With Strobe

MOCNESS DATA SHEET

35 ↓ 65 75 ↓ 110

Cruise EN487 Location Gulf of Maine Tow # M-01-001

Date 1 Nov 2010 Wind Speed 22 Kts Direction NNW

Year/Day 305 Sea State Rough 4-8'

Local Time 1330 to 1446 Start Lat 42 4.55 Long -67 47.465

GMT Time 1730 to 1846 End Lat 42 3.005 Long -67 48.351

Net Size 1.0 m Net Condition Good

Net Mesh 335 µm

Strobe On 40 ms 99 hz 1000 ms

Processed Filename M_01_001.pro Raw Filename M_01_001.raw

NET TOW INFORMATION

	Time Open	Depth (m)	Angle	Flow Counts	Volume Filtered	MWO Net	Comments
Start	1336	0			See Revised -1005.0 Volumes		in the water
Net 0 Down		188.2					
Net 1	~1350	108			236		NR
Net 2	1359	163.9			219	255	NR
Net 3	1406	141.8			268	209	NR
Net 4	1415	115			139	.157	NR → after hit incorrect net #
Net 5	1419	100			244	149	NR
Net 6	1427	74			175	127	NO NR → incremented manually then at 61 m NR kicked in
Net 7	1431	47.7			227	87	NR
Net 8	1437	24			266	40	NR
Closed	1444	0				-9	NR

set depths to be right in mill layer

COMMENTS: One net open when reached surface.

1 Nov 2010 PHW

— Post process to fix fact got Net response after giving an "increment net" command. Apparently bars were hanging up on the net response mechanism. So I modified the "M-01-001.raw" file by taking out the "increment-net" lines which get written to file when command given. This should correct for when net bar really dropped past the response mechanism but not for fact two nets were open for a while. Need to determine what the mouth opening was for each net when both open for a while.

→ new raw ~~file~~ = M-1-001.raw
new pro ~~file~~ = M-1-001.pro

Net	uncorrected ~~Volume~~	
0	1532 need correcting	
1	236	
2	219	
3	276 − 7.5 = 268	~~These are~~ corrected volumes
4	131.0 + 7.5 = 138.5	
5	289 − 45.8 = 244.2 m^3	These are corrected volumes
6	129 + 45.8 = 174.8 m^3	
7	227	
8	271	

These used in further corrections Next pg PHW 12 Nov 2010

289
268
21

PHW

Revised Volumes 17 Nov 2010

Tow: M-01-001 EN487
Date: 1 Nov 2010
Temperature Probe # 5164 Conductivity Probe # 3613 Pressure Probe # 169
Flow Meter Calibration 6.41 (m/count)

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	001.6	185.4	096.9	06.6	12.2	09.3	06.6	12.2	09.3	32.10	34.98	33.33
1	164.5	189.4	179.4	08.5	08.6	08.5	08.5	08.5	08.5	34.71	34.98	34.91
2	148.0	163.4	158.4	08.3	08.5	08.5	08.3	08.5	08.4	34.15	34.68	34.56
3	115.0	147.3	131.4	07.5	08.3	07.7	07.5	08.3	07.7	33.57	34.18	33.81
4	099.7	117.7	108.1	07.5	08.9	08.3	07.5	08.9	08.2	33.40	33.62	33.49
5	061.0	099.2	082.0	06.7	09.1	07.9	06.7	09.1	07.8	32.39	33.53	32.99
6	048.5	061.4	057.8	08.8	09.5	09.1	08.8	09.5	09.1	32.31	32.57	32.54
7	023.0	047.9	035.8	09.7	12.3	11.4	09.7	12.3	11.4	32.14	32.46	32.34
8	-000.7	022.5	011.3	07.7	12.3	12.1	07.7	12.3	12.1	00.49	33.00	31.22

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	24.30	27.17	25.76	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
1	26.98	27.18	27.12	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
2	26.56	26.95	26.86	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
3	26.22	26.62	26.39	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
4	25.91	26.26	26.05	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
5	25.19	26.03	25.71	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
6	25.04	25.21	25.19	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
7	24.34	25.02	24.63	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
8	00.25	25.16	23.63	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

net#	irrmin	irrmax	irravg
0	0.000000000	0.000000000	0.000000000
1	0.000000000	0.000000000	0.000000000
2	0.000000000	0.000000000	0.000000000
3	0.000000000	0.000000000	0.000000000
4	0.000000000	0.000000000	0.000000000
5	0.000000000	0.000000000	0.000000000
6	0.000000000	0.000000000	0.000000000
7	0.000000000	0.000000000	0.000000000
8	0.000000000	0.000000000	0.000000000

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	36.0	75.0	52.4	00.8	76.3	03.9	-20.4	00.6	-11.6	00239	01756
1	45.0	79.0	52.0	01.2	02.3	01.8	-13.2	11.9	02.7	00104	00327
2	36.0	55.0	42.7	00.8	01.9	01.4	-08.0	12.6	02.1	00104	00301
3	30.0	51.0	39.4	01.2	01.9	01.4	-12.8	21.2	03.8	00127	00382
4	31.0	46.0	39.3	00.8	01.6	01.2	-05.4	15.7	03.8	00067	00181
5	41.0	61.0	49.5	01.6	02.3	01.9	-01.6	12.2	04.6	00117	00403
6	46.0	61.0	51.5	01.6	02.3	01.9	-02.7	14.0	03.2	00055	00178
7	46.0	63.0	51.4	01.6	02.7	02.2	-04.8	13.4	04.5	00085	00317
8	26.0	80.0	55.9	00.4	03.1	02.2	-03.5	11.7	03.3	00114	00377

