

Consec.Cast # /		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3		Event# 44	Vessel Sta. I.D.		Instructions								Sta. Designation Line II, 001			
Consec. Cast #		Latitude Deg.	N or S	Longitude Deg.	E or W	Date JD = 138	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S. S.	V. is.	Wind Dir.	Wind Sp.	Cloud Type	W. eath.	Bottom Depth, m	Sta. Name or I.D		
001	56 49 47 N	155 51 89 W		18 MAY 90	19 38 07	4070004731512872	310	310	1001											
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. 0.937		at Surface		DUB2:(DATA LOG)															
Cond. SN 303	Temp. 5.315		Start Down		SBE CTD.SCS,															
	Cond. 31.627		at Bottom	193844	MF 905001															
	Other 31.627		Start Up	1939																
			at Surface	1939																
			Data off	1939																
					Remarks WO 290															
					JONGO															
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #			
1				1940					289.374	4.798		33.136		33.140	25		1			
2												33.132					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 # 002		Vessel MILLER FREEMAN			Proj. & Leg MF90-Q5 FOCI-3		Event# 45	Vessel Sta. I.D.		Instructions							Sta. Designation Lusia, 002			
Consec. Cast #	Latitude Deg.		N or S	Longitude Deg.		E or W	Date JD = 138	Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S. S.	V. is.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D
0025647	b	75	N	1555485	W	18	MAY 90	2021	060	059	00	47	320	18872	314	I002				
CTD PMEL Type & SN 91220-A SeaBird				Monitor Checks on Deck				Times JD/Time Data on _____				Data Location								
Press. SN 25084					at Surface	at Surface	at Surface	Start Down	2010	2011	Tape/Diskette I.D.	File Name/Header								
Temp. SN 701	Press. _____				Temp. _____	Temp. _____	at Bottom	Start Up	2022	2023	DUB2:(DATA LOG)	SBE CTD.SCS;								
Cond. SN 303	Cond. _____				Other _____	Other _____	at Surface	Remarks w/o 303	MF905002-18MAY2009											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Pos.
1	T	B		20230	202840	Press.	Temp.	Cond.	Other	270.954	4.719	33.089	Therm-P	Avg Tw	Sal.	4.70	33.092	27	1	
2												33.086							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 # 003	Vessel MILLER FREEMAN	Proj. & Leg MF90-05 FOCI-3	Event# 48	Vessel Sta. I.D.	Instructions						Sta. Designation LWWT, 003							
Consec. Cast #	Latitude N or S Deg. Min. S	Longitude E or W Deg.	Date JD = 138 Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S. S.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D					
003	56 45 76 N	155 56 49 W	18 MAY 90	2202	065	059	004	48340	14872	311		1003						
CTD PMEL SeaBird Type & SN 91220-A Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. 1.258 Temp. 4.889 Cond. Other 31.641			Times JD/Time Data on _____ at Surface _____ Start Down 2153 at Bottom 2202 Start Up 2203 at Surface _____ Data off _____			Data Location Tape/Diskette I.D. 311 File Name/Header DUB2:(DATA LOG) SBE CTD.SCS; MF905003_18MAY2150								
Remarks WO 297 HIT "L" SEVERAL M AFTER STARTED DESCENT																		
Pos.	Bot.	Rack	Trip Depth	Time @ Depth	Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
					Trip	Press.	Temp.	Cond.	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1			296	2203					295.370	4.795		33.133		33.137	5		1	
2																	2	
3												33.129					3	
4																	4	
5																	5	
6																	6	
7																	7	
8																	8	
9																	9	
10																	10	
11																	11	
12																	12	

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145

Consec.Cast # 004		Vessel MILLER FREEMAN			Proj. & Leg MF90-05 FOCI-3			Event#	Vessel Sta. I.D.		Instructions								Sta. Designation LINE 1 STA 4				
Consec. Cast #		Latitude	N or S	Longitude	E or W	Date	JD = 138		Time	Dry	Wet	Bar.	S.S.	Vis.	Wind	Wind	Cloud	Type	Bottom	Sta. Name			
		Deg.	Min.	Deg.		Day	Mo.	Yr.	GMT	Bulb	Bulb	mb	SS	Vis.	Dir.	Sp.	Cloud	Weath.	Depth, m	or I.D			
004	5644	92	N	15559	88	W	18	MAY 90	23	11076	070	01	48340	006872	298	1004							
CTD Type & SN 91220-A PMEL SeaBird				Monitor Checks				Times JD/Time				Data Location 298											
Press. SN 25084				on Deck at Surface				Data on _____				Tape/Diskette I.D.				File Name/Header							
Temp. SN 701				Press. 1.152				at Surface 2301				DUB2 : (DATA LOG)											
Cond. SN 303				Temp. 4.954				Start Down 2302				SBE CTD.SCS;											
				Cond. _____				at Bottom 2311				MF905004 18MAY2301											
				Other 31.628				Start Up _____				Remarks WO 285				BONGO							
								at Surface _____				MF905004											
								Data off _____															
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Bot. #	Other Samp.	Pos.		
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw					Sal.	
1	10		286	2312					285.559	4.838		33.133			33.136	20			1				
2												33.129							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 # 005		Vessel MILLER FREEMAN			Proj. & Leg MF90-05 FOCI-3		Event#	Vessel Sta. I.D.			Instructions						Sta. Designation LINE 1, STA 5				
Consec. Cast #		Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 139	Time Hr.	GMT 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	
005	5564346	N		1560242	W	19	MAY 90	00	15078065	01	4732510872	282	1005								
CTD Type & SN 91220-A		PMEL SeaBird		Monitor Checks						Times		Data Location									
Press. SN 25084				on Deck			at Surface			JD/Time		Tape/Diskette I.D.		File Name/Header							
Temp. SN 701				Press.			1.619			Data on		DUB2:(DATA LOG)									
Cond. SN 303				Temp.			5.079			at Surface		SBE CTD.SCS;									
				Cond.						Start Down		MF905005_19MAY0003									
				Other			31.633			at Bottom											
										Start Up											
										at Surface											
										Data off											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.		
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				Avg Tw	Sal.
1	-	B	260	001540	002103					260.818	4.910		33.112		4.89	33.113	07		1		
2													33.107						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 #		Vessel MILLER FREEMAN			Proj. & Leg MF90-05		Event#	Vessel Sta. I.D.		Instructions						Grid I		Sta. Designation LINE I, STA 6		
Consec. Cast #		Latitude	N or S	Longitude	E or W	Date	JD = 139	Time	GMT	Dry	Wet	Bar.	S.	V.	Wind	Wind	Cloud	Type	Bottom	Sta. Name or I.D
		Deg.	Min.	Deg.		Day	Mo.	Hr.	Min.	Bulb	Bulb	mb	S.	V.	Dir.	Sp.	Cloud	Type	Depth, m	
	06	065642	04	N	156046	1	W	19	MAY 90	00	11708808	1014729505	872	278	278	I006				
CTD Type & SN Press. SN		PMEL 91220-A 25084		Monitor Checks on Deck						Times		JD/Time		Data Location						
Temp. SN Cond. SN		701 303		at Surface						Data on				Tape/Diskette I.D.		File Name/Header				
				Press. 1.853						at Surface		0108				DUB2:(DATA LOG)				
				Temp. 4.894						Start Down		0108				SBE CTD.SCS;				
				Cond. 31.642						at Bottom		0113				MF905006_19MAY0107				
				Other						Start Up		0117				Remarks WO 266				
										at Surface		0118								
										Data off										
Pos.	Bot.	T	Trip	Time @		Monitor Values					Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	10	265		011740					266.250	4.778		33.101			33.105	28		1		
2												33.095							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 # 003		Vessel MILLER FREEMAN			Proj. & Leg MF90-05 FOCI-3		Event#	Vessel Sta. I.D.			Instructions								Sta. Designation LINE 1,007	
Consec. Cast #		Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 139	Time GMT Hr.	Dry Bulb	Wet Bulb	Bar. mb	Si. Si.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D		
003		7564051	N	1560741	W	19	MAY 9	0022008	408101	14732507872	263	1007								
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.		1.733		at Surface				DUB2:(DATA LOG) SBE CTD.SCS;								
Cond. SN 303				Temp.		5.081		Start Down		0211		MF905007-19MAY0210								
				Cond.				at Bottom		0219										
				Other		31.638		Start Up		0220										
								at Surface				Remarks WO 254 BONGO								
								Data off												
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	Pos.
				Rack	Depth	Trip Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1				250	0220				354.639	4.814		33.100			33.106	01	1			
2																	2			
3												33.094						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 # 008		Vessel MILLER FREEMAN			Proj. & Leg MF90-05		Event# FOCI-3	Vessel Sta. I.D. 57	Instructions						Sta. Designation LINE I, 008				
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 139	Time Mo.	Time Yr.	Dry Bulb	Wet Bulb	Bar. mb	S.S. Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weather	Bottom Depth, m	Sta. Name or I.D.	
	0085636	57	N	1561330	W	19	MAY	90	03 41 07 50 65	02 47 29 61 88 72	241	I	008						
CTD Type & SN Press. SN Temp. SN Cond. SN	PMEL 91220-A SeaBird 25084	Monitor Checks						Times		JD/Time		Data Location							
		on Deck			at Surface							Tape/Diskette I.D.	File Name/Header						
		Press.	2.230										DUB2:(DATA LOG)	SBE CTD.SCS;					
		Temp.	5.417										MF905008_19MAY0333						
		Cond.	30.982										Remarks WO 231 Bangs						
		Other	Sal 31.746										end of Line I						
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.
				Bot. Depth	Rack Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1	T	B	220	034215	034725				221.084	4.424	31.239	32.896		4.38	32.895	17		1	
2																	2		
3												33.891					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 #	Vessel MILLER FREEMAN			Proj. & Leg MF90-05	Event#	FOCI-3	67	Vessel Sta. I.D. CENTER 009	Instructions						Sta. Designation CENTER STA				
Consec Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date	JD =		Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S. S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D	
009	56 44	N	155 59	87	W	19	MAY 90	08 10	71	68	0238	VAK	00872	0300	009				
CTD Type & SN 91220-A	PMEL SeaBird 25084	Monitor Checks						Times	ID/Time	Data Location									
Press. SN 701		on Deck			at Surface			Data on	0801	Tape/Diskette I.D.						File Name/Header			
Temp. SN 303		Press.			2.412			at Surface	0801 00							DUB2:(DATA LOG)			
		Temp.			5.131			Start Down	" "										
		Cond.			31.612			at Bottom	0810										
		Other						Start Up											
								at Surface											
								Data off											
Pos.	Bot.	T	Trip	Time @	Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	Pos.
					Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #			
1	10	284	20	0811	284.364	4.924	SAL									33.1409	22	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 # 010	Vessel MILLER FREEMAN	Proj. & Leg MF90-05 FOCI-3	Event # 69	Vessel Sta. I.D. CTD # 10	Instructions	GRID I	Sta. Designation LINE 3 STA 10												
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date JD = Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	Si. Si.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D			
01	05643	19 N	1555745	W	19 MAY 90	09 19 775	69	0338335049-6							309	0010			
CTD Type & SN 91220-A PMEL SeaBird				Monitor Checks				Times JD/Time				Data Location							
				on Deck		at Surface		Bottom		09 08 20		Tape/Diskette I.D.		File Name/Header					
				Press.		1,112		at Surface		09 08 25				DUB2 : (DATA LOG)					
				Temp.		5.132		Start Down						SBE CTD 010					
				Cond.		31.621		at Bottom											
				Other				Start Up											
								at Surface											
								Data off											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1						288.98	4,950	33.194	-						33.196	26		1	
2																		2	
3							33.184											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 # 11		Vessel MILLER FREEMAN			Proj. & Leg MF90-05 FOCI-3		Event# 70	Vessel Sta. I.D. CTD # 11		Instructions						GRID T		Sta. Designation LINE 3 STA 11		
Consec. Cast #		Latitude	N or S	Longitude	E or W	Date	JD =	Time	GMT	Dry	Wet	Bar.	S.	S.	Wind Dir.	Wind Sp.	Cloud	Type	Bottom Depth, m	Sta. Name or I.D
Deg.		Deg.		Deg.		Day	Mo. Yr.	Hr.	Min.	Bulb	Bulb	mb	S.	S.	Vis.	Wind Sp.	Cloud	Type	Weath.	
011	5641	70	N	1555488	W	19	MAY 90	09	57	68	60	0338340069	-2	296	411					
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.				1.36				at Surface		09 47 03				DUB2:(DATA LOG)				
Cond. SN 303		Temp.				5.026				Start Down		09 48 03								
		Cond.				31.620				at Bottom		09 58 ??								
		Other								Start Up				Remarks		MP 905011				
										at Surface				WO 286						
										Data off										
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.	
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				Avg Tw
1					285.875	5.031	33.233	—								33.236	16	1		
2																		2		
3							33.229											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 #	Vessel MILLER FREEMAN			Proj. & Leg MF90-05	Event #	FOCI-3	Vessel Sta. I.D. CTD 12	Instructions						Sta. Designation LINE 3 STA 12					
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD =			Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D	
	Deg.	Min.	S	Deg.	or W	Day	Mo.	Yr.	Hr. Min.										
0125640	22	N	1555201	W	19	MAY	90	11 06	55	50	03	48345	129-6	280	012				
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.			1,141			at Surface				DUB2:(DATA LOG)	SDP 905012				
Cond. SN 303				Temp.			4.873			Start Down	10 57				MF905012				
				Cond.			31,643			at Bottom	11 06 30								
				Other						Start Up									
										at Surface									
										Data off									
Pos.	Bot.	T	Trip	Time @		Monitor Values AT DEPTH				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.
				Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1				269.93	4.988	33.196	—								33.200	30	1		
2						33.195											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 # <u>13</u>		Vessel MILLER FREEMAN			Proj. & Leg MF90-Q5 FOCI-3		Event# <u>74</u>	Vessel Sta. I.D. CTD # 13		Instructions						Sta. Designation LINE 3 STA 13			
Consec. Cast #	Latitude N or S		Longitude E or W		Date	JD =		Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S ₁	S ₂	V ₁	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D
	Deg. Min.	Min. S	Deg.	Deg.	Day	Mo.	Yr.	Hr. Min.											
013	56	36	07	N	155	45	03	W	19	MAY	90	1231	55	5103	48325159	-52	241	φ13	
CTD Type & SN 91220-A PMEL SeaBird		Monitor Checks						Times		JD/Time		Data Location							
Press. SN 25084		on Deck			at Surface			Data on	12 22 46		Tape/Diskette I.D.		File Name/Header						
Temp. SN 701		Press.			2.292			at Surface					DUB2 : (DATA LOG)						
Cond. SN 303		Temp.			5.091			Start Down	12 22 51				MF905013						
		Cond.			31.650			at Bottom	12 32 —										
		Other						Start Up	12 37 25										
								at Surface											
								Data off											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.
				Bot. Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1	B			1232	1237	218.72	4.879	33.133	—					4.96	33.130	15			1
2																		2	
3								33.122										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 #	14	Vessel	MILLER FREEMAN			Proj. & Leg	MF90-05	Event #	FOCI-3	77	Vessel Sta. I.D.	CTD # 14	Instructions						Sta. Designation	LINE 2 STA 14		
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD =			Time	GMT	Dry	Wet	Bar.	S.	S.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D
	Deg.	Min.		Deg.			Day	Mo.	Yr.	Hr.	Min.	Bulb	Bulb	mb	S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weather		
014	56	34	N	156	00	05	W	19	MAY 90	14	22	61	54	0348	330	8872	280	014				
CTD Type & SN 91220-A PMEL SeaBird				Monitor Checks						Times		JD/Time		Data Location								
				on Deck			at Surface							Tape/Diskette I.D.				File Name/Header				
				Press.			2.383							DUB2:(DATA LOG)								
				Temp.			5.037							MF905014								
				Cond. Sal			31.637							Remarks								
				Other										W0272								
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #	Other Samp.	Pos.		
				Bot.	Rack	Trip Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				Avg Tw	Sal.
1						271.526	4.987	33.182	SAL								33.182	23		1		
2																					2	
3									33.180												3	
4																					4	
5																					5	
6																					6	
7																					7	
8																					8	
9																					9	
10																					10	
11																					11	
12																					12	

