8
5
Temperature (C)
858 data points


Salinity (PSU)
28
29
30
31
32
33
4
3
2
1
0
Beam Attenuation (/m)
858 data points


Chlorophyll a (ug/L)
0
2
4
6
8
4
3
2
1
0
Beam Attenuation (/m)
857 data points
Offshore Stations (W9411)


Chlorophyll a (ug/L)
0
2
4
6
8
0
20
40
60
80
100
Depth (m)
B57 data points


DO % Saturation
60
80
100
120
140
0
20
40
60
80
100
Depth (m)
B58 data points
Offshore Stations (W9411)

APPENDIX D

METABOLISM DATA AND PRODUCTIVITY—IRRADIANCE MODELING

Part 1

^{14}C Incubation Data

Table D1-1 includes data from the late August (W9411) survey. The table includes data for samples from BioProductivity stations F23P and N16P that were incubated from surface, mid-surface, mid-depth, and mid-bottom depths (dark and light bottles). ^{14}C-production was calculated using measured dissolved inorganic carbon and after subtraction of the mean (n=3) dark bottle uptake rates as described in the text report. Where ^{14}C (DPM) for a dark bottle are labeled with an "s" qualifier the data were suspect and were not used in calculating production. In Appendix D, Part 2, the criterion used for rejecting suspect data is given.

Table D1-1. C14 Production at Bioproductivity Stations in August 1994.

Event	Station	Date/Time	Depth (M)	Sample Id	Rep	Level	Light uEm/m2/sec	C14 (DPM)	Stock (DPM)	Dissolved Inorganic Carbon (mg C/L)	Length of Incubation (hours)	Production (Dark corrected) (mg C/m3/hr)
W9411	F23P	23-AUG-94 0637	2.2	W94110058					5547193	26.17	5.76	
W9411	F23P	23-AUG-94 0637	2.2	W94110058	-3		0	1693.9				
W9411	F23P	23-AUG-94 0637	2.2	W94110058	-2		0	2018.3				
W9411	F23P	23-AUG-94 0637	2.2	W94110058	-1		0	1873.4				
W9411	F23P	23-AUG-94 0637	2.2	W94110058	1		880	29010				23.35
W9411	F23P	23-AUG-94 0637	2.2	W94110058	2		615	27347				21.92
W9411	F23P	23-AUG-94 0637	2.2	W94110058	3		1365	24687				19.63
W9411	F23P	23-AUG-94 0637	2.2	W94110058	4		425	27768				22.28
W9411	F23P	23-AUG-94 0637	2.2	W94110058	5		219	23555				18.66
W9411	F23P	23-AUG-94 0637	2.2	W94110058	6		108.78	21822				17.17
W9411	F23P	23-AUG-94 0637	2.2	W94110058	7		15.1	16454				12.55
W9411	F23P	23-AUG-94 0637	2.2	W94110058	8		10.33	14228				10.63
W9411	F23P	23-AUG-94 0637	2.2	W94110058	9		51.1	17919				13.81
W9411	F23P	23-AUG-94 0637	2.2	W94110058	10		214.95	22599				17.83
W9411	F23P	23-AUG-94 0637	2.2	W94110058	11		1.48	13535				10.04
W9411	F23P	23-AUG-94 0637	2.2	W94110058	12		1.7	13896				10.35
W9411	F23P	23-AUG-94 0637	5.8	W94110057					5547193	26.27	5.78	
W9411	F23P	23-AUG-94 0637	5.8	W94110057	-3			1554.9				
W9411	F23P	23-AUG-94 0637	5.8	W94110057	-2			1631.1				
W9411	F23P	23-AUG-94 0637	5.8	W94110057	-1			1244.4				
W9411	F23P	23-AUG-94 0637	5.8	W94110057	1		227.5	21065				16.85
W9411	F23P	23-AUG-94 0637	5.8	W94110057	2		230	22255				17.88
W9411	F23P	23-AUG-94 0637	5.8	W94110057	3		885	24855				20.11
W9411	F23P	23-AUG-94 0637	5.8	W94110057	4		1392	18015				14.23
W9411	F23P	23-AUG-94 0637	5.8	W94110057	5		900	21902				17.57
W9411	F23P	23-AUG-94 0637	5.8	W94110057	6		139.55	33093				27.2
W9411	F23P	23-AUG-94 0637	5.8	W94110057	7		108.78	13294				10.17
W9411	F23P	23-AUG-94 0637	5.8	W94110057	8		156.02	17028				13.38
W9411	F23P	23-AUG-94 0637	5.8	W94110057	9		7.61	3056.8				1.36
W9411	F23P	23-AUG-94 0637	5.8	W94110057	10		15.44	6542.3				4.36
W9411	F23P	23-AUG-94 0637	5.8	W94110057	11		0.79	4468.6				2.57
W9411	F23P	23-AUG-94 0637	5.8	W94110057	12		1.82	1570.8				0.08
W9411	F23P	23-AUG-94 0637	11.71	W94110056					5547193	26.44	5.92	
W9411	F23P	23-AUG-94 0637	11.71	W94110056	-3			1404.1				
W9411	F23P	23-AUG-94 0637	11.71	W94110056	-2			1210.3				
W9411	F23P	23-AUG-94 0637	11.71	W94110056	-1			876.18				
W9411	F23P	23-AUG-94 0637	11.71	W94110056	1		1305	13852				10.73
W9411	F23P	23-AUG-94 0637	11.71	W94110056	2		1025	9200.9				6.79
W9411	F23P	23-AUG-94 0637	11.71	W94110056	3		2000	13074				10.07
W9411	F23P	23-AUG-94 0637	11.71	W94110056	4		1440	15054				11.74
W9411	F23P	23-AUG-94 0637	11.71	W94110056	5		310	13791				10.67
W9411	F23P	23-AUG-94 0637	11.71	W94110056	6		332.15	12499				9.58
W9411	F23P	23-AUG-94 0637	11.71	W94110056	7		39.91	6042.4				4.12

Table D1-1. C14 Production at Bioproductivity Stations in August 1994.

Event	Station	Date/Time	Depth (M)	Sample Id	Rep	Level	Light uEm/m2/sec	C14 (DPM)	Stock (DPM)	Dissolved Inorganic Carbon (mg C/L)	Length of Incubation (hours)	Production (Dark corrected) (mg C/m3/hr)
W9411	F23P	23-AUG-94 0637	11.71	W94110056	8		165.56	10483				7.88
W9411	F23P	23-AUG-94 0637	11.71	W94110056	9		2.57	3142.2				1.67
W9411	F23P	23-AUG-94 0637	11.71	W94110056	10		27.45	2678.3				1.28
W9411	F23P	23-AUG-94 0637	11.71	W94110056	11		3.26	1547.5				0.32
W9411	F23P	23-AUG-94 0637	11.71	W94110056	12		2.23	1398.9				0.2
W9411	F23P	23-AUG-94 0637	17.04	W94110055					5547193	26.45	5.73	
W9411	F23P	23-AUG-94 0637	17.04	W94110055	-3			1142.6				
W9411	F23P	23-AUG-94 0637	17.04	W94110055	-2			1033.1				
W9411	F23P	23-AUG-94 0637	17.04	W94110055	-1			1231.1				
W9411	F23P	23-AUG-94 0637	17.04	W94110055	1		845	14545				11.72
W9411	F23P	23-AUG-94 0637	17.04	W94110055	2		1190	16034				13.02
W9411	F23P	23-AUG-94 0637	17.04	W94110055	3		869.54	16282				13.23
W9411	F23P	23-AUG-94 0637	17.04	W94110055	4		320	15354				12.42
W9411	F23P	23-AUG-94 0637	17.04	W94110055	5		610	20667				17.07
W9411	F23P	23-AUG-94 0637	17.04	W94110055	6		630	8920				6.8
W9411	F23P	23-AUG-94 0637	17.04	W94110055	7		105.95	5704.1				3.99
W9411	F23P	23-AUG-94 0637	17.04	W94110055	8		232.74	11823				9.34
W9411	F23P	23-AUG-94 0637	17.04	W94110055	9		20.95	3171.6				1.78
W9411	F23P	23-AUG-94 0637	17.04	W94110055	10		22.82	3680.2				2.22
W9411	F23P	23-AUG-94 0637	17.04	W94110055	11		3.2	1491.5				0.31
W9411	F23P	23-AUG-94 0637	17.04	W94110055	12		4.74	2404.8				1.11
W9411	F23P	24-AUG-94 0643	2.52	W94110304					5590972	25.7	5.83	
W9411	F23P	24-AUG-94 0643	2.52	W94110304	-3			1078.5				
W9411	F23P	24-AUG-94 0643	2.52	W94110304	-2			466.34				
W9411	F23P	24-AUG-94 0643	2.52	W94110304	-1			273.05				
W9411	F23P	24-AUG-94 0643	2.52	W94110304	1		204.5	14415				11.43
W9411	F23P	24-AUG-94 0643	2.52	W94110304	2		209.5	15271				12.14
W9411	F23P	24-AUG-94 0643	2.52	W94110304	3		821	22276				17.94
W9411	F23P	24-AUG-94 0643	2.52	W94110304	4		825.5	22150				17.84
W9411	F23P	24-AUG-94 0643	2.52	W94110304	5		1404	22176				17.86
W9411	F23P	24-AUG-94 0643	2.52	W94110304	6		132.01	9088.8				7.02
W9411	F23P	24-AUG-94 0643	2.52	W94110304	7		14.61	1812.2				1
W9411	F23P	24-AUG-94 0643	2.52	W94110304	8		102.9	8040.7				6.16
W9411	F23P	24-AUG-94 0643	2.52	W94110304	9		147.58	9734.4				7.56
W9411	F23P	24-AUG-94 0643	2.52	W94110304	10		78.73	1710.7				0.91
W9411	F23P	24-AUG-94 0643	2.52	W94110304	11		0.75	997.46				0.32
W9411	F23P	24-AUG-94 0643	2.52	W94110304	12		1.72	1414.4				0.67
W9411	F23P	24-AUG-94 0643	5.2	W94110303					5590972	25.89	5.83	
W9411	F23P	24-AUG-94 0643	5.2	W94110303	-3			775.48				
W9411	F23P	24-AUG-94 0643	5.2	W94110303	-2			877.87				
W9411	F23P	24-AUG-94 0643	5.2	W94110303	-1			848.5				
W9411	F23P	24-AUG-94 0643	5.2	W94110303	1		825.5	19347				15.44
W9411	F23P	24-AUG-94 0643	5.2	W94110303	2		597	20430				16.34

Table D1-1. C14 Production at Bioproductivity Stations in August 1994.

Event	Station	Date/Time	Depth (M)	Sample Id	Rep	Level	Light uEm/m2/sec	C14 (DPM)	Stock (DPM)	Dissolved Inorganic Carbon (mg C/L)	Length of Incubation (hours)	Production (Dark corrected) (mg C/m3/hr)
W9411	F23P	24-AUG-94 0643	5.2	W94110303	3		780	21822				17.5
W9411	F23P	24-AUG-94 0643	5.2	W94110303	4		1246	21286				17.06
W9411	F23P	24-AUG-94 0643	5.2	W94110303	5		196.5	14144				11.1
W9411	F23P	24-AUG-94 0643	5.2	W94110303	6		135.77	10834				8.34
W9411	F23P	24-AUG-94 0643	5.2	W94110303	7		203.33	15064				11.87
W9411	F23P	24-AUG-94 0643	5.2	W94110303	8		48.34	4669.9				3.2
W9411	F23P	24-AUG-94 0643	5.2	W94110303	9		9.77	1302				0.39
W9411	F23P	24-AUG-94 0643	5.2	W94110303	10		14.29	1577.9				0.62
W9411	F23P	24-AUG-94 0643	5.2	W94110303	11		1.4	929.64				0.08
W9411	F23P	24-AUG-94 0643	5.2	W94110303	12		1.61	1252.5				0.35
W9411	F23P	24-AUG-94 0643	8.64	W94110302					5590972	26.03	5.88	
W9411	F23P	24-AUG-94 0643	8.64	W94110302	-3			1060.7				
W9411	F23P	24-AUG-94 0643	8.64	W94110302	-2			795.71				
W9411	F23P	24-AUG-94 0643	8.64	W94110302	-1			702.42				
W9411	F23P	24-AUG-94 0643	8.64	W94110302	1		262	17230				13.62
W9411	F23P	24-AUG-94 0643	8.64	W94110302	2		1883	21305				17
W9411	F23P	24-AUG-94 0643	8.64	W94110302	3		1316.5	20862				16.63
W9411	F23P	24-AUG-94 0643	8.64	W94110302	4		1233	21517				17.18
W9411	F23P	24-AUG-94 0643	8.64	W94110302	5		973	21671				17.31
W9411	F23P	24-AUG-94 0643	8.64	W94110302	6		271.02	16801				13.26
W9411	F23P	24-AUG-94 0643	8.64	W94110302	7		135.09	12787				9.92
W9411	F23P	24-AUG-94 0643	8.64	W94110302	8		32.76	7821.5				5.79
W9411	F23P	24-AUG-94 0643	8.64	W94110302	9		21	2538.6				1.4
W9411	F23P	24-AUG-94 0643	8.64	W94110302	10		22.4	3473.1				2.18
W9411	F23P	24-AUG-94 0643	8.64	W94110302	11		1.82	955.73				0.09
W9411	F23P	24-AUG-94 0643	8.64	W94110302	12		3.13	1445.3				0.49
W9411	F23P	24-AUG-94 0643	12.72	W94110301					5590972	26.14	5.8	
W9411	F23P	24-AUG-94 0643	12.72	W94110301	-3			958.42				
W9411	F23P	24-AUG-94 0643	12.72	W94110301	-2			968.25				
W9411	F23P	24-AUG-94 0643	12.72	W94110301	-1			937.47				
W9411	F23P	24-AUG-94 0643	12.72	W94110301	1		563	17992				14.42
W9411	F23P	24-AUG-94 0643	12.72	W94110301	2		363	14360				11.35
W9411	F23P	24-AUG-94 0643	12.72	W94110301	3		803	17457				13.97
W9411	F23P	24-AUG-94 0643	12.72	W94110301	4		1114.5	18632				14.96
W9411	F23P	24-AUG-94 0643	12.72	W94110301	5		746.5	18553				14.9
W9411	F23P	24-AUG-94 0643	12.72	W94110301	6		166.6	10427				8.02
W9411	F23P	24-AUG-94 0643	12.72	W94110301	7		22.58	3432.7				2.1
W9411	F23P	24-AUG-94 0643	12.72	W94110301	8		20.73	4081.2				2.65
W9411	F23P	24-AUG-94 0643	12.72	W94110301	9		230.31	8242				6.17
W9411	F23P	24-AUG-94 0643	12.72	W94110301	10		104.85	6763.4				4.92
W9411	F23P	24-AUG-94 0643	12.72	W94110301	11		4.69	769.92				-0.16
W9411	F23P	24-AUG-94 0643	12.72	W94110301	12		3.16	1526.3				0.48
W9411	N16P	23-AUG-94 1024	2.71	W94110124					5547193	27.1	5.5	

Table D1-1. C14 Production at Bioproductivity Stations in August 1994.

Event	Station	Date/Time	Depth (M)	Sample Id	Rep	Level	Light uEm/m2/sec	C14 (DPM)	Stock (DPM)	Dissolved Inorganic Carbon (mg C/L)	Length of Incubation (hours)	Production (Dark corrected) (mg C/m3/hr)
W9411	N16P	23-AUG-94 1024	2.71	W94110124	-3			59.69				
W9411	N16P	23-AUG-94 1024	2.71	W94110124	-2			55.17				
W9411	N16P	23-AUG-94 1024	2.71	W94110124	-1			75.08				
W9411	N16P	23-AUG-94 1024	2.71	W94110124	1		826.5	7293.3				6.74
W9411	N16P	23-AUG-94 1024	2.71	W94110124	2		1440	5639.1				5.2
W9411	N16P	23-AUG-94 1024	2.71	W94110124	3		1982.5	6476.7				5.98
W9411	N16P	23-AUG-94 1024	2.71	W94110124	4		341	6312.2				5.83
W9411	N16P	23-AUG-94 1024	2.71	W94110124	5		365	6274.1				5.79
W9411	N16P	23-AUG-94 1024	2.71	W94110124	6		288.05	7148.2				6.61
W9411	N16P	23-AUG-94 1024	2.71	W94110124	7		257.34	6653.8				6.15
W9411	N16P	23-AUG-94 1024	2.71	W94110124	8		372.98	6752.5				6.24
W9411	N16P	23-AUG-94 1024	2.71	W94110124	9		30.53	1633.3				1.46
W9411	N16P	23-AUG-94 1024	2.71	W94110124	10		12.45	2094.6				1.89
W9411	N16P	23-AUG-94 1024	2.71	W94110124	11		1.03	779.98				0.67
W9411	N16P	23-AUG-94 1024	2.71	W94110124	12		2.92	401.08				0.32
W9411	N16P	23-AUG-94 1024	7.62	W94110123					5547193	27.12	5.32	
W9411	N16P	23-AUG-94 1024	7.62	W94110123	-3			456.65				
W9411	N16P	23-AUG-94 1024	7.62	W94110123	-2			414.52				
W9411	N16P	23-AUG-94 1024	7.62	W94110123	-1			281.84				
W9411	N16P	23-AUG-94 1024	7.62	W94110123	1		290	1794.4				1.36
W9411	N16P	23-AUG-94 1024	7.62	W94110123	2		935.5	5410				4.85
W9411	N16P	23-AUG-94 1024	7.62	W94110123	3		1415	4283.8				3.76
W9411	N16P	23-AUG-94 1024	7.62	W94110123	4		940	3406.3				2.92
W9411	N16P	23-AUG-94 1024	7.62	W94110123	5		327.5	5577.4				5.01
W9411	N16P	23-AUG-94 1024	7.62	W94110123	6		865	5035.1				4.49
W9411	N16P	23-AUG-94 1024	7.62	W94110123	7		25.8	1415.7				1
W9411	N16P	23-AUG-94 1024	7.62	W94110123	8		22.05	1939.6				1.5
W9411	N16P	23-AUG-94 1024	7.62	W94110123	9		173.31	4106.6				3.59
W9411	N16P	23-AUG-94 1024	7.62	W94110123	10		184.23	2928.9				2.46
W9411	N16P	23-AUG-94 1024	7.62	W94110123	11		5.62	873.54				0.47
W9411	N16P	23-AUG-94 1024	7.62	W94110123	12		4.52	579.91				0.19
W9411	N16P	23-AUG-94 1024	18.39	W94110121					5547193	27.2	5.42	
W9411	N16P	23-AUG-94 1024	18.39	W94110121	-3			527.96				
W9411	N16P	23-AUG-94 1024	18.39	W94110121	-2			778.54				
W9411	N16P	23-AUG-94 1024	18.39	W94110121	-1			776.78				
W9411	N16P	23-AUG-94 1024	18.39	W94110121	1		1450	7935.6				6.8
W9411	N16P	23-AUG-94 1024	18.39	W94110121	2		930	9070.7				7.88
W9411	N16P	23-AUG-94 1024	18.39	W94110121	3		563	9621.3				8.4
W9411	N16P	23-AUG-94 1024	18.39	W94110121	4		190	8684.7				7.51
W9411	N16P	23-AUG-94 1024	18.39	W94110121	5		191.5	8033.7				6.89
W9411	N16P	23-AUG-94 1024	18.39	W94110121	6		193.6	7659.4				6.54
W9411	N16P	23-AUG-94 1024	18.39	W94110121	7		278.84	9390.3				8.18
W9411	N16P	23-AUG-94 1024	18.39	W94110121	8		53.47	3877.2				2.94

Table D1-1. C14 Production at Bioproductivity Stations in August 1994.

