

Oceanography Branch CTD Data Report
CTD_REPORT_2010004DE

**For further information, contact Tamara Holzwarth-Davis
National Marine Fisheries Service, Northeast Fisheries
Science Center, Woods Hole, Massachusetts 02543-1097.**

DATE: Revised: December 07, 2010

Oceanography Branch CTD Data Report

CTD_REPORT_2010004DE

NOAA Fisheries Service
Northeast Fisheries Science Center
Woods Hole, MA 02543

DE 10-04
ECOMON/NASA Ground Truth Measurements Survey
Data Coverage: May 26 – June 9, 2010
Mid Atlantic Bight, Georges Bank, Gulf of Maine

This report presents a summary of surface and bottom temperature and salinity data collected during the Northeast Fisheries Science Center's DEL1004 ECOMON/NASA Ground Truth Measurements Survey aboard the NOAA FSV *Delaware II*. Data was obtained with two Seabird Electronics SBE Model 19 profiling CTD (s/n's 2277 and 2879) and a Seabird Electronics SBE Model 9/11+ CTD (s/n 0420). Sea water samples were taken for the purpose of correcting salinity values for both instruments. No salinity correction was necessary for any instrument.

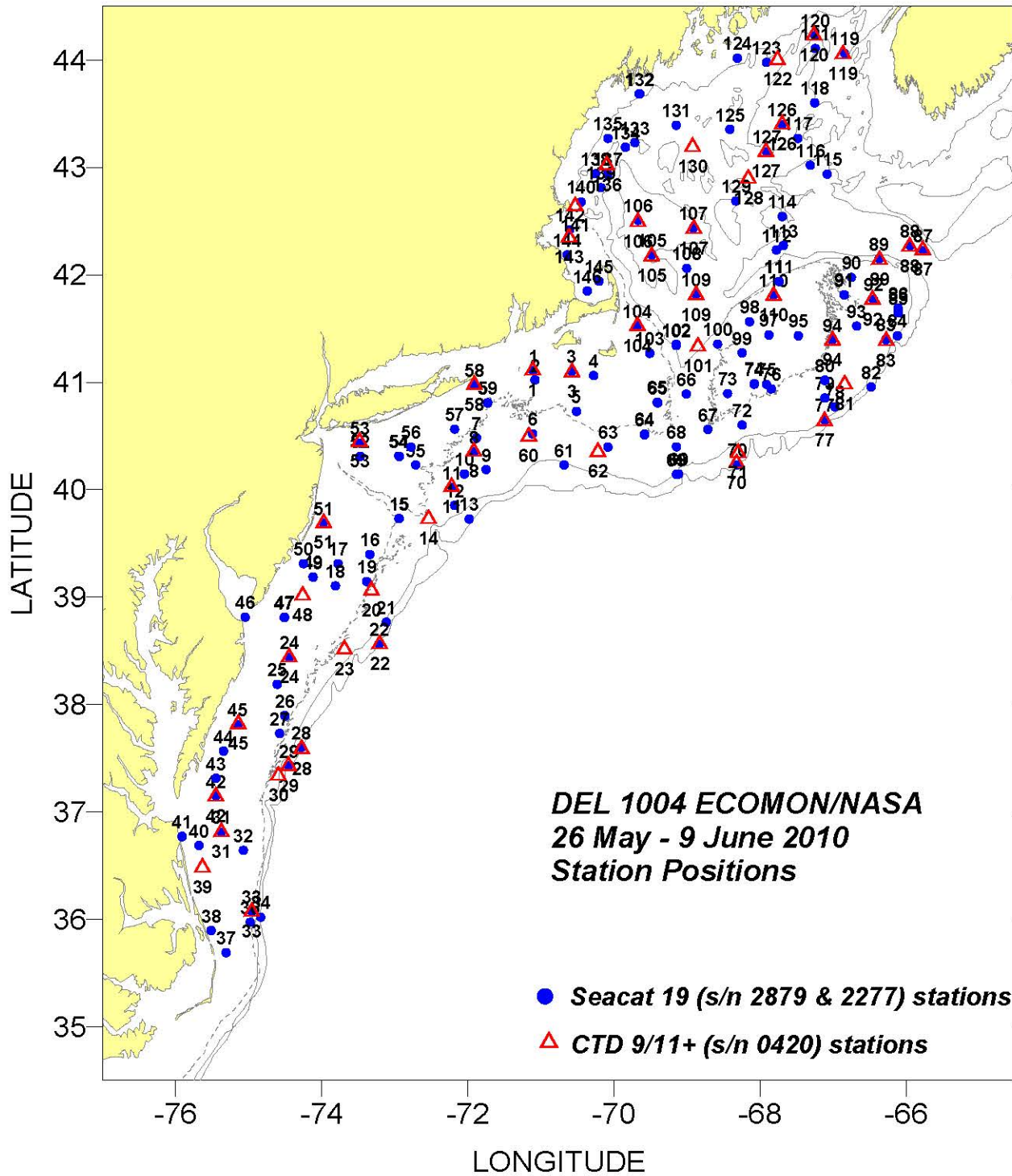
Data presented here have been audited, however, corrections and/or updates may be applied at a later time. The most recent and complete station data can be found in an NODC formatted ASCII file at:
<ftp://ftp.nefsc.noaa.gov/pub/hydro/del1004.dat>

This report may be viewed on the Oceanography Branch website at:

<http://www.nefsc.noaa.gov/HydroAtlas/>

choose: **2010 Cruises**
MAY_ECOMON_DEL1004
CTD_REPORT_2010004DE.pdf

Revised: December 07, 2010



DEL1004 ECOMON/NASA GROUND TRUTH MEASUREMENTS
May 26 - June 9, 2010

CRUISE	CD	SURFACE						BOTTOM						Purpose
		#obs	T/S	Anomaly	SDV1	SDV2	Flag	#obs	T/S	Anomaly	SDV1	SDV2	Flag	
Western Gulf of Maine														
DEL1004	158	27	13.36	2.49	0.19	0.90	0	49	6.93	1.10	0.18	1.70	1	22
DEL1004	158	27	31.41	-0.64	0.12	0.40	0	49	33.27	-0.11	0.11	0.79	1	22
Eastern Gulf of Maine														
DEL1004	158	22	10.93	1.44	0.21	1.67	1	17	8.66	1.35	0.23	2.17	1	22
DEL1004	158	22	32.00	-0.44	0.14	0.68	1	17	33.90	0.10	0.13	1.02	1	22
Georges Bank														
DEL1004	154	42	10.96	1.27	0.16	0.90	0	28	8.65	0.71	0.22	1.11	0	22
DEL1004	154	42	32.30	-0.55	0.10	0.27	0	28	32.52	-0.57	0.13	0.50	0	22
MAB North														
DEL1004	143	34	13.83	1.92	0.23	1.11	0	28	7.90	0.76	0.25	1.59	0	22
DEL1004	143	34	31.95	-0.49	0.15	0.29	0	28	32.65	-0.49	0.16	0.56	0	22
MAB South														
DEL1004	149	65	16.02	0.42	0.19	1.18	1	35	9.48	-0.45	0.23	1.65	0	22
DEL1004	149	65	31.46	-0.68	0.14	0.46	1	35	32.18	-0.87	0.14	0.36	0	22