Initials JDS



Consec. Cast # 15		Vessel MILLER FREEMAN			Proj. & Leg MF90-05 FOCI-3		Event# 79	Vessel Sta. I.D. CTD # 15		Instructions						Sta. Designation LINE 2 STATION				
Consec. Cast #		Latitude Deg.	N or S	Longitude Deg.	E or W	Date JD =		Time GMT Hr.	Dry Bulb	Wet Bulb	Bar. mb	Si. Si.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D		
0	15	56	38	93	N	1560002	W	19 MAY 90	1521	50	48	03	4831015872	278	415					
CTD Type & SN 91220-A		PMEL SeaBird		Monitor Checks						Times JD/Time		Data Location								
Press. SN 25084				on Deck			at Surface			Data on	15 09	Tape/Diskette I.D.		File Name/Header						
Temp. SN 701				Press.			2.069			at Surface	15 10			DUB2:(DATA LOG)						
Cond. SN 303				Temp.			4.806			Start Down	15 10 35									
				Cond.						at Bottom	15 20 35									
				Other SALINITY			31.629			Start Up										
										at Surface										
										Data off	.									
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1					290.94	5.071		33.260								33.264	35	1		
2								33.256										2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
II																		II		
I2																		I2		

Initials _____

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Consec. Cast # 016	Vessel MILLER FREEMAN	Proj. & Leg MF90-05 FOCI-3	Event# 81	Vessel Sta. I.D.	Instructions								Sta. Designation GRID I, LINE 2, STA 16							
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 139	Time Hr.	GMT	Dry Bulb	Wet Bulb	Bar. mb	S. Si	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weather	Bottom Depth, m	Sta. Name or I.D	
016	5641	01	N	1555959	W	19	MAY	90	1624	05504904	4482801287	20307							016	
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. _____		.988			at Surface _____				DUB2 : (DATA LOG)					SBE CTD.SCS,		
Cond. SN 303				Temp. _____		5,012			Start Down _____				MF905016-19MAY1611							
				Cond. _____		31.617			at Bottom _____											
				Other _____					Start Up _____											
									at Surface _____											
									Data off _____											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other Samp.	Pos.	
				Bot. Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				Sal.
1																33.244	24	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 # 017		Vessel MILLER FREEMAN			Proj. & Leg MF90-05 FOCI-3			Event#	Vessel Sta. I.D.		Instructions								Sta. Designation LINE 2, STA 17	
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 139	Time GMT Hr.	Dry Bulb	Wet Bulb	Bar. mb	Si	Vis	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D		
	564282	N	1555967	W	19	MAY 90	19	04	80	1082.7	7	vis	0447261	159720307			017			
CTD Type & SN 91220-A		PMEL SeaBird		Monitor Checks				Times JD/Time				Data Location								
Press. SN 25084				on Deck		at Surface		Data on		139	190932	Tape/Diskette I.D.		File Name/Header						
Temp. SN 701				Press.		0.929		at Surface			1909			DUB2:(DATA LOG)						
Cond. SN 303				Temp.		5.004		Start Down			1909			SBE CTD.SCS;						
				Cond.				at Bottom			1919			MF905013_19MAY1908						
				Other		31.608		Start Up			1920									
								at Surface			1920									
								Data off												
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.	
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				Avg Tw
1				297	191955				296.945	4.997		33.197			33.200	21		1		
2																		2		
3													33.191						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 # <u>18</u>		Vessel <u>MILLER FREEMAN</u>			Proj. & Leg <u>MF90-05 FOCI-3</u>			Event# <u>110</u>	Vessel Sta. I.D. <u>CTD 18 (CENTER)</u>	Instructions						Sta. Designation <u>W0 298, sta 18</u>		
Consec. Cast #	Latitude <u>N</u> <u>Deg.</u> <u>Min.</u>		<u>N or S</u>	Longitude <u>E</u> <u>Deg.</u> <u>Min.</u>		<u>or W</u>	Date <u>JD = 140</u>	<u>Time</u> <u>GMT</u>	Dry Bulb	Wet Bulb	Bar. mb	<u>S.S.</u>	<u>Vis.</u>	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D.
	01	85	64	44	79	N	155 59 87 W	20 MAY 90	08 47 60	55 09 48	345 169 -2	302					0 18	
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 <u>140</u>	<u>08 35 30</u>	Tape/Diskette I.D.		File Name/Header				
Temp. SN <u>701</u>				Press. <u>1.874</u>						at Surface	<u>08 36 37</u>			<u>DUB2:(DATA LOG)</u>				
Cond. SN <u>303</u>				Temp. <u>4.957</u>						Start Down	<u>08 37 16</u>			<u>SBE CTD.SCS;</u>				
				Cond. <u></u>						at Bottom	<u>08 47 35</u>			<u>MF905018 20MAY0835</u>				
				Other <u>SAL</u>			31.627			Start Up								
										at Surface								
										Data off								
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.	Sal.	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	T	B	285	18534	283.982	4.883		33.134				4.88	33.138	04			1	
2								33.131									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 # 019		Vessel MILLER FREEMAN		Proj. & Leg MF90-Q5 FOCI-3		Event# 112	Vessel Sta. I.D. CTD 19		Instructions						Sta. Designation 019					
Consec Cast #		Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 140	Time GMT Hr.	Dry Bulb	Wet Bulb	Bar. mb	S. Vis.	V. Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D	
019	56 46 20 N	156 02 18 W		20	MAY 90	1004	68	6209	48000	109-2	272							019		
CTD PMEL Type & SN 91220-A SeaBird		Monitor Checks						Times JD/Time						Data Location						
Press. SN 25084		on Deck			at Surface			Data on	09 53 20			Tape/Diskette I.D.	File Name/Header							
Temp. SN 701		Press.			1.682			at Surface	09 54 30			DUB2:(DATA LOG)								
Cond. SN 303		Temp.			4.904			Start Down	09 55 00			MF90519_20 MAY 0954								
		Cond.						at Bottom	10 04 02			Remarks BONGO STA. NW section of								
		Other SALINITY			31.501			Start Up				WO 26	B010	Line 3						
								at Surface												
								Data off	.											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1					263.54	4.916		SALINITY								33.131	02		1	
2								33.128											2	
3								33.124											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 # <u>020</u>		Vessel MILLER FREEMAN			Proj. & Leg MF90-05 FOCI-3		Event# <u>115</u>	Vessel Sta. I.D. <u>CTD 20</u>		Instructions						GRID I		Sta. Designation LINE 3 STA 20	
Consec. Cast #		Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = <u>140</u>	Time Hr.	GMT Min.	Dry Bulb	Wet Bulb	Bar. mb	S. S.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D.	
<u>02</u>	<u>0564932</u>	<u>N</u>		<u>1560786</u>	<u>W</u>	<u>20</u>	<u>MAY 90</u>	<u>11</u>	<u>23</u>	<u>72</u>	<u>6809380051076</u>	<u>1</u>	<u>199</u>				<u>020</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	<u>11 15 20</u>	Tape/Diskette I.D.						File Name/Header			
Temp. SN <u>701</u>				Press.		<u>2.002</u>		at Surface	<u>11 16 26</u>	DUB2:(DATA LOG)									
Cond. SN <u>303</u>				Temp.		<u>5.051</u>		Start Down	<u>11 16 48</u>	MF905020_20MAY1116									
				Cond.				at Bottom	<u>11 23 24</u>										
				Other		<u>31.610</u>		Start Up											
								at Surface											
								Data off											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1						<u>189.842</u>	<u>3.874</u>		<u>32.403</u>						<u>32.405</u>	<u>29</u>		1	
2									<u>32.401</u>										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 # Φ21	Vessel MILLER FREEMAN	Proj. & Leg MF90-05	FOCI-3	Event# 118	Vessel Sta. I.D. CTD # 21	Instructions				GRID I, LINE 3				Sta. Designation STM Φ21					
Consec Cast #	Latitude N or S	Longitude E or W	Date JD = 140	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D						
Deg. Min. S	Deg.	Day Mo. Yr.	Hr. Min.					S.											
Φ21 56 52 92 N	156 14 12 W	20 MAY 90	12 45	72	69	093801367761	1	196	Φ21										
CTD Type & SN 91220-A SeaBird 25084	PMEL Press. SN 701	Monitor Checks on Deck at Surface	Times Data on 12 37 00 at Surface 12 38 10 Start Down 12 39 12 at Bottom 12 45 25 Start Up at Surface Data off	JD/Time 12 37 00 12 38 10 12 39 12 12 45 25	Data Location Tape/Diskette I.D. DUB2:(DATA LOG)	File Name/Header _____													
Temp. SN 701	Press. 1.836	Temp. 5.20	Cond. 31.675	Remarks DONGO STA 3012 WD185° MF905Φ21_20MAY1238															
Cond. SN 303	Other																		
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1					186.950	3.886		32.408								32.413	33	1	
2								32.406										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 #	Vessel MILLER FREEMAN	Proj. & Leg MF90-Q5	Event #	Vessel Sta. I.D. CTD# 22	Instructions	Sta. Designation GRID II, LINE I, STA 22										
Consec. Cast #	Latitude Deg. Min.	N or S	Longitude Deg. Min.	E or W	Date JD = 140 Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S. si	V. si	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D.
022	56 47 99 N		156 21 11 W		20 MAY 90	13 50	61	68	1038	31	045	761	198	022		
CTD Type & SN 91220-A	PMEL SeaBird	Press. SN 25084	Temp. SN 701	Cond. SN 303	Monitor Checks on Deck	at Surface	Times Data on	JD/Time 13 40 55							Data Location Tape/Diskette I.D.	File Name/Header DUB2:(DATA LOG)
					Press. 1.782		at Surface	13 42 10								
					Temp. 5.119		Start Down	13 42 45								
					Cond. 31.640		at Bottom	13 49 16								
					Other		Start Up									
							at Surface									
							Data off									

S.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	P.O.		
				Bot.	Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				
1								185.617	3.855		32.477							32.478	13	1	
2																			2		
3											32.477									3	
4																			4		
5																			5		
6																			6		
7																			7		
8																			8		
9																			9		
10																			10		
11																			11		
12																			12		