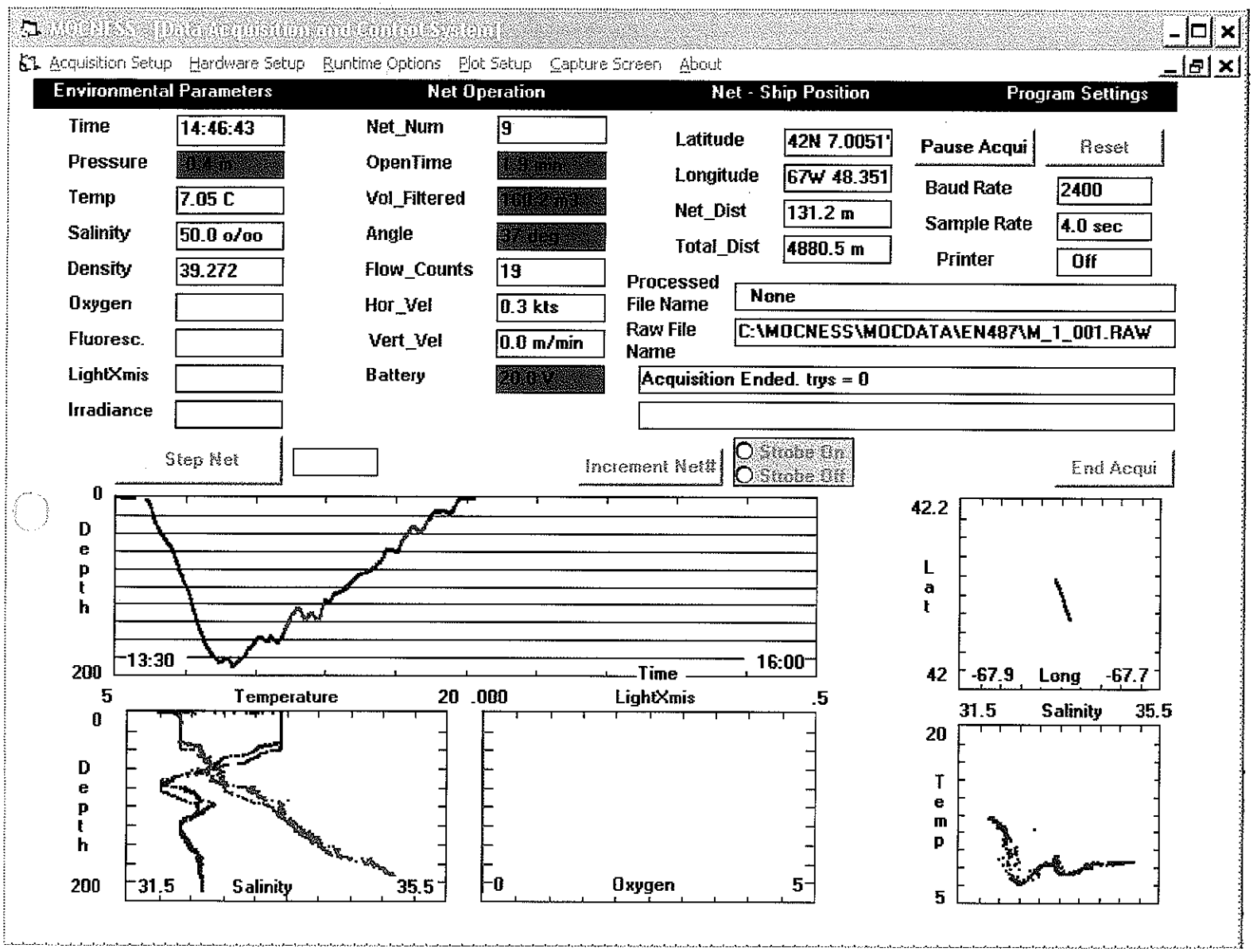
net#	Yearday/Time	hh:mm:ss (NetOpenTime)	pmin	pmax	pavg	#obs	vol
0	305.567049	13:36:33	001.6	185.4	096.9	00239	01756
1	305.578194	13:52:35	164.5	189.4	179.4	00104	00327
2	305.583079	13:59:38	148.0	163.4	158.4	00104	00301
3	305.587951	14:6:38	115.0	147.3	131.4	00127	~~00382~~ → 371
4	305.593900	14:15:12	099.7	117.7	108.1	00067	~~00181~~ → 192
5	305.597060	14:19:45	061.0	099.2	082.0	00117	~~00403~~ → 339
6	305.602546	14:27:39	048.5	061.4	057.8	00055	~~00178~~ → 242
7	305.605150	14:31:24	023.0	047.9	035.8	00085	00317
8	305.609144	14:37:10	-000.7	022.5	011.3	00114	00377
9	305.614491	14:44:52					

further correction based on Notes from previous page

- Increase in Volume = 1,387?

1 Nov 2010 PdW

Corrected Plot



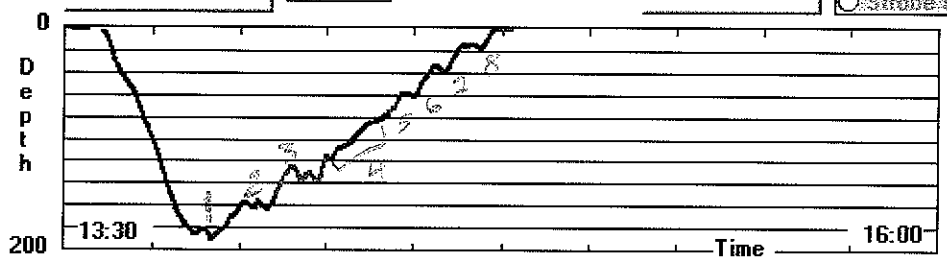
Original plot

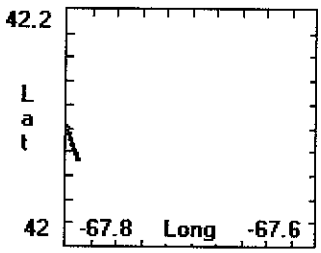
MOCNESS - Data Acquisition and Control System

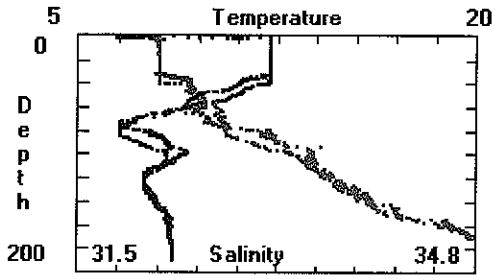
Acquisition Setup | Hardware Setup | Runtime Options | Plot Setup | Capture Screen | About

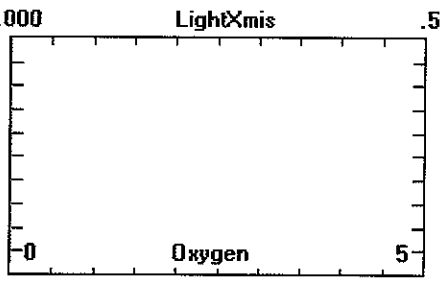
Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	14:46:44	Net_Num	11	Latitude	42N 7.0051'	Pause Acqui	Reset
Pressure	0.4 m	OpenTime	1.9 min	Longitude	67W 48.351	Baud Rate	2400
Temp	7.05 C	Vol_Filtered	160.2 m3	Net_Dist	131.2 m	Sample Rate	4.0 sec
Salinity	50.0 o/oo	Angle	37 deg	Total_Dist	4880.8 m	Printer	Off
Density	39.272	Flow_Counts	19				
Oxygen		Hor_Vel	0.3 kts	Processed File Name	C:\MOCNESS\MOCDATA\EN487\M_01_001.PRO		
Fluoresc.		Vert_Vel	0.0 m/min	Raw File Name	C:\MOCNESS\MOCDATA\EN487\M_01_001.raw		
LightXmis		Battery	20.0 V	Unable to contact U/W at 300 Baud			
Irradiance							

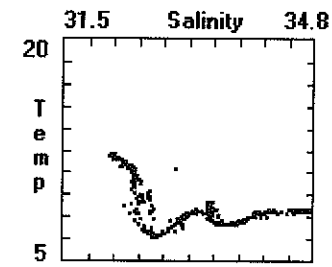
Step Net | Increment Net# | Strobe On | Strobe Off | End Acqui











With strobe

MOCNESS DATA SHEET

Cruise EN487 Location Gulf of Maine Tow # M_01_002

Date 1 Nov Wind Speed 20 Kts Direction NNW

Year/Day 305 Sea State Rough 5-8'

305,8 44,109 → in the water

Local Time 2016 to 2129 Start Lat 42.0622 Long -67.7827

GMT +4 Time 0016 to 0129 End Lat 42 5.99 Long -67 48.01

20 15 31

Net Size 1 m² Net Condition Good

Net Mesh 335 µm

Processed Filename M01_002.pro Raw Filename M01_002.raw

NET TOW INFORMATION

	Time Open	Depth (m)	Angle	Flow Counts	Volume Filtered	MWO Net	Comments
Start		0					
Net 0 Down	189	189.5			See Revised 1229 Values 471 ~~458~~	385	
Net 1		189.5			230		NR
Net 2	2045	163.2			214	315	NR
Net 3	2051	148.7			232	315	NR
Net 4	2057	115.3			250	254	NR
Net 5	2106	101.1			190	221	NR
Net 6	2110	~~74.1~~			274	157	NR
Net 7	2119	45.3			186	65	NR
Net 8	2123	23.5			207	20	NR
Closed	2129	0				-24	NR

flyer PHW

COMMENTS: Strobe 2ms pulse length, 99% amplitude 1000ms interval

This was a very nice tow - Everything worked except I touched the bottom with net zero! Got a bucket of mud & one small octopus alive!