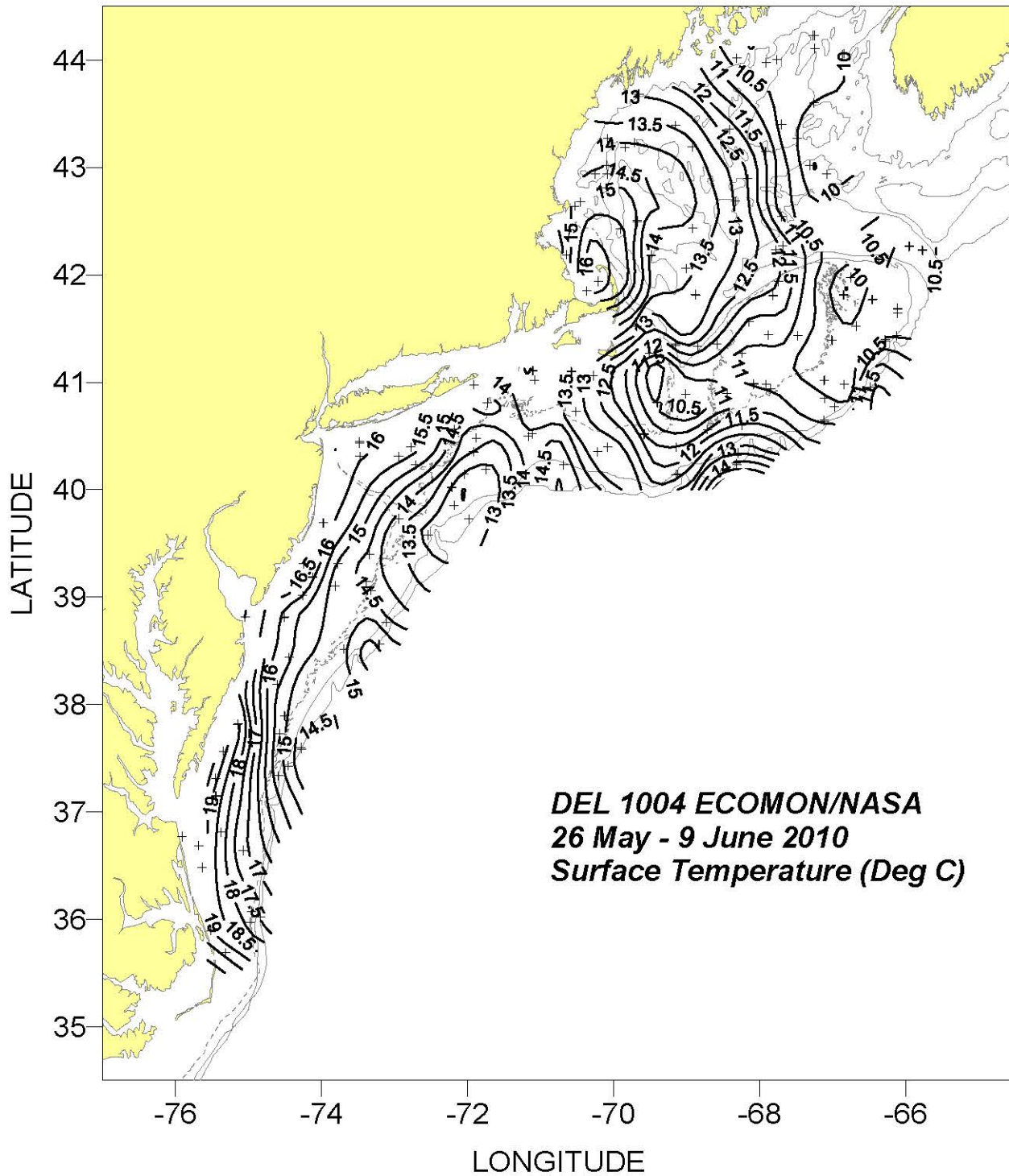
"CRUISE", the code name for a cruise: "CD", the calendar mid-date of all the stations within a region for a cruise:

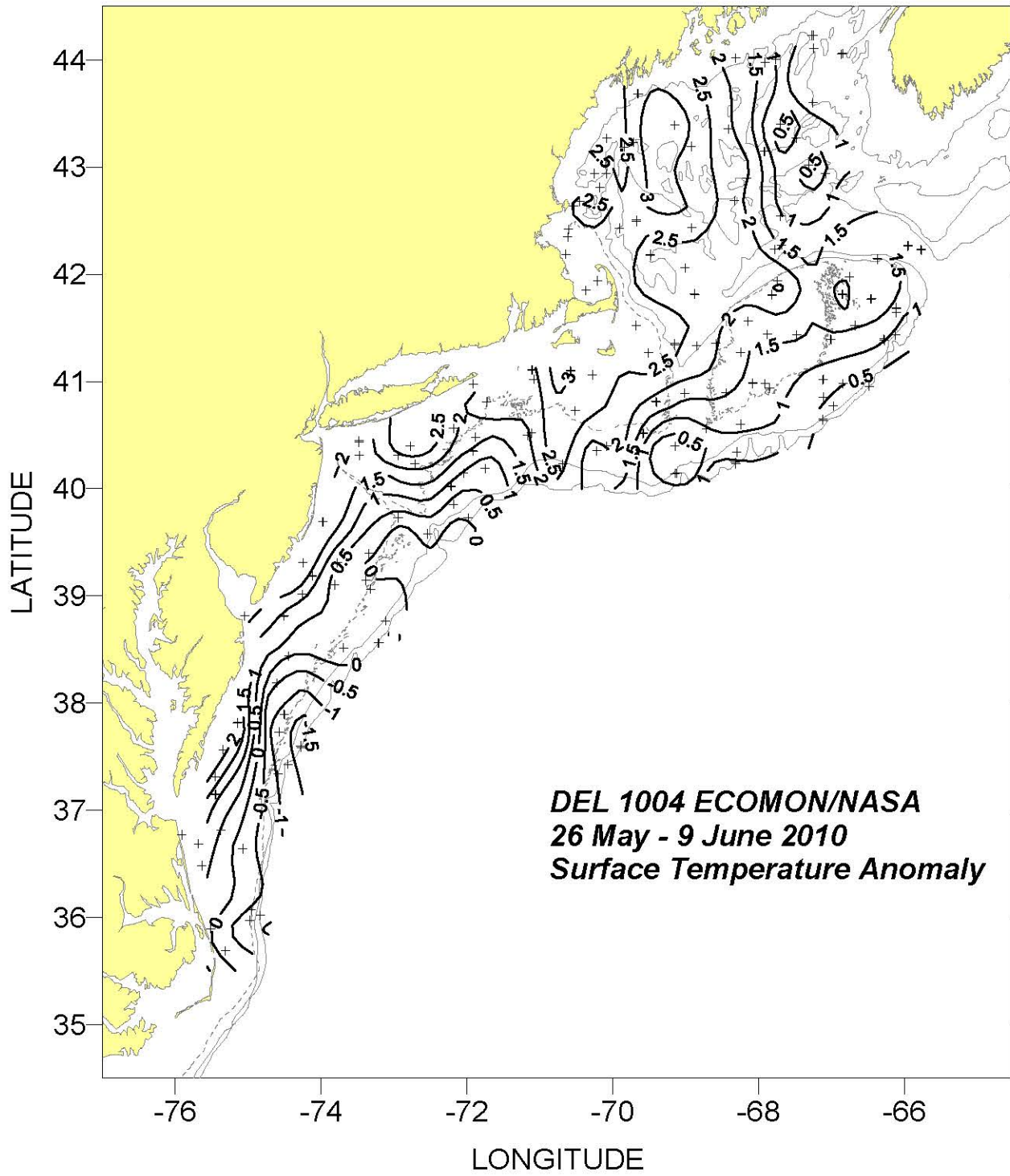
"#obs", the number of observations include in each average: "T/S", the areal average temp/salt: "Anomaly", the areal average temp/salt anomaly:

