									1						67a							Pg.	1	of	
C	onsec	.Cast		Vessel N MILLER		hip Pro	j. & Leg -91-0 2		Even	5#	Vessel S	ta. I.D.	Instr	uctions CT				-	ica d	141	S	ta. Des	ignatio	24° (۱,
	onsec. ast #		Latit			Longitud		Date	JD = /0	ماد	Time GMT Hr. 1		Dry Bulb	Wet Bulb	Bar. mb	1	` \		Wind Sp.	Cloud			m S	Sta. Nan or I.D	ne
0	0 1	5	743	2 5 N	155	155	5 W	1 6 F	PR9	1 0	200	3	62	60	08	1	80	1 1	17	8 -	720	016		(١٥
		ID S	91220-	<i>P</i>				onitor	Checks	_				JD/Time		_	/				ation		4		
P	ress. S	N_2	25084				Deck		at Su	rface		Data at Sur	a on 106	1954		• ,			I.D.			Name			
	mp. S			<u> </u>		S,						Start Do	own	1958 2003			00,	- NA	<u> </u>				81114		
	ond. S	N	504			o d					-	at Bot	tom Up	2004				\ \					.		
]	u er			•				face a off	2016	Re	emar !Gw⊍	rs. W	e ofthe	ome a	swa swi	libr	itor	1. 1211.01	N Nuts	
S.		Т	Trip	Time @	!		Mon	itor Va				C	onv. Mon.	Values-CT	D			San	nple B	ot.D	ata			Other Samp.	S
12	Bot.	Rack	Depth	Depth T	rip	Press.	Temp). C	Cond.	Othe	er F	ress.	Temp.	Cond.	Sal.	╌╂	Ther	m-P	Avg	TW	Sa	il.	Bot. #	[T
<u> </u>	29	_	158		500						15	OOP.F	3.315	29.569	32.05	<u> </u>				-				247	
2	T	\mathcal{B}	145	20	० न						14	4779	3.376	29.567	32.01	47			,				11	248	2
3	3141		100	ac	900	ž					10	168.6	3.357	29.552	32.03	91						_		249	3
4	26		75	144 20	11	Gr.,	·				· =	14.438	3.341	29.514	32.00	ا ماد								250	4
5	25		50	20	012						5	60.602	3.326	29.486	31.99	19						4		251	5
	24		30		13				ı					29.434	ľ	"		50	-					252	6
	23		20		14	·					- 1	·		29.481		Т		-						253	7
	33		10		15						- 1			29.470	1									254	
			10	40	10		-0					1,007	0,010	0.13110	C1201	, .			· · · · · · · · · · · · · · · · · · ·					337	9
	21.		<u>.</u>													-								 	10
	90												, '		,	\dashv									11
┝	19														- 45	U								+	_
12	MIG	GE1	.																	,				(Than.	I2
12	PIN	CEY	<u> </u>											1		Į.						lr	nitials	DAM.	_

Initials 1

Со	nsec.		#	Vessel MILLE	NOAA	Ship Pro	j. & Leg -91 - 0 2 '			ent#	Vessel	Sta. I.D.	Instr	uctions CT	D.	to (gae Gan	icu n Unda	14. 50.01	sles	Sta. De	signation	1 10 101	_
	oo nsec. st #	Deg	Latitu	ıde	N or	Longitud eg.	e E or		JD =		Tim GM Hr.	1	Dry Bulb	Wet Bulb	1	ır.			Wind Sp.				ta. Name or I.D	9
0	02		43	28	N I	5 5 5 4	OW	16/	A P R	9 1	21	14	3 5	30	0	7 2	1	110	10	87Z	18	· 7	ما	
	~~~		1220 1	<u>u - 19 1</u>		<u> </u>	Мо	nitor	Checks			Tir	nes	JD/Time						_ocatio				
Тур	oe & S	N_3	1220-A 5084	1	-	OI	n Deck		at	Surfac	:e	1	a on	2111		Tap	e/Di	skette l	.D.	F	ile Nam	e/Head ⊢/ / /	er 2n⊃li	
	ess. s mp. S				·   F	Press						at Sur Start D		2111	_			Side	<u>D</u>	7	ST Z-	- 1611	100 17	
C	ond. S	N_3	04		_   T	emp						. at Bot	tom					_,						
_					.   (	Cond						Start at Sur	: Up	2114	!	Rema	arks							
_				<u> </u>	.   0	Other							a off						_			<u> </u>		
Š.		Т	Trip	Tim	e @			itor V		1 _				. Values-CT		1	Th	San erm-P	nple Bo Avg T		Sal.	Sal. Bot.#	Other Samp.	Pos.