Event	Station	Date/Time	Depth (M)	Sample Id	Rep	Level	Light uEm/m2/sec	C14 (DPM)	Stock (DPM)	Dissolved Inorganic Carbon (mg C/L)	Length of Incubation (hours)	Production (Dark corrected) (mg C/m3/hr)
W9411	N16P	23-AUG-94 1024	18.39	W94110121	9		17.67	2067.6				1.23
W9411	N16P	23-AUG-94 1024	18.39	W94110121	10		11.02	2025.4				1.19
W9411	N16P	23-AUG-94 1024	18.39	W94110121	11		1.84	943.74				0.16
W9411	N16P	23-AUG-94 1024	18.39	W94110121	12		1.61	947.88				0.16
W9411	N16P	23-AUG-94 1024	25.17	W94110120					5547193	27.47	5.25	
W9411	N16P	23-AUG-94 1024	25.17	W94110120	-3			565.09				
W9411	N16P	23-AUG-94 1024	25.17	W94110120	-2			635.29				
W9411	N16P	23-AUG-94 1024	25.17	W94110120	-1			543.5				
W9411	N16P	23-AUG-94 1024	25.17	W94110120	1		163	2968.9				2.36
W9411	N16P	23-AUG-94 1024	25.17	W94110120	2		955	2691.9				2.09
W9411	N16P	23-AUG-94 1024	25.17	W94110120	3		789.3	3199.7				2.59
W9411	N16P	23-AUG-94 1024	25.17	W94110120	4		1315	2248.9				1.65
W9411	N16P	23-AUG-94 1024	25.17	W94110120	5		198.5	3035.6				2.43
W9411	N16P	23-AUG-94 1024	25.17	W94110120	6		889	2617.1				2.02
W9411	N16P	23-AUG-94 1024	25.17	W94110120	7		46.42	2093.6				1.5
W9411	N16P	23-AUG-94 1024	25.17	W94110120	8		219.96	3349.9				2.74
W9411	N16P	23-AUG-94 1024	25.17	W94110120	9		25.17	1383.7				0.79
W9411	N16P	23-AUG-94 1024	25.17	W94110120	10		16.05	1271.7				0.68
W9411	N16P	23-AUG-94 1024	25.17	W94110120	11		5.08	416.5				-0.16
W9411	N16P	23-AUG-94 1024	25.17	W94110120	12		4.85	1166.6				0.58
W9411	N16P	24-AUG-94 0922	2.2	W94110365					5590972	27.23	5.62	
W9411	N16P	24-AUG-94 0922	2.2	W94110365	-3			767.71				
W9411	N16P	24-AUG-94 0922	2.2	W94110365	-2			747.48				
W9411	N16P	24-AUG-94 0922	2.2	W94110365	-1			802.66				
W9411	N16P	24-AUG-94 0922	2.2	W94110365	1		1419	9027.9				7.51
W9411	N16P	24-AUG-94 0922	2.2	W94110365	2		1981	8833.6				7.34
W9411	N16P	24-AUG-94 0922	2.2	W94110365	3		830	10208				8.59
W9411	N16P	24-AUG-94 0922	2.2	W94110365	4		393.5	7942				6.52
W9411	N16P	24-AUG-94 0922	2.2	W94110365	5		359.5	9813.7				8.23
W9411	N16P	24-AUG-94 0922	2.2	W94110365	6		235.04	7782.1				6.38
W9411	N16P	24-AUG-94 0922	2.2	W94110365	7		209.98	9208.3				7.68
W9411	N16P	24-AUG-94 0922	2.2	W94110365	8		304.33	10726				9.06
W9411	N16P	24-AUG-94 0922	2.2	W94110365	9		25.06	3338.3				2.33
W9411	N16P	24-AUG-94 0922	2.2	W94110365	10		10.22	2412.5				1.49
W9411	N16P	24-AUG-94 0922	2.2	W94110365	11		0.84	866.92				0.09
W9411	N16P	24-AUG-94 0922	2.2	W94110365	12		2.38	4399.4				3.3
W9411	N16P	24-AUG-94 0922	8.35	W94110364					5590972	26.88	5.57	
W9411	N16P	24-AUG-94 0922	8.35	W94110364	-3			654.88				
W9411	N16P	24-AUG-94 0922	8.35	W94110364	-2			846.08				
W9411	N16P	24-AUG-94 0922	8.35	W94110364	-1			808.88				
W9411	N16P	24-AUG-94 0922	8.35	W94110364	1		882.5	5876.1				4.63
W9411	N16P	24-AUG-94 0922	8.35	W94110364	2		1431.5	3179				2.18
W9411	N16P	24-AUG-94 0922	8.35	W94110364	3		935.5	5972.9				4.72

Table D1-1. C14 Production at Bioproductivity Stations in August 1994.

Event	Station	Date/Time	Depth (M)	Sample Id	Rep	Level	Light uEm/m2/sec	C14 (DPM)	Stock (DPM)	Dissolved Inorganic Carbon (mg C/L)	Length of Incubation (hours)	Production (Dark corrected) (mg C/m3/hr)
W9411	N16P	24-AUG-94 0922	8.35	W94110364	4		387	6263.3				4.98
W9411	N16P	24-AUG-94 0922	8.35	W94110364	5		358	3405.9				2.39
W9411	N16P	24-AUG-94 0922	8.35	W94110364	6		216.56	4164.4				3.08
W9411	N16P	24-AUG-94 0922	8.35	W94110364	7		182.31	4490				3.37
W9411	N16P	24-AUG-94 0922	8.35	W94110364	8		171.51	4541.5				3.42
W9411	N16P	24-AUG-94 0922	8.35	W94110364	9		21.82	2169.8				1.27
W9411	N16P	24-AUG-94 0922	8.35	W94110364	10		25.53	2280.3				1.37
W9411	N16P	24-AUG-94 0922	8.35	W94110364	11		5.56	601.71				-0.15
W9411	N16P	24-AUG-94 0922	8.35	W94110364	12		4.47	1073.8				0.28
W9411	N16P	24-AUG-94 0922	18.93	W94110363					5590972	27.15	5.67	
W9411	N16P	24-AUG-94 0922	18.93	W94110363	-3			1028.5				
W9411	N16P	24-AUG-94 0922	18.93	W94110363	-2			511.66				
W9411	N16P	24-AUG-94 0922	18.93	W94110363	-1			997.17				
W9411	N16P	24-AUG-94 0922	18.93	W94110363	1		497.5	4117				2.94
W9411	N16P	24-AUG-94 0922	18.93	W94110363	2		810	4733.5				3.5
W9411	N16P	24-AUG-94 0922	18.93	W94110363	3		1255	3175.8				2.1
W9411	N16P	24-AUG-94 0922	18.93	W94110363	4		183	5695.6				4.36
W9411	N16P	24-AUG-94 0922	18.93	W94110363	5		175	5438.2				4.13
W9411	N16P	24-AUG-94 0922	18.93	W94110363	6		163.82	6220.7				4.83
W9411	N16P	24-AUG-94 0922	18.93	W94110363	7		14.96	2541.9				1.53
W9411	N16P	24-AUG-94 0922	18.93	W94110363	8		236.01	6290.9				4.9
W9411	N16P	24-AUG-94 0922	18.93	W94110363	9		45.26	4383.7				3.18
W9411	N16P	24-AUG-94 0922	18.93	W94110363	10		9.32	2075.7				1.11
W9411	N16P	24-AUG-94 0922	18.93	W94110363	11		1.36	1063.3				0.2
W9411	N16P	24-AUG-94 0922	18.93	W94110363	12		1.55	820.91				-0.02
W9411	N16P	24-AUG-94 0922	28.81	W94110362					5590972	27.87	5.52	
W9411	N16P	24-AUG-94 0922	28.81	W94110362	-3			607.12				
W9411	N16P	24-AUG-94 0922	28.81	W94110362	-2			367.58				
W9411	N16P	24-AUG-94 0922	28.81	W94110362	-1			654.77				
W9411	N16P	24-AUG-94 0922	28.81	W94110362	1		770	1005.3				0.44
W9411	N16P	24-AUG-94 0922	28.81	W94110362	2		1175	1269.2				0.69
W9411	N16P	24-AUG-94 0922	28.81	W94110362	3		677.5	1890.3				1.28
W9411	N16P	24-AUG-94 0922	28.81	W94110362	4		260	2419.6				1.78
W9411	N16P	24-AUG-94 0922	28.81	W94110362	5		195	2307.3				1.67
W9411	N16P	24-AUG-94 0922	28.81	W94110362	6		189.1	1991.5				1.37
W9411	N16P	24-AUG-94 0922	28.81	W94110362	7		190	2176.9				1.55
W9411	N16P	24-AUG-94 0922	28.81	W94110362	8		21.74	1408.6				0.82
W9411	N16P	24-AUG-94 0922	28.81	W94110362	9		13.86	1141				0.57
W9411	N16P	24-AUG-94 0922	28.81	W94110362	10		40.09	1791				1.18
W9411	N16P	24-AUG-94 0922	28.81	W94110362	11		4.19	1141.3				0.57
W9411	N16P	24-AUG-94 0922	28.81	W94110362	12		4.39	1093.6				0.52

APPENDIX D

METABOLISM DATA AND PRODUCTIVITY—IRRADIANCE MODELING

Part 2

Summary of P-I Modeling

The modeling effort is described in Section 2 of the accompanying text report. All parameters were estimated using SAS (1985). P-I incubations were performed using water from four depths (surface, mid-surface, mid-depth, and mid-bottom) at BioProductivity stations F23P and N16P twice per combined survey. Volumetric net production rates for these are given in Table D1-1. The rates were normalized for each sample by dividing the volumetric rate by the average chlorophyll value for that sample (Appendix A), to yield an estimate of net production as μg C (μg Chl)$^{-1}$ hr^{-1} after correcting for dark uptake; rates thus expressed were used in the modeling and graphics that follow.

Table D2-1 summarizes the statistics used as a basis for rejecting certain outliers in the dark bottle replicates for survey W9411. This appendix provides the modeled data in chronological order. For each sampling date, the following sequence is used: modeled parameters for a 3-parameter model of Platt *et al.* (1980), followed by graphs of situations which were fit by this model; modeled parameters for a 2-parameter model of Webb *et al.* (1974), followed by graphs of situations which were fit by this model, which assumes zero photoinhibition.

Note that no incubation samples were taken from the bottom sampling depth. The sample qualifiers used in Tables D2-1 to D2-5 are explained as follows:

D2-1 Qualifier (BOT)	D2-2 to D2-5 Qualifier	Relative Sample Bottle Depth
10	SUR	surface
8	MSUR	mid-surface
6	MDEP	mid-depth
4	MBOT	mid-bottom

Table D2-1. Basis for excluding dark bottle outliers using the Dixon Criteria for high values (X_N) and low values (X_1) [Survey W9411]. Note that COL1, COL2, and COL3 are replicate dark bottle values (dpm).

THE DIXON CRITERION CRUISE 9411 1
15:27 Tuesday, November 22, 1994

OBS	STA	DEPTH	DATE	_NAME_	COL1	COL2	COL3	X_N	X_1
1	F23P	4	8/23/94	DARKDPM	1033.13	1142.57	1231.10	0.44717	0.55283
2	F23P	4	8/24/94	DARKDPM	937.47	958.42	968.25	0.31932	0.68068
3	F23P	6	8/23/94	DARKDPM	876.18	1210.33	1404.14	0.36709	0.63291
4	F23P	6	8/24/94	DARKDPM	702.42	795.71	1060.65	0.73957	0.26043
5	F23P	8	8/23/94	DARKDPM	1244.36	1554.85	1631.11	0.19720	0.80280
6	F23P	8	8/24/94	DARKDPM	775.48	848.50	877.87	0.28681	0.71319
7	F23P	10	8/23/94	DARKDPM	1693.86	1873.44	2018.29	0.44649	0.55351
8	F23P	10	8/24/94	DARKDPM	273.05	466.34	1078.51	0.76003	0.23997
9	N16P	4	8/23/94	DARKDPM	543.50	565.09	635.29	0.76474	0.23526
10	N16P	4	8/24/94	DARKDPM	367.58	607.12	654.77	0.16591	0.83409
11	N16P	6	8/23/94	DARKDPM	527.96	776.78	778.54	0.00704	0.99296
12	N16P	6	8/24/94	DARKDPM	511.66	997.17	1028.53	0.06067	0.93933
13	N16P	8	8/23/94	DARKDPM	281.84	414.52	456.65	0.24101	0.75899
14	N16P	8	8/24/94	DARKDPM	654.88	808.88	846.08	0.19455	0.80545
15	N16P	10	8/23/94	DARKDPM	55.17	59.69	75.08	0.77303	0.22697
16	N16P	10	8/24/94	DARKDPM	747.48	767.71	802.66	0.63326	0.36674

THE DIXON CRITERION CRUISE 9411 2
LOW DARK VALUES TO BE REJECTED P<0.05
15:27 Tuesday, November 22, 1994

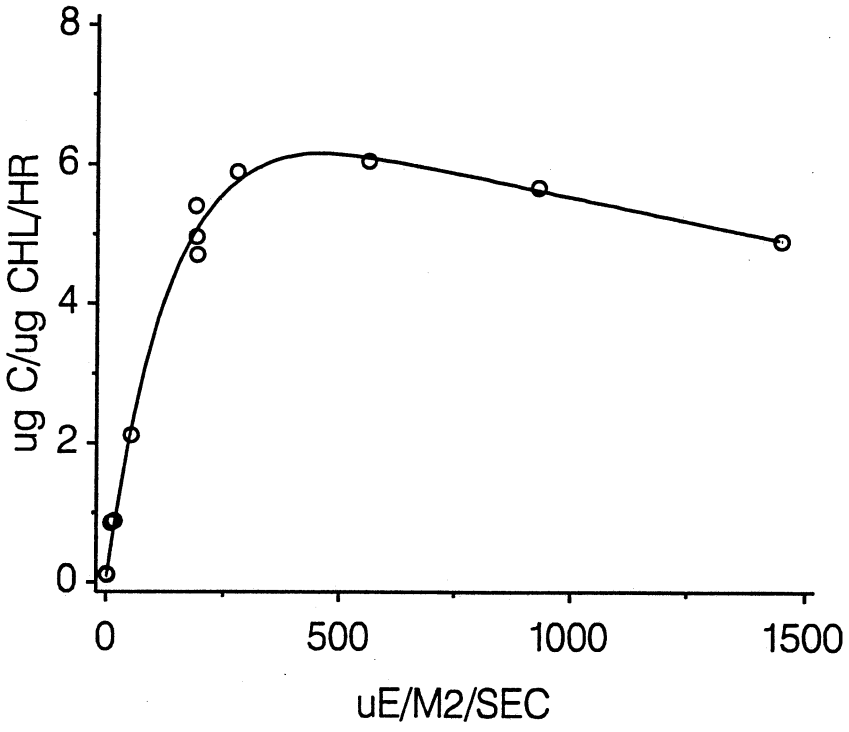
OBS	STA	DEPTH	DATE	_NAME_	COL1	COL2	COL3	X_N	X_1
1	N16P	6	8/23/94	DARKDPM	527.955	776.779	778.544	.0070422	0.99296

Table D2-2. P-I modeling using the Platt *et al.* (1980) model: August 23, 1994. Numbers in parentheses are standard errors of the estimates.

P VS I CURVE PARAMETERS W9411 AUGUST 23, 1994
MODEL PLATT ET AL. 1980

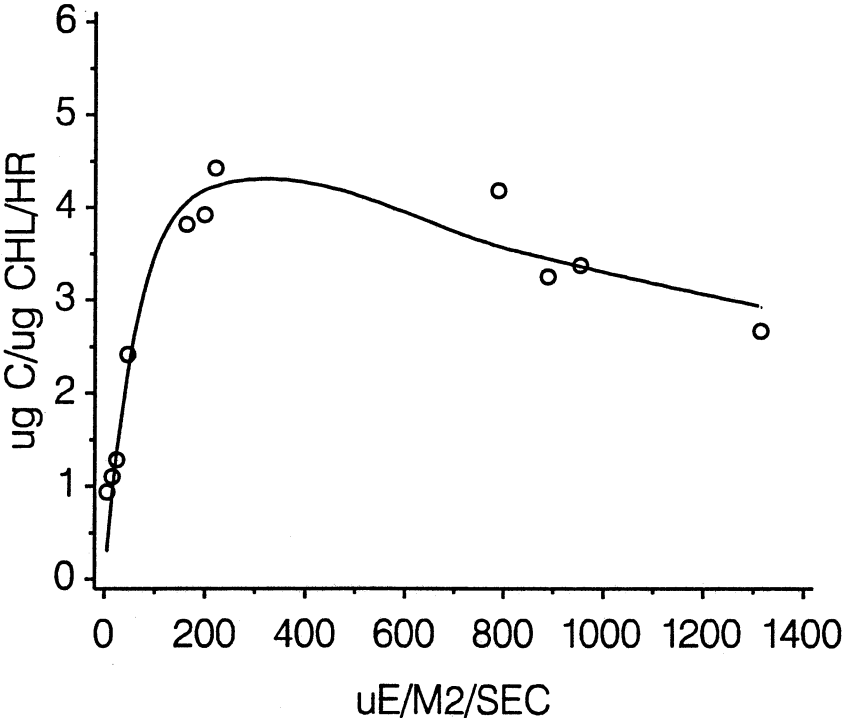
STA	DEPTH	P_SB	ALPHA	BETA	R_2
F23P	SUR	.	.	.	.
F23P	MSUR	.	.	.	.
F23P	MDEP	.	.	.	.
F23P	MBOT	.	.	.	.
N16P	SUR	.	.	.	.
N16P	MSUR	.	.	.	.
N16P	MDEP	7.25(0.45)	0.050(0.003)	0.002(0.0006)	0.99
N16P	MBOT	4.87(0.53)	0.065(0.012)	0.002(0.0007)	0.94

STATION N16P MID – DEPTH



PLATT ET AL, 1980 MODEL
SURVEY W9411 AUGUST 23, 1994

STATION N16P MID – BOTTOM



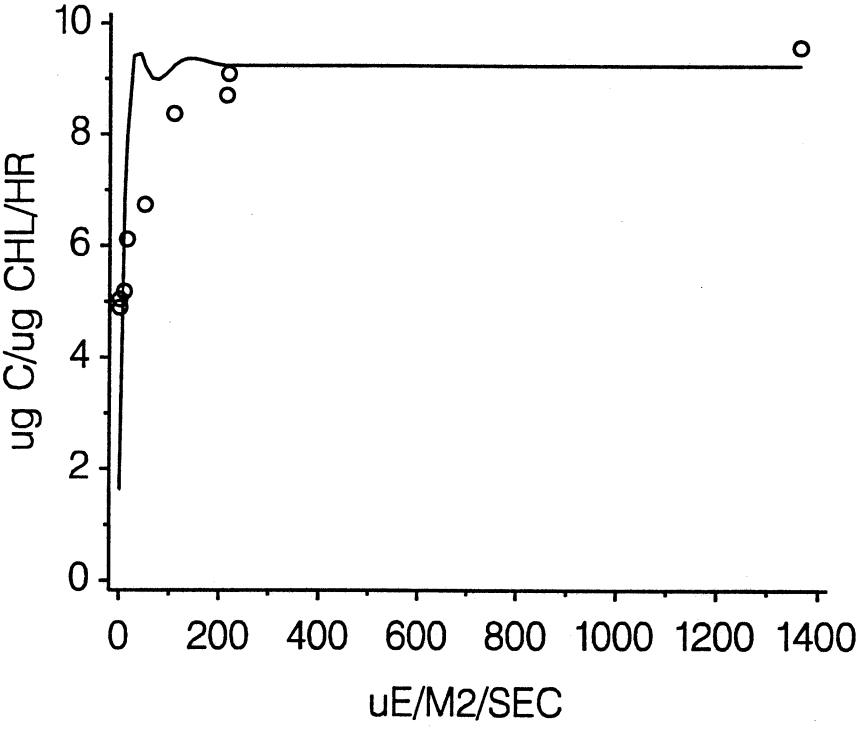
PLATT ET AL, 1980 MODEL
SURVEY W9411 AUGUST 23, 1994

Table D2-3. P-I modeling using the Webb *et al.* (1974) model: August 23, 1994. Numbers in parentheses are standard errors of the estimates.

P VS I CURVE PARAMETERS W9411 August 23, 1994
MODEL WEBB ET AL. 1974

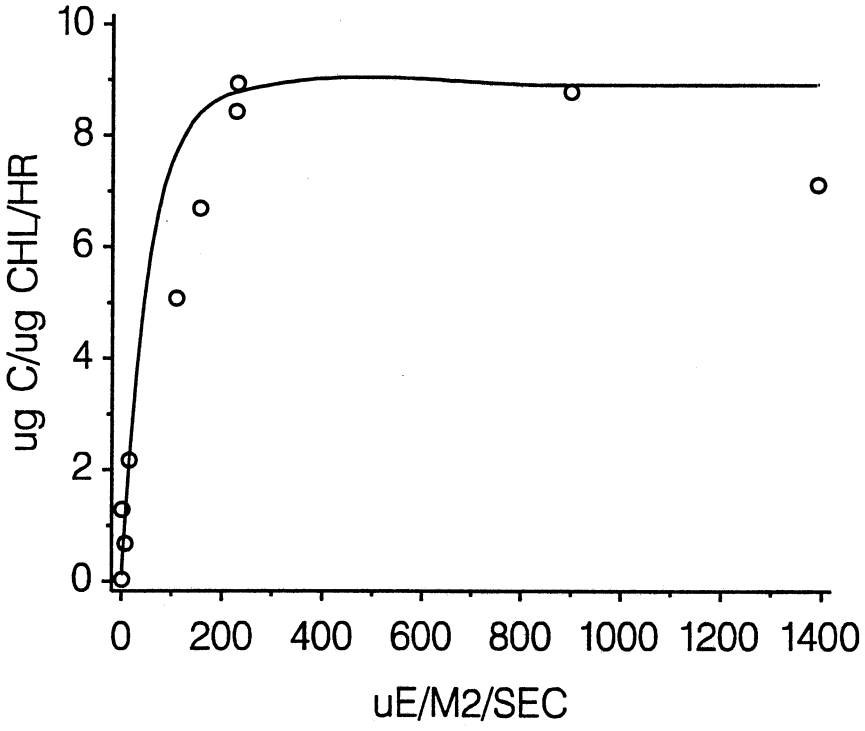
STATION	DEPTH	PMAX	ALPHA	R_2
F23P	SUR	9.24 (0.56)	1.220 (0.440)	0.54
F23P	MSUR	8.92 (0.98)	0.160 (0.100)	0.78
F23P	MDEP	5.21 (0.29)	0.050 (0.010)	0.91
F23P	MBOT	7.31 (0.53)	0.040 (0.010)	0.83
N16P	SUR	5.35 (0.04)	0.076 (0.020)	0.96
N16P	MSUR	3.87 (0.50)	0.031 (0.015)	0.69
N16P	MDEP	. .	. .	.
N16P	MBOT	. .	. .	.