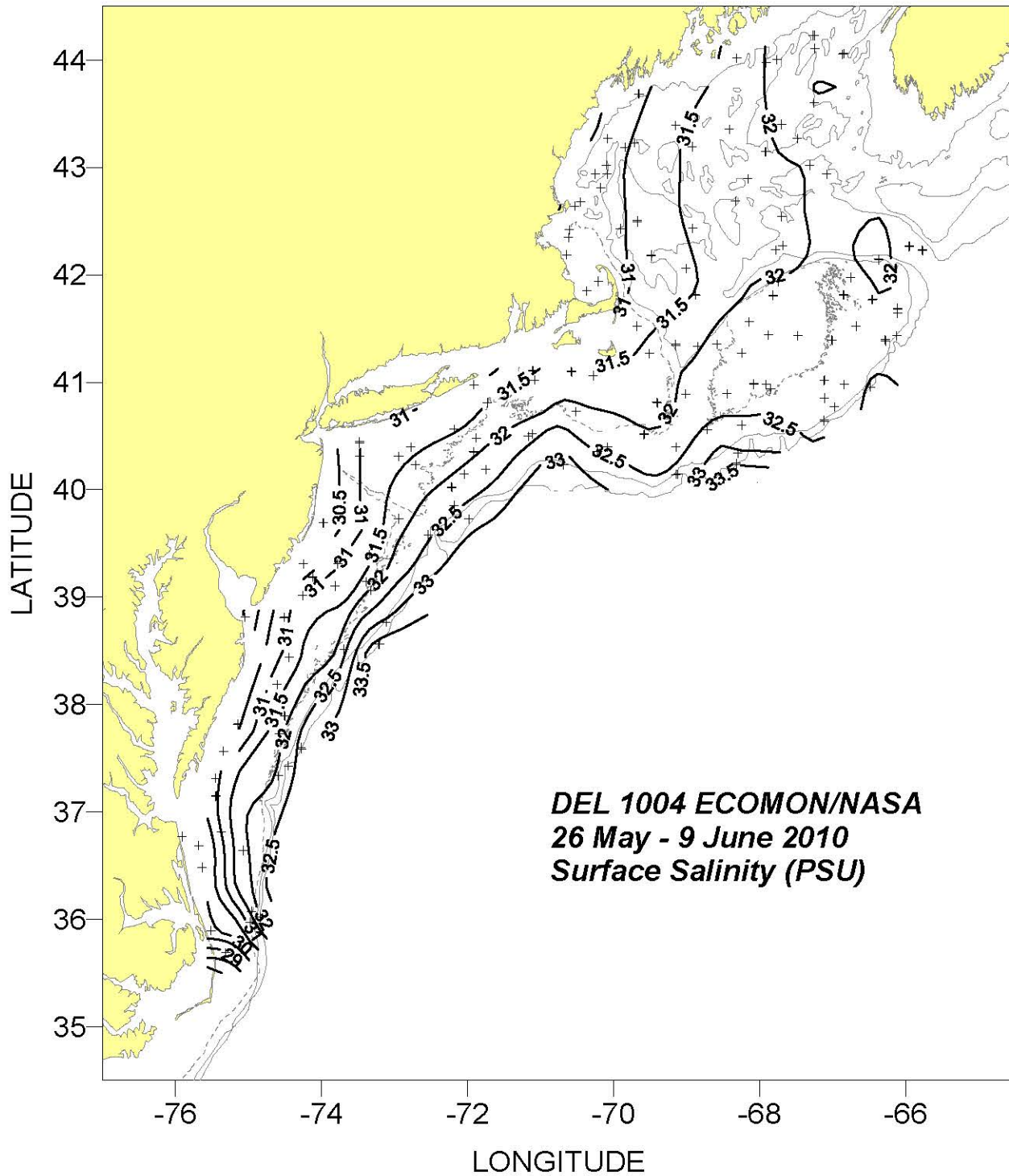
"SDV1", the standard deviation associated with the average temp/salt anomaly: "SDV2", the standard deviation of the individual anomalies from which the average anomaly was derived

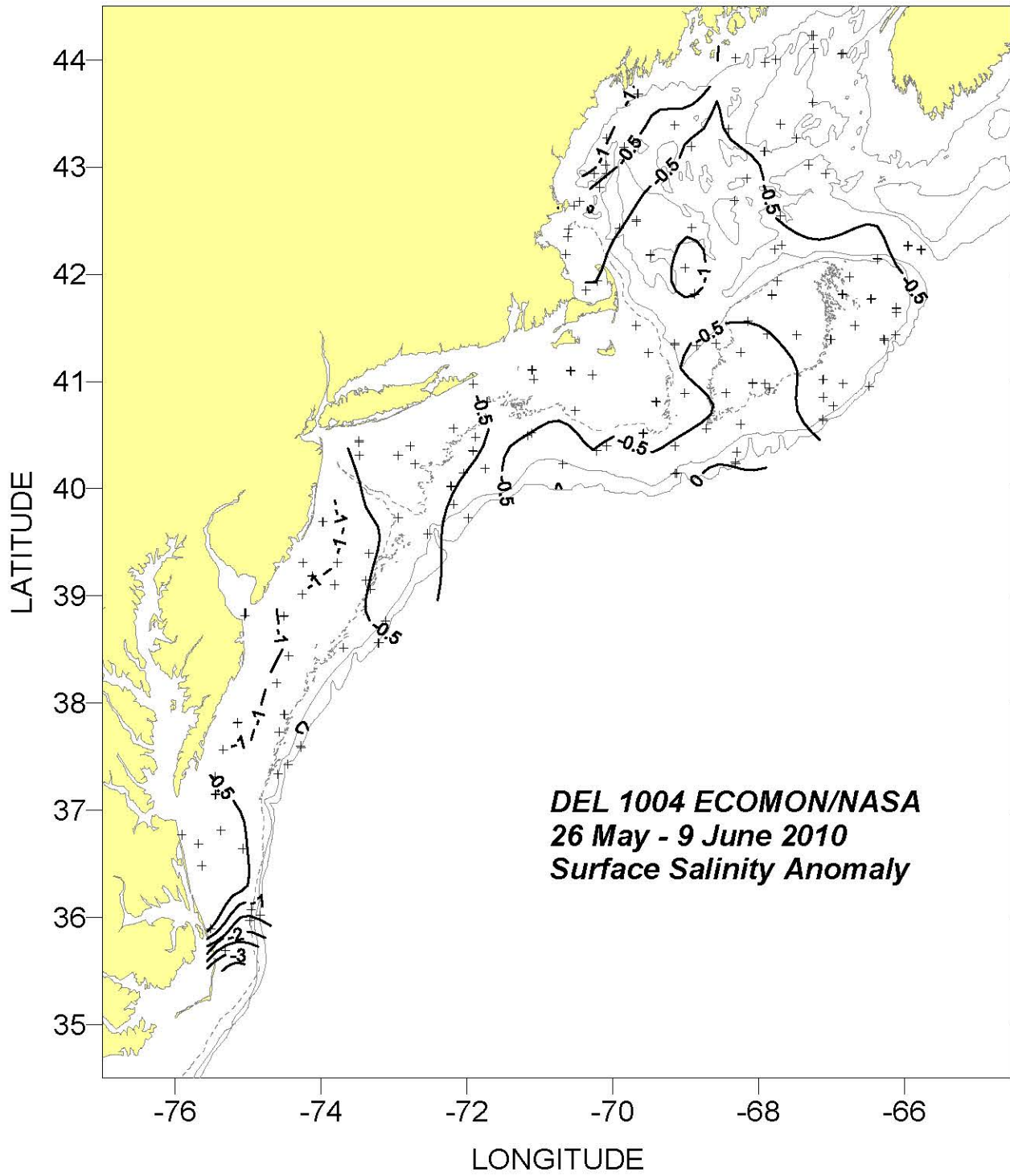
"Flag", a value of "1" indicates that a true areal average could not be calculated due to poor station coverage. The areal averages listed were derived from a simple average of the observations within the region.