4	Bot.	Rack	Depth	Depth 1	Trip	Press.	Temp		Cond.	Ot	her	Press.	Temp.			Sal.	Ine	erni-r	AAR I	<del>"   -</del>	Jai.	300		
1	29		60	As Ja	2114			_				60.988	3.320	29.474	31	986	_					ξ,	W.7=	$\vdash$
2	28		50	1.2	2116							50.012	3.316	29.460	31.	979		<u>.</u>	·			<u> </u>	<i></i>	2
	3141		50	- iná	2116				·			50.048	3.316	29.462	31.	981			_				W	3
4	26		HO	(Majora)	2118	3					Ł	41.365	3.321	29.459	31.	977	—					<del> </del>	WI	4
5	25		40	ALJ 5	9118	3						41.370	3.330	29.467	31	977	1		<u> </u>	-		<u> </u>	Chl	5
6	29		30	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2110	Top	Foil	ore.		<u> </u>		30.706	3.409	79520	31	981	1						ME	
Ź	23		30	; n,6 in.	2119	1	ļ		<u></u>	<u> </u>		30.652	3 429	39.543	31	.978	_					<del> </del>	Chl	7
8	aa		90	110,4	2120	2						19.837	3.401	29,490	31	947	$\bot$					-	ME	_
9	21		90	1116	2120	0						19.851	3.407	2 29.490	31	.946			ļ		<del></del>		CHI	
10	90		10	4.	212							9.907	3.45	2 29.519	31	.937	r	i,				-	WIE	
11	19		10	· · · · ·	212	l	ļ <u>-</u>					9.905	3.45	2 29.513	31	.935		. <u> </u>	_				Chl	
ı.	PIN	1			,		<u> </u>			<u> </u>												la iniciale	SAM	12

Initials SAM

Pg. ____ of __

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Co	nsec.	Cast			NOAA R FREE		Proj. & L MF-91-0	eg DZ4	Eve	nt#	Vessel	Sta. I.D.	Instr	uctions TI with	of o Mo	x p	same	Sles			Sta. Desig	nation Sk	60	
1	nsec. st #	Deg	Latitu	de	N or S De	Longi	itude i	Date	J <b>D =</b>   Mo.	06 Yr.	Tim GM Hr.		Dry Bulb	Wet Bulb	Bar.			Wind Sp.		Weath.	Bottom Depth, n		ta. Name or I.D	8
0	03	5	741	18	N 15	500	97	116	A P R	9 1	22	23	50	40	083	36	110	08	87	22	29	٥	6	0
Pr Te		N_3 N_2 N_7			. Te	mp	on Dec			urface	e	Start at Sur	on <u>log</u> face2=	217 214 23 24	· 1 ·	#	skette			Fil	le Name/ 3 — l6 A			
-		<b>T</b>	Trip	Tim				onitor `	Values		T			. Values-CT	 D	Γ	San	nple B	ot.D	ata		Sal.	Other	os.
Pos	Bot.	Rack	Depth	Depth	Trip	Press		np.	Cond.	Oth	ner	Press.	Temp.	Cond.	Sal.	Th	erm-P	Avg	Tw	9	Sal. B	ot. #	Samp.	Ğ
1	ر 29		(		2224							784.750	4.785	31,735	33.680						-		255	1
2	1	_	250	1225; s	2230 S							250,952	4.232	30.934	32.715			4,7	2			20	256	2
3	3141		200		2232						,	99.892	3.267	29.722	32.263	1				-			385	3
4	26		150		2234					-		48.871	3.608	29.929	32.199					<u> </u>			386	1_
5	6)		100		2236					· .		99,362	3.50	29.713	32.073	1							387	T
6	24		75		2237	<u> </u>							3.470		32.035	1		<u> </u>			-		358	7
7	23		50	· • · · · •	2238									29.530		•							1201	8
	22		30		2239							29.631	3.378	29.469	1								7/0	-
	21		20		2240	ļ						20,624	3.412	29.490	31.935	1						<u>.</u>	391	9
_	20		10		2242							10.173	3.437	29.506	31935	1	_	_			-		392	
	19												The second desired the second de			-		_				. <u> </u>		,''   ;
12	Pi	بركه										·			<u></u>			<u> </u>	<u> </u>	<u>                                     </u>		itials		

Co	nsec	.Cast				Ship Pro	j. & Leg -91-084		Event#	Vessel S	Sta. I.D.	Instru 2 no	elankun	1000m	n with	micro-	Sta	a. Designation	in Jeo	
	nsec. st #	1	Latitu	ıde l	V or	Longitud eg.	e E [	Date JE		Time GMT Hr.	-	Dry Bulb	Wet Bulb	Bar.		Wind pn Sp.		4	or I.D	е
0	04	5	740	9 1	N (	55096	3 W	6 A	P R 9 1	23	10	60	49	073	1 1 1 1	105	71	288	6	٥
	oe & 9		)1220-A				Deck	itor Ch	at Surfa		Tin Data at Surf	١	D/Time		e/Diskette	<b>Data Loc</b> I.D.	File	Name/Head		
Те	mp. S	N_7	01		- 1	Press					Start Do	own23	37:20	_				( and ) and		
	ond. S		304			emp Cond		<del></del>			Start at Sur	Up <u>23</u> face <u>23</u>	47150	Rema	rks			<u> </u>		