Initials



Consec. Cast # 023		Vessel MILLER FREEMAN		Proj. & Leg MF90-Q5 FOCI-3		Event # 122	Vessel Sta. I.D. CTD # 23		Instructions						Sta. Designation GRID II, LINE II, STA 923			
Consec. Cast #	Latitude N or S	Longitude E or W	Date JD = 140	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S. S.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D.					
Deg. Min.	Deg.	Day Mo. Yr.	Hr. Min.					Vis.										
023	56 47 93 N	156 11 75 W	20 MAY 90	14 48	70	681	03836608761		192	023								
CTD Type & SN 91220-A PMEL SeaBird				Monitor Checks on Deck at Surface				Times JD/Time				Data Location						
Press. SN 25084				Press. 2.014				Data on 14 40 00					Tape/Diskette I.D.	File Name/Header				
Temp. SN 701				Temp. 4.999				at Surface 14 41 11					DUB2 : (DATA LOG)					
Cond. SN 303				Cond. —				Start Down 14 41 4										
				Other 31.640				at Bottom 14 48 0										
								Start Up —										
								at Surface —										
								Data off —										
								Remarks MF905023 — 20MAY1441 W0 182 M										
S.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other Samp.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.		
1				1450	1455	174.83	3.968	—	32.367				3.97	32.362	14	1		
2																2		
3									32.365							3		
4																4		
5																5		
6																6		
7																7		
8																8		
9																9		
10																10		
11																11		
12																12		

Initials _____



Consec. Cast #	Vessel MILLER FREEMAN			Proj. & Leg MF90-Q5 FOCI-3			Event #	Vessel Sta. I.D.			Instructions						Sta. Designation LINE I, STA 21	
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 140	Time		Dry Bulb	Wet Bulb	Bar. mb	S. S.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D
	Deg.	Min.		Deg.			Day Mo. Yr.	Hr. Min.										
024564782 N	1560251 W	20 MAY 90	1555059	058	112831506761	254	025											
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.				0.492			at Surface		DUB2:(DATA LOG)	DATA LOG						
Cond. SN 303		Temp.				5.058			Start Down									
		Cond.							at Bottom	1555								
		Other				31.602			Start Up									
									at Surface									
									Data off	.								
o.s.	Bot.	T Rack	Trip Depth	Time @	Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	
			Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	
1			100						100.713	4.438		32.086				32.085	11	1
2																	2	
3															32.085		3	
4																	4	
5																	5	
6																	6	
7																	7	
8																	8	
9																	9	
10																	10	
11																	11	
12																	12	

Initials _____



Consec. Cast # <u>025</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-Q5 FOCI-3		Event# <u>125</u>	Vessel Sta. I.D.		Instructions						Sta. Designation LINE I STA 25				
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = <u>140</u>	Time GMT Mo.	Hr.	Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D	
	<u>02 55</u>	<u>648</u>	<u>00 N</u>	<u>15 55 36</u>	<u>7 W</u>	<u>20 MAY 90</u>	<u>16 48</u>	<u>05 5</u>	<u>05 2</u>	<u>11 2</u>	<u>8 280</u>	<u>08 7 61</u>		<u>31 2</u>	<u>025</u>				
CTD Type & SN Press. SN Temp. SN Cond. SN	PMEL 91220-A SeaBird 25084	Monitor Checks on Deck at Surface						Times	JD/Time	Data Location Tape/Diskette I.D.						File Name/Header DUB2:(DATA LOG) SBE CTD.SCS; MF90525_20 MAY 16 27			
		Press. <u>0.998</u>	Temp. <u>5.254</u>	Cond. <u>31.672</u>	Other <u>31.672</u>	Start Down at Bottom Start Up at Surface Data off	<u>1638</u>	<u>1648</u>									Remarks <u>WD 302</u>		
P.S.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Samp.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1			<u>150</u>	<u>1652</u>					<u>150.806</u>	<u>3.985</u>					<u>32.295</u>	<u>32.296</u>	<u>18</u>		
2															<u>32.299</u>				
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Initials _____
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Consec. Cast # 026	Vessel MILLER FREEMAN	Proj. & Leg MF90-05 FOCI-3	Event # 126	Vessel Sta. I.D.	Instructions	Sta. Designation LINE I STA 26									
Consec. Cast #	Latitude Deg. Min.	N or S	Longitude Deg.	E or W	Date JD = 140 Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S.S. Vis	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D
	0 26 56 47 96	N	155 44 69	W	20 MAY 90	17 41 05 5	05 11 1	38 29 4	10 76 2					288	0ak
CTD Type & SN 91220-A Press. SN 25084	PMEL SeaBird	Monitor Checks on Deck at Surface				Times	JD/Time	Data Location				288	File Name/Header		
Temp. SN 701		Press.	0.911	Start Down	1731	Tape/Diskette I.D.		DUB2 : (DATA LOG)					SBE CTD.SCS;		
Cond. SN 303		Temp.	5.310	at Bottom	1741			mf905026_20 may 1730							
		Cond.		Start Up	1742	Remarks	WO 283	End of Line I on Grid II							
Other		Other	31.842	at Surface											
Data off															

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	C
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1			100		1746					100.098	4.117		32.214				32, 206	34	1
2														32.209					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 # 027		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3			Event#	Vessel Sta. I.D.		Instructions						Sta. Designation LINE II, STA 27			
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 140		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
	0 2 7 5 6 4 2 6 8	N	1 5 5 4 4 3 3	W	2 0	M A Y 9 0	1 8 4 8 0 6 0	0 5 8 1 1	3 8 3 1 2 0 5 7 6 2	2 7 0	0 2 7								
CTD Type & SN 91220-A PMEL SeaBird				Monitor Checks on Deck				Times		JD/Time		Data Location							
Press. SN 25084				at Surface				Data on	1840			Tape/Diskette I.D.		File Name/Header					
Temp. SN 701								at Surface	1841					DUB2:(DATA LOG)					
Cond. SN 303								Start Down	1841					SBE CTD.SCS;					
								at Bottom	1850					MF905027_20MAY1839					
								Start Up	1850										
								at Surface	1857										
								Data off	1850										
								Remarks	WO 264										
P. S.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal. Bot. #	Other Samp.	C D
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1			100		1855					101.793	4.189		32.167		32.171	10	1		
2																	2		
3													32.168					3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials _____



Consec. Cast # 28		Vessel MILLER FREEMAN		Proj. & Leg MF90-Q5 FOCI-3		Event # 131	Vessel Sta. I.D.		Instructions						Sta. Designation LINE II, STA 028			
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date	JD = 140	Time	GMT	Dry Bulb	Wet Bulb	Bar. mb	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.												
	28 56 42	86 N	15 55 40	9 W	20 MAY 90	20 00 00	70	06 31	138 150065	71	300	028						
CTD Type & SN Press. SN Temp. SN Cond. SN	PMEL 91220-A SeaBird 25084	Monitor Checks on Deck at Surface						Times	JD/Time	Data Location Tape/Diskette I.D. DUB2 : (DATA LOG) SBE CTD.SCS;						320	File Name/Header	
		Press.	1.348	Start Down	1950													
		Temp.	5.067	at Bottom														
		Cond.		Start Up														
		Other	31.623	at Surface														
				Data off														
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other Samp.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.		
1	T	B	279	200150	200645					279.732	5.067		33.259	5.07	33.262	06		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

Initials _____



Consec.Cast # 029		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3		Event# 133	Vessel Sta. I.D.		Instructions						Sta. Designation GRID II, LINE II, STA 029				
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 140	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S _s	V _s	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D		
	029	5 6 4 2	8 6	N	15 60 30 2	W 20 MAY 90	08 00 69	11 38 14 50 65	71	287							029		
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. 1.258						at Surface	2050		DUB2:(DATA LOG)								
Cond. SN 303		Temp. 5.269						Start Down	2050		SBE CTD.SCS;								
		Cond. 31.615						at Bottom	2059		2049								
		Other						Start Up	2100										
								at Surface											
								Data off	.										
Time @				Monitor Values					Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other		
#	Bot.	T	Trip	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Other Samp.
1	10			281		2100					281.208	4.891		33.125				33.128	19
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
II																			
12																			

Initials _____
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Consec. Cast # 030		Vessel MILLER FREEMAN		Proj. & Leg MF90-Q5 FOCI-3		Event# 135	Vessel Sta. I.D.		Instructions						Sta. Designation LINE II STA 030				
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date Day Mo. Yr.	JD = 140	Time Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S.S. Vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D.	
	030	56	42	99	N	156	11	93	W	20	MAY 90	2200	110	097	1138	15004461	284	030	
CTD Type & SN 91220-A	PMEI 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.			1.122			at Surface				DUB2:(DATA LOG)							
Cond. SN 303		Temp.			5.307			Start Down	21:55:40			SBE CTD.SGS;							
		Cond.			31.649			at Bottom	12.62 25										
		Other			Sal 30.804			Start Up											
								at Surface				Remarks	WD 197						
								Data off				MF905030_20 May 2152							
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Sal.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	10								198.348	3.909	30.357	32.383				32.389	09		
2												32.380							
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Initials WT

Consec.Cast # <u>31</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3		Event# <u>137</u>	Vessel Sta. I.D.		Instructions						Sta. Designation GRID II LINE II ST 031				
Consec Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = <u>140</u>	Time Hr.	GMT Min.	Dry Bulb	Wet Bulb	Bar. mb	Si Si	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta Name or I.D		
	<u>31</u>	<u>56</u>	<u>43</u>	<u>08</u>	<u>N</u>	<u>1562092</u>	<u>W</u>	<u>20</u>	<u>MAY</u>	<u>90</u>	<u>2255</u>	<u>86</u>	<u>85</u>	<u>1</u>	<u>13</u>	<u>82651</u>	<u>2461</u>	<u>192</u>	<u>031</u>
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. <u>1.285</u>						at Surface						<u>DUB2:(DATA LOG)</u>				
Cond. SN	303		Temp. <u>5.577</u>						Start Down <u>22:49 GMT Clock</u>										
			Cond. <u>31.020</u>						at Bottom <u>22:55:10 GMT clock</u>										
			Other <u>Sal</u> <u>31.638</u>						Start Up										
									at Surface										
									Data off										

S. a	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos	
				Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	2				<u>188</u>						<u>188.081</u>	<u>3.840</u>	<u>30.945</u>	<u>32.561</u>				<u>32.566</u>	<u>12</u>	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 # <u>32</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3		Event# <u>139</u>	Vessel Sta. I.D.		Instructions								Sta. Designation GRID II, LINE III, STA 032		
Consec Cast #	Latitude	N or S	Longitude	E or W	Date	JD = <u>140</u>	Time	GMT	Dry	Wet	Bar.	Si	Si	Wind	Wind	Cloud	Type	Bottom	Sta. Name or I.D
	Deg.	Min.	Deg.		Day	Mo. Yr.	Hr.	Min.	Bulb	Bulb	mb	S	V	Dir.	Sp.	Cloud	Weather	Depth, m	
	<u>32 56 38</u>	<u>02 N</u>	<u>156 20 84 W</u>		<u>20</u>	<u>MAY 90</u>	<u>23</u>	<u>47</u>	<u>10</u>	<u>0</u>	<u>101.1</u>	<u>1</u>	<u>1</u>	<u>38</u>	<u>265</u>	<u>23361</u>	<u>198</u>	<u>032</u>	
CTD	PMEL	Monitor Checks						Times	JD/Time		Data Location								
Type & SN	91220-A	on Deck			at Surface			Data on			Tape/Diskette I.D.	File Name/Header							
Press. SN	25084							at Surface				DUB2: (DATA LOG)							
Temp. SN	701	Press.			<u>1.630</u>			Start Down	<u>23:41:59</u>										
Cond. SN	303	Temp.			<u>5.499</u>			at Bottom	<u>23:48:32</u>										
		Cond.			<u>30.972</u>			Start Up											
		Other			<u>sal</u>	<u>31.657</u>		at Surface											
								Data off											
Remarks Sel Sample OK Therm didn't roll correctly																			
MF90 S032 - 20 May 2339																			

Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	T	B	2	23:41:50	23:48:32					161.799	4.061	30.472	32.387				32.391	03	1
2																			2
3														32.385					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 # <u>33</u>		Vessel MILLER FREEMAN			Proj. & Leg MF90-05 FOCI-3			Event# <u>141</u>	Vessel Sta. I.D.			Instructions								Sta. Designation GRID II, LINE 3						
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = <u>141</u>	Time GMT		Dry Bulb		Wet Bulb		Bar. mb <u>1011.2</u>	Si <u>✓</u>	Vis <u>✓</u>	Wind Dir. <u>273</u>	Wind Sp. <u>18</u>	Cloud Type <u>361</u>	Bottom Depth, m <u>137f</u>	Sta. Name or I.D <u>033</u>							
	Deg.	Min.	S	Deg.	Day Mo. Yr.	Hr. Min.																				
	<u>33</u>	<u>56</u>	<u>38</u>	<u>02</u>	<u>N</u>	<u>156</u>	<u>11</u>	<u>69</u>	<u>W</u>	<u>21</u>	<u>MAY</u>	<u>90</u>	<u>00</u>	<u>53</u>	<u>Φ</u>	<u>93</u>	<u>Φ</u>	<u>8</u>	<u>Φ</u>	<u>11</u>	<u>38</u>	<u>273</u>	<u>18</u>	<u>361</u>	<u>251</u>	<u>033</u>
CTD PMEL Type & SN <u>91220-A</u> 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>1.716</u>								at Surface						<u>DUB2:(DATA LOG)</u>										
Cond. SN <u>303</u>		Temp. <u>5.365</u>								Start Down <u>00:46:18</u>																
		Cond. <u>30.871</u>								at Bottom <u>00:54:27</u>																
		Other <u>31.669</u>								Start Up																
										at Surface																
										Data off																
Pos.	Bot.	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	214	00:55:50	01:01:06					214.400	3.829	30.272	32.356		3.80	32.361	38			1						
2																			2							
3														32.352						3						
4																				4						
5																				5						
6																				6						
7																				7						
8																				8						
9																				9						
10																				10						
11																				11						
12																				12						

