

Consec. Cast # <u>01</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event # 056		Vessel Sta. I.D.		Instructions										Sta. Designation		
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg. Min.		E or W	Date JD = 149 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 993.2	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
01	56	54	99 N	155	39	88 W	29	MAY	90	02	44	85	85	93	28	28	80	8	76	1	291	G009A
CTD Type & SN <u>91220-A</u>		PMEL SeaBird		Monitor Checks						Times JD/Time				Data Location								
Press. SN <u>25084</u>				on Deck			at Surface			Data on _____				Tape/Diskette I.D. _____								
Temp. SN <u>701</u>				Press. _____			2.779			at Surface _____				File Name/Header _____								
Cond. SN <u>303</u>				Temp. _____			6.036			Start Down <u>02:35</u> GMT				DUB2: (data log) _____								
				Cond. _____			31.331			at Bottom <u>02:45</u>				_____								
				Other _____			31.556			Start Up _____				Remarks <u>MF906001-29MAY0234</u>								
										Data off _____				<u>Grid station G009A</u>								

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	20		60		02:52:00	59.787	4.239		32.124									100 ml	1
2	30		50.3		02:53:03	50.389	4.466		32.061	50.389	4.466	30.483	32.061			32.090	33	100 ml chloro	2
3	21		50.2		02:53:57													100 ml	3
4	29		40.9		02:55:00	40.190	4.549		31.972									100 ml chloro	4
5	22		40.3		02:55:28													100 ml	5
6	28		29.6		02:56:31	29.623	5.163		31.768									100 ml chloro	6
7	23		29.9		57:00													100 ml	7
8	27		19.6		58:06	19.539	5.856		31.568									100 ml chloro	8
9	24		19.8		58:46													100 ml	9
10	26		9.6		59:47	9.583	5.999		31.566									100 ml chloro	10
11	25		9.6		03:00:05													100 ml	11
12																			12

Initials WF

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Consec. Cast # 02		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event # 065		Vessel Sta. I.D.		Instructions										Sta. Designation					
Consec. Cast #	Latitude			N or S	Longitude			E or W	Date JD = 149			Time GMT		Dry Bulb	Wet Bulb	Bar. mb 994.0	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
	Deg.	Min.	Deg.		Day	Mo.	Yr.		Hr.	Min.															
	02	56	32	68	N	155	51	32	W	29	May	90	06	42	70	70	94	28	050	08	87	5	241	G011A	
CTD Type & SN 91220-A		PMEL SeaBird		Monitor Checks								Times JD/Time				Data Location									
Press. SN 25084				on Deck				at Surface				Data on _____				Tape/Diskette I.D.				File Name/Header					
Temp. SN 701				Press. _____				02.109				at Surface				_____				DUB2:(data log)					
Cond. SN 303				Temp. _____				5.867				Start Down 06:35:33				_____				_____					
_____				Cond. _____				31.226				at Bottom 06:43:16				_____				_____					
_____				Other _____				31.597 sal				Start Up _____				Remarks				GRID STA G011A					
_____				_____				_____				Data off _____				MF906002-29 May 0633				_____					

Stn	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	m ² 20		60.6		06:48:03	60.574	4.781		32.112								100ml	1	
2	30		49.6		49:14	49.583	4.780		32.016	49.583	4.780		32.016			32.051	05	chl 100ml	2
3	m ² 21		49.6		49:38												m ² 10l	3	
4	29		40.9		50:48	40.907	5.009		31.941								chl 100ml	4	
5	m ² 22		40.9		51:16												m ² 10l	5	
6	28		29.8		52:16	29.814	5.266		31.838								chl 100ml	6	
7	m ² 23		29.8		52:39												m ² 10l	7	
8	27		21.2		53:40	21.92	5.559		31.713								chl 100ml	8	
9	m ² 24		21.0		54:05												m ² 10l	9	
10	26		10.7		55:08	10.654	5.826		31.593								chl 100ml	10	
11	m ² 25		10.6		55:33												m ² 10l	11	
12																		12	

