

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION														
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)			
44	15	743.17	N	152	17.24	W	25	SEP	02	2	05	11	11.4	10.9	1737	2	09	2	04	61	192	
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS												
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header		centerboard up Chinick eq 500 - off												
PRESS SN		80020		START DOWN						02-cb-16												
TEMP SN		710/884		AT DEPTH						(before recovery)												
COND SN		915/530		AT SURFACE						MAX. DEPTH = m												
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve 184m w/6												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	184											35										
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

eq 500 on centerboard - centerboard up (depth values higher)

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)	
1658	16.46	N	147.43	5	28	SEP	02	13	48	14.7	9.1	1148			27	116	100		235	
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header												
PRESS SN		80020		START DOWN																
TEMP SN		710/884		AT DEPTH																
COND SN		915/530		AT SURFACE						MAX. DEPTH = m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve 2256 m										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.									
1		28 ✓						24	546											
2		23 ✓							547											
3		18 ✓							548											
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

chart depth -1195 fm ≈ 2175 m

VESSEL		PROJECT & LEG										STATION DESIGNATION									
NOAA R/V MILLER FREEMAN		MF02-11																			
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
01758	15.94	N	14740.29	W	3	SEP	02	09	42	10.7	10.7	194	4	19	0	0	8	6	6	227	
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS									
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header				FATE									
PRESS SN		80020		START DOWN																	
TEMP SN		710/884		AT DEPTH																	
COND SN		915/530		AT SURFACE								MAX. DEPTH = 53 m									
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> ChIAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve									
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.									
1		28 ✓											549								
2		23 ✓											58	550							
3		18 ✓												551							
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Depth from pdr

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION														
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
0245933.65	N		14912.28	W	01	OCT	02	09	06	9.2	9.2	984	6	3	40	3	2	0	6	6	214	
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS												
TYPE & SN	9+ S/N 91220		DATA ON				Tape/Diskette ID		File Name/Header		2682											
PRESS SN	80020		START DOWN																			
TEMP SN	710/884		AT DEPTH																			
COND SN	915/530		AT SURFACE								MAX. DEPTH = m											
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHLOR 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.										
1		204 ✓							06													
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
0365	843.59	N	15100.04	W	05	OCT	02	07	18	09.2		1835	5	0	7320	8	75			171	KS5
CTD		TIMES		JD/TIME			DATA LOCATION				REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		04:20:00 GMT			Tape/Diskette ID		File Name/Header										
PRESS SN		80020		START DOWN		04:21:00 GMT															
TEMP SN		710/884		AT DEPTH		04:35:06 GMT															
COND SN		915/530		AT SURFACE										MAX. DEPTH = 171 m							
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
165	167										✓	614									
150	150												615								
125	125												616								
100	100												617								
75	76												618								
50	50												619	✓							
40	46												620	✓							
30	31												621	✓							
20	20												622	✓							
10	10												623	✓							
0	3												624	✓							

MAX FLOW = 0.5 Volts

VESSEL				PROJECT & LEG				STATION DESIGNATION													
NOAA R/V MILLER FREEMAN				MF02-11																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
0375840	89	N	15108	94	W	05	OCT	02	05	14	9.2				1735	77	198	75		184	KSG
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN		9+ S/N 91220		DATA ON		05:15:00 GMT		Tape/Diskette ID		File Name/Header											
PRESS SN		80020		START DOWN		05:16:00 GMT															
TEMP SN		710/884		AT DEPTH		05:21:00 GMT															
COND SN		915/530		AT SURFACE		05:30:00 GMT						MAX. DEPTH = 184 m									
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
180	180								✓	625											
150	150									626											
125	125									627											
100	100									628											
75	70									629											
50	50									630	✓										
40	40									631	✓										
30	30									632	✓										
20	20									633	✓										
10	10									634	✓										
0	3									635	✓										
	12																				

MAX F10 = 0.5 volts

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
038	S	840.35	N	15050.36	W	05	OCT	02	06	34	9.0	.	16	35	67	22	8	7	5	192	GP6d
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS									
TYPE & SN		9+ S/N 91220		DATA ON		06:35:06 GMT		Tape/Diskette ID			File Name/Header										
PRESS SN		80020		START DOWN		06:35:00 GMT															
TEMP SN		710/884		AT DEPTH		06:41:00 GMT															
COND SN		915/530		AT SURFACE		06:51:00 GMT					MAX. DEPTH = 190 m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER			<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.										
	190												636								
150	2	151											637								
125	3	125											638								
100	4	101											639								
75	5	75											640								
50	6	50											641								
40	7	40											642	✓							
30	8	30											643	✓							
20	9	20											644	✓							
10	10	11											645	✓							
0	11	4											646	✓							
	12												647	✓							

MAX FLO = 0.5 Volts

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
0395	835.52	N	15048.32	W	05	0	2	07	30	8.7	.	1535	5	5	3	24	8	7	5	184	6P7
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN		9+ S/N 91220		DATA ON		07:31:00 GMT		Tape/Diskette ID		File Name/Header											
PRESS SN		80020		START DOWN		07:31:00 GMT															
TEMP SN		710/884		AT DEPTH		07:38:00 GMT															
COND SN		915/530		AT SURFACE		07:52:00 GMT						MAX. DEPTH = 176 m									
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
176	176							✓	647												
150	151								648												
125	125								649												
100	100								650												
75	75								651												
50	50								652		✓										
40	39								653		✓										
30	29								654		✓										
20	20								655		✓										
10	10								656		✓										
0	3								657		✓										
											✓										

Max Flg = 0.5 volts

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID																
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)																	
640	58	32.10	N	154	47.31	W	05	O	C	T	0	2	08	43	8.8	8.8	1.4	3	5	0	5	2	2	5	8	6	6	1	3	8	6	P	7	9		
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS																										
TYPE & SN	9+ S/N 91220		DATA ON		Tape/Diskette ID				File Name/Header																											
PRESS SN	80020		START DOWN																																	
TEMP SN	710/884		AT DEPTH																																	
COND SN	915/530		AT SURFACE						MAX. DEPTH = m																											
<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve 130 w/o																												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER																											
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.																									
1	133 ✓																																			
2	125 ✓																																			
3	100 ✓																																			
4	75 ✓																																			
5	60 ✓																																			
6	40 ✓																																			
7	30 ✓																																			
8	20 ✓																																			
9	10 ✓																																			
10	0 ✓																																			
11																																				
12																																				

max FIV - 0.55

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)				
041	58	29	150	45	5	0	2	4	51	9.2	9.2	133	5	0	5	2	2	9	8	7	6	92	GP7b	
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS														
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID				File Name/Header														
PRESS SN		80020		START DOWN																				
TEMP SN		710/884		AT DEPTH																				
COND SN		915/530		AT SURFACE						MAX. DEPTH = m														
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve 83w/s														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER															
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.													
1	88 ✓																							
2	75 ✓																							
3	60 ✓																							
4	50 ✓																							
5	40 ✓																							
6	30 ✓																							
7	20 ✓																							
8	13 ✓																							
9	0																							
10																								
11																								
12																								

chV = 0.7

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION GP8												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)	
04258	25	.91	N	156	43	4	W	05	02	10	21	0	1	0	2	1	0	2	1	0
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS										
TYPE & SN	9+ S/N 91220		DATA ON				Tape/Diskette ID		File Name/Header											
PRESS SN	80020		START DOWN																	
TEMP SN	710/884		AT DEPTH																	
COND SN	915/530		AT SURFACE								MAX. DEPTH = 77 / m									
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve		4/6 = 75								
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER										
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
1	75 ✓								680											
2	60 ✓								681											
3	50 ✓								682											
4	40 ✓								683											
5	30 ✓								684											
6	20 ✓								685											
7	10 ✓								686											
8	6 ✓								687											
9																				
10																				
11																				
12																				

$fIV_{max} \approx 0.5$

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION 6P8A													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
0435822.59	N	15041.22	W	05	OCT	02	12	03	9.7	9.7	4945	4	5	068	31	8	7	5	6		
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID				File Name/Header											
PRESS SN		80020		START DOWN																	
TEMP SN		710/884		AT DEPTH																	
COND SN		915/530		AT SURFACE						MAX. DEPTH = m											
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve 2/0-66											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	60 ✓										678										
2	50 ✓										679										
3	40 ✓										688										
4	30 ✓										689										
5	20 ✓										690										
6	10 ✓										691										
7	0 ✓										692										
8																					
9																					
10																					
11																					
12																					

FLU ~ 0.5

VESSEL					PROJECT & LEG					STATION DESIGNATION											
NOAA R/V MILLER FREEMAN					MF02-11					GP26-											
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
58	19		150	39	05	OCT	02	13	42	10	10	845	4	5	064	29	8	95		61	
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN	9+ S/N 91220		DATA ON				Tape/Diskette ID		File Name/Header												
PRESS SN	80020		START DOWN																		
TEMP SN	710/884		AT DEPTH																		
COND SN	915/530		AT SURFACE								MAX. DEPTH = m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.									
1	55 ✓									693											
2	50 ✓									694											
3	40 ✓									695											
4	30 ✓									696											
5	20 ✓									697											
6	10 ✓									698											
7	0 ✓									699											
8																					
9																					
10																					
11																					
12																					

FLV read = 0.3

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION 699												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	(m/s)	*	*	*	(m)	
4455	215	.90	N	15038	.88	W	45	OCT	02	1354	9.7	9.7	4	5	073	26	875		67	
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header												
PRESS SN		80020		START DOWN																
TEMP SN		710/884		AT DEPTH																
COND SN		915/530		AT SURFACE						MAX. DEPTH = 62 m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER										
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY		SAL.	NUTR.	CHL.	WHIT'S NUTR.								
1	60 ✓									700										
2	50 ✓									701										
3	40 ✓									707										
4	30 ✓									702										
5	20 ✓									703										
6	10 ✓									704										
7	0 ✓									705										
8										706										
9																				
10																				
11																				
12																				