Initials WF

Consec.Cast #	Vessel MILLER FREEMAN	Proj. & Leg MF90-05	Event#	Vessel Sta. I.D.	Instructions										Sta. Designation GRID II LINE 3				
Consec. Cast #	Latitude <input checked="" type="radio"/> N Deg. Min. S	Longitude E <input checked="" type="radio"/> W Deg.	Date JD = 141 or Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1011.2	<input checked="" type="radio"/> Vis	Wind Dir.	Wind Sp.	Cloud Type	Weather	Bottom Depth, m 163 f	Sta Name or I.D 034					
	Φ 34 56 38 18 N	156Φ27 2 W	21 MAY 90	01 51	Φ 8 8 4 6 9	11	3 8	27 5	18 3 6 1	29 8									
CTD PMEL Type & SN 91220-A SeaBird Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. 1.667 Temp. 5.275 Cond. 30.762 Other 31.630				Times JD/Time		Data Location									
Data on at Surface		Start Down 01:42:24 at Bottom 01:51:30		Tape/Diskette I.D.		File Name/Header DUB2:(DATA LOG)													
Start Up at Surface		Data off		Remarks															
MF905034_21 May 0140																			
P#	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.
				Bot.	Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.			
1	2				01:52:57					291.219	5.059	32.128	33.258				33.268	32	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

Consec.Cast #	35	Vessel MILLER FREEMAN	Proj. & Leg MF90-05 FOCI-3	Event# 145	Vessel Sta. I.D.	Instructions								Sta. Designation GRID T LINE 3					
Consec. Cast #	Latitude N Deg. Min. or S	Longitude E Deg. W	Date JD = 141 Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1011.2	S. vis.	Wind Dir.	Wind Sp.	Wind Cloud Type	Bottom Depth, m 151 Fm	Sta Name or I.D						
	35 56 37 91 N	155 53 73 W	21 MAY 90	02 45	07 5	07 0	11	3 8	25 S 1	8361	27 6	035							
CTD PMEL Type & SN 91220-A SeaBird Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. 1.945 Temp. 5.230 Cond. 30.722 Other 31.627				Times JD/Time Data on _____ at Surface _____ Start Down 02:37:15 at Bottom 02:46:23 Start Up _____ at Surface _____ Data off _____		Data Location Tape/Diskette I.D. DUB2:(DATA LOG) File Name/Header _____									
Remarks MF905035_21 May 0235																			
Po	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.
	Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.		
1	2								269.316	4.922	31.869	33.137				31.199	08	1	
2												33.133						2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

JRC 212+5

MF905035_21 May 0235

Initials WR

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Consec Cast # <u>36</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 - FOCI-3		Event# <u>148</u>	Vessel Sta. I.D.		Instructions								Sta. Designation GRID 31, LINE 3		
Consec Cast #	Latitude N or S	Longitude E or W	Date JD = 141	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta Name or I.D						
	Deg. Min.	Deg.	Day Mo. Yr.	Hr. Min.			1011.2	15											
	<u>36 56 38 06 N</u>	<u>155 44 67 W</u>	<u>21 MAY 90</u>	<u>03 42 07</u>	<u>2 6 8</u>	<u>11 13 8 3 4 6 1</u>	<u>03 6 1</u>	<u>2 6 8</u>	<u>03 6</u>										
CTD PMEL Type & SN 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.	<u>2.070</u>	at Surface	<u>03:35:18</u>		<u>DUB2:(DATA LOG)</u>												
Cond. SN 303		Temp.	<u>5.428</u>	Start Down															
		Cond.	<u>30.940</u>	at Bottom															
		Other	<u>31.687 sal</u>	Start Up															
				at Surface															
				Data off															
Remarks Took 3 attempts to get this started!														MF90S036-21 may 0333					
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1	2								240.815	4.779	31.730	33.103				33.106	36	1	
2																		2	
3													33.099						3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials WT

Consec.Cast # <u>37</u>	Vessel MILLER FREEMAN	Proj. & Leg MF90-05 FOCI-3	Event# <u>150</u>	Vessel Sta. I.D.	Instructions								Sta. Designation GRID II, LINE 4						
Consec. Cast #	Latitude N or Deg. Min. S	Longitude E or Deg. W	Date JD = <u>141</u> Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1013.5	vis vis vis	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D						
	<u>37 56 33 68</u> N	<u>155 45 62</u> W	<u>21 MAY 90</u>	<u>04 34</u>	<u>47</u>	<u>46</u>	<u>12</u>	<u>38</u>	<u>31</u>	<u>21</u>	<u>136</u>	<u>1</u>	<u>223</u>	<u>037</u>					
CTD Type & SN <u>91220-A</u> PMEL SeaBird Press. SN <u>25084</u> Temp. SN <u>701</u> Cond. SN <u>303</u>				Monitor Checks on Deck at Surface Press. <u>1.739</u> Temp. <u>5.368</u> Cond. <u>30.965</u> Other <u>31.773</u>				Times JD/Time Data on _____ at Surface _____ Start Down <u>04:28:50</u> at Bottom <u>04:36:10</u> Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header _____ <u>DUB2:(DATA LOG)</u> _____ _____ _____ Remarks <u>MF905037 - 21 May 0427</u>							
Pos	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	T	B	202	04:36:50	04:42:09					202.083	4.646	31.504	32.993		4.60	32.988	51	1	
2																		2	
3													33.001						3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials JAR

Consec.Cast # <u>38</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3		Event# <u>153</u>	Vessel Sta. I.D.		Instructions								Sta. Designation GRID II LINE 4		
Consec Cast #	Latitude <u>N</u> Deg. Min. or S	Longitude <u>E</u> Deg.	Date JD = <u>141</u> or <u>W</u> Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S. <u>1012.1</u>	Vis. <u>5</u>	Wind Dir. <u>123</u>	Wind Sp. <u>8</u>	Cloud Type <u>8</u>	Wear. <u>6</u>	Bottom Depth, m <u>1254</u>	Sta. Name or I.D.				
	<u>38 56 32 98 N</u>	<u>155 54 25 W</u>	<u>21 MAY 90 05 46</u>	<u>7 2</u>	<u>6 6</u>	<u>1 2 3 8 2 8 6 1 0 3 6 1</u>	<u>254</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 _____ at Surface _____		Tape/Diskette I.D. _____		File Name/Header _____									
Temp. SN <u>701</u>		Press. <u>1.413</u>				Start Down <u>05:13 9:35</u>		DUB2: (DATA LOG)											
Cond. SN <u>303</u>		Temp. <u>5.220</u>				at Bottom <u>05:46:00</u>													
		Cond. <u>30.772</u>				Start Up _____													
		Other <u>31.694 sal</u>				at Surface _____													
						Data off _____													
Pos. Bot.	Rack	T	Trip	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	2														33.246	46	1		
2																	2		
3																	3		
4																	4		
5																	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

Initials LJF✓

Consec.Cast #	39	Vessel MILLER FREEMAN	Proj. & Leg MF90-05 FOCI-3	Event#	Vessel Sta. I.D.	Instructions										Sta. Designation GRID II LINE 4			
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day Mo. Yr.	JD =	Time Hr. Min.	GMT	Dry Bulb	Wet Bulb	Bar. mb	Si. vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D	
	39 56 33	12 N	156 03 11 W		21 MAY 90	06 36 47	0	06	12	3	10 12.4	5	26	02	03	61	156	285	039
CTD PMEL Type & SN 91220-A SeaBird Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. 1.910 Temp. 5.241 Cond. 30.784 Other 31.687 sub				Times		JD/Time		Data Location							
								Data on				Tape/Diskette I.D.			File Name/Header				
								at Surface							DUB2:(DATA LOG)				
								Start Down		06:29:12									
								at Bottom											
								Start Up											
								at Surface											
								Data off											
Remarks MF90S039-21 MAY 0627																			
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.
				Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	2								280.99	5.084	32.217	33.340			33.343	39		1	
2												33.335						2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials WF



Consec.Cast # 40				Vessel MILLER FREEMAN			Proj. & Leg MF90505		Event# FOCI-3	Vessel Sta. I.D. 158	Instructions								Sta. Designation QBLD II, LINE 4		
Consec Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 141	Time Hr.	GMT	Dry Bulb	Wet Bulb	Bar. mb	Si us	Vis	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
	40 56 33	04 N	156 12 05 W	21	MAY 90	07 32			65	55	12	38	270	1746	1	272	040				
CTD Type & SN 91220-A PMEL SeaBird				Monitor Checks				Times JD/Time				Data Location									
				on Deck		at Surface						Tape/Diskette I.D.				File Name/Header					
				Press. _____		2.188										DUB2:(DATA LOG)					
				Temp. SN 701		Press. _____															
				Cond. SN 303		Temp. _____		5.164													
				Cond. _____		Cond. _____		30.776													
				Other _____		Other _____		31.751													
Remarks MF905040_21 May 0723																					
P ^o	Bot.	T	Trip	Time @		Monitor Values					Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.					
1	2		263							262.58	5.008	32.028	33.208			33.212	49		1		
2													33.205						2		
3																			3		
4																			4		
5																			5		
6																			6		
7																			7		
8																			8		
9																			9		
10																			10		
11																			11		
12																			12		

Initials WF



Consec.Cast #	41	Vessel MILLER FREEMAN	Proj. & Leg MF905-05 FOCI-3	Event#	160	Vessel Sta. I.D.	Instructions						Sta. Designation GRID II, LINE 4						
Consec. Cast #	Latitude N or Deg. Min. S		Longitude E or Deg. W			Date JD = Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1012.5	S vis	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta Name or I.D			
	04	15	633	04	N	1562084W	21 MAY 90	08 26 05 8 05	1 12 48 29 01 54 71 02 15										
CTD Type & SN	PME ^L 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.				1.693		at Surface		DUB2: (DATA LOG)								
Cond. SN	303		Temp.				5.296		Start Down										
			Cond.				31.734		at Bottom										
			Other						Start Up										
									at Surface										
									Data off										
											Remarks WO 207								
											MF905-041-21 May 0817								
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.
				Bot.	Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1	TB			0830	0835	150.558	4.031	32.375						4.03	32.376	53		1	
2																		2	
3								32.369										3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials JMA

Consec.Cast #		Vessel		Proj. & Leg		Event #	Vessel Sta. I.D.		Instructions						Sta. Designation				
42	MILLER FREEMAN			MF90-05	FOCI-3	165										LINE 16 STA 147			
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date JD =		Time	Dry	Wet	Bar.	S.	S.	Wind	Wind	Cloud	Bottom	Sta Name or I.D		
	Deg.	Min.	Deg.		Day	Mo.	Yr.	Bulb	Bulb	mb	Vis.	Dir.	Sp.	Type	Depth, m				
04 25 61	17 84	N	15 64 78 0	W	21	MAY	90	11 02 04 6	03 9	1013.5	5	1348285	26571	108	147				
CTD		PMEL	Monitor Checks						Times	JD/Time	Data Location								
Type & SN		91220-A	on Deck						Data on		Tape/Diskette I.D.	File Name/Header							
Press. SN		25084	at Surface						at Surface			DUB2: (DATA LOG)							
Temp. SN		701	Press.						1,239										
Cond. SN		303	Temp.						5.068										
			Cond.						31.801										
			Other																
P.s.		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.	Pos.
1						97.026	3,425	31.969								31.973	59		1
2																			2
3							31.397												3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials Gm

Consec.Cast # <u>43</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3		Event# <u>106</u>	Vessel Sta. I.D.		Instructions						Sta. Designation LINE 16 STA 148				
Consec Cast #	Latitude N or S	Longitude E or W	Date JD =	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S. vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D						
	Deg. Min. S	Deg. W	Day Mo. Yr.	Hr. Min.			<u>10132</u>												
	<u>43 5621 30 N</u>	<u>15651 73 W</u>	<u>21 MAY 90</u>	<u>11 51 04</u>	<u>20 33 13</u>	<u>48 265 25 ST71</u>	<u>131</u>						<u>148</u>						
CTD PMEL Type & SN 91220-A SeaBird Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. <u>0.954</u> Temp. <u>4.925</u> Cond. <u>31.790</u> Other _____				Times JD/Time		Data Location Tape/Diskette I.D. File Name/Header <u>DUB2:(DATA LOG)</u>									
				Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____		Remarks <u>MF905043 - 21 MAY 1145</u> <u>W0 121</u>													
P.O.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1						<u>120 A74</u>	<u>3.116</u>	<u>31.963</u>								<u>31.972</u>	<u>25</u>		
2								<u>32.015</u>											
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

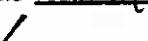
Initials gm

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Consec.Cast #		Vessel MILLER FREEMAN		Proj. & Leg MF90-05		Event #	Vessel Sta. I.D.		Instructions								Sta. Designation LINE 16, STA 149		
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = Mo. Yr.	Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	Si vis	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta Name or I.D	
	0 4 4 5 6 2 3	6 8 N	1 5 6 5 4 7 8 W	2 1 M A Y 9 0	1 2 3 1	0 4 3	3 3	1 3 4 8	2 9 4 2 8 5 7 1	1 3 0									
CTD Type & SN 91220-A Press. SN 25084 Temp. SN 701 Cond. SN 303		Monitor Checks on Deck Press. _____ Temp. _____ Cond. _____ Other _____						Times Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____		JD/Time 1,730 4,271 31,747		Data Location Tape/Diskette I.D. DUB2 : (DATA_106) File Name/Header Remarks MF 905044 - 21 MAY 1226 WD 122							
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1						120.291	3.998	32.176							32.167	17	1		
2								32.160									2		
3																	3		
4																	4		
5																	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