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<u> </u>	Т	Trip	Time		Other		or Valu	ies			off	Values-CT	D	Sar	nple Bot.[		Sal.	Other	Si
å	Bot.	Rack	Depth	Depth	Trip	Press.	Temp.	Cor	nd. Ot	her	Press.	Temp.	Cond.	Sai.	Therm-P	Avg Tw	Sal	. Bot. #	Samp.	1 1
1	29	-	60		233715	55				6	0.453	3.321	29.481	31-994					MZ	-
2	28		50	,	341:0	7				5	0,273	3.241	29.386	31.964					an	2
3	3141		50		<b>उन्</b> । ५३:	5				5	0,324	3.232	29.380	31,966					MZ	3
4	26		40		2342:5	8				4	0.335	3,222	29.360	31.957			<u> </u>		MZ	4
5	25		7			Ō				4	0.307	3.228	29.368	31.968			<u> </u>		Chl	5
6	24		30		343:5	7				3	20.508	3,218	29.346	31.949					MZ	6
7	23		30		2544:18					3	0.511	3,208	29,338	31.950	<u> </u>				Chil	7
8	22		20		2345:18					ð	0.060	3.315	29.415	31.942					M2	8
9	21		26		2345°3					à	6.129	3,318		1		,			che	9
10	26		10		Zw/.13			igo.			०.०५५	3390	29.469	31.937					W5	10
11	19		10		346 5						0.055	3,389	29.468	31.937	4				Cre	
12	Pi	WY.			33															12
				-														<b>I</b> nitials	SALV	$\overline{W}$

Co		Cast	#	Vessel MILLE	NOAA R FREE	Ship Pro	j. & Leg -91-084	Eve	ent# Ves	sel Sta. I.D.	Instr	uctions CT	news can	ax depth	with	Sta. D	esignatio	n	
i	nsec. st #	Deg	Latiti	ude l	or S De	Longitud		te <b>JD</b> = /0/2	7 ( Yr. Hr.	ime GMT Min.	Dry Bulb	Wet Bulb	Bar.	Wind ایخ Dir.	Wind Page	Neath Debt	om S h, m	ta. Nam or I.D	е
0	05	5	738	63	N 15	50412	2 W 1	A PR	9 1 (	037	72	65	073	8 100	085	71 2	56	5	19
Tv	. C	ID 9	1220 <i>-</i>	\				or Checks		Tin		JD/Time		4	Data Loc				
'7   Pr	ess. S	N = 2	5084	·		or	n Deck	at	Surface	Data at Sur	-0.0	019:40		e/Diskette			ne/Head		
		N_7			Pr	ess		-		- Start Do	own0	122:35	- Cost	5 side	71	CASTS.	-1711CK	COOL	
		N_3			Te	mp				at Boti		031:10	- -						
_				<del></del>	C	ond	<del></del>			— Start	- F	032:00	Rema	irks Bollo	m:25	o are o	ame a	ampl	e,
					0	ther				Data	off						T C.1	Note	
Pos.	Bot	T Rack	Trip	Time	@ 	Press.	Monitor	Values Cond.	Other	Press.	Temp.	. Values-CT Cond.	D Sal.	Therm-P	nple Bot.D Avg Tw		Sal. Bot. #	Other Samp.	101
	Γ-	, ack	250	Depth	Ì		Temp.	Cond.	Other					11101111-1	7.18	<u> </u>		<del></del>	
-	29		250	_	0031:50					249.637	4.5 16	31.419	32,731					393	1
2	88	11	200		1033:49					199.881	4.107	30,589	32460					394	
3	3141		150		035143				ļ <u>.</u>	150.256	3.761	30.149	32,308					395	3
4	26		100		1037:24					99.711	3.785	30,096	32.248					396	4
5	25		75		1038:32					74.139	3.879	30.117	32.194					397	5
6	24		50		<b>3</b> 9:40					49.400	3.244	29,411	31.991					398	6
7	23		30		0 <b>40:</b> 50					30,328	3.241	29.366	31.951					399	7
8	22		20		MH1:57					20.355	3.265	29.367	31.933				33	400	8
9	21		10		00f2:55					10.368	3,299	29,384	31.925				12:1	40	$\neg \neg$
10	20									<u> </u>							20		10
II	19																		11
12	Pi	90			)(8					1									12
_					·	. <del></del>	<u> </u>	·			-						Initials	SAM	人_

																z. <u>6</u>		
Conse	c.Ca	st #	Vessel MIIIF	NOAA S R FREEM	hip Pro	oj. & Leg -91-084		vent# V	essel Sta. 1.D.	Instru	actions CT	ankhon	My with	al sampl	Sta. [	Designatio 8,044	n - 58	
Consec	. 1	Latitu	ıde l		Longitud	le E Da	te <b>JD =</b>	107	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar.	I I	Wind PiolO	1 1	1	ta. Nam or I.D	e
000	6 5	738	41	N 15	5042	3 W I	A P F	910	127	52	50	073	8095	065	7112	55	5	9
	<u> </u>	91220-A					or Check		Tir	nes a on 107	JD/Time	Tan	e/Diskette	Data Loc		me/Head	ler .	