Tow: M-01-002 EN487
Date: 1 Nov 2010
Temperature Probe # 5164 Conductivity Probe # 3613 Pressure Probe # 169
Flow Meter Calibration 6.41 (m/count)

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-001.0	189.5	084.9	07.0	12.2	08.8	07.0	12.2	08.8	00.00	50.00	34.91
1	163.2	189.8	178.5	08.5	08.6	08.5	08.5	08.5	08.5	34.87	34.97	34.95
2	148.7	163.0	156.9	08.5	08.6	08.5	08.4	08.6	08.5	34.53	34.86	34.80
3	115.3	151.5	136.5	07.6	08.7	08.2	07.6	08.7	08.1	33.51	34.63	34.06
4	101.1	114.5	107.2	06.7	08.1	07.4	06.7	08.1	07.4	32.92	33.58	33.19
5	074.1	099.7	086.4	06.7	08.5	07.5	06.7	08.5	07.5	32.26	32.85	32.69
6	045.3	072.8	060.1	08.5	12.3	10.2	08.5	12.3	10.2	32.10	32.63	32.48
7	023.5	047.6	040.4	12.0	12.3	12.2	12.0	12.3	12.2	32.18	32.24	32.19
8	-000.4	023.0	012.0	11.4	12.3	12.2	11.4	12.3	12.2	26.81	32.38	32.07

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-00.17	39.10	27.08	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
1	27.09	27.17	27.16	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
2	26.82	27.09	27.05	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
3	26.09	26.91	26.51	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
4	25.81	26.17	25.94	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
5	25.13	25.75	25.53	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
6	24.30	25.33	24.95	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
7	24.35	24.44	24.37	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
8	20.34	24.56	24.27	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

net#	irrmin	irrmax	irravg
0	0.000000000	0.000000000	0.000000000
1	0.000000000	0.000000000	0.000000000
2	0.000000000	0.000000000	0.000000000
3	0.000000000	0.000000000	0.000000000
4	0.000000000	0.000000000	0.000000000
5	0.000000000	0.000000000	0.000000000
6	0.000000000	0.000000000	0.000000000
7	0.000000000	0.000000000	0.000000000
8	0.000000000	0.000000000	0.000000000

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	28.0	80.0	50.8	00.0	15.6	02.1	-18.6	04.9	-07.1	00398	01647
1	48.0	71.0	53.3	01.6	02.3	02.0	-08.0	10.7	03.6	00097	00320
2	50.0	62.0	53.9	01.6	02.7	02.1	-01.6	08.6	02.6	00085	00295
3	54.0	65.0	58.4	01.9	03.1	02.5	-04.9	13.2	05.3	00092	00327
4	60.0	74.0	66.4	01.9	02.7	02.3	-03.7	09.3	01.7	00127	00345
5	57.0	66.0	59.6	02.3	03.1	02.7	-02.9	10.1	05.5	00071	00267
6	48.0	72.0	56.9	01.2	02.7	02.1	-06.2	12.4	03.7	00120	00382
7	45.0	61.0	49.9	01.9	02.3	02.1	-02.7	11.9	04.2	00070	00258
8	37.0	69.0	50.2	00.8	02.7	02.0	-04.1	13.6	04.4	00088	00289

net#	Yearday/Time	hh:mm:ss (NetOpenTime)	pmin	pmax	pavg	#obs	vol
0	305.837558	20:6:5	-001.0	189.5	084.9	00398	~~01647~~
1	305.860463	20:39:4	163.2	189.8	178.5	00097	00320
2	305.865023	20:45:37	148.7	163.0	156.9	00085	00295
3	305.869016	20:51:22	115.3	151.5	136.5	00092	00327
4	305.873333	20:57:35	101.1	114.5	107.2	00127	00345
5	305.879282	21:6:9	074.1	099.7	086.4	00071	00267
6	305.882627	21:10:58	045.3	072.8	060.1	00120	00382
7	305.888252	21:19:4	023.5	047.6	040.4	00070	00258
8	305.891551	21:23:50	-000.4	023.0	012.0	00088	00289
9	305.895683	21:29:47					

1647
− 646
1001 m^3

Acquisition Setup | Hardware Setup | Runtime Options | Plot Setup | Capture Screen | About

Environmental Parameters

Time	21:30:08
Pressure	0.4 m
Temp	11.56 C
Salinity	30.15 o/oo
Density	22.906
Oxygen	
Fluoresc.	
LightXmis	
Irradiance	

Net Operation

Net_Num	9
OpenTime	0.4 min
Vol_Filtered	3.1 m3
Angle	69 deg
Flow_Counts	1
Hor_Vel	0.6 kts
Vert_Vel	0.0 m/min
Battery	20.0 V

Net - Ship Position

Latitude	42N 5.9948'
Longitude	67W 48.008
Net_Dist	30.3 m
Total_Dist	4762.3 m

Program Settings

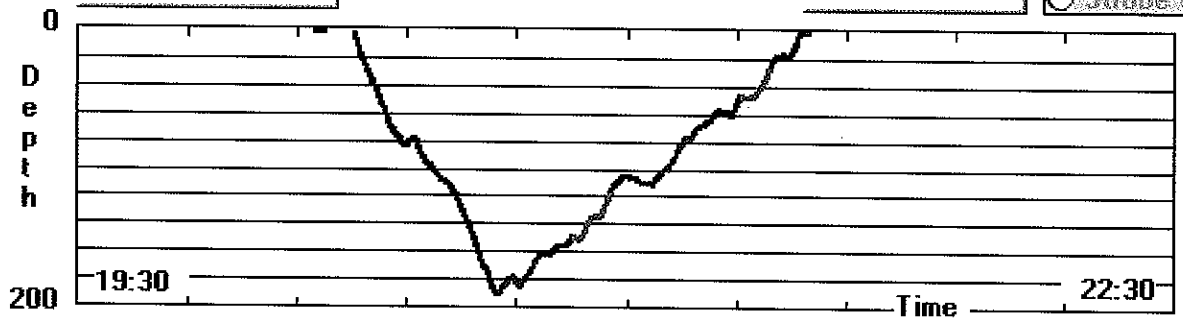
Pause Acqui | Reset

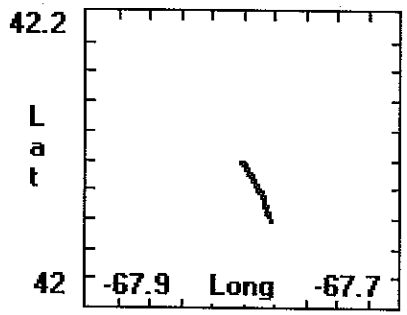
Baud Rate	2400
Sample Rate	4.0 sec
Printer	Off