FIV ≈ 0.4 / 7 bottles marked as fired / 8 bottles closed & wet

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION 6P9a													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)		
446	58	11.07	N	150	36.76	W	05	OCT	02	15	04	9.2			0746	57	31	072	109		
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN	9+ S/N 91220		DATA ON				Tape/Diskette ID		File Name/Header		689A										
PRESS SN	80020		START DOWN																		
TEMP SN	710/884		AT DEPTH																		
COND SN	915/530		AT SURFACE								MAX. DEPTH = m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> ChIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	105 ✓																				
2	100 ✓																				
3	75 ✓																				
4	60 ✓																				
5	50 ✓																				
6	40 ✓																				
7	30 ✓																				
8	20 ✓																				
9	10 ✓																				
10	0																				
11																					
12																					

max FIV ≈ 0.4 / Deck Unit shut off, restarted for surface sample

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																														
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID																		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)																		
44758	09	.40	N	1503	6			050	C	T	0	2	15	58	9.3	.	0	7	4	5	0	4	9	2	3	8	6	4	1	3	7	6	P	9	6			
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS																												
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID				File Name/Header				GB96																								
PRESS SN		80020		START DOWN																																		
TEMP SN		710/884		AT DEPTH																																		
COND SN		915/530		AT SURFACE										MAX. DEPTH = m																								
		<input checked="" type="checkbox"/> PAR 4242		<input checked="" type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve																												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER 610 134																													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.																											
1	135 ✓																																					
2	125 ✓																																					
3	100 ✓																																					
4	75 ✓																																					
5	60 ✓																																					
6	50 ✓																																					
7	40 ✓																																					
8	30 ✓																																					
9	20 ✓																																					
10	15																																					
11	0																																					
12																																						

FIVolt max ≤ 0.4

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																																		
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID																						
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)																							
448	58	05.95	N	150	35.79	W	65	O	C	T	0	2	16	54	16.4				6	4	4	7	6	0	2	3	8	7	4							1	4	4	g	6	1	0
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS																																
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID				File Name/Header				g b k																												
PRESS SN		80020		START DOWN																																						
TEMP SN		710/884		AT DEPTH																																						
COND SN		915/530		AT SURFACE										MAX. DEPTH = 146 m																												
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve		w/o 139																														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER																																	
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.																														
1	140 ✓											45	729																													
2	125 ✓												730																													
3	100 ✓												731																													
4	75 ✓												732																													
5	60 ✓												733																													
6	50 ✓												734																													
7	40 ✓												735																													
8	30 ✓												736																													
9	20 ✓												737																													
10	10 ✓												738																													
11	0 ✓												739																													
12																																										

fl vdt max \approx 0.4

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION GB11															
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)			
04958	23	N	156	31	04	W	05	0	2	18	06	10	.4			064	4	77	18	87	4	156	GP11
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS													
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID				File Name/Header				GB11									
PRESS SN		80020		START DOWN																			
TEMP SN		710/884		AT DEPTH																			
COND SN		915/530		AT SURFACE										MAX. DEPTH = m									
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve		LOW											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER 152 max 2													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.												
1	156 ✓										17	740											
2	125 ✓											741											
3	106 ✓											742											
4	85 ✓											743											
5	60 ✓											744											
6	50 ✓											745											
7	40 ✓											746											
8	30 ✓											747											
9	20 ✓											748											
10	10 ✓										19	749											
11	0 ✓											750											
12																							

E1 Volt max = 0.9 / Rosette didn't fire on 1 bottle of 11
 we took samples assuming surface bottle misfired - see other side

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																										
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID													
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)														
05	05	75	2	75	N	15	02	7	96	W	05	OCT	02	19	29	10	.4			6	4	4	2	1	7	1	1	8	7	2	1	1	2	PA 112
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS																						
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header																										
PRESS SN		80020		START DOWN																														
TEMP SN		710/884		AT DEPTH																														
COND SN		915/530		AT SURFACE								MAX. DEPTH = m																						
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve																						
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER																									
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.																						
1	107 ✓								✓	750																								
2	100 ✓									751																								
3	75 ✓									752																								
4	60 ✓									753		✓																						
5	50 ✓									754		✓																						
6	40 ✓									755		✓																						
7	30 ✓									756		✓																						
8	20 ✓									757		✓																						
9	10 ✓									758		✓																						
10	0 ✓									759		✓																						
11																																		
12																																		

f1 Volt max ≤ 0.55

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID				
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)				
05157	56.87	N	150	25.83	W	05	OCT	02	20	13	9.6	.	06	4	4	2	1	6	10	8	7	2	161	PB11
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS														
TYPE & SN		9+ S/N 91220		DATA ON		20:14:00 GMT		Tape/Diskette ID		File Name/Header														
PRESS SN		80020		START DOWN		20:14:00 GMT																		
TEMP SN		710/884		AT DEPTH		20:21:00 GMT																		
COND SN		915/530		AT SURFACE		20:30:00 GMT						MAX. DEPTH = 158 m												
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER															
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.													
158	158										✓	760												
125	125											761												
100	100											762												
75	77											763												
60	60											764	✓											
50	50											765	✓											
40	39											766	✓											
30	30											767	✓											
20	19											768	✓											
10	9											769	✓											
0	2											770	✓											
12																								

MAX FLO = 0.55 volts

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																			
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID							
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)							
0525801	45	N	15025	78	W	05	OCT	02	21	15	9.3	.	.	06	4	4	2	1	6	1	1	8	7	2	1	78	PB10
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS																	
TYPE & SN		9+ S/N 91220		DATA ON		21:18:00 GMT		Tape/Diskette ID		File Name/Header																	
PRESS SN		80020		START DOWN		21:18:00 GMT																					
TEMP SN		710/884		AT DEPTH		21:24:00 GMT																					
COND SN		915/530		AT SURFACE		21:35:00 GMT						MAX. DEPTH = m															
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve																	
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER																			
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.																
	166							✓	771																		
150	2	150							772																		
125	3	126							773																		
106	4	100							774																		
75	5	74							775																		
50	6	50							776	✓																	
70	7	40							777	✓																	
70	8	31							778	✓																	
20	9	21							779	✓																	
10	10	10							780	✓																	
0	11	4							901	✓																	
12																											

MAX FLO = 0.6V

Wrong label sheet based

VESSEL				PROJECT & LEG				STATION DESIGNATION												
NOAA R/V MILLER FREEMAN				MF02-11				PBA-9												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)
05358	07.01	N	15023.46	W	05	OCT	02	22	20	9.6		0543		200	108	72			194	PBA-9
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		22:22:00 GMT		Tape/Diskette ID		File Name/Header		MAX. DEPTH = 188 m								
PRESS SN		80020		START DOWN		22:22:00 GMT														
TEMP SN		710/884		AT DEPTH		22:29:00 GMT														
COND SN		915/530		AT SURFACE		22:40:00 GMT														
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> ChIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER											
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
	188																			
175	174																			
150	151																			
125	127																			
100	101																			
75	75																			
50	49																			
20	30																			
20	20																			
10	10																			
0																				

MAX FLO = 0.5 volts

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11					STATION DESIGNATION PBA08												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
05458	09.22	N	15021.80	W	05	OCT	02	23	03	19.7	.	0543	2	15	09	8	7	2	158	PBA08	
CTD		TIMES		JD/TIME		DATA LOCATION					REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		23:04:00 GMT		Tape/Diskette ID		File Name/Header											
PRESS SN		80020		START DOWN		23:05:00 GMT															
TEMP SN		710/884		AT DEPTH		23:10:00 GMT															
COND SN		915/530		AT SURFACE		23:17:00 GMT									MAX. DEPTH = 150 m						
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.									
	150										✓	913									
125	125											914									
100	100											915									
75	75											916									
60	60											917	✓								
50	51											918	✓								
40	39											919	✓								
30	30											920	✓								
20	19											921	✓								
10	9											922	✓								
0	1.5											923	✓								
12																					

MAX FLO = 0.5 volts

VESSEL		PROJECT & LEG										STATION DESIGNATION													
NOAA R/V MILLER FREEMAN		MF02-11																							
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID				
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)					
055	58	12.98	N	150	20	.12	W	05	OCT	02	23	49	9.7			04	43	19	3	1	8	7	2	85	PBA07
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS													
TYPE & SN	9+ S/N 91220		DATA ON		23:51:00 GMT		Tape/Diskette ID		File Name/Header																
PRESS SN	80020		START DOWN		23:51:00 GMT																				
TEMP SN	710/884		AT DEPTH		23:57:10 GMT																				
COND SN	915/530		AT SURFACE		23:59:00 GMT										MAX. DEPTH = 82 m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> ChIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER															
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.														
	82											✓	924												
75	74												925												
60	61												926	✓											
50	52												927	✓											
40	40												928	✓											
30	29												929	✓											
20	20												930	✓											
10	10												931	✓											
0	3												932	✓											
10																									
11																									
12																									

MAX FLO = 0.5 volts

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)	
056	58	17.43	N	150	17.94	W	06	10	02	00	45	10.0	.	04	55	18	90	8	872	STPBA06
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header												
PRESS SN		80020		START DOWN																
TEMP SN		710/884		AT DEPTH																
COND SN		915/530		AT SURFACE						MAX. DEPTH = 52 m										
		<input checked="" type="checkbox"/> PAR 4242		<input checked="" type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
✓ 1	52							✓	935	✓										
✓ 2	40								936	✓										
✓ 3	30								937	✓										
4	20								938	✓										
5	10								939	✓										
6	0								940	✓										
7																				
8																				
9																				
10																				
11																				
12																				

004 may Fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION PBA05													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
05758	21	.56	N	150	16	.40	W	06	OCT	02	01	37	10	.0							
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN	9+ S/N 91220	DATA ON	01:38:00		6mT	Tape/Diskette ID		File Name/Header													
PRESS SN	80020	START DOWN	01:38:00		6mT																
TEMP SN	710/884	AT DEPTH	01:40:00		6mT																
COND SN	915/530	AT SURFACE	01:43:00		6mT					MAX. DEPTH = 50 m											
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	50							✓	941	✓											
2	40								942	✓											
3	30								943	✓											
4	21								944	✓											
5	11								945	✓											
6	3								946	✓											
7																					
8																					
9																					
10																					
11																					
12																					