Press.	SN_	25084			Oi	n Deck	a	t Surface		face	124:20				CASTO.	-		
Temp.				Pre	ss	8			Start D		124150		16 Side	<u> </u>	<u></u>	- 113	<u> </u>	
Cond.				Ten	ıp				at Bot	tom	<u> </u>							
<u> </u>				Cor	nd					t Up <u>01</u>	135127	Rema	ırks					
			<u> </u>	Oth	ner		_		i i	a off								
ان	T	Trip	Time	@		Monito	r Values		С	onv. Mon	Values-CT		<u> </u>	nple Bot.D		Sal.	Other Samp.	S
& Bo	t. Rac	k Depth	Depth	Trip	Press.	Temp.	Cond.	Othe	r Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	<u> </u>	
1 29		60		)17:37					61.643	3.593	29.800	32.105				343	MZ	l l
2 28		50		128:42							29,538	T					MZ	2
3 314		50		0128412						1	29,504					Ž,	cal	3
4 2-6		40		0130115					39.888	3.199	29.352	31.971					MZ	4
5 25	5	40		0130133					39.892	3,196	29.348	31,968					Che	5
6 24		30		131:31					30.681	3,219	29.349	31.952					MZ	6
7 2-3	,	30		0131:50					30,761	3,220	29.350	31.951		<u> </u>			and	7
8 12	-	20		032156					20.681	3,270	29.374	31.936					MZ	
9 21		20		0133:17					20,739	3.281	29.380	31.933	,				are	9
10 20	2	10		15KBD							29,427	31.926					Ms	10
11 19	1	16		0134;38	·				9.807	3.335	29.414	31.926	ļ				Ohl	
12				.55														12

																Pg	. <u>+</u>	of	
C	onsec	.Cast	#067	Vessel MILLE	NOAA Shir R FREEMAN	Proj. & Le	g 24	Eveni 49		l Sta. I.D.	Instr	uctions CTI	on st co	t sampl	with	Sta. D	esignatio	n 1.58	
	onsec. ast #	Deg	Latitu	ude l			Date	JD = / 0'	7 Tir G1	ne 1T Min.	Dry Bulb	Wet Bulb	Bar.		Wind PnoD	Meath Dep	tom S	or I.D	e
Ĉ	07	5	736	, 21		01051	17	A PR9	102	11	60	50	073	8080	$1 \cdot 1 \cdot 1 \cdot 1$	7112	36	5	8
T)	/pe & S	FD g	91220-A 25084		Press.	on Deck	1	Checks at Su	rface	- 1	on face <i>07</i>	JD/Time 202:20		pe/Diskette		ation File Nar <u>CAST7</u> —			
	ond. S				Temp.					_ at Bott	tom0	210:40	Rema	orks					
L					Other	<u> </u>				_ Data	face <u>01</u> a off			. <u> </u>	l- D-+ D		Sal.	Nut	· ·
S	Bot.	T Rack	Trip Depth	Time Depth	Trip Pr	ess. Ter	nitor \		Other	Press.	onv. Mon Temp.	. Values-CT Cond.	Sal.	Therm-P	nple Bot.D Avg Tw	Sal.		Samp.	1 0
г	29	20	B		0211:14	C33. 1 C.		Cond.	O CITIC!	231.086		,						402	1
-	28		200		213:25					200.274		30.693						403	2
_	3141		150		1215:51					149,975								404	3
4	1		100		S218:20					100,003								405	4
5	25		75		219:45					74.932	3.779	30,063	32.228					406	5
6	24		50		221: 13					49.801	3.817	30.055	32.193					407	- 6
7	23		30		ku:27					29.665	3.466	29,578	31,983				-	408	7
8	22		20		5233:27					19.701	3.329	29.411	31.923				¥0	409	8
9	21		10		0224:31			1		10.153	3,610	29.634	31.917				26	410	
10	20	_																	10
1	19	~																	11
12	2 / 2	ngor			<u>(8</u>														12

Pg. <u>8</u> of __ Sta. Designation 60m with micro-包 Event# Vessel Sta. I.D. Instructions (T Consec.Cast # Proj. & Leg Vessel NOAA Ship and chlimpfull ramples 008 50 MF-91-024 MILLER FREEMAN Date JD = 107Latitude Longitude N Cloud PuiN Veath. Time Sta. Name **Bottom** Dry Wet Bar. Wind Consec. **GMT** or I.D or or S. S. Vis. Depth, m Bulb Dir. Bulb mb Cast # Day Mo. Deg. Deg. Hr. Min. Min. W 05 **Data Location** JD/Time CTD **Monitor Checks Times** Type & SN 91220-A Tape/Diskette I.D. File Name/Header on Deck at Surface Data on. Press. SN __25084 1309:28 cost 8 side B CAST8_17APRO309 at Surface. 0310:08 Temp. SN 701 Press. _ Start Down_ at Bottom 03 Cond. SN 304 Temp.__ 0312:40 Start Up_ Remarks Cond. 0319:18 at Surface_ Other_ Data off_ Sal. Other Sample Bot.Data Monitor Values Conv. Mon. Values-CTD Trip Time @ Bot. # Samp. Avg Tw Sal. Therm-P Sal. Temp. Cond. Bot. Rack Depth | Depth | Trip Cond. Other Press. Press. Temp. MZ

L	N	J	l		<u> </u>		<del> </del>		<del></del>	 	Initials >	HUV.	