Initials JMM

Consec.Cast #	Vessel MILLER FREEMAN			Proj. & Leg MF90-05 - FOCI-3	Event#	Vessel Sta. I.D.	Instructions						Sta. Designation LINE 16, STA 150						
Consec. Cast #	Latitude N or Deg. Min. S		Longitude E or Deg. W		Date JD = Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 1013.1	S vis	/S vis	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D
	45 56 26	38 N		156 57 06 W	21	MAY 90	13 12	34	29	13	48	285	265	71	109		150		
CTD Type & SN	PMEI 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.	1,592			at Surface					DUB2: (DATA LOG)					
Cond. SN	303				Temp.	4,756			Start Down										
					Cond.	31,717			at Bottom										
					Other				Start Up										
									at Surface										
									Data off										
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1					99.48	3.991	32.048								32.045	27		1	
2							32.046											2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials MM

Consec.Cast #	46	Vessel MILLER FREEMAN	Proj. & Leg MF90505 FOCI-3	Event#	170	Vessel Sta. I.D.	Instructions					Sta. Designation LINE 16 STA 151							
Consec. Cast #	Latitude N or Deg. Min. S		Longitude E or Deg. W			Date JD = Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S. in	S. in	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D		
	46 56 30	14 N		15 700 16	W	21 MAY 90	13 59	040	30	1013.5	13 48	300	24571	49	151				
CTD	PMEL		Monitor Checks					Times	JD/Time	Data Location									
Type & SN	91220-A SeaBird		on Deck			at Surface	Data on		Tape/Diskette I.D.	File Name/Header									
Press.SN	25084		Press.			1.890	at Surface		DUB2: (DATA LOG)										
Temp.SN	701		Temp.			4.459	Start Down												
Cond.SN	303		Cond.			31.626	at Bottom												
			Other				Start Up												
							at Surface												
							Data off												
Po	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos
	Rack		Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	
1	B		401	1406	26.745	4.289	31.683									31.687	07		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials BM



Consec Cast # <u>47</u>		Vessel <u>MILLER FREEMAN</u>			Proj. & Leg <u>MF90-05 FOCI-3</u>			Event# <u>173</u>	Vessel Sta. I.D.			Instructions								Sta. Designation <u>M8904</u>	
Consec Cast #	Latitude <u>* N</u> Deg. Min. S		Longitude <u>* E</u> Deg. W			Date JD = Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb <u>1014</u>	Si. <u>15</u>	Vis. <u>39</u>	Wind Dir. <u>1448</u>	Wind Sp. <u>300</u>	Cloud Type <u>19671</u>	Wearh. <u>73</u>	Bottom Depth, m	Sta. Name or I.D <u>M8904</u>
	<u>47 56 27</u>	<u>75 N</u>	<u>15 65 80</u>	<u>5 W</u>	<u>21</u>	<u>MAY</u>	<u>90</u>	<u>15 00</u>	<u>39</u>	<u>31</u>	<u>1448</u>	<u>300</u>	<u>19671</u>	<u>73</u>							
CTD PMEL Type & SN <u>91220-A SeaBird</u> Press. SN <u>25084</u> Temp. SN <u>701</u> Cond. SN <u>303</u>				Monitor Checks on Deck <u>1,635</u> at Surface <u>4,409</u> Press. <u>31,696</u> Temp. Cond. Other						Times JD/Time		Data Location Tape/Diskette I.D. <u>WD</u> File Name/Header <u>DUB2:(DATA LOG)</u>									
										Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____	Remarks <u>MF905047_21 May 1993</u> <u>WD 60 MORNING 8964</u>										
Pos.	Bot. Rack	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other	Pos.	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #				Samp.
1	b			<u>1448</u>	<u>153</u>	<u>61.612</u>	<u>4.309</u>	<u>31.749</u>								<u>4.29</u>	<u>31.756</u>	<u>22</u>	1		
2																			2		
3																			3		
4																			4		
5																			5		
6																			6		
7																			7		
8																			8		
9																			9		
10																			10		
11																			11		
12																			12		

Initials JMM

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MDA reads
56 27.67
156 58.18

Consec.Cast # 48				Vessel MILLER FREEMAN			Proj. & Leg MF90-05 FOCI-3			Event# 185		Vessel Sta. I.D.			Instructions							Sta. Designation M9032		
Consec. Cast #	Latitude N or S		N	Longitude E or W		E	Date Day	Mo.	Yr.	JD = 141		Time Hr.	GMT Min.	Dry Bulb	Wet Bulb	Bar. mb	S. vi	V.vi	Wind Dir.	Wind Sp.	Cloud Type	Wheath.	Bottom Depth, m	Sta. Name or I.D
	Deg.	Min.	S	Deg.																				
48	5	6	21	35	N		156	53	43	W	21	MAY	90	21	51	54	45	16	38	270	14561	129	M9032	
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.					-836					at Surface			DUB2: (DATA LOG)								
Cond. SN 303			Temp.					4.648					Start Down	21:47	GMT									
			Cond.					30.369					at Bottom	21:51										
			Other					31.777					Start Up											
													at Surface											
													Data off		W.O.									
Pos.	Bot.	T	Trip	Time @		Monitor Values					Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Pos.			
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.						
1	2									122.175	2.898	29.095	31.915				31.922	28	1					
2																			2					
3													31.913							3				
4																				4				
5																				5				
6																				6				
7																				7				
8																				8				
9																				9				
10																				10				
11																				11				
12																				12				

129 / 126

Initials WF

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Consec.Cast # 49		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3		Event# 231	Vessel Sta. I.D.		Instructions							Sta. Designation LINE 13 STA 158			
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 142			Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S. vi	V. si	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta Name or I.D	
	Deg. Min.	S	Deg.	W	Day	Mo.	Yr.	Hr. Min.			1006.1								
49 55 58 30 N	156 37 89 W		22 MAY 90	20 57	51	66	0	0646	140	18876						199	158		
CTD PMEL Type & SN 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.	1004						at Surface			DUB2: (DATA LOG)								
Cond. SN 303	Temp.	4.776						Start Down	20:50:50 GMT										
	Cond.	30.525						at Bottom	20:57:25 GMT										
	Other	31.835 Sat						Start Up											
								at Surface											
								Data off											
Remarks Time from Gmt Clock - not CPU clock MF905049-22 may 2049																			
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	2									190.838	5.035	32.249	33.471			33.474	05	1	
2													33.468					2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials WF



Consec.Cast #		Vessel MILLER FREEMAN			Proj. & Leg MF90-05 - FOCI-3		Event#	Vessel Sta. I.D.		Instructions								Sca. Designation		
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 142		Time GMT Hr.	Dry Bulb	Wet Bulb	Bar. mb	Si. ci.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Wearh. Type	Bottom Depth, m	Sca. Name or I.D.	
	50 55 57	N	156 30 85	W	22	MAY 90	21	43 05	50 62	05 46	140 208	7b	199					LINE 17 STA 157		
	50 55 57	N	156 30 85	W	22	MAY 90	21	43 05	50 62	05 46	140 208	7b	199					157		
CTD PMEL Type & SN 91220-A SeaBird				Monitor Checks					Time [↓] JD/Time		Data Location									
				on Deck		at Surface			Data on at Surface		Tape/Diskette I.D.				File Name/Header					
				Press. _____		1.661			Start Down 21:37:23		DUB2:(DATA LOG)									
				Temp. SN 701		5.093			at Bottom 21:44:25											
				Cond. SN 303		32.736			Start Up											
				Other _____		31.773 sal			at Surface											
									Data off											
Pos.	Bot.	T	Trip	Time @		Monitor Values					Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.
				Bot. Depth	Trip Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	2								195.996	5.104	32.329	33.491				33.484	23	1		
2												33.487						2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials WR

Consec Cast #	51	Vessel MILLER FREEMAN	Proj. & Leg MF90-05	Event# FOCI-3	Vessel Sta. I.D. 234	Instructions								Sta. Designation LINE 17 STA 156					
Consec Cast #	Latitude N or S	Longitude E or W	Date JD = 142	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S. si	/S. si	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sea Name or I.D.					
	Deg. Min. S	Deg.	Day Mo. Yr.	Hr. Min.															
51	55 56 60 N	156 26 04 W	22 MAY 90	22 21	05 60	20 44	150	168	76	216				156					
CTD Type & SN 91220-A PMEL SeaBird				Monitor Checks				Times ↑ JD/Time				Data Location							
				on Deck	at Surface	Data on				Tape/Diskette I.D.	File Name/Header								
				Press. _____	1.308	at Surface				DUB2: (DATA LOG)									
Press. SN 25084				Temp. _____	5.354	Start Down	22:14:20												
Temp. SN 701				Cond. _____	30.985	at Bottom	22:21:31												
Cond. SN 303				Other _____	31.810	Start Up													
						at Surface				Remarks									
						Data off				MF905051-22 May 2212									
Pos.	Bot. Rack	T	Trip	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	2		208	22:22					207.884	5.115	32.350	33.499			33.502	26		1	
2												33.494						2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials WP

Consec.Cast # <u>52</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 - FOCI-3		Event# <u>236</u>	Vessel Sta. I.D.		Instructions								Sta. Designation LINE 17 STA 155	
Consec Cast #	Latitude N or S	Longitude E or W	Date JD = <u>142</u>	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			
	Deg. Min. S	Deg.	Day Mo. Yr.	Hr. Min.														
	<u>52 55 55 93</u> N	<u>156 21 21</u> W	<u>22 MAY 90</u>	<u>23 00 05</u>	<u>80 64 04</u>	<u>44 61 40 22 87 6</u>	<u>237</u>	<u>155</u>										
CTD PMEL Type & SN <u>91220-A</u> SeaBird Press. SN <u>25084</u> Temp. SN <u>701</u> Cond. SN <u>303</u>		Monitor Checks on Deck at Surface Press. <u>1467</u> Temp. <u>5.436</u> Cond. <u>31.065</u> Other <u>31.822</u>				Times ↑ JD/Time		Data Location										
						Data on _____ at Surface _____	Tape/Diskette I.D. _____	File Name/Header _____										
						Start Down <u>22:54:00</u> at Bottom <u>23:02:20</u>	DUB2: (DATA LOG)											
						Start Up _____ at Surface _____	Remarks											
						Data off _____	<u>MF905052-22 May 2252</u>											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD			Sample Bot.Data			Sal.	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	B	210	23:03:15	23:08:59					210.385	5.153	32.269	33.397	5.13	33.399	08		1	
2												33.387					2	
3																	3	
4																	4	
5																	5	
6																	6	
7																	7	
8																	8	
9																	9	
10																	10	
11																	11	
12																	12	

Initials WR

Consec.Cast # 053		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 - FOCI-3		Event# 232	Vessel Sta. I.D.		Instructions								Sta. Designation LINE 13, STA 154			
Consec. Cast #	Latitude <input checked="" type="radio"/> N or Deg. Min. S		Longitude E or Deg. <input checked="" type="radio"/> W Day		Date JD = 142 Mo. Yr.		Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1003.5	S. si	V. si	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta Name or I.D.			
	053	55	55	34	N	156	15	00	W	22	MAY	9	02	35	4	5	044613522876	229	154	
CTD Type & SN 91220-A		PMEL SeaBird		Monitor Checks						Times ↑ JD/Time		Data Location								
Press. SN 25084				on Deck			at Surface			Data on at Surface		Tape/Diskette I.D.		File Name/Header						
Temp. SN 701				Press.			1.792			Start Down at Bottom		DUB2:(DATA LOG)								
Cond. SN 303				Temp.			5.497			23:47:57 23:55:08										
				Cond.			31.876			Start Up at Surface										
				Other			31.163			Data off										
Pos.	Bot.	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
1	2		22°	235530						219.974	5.129	32.249	33.363				33.366	19		1
2													33.359							2
3																				3
4																				4
5																				5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

Initials WF



Consec.Cast #		Vessel		Proj. & Leg		Event#	Vessel Sta. I.D.		Instructions							Sta. Designation				
Consec Cast #	54	MILLER FREEMAN		MF90-05	FOCI-3	238										LINE 17 STA 153				
Latitude		N or S	Longitude		E or W	Date	JD =	Time		Dry	Wet	Bar.	Si	Vis.	Wind	Wind	Cloud	Bottom	Sta Name or I.D	
Deg.	Min.	S	Deg.		Day	Mo.	Yr.	GMT	Bulb	Bulb	mb	1002.9	Si	Dir.	Sp.	Type	Weath.	Depth, m		
54	55	54	35	N	156	11	33	W	23	MAY	900030	61	66	03	46	14022876	220	153		
CTD Type & SN		PMEL 91220-A	SeaBird	Monitor Checks						Times		Data Location								
Press. SN		25084		on Deck			at Surface			JD/Time		Tape/Diskette I.D.		File Name/Header						
Temp. SN		701		Press.			1.881			Data on				DUB2:(DATA LOG)						
Cond. SN		303		Temp.			5.434			at Surface										
				Cond.			31.457			Start Down		00:12 Si:D								
				Other			32.269 sal			at Bottom		00:31:45								
										Start Up										
										at Surface										
										Data off										
Pos.				Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.	
Bot.	Rack	T	Trip	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	Pos.
1	2			199	199	60-32100					199.394	5.052	32.061	33.234				33.234	12	1
2														33.230						2
3																				3
4																				4
5																				5
6																				6
7																				7
8																				8
9																				9
10																				10
II																				II
I2																				I2