40
30
20
10
0

0.35 max F/

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																				
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID							
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)								
058	S	23.76	N	150.14	07	W	06	O	C	T	02	02	18	10.4	.	03	S	5	1	6	5	09	8	7	2	6	5	P16A104
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS																		
TYPE & SN		9+ S/N 91220		DATA ON		02:21:00		6m7		Tape/Diskette ID		File Name/Header																
PRESS SN		80020		START DOWN		02:22:00		6mT																				
TEMP SN		710/884		AT DEPTH		02:24:00		6mT																				
COND SN		915/530		AT SURFACE		02:29:00		6mT						MAX. DEPTH = 61 m														
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve																		
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER																				
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.																	
60	1	61									✓	947																
50	2	50										948	✓															
40	3	41										949	✓															
30	4	30										950	✓															
20	5	20										951	✓															
10	6	10										952	✓															
0	7	3										953	✓															
	8																											
	9																											
	10																											
	11																											
	12																											

0.4 = max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION PBA03													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
0595	828.58	N	150131.81	W	06	OCT	02	03	17	10.5				0255	168	15	87	2		84	PBA03
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN		9+ S/N 91220		DATA ON		03:19:00 GMT		Tape/Diskette ID		File Name/Header											
PRESS SN		80020		START DOWN		03:19:00 GMT															
TEMP SN		710/884		AT DEPTH		03:22:00 GMT															
COND SN		915/530		AT SURFACE		03:27:00 GMT						MAX. DEPTH = 80 m									
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY		SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
	80										✓	954									
66	59											955	✓								
40	38											956	✓								
30	30											957	✓								
20	20											958	✓								
16	10											959	✓								
0	3											960	✓								

0.55 max f/

VESSEL		PROJECT & LEG										STATION DESIGNATION									
NOAA R/V MILLER FREEMAN		MF02-11																			
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
060	58	36.03	N	150	10.58	W	06	OCT	02	04	23	11.0	.	.	02	55	174	178	720	113	BA02
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS									
TYPE & SN		9+ S/N 91220		DATA ON		04:26:00 GMT		Tape/Diskette ID		File Name/Header											
PRESS SN		80020		START DOWN		04:26:00 GMT															
TEMP SN		710/884		AT DEPTH		04:31:00 GMT															
COND SN		915/530		AT SURFACE		04:36:00 GMT															
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER											
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
	111									✓	781										
	76										782										
	59										783										
	50										784	✓									
	40										785	✓									
	30										786	✓									
	20										787	✓									
	10										788	✓									
	2										789	✓									

75
60
50
40
30
20
10
0

0.5 max fl

back to "missed" page
nutrient labels

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION PBA01												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(m/s)	*	*	*	(m)	
06158	39.91	N	15009.34	W	06	OCT	02	05	16	11.0	.	0245	190	19	86	4		123	PBA01	
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		05:12:00 GMT		Tape/Diskette ID		File Name/Header										
PRESS SN		80020		START DOWN		05:12:00 GMT														
TEMP SN		710/884		AT DEPTH		05:16:00 GMT														
COND SN		915/530		AT SURFACE		05:24:00 GMT						MAX. DEPTH = 123 m								
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> ChIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER										
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
1	123							✓	790											
2	100								791											
3	76								792											
4	60								793											
5	49								794	✓										
6	40								795	L										
7	30								796	L										
8	20								797	L										
9	11								798	L										
10	3								799	✓										
11																				
12																				

6.5
100
75
60
50
40
30
20
10
0

0.45 max fl

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11										STATION DESIGNATION																		
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID									
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)										
0625	83	9.01	N	1503	33.87	W	06	O	C	T	02	06	39	11.0	.	01	4	5	1	8	5	20	8	6	4	2	1	8	PBB	112
CTD		TIMES		JD/TIME		DATA LOCATION										REMARKS														
TYPE & SN		9+ S/N 91220		DATA ON		06:40:00 GMT		Tape/Diskette ID				File Name/Header				pbt12														
PRESS SN		80020		START DOWN		06:40:00 GMT										pbb12														
TEMP SN		710/884		AT DEPTH		06:50:00 GMT																								
COND SN		915/530		AT SURFACE		06:58:00 GMT										MAX. DEPTH = m														
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve																		
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER																					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.																			
60+	1	215									✓	800																		
200	2	200										801																		
175	3	176										802																		
150	4	150										803																		
100	5	100										804																		
75	6	75										805																		
50	7	49										806			✓															
40	8	40										807			✓															
30	9	30										808			✓															
20	10	19										809			✓															
0	11	3										810			✓															
	12																													

0.45 max fl

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11					STATION DESIGNATION													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
063	58	33.87	N	150	28.40	W	06	OCT	02	07	48	11.0			0145	190	218	64		173	PBAY1
CTD		TIMES		JD/TIME		DATA LOCATION					REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		67:51:00 GMT		Tape/Diskette ID		File Name/Header											
PRESS SN		80020		START DOWN		67:51:00 GMT															
TEMP SN		710/884		AT DEPTH																	
COND SN		915/530		AT SURFACE		wetsta															
		<input checked="" type="checkbox"/> PAR 4242		<input checked="" type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
	128							811													
	150							812													
	125							813													
	100							814													
	75							815													
	50							816	/												
	40							817	/												
	30							818	/												
	20							819	/												
	10							820	/												
	0																				

60+
150
125
100
75

0.45 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11						STATION DESIGNATION											
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
0645831	11.89	N	15025.78	W	06	OCT	02	08	49	10.1		0137			188	25	872			101	PBB10
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS									
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header													
PRESS SN		80020		START DOWN																	
TEMP SN		710/884		AT DEPTH																	
COND SN		915/530		AT SURFACE								MAX. DEPTH = 96 m									
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> ChIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER											
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	95											822									
2	75											823									
3	60											824									
4	50											825	-								
5	40											826	/								
6	30											827	/								
7	20											828	/								
8	10											829	/								
9	5											830	/								
10																					
11																					
12																					

f1 Volt max ≈ 0.4

VESSEL NOAA RV MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION														
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)
065	52	29.33	N	150	23.51	W	06	OCT	02	09	38	10.1			0137	184	22	86	2		9	PBB09
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS												
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID		File Name/Header														
PRESS SN	80020	START DOWN																				
TEMP SN	710/884	AT DEPTH																				
COND SN	915/530	AT SURFACE								MAX. DEPTH = 85 m												
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	85 ✓										832											
2	75 ✓										831											
3	60 ✓										833											
4	50 ✓										834											
5	40 ✓										835											
6	30 ✓										836											
7	20 ✓										837											
8	10 ✓										838											
9	0										839											
10																						
11																						
12																						

flkH max ≈ 0.5

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11				STATION DESIGNATION															
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)	*	*	*	(m)			
0665826	.78	N	15021	.26	W	06	10	25	16	.1			37	20	4	28	8	7	2	79	1668
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header		<p style="text-align: center;"><i>1668</i></p> <p>MAX. DEPTH = 74 m</p>											
PRESS SN		80020		START DOWN																	
TEMP SN		710/884		AT DEPTH																	
COND SN		915/530		AT SURFACE																	
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER											
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	74 ✓										840										
2	60 ✓										841	-									
3	50 ✓										842	-									
4	40 ✓										843	-									
5	30 ✓										844	-									
6	20 ✓										845	-									
7	10 ✓										846	-									
8	0 ✓										847	-									
9																					
10																					
11																					
12																					

Fluor max = 0.47

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION																	
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID							
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)							
φ 6758	24	.48	N	150	18	.7	φ W	φ 6	OCT	02	11	11	10	.4			φ φ	4	7	2	1	0	2	4	8	6	2	71	p667
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS																	
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header				p667 = p667 MAX. DEPTH = 67 m																	
PRESS SN		80020		START DOWN																									
TEMP SN		710/884		AT DEPTH																									
COND SN		915/530		AT SURFACE																									
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve																			
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER																			
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.																		
1	65m											848																	
2	60m											849																	
3	50m											850																	
4	40m											851																	
5	36m											852																	
6	20m											853																	
7	10m											854																	
8	0											855																	
9																													
10																													
11																													
12																													

F1 Volt max $\leq \phi.3$ (un. term. by 0.3, 0-65 m)

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																					
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID								
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)									
06	28	21.73	N	15	0	16	83	W	06	0	10	2	11	57	10.6			4	7	2	2	2	4	8	7	2	5	7	pbb6
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS																			
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID				File Name/Header				pbt6 = pbb6															
PRESS SN		80020		START DOWN										w/o = 50															
TEMP SN		710/884		AT DEPTH										MAX. DEPTH = 50 m															
COND SN		915/530		AT SURFACE																									
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve																			
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER																				
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.																		
1	50 ✓												856	-															
2	40 ✓												857	-															
3	30 ✓												858	-															
4	20 ✓												859	-															
5	10 ✓												860	-															
6	0												861	-															
7																													
8																													
9																													
10																													
11																													
12																													

F1 Volt max = 0.3 / well mixed

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION														
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
6958	19	11	N	150	14	82	W	06	OCT	02	12	49	14.5			147	228	26	66	2	53	PBB5
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS												
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID				File Name/Header				pbb5								
PRESS SN		80020		START DOWN										40-48								
TEMP SN		710/884		AT DEPTH										MAX. DEPTH = m								
COND SN		915/530		AT SURFACE																		
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> ChIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	48											862	-									
2	40											863	-									
3	30											864	-									
4	20											865	-									
5	10											866	-									
6	0											867	-									
7																						
8																						
9																						
10																						
11																						
12																						

E1 volts = 0.3 / well mixed

1 bottle didn't fire / Assuming it was surface bottle

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION										
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)	
0705	816.54	N		15012.34	W		06	OCT	02	13	30	14.7				247	234	22	672		56	P664
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header				P664										
PRESS SN		80020		START DOWN								w/6.51										
TEMP SN		710/884		AT DEPTH								MAX. DEPTH = 51 m										
COND SN		915/530		AT SURFACE																		
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> ChIAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.											
1	50 ✓											867	-									
2	40 ✓											868	-									
3	30 ✓											869	-									
4	20 ✓											870	-									
5	10 ✓											871	-									
6	0											872	-									
7																						
8																						
9																						
10																						
11																						
12																						

51 Volt max \leq 0.3

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION														
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)			
47	15	813.911	N	150	10.24	W	6	OCT	02	14	14	10.7			24	7	23	26	6	72	82	P803
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS												
TYPE & SN	9+ S/N 91220		DATA ON				Tape/Diskette ID		File Name/Header		PBT3 zpb63											
PRESS SN	80020		START DOWN																			
TEMP SN	710/884		AT DEPTH																			
COND SN	915/530		AT SURFACE								MAX. DEPTH = m											
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> ChIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	75										873											
2	60										874											
3	50										875											
4	40										876											
5	30										877											
6	20										878											
7	10										879											
8	0										880											
9																						
10																						
11																						
12																						

f1 Volt_{max} ≈ 0.3

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(m/s)	*	*	*	(m)						
473	58	46.57	N	15	04	22	W	06	OCT	02	16	15	14.3	.	.	45	4	7	239	17	7	7	2	281	PBB1
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS															
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header		pbt1 = pbb1															
PRESS SN		80020		START DOWN																					
TEMP SN		710/884		AT DEPTH																					
COND SN		915/530		AT SURFACE						MAX. DEPTH = m															
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER																
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.														
1	276											892													
2	250											893													
3	225											894													
4	200											895													
5	150											896													
6	100											897													
7	50											898													
8	30											899													
9	20											900													
10	10											961													
11	0											962													
12																									

f1 volt max = 4.33

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11										STATION DESIGNATION										
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
4745861	80	N	149	59	77	W	06	OCT	02	17	25	10	7			6647	239	21	77	2	288	PBC8
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header				PBC8										
PRESS SN		80020		START DOWN																		
TEMP SN		710/884		AT DEPTH																		
COND SN		915/530		AT SURFACE								MAX. DEPTH = 285 m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	285 ✓											963										
2	275 ✓											964										
3	250 ✓											965										
4	200 ✓											966										
5	150 ✓											967										
6	100 ✓											968										
7	70 ✓											969										
8	50 ✓											970										
9	20 ✓											971										
10	10 ✓											972										
11	0 ✓											973										
12																						

f1 Volt_{max} ≈ 0.3

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION																
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID					
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)						
075	58	08	.19	N	149	58	.99	W	6	OCT	02	18	33	11	.0	.	08	4	7	24	4	21	6	7	2	28	3	PBC17
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS																
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID		File Name/Header				pbc 87																
PRESS SN	80020	START DOWN										w/o = 283																
TEMP SN	710/884	AT DEPTH										MAX. DEPTH = m																
COND SN	915/530	AT SURFACE																										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve																		
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER																			
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.																	
1	275 ✓											974																
2	250 ✓											975																
3	225 ✓											976																
4	200 ✓											977																
5	150 ✓											978																
6	100 ✓											979																
7	50 ✓											980																
8	30 ✓											981																
9	20 ✓											982																
10	10 ✓											983																
11	0 ✓											984																
12																												

Fl Volt max \approx ϕ .35

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION														
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
076	58	10.42	N	149	57.35	W	06	OCT	02	19	45	10.1			094	7	258	15	67	2	146	PBC16
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS												
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header		PBC6												
PRESS SN		80020		START DOWN																		
TEMP SN		710/884		AT DEPTH						w/o=132												
COND SN		915/530		AT SURFACE						MAX. DEPTH = m												
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER														
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	125 ✓							✓	985													
2	100 ✓								986													
3	75 ✓								987													
4	60 ✓								988		✓											
5	50 ✓								989		✓											
6	40 ✓								990		✓											
7	30 ✓								991		✓											
8	20 ✓								992		✓											
9	10 ✓								993		✓											
10	0 ✓								994		✓											
11																						
12																						

Fl Volt_{max} ≈ 0.3

VESSEL				PROJECT & LEG				STATION DESIGNATION													
NOAA R/V MILLER FREEMAN				MF02-11																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
7758	13.48	N	114954.46	W	6	OCT	02	20	24	10.4		1047	2	59	156	72				84	PBLS
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN		9+ S/N 91220		DATA ON		20:25:00 GMT		Tape/Diskette ID		File Name/Header											
PRESS SN		80020		START DOWN		20:25:00 GMT															
TEMP SN		710/884		AT DEPTH		20:28:00 GMT															
COND SN		915/530		AT SURFACE		20:37:00 GMT						MAX. DEPTH = 83 m									
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
bot	83							✓	995												
75	75								996												
60	60								997	✓											
50	50								998	✓											
40	29								999	✓											
30	29								1000	✓											
20	19								1001	✓											
10	10								1002	✓											
0	3								1003	✓											
10																					
11																					
12																					

0.4 max fl

VESSEL				PROJECT & LEG				STATION DESIGNATION												
NOAA R/V MILLER FREEMAN				MF02-11																
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)
07858	17.23	N	14952.21	W	06	OCT	02	21	09	10.2	.	1047	2	56	13	67	2		66	PBC14
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		21:09:00 GMT		Tape/Diskette ID		File Name/Header										
PRESS SN		80020		START DOWN		21:09:00 GMT														
TEMP SN		710/884		AT DEPTH		21:12:00 GMT														
COND SN		915/530		AT SURFACE		21:15:00 GMT						MAX. DEPTH = 63 m								
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
60	1	63									✓	1004								
50	2	49										1005	✓							
40	3	39										1006	✓							
30	4	29										1007	✓							
20	5	21										1008	✓							
10	6	10										1009	✓							
0	7	2										1010	✓							
	8																			
	9																			
	10																			
	11																			
	12																			

0.5 max fl

VESSEL				PROJECT & LEG				STATION DESIGNATION													
NOAA R/V MILLER FREEMAN				MF02-11																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
07958	19	77	N	149	50	71	W	06	OCT	02	21	40	10.1	.	104	72	48	136	72	81	P8C3
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN	9+ S/N 91220	DATA ON	21:41:00 GMT		Tape/Diskette ID		File Name/Header														
PRESS SN	80020	START DOWN	21:41:00 GMT																		
TEMP SN	710/884	AT DEPTH	21:44:00 GMT																		
COND SN	915/530	AT SURFACE	21:50:00 GMT								MAX. DEPTH = 76 m										
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
bot	1	76						✓	1011												
60	2	61							1012												
50	3	50							1013	✓											
40	4	40							1014	✓											
30	5	29							1015	✓											
20	6	20							1016	✓											
10	7	11							1017	✓											
0	8	2							1018	✓											
	9																				
	10																				
	11																				
	12																				

O.S max fl

VESSEL				PROJECT & LEG				STATION DESIGNATION															
NOAA R/V MILLER FREEMAN				MF02-11																			
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)			
080	58	22.41	N	149	49.98	W	06	OCT	02	22	14	10.2			114	7	249	13	6	7	2	113	PBC12
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS													
TYPE & SN	9+ S/N 91220	DATA ON	22:16:00 GMT		Tape/Diskette ID		File Name/Header				MAX. DEPTH = 106 m												
PRESS SN	80020	START DOWN	22:16:00 GMT																				
TEMP SN	710/884	AT DEPTH	22:19:00 GMT																				
COND SN	915/530	AT SURFACE	22:24:00 GMT																				
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																	
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER															
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.												
607	106							✓	1019														
75	75								1020														
60	61								1021														
50	50								1022		✓												
40	39								1023		✓												
30	29								1024		✓												
20	20								1025		✓												
10	10								1026		✓												
0	3								1027		✓												
10																							
11																							
12																							

0.45 max fl

VESSEL				PROJECT & LEG				STATION DESIGNATION																			
NOAA R/V MILLER FREEMAN				MF02-11																							
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID							
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)							
08158	25	.20	N	149	48	.88	W	06	OCT	02	22	52	10	.5						11	47	25	11	46	72	141	PBC1
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS																	
TYPE & SN	9+ S/N 91220	DATA ON	22:53:00 GMT		Tape/Diskette ID		File Name/Header				This cast showed large diff. in up & down cast. 82 is repeat. MAX. DEPTH = 135 m																
PRESS SN	80020	START DOWN	22:53:00 GMT																								
TEMP SN	710/884	AT DEPTH	22:58:00 GMT																								
COND SN	915/530	AT SURFACE	23:06:00 GMT																								
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																					
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER																		
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL	WHIT's NUTR.																
bot	125																										
125	125																										
100	100																										
75	75																										
50	50																										
40	40																										
30	30																										
20	20																										
10	10																										
0	3																										
11																											
12																											

0.55 max fl

VESSEL				PROJECT & LEG				STATION DESIGNATION												
NOAA RV MILLER FREEMAN				MF02-11																
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)	
082	S	825.0	N	14949.2	6	OCT	02	23	16	10.5		1147			239	136	72		140	PBC1
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		23:17:00 GMT		Tape/Diskette ID		File Name/Header		Repeat of cast #81 due to diff in up/down cast #'s.								
PRESS SN		80020		START DOWN		23:17:00 GMT						MAX. DEPTH = 135 m								
TEMP SN		710/884		AT DEPTH		23:23:00 GMT														
COND SN		915/530		AT SURFACE		23:30:00 GMT														
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER											
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
60+	135											1028								
125	125											1029								
100	100											1030								
75	75											1031								
50	49											1032								
40	40											1033								
30	29											1034								
20	19											1035								
10	10											1036								
0	2											1037								

60+
125
100
75
50
40
30
20
10
0

0.5 max fl

VESSEL				PROJECT & LEG				STATION DESIGNATION														
NOAA RV MILLER FREEMAN				MF02-11																		
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
083	58	10.39	N	149	25.06	W	07	OCT	02	00	10.4				134	7	23	2	196	72	104	PX11
CTD		TIMES		JD/TIME		G130?										DATA LOCATION		REMARKS				
TYPE & SN		9+ S/N 91220		DATA ON		01:31:00 GMT		Tape/Diskette ID				File Name/Header										
PRESS SN		80020		START DOWN		01:32:00 GMT																
TEMP SN		710/884		AT DEPTH		01:35:00 GMT																
COND SN		915/530		AT SURFACE		01:42:00 GMT										MAX. DEPTH = 100 m						
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
bot	100										✓	1038										
75	75											1039										
60	58											1040										
56	49											1041		✓								
40	40											1042		✓								
20	30											1043		✓								
20	20											1044		✓								
10	10											1045		✓								
6	3											1046		✓								
10																						
11																						
12																						

0.45 max fl

VESSEL				PROJECT & LEG						STATION DESIGNATION											
NOAA R/V MILLER FREEMAN				MF02-11																	
CONSC CAST #	LATITUDE		LONGITUDE			DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
0845813.51	N	14938.42	W	07	0	2	02	44	10.5			13	4	7	212	17	6	7	2	62	PX10
CTD		TIMES		JD/TIME		DATA LOCATION					REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		02:45:00		Tape/Diskette ID		File Name/Header											
PRESS SN		80020		START DOWN		02:46:00															
TEMP SN		710/884		AT DEPTH		02:48:00															
COND SN		915/530		AT SURFACE		02:51:00															
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	55							✓	1047	✓											
2	40								1048	✓											
3	30								1049	✓											
4	21								1050	✓											
5	10								1051	✓											
6	3								1052	✓											
7																					
8																					
9																					
10																					
11																					
12																					

bot
40
30
20
10
0

0.5 max fl

VESSEL				PROJECT & LEG				STATION DESIGNATION																		
NOAA R/V MILLER FREEMAN				MF02-11																						
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID						
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)						
085	58	16.79	N	149	51.79	W	07	0	20	03	56	110.1	.	.	13	4	7	2	1	S	18	6	7	2	610	PX9
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS																
TYPE & SN	9+ S/N 91220	DATA ON	03:58:00 GMT		Tape/Diskette ID		File Name/Header				MAX. DEPTH = 53 m															
PRESS SN	80020	START DOWN	03:58:00 GMT																							
TEMP SN	710/884	AT DEPTH	04:00:00 GMT																							
COND SN	915/530	AT SURFACE	04:04:00 GMT																							
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																				
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER																	
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.															
hot	1	53						✓	1053	✓																
40	2	40							1054	✓																
30	3	30							1055	✓																
20	4	19							1056	✓																
10	5	10							1057																	
0	6	3							1058	✓																
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									

0.55 max f1

VESSEL				PROJECT & LEG				STATION DESIGNATION													
NOAA R/V MILLER FREEMAN				MF02-11																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
08	65	819.90	N	150	04.34	W	07	OCT	02	05	05	10.6			1347	20621	672			53	PX8
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN	9+ S/N 91220	DATA ON	05:06:00 GMT		Tape/Diskette ID		File Name/Header				MAX. DEPTH = 48 m										
PRESS SN	80020	START DOWN	05:06:00 GMT																		
TEMP SN	710/884	AT DEPTH	05:08:00 GMT																		
COND SN	915/530	AT SURFACE	05:12:00 GMT																		
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
bst	1	48						✓	1059	-											
40	2	40							1060	✓											
30	3	30							1061	✓											
20	4	20							1062	✓											
10	5	10							1063	✓											
0	6	3							1064	✓											
	7																				
	8																				
	9																				
	10																				
	11																				
	12																				

0.55 max fl

VESSEL				PROJECT & LEG				STATION DESIGNATION												
NOAA RV MILLER FREEMAN				MF02-11																
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)
08758	21.99	N	15017.00	W	07	OCT	02	06	01	10.6				1247	20	1236	72		S3	PX7
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		06:04:00 GMT		Tape/Diskette ID		File Name/Header										
PRESS SN		80020		START DOWN		06:04:00 GMT														
TEMP SN		710/884		AT DEPTH		06:06:00 GMT														
COND SN		915/530		AT SURFACE		06:08:00 GMT						MAX. DEPTH = 46 m								
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
1	46							✓	1065	✓										
2	32								1066	✓										
3	21								1067	-										
4	10								1068	✓										
5	05								1069	✓										
6	3																			
7																				
8																				
9																				
10																				
11																				
12																				

20.6 max fl

VESSEL				PROJECT & LEG				STATION DESIGNATION														
NOAA RV MILLER FREEMAN				MF02-11																		
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
088	58	23.20	N	15	02	5.68	W	07	OCT	02	06	42	10.5			1247	7	20	122	672	68	PX16
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS												
TYPE & SN	9+ S/N 91220		DATA ON		06:43:00 GMT		Tape/Diskette ID		File Name/Header													
PRESS SN	80020		START DOWN		06:44:00 GMT																	
TEMP SN	710/884		AT DEPTH		06:45:00 GMT																	
COND SN	915/530		AT SURFACE		06:51:00 GMT						MAX. DEPTH = m											
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER														
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
bot	64							✓	1070													
50	50								1071	✓												
40	40								1072	✓												
30	31								1073	✓												
20	26								1074	✓												
10	10								1075	✓												
0	3								1076	✓												

0.55 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
0895824	.47	N	15035	.18	W	07	OCT	02	07	24	10.2				1147200	19672			73	PX9	
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN	9+ S/N 91220		DATA ON	07:27:00 GMT		Tape/Diskette ID		File Name/Header													
PRESS SN	80020		START DOWN	07:27:00 GMT																	
TEMP SN	710/884		AT DEPTH	07:29:00 GMT																	
COND SN	915/530		AT SURFACE	07:33:00 GMT						MAX. DEPTH = 68 m											
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
60	1 68								1077												
50	2 50								1078												
40	3 40								1079												
30	4 31								1080												
20	5 20								1081												
10	6 10								1082												
0	7 3								1083												
	8																				
	9																				
	10																				
	11																				
	12																				

0.55 max fl

VESSEL NOAA RV MILLER FREEMAN										PROJECT & LEG MF02-11										STATION DESIGNATION									
CONSC CAST #		LATITUDE				LONGITUDE				DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
	DEG	MIN			DEG	MIN			DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)					
090	58	25	.80	N	150	44	.47	W	07	OCT	02	08	16	10.1		11	36	17	22	8	76		77	PX4					
CTD		TIMES				JD/TIME				DATA LOCATION										REMARKS									
TYPE & SN		9+ S/N 91220				DATA ON				Tape/Diskette ID					File Name/Header														
PRESS SN		80020				START DOWN																							
TEMP SN		710/884				AT DEPTH																							
COND SN		915/530				AT SURFACE														MAX. DEPTH = m									
					<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	CHAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER														
		PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY			SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	70															1084													
2	60															1085													
3	50															1086													
4	40															1087													
5	30															1088													
6	20															1089													
7	10															1090													
8	0															1091													
9																													
10																													
11																													
12																													

F1 Volt max ≈ 0.33

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION														
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
0915828.59	N	15101.25	W	07	OCT	02	09	29	11.1	.	0847	182	28	8	72				80	PX3		
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS												
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID		File Name/Header		PX3												
PRESS SN	80020	START DOWN																				
TEMP SN	710/884	AT DEPTH																				
COND SN	915/530	AT SURFACE								MAX. DEPTH = 75 m												
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	75 ✓																					
2	60 ✓																					
3	50 ✓																					
4	40 ✓																					
5	30 ✓																					
6	20 ✓																					
7	10 ✓																					
8	0																					
9																						
10																						
11																						
12																						

Fluor max = 0.4

VESSEL NOAA RV MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
4925830	37	N		151	07	W	7	O	C	T	02	10	27	10.9			0747	185	27	8	7	2	128	PX2
CTD		TIMES		JD/TIME		DATA LOCATION										REMARKS								
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header				PX2												
PRESS SN		80020		START DOWN																				
TEMP SN		710/884		AT DEPTH																				
COND SN		915/530		AT SURFACE										MAX. DEPTH = m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER																
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.													
1	124 ✓												1100											
2	100 ✓												1101											
3	60 ✓												1102											
4	50 ✓												1103											
5	40 ✓												1104											
6	30 ✓												1105											
7	20 ✓												1106											
8	10 ✓												1107											
9	0												1108											
10																								
11																								
12																								

Fluor max = 0.4

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11					STATION DESIGNATION														
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
093	58	34.14	N	151	19.74	W	7	OCT	02	11	40	10.9	.	06	47	221	22	8	75			164	PX11
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS											
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header				Px1											
PRESS SN		80020		START DOWN																			
TEMP SN		710/884		AT DEPTH																			
COND SN		915/530		AT SURFACE								MAX. DEPTH = 156 m											
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER														
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.												
1	156 ✓												1109										
2	125 ✓												1110										
3	100 ✓												1111										
4	75 ✓												1112										
5	60 ✓												1113										
6	50 ✓												1114										
7	40 ✓												1115										
8	30 ✓												1116										
9	20 ✓												1117										
10	10 ✓												1118										
11	0 ✓												1119										
12																							

A volts max = 0.4

VESSEL NOAA RV MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
4945	818.18	N	15056.93	W	07	OCT	02	14	35	10.5			4947		219	22	67	2		69	UST1
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN	9+ S/N 91220		DATA ON				Tape/Diskette ID		File Name/Header		UST1										
PRESS SN	80020		START DOWN																		
TEMP SN	710/884		AT DEPTH																		
COND SN	915/530		AT SURFACE								MAX. DEPTH = m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	63											1120									
2	60											1121									
3	50											1122									
4	40											1123									
5	30											1124									
6	20											1125									
7	16											1126									
8	0											1127									
9																					
10																					
11																					
12																					

1127s max = 0.45

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION															
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
09558	17.16	N	151.37	W	07	OCT	02	15	22	14.2			0937	2	2	021	362				137	UST2	
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS											
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID			File Name/Header			UST2											
PRESS SN		80020		START DOWN								132 w/6											
TEMP SN		710/884		AT DEPTH								MAX. DEPTH = m											
COND SN		915/530		AT SURFACE																			
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve													
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER														
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.												
1	130												1128										
2	100												1129										
3	75												1130										
4	60	not sampled												1131									
5	50												1132										
6	40	not sampled												1133									
7	30												1134										
8	20												1135										
9	10												1136										
10	0												1137										
11																							
12																							

El Volt max = 0.4

VESSEL NOAA RV MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION														
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
0965	15.89	N	151.06	.13	07	10	02	16	22	14.6		09	37	2	14	22	2	6	2	106	45+3	
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header				45+3										
PRESS SN		80020		START DOWN																		
TEMP SN		710/884		AT DEPTH								w/o 103										
COND SN		915/530		AT SURFACE								MAX. DEPTH = 103 m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	103																					
2	75																					
3	60																					
4	50																					
5	40																					
6	30																					
7	20																					
8	10																					
9	0																					
10																						
11																						
12																						

u - underway sample bottle
 Fl Volts (max) \approx 0.4

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11										STATION DESIGNATION						
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(m/s)	*	*		(m)	
09758	00.81	N	15023.92	W	07	OCT	02	19	03	10.4				1158	225	28	172		175	NAB1
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS								
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header				nab1								
PRESS SN		80020		START DOWN																
TEMP SN		710/884		AT DEPTH																
COND SN		915/530		AT SURFACE		Wetstar						MAX. DEPTH = m								
		<input checked="" type="checkbox"/> PAR 4242		<input checked="" type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve								
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER										
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
1	172 ✓								U	245										
2	150 ✓								U	246										
3	125 ✓								U	247										
4	100 ✓								U	248										
5	75 ✓								U	249										
6	50 ✓								U	250										
7	40 ✓								U	251										
8	30 ✓								U	252										
9	20 ✓								U	253										
10	10 ✓								U	254										
11	0								U	255										
12																				

Fluor(max) = 0.38

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)
0985758	04	N	15030	35	W	07	OCT	02	1956	10	.6				1258	24	12	172	155	na612
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS										
TYPE & SN	9+ S/N 91220		DATA ON		19:56:00 GMT		Tape/Diskette ID		File Name/Header											
PRESS SN	80020		START DOWN		19:56:00 GMT															
TEMP SN	710/884		AT DEPTH		20:01:00 GMT															
COND SN	915/530		AT SURFACE		20:09:00 GMT						MAX. DEPTH = 150 m									
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
60+	150							✓	0256											
100	100								257											
75	76								258											
50	50								259		✓									
30	31								260		✓									
75	15								261		✓									
10	10								262		✓									
0	3								4263		✓									

0.5 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION															
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	* TYPE	* WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
0995	75	5.31	N	156	36.66	W	07	OCT	02	20	44	16.7	.	1258			242	20	172			125	7965
CTD		TIMES		JD/TIME		DATA LOCATION										REMARKS							
TYPE & SN		9+ S/N 91220		DATA ON		20:45:00 GMT		Tape/Diskette ID				File Name/Header											
PRESS SN		80020		START DOWN		20:45:00 GMT																	
TEMP SN		710/884		AT DEPTH		20:50:00 GMT																	
COND SN		915/530		AT SURFACE		20:56:00 GMT												MAX. DEPTH = 122 m					
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.												
60+	122											✓	4264										
100	102													265									
75	75													266									
50	51													267	✓								
40	41													268	✓								
30	30													269	✓								
20	20													270	✓								
10	10													271	✓								
0	3													4272	✓								
10																							
11																							
12																							

60+
100
75
50
40
30
20
10
0

0.5 max f/

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
100675	2.43	N	150.41	.99	07	OCT	02	21	45	11.0	.	1358	2	3	7	19	1	7	2	87	nab4
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS									
TYPE & SN		9+ S/N 91220		DATA ON		21:47:00 GMT		Tape/Diskette ID		File Name/Header											
PRESS SN		80020		START DOWN		21:47:00 GMT															
TEMP SN		710/884		AT DEPTH		21:49:00 GMT															
COND SN		915/530		AT SURFACE		21:54:00 GMT										MAX. DEPTH = 83 m					
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER											
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL	NUTR.	CHL.	WHIT's NUTR.										
60ft	1	83										✓	4273								
50	2	51											274	✓							
30	3	30											275	✓							
20	4	20											276	✓							
10	5	10											277	✓							
0	6	3											4278	✓							
	7																				
	8																				
	9																				
	10																				
	11																				
	12																				

0.55 max #1

VESSEL		PROJECT & LEG										STATION DESIGNATION										
NOAA RV MILLER FREEMAN		MF02-11																				
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
101	57	49.32	N	150	48.44	W	07	OCT	02	22	47	16.7			145	8	24	6	18	172	84	2965
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		22:50:00 GMT		Tape/Diskette ID		File Name/Header												
PRESS SN		80020		START DOWN		22:50:00 GMT																
TEMP SN		710/884		AT DEPTH		22:53:00 GMT																
COND SN		915/530		AT SURFACE		22:57:00 GMT								MAX. DEPTH = 81 m								
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
6. +	1	81										✓	4279									
50	2	50											280	✓								
40	3	41											281	✓								
30	4	31											282	✓								
20	5	20											283	✓								
10	6	9											284	✓								
0	7	3											4285	✓								
	8																					
	9																					
	10																					
	11																					
	12																					

0.5 max fl

VESSEL NOAA RV MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION															
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)				
102	57	46.54	N	150	54.33	W	07	OCT	02	23	43	11.1			14	58	2	53	14	17	Z	81	79616
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS													
TYPE & SN		9+ S/N 91220		DATA ON		23:45:00 GMT		Tape/Diskette ID		File Name/Header		MAX. DEPTH = 76 m											
PRESS SN		80020		START DOWN		23:45:00 GMT																	
TEMP SN		710/884		AT DEPTH		23:49:00 GMT																	
COND SN		915/530		AT SURFACE		23:54:00 GMT																	
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve													
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.												
bot	76											✓	4286										
50	50												287	✓									
40	41												288	✓									
30	31												289	✓									
20	20												290	✓									
10	9												291	✓									
0	2												4292	✓									

0.55 max fl

VESSEL		PROJECT & LEG										STATION DESIGNATION									
NOAA R/V MILLER FREEMAN		MF02-11																			
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
1035743	.71	N	15100	.23	W	08	OCT	02	00	39	11.0			1558	249	20	17	2		76	4967
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS									
TYPE & SN		9+ S/N 91220		DATA ON		00:41:00 GMT		Tape/Diskette ID		File Name/Header											
PRESS SN		80020		START DOWN		00:41:00 GMT															
TEMP SN		710/884		AT DEPTH		00:45:00 GMT															
COND SN		915/530		AT SURFACE		00:49:00 GMT								MAX. DEPTH = 72 m							
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL	NUTR.	CHL.	WHIT's NUTR.										
bot	1	72									✓	4293									
50	2	50										294									
40	3	39										295									
30	4	29										297	✓								
20	5	19										298	✓								
10	6	10										299	✓								
0	7	3																			
	8																				
	9																				
	10																				
	11																				
	12																				

0.5 max #1

VESSEL				PROJECT & LEG				STATION DESIGNATION																	
NOAA RV MILLER FREEMAN				MF02-11																					
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)						
1045740	77	N	15106	38	W	08	O	C	T	02	01	36	10.9			1558	2	3	7	22	172			75	1968
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS															
TYPE & SN	9+ S/N 91220		DATA ON		01:38:00 GMT		Tape/Diskette ID		File Name/Header																
PRESS SN	80020		START DOWN		01:38:00 GMT																				
TEMP SN	710/884		AT DEPTH		01:40:00 GMT																				
COND SN	915/530		AT SURFACE		01:45:00 GMT						MAX. DEPTH = 70 m														
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER																
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.														
	70										✓	296													
	50											300	✓												
	30											61	✓												
	20											62	✓												
	11											63	✓												
	3											64	✓												

50
30
20
10
0

0.55 max fl

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11										STATION DESIGNATION											
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)			
105	S	73.783	N	151	12.49	W	08	OCT	02	02	27	10.9	.	.	165	8	2	40	22	1	72	66	n969
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS											
TYPE & SN		9+ S/N 91220		DATA ON		02:29:00 GMT		Tape/Diskette ID		File Name/Header						MAX. DEPTH = 63 m							
PRESS SN		80020		START DOWN		02:29:00 GMT																	
TEMP SN		710/884		AT DEPTH		02:32:00 GMT																	
COND SN		915/530		AT SURFACE		02:36:00 GMT																	
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve													
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER														
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL	NUTR.	CHL.	WHIT's NUTR.												
	63							✓	465														
	51								66	✓													
	30								67	✓													
	10								68	✓													
	2								469	✓													

60+
50
30
10
0

0.6 max fl

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11										STATION DESIGNATION									
CONSC CAST #	LATITUDE		LONGITUDE			DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)		
10657	33.22	N	151.20	.01	W	08	OCT	02	03	27	10.5	.	1758	225	19	172			74	na61.8	
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS									
TYPE & SN		9+ S/N 91220		DATA ON		03:29:00		Tape/Diskette ID			File Name/Header			c b a 1							
PRESS SN		80020		START DOWN		03:29:00															
TEMP SN		710/884		AT DEPTH		03:31:00															
COND SN		915/530		AT SURFACE		03:35:00								MAX. DEPTH = 68 m							
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> ChIAM 109		<input type="checkbox"/> TRANSMISSOMETER			<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER											
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
bot	68										✓	470									
50	52											71	✓								
30	28											72	✓								
16	10											73	✓								
0	2											474	✓								
6																					
7																					
8																					
9																					
10																					
11																					
12																					

0,45max f1

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11										STATION DESIGNATION									
CONSC CAST #	LATITUDE		LONGITUDE			DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
10757	32	.23	N	15124	.54	W	08	OCT	02	04	00	10.6	.	1748	234	21	172		77	CB9.2	
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS									
TYPE & SN	9+ S/N 91220		DATA ON		04:03:00 GMT		Tape/Diskette ID			File Name/Header											
PRESS SN	80020		START DOWN		04:03:00 GMT																
TEMP SN	710/884		AT DEPTH		04:07:00 GMT																
COND SN	915/530		AT SURFACE		04:09:00 GMT								MAX. DEPTH = 74 m								
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.									
bot	1 74								✓	475											
50	2 50									76	✓										
30	3 30									77	✓										
10	4 10									78	✓										
0	5 2									479	✓										
	6																				
	7																				
	8																				
	9																				
	10																				
	11																				
	12																				

0.55 max f/

VESSEL		PROJECT & LEG										STATION DESIGNATION										
NOAA RV MILLER FREEMAN		MF02-11																				
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
109	57	27.63	N	151	39.81	W	08	OCT	02	05	29	10.6			18	48	24	52	21	71	1107	C6a4
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		05:31:00 GMT		Tape/Diskette ID		File Name/Header												
PRESS SN		80020		START DOWN		05:31:06 GMT																
TEMP SN		710/884		AT DEPTH		05:35:00 GMT																
COND SN		915/530		AT SURFACE		05:40:00 GMT								MAX. DEPTH = 100 m								
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL	NUTR.	CHL.	WHIT's NUTR.											
bot	100											✓	489									
75	72												90									
50	52												91	✓								
40	40												92	✓								
30	30												93	✓								
20	20												94	✓								
0	2												95	✓								

0.5 max pl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(m/s)	*	*		(m)		
11057	26	.14	N	15138	.92	W	08	OCT	02	06	02	10.4	.	18	48	24	72	21	71	64	C695
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN	9+ S/N 91220		DATA ON	06:04:00 GMT		Tape/Diskette ID		File Name/Header													
PRESS SN	80020		START DOWN	06:04:00 GMT																	
TEMP SN	710/884		AT DEPTH	06:07:00 GMT																	
COND SN	915/530		AT SURFACE	06:10:00 GMT								MAX. DEPTH = 59 m									
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve									
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES							SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER										
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
667 40 20 10 0	1 59							✓	496												
	2 40								97	✓											
	3 20								98	✓											
	4 11								99	✓											
	5 2								4100	✓											
	6																				
	7																				
	8																				
	9																				
	10																				
	11																				
	12																				

0.5 max Fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)				
1111	57	28.22	N	151	14.80	W	08	O	C	T	02	07	33	10.2	.	.	19	48	258	23	17	1	87	C665
CTD		TIMES		JD/TIME		DATA LOCATION										REMARKS								
TYPE & SN		9+ S/N 91220		DATA ON		07:35:00 GMT		Tape/Diskette ID		File Name/Header														
PRESS SN		80020		START DOWN		07:35:00 GMT																		
TEMP SN		710/884		AT DEPTH		07:38:00 GMT																		
COND SN		915/530		AT SURFACE		07:43:00 GMT																		
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve														
		CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER										
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.													
bot	1 85								101															
60	2 60								102															
50	3 51								103															
40	4 40								104															
20	5 20								105															
0	6 3								106															
	7																							
	8																							
	9																							
	10																							
	11																							
	12																							

0.55 max fl

VESSEL NOAA RV MILLER FREEMAN		PROJECT & LEG MF02-11										STATION DESIGNATION								
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)	
11257	26.12	N	151.19	54	W	08	OCT	02	08	23	16.2	.	.	19	37	25	2	72	154	0664
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS								
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header												
PRESS SN		80020		START DOWN																
TEMP SN		710/884		AT DEPTH																
COND SN		915/530		AT SURFACE								MAX. DEPTH = m								
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER										
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
1	150 ✓							11	107											
2	125 ✓							4	108											
3	100 ✓							6	109											
4	75 ✓							4	110											
5	60 ✓							4	111											
6	40 ✓							4	112											
7	30 ✓							4	113											
8	20 ✓							4	113											
9	0 ✓							4	114											
10																				
11																				
12																				

F1 volts (max) = 0.35

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11										STATION DESIGNATION										
CONSC CAST #	LATITUDE		LONGITUDE			DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
1135723.82	N		15124.98	W		08	OCT	02	09	19	10.1				1937	243	22	37	2		172	c663
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS										
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header				c663										
PRESS SN		80020		START DOWN																		
TEMP SN		710/884		AT DEPTH																		
COND SN		915/530		AT SURFACE								MAX. DEPTH = m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.											
1	164							u	115													
2	150							u	116													
3	125							u	117													
4	100							u	118													
5	75							u	119													
6	60							u	120													
7	40							u	181													
8	20							u	182													
9	6							u	183													
10																						
11																						
12																						

0
20
40
60

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																						
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID										
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)										
11457	22	27	N	151	27	46	W	08	0	2	10	1	.	.	2	3	7	2	5	3	1	7	2	7	2	1	3	9	cb	64
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS																				
TYPE & SN		9+ SN 91220		DATA ON		Tape/Diskette ID		File Name/Header		stcbb4																				
PRESS SN		80020		START DOWN																										
TEMP SN		710/884		AT DEPTH																										
COND SN		915/530		AT SURFACE						MAX. DEPTH = m																				
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve																				
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER																				
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL	NUTR.	CHL	WHIT's NUTR.																			
	1	132									4	184																		
	2	100									4	185																		
	3	75									4	186																		
	4	40									4	187																		
	5	20									4	188																		
	6	0									4	189																		
	7																													
	8																													
	9																													
	10																													
	11																													
	12																													

0
20
40
75

f1 Volt(max) = 0.5

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11										STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)				
115	57	24.5	2	N	151	34	43	W	08	OCT	02	10	49	9.8	.	193	7	25	3	20	27	2	81	cb65
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS												
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header				cb65												
PRESS SN		80020		START DOWN																				
TEMP SN		710/884		AT DEPTH																				
COND SN		915/530		AT SURFACE								MAX. DEPTH = m												
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve												
POS.		TRIP DEPTH		CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
				PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL		NUTR.		CHL.		WHIT's NUTR.		
1		754														u		190						
2		504																u		191				
3		30																u		192				
4		20																u		193				
5		10																u		194				
6		0																u		195				
7																								
8																								
9																								
10																								
11																								
12																								

flvdt (max) = 0.5 / Cable jumped off forward side of winch when bring up, after deck unit shut down, Gilly fixed

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11										STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)				
	11	65	71	6.89	N	15	13	2.23	W	08	OCT	02	12	15	9.6	.	193	7	26	8	16	272	72	c6c1
CTD		TIMES		JD/TIME		DATA LOCATION										REMARKS								
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID					File Name/Header					c6c1								
PRESS SN		80020		START DOWN																				
TEMP SN		710/884		AT DEPTH																				
COND SN		915/530		AT SURFACE												MAX. DEPTH = m								
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> ChIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER										
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.													
1	66											u	196											
2	40											u	197											
3	25											u	198											
4	0											u	199											
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

f1 Volt(max) ≈ 4.6

VESSEL		PROJECT & LEG										STATION DESIGNATION									
NOAA R/V MILLER FREEMAN		MF02-11																			
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*		(m)	
11757	15.63	N	15127.86	W	08	OCT	02	13	03	9.5		1937			264	22	27	2		82	cbc2
CTD		TIMES		JD/TIME		DATA LOCATION										REMARKS					
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID					File Name/Header					cbc2					
PRESS SN		80020		START DOWN																	
TEMP SN		710/884		AT DEPTH																	
COND SN		915/530		AT SURFACE												MAX. DEPTH = m					
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER											
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	76								4	200											
2	60								4	201											
3	40								4	202											
4	20								4	203											
5	0								4	204											
6																					
7																					
8																					
9																					
10																					
11																					
12																					

F1 volts (max) = 0.6+

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11										STATION DESIGNATION									
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
11857	14.63	N	151	23.52	W	08	10	20	02	13	48	9.3	.	19	37	248	23	27	2	104	cbcb
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS									
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header				cbcb									
PRESS SN		80020		START DOWN																	
TEMP SN		710/884		AT DEPTH																	
COND SN		915/530		AT SURFACE								MAX. DEPTH = m									
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve									
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	100 ✓							u	205												
2	75 ✓							u	206												
3	60 ✓							u	207												
4	40 ✓							u	208												
5	20 ✓							u	209												
6	0							u	210												
7								u	211												
8																					
9																					
10																					
11																					
12																					

f/Volt(max) ≈ 0.5 / Seven bottles closed, 6 marked as fixed
 Assume 2 fixed at surface / bottle 6 looked like 20m from
 chl samples - David Wisegarber

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION												
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
119	57	13.5	N	151	18.8	W	8	0	2	14	40	9.1		19	4	7	255	28	3	7	2	16	1	cbcl4
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS												
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID		File Name/Header				cbcl4												
PRESS SN		80020		START DOWN								w/o = 156												
TEMP SN		710/884		AT DEPTH								MAX. DEPTH = m												
COND SN		915/530		AT SURFACE																				
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER														
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.													
1	156 ✓								u	212														
2	150 ✓								u	214														
3	125 ✓								u	215														
4	100 ✓								u	213														
5	75 ✓								u	216														
6	50 ✓								u	217														
7	20 ✓								u	218														
8	0																							
9																								
10																								
11																								
12																								

f(Volts(max)) = 0.55

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION														
CONSC CAST #	57 12 LATITUDE		151 14 LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
120	57	12.47	N	151	14.45	W	08	OCT	02	15	33	9.2	.	19	47	26	4	27	57	2	135	cbc5
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS												
TYPE & SN	9+ S/N 91220		DATA ON				Tape/Diskette ID		File Name/Header		cbc5											
PRESS SN	80020		START DOWN																			
TEMP SN	710/884		AT DEPTH																			
COND SN	915/530		AT SURFACE								MAX. DEPTH = m											
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	130 ✓																					
2	160 ✓																					
3	75 ✓																					
4	40 ✓																					
5	30 ✓																					
6	20 ✓																					
7	10 ✓																					
8	0 ✓																					
9																						
10																						
11																						
12																						

$$f_{\text{Vort(max)}} = 0.6$$

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
121572	φ	.76 N	15032	.64 W	08	OCT	02	18	21	9.6	.	1847	27	φ	26	162				463	26x1
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN	9+ S/N 91220	DATA ON			Tape/Diskette ID		File Name/Header		26x1												
PRESS SN	80020	START DOWN																			
TEMP SN	710/884	AT DEPTH							481												
COND SN	915/530	AT SURFACE							MAX. DEPTH = 456 m												
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	456 ✓							u	219												
2	356 ✓							u	220												
3	256 ✓							u	221												
4	156 ✓							u	222												
5	106 ✓							u	223												
6	75 ✓							u	224												
7	50 ✓							u	225												
8	40 ✓							u	226												
9	20 ✓							u	227												
10	10 ✓							u	228												
11	0 ✓							u	229												
12																					

f1 Volt(max) = 0.6

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11					STATION DESIGNATION																
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)			
12257	24.9	1	N	150	38.58	W	08	OCT	02	19	35	9.7	.	18	4	7	27	7	19	1	7	2	147	abx2	
CTD		TIMES		JD/TIME		DATA LOCATION					REMARKS														
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID					File Name/Header														
PRESS SN		80020		START DOWN																					
TEMP SN		710/884		AT DEPTH																					
COND SN		915/530		AT SURFACE							MAX. DEPTH = m														
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER			<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER																
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.														
1	142 ✓																								
2	125 ✓																								4230
3	106 ✓																								4231
4	75 ✓																								4232
5	50 ✓																								4233
6	40																								4234
7	10																								4235
8	0																								4236
9																									4237
10																									
11																									
12																									

f1_{16ft}(max) = 0.5

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
123	S	28.72	N	15045.14	W	48	OCT	2003	4	9.2	.	1848			270	22	17	2	100	96K3	
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN		9+ S/N 91220		DATA ON		20:36:00 GMT		Tape/Diskette ID		File Name/Header		a6x3									
PRESS SN		80020		START DOWN		20:36:00 GMT															
TEMP SN		710/884		AT DEPTH		20:41:00 GMT															
COND SN		915/530		AT SURFACE		20:44:00 GMT						MAX. DEPTH = 96 m									
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER											
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
bot	1	96										✓	4238								
75	2	75												239							
50	3	51												240		✓					
30	4	31												123-4		✓					
15	5	14												123-5		✓					
0	6	4												123-6		✓					
	7																				
	8																				
	9																				
	10																				
	11																				
	12																				

0.6 max fl

Ran out of numbered labels - went to post using Cast-bot

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION												
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
12457	34	.78	N	150	55	.46	W	08	OCT	02	21	47	9.1	.	18	48	29	22	5	1	7	2	86	0614
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS												
TYPE & SN		9+ S/N 91220		DATA ON		21:50:00 GMT		Tape/Diskette ID		File Name/Header														
PRESS SN		80020		START DOWN		21:50:00 GMT																		
TEMP SN		710/884		AT DEPTH		21:53:00 GMT																		
COND SN		915/530		AT SURFACE		21:57:00 GMT						MAX. DEPTH = 83 m												
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER														
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.													
1	43											✓	124-1											
2	52												124-2	✓										
3	30												124-3	✓										
4	10												124-4	✓										
5	2												124-5	✓										
6																								
7																								
8																								
9																								
10																								
11																								
12																								

50
30
10
0

0.5 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION										
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(m/s)	*	*	*	(m)	
12557	40.76	N		15106.14	W		08	OCT	02	2306	8.3			1957	293	34	1	72			76	alx5
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS										
TYPE & SN	9+ S/N 91220	DATA ON		23:09:00 GMT		Tape/Diskette ID			File Name/Header			ARXS/nab8										
PRESS SN	80020	START DOWN		23:09:00 GMT																		
TEMP SN	710/884	AT DEPTH		23:12:00 GMT																		
COND SN	915/530	AT SURFACE		23:16:00 GMT								MAX. DEPTH = 72 m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	72										✓		125-1									
2	51												125-2	✓								
3	30												125-3	✓								
4	15												125-4	✓								
5	2												125-5	✓								
6																						
7																						
8																						
9																						
10																						
11																						
12																						

bot
50
30
15
0

0.55 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
1265	74	5.71	N	151	14.04	W	09	0	2	00	13	8.9	.	185	72	99	27	172		68	a6x6
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN	9+ S/N 91220		DATA ON		00:17:00 GMT		Tape/Diskette ID		File Name/Header												
PRESS SN	80020		START DOWN		00:17:00 GMT																
TEMP SN	710/884		AT DEPTH		00:19:00 GMT																
COND SN	915/530		AT SURFACE		00:22:00 GMT						MAX. DEPTH = 65 m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER											
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
65	65							✓	126-1												
30	30								126-2	✓											
10	10								126-3	✓											
0	2								126-4	✓											

0.65 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)
1275750	.61	N	151211	.41	W	09	OCT	02	0127	8.4	.	19	S7	30	S	31	1	22	61	abx7
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS										
TYPE & SN	9+ S/N 91220		DATA ON	01:30:00 GMT		Tape/Diskette ID		File Name/Header												
PRESS SN	80020		START DOWN	01:30:00 GMT																
TEMP SN	710/884		AT DEPTH	01:32:00 GMT																
COND SN	915/530		AT SURFACE	01:34:00 GMT						MAX. DEPTH = 58 m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
bot	1	58						✓	127-1	✓										
30	2	28							127-2	✓										
10	3	10							127-3	✓										
0	4	3							127-4	✓										
	5																			
	6																			
	7																			
	8																			
	9																			
	10																			
	11																			
	12																			

0.7 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	(m/s)	*	*	*	(m)	
128	S	55.49	N	15129.07	W	09	OCT	02	02	33	8.3	.	.	1958	3013	21	72		70	a 6x8
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS										
TYPE & SN	9+ S/N 91220		DATA ON	02:37:00 GMT		Tape/Diskette ID		File Name/Header												
PRESS SN	80020		START DOWN	02:37:00 GMT																
TEMP SN	710/884		AT DEPTH	02:39:00 GMT																
COND SN	915/530		AT SURFACE	02:43:00 GMT						MAX. DEPTH = 66 m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> ChIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES							SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER									
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
bot	1	66						✓	128-1											
40	2	40							"-2	✓										
20	3	19							"-3	✓										
10	4	10							"-4	✓										
0	5	3							128-5	✓										
	6																			
	7																			
	8																			
	9																			
	10																			
	11																			
	12																			

0.7 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(m/s)	*	*	*	(m)						
1	29	57	58	.79	N	15	13	5	.74	W	09	OCT	02	03	36	7.9	.	20	58	300	30	17	2	90	96x9
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS															
TYPE & SN	9+ S/N 91220		DATA ON	03:38:00 GMT		Tape/Diskette ID		File Name/Header																	
PRESS SN	80020		START DOWN	03:38:00 GMT																					
TEMP SN	710/884		AT DEPTH	03:41:00 GMT																					
COND SN	915/530		AT SURFACE	03:46:00 GMT						MAX. DEPTH = 85 m															
		<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	CHIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER															
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.														
1	85							✓	129-1																
2	50								1-2																
3	30								1-3	✓															
4	20								1-4	✓															
5	3								129-5	✓															
6																									
7																									
8																									
9																									
10																									
11																									
12																									

50
30
20
0

0.45 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION														
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
13058	06	.01	N	15138	.72	W	09	O	C	T	02	04	09	7.7	.	2158	3	12	31	172	107	abx10
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS												
TYPE & SN	9+ S/N 91220		DATA ON	04:12:00 GMT		Tape/Diskette ID		File Name/Header														
PRESS SN	80020		START DOWN	04:12:00 GMT																		
TEMP SN	710/884		AT DEPTH	04:16:00 GMT																		
COND SN	915/530		AT SURFACE	04:20:00 GMT								MAX. DEPTH = 103 m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER													
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	103							✓	130-1													
2	76								-2													
3	50								-3	✓												
4	30								-4	✓												
5	3								130-5	✓												
6																						
7																						
8																						
9																						
10																						
11																						
12																						

25
50
30
0

0.25 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(m/s)	*	*	*	(m)	
131	58	01.21	N	151	41.71	W	09	OCT	02	04	47	7.8	.	2158	296	28	172	130	96X11	
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS										
TYPE & SN	9+ S/N 91220		DATA ON	04:49:00 GMT		Tape/Diskette ID		File Name/Header												
PRESS SN	80020		START DOWN	04:49:00 GMT																
TEMP SN	710/884		AT DEPTH	04:54:00 GMT																
COND SN	915/530		AT SURFACE	04:59:00 GMT						MAX. DEPTH = 128 m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER										
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
1	128							✓	131-1											
2	101								-2											
3	75								-3											
4	50								-4	✓										
5	20								-5	✓										
6	11								-6	✓										
7	3								131-7	✓										
8																				
9																				
10																				
11																				
12																				

100
75
50
20
10
0

0.3 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)
1325	8	03	8	N	15	14	5	09	03	07	21	8	2	29	28	1	7	2	166	a6x12
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS										
TYPE & SN	9+ S/N 91220		DATA ON	05:32:00 GMT		Tape/Diskette ID		File Name/Header												
PRESS SN	80020		START DOWN	05:32:00 GMT																
TEMP SN	710/884		AT DEPTH	05:39:00 GMT																
COND SN	915/530		AT SURFACE	05:48:00 GMT						MAX. DEPTH = 163 m										
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER											
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
	163							✓	132-1											
125	126								1-2											
160	101								1-3											
75	75								1-4											
50	50								1-5	✓										
30	30								1-6	✓										
10	10								1-7	✓										
0	2								132-8	✓										
9																				
10																				
11																				
12																				

0.3 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION																
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)				
133	58	06.33	N	151	48.23	W	09	OCT	02	06	15				22	58	30	6	2	1	72		95	a b x 13
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS														
TYPE & SN	9+ S/N 91220		DATA ON	06:17:00 GMT		Tape/Diskette ID		File Name/Header																
PRESS SN	80020		START DOWN	06:17:00 GMT																				
TEMP SN	710/884		AT DEPTH	06:21:00 GMT																				
COND SN	915/530		AT SURFACE	06:25:00 GMT								MAX. DEPTH = 91 m												
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																		
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER														
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.													
1	91							✓	133-1															
2	75								-2															
3	50								-3	✓														
4	30								-4	✓														
5	10								-5	✓														
6	3								133-6	✓														
7																								
8																								
9																								
10																								
11																								
12																								

75
50
30
10
0

0.3 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
1345808.39	N	15150.48	W	09	OCT	02	06	46	6.9			2258	3	12	20	172				5696	X14
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN	9+ S/N 91220	DATA ON	06:47:00 GMT		Tape/Diskette ID		File Name/Header														
PRESS SN	80020	START DOWN	06:47:00 GMT																		
TEMP SN	710/884	AT DEPTH	06:50:00 GMT																		
COND SN	915/530	AT SURFACE	06:53:00 GMT								MAX. DEPTH = 52 m										
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER												
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	52							✓	134-1	✓											
2	31								-2	✓											
3	3								134-3	✓											
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

0.3 max fl.

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11				STATION DESIGNATION <i>Chumak 02CB-1B</i>													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
135	S	743.49	N	15218.39	W	09	OCT	02	1339	7.0	.	2458	2	96	19	172			1156	CB1B	
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS											
TYPE & SN	9+ S/N 91220	DATA ON	13:41:00 GMT		Tape/Diskette ID		File Name/Header														
PRESS SN	80020	START DOWN	13:41:00 GMT																		
TEMP SN	710/884	AT DEPTH	13:45:00 GMT																		
COND SN	915/530	AT SURFACE	13:51:00 GMT								MAX. DEPTH = 151 m										
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES							SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER									
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	151																				
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

0.3 max fl