12	ρį	nger		·		1							12
11	19		10	0318:47		16.069	3,722	29.798	32,003		Ch Ch	Щ.	11
10	20	·	0	03/8/31		10.061	3,732	29.804	32.000		<del></del>	1	10
9	21	2	0	1317:32		20.203	3.674	29.802	- 32.050	<u> </u>	cl	100	9
8	22	2	25	0319:15		20.218	3.670	29.799	32.050			7	8
7	23	3	6	0316:21		29.905	3.690	29.862	32,100	 	Cl.	Q	7
6	24	3	80	36:02		29.940	3.686	29.862	32,105	 <u> </u>	<del></del>	-	6
5	25	L	10	Q15:10	 	39.812	3.696	29.917	32.155		Ch		_
4	24	4	0	0314:51		39.840	3,695	29.917	32.156		M		4
3	કાપા	5	D	०३८:५%		49.744	3.407	29.688	32.162	 	Ch	2	3
2	28	5	0	0313:40		49.763	3.420	29.69	32.163		<del>!</del>	2	2
	29	6	0	85:3KO		60,502	3.229	29.555	32174	 	14/6	2	-

Initials _ Stu

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Pg. <u>9</u> of ____ Sta. Designation Line 8, Ohn 57 Instructions CTD to max depth with nutrient samples Vessel NOAA Ship Proj. & Leg MILLER FREEMAN MF-91-034 Consec. Cast # Event# Vessel Sta. I.D. 009 Weath. Latitude Longitude E Date ID = 107 Time Bottom | Sta. Name Wind Dry Bar. Wet Consec. **GMT** or S. S. or I.D or Cast # Deg. Dir. Depth, m Bulb Bulb W Day Mo. Yr. S Deg. Min. Hr. Min. **Data Location Monitor Checks** Times JD/Time Type & SN 91220-A Data on 107 Tape/Diskette I.D. File Name/Header on Deck at Surface Press. SN 25084 45:0040 OUT 9 Add A CAST9-17APRO359 at Surface_ Press. ______ 0400:40 Temp. SN <u>701</u> Start Down_ at Bottom___0408:10 Temp. _____ Cond. SN 304 Start Up 0468:30 Remarks thermometers @ Zerom Cond.______ at Surface 01251 20 Salinity sample @ Zeo M Nut Other_____ Data off____ Sample Bot.Data Other Conv. Mon. Values-CTD Sal. Monitor Values T Trip Time @ Bot. Rack Depth Depth Trip lBot. #|Samp. Therm-P Avg Tw Sal. Temp. Sal. Press. Cond. Cond. Other Press. Temp. 411 0468130 1 29 4.770 21.723 33.112 224.45) 0410100 0415:10 412 4,50 200 4,529 31.354 32.937 30 200,787 413 30.170 32,354 3.741 150 150.274 3141 0416:57 414 3,756 30.096 32.276 100.137 26 100 0418:43 5 75 74,456 3,778 30.087 32.257 25 49:58 416 6 49,445 3.758 30,010 32,199 50 141115 417 7 23 30.099 3.544 29.713 32.067 30 0482132 418 8 19,920 3,739 29,334 31,920 22 20 14330 419 9 10.195 3.345 29.397 31.896 21 13474135 10 10 20 11 19

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Initials SAM

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Col	nsec.	Cast 310	#		NOAA R FREE	Ship F	Proj. & MF-91	Leg -0 <b>34</b>		Event:		essel Sta. I.D.	Instr	uctions CT	D to 6	om wi	the mic	10-	Sta. De	esignatio	ⁿ 57	
	sec. t #		Latito	ude	N or S Deg	Longit	ude	E <b>D</b> a	ite j	D = 10-	7	Time GMT r. Min.	Dry Bulb	Wet Bulb	Bar.	Wir Si Si Dir	d Wind	Cloud	Bott Dept	-	Sta. Nam or I.D	ie
Ô	10	5	732	79	N 15		02	W	7 A	P R 9	0	5250	49	041	083	3810	الدا	57	1 2	28	5	7
Tvn	CT	D S	1220-	\		<u>, , , , , , , , , , , , , , , , , , , </u>		Monit	or C				mes	JD/Time				Location		<i>(</i> )		
Pre	ess. S	N_2	25084	··· -			on De	ck		at Surf	ace	Dat at Sui	a on 107	7		oe/Disket			File Nan	-		
Ter	np. S	N_7	'01		Pre	ess					<u> </u>	Start D	own0	515:00		10 side		<u></u>	(3. 10-	111110		
Co	nd. S	N_3	304			mp						at Bot		5 18:00								
						ond						at Su	rface	52534	Rema	arks Kil	eslie		) ale			
			T-:-			her		Monito	 - V-1				a off	. Values-CT			ample B				Other	Γ
Pos.	Bot.	! Rack	Trip Depth	Time Depth	e @ Trip	Press.		emp.			Other		Temp.	Cond.	Sal.	Therm-			Sal.	Bot. #	Samp.	6
	29	_	60	· · · · · ·	0517:51							60,200	3.703	29.989	32,223						M2	1
$\neg \neg$	28		50		6519:06				N)			50,217	3,719	29.960	32.177						MZ	2
3	3141		50		0519123							50.196			32, 183						CI	3
ایا	<b>26</b>		40		0520\32							40,007	3,709	29.919	32.144	<u> </u>					MZ	4
5	25		40		0520:49	-						39.997	3.710	29.921	32.145						a	
	24		30		OS21;47							29,936	3,661	29.813	32.070						MZ	4
7	23		30		<b>5</b> (27:03							29.909	3.657	29.812							CI	
8	22		20		0673:06							19.990	3.264	29.359	31.924						MZ	1
9	21		20		0523:27									29.358							CI	•
10	20		10		0574:23								1	29.431							MZ	1
Ш	19		10		052d: 40									29.428							CI	ı
12		cyb	<b></b>																			I
		L_ <u>`</u>	<u> </u>		<u> </u>				J							-				Initials	\$1	办
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Conse		st #	Vessel	NOAA Sh R FREEMA	ip Pro	i. & Leg -91-08	4	Event 54	# Ve	ssel Sta. I.D.	Instr	uctions C-t	D to M	and de	spth.	With	لم		Sta Des	ignation	n n 56	
Consect #	ç.	Latitu	ıde l	1	ongitud		Date	JD = 107	-	Time GMT r. Min.	Dry Bulb	Wet Bulb	Bar.	'		Wind Sp.		Weath.	Botto Depth,		ta. Name or I.D	2
0	1 5	730	80	N 154	467	3 W	17	A P R 9	1 0	6060	50	038	082	8	00	08	5	71	2-0	5	5	6
Type &	SN_ SN_			Press Temp Cond	on	Deck			face	at Sur Start Do at Bot Start Start at Sur	on 107 face 6 own 0° tom 00 Up 00 face 00	559:10 559:28 606:20		IL G	kette l	4	-001	Fil CAS	le Name	7APR	05_	
	T =	Trip			<u> </u>		itor V	alues			off	. Values-C			-	iple B						
S Bo	t. Rac	k Depth	Time Depth	Trip	Press.	Temp			Other	Press.	Temp.	Cond.	Sal.	The	rm-P				Sal.	Bot.#	Other Samp.	8
1 29		200		206:35					· · · · ·	200.542	4.614	31.475	32.992					ļ		·	420	
2 28	5	150	ļ	XC8:34		4				149.790	3,791	30,369	32,540								421	-
3 3N	1	W		2010:29						100.105	3,404	29.829	32,307	ļ							422	+ -
4 20	,	75		1611:52	<u> </u>					75.067	3.430	29,801	32.261	_							423	1
5 2	5	50		1613:11						50,711	3,302	29.644	32.214	ļ					<u> </u>		424	+ -
6 30	1	30		14:42						29,912	3,804	30,047	32.208		<u></u>						425	+ 1
7 23	$\neg$	20		5615:50			_		· · · · · ·		1	29.912	1 1			· · ·				200	426	
8 23	_	10		Xd7:06						10.169	3,643	29.809	32.074	╂—	<del></del>					27	427	
9 21									<del></del>	D-80			<u> </u>		<del></del>			-			-	9
10 2	_					-	_				79 -			╂			<del>.</del>	-				10
11 19			•		<del></del>						1					<del> </del>		-		_		12
12	n pl													<u> </u>	<del></del>	_			. <u> </u>	Initials	SAM	

Co	onse		ast :		Vessel MILLE!		Ship Proj	j. & Leg -91-0 <b>3</b>	4	Even		Vessel S	sta. I.D.	Instru	ctions CTD	to 600	dloopl	nel sam	Sta D	esignatio	n	
	nse ist #	c.	Deg	Latitu	ide N	1	Longitud	- 1		JD = 16	7	Time GMT Hr.	•	Dry Bulb	Wet Bulb	Bar.		Wind Page 1		- 1	ta. Nam or I.D	1
0	}	2	<u> </u>	+30	901	v \	54467	8 W	17	APR9	1	FO	430	48	38	092	8100	085		08	. 5	6
Ty Pi	pe 8	CTE SN SN	1_9	1220-A 5084			on	<b>M</b> o Deck	nitor	Checks at Su	ırface	•		•	D/Time		e/Diskette ا الح من الح		File Nar			
			1 <u>7</u> 1	01 04			ress emp						Start Do	wn	CIPFO		H IS ONLY	<u> </u>	<u> </u>	-1.11111		
-	ona.	. 31\		<del></del>		0	Cond Other	·····	<del></del>				Start at Sur	Up	07439 12FO		rks	· · · · · · · · · · · · · · · · · · ·				
os.	D ₀		T	Trip	Time Depth	<del>_</del>	1	Mon	itor V	'alues_	Oth				Values-CT Cond.	D Sal.	San Therm-P	n <b>ple Bot.</b> [ Avg Tw			Other Samp.	1 0 1
	20	$\neg$	ack	Go.		<u> Trip</u> तमभार		Temp	· '	Cond.	Oth				39.856		Incili-i	7.1.6.1.11	Jai.		WZ.	
	28	·- I		56	- 1	7458			_						30.144						m2	2
	314		1	50		77.45¥								-	30-147						Ce	3
4	20			yo	,	SFPF									29.814						MZ	4
5	Т			40	c	1473	A					1.	688.01	3.461	857.96	166.66					Ce	5
6	2u	1		30	t	3483	0					ĉ	468.80	3.361	29.665	32.191				-	MZ	_
7	7.	3		30	· ·	184FC	5					G	269.90	1FE.E	4FJ.P6	32.191					Ce	7
8	2	2		20		5P4F3	.4	-				Ĉ	EF6.01	3.586	285.96	32.118				<del> </del>	MZ	
9		_		20		7494	9				_		456.06	3.600	897.798	32.118	<u> </u>				a	9
10	v	>		10		503F0	4					_	9.695	3.642	297.796	33.079					M3	$\neg$
11	1	9		10		07505	3			•			86F.F	3.628	29.793	32.09	\	,			10	11
12	1	ì'n	×4	·			1									<u></u>	<u> </u>	<u> </u>		Initials	<u>as</u>	12

																										<u> 13</u>		
C	onsec.	Cast	#13	Vessel MILLE	NOAA R FRF	Ship	Proj. & MF-91	Leg	4	Even 58		Vesse	l Sta. 1.D.	Insti	nctions C	TE	male male	WQ LS	4	depth	7				Sta. De	signation Sav	n 55	
	nsec. st #		Latitu	ıde	N or		itude	E or	Date	<b>JD</b> = 10	7	G۱	me MT Min.	Dry Bulb	Wet Bulb		Bar. mb	1	Vis.	Wind Dir.	W S	ind p.	Cloud	Weath.	Botto Depth		or I.D	е
C	13		7 2 8	3 7 8	N A	544	188	W	17	APR9	1	08	310	38	030	2	10	) 0	8	080	<u> </u>	3	3	1 1		58	5	5
Tv	Cl	D S	)1220-A						nitor	Checks				nes	JD/Time			<b>T</b>	- 10	iskette			Loca	atior ::	•	च्या e/Head	la-	
l '/ Pi	ess. S	N_2	25084				on De	eck		at Su	ırfac	e	1	a on <u>_\$\)                                    </u>	0829					iskelle i			4				+ <u>56805</u>	
Τe	mp. S	N_7	01		.   Р	ress	·		<del></del>				- Start D	own	0830	<u> </u>	- -	MIN	1 60	4,0	.,	_	,			7 1 1 1 1	272	
C	ond. S	N_3	304		l l	emp							at Bot	tom · Un	083°	<u> </u>	<u> </u>											
–					1	Cond							at Sur	face			$- ^{R}$	ema	rks							.*	nut	ļ
_	1		Trip	Time		Other		Mon	itor V	alues				onv. Mo	n. Values-	CTD	<u></u>   )		<u> </u>	San	npl	e Bo	t.D	ata		Sal.	Other	
Pos	Bot.	Rack	Depth	Depth	Trip	Pres		emp		Cond.	Otl	her	Press.	Temp.		_	Sal		Th	erm-P	Ā	vg T	w		Sal.	Bot. #	Samp.	Ğ
	29		58		0831								P38.F3	3.381	08.95	3 3	32.3	32										
	28		50		0831								50.674	3.339	6F.P6 1	9 :	32.2	8F.									98	2
_	3141		30		0834								29.201	3.37	3 29.76	A 3	33.7	133			<u> </u>					<u> </u>	29	3
4			20		08350								19.132	3.37	1 29.67	3	3a.N	de								<u> </u>	30	4
5	25		10		08368	a,							10.234	3.406	39.63	51	32.1	15									31	5
6																										<u> </u>	<del> </del>	6
7	23																						_					7
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Cons	ec.		#	Vessel			oj. & Leg -91-084	E	vent#	Vessel S	Sta. I.D.	Instru	ections CT	nakton	oom of	9 11 m		esignatio	n <u>w. 55</u>	
Conse		Deg	Latitu		1	Longitud	le E D	ate JD =		Time GMT Hr.	r	Dry Bulb	Wet Bulb	Bar.		Wind pnoD		om S	ta. Nam or I.D	
01	4	20	128	60	N V 5	54423	NI	7 A P	R 9 1	09	140	40	032	100	8080	<del></del>	<u> </u>	64	5	15
Туре	CT & S	D 9	1220-A			O	<b>Moni</b> n Deck	tor Chec	<b>ks</b> at Surfac	e e	<b>Tin</b> Data	on 107/	D/Time 09 \ \	Tap	e/Diskette l	<b>Data Loc</b> I.D.	File Nar			45
Pres:			5084 01		Pı	ress					at Surf	ace	141190	a cont	14 mde	B	CASTI4.	-17-11	0110	,
Cond	d. SI	3	04		- 1	emp					at Bott	om	09135							
	<u>.</u> .				1	Cond			<u></u>	<del></del>	at Surf	ace	0914	Rema	rks					
· S		Т	Trip	Time	<del>_</del> _	ther	Monito	r Values		T			Values-CT			nple Bot.D		Sal.	Other	
		Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Ot	her	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	+
<del></del>	9		59		14190					5	8.851	3.500	29.930	32.354					MZ	+-
2 2	8		50		9151	,				I,	19.852	3.406	297794	39.290				ļ	M2	1
3 3	41.		50	(	9152	8				L	19.853	3.406	4PF.PS	32,290				07	Cl	3
4 2	6		40		391619	7				3	284.96	3.359	85F.P6	32,263					M3	4
5 2	5		40	K	91639	ŏ				3	39.638	3.362	29.731	32.263	·				Ce	5
6 2	24		о В		シタリラシュ	5					86F.PG	3.319	29.642	32.205					Mz	6
7 2	3		30		091747	λ					29.699	3.318	29.639	33.302					a	7
8 8	ડા		20		58196	5					155.91	3.385	29.662	32.169					MZ	8