Initials WT
V

Consec.Cast #	55	Vessel MILLER FREEMAN	Proj. & Leg MF90-05	Event# FOCI-3	Vessel Sta. I.D. 240	Instructions								Sta. Designation LINE 17, STA 152						
Consec Cast #	Latitude <input checked="" type="checkbox"/> or S		Longitude <input checked="" type="checkbox"/> E or W		Date JD = 143	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	<input checked="" type="checkbox"/> Si	<input checked="" type="checkbox"/> Vis	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta Name or I.D				
	Deg.	Min.	Deg.		Day Mo. Yr.	Hr. Min.			1002.7											
	55	55	54	06 N	156 00 10 W	23 MAY 90 01 30	65	70	03	46	135	23	876	88	152					
CTD Type & SN 91220-A PMEL SeaBird		Monitor Checks on Deck at Surface				Times ↑ JD/Time		Data Location												
Press. SN 25084	Press.	2.027		Data on at Surface				Tape/Diskette I.D.		File Name/Header										
Temp. SN 701	Temp.	5.736		Start Down at Bottom		01:27:49 01:30:40				DUB2:(DATA LOG)										
Cond. SN 303	Cond.	31.757		Start Up at Surface				Remarks												
	Other	32.318		Data off				MF905055-23 may 0126												
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	2		79						79.415	4.994	31.286	32.461				32.466	09	1		
2												32.457						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 #	56	Vessel MILLER FREEMAN	Proj. & Leg MF90-05 FOCI-3	Event #	Vessel Sta. I.D.	Instructions							Sta. Designation GRID IT LINE 55				
Consec Cast #	Latitude N or S		Longitude E or W	Date JD = 143	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Si	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D.		
	Deg.	Min.	Deg.	Day Mo. Yr.	Hr. Min.			1062.1	Si								
	56	563113N	1554154W	23 MAY 90	0558	65	60	1246	0962	0975	177	056					
CTD	PMEL	Monitor Checks				Times	JD/Time	Data Location 169m									
Type & SN	91220-A SeaBird	on Deck at Surface				Data on		Tape/Diskette I.D.							File Name/Header		
Press. SN	25084	Press.	1583					at Surface									DUB2:(DATA LOG)
Temp. SN	701	Temp.	5.361					Start Down	05:53:30								
Cond. SN	303	Cond.	31.101					at Bottom	05:59:33								
		Other	31.934					Start Up									
								at Surface									
								Data off									

Remarks Depth varied because wire angle kept changing

MF905056 - 23 May 0551

S.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	P.S.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	
1	T	B		05:59:33	06:04:38					156.874	3.998	30.557	32.551		3.98	32.553	03		1
2														32.537					2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials JAT
V

Consec.Cast #		Vessel		Proj. & Leg		Event#	Vessel Sta. I.D.		Instructions								Sta. Designation			
54		MILLER FREEMAN		MF90-05 FOCI-3		25φ											GRID III, LINE 4			
Consec Cast #	Latitude Deg. Min. N or S		Longitude Deg. E or W		Date	JD = 143	Time		Dry Bulb	Wet Bulb	Bar. mb	Si	Vis	Wind Dir.	Wind Sp.	Cloud Type	Weather	Bottom Depth, m	Sta. Name or I.D	
	57 56 33 27 N		15 54 54 1 W	23	MAY 9 0	06 36	61	57	φ 24610022965	1062	2	Si	Vis					223	057	
CTD Type & SN 91220-A PMEL SeaBird				Monitor Checks				Times JD/Time				Data Location 223								
Press. SN 25084				on Deck		at Surface		Data on _____ at Surface _____				Tape/Diskette I.D. _____				File Name/Header _____				
Temp. SN 701				Press. _____		2.341		Start Down 06:30:30 at Bottom 06:38:20				DUB2:(DATA LOG)								
Cond. SN 303				Temp. _____		5.394		Start Up _____ at Surface _____												
				Cond. _____		31.050		Data off _____												
				Other _____		31.844 sal														
Remarks MF905057-23 May 0628																				
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Pos.
				Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	2								216.689	4.712	31.570	32.997			32.999	8		1		
2												32.992						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 # <u>58</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3		Event# <u>252</u>	Vessel Sta. I.D.		Instructions							Sta. Designation GRID III, LINE 4			
Consec Cast #	Latitude N or S	Longitude E or W	Date JD = <u>143</u>	Hr.	Min.	Dry Bulb	Wet Bulb	Bar. mb	Si	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Wearh.	Bottom Depth, m	Sta. Name or I.D.			
<u>58</u>	<u>5633</u>	<u>16</u>	<u>N</u>	<u>15554</u>	<u>39</u>	<u>W</u>	<u>23</u>	<u>MAY 90</u>	<u>07</u>	<u>25</u>	<u>55</u>	<u>61</u>	<u>024609020965</u>	<u>254</u>	<u>058</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>2.80</u>						at Surface _____								<u>DUB2:(DATA LOG)</u>			
Cond. SN <u>303</u>		Temp. <u>5.687</u>						Start Down <u>07:18:25</u>											
		Cond. <u>31.260</u>						at Bottom <u>07:</u>											
		Other <u>31.809</u>						Start Up _____											
								at Surface _____											
								Data off _____											
																Remarks <u>MF905058 - 23 May 0716</u>			
Rack	Bot. Depth	T Depth	Trip	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	<u>2</u>								<u>245,313</u>	<u>5.000</u>	<u>32.069</u>	<u>33.271</u>			<u>33.275</u>	<u>05</u>	1		
2												<u>33.268</u>					2		
3																	3		
4																	4		
5																	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

Initials LWF ✓

Consec Cast #	59	Vessel	MILLER FREEMAN	Proj. & Leg	MF90-05	Event #	FOCI-3	Vessel Sta. I.D.	Instructions						Sta. Designation					
Consec Cast #	Latitude		N or S	Longitude		E or W	Date	JD =	Time	Dry	Wet	Bar.	Wind	Wind	Cloud	Bottom	Sta. Name			
	Deg.	Min.	Deg.	Deg.	Day	Mo.	Yr.	GMT	Bulb	Bulb	mb	Dir.	Sp.	Type	Depth, m	or I.D.				
	59	56	33	22	N	156	03	46	W	23	MAY 90	08	17	57	61	0246095199-6	288	059		
CTD	PMEL	Monitor Checks						Times	JD/Time	Data Location										
Type & SN	91220-A	on Deck						Data on		Tape/Diskette I.D.	File Name/Header									
Press. SN	25084	at Surface						at Surface		DUB2: (DATA LOG)										
Temp. SN	701	Press.						Start Down												
Cond. SN	303	Temp.						at Bottom												
		Cond.						Start Up												
		Other						at Surface												
								Data off		Remarks										
MF905059-23 May 0806																				
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	2					274.702	5,050	33.284								33.288	26		1	
2								33.280											2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials JMM

V

Consec.Cast # <u>60</u>		Vessel MILLER FREEMAN			Proj. & Leg MF90-05 FOCI-3			Event# <u>25P</u>	Vessel Sta. I.D.		Instructions						Sta. Designation GRID III, LINE 4.		
Consec Cast #	Latitude	N or S	Longitude	E or W	Date	JD =	Time	GMT	Dry	Wet	Bar.	Bottom	Wind	Wind	Cloud	Type	Bottom Depth, m	Sta. Name or I.D	
	Deg. Min.		Deg.		Day	Mo. Yr.	Hr. Min.		Bulb	Bulb	mb	Depht	Dir.	Sp.	Vis.	Weath.			
	<u>60 54 33</u>	<u>N</u>	<u>156 12 63</u>	<u>W</u>	<u>23</u>	<u>MAY 90</u>	<u>09 21</u>	<u>57</u>	<u>6</u>	<u>102</u>	<u>10018</u>	<u>269</u>	<u>269</u>	<u>060</u>	<u>S</u>	<u>S</u>	<u>269</u>	<u>060</u>	
CTD	PMEL	Monitor Checks								Times ↑ JD/Time		Data Location							
Type & SN	91220-A	SeaBird	on Deck				at Surface				Data on	Tape/Diskette I.D.				File Name/Header			
Press. SN	25084										at Surface					DUB2:(DATA LOG)			
Temp. SN	701		Press.				<u>1,210</u>				Start Down					SBE-CTD.SCS;			
Cond. SN	303		Temp.				<u>5,382</u>				at Bottom								
			Cond.				<u>31,806</u>				Start Up								
			Other								at Surface								
											Data off								
											WD 259								
Remarks <u>MF905000-23 May 0912</u>																			
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD			Sample Bot.Data				Sal. Bot. #	Other Samp.	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1						<u>259.711</u>	<u>5,086</u>	<u>33.337</u>							<u>33.341</u>	<u>25</u>			
2								<u>33.333</u>											
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Initials RMM

Consec. Cast #		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3			Event #	Vessel Sta. I.D.		Instructions						Sta. Designation GRID III, LINE 4			
Consec. Cast #		Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD =	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S.	V.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D	
61	563295	1562137	N	W	23	MAY 90	10 59	57	620246	075189	1001.8	S.	V.	6	7	89	217	061	
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.		0.874		at Surface						DUB2 : (DATA LOG)					
Cond. SN 303				Temp.		5.581		Start Down						SBF CTD.SES;					
				Cond.		31.837		at Bottom											
				Other				Start Up											
								at Surface											
								Data off											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Samp.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1		B	H02	1103	1108	100.14	3.914		32.312						33.321	30	1		
2									32.305								2		
3																	3		
4																	4		
5																	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

Initials LM ✓

Consec.Cast #	62	Vessel MILLER FREEMAN	Proj. & Leg MF90-05 FOCI-3	Event#	260	Vessel Sta. I.D.	Instructions					Sta. Designation GRID III, LINE 3						
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = Mo.	Time Hr.	GMT Min.	Dry Bulb	Wet Bulb	Bar. mb	S. Vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D	
	62 56 37 87	N	156 21 57	W	23	MAY 90	12 03	01	63 02	46 075	209 - 6	199		066				
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.	1,920			at Surface					DUB2:(DATA LOG)						
Cond. SN	303		Temp.	5,600			Start Down					SBE CTD.SGS						
			Cond.	31.824			at Bottom											
			Other				Start Up											
							at Surface											
							Data off											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P		
1	b	100		1207	122	98.912	4.119		32.106					4.115	32.114	21		
2									32.098									
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

Initials PLM ✓

Consec.Cast # <u>03</u>		Vessel MILLER FREEMAN			Proj. & Leg MF90-Q5 FOCI-3			Event# <u>202</u>	Vessel Sta. I.D.			Instructions						Sta. Designation GRID III, LINE 3					
Consec. Cast #		Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = Mo.	Time Hr.	GMT Min.	Dry Bulb	Wet Bulb	Bar. mb	S.	S.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D				
		<u>63</u>	<u>56</u>	<u>37</u>	<u>91</u>	<u>N</u>	<u>156</u>	<u>12</u>	<u>77</u>	<u>W</u>	<u>23</u>	<u>MAY</u>	<u>90</u>	<u>13</u>	<u>15</u>	<u>54</u>	<u>55</u>	<u>024</u>	<u>605521</u>	<u>8</u>	<u>-6</u>	<u>240</u>	<u>06:</u>
CTD Type & SN <u>91220-A</u>		PMEL SeaBird		Monitor Checks						Times <input checked="" type="checkbox"/> JD/Time		Data Location											
Press. SN <u>25084</u>		on Deck						Data on _____		Tape/Diskette I.D. _____						File Name/Header _____							
Temp. SN <u>701</u>		at Surface						at Surface _____								DUB2:(DATA LOG)							
Cond. SN <u>303</u>		Press. <u>1,403</u>						Start Down _____								SBE CTD.SCS;							
		Temp. <u>5,319</u>						at Bottom _____															
		Cond. <u>31.641</u>						Start Up _____															
		Other _____						at Surface _____															
								Data off _____															
Pos.	Bot.	T	Trip	Time @		Monitor Values				Sal.	Conv. Mon. Values-CTD			Sample Bot.Data			Sal.	Other	Samp.				
				Depth	Trip	Press.	Temp.	Cond.	Other		Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				Sal.			
1						<u>227,7504,359</u>			<u>32.808</u>					<u>32.816</u>	<u>06</u>								
2									<u>32.804</u>														
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Initials RJM ✓

Consec. Cast # <u>64A</u>				Vessel MILLER FREEMAN	Proj. & Leg MF90-05	Event# FOCI-3	Vessel Sta. I.D. <u>264</u>	Instructions						Sca. Designation GRID III, LINE 3					
Consec. Cast #	Latitude N or S		NorS	Longitude E or W		EorW	Date JD =	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Si.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D.		
	Deg.	Min.		Deg.			Day Mo. Yr.	Hr. Min.			10029	Si.	Vis.	Vis.	Weath.				
	<u>64</u>	<u>56</u>	<u>37</u>	<u>82</u>	N		<u>1560385</u>	<u>W</u>	<u>23</u>	<u>MAY 90</u>	<u>14</u>	<u>24</u>	<u>55</u>	<u>58</u>	<u>03</u>	<u>460652</u>	<u>48-6</u>	<u>299</u>	<u>064</u>
CTD Type & SN	91220-A	PMEI	Monitor Checks						Times	JD/Time	Data Location								
Press. SN	25084	SeaBird	on Deck			at Surface			Data on		Tape/Diskette I.D.	File Name/Header							
Temp. SN	701		Press.			<u>2.108</u>			at Surface			DUB2 : (DATA LOG)							
Cond. SN	303		Temp.			<u>5317</u>			Start Down			SBE CTD.SES;							
			Cond.			<u>SAC</u>			at Bottom										
			Other			<u>31.656</u>			Start Up										
									at Surface										
									Data off	.									
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD			Sample Bot. Data			Sal.	Other	Samp.	Sal.
				Depth	Trip	Press.	Temp.	Cond.	Other	Sal.	Therm-P	Avg Tw	Sal.						
1						<u>286.4</u>	<u>5.064</u>		<u>33.296</u>							<u>32</u>	1		
2																	2		
3																	3		
4																	4		
5																	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