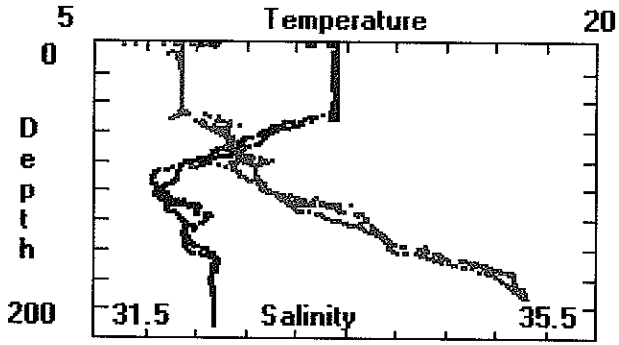
Processed File Name	C:\MOCNESS\MOCDATA\EN487\M_01_002.PRO
Raw File Name	C:\MOCNESS\MOCDATA\EN487\M_01_002.raw

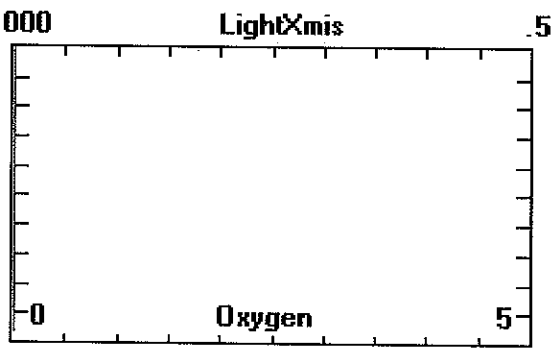
Acquisition Ended. trys = 0

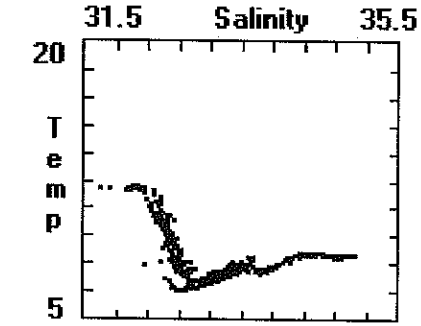
Step Net | Increment Net# | Strobe On | Strobe Off | End Acqui











Using U/W unit #124 No Strobe Recorder PHW

MOCNESS DATA SHEET

Cruise EN487 Location Franklin Basin Gulf of Maine Tow # M-01-003

Date 2 Nov 2010 Wind Speed 15 Kts Direction North

Year/Day 306 Sea State Mod 4-6' wind 10-12 Kts

Local Time 2149 to 2311 Start Lat 42.0622 Long -67.7827

GMT Time 0149 to 0311 End Lat 42.0999 Long -67.8001

Net Size 1 m^2 Net Condition Good
Net Mesh 335 µm

Processed Filename M_01_003.pro Raw Filename M_01_003.raw

U/W #169 strobe failed to ~~Tow yo to test strobe light~~
Work - Doing different tow ~~Random sequence 0 1 1 0 1 0 0 1~~
~~0=off 1=on~~

NET TOW INFORMATION

	Time Open	Depth (m)	Angle	Flow Counts	Volume Filtered	MWO Net	Comments
					See revised volumes		down at 20 m/min
Start	2149	0					
Net 0 Down	2212	190		194	869	445	NR
Net 1	2112	190		88	290	445	NR
Net 2	2219	150		129	412	378	NR
Net 3	2229	100		86	304	225	NR
Net 4	2236	50-25	V	90	330	103, 59, 99, 59	NR
Net 5	2245	50-25	V	67	276	59 98, 56	- siphonophores found in sample. NR
Net 6	2251	50-25	V	70	294	56, 98, 56	NR
Net 7	2258	50-25	V	69	293	56, 95, 54	NR
Net 8	2305	25	/	47	174	54	No NR (did increment net)
Closed		0			-5 m		No NR Bar hung up

COMMENTS: offset -5.1 m at surface. This was a very good tow all nets functioned we. There was No strobe light on the system

Ptw

New Volumes 17 Nov 2010

Tow: M-01-003 EN487
Date: 2 Nov 2010
Temperature Probe # 5164 Conductivity Probe # 3613 Pressure Probe # 124
Flow Meter Calibration 6.41 (m/count)

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-000.8	193.6	100.5	05.3	11.8	08.8	05.3	11.8	08.8	00.00	50.00	33.31
1	155.1	192.8	173.7	08.7	09.1	08.7	08.7	09.1	08.7	34.73	35.02	34.98
2	105.4	153.9	129.4	08.5	09.4	08.9	08.5	09.4	08.9	33.63	34.70	34.09
3	054.1	105.0	083.3	07.0	11.1	08.2	07.0	11.1	08.2	32.15	33.61	32.92
4	030.0	055.5	041.8	11.4	11.9	11.8	11.4	11.9	11.8	32.10	32.24	32.18
5	030.8	055.0	042.0	11.8	11.9	11.9	11.8	11.9	11.9	32.18	32.21	32.18
6	030.4	055.3	042.8	11.4	11.9	11.8	11.4	11.9	11.8	32.18	32.26	32.19
7	030.8	054.7	041.9	11.1	11.9	11.8	11.1	11.9	11.8	32.18	32.30	32.20
8	000.0	031.8	013.6	05.6	11.9	11.6	05.6	11.9	11.6	00.44	32.19	29.74

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-00.06	39.56	25.81	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
1	26.89	27.18	27.15	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
2	26.08	26.87	26.42	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
3	24.60	26.06	25.60	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
4	24.41	24.52	24.43	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
5	24.42	24.46	24.43	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
6	24.42	24.57	24.44	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
7	24.42	24.65	24.45	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
8	00.31	24.42	22.57	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

net#	irrmin	irrmax	irravg
0	0.000000000	0.000000000	0.000000000
1	0.000000000	0.000000000	0.000000000
2	0.000000000	0.000000000	0.000000000
3	0.000000000	0.000000000	0.000000000
4	0.000000000	0.000000000	0.000000000
5	0.000000000	0.000000000	0.000000000
6	0.000000000	0.000000000	0.000000000
7	0.000000000	0.000000000	0.000000000
8	0.000000000	0.000000000	0.000000000

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	00.0	62.0	49.5	00.0	206.4	06.7	-19.8	02.8	-07.9	00368	01154
1	52.0	61.0	56.9	01.9	03.1	02.7	-01.9	10.7	05.3	00102	00407
2	55.0	63.0	58.4	02.3	03.1	02.8	00.0	08.9	05.1	00146	00579
3	49.0	57.0	53.0	02.3	02.7	02.5	04.1	10.9	07.0	00106	00429
4	49.0	61.0	53.7	01.6	02.7	02.1	-10.1	13.4	02.8	00133	00458
5	48.0	55.0	50.9	01.6	02.7	02.1	-10.3	11.3	-00.1	00098	00378
6	46.0	55.0	50.2	01.6	02.3	02.0	-09.5	10.9	00.0	00106	00402
7	46.0	55.0	49.2	01.6	02.7	02.1	-08.9	10.3	00.0	00100	00401
8	22.0	62.0	48.9	00.0	02.7	02.1	-01.7	11.8	06.3	00074	00246

net#	Yearday/Time	hh:mm:ss (NetOpenTime)	pmin	pmax	pavg	#obs	vol
0	306.897454	21:32:20	-000.8	193.6	100.5	00368	01154
1	306.925289	22:12:24	155.1	192.8	173.7	00102	00407
2	306.930081	22:19:18	105.4	153.9	129.4	00146	00579
3	306.936910	22:29:9	054.1	105.0	083.3	00106	00429
4	306.941875	22:36:17	030.0	055.5	041.8	00133	00458
5	306.948102	22:45:16	030.8	055.0	042.0	00098	00378
6	306.952708	22:51:53	030.4	055.3	042.8	00106	00402
7	306.957674	22:59:3	030.8	054.7	041.9	00100	00401
8	306.962373	23:5:49	000.0	031.8	013.6	00074	00246
9	306.965903	23:10:54					