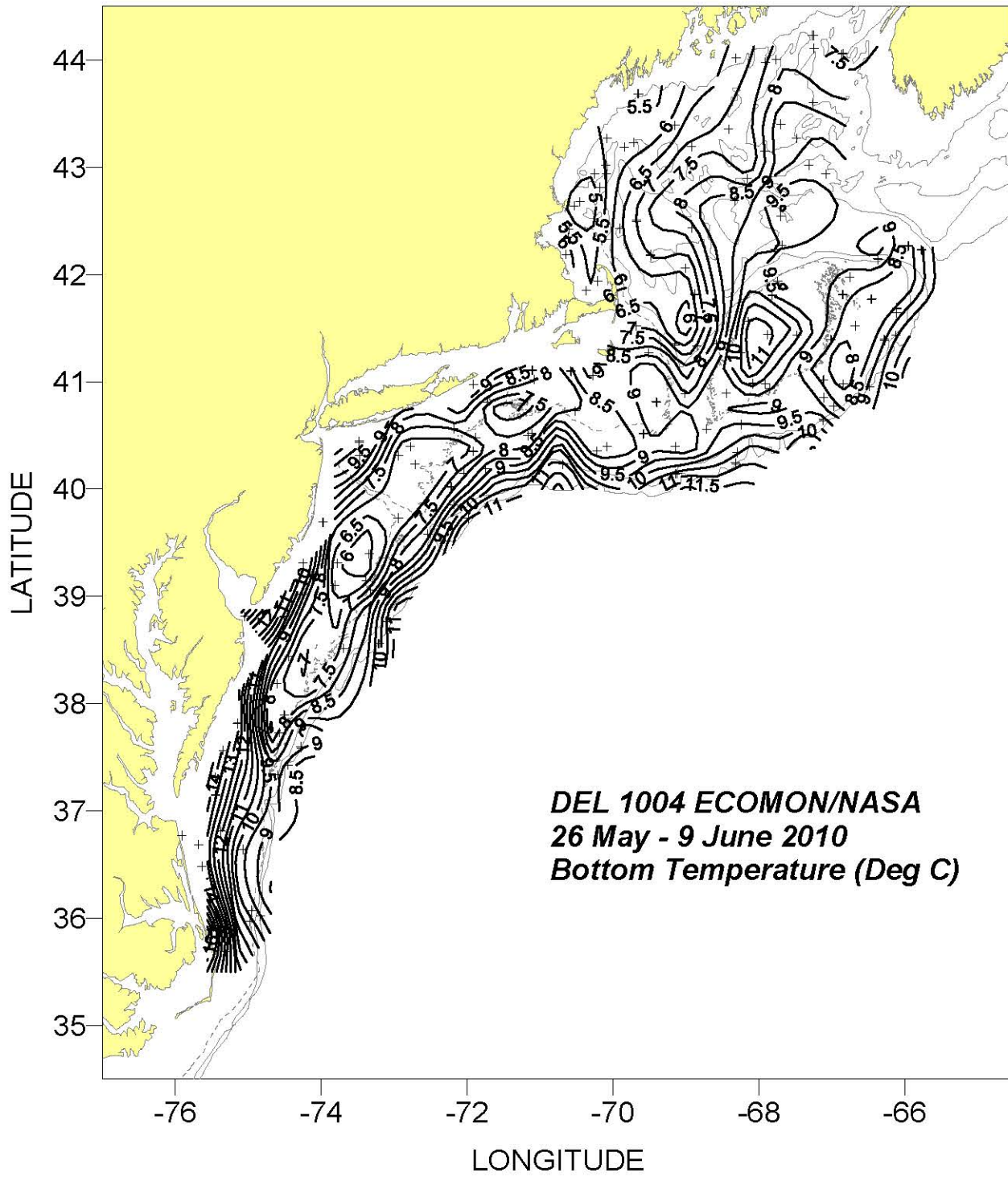
"Purpose", 2 digit code assigned by DMS to identify a unique NEFSC program survey.