No Data file due to logger crash

Re cast called

Re cast called

Re cast called

Initials JMM ✓

Consec Cast # <u>64B</u>		Vessel MILLER FREEMAN			Proj. & Leg MF90-05 FOCI-3		Event # <u>205</u>	Vessel Sta. I.D.		Instructions						Sta. Designation GRID III, LINE 2			
Consec Cast #	Latitude N or S		Longitude E or W		Date JD =			Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S. vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D		
	Deg.	Min.	Nor S	Deg.	or W	Day	Mo.	Yr.	Hr. Min.		1005.2	299	299	064A					
<u>64B</u>	<u>56</u>	<u>37</u>	<u>N</u>	<u>1560388</u>	<u>W</u>	<u>23</u>	<u>MAY</u>	<u>90</u>	<u>15</u>	<u>12</u>	<u>59</u>	<u>59</u>	<u>0346</u>	<u>08023</u>	<u>299</u>	<u>064A</u>			
CTD	PMEL		SeaBird		Monitor Checks				Times	JD/Time	Data Location								
Type & SN	91220-A				on Deck		at Surface		Data on		Tape/Diskette I.D.	File Name/Header							
Press. SN	25084				Press.		<u>229</u>		at Surface		DUB2 : (DATA LOG)								
Temp. SN	701				Temp.		<u>5,275</u>		Start Down		SBE CTD, SGS;								
Cond. SN	303				Cond.				at Bottom										
					Other		<u>31,659</u>		Start Up										
									at Surface										
									Data off	.									
Time @				Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other		
Pos.	Bot.	T	Rack	Trip Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.
1							<u>289,5175,065</u>			<u>33,298</u>							<u>33,332</u>	<u>27</u>	
2										<u>33,293</u>									
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Initials gml ✓

Consec.Cast #	Vessel MILLER FREEMAN			Proj. & Leg MF90-Q5	Event#	FOCI-3	Vessel Sta. I.D.	Instructions					Sta. Designation GRID III, LINE IV					
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD =	Time	Dry	Wet	Bar.		Wind	Wind	Bottom	Sta. Name		
	Deg.	Min.	S	Deg.		W	Day Mo. Yr.	GMT Hr. Min.	Bulb	Bulb	mb	si	Dir.	Sp.	Depth, m	or I.D.		
	65	56	N	155	37	W	23 MAY 90	16 17	55	55	10036	Si	Vis	Cloud	Type	Weather		
	637	86		54	28		016	17	55	55	044	6070	189-6	276	065			
CTD	PMEL SeaBird			Monitor Checks				Times	JD/Time			Data Location						
Type & SN	91220-A			on Deck	at Surface			Data on				Tape/Diskette I.D.	File Name/Header					
Press. SN	25084			Press.	2.499			at Surface				DUB2 : (DATA LOG)						
Temp. SN	701			Temp.	5.304			Start Down				SBE CTD.SCS;						
Cond. SN	303			Cond.				at Bottom										
				Other	31.672			Start Up										
								at Surface										
								Data off										
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD			Sample Bot. Data			Sal. Bot. #	Other Samp.	C d
				Bot.	Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.			
1						263.618	5.026	33.258							33.299	51	1	
2								33.258									2	
3																	3	
4																	4	
5																	5	
6																	6	
7																	7	
8																	8	
9																	9	
10																	10	
11																	11	
12																	12	

Initials QM



Consec.Cast # <u>66</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-Q5 FOCI-3		Event # <u>268</u>	Vessel Sta. I.D.		Instructions						Sta. Designation GRID III, LINE 3				
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = Mo.	Time Hr.	GMT Min.	Dry Bulb	Wet Bulb	Bar. mb <u>1004.1</u>	<u>55</u>	<u>55</u>	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D	
	<u>66</u>	<u>56</u>	<u>37</u>	<u>89</u>	<u>N</u>	<u>155</u>	<u>45</u>	<u>19</u>	<u>W</u>	<u>23</u>	<u>MAY</u>	<u>90</u>	<u>17</u>	<u>19</u>	<u>579</u>	<u>5804</u>	<u>4807020872</u>	<u>247</u>	<u>066</u>

CTD Type & SN Press. SN Temp. SN Cond. SN	PMEL SeaBird 91220-A 25084	Monitor Checks on Deck Press. _____ Temp. _____ Cond. _____ Other _____	at Surface 2.437 5.334 31.639	Times Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____	JD/Time _____	Data Location Tape/Diskette I.D. File Name/Header DUB2:(DATA LOG) SPE-STD-SCS; Remarks MF 905066-13 MAY 170 10239
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Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	C D
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	
1						236.153	4.973		33.182							33.187	24		1
2									33.177										2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials John ✓

Consec. Cast # <u>67</u>				Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-Q5 FOCI-3</u>			Event # <u>070</u>	Vessel Sta. I.D.			Instructions						Sta. Designation <u>GRID III, LINE 2</u>			
Consec. Cast #	Latitude N or S		N	Longitude E or W		E	Date Day	Mo.	Yr.	JD =	Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb <u>1025.0</u>	Si. <u>5</u>	Vis. <u>5</u>	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D
	Deg.	Min.	S	Deg.		W				Hr. <u>18</u>	Min. <u>22</u>	<u>62</u>	<u>61</u>	<u>0548</u>	<u>065</u>	<u>17872</u>	<u>272</u>	<u>067</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>5354 1,132</u>										at Surface		<u>DUB2 : (DATA LOG)</u>								
Cond. SN <u>303</u>		Temp. <u>5354</u>										Start Down		<u>SBE CTD.SCS ;</u>								
		Cond. <u>31.629</u>										at Bottom										
		Other <u>31.629</u>										Start Up										
												at Surface										
												Data off	.									
												Remarks <u>MF905067-25.MAY.1812</u>	<u>W027</u>									
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	P.C.			
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.						
1	<u>B</u>		<u>1827</u>	<u>1832</u>	<u>159.185</u>	<u>3.684</u>		<u>32.401</u>					<u>3.87</u>	<u>32.407</u>	<u>35</u>	1						
2								<u>32.400</u>								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 #	Vessel MILLER FREEMAN			Proj. & Leg MF90-05 FOCI-3	Event#	Vessel Sta. I.D.			Instructions							Sta. Designation GRID III LINE 2		
Consec. Cast #	Latitude N or S		Longitude E or W	Date JD =		Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Si	Vis	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D		
	Deg. Min.	S	Deg.	Day Mo. Yr.	Hr. Min.		10052											
68 5 64 2 96 N	155 57 41	151 W	23	MAY 90	19 22	68	68	0548	050	1887	2296	068						
CTD Type & SN Press. SN Temp. SN Cond. SN	PMEL 91220-A SeaBird 25084	Monitor Checks						Times	JD/Time	Data Location								
		on Deck	at Surface							Tape/Diskette I.D.	File Name/Header							
		Press.	1750								DUB2:(DATA LOG)							
		Temp.	5137								SBE CTD.SES;							
		Cond.																
		Other	31,630															
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD			Sample Bot. Data			Sal.	Other	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Other Samp.
1						288,428	5,056		33,305							33,309	16	
2									33,300									2
3																		3
4																		4
5																		5
6																		6
7																		7
8																		8
9																		9
10																		10
11																		11
12																		12

Initials GMM

✓

Consec.Cast # <u>69</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-Q5 FOCI-3		Event # <u>274</u>	Vessel Sta. I.D.		Instructions						Sta. Designation <u>GRID III, LINE 2</u>					
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date Day	JD = Mo.	Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S. Vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D	
	<u>69</u>	<u>56</u>	<u>43</u>	<u>06</u>	N	<u>156</u>	<u>03</u>	<u>11</u>	W	<u>23</u>	MAY	<u>9</u>	<u>0201</u>	<u>16069</u>	<u>069</u>	<u>06</u>	<u>48055</u>	<u>12872</u>	<u>282</u>	<u>06</u>
CTD Type & SN	PMEL 91220-A	SeaBird	Monitor Checks								Times		Data Location							
Press. SN	25084		on Deck				at Surface				JD/Time		Tape/Diskette I.D.		File Name/Header					
Temp. SN	701		Press. <u>1.864</u>										DUB2 : (DATA LOG)							
Cond. SN	303		Temp. <u>5.099</u>										SBE CTD.SES;							
			Cond. <u>30.604</u>																	
			Other <u>31.617</u>																	
Remarks <u>MF905069 - 23 MAY 2006</u>																				
P.S.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	C.P.	
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.		Bot. #
1	2									276.293	4.915	31.885	33.129				33.135	17	1	
2													33.125					2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials WR ✓

Consec.Cast # <u>70</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3		Event# <u>275</u>	Vessel Sta. I.D.		Instructions							Sta. Designation GRID III LINE 2				
Consec. Cast #	Latitude <u>N</u> Deg. Min. S		Longitude <u>E</u> Deg. Min. W		Date <u>JD = 143</u> Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb <u>1005.9</u>	<u>5</u> in	<u>5</u> in	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta Name or I.D.			
	70 5 6 4 3	1 8 N	1 5 6 1 2 1	7 W	2 3 MAY 9 0 2	1 0 9	6 9	6 9	0 6	4 8	0 5 5	1 8 8 7 2	2 0 3		0 7 0					
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.	1.340			at Surface				DUB2:(DATA LOG)									
Cond. SN 303			Temp.	5.303			Start Down	21:03:00												
			Cond.	30.795			at Bottom	21:09:40												
			Other	31.642			Start Up													
							at Surface													
							Data off													
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD			Sample Bot.Data			Sal.	Other	Pos.		
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.		
1	2									195.408	4.101	30.455	32.311				—			1
2													32.308							2
3																				3
4																				4
5																				5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

Initials WF

Consec Cast #	71	Vessel MILLER FREEMAN	Proj. & Leg MF90-05 FOCI-3	Event#	Vessel Sta. I.D.	Instructions							Sta. Designation GRID III, LINE 2						
Consec Cast #	Latitude N Deg. Min. S		Longitude E Deg.	Date JD = 143 YY Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1005.8	S. vis %	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D					
	71 56 43 02 N	156 21 23 W	23 MAY 90	21 57	70	70	06 48	05.0	18872	194	071								
CTD Type & SN Press. SN Temp. SN Cond. SN	PMEL SeaBird 91220-A 25084	Monitor Checks on Deck at Surface				Times	JD/Time	Data Location											
		Press.	1.556			Data on		Tape/Diskette I.D.	File Name/Header										
		Temp.	5.265			at Surface			DUB2: (DATA LOG)										
		Cond.	30.850			Start Down	21:52:30												
		Other	31.740			at Bottom	21:59:06												
						Start Up													
						at Surface		Remarks											
						Data off	.												
Pos.	Bot. Rack	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Pos.
				Depth	Depth	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	T	B		21:59:06	22:04:50					186.539	3.924	30.396	32.421		3.90	32.429	28		1
2													32.417					2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials WR

Consec. Cast #	72	Vessel MILLER FREEMAN	Proj. & Leg MF90-Q5 FOCI-3	Event# 279	Vessel Sta. I.D.	Instructions								Sta. Designation GRID III, LINE 1					
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date JD = 143 Day Mo. Yr.	Time Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	Si. us	Vis	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D.			
	72 56 47 87 N		156 11 98 W		23 MAY 90	23 06 07	10 70 00	64804012872							195	072			
CTD Type & SN Press. SN Temp. SN Cond. SN	PMEL SeaBird 91220-A 25084	Monitor Checks on Deck at Surface				Times	JD/Time	Data Location											
		Press.	1.843			Data on		Tape/Diskette I.D.	File Name/Header										
		Temp.	5.377			at Surface			DUB2:(DATA LOG)										
		Cond.	50.835			Start Down	23:01:00												
		Other	31.618			at Bottom	23:07:40												
						Start Up													
						at Surface													
						Data off	.												
Pos.	Bot.	T Rack	Trip Depth	Time @ Depth	Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Pos.
1	2				Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	1	
2									189.905	3.847	30.379	32.475				32.482	25		2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials WF



Consec Cast #	73	Vessel MILLER FREEMAN	Proj. & Leg MF90-05 FOCI-3	Event # 281	Vessel Sta. I.D.	Instructions								Sta. Designation							
Consec Cast #	Latitude N Deg. Min. S		Longitude E Deg. W		Date JD = 143 Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1006.3	S _s	S _s	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D.					
	73 56 47 88 N		15 60 29 1 W		23 MAY 90	23 58	70	67 06 38	050	10771					254						
CTD Type & SN	PTEL 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.	1.684			at Surface							DUB2:(DATA LOG)							
Cond. SN	303		Temp.	S.369			Start Down	23:51:10													
			Cond.	3.0834			at Bottom	23:59:16													
			Other	31.624			Start Up														
							at Surface														
							Data off														
Time @				Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other					
Pos.	Bot.	Rack	Trip	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	Pos.	
1	2										248.218	4.793	31.705	33.056				33.062	13		1
2														33.052						2	
3																				3	
4																				4	
5																				5	
6																				6	
7																				7	
8																				8	
9																				9	
10																				10	
11																				11	
12																				12	