Acquisition Setup | Hardware Setup | Runtime Options | Plot Setup | Capture Screen | About

Environmental Parameters

Time	23:11:06
Pressure	5.3 m
Temp	5.66 C
Salinity	50.0 o/oo
Density	39.505
Oxygen	
Fluoresc.	
LightXmis	
Irradiance	

Net Operation

Net_Num	9
OpenTime	0.4 min
Vol_Filtered	0.0 m3
Angle	0 deg
Flow_Counts	0
Hor_Vel	0.0 kts
Vert_Vel	0.8 m/min
Battery	20.2 V

Net - Ship Position

Latitude	42N 8.3051'
Longitude	67W 48.666
Net_Dist	25.2 m
Total_Dist	4902.8 m

Program Settings

Pause Acqui | Reset

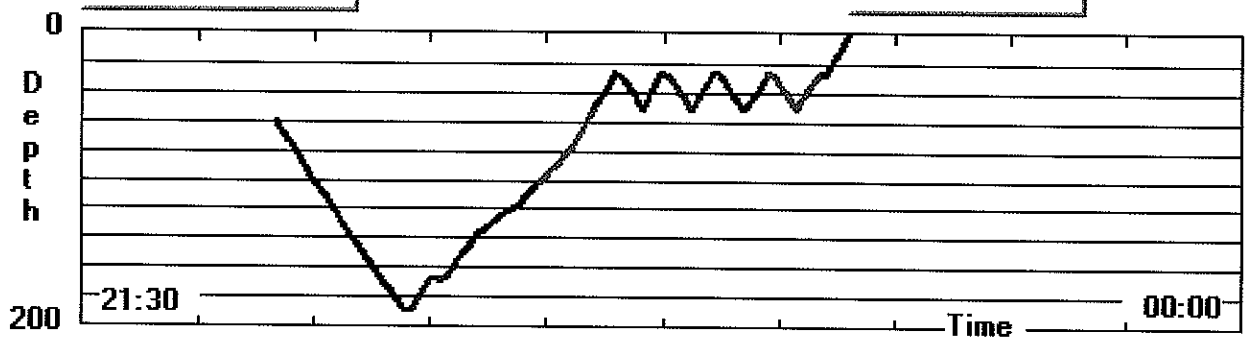
Baud Rate	2400
Sample Rate	4.0 sec
Printer	Off

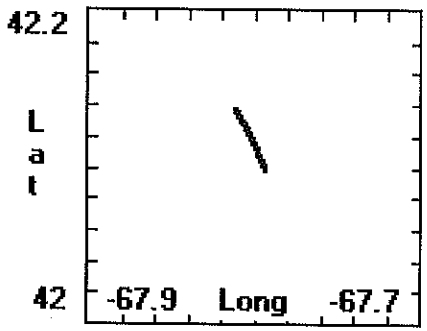
Processed File Name: C:\MOCNESS\MOCDATA\EN487\M_01_003.PRO

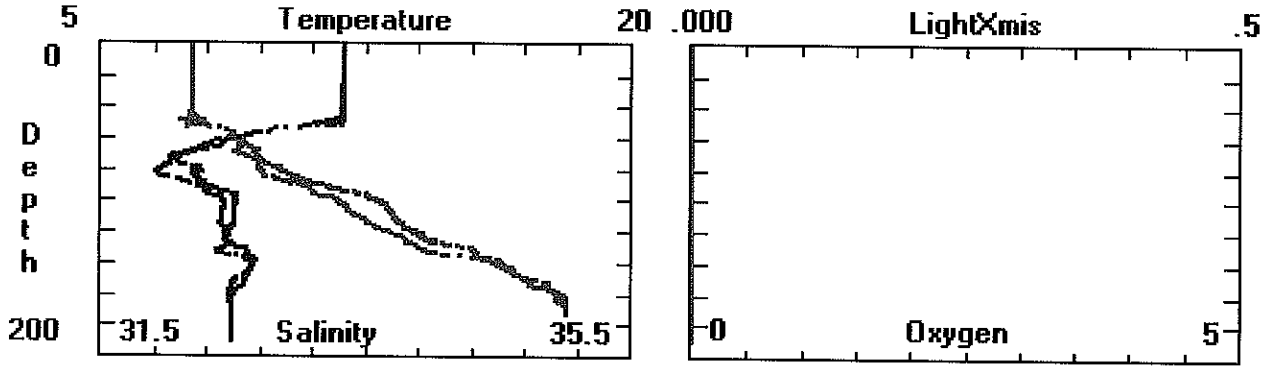
Raw File Name: C:\MOCNESS\MOCDATA\EN487\M_01_003.raw

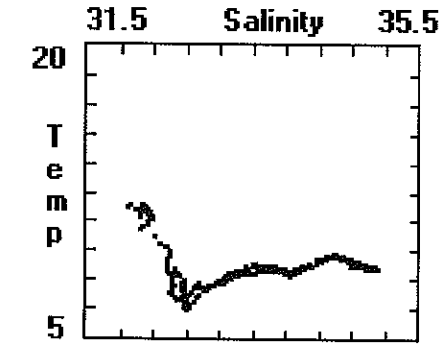
Acquisition Ended. trys = 0

Step Net | Increment Net# | End Acqui









No strobe Reorder – Garth

MOCNESS DATA SHEET

Cruise EN 487 Location Franklin Basin Gulf of Maine Tow # M-01-004

Date 3 Nov 2010 Wind Speed 3-4 Kts Direction Variable

Year/Day 307 Sea State Calm (Rozy!)

Local Time 1511 to ~1636 Start Lat 42.2331 Long -67.8467

GMT Time 1911 to 2036 End Lat 42 12.284 Long -67 46.615

Net Size 1-m² Net Condition Good
Net Mesh 335 µm

Processed Filename M-01-004. Pro Raw Filename M-01-004. Raw

Greene Bromban

NET TOW INFORMATION

	Time Open	Depth (m)	Angle	Flow Counts	Volume Filtered	MWO Net	Comments
Start	1511	0					
Net 0 Down		221		210	979	492	NR
Net 1	1536	225		106	370	522	NR
Net 2	1545	201		136	464	463	NR
Net 3	1556	150.8		76	271	316	NR
Net 4	1602	125.3		61	211	255	NR
Net 5	1607	100		91	362	202	NR
Net 6	1616	75.8		53	207	139	NR
Net 7	1621	51.0		52	221	93	NR
Net 8	1626	25		16 48 (64)	63 215 (278)	35	NO NR incremented # 1628 got net response @ 16.2m
Closed	1633	0				-2	NR at 1634:27 (Dave manually pushed bar down)

COMMENTS: No strobe on

– Net bar dropped at 16m giving response after ~~incremented net command sends #9~~ = Net 8

