

Consec. Cast # 001				Vessel MILLER FREEMAN		Proj. & Leg MF-88-01 Leg II		Event # 103		Vessel Sta. I.D.				Instructions				Sta. Designation 1																			
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 31		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Cloud		Wave Hgt		Bottom Depth, m		Sta. Name or I.D.											
00153429		N		166492		W 31 JAN 88		2149		074		060		113		070		248		32		113		1													
CTD Type & SN SBE 91220-B				Monitor Checks on Deck at Surface				Times JD/Time				Data Location				Tape/Diskette I.D.				File Name/Header																	
Press. SN 26072				Press. 34473.383				34479.451 (2.072)				Data on 31 / 2146				JAN88				31 JAN 2144																	
Temp. SN 710				Temp. 6746.309				6490.066 (3.613)				Start Down 2149																									
Cond. SN 304				Cond. 3073.570				8705.594				at Bottom 2152																									
				Other 32.201								Start Up 1253																									
												Data off 1252								Remarks Makushin Bay Calibrations : at Anchor																	
St. Bot.		T Rack		Trip		Time @		Press.		Temp.		Cond.		Other		Press.		Temp.		Cond.		Sal.		Therm-P		Avg Tw		Sal.		Bot. #		Sal.		Other		St. Bot.	
1				106		1252		1253		34780.73		6619.422		8836.086		106.201		4517.				32.607		—		—		32.614		1,2				1			
2																																		2			
3																																		3			
4																																		4			
5																																		5			
6																																		6			
7																																		7			
8																																		8			
9																																		9			
10																																		10			
11																																		11			
12																																		12			

changed
0-2 m Jan
32.276 to
32.207%

table 5100
@ 106 m

Initials DMD
✓

Consec. Cast # 002			Vessel MILLER FREEMAN		Proj. & Leg MF-88-01 Leg II		Event # 250		Vessel Sta. I.D.				Instructions Conductivity Sensor disconnected from pump when retrieved - may never have been connected				Sta. Designation 2								
Consec. Cast #		Latitude Deg. Min. N		Longitude Deg.		E or W		Date Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir. Sp.		Wind Type		Bottom Depth, m		Sta. Name or I.D.	
002		553735N		1761033		E		05 FEB 88		1939		000		-02		784		919707		391		4768		2	
CTD Type & SN SBE 91220-B				Monitor Checks on Deck at Surface				Times JD/Time				Data Location Tape/Diskette I.D.				File Name/Header									
Press. SN 26072				Press. 34474.37 (1.924)				Data on 36 / 1936				at Surface 1938				JAN 88				05 FEB 1934					
Temp. SN 710				Temp. 6256.53 (1.858)				Start Down 1939				at Bottom 1953													
Cond. SN 304				Cond. 8628.395				Start Up 1954				at Surface 2005													
				Other 33.268				Data off 1954																	
St. Bot. Rack		T		Trip		Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other		St. Bot. #	
Bot. Depth		Depth		Trip		Press. Temp. Cond. Other		Press. Temp. Cond.				Therm-P Avg Tw				Sal.		Sal.		Sal.		Sal.			
1		2		3		4		5		6		7		8		9		10		11		12			

changed 0-3m
to 33.228
33.333
33.227
33.308
to 33.223
diff of -0.304
@ 130m
not changed

Initials DMD

✓

Consec. Cast # 03			Vessel MILLER FREEMAN			Proj. & Leg MF-88-01 Leg II			Event # 341			Vessel Sta. I.D. END OF SURVEY TRANSECT 16 IN 'DONUT HOLE'			Instructions			Sta. Designation TRANSL # 9													
Consec. Cast #		Latitude		N or S		Longitude		E or W		Date JD = 39		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Wind Type		Weather		Bottom Depth, m		Sta. Name or I.D.	
003		5601		39N		17912		39E		08FEB88		2206		015		010		954		7014		14882		3750		3750		TR9			
CTD Type & SN SBE 91220-B																		Data Location													
Press. SN 26072																		Tape/Diskette I.D. File Name/Header													
Temp. SN 710																		JAN88 08FEB2200													
Cond. SN 304																		Remarks 30 m/min rate to 200 m; 45-50 to 500m													
Other																		Wire out 515 m													
Monitor Checks																		Conv. Mon. Values-CTD													
on Deck (during ascent)																		Sample Bot. Data													
Press. 34471.339																		Therm-P Avg Tw Sal.													
Temp. 6497.78																		33.948													
Cond. 3079.576																		33.953 3.5													
Other																															

St. Bot.	T Rack	Trip	Depth	Time @	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Sal. Bot. #	Other Samp.	St. Bot.
1	25	505	2220	2220	35921.082	6491.645	8904.661		506.180	3.625		33.948	—	—	33.953	3.5		1
2																		2
3																		3
4																		4
5																		5
6																		6
7																		7
8																		8
9																		9
10																		10
11																		11
12																		12

Initials DMD
✓

changed 0-3m
from 33.248
33.248
33.248
33.250
to 33.206

changed 0-2m
from 31.641
to 31.827

table set
@ 100m

Consec. Cast # 05			Vessel MILLER FREEMAN		Proj. & Leg MF-BB-01 Leg III		Event # 119		Vessel Sta. I.D.		Instructions		Sta. Designation HUMPBAY BAY CALIBRATION																														
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 048		Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir. Sp.		Wind Dir. Sp.		Weather		Bottom Depth, m		Sta. Name or I.D.																			
005		53 44 36 N		166 53 17 W		17 FEB 88		03 34		01 01		- 01		00 00		28 07 01		10 71		10 71		108		005																			
CTD				Type & SN SBE 91220-B				Press. SN 26072				Temp. SN 710				Cond. SN 304				Monitor Checks				Times JD/Time				Data Location															
				on Deck at Surface				Data on 48 / 0330				at Surface 0333				Start Down 0333				at Bottom 0336				Start Up 0337				at Surface 0340				Data off 0337				Tape/Diskette I.D. File Name/Header							
				Press. 34470.723 (0.000)				34476.344 (1.950)																								JAN 88 17FEB0326											
				Temp. 6007.863 (0.255)				6474.953 (3.504)																																			
				Cond. 3073.523				3617.223																																			
				Other (0.000)				(31.661)																																			
				Remarks At Anchor, Humpback Bay for calibration				Wire Out : 105 m																																			

s Bot. Rack		T Trip		Time @		Monitor Values		Conv. Mon. Values-CTD		Sample Bot. Data		Sal. Bot. #		Other s Bot. #	
1 251		- 101		0336 0337		Press. 34763.498 6554.766 8756.703		Press. 100.304 4.066		Sal. 32.309		32.310 8.9		1	
2														2	
3														3	
4														4	
5														5	
6														6	
7														7	
8														8	
9														9	
10														10	
11														11	
12														12	

Initials DMD

✓

Consec. Cast # 006				Vessel MILLER FREEMAN				Proj. & Leg MF-88-01 Leg III				Event # 179				Vessel Sta. I.D.				Instructions				Sta. Designation FOCI # 3													
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 51		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Cloud		Weather		Bottom Depth, m		Sta. Name or I.D.											
0065416117N		1665887W		20 FEB 88		1402		-55-65						2048330153-3								1345F0C13															
CTD Type & SN SBE 91220-B				Monitor Checks on Deck				Times JP/Time				Data Location Tape/Diskette I.D.				File Name/Header																					
Press. SN 26072				at Surface (3.681) 34480.652				Data on 51/1400				at Surface				JAN 88				20 FEB 1357																	
Temp. SN 710				(3.729) 6506.461				Start Down 1402				at Bottom																									
Cond. SN 304				8697.004				Start Up 1436				at Surface																									
				Other (31969)				Data off 1436				Remarks Ended Cast with 1405 m wire out, 1270 m depth: 20+ wire angle. Weak bottom trace from pinger																									
St. Bot. Rack		Trip		Time @		Monitor Values		Conv. Mon. Values-CTD		Sample Bot. Data		Sal. Bot. #		Other		St. Bot. Rack		Trip		Time @		Sal. Bot. #		Other													
1 252		MAX		1436		37993.318 6310.020 8859.258		1268.862 2.337		34.460		10,11		1		2		3		4		5		6		7		8		9		10		11		12	

changed 0-3m
to 31.988
to 32.0149m

changed 9m
to 32.2649m
to 32.3479m

59m stable @
1269m

Initials DMD
✓

Initials DMD

Initials DMD

7

Consec. Cast # 09			Vessel MILLER FREEMAN			Proj. & Leg MF-88-01 Leg III			Event # 211			Vessel Sta. I.D.			Instructions TRAWLS # 17, 18; TRANSECT 23			Sta. Designation 09													
Consec. Cast #		Latitude		Longitude		E or W		Date		JD		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Cloud		Weather		Bottom Depth, m		Sta. Name or I.D.	
00954		17 19 2 N		167 04 41		W		23 FEB 88		0543		0543		0300		0208		7947		33912		875		1230		1230		09			
CTD																															
Type & SN SBE 91220-B																															
Press. SN 26072																															
Temp. SN 710																															
Cond. SN 304																															
Monitor Checks																Data Location															
on Deck																Tape/Diskette I.D.															
at Surface																File Name/Header															
Press. 34471.402 (0.000)																JAN 88															
Temp. 6505.234 (3.680)																23 FEB 0538															
Cond. 3073.648																															
Other (0.000)																															
at Surface (a.134)																															
Press. 34477.609																															
Temp. 6543.469 (3.899)																															
Cond. 8772.324																															
Other (32.533)																															
Data on 54/0540																															
at Surface																															
Start Down 0543																															
at Bottom 0558																															
Start Up 0559																															
at Surface 06																															
Data off 0558																															
Remarks																															
Sample Bot. Data																															
Therm-P Avg Tw Sal. Bot. # Other																															
1 252 - 0558 0558 35912.6 6492.023 8900.879 503.260 3.628 33.911 33.913 2022 1																															
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Initials DMD

✓

510.50000
503m

Consec. Cast # 10				Vessel MILLER FREEMAN		Proj. & Leg MF-59-01 Leg III		Event # 267		Vessel Sta. I.D.				Instructions TRANSL # 19				TRANSECT 25.1				Sta. Designation 010			
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 55		Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		gust		Sta. Name or I.D.			
01054		0132N		1671296W		24 FEB 88		0956		015		008		81		58315		08382		1280		010			
CTD Type & SN SBE 91220-B				Monitor Checks on Deck at Surface				Times JD/Time				Data Location				File Name/Header									
Press. SN 26072				Press. (2.109) 34480.523				Data on 55/0953				Tape/Diskette I.D. JAN88				24 FEB 0942									
Temp. SN 710				Temp. (4.039) 6550.504				Start Down 0956				at Bottom 1011													
Cond. SN 304				Cond. (32.617) 8777.723				Start Up 1012				Remarks													
				Other				Data off 1011																	

St. #		T		Trip		Time @		Monitor Values			Conv. Mon. Values-CTD			Sample Bot. Data			Sal.		Other	
Bot.	Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Sal.	Other		
1	252	-	503	1011	1011	35914.895	6499.199	8903.984	503.055	3.679		33.887			33.891	16.17		1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

changed 0-1m
32.323
32.545
32.544
32.546
32.518
to 32.63610

51.34666
503 m

Initials DMD

✓

changed 0-2 m
for 32-396
32-396
32-361
to 32.435 m

Consec. Cast # 11			Vessel MILLER FREEMAN		Proj. & Leg MF-38-01 Leg III		Event # 303		Vessel Sta. I.D.		Instructions TRAWL # 20		TRANSECT 27				Sta. Designation 11								
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 57		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir. Sp.		Wind Sp.		Weather		Bottom Depth, m		Sta. Name or I.D.	
11		53 48 61 N		168 12 60 W		26 FEB 88		00 39		04		00 22		93		5833808681		11403		11		11		11	
CTD		Type & SN SBE 91220-B		Press. SN 26072		Temp. SN 710		Cond. SN 304		Monitor Checks		Times		Data Location		Tape/Diskette I.D.		File Name/Header		Remarks					
										on Deck (0.013)		Data on 57/0035		at Surface 0038		JAN 88		26 FEB 0032		Underwater unit error @ 280 m.					
										6435.754 (2.771)		Start Down 0038		at Bottom						Cast halted and retrieved					
										3078.039		Start Up 0048		at Surface											
										(0.000)		Data off 0047													

s		Bot. Rack		T		Trip		Time @		Monitor Values		Conv. Mon. Values-CTD		Sample Bot. Data		Sal.		Other	
1		251		-		-		-		Press. Temp. Cond. Other		Press. Temp. Cond.		Therm-P Avg Tw Sal.		Bot. #		Samp.	
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Broken pin connector at CTD/Cable connection : repaired

Initials DMD

✓

0-1m changed
for
31.147%
to
32.562%

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Consec. Cast # 12			Vessel MILLER FREEMAN		Proj. & Leg MF-88-01 Leg III		Event # 322		Vessel Sta. I.D.		Instructions TRAWL # Z1		TRANSECT 28		Sta. Designation		12										
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 57		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Cloud		Weather		Bottom Depth, m		Sta. Name or I.D.	
12		5429		92N		16828		56W		26FEB		88		1204		005		-110		9548		1330		1472		12	
CTD		Type & SN		SBE 91220-B		on Deck		at Surface		Times		JD/Time		Data Location		Tape/Diskette I.D.		File Name/Header									
		Press. SN		26072		34470.691(0.000)		34476.332(0.286)		Data on		57 / 1200		at Surface		JAN 88		26 FEB 1155									
		Temp. SN		710		5949.293(-0.10)		6526.551(3.850)		Start Down		1203		at Bottom													
		Cond. SN		304		3073.457		8758.012		Start Up		1220		at Surface													
		Other		0.000		(32.530)				Data off		1219															
St. Bot.		T		Trip		Time @		Monitor Values		Conv. Mon. Values-CTD		Sample Bot. Data		Sal.		Other											
1		251		-		1219		35914.234		503.211		3567		33.939		18.19		1									
2																		2									
3																		3									
4																		4									
5																		5									
6																		6									
7																		7									
8																		8									
9																		9									
10																		10									
11																		11									
12																		12									

Initials DM

✓

Consec. Cast # 13			Vessel MILLER FREEMAN		Proj. & Leg MF 8801 Leg III		Event # 383		Vessel Sta. I.D.		Instructions TRAWL # 23				TRANSECT 31				Sta. Designation 13						
Consec. Cast #		Latitude Deg. Min.		Longitude Deg. Min.		Date JD = 59		Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Wave Type		Bottom Depth, m		Sta. Name or I.D.	
1		3530867N		16921171W		28 FEB 88		0711		0200		0050		0348		0361		1666		1125		55		13	
CTD		Type & SN SBE 91220-B		on Deck		at Surface		Times		JD/Time		Data Location													
Press. SN 26072		34471.797 (0.001)		34482.676 (3.139)		Data on 59/0709		at Surface 0710		Tape/Diskette I.D. File Name/Header															
Temp. SN 710		6126.793 (1.019)		6560.257 (4.109)		Start Down 0711		at Bottom 0725		JAN 88 28 FEB 0703															
Cond. SN 304		3086.125		8801.289		Start Up 0726		at Surface 07		Remarks															
		Other (0.026)		(32.740)		Data off 0726																			
T Rack		Trip		Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other					
Bot. 251		500		0725		Press. 35903.500		Temp. 6470.125		Cond. 8885.992		Press. 497.953		Temp. 3.475		Cond. 33.923		Therm-P		Avg Tw		Sal. 33.931		23.24	
1		2		3		4		5		6		7		8		9		10		11		12		1	
2		3		4		5		6		7		8		9		10		11		12		1		2	
3		4		5		6		7		8		9		10		11		12		1		2		3	
4		5		6		7		8		9		10		11		12		1		2		3		4	
5		6		7		8		9		10		11		12		1		2		3		4		5	
6		7		8		9		10		11		12		1		2		3		4		5		6	
7		8		9		10		11		12		1		2		3		4		5		6		7	
8		9		10		11		12		1		2		3		4		5		6		7		8	
9		10		11		12		1		2		3		4		5		6		7		8		9	
10		11		12		1		2		3		4		5		6		7		8		9		10	
11		12		1		2		3		4		5		6		7		8		9		10		11	
12		1		2		3		4		5		6		7		8		9		10		11		12	

0-2m changed to 32.741 to 32.620%

59.741 to 498 m

Initials JMD ✓

Consec. Cast # 4				Vessel MILLER FREEMAN		Proj. & Leg MF-98-01 Leg III		Event # 422		Vessel Sta. I.D.		Instructions TRAWL # 24				TRANSECT # 33				Sta. Designation 14							
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 60		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Cloud		Weather		Bottom Depth, m		Sta. Name or I.D.	
14534350N		1693758W		29 FEB 88		1154		028015		9248		113058		22150		14		14		14		14		14		14	
CTD		Type & SN SBE 91220-B		Press. SN 26072		Temp. SN 710		Cond. SN 304		Monitor Checks		Times JD/Time		Data Location		Tape/Diskette I.D.		File Name/Header		Remarks							
		on Deck		at Surface		Data on 60/1146		at Surface 1153		Start Down 1154		at Bottom 1208		Start Up 1209		at Surface		Data off 1209									
		Press. (0.008) 34471.555		Temp. (1.349) 6177.043		Cond. 3075.789		Other (0.000)		32.815																	
		Trip Depth		Time @		Monitor Values		Conv. Mon. Values-CTD		Sample Bot. Data		Other															
Bot. Rack		Depth		Trip		Press. Temp. Cond. Other		Press. Temp. Cond.		Sal. Bot. #		Sal.		Therm-P		Avg Tw		Sal.		Sal.		Bot. #		Other			
1 252		250		1216		35198.367 6538.469 8891.996		250.750 3.953 33.623		33.626		25,26		1		2		3		4		5		6		7	
2																											
3																											
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

changed 0-1 m
for 31.497
32.687
to 32.797.

stashed 59.0
251 m

Initials DMD

✓

Consec. Cast # 15			Vessel MILLER FREEMAN		Proj. & Leg MF-88-01 Leg III		Event # 453		Vessel Sta. I.D.		Instructions TRAWL STATION # 25		Sta. Designation 15																
Consec. Cast #		Latitude		Longitude		Date		Time		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Cloud		Type		Weather		Bottom Depth, m		Sta. Name or I.D.	
15		5420180N		1684796W		01 MAR 88		0532		2022		014		91		58240		17		681		11737				15			
CTD		Type & SN SBE 91220-B		on Deck		at Surface		Times		JD/Time		Data Location		Tape/Diskette I.D.		File Name/Header		Remarks											
Press. SN		26072		Press. 34471.273 (-0.001)		34480.336 (2.223)		Data on 61/0530		at Surface		0531		JAN 88		01 MAR 0528													
Temp. SN		710		Temp. 6219.215 (1.917)		6466.578 (3.449)		Start Down 0532		at Bottom		0545																	
Cond. SN		304		Cond. 3074.809		8753.512		Start Up 0546		at Surface		0545																	
Other		(0.000)		Other (32.959)		Data off 0545																							

St. #	Bot. Rack	T	Trip		Time @			Monitor Values			Conv. Mon. Values-CTD			Sample Bot. Data			Sal. Bot. #	Other Samp.
			Depth	Time	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	252	-	300	0550	0551	35323.20	6531.285	9870.094	294.812	3.903		33.442			33.762	27	1	
2																	2	
3																	3	
4																	4	
5																	5	
6																	6	
7																	7	
8																	8	
9																	9	
10																	10	
11																	11	
12																	12	

3256 m³ d^m
nubial
sub, 5100
inversion
charged 0-1m
by 32.942
to 32.90276

5100 stable
@ 295m

Initials DMD
✓

Consec. Cast # 16			Vessel MILLER FREEMAN		Proj. & Leg MF-88-01 Leg III		Event # 454		Vessel Sta. I.D.				Instructions TRAWL STATION #27				Sta. Designation 16														
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 61		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Cloud		Weather		Bottom Depth, m		Sta. Name or I.D.					
16		54 16 68 N		16 85 02 5 W		01 MAR 88		06 30		01		00 59		91		58225		12		681		2058		16							
CTD		Type & SN SBE 91220 - B		on Deck		at Surface		Data on		at Surface		Start Down		at Bottom		Start Up		at Surface		Data off		Data Location		File Name/Header							
Press. SN		26072		Press. 34471.664		34478.273		Data on 61 / 0628		at Surface 0630		Start Down 0630		at Bottom 0643		Start Up 0643		at Surface		Data off 0643		Tape/Diskette I.D. JAN 88		01MAR0625							
Temp. SN		710		Temp. 6054.789		6421.441(3.136)																									
Cond. SN		304		Cond. 3073.957		8710.859																									
				Other (0.000)		(32.961)																									
Bot. Rack		T		Trip		Time @		Monitor Values		Press.		Temp.		Cond.		Other		Press.		Temp.		Cond.		Sal.		Bot. #		Other		Samp.	
1		252		200		0651		35040.789		6555.066		8892.332		195.845		4.070		33.536						33.536		28		1			
2																												2			
3																												3			
4																												4			
5																												5			
6																												6			
7																												7			
8																												8			
9																												9			
10																												10			
11																												11			
12																												12			

changed 0-3m
from 32.889
32.889
32.987
to 33.536

5% @ 196m
unstable

Initials DMD
✓

Initials DMD

Consec. Cast # 19			Vessel MILLER FREEMAN		Proj. & Leg MF-88-01 Leg III		Event # 460		Vessel Sta. I.D.		Instructions TRAWL STATION # 28		Sta. Designation 19																												
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 61		Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Cloud		Type		Weather		Bottom Depth, m		Sta. Name or I.D.													
19		54 20 19 4 N		169 01 18 5 W		01 MAR 88		11 26 00		00 - 11 59		15 91		67184		24873		1920		1920		1920		1920		19															
CTD		Type & SN SBE 91220 B		Press. SN 26072		Temp. SN 710		Cond. SN 304		Monitor Checks		Times JD/Time		Data on 611124		at Surface 1125		Start Down 1126		at Bottom 1139		Start Up 1140		at Surface		Data off 1140		Remarks													
Type & SN		Press. SN		Temp. SN		Cond. SN		Other		on Deck (0.000)		at Surface (2.173)		34470.672		34475.988		6410.906		8723.922		(33.036)		Tape/Diskette I.D. JAN 88		File Name/Header Q1MAR1122															
Press.		Temp.		Cond.		Other		Monitor Values		Press.		Temp.		Cond.		Other		Conv. Mon. Values-CTD		Press.		Temp.		Cond.		Sal.		Therm-P		Avg Tw		Sal.		Bot. #		Other		Samp.			
1		252		- 500		1139		1140		35907.238		6459.879		8889.656		501.548		3.403		34.040																		30		1	
2																																						2			
3																																						3			
4																																						4			
5																																						5			
6																																						6			
7																																						7			
8																																						8			
9																																						9			
10																																						10			
11																																						11			
12																																						12			

500m
502m

Initials DMD

✓

Consec. Cast # 21				Vessel MILLER FREEMAN		Proj. & Leg MF-88-01 Leg III		Event # 554		Vessel Sta. I.D.				Instructions				Sta. Designation 21									
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 63		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Cloud		Weather		Bottom Depth, m		Sta. Name or I.D.	
21		53 54 60 N		167 37 23 W		03 MAR 88		10 17 01		02 18 01		01 01 01		93 48 16		05 28 11		17 16		21				21			
CTD Type & SN SBE 91220-B				Monitor Checks on Deck at Surface (a.083)				Times JD/Time				Data Location															
Press. SN 26072				Press. 34471.164 (0.000) 34477.176				Data on 63/1013				Tape/Diskette I.D. File Name/Header															
Temp. SN 710				Temp. 6243.109 (1.144) 6501.684 (3.696)				Start Down 1017				JAN 88 03 MAR 1010															
Cond. SN 304				Cond. 3073.492 8715.652				Start Up 1031				Remarks															
				Other (0.000) (32.356)				Data off 1031																			
Bot. Rack		T Trip		Time @		Monitor Values		Conv. Mon. Values-CTD		Sample Bot. Data		Sal. Bot. #		Other													
1 252		250		1037 1038		Press. 35197.961 6541.234 8851.473		Press. 250.004 3.988		Therm-P		Avg Tw		Sal. 33.218		1											
2																2											
3																3											
4																4											
5																5											
6																6											
7																7											
8																8											
9																9											
10																10											
11																11											
12																12											

changed 0-3m
from 32.307
32.307
32.345
32.316
to 32.433

lowly stable
@ 250m

Initials JMD
✓

7

Consec. Cast # 23			Vessel MILLER FREEMAN			Proj. & Leg MF-88-01 Leg III			Event # 569			Vessel Sta. I.D.			Instructions			Sta. Designation FOC 15																	
Consec. Cast #		Latitude		Longitude		E or W		Date		JD = 64		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Cloud		Type		Weather		Bottom Depth, m		Sta. Name or I.D.			
23		5430		90N		16707		93W		04MAR		88		1031		0300		0211		9948		0751		581		581		497		FOC 15					
CTD			Type & SN SBE 91220-B			Monitor Checks			Times			JD/Time			Data Location			Remarks																	
Press. SN			26072			on Deck			at Surface			Data on			1028			File Name/Header																	
Temp. SN			710			(0.000)			(2.287)			at Surface			1030			JAN88																	
Cond. SN			304			Press. 34471.500			34478.180			Start Down			1031																				
						Temp. 6404.074			6407.391			at Bottom			1044																				
						Cond. 3073.488			3683.629			Start Up			1055																				
						Other (0.000)			(32.322)			Data off			1044																				
T			Trip			Time @			Monitor Values			Conv. Mon. Values-CTD			Sample Bot. Data			Sal. Bot. #			Other														
Bot. Rack			Depth			Depth			Press.			Temp.			Cond.			Press.			Temp.			Cond.			Sal.			Bot. #			Other		
1			252			250			1050			35195.9			6557.9			8897.289			249.483			4.090			33.534			33.536			34		
2																																			
3																																			
4																																			
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			
11																																			
12																																			

changed 0-2m
from 32.696
to 32.733900

590.1m
32.696
(33.528)

Initials DMD
✓

changed 0-1m
to 32.496

Consec. Cast # 24			Vessel MILLER FREEMAN		Proj. & Leg MF-88-01 Leg III		Event # 571		Vessel Sta. I.D.		Instructions Run time error indicated during Cast: no hardware error indicated				Sta. Designation FOC14														
Consec. Cast #		Latitude		Longitude		Date		Time		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Cloud		Type		Depth, m		Sta. Name or I.D.			
24		54		23		03		N		16		70		30		1		W		04		MAR		88		11		46	

Consec. Cast # 25				Vessel MILLER FREEMAN		Proj. & Leg MF-88-01 Leg III		Event # 572		Vessel Sta. I.D.		Instructions				Sta. Designation FOCI 4													
Consec. Cast #		Latitude		Longitude		E or W		Date JD = 64		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Cloud Type		Weather		Bottom Depth, m		Sta. Name or I.D.	
25		54 22 99 N		167 03 06 W		04 MAR 88		12 32		02 00 05		99		48 04 50		78 1		608		FOCI 4									
CTD Type & SN SBE 91220-B				Monitor Checks				Times ID/Time				Data Location				File Name/Header													
Press. SN 26072				(-0.041) on Deck (1.963) at Surface				Data on 64/1229				Tape/Diskette I.D. JAN 88				04 MAR 1226													
Temp. SN 710				Press. 34472.277 (1.126) (3.459)				Start Down 1232																					
Cond. SN 304				Temp. 6143.152 (6468.105)				at Bottom 1248																					
				Cond. 3122.637 (8713.641)				Start Up 1250																					
				Other (0.088) (32.563)				Data off 1249				Remarks Repeat of Cast 24																	
St. Bot.		T Rack		Trip		Time @		Monitor Values		Conv. Mon. Values-CTD		Sample Bot. Data		Sal. Bot. #		Other Samp.													
1								Press. Temp. Cond. Other		Press. Temp. Cond.		Therm-P Avg Tw Sal.																	
2		251		1248		1249		36164.051 6471.844 8903.086		592.619 3.486 34.032		34.036 35																	
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

no change

59% very stable

@ 593 m (34.022)

Seabirdus (Antarctic)

mean .003

of casts 18

std dev .002

[20 samples / 2 discarded]

Initials DMD

✓