Initials WF

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Consec. Cast #		Vessel		Proj. & Leg		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation									
03		MILLER FREEMAN		MF90-06 FOCI-4		069														G 19									
Consec. Cast #		Latitude		Longitude		Date		Time		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
		Deg. Min.		Deg. E or W		JD = 149		GMT						996.0		S.S.													
035636115		N		1555988		W		29 MAY 90		814		75		78		9638		070		129		-2		287		G19			
CTD Type & SN		PMEL		Monitor Checks										Times		Data Location													
91220-A		SeaBird		on Deck at Surface										JD/Time		Tape/Diskette I.D. File Name/Header													
Press. SN		25084		Press. 2.060										Data on		DUB2:(data log)													
Temp. SN		701		Temp. 5.943										Start Down															
Cond. SN		303		Cond. 31.508										at Bottom															
				Other										Start Up															
														at Surface															
														Data off															
																Remarks 00274													
																m F906003-29 May 0804													
Stn		T		Trip		Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.		Other		Pos.					
Bot. Rack		Depth		Depth Trip		Press. Temp. Cond. Other		Press. Temp. Cond. Sal.				Therm-P Avg Tw Sal.				Bot. #		Samp.											
1		T B		816 821		274.79 48.77 33.182												33.214		09		1							
2																						2							
3																						3							
4																						4							
5																						5							
6																						6							
7																						7							
8																						8							
9																						9							
10																						10							
11																						11							
12																						12							

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Consec. Cast # 4		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event # 72		Vessel Sta. I.D.		Instructions										Sta. Designation GRID F19												
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 149 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 996.5	S.S.	Vls.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.									
	45	63	9	88	N	156	06	26	W	29	MAY	90	9	57		7	4		7	7	9	7	3	8	000	10	9	-5	27	4	50	12A
CTD Type & SN 91220-A		PMEL SeaBird		Monitor Checks								Times JD/Time				Data Location																
Press. SN 25084				on Deck				at Surface				Data on _____				Tape/Diskette I.D.						File Name/Header										
Temp. SN 701				Press. _____				1412				at Surface _____				_____						DUB2:(data log)										
Cond. SN 303				Temp. _____				6173				Start Down _____				_____						_____										
				Cond. _____								at Bottom _____				_____						_____										
				Other _____				31338				Start Up _____				Remarks MF 906004-29 MAY 0914																
												at Surface _____				Bongo station 6012A						W0266										
												Data off _____																				

Stn. No.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.				
1	20	MZ	60		0931 53	61.075	4.708		32.155								02	100 ml MZ	1	
2	30		50		3251	50.404	4.915		32.060								32.101	02	200 ml chlao	2
3	21	MZ	50		3343				22										100 ml MZ	3
4	29		40		3449	40.630	5.218		31.970										200 ml chlao	4
5	22	MZ	40		3506														100 ml MZ	5
6	28		30		3610	30.500	5.234		31.738										200 ml chlao	6
7	23	MZ	30		3628														100 ml MZ	7
8	27		20		3717	20.584	5.904		31.596										200 ml chlao	8
9	24	MZ	20		3737														100 ml MZ	9
10	26		10		3909	10.424	6.019		31.377										200 ml chlao	10
11	25	MZ	10		3925														100 ml MZ	11
12																				12

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Consec. Cast # <u>5</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event # <u>74</u>		Vessel Sta. I.D.		Instructions <u>E18 G013A</u>										Sta. Designation						
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = <u>149</u> Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.			
	5	56	39	77	N	156	19	85	W	29	MAY	9	0	11	11	76	78	96	38	0	45	1	29	-2	197	G013A
CTD Type & SN <u>91220-A</u>		PMEL SeaBird		Monitor Checks								Times JD/Time				Data Location										
Press. SN <u>25084</u>				on Deck				at Surface				Data on _____				Tape/Diskette I.D.				File Name/Header						
Temp. SN <u>701</u>				Press. _____				<u>1.225</u>				at Surface _____				_____				DUB2:(data log)						
Cond. SN <u>303</u>				Temp. _____				<u>0.185</u>				Start Down _____				_____				_____						
				Cond. _____								at Bottom _____				_____				_____						
				Other _____				<u>31.221</u>				Start Up _____				Remarks <u>MF906005 - 29 MAY 1104</u>										
												at Surface _____				<u>WD187 Grid Sta. G013A</u>										
												Data off _____														

Stn. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	20		60		1116	60.78	4.899		31.912								10E mZ	1	
2	30		50	7	1803	50.54	4.932		31.893							31.919	22	200ml chlo	2
3	21		50		1827												10E mZ	3	
4	29		40		1919	40.234	5.107		31.727								200ml chlo	4	
5	22		40		1935												10E mZ	5	
6	28		30		2028	29.963	5.331		31.626								200ml chlo	6	
7	23		30		2049												10E mZ	7	
8	27		20		2138	20.516	5.617		31.511								200ml chlo	8	
9	24		20		2154												10E mZ	9	
10	24		10		2254	10.472	6.125		31.228								200ml chlo	10	
11	25		10		2312												10E mZ	11	
12																		12	