– also Net response came late, so flow cut off at ~0.6 m when salinities < 32‰ at 307.689884

PAD

New Volumes 17 Nov 2010

Tow: M-01-004 EN487
Date: 3 Nov 2010
Temperature Probe # 5164 Conductivity Probe # 3613 Pressure Probe # 124
Flow Meter Calibration 6.41 (m/count)

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	006.4	229.7	144.8	07.0	10.7	08.7	06.9	10.7	08.7	32.52	35.09	34.09
1	200.6	226.0	216.1	08.7	08.7	08.7	08.6	08.7	08.6	35.06	35.07	35.07
2	150.7	200.2	175.9	08.6	08.8	08.7	08.6	08.8	08.7	34.75	35.07	35.05
3	125.6	150.2	135.1	08.6	09.1	08.8	08.5	09.1	08.8	33.94	34.71	34.20
4	100.1	124.6	112.3	06.9	08.5	07.8	06.9	08.5	07.7	33.23	33.94	33.60
5	075.9	099.6	087.1	07.0	07.6	07.3	07.0	07.6	07.3	32.85	33.27	33.11
6	051.1	075.1	062.0	07.2	09.7	07.9	07.2	09.7	07.9	32.54	32.86	32.70
7	022.4	050.9	038.7	09.9	11.4	10.7	09.9	11.4	10.7	32.55	32.65	32.62
8	015.3	021.0	017.3	11.0	11.3	11.1	11.0	11.3	11.1	32.49	32.61	32.53
9	-000.8	016.5	010.3	05.5	11.1	10.4	05.5	11.1	10.4	02.82	50.00	34.18

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	24.91	27.23	26.44	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
1	27.22	27.23	27.23	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
2	26.98	27.23	27.21	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
3	26.36	26.95	26.53	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
4	26.02	26.36	26.21	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
5	25.70	26.01	25.88	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
6	25.10	25.70	25.48	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
7	24.86	25.08	24.98	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
8	24.82	24.86	24.83	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
9	02.07	39.53	26.25	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

net#	irrmin	irrmax	irravg
0	0.000000000	0.000000000	0.000000000
1	0.000000000	0.000000000	0.000000000
2	0.000000000	0.000000000	0.000000000
3	0.000000000	0.000000000	0.000000000
4	0.000000000	0.000000000	0.000000000
5	0.000000000	0.000000000	0.000000000
6	0.000000000	0.000000000	0.000000000
7	0.000000000	0.000000000	0.000000000
8	0.000000000	0.000000000	0.000000000
9	0.000000000	0.000000000	0.000000000

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	43.0	58.0	51.4	01.2	05.8	01.9	-30.3	06.6	-09.1	00363	01352
1	54.0	62.0	57.0	01.9	03.1	02.6	-02.9	08.7	02.2	00128	00511
2	54.0	58.0	56.1	02.3	03.1	02.7	02.9	06.4	04.8	00157	00649
3	53.0	57.0	54.8	02.3	03.1	02.6	-02.7	08.2	04.1	00091	00378
4	52.0	59.0	55.8	01.9	02.7	02.3	-01.9	09.7	04.5	00082	00294
5	48.0	55.0	50.8	01.9	02.7	02.3	-02.5	08.1	03.0	00124	00500
6	47.0	54.0	50.2	01.9	02.3	02.2	-01.2	09.3	04.8	00076	00289
7	43.0	51.0	45.6	01.9	02.3	02.1	02.3	08.5	05.5	00077	00307
8	45.0	48.0	46.6	01.6	02.7	02.1	-01.2	07.6	05.1	00022	00082
9	00.0	52.0	39.1	00.0	02.7	01.7	-01.2	10.7	02.7	00091	00298

net#	Yearday/Time	hh:mm:ss (NetOpenTime)	pmin	pmax	pavg	#obs	vol
0	307.633287	15:11:55	006.4	229.7	144.8	00363	01352
1	307.650718	15:37:2	200.6	226.0	216.1	00128	00511
2	307.656713	15:45:40	150.7	200.2	175.9	00157	00649
3	307.664051	15:56:14	125.6	150.2	135.1	00091	00378
4	307.668333	16:2:23	100.1	124.6	112.3	00082	00294
5	307.672187	16:7:56	075.9	099.6	087.1	00124	00500
6	307.677998	16:16:19	051.1	075.1	062.0	00076	00289
7	307.681574	16:21:27	022.4	050.9	038.7	00077	00307
8	307.685243	16:26:44	015.3	021.0	017.3	00022	[00082
9	307.686308	16:28:17	-000.8	016.5	010.3	00091	00298] = 380 m
10	307.690590	16:34:26					

Nets

Acquisition Setup | Hardware Setup | Runtime Options | Plot Setup | Capture Screen | About

Environmental Parameters

Time	16:36:11
Pressure	0.2 m
Temp	7.72 C
Salinity	50.0 o/oo
Density	39.152
Oxygen	
Fluoresc.	
LightXmis	
Irradiance	

Net Operation

Net_Num	10
OpenTime	1.8 min
Vol_Filtered	0.0 m3
Angle	85 deg
Flow_Counts	0
Hor_Vel	0.0 kts
Vert_Vel	-0.2 m/min
Battery	20.1 V

Net - Ship Position

Latitude	42N 12.224
Longitude	67W 46.615
Net_Dist	140.2 m
Total_Dist	5611.2 m

Program Settings

Pause Acqui | Reset

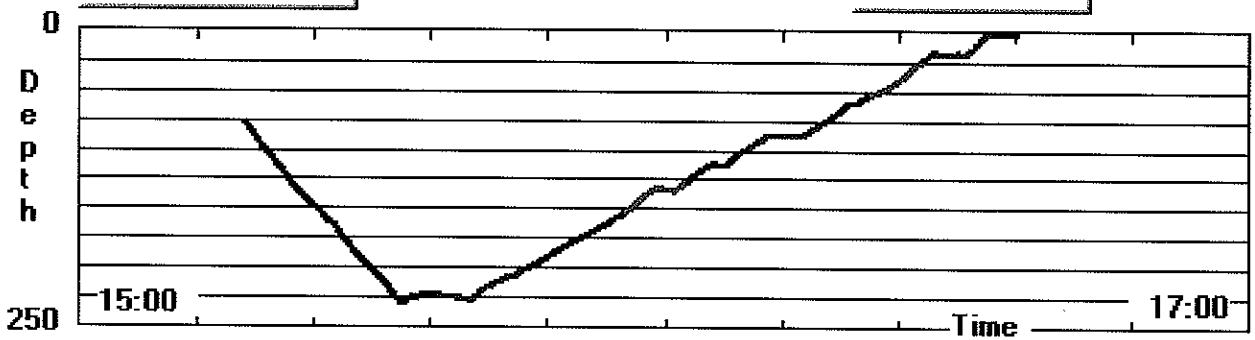
Baud Rate	2400
Sample Rate	4.0 sec
Printer	Off