STATION F23P SURFACE



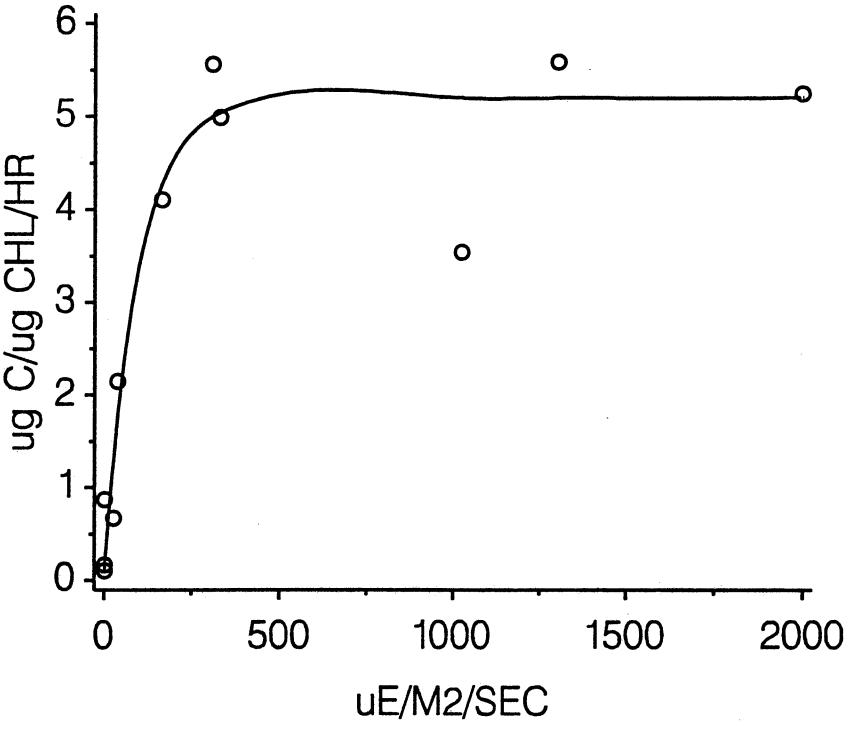
WEBB ET AL. 1974 MODEL
SURVEY W9411 AUGUST 23, 1994

STATION F23P MID – SURFACE



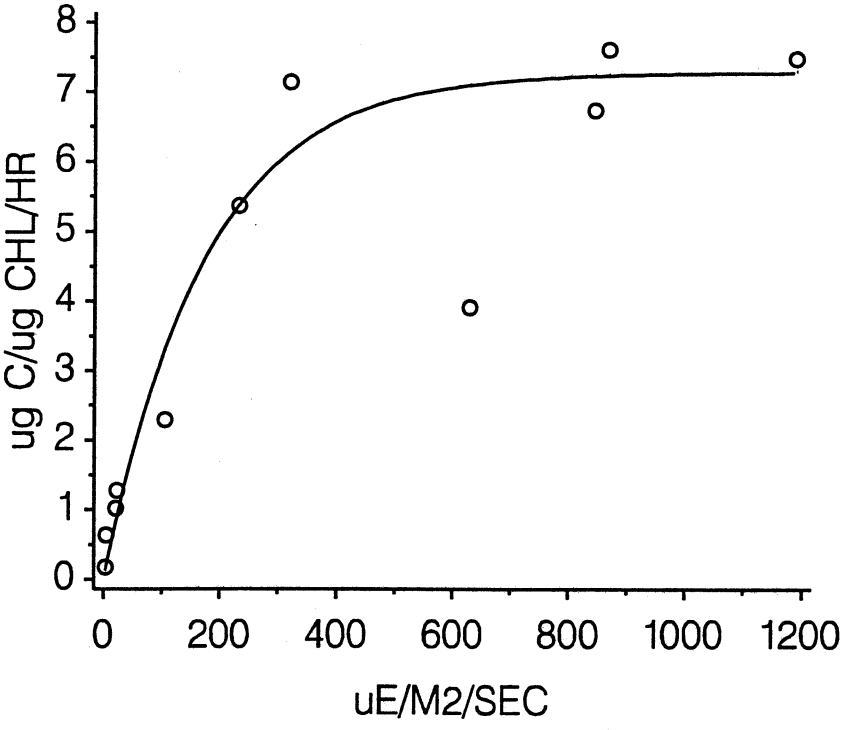
WEBB ET AL. 1974 MODEL
SURVEY W9411 AUGUST 23, 1994

STATION F23P MID – DEPTH



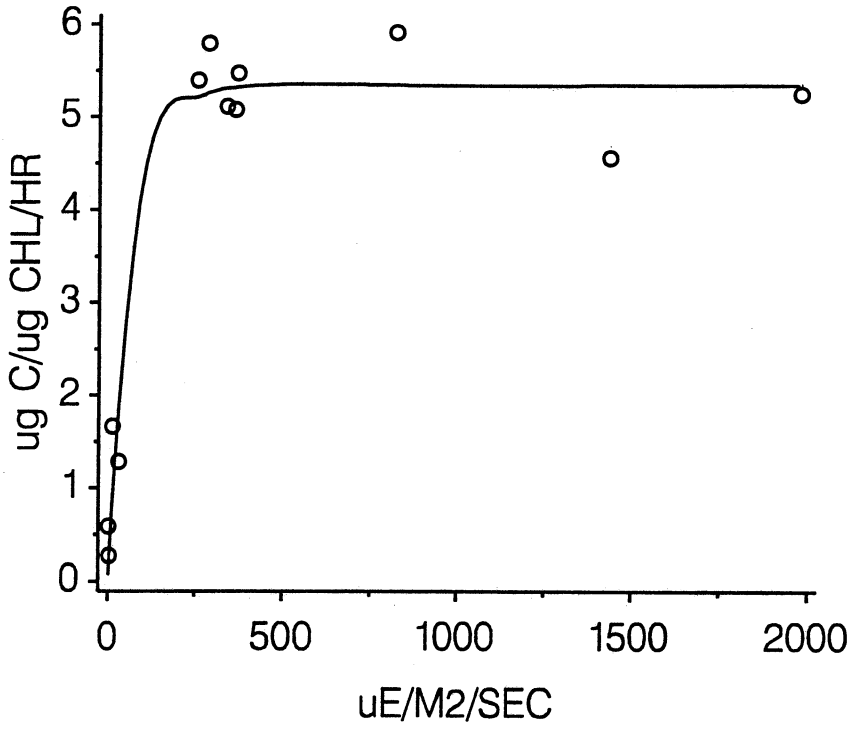
WEBB ET AL. 1974 MODEL
SURVEY W9411 AUGUST 23, 1994

STATION F23P MID – BOTTOM



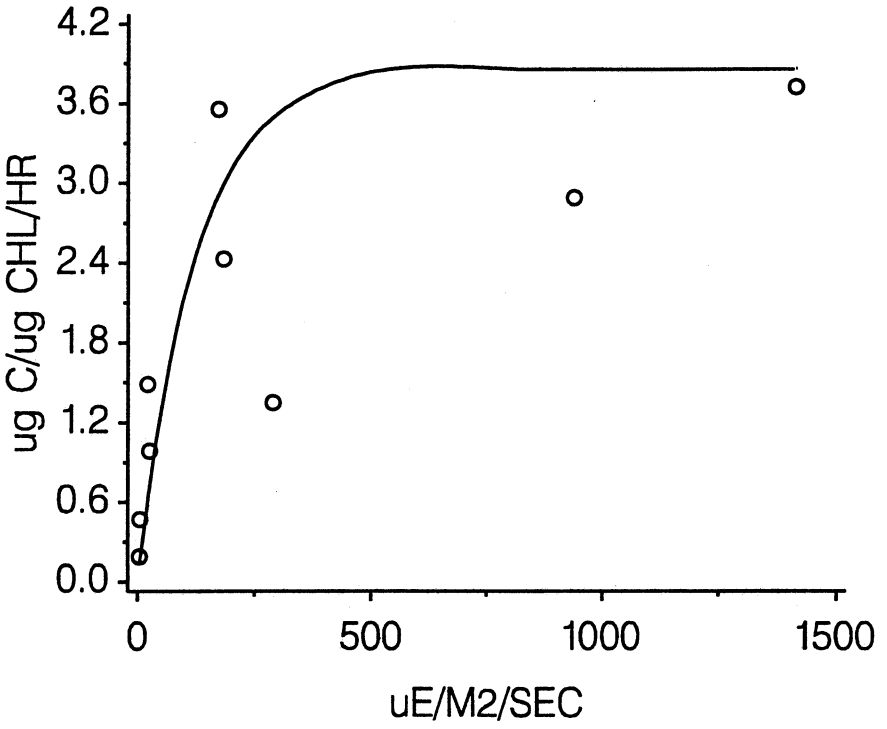
WEBB ET AL. 1974 MODEL
SURVEY W9411 AUGUST 23, 1994

STATION N16P SURFACE



WEBB ET AL. 1974 MODEL
SURVEY W9411 AUGUST 23, 1994

STATION N16P MID – SURFACE



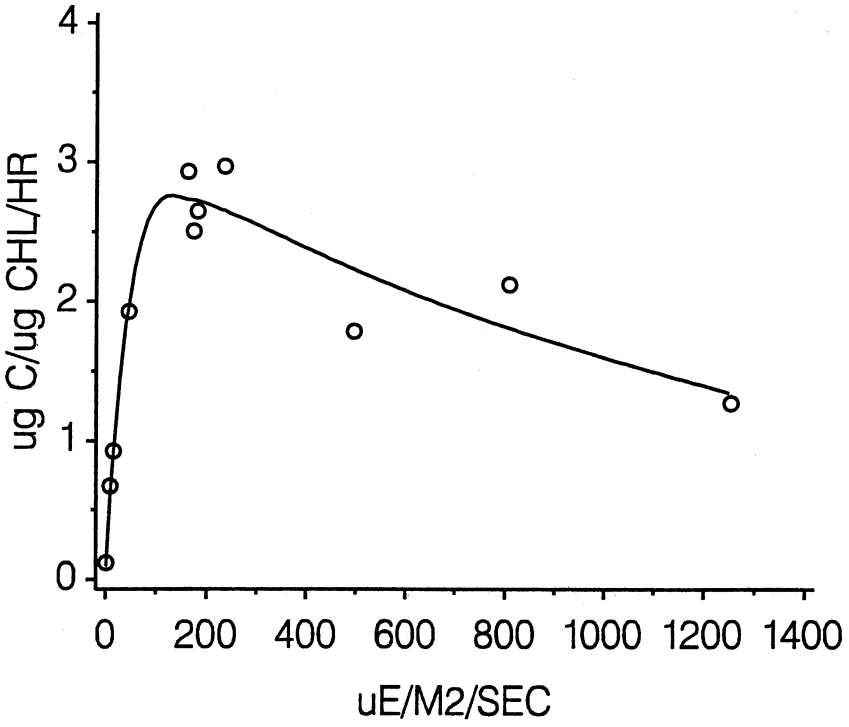
WEBB ET AL. 1974 MODEL
SURVEY W9411 AUGUST 23, 1994

Table D2-4. P-I modeling using the Platt *et al.* (1980) model: August 24, 1994. Numbers in parentheses are standard errors of the estimates.

P VS I CURVE PARAMETERS W9411 AUGUST 24, 1994
MODEL PLATT ET AL. 1980

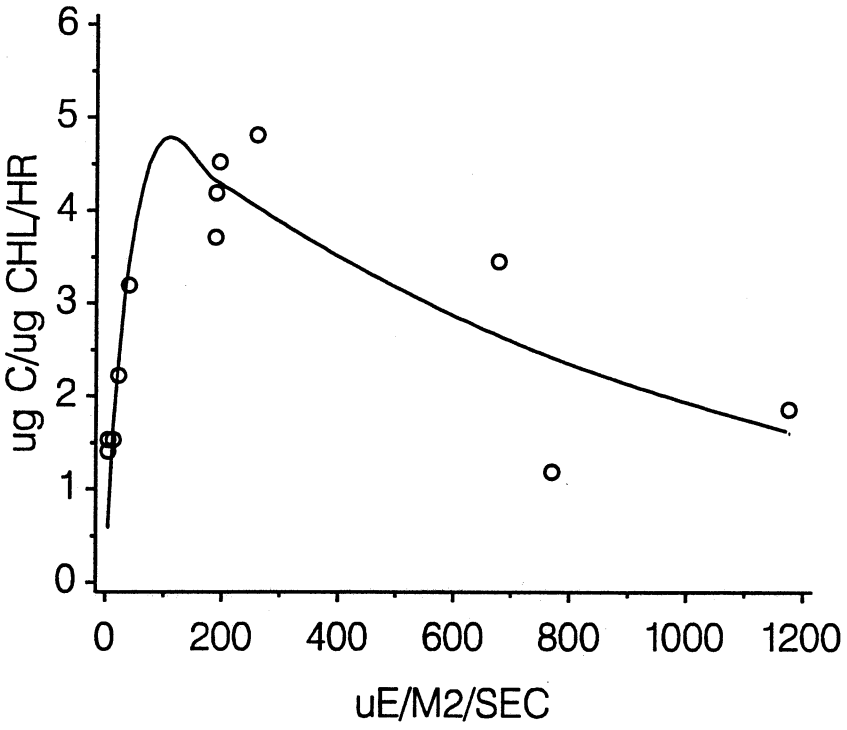
STA	DEPTH	P_SB	ALPHA	BETA	R_2
F23P	SUR	.	.	.	.
F23P	MSUR	.	.	.	.
F23P	MDEP	.	.	.	.
F23P	MBOT	.	.	.	.
N16P	SUR	.	.	.	.
N16P	MSUR	.	.	.	.
N16P	MDEP	3.13(0.05)	0.072(0.012)	0.002(0.0002)	0.96
N16P	MBOT	5.26(0.70)	0.150(0.030)	0.005(0.0024)	0.78

STATION N16P MID – DEPTH



PLATT ET AL, 1980 MODEL
SURVEY W9411 AUGUST 24, 1994

STATION N16P MID – BOTTOM



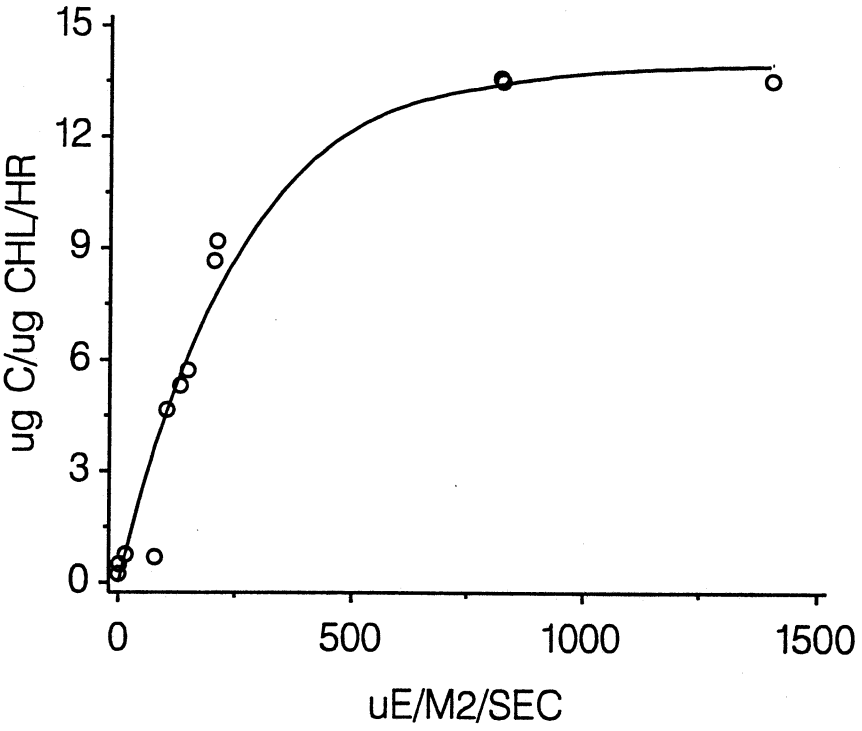
PLATT ET AL, 1980 MODEL
SURVEY W9411 AUGUST 24, 1994

Table D2-5. P-I modeling using the Webb *et al.* (1974) model: August 24, 1994. Numbers in parentheses are standard errors of the estimates.

P VS I CURVE PARAMETERS W9411 AUGUST 24, 1994
MODEL WEBB ET AL. 1974

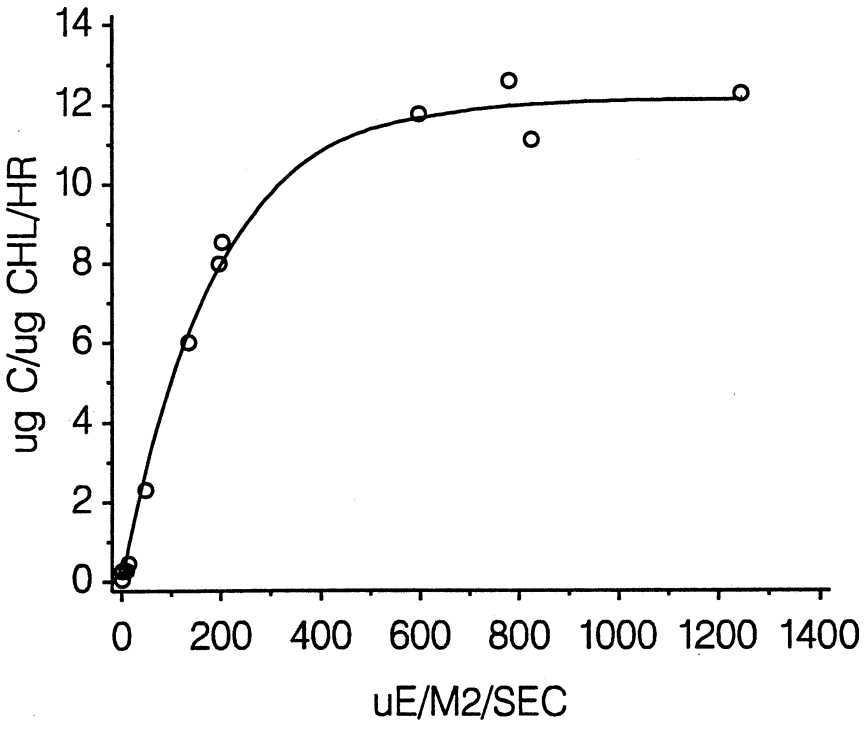
STATION	DEPTH	PMAX	ALPHA	R_2
F23P	SUR	14.04 (0.78)	0.054 (0.006)	0.96
F23P	MSUR	12.18 (0.16)	0.065 (0.004)	0.99
F23P	MDEP	11.58 (0.30)	0.076 (0.007)	0.99
F23P	MBOT	11.49 (0.40)	0.040 (0.005)	0.97
N16P	SUR	12.05 (0.58)	0.213 (0.040)	0.88
N16P	MSUR	4.31 (0.06)	0.063 (0.034)	0.81
N16P	MDEP	. .	. .	.
N16P	MBOT	. .	. .	.

STATION F23P SURFACE



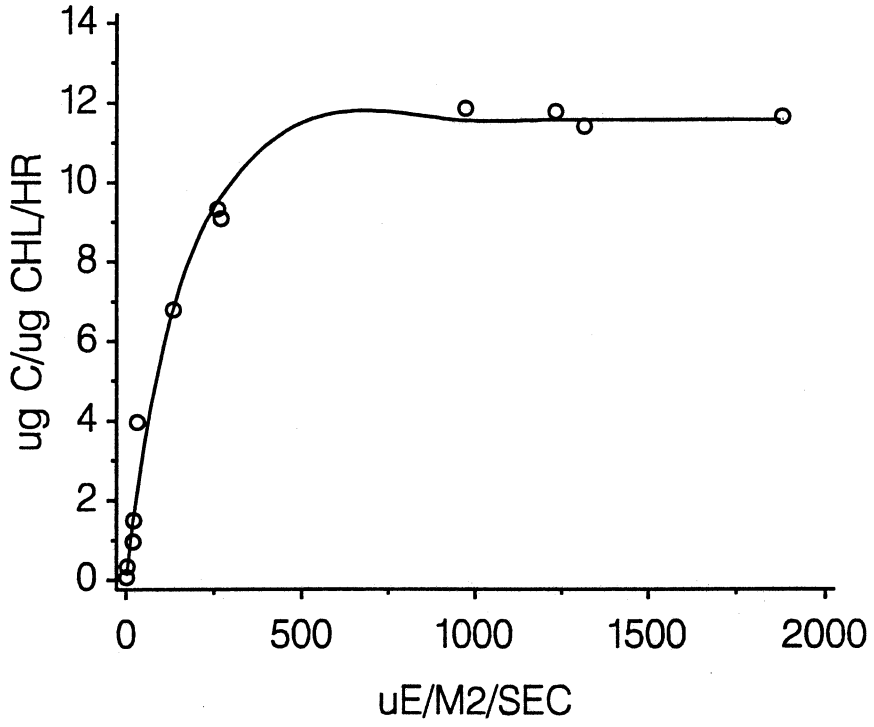
WEBB ET AL. 1974 MODEL
SURVEY W9411 AUGUST 24, 1994

STATION F23P MID – SURFACE



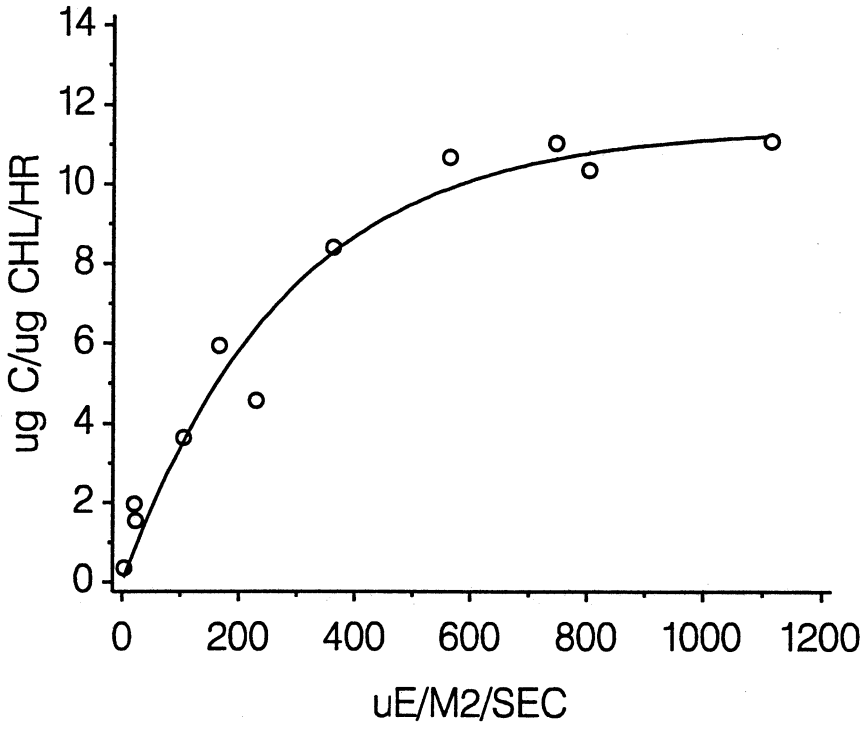
WEBB ET AL. 1974 MODEL
SURVEY W9411 AUGUST 24, 1994

STATION F23P MID – DEPTH



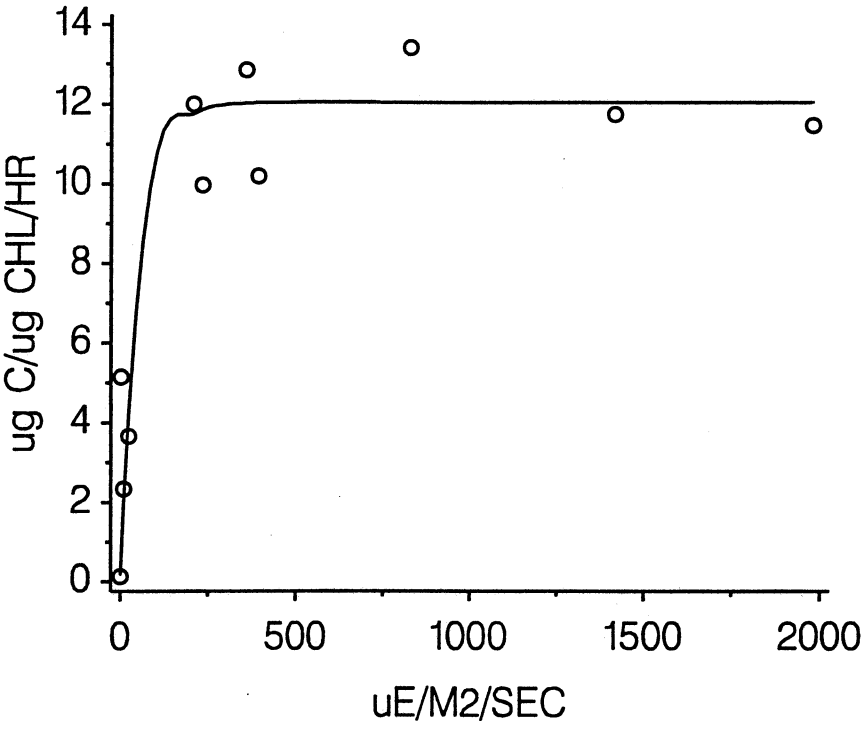
WEBB ET AL. 1974 MODEL
SURVEY W9411 AUGUST 24, 1994

STATION F23P MID – BOTTOM



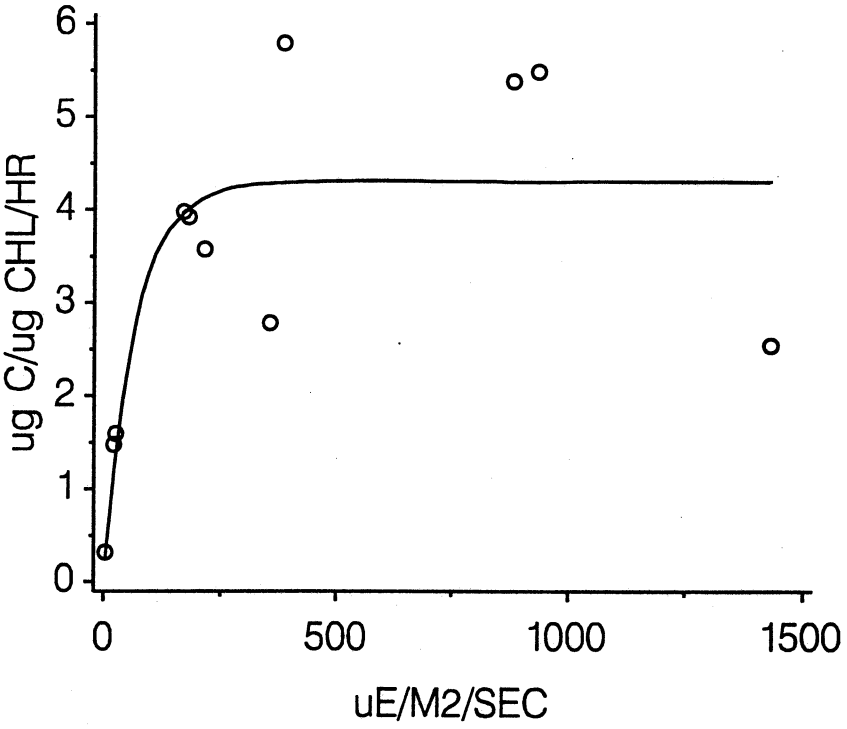
WEBB ET AL. 1974 MODEL
SURVEY W9411 AUGUST 24, 1994

STATION N16P SURFACE



WEBB ET AL. 1974 MODEL
SURVEY W9411 AUGUST 24, 1994

STATION N16P MID–SURFACE



WEBB ET AL. 1974 MODEL
SURVEY W9411 AUGUST 24, 1994

APPENDIX D

METABOLISM DATA AND PRODUCTIVITY—IRRADIANCE MODELING

Part 3

Respiration Data

Table D3-1 includes data from the late August survey (W9411). Water samples were taken at surface, mid-depth, and mid-bottom depths. Initial dissolved oxygen (DO) concentrations were determined in triplicate from samples fixed immediately after being taken from the hydrocast bottles. Final DO concentrations were determined by fixing samples after incubating bottles (time indicated) in the dark. Net respiration was calculated for each sampling depth, as the linear regression of oxygen concentration vs. incubation time. The table includes incubation data for samples from stations F19, F24, and N20P. Graphs of oxygen concentrations vs. incubation time and the associated regressions are presented following Table D3-1.

Table D3-1. Dark Respiration at Bioproductivity Stations in August of 1994.

EVENT	STATION	DATE	TIME	DEPTH	SAMPLE ID	LEVEL	DISSOLVED OXYGEN (mg/L)	LENGTH OF INCUBATION (hours)	INCUBATION TEMPERATURE (C)
W9411	F19	23-AUG-94	1341	2.87	W94110172	DARK	8.49	4.33	17.00
W9411	F19	23-AUG-94	1341	2.87	W94110172	DARK	8.48	4.33	17.00
W9411	F19	23-AUG-94	1341	2.87	W94110172	DARK	8.49	8.00	17.00
W9411	F19	23-AUG-94	1341	2.87	W94110172	DARK	8.49	8.00	17.00
W9411	F19	23-AUG-94	1341	2.87	W94110172	DARK	8.44	24.00	18.00
W9411	F19	23-AUG-94	1341	2.87	W94110172	DARK	8.28	24.00	18.00
W9411	F19	23-AUG-94	1341	2.87	W94110172	DARK	8.30	48.00	17.00
W9411	F19	23-AUG-94	1341	2.87	W94110172	DARK	8.34	48.00	17.00
W9411	F19	23-AUG-94	1341	2.87	W94110172	DARK	8.29	48.00	17.00
W9411	F19	23-AUG-94	1341	2.87	W94110172	INIT	8.59	0.00	
W9411	F19	23-AUG-94	1341	2.87	W94110172	INIT	8.72	0.00	
W9411	F19	23-AUG-94	1341	2.87	W94110172	INIT	8.45 s	0.00	
W9411	F19	23-AUG-94	1339	20.14	W94110170	DARK	9.07	4.33	13.00
W9411	F19	23-AUG-94	1339	20.14	W94110170	DARK	9.14	4.33	13.00
W9411	F19	23-AUG-94	1339	20.14	W94110170	DARK	9.06	8.00	13.00
W9411	F19	23-AUG-94	1339	20.14	W94110170	DARK	9.08	8.00	13.00
W9411	F19	23-AUG-94	1339	20.14	W94110170	DARK	8.81	24.00	14.00
W9411	F19	23-AUG-94	1339	20.14	W94110170	DARK	8.82	24.00	14.00
W9411	F19	23-AUG-94	1339	20.14	W94110170	DARK	8.56	48.00	14.00
W9411	F19	23-AUG-94	1339	20.14	W94110170	DARK	8.81	48.00	14.00
W9411	F19	23-AUG-94	1339	20.14	W94110170	DARK	8.80	48.00	14.00
W9411	F19	23-AUG-94	1339	20.14	W94110170	INIT	9.12	0.00	
W9411	F19	23-AUG-94	1339	20.14	W94110170	INIT	9.16	0.00	
W9411	F19	23-AUG-94	1339	20.14	W94110170	INIT	9.12	0.00	
W9411	F19	23-AUG-94	1337	46.93	W94110169	DARK	7.69	4.33	12.00
W9411	F19	23-AUG-94	1337	46.93	W94110169	DARK	7.67 s	4.33	12.00
W9411	F19	23-AUG-94	1337	46.93	W94110169	DARK	7.58 s	8.00	12.00
W9411	F19	23-AUG-94	1337	46.93	W94110169	DARK	7.58 s	8.00	12.00
W9411	F19	23-AUG-94	1337	46.93	W94110169	DARK	7.63	24.00	12.50
W9411	F19	23-AUG-94	1337	46.93	W94110169	DARK	7.66	24.00	12.50
W9411	F19	23-AUG-94	1337	46.93	W94110169	DARK	7.65	48.00	13.00
W9411	F19	23-AUG-94	1337	46.93	W94110169	DARK	7.64	48.00	13.00
W9411	F19	23-AUG-94	1337	46.93	W94110169	DARK	7.65	48.00	13.00
W9411	F19	23-AUG-94	1337	46.93	W94110169	DARK	7.52	168.50	12.00
W9411	F19	23-AUG-94	1337	46.93	W94110169	DARK	7.53	168.50	12.00
W9411	F19	23-AUG-94	1337	46.93	W94110169	DARK	7.54	168.50	12.00
W9411	F19	23-AUG-94	1337	46.93	W94110169	INIT	7.61	0.00	
W9411	F19	23-AUG-94	1337	46.93	W94110169	INIT	7.76	0.00	
W9411	F19	23-AUG-94	1337	46.93	W94110169	INIT	7.75	0.00	
W9411	F24	23-AUG-94	0729	1.82	W94110074	DARK	7.18	4.25	17.00
W9411	F24	23-AUG-94	0729	1.82	W94110074	DARK	7.24	4.25	17.00
W9411	F24	23-AUG-94	0729	1.82	W94110074	DARK	7.19	8.17	17.00
W9411	F24	23-AUG-94	0729	1.82	W94110074	DARK	7.18	8.17	17.00
W9411	F24	23-AUG-94	0729	1.82	W94110074	DARK	7.09	24.67	17.00
W9411	F24	23-AUG-94	0729	1.82	W94110074	DARK	7.06	24.67	17.00
W9411	F24	23-AUG-94	0729	1.82	W94110074	DARK	6.90	47.92	17.00
W9411	F24	23-AUG-94	0729	1.82	W94110074	DARK	6.84	47.92	17.00
W9411	F24	23-AUG-94	0729	1.82	W94110074	DARK	6.82	47.92	17.00
W9411	F24	23-AUG-94	0729	1.82	W94110074	INIT	7.42	0.00	
W9411	F24	23-AUG-94	0729	1.82	W94110074	INIT	7.44	0.00	
W9411	F24	23-AUG-94	0729	1.82	W94110074	INIT	7.36	0.00	
W9411	N20P	23-AUG-94	0935	2.61	W94110107	DARK	8.46	4.42	17.00
W9411	N20P	23-AUG-94	0935	2.61	W94110107	DARK	8.41	4.42	17.00
W9411	N20P	23-AUG-94	0935	2.61	W94110107	DARK	8.36	8.50	17.00
W9411	N20P	23-AUG-94	0935	2.61	W94110107	DARK	8.39 s	8.50	17.00
W9411	N20P	23-AUG-94	0935	2.61	W94110107	DARK	8.25	24.17	16.50
W9411	N20P	23-AUG-94	0935	2.61	W94110107	DARK	8.35	24.17	16.50
W9411	N20P	23-AUG-94	0935	2.61	W94110107	DARK	8.25	48.00	16.50
W9411	N20P	23-AUG-94	0935	2.61	W94110107	DARK	8.09	48.00	16.50
W9411	N20P	23-AUG-94	0935	2.61	W94110107	DARK	8.10 s	48.00	16.50
W9411	N20P	23-AUG-94	0935	2.61	W94110107	INIT	8.52	0.00	

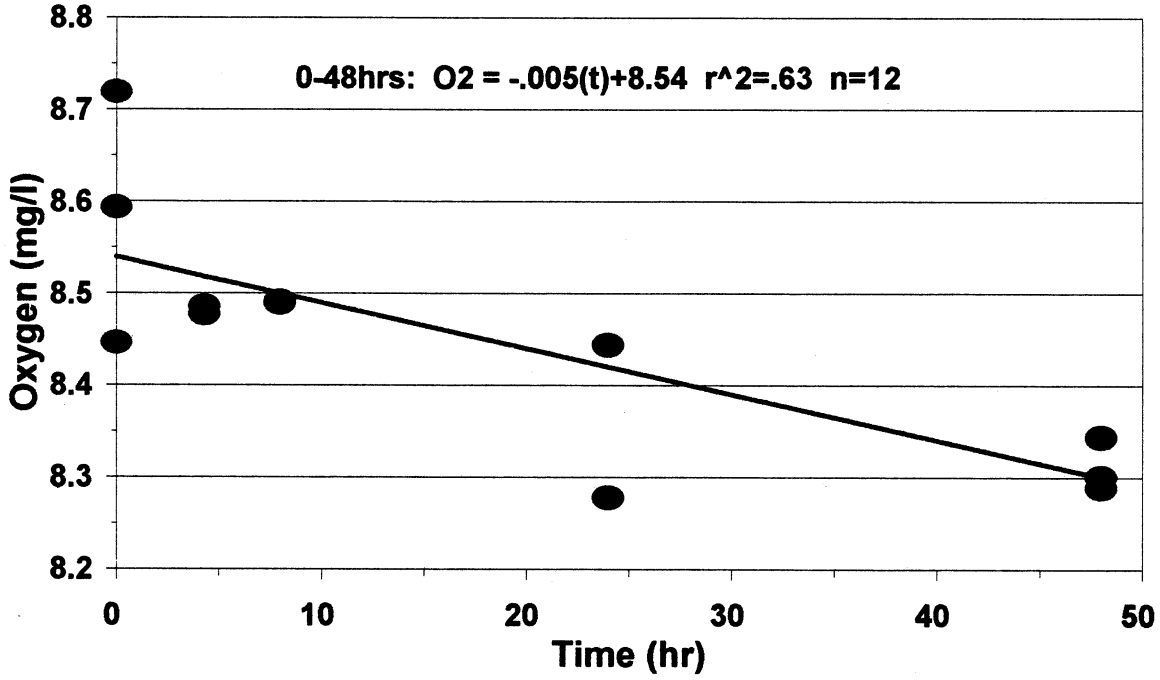
Table D3-1. Dark Respiration at Bioproductivity Stations in August of 1994.

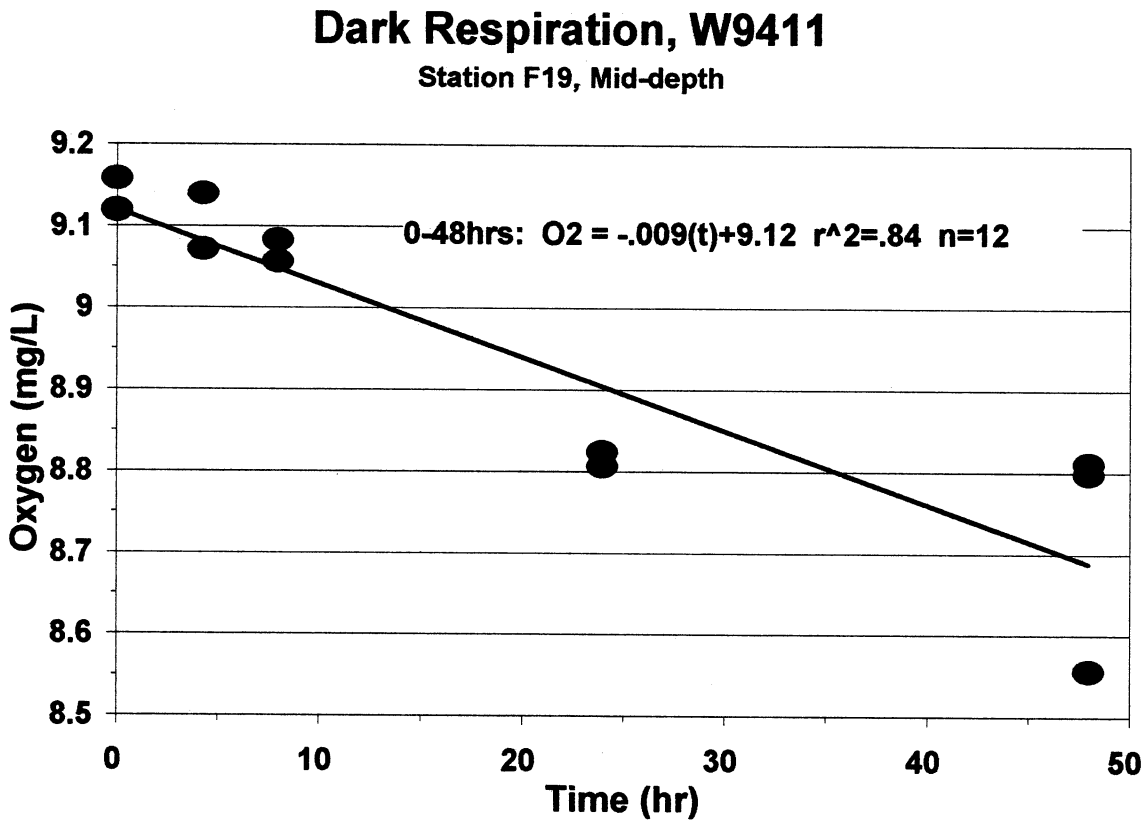
EVENT	STATION	DATE	TIME	DEPTH	SAMPLE ID	LEVEL	DISSOLVED OXYGEN (mg/L)	LENGTH OF INCUBATION (hours)	INCUBATION TEMPERATURE (C)
W9411	N20P	23-AUG-94	0935	2.61	W94110107	INIT	8.53	0.00	
W9411	N20P	23-AUG-94	0935	2.61	W94110107	INIT	8.41	0.00	
W9411	N20P	23-AUG-94	0932	14.31	W94110105	DARK	8.30	4.42	15.00
W9411	N20P	23-AUG-94	0932	14.31	W94110105	DARK	8.28	4.42	15.00
W9411	N20P	23-AUG-94	0932	14.31	W94110105	DARK	8.32	8.50	13.00
W9411	N20P	23-AUG-94	0932	14.31	W94110105	DARK	8.28	8.50	13.00
W9411	N20P	23-AUG-94	0932	14.31	W94110105	DARK	8.22	24.17	13.50
W9411	N20P	23-AUG-94	0932	14.31	W94110105	DARK	8.26	24.17	13.50
W9411	N20P	23-AUG-94	0932	14.31	W94110105	DARK	7.82	48.00	13.50
W9411	N20P	23-AUG-94	0932	14.31	W94110105	DARK	8.18	48.00	13.50
W9411	N20P	23-AUG-94	0932	14.31	W94110105	DARK	8.14	48.00	13.50
W9411	N20P	23-AUG-94	0932	14.31	W94110105	INIT	8.37	0.00	
W9411	N20P	23-AUG-94	0932	14.31	W94110105	INIT	8.43	0.00	
W9411	N20P	23-AUG-94	0932	14.31	W94110105	INIT	8.46	0.00	
W9411	N20P	23-AUG-94	0931	21.00	W94110104	DARK	7.99	4.42	14.00
W9411	N20P	23-AUG-94	0931	21.00	W94110104	DARK	8.03	4.42	14.00
W9411	N20P	23-AUG-94	0931	21.00	W94110104	DARK	8.03	8.50	12.00
W9411	N20P	23-AUG-94	0931	21.00	W94110104	DARK	7.92 s	8.50	12.00
W9411	N20P	23-AUG-94	0931	21.00	W94110104	DARK	7.96	24.17	12.00
W9411	N20P	23-AUG-94	0931	21.00	W94110104	DARK	7.89 s	24.17	12.00
W9411	N20P	23-AUG-94	0931	21.00	W94110104	DARK	7.78	48.00	12.00
W9411	N20P	23-AUG-94	0931	21.00	W94110104	DARK	8.29	48.00	12.00
W9411	N20P	23-AUG-94	0931	21.00	W94110104	DARK	7.73	48.00	12.00
W9411	N20P	23-AUG-94	0931	21.00	W94110104	DARK	7.58	168.17	12.00
W9411	N20P	23-AUG-94	0931	21.00	W94110104	DARK	7.55	168.17	12.00
W9411	N20P	23-AUG-94	0931	21.00	W94110104	DARK	7.55	168.17	12.00
W9411	N20P	23-AUG-94	0931	21.00	W94110104	INIT	8.08	0.00	
W9411	N20P	23-AUG-94	0931	21.00	W94110104	INIT	8.08	0.00	
W9411	N20P	23-AUG-94	0931	21.00	W94110104	INIT	8.09	0.00	