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Consec. Cast # <u>6</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event # <u>77</u>		Vessel Sta. I.D.		Instructions <u>F18</u>						Sta. Designation								
Consec. Cast #	Latitude Deg. Min. S		N or S	Longitude Deg. W		E or W	Date JD = <u>149</u> Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.			
	6	50	36	03	N	156	13	05	W	29	May	9	0	12	35	78	78	97	38	050	149	-2	289	F18
CTD Type & SN <u>91220-A</u>		PMEL SeaBird		Monitor Checks				Times JD/Time				Data Location												
Press. SN <u>25084</u>				on Deck		at Surface		Data on				Tape/Diskette I.D.		File Name/Header										
Temp. SN <u>701</u>				Press. <u>1.797</u>				at Surface						DUB2:(data log)										
Cond. SN <u>303</u>				Temp. <u>6.128</u>				Start Down																
				Cond. <u>31.260</u>				at Bottom																
				Other <u>31.260</u>				Start Up						Remarks <u>AF 906006 29 MAY 1225</u>										
								Data off						<u>110257</u>										
Stn. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.					
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.								
1						236.151	4.800		31.724							33.122	03	1						
2																		2						
3																		3						
4																		4						
5																		5						
6																		6						
7																		7						
8																		8						
9																		9						
10																		10						
11																		11						
12																		12						

Initials

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Consec. Cast # 7		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event # 079		Vessel Sta. I.D.		Instructions G18 G014A										Sta. Designation							
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 149 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.				
	7	56	32	24	N	156	06	22	W	29	MAY	90	13	37	7	2	7	2	9	7	38	05	51	18	62	289	G014A

CTD Type & SN 91220-A		PMEL SeaBird		Monitor Checks				Times JD/Time				Data Location			
Press. SN 25084				on Deck		at Surface		Data on _____		Tape/Diskette I.D.		File Name/Header			
Temp. SN 701				Press. _____		2.053		at Surface _____		_____		DUB2:(data log)			
Cond. SN 303				Temp. _____		5.904		Start Down _____		_____		_____			
				Cond. _____				at Bottom _____		_____		_____			
				Other _____		31.556		Start Up _____		_____		Remarks MF90600 7-29 MAY 1326			
								at Surface _____		_____		WD 293			
								Data off _____		_____					

Stn	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	20		60	1543	59	59.485	4.972		31.838								10L mZ	1	
2	30		50	457		50.232	5.055		31.794						31.849	51	200ml chloro	2	
3	21		50	4528													10L mZ	3	
4	24		40	4634		40.675	5.084		31.777								200ml chloro	4	
5	22		40	4654													10L mZ	5	
6	28		30	4749		31.171	5.393		31.765								200ml chloro	6	
7	23		30	4800													10L mZ	7	
8	27		20	4858		20.552	5.591		31.649								200ml chloro	8	
9	24		20	4916													10L mZ	9	
10	24		10	5036		11.180	5.747		31.594								200ml chloro	10	
11	25		10	5057													10L mZ	11	
12																		12	

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Consec. Cast # 8		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event # 85		Vessel Sta. I.D.		Instructions H18										Sta. Designation													
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 149			Time GMT		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.		
8		562890 N		1555858 W		29 May 90			1501		73		73		98		3		70		10		10		9-4		250		H18				
CTD Type & SN 91220-A		PMEL SeaBird		Monitor Checks						Times JD/Time						Data Location 250																	
Press. SN 25084				on Deck						at Surface						Tape/Diskette I.D.						File Name/Header											
Temp. SN 701				Press. _____						1.237						Data on _____						at Surface _____											
Cond. SN 303				Temp. _____						5.849						Start Down _____						at Bottom _____											
				Cond. _____												Start Up _____						at Surface _____											
				Other _____						30985						Data off _____						Remarks MF900808 29 May 1452											
																WO 239																	
Pos. No.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.														
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.																	
1																															1		
2								236.151	4.800		33.077																	33.247	21			2	
3																																3	
4																																	4
5																																	5
6																																	6
7																																	7
8																																	8
9																																	9
10																																	10
11																																	11
12																																	12

Initials DM
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Consec. Cast # <u>9</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event # <u>85</u>		Vessel Sta. I.D.		Instructions <u>H17 GOISA</u>										Sta. Designation				
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = <u>149</u> Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb <u>998.3</u>	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
	<u>9</u>	<u>56</u>	<u>24</u>	<u>57</u>	N	<u>156</u>	<u>05</u>	<u>43</u>	W	<u>29</u>	<u>MAY</u>	<u>90</u>	<u>16</u>	<u>01</u>	<u>78</u>	<u>74</u>	<u>98</u>	<u>36</u>	<u>00</u>	<u>51</u>	<u>08</u>	<u>-4</u>	<u>257</u>	<u>GOISA</u>
CTD Type & SN <u>91220-A</u>		PMEL SeaBird		Monitor Checks								Times JD/Time				Data Location								
Press. SN <u>25084</u>				on Deck				at Surface				Data on _____				Tape/Diskette I.D.				File Name/Header				
Temp. SN <u>701</u>				Press. _____				<u>1.338</u>				at Surface _____				_____				DUB2: (data log)				
Cond. SN <u>303</u>				Temp. _____				<u>5.812</u>				Start Down _____				_____				_____				
				Cond. _____								at Bottom _____				_____				_____				
				Other _____				<u>31.603</u>				Start Up _____				_____				Remarks <u>MF 906009 29 MAY 1990</u>				
												at Surface _____				_____				<u>WD 257 Grid Sta. GOISA</u>				
												Data off _____												

Stn. No.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Stn. No.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	20		60														100 mZ	1	
2	30		50		1613												200mL chloa	2	
3	21		50		1350												100 mZ	3	
4	29		40		1447												200mL chloa	4	
5	22		40		1505												100 mZ	5	
6	28		30		1555												200mL chloa	6	
7	23		30		1614												100 mZ	7	
8	27		20		1707												200mL chloa	8	
9	24		20		1723												100 mZ	9	
10	26		10		1827												200mL chloa	10	
11	25		10		1843												100 mZ	11	
12	B			1602	1607	243.927	4.911		33.189							33.241	10	12	

Initials RM

Consec. Cast #		10		Vessel		MILLER FREEMAN		Proj. & Leg		MF90-06 FOCI-4		Event #		87		Vessel Sta. I.D.		Instructions										G17		Sta. Designation											
Consec. Cast #		10		Latitude		N or S		Longitude		E or W		Date		JD = 149		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud		Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
		10		5628		25 N		1561263		W		29 MAY		90		1733		83		83		000		37		012		078		74		200		G17							
CTD Type & SN		91220-A		PMEL		SeaBird		Monitor Checks		on Deck		at Surface		Times		JD/Time		Data Location																							
Press. SN		25084		Temp. SN		701		Cond. SN		303		Press.		1.769		Start Down		at Bottom		Start Up		at Surface		Data off		Tape/Diskette I.D.		File Name/Header		DUB2:(data log)		Remarks		MF906010 29 MAY 1722							
Pos. Bot.		T Rack		Trip Depth		Time @		Monitor Values		Conv. Mon. Values-CTD		Sample Bot. Data		Sal. Bot. #		Other Samp.		Pos.																							
1						Depth Trip		Press. Temp. Cond. Other		Press. Temp. Cond. Sal.		Therm-P Avg Tw Sal.		27				1																							
2								270.405 4.674 33.031										2																							
3																		3																							
4																		4																							
5																		5																							
6																		6																							
7																		7																							
8																		8																							
9																		9																							
10																		10																							
11																		11																							
12																		12																							

Initials

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G17

Consec. Cast # 11		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event # 88		Vessel Sta. I.D.		Instructions F17 GO16A		Sta. Designation								
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 149		Time GMT		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
	11	56 31 96 N	156 19 99 W	29 MAY 90	18 37	9 6	9 0	00	37	04	38	8	7	2	21	46	01	64		
CTD Type & SN 91220-A		PMEL SeaBird		Monitor Checks				Times JD/Time				Data Location								
Press. SN 25084				on Deck at Surface				Data on _____				Tape/Diskette I.D. File Name/Header								
Temp. SN 701				Press. _____				at Surface _____				DUB2:(data log)								
Cond. SN 303				Temp. _____				Start Down _____												
				Cond. _____				at Bottom _____												
				Other _____				Start Up _____												
								at Surface _____												
								Data off _____				Remarks MF906011 29 MAY 1828 Grid St. GO16A WD 203 * LOOPER CRAPPED OUT								

Pos. No.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	20		60	1841	39	60.3268	5.0424		31.6893								10L mZ	1	
2	30		50	42	32												200ml chloro	2	
3	21		50	43	06	50.3207	5.4140		31.6402								10L mZ	3	
4	29		40	Went out													200ml chloro	4	
5	22		40			40.0724	5.4386		31.6433								10L mZ	5	
6	28		30														200ml chloro	6	
7	23		30			30.0115	5.4554		31.6437								10L mZ	7	
8	27		20														200ml chloro	8	
9	24		20			20.2521	5.4473	30.9227	31.6412								10L mZ	9	
10	26		10														200ml chloro	10	
11	25		10			10.4271	5.6218	31.0539	31.6299								10L mZ	11	
12																		12	

Initials

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Consec. Cast #		Vessel		Proj. & Leg		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation														
12		MILLER FREEMAN		MF90-06 FOCI-4		091																												
Consec. Cast #		Latitude			Longitude			Date JD =			Time GMT		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
		Deg. Min. S			Deg. E or W			Day Mo. Yr.			Hr. Min.						1002.5																	
12		563585 N			1562643 W			29 May 90			2002		90		91		03		38		04		00		06		86		207					
CTD Type & SN		PMEL 91220-A		SeaBird		Monitor Checks				Times JD/Time				Data Location																				
Press. SN		25084		on Deck				at Surface				Data on				Tape/Diskette I.D.																		
Temp. SN		701		Press.				.955				at Surface				File Name/Header																		
Cond. SN		303		Temp.				1.4				Start Down				DUB2:(data log)																		
				Cond.				31.193				at Bottom																						
				Other				31.664				Start Up																						
												at Surface																						
												Data off				Remarks MF 90612 - 29 MAY 1994																		

Stn. No.	Bot. Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
			Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	28		201	20:04:26					200.883	4.125	30.425	32.249			32.339	06		1
2																	2	
3																	3	
4																	4	
5																	5	
6																	6	
7																	7	
8																	8	
9																	9	
10																	10	
11																	11	
12																	12	

Initials WSP

Consec. Cast #		Vessel		Proj. & Leg		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation											
13		MILLER FREEMAN		MF90-06 FOCI-4		093																									
Consec. Cast #		Latitude		Longitude		Date		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
		Deg. Min.		Deg. W		Day Mo. Yr.		Hr. Min.						1003.0																	
13		562832 N		1562670 W		29 May 90		2107		83		80		03		37		04		50		68		66		221					
CTD Type & SN		PMEL 91220-A		SeaBird		Monitor Checks		Times		JD/Time		Data Location																			
Press. SN		25084		on Deck		at Surface		Data on				Tape/Diskette I.D.		File Name/Header																	
Temp. SN		701		Press.		1.535		at Surface						DUB2:(data log)																	
Cond. SN		303		Temp.		5.632		Start Down		21:01:35																					
				Cond.		31.036		at Bottom		21:09:24																					
				Other		31.604		Start Up																							
								at Surface																							
								Data off						Remarks																	
														MF90613 - 29 May 2059																	

Stn. No.	Bot. Rack	T	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	8	199	21:11:08	21:16:05					199.397	4.175	30.500	32.289				32.372	18	1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials WJ

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Consec. Cast #		14		Vessel		MILLER FREEMAN		Proj. & Leg		MF90-06 FOCI-4		Event #		085		Vessel Sta. I.D.		Instructions										Sta. Designation									
Consec. Cast #		Latitude			Longitude			Date			Time			Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud		Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
		Deg. Min. S			Deg. E or W			Day Mo. Yr.			Hr. Min.							1003.0																			
		14 56 24 47 N			156 19 18 W			29 May 90			22 22			78		80		03		27		040		08661						2436017A							
CTD Type & SN		91220-A		PMEL SeaBird		Monitor Checks										Times JD/Time				Data Location																	
Press. SN		25084		on Deck at Surface										Data on				Tape/Diskette I.D.																			
Temp. SN		701		Press. 1.351										at Surface				File Name/Header																			
Cond. SN		303		Temp. 5.948										Start Down 22:15:40				DUB2:(data log)																			
				Cond. 31.314										at Bottom 22:23:36																							
				Other 31.621										Start Up				Remarks																			
														at Surface				MF90614-29 May 2213																			
														Data off																							