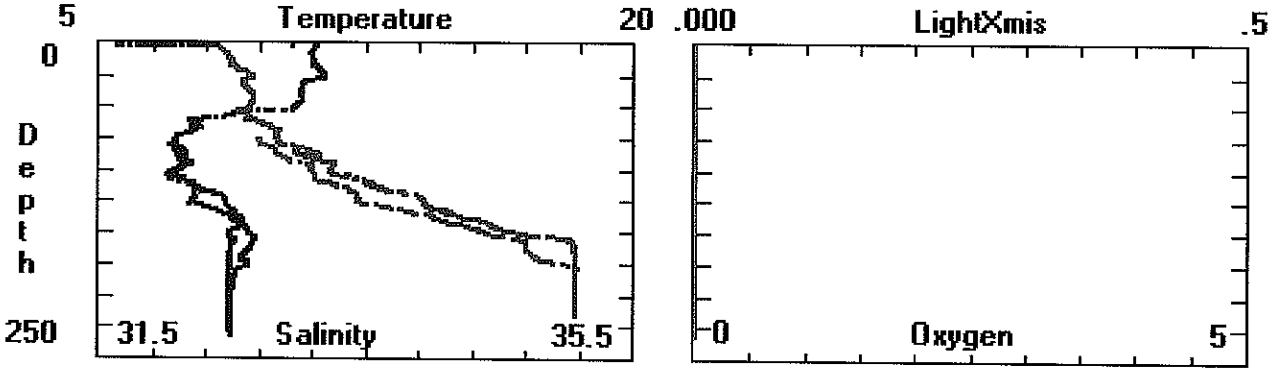
Processed File Name: C:\MOCNESS\MOCDATA\EN487\M_01_004.PRO

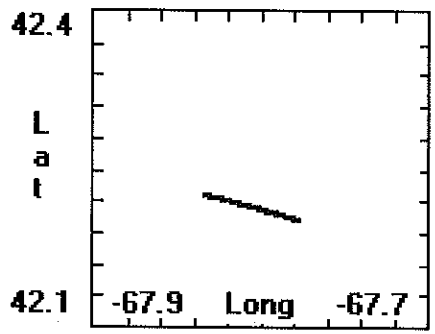
Raw File Name: C:\MOCNESS\MOCDATA\EN487\M_01_004.raw

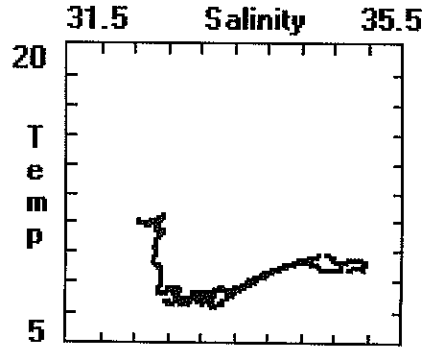
Acquisition Ended. trys = 0

Step Net | Increment Net# | End Acqui









No strobe   Flyer - PHW

MOCNESS DATA SHEET

Cruise EN 487   Location Franklin Basin Gulf of Maine   Tow # M_01-005

Date 3 Nov 2010   Wind Speed 5-10 Kts   Direction SW

Year/Day 308   Sea State Calm

Local Time 2147 to 2303   Start Lat 42.1772 Long -67.828433

GMT Time 0147 to 0303   End Lat 42 13.134 Long -67 50.682

Net Size 1-m²   Net Condition Good
Net Mesh 335 µm

Processed Filename M_01_005.pro   Raw Filename M_01_005.raw

Water depth 228 m
No strobe light

NET TOW INFORMATION

	Time Open	Depth (m)	Angle	Flow Counts	Volume Filtered	MWO Net	Comments
Start Net 0	2212	0		217	987	476	NR
Down		225					
Net 1	2212	225		82	264	476	NR
Net 2	2218	175		81	284	382	NR
Net 3	2225	150		80	292	323	NR
Net 4	2232	125		78	294	270	NR
Net 5	2239	100		70	272	208	NR
Net 6	2245	75-71		61	195	163	No NR "increment net"
Net 7	2250	50		76	235	120	No NR "increment net"
Net 8	2256	~~25~~		85	289	65	NR
Closed	2303	0				0	NR

COMMENTS: Hammerstrom & Greene Bourbon recording data
Very nice tow - Good samples!

Note: When no net response is received &
an "increment net" button is pushed
The program fails to write the array
of the summary information in the Tab file
including the volume filtered by that
net, If the button is pushed a
second time, the program does do
a correct write - Why!

PHW
New Volumes
17 Nov 2010

Tow: M-01-005 EN487
Date: 3 Nov 2010
Temperature Probe # 5164 Conductivity Probe # 3613 Pressure Probe # 124
Flow Meter Calibration 6.41 (m/count)

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-001.2	225.9	116.6	07.0	11.5	09.2	07.0	11.5	09.2	00.04	50.00	34.22
1	173.8	224.3	198.0	08.6	09.2	08.6	08.6	09.1	08.6	34.90	35.06	35.04
2	150.5	173.1	163.5	08.5	09.3	08.8	08.5	09.3	08.8	34.03	34.92	34.58
3	126.1	149.8	136.6	07.4	08.5	08.0	07.3	08.5	08.0	33.48	34.01	33.78
4	098.5	125.6	112.0	06.8	07.3	07.0	06.8	07.3	07.0	33.12	33.49	33.27
5	071.6	100.3	087.9	07.0	08.0	07.2	07.0	08.0	07.2	32.66	33.15	32.97
6	047.8	069.8	061.1	07.2	10.6	08.5	07.2	10.6	08.5	32.41	32.63	32.55
7	025.1	046.8	037.5	10.6	10.7	10.7	10.6	10.7	10.7	32.50	32.53	32.51
8	-000.4	024.7	013.7	10.7	10.9	10.8	10.7	10.9	10.8	32.37	32.50	32.45

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-00.13	39.11	26.47	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
1	27.03	27.24	27.21	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
2	26.44	27.02	26.82	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
3	26.17	26.43	26.32	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
4	25.93	26.19	26.06	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
5	25.57	25.96	25.79	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
6	24.92	25.52	25.26	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
7	24.88	24.92	24.90	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0
8	24.74	24.88	24.83	00.00	00.00	00.00	00.00	00.00	00.00	00.0	00.0	00.0

net#	irrmin	irrmax	irravg
0	0.000000000	0.000000000	0.000000000
1	0.000000000	0.000000000	0.000000000
2	0.000000000	0.000000000	0.000000000
3	0.000000000	0.000000000	0.000000000
4	0.000000000	0.000000000	0.000000000
5	0.000000000	0.000000000	0.000000000
6	0.000000000	0.000000000	0.000000000
7	0.000000000	0.000000000	0.000000000
8	0.000000000	0.000000000	0.000000000

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	00.0	62.0	51.1	00.0	02.7	01.7	-22.7	01.8	-08.5	00399	01302
1	52.0	58.0	55.7	01.9	03.1	02.8	00.8	11.5	08.1	00092	00376
2	54.0	59.0	56.0	02.3	02.7	02.6	-01.9	08.0	03.6	00098	00395
3	52.0	56.0	54.1	02.3	02.7	02.5	-00.8	08.2	03.7	00099	00406
4	50.0	57.0	52.7	01.9	02.7	02.2	-01.9	08.9	03.7	00111	00408
5	48.0	58.0	50.8	01.9	02.7	02.3	-02.3	09.5	04.1	00093	00378
6	55.0	61.0	58.0	02.3	03.1	02.6	-00.6	10.5	04.8	00072	00268
7	58.0	62.0	60.0	02.3	03.1	02.7	-01.2	08.5	03.9	00086	00324
8	54.0	61.0	56.6	01.9	03.1	02.8	-01.4	08.7	04.2	00095	00403

net#	Yearday/Time	hh:mm:ss (NetOpenTime)	pmin	pmax	pavg	#obs	vol
0	307.904734	21:42:49	-001.2	225.9	116.6	00399	01302
1	307.925521	22:12:45	173.8	224.3	198.0	00092	00376
2	307.929850	22:18:59	150.5	173.1	163.5	00098	00395
3	307.934444	22:25:35	126.1	149.8	136.6	00099	00406
4	307.939097	22:32:17	098.5	125.6	112.0	00111	00408
5	307.944294	22:39:46	071.6	100.3	087.9	00093	00378
6	307.948715	22:46:8	047.8	069.8	061.1	00072	00268
7	307.952153	22:51:6	025.1	046.8	037.5	00086	00324
8	307.956192	22:56:54	-000.4	024.7	013.7	00095	00403
9	307.960648	23:3:19					