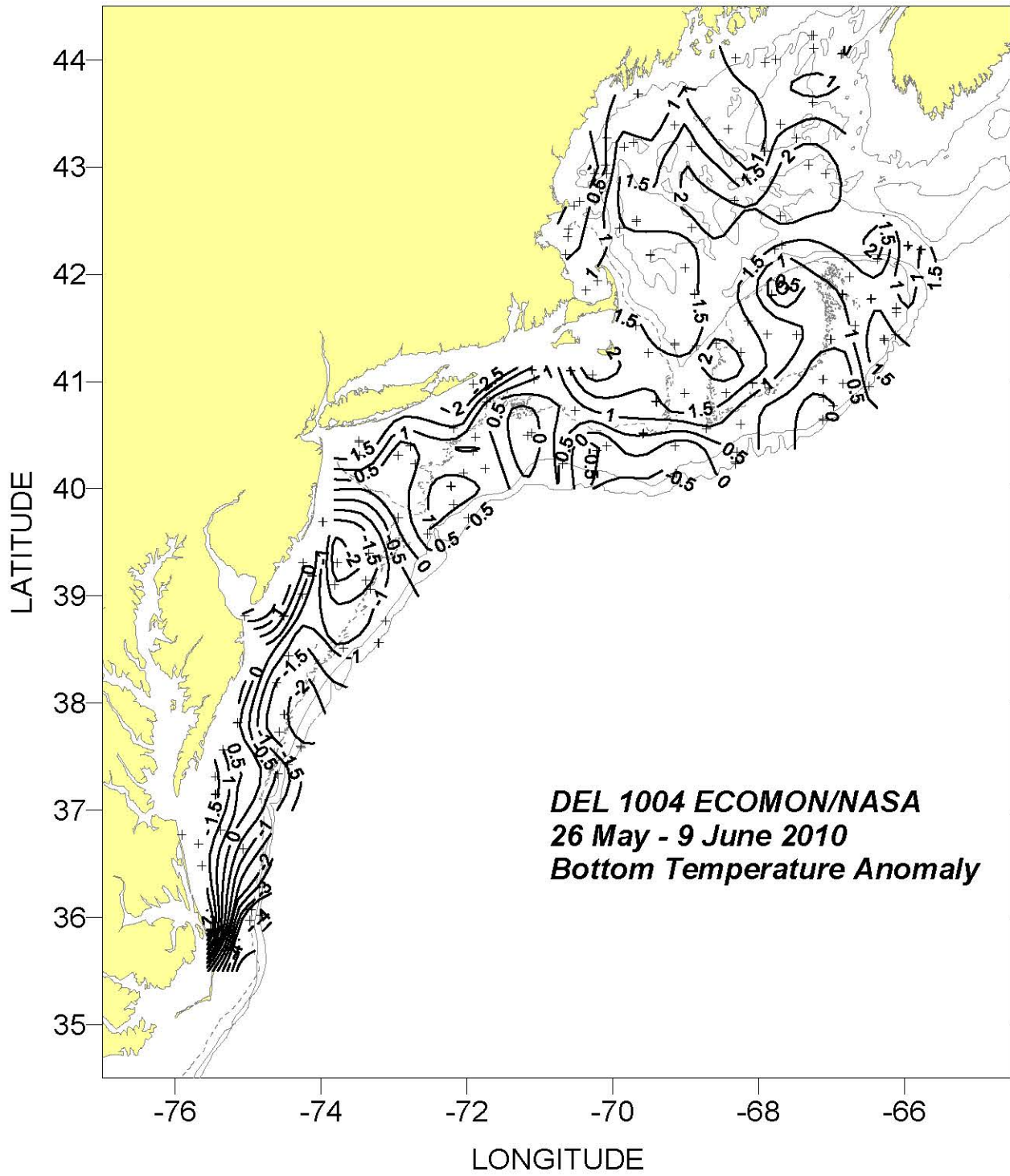


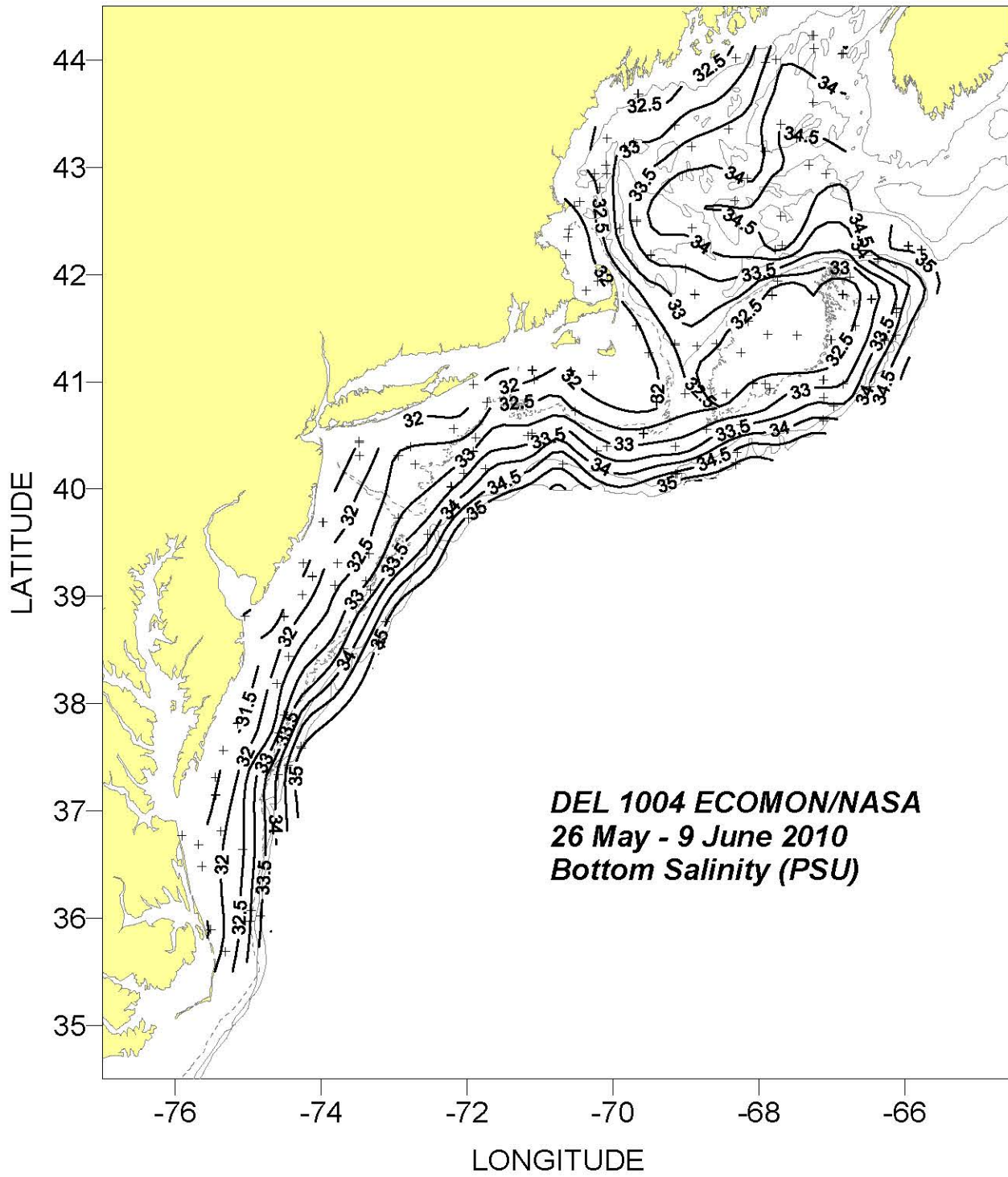


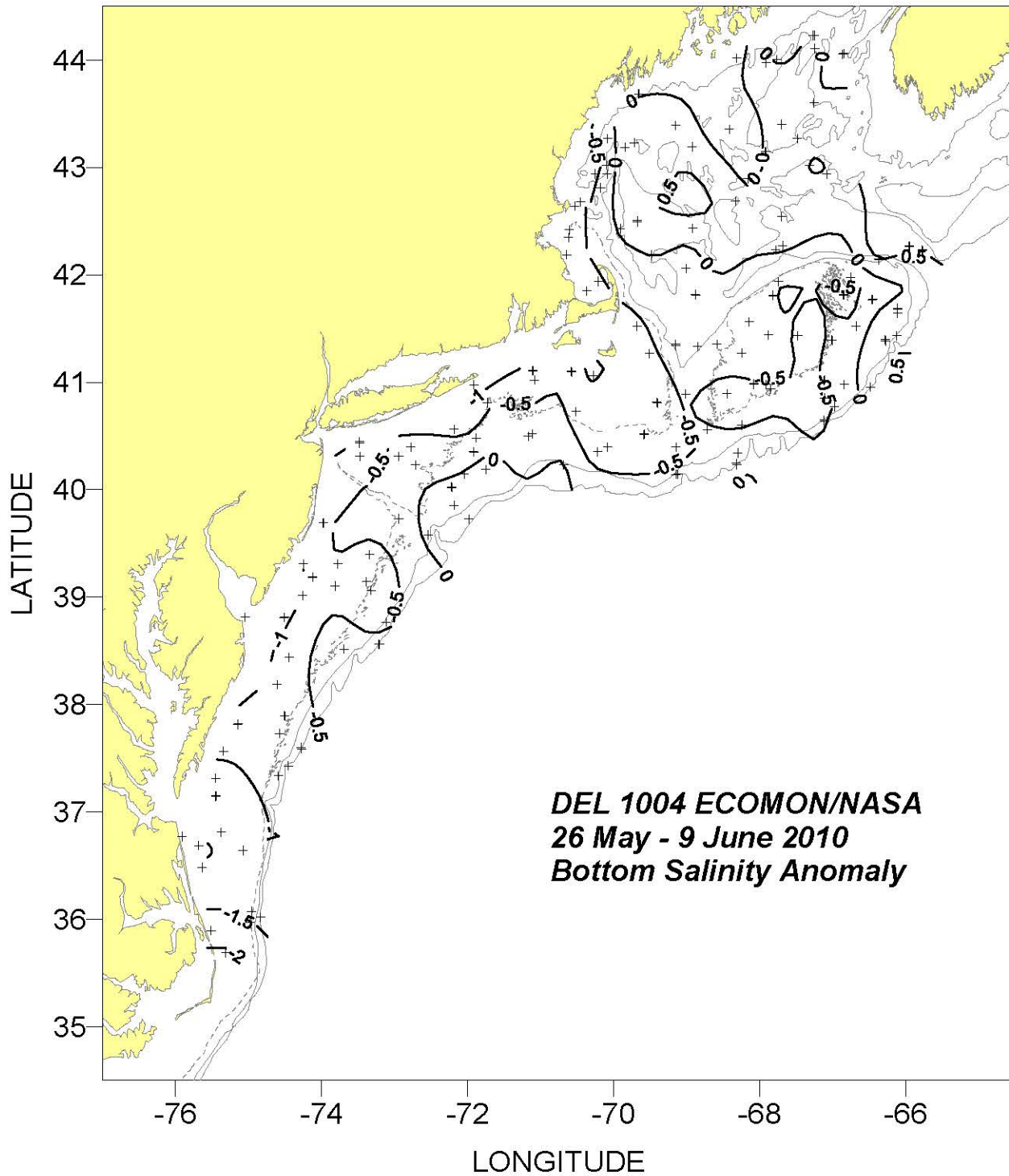












DEL1004 ECOMON/NASA GROUND TRUTH MEASUREMENTS
May 26 - June 9, 2010

Cast #	Sta #	Lat	Long	Day	Mo	Year	Time (GMT)	Btm Depth	Sfc Temp	Sfc Salt	Btm Temp	Btm Salt	Meters from Bottom
1	1	4106.6	7106.6	26	5	2010	17:43	37	13.36	31.51	8.80	31.72	2
1	1	4106.4	7106.2	26	5	2010	18:25	37	13.55	31.50	8.95	31.69	4
2	2	4101.3	7104.9	26	5	2010	19:10	47	13.35	31.48	7.40	32.23	4
3	3	4106.1	7034.6	26	5	2010	21:47	43	13.82	31.74	7.97	32.14	2
2	3	4105.7	7034.4	26	5	2010	22:07	43	13.51	31.75	8.00	32.13	3
4	4	4103.7	7016.7	26	5	2010	23:49	33	12.51	31.54	9.77	31.53	3
5	5	4043.7	7030.8	27	5	2010	2:28	56	13.18	32.12	7.54	32.43	3
6	6	4031.2	7106.9	27	5	2010	5:34	76	13.43	32.00	6.74	32.91	6
7	7	4028.9	7152.8	27	5	2010	9:22	68	12.59	31.78	6.95	32.79	3
8	8	4021.1	7154.7	27	5	2010	10:25	66	13.31	31.88	6.97	32.86	1
3	8	4021.3	7155.1	27	5	2010	10:46	66	13.27	31.85	6.99	32.89	3
9	9	4011.2	7145.0	27	5	2010	13:15	81	12.32	32.13	9.24	33.98	4
10	10	4008.7	7202.8	27	5	2010	14:49	68	12.72	31.98	7.02	33.01	4
11	11	4001.2	7212.9	27	5	2010	16:06	80	13.08	32.14	7.23	33.20	5
4	11	4001.6	7213.3	27	5	2010	16:25	80	13.11	32.14	7.18	33.17	2
12	12	3951.2	7210.8	27	5	2010	17:47	92	11.91	32.45	9.56	34.12	2
13	13	3943.6	7158.9	27	5	2010	19:28	165	12.65	32.83	11.74	35.50	4
5	14	3943.7	7232.2	27	5	2010	22:30	78	12.91	32.24	7.44	33.29	3
14	15	3943.8	7256.6	28	5	2010	0:33	68	13.48	31.86	6.75	32.96	4
15	15	3943.9	7256.4	28	5	2010	0:45	68	13.51	31.86	12.14	31.89	49
16	16	3923.8	7320.5	28	5	2010	3:40	52	14.61	31.16	5.40	32.50	3
17	17	3918.7	7346.6	28	5	2010	6:01	39	14.86	31.02	5.75	32.38	4
18	18	3906.2	7348.7	28	5	2010	7:30	38	14.83	30.98	6.10	32.37	4
19	19	3908.7	7323.0	28	5	2010	9:43	60	14.02	31.77	5.97	32.72	4
6	20	3903.7	7319.1	28	5	2010	10:34	64	14.79	32.01	6.58	32.92	3
20	21	3846.0	7307.0	28	5	2010	12:52	112	14.24	33.05	12.88	35.57	6
22	22	3833.7	7312.9	28	5	2010	14:33	310	16.43	34.20	11.94	35.54	109
7	22	3833.7	7312.4	28	5	2010	15:01	331	16.30	34.16	9.61	35.26	5
8	23	3830.9	7341.4	28	5	2010	18:19	66	14.54	32.06	7.50	33.33	2
23	24	3826.3	7426.7	28	5	2010	22:16	43	15.74	31.14	6.45	32.43	4
9	24	3826.3	7426.7	28	5	2010	22:45	43	15.72	31.13	6.46	32.40	1

DEL1004 ECOMON/NASA GROUND TRUTH MEASUREMENTS
May 26 - June 9, 2010

Cast #	Sta #	Lat	Long	Day	Mo	Year	Time (GMT)	Btm Depth	Sfc Temp	Sfc Salt	Btm Temp	Btm Salt	Meters from Bottom
24	25	3811.3	7436.5	29	5	2010	0:48	39	15.39	31.24	7.16	32.35	4
25	26	3753.8	7430.5	29	5	2010	2:50	56	14.46	32.06	6.25	32.62	3
26	26	3753.6	7430.1	29	5	2010	3:07	56	14.49	32.06	13.81	31.95	40
27	27	3743.8	7434.5	29	5	2010	4:13	56	15.10	31.87	6.24	32.69	3
28	28	3736.1	7416.7	29	5	2010	5:55	221	14.15	32.68	11.84	35.50	19
10	28	3735.2	7416.5	29	5	2010	6:30	305	14.17	32.69	9.97	35.30	3
11	29	3725.7	7427.2	29	5	2010	8:44	456	14.01	32.33	5.42	35.01	6
29	29	3725.7	7427.3	29	5	2010	9:16	450	14.00	32.43	11.44	35.47	252
12	30	3720.3	7435.6	29	5	2010	10:38	94	15.09	31.97	9.57	34.19	4
30	31	3648.8	7522.6	29	5	2010	15:55	24	18.14	31.44	11.95	31.73	5
13	31	3648.7	7522.4	29	5	2010	16:07	24	18.10	31.44	12.18	31.69	4
31	32	3638.5	7504.3	29	5	2010	18:04	28	17.06	31.88	9.34	32.39	2
32	32	3638.5	7504.3	29	5	2010	18:22	28	17.06	31.88	15.22	31.91	15
33	33	3604.5	7457.4	29	5	2010	22:02	51	17.70	31.90	8.21	32.87	4
14	33	3604.2	7457.4	29	5	2010	22:17	53	17.38	31.96	8.03	32.82	3
34	34	3601.2	7450.2	29	5	2010	23:16	100	17.47	32.53	9.17	33.77	3
36	36	3558.3	7458.6	30	5	2010	2:15	54	16.87	32.01	7.84	32.93	16
37	37	3541.3	7518.6	30	5	2010	4:43	24	20.54	27.10	12.91	32.04	4
38	38	3553.7	7530.8	30	5	2010	6:43	19	18.95	30.24	17.43	31.47	3
15	39	3629.0	7537.9	30	5	2010	10:37	23	19.12	29.61	13.34	31.77	2
40	40	3641.2	7540.8	30	5	2010	12:26	22	19.41	29.46	14.58	31.58	6
41	41	3646.3	7554.7	30	5	2010	13:58	11	19.77	27.83	17.37	30.89	4
42	41	3646.1	7554.6	30	5	2010	14:08	11	18.77	29.51	16.53	30.69	2
43	42	3708.9	7526.7	30	5	2010	17:40	28	18.91	31.31	13.39	31.47	5
16	42	3708.7	7526.9	30	5	2010	17:55	28	17.98	31.27	13.41	31.47	2
44	43	3718.8	7526.8	30	5	2010	19:07	26	19.88	31.13	14.00	31.41	5
45	44	3733.9	7520.7	30	5	2010	21:02	25	18.36	30.98	14.28	31.21	3
46	45	3748.7	7508.8	30	5	2010	22:58	20	18.97	30.29	13.08	31.48	3
17	45	3749.1	7508.5	30	5	2010	23:13	22	18.89	30.23	14.21	31.05	4
47	46	3848.8	7502.9	31	5	2010	5:31	30	16.94	29.47	14.57	31.03	4
48	47	3848.6	7430.8	31	5	2010	8:19	22	15.78	31.07	11.45	31.37	3