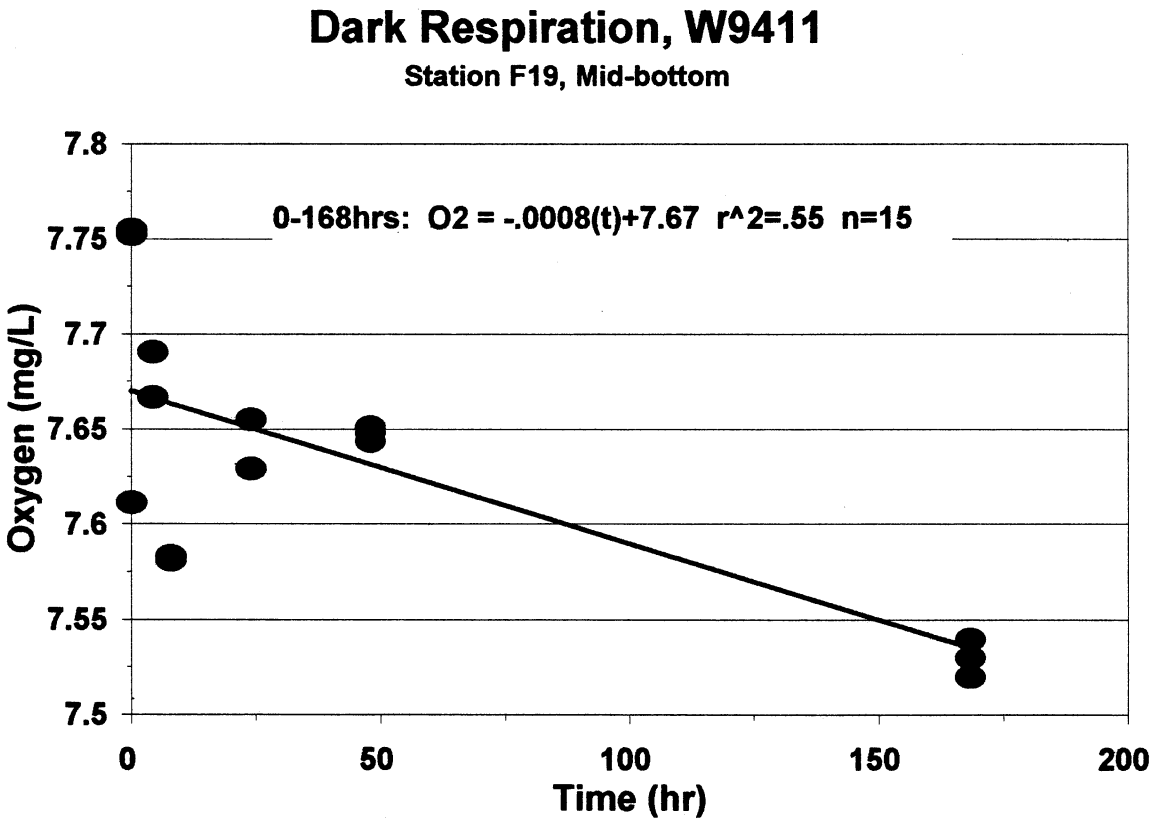
s = Suspect data

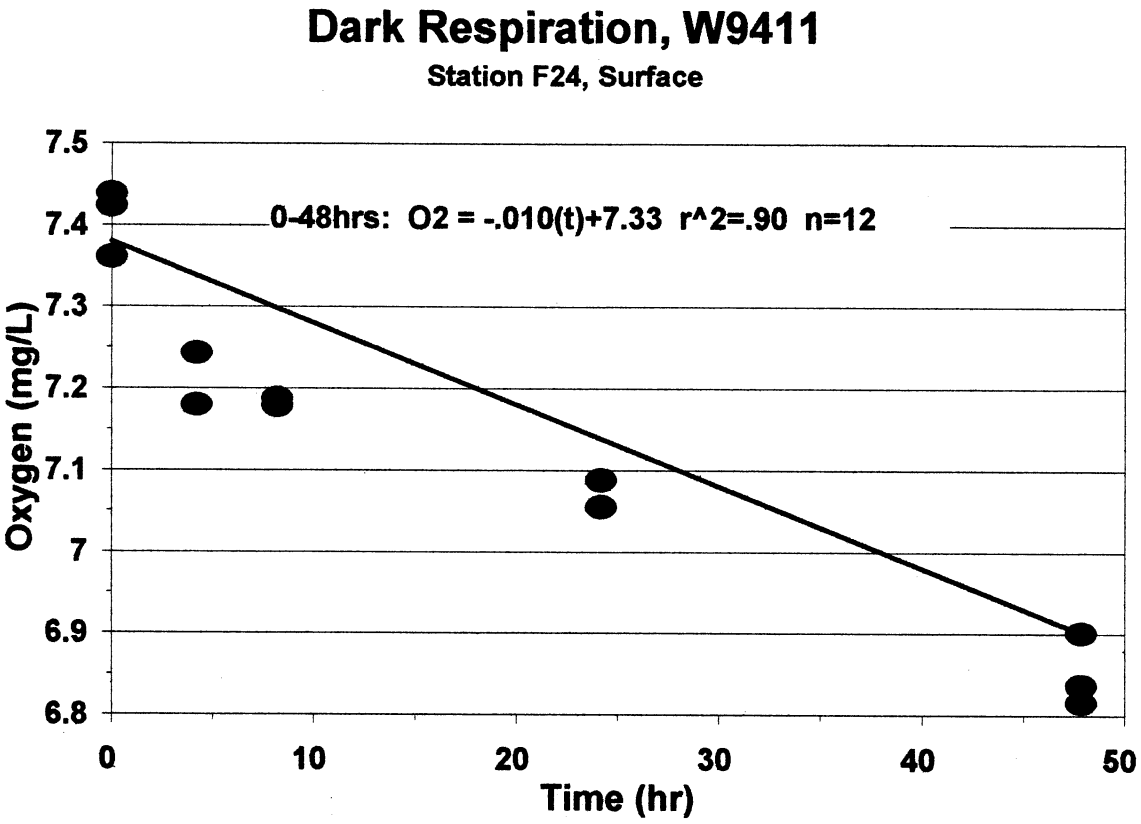
Dark Respiration, W9411

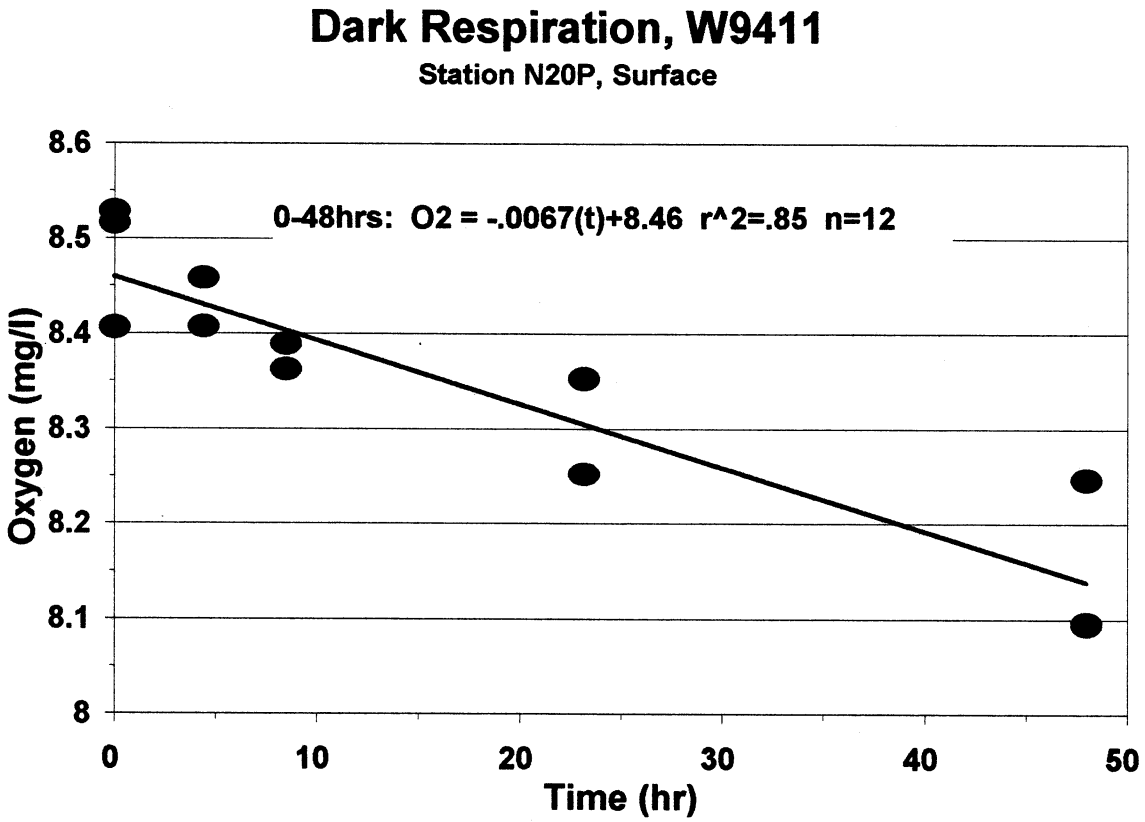
Station F19, Surface

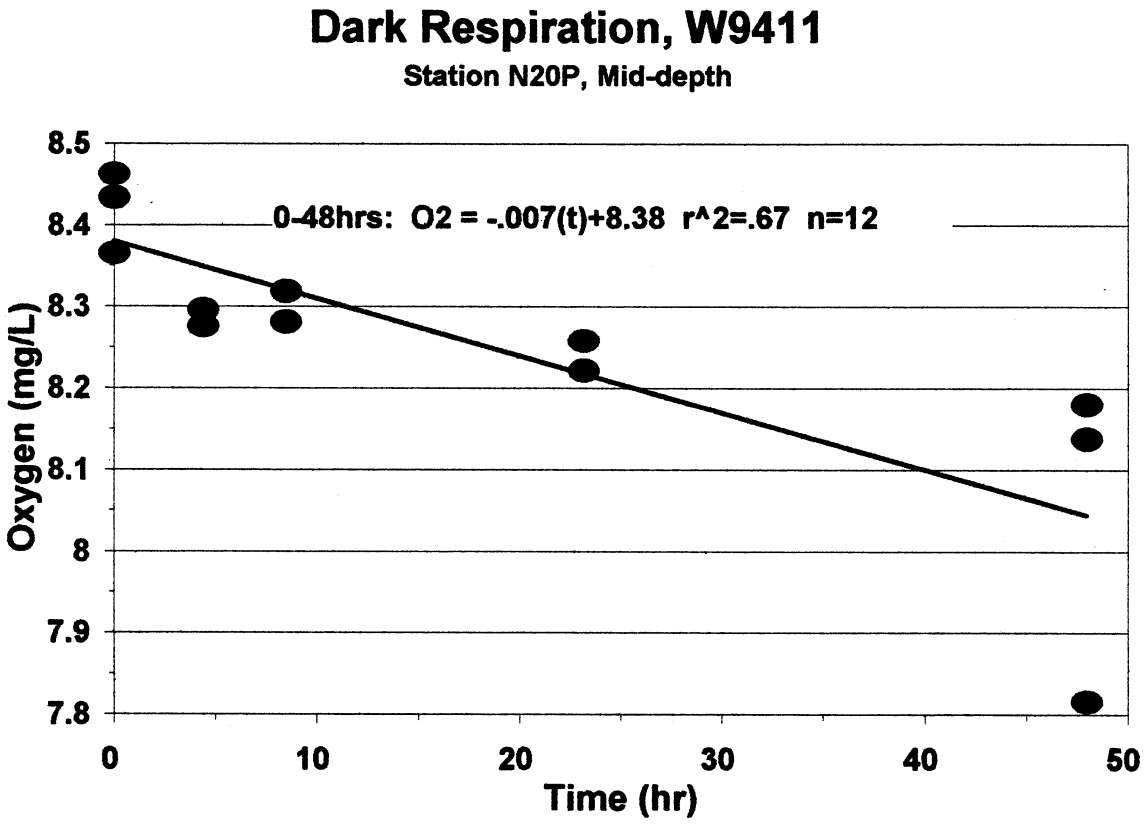


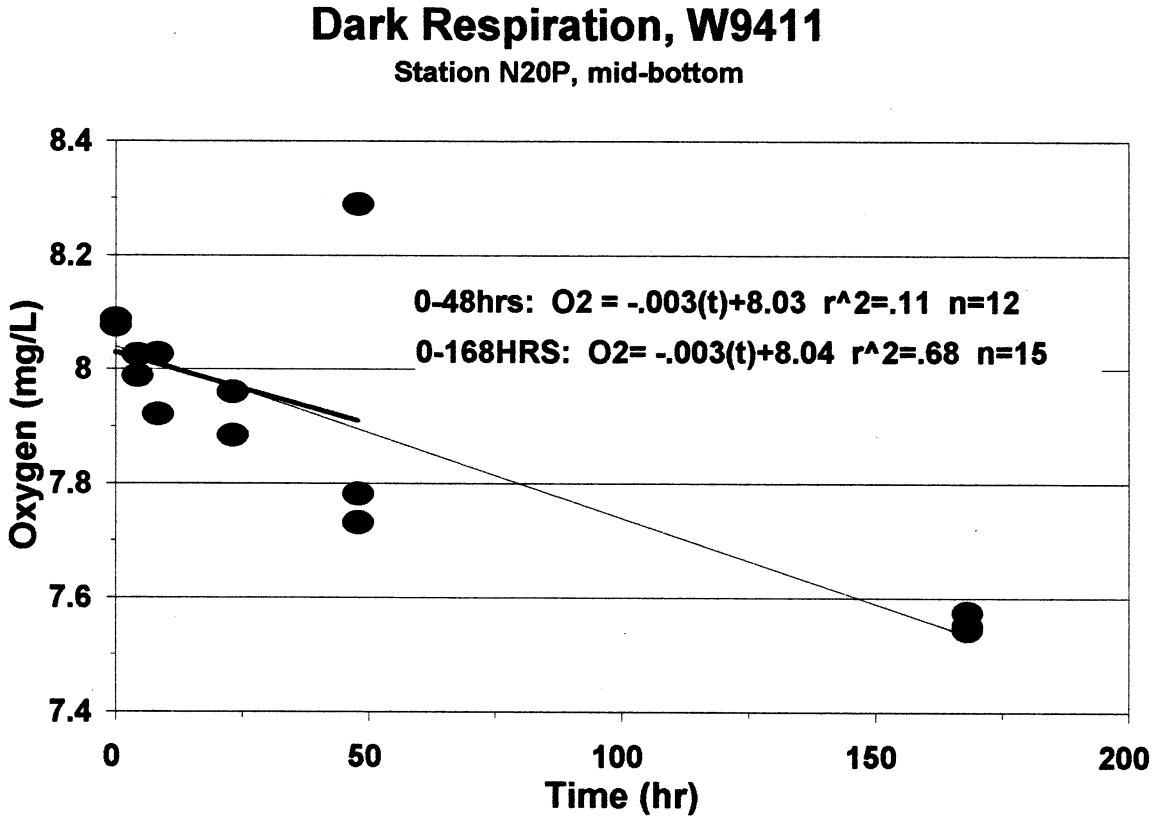

Dark Respiration, W9411
Station F19, Mid-depth
0-48hrs: O2 = -.009(t)+9.12 r^2=.84 n=12
Oxygen (mg/L)
9.2
9.1
9
8.9
8.8
8.7
8.6
8.5
0
10
20
30
40
50
Time (hr)


Dark Respiration, W9411
Station F19, Mid-bottom
0-168hrs: O2 = -.0008(t)+7.67 r^2=.55 n=15
Oxygen (mg/L)
7.8
7.75
7.7
7.65
7.6
7.55
7.5
0
50
100
150
200
Time (hr)


Dark Respiration, W9411
Station F24, Surface
0-48hrs: O2 = -.010(t)+7.33 r^2=.90 n=12
Oxygen (mg/L)
7.5
7.4
7.3
7.2
7.1
7
6.9
6.8
0
10
20
30
40
50
Time (hr)


Dark Respiration, W9411
Station N20P, Surface
0-48hrs: O2 = -.0067(t)+8.46 r^2=.85 n=12
Oxygen (mg/l)
8.6
8.5
8.4
8.3
8.2
8.1
8
0
10
20
30
40
50
Time (hr)


Dark Respiration, W9411
Station N20P, Mid-depth
0-48hrs: O2 = -.007(t)+8.38 r^2=.67 n=12
Oxygen (mg/L)
8.5
8.4
8.3
8.2
8.1
8
7.9
7.8
0
10
20
30
40
50
Time (hr)


Dark Respiration, W9411
Station N20P, mid-bottom
0-48hrs: O2 = -.003(t)+8.03 r^2=.11 n=12
0-168HRS: O2= -.003(t)+8.04 r^2=.68 n=15
Oxygen (mg/L)
8.4
8.2
8
7.8
7.6
7.4
0
50
100
150
200
Time (hr)

APPENDIX E

PHYTOPLANKTON SPECIES DATA TABLE

A complete listing, by survey, is given for taxonomic analyses of whole-water samples analyzed for W9410, W9411, W9412, and W9413 (Table E-1). All counts for screened (20 μm) samples for W9410, W9411, W9412, and W9413 are given in the text report.

Table E1. Phytoplankton Species Data for August, September 1994.

Sample ID	Station	Date	Time (EST)	Depth (M)	Taxon	Millions of Cells per Liter
W94100046	N10P	08-10-94	06:09	1.64	ASTERIONELLOPSIS GLACIALIS	0.158
W94100046	N10P	08-10-94	06:09	1.64	CERATAULINA PELAGICA	.026
W94100046	N10P	08-10-94	06:09	1.64	CHAETOCEROS SPP. (10-20UM)	.011
W94100046	N10P	08-10-94	06:09	1.64	CHAETOCEROS SPP.(<10UM)	.009
W94100046	N10P	08-10-94	06:09	1.64	CRYPTOMONADS	0.13
W94100046	N10P	08-10-94	06:09	1.64	CYLINDROTHECA CLOSTERIUM	.011
W94100046	N10P	08-10-94	06:09	1.64	EUTREPTIA/EUTREPTIELLA SPP.	.004
W94100046	N10P	08-10-94	06:09	1.64	GRAMMATOPHORA MARINA	.002
W94100046	N10P	08-10-94	06:09	1.64	MICROFLAGELLATES	0.352
W94100046	N10P	08-10-94	06:09	1.64	NAVICULOID DIATOMS	.002
W94100046	N10P	08-10-94	06:09	1.64	PROROCENTRUM MINIMUM	.015
W94100046	N10P	08-10-94	06:09	1.64	RHIZOSOLENIA DELICATULA	.011
W94100046	N10P	08-10-94	06:09	1.64	SKELETONEMA COSTATUM	.049
W94100046	N10P	08-10-94	06:09	1.64	THALASSIONEMA NITZSCHOIDES	0.107
W94100046	N10P	08-10-94	06:09	1.64	UNID. CENTRALES	.006
W94110056	F23P	08-23-94	06:40	11.71	ASTERIONELLOPSIS GLACIALIS	.004
W94110056	F23P	08-23-94	06:40	11.71	CERATAULINA PELAGICA	.028
W94110056	F23P	08-23-94	06:40	11.71	CHAETOCEROS SPP.(<10UM)	.004
W94110056	F23P	08-23-94	06:40	11.71	COCCONEIS SCUTELLUM	.001
W94110056	F23P	08-23-94	06:40	11.71	CRYPTOMONADS	.066
W94110056	F23P	08-23-94	06:40	11.71	CYLINDROTHECA CLOSTERIUM	.031
W94110056	F23P	08-23-94	06:40	11.71	EUTREPTIA/EUTREPTIELLA SPP.	.014
W94110056	F23P	08-23-94	06:40	11.71	GYMNODINIUM SPP.	.001
W94110056	F23P	08-23-94	06:40	11.71	LEPTOCYLINDRUS MINIMUS	.006
W94110056	F23P	08-23-94	06:40	11.71	LICMOPHORA SPP.	.001
W94110056	F23P	08-23-94	06:40	11.71	MICROFLAGELLATES	0.385
W94110056	F23P	08-23-94	06:40	11.71	NAVICULOID DIATOMS	.006
W94110056	F23P	08-23-94	06:40	11.71	NITZSCHIA SPP.	.001
W94110056	F23P	08-23-94	06:40	11.71	PROROCENTRUM MINIMUM	.001
W94110056	F23P	08-23-94	06:40	11.71	PROROCENTRUM TRIESTINUM	.003
W94110056	F23P	08-23-94	06:40	11.71	RHIZOSOLENIA DELICATULA	.001
W94110056	F23P	08-23-94	06:40	11.71	SCENEDESMUS QUADRACAUDA	.001
W94110056	F23P	08-23-94	06:40	11.71	SKELETONEMA COSTATUM	.032
W94110056	F23P	08-23-94	06:40	11.71	THALASSIONEMA NITZSCHOIDES	.022
W94110056	F23P	08-23-94	06:40	11.71	UNID. CENTRALES	.017
W94110058	F23P	08-23-94	06:43	2.2	ASTERIONELLOPSIS GLACIALIS	.003
W94110058	F23P	08-23-94	06:43	2.2	CERATAULINA PELAGICA	.038
W94110058	F23P	08-23-94	06:43	2.2	CRYPTOMONADS	.097
W94110058	F23P	08-23-94	06:43	2.2	CYLINDROTHECA CLOSTERIUM	.066
W94110058	F23P	08-23-94	06:43	2.2	DIPLONEIS (CF) CRABRO	.002
W94110058	F23P	08-23-94	06:43	2.2	EUTREPTIA/EUTREPTIELLA SPP.	.007
W94110058	F23P	08-23-94	06:43	2.2	GRAMMATOPHORA MARINA	.002
W94110058	F23P	08-23-94	06:43	2.2	GYRODINIUM SPIRALE	.002
W94110058	F23P	08-23-94	06:43	2.2	LEPTOCYLINDRUS MINIMUS	.012
W94110058	F23P	08-23-94	06:43	2.2	LITHODESMIUM (cf) UNDULATUM	.003

Table E1. Phytoplankton Species Data for August, September 1994.