Stn	Bot. Rack	T	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	20		61.1	61.1	22:28:30	61.059	4.280		31.830									10L mZ	1
2	30		50.2	50.2	21:45					50.235	4.689	30.437	31.792			31.856	30	200ml chlora	2
3	21		50.2	50.2	30:09													10L mZ	3
4	29		41.0	41.0	31:10	41.049	5.137		31.733									200ml chlora	4
5	22		40.9	40.9	31:32														5
6	28		31.1		32:36	31.050	5.429		31.719									200ml chlora	6
7	23		31.1		33:12													10L mZ	7
8	27		20.1		34:37	20.073	5.449		31.621									200ml chlora	8
9	24		20.0		34:58													10L mZ	9
10	26		10.8		35:56	10.822	5.690		31.620									200ml chlora	10
11	25		10.9		36:21													10L mZ	11
12																			12

Initials WF

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Consec. Cast # 15		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event # 697		Vessel Sta. I.D.		Instructions										Sta. Designation			
Consec. Cast #	Latitude <input checked="" type="radio"/> N or S			Longitude <input checked="" type="radio"/> E or W			Date JD = 149 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 1003.9	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
	Deg.	Min.	S	Deg.			Day	Mo.	Yr.	Hr.	Min.												
15	56	21	59 N	156	12	30 W	29	May	90	23	46	86	85	04	38	04	00	07	8	62	276		
CTD Type & SN 91220-A			PMEL SeaBird			Monitor Checks				Times JD/Time				Data Location									
Press. SN 25084						on Deck at Surface				Data on				Tape/Diskette I.D. File Name/Header									
Temp. SN 701						Press. 1.872				at Surface				DUB2:(data log)									
Cond. SN 303						Temp. 6.048				Start Down 23:38:08													
						Cond. 31.433				at Bottom 23:47:20													
						Other 31.660				Start Up				Remarks									
										at Surface				MF90615-29 May 2335									
										Data off													

Stn. No.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	21				23:47:46					267.028	4850	31.860	33.169			33.179	34		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials WF

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Consec. Cast # 168		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event # 127		Vessel Sta. I.D.		Instructions										Sta. Designation	
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 150			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
168	55	00	54	N	156	12	50	W	30 May 90	14	57	81	81	00	38	105	20	86	21	756	60274
CTD Type & SN 91220-A		PMEL SeaBird		Monitor Checks				Times JD/Time				Data Location									
Press. SN 25084				on Deck at Surface				Data on				Tape/Diskette I.D. File Name/Header									
Temp. SN 701				Press. 2.134				at Surface				DUB2:(data log)									
Cond. SN 303				Temp. 7.460				Start Down													
				Cond. 32.305				at Bottom													
				Other				Start Up				Remarks WOC1 *									
								at Surface				ME90616-30 May 1452									
								Data off													
Stn #	Bot. Rack	Trip Depth	Time @ Depth	Trip	Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #	Other Samp.	Pos		
1	20	60	1503	16	61.651	4.461		32.826											1		
2	30	50	0444	50.629	4.726		32.755												2		
3	21	50																	3		
4	29	40	1539	40.333	4.928		32.711												4		
5	22	40	50																5		
6	28	30	0641	30.730	5.598		32.554												6		
7	23	30	0210																7		
8	27	20	0731	20.794	7.077		32.328												8		
9	24	20																	9		
10	26	10	0818	9.798	7.451		32.303												10		
11	25	10																	11		
12	TAB		1458	1503	61.651	4.461		32.826											12		

Initials

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Consec. Cast # 17		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event# 249		Vessel Sta. I.D.		Instructions										Sta. Designation			
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 153			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	SS	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
17	56	46	10	N	156	47	95	W	02	Jun	90	03	48	90	88	1006.9	74	8	02	63	08	72	666069A
CTD Type & SN 91220-A		PMEL SeaBird		Monitor Checks				Times JD/Time				Data Location											
Press. SN 25084				on Deck		at Surface		Data on				Tape/Diskette I.D.		File Name/Header									
Temp. SN 701				Press. 2.022				at Surface						DUB2:(data 1og)									
Cond. SN 303				Temp. 6.130				Start Down 03:47															
				Cond. 31.303				at Bottom 03:50															
				Other 31.439 Sal				Start Up															
								at Surface															
								Data off						Remarks									
														mF90617-02 Jun 0345									
St. #	Bot. Rack	Trip Depth	Time @ Depth	Trip	Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos					
1	20	56	03:50:23		Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			1					
2	30	50	03:51:21						49.889	5.677	31.026	31.528			31.5518	35		2					
3	21	50	52:00															3					
4	29	40	53:20															4					
5	22	40	53:38															5					
6	28	30	54:43															6					
7	23	30	55:10															7					
8	27	20	56:03															8					
9	24	20	56:21															9					
10	26	10	57:13															10					
11	25	10	57:32															11					
12																		12					