DEL1004 ECOMON/NASA GROUND TRUTH MEASUREMENTS
May 26 - June 9, 2010

Cast #	Sta #	Lat	Long	Day	Mo	Year	Time (GMT)	Btm Depth	Sfc Temp	Sfc Salt	Btm Temp	Btm Salt	Meters from Bottom
49	47	3848.8	7430.5	31	5	2010	8:31	20	15.44	31.08	11.45	31.39	1
18	48	3900.9	7415.6	31	5	2010	10:37	28	15.77	31.27	8.34	31.87	2
50	49	3911.3	7407.1	31	5	2010	12:08	24	15.76	31.15	9.83	31.59	6
51	49	3911.1	7407.1	31	5	2010	12:16	24	15.53	31.19	11.99	31.43	12
53	50	3918.7	7414.9	31	5	2010	13:34	25	17.28	29.82	10.77	31.32	4
54	51	3941.4	7358.7	31	5	2010	16:27	24	16.43	29.97	9.09	31.33	3
19	51	3941.4	7358.3	31	5	2010	16:52	25	16.53	29.96	7.96	31.53	3
55	52	4018.6	7328.6	31	5	2010	21:37	31	16.24	31.20	9.70	31.77	5
56	52	4018.6	7328.3	31	5	2010	21:49	31	16.21	31.18	10.17	31.29	19
57	53	4026.1	7328.8	31	5	2010	22:42	24	16.19	30.97	10.79	31.34	4
20	53	4026.8	7328.9	31	5	2010	23:01	24	16.01	30.96	10.81	31.33	2
58	54	4018.7	7256.7	1	6	2010	1:52	45	15.77	31.42	6.60	32.54	4
59	54	4018.6	7256.3	1	6	2010	2:04	45	15.80	31.41	7.05	32.40	19
60	55	4013.8	7242.8	1	6	2010	3:20	57	15.46	31.55	6.48	32.76	3
61	56	4023.8	7246.6	1	6	2010	4:40	46	16.00	31.27	6.52	32.68	5
62	57	4033.8	7210.8	1	6	2010	7:40	57	15.30	31.70	6.87	32.44	3
63	58	4058.6	7154.9	1	6	2010	10:40	24	13.33	30.52	12.20	30.88	3
21	58	4058.6	7154.6	1	6	2010	10:55	25	13.24	30.52	12.49	30.76	3
64	59	4048.6	7143.5	1	6	2010	12:25	58	15.27	31.56	6.88	32.49	4
65	59	4048.4	7143.6	1	6	2010	12:34	58	15.24	31.56	13.17	31.77	46
22	60	4029.8	7109.9	1	6	2010	16:07	77	14.47	32.37	6.92	33.00	1
66	61	4013.8	7041.0	1	6	2010	19:52	122	15.68	33.64	12.70	35.47	3
23	62	4021.2	7013.1	1	6	2010	22:31	85	12.84	32.35	7.57	33.30	2
67	63	4023.8	7005.0	1	6	2010	23:40	79	14.06	32.42	7.39	32.79	4
69	64	4031.1	6934.8	2	6	2010	2:55	67	11.47	32.14	8.53	32.60	4
70	64	4030.7	6934.9	2	6	2010	3:07	68	11.50	32.12	8.84	32.55	34
71	65	4048.9	6924.5	2	6	2010	5:15	48	10.15	31.74	9.69	31.84	4
72	65	4048.5	6923.9	2	6	2010	5:55	50	10.51	31.64	9.67	31.86	11
73	66	4053.4	6900.6	2	6	2010	8:49	83	9.56	32.11	9.85	32.50	7
74	67	4033.6	6842.9	2	6	2010	11:46	67	10.97	32.40	7.66	32.50	3
75	68	4023.9	6908.6	2	6	2010	14:23	85	11.60	32.40	7.28	32.67	5

DEL1004 ECOMON/NASA GROUND TRUTH MEASUREMENTS

May 26 - June 9, 2010

Cast #	Sta #	Lat	Long	Day	Mo	Year	Time (GMT)	Btm Depth	Sfc Temp	Sfc Salt	Btm Temp	Btm Salt	Meters from Bottom
76	69	4008.8	6906.9	2	6	2010	16:07	131	12.22	32.38	12.40	35.34	8
77	69	4008.6	6908.6	2	6	2010	16:31	129	11.80	32.31	11.99	35.33	2
78	70	4013.9	6818.7	2	6	2010	20:58	240	16.96	34.72	11.44	35.45	41
24	70	4014.8	6819.2	2	6	2010	21:37	203	16.76	34.70	11.11	35.43	3
25	71	4020.5	6817.9	2	6	2010	22:30	143	12.24	32.56	12.56	35.53	2
79	72	4036.1	6814.7	3	6	2010	0:34	93	12.21	32.34	7.29	32.83	4
80	73	4053.7	6826.6	3	6	2010	2:49	54	10.71	32.45	10.71	32.45	4
81	74	4058.9	6804.8	3	6	2010	4:55	52	10.60	32.45	10.56	32.45	4
82	74	4059.2	6804.7	3	6	2010	5:04	52	10.58	32.45	10.56	32.45	26
83	75	4058.8	6754.7	3	6	2010	6:03	57	10.23	32.41	9.73	32.41	2
84	76	4056.3	6750.8	3	6	2010	6:40	60	10.63	32.36	8.28	32.42	4
85	77	4039.0	6706.9	3	6	2010	10:34	132	10.41	32.09	11.03	34.70	5
26	77	4038.4	6707.0	3	6	2010	11:04	139	10.40	32.08	11.04	34.69	3
86	78	4046.3	6658.5	3	6	2010	12:34	106	10.04	32.17	7.84	33.25	5
87	79	4051.2	6706.7	3	6	2010	13:34	92	10.79	32.26	7.33	32.81	5
88	80	4101.2	6706.8	3	6	2010	14:49	71	10.36	32.20	7.47	32.41	4
89	80	4101.0	6706.9	3	6	2010	15:00	72	10.21	32.21	9.73	32.26	58
27	81	4058.9	6650.5	3	6	2010	16:34	77	9.63	32.26	7.28	32.76	2
90	82	4057.4	6628.7	3	6	2010	18:37	301	12.87	32.72	11.54	35.47	86
91	83	4123.8	6616.7	3	6	2010	21:46	105	10.19	32.08	9.08	33.98	4
28	83	4123.2	6616.4	3	6	2010	22:07	107	10.17	32.08	9.15	34.04	2
92	84	4126.0	6607.1	3	6	2010	23:07	130	10.01	32.06	11.34	35.09	3
93	85	4138.7	6606.6	4	6	2010	0:56	103	10.14	32.03	6.84	32.81	6
94	86	4141.4	6606.7	4	6	2010	1:40	98	9.68	31.84	7.00	32.56	3
95	86	4140.7	6606.5	4	6	2010	1:53	98	9.66	31.99	7.21	32.44	64
96	87	4213.6	6546.0	4	6	2010	5:55	224	10.65	32.28	9.96	35.26	21
29	87	4213.9	6546.3	4	6	2010	6:22	224	10.64	32.27	7.15	35.07	2
97	88	4216.2	6556.7	4	6	2010	7:30	235	9.99	32.23	8.30	35.14	33
30	88	4215.9	6557.1	4	6	2010	7:58	234	10.00	32.24	8.13	35.11	1
98	89	4208.9	6622.2	4	6	2010	10:40	168	11.16	31.78	10.03	34.97	2
31	89	4208.4	6621.9	4	6	2010	11:04	153	11.17	31.77	9.84	34.79	4