Sample ID	Station	Date	Time (EST)	Depth (M)	Taxon	Millions of Cells per Liter
W94110058	F23P	08-23-94	06:43	2.2	MICROFLAGELLATES	0.367
W94110058	F23P	08-23-94	06:43	2.2	NAVICULOID DIATOMS	.005
W94110058	F23P	08-23-94	06:43	2.2	PHAEOCYSTIS POUCHETII	.02
W94110058	F23P	08-23-94	06:43	2.2	PROROCENTRUM MINIMUM	.003
W94110058	F23P	08-23-94	06:43	2.2	PROROCENTRUM TRIESTINUM	.003
W94110058	F23P	08-23-94	06:43	2.2	SCENEDESMUS QUADRACAUDA	.003
W94110058	F23P	08-23-94	06:43	2.2	SKELETONEMA COSTATUM	.068
W94110058	F23P	08-23-94	06:43	2.2	THALASSIONEMA NITZSCHOIDES	.016
W94110058	F23P	08-23-94	06:43	2.2	UNID. ATHECATE DINOFLAGELLATE	.002
W94110058	F23P	08-23-94	06:43	2.2	UNID. CENTRALES	.005
W94110105	N20P	08-23-94	09:32	14.31	CERATAULINA PELAGICA	.007
W94110105	N20P	08-23-94	09:32	14.31	CHAETOCEROS SPP.(<10UM)	.002
W94110105	N20P	08-23-94	09:32	14.31	CRYPTOMONADS	.024
W94110105	N20P	08-23-94	09:32	14.31	EBRIA TRIPARTITIA	.002
W94110105	N20P	08-23-94	09:32	14.31	GYMNODINIUM SPP.	.026
W94110105	N20P	08-23-94	09:32	14.31	GYRODINIUM SPIRALE	.003
W94110105	N20P	08-23-94	09:32	14.31	KATODINIUM ROTUNDATUM	.002
W94110105	N20P	08-23-94	09:32	14.31	LEPTOCYLINDRUS MINIMUS	.012
W94110105	N20P	08-23-94	09:32	14.31	MICROFLAGELLATES	0.487
W94110105	N20P	08-23-94	09:32	14.31	NITZSCHIA SPP.	.01
W94110105	N20P	08-23-94	09:32	14.31	SKELETONEMA COSTATUM	0.174
W94110105	N20P	08-23-94	09:32	14.31	THALASSIONEMA NITZSCHOIDES	.016
W94110105	N20P	08-23-94	09:32	14.31	THALASSIOSIRA SPP.	.007
W94110105	N20P	08-23-94	09:32	14.31	UNID. ATHECATE DINOFLAGELLATE	.007
W94110107	N20P	08-23-94	09:35	2.61	CERATIUM LONGIPES	.001
W94110107	N20P	08-23-94	09:35	2.61	CRYPTOMONADS	.012
W94110107	N20P	08-23-94	09:35	2.61	CYLINDROTHECA CLOSTERIUM	.001
W94110107	N20P	08-23-94	09:35	2.61	GYMNODINIUM SPP.	.022
W94110107	N20P	08-23-94	09:35	2.61	GYRODINIUM (CF) AUREOLUM	.001
W94110107	N20P	08-23-94	09:35	2.61	LEPTOCYLINDRUS MINIMUS	.006
W94110107	N20P	08-23-94	09:35	2.61	LICMOPHORA SPP.	.001
W94110107	N20P	08-23-94	09:35	2.61	MICROFLAGELLATES	0.387
W94110107	N20P	08-23-94	09:35	2.61	NITZSCHIA SPP.	.012
W94110107	N20P	08-23-94	09:35	2.61	RHIZOSOLENIA DELICATULA	.001
W94110107	N20P	08-23-94	09:35	2.61	SKELETONEMA COSTATUM	.077
W94110107	N20P	08-23-94	09:35	2.61	THALASSIONEMA NITZSCHOIDES	.016
W94110107	N20P	08-23-94	09:35	2.61	THALASSIOSIRA SPP.	.004
W94110121	N16P	08-23-94	10:27	18.39	AMPHIDINIUM SPP.	.001
W94110121	N16P	08-23-94	10:27	18.39	ASTERIONELLOPSIS GLACIALIS	.01
W94110121	N16P	08-23-94	10:27	18.39	CERATAULINA PELAGICA	.001
W94110121	N16P	08-23-94	10:27	18.39	CERATIUM LONGIPES	.001
W94110121	N16P	08-23-94	10:27	18.39	CHAETOCEROS DIDYMUS	.001
W94110121	N16P	08-23-94	10:27	18.39	CRYPTOMONADS	.032
W94110121	N16P	08-23-94	10:27	18.39	CYLINDROTHECA CLOSTERIUM	.001
W94110121	N16P	08-23-94	10:27	18.39	EUTREPTIA/EUTREPTIELLA SPP.	.001

Table E1. Phytoplankton Species Data for August, September 1994.

Sample ID	Station	Date	Time (EST)	Depth (M)	Taxon	Millions of Cells per Liter
W94110121	N16P	08-23-94	10:27	18.39	GYMNODINIUM SPP.	.011
W94110121	N16P	08-23-94	10:27	18.39	GYRODINIUM (CF) AUREOLUM	.001
W94110121	N16P	08-23-94	10:27	18.39	LEPTOCYLINDRUS MINIMUS	.002
W94110121	N16P	08-23-94	10:27	18.39	LITHODESMIUM (cf) UNDULATUM	.001
W94110121	N16P	08-23-94	10:27	18.39	MICROFLAGELLATES	0.366
W94110121	N16P	08-23-94	10:27	18.39	NITZSCHIA SPP.	.003
W94110121	N16P	08-23-94	10:27	18.39	RHIZOSOLENIA DELICATULA	.003
W94110121	N16P	08-23-94	10:27	18.39	SKELETONEMA COSTATUM	.043
W94110121	N16P	08-23-94	10:27	18.39	THALASSIONEMA NITZSCHOIDES	.005
W94110121	N16P	08-23-94	10:27	18.39	THALASSIOSIRA SPP.	.008
W94110121	N16P	08-23-94	10:27	18.39	UNID. ATHECATE DINOFLAGELLATE	.002
W94110124	N16P	08-23-94	10:31	2.71	CERATIUM TRIPOS	.001
W94110124	N16P	08-23-94	10:31	2.71	CRYPTOMONADS	.023
W94110124	N16P	08-23-94	10:31	2.71	CYLINDROTHECA CLOSTERIUM	.001
W94110124	N16P	08-23-94	10:31	2.71	GYMNODINIUM SPP.	.011
W94110124	N16P	08-23-94	10:31	2.71	GYRODINIUM (CF) AUREOLUM	.002
W94110124	N16P	08-23-94	10:31	2.71	KATODINIUM ROTUNDATUM	.001
W94110124	N16P	08-23-94	10:31	2.71	LEPTOCYLINDRUS MINIMUS	.009
W94110124	N16P	08-23-94	10:31	2.71	MICROFLAGELLATES	0.392
W94110124	N16P	08-23-94	10:31	2.71	NAVICULOID DIATOMS	.002
W94110124	N16P	08-23-94	10:31	2.71	PROROCENTRUM MICANS	.001
W94110124	N16P	08-23-94	10:31	2.71	SKELETONEMA COSTATUM	.015
W94110124	N16P	08-23-94	10:31	2.71	THALASSIONEMA NITZSCHOIDES	.002
W94110124	N16P	08-23-94	10:31	2.71	UNID. ATHECATE DINOFLAGELLATE	.001
W94110152	NO7P	08-23-94	12:20	19.37	ASTERIONELLOPSIS GLACIALIS	.007
W94110152	NO7P	08-23-94	12:20	19.37	CERATAULINA PELAGICA	.003
W94110152	NO7P	08-23-94	12:20	19.37	CRYPTOMONADS	.039
W94110152	NO7P	08-23-94	12:20	19.37	CYLINDROTHECA CLOSTERIUM	.001
W94110152	NO7P	08-23-94	12:20	19.37	GYMNODINIUM SPP.	.013
W94110152	NO7P	08-23-94	12:20	19.37	GYRODINIUM (CF) AUREOLUM	.001
W94110152	NO7P	08-23-94	12:20	19.37	MICROFLAGELLATES	0.284
W94110152	NO7P	08-23-94	12:20	19.37	NAVICULOID DIATOMS	.001
W94110152	NO7P	08-23-94	12:20	19.37	NITZSCHIA SPP.	.003
W94110152	NO7P	08-23-94	12:20	19.37	PROTOPERIDINIUM BREVE	.001
W94110152	NO7P	08-23-94	12:20	19.37	SKELETONEMA COSTATUM	.003
W94110152	NO7P	08-23-94	12:20	19.37	THALASSIONEMA NITZSCHOIDES	.004
W94110154	NO7P	08-23-94	12:23	2.43	ASTERIONELLOPSIS GLACIALIS	.006
W94110154	NO7P	08-23-94	12:23	2.43	CERATAULINA PELAGICA	0.188
W94110154	NO7P	08-23-94	12:23	2.43	CHAETOCEROS SPP.(<10UM)	.003
W94110154	NO7P	08-23-94	12:23	2.43	CRYPTOMONADS	.012
W94110154	NO7P	08-23-94	12:23	2.43	CYLINDROTHECA CLOSTERIUM	.002
W94110154	NO7P	08-23-94	12:23	2.43	GUINARDIA FLACCIDA	.002
W94110154	NO7P	08-23-94	12:23	2.43	GYMNODINIUM SPP.	.002
W94110154	NO7P	08-23-94	12:23	2.43	LEPTOCYLINDRUS MINIMUS	.024
W94110154	NO7P	08-23-94	12:23	2.43	MICROFLAGELLATES	0.349

Table E1. Phytoplankton Species Data for August, September 1994.

Sample ID	Station	Date	Time (EST)	Depth (M)	Taxon	Millions of Cells per Liter
W94110154	NO7P	08-23-94	12:23	2.43	NITZSCHIA SPP.	.006
W94110154	NO7P	08-23-94	12:23	2.43	SKELETONEMA COSTATUM	.006
W94110154	NO7P	08-23-94	12:23	2.43	THALASSIONEMA NITZSCHOIDES	.002
W94110154	NO7P	08-23-94	12:23	2.43	UNID. ATHECATE DINOFLAGELLATE	.015
W94110154	NO7P	08-23-94	12:23	2.43	UNID. CENTRALES	.006
W94110243	N10P	08-23-94	17:52	10.39	ASTERIONELLOPSIS GLACIALIS	.005
W94110243	N10P	08-23-94	17:52	10.39	CERATAULINA PELAGICA	0.128
W94110243	N10P	08-23-94	17:52	10.39	CHAETOCEROS SPP. (10-20UM)	.004
W94110243	N10P	08-23-94	17:52	10.39	CRYPTOMONADS	.084
W94110243	N10P	08-23-94	17:52	10.39	CYLINDROTHECA CLOSTERIUM	.013
W94110243	N10P	08-23-94	17:52	10.39	EUTREPTIA/EUTREPTIELLA SPP.	.002
W94110243	N10P	08-23-94	17:52	10.39	GYMNODINIUM SPP.	.016
W94110243	N10P	08-23-94	17:52	10.39	GYRODINIUM (CF) AUREOLUM	.004
W94110243	N10P	08-23-94	17:52	10.39	LEPTOCYLINDRUS MINIMUS	.015
W94110243	N10P	08-23-94	17:52	10.39	MICROFLAGELLATES	0.673
W94110243	N10P	08-23-94	17:52	10.39	NITZSCHIA SPP.	.007
W94110243	N10P	08-23-94	17:52	10.39	PROROCENTRUM MICANS	.002
W94110243	N10P	08-23-94	17:52	10.39	SCRIPPSIELLA TROCHOIDEA	.002
W94110243	N10P	08-23-94	17:52	10.39	SKELETONEMA COSTATUM	.005
W94110243	N10P	08-23-94	17:52	10.39	THALASSIONEMA NITZSCHOIDES	.007
W94110243	N10P	08-23-94	17:52	10.39	THALASSIOSIRA SPP.	.013
W94110243	N10P	08-23-94	17:52	10.39	UNID. ATHECATE DINOFLAGELLATE	.004
W94110243	N10P	08-23-94	17:52	10.39	UNID. CENTRALES	.002
W94110245	N10P	08-23-94	17:54	1.82	ASTERIONELLOPSIS GLACIALIS	.002
W94110245	N10P	08-23-94	17:54	1.82	CERATAULINA PELAGICA	.051
W94110245	N10P	08-23-94	17:54	1.82	CRYPTOMONADS	.08
W94110245	N10P	08-23-94	17:54	1.82	CYLINDROTHECA CLOSTERIUM	.02
W94110245	N10P	08-23-94	17:54	1.82	EUTREPTIA/EUTREPTIELLA SPP.	.005
W94110245	N10P	08-23-94	17:54	1.82	GYMNODINIUM SPP.	.003
W94110245	N10P	08-23-94	17:54	1.82	GYRODINIUM SPIRALE	.007
W94110245	N10P	08-23-94	17:54	1.82	GYRODINIUM SPP.	.002
W94110245	N10P	08-23-94	17:54	1.82	LEPTOCYLINDRUS MINIMUS	.002
W94110245	N10P	08-23-94	17:54	1.82	MESODINIUM RUBRUM	.002
W94110245	N10P	08-23-94	17:54	1.82	MICROFLAGELLATES	0.534
W94110245	N10P	08-23-94	17:54	1.82	NAVICULOID DIATOMS	.002
W94110245	N10P	08-23-94	17:54	1.82	PROROCENTRUM MINIMUM	.002
W94110245	N10P	08-23-94	17:54	1.82	RHIZOSOLENIA DELICATULA	.003
W94110245	N10P	08-23-94	17:54	1.82	SKELETONEMA COSTATUM	.005
W94110245	N10P	08-23-94	17:54	1.82	THALASSIONEMA NITZSCHOIDES	.019
W94110245	N10P	08-23-94	17:54	1.82	THALASSIOSIRA SPP.	.022
W94110245	N10P	08-23-94	17:54	1.82	UNID. ATHECATE DINOFLAGELLATE	.003
W94110245	N10P	08-23-94	17:54	1.82	UNID. CENTRALES	.012
W94110302	F23P	08-24-94	06:45	8.64	CERATAULINA PELAGICA	.012
W94110302	F23P	08-24-94	06:45	8.64	CRYPTOMONADS	0.104
W94110302	F23P	08-24-94	06:45	8.64	CYLINDROTHECA CLOSTERIUM	.031

Table E1. Phytoplankton Species Data for August, September 1994.

Sample ID	Station	Date	Time (EST)	Depth (M)	Taxon	Millions of Cells per Liter
W94110302	F23P	08-24-94	06:45	8.64	EUTREPTIA/EUTREPTIELLA SPP.	.001
W94110302	F23P	08-24-94	06:45	8.64	GYMNODINIUM SPP.	.006
W94110302	F23P	08-24-94	06:45	8.64	GYRODINIUM SPIRALE	.001
W94110302	F23P	08-24-94	06:45	8.64	LEPTOCYLINDRUS MINIMUS	.003
W94110302	F23P	08-24-94	06:45	8.64	LICMOPHORA SPP.	.002
W94110302	F23P	08-24-94	06:45	8.64	MICROFLAGELLATES	0.418
W94110302	F23P	08-24-94	06:45	8.64	NITZSCHIA SPP.	.003
W94110302	F23P	08-24-94	06:45	8.64	PROROCENTRUM TRIESTINUM	.006
W94110302	F23P	08-24-94	06:45	8.64	THALASSIONEMA NITZSCHOIDES	.018
W94110302	F23P	08-24-94	06:45	8.64	THALASSIOSIRA SPP.	.028
W94110302	F23P	08-24-94	06:45	8.64	UNID. ATHECATE DINOFLAGELLATE	.005
W94110304	F23P	08-24-94	06:47	2.52	ASTERIONELLOPSIS GLACIALIS	.003
W94110304	F23P	08-24-94	06:47	2.52	CERATAULINA PELAGICA	.016
W94110304	F23P	08-24-94	06:47	2.52	CHAETOCEROS SPP.(<10UM)	.006
W94110304	F23P	08-24-94	06:47	2.52	CRYPTOMONADS	.095
W94110304	F23P	08-24-94	06:47	2.52	CYLINDROTHECA CLOSTERIUM	.058
W94110304	F23P	08-24-94	06:47	2.52	EUTREPTIA/EUTREPTIELLA SPP.	.002
W94110304	F23P	08-24-94	06:47	2.52	GYRODINIUM SPIRALE	.002
W94110304	F23P	08-24-94	06:47	2.52	LITHODESMIUM (cf) UNDULATUM	.005
W94110304	F23P	08-24-94	06:47	2.52	MICROFLAGELLATES	0.405
W94110304	F23P	08-24-94	06:47	2.52	NITZSCHIA SPP.	.003
W94110304	F23P	08-24-94	06:47	2.52	PLEUROSIGMA (CF) AESTUARII	.002
W94110304	F23P	08-24-94	06:47	2.52	PROROCENTRUM TRIESTINUM	.003
W94110304	F23P	08-24-94	06:47	2.52	SCENEDESMUS QUADRACAUDA	.002
W94110304	F23P	08-24-94	06:47	2.52	SKELETONEMA COSTATUM	.029
W94110304	F23P	08-24-94	06:47	2.52	THALASSIONEMA NITZSCHOIDES	.026
W94110304	F23P	08-24-94	06:47	2.52	THALASSIOSIRA SPP.	.019
W94110304	F23P	08-24-94	06:47	2.52	UNID. ATHECATE DINOFLAGELLATE	.002
W94110304	F23P	08-24-94	06:47	2.52	UNID. CENTRALES	.003
W94110320	N01P	08-24-94	07:40	12.15	ASTERIONELLOPSIS GLACIALIS	.002
W94110320	N01P	08-24-94	07:40	12.15	CERATAULINA PELAGICA	.004
W94110320	N01P	08-24-94	07:40	12.15	CHAETOCEROS DEBILIS	.004
W94110320	N01P	08-24-94	07:40	12.15	CHAETOCEROS SOCIALIS	.004
W94110320	N01P	08-24-94	07:40	12.15	CHAETOCEROS SPP.(<10UM)	.008
W94110320	N01P	08-24-94	07:40	12.15	COCCONEIS SCUTELLUM	.002
W94110320	N01P	08-24-94	07:40	12.15	CRYPTOMONADS	.084
W94110320	N01P	08-24-94	07:40	12.15	CYLINDROTHECA CLOSTERIUM	.004
W94110320	N01P	08-24-94	07:40	12.15	GYRODINIUM (CF) AUREOLUM	.008
W94110320	N01P	08-24-94	07:40	12.15	KATODINIUM ROTUNDATUM	.004
W94110320	N01P	08-24-94	07:40	12.15	LEPTOCYLINDRUS MINIMUS	.006
W94110320	N01P	08-24-94	07:40	12.15	LICMOPHORA SPP.	.002
W94110320	N01P	08-24-94	07:40	12.15	MICROFLAGELLATES	0.663
W94110320	N01P	08-24-94	07:40	12.15	NITZSCHIA SPP.	.023
W94110320	N01P	08-24-94	07:40	12.15	PROTOPERIDINIUM BIPES	.004
W94110320	N01P	08-24-94	07:40	12.15	SKELETONEMA COSTATUM	.092

Table E1. Phytoplankton Species Data for August, September 1994.