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

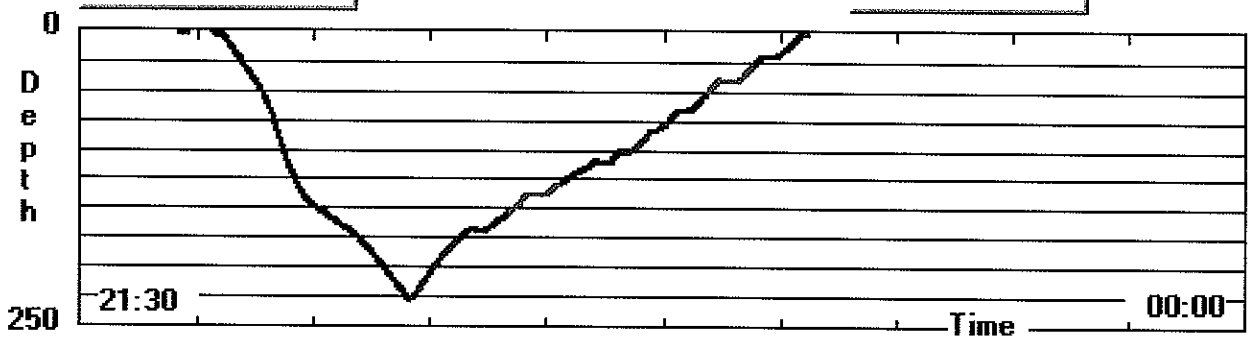
Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	23:03:44	Net_Num	9	Latitude	42N 13.134	Pause Acqui	Reset
Pressure	0.6 m	OpenTime	0.5 min	Longitude	67W 50.682	Baud Rate	2400
Temp	6.09 C	Vol_Filtered	4.5 m3	Net_Dist	29.2 m	Sample Rate	4.0 sec
Salinity	50.0 o/oo	Angle	4 deg	Total_Dist	4932.4 m	Printer	Off
Density	39.434	Flow_Counts	1				
Oxygen		Hor_Vel	0.3 kts				
Fluoresc.		Vert_Vel	0.4 m/min				
LightXmis		Battery	20.0 V				
Irradiance							

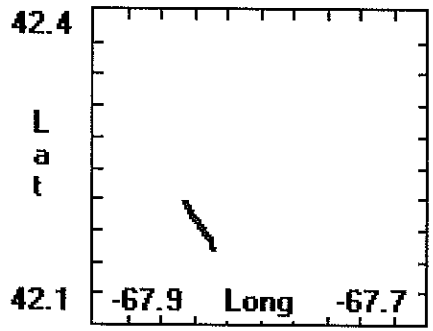
Processed File Name: C:\MOCNESS\MOCDATA\EN487\M_01_005.PRO

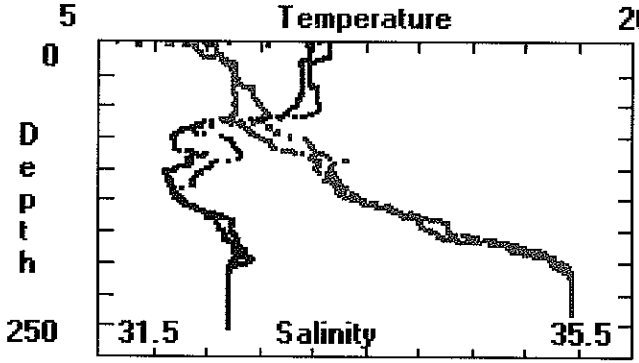
Raw File Name: C:\MOCNESS\MOCDATA\EN487\M_01_005.raw

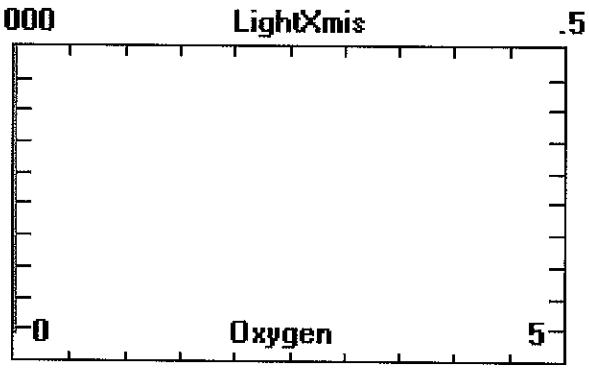
Acquisition Ended. trys = 0

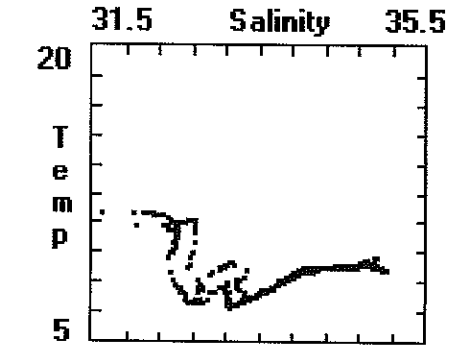
Step Net Increment Net# End Acqui











No strobe

MOCNESS DATA SHEET

Cruise SN487 Location Cape Cod Bay Tow # M_01_006

Date 5 Nov 2010 Wind Speed 18 Kts Direction South

Year/Day 309 Sea State 1-2'

Local Time 0917 to 1105 Start Lat 41.9780 Long -70.3284

GMT Time 1317 to 1505 End Lat 41 58.732 Long -70 20.130

Net Size 1-m² Net Condition Good
Net Mesh 335 µm

Processed Filename M_01_006.prd Raw Filename M_01_006.raw

See m-file that has how Pflow calibration computed

NET TOW INFORMATION

	Time Open	Depth (m)	Angle	Flow Counts	Volume Filtered	MWO Net	Comments
Start	0917	0					Time
Net 0 Down	0921	20.8		39			1002 End 437
Net 1	1023	23.3	del reset to Clear flowrate				0933 Start 156 281
Net 2							
Net 3	1105	ON Deck					
Net 4	Note: at the end of the east to west tow we snagged a lobster pot line						
Net 5							1022 Start 92
Net 6	Night flyer brought on board + cut off.						
Net 7	Checked MOCNESS by bringing to surface						
Net 8	line was strung over the top of MOCNESS						
Closed	but broke + freed itself. Tow continued for West to east run						

Flow Counts
East to West
End 437

West to East
End

COMMENTS: Flow calibration - Tow N/S Cast - end on Net zero
Water depth ~ 48 m

- First run @ 75 m to end confusedly
- Second run @ start 43 m about start. At 1049 came to stbd to avoid gear