DEL1004 ECOMON/NASA GROUND TRUTH MEASUREMENTS
May 26 - June 9, 2010

Cast #	Sta #	Lat	Long	Day	Mo	Year	Time (GMT)	Btm Depth	Sfc Temp	Sfc Salt	Btm Temp	Btm Salt	Meters from Bottom
99	90	4158.6	6644.9	4	6	2010	13:37	74	10.24	32.12	8.76	32.23	3
100	91	4148.8	6650.8	4	6	2010	14:49	68	9.05	32.23	8.75	32.22	3
101	91	4148.9	6651.0	4	6	2010	15:01	69	9.06	32.23	8.77	32.21	55
102	92	4146.3	6626.9	4	6	2010	17:12	78	10.09	32.13	8.07	32.26	7
32	92	4146.2	6627.6	4	6	2010	17:30	79	9.88	32.09	8.08	32.26	3
103	93	4131.4	6640.6	4	6	2010	19:40	78	10.22	32.27	8.05	32.25	13
104	94	4123.7	6700.6	4	6	2010	21:42	65	10.45	32.26	8.30	32.27	4
33	94	4123.4	6700.3	4	6	2010	21:55	65	9.56	32.23	8.22	32.28	2
105	95	4126.0	6728.6	5	6	2010	0:36	42	10.91	32.32	10.92	32.33	5
107	97	4126.4	6752.7	5	6	2010	3:30	40	11.18	32.31	11.18	32.32	5
108	98	4133.8	6808.7	5	6	2010	5:04	26	11.21	32.33	11.21	32.33	4
109	99	4116.4	6814.7	5	6	2010	7:22	43	11.25	32.42	11.22	32.42	3
110	100	4121.3	6834.8	5	6	2010	9:06	78	11.91	32.14	7.79	32.34	2
34	101	4120.0	6850.9	5	6	2010	10:46	127	12.25	32.04	5.54	32.74	3
111	102	4121.2	6908.8	5	6	2010	12:28	156	13.75	31.77	5.72	32.88	4
112	102	4120.6	6908.9	5	6	2010	12:46	154	13.75	31.77	12.99	31.77	142
113	103	4116.2	6930.5	5	6	2010	14:58	26	9.73	31.81	9.45	31.86	6
114	104	4131.4	6940.8	5	6	2010	16:52	29	13.54	31.11	6.44	31.75	4
35	104	4131.5	6940.6	5	6	2010	17:04	30	13.45	31.13	6.44	31.77	4
115	105	4211.2	6928.8	5	6	2010	21:23	207	13.44	31.54	7.15	33.78	6
36	105	4210.5	6928.9	5	6	2010	21:53	206	13.44	31.54	7.12	33.77	4
116	106	4230.4	6940.3	6	6	2010	0:25	253	15.16	31.05	7.15	33.79	51
37	106	4229.7	6940.3	6	6	2010	0:52	260	15.13	31.04	7.99	34.21	8
117	107	4226.2	6854.9	6	6	2010	4:52	226	14.22	31.57	8.45	34.49	25
38	107	4225.8	6854.3	6	6	2010	5:22	221	14.23	31.57	8.67	34.66	2
118	108	4203.6	6900.3	6	6	2010	8:15	147	13.20	31.35	5.56	32.81	4
120	109	4149.1	6852.8	6	6	2010	10:25	160	13.59	31.41	6.94	33.57	4
39	109	4148.8	6852.4	6	6	2010	10:49	155	13.59	31.41	6.90	33.55	2
121	110	4148.7	6748.9	6	6	2010	15:58	35	12.41	32.06	10.20	32.25	5
40	110	4148.4	6748.8	6	6	2010	16:15	36	12.46	32.05	10.26	32.25	4
122	111	4156.3	6744.6	6	6	2010	17:19	46	11.94	32.03	8.11	32.30	5

DEL1004 ECOMON/NASA GROUND TRUTH MEASUREMENTS
May 26 - June 9, 2010

Cast #	Sta #	Lat	Long	Day	Mo	Year	Time (GMT)	Btm Depth	Sfc Temp	Sfc Salt	Btm Temp	Btm Salt	Meters from Bottom
123	111	4156.3	6744.3	6	6	2010	17:34	45	12.02	32.01	10.68	31.91	31
124	112	4213.9	6746.6	6	6	2010	19:25	233	12.40	31.77	9.51	34.99	8
125	113	4216.4	6740.8	6	6	2010	20:27	236	11.85	31.81	9.38	35.17	35
126	114	4232.6	6741.8	6	6	2010	22:46	219	10.69	31.93	10.37	35.05	18
127	115	4256.3	6704.8	7	6	2010	2:54	241	9.80	32.15	9.90	35.12	40
128	116	4301.2	6718.7	7	6	2010	4:55	240	9.37	31.99	9.70	35.05	37
129	117	4316.3	6728.9	7	6	2010	7:13	201	9.69	32.31	9.31	34.73	7
130	118	4336.1	6715.1	7	6	2010	10:13	183	9.99	31.91	8.23	34.12	7
131	119	4403.7	6650.7	7	6	2010	14:30	156	10.01	32.00	7.08	33.45	4
41	119	4403.3	6651.8	7	6	2010	14:58	156	10.01	32.00	7.10	33.46	2
132	120	4413.8	6714.9	7	6	2010	17:17	187	9.88	32.18	7.63	33.79	4
42	120	4413.8	6715.7	7	6	2010	17:49	192	9.80	32.14	7.66	33.82	3
133	121	4406.5	6714.7	7	6	2010	19:22	183	10.54	32.11	7.68	33.86	5
43	122	4400.2	6745.6	7	6	2010	22:32	199	10.51	32.26	7.93	34.04	5
134	123	4358.7	6754.7	7	6	2010	23:43	141	10.17	32.15	7.34	33.63	4
135	124	4401.1	6818.6	8	6	2010	2:04	96	9.92	31.60	6.62	32.28	3
136	125	4321.3	6824.8	8	6	2010	6:04	192	12.19	31.69	7.09	33.60	4
137	126	4323.9	6741.9	8	6	2010	9:46	251	10.30	32.12	8.42	34.22	46
44	126	4324.1	6741.8	8	6	2010	10:55	250	10.37	32.11	8.92	34.52	5
138	127	4308.8	6754.5	8	6	2010	13:21	202	11.85	31.75	7.67	33.88	6
45	127	4308.8	6755.1	8	6	2010	13:46	201	11.84	31.74	7.63	33.86	4
46	128	4253.8	6809.6	8	6	2010	16:04	169	12.52	31.73	7.17	33.63	3
139	129	4241.3	6819.8	8	6	2010	17:51	204	12.98	31.83	9.12	34.57	8
47	130	4311.6	6855.4	8	6	2010	22:34	166	13.66	31.52	7.23	33.70	5
140	131	4323.6	6908.8	9	6	2010	0:28	101	13.61	31.51	5.25	32.50	14
141	132	4341.1	6938.7	9	6	2010	3:25	70	12.89	30.82	5.02	32.05	5
142	132	4341.1	6939.3	9	6	2010	3:40	86	12.77	30.82	5.64	31.73	43
143	133	4313.9	6942.8	9	6	2010	6:22	120	13.95	31.25	5.10	32.60	5
144	134	4311.3	6950.6	9	6	2010	7:13	179	14.21	30.85	7.00	33.70	5
145	135	4316.3	7004.9	9	6	2010	8:46	151	13.62	30.49	5.66	32.91	6
48	136	4301.3	7005.9	9	6	2010	10:37	129	14.97	30.78	4.61	32.43	2

DEL1004 ECOMON/NASA GROUND TRUTH MEASUREMENTS
May 26 - June 9, 2010

Cast #	Sta #	Lat	Long	Day	Mo	Year	Time (GMT)	Btm Depth	Sfc Temp	Sfc Salt	Btm Temp	Btm Salt	Meters from Bottom
146	137	4256.3	7005.1	9	6	2010	11:28	83	14.81	30.96	4.59	32.26	8
147	138	4256.5	7015.1	9	6	2010	12:23	184	14.50	30.74	5.16	32.68	8
148	139	4248.7	7010.7	9	6	2010	13:31	79	14.79	30.81	4.67	32.17	5
149	140	4240.7	7027.0	9	6	2010	15:08	50	15.07	30.72	4.54	31.97	3
49	141	4238.5	7031.7	9	6	2010	15:56	71	14.97	30.57	4.51	31.98	3
150	142	4225.3	7036.4	9	6	2010	17:42	87	15.60	30.57	4.63	32.11	4
50	143	4220.9	7036.8	9	6	2010	18:45	70	15.67	30.56	4.59	31.93	2
151	144	4211.2	7038.4	9	6	2010	20:02	22	13.79	30.81	7.01	31.41	5
152	145	4156.4	7012.4	9	6	2010	22:36	33	17.98	30.51	5.19	31.58	5
153	146	4151.0	7021.9	9	6	2010	23:52	30	15.53	30.65	5.69	31.54	4

data in bold are from 9/11+CTD (s/n 0420)