Initials WF



Consec. Cast #		18		Vessel		MILLER FREEMAN		Proj. & Leg		MF90-06 FOCI-4		Event#		376		Vessel Sta. I.D.		Instructions		F01 Z061A		Sta. Designation													
Consec. Cast #		Latitude		N or S		Longitude		E or W		Date JD = 155		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		Si		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
		185742		S		1551486		W		4 JUN 90		1915		95		92		16		28		259		08		341		299		Z061A					
CTD Type & SN		91220-A		PMEL SeaBird		Monitor Checks		on Deck		at Surface		Times JD/Time		Data on		Data Location		Tape/Diskette I.D.		File Name/Header		Remarks		MF 90618-04 June 1905		WD 289									
Press. SN		25084				Press.				1.432		Start Down								DUB2:(data log)															
Temp. SN		701				Temp.				7.581		at Bottom																							
Cond. SN		303				Cond.						Start Up																							
						Other				31.467		Data off																							

Stn	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	10					289.96	4.843		33.089								33.104	08	1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials

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Consec. Cast #		19		Vessel		MILLER FREEMAN		Proj. & Leg		MF90-06 FOCI-4		Event #		378		Vessel Sta. I.D.		Instructions		line 8 F60		Sta. Designation			
Consec. Cast #		Latitude		Longitude		Date		Time		Dry		Wet		Bar.		Wind		Wind		Cloud		Bottom		Sta. Name	
Cast #		Deg. Min.		Deg.		JD = 155		GMT		Bulb		Bulb		mb		Dir.		Sp.		Type		Depth, m		or I.D.	
		19 57 40 87 N		155 09 94 W		04 JUN 90		20 28		11 1		10 5		16 28		270 08		34 1		293		20 60 A			
CTD Type & SN		91220-A		PMEL SeaBird		Monitor Checks		Times		Data Location		Tape/Diskette I.D.		File Name/Header		Remarks									
Press. SN		25084		on Deck		at Surface		Data on		Tape/Diskette I.D.		File Name/Header		DUB2:(data log)		Remarks									
Temp. SN		701		Press.		1.012		at Surface		Start Down		20:20:25													
Cond. SN		303		Temp.		7.685		at Bottom		Start Up		20:30:35													
				Cond.		33.012		Data off																	
				Other		31.870																			

Stn	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Stn
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	T	B	275	20:31:20	20:30:44					275.044	4.858	31.814	33.105			33.1215	04		1
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials WF

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Consec. Cast # 20		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event# 380		Vessel Sta. I.D.		Instructions F59 line 8										Sta. Designation					
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 155			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	SS	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.				
020	57	38	63	N	155	04	07	W	04	Jun	90	21	58	12	0	12	0	16	28	25	00	83	41	260	F59
CTD Type & SN 91220-A		PMEL SeaBird		Monitor Checks								Times JD/Time				Data Location									
Press. SN 25084				on Deck				at Surface				Data on				Tape/Diskette I.D.				File Name/Header					
Temp. SN 701				Press. 1.701				Start Down 21:51:38				DUB2:(data log)													
Cond. SN 303				Temp. 7.282				at Bottom 22:00:40																	
				Cond. 32.797				Start Up				Remarks													
				Other 32.009				Data off				MF90620-04 Jun 2148													
St. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	St. #						
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.									
1	10				21:00:50					250.477	4.784	31.705	33.064			33.076	17		1						
2																			2						
3																			3						
4																			4						
5																			5						
6																			6						
7																			7						
8																			8						
9																			9						
10																			10						
11																			11						
12																			12						

Consec. Cast #		Vessel		Proj. & Leg		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation														
21		MILLER FREEMAN		MF90-06 FOCI-4		381				F58 Line 8																								
Consec. Cast #		Latitude			Longitude			Date JD =			Time GMT		Dry Bulb		Wet Bulb		Bar. mb		SS		Vis		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
		Deg. Min. S			Deg. E or W			Day Mo. Yr.			Hr. Min.																							
21		573637 N			1550043 W			04 Jun 90			22 46		130		117		1728		260		1134		1		2382		0584							
CTD Type & SN		91220-A		PMEL SeaBird		Monitor Checks										Times JD/Time				Data Location														
Press. SN		25084		on Deck at Surface										Data on				Tape/Diskette I.D. File Name/Header																
Temp. SN		701		Press. 1.293										at Surface				DUB2:(data log)																
Cond. SN		303		Temp. 7.491										Start Down 22:37:30																				
				Cond. 32.954										at Bottom 22:48:00																				
				Other 31.987 Sal										Start Up				Remarks																
														at Surface				MF90621-04 Jun 22 33																
				Data off																														
Stn. #		Bot. Rack		Trip Depth		Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Stn. #										
1		10		22:48:30		Press. Temp. Cond. Other				Press. Temp. Cond. Sal.				Therm-P Avg Tw Sal.				28				1												
2																						2												
3																						3												
4																						4												
5																						5												
6																						6												
7																						7												
8																						8												
9																						9												
10																						10												
11																						11												
12																						12												

Initials WJF



Consec. Cast # 22		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event # 384		Vessel Sta. I.D.		Instructions F57 line 8								Sta. Designation					
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 156 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 1016.6	SS	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
22	57	33	05 N	154	52	54 W	05	Jun	90	00	13	12	0	11	4	17	28	19	50	63	41	228	F57
CTD Type & SN 91220-A			PMEL SeaBird	Monitor Checks						Times JD/Time				Data Location									
Press. SN 25084				on Deck at Surface						Data on				Tape/Diskette I.D. File Name/Header									
Temp. SN 701				Press. 0.878						at Surface				DUB2:(data log)									
Cond. SN 303				Temp. 8.597						Start Down 00:07:15													
				Cond. 33.744						at Bottom 00:15:09													
				Other 31.817						Start Up				Remarks									
										at Surface				MF90622-05Jun0004									
										Data off													
St. No.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.				
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.							
1		T B		00:16:07	00:21:23					209.657	4.602	31.440	32.958			32.954	14		1				
2																			2				
3																			3				
4																			4				
5																			5				
6																			6				
7																			7				
8																			8				
9																			9				
10																			10				
11																			11				
12																			12				

Initials WJF

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Consec. Cast # <u>23</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-06 FOCI-4		Event # 386		Vessel Sta. I.D.		Instructions										Sta. Designation					
Consec. Cast #	Latitude <input checked="" type="radio"/> N or S			Longitude <input checked="" type="radio"/> E or W			Date JD = <u>156</u> Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
	Deg.	Min.		Deg.			Day	Mo.	Yr.	Hr.	Min.														
	23	57	30	91	N	154	47	01	W	05	Jun	90	01	06	12	1	1	1	4	17	28	180	103	41	2127050A
CTD Type & SN <u>91220-A</u>		PMEL SeaBird		Monitor Checks								Times JD/Time				Data Location									
Press. SN <u>25084</u>				on Deck				at Surface				Data on _____				Tape/Diskette I.D.				File Name/Header					
Temp. SN <u>701</u>				Press. _____				893				at Surface _____				Start Down <u>00:59:50</u>				DUB2:(data log)					
Cond. SN <u>303</u>				Temp. _____				7.580				at Bottom <u>01:07:25</u>													
				Cond. _____				33.043				Start Up _____													
				Other _____				31.999 sal				at Surface _____								Remarks					
												Data off _____								MF90623_05Jun0057					

Stn No.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos		
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.					
1	10		208		01:07:44							207.893	4.423	31.204	32.863			32.875	23		1
2																					2
3																					3
4																					4
5																					5
6																					6
7																					7
8																					8
9																					9
10																					10
11																					11
12																					12

Initials WF

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Consec. Cast #		Vessel		Proj. & Leg		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation											
24		MILLER FREEMAN		MF90-06 FOCI-4		388																									
Consec. Cast #		Latitude		Longitude		Date		Time		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
		Deg. Min. S		Deg. E or W		JD = 156		GMT						1016.8																	
24		572878 N		1544231 W		05 Jun 90		02 06		127		114		17		28		185		10		341				66		2055A			
CTD Type & SN		91220-A		PMEL SeaBird		Monitor Checks				Times				Data Location																	
Press. SN		25084		on Deck				at Surface				Data on				Tape/Diskette I.D.															
Temp. SN		701		Press.				.961				at Surface				File Name/Header															
Cond. SN		303		Temp.				7.655				Start Down				DUB2:(data log)															
				Cond.				33.053				at Bottom																			
				Other				31.942				Start Up																			
												at Surface																			
												Data off																			
																Remarks															
																MF90624-05 Jun 0203															
St. #		Bot. Rack		Trip Depth		Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Pos							
1		10				02:08:17						64.9 6.026 31.841 32.104								32.112 07				1							
2																								2							
3																								3							
4																								4							
5																								5							
6																								6							
7																								7							
8																								8							
9																								9							
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11																								11							
12																								12							

Initials WF