Sample ID	Station	Date	Time (EST)	Depth (M)	Taxon	Millions of Cells per Liter
W94110320	N01P	08-24-94	07:40	12.15	THALASSIONEMA NITZSCHOIDES	.008
W94110320	N01P	08-24-94	07:40	12.15	THALASSIOSIRA SPP.	.018
W94110320	N01P	08-24-94	07:40	12.15	UNID. ATHECATE DINOFLAGELLATE	.012
W94110320	N01P	08-24-94	07:40	12.15	UNID. CENTRALES	.004
W94110322	N01P	08-24-94	07:42	2.35	AMPHIDINIUM CRASSUM	.005
W94110322	N01P	08-24-94	07:42	2.35	CERATAULINA PELAGICA	.005
W94110322	N01P	08-24-94	07:42	2.35	CHAETOCEROS DIDYMUS	.005
W94110322	N01P	08-24-94	07:42	2.35	CRYPTOMONADS	0.157
W94110322	N01P	08-24-94	07:42	2.35	EUTREPTIA/EUTREPTIELLA SPP.	.011
W94110322	N01P	08-24-94	07:42	2.35	GYMNODINIUM SPP.	.002
W94110322	N01P	08-24-94	07:42	2.35	GYRODINIUM (CF) AUREOLUM	.011
W94110322	N01P	08-24-94	07:42	2.35	GYRODINIUM SPIRALE	.007
W94110322	N01P	08-24-94	07:42	2.35	GYRODINIUM SPP.	.002
W94110322	N01P	08-24-94	07:42	2.35	KATODINIUM ROTUNDATUM	.007
W94110322	N01P	08-24-94	07:42	2.35	LEPTOCYLINDRUS MINIMUS	.011
W94110322	N01P	08-24-94	07:42	2.35	MICROFLAGELLATES	0.734
W94110322	N01P	08-24-94	07:42	2.35	NITZSCHIA SPP.	.016
W94110322	N01P	08-24-94	07:42	2.35	SCRIPPSIELLA TROCHOIDEA	.002
W94110322	N01P	08-24-94	07:42	2.35	SKELETONEMA COSTATUM	.052
W94110322	N01P	08-24-94	07:42	2.35	THALASSIONEMA NITZSCHOIDES	.002
W94110322	N01P	08-24-94	07:42	2.35	THALASSIOSIRA SPP.	.011
W94110322	N01P	08-24-94	07:42	2.35	UNID. ATHECATE DINOFLAGELLATE	.025
W94110322	N01P	08-24-94	07:42	2.35	UNID. CENTRALES	.002
W94110339	N04P	08-24-94	08:45	20.16	AMPHIDINIUM CRASSUM	.001
W94110339	N04P	08-24-94	08:45	20.16	CERATAULINA PELAGICA	.001
W94110339	N04P	08-24-94	08:45	20.16	CRYPTOMONADS	.057
W94110339	N04P	08-24-94	08:45	20.16	GYMNODINIUM SPP.	.002
W94110339	N04P	08-24-94	08:45	20.16	GYRODINIUM (CF) AUREOLUM	.001
W94110339	N04P	08-24-94	08:45	20.16	GYRODINIUM SPIRALE	.001
W94110339	N04P	08-24-94	08:45	20.16	KATODINIUM ROTUNDATUM	.002
W94110339	N04P	08-24-94	08:45	20.16	LEPTOCYLINDRUS MINIMUS	.002
W94110339	N04P	08-24-94	08:45	20.16	LICMOPHORA SPP.	.002
W94110339	N04P	08-24-94	08:45	20.16	MICROFLAGELLATES	0.38
W94110339	N04P	08-24-94	08:45	20.16	PROTOPERIDINIUM BIPES	.001
W94110339	N04P	08-24-94	08:45	20.16	SKELETONEMA COSTATUM	.005
W94110339	N04P	08-24-94	08:45	20.16	THALASSIONEMA NITZSCHOIDES	.014
W94110339	N04P	08-24-94	08:45	20.16	THALASSIOSIRA SPP.	.006
W94110339	N04P	08-24-94	08:45	20.16	UNID. ATHECATE DINOFLAGELLATE	.007
W94110341	N04P	08-24-94	08:47	2.36	CRYPTOMONADS	.051
W94110341	N04P	08-24-94	08:47	2.36	GYMNODINIUM SPP.	.012
W94110341	N04P	08-24-94	08:47	2.36	GYRODINIUM (CF) AUREOLUM	.005
W94110341	N04P	08-24-94	08:47	2.36	GYRODINIUM SPIRALE	.003
W94110341	N04P	08-24-94	08:47	2.36	LEPTOCYLINDRUS MINIMUS	.001
W94110341	N04P	08-24-94	08:47	2.36	MICROFLAGELLATES	0.507
W94110341	N04P	08-24-94	08:47	2.36	NITZSCHIA SPP.	.001

Table E1. Phytoplankton Species Data for August, September 1994.

Sample ID	Station	Date	Time (EST)	Depth (M)	Taxon	Millions of Cells per Liter
W94110341	N04P	08-24-94	08:47	2.36	THALASSIONEMA NITZSCHOIDES	.011
W94110341	N04P	08-24-94	08:47	2.36	THALASSIOSIRA SPP.	.001
W94110341	N04P	08-24-94	08:47	2.36	UNID. ATHECATE DINOFLAGELLATE	.009
W94110363	N16P	08-24-94	09:24	18.93	CERATAULINA PELAGICA	.001
W94110363	N16P	08-24-94	09:24	18.93	CERATIUM FUSUS	.001
W94110363	N16P	08-24-94	09:24	18.93	CERATIUM TRIPOS	.001
W94110363	N16P	08-24-94	09:24	18.93	CRYPTOMONADS	.085
W94110363	N16P	08-24-94	09:24	18.93	DINOPHYSIS CAUDATA	.002
W94110363	N16P	08-24-94	09:24	18.93	GYMNODINIUM SPP.	.005
W94110363	N16P	08-24-94	09:24	18.93	GYRODINIUM (CF) AUREOLUM	.004
W94110363	N16P	08-24-94	09:24	18.93	GYRODINIUM SPIRALE	.004
W94110363	N16P	08-24-94	09:24	18.93	GYRODINIUM SPP.	.004
W94110363	N16P	08-24-94	09:24	18.93	LEPTOCYLINDRUS MINIMUS	.001
W94110363	N16P	08-24-94	09:24	18.93	MICROFLAGELLATES	0.354
W94110363	N16P	08-24-94	09:24	18.93	NITZSCHIA SPP.	.001
W94110363	N16P	08-24-94	09:24	18.93	SKELETONEMA COSTATUM	.005
W94110363	N16P	08-24-94	09:24	18.93	THALASSIONEMA NITZSCHOIDES	.012
W94110363	N16P	08-24-94	09:24	18.93	THALASSIOSIRA SPP.	.011
W94110363	N16P	08-24-94	09:24	18.93	UNID. ATHECATE DINOFLAGELLATE	.006
W94110363	N16P	08-24-94	09:24	18.93	UNID. CENTRALES	.001
W94110365	N16P	08-24-94	09:27	2.2	CERATAULINA PELAGICA	.003
W94110365	N16P	08-24-94	09:27	2.2	CHAETOCEROS SPP.(<10UM)	.004
W94110365	N16P	08-24-94	09:27	2.2	CRYPTOMONADS	.063
W94110365	N16P	08-24-94	09:27	2.2	GYMNODINIUM SPP.	.001
W94110365	N16P	08-24-94	09:27	2.2	GYRODINIUM SPP.	.001
W94110365	N16P	08-24-94	09:27	2.2	LEPTOCYLINDRUS MINIMUS	.003
W94110365	N16P	08-24-94	09:27	2.2	MICROFLAGELLATES	0.364
W94110365	N16P	08-24-94	09:27	2.2	PROTOPERIDINIUM BIPES	.001
W94110365	N16P	08-24-94	09:27	2.2	SCRIPPSIELLA TROCHOIDEA	.001
W94110365	N16P	08-24-94	09:27	2.2	SKELETONEMA COSTATUM	.005
W94110365	N16P	08-24-94	09:27	2.2	THALASSIONEMA NITZSCHOIDES	.005
W94110365	N16P	08-24-94	09:27	2.2	THALASSIOSIRA SPP.	.004
W94110365	N16P	08-24-94	09:27	2.2	UNID. ATHECATE DINOFLAGELLATE	.006
W94110520	F02P	08-25-94	07:34	15.43	CERATAULINA PELAGICA	.032
W94110520	F02P	08-25-94	07:34	15.43	CERATIUM FUSUS	.002
W94110520	F02P	08-25-94	07:34	15.43	CHAETOCEROS CURVISETUS	.034
W94110520	F02P	08-25-94	07:34	15.43	CHAETOCEROS DIDYMUS	.016
W94110520	F02P	08-25-94	07:34	15.43	CHAETOCEROS SPP. (10-20UM)	.096
W94110520	F02P	08-25-94	07:34	15.43	CRYPTOMONADS	.039
W94110520	F02P	08-25-94	07:34	15.43	CYLINDROTHECA CLOSTERIUM	.03
W94110520	F02P	08-25-94	07:34	15.43	GYMNODINIUM SPP.	.007
W94110520	F02P	08-25-94	07:34	15.43	GYRODINIUM SPIRALE	.009
W94110520	F02P	08-25-94	07:34	15.43	LEPTOCYLINDRUS MINIMUS	.018
W94110520	F02P	08-25-94	07:34	15.43	MICROFLAGELLATES	0.541
W94110520	F02P	08-25-94	07:34	15.43	NITZSCHIA (CF) DELICATISSIMA	.091

Table E1. Phytoplankton Species Data for August, September 1994.

Sample ID	Station	Date	Time (EST)	Depth (M)	Taxon	Millions of Cells per Liter
W94110520	F02P	08-25-94	07:34	15.43	NITZSCHIA SPP.	0.277
W94110520	F02P	08-25-94	07:34	15.43	PROBOSCIA ALATA	.002
W94110520	F02P	08-25-94	07:34	15.43	RHIZOSOLENIA DELICATULA	.018
W94110520	F02P	08-25-94	07:34	15.43	SKELETONEMA COSTATUM	.034
W94110520	F02P	08-25-94	07:34	15.43	THALASSIONEMA NITZSCHOIDES	.011
W94110520	F02P	08-25-94	07:34	15.43	THALASSIOSIRA SPP.	.007
W94110522	F02P	08-25-94	07:37	1.75	CERATAULINA PELAGICA	.003
W94110522	F02P	08-25-94	07:37	1.75	CHAETOCEROS SPORE	.001
W94110522	F02P	08-25-94	07:37	1.75	CHAETOCEROS SPP. (10-20UM)	.024
W94110522	F02P	08-25-94	07:37	1.75	CRYPTOMONADS	.009
W94110522	F02P	08-25-94	07:37	1.75	CYLINDROTHECA CLOSTERIUM	.013
W94110522	F02P	08-25-94	07:37	1.75	GYRODINIUM SPIRALE	.002
W94110522	F02P	08-25-94	07:37	1.75	LEPTOCYLINDRUS MINIMUS	.001
W94110522	F02P	08-25-94	07:37	1.75	MICROFLAGELLATES	0.289
W94110522	F02P	08-25-94	07:37	1.75	NITZSCHIA (CF) DELICATISSIMA	.021
W94110522	F02P	08-25-94	07:37	1.75	NITZSCHIA SPP.	.063
W94110522	F02P	08-25-94	07:37	1.75	SCRIPPSIELLA TROCHOIDEA	.002
W94110522	F02P	08-25-94	07:37	1.75	THALASSIONEMA NITZSCHOIDES	.014
W94110522	F02P	08-25-94	07:37	1.75	THALASSIOSIRA SPP.	.002
W94110522	F02P	08-25-94	07:37	1.75	UNID. ATHECATE DINOFLAGELLATE	.001
W94110522	F02P	08-25-94	07:37	1.75	UNID. CENTRALES	.003
W94110544	F01P	08-25-94	09:19	16.26	CERATAULINA PELAGICA	.006
W94110544	F01P	08-25-94	09:19	16.26	CHAETOCEROS COMPRESSUS	.035
W94110544	F01P	08-25-94	09:19	16.26	CHAETOCEROS DIDYMUS	.022
W94110544	F01P	08-25-94	09:19	16.26	CHAETOCEROS SPORE	.002
W94110544	F01P	08-25-94	09:19	16.26	CHAETOCEROS SPP. (10-20UM)	.082
W94110544	F01P	08-25-94	09:19	16.26	CRYPTOMONADS	.054
W94110544	F01P	08-25-94	09:19	16.26	CYLINDROTHECA CLOSTERIUM	.022
W94110544	F01P	08-25-94	09:19	16.26	LEPTOCYLINDRUS MINIMUS	.004
W94110544	F01P	08-25-94	09:19	16.26	MICROFLAGELLATES	0.367
W94110544	F01P	08-25-94	09:19	16.26	NITZSCHIA (CF) DELICATISSIMA	.039
W94110544	F01P	08-25-94	09:19	16.26	NITZSCHIA SPP.	0.309
W94110544	F01P	08-25-94	09:19	16.26	PROTOPERIDINIUM SPP.	.002
W94110544	F01P	08-25-94	09:19	16.26	RHIZOSOLENIA DELICATULA	.039
W94110544	F01P	08-25-94	09:19	16.26	RHIZOSOLENIA FRAGILISSIMA	.011
W94110544	F01P	08-25-94	09:19	16.26	SKELETONEMA COSTATUM	.043
W94110544	F01P	08-25-94	09:19	16.26	THALASSIONEMA NITZSCHOIDES	.011
W94110547	F01P	08-25-94	09:22	1.82	CERATAULINA PELAGICA	.002
W94110547	F01P	08-25-94	09:22	1.82	CHAETOCEROS COMPRESSUS	.043
W94110547	F01P	08-25-94	09:22	1.82	CHAETOCEROS DIDYMUS	.007
W94110547	F01P	08-25-94	09:22	1.82	CHAETOCEROS SPORE	.007
W94110547	F01P	08-25-94	09:22	1.82	CHAETOCEROS SPP. (10-20UM)	.021
W94110547	F01P	08-25-94	09:22	1.82	CRYPTOMONADS	.033
W94110547	F01P	08-25-94	09:22	1.82	CYLINDROTHECA CLOSTERIUM	.01
W94110547	F01P	08-25-94	09:22	1.82	GYRODINIUM SPIRALE	.003

Table E1. Phytoplankton Species Data for August, September 1994.

Sample ID	Station	Date	Time (EST)	Depth (M)	Taxon	Millions of Cells per Liter
W94110547	F01P	08-25-94	09:22	1.82	LEPTOCYLINDRUS MINIMUS	.01
W94110547	F01P	08-25-94	09:22	1.82	MICROFLAGELLATES	0.445
W94110547	F01P	08-25-94	09:22	1.82	NITZSCHIA (CF) DELICATISSIMA	.028
W94110547	F01P	08-25-94	09:22	1.82	NITZSCHIA SPP.	0.151
W94110547	F01P	08-25-94	09:22	1.82	PROTOPERIDINIUM BIPES	.002
W94110547	F01P	08-25-94	09:22	1.82	PROTOPERIDINIUM SPP.	.002
W94110547	F01P	08-25-94	09:22	1.82	RHIZOSOLENIA DELICATULA	.016
W94110547	F01P	08-25-94	09:22	1.82	SCRIPPSIELLA TROCHOIDEA	.003
W94110547	F01P	08-25-94	09:22	1.82	THALASSIONEMA NITZSCHOIDES	.009
W94110547	F01P	08-25-94	09:22	1.82	THALASSIOSIRA SPP.	.005
W94110547	F01P	08-25-94	09:22	1.82	UNID. ATHECATE DINOFLAGELLATE	.005
W94110547	F01P	08-25-94	09:22	1.82	UNID. CENTRALES	.003
W94110655	F13P	08-25-94	16:08	5.14	CHAETOCEROS SPP. (10-20UM)	.015
W94110655	F13P	08-25-94	16:08	5.14	CRYPTOMONADS	0.194
W94110655	F13P	08-25-94	16:08	5.14	CYLINDROTHECA CLOSTERIUM	.002
W94110655	F13P	08-25-94	16:08	5.14	EUTREPTIA/EUTREPTIELLA SPP.	.007
W94110655	F13P	08-25-94	16:08	5.14	GYMNODINIUM SPP.	.03
W94110655	F13P	08-25-94	16:08	5.14	GYRODINIUM SPP.	.005
W94110655	F13P	08-25-94	16:08	5.14	KATODINIUM ROTUNDATUM	.002
W94110655	F13P	08-25-94	16:08	5.14	MICROFLAGELLATES	0.905
W94110655	F13P	08-25-94	16:08	5.14	NITZSCHIA (CF) DELICATISSIMA	.005
W94110655	F13P	08-25-94	16:08	5.14	PROROCENTRUM MINIMUM	.002
W94110655	F13P	08-25-94	16:08	5.14	PROTOPERIDINIUM BIPES	.002
W94110655	F13P	08-25-94	16:08	5.14	RHIZOSOLENIA DELICATULA	.055
W94110655	F13P	08-25-94	16:08	5.14	THALASSIOSIRA SPP.	.052
W94110655	F13P	08-25-94	16:08	5.14	UNID. ATHECATE DINOFLAGELLATE	.035
W94110655	F13P	08-25-94	16:08	5.14	UNID. CENTRALES	.005
W94110656	F13P	08-25-94	16:09	2.18	CHAETOCEROS SPP. (10-20UM)	.003
W94110656	F13P	08-25-94	16:09	2.18	CRYPTOMONADS	0.375
W94110656	F13P	08-25-94	16:09	2.18	CYLINDROTHECA CLOSTERIUM	.017
W94110656	F13P	08-25-94	16:09	2.18	EUTREPTIA/EUTREPTIELLA SPP.	.014
W94110656	F13P	08-25-94	16:09	2.18	GYMNODINIUM SPP.	.042
W94110656	F13P	08-25-94	16:09	2.18	GYRODINIUM SPIRALE	.01
W94110656	F13P	08-25-94	16:09	2.18	GYRODINIUM SPP.	.014
W94110656	F13P	08-25-94	16:09	2.18	KATODINIUM ROTUNDATUM	.035
W94110656	F13P	08-25-94	16:09	2.18	MICROFLAGELLATES	1.087
W94110656	F13P	08-25-94	16:09	2.18	NITZSCHIA SPP.	.021
W94110656	F13P	08-25-94	16:09	2.18	PROROCENTRUM TRIESTINUM	.007
W94110656	F13P	08-25-94	16:09	2.18	PROTOPERIDINIUM BIPES	.003
W94110656	F13P	08-25-94	16:09	2.18	PROTOPERIDINIUM SPP.	.007
W94110656	F13P	08-25-94	16:09	2.18	RHIZOSOLENIA DELICATULA	.035
W94110656	F13P	08-25-94	16:09	2.18	SCRIPPSIELLA TROCHOIDEA	.007
W94110656	F13P	08-25-94	16:09	2.18	THALASSIOSIRA SPP.	.076
W94110656	F13P	08-25-94	16:09	2.18	UNID. ATHECATE DINOFLAGELLATE	.007
W94110656	F13P	08-25-94	16:09	2.18	UNID. CENTRALES	.014

Table E1. Phytoplankton Species Data for August, September 1994.

Sample ID	Station	Date	Time (EST)	Depth (M)	Taxon	Millions of Cells per Liter
W94110679	N10P	08-26-94	06:17	1.77	CERATAULINA PELAGICA	.086
W94110679	N10P	08-26-94	06:17	1.77	CRYPTOMONADS	0.193
W94110679	N10P	08-26-94	06:17	1.77	GYMNODINIUM SPP.	.022
W94110679	N10P	08-26-94	06:17	1.77	KATODINIUM ROTUNDATUM	.004
W94110679	N10P	08-26-94	06:17	1.77	LEPTOCYLINDRUS MINIMUS	.004
W94110679	N10P	08-26-94	06:17	1.77	LITHODESMIUM (cf) UNDULATUM	.004
W94110679	N10P	08-26-94	06:17	1.77	MICROFLAGELLATES	0.923
W94110679	N10P	08-26-94	06:17	1.77	NITZSCHIA (CF) DELICATISSIMA	.007
W94110679	N10P	08-26-94	06:17	1.77	PROTOPERIDINIUM SPP.	.011
W94110679	N10P	08-26-94	06:17	1.77	RHIZOSOLENIA DELICATULA	.019
W94110679	N10P	08-26-94	06:17	1.77	THALASSIONEMA NITZSCHOIDES	.004
W94110679	N10P	08-26-94	06:17	1.77	THALASSIOSIRA SPP.	0.353
W94110679	N10P	08-26-94	06:17	1.77	UNID. ATHECATE DINOFLAGELLATE	.019
W94120190	N10P	09-08-94	06:19	1.69	CERATAULINA PELAGICA	.011
W94120190	N10P	09-08-94	06:19	1.69	CHAETOCEROS SPP. (10-20UM)	.002
W94120190	N10P	09-08-94	06:19	1.69	COCCONEIS SCUTELLUM	.002
W94120190	N10P	09-08-94	06:19	1.69	CRYPTOMONADS	.054
W94120190	N10P	09-08-94	06:19	1.69	CYLINDROTHECA CLOSTERIUM	.002
W94120190	N10P	09-08-94	06:19	1.69	EUTREPTIA/EUTREPTIELLA SPP.	.002
W94120190	N10P	09-08-94	06:19	1.69	GYRODINIUM SPIRALE	.002
W94120190	N10P	09-08-94	06:19	1.69	LICMOPHORA SPP.	.002
W94120190	N10P	09-08-94	06:19	1.69	MICROFLAGELLATES	0.539
W94120190	N10P	09-08-94	06:19	1.69	NAVICULOID DIATOMS	.002
W94120190	N10P	09-08-94	06:19	1.69	NITZSCHIA SPP.	.002
W94120190	N10P	09-08-94	06:19	1.69	PROROCENTRUM TRIESTINUM	.011
W94120190	N10P	09-08-94	06:19	1.69	RHIZOSOLENIA DELICATULA	.004
W94120190	N10P	09-08-94	06:19	1.69	SKELETONEMA COSTATUM	.006
W94120190	N10P	09-08-94	06:19	1.69	THALASSIONEMA NITZSCHOIDES	.011
W94120190	N10P	09-08-94	06:19	1.69	THALASSIOSIRA SPP.	.041
W94120190	N10P	09-08-94	06:19	1.69	UNID. ATHECATE DINOFLAGELLATE	.004
W94120190	N10P	09-08-94	06:19	1.69	UNID. CENTRALES	.002
W94130023	N10P	09-28-94	06:37	1.64	CHAETOCEROS SPP. (10-20UM)	.006
W94130023	N10P	09-28-94	06:37	1.64	CRYPTOMONADS	0.289
W94130023	N10P	09-28-94	06:37	1.64	CYLINDROTHECA CLOSTERIUM	.011
W94130023	N10P	09-28-94	06:37	1.64	DICTYOCHA FIBULA	.003
W94130023	N10P	09-28-94	06:37	1.64	EBRIA TRIPARTITIA	.006
W94130023	N10P	09-28-94	06:37	1.64	EUTREPTIA/EUTREPTIELLA SPP.	.006
W94130023	N10P	09-28-94	06:37	1.64	GYMNODINIUM SPP.	.011
W94130023	N10P	09-28-94	06:37	1.64	GYRODINIUM SPIRALE	.003
W94130023	N10P	09-28-94	06:37	1.64	LEPTOCYLINDRUS MINIMUS	.028
W94130023	N10P	09-28-94	06:37	1.64	LITHODESMIUM (cf) UNDULATUM	.011
W94130023	N10P	09-28-94	06:37	1.64	MICROFLAGELLATES	0.975
W94130023	N10P	09-28-94	06:37	1.64	NAVICULOID DIATOMS	.003
W94130023	N10P	09-28-94	06:37	1.64	RHIZOSOLENIA DELICATULA	.011
W94130023	N10P	09-28-94	06:37	1.64	SKELETONEMA COSTATUM	.006

Table E1. Phytoplankton Species Data for August, September 1994.

Sample ID	Station	Date	Time (EST)	Depth (M)	Taxon	Millions of Cells per Liter
W94130023	N10P	09-28-94	06:37	1.64	THALASSIONEMA NITZSCHOIDES	.011
W94130023	N10P	09-28-94	06:37	1.64	THALASSIOSIRA SPP.	.028
W94130023	N10P	09-28-94	06:37	1.64	UNID. ATHECATE DINOFLAGELLATE	.009
W94130023	N10P	09-28-94	06:37	1.64	UNID. CENTRALES	.009

APPENDIX F

ZOOPLANKTON SPECIES DATA TABLE

A complete listing for survey W9411 is given for taxonomic analyses of zooplankton net tow samples (Table F-1).

Table F1. Zooplankton Species Data for August, 1994.

Sample ID	Station	Date	Time	Taxon	Qual*	Individuals per M3
W94110061	F23P	08-23-94	06:47	ACARTIA TONSA	C	5653
W94110061	F23P	08-23-94	06:47	ACARTIA TONSA	M	3177
W94110061	F23P	08-23-94	06:47	ACARTIA TONSA	F	3036
W94110061	F23P	08-23-94	06:47	CALANUS FINMARCHICUS	F	47
W94110061	F23P	08-23-94	06:47	CENTROPAGES HAMATUS	F	280
W94110061	F23P	08-23-94	06:47	CENTROPAGES HAMATUS	M	280
W94110061	F23P	08-23-94	06:47	CENTROPAGES SPP.	C	140
W94110061	F23P	08-23-94	06:47	COPEPOD NAUPLII	N	8736
W94110061	F23P	08-23-94	06:47	CRAB ZOEA		93
W94110061	F23P	08-23-94	06:47	EURYTEMORA HERDMANI	F	1028
W94110061	F23P	08-23-94	06:47	EURYTEMORA HERDMANI	C	7755
W94110061	F23P	08-23-94	06:47	EURYTEMORA HERDMANI	M	1869
W94110061	F23P	08-23-94	06:47	EVADNE NORDMANI		187
W94110061	F23P	08-23-94	06:47	GASTROPOD VELIGER		234
W94110061	F23P	08-23-94	06:47	METRIDIA LUCENS	F	47
W94110061	F23P	08-23-94	06:47	MICROSETELLA NORVEGICA		1308
W94110061	F23P	08-23-94	06:47	OITHONA SIMILIS	M	280
W94110061	F23P	08-23-94	06:47	OITHONA SIMILIS	F	1401
W94110061	F23P	08-23-94	06:47	OITHONA SIMILIS	C	841
W94110061	F23P	08-23-94	06:47	PARACALANUS PARVUS	F	47
W94110061	F23P	08-23-94	06:47	PARACALANUS PARVUS	C	467
W94110061	F23P	08-23-94	06:47	PARACALANUS PARVUS	M	93
W94110061	F23P	08-23-94	06:47	POLYCHAETE LARVAE		1542
W94110061	F23P	08-23-94	06:47	PSEUDOCALANUS NEWMANI	C	47
W94110061	F23P	08-23-94	06:47	TEMORA LONGICORNIS	F	467
W94110061	F23P	08-23-94	06:47	TEMORA LONGICORNIS	M	93
W94110061	F23P	08-23-94	06:47	TEMORA LONGICORNIS	C	280
W94110061	F23P	08-23-94	06:47	TORTANUS DISCAUDATUS	M	47
W94110061	F23P	08-23-94	06:47	UNIDENTIFIED HARPACTICOID		234
W94110110	N20P	08-23-94	09:41	ACARTIA TONSA	C	441
W94110110	N20P	08-23-94	09:41	BIVALVE VELIGER		40
W94110110	N20P	08-23-94	09:41	CALANUS FINMARCHICUS	F	40
W94110110	N20P	08-23-94	09:41	CENTROPAGES SPP.	C	2127
W94110110	N20P	08-23-94	09:41	CENTROPAGES TYPICUS	F	161
W94110110	N20P	08-23-94	09:41	CENTROPAGES TYPICUS	M	40
W94110110	N20P	08-23-94	09:41	COPEPOD NAUPLII	N	10713
W94110110	N20P	08-23-94	09:41	EURYTEMORA HERDMANI	M	40
W94110110	N20P	08-23-94	09:41	EURYTEMORA HERDMANI	C	120
W94110110	N20P	08-23-94	09:41	EVADNE NORDMANI		281
W94110110	N20P	08-23-94	09:41	GASTROPOD VELIGER		40
W94110110	N20P	08-23-94	09:41	MICROSETELLA NORVEGICA		241
W94110110	N20P	08-23-94	09:41	OIKIOPLEURA DIOICA		80
W94110110	N20P	08-23-94	09:41	OITHONA ATLANTICA	F	40
W94110110	N20P	08-23-94	09:41	OITHONA SIMILIS	F	6260
W94110110	N20P	08-23-94	09:41	OITHONA SIMILIS	M	321
W94110110	N20P	08-23-94	09:41	OITHONA SIMILIS	C	10874

Table F1. Zooplankton Species Data for August, 1994.

Sample ID	Station	Date	Time	Taxon	Qual*	Individuals per M3
W94110110	N20P	08-23-94	09:41	PARACALANUS PARVUS	F	602
W94110110	N20P	08-23-94	09:41	PARACALANUS PARVUS	M	161
W94110110	N20P	08-23-94	09:41	PARACALANUS PARVUS	C	1926
W94110110	N20P	08-23-94	09:41	PSEUDOCALANUS NEWMANI	F	40
W94110110	N20P	08-23-94	09:41	TEMORA LONGICORNIS	F	40
W94110110	N20P	08-23-94	09:41	TEMORA LONGICORNIS	C	281
W94110127	N16P	08-23-94	10:38	ACARTIA TONSA	C	125
W94110127	N16P	08-23-94	10:38	BIVALVE VELIGER		42
W94110127	N16P	08-23-94	10:38	CALANUS FINMARCHICUS	F	42
W94110127	N16P	08-23-94	10:38	CENTROPAGES SPP.	C	1626
W94110127	N16P	08-23-94	10:38	CENTROPAGES TYPICUS	M	292
W94110127	N16P	08-23-94	10:38	CENTROPAGES TYPICUS	F	125
W94110127	N16P	08-23-94	10:38	COPEPOD NAUPLII	N	5087
W94110127	N16P	08-23-94	10:38	EURYTEMORA HERDMANI	C	125
W94110127	N16P	08-23-94	10:38	EVADNE NORDMANI		208
W94110127	N16P	08-23-94	10:38	GASTROPOD VELIGER		125
W94110127	N16P	08-23-94	10:38	OIKIOPLEURA DIOICA		42
W94110127	N16P	08-23-94	10:38	OITHONA ATLANTICA	F	42
W94110127	N16P	08-23-94	10:38	OITHONA SIMILIS	C	9715
W94110127	N16P	08-23-94	10:38	OITHONA SIMILIS	M	750
W94110127	N16P	08-23-94	10:38	OITHONA SIMILIS	F	6754
W94110127	N16P	08-23-94	10:38	PARACALANUS PARVUS	F	250
W94110127	N16P	08-23-94	10:38	PARACALANUS PARVUS	M	83
W94110127	N16P	08-23-94	10:38	PARACALANUS PARVUS	C	1835
W94110127	N16P	08-23-94	10:38	PSEUDOCALANUS NEWMANI	F	208
W94110127	N16P	08-23-94	10:38	PSEUDOCALANUS NEWMANI	C	42
W94110127	N16P	08-23-94	10:38	PTEROPOD		42
W94110127	N16P	08-23-94	10:38	TEMORA LONGICORNIS	F	42
W94110127	N16P	08-23-94	10:38	TEMORA LONGICORNIS	C	167
W94110157	NO7P	08-23-94	12:29	ACARTIA TONSA	C	35
W94110157	NO7P	08-23-94	12:29	BIVALVE VELIGER		283
W94110157	NO7P	08-23-94	12:29	CENTROPAGES SPP.	C	3324
W94110157	NO7P	08-23-94	12:29	CENTROPAGES TYPICUS	F	35
W94110157	NO7P	08-23-94	12:29	CENTROPAGES TYPICUS	M	35
W94110157	NO7P	08-23-94	12:29	COPEPOD NAUPLII	N	14780
W94110157	NO7P	08-23-94	12:29	ECHINODERM PLUTEI		35
W94110157	NO7P	08-23-94	12:29	EVADNE NORDMANI		318
W94110157	NO7P	08-23-94	12:29	GASTROPOD VELIGER		354
W94110157	NO7P	08-23-94	12:29	METRIDIA LUCENS	C	35
W94110157	NO7P	08-23-94	12:29	MICROSETELLA NORVEGICA		106
W94110157	NO7P	08-23-94	12:29	OITHONA SIMILIS	F	4102
W94110157	NO7P	08-23-94	12:29	OITHONA SIMILIS	C	10254
W94110157	NO7P	08-23-94	12:29	OITHONA SIMILIS	M	212
W94110157	NO7P	08-23-94	12:29	PARACALANUS PARVUS	F	71
W94110157	NO7P	08-23-94	12:29	PARACALANUS PARVUS	C	1909
W94110157	NO7P	08-23-94	12:29	PSEUDOCALANUS NEWMANI	C	35

* C=COPEPIDITES, F=FEMALE, M=MALE, N=NAUPLII

Table F1. Zooplankton Species Data for August, 1994.

Sample ID	Station	Date	Time	Taxon	Qual*	Individuals per M3
W94110157	NO7P	08-23-94	12:29	TEMORA LONGICORNIS	C	919
W94110248	N10P	08-23-94	17:57	ACARTIA TONSA	M	58
W94110248	N10P	08-23-94	17:57	ACARTIA TONSA	C	58
W94110248	N10P	08-23-94	17:57	BARNACLE NAUPLII	N	58
W94110248	N10P	08-23-94	17:57	BIVALVE VELIGER		3591
W94110248	N10P	08-23-94	17:57	CALANUS FINMARCHICUS	F	116
W94110248	N10P	08-23-94	17:57	CENTROPAGES HAMATUS	M	58
W94110248	N10P	08-23-94	17:57	CENTROPAGES HAMATUS	F	58
W94110248	N10P	08-23-94	17:57	CENTROPAGES SPP.	C	463
W94110248	N10P	08-23-94	17:57	CENTROPAGES TYPICUS	M	116
W94110248	N10P	08-23-94	17:57	CENTROPAGES TYPICUS	F	58
W94110248	N10P	08-23-94	17:57	COPEPOD NAUPLII	N	6313
W94110248	N10P	08-23-94	17:57	CRAB ZOEA		58
W94110248	N10P	08-23-94	17:57	EURYTEMORA HERDMANI	F	232
W94110248	N10P	08-23-94	17:57	EURYTEMORA HERDMANI	C	116
W94110248	N10P	08-23-94	17:57	EVADNE NORDMANI		463
W94110248	N10P	08-23-94	17:57	GASTROPOD VELIGER		116
W94110248	N10P	08-23-94	17:57	MICROSETELLA NORVEGICA		1332
W94110248	N10P	08-23-94	17:57	MYSIID LARVA		290
W94110248	N10P	08-23-94	17:57	OITHONA SIMILIS	F	2896
W94110248	N10P	08-23-94	17:57	OITHONA SIMILIS	C	5039
W94110248	N10P	08-23-94	17:57	OITHONA SIMILIS	M	579
W94110248	N10P	08-23-94	17:57	PARACALANUS PARVUS	F	579
W94110248	N10P	08-23-94	17:57	PARACALANUS PARVUS	C	1911
W94110248	N10P	08-23-94	17:57	PSEUDOCALANUS NEWMANI	C	58
W94110248	N10P	08-23-94	17:57	TEMORA LONGICORNIS	F	927
W94110248	N10P	08-23-94	17:57	TEMORA LONGICORNIS	C	1216
W94110248	N10P	08-23-94	17:57	TEMORA LONGICORNIS	M	1506
W94110328	N01P	08-24-94	07:53	ACARTIA TONSA	C	246
W94110328	N01P	08-24-94	07:53	ACARTIA TONSA	F	185
W94110328	N01P	08-24-94	07:53	CALANUS FINMARCHICUS	F	185
W94110328	N01P	08-24-94	07:53	CALANUS FINMARCHICUS	C	123
W94110328	N01P	08-24-94	07:53	CENTROPAGES HAMATUS	F	62
W94110328	N01P	08-24-94	07:53	CENTROPAGES SPP.	C	1354
W94110328	N01P	08-24-94	07:53	CENTROPAGES TYPICUS	F	369
W94110328	N01P	08-24-94	07:53	CENTROPAGES TYPICUS	M	492
W94110328	N01P	08-24-94	07:53	COPEPOD NAUPLII	N	23631
W94110328	N01P	08-24-94	07:53	EURYTEMORA HERDMANI	F	62
W94110328	N01P	08-24-94	07:53	EURYTEMORA HERDMANI	M	62
W94110328	N01P	08-24-94	07:53	EURYTEMORA HERDMANI	C	62
W94110328	N01P	08-24-94	07:53	EVADNE NORDMANI		185
W94110328	N01P	08-24-94	07:53	MEDUSA		62
W94110328	N01P	08-24-94	07:53	MICROSETELLA NORVEGICA		862
W94110328	N01P	08-24-94	07:53	OIKIOPLEURA DIOICA		123
W94110328	N01P	08-24-94	07:53	OITHONA SIMILIS	F	7692
W94110328	N01P	08-24-94	07:53	OITHONA SIMILIS	C	13046

Table F1. Zooplankton Species Data for August, 1994.

Sample ID	Station	Date	Time	Taxon	Qual*	Individuals per M3
W94110328	N01P	08-24-94	07:53	OITHONA SIMILIS	M	2092
W94110328	N01P	08-24-94	07:53	PARACALANUS PARVUS	F	615
W94110328	N01P	08-24-94	07:53	PARACALANUS PARVUS	C	4677
W94110328	N01P	08-24-94	07:53	PARACALANUS PARVUS	M	123
W94110328	N01P	08-24-94	07:53	POLYCHAETE LARVAE		62
W94110328	N01P	08-24-94	07:53	PSEUDOCALANUS NEWMANI	M	62
W94110328	N01P	08-24-94	07:53	PSEUDOCALANUS NEWMANI	F	800
W94110328	N01P	08-24-94	07:53	PSEUDOCALANUS NEWMANI	C	62
W94110328	N01P	08-24-94	07:53	TEMORA LONGICORNIS	C	246
W94110328	N01P	08-24-94	07:53	TEMORA LONGICORNIS	F	369
W94110328	N01P	08-24-94	07:53	TEMORA LONGICORNIS	M	185
W94110344	N04P	08-24-94	08:53	CALANUS FINMARCHICUS	F	49
W94110344	N04P	08-24-94	08:53	CENTROPAGES SPP.	C	834
W94110344	N04P	08-24-94	08:53	CENTROPAGES TYPICUS	F	245
W94110344	N04P	08-24-94	08:53	CENTROPAGES TYPICUS	M	490
W94110344	N04P	08-24-94	08:53	COPEPOD NAUPLII	N	10397
W94110344	N04P	08-24-94	08:53	EURYTEMORA HERDMANI	C	49
W94110344	N04P	08-24-94	08:53	EVADNE NORDMANI		98
W94110344	N04P	08-24-94	08:53	MICROSETELLA NORVEGICA		147
W94110344	N04P	08-24-94	08:53	OIKIOPLEURA DIOICA		196
W94110344	N04P	08-24-94	08:53	OITHONA SIMILIS	F	11868
W94110344	N04P	08-24-94	08:53	OITHONA SIMILIS	M	539
W94110344	N04P	08-24-94	08:53	OITHONA SIMILIS	C	18832
W94110344	N04P	08-24-94	08:53	PARACALANUS PARVUS	F	392
W94110344	N04P	08-24-94	08:53	PARACALANUS PARVUS	M	196
W94110344	N04P	08-24-94	08:53	PARACALANUS PARVUS	C	2795
W94110344	N04P	08-24-94	08:53	PSEUDOCALANUS NEWMANI	F	49
W94110344	N04P	08-24-94	08:53	TEMORA LONGICORNIS	M	49
W94110344	N04P	08-24-94	08:53	TEMORA LONGICORNIS	F	49
W94110344	N04P	08-24-94	08:53	TEMORA LONGICORNIS	C	49
W94110525	F02P	08-25-94	07:41	BIVALVE VELIGER		12575
W94110525	F02P	08-25-94	07:41	CENTROPAGES SPP.	C	122
W94110525	F02P	08-25-94	07:41	COPEPOD NAUPLII	N	122
W94110525	F02P	08-25-94	07:41	ECHINODERM PLUTEI		327
W94110525	F02P	08-25-94	07:41	GASTROPOD VELIGER		41
W94110525	F02P	08-25-94	07:41	MEDUSA		1102
W94110525	F02P	08-25-94	07:41	MICROSETELLA NORVEGICA		41
W94110525	F02P	08-25-94	07:41	OIKIOPLEURA DIOICA		1102
W94110525	F02P	08-25-94	07:41	OITHONA SIMILIS	F	245
W94110525	F02P	08-25-94	07:41	OITHONA SIMILIS	C	286
W94110525	F02P	08-25-94	07:41	PARACALANUS CRASSIROSTRIS	C	204
W94110525	F02P	08-25-94	07:41	PARACALANUS PARVUS	C	82
W94110525	F02P	08-25-94	07:41	TEMORA LONGICORNIS	C	41
W94110550	F01P	08-25-94	09:27	ACARTIA TONSA	C	279
W94110550	F01P	08-25-94	09:27	BIVALVE VELIGER		3801
W94110550	F01P	08-25-94	09:27	CENTROPAGES SPP.	C	168

Table F1. Zooplankton Species Data for August, 1994.

Sample ID	Station	Date	Time	Taxon	Qual*	Individuals per M3
W94110550	F01P	08-25-94	09:27	CENTROPAGES TYPICUS	F	112
W94110550	F01P	08-25-94	09:27	COPEPOD NAUPLII	N	727
W94110550	F01P	08-25-94	09:27	ECHINODERM PLUTEI		615
W94110550	F01P	08-25-94	09:27	GASTROPOD VELIGER		168
W94110550	F01P	08-25-94	09:27	MEDUSA		838
W94110550	F01P	08-25-94	09:27	OIKIOPLEURA DIOICA		2012
W94110550	F01P	08-25-94	09:27	OITHONA SIMILIS	M	56
W94110550	F01P	08-25-94	09:27	OITHONA SIMILIS	C	1118
W94110550	F01P	08-25-94	09:27	OITHONA SIMILIS	F	447
W94110550	F01P	08-25-94	09:27	PARACALANUS CRASSIROSTRIS	F	894
W94110550	F01P	08-25-94	09:27	POLYCHAETE LARVAE		112
W94110550	F01P	08-25-94	09:27	POLYCHAETE TROCHOPHORES		391
W94110659	F13P	08-25-94	16:13	ACARTIA TONSA	F	50
W94110659	F13P	08-25-94	16:13	ACARTIA TONSA	M	50
W94110659	F13P	08-25-94	16:13	ACARTIA TONSA	C	298
W94110659	F13P	08-25-94	16:13	CALANUS FINMARCHICUS	F	149
W94110659	F13P	08-25-94	16:13	CALANUS FINMARCHICUS	C	99
W94110659	F13P	08-25-94	16:13	CENTROPAGES HAMATUS	F	99
W94110659	F13P	08-25-94	16:13	CENTROPAGES HAMATUS	M	50
W94110659	F13P	08-25-94	16:13	CENTROPAGES SPP.	C	1439
W94110659	F13P	08-25-94	16:13	CENTROPAGES TYPICUS	F	149
W94110659	F13P	08-25-94	16:13	CENTROPAGES TYPICUS	M	198
W94110659	F13P	08-25-94	16:13	COPEPOD NAUPLII	N	11361
W94110659	F13P	08-25-94	16:13	CRAB ZOEA		50
W94110659	F13P	08-25-94	16:13	EURYTEMORA HERDMANI	F	50
W94110659	F13P	08-25-94	16:13	EURYTEMORA HERDMANI	C	149
W94110659	F13P	08-25-94	16:13	EVADNE NORDMANI		347
W94110659	F13P	08-25-94	16:13	MICROSETELLA NORVEGICA		546
W94110659	F13P	08-25-94	16:13	OIKIOPLEURA DIOICA		99
W94110659	F13P	08-25-94	16:13	OITHONA SIMILIS	M	645
W94110659	F13P	08-25-94	16:13	OITHONA SIMILIS	C	8484
W94110659	F13P	08-25-94	16:13	OITHONA SIMILIS	F	5358
W94110659	F13P	08-25-94	16:13	PARACALANUS PARVUS	C	1786
W94110659	F13P	08-25-94	16:13	PSEUDOCALANUS NEWMANI	C	50
W94110659	F13P	08-25-94	16:13	PTEROPOD		50
W94110659	F13P	08-25-94	16:13	TEMORA LONGICORNIS	M	298
W94110659	F13P	08-25-94	16:13	TEMORA LONGICORNIS	C	595
W94110659	F13P	08-25-94	16:13	TEMORA LONGICORNIS	F	595

* C=COPEPIDITES, F=FEMALE, M=MALE, N=NAUPLII