Initials LX

Consec.Cast # <u>74</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3		Event# <u>283</u>	Vessel Sta. I.D.		Instructions						Sta. Designation									
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = <u>144</u>	Time GMT Hr.	Min.	Dry Bulb	Wet Bulb	Bar. mb _{1656.3}	<u>si</u> <u>ur</u>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta Name or I.D.						
	<u>74</u>	<u>56</u>	<u>47</u>	<u>76</u>	<u>N</u>	<u>15</u>	<u>55</u>	<u>41</u>	<u>7</u>	<u>W</u>	<u>24</u>	<u>MAY</u>	<u>90</u>	<u>00</u>	<u>52</u>	<u>82</u>	<u>75</u>	<u>06</u>	<u>48</u>	<u>06</u>	<u>31</u>	<u>08</u>	<u>72</u>	<u>308</u>
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.			1.991			at Surface							DUB2 : (DATA LOG)								
Cond. SN	303		Temp.			5.333			Start Down	<u>00:43:10</u>														
			Cond.			30.806			at Bottom	<u>00:53:23</u>														
			Other			31.626			Start Up															
									at Surface															
									Data off															
Pos.	Bot.	T	Trip	Time @	Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Pos.					
					Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.							
1	<u>2</u>								<u>302.028</u>	<u>5.052</u>	<u>32.118</u>	<u>33.247</u>				<u>33.253</u>	<u>33</u>		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

Consec.Cast #		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3		Event#	Vessel Sta. I.D.		Instructions								Sta. Designation					
Consec. Cast #		Latitude	N or S	Longitude	E or W	Date	JD = 144	Time GMT		Dry Bulb		Wet Bulb		Bar. mb	Si /s	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D		
Deg.		Deg.		Deg.		Day	Mo.	Hr.	Min.			1008.6	6.6	Wind	Wind	Cloud						
75	5	72	8	12	N	15	44	34	1	W	24	MAY	9	0	66	24	87	81	0838	15872	89	F55
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.				2370				at Surface						DUB2 : (DATA LOG)				
Cond. SN		303		Temp.				5.686				Start Down		06:20:48								
				Cond.				31.246				at Bottom										
				Other				31.790				Start Up										
												at Surface										
												Data off										
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Pos.		
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #				Samp.	
1	2	B									10.755	5.679	31.254	31.801			31.809	22		1		
2														31.787						2		
3																				3		
4																				4		
5																				5		
6																				6		
7																				7		
8																				8		
9																				9		
10																				10		
11																				11		
12																				12		

Initials WF



Consec Cast #		Vessel MILLER FREEMAN			Proj. & Leg MF90-05 - FOCI-3			Event#	Vessel Sta. I.D.			Instructions						Sta. Designation	
Consec Cast #		Latitude	N or S	Longitude	E or W	Date	JD = 144		Time	GMT	Dry	Wet	Bar.	Wind	Wind	Bottom	Sta Name		
		Deg.	Min.	Deg.		Day	Mo.	Yr.	Hr.	Min.	Bulb	Bulb	mb	Dir.	Sp.	Depth, m	or I.D.		
76	573083	N		154476	2W	24	MAY	90	07	17	88	81	1008.0	1838	0315872	219	56		
CTD Type & SN Press. SN Temp. SN Cond. SN		PMEL 91220-A SeaBird 25084 701 303		Monitor Checks on Deck at Surface Press. 2.214 Temp. 5.624 Cond. 31.105 Other 31.689						Times	JD/Time	Data Location Tape/Diskette I.D. File Name/Header DUB2:(DATA LOG)							
										Data on									
										at Surface									
										Start Down	07:11:40								
										at Bottom	07:11:45								
										Start Up									
										at Surface									
										Data off									
Remarks MF905076-24May 0709																			
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.
				Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	2			0	02339				25.755	5.041	30.980	32.090			32.085	19	1		
2												32.105					2		
3																	3		
4																	4		
5																	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

Initials WF



Consec Cast # 77		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3		Event # 299	Vessel Sta. I.D.		Instructions						Sta. Designation				
Consec Cast #		Latitude	N or S	Longitude	E or W	Date JD =	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S. /s	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta Name or I.D			
		Deg.	Min.	Deg.		Day Mo. Yr.	Hr. Min.			1008.2	/s								
77	573310	N		154525S	SW	24 MAY 90	0821	82	81			38	040	169-2	236	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								at Surface			DUB2 : (DATA LOG)								
Cond. SN 303		Press.	1,800						Start Down										
		Temp.	5,846						at Bottom										
		Cond.							Start Up										
		Other	31.639						at Surface										
									Data off										
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				226.665	4.714		33.031							33.034	05		1		
2							33.027										2		
3																	3		
4																	4		
5																	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

Initials JMM ✓

Consec.Cast #		Vessel		Proj. & Leg		Event#	Vessel Sta. I.D.		Instructions						Sta. Designation				
Consec Cast #	78	MILLER	FREEMAN	MF90-05	FOCI-3	301													
Latitude	N	Longitude	E	Date	JD =		Time	GMT	Dry	Wet	Bar.	S.	Wind	Wind	Cloud	Bottom	Sta. Name		
Deg.	or S	Deg.	or W	Day	Mo.	Yr.	Hr.	Min.	Bulb	Bulb	mb	%	Dir.	Sp.	Type	Depth, m	or I.D		
78	57	36	29	N	155	00	63	W	24	MAY	90	09	39	68	68	48	050229-2	243	458
CTD	PMEL	Monitor Checks				Times		JD/Time		Data Location									
Type & SN	91220-A	on Deck		at Surface		Data on				Tape/Diskette I.D.									
Press. SN	25084	Press.		1,306		at Surface				File Name/Header									
Temp. SN	701	Temp.		5,712		Start Down				DUB2: (DATA LOG)									
Cond. SN	303	Cond.		31.778		at Bottom													
		Other				Start Up													
						at Surface				Remarks MF905078-24-MAY0930									
						Data off				WD 241									
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.
				Bot.	Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1						232.710	4,650		32.986							32.990	12	1	
2									32.980									2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials

Gym

✓

Consec.Cast # <u>79</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 - FOCI-3		Event# <u>303</u>	Vessel Sta. I.D.		Instructions							Sta. Designation				
Consec Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = Mo. Yr.	Time Hr.	GMT Min.	Dry Bulb	Wet Bulb	Bar. mb	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sea Name or I.D.		
	<u>79</u>	<u>57</u>	<u>38</u>	<u>27</u>	<u>N</u>	<u>155</u>	<u>04</u>	<u>72</u>	<u>W</u>	<u>24</u>	<u>MAY</u>	<u>90</u>	<u>1021</u>	<u>69</u>	<u>68</u>	<u>09</u>	<u>48</u>	<u>050259-2</u>	<u>261</u>	<u>F59</u>
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.			<u>1.555</u>			at Surface		DUB2:(DATA LOG)									
Cond. SN	303		Temp.			<u>5.872</u>			Start Down											
			Cond.						at Bottom											
			Other			<u>31.656</u>			Start Up											
									at Surface											
									Data off											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.				
1					<u>246.889</u>	<u>4,667</u>		<u>32.998</u>							<u>33,003</u>	<u>03</u>	1			
2								<u>32.993</u>									2			
3																	3			
4																	4			
5																	5			
6																	6			
7																	7			
8																	8			
9																	9			
10																	10			
11																	11			
12																	12			

Initials SWW

✓

Consec Cast # <u>80</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-05		Event # <u>304</u>	Vessel Sta. I.D.	Instructions						Sta. Designation					
Consec Cast #	Latitude	N or S	Longitude	E or W	Date	JD =	Time	Dry Bulb	Wet Bulb	Bar. mb	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D.			
	Deg. Min.		Deg.		Day Mo.	Yr.	Hr. Min.			1006.3	ss								
	<u>80 57.408 N</u>		<u>155 10.97 W</u>		<u>24 MAY 90</u>		<u>11 12 69</u>	<u>69</u>	<u>08</u>	<u>48045219-2</u>		<u>296</u>	<u>F60</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>1.559</u>			at Surface				<u>DUB2:(DATA LOG)</u>							
Cond. SN <u>303</u>		Temp.			<u>5.801</u>			Start Down											
		Cond.						at Bottom											
		Other			<u>31.382</u>			Start Up											
								at Surface											
								Data off											
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						<u>284.710</u>	<u>4.769</u>		<u>33.053</u>					<u>33.059</u>	<u>02</u>				
2									<u>33.049</u>										
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Initials SM

Consec.Cast # 81		Vessel MILLER FREEMAN		Proj. & Leg MF90-Q5 FOCI-3		Event # 307	Vessel Sta. I.D.		Instructions						Sta. Designation		
Consec. Cast #	Latitude N or S	Longitude E or W	Date JD =	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weather	Bottom Depth, m	Sta. Name or I.D			
	Deg. Min.	Deg.	Day Mo. Yr.	Hr. Min.	1008 2	66	66	68	48	035	259	-2	304	861			
CTD Type & SN	PMEL SeaBird 91220-A	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.	1,291	at Surface			DUB2 : (DATA LOG)										
Cond. SN	303	Temp.	6,024	Start Down			SBE CTD SETS:										
		Cond.	31.134	at Bottom													
		Other	31.134	Start Up													
				at Surface													
				Data off													
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD			Sample Bot.Data			Sal. Bot. #	Other Samp.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw		
1				292.944	4,844		33.082							33.088	09	1	
2							33.078									2	
3																3	
4																4	
5																5	
6																6	
7																7	
8																8	
9																9	
10																10	
11																11	
12																12	

Initials SLW

Consec.Cast # <u>82</u>		Vessel MILLER FREEMAN		Proj. & Leg MF90-05 FOCI-3		Event# <u>310</u>	Vessel Sta. I.D.		Instructions <u>MOORING 8902</u>				Sta. Designation									
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date Day Mo. Yr.	JD =	Time Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S. si	V. si	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D.			
	<u>825</u>	<u>736</u>	<u>82</u>	N	<u>155</u>	<u>05</u>	<u>83</u>	<u>W</u>	<u>24</u>	<u>MAY</u>	<u>90</u>	<u>14</u>	<u>21</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>4</u>	<u>0948</u>	<u>0453</u>	<u>30872</u>	<u>256</u>	<u>18902</u>
CTD Type & SN Press. SN Temp. SN Cond. SN	PMEL SeaBird 91220-A 25084	Monitor Checks on Deck at Surface								Times	JD/Time	Data Location										
		Press.	<u>2,773</u>	Temp.	<u>5.814</u>	Cond.	<u>31,681</u>					Tape/Diskette I.D.	File Name/Header									
												DUB2 : (DATA LOG)	<u>SBE CTD.SES;</u>									
												Remarks	<u>MF905082-24 MAY 1409</u>									
												WD 269										
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.			
				Bot. Depth	Trip Depth	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.				Bot. #	Samp.	
1						<u>245.050</u>	<u>4.682</u>		<u>33,000</u>							<u>33,004</u>	<u>14</u>	1				
2									<u>32.996</u>									2				
3																		3				
4																		4				
5																		5				
6																		6				
7																		7				
8																		8				
9																		9				
10																		10				
11																		11				
12																		12				

Initials JM

Consec.Cast # 83		Vessel MILLER FREEMAN			Proj. & Leg MF90-05 FOCI-3			Event# 339	Vessel Sta. I.D.			Instructions							Sta. Designation	
Consec. Cast #		Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 145	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1013.9	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D		
83		59	02	12	N	152	43 7 2 W	25 MAY 90 05 16	79	79	1438	47	15871	192	M8931					
CTD Type & SN 91220-A Press. SN 25084 Temp. SN 701 Cond. SN 303		Monitor Checks on Deck at Surface Press. 1.368 Temp. 6.013 Cond. 31.603 Other 31.882								Times JD/Time Data on _____ at Surface _____ Start Down 05:11:30 at Bottom 17:43 Start Up _____ at Surface _____ Data off _____		Data Location Tape/Diskette I.D. File Name/Header DUB2:(DATA LOG) SBE CTD.SCS;								
Remarks MF905083-25MAY0509																				
#	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	P.C.	
				Bot.	Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				Avg Tw
1	2								186618	5.624	31.525	32.074				32.081	08	1		
2													32.069					2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials JAF

Consec.Cast #		Vessel MILLER FREEMAN		Proj. & Leg MF90-Q5 FOCI-3		Event #	Vessel Sta. I.D.		Instructions						Sta. Designation					
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date Day Mo. Yr.	JD =	Time Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
	84 59 03 40	N		15 20 57 3	W		25 MAY 90	0831	75	75	14	108.5	51	3807018872	184	M9	Φ31			
CTD Type & SN	PMEL 91220-A	SeaBird	Monitor Checks						Times		JD/Time		Data Location							
Press. SN	25084		on Deck			at Surface							Tape/Diskette I.D.		File Name/Header					
Temp. SN	701		Press.			-0.12							DUB2:(DATA LOG)		SBE CTD.SCS					
Cond. SN	303		Temp.			5.871														
			Cond.										Start Up							
			Other			27.433							at Surface							
													Data off							
PoS	Bot.	T	Trip	Time @	Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	%		
	Rack		Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #			
1	2					172.44	5.632		32.07								32.076	04	1	
2									32.065										2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials

