PG 10 94

VESSEL NOAAS MILLER FREEMAN	FREEMAN			PROJECT & LEG MF97-05, Leg 2	EG 19 2				STATIC	STATION DESIGNATION	NATION A 1 HAVE	1 70
CONSC CAST # LA	LATITUDE	LONGITUDE	DATE	F JD= 124	TIME (GMT)	DRY	WET SENEE	SEA STATE YISIBILITY	WIND WIND DIRN. SPD.	CLOUD (amt TYPE MEATHER	ВОТТОМ	STA. NAME/ID
DEG	N I N	DEG MIN		MO YR	HR MIN	(°C)	. 1	*	_	*	(m)	
dol 532	1.98N	6843.6	5 W 04 MA	M A Y 9 7	0820	06.8	03.8	73718	5008	561	360	00
Port Side CTD		TIMES	JD / TIME	Æ			DATA LOCATION	NOT	e e	REMARKS		
TYPE / SN SBE 9+ 91660		DATA ON	124 08	080	Tape/Diskette	cette ID	File	File Name/Header	er	≥ 0 M	335/	
PRESS SN 29772	772	START DOWN	Õ -	8080			CTJ	CTDΦΦ (battam	COWING	ΔV
TEMP SN 1:889	2:701	АТ DEРТН	30	0820				=	.	fast!		-
COND SN 1:530	2:303	AT SURFACE					I		-	MAX. DEPTH	II.	30 m
		HA9	RUOR	CHIAM		1APS6	TAPS4				٠	
			SEA-BII	IRD 9/11+	RD 9/11+ CTD DATA	TA			SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER	NUMBER
TRIP POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY		PAR	RUOR	ChIAM	SALINITY	Y SAL.	NUTRIENT	CHLOR
327	-		,		38					68		
2 275			- 1					-				
3 200						. /				Ŕ		
100	,											_
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VECCE!	 				SECTION CO.	01.0						OT A TO	101014	I ACIE VI		
1 <u>8</u>	NOAAS MILLER FREEMAN	REMAN			MF97-05, Leg 2	Leg 2						2	STA 2		HAUL I	
CONSC CAST #		LATITUDE	LONGITUDE	E DATE	re JD= /2	124 (G	TIME (GMT)	DRY	WET WET	PRESSURE SEASTATE	VISIBILITY DIA WANTE	WIND SPD.	CLOUD (amt) TYPE TYPE TYPE	ВОТТОМ	STA. NAME/ID	. @
	DEG	MIN	DEG MIN	DAY	ОМ	YR HR	NIIV *	(၁့)	(S°)	(mb) *	(deb)	(kts)	*	(m)		
00	25326	0.175N	16846.	39W04N	Υ	97/0	0/6	05.0	03.21	54	7115	17	199	090	၁ ၀	002
	Port Side CTD	сто	TIMES	JD / TIME	ME			Õ	DATA LOCATION	NOIT		<u> </u>	REMARKS			
TYPE	TYPE / SN SBE 9+ 91660		DATA ON	124/0	0949	Тар	Tape/Diskette	tte ID	File	Name/	File Name/Header		0	= 1110		
PRE	PRESS SN 29772	ั้ง	START DOWN	\ \	949					CTD002	75		-			
TEM	TEMP SN 1:889	9 2:701	AT DEPTH	0/	9/0/							· ·				
00 00	COND SN 1:530	0 2:303	AT SURFACE		[:			MAX. DEPTH	_ =	650	Ε
			PAR	RUOR		CHIAM	/ <u>T</u>	TAPS6	TAPS4	4	·					
				 	SEA-RIRD 9/11± CTD DATA	14. CT	יין אַרו מ	4	,			SAMPLE BOTTLE		GEORGIA E MINAGES		8
	HE N															<u> </u>
<u>გ</u>	표	PRESSURE	PRI, TEMP	SEC. TEMP	-	SALINITY	PAR.	_	FLUOR	<u>ව</u>	ChlAM	SALINITY	SAL.	NOTRIENT	되	F
-	1060							\dashv	,				/8			
2	300															
က	200															
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9	63							٠								
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80	.30							\dashv								
0	20		,						7							
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12		š						_								

VESSEL	.			PRO	PROJECT & LEG	(T				STATIO	STATION DESIGNATION	MATION	
NOAA	NOAAS MILLER FREEMAN	AN	*9	MF9	MF97-05, Leg 2	2					STA	$ \sim $	HAUL I
CONSC			E	<u>:</u>		TIME	DRY	EBUNESER English Engli	EA STATE YTUIBICITY	WIND	LOUD (amt) PE PEATHER TEATHER	воттом	STA.
#	DEG MIN	П	DEG MIN	DAY MO	ΥR	HR MIN	<u>ရှိ</u> ပွ		s â	(Kts)	W *	(m)	NAME/ID
003	5330.7	Z	16854.2	3 W 0 4 M A	Y 9 7	1320	051.0	1 7	471	20	8621	793	dd3
	Port Side CTD		TIMES	JD / TIME			ũ	DATA LOCATION	ION	_ - _	REMARKS		
TYPE,	TYPE / SN SBE 9+ 91660	1660	DATA ON	124 1243		Tape/Diskette ID	ette ID	File	File Name/Header	7.	10 M	1530	
PRES	PRESS SN 29772	- 0,	START DOWN	1243					CTD 4 \$,	Secondary	sal	erratic
TEMP SN	1:889	2:701	АТ DEРТН	1320			1				700 - 1150 m		then or
COND SN	SN 1:530 2:303		AT SURFACE					 			MAX. DEPTH =		15.00 m
			PAR	FLUOR	CHIAM		TAPS6	TAPS4					
				SEA-BIRD	9/11+ (BD 9/11+ CTD DATA	Ψ			SAMPLE BOTTLE		AAMPI FROTTI FINIMBER	N MARIE
	 	1 1									<u> </u>		
<u>ş</u> ,	+			SEC. IEMIT	SALINII	£	_ اء	5	E CIIAM	SALINITY	NAL.		5
- 0	300								,		0		
3	200												
4	100												
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9	50			-									
7	40				3								
80	30												
6	20												
10	0/												
11	0												
12						-							

PG 4 OF __

STATION DESIGNATION	SEA STATE VISIBILITY DIN WIND SPIND	* * (deg) (kts) * * (m)	0941714321 862 18811 1004	TION	File Name/Header $\omega/\omega = 7590$	TDOG4		MAX. DEPTH = /500 m	4	SAMPLE BOTTLE DATA SAMPLE BOTTLE NUMBER	Y A CO	CIIMIN SALINITY SAL. NOTHENI CALCA	,,	4									
PROJECT & LEG MF97-05, Leg 2	E JD= /24 (GMT) BULB BULB &	MO YR HR MIN (°C)	MAY97 1617 5.0	AE DATA LOCATION	Tape/Diskette ID File	36	.17		ChIAM TAPS6 TAPS4	IRD 9/11+ CTD DATA	1												
	LONGITUDE	DEG MIN DAY	121N /69041.19W04	TIMES JD/TIME	DATA ON 124	START DOWN	2:701 AT DEPTH	2:303 AT SURFACE	PAR HUOR	SEA-BII	GAST 232 GAST IGG	\vdash											
VESSEL NOAAS MILLER FREEMAN	CONSC CAST # LATITUDE		004151336102IN	Port Side CTD	TYPE / SN SBE 9+ 91660	PRESS SN 29772	TEMP SN 1:889 2:	COND SN 1:530 2			TRIP		}_	,	4 100	5 75	6 50	7 40	8 30 /	9 20	10 10	11	

PG SOF

VESSEL	<u>Щ</u>			PRO	PROJECT & LEG	g				STATI	STATION DESIGNATION	NATION	
NO P	NOAAS MILLER FREEMAN	FEEMAN		MF9	MF97-05, Leg 2	2	b				S	STA S	HAUL 1
CONSC						JME	DRY	######################################	SIBILITY YELL	QNIM	(tms) QUO. 397 A3HTA3	BOTTOM	STA.
# ,	<u> </u>	MIN	LONGITUDE	DATE JD=	YB XB	HB MIN	BUB S		S .		10 *	DEPTH (m)	NAME/ID
00	4	471.04 N	1691	9 w 0 4 n	Y 9 7	1859	5.5	4.5	571		862	1560	1005
	Port Side CTD	CTD	TIMES	JD / TIME				DATA LOCATION	TION		REMARKS	"	
TYPE	TYPE / SN SBE 9+ 91660	9+ 91660	DATA ON	124 / 1820	•	Tape/Diskette ID	ette ID	File	File Name/Header	<u>.</u>	o los	-154	١
PRE	PRESS SN 29772	72	START DOWN	1820					CTDOOS		}	7	
TEMI	TEMP SN 1:889	9 2:701	АТ ДЕРТН										
CON	COND SN 1:530	30 2:303	AT SURFACE						4.		МАХ. DEPTH	li li	1503 m
			PAR	RUOR	CHIAM		TAPS6	TAPS4	-		٠		
					77	1	<u> </u>			SAMPLE			
				אואט טוט +ווול טחום-אוא	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	מות מות	١			DAIA	$\frac{1}{1}$		SAMPLE BOLLILE NUMBER
S.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	ας	RUOR	ChIAM	SALINITY	Y SAL.	NUTRIENT	T CHLOR
-	1500						President and a second				22		· .
2	300												
က	200								:				
4	00/							*	*				
2	75						,						,
9	So	,											
7	0/2				-		,						
8	30							•	(M)				
6	20					1			2 0	,			
10	0/				-			-					
-	0					-							
12								,					

MILER FREEMAN MIRES CE. 1892 Table Section Sec	VECCE) I Caa	OT 8.1 E.0		-			٥	I ACITAT) PEOLOSIA	INC.I.E.	
Manual M	NO S	S MILLER FI	REEMAN			MF97-C	5, Leg 2	- 01				0		STA	5 C	ال 2
ATTITUDE	8	Ş		•						<u> 386</u>	= 3TA]		(tms) C	H31		
Second Continue	CAS		TUDE	LONGITUDE		JD.	7	TIME (GMT)	DRY		SEA S	_	S S	TA3W	OTTOM DEPTH	STA. NAME/ID
Side CTD			Z	DEG MIN		Ο Σ	æ	R	(၁့)	1.5	 				(m)	
SBE 9+ 91660 DATA ON Tape/Diskette ID File Name/Header Cash -fac products and products are products and prod	0	M	6.36N	169.1	M M	Σ	2 6	0	<i>v</i>	2	5	0	7	1 2	564	1005
SBE 9+ 91860 DATA ON Tape/Diskette ID File Name/Header CxtD φ φ ω Max. DEPTH = 30 <		Port Side		TIMES	JD.	TIME	-		۵	ATA LOCA	NOI		<u></u>	MARKS		!
1:89 2:701 AT DEPTH 1:530 2:303 AT SUBFACE PAR TAPS4 SAMPLE SALINITY PAR RUOR CHAM SALINITY SAL NUTRIBITY CHAM CHAM SALINITY CHAM C	TYPE	:/ SN SBE		DATA ON			<u> </u>	ape/Disk	ette ID	File	Name/Hea	der	<u>8</u>	14 Far	produch	7
1:530 2:303	PRE	SS SN 2977	72	START DOWN				•		ن ا	DOOC		3	Der im	ent wa	Ž
1:530 2:303 ATSURFACE PAR	TEM		2:701	АТ DEРТН				, -			194 2017					
PAR PLUCR ChAW TAPS4 SAMPLE C.T.N. U.P.T.	0 0		2:303	AT SURFACE	[[MA	X. DEPT		ш
SEA-BIRD 9/11+ CTD DATA SAMPLE C/+ N				PAR		H.	ChIAM		'APS6	TAPS	_			.*		•
TRIP PRESSIFE PRI TEMP SEC. TEMP SALINITY PAR RLUOR CHAM SALINITY SAL. NUTRIENT],		1].		SA	MPLE	155	b \$	2/2
TRIP PRESSURE PRI. TEMP SEC. TEMP SALINITY PAR FLUOR ChIAM SALINITY SALINITY SALINITY PAR FLUOR ChIAM TEL.OT 30 TEL.OT 3					SEA	-BIRD 9	/11+ C	TD DAT	_<	1		^a	4TA	SAMPL	EBOTTLE	NUMBER
27 TEWES T	POS.	TRIP	PRESSURE		SEC. TE		ALINITY	PA	.	FLUOR	ChIAM	SAL	YLINI.		NUTRIENT	CHLOR
13 7 7 7 9	-	27									,		-		TEWIZ	TEW# 36
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VESSEL NOAAS MILEB EBEEMAN	EDEEMAN	20.	PRC	PROJECT & LEG	(Z C				STATIO	STATION DESIGNATION	ATION	_
	ירואורו		INI	97-00, Ley	7					r)	-
CONSC							∃H/NS	STATE SILITY		HER		
CAST # LA	LATITUDE	LONGITUDE	DATE JD=	124	GMT)	PR√ BULB	WET BULB PRES		SPD.		BOTTOM	STA. NAME/ID
DEG	N N	DEG MIN	DAY MO	ΥR	HR MIN	(၁့)	(°C) (mb)	*	(kts)	*	(m)	
00754611.	1.6CN	16934.5	7 WOUNDA	Y 9 7	2250	3	3.50	257 1 2	331	/ 2 9	098,	000
Port Side CTD	• CTD	TIMES	JD / TIME			, ,	DATA LOCATION	NO		REMARKS		
TYPE / SN SBE 9+ 91660		DATA ON		<u> </u>	Tape/Diskette ID	ette ID	File	File Name/Header		W/6= 1589	88	
PRESS SN 29772	772	START DOWN	÷		TOOOT	27		CTDOOT				
TEMP SN 1:889	89 2:701	АТ ОЕРТН			,	٨		,				
COND SN 1:5	1:530 2:303	AT SURFACE		· · ·				,	<u> </u>	MAX. DEPTH	TH = 150	E 7
		PAR	FLUOR	ChIAM		TAPS6	TAPS4					
		. –	SEA-BIRE	RD 9/11+ CTD DATA	TD DAT	<u>_</u> <			SAMPLE BOTTLE DATA	SAMPI	SAMPLE BOTTLE NUMBER	NCMBER
POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PA	 	FLUOR	ChIAM	SALINITY	SAL	NUTRIENT	CHIOR
1 /500										64	TEW 22	
2 300					,						TEW21	
3 200											20	
4 / 40										_	19	
5 15					-			*			B	
6 50	ٔ				,						(7	
04 2			•								71	
8 32					,						15	
9 20									,	,	19.	
10 7 0										1	13	
11 0											21 1	TEW 14
12						- 7			,		-	•
•				,	•							

PG 8 OF

STATION DESIGNATION	CLOUD (amt) TYPE WEATHER DOTTOM STA. NAME/ID	(m) *	76118911007	REMARKS	W/0=1304			MAX. DEPTH = m			SAMPLE BOTTLE NUMBER	Y SAL. NUTRIENT CHLOR	11 rw 33	32	31	30	62	28	52	92	52	24	V 23 72W 15	
STATI	WIND SPD.) (kts)	8 2 6			I				SAMPLE BOTTLE	DATA	SALINITY												
:	SEA STATE VISIBILITY OF SEA	*	5716	NOI	File Name/Header	CT DODS						ChiAM	7				-				-			
	M WET WESSER	(°C) (mb)	1 4.8 98	DATA LOCATION	File N	5			TAPS4		٠	FLUOR	II.		*									
	DRY	(၁)	2	~. T	kette ID	800			TAPS6	, F	ا ا	PAR				. '							\dashv	
ى ق	TIME (GMT)	HR MIN	0236		Tape/Diskette	CTDO		ţ		, C	ממומ										,	\dashv	\dashv	
PROJECT & LEG MF97-05, Leg 2	JD= 125	MO YR	Υ 9 7						ChIAM	7,70	RD 9/11+ CID DAIA	SALINITY						•						
PR	DATE JE	DAY	4 WOS MA	JD / TIME] FLUOR		SEA-BIRL	SEC. TEMP				,							-	
	LONGITUDE	DEG MIN	16949164	TIMES	DATA ON	START DOWN	AT DEPTH	AT SURFACE	PAR			PRI.TEMP S												
FREEMAN	LATITUDE	NIM	N 34.9	·	TYPE / SN SBE 9+ 91660		2:701	2:303				PRESSURE												
VESSEL NOAAS MILLER FREEMAN	<u> </u>	DEC	0854/	Port Side CTD	SN SB	PRESS SN 29772	SN 1:889	SN 1:530				TRIP DEPTH	150	360	2.00	100	75	50	40	30	20	0/	0	
VESSEL	CONSC CAST #		0		TYPE	PRES	TEMP SN	COND SN				S.	-	2	က	4	သ	9	7	8	6	10	, -	12

PG 2 OF

STATION DESIGNATION	WIND OF EACH STA. SPD. CI PETTOM STA. SPD. CI PETTOM STA.	(kts) * * * (m)	128621751 008	REMARKS	W/0= 1539			MAX. DEPTH = $15\overline{0}$ 2 m		SAMPLE BOTTLE DATA SAMPLE BOTTLE NUMBER	SALINITY SAL NUTBIENT CHLOB	6											
	WET WIND VISIBILITY VISIBILITY VISIBILITY VISIBILITY VISIBILITY VISIBILITY VISIBILITY VISIBILITY VISIBILITY	(°C) (mb) * * (deg)	4.20257155	DATA LOCATION	File Name/Header	CTDOOR	,		TAPS4		FLUOR Chiam s											-	
PROJECT & LEG MF97-05, Leg 2	JD= /25 (GMT) BULB	/R	MAY97070750		Tape/Diskette ID	CTDOOR			Chiam TAPSe	RD 9/11+ CTD DATA	SALINITY PAR											-	
P. M.	LONGITUDE DATE	DEG MIN DAY	16912.57WOSM	TIMES JD/TIME	DATA ON	START DOWN	АТ ДЕРТН	AT SURFACE	PAR FLUOR	SEA-BIF	PRI TEMP SEC TEMP												
VESSEL NOAAS MILLER FREEMAN	CONSC CAST # LATITUDE	DEG MIN	0095439.81N	Port Side CTD	TYPE / SN SBE 9+ 91660	PRESS SN 29772	TEMP SN 1:889 2:701	COND SN 1:530 2:303			TRIP PRESSURE	1500	2 300	3 900	4 100	5 75	6 50	Oh 7	8 30	9 30	10 /0	0	12

STATION DESIGNATION STA 10 HAUL 1	WIND ON STA. SPD. CLONE BOTTOM STA. SPD. OEPTH NAME/ID	(m)	088621728 010	REMARKS	W/0 = 1585			MAX. DEPTH = 1500 m		SAMPLE BOTTLE DATA SAMPI FROTTI F NI IMBER		SALINITY SAL. NUTRIENT CHLOR	255											
	WET WETSSURE SEASURE SEASURE VISIBILITY DISK	* * (q	4.10647145	DATA LOCATION	File Name/Header	CTDOIL			TAPS4	<u></u>		FLUOR CHIAM S								=				
PROJECT & LEG MF97-05, Leg 2	TIME DRY (GMT) BULB	ΥR	Y97/346 4.9		Tape/Diskette ID				ChlAM TAPS6	SEA-BIRD 9/11+ CTD DATA		SALINITY PAR												
PROJ MF97	LONGITUDE DATE JD=	MIN DAY	828.43WOSMA	S JD/TIME	10N 125 / 130B	START DOWN	РТН 1346	AT SURFACE 14123	PAR	SEA-BIRD		PRI. TEMP SEC. TEMP												
VESSEL NOAAS MILLER FREEMAN	CONSC CAST # LATITUDE	DEG MIN DEG	01155506.38N/68	Port Side CTD TIMES	TYPE / SN SBE 9+ 91660 DATA ON	PRESS SN 29772 STAR	TEMP SN 1:889 2:701 AT DEPTH	COND SN 1:530 2:303 ATSU			TRIP	POS. DEPTH PRESSURE	1 /500	2 300	3 200	4 100	5 75	6 50	7 do 7	8 30	9 20	10 //	11 0	12

ATION HAVL (BOTTOM STA. DEPTH NAME/ID	(m)	472 011		- 1488			$TH = \frac{1}{5}$ m		SAMPLE BOTTLE NUMBER	NUTRIENT O'LOR												
STATION DESIGNATION	CLOUD (amt) TYPE WEATHER W = -	*	862 /	REMARKS	W 0 =	~		MAX. DEPTH	Ŷ.	SAMP	SAL.												
STATION	WIND SPD.	(kts) *	09.	<u>α.</u>	_			<u>Σ</u>		SAMPLE BOTTLE DATA	SALINITY					-							ţ.
	SEA STATE VISIBILITY D. K.) * * (deg)	347123	NO	File Name/Header	CTD Ø/2					ChIAM						:		:				
	M M M M M M M M M M M M M M M M M M M	(am) (Co)	4.508	DATA LOCATION	File N				TAPS4		FLUOR			,			-						
	DRY BULB	္စ	50		kette ID				TAPS6	VTA	PAR												
ر ان ان	TIME (GMT)	HR	1636		Tape/Diskette ID	·				_ СТБ D/							9						
PROJECT & LEG MF97-05, Leg 2	E JD= (25	MO YR	M A Y 9 7	ME	1559	1559	636		ChIAM	SEA-BIRD 9/11+ CTD DATA	SALINITY	ì									,		
	DATE	DAY	2WOSMA	JD / TIME	125	,)/	4	FLUOR	SEA-E	SEC. TEMP		77		· 1	2.	'			,			-
	LONGITUDE	DEG MIN	16815.3	TIMES	DATA ON	START DOWN	AT DEPTH	AT SURFACE	PAR		PRI. TEMP					,				,			
REEMAN	LATITUDE	Z.W	20.12 N		TYPE / SN SBE 9+ 91660		2:701	2:303			PRESSURE			:									
VESSEL NOAAS MILLER FREEMAN		_ SH BD	2552	Port Side CTD	/ SN SBE	PRESS SN 29772	SN 1:889	SN 1:530			ATAIP DEPTH	1456	300	200	00/	75	50	40	30	20	0/	0	
VESSEL	CONSC CAST #	<u>.</u>	0		TYPE	PRES	TEMP SN	COND SN			Š.	-	2	က	4	2	9	7	ω	တ	10	1	12

VESSEL	Д Д				PROJECT & LEG	<u> </u>				STATIO	STATION DESIGNATION	MOLLA	
NO A	NOAAS MILLER FREEMAN	-REEMAN			MF97-05, Leg 2	9.2					STA		HAUL 1
CONSC	8				124, 1.1, 1.1			38109	EXACT	(100)	(tms) Ol	3- 1- 1-	-
CAST #		LATITUDE	LONGITUDE	DATE	JD= 125	TIME (GMT)	DRY BULB	WET BULB PER		SPD.	39YT TA3W	BOTTOM DEPTH	STA. NAME/ID
je .	DEC	MIN	DEG MIN	DAY	MO YR	HR MIN	(၁ _၀)	(SC)	(mb) * * (deg)	(kts)	*	(E)	
ō	13552	22.85N	16810.	24WGSN	M A Y 9 7	1908	رح -	4.81	04711	5 1 5	862	440	1012
	Port Side CTD	СТО	TIMES	JD / TIME	ııı	•		DATA LOCATION	NOL	<u></u>	REMARKS		
TYPE	TYPE / SN SBE 9+ 91660		DATAON	125/18	1853	Tape/Diskette ID	ette ID	File 1	File Name/Header		= olm	439	
PRE	PRESS SN 29772	72	START DOWN	9/	1854			[C1	CTD D13		-		
TEM	TEMP SN 1:88	1:889 2:701	АТ ОЕРТН	19.	1908				ļ				
00 N	COND SN 1:530	30 2:303	AT SURFACE	1926	26		,				MAX. DEPTH	11	432 m
			HAR ∑	RUOR	CHIAM	·	TAPS6	TAPS4					
				II VIO	SEA BIBD 9/11. CID DATA) OTO	<u><</u>			SAMPLE BOTTLE	3		C C
				מ-אינט	+11/6/01	200	اء			K I K I	NAME OF THE PROPERTY OF THE PR	SAMPLE BOI I LE NOMBER	NOIMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY		PAR	FLUOR	ChIAM	SALINITY	SAL	NUTRIENT	윤
-	430	1/2	(I) 4		<u>.</u>			,			0		
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က	200			•									,
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PG 14 OF ___

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NOAAS	NOAAS MILLER FREEMAN		MF97	MF97-05, Leg 2	. (V)				5 0	STA 12	HAUL	. 2
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	DEG MIN	DEG MIN	DAY	٧R	HR MIN	(°C)		*	(kts)	١.		
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, a	Port Side CTD	TIMES	JD / TIME			Ď	DATA LOCATION	NOI	Œ	REMARKS		
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						· ·			SAMPLE BOTTLE			
			SEA-BIRD 9/11+ CID DAIA	7 + - %	ואחמוי	<			DATA	SAMPL	SAMPLE BOTTLE NUMBER	NUMBER
S S	TRIP DEPTH PRESSURE	RE PRI. TEMP	SEC. TEMP	SALINITY	PAR	Œ	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
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CAST #	T LATITUDE	LONGITUDE	DATE	JD= /25	TIME (GMT)	DRY BULB	WET BULB PRESSU	TS A32 VISIBILI	WIND WIND DIRN. SPD.	LVPE CLOUD	МЕАТНЕ ВОТТОМ РЕРТИ	A STA. NAME/ID	
	DEG MIN	DEG MIN		ΜO	HR MIN	Ш		b) * *	1	*			Т
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	Port Side CTD	TIMES	JD / TIME	ш		_	DATA LOCATION	NOI		REMARKS	RKS		
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TEMP SN	SN 1:889 2:701	АТ ДЕРТН	II	-		N.	::				5		
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5			SEA-B	SEA-BIRD 9/11+ CID DAIA	SID DA	NA N			DATA	┥	AMPLE BOT	SAMPLE BOTTLE NUMBER	
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	LATITUDE	칅	DATE	37	2-	BULB	_	NEIO SIE	SPD.	M.	DEPTH	NAME/ID
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	-	K PAR	A FLUOR	Chiam		TAPS6	TAPS4					
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1	×	**	SEA-BIR	SEA-BIRD 9/11+ CTD DATA	CTD DAT	A			BOTTLE DATA	SAMPI	SAMPLE BOTTLE NUMBER	NUMBER
POS. DEPTH	PPESSURE	PRI. TEMP	SEC. TEMP	SALINITY	Y PAR		FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
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VESSEL NOAAS MILLER FREEMAN		PROJECT & LEG MF97-05, Leg 2	PROJECT & LEG MF97-05, Leg 2		-		STATION	STATION DESIGNATION	\mathcal{H}_{ω}	
LATITUDE	LONGITUDE	DATE JD= //	$= /2 c \qquad \text{TIN}$	TIME DRY (GMT) BULB	WET BULB	SEA STATE VISIBILITY ON WAR	W W W OU (amt)	TYPE WEATHER	BOTTOM S DEPTH NAI	STA. NAME/ID
DEG MIN 75532.92 N	DEG / () /	6.28406 MAY	YR HR 9 7 00	MIN (°C)	(°C)	(mb) * * (deg)	(kts)	. 7		0 14
Port Side CTD	TIMES	JD / TIME	3		DATA LOCATION			REMARKS		
TYPE / SN SBE 9+ 91660	DATA ON		Таре	Tape/Diskette ID	Eile -	File Name/Header		132 du	,	
	START DOWN				CTD	4100		_		
2:701	АТ DEРТН									
2:303	AT SURFACE						Σ	MAX. DEPTH	H= 131	Ε
	K PAR	X FLUOR	ChIAM	TAPS6	TAPS4					
		SEA-BIRD 9/	ID 9/11+ CTD DATA	DATA			SAMPLE BOTTLE DATA	SAMPLE	SAMPLE BOTTLE NUMBER	MBER
PPESSURE	PRI. TEMP	SEC. TEMP SA	SALINITY	PAR	FLUOR	ChIAM	SALINITY	SAL. IN	NUTRIENT	AEOR
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PG 18 OF

VESSEL NOAAS MILLER EREEMAN	SEEMAN		PR	PROJECT & LEG	/F C				STATION	STATION DESIGNATION	NOIL	
					450 454	. =	<u> </u>	ЭТ,				
S <u>r</u> s				(TIME	DRY	ESSONE Ed M	ATS A: TIJIBIS	WIND	<u>∃9</u> ∃HTA∃	BOTTOM	STA.
# LATI	LATITUDE	EONGITUDE	DATE	JD= /20	(GMT)	BUB S		IN IS	DIRN. SPD. (M .	DEPTH (m)	NAME/ID
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Port Side CTD		TIMES	JD / TIME			Ω	DATA LOCATION			REMARKS		
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TEMP SN 1:889	2:701	AT DEPTH						į .	,			
COND SN 1:530	2:303	AT SURFACE				÷				MAX. DEPTH	TH = 132	ر ع
		PAA	Home	CHIAM		TAPS6	TAPS4					
		:]	illes.	SAMPLE BOTTLE			
			SEA-BIRD 9/11+ CID DAIA) 4/1/6 C	ID DAL	<			DATA	SAMP	LEBOTTL	SAMPLE BOTTLE NUMBER
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STATION DESIGNATION	WIND WIND OF BOTTOM STA.	8 0 6 0 9 9 8 1 1 3 7 0 1 5	REMARKS	Header Last you just	gag with	13 CS	MAX. DEPTH = 13} m		SAMPLE BOTTLE NUMBER DATA	CHAM SALINITY SAL. NUTRIENT CHLOR	50		/	50							
PROJECT & LEG MF97-05, Leg 2	TIME DRY WET SO	MAY970220 4.5 3.7 153	IME DATA LOCATION	Tape/Diskette ID File Name/Header	610012			TAPS6 TAPS4	SEA-BIRD 9/11+ CTD DATA	SALINITY PAR FLUOR											
VESSEL NOAAS MILLER FREEMAN	CONSC CAST LATITUDE DATE	0195539.13N,6729.3/Wo6	Port Side CTD TIMES JD / TIME	TYPE / SN SBE 9+ 91660 DATA ON	PRESS SN 29772 START DOWN	TEMP SN 1:889 2:701 ATDEPTH	COND SN 1:530 2:303 AT SURFACE	RAN KELLOR	13	POS. DEPTH PRESSURE PRI.TEMP SEC.TEMP	125	2	8	4	5	9	 8	6	7 01	11 125	12

STATION DESIGNATION	WET 60 (mb) + (deg) (kts) + (m) 0 1 6	DATA LOCATION REMARKS	File Name/Header		MAX. DEPTH = 129 m	TAPS4	SAMPLE BOTTLE BOTTLE NUMBER	FLUOR CHIAM SALINITY SAL. NUTRIENT CHLOR	8 1 51	32		58	200	Se Se	32	3.	- 30	
PROJECT & LEG	DATE JD= 126 (GMT) BULB B DAY MO YR HR MIN (°C) (W 0 6 M & 19 9 7 0 3 4 8 6 2		Tape/Diskette ID			A FLUOR CHAM TAPS6	SEA-BIRD 9/11+ CTD DATA	SEC. TEMP SALINITY PAR FL			* To 1							
VESSEL NOAAS MILLER FREEMAN	CONSC CAST # LATITUDE LONGITUDE DEG MIN DEG MIN	Port Side CTD / TIMES	TYPE / SN SBE 9+ 91660 DATA ON STABT DOWN	2:701	COND SN 1:530 2:303 AT SURFACE	K PAR		POS. DEPTH PRESSURE PRI.TEMP S		2 00	5 C C C	5 60	6 50	7 40	8 32	9 20	10 / 01	

LONGITUDE DATE DEG MIN DAY N /	VESSEL NOAAS MILLER FREEMAN	FREEMAN			PROJECT & LEG MF97-05, Leg 2	EG 9.2				STATIO	STATION DESIGNATION	NOIL	30 W.
DES MIN DES DET	CAST LA	THUDE	IONGILIDIO		_	TIME (GMT)	DRY	40	ATMIRISIA	ONIM	Hahiray	MOTTO HIPPE	STA.
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1:599 2:701 AT DEPTH 1:590 2:303 AT SUPERACE MAX. DEPTH = 1/2	TYPE / SN SB!	E 9+ 91660	DATAON			Tape/Disk	ette ID	File	lame/Header			25	
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Name		30 2:303	AT SURFACE					5,3		2	AAX. DEPT		
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TEMP SN	SN 1:889 2:701	2:701	AT DEPTH	R:		8							
COND SN	SN 1:530	2:303	AT SURFACE	as as							MAX. DEPTH	7	E S
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PG 223 OF ___

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CAST #	ST LATITUDE	LONGITUDE	DATE	JD= 126	(GMT)	BULB	WET WE	SEA	WIND SPD.	MEA	DEPTH	STA.
	DEG MIN	DEG MIN	DAY	MO YR	HR MIN	(၁ _၀)	(°C)	(mb) (dm)	(kts)	4	(m)	_
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Δ¥	TYPE / SN SBE 9+ 91660	DATAON	126/1107	1	Tape/Diskette 1D	ette ID	File	File Name/Header	<u>*</u>	ω o =	9//	6 RE
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TEM	TEMP SN 1:889 2:701	AT DEPTH		114		1.5	, m			MOA TIME	MOA Time / Pos/Depth	th suspect
S S	COND SN 1:530 2:303	AT SURFACE	27.10			4	Y A	10		MAX. DEPTH =		116 m
		PAR.	N PLUOR	X CHIAM		TAPS6	TAPS4			.B		
								T-7	SAMPLE			
	12012		SEA-BIH	RD 9/11+ CID DAIA	ואט טוי	4			DATA	SAMP	SAMPLE BOTTLE NUMBER	NUMBER
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CAST #	T	ñ	LONGITUDE	DATE	JD= 126	(GMT)	PRG BULB	WEI PERSON	SEA S VISIBIL DE WIND	WIND SPD.	WEAT	ВОТТОМ	STA. NAME/ID
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	Port Side CTD		TIMES	JD / TIME	V.		۵	DATA LOCATION	NOL		REMARKS		
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COND SN	1:530	2:303	AT SURFACE								MAX. DEPTH	11	118 m
		U.	PAR.	N FLUOR	KCHAM		TAPS6	TAPS4	×			8	
4		_23		SEA-BIRD 9/11+ CTD DATA	D 9/11+ (CTD DA	ΙA		. "	SAMPLE BOTTLE DATA	THE STATE OF	SAMPLE BOTTLE NUMBER	NUMBER
Š	TRIP DEPTH PRE	PPESSURE	PRI. TEMP	SEC. TEMP	SALINITY	Α Υ	PAR	FLUOR	ChIAM	SALINITY	SAL.	λ' , $\rho_{\rm c}$	r CHLOR
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			SEA-BIRD 9/11+ CTD DATA	9/11+ C	TD DAT	Z	2		DATA		SAMPLE BOTTLE NUMBER	NUMBER
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		X X X	N FLUOR	CHAM	2	TAPS6	TAPS4					: :
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PG 45 OF

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11				SEA	SEA-BIRD 9/11+ CID DAIA	1+11/	אח חוי	4				DATA	SAMP	SAMPLE BOTTLE NUMBER	NOMBEH
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_	Port Side CTD	TIMES	JD / TIME		ži)	Õ	DATA LOCATION	NOI		REMARKS		
TYPE/	TYPE / SN SBE 9+ 91660	DATA ON		<u>,</u>	Tape/Diskette ID	ette ID	File	File Name/Header	72 *			29 11
PRESS	PRESS SN 29772	START DOWN	L 4		CTO 046	47	CT0	1400	W:			
TEMP	TEMP SN 1:889 2:701	AT DEPTH		**	0			33				
COND SN	SN 1:530 2:303	AT SURFACE			- 1		30			MAX. DEPTH =	59 = HI	w 9-
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PG 47 0F	STATION DESIGNATION $S-3+H-1$	TATE YIL (smt)	DRY WET SO WIND WIND BUILB BULB E SO SPO.	(°C) (°C) (mb) . (deg) (kts) (m)	DATA LOCATION REMARKS	Tape/Diskette ID File Name/Header	CT0047		MAX. DEPTH = 68 m	TAPS6 TAPS4	SAMPLE BOTTLE DATA SAMPLE BOTTLE NUMBER	PAR FLUOR CHAM SALINITY SAL. NUTRIENT CHLOR	0.5											
	PROJECT & LEG MF97-05, Leg 2		LONGITUDE DATE JD= 128 (GMT)	7	2	DATA ON Tape/Di	START DOWN	АТ ОЕРТН	AT SURFACE	KPAR. KHUOR KONIAM	SEA-BIRD 9/11+ CTD DATA	PRI, TEMP SEC, TEMP SALINITY									102			
	VESSEL NOAAS MILLER FREEMAN	SNOO	CAST LATITUDE	- 2	2	TYPE / SN SBE 9+ 91660	PRESS SN 29772	TEMP SN 1:889 2:701	COND SN 1:530 2:303 A			POS. DEPTH PRESSURE	. 89	2 60 '	3 50 .	, C4 4	5 32	6 25.	7 20.	8 / 5.	. 01 6	10 5 .	11 0 :	12

PG 48 OF

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CAST	LATITUDE		LONGITUDE	DATE	JD= 128	TIME (GMT)	PR BUB	WET BURE	SEA ST VISIBIL O WIND	WIND	WEATH	BOTTOM	STA. NAME/ID
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40	45737.94	9 / N	_	36.176WO8MAY	9 7	9010	1.0	0.6	22811	5129	862	114	038
77	Port Side CTD	TIMES	S	JD / TIME	W		Ğ	DATA LOCATION	NOI		REMARKS	-	
TYPE	TYPE / SN SBE 9+ 91660		DATAON			Tape/Diskette ID	Ol ette	File N	File Name/Header	*	M.S		e:
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COND SN	SN 1:530 2:303		AT SURFACE		ıí	8	74 74	ä		<	MAX. DEPTH =	%) = HT	E
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Š	TRIP PRESSURE	E E	PRI. TEMP	SEC. TEMP	SALINITY		PAR	FLUOR	CHIAM	SALINITY	SAL.	NUTRIENT	SHLOR
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CONSC CAST CATTUDE CONSTITUTE CONSTITUTE COND SN 1:899 2:701 TIMES SEA-BIRD 9/11+CTD DATA COND SN 1:890 2:701 TIMES COND SN 1:890 2:701 TIMES COND SN 1:890 2:701 TIMES COND SN 1:890 2:701 TIMES COND SN 1:890 2:701 TIMES COND SN 1:800 2:300 AT SURFACE CON	MF97-05, Leg 2				V	STA 39	4 4 4 10
LONGITUDE DATE JD= 728 DBG MIN DAY MO YR IMES JD / I'M O B M A Y 9 7 TIMES JD / TIME DATA ON 128 / 1005 START DOWN 128 / 1006 AT DEPTH 1010 AT DEPTH 1010 AT SURFACE SEA-BIRD 9/11+ SEA-BIRD 9/11+ E PRI TEMP SEC. TEMP SALINIT					7		TACL -
LONGITUDE DATE JD= 128 DEG MIN DAY MO YR I 6 8 2 7. 74 W O 8 M A Y 9 7 TIMES JD / TIME DATA ON 128 / 1005 START DOWN 128 / 1006 AT DEPTH 1010 AT DEPTH 1010 AT SURFACE AT SURFACE AT SURFACE AT SURFACE AT SURFACE SEA-BIRD 9/11+ E PRI TEMP SEC. TEMP SALINIT	198.18 198.18		3810	JIAT YTL	(tms) O		
DEG M N V 9 7 TMES JD / TIME JD / TI	<u>_</u>	BULB	WET BUS BUS BUS BUS BUS BUS BUS BUS BUS BUS	VISIBIL SEAS SEAS SEAS SEAS SEAS SEAS SEAS SEA	WIND SP CLOUI	WEATH WEATH DEPTHOM	OM STA.
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TRIP PRESSURE PRILTEMP SI 60 60 50 40 30 25 20 15	BIRD 9/11+ CTD	DATA			SAMPLE BOTTLE DATA	SAMPLER	SAMPI E BOTTI E NUMBER
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VESSEL NOAAS MILLER FREEMAN	FREEMAN		PRO	PROJECT & LEG MF97-05, Leg 2					STATION	STATION DESIGNATION	TION HAUL	
CONSC CAST #	LATITUDE	LONGITUDE	DATE	JD= (28	TIME [CMT]	DRY WET	PRESSURE SEA STATE	YTUBISIV ON W	WIND SPD.	CLOUD (amt) TYPE WEATHER S S S	BOTTOM DEPTH	STA. NAME/ID
DEG	MIN	DEG MIN	DAY	ΥR	亅	\square	(mb)	. *	(kts)			
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Port Side CTD	е СТО	TIMES	JD / TIME			DATAL	DATA LOCATION		<u> </u>	REMARKS	-	
TYPE / SN SBE 9+ 91660	E 9+ 91660	DATA ON	128/1145	 	Tape/Diskette	<u>Q</u>	File Name/Header	e/Header		= oliu	88 8	
PRESS SN 29772	772	START DOWN	71145		į		CTD ØS Ø	\$5¢		_		
TEMP SN 1:889	89 2:701	АТ ОЕРТН	671		-			ж.		Mooring	M4 5	1-6
COND SN 1:530	30 2:303	AT SURFACE								мах. рертн	69 =H	E 6
		NPAR X	M FLUOR	X CHAM	TAPS6		TAPS4	:				
	,	. `							SAMPLE BOTTLE			
		,	SEA-BIRD 9/11+ CTD DATA	9/11+ C	TD DATA				DATA	SAMPLE	SAMPLE BOTTLE NUMBER	UMBER
TRIP POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR		ChIAM (SALINITY	SAL. N	NUTRIENT	G L OR
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STATION DESIGNATION STA 41 HAUL I	WIND OUD (amt) PEATHER SPD OFFTH	(m)	12862 68 041	REMARKS	10 = 64	,		MAX. DEPTH = 64 m		111 111	DATA SAMPLE BOTTLE NUMBER	SALINITY SAL. NUTRIENT CHLOR	32											٥
,54	WET SEASORE VISIBILITY VISIBILITY	(mb) * *	0.10938110	DATA LOCATION	File Name/Header	CTD &SI	23		TAPS4]		FLUOR ChIAM S									7	33	A.	
k LEG Leg 2	TIME DRY	HR MIN	7 /330 0.4	0	Tape/Diskette ID				IAM TAPS6) ATA	RD 9/11+ CID DAIA	NITY PAR				54	21	A.				3		
PROJECT & LEG MF97-05, Leg 2	DATE	DAY MO	33 WOBMAY9	JD / TIME	128/1325	1326	1329		K RLUOR N CHIAM	SEA PIO 0/14	SEA-BIRD 9/11	SEC. TEMP SALINITY							*		la V	=	3.5	1
1AN	HONGILIDE	DEG	5.59 N 16919.	TIMES	1660 DATA ON	START DOWN	2:701 AT DEPTH	303 AT SURFACE	X PAR			PRESSURE PRI. TEMP	8					0.	200					:
VESSEL NOAAS MILLER FREEMAN	CONSC CAST # LATITUDE	DEG	0515755.5	Port Side CTD	TYPE / SN SBE 9+ 91660	PRESS SN 29772	TEMP SN 1:889 2:7	COND SN 1:530 2:303		12		POS. DEPTH PRE	1 60	2 50	3 40	4 35	5 30	6 25	7 20	8 15	0/ 6	10 8	11 0	12

STATION DESIGNATION	정보	(m)	862 711 042	REMARKS	w/o = 67	-		MAX. DEPTH = 67 m		SAMPLE BOTTLE NUMBER	SAL. NUTRIENT CHLOR	28											
STATIO	WIND SPD.	(kts)	9 1 5			 	;	<u></u>	-	SAMPLE BOTTLE DATA	SALINITY							:			-		
19	SEA STATE VISIBILITY O KIND	бөр) * *	6 1 1	TION	File Name/Header	CTD \$52	\$0 ₄	-	4	-	ChIAM					-							
<i>9</i> .	WET WET	(၃)	0.0	DATA LOCATION		5			TAPS4		FLUOR			-							·		
	TIME DRY (GMT) BULB	Z (38 0.5		Tape/Diskette ID			· [TAPS6	DATA	PAR	,			,	-	-			-			
PROJECT & LEG MF97-05, Leg 2	788	Y	Y 9 7 / S				2		Chiam	 RD 9/11+ CTD DATA	SALINITY												
PRC	DATE JD=	DAY MO	84 MOSIMA	JD / TIME	128/1536	1536	1538		M FLUOR	SEA-BIRD	SEC. TEMP												
-	LONGITUDE	3	5415	TIMES	DATA ON	START DOWN	АТ DEРТН	AT SURFACE	¥ PAR		PRI. TEMP	,			-	,							
FREEMAN	LATITUDE	7 1	N 70		TYPE / SN SBE 9+ 91660		2:701	1:530 2:303 4			PRESSURE										-		
VESSEL NOAAS MILLER FREEMAN	28		543804	Port Side CTD	E/SN SBE	PRESS SN 29772	TEMP SN 1:889	COND SN 1:50			TRIP DEPTH	107	09	52	40	30	25	20	15	0/	5	0	
VESSEI	CONSC CAST #		05		TYPE	PRE	TEM	NO.		•	S.	-	7	က	4	ည	ဖ	7	8	6	10	11	12

STATION DESIGNATION	S S S S S S S S S S S S S S S S S S S	(kts) * * * (m)	110862 711 042	REMARKS	W/0= 35	worker for productivity evo	no valid downcast data	MAX. DEPTH = 37 m		SAMPLE BOTTLE DATA SAMPLE BOTTLE NUMBER	<u>"</u>								-				
6	WET WESSURE SEA STATE VISIBILITY VISIBILITY DINN	* (qm) (O _o)	0.0103610	DATA LOCATION	File Name/Header	CTD 653			TAPS4		PLUOR ChIAM												
PROJECT & LEG MF97-05, Leg 2	= 128 (GMT) BULB	YR HR MIN (°C)	Y97/602 0.5		Tape/Diskette ID				Chiam TAPS6	RD 9/11+ CTD DATA	SALINITY PAR												
PRC	LONGITUDE DATE JD=	MIN DAY	16 843.48WOBMA	S JD / TIME	DATA ON 128 1602	START DOWN	AT DEPTH 1602	ATSURFACE	MPAR MELLOR	SEA-BIRD	PRI. TEMP SEC. TEMP			<u> </u>									
VESSEL NOAAS MILLER FREEMAN	CONSC CAST LATITUDE	1 1	05131518103.19181N 116	Port Side CTD TIMES	TYPE / SN SBE 9+ 91660 DAT	PRESS SN 29772 STAI	TEMP SN 1:889 2:701 ATD	COND SN 1:530 2:303 ATS			POS. DEPTH PRESSURE	1 34	2 22	3 /6	4 9	5 5	0	7	8	6	10	11	10

PG 54 OF

STATION DESIGNATION STA 43 HAUL 1	WIND OF THE BOTTOM STA.	(kts) * * * (m)	12862 73 043	REMARKS	W0 = 67		mooning M4 Site	MAX. DEPTH = 69 m		SAMPLE BOTTLE DATA SAMPLE BOTTLE NUMBER	SALINITY SAL. NUTRIENT CHLOR	03											
	WET SEASURE SEASURE VISIBILITY VISIBILITY DIR. WIND	(°C) (mb) * * (deg)	0.01036085	DATA LOCATION	File Name/Header	CTD \$54			TAPS4	<i>σ</i> a -	FLUOR CHIAM SA				37								
PROJECT & LEG MF97-05, Leg 2	DATE JD= 128 (GMT) BULB	DAY MO YR HR MIN (°C)	51W 0 8 M A Y 9 7 1 7 4 1 C.11	JD / TIME D	3/1736 Tape/Diskette ID	1736	1741	See 5	UOR CHIAM TAPS6	SEA-BIRD 9/11+ CTD DATA	SEC. TEMP SALINITY PAR												
	LONGITUDE	DEG MIN	168511.19	TIMES	DATA ON 128	START DOWN	АТ ОЕРТН	AT SURFACE	N PAR	IS 	PRI. TEMP SE												P
VESSEL NOAAS MILLER FREEMAN	CONSC CAST # LATITUDE	DEG MIN	0545751.25N	Port Side CTD	TYPE / SN SBE 9+ 91660	PRESS SN 29772	TEMP SN 1:889 2:701	COND SN 1:530 2:303			POS. DEPTH PRESSURE	1 68	2 60	3 50	4 40	5 30	6 25	7 20	8 /5	01 6	10 5	11 0	12

STATION DESIGNATION		(kts) * * * (m)	REMARKS	w/0 = 35	water for productivity exp	no valid douncast data	MAX. DEPTH = 38 m	3	SAMPLE BOTTLE DATA SAMPLE BOTTLE NITRIBED	DATA SAMPLE BOLLLE NOINIDER	SALINITY SAL. NUTRIENT CHLOR								-				
-	WET SEASURE SEASTE VISIBILITY DIRING	(°C) (mb) (deg)	ATION	File Name/Header	CTD 455			TAPS4			FLUOR ChIAM S							30					
& LEG Leg 2	TIME DRY (GMT) BULB	YR HR MIN (°C)		Tape/Diskette ID				M Chiam TAPS6	SEA-RIBD 9/11± CTD DATA	מועם מוס דו	SALINITY PAR	ĺ											
PROJECT & LEG MF97-05, Leg 2	;	MIN DAY MO	JD / TIME	128/1804		1001	The state of the s	M FLUOR NC	SEA-RIBD 9/1	יוֹט בעיים איני	SEC. TEMP												
REEMAN	LATITUDE LONGITUDE	MIN DEG M	F	9+ 91660 DATA ON	72 START DOWN	9 2:701 AT DEPTH	0 2:303 AT SURFACE	N PAR			PRESSURE PRI. TEMP				:								
VESSEL NOAAS MILLER FREEMAN		0 555775	Port Side CTD	TYPE / SN SBE 9+ 91660	PRESS SN 29772	TEMP SN 1:889	COND SN 1:530				POS. DEPTH	1 36	2 24	3 /7	4 (0	5	0 9	2	8	6	10	-	12

VESSEL				PROJECT & LEG	9				STATIO	STATION DESIGNATION	ATION	
NOAAS MILLER FREEMAN	FREEMAN			MF97-05, Leg 2	12				S	STA 44	HAC	
SNOO				in the second	ES (Section of the section of the se			∃TAT		(amt) Q		
	LATITUDE	LONGITUDE	DATE	JD=	TIME (GMT)	DRY	WET BULB	SEA S VISIBIL DE WIND	WIND SPD.	ТАЗМ	ВОТТОМ	STA. NAME/ID
DEG	MIN	DEG MIN	DAY	MO YR	H'R MIN	(၁့)	(°C)	*	(kts)	_	(m)	2
0565h	39.15th	16901.2	5 WO8	M A Y 9 7	9119	0.2	0-11	80980	0 12	862	0	044
Port Side CTD	le CTD	TIMES	JD / TIME	·)		Õ	DATA LOCATION	NOI		REMARKS		
TYPE / SN SBE 9+ 91660	3E 9+ 91660	DATA ON			Tape/Diskette ID	ette ID	File !	File Name/Header				
PRESS SN 29772	7772	START DOWN			CT0056	9	5	CTD \$56				
TEMP SN 1:8	1:889 2:701	AT DEPTH										
COND SN 1:6	1:530 2:303	AT SURFACE								MAX. DEPTH =	9	m t
		., PAAR	HUOR	ChIAM		TAPS6	TAPS4		2			
	1 N.		SEA-BII	SEA-BIRD 9/11+ CTD DATA	CTD DAT				SAMPLE BOTTLE DATA	Idway.	SAMPI F BOTTI F NI IMBER	MARK
JAH												
POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	Y PAR	g,	PLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
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VESSE				***	PRO IECT & I EG	 	_			CTATION	STATION DESIGNATION	ATION	
NOAA	NOAAS MILLER FREEMAN	3EEMAN			MF97-05, Leg 2	2 2					STA		HAUL
			341						ЭТА	(tme)	לפנונו <i>)</i> בא	14.	i
CAST #		LATITUDE	LONGITUDE)E DATE	E JD= 129	TIME (GMT)	DRY	WESSU BCE	TS A3S VISIBILI S S	WIND SPD.	CLOUD WEATH	BOTTOM	STA. NAME/ID
	DEG	MIN	DEG MIN		MO YR		(၁့)		*	(kts)		(m)	
0	75630.	9	N 16100.	32W09MA	M A Y 9 7	1902	3.0	2.61	102729	1 0	861	9	046
Ů.	Port Side CTD	стр	TIMES	JD / TIME	ME		Ö	DATA LOCATION	NOL	Œ	REMARKS		
TYPE	TYPE / SN SBE 9+ 91660		DATA ON	129/19	956	Tape/Diskette ID	ette ID	File	File Name/Header		W 0=64	J	
PRES	PRESS SN 29772	2	START DOWN	/	1956			C7	CTD 457	<u>~ =</u> 	deployment mooring	14C97-2	-2 B
TEMP SN	SN 1:889	2:701	AT DEPTH	R	37 a 1						noduchui	productivity experiment	ivent
COND SN	SN 1:530	2:303	AT SURFACE		8			(6)		Σ	MAX. DEPTH	7≔ = н⊥	65 m
, IS	[16]		₩ PAR	H-LUOR	X CHIAM		TAPS6	TAPS4	6:2 ::				l'Y
			4):	SEA-B	SEA-BIRD 9/11+ CTD DATA	CTD DA	Ι¥			SAMPLE BOTTLE DATA	SAMPL	SAMPLE BOTTLE NUMBER	NUMBER
8	TRIP	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	<u> </u>	PAR	FLUOR	ChiAM	SALINITY	SAL	NCTRIENT	6 6 6 8
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STATION DESIGNATION	D WIND OUD (8mt) SPD. CLORE SPD. CLORE SPD. CLORE SPD. CLORE NAME/ID NAME/ID	(kts) * * * (m)	005 862 22 47	REMARKS	KC96-1 reverse			MAX. DEPTH = 2 0 m		SAMPLE BOTTLE DATA SAMPLE BOTTLE NUMBER	SALINITY SAL. NUTRIENT CHLOB	23 72			CIL I		7 T					
	WE SSURE SEA STATE VISIBILITY OF WIND	(°C) (mb) * * (deg)	3 3.0101733	DATA LOCATION	File Name/Header	CT0.58			TAPS4		FLUOR CHIAM									. 1		
PROJECT & LEG MF97-05, Leg 2	TIME DRY (GMT) BULB	YR HR MIN (°C)	972152 3.	4	Tape/Diskette ID		,		X Chiam Tapse	SEA-BIRD 9/11+ CTD DATA	SALINITY PAR				85	T A	5.0					
PROJEC MF97-C	LONGITUDE DATE JD=	MIN DAY MO	2.37WO9MAY	JD / TIME		NA.			X RUOR	SEA-BIRD 9	8					-						
FREEMAN	LATITUDE	DEG	9 6N - 601	CTD TIMES	9+ 91660 DATA ON	772 START DOWN	39 2:701 AT DEPTH	30 2:303 AT SURFACE	N PAR		PRESSURE PRI. TEMP											
VESSEL NOAAS MILLER FREEMAN	CONSC CAST #	DEG	058562W.	Port Side CTD	TYPE / SN SBE 9+ 91660	PRESS SN 29772	TEMP SN 1:889	COND SN 1:530			POS. DEPTH		2 15	3 10	4 8.5	5	0 9	 8	6	10	11	12

STATION DESIGNATION	WIND (amt) CLOUD (amt) TYPE WEATHER	(kts) * * (m)	REMARKS	r Denloy Crab Mooning	1-6		MAX. DEPTH = 200 m		SAMPLE BOTTLE DATA SAMPLE BOTTLE NUMBER	SAI INITY SAI NITBIENT CHOR	22					tan ee	× 1.6					
	WESSURE SEASTATE VISIBILITY ON WIND	(°C) (mb) * *	DATA LOCATION	File Name/Header	C=0059			TAPS4		H LIOR CHAM				,	,	24						
PROJECT & LEG MF97-05, Leg 2	72.SO TIME DRY (GMT) BULB	YR HR MIN 9 7 2 2 4 7		Tape/Diskette ID				CHIAM TAPS6	SEA-BIRD 9/11+ CTD DATA	SALINITY												
PROJECT & LE	LONGITUDE DATE JD=	M 2	JD / TIME		NW			- KHUOR	SEA-BIRD 9	. ζ												
FREEMAN	LATITUDE	8 N / 6	le CTD TIMES	E 9+ 91660 DATA ON	772 START DOWN	89 2:701 AT DEPTH	530 2:303 AT SURFACE	W PAR		PRESSURE PRITEMP												
VESSEL NOAAS MILLER FREEMAN	CONSC CAST #	0 S 9 S 6 7	Port Side CTD	TYPE / SN SBE 9+ 91660	PRESS SN 29772	TEMP SN 1:889	COND SN 1:530			TRIP	<u> </u>	2	3	4	2	9	2	8	6	10	11	

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170	STA.	-	0							NUMBEF	CHLOR		26										
TION HAD	ВОТТОМ	$\vdash \vdash$	113		00/	Jegin Unimak Boy		66 =H		SAMPLE BOTTLE NUMBER	NUTRIENT		٠										
DESIGNA	RAHTAAW	*	70	REMARKS	úlo ≅	/ May Onio		MAX. DEPTH		SAMPLI	SAL.	90											\neg
STATION DESIGNATION	S S S S S S S S S S S S S S S S S S S	+ +	0486			PA		Ψ		SAMPLE BOTTLE DATA	SALINITY	-											
<i>(</i>)	·		80		<u>.</u>					% ₩ [□]	SA				_								
	SEA STATE YTIJIBISIV S O	*	18/	z	File Name/Header	CTD 660					ChIAM					1			:				
	S BHUSSBAR	(mp)	09	CATIO	ile Na	5			TAPS4			-				. 4	,						-
	WET		7.	DATA LOCATION	ш	1					FLUOR					,				1			
	DRY BULB	(0,)	2.9		ette ID	:			TAPS6	ΤΑ	PAR			п									
(F C)	TIME (GMT)	HR MIN	1235		Tape/Diskette ID		,			RD 9/11+ CTD DATA	P												4
PROJECT & LEG MF97-05, Leg 2	(30	Ϋ́R	Y 9 7		<u> </u>	•	.		X CHAM	9/11+ C	SALINITY		4	Ţ.							£		
PROJE MF97.	=Q^	O _M		Æ	1231	1232	1235	39 1		IRD 8			, ,			b.	•	·	·				\dashv
	DATE	DAY	2W10MA	JD / TIME	130/12	-			MALLOR	SEA-BII	SEC. TEMP			.1	4 4					,			
	DE .				`	 -	= :	1	<u>×</u>						=	\dashv							
	LONGITUDE	Σ_	506.4	, S	A ON	START DOWN	АТ DEРТН	AT SURFACE	MPAR	,	PRI. TEMP			,			•						
		DEG	9 / N	TIMES	DATA ON	STAF	ATD	AT SI		,	Ť							4	7.				\dashv
EEMAN	LATITUDE	N	196.	Œ	TYPE / SN SBE 9+ 91660	CJ	2:701	2:303			PRESSURE			4		<i>i</i>		,					
VESSEL NOAAS MILLER FREEMAN	\ \ 	DEG N	605502.96	Port Side CTD	N SBE	PRESS SN 29772	N 1:889	COND SN 1:530 2:303			TRIP DEPTH	001	90	70	90	50	40	30	20	10	5	0	Δ
VESSEL NOAAS N	CONSC CAST #		9	Ā	YPE/S	RESS 5	TEMP SN	S QNO			Pos. DI	1	2	3	4	2	9	2	8	6	10	11	12
5 ž					F	<u>ā</u>	F.	∕ <u>℧</u>			<u>K</u>										_	, —	

VESSEI		:	CAA	PROJECT & LEG		-			CITATIO	NOITAINDISEGIATION	MOITA	
NOAAS MILLER FREEMAN	R FREEMAN		MF9	MF97-05. Leg 2						STA ST	7	1
OONSC				Part of State of Stat	हों होता है	111. 6 2	∃HUK	TATE VTI		HER		
	LATITUDE	LONGITUDE	DATE JD=	130	TIME (GMT)	DRY BULB	WET BULB PRESS	S A3S VISIBI DI WIN	WIND SPD.	TYPE WEAT	BOTTOM	STA. NAME/ID
DEC	MIN	DEG MIN		YR	HR	(၁့)	(°C) (mb)	(deg) * * (q	(kts)	*	(m)	
06154	59.19N	16517.1	9 W I O M A	Y 9 7	33	0	2.009	91814	0 03	862	1 1 1	05/2
Port Si	Port Side CTD	TIMES	JD / TIME			DA	DATA LOCATION	NO		REMARKS		
TYPE / SN S	TYPE / SN SBE 9+ 91660	DATA ON	130 1330	3	Tape/Diskette ID	tte ID	File N	File Name/Header	Ļ	0 3	71	
PRESS SN 29772	9772	START DOWN	[33]	·			CT	CTO POI		-		,
TEMP SN 1:	1:889 2:701	АТ ОЕРТН	/335	10	1		Ļ					
COND SN 1:530	:530 2:303	AT SURFACE	4 A							MAX. DEPTH	<i>µ//</i> = нт	E T
í		¥ BAR	N FLUOR	MCHIAM	1	TAPS6	TAPS4					
									SAMPLE BOTTLE			
			SEA-BIRD	RD 9/11+ CID DAIA	ID DA!	A		=	DATA	SAMP	SAMPLE BOTTLE NUMBER	NUMBER
POS. DEPTH	I PRESSURE	E PRI. TEMP	SEC. TEMP	SALINITY	PAR		RUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 114									÷.	60		
2 100		L						II.				
3 80	1		I J					1			-	
4 60									r			
5 50												
0 H 9						4						
7 30		. 6							ı			
8 20			,									
01 6						4		-				
10 5	,											
11 0												
12												1

年の日	STA. NAME/ID		053	ů.			2	23 m			SAMPLE BOTTLE NUMBER	T CHLOR												
	ВОТТОМ	(m)	127		125			HT			LEBOTTL	NUTRIENT												
STATION DESIGNATION	CLOUD (amt) TYPE WEATHER	*	298	REMARKS	30 m			MAX. DEPTH		Þ	SAMP	SAL.	0/				-							
STATIOI	WIND SPD.	(kts)	90					<u> </u>		SAMPLE BOTTLE	DATA	SALINITY					,							
	VISIBILITY DIRIN OIRIN	(deg)	8180		/Header	79	,					ChIAM					,							
	SEA STATE	* (qm)	180	ATION	File Name/Header	CTD 062			84	a.		Ö	,			-								
	WET	(၁့)	ļ .	DATA LOCATION	Œ	· [TAPS4			FLUOR					>							
*16	DRY	(၁ _၀)	2.3		ette ID				TAPS6		LΑ	PAR					-		*,		-		,	
(5 Q	TIME (GMT)	HR MIN	435		Tape/Diskette ID				:		TD DA	, ₍			_		ĺ	-		-	*			
PROJECT & LEG MF97-05, Leg 2	130	YR	Y 9 7		<u> </u>				Chiam]	9/11+ C	SALINITY		. =		_		•	1.					18
PROJ MF97	DATE JD=	DAY MO	A M	JD / TIME	1430	1430	1435	1444			SEA-BIRD 9/11+ CTD DATA	IMP							=		. 28			
	· ·		28-82W	/ ar	130	•			N FLUOR		SE/	SEC. TEMP									275.2			
	LONGITUDE	NIM		(0	NO	START DOWN	PTH	AT SURFACE	MPAR			PRI. TEMP						,						
	·	DEG	N 165	TIMES	0 DATA ON	STAR	AT DEPTH		X	,							•	.				1		
REEMAN	LATITUDE	NIM	5.79	СТО	9+ 9166	75 7	39 2:701	30 2:303				PRESSURE						,						
VESSEL NOAAS MILLER FREEMAN		DEG	25455.79N	Port Side CTD	TYPE / SN SBE 9+ 91660	PRESS SN 29772	TEMP SN 1:889	COND SN 1:530				TRIP DEPTH	/23	100	80	60	.50	40	30	20	0/ *	5	0	
VESSEL	CONSC CAST #		0		TYPE	PRES	TEMP	COND			÷	S.	-	2	ဗ	4	2	9	7	80	<u>ი</u>	10	11	Ç

VESSEL			PR	PROJECT & LEG				n	STATIO	STATION DESIGNATION	ATION	ž.
NOAAS MILLER FREEMAN	FREEMAN		ME	MF97-05, Leg 2			i			5TA 54	4 HAUL	1
					95 9 15.		38			Ï		
S <u>t</u>		//		9			ESSONE WELL	ATS AS TIJIBIS N	WIND	<u>3</u> 97 34 3HTA≣	ВОТТОМ	STA.
	LATITUDE	칡	DATE	/30	E	_		IA ∃S	SPD.	M	DEPTH	NAME/ID
99 20	z Z	DEG MIN	DAY	MO YR H	HRMIN	္မ	(qm) () _o)) + + (deg)	(kts)	* *	(E)	
063545	52.10N	16540.2	TWIOMA	4 Y 9 7 1	537	3	2.1108	9/820	000	862	145	054
Port Side CTD	е СТО	TIMES	JD / TIME	X.		DAT	DATA LOCATION	NO		REMARKS		
TYPE / SN SBE 9+ 91660		DATA ON	130/1531	T _e	Tape/Diskette ID	e ID	File	File Name/Header		w/0=144	144	
PRESS SN 29772	772	START DOWN	1532				O	CTD 6 63		.		
TEMP SN 1:889	89 2:701	АТ DEРТН			w							4
COND SN 1:530	30 2:303	AT SURFACE						20		MAX. DEPTH	0	142 m
		M PAR	X FLUOR	K ChlAM	TAI	TAPS6	TAPS4	1				
				, ,	A.T.A.C.C.T		1		SAMPLE BOTTLE	10.		
			SEA-BIRL	SEA-BIRD 9/11+ CID DAIA	ח חשום				DATA	SAMP	SAMPLE BOTTLE NUMBER	NOMBER
POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	겁	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 140										1	3	22
2 /00			8					9.		88 ₅₂		
် ပ	n						1					
4 70			Ŋ	71	V							
5 60					Ė	- 2			П		=	
6 50												,
0년 2			12									
8 30					W.							
9 20		111				(5)				S		
10 10	E		14			-						
11 0	=	133			500 12				25			
12	83	35										

PG 64 OF

VESSEL		55 1	PRC	PROJECT & LEG					STATIO	STATION DESIGNATION	MATION	
NOAAS MILLER FREEMAN	ER FREEMAN		ME	MF97-05, Leg 2	Ш	_				STA S	SS HAUL	
CONSC CAST #	LATITUDE	LONGITUDE	DATE	T T (6	TIME (GMT) B	DRY V	E MI	SEA STATE VISIBILITY O S S S S S S S S S S S S S S S S S S	WIND OPS.	1 171 112744	E E	STA. NAME/ID
DEG	MIN	DEG MIN	DAY	Ψ.	MIN		┪	*	(kts)	*	(m)	
64 54	5448.76N	1655	49WIOMA	7 2 6 X	642	2.5	1.508	1820	04	865	166	055
Port S	Port Side CTD	TIMES	JD / TIME			DAT	DATA LOCATION	NC		REMARKS		
TYPE / SN &	TYPE / SN SBE 9+ 91660	DATA ON	130/1634		Tape/Diskette ID	e ID	File N	File Name/Header		1 = 0m	163	
PRESS SN 29772	29772	START DOWN	1635	_1	8		CT	CTD 664]	_		
TEMP SN 1:889	:889 2:701	АТ ОЕРТН	1647	4					3			0
COND SN	1:530 2:303	AT SURFACE							<u> </u>	MAX. DEPTH	TH = //	ш ,
1		X PAR	Meuor	KCHIAM	TAI	TAPS6	TAPS4		!			
			SFA-BIRE	SEA-BIRD 9/11+ CTD DATA	T DATA			12	SAMPLE BOTTLE	CAMP	GAMPI E PLUMBED	
										5		
POS. DEPTH	H PRESSURE	E PRI. TEMP	SEC. TEMP	SALINITY	PAR	A A	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	SEG
1 160		2		24					ı	/3	\$7 	
2 100		ĪĪ,					SXII		-	+		
3 80						Ę						
4 70						į		27				
5 60	IEI			¥ =								
6 50						-1						
7 40				5								
8 30			\$									
9 20												
10 /0												
11		Ø						8			88	
12												

STATION DESIGNATION	VIGIBILITY VIGIBI	8150 50865 167 055	REMARKS	File Name/Header water for productivity exp.	165 no valid downcast data	$\omega_0 = 25$	MAX. DEPTH = 28 m		SAMPLE	DATA SAMPLE BOTTLE NUMBER	Chiam Salinity SAL. NUTRIENT CHLOR											
	TIME DRY WET SO SO (mb) *	708 4.11 2.8081	DATA LOCATION	Tape/Diskette ID File Nam	CTD 465			TAPS6 TAPS4		TD DATA	PAR FLUOR											
PROJECT & LEG MF97-05, Leg 2	ONGRUDE DATE JD= 13.0	5511.311	JD/TIME	130 1708	START DOWN	РТН	AT SURFACE	PAR X FLUOR X CHIAM		SEA-BIRD 9/11+ CTD DATA	PRI. TEMP SEC. TEMP SALINITY		24									
VESSEL. NOAAS MILLER FREEMAN		13 N	Port Side CTD TIMES	TYPE / SN SBE 9+ 91660 DATA ON	PRESS SN 29772 START	TEMP SN 1:889 2:701 AT DEPTH	COND SN 1:530 2:303 AT SUF	MPAR			POS. DEPTH PRESSURE PI	1 26	2 (7	3 12	4 7	5 4	0 9	 8	6	10	11	

VESSEL. NOAAS MILLER FREEMAN	FREEMAN		PR	PROJECT & LEG MF97-05, Leg 2	- 0				STATION	STATION DESIGNATION	ATION HAUL	-
CONSC CAST # L	LATITUDE	LONGITUDE	DATE	JD=/30	TIME (GMT)	DRY	WET WET BULB	SEA STATE VISIBILITY D SE	WIND SPD.	CLOUD (amt TYPE WEATHER T	ВОТТОМ ДЕРТН	STA. NAME/ID
DEG	MIN	DEG MIN	DAY	MO YR F	HR MIN	(°C)	(°C) (mb)	*	(kts)	*	(m)	
0645445.0	45.107N	16603.0	SWIDMA	4 Y 9 7	0 ~	3.5	2.40	7/18/14	8 2 8	799	224	056
Port Side CTD	de CTD	TIMES	JD / TIME			DA	DATA LOCATION	NO	= -	REMARKS		
TYPE / SN SBE 9+ 91660		DATA ON	130/ 1801		Tape/Diskette ID	te ID	File N	File Name/Header		10 m	225	
PRESS SN 29772	2772	START DOWN	1802		1		5	CTD d66				
TEMP SN 1:8	1:889 2:701	АТ DEРТН	(810	<u> </u>		٠						
COND SN 1:6	1:530 2:303	AT SURFACE		·	,				_≥_	MAX. DEPTH	II	ш 612
		MPAR	MFLUOR	X CHIAM	<u> </u>	1APS6	TAPS4				-	i
		· .	SEA-BIRD	RD 9/11+ CTD DATA	TD DAT	· •			SAMPLE BOTTLE DATA	SAMPI	SAMPLE BOTTLE NUMBER	NUMBER
TRIP POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR		RUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 220										14/		
2 100			-18",									· · · · · · · · · · · · · · · · · · ·
3 75	4			200	,		,					
4 65											·	
5 55					4							ζ.
6 45												4.
7 35	1	d.	-	4								
8 25				,								
9 15												
10 \$					_							
5												
12						-				,		
4												

VESSEL	逆		PROJ	PROJECT & LEG					STATI	STATION DESIGNATION	NATION		
NOA	NOAAS MILLER FREEMAN		MF97-05,	7-05, Leg 2	-			==		STA	57	HAUL	1
CONSC			P 3	et su			∃⊌nss j	STATE YTIJIS		(tms) QU((* ·	
- AS #	LATITUDE	LONGITUDE	DATE JD=	130	GMT) B	BULB BL	WE BULB	IISIA	WIND WIND DIRN. SPD.	CLO	DEPTH	STA. NAME/ID	r. SID:
	DEG MIN	DEG MIN	DAY MO	YR HR	NE P	ီ (၁)	(°C) (mb)	*	(deg) (kts)	*	(m)		
0	75441.26N	16614.	21 W / OMA	Y 9 7 /	921	8	2.606	02715	5418	862	292	0	5
	Port Side CTD	TIMES	JD / TIME			DATA	DATA LOCATION	NO		REMARKS	S		
TYPE	TYPE / SN SBE 9+ 91660	DATA ON	130 1911	<u>Та</u>	Tape/Diskette ID		File N	File Name/Header	er.	ω 0	= 290		
PRE	PRESS SN 29772	START DOWN	1161				5	CTD 467		-			
TEM	TEMP SN 1:889 2:701	АТ ДЕРТН	1921						,				
NO O N	COND SN 1:530 2:303	AT SURFACE	. C //				1			MAX. DEPTH	11	285	Ε
		NAR X	NFLUOR	X CHAM	TAF	TAPS6	TAPS4						
]					SAMPLE BOTTLE				
		,	SEA-BIRD 9/11+ CTD DATA	9/11+ CI	D DATA	Ι.			DATA	+	SAMPLE BOTTLE NUMBER	E NUMB!	£
POS	TRIP PPESSURE	PE PRI. TEMP	SEC. TEMP	SALINITY	PAR	田田	FLUOR	ChIAM	SALINITY	Y SAL.	NUTRIENT	T CHLOR	8
-	285			*		1				12			
2	200												
3	0.01				ı.								
4	75			3					•			_	
S	09											-	
9	50	1			-								
7	40												
8	30	1											
6	20						1						
10	0/	,			-	_							
11	0			,									
12			-									_	

VESSEL	VESSEL NOAAS MILLER FREEMAN		PRO MF9	PROJECT & LEG MF97-05, Leg 2					S	TATION S	STATION DESIGNATION	ATION 3 HAUL	7
CONSC CAST	SC ST LATITUDE	HONGITUDE	DATE JD=	130	TIME (GMT)	DRY	WET WESSURE	SEA STATE	WIND V	WIND (am	ABHTAB	BOTTOM	STA. NAME/ID
	DEG MIN	DEGMIN	DAY	ΥR		(၃)	П	b)		(kts) *		(m)	
و	685439.95	SN16607.7	6W10MA	1 Y 9 7 2	2	5	3.60	04271	50	7 8	62	615	058
	Port Side CTD	TIMES	JD / TIME			D	DATA LOCATION	NOIL		<u></u>	REMARKS		
TYPE	TYPE / SN SBE 9+ 91660	0 DATA ON		Tap	Tape/Diskette ID	te ID	File	File Name/Header	ıder				
PRE	PRESS SN 29772	START DOWN						CTD 468	ار			£.	
TEM	TEMP SN 1:889 2:701	АТ ОЕРТН	22							18		:	
NO0	COND SN 1:530 2:303	3 AT SURFACE	- N-	ĺ						Ϋ́	MAX. DEPTH	TH= 40.	w 90
ē		PAR	X FLUOR	CHIAM		TAPS6	TAPS4	<i>9</i> 7			_		
				DO	Chlam				SA	SAMPLE BOTTLE			
			SEA-BIRD	RD 9/11+ CTD DATA	D DAT		ŝ			DATA	SAMPI	LEBOTTLE	SAMPLE BOTTLE NUMBER
S.	TRIP PRESSURE	JPE PRI. TEMP	SEC. TEMP	SALINITY	PAR		FLUOR	ChIAM		SALINITY	SAL.	NUTRIENT	SE CH
-	904					lm.						GT STON	
2	200								3		Œ		
က	100				I								38
4	70		25		33 II					52			
ည	03					9	ň						
9	50		M		10			8					
7	40								0		=		
8	20												120
6	20	74			Ì	1							
10	10							V.					1500
-	0											≽	1500
12			¥3.		7				_		=		

VESSEL NOAAS MILLER FREEMAN	REMAN		PRC	PROJECT & LEG MF97-05, Leg 2	- CI			ESS.	STATIC	STATION DESIGNATION STA SX	NATION	7-	
CONSC CAST # LATI	LATITUDE	LONGITUDE	DATE JD	130	TIME (GMT)	DRY	W ET SCHEE	SEA STATE VISIBILITY	WIND WIND DIRN. SPD.	CLOUD (amt) TYPE WEATHER	ВОТТОМ	STA. NAME/ID	
DEG MI	MIN N N N	9/	2 w 1 O N	× × × × × × × × × × × × × × × × × × ×	HR MIN	00 5 00 5	(°C)	+ E	(deg) (kts)	. 80	(m)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
Port Side CTD		TIMES	JD / TIME				DATA LOCATION	TION			6		
TYPE / SN SBE 9+ 91660	9+ 91660	DATA ON		<u>H</u>	Tape/Diskette	tte ID	File	File Name/Header	er	Product	47.74	cast	
PRESS SN 29772	Ŋ	START DOWN						CTD 469	L	no vale	J. 0,	wn cast	
TEMP SN 1:889	2:701	AT DEPTH		.4			= 11			ď	Det.		
COND SN 1:530	1:530 2:303	AT SURFACE								MAX. DE	DEPTH = 4	S m	
		HA4X	H-LUOR	ChIAM		TAPS6	TAPS4	4					-
2		77.5	SEA-BIRD 9/	9/11+ C	/11+ CTD DATA	4			SAMPLE BOTTLE DATA		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	D NOT SO O CAI SO O	Jeh.
POS. DEPTH	PPESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR		FUOR	ChiAM	SALINITY	Y SAL.	NUTRIENT		
1 30										none	16.W	250 Kens 250	59
2 2 3	10			ľ	-								eser.
3 19 [®] .											_		k
4 8													
5								3	6			Œ	ì
0			30.	L							>	7	
7		24					36		==			1	
8		8	1			-				Œ			
6						1	5			(0)			e.
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VESSEL NOAAS MILLER FREEMAN	REEMAN	7.53	_	PROJECT & LEG MF97-05, Leg 2	EG g 2				STATION	STATION DESIGNATION		b
CONSC CAST #	LATITUDE	LONGITUDE	DATE	JD= (30	TIME (GMT)	DRY	S W S III	SEA STATE VISIBILITY D W	WIND SPD.	CLOUD (amt) WEATHER TYPE TYPE TYPE TYPE	ВОТТОМ	STA. NAME/ID
DEG	MIN	DEG MIN		MO YR	HR MIN	(၁့)		*	(kts)		(m)	
070542	05428.30N	16602	32W10M	M A Y 9 7	2348	6.5	5.00	32719	0 15	8 6 2	538	059
Port Side CTD	стр	TIMES	JD / TIME	ſĒ			DATA LOCATION	NO		REMARKS		
TYPE / SN SBE 9+ 91660	9+ 91660	DATA ON			Tape/Diskette	ette ID	File N	File Name/Header	<u></u>			
PRESS SN 29772	72	START DOWN					O.L.	CT0058	· .			
TEMP SN 1:889	9 2:701	AT DEPTH		:								
COND SN 1:530	30 2:303	AT SURFACE	,						-	MAX. DEPTH =	TH = 5,9	E
		k/ PAR	H-LUOR	ChIAM		TAPS6	TAPS4			-		
			SEA-B	SEA-BIRD 9/11+ CTD DATA	CTD DA'	Δ			SAMPLE BOTTLE DATA	SAMP	LEBOTTL	SAMPLEBOTTLENUMBER
POS. DEPTH	PPESSURE	PRI. TEMP	SEC. TEMP	SALINITY	<u></u>	PAR	FUOR	ChlAM	SALINITY	SAL.	NOTRIENT	r Gron
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VESSEL NOAAS M	VESSEL NOAAS MILLER FREEMAN		PR	PROJECT & LEG MF97-05, Leg 2	g .0				STATIC 57	STATION DESIGNATION	士	1~
CONSC			<u></u> .	· 斯·			∃±n <u>s</u>	3TAT6		(smt) (I		
CAST #	LATITUDE	LONGITUDE	DATE	JD= 131	TIME (GMT)	DRY BUB	WET BULB PRESS	SEA S	WIND WIND DIRN. SPD.	TYPE TA3W	ВОТТОМ DEPTH	STA. NAME/ID
	DEG MIN	DEG MIN	DAY	MO YR	HR MIN	္စ	(Sc)) * * (qw)	(deg) (kts)	*	(m)	
07 F	5421.49 N	16555	M 1 1 m 2 C	M A Y 9 7 6	0/58	1.0	5.20	3271	1009	862	462	000
Po	Port Side CTD	TIMES	JD / TIME	-		Õ	DATA LOCATION	NOL		REMARKS		
/PE/SI	TYPE / SN SBE 9+ 91660	DATA ON		<u>,</u> –	Tape/Diskette ID	ette ID	File	File Name/Header	er			
RESS S	PRESS SN 29772	START DOWN					CTO	CTO 071		4		
TEMP SN	1:889 2:701	АТ DEРТН										
COND SN	N 1:530 2:303	AT SURFACE							_ 	MAX. DEPTH =		m 254
		₩ PAR	K FLUOR	ChIAM		TAPS6	TAPS4					
		. · 1	SEA-BIR	RD 9/11+ CTD DATA	TED DAT	K			SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER	NUMBER
POS.	TRIP PRESSURE	E PRI. TEMP	SEC. TEMP	SALINITY	PAR	æ	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	SHLOR SHLOR
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NOAAS	VESSEL NOAAS MII I EB EBEEMAN			ME97-05 1 eg 2	_ ^				N N	SIATION DESIGNATION	AION	-
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CONSC CAST	- E		11 11 11	17	TIME	DRY		SEA STAT SIBILITY	WIND	S) QUOJ: PPE MEATHER	BOTTOM	STA.
	DEG MIN	DEG MIN	DAY	YR I	-	+	1	S.	(kts)	۸ .	(m)	NAME/ID
72	20.51	5 25.7	3 W [1 A	γ 9 7	49	4	8	276	1 4	298	153	190
۵	Port Side CTD	TIMES	JD / TIME			DAT	DATA LOCATION	NO	E	REMARKS		
TYPE / (TYPE / SN SBE 9+ 91660	DATA ON		Ë	Tape/Diskette ID	te ID	File N	File Name/Header	_			
PRESS :	PRESS SN 29772	START DOWN	110	2)			5	CTO 072	1	E4		
TEMP SN	IN 1:889 2:701	AT DEPTH		9					×			,
COND SN	SN 1:530 2:303	∢				Y			<u>≥</u>	MAX. DEPTH	TH = 143	E
		PAR PAR	K FLUOR	Chiam	T.A	TAPS6	TAPS4					
			===	RD 9/11+ CTD DATA	TD DATA		121	3	SAMPLE BOTTLE DATA	SAMP	LE BOTTLE	SAMPLE BOTTLE NUMBER
POS.	TRIP PRESSURE	RI. TEMP	SEC. TEMP	SALINITY	PAR		FUOR	ChIAM	SALINITY	SAL.	NUTRIENT	SHLOR.
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NATION H-1	BOTTOM STA. DEPTH NAME/ID	Н	168 062		İ			m /79)/ = HI			SAMPLE BOTTLE NUMBER	NUTRIENT CHLOR	35TN 3	11/1/2	3,5	30	3/	30	29	28	27	26	250	-
STATION DESIGNATION	CLOUD (smt) WEATHER THE HEATHER THE HEATHER		79	REMARKS	n-2			MAX. DEPTH			SAMP	SAL.	3.0	4							٠			
STATIO	WIND SPD.	(kts)	4 1 0					ij.		SAMPLE BOTTLE	DATA	SALINITY						,						
	SEA STATE YTLIBILITY SEA STATE YTLIBIC SEA STATE	*	2778	NO.	File Name/Header	550073				-		ChIAM				•				-			6	
	WET WET	(°C) (mb)	2.903	DATA LOCATION	File N				TAPS4			RUOR		56					ı			-		
	DRY	(၁့)	4.8		kette ID				TAPS6		ΙTΑ	PAR	. 14	,				1.			-			
2 B	TIME (GMT)	HR MIN	0631		Tape/Diskette ID				, N	?	CTD D/							- 1						
PROJECT & LEG MF97-05, Leg 2	JD= 131	MO YR	M A Y 9 7		1	ı			ChIAM		RD 9/11+ CTD DATA	SALINITY			,									
H W	DATE J	DAY		JD / TIME					K HUOR		SEA-BIR	SEC. TEMP		,				,	_				-	
	LONGITUDE	DEG MIN	6516.69W	TIMES	DATAON	START DOWN	АТ DEРТН	AT SURFACE	PAR		•	PRI TEMP			,									
REMAN	LATITUDE		-				2:701	2:303	#			PRESSURE								-				-
VESSEL NOAAS MILLER FREEMAN		DEG N	35422.50N	Port Side CTD	TYPE / SN SBE 9+ 91660	PRESS SN 29772	TEMP SN 1:889	COND SN 1:530			-	TRIP DEPTH	162.	. 041	1201	, C.O.	10:	50.	40	30	· 02	. 01	0	
VESSEL	CONSC CAST #		C		TYPE	PRES	TEME	CON				S.	1	. 2	က	4	ß	9	7	00	6	10	11	12

VESSEL NOAAS MII	VESSEL NOAAS MILLER FREEMAN	·	PRO MF9	PROJECT & LEG MF97-05, Leg 2					STATION	STATION DESIGNATION		440L 1
CONSC CAST #	LATITUDE	LONGITUDE	DATE		TIME	DRY	WET SUBSE	SEA STATE YTUBISIV NEW COMMENTER YTUBISIN	WIND SPD.	CLOUD (amt) TYPE WEATHER	ВОТТОМ	STA. NAME/ID
ā	DEG MIN	DEG MIN	DAY MO	YR	HR	(S)	(°C) (mb)	*	(kts)		(m)	
07454	14251.16N	16508.43WI	3 W M A	V 9 7 0	757	- 5	4-11 04	127270	- 0	761	136	063
Por	Port Side CTD	TIMES	JD / TIME			۵	DATA LOCATION	NO		REMARKS		
TYPE / SN	TYPE / SN SBE 9+ 91660	DATA ON	131 / 0752		Tape/Diskette ID	tte ID	File N	File Name/Header	# .	10 M	133	
PRESS SN 29772	V 29772	START DOWN	0752	2	151	W	CT	CTD \$74		•	40.	
TEMP SN	1:889 2:701	АТ DEРТН	075	7		3				£		
COND SN 1:530	1:530 2:303	AT SURFACE	e Serii			-22		-13	**	MAX. DEPTH	11	132 m
		PAR	X FLUOR	CHIAM		TAPS6	TAPS4					
			SEA-BIRD	RD 9/11+ CTD DATA	TD DAT	4		11	SAMPLE BOTTLE DATA	SAMPI	LE BOTTLE	SAMPLE BOTTLE NUMBER
POS.	TRIP PRESSURE	E PRI. TEMP	SEC. TEMP	SALINITY	PAR		RUOR	ChIAM	SALINITY	SAL.	NUTRIENT	- CHLOR
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NOAAS MILLER FREEMAN	FREEMAN		MF	PHOJECT & LEG MF97-05, Leg 2	- O	-			STATIO	STATION DESIGNATION		H407 1
CAST LA	ATHIDE	EGNO	L A C	, and the second	TIME		BENESSAME E &	TATE ASI	MIND		<u>6</u>	STA.
DEG	MIN	DEG MIN	DAY	ΥR	╁	ရှိ ပွ		۸ *	(kts)	۸ ,	(m)	NAME/ID
07151542	26.46 N	16459.1	W M A	V 9 7 0	1927	5.0	4.004	2703	_ ·	191	148	064
Port Side CTD	е СТБ	TIMES	JD / TIME			D	DATA LOCATION	NO		REMARKS		ii E
TYPE / SN SBE 9+ 91660	E 9+ 91660	DATA ON	131 0925	\ .	Tape/Diskette ID	tte ID	File N	File Name/Header		1 O M	43	
PRESS SN 29772	772	START DOWN	0925	<u></u>	П		3)	CTD 675	.	_		
TEMP SN 1:889	89 2:701	АТ DEРТН	71 <u>24</u>				1					
COND SN 1:530	30 2:303	AT SURFACE		ox g ^W			**			MAX. DEPTH	11	46 m
	100	N PAR	MFLUOR	CHIAM		TAPS6	TAPS4			:		,
			SFA-RIRD 9/11+ CTD DATA	9/11+ C	TAG OT	٥			SAMPLE BOTTLE	CAMPO	ODOWN IN DIEDOG DI IGNES	QV #
TRIP										5		
POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	83	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
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VESSEL			PRC	PROJECT & LEG				STATION	STATION DESIGNATION	NO NO	
NOAAS MIL	NOAAS MILLER FREEMAN		MF	MF97-05, Leg 2					STA 65	5 HAUL	L [.
C				No.	#		TATE	(tme) (
CAST #	LATITUDE	LONGITUDE	E DATE JD=	131	TIME DI (GMT) BU	DRY WET	PPESSU SEA ST VISIBIL DE VIND	WIND SPD.	-ПАЭМ	BOTTOM DEPTH N	STA. NAME/ID
SHO	NIM	DEG MIN	DAY	ΥR	HR MIN (°C)	(၁ _၀)	*	(kts)			
7654	442.93 N	16447.	05W11MA	1 Y 9 7	242 6	2 5.6	0427190	03	187	48	065
Port	Port Side CTD	TIMES	JD / TIME			DATA LOCATION	VIION	<u>«</u>	REMARKS		
TYPE / SN	TYPE / SN SBE 9+ 91660	DATA ON	131 1240		Tape/Diskette ID		File Name/Header	A	w10 = 42	~	
PRESS SN	29772	START DOWN	1240			٦-	2TD 076		-		
TEMP SN	1:889 2:701	АТ ОЕРТН	1242	_ \		.,	•	,			
COND SN	1:530 2:303	AT SURFACE				.		Σ_	MAX. DEPTH	1 = 4th	E
		X PAR	KILLOR	KCHIAM	TAPS6	36 TAPS4	4			,	- 11 - 7/1
				770				SAMPLE BOTTLE			
			SEA-BIRD 9/11+ CID DATA) #II/6	ID DAIA			DATA	SAMPLE	SAMPLE BOTTLE NUMBER	UMBER
POS. DEPTH	IP PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	ChiAM	SALINITY	SAL. NE	NUTRIENT	SE COR
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VESSEL NOAAS MILLER FREEMAN CONSC CAST # LATITUDE DEG MIN TYPE / SN SBE 9+ 91660 PRESS SN 29772 TEMP SN 1:889 2:701 COND SN 1:530 2:303	UDE IN IN IN IN IN IN IN IN IN IN IN IN IN	LONGITUC DEG MIT TIMES DATA ON START DOWN AT DEPTH AT SURFACE	JDAY JDAY JDAY JDAYE JDA	MF97-05, Leg 2 MF97-05, Leg 2 MO YR HI MAY971 E 324 Ta 325 325 326 BD 9/11+ CT	TIME DRY (GMT) BULB HR MIN (°C)	WET WET STATE OF STAT	(mb) · VISIBILITY (deg) CATION FILE Name/Header CTD \$\phi 7.8	STATION STATION STATION STATION SAMPLE BOTTLE	STATION DESIGNATION STA 67 HAUL WIND OW FE BOTTOM SPD. CIPE BOTTOM SPD. CIPE BOTTOM SPD. CIPE BOTTOM AMPLE MAX. DEPTH = SAMPLE S		STA. NAME/ID
TRIP POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	RUOR	ChIAM	SALINITY	SAL. NI	NUTRIENT	CHLOR
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STATION DESIGNATION STA 68 HAUL	WIND WIND OF E BOTTOM STA. DIRIN. SPD. CI P S DEPTH NAME/ID	(kts) * * (m)	890 771 177 068	REMARKS	der m_3	79_	MON position bad	MAX. DEPTH = 118 m		SAMPLE BOTTLE NUMBER	SALINITY SAL. NUTRIENT CHIOR		, I	^		>			>	>	>	7/	
	W W SESSUPPE STATE ARE STATE ARE STATE ARE STATE	(oC) (mp)	1 2.1021271	DATA LOCATION) File Name/Header	CTD 679		ii	TAPS4		FLUOR ChIAM	ш					ii.	16					
k LEG Leg 2	TIME DRY (GMT) BULB	HR MIN (°C	7 41 07 2.5		Tape/Diskette ID	21			IAM TAPS6	D 9/11+ CTD DATA	NITY PAR												
PROJECT & LEG MF97-05, Leg 2	DATE	DAY MO	7 W / / M A Y 9	JD / TIME	70				H-LUOR K CHIAM	SEA-BIRD 9/11	SEC. TEMP SALINITY		W	# # # # # # # # # # # # # # # # # # #		_		=		Щ			
	LONGITUDE	DEG W	7	TIMES	80 DATA ON	START DOWN	1 AT DEPTH	¥	PAR		UPE PRI. TEMP				18	89							
VESSEL NOAAS MILLER FREEMAN	CONSC CAST # LATITUDE	Σ ·	75603	Port Side CTD	TYPE / SN SBE 9+ 91660	PRESS SN 29772	TEMP SN 1:889 2:701	COND SN 1:530 2:303		3 to 22 J	POS. DEPTH PRESSURE	1 1174	2 12 .	3 12 '	4 12 '	2 // .	. // 9	· 11 2	8 5	9 8	10 %	-	12

STATION DESIGNATION S - 68 H - 2	<u>ме∧тнея</u> ВОТТ((w)	2 122 069	REMARKS				MAX. DEPTH = 1500 m		SAMPLE BOTTLE NUMBER	SAL. NUTRIENT CHLOR	24				,					^		
STATION D	WIND SPD. (amt)	(kts) * *	98400	REM			`.	MAX		SAMPLE BOTTLE DATA	SALINITY												
*	SEA STATE VISIBILITY O WING	*	2715	NO	File Name/Header	CTO 080					ChIAM	•							_	it,			
22	SC T B SSSURE	(oc) (mp)	2.002	DATA LOCATION	File N	E			TAPS4		RUOR					'n							
*	E DRY T) BULB	MIN (°C)	48 2.4		Tape/Diskette ID				TAPS6	DATA	PAR								pole				
PROJECT & LEG MF97-05, Leg 2	131 TIME	~	त्रं <u>^</u>		Tape/				Chiam	RD 9/11+ CTD DATA	SALINITY		-								-	Į.	2
PROJECT MF97-05,	DATE JD=	DAY MO	TWIIMAY	JD / TIME					FLUOR	SEA-BIRD 9	SEC. TEMP									, ,			
	LONGITUDE	Z	ر اله ا الا	"	NO NO	START DOWN	PTH :	AT SURFACE	X PAR		PRI. TEMP SE												
EMAN	UDE		9/N99	TIMES	+ 91660 DATA ON		2:701 AT DEPTH	2:303			PPESSUPE												
VESSEL NOAAS MILLER FREEMAN	- CATITUDE		805603.	Port Side CTD	TYPE / SN SBE 9+ 91660	PRESS SN 29772	TEMP SN 1:889	COND SN 1:530			TRIP DEPTH F	100	75.	50.	30,	20.	1	. 41	a	. 9	4	્ર	Ó
VESSE	CONSC CAST #		0		TYPE	PRES	TEMF	CON		i ii	POS.	-	2	က	4	ß	9	7	ھ	6	10	11	12

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<u> </u>	VESSEL		<u>~</u>	PROJECT & LEG	æ				STATION	STATION DESIGNATION		S
2	NOAAS MILLER FREEMAN		MF	MF97-05, Leg 2	2				5	S+R-64		1704
	-22	i.		N.	W. W. Line	n ^E	=32	3T/	(44.0)	(tms)		
8 8	CAST	2	11		TI ME	<u></u>	inss:	4T2 A	GNIW	ah i A	BOTTOM	STA
**	# LATITUDE	LONGITUDE	DATE	JD= /32	(GMT)	BUB	BULB B	ZEV ZEV	SPD.	AVE.	DEPTH	NAME/ID
	DEG MIN	DEG MIN	DAY	MO YR	HR	(°C)	(C) (r	(mb) (deg)	(kts)		(m)	
Ö	0815554.02N	791	54.20W12M	M A Y 9 7 C	6038	2	4.00	034824	9148	991	3 4	690
22	Port Side CTD	TIMES	JD / TIME			Q	DATA LOCATION	TION	-	REMARKS		
<u>¥</u>	TYPE / SN SBE 9+ 91660	DATA ON		 - 	Tape/Diskette ID	ette ID	File	File Name/Header	ō			î.
PRE	PRESS SN 29772	START DOWN		<u> </u> 				CT1 081				
TEA	TEMP SN 1:889 2:701	AT DEPTH						,				
Ö	COND SN 1:530 2:303	AT SURFACE	T L		8				2	MAX. DEPTH =	H= 130	E C
		A PAR.	HUOR *	CHAM		TAPS6	TAPS4	*				
		ă u	SEA-BIRE	RD 9/11+ CTD DATA	TD DAT	۲.			SAMPLE BOTTLE DATA	SAMPL	ЕВОТПЕ	SAMPLEBOTTLENUMBER
8	TRIP PRESSINE	E PRI TEMP		SALINITY	PAR	(c	RUOR	ChiAM	SALINITY	IAS.	NUTRIENT	CHOR
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VESSEL NOAAS MILLER FREEMAN	FREEMAN		PR	PROJECT & LEG MF97-05, Leg 2				STATION	STATION DESIGNATION	N.	1-
CONSC CAST #	LATITUDE	TONGLLNDE	DATE	TI TI (GI	TIME DRY (GMT) BULB	WET	PRESSURE SEA STATE VISIBILITY OF SEA	WIND SPD.	CLOUD (amp) PAYT PATHER MEATHER SO TO TO TO TO TO TO TO TO TO		STA. NAME/ID
DEC	MIN	NIM 5550	DAY	YR	7	(၁့)	*	(kts)			
0825539.28	39.28N	1673	0. 28 W 1 2 MA	A Y 9 7 03 4		4.8 3.7	044724	0 137	18 11 13	9 !	070
Port Side CTD	е СТР	TIMES	JD / TIME			DATA LOCATION	NOTION		REMARKS		
TYPE / SN SBE 9+ 91660		DATA ON		Tap	Tape/Diskette ID		File Name/Header	<u></u>			
PRESS SN 29772	277	START DOWN				5	CT 9082				
TEMP SN 1:889	89 2:701	АТ DEРТН									
COND SN 1:5	1:530 2:303	AT SURFACE						_≥	MAX. DEPTH =	= 133	Ε
		HAM HAM	H-LUOR	ChIAM	TAPS6	6 TAPS4	4		85		
			SEA-BIRE	RD 9/11+ CTD DATA	DATA			SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER	OTTEN	UMBER
TRIP	30 50 30	PRITEMP	SEC TEMP	YTINI IAR	a∧q	agi	Q. P. P. P. P. P. P. P. P. P. P. P. P. P.	ZINI IAO	IN	FARIATI IN	a d
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TIME DRY WET RESERVE RESER	VESSEL NOAAS MILLER FREEMAN	BEEMAN		PR M	PROJECT & LEG MF97-05 1 ag 2	45 Q				STATION	STATION DESIGNATION	MATION	2
AMIN DES MIN DAY MO YR HR MN CC CC CO CMD CO CO CO CO CO CO CO C		1	Po S	llië!	444			3	7.	(440)	(1Mis)		
MIN DATE UD= CONGRIDDE DATE UD= OL CMD CC CMD CC CMD CT CMD CC CMD CMD CC CMD		26	71	93			DRY	- Landy	SIBILIT	MIND	HTA3	ВОТТОМ	STA.
Side CTD	88	MIN	LONGITUDE DEG MIN	DAY	7 X X		ang (S	98 185	Λ IS	SPD.	M .		NAME/ID
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SBE 9+ 91660 DATA ON 29772 STAFT DOWN 1:899 2:701 AT DEPTH 1:530 2:303 AT SURFACE MAX	Port Side		TIMES	JD / TIME	-		DA	TA LOCAT	NOI		EMARKS		
1:899 2:701 AT DEPTH 1:809 2:701 AT DEPTHH 1:809 2:70	TYPE / SN SBE		DATA ON			ape/Diske	tte ID	File A	Vame/Heade		3	4	1 PF
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THE SEA-BIRD 9/11+ CTD DATA THE SAMPLE SEA-BIRD 9/11+ CTD DATA THE SAMPLE BOTTLE DEPTH THE SAMPLE BOTTLE DATA 112		-	AT SURFACE				V.	T.		2	AAX. DEF	TH=	m / 7 S
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CAST CAST	STATION DESIGNATION	SEASTATE VISIBILITY VI	4824012581199071	I REMARKS	File Name/Header			MAX. DEPTH = 19 4 m		SAMPLE BOTTLE NUMBER	<u>"</u>	42					33			
LATTUDE	2	TIME DRY WET COMT) BULB BULB	(°C) (°C)	DATA LOCATION		CTO				TD DATA		*								
LATITUDE	PROJECT & LEG MF97-05, Leg ;	DATE JD= 132	SWIZMAY97	JD / TIME	ř	N				SEA-BIRD 9/11+ C	8									
	LER FREEMAN	LATITUDE	DEG N / 6/8 0				2:701	2:303	AA RAG		PRESSIBE		, 0) (100	, <	-	

VESSE			PROJECT & LEG	TRIEG				STATION	MOITAINGIGE INCITATO	Z	
NOAAS MILLER FREEMAN	FREEMAN		MF97-05, Leg 2	5, Leg 2				5	STA 72	HAUL	-
CAST #	LATITUDE	LONGITUDE	DATE JD=	TIME (GMT)	E DRY	STEESSTEE BUILDE	SEA STATE VISIBILITY S S S S S S S S S S S S S S S S S S S	SPO (amt)	TYPE MEATHER	BOTTOM	STA. NAME/ID
DEG	MIN	DEG MIN	DAY MO	YR HR MIN	(°C)	(°C) (mb)	*	(kts)	*		
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TEMP SN 1:889	9 2:701	AT DEPTH	0943					ں ا	CTD Digues	1; 1	
COND SN 1:530	30 2:303	AT SURFACE	1016				=	X	MAX. DEPTH	1= 1210	E
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	:		SEA-BIRD 9/11+ CTD DATA	11+ CTD	DATA			DATA	SAMPLE	SAMPLE BOTTLE NUMBER	MBER
POS. DEPTH	PRESSURE	PRI TEMP	SEC. TEMP SA	SALINITY	PAR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
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PG 36 OF

6/2/97 D.MD. battern depths corrected for probable scale error on 12 Khz sounder

VESSEL	10	_		PR	PROJECT & LEG	(5)				STATIO	STATION DESIGNATION	NOITAL	
NOAAS	NOAAS MILLER FREEMAN	3		ME	MF97-05, Leg 2	01				1	STA 7	73 HAUL	 اسم الم
CONSC CAST	LATITUDE	W	LONGITUDE	DATE JD	JD= 13.2	TIME (GMT)	DRY	W WESSENGE	SEA STATE VISIBILITY SEA STATE	WIND	HHIAH	6 E	STA.
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73	55/2/21.3	2 N 16	168311.9	7 W 1 2 M	A Y 9 7	1200	4.5	3.51	04824	523	485	1960	073
	Port Side CTD	TIMES	်င္သ	JD / TIME			Ď	DATA LOCATION	NOI		REMARKS		91
TYPE/	TYPE / SN SBE 9+ 91660		DATA ON	132 / 1135		Tape/Diskette	tte ID	File	File Name/Header	XI.	= 0/m	474	
PRESS	PRESS SN 29772	STA	START DOWN	1135	101			FJ	CTD \$86	l1	deoth e	dooth estmaked from	from
TEMP SN	SN 1:889 2:701		АТ DEРТН	1200		8					CTD pinger	nect	
COND SN	SN 1:530 2:303		AT SURFACE	1226	Q		# I				MAX. DEPTH =	7¥= 95	m 1
			PAR	FLUOR	ChIAM		TAPS6	TAPS4	8				
		J		SEA-BIRD 9/11+ CTD DATA	9/11+0	TD DAT	<			SAMPLE BOTTLE DATA	SAME	SAMPLE BOTTLE NUMBER	NUMBER
8	TRIP PRES	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR		RUOR	ChIAM	SALINITY	SAL	NUTRIENT	GH CR
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O	100			T.A.					Δ				
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-	0		85						V				
12		=					2						

bottom depth corrected for probable scale error on 12 Khz sounder

PG 870F

Ε NAME/ID SAMPLE BOTTLE NUMBER SELOR PLOR STA. NUTRIENT WIND OUR BOTTOM SPD. CC PER BOTTOM DEPTH depth estimated 1235 WO = 1281 STATION DESIGNATION CTD pinger MAX. DEPTH = REMARKS SAL. 03 00 00 (kts) |* |* | SAMPLE BOTTLE SALINITY DATA WIND 2 3 4 (ded) File Name/Header CHIAM CTD \$87 SEA STATE 3.71048 DATA LOCATION (qm) TAPS4 WET FUGR ် ပိ 2) Tape/Diskette ID ORY BULB TAPS6 ္စ SEA-BIRD 9/11+ CTD DATA P.A. YR HR MIN (GMT) MF97-05, Leg 2 PROJECT & LEG ChIAM SALINITY 16848.65W12MAY97 DATE JD= 132 DAY MO 1435 1332 1403 133 JD / TIME SEC. TEMP FUOR 132 LONGITUDE Z PRI. TEMP START DOWN AT SURFACE AT DEPTH Æ DATA ON TIMES 8 5523.68N TYPE / SN SBE 9+ 91660 PRESSER COND SN 1:530 2:303 NOAAS MILLER FREEMAN TEMP SN 1:889 2:701 LATITUDE Z S Port Side CTD **PRESS SN 29772** 1220 OEPTH O 1000 300 400. 150 200 800 600 00 8 20 0 CONSC VESSEL PQ S 10 12 ო Ξ ဖ

for probable scale error on 12the sounder PG 88 OF 6/2/97 Daro

	bottom depth estimale	ŀ	corrected for probable scare empr	or probe	ימור של	ويدو	δ	12km2 Sounder	aer		
VESSEL		<u>Æ</u>	PROJECT & LEG					STATIC	STATION DESIGNATION	NATION	
NOAAS MILLER FREEMAN		MF	MF97-05, Leg 2						STA	75 HAUL	7. /
	×		12.00 A.2.00 A.3	H.	318		3TA		ㅂ크	7906	
CAST	9			TIME	_	NEE TO A	TS A	WIND	JUO F HTA	BOTTOM	STA.
# LATITUDE	LONGITUDE	DATE	JD= 132 ((BULB	BULB R	AIS SE	SPD.	ME	DEPTH	NAME/ID
DEG MIN	DEGMIN	DAY	MO YR HR	Z	(၁,)	(C)) + + (qw)	(deg) (kts)	*	(m)	
885525.92	2N16904.03W	12	M A Y 9 7 //	1612	3.8	2.51	14823	3820681	186	1330	0715
Port Side CTD	TIMES	JD / TIME			DA	DATA LOCATION	TION		REMARKS	(0	e e
TYPE / SN SBE 9+ 91660	0 DATA ON	132 15	7537 Tal	Tape/Diskette ID	e ID	File	File Name/Header	er	10 M	WO = 1345	
PRESS SN 29772	START DOWN	1537	37			O	CTD \$88		deoth	deoth estimated	d from
TEMP SN 1:889 2:701	АТ DEРТН	1612	77	7/2	34		8,		-65	pinger	200
COND SN 1:530 2:303	AT SURFACE	165	51						MAX. DEPTH =		1317 m
	PAR	RUOR	CHIAM	TA	TAPS6	TAPS4	4				
			7.8					SAMPLE	ì		
	93	SEA-BIR	RD 9/11+ CTD DATA	D DATA				DATA	SAM	SAMPLE BOTTLE NUMBER	NUMBER
POS. DEPTH PRESSURE	JPE PRI. TEMP	SEC. TEMP	SALINITY	PAR	Œ	FLUOR	ChIAM	SALINITY	SAL	NUTRIENT	CHLOR
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076 Ε 유민 NAME/ID SAMPLE BOTTLE NUMBER STA. From So bottom depth estimate corrected for probable scale error on 12 Khz sounder PG 89 OF NUTRIENT WIND WIND OF WE BOTTOM DIPN. SPD. C. P. WE BOTTOM 5/3/8 depth estimated WO = 1542 STATION DESIGNATION MAX. DEPTH = 9 $\widehat{\mathbf{E}}$ Strid CLE REMARKS SAL. 5 <u>S</u> (kts) SAMPLE BOTTLE SALINITY DATA و 230 (deg) File Name/Header CTD 489 ChIAM SEA STATE VISIBILITY 3.01248 DATA LOCATION (mb) TAPS4 FUG. WET BULB ပ္ပ Tape/Diskette ID PR BULB **TAPS6** 1 ပ္ပ SEA-BIRD 9/11+ CTD DATA ₽ BB 1840 YR HR MIN (GMT) MF97-05, Leg 2 PROJECT & LEG CHIAM SALINITY 9.60W 12 MAY97 DATE JD= 132 OW 800 1927 1840 1800 JD / TIME DAY SEC. TEMP FUGR 132 LONGITUDE Z PRI. TEMP START DOWN AT SURFACE AT DEPTH 꾪 TYPE / SN SBE 9+ 91660 DATA ON 169 9 TIMES 895528.53N PRESSURE COND SN 1:530 2:303 NOAAS MILLER FREEMAN TEMP SN 1:889 2:701 LATITUDE Port Side CTD Z PRESS SN 29772 800 1500 000/ 009 Sac TAIP DEPTH 400 28 00/ 300 50 980 0 CONSC CAST S 0 7 Ξ ဖ O

PG 20 OF 6/2/97 DMD bothom depth estimate corrected for probable scale error on 12Khz sounder

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_	VESSEL				전 전	PROJECT & LEG	rs.					STATION DESIGNATION	DESIGN	MATION	
<u>ı</u>	NOAAS MILL	NOAAS MILLER FREEMAN			MF9.	MF97-05, Leg 2	2					S	STA 7	76 TAS	L 2
					17	20		2		ЭT,	å.	(tms)	Я		100
	CONSC						Ļ	è	a .	ATS TIJIE		an	3HT,	277	į
	CASI	LATITUDE	LONGITUDE		DATE JD=	JD= 132	(GMT)	A Ba	WEI	SEA	WIND NEW NEW NEW NEW NEW NEW NEW NEW NEW NEW	SPO. CLO		BOTTOM DEPTH	STA. NAME/ID
	DEC	NIM	DEG MIN		DAY MO	ΥR	HR MIN	(၁ _၀)	(°C)	(mb) * *	(deg)	(kts) *			
8	9058	05528738N	16919.4	15W 1	2 M A Y	9 7	2023	5.	4.2	1348	C B	1 5	181	966	076
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<u> </u>	COND SN	1:530 2:303	AT SURFACE		679		=		W S			Ž	MAX. DEPTH =	25000	300 m
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			111 -	E					igi			SAMPLE BOTTLE		- 23	
	8 = 8			SEA-BI	-BIRD	RD 9/11+ CTD DATA	TD DA	Δ		i de		DATA	SAMP	SAMPLE BOTTLE NUMBER	NUMBER
<u> </u>	POS. DEPTH	P PRESSURE	PRI. TEMP	SEC. TEMP	MP	SALINITY		PAR	FLUOR	ChlAM		SALINITY	SAL.	NUTRIENT	CHLOR
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6/2/97 DMD Corrected for probable scale

PG 91 OF __

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- =	VESSEL NOAAS MILLER FREEMAN	REMAN		<u> </u>	PROJECT & LEG MF97-05, Leg 2				STATION	STATION DESIGNATION	N L	0,5
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	CONSC					-		ATS TIJI		THE		
	CAST # LATI	LATITUDE	LONGITUDE	DATE	JD= /32 ((GMT) BULB	WET WET	SEA VISIE	SPD.	WEA WEA DEPT	OM STA. TH NAME/ID	A. Evid
L	N DEG N	NIM	DEG MIN	DAY	MO YR HR	Z		*	(kts)	*		
	91 553	N / / • 0	1693	5 3 W 1 2 MA	Y 9 7 A	247 50	1 9.4	144821	5 168	128		077
	Port Side CTD		TIMES	JD / TIME			DATA LOCATION	NOI	~	REMARKS		\
-	TYPE / SN SBE 9+ 91660		DATA ON			Tape/Diskette ID	File	File Name/Header		Productivi	To say	_
	PRESS SN 29772	Ø	START DOWN				5	CTD 491	8	Bold on	3	Chlor
	TEMP SN 1:889	2:701	AT DEPTH	į						,	0	
	COND SN 1:530	2:303	AT SURFACE						<u>S</u>	MAX. DEPTH =	= 289	٤
			K PAR	K FLUOR	ChlAM	TAPS6	TAPS4					
				SEA-BIF	SEA-BIRD 9/11+ CTD DATA	D DATA			SAMPLE BOTTLE DATA	SAMPLEB	SAMPLE BOTTLE NUMBER of	BER
	POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	ChIAM	SALINITY	SAL. NUT	NUTRIENT	GEOR.
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	12			8 ,								

bottom depth corrected for probable scale error with 12 Khz sounder

PG 920F

Ε 0 <u>R</u>B NAME/ID SAMPLE BOTTLE NUMBER STA. ~ WIND OUR BOTTOM CPD. CLYNE DEPTH 64 NUTRIENT Cast & 1500 208621498 STATION DESIGNATION MAX. DEPTH = REMARKS SAL. SAMPLE BOTTLE SALINITY DATA WIND DIRN. 205 (ded) File Name/Header CTO 092 CHAM SEA STATE 3.9154 DATA LOCATION (mb) 3HUSS3HH TAPS4 F.00 WET ဝွ SUB BUR Tape/Diskette ID TAPS6 ပ္ပ SEA-BIRD 9/11+ CTD DATA A 6 W 1 3 M A Y 9 7 10 6 47 YR HR MIN (GMT) MF97-05, Leg 2 PROJECT & LEG ChIAM SALINITY DATE JD= 133 0 **Y** JD / TIME DA≺ SEC. TEMP E CO LONGITUDE Z Z 16925 PRI. TEMP START DOWN AT SURFACE AT DEPTH PA B DATA ON 9 TIMES 925530.28N PRESSURE TYPE / SN SBE 9+ 91660 COND SN 1:530 2:303 NOAAS MILLER FREEMAN TEMP SN 1:889 2:701 LATITUDE Z Z Port Side CTD **PRESS SN 29772** 00 200 TRIP DEPTH 250 750-3000 300 500. 184 . 00% 8 0001 VESSEL SONSC CAST POS. 10 12 Φ σ

to them depth corrected for probable scale arror with 12Khz sounder

PG 93 OF

<u>오</u> ጆ Ε 유명 NAME/ID SAMPLE BOTTLE NUMBER STA. 30 NUTRIENT WIND WIND OF THE BOTTOM DIPN. SPD. C. F. W. DEPTH 8 8 2 14 98 STATION DESIGNATION MAX. DEPTH = REMARKS SAL. (kts) * * SAMPLE BOTTLE SALINITY ナー DATA 0 (ded) File Name/Header ~ SEA STATE
VISIBILITY ChIAM CTD 093 DATA LOCATION (dm) **BHISSELLA** TAPS4 9 WET BULB FLOGR ပ္ Tape/Diskette ID PULB BUB **TAPS6** ွ SEA-BIRD 9/11+ CTD DATA PAR で て で で で で で で で の ろ YR HR MIN TIME (GMT) MF97-05, Leg 2 PROJECT & LEG Chlam SALINITY 093552515174N/168104.355W113MAN917 DATE JD= /33 DAY MO JD / TIME SEC. TEMP K FLUOR all 3 how on LONGITUDE Z PRI. TEMP START DOWN AT SURFACE PAR AT DEPTH DATA ON 9 PRESSURE TYPE / SN SBE 9+ 91660 COND SN 1:530 2:303 TEMP SN 1:889 2:701 NOAAS MILLER FREEMAN LATITUDE Z Port Side CTD PRESS SN 29772 TRIP DEPTH So 40, 60% 82 300 6 B B 2 20 Ð 0 CONSC VESSEL S S 10 12 ω O က φ

PG 94 OF 94

CONSTITUTE	VESSEL				PROJECT & LEG	ტ ⁽				STA	ATION DE	STATION DESIGNATION	
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10 TIMES JD / TIME DATA LOCATION TEMARKS 1	09195	23.6	891	13	Y 9 7	5 14	5.2		8	- 0	8	K	0
2:701 AT DEPTH 2:303 AT SURFACE 2:701 AT DEPTH 2:303 AT SURFACE 2:702 AT DEPTH 2:303 AT SURFACE 2:703 AT SURFACE SEA-BIRD 9/11+ CTD DATA RESSURE PRI TBMP SEC. TBMP SAUNITY PAR RUCH CHAM SAUNITY SAL NUTRIENT CHOOL CHAMPEN SAUNITY PAR RUCH CHAMPEN SAUNITY SAL NUTRIENT CHOOL CHAMPEN SAUNITY SAL NUTRIENT CHAMPEN SAUNITY SAL NUTRIENT CHOOL CHAMPEN SAUNITY SAL NUTRIENT CHAMPEN SAUNITY SAL NUTRIENT CHAMPEN SAUNITY SAL NUTRIENT CHAMPEN SAUNITY SAL NUTRIENT CHAMPEN SAUNITY SAL NUTRIENT CHAMPEN SAUNITY SAL NUTRIENT CHAMPEN SAUNITY SAL NUTRIENT CHAMPEN SAUNITY SAL NUTRIENT CHAMPEN SAUNITY SAL NUTRIENT CHAMPEN SAUNITY SAL NUTRIENT CHAMPEN SAUNITY SAL NUTRIENT CHAMPEN SAUNITY SAL NUTRIENT CHAMPEN SAUNITY SAL NUTRIENT CHAMPEN SAUNITY SAUNI	Port	Side CTD	TIMES	JD / TIME			0	ATA LOCAT	NOL	38 1831	REMA	RKS	
2:701 AT DEPTH 2:303 AT SURFACE 2:303 AT SURFACE SEA-BIRD 9/11+ CTD DATA SEA-BIRD 9/11+ CTD DATA SEA-BIRD 9/11+ CTD DATA SEA-BIRD 9/11+ CTD DATA SAWNEE BOTTLE SEA-BIRD 9/11+ CTD DATA SAWNEE BOTTLE SAWPLE SAWNEE	TYPE / SN	SBE 9+ 91660			=	Tape/Disk	ette ID	File	Vame/Head	jer			5
2:303 AT DEPTH	PRESS SN	29772	START DOWN	51	416			5	4800	100	23		
2-303 AT SURFACE Amales Amales Tapes Seawing	TEMP SN		АТ DEPTH		37.	= 0			16			111	48
Mar. Huor Chiam Tapse Tapsa Sawhie	COND SN		AT SURFACE			#))(2)* (1) (1) (2) (3)				MAX.		10
Tapp SEA-BIRD 9/11+ CTD DATA SAMPLE BOTTLE	7		X PAR.	K RUOR	Chiam	1/1	rAPS6	TAPS4					
TRIP PRESSLEE PRI, TEMP SEC, TEMP SALINITY PAR RLUOR CHAM SALINITY SALINITY	8, 5			SEA-BIR	D 9/11+ (TAD OT:	<u>-</u>			SAMI BOT DAT		AMPLEBOTT	LE NUMBER
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