9 2	21		20		09185						19.822	3.381	29.660	OFI.GE	)				Cl	9
10 2	0		10		09 19 4c	5					10.022	3.504	29.652	32.04	3				MX	
11 8	4		10		092003						10.025	3.500	29.653	32.047	F				CQ_	11
12	<b>)</b> **	ful.				125		]						<u> </u>			)»	Initiale	02	12

Co	onsec	.Cast	#	Vessel MILLER	NOAA FREE	Ship Pro	j. & Leg -91-0 <b>24</b>	Eve	ent# Vo	essel Sta. I.D.	Instru	ctions C+5	) to but	Jam m/4	garhem f	Sta. De	signatio	n	
1	nsec. st #		Latiti			Longitud	e E Da	ite JD =	Щ	Time GMT Ir. Min.	Dry Bulb	Wet Bulb	Bar. mb ぶ	Wind ত্র	Wind Page	Meath Dept	1	or I.D	e,
0	15	5	621	83 N	1/5	6548	6 W 2	A PR	912	2350	50	038	941	1 1 1	074		30M	900	5
75.5			)1220-A					or Checks		Tir	nes J	D/Time			Data Loc				j
i y    Pr	pe & S	N	25084	<u> </u>		or	Deck	at	Surface		a on face		Tap	e/Diskette	I.D.	File Nam			a
	mp. S				Pr	ess	<del> </del>			Start D	own 22:	31	_ ~		<del></del>	CB24 15.	- 2.17	<u> </u>	1
	ond. S				Те	mp		<del>-</del>	<del></del>	at Bot	tom 22!	35							
					C	ond				at Su	Up 22;	45:04	Rema	rks Dampl	ed save	depth o	ance → Fe	very CD	י כ
					0	ther				Dat	a off			oma mel	~ 0 m	Per My	1 50	Other	
S.	Bot	T Rack	Trip	Time Depth	@ Trin	Press.	Monito Temp.	r Values  Cond.	Other		onv. Mon. Temp.	Values-CT Cond.	<b>D</b> Sal.		nple Bot.D Avg Tw			Samp.	Pos.
1			Берип	Depth	тпр	F F € 55.	remp.	Cond.	Other	11033.	1 0p.	Cond.							1
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5	38	B	113	ב מזיגצוכב	241,20					114,375	2,636	29,118	32.209		3.56	Dog	25		5
6	T														χ\	h N. W. J. M.			6
7															1/1 2u				7
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Consec.Cast # Vessel NOAA Ship Proj. & Leg  O(L) MILLER FREEMAN MF-91-034	Event # Vessel Sta. I.D	Instructions CTS CN5m and	chlorofull sample	Le al 25 m	Designation M9105
Consec. Latitude N Longitude E Date	JD =       Time   GMT   Hr. Min.	Dry Wet Bulb Bulb		Wind P o E B	Sottom Sta. Name epth, m or I.D
01656223711565520422	A P R 9 1 6 2 4 7	059044	9328146		130 m9105
		<b>Times</b> JD/Time		Data Location	
Press. SN <u>25084</u> on Deck	at Surface	oata on	Tape/Diskette		Vame/Header _ 25 APR0 241
Temp. SN 701 Press		Down 0242:44		C4/2118	- STATION CS
Cond. SN 304 Temp	at E	lottom <u>0246:30</u>			
Cond	St	art Up <u>0246 : 50</u> Surface <u>0258 : 45</u>	Remarks Pul-c	sto fungolaed	For M9105
Other		Pata off		1 = Flures	meter
Trip Time @ Monitor Bot. Rack Depth Depth Trip Press. Temp.		Conv. Mon. Values-CT	Sal. Therm-P	nple Bot. Data Avg Tw Sal.	Sal. Other of Samp.
Bot. Rack Depth Depth Trip Press. Temp.	Cond. Other Press.	Temp. Cond.	Sai. Therm-r	Avg IVI Sai.	
2					2
3					3
4					4
5					5
6 38 13 111 0247:35 0252:35	111.17	29 2.607 29.092	32.207	2.61	21 6
7 C 12 CESTISS		51 2.795 29.161			<u> </u>
8					8
9					
10					1
11					1
12					

Initials SHM

Pg. 16 of ____

Pg. 17 of ____ Instructions CTD to to the man the thermonetry Sta. Designation P76 m; chlorophyll sample at fluorunter man M9140 Event# Vessel Sta. I.D. Consec.Cast # Vessel NOAA Ship Proj. & Leg 017 MILLER FREEMAN MF-91-084 Longitude E Date JD = 13 Latitude Wind Wind Dir. Sp. O D Depth, m Time Sta. Name Wet Dry Consec. Deg. or W Day Mo. Yr. **GMT** S S S or I.D Bulb Bulb Cast # Hr. Min. Min. 825006181100 **Data Location** CTD Type & SN 91220-A **Monitor Checks Times** JD/Time File Name/Header Tape/Diskette I.D. on Deck at Surface Data on Press. SN 25084 1957:15 VCGSTIF CASTIF- USAPR 1957 at Surface_ 1957:50 Temp. SN 701 Start Down_ side B blank 2001:15 at Bottom__ Cond. SN 304 Start Up 2001:30 Remarksport-deployment TD for Cond._____ at Surface 2069 54 Maiyo Other____ Data off ____ Other Sample Bot.Data Sal. Conv. Mon. Values-CTD **Monitor Values** T Trip Time @ Bot. # Samp. Therm-P Avg Tw Sal. Sal. Bot. Rack Depth | Depth | Trip Temp. Cond. Press. Cond. Temp. Other Press. 12 76.667 2.624 29.663 32173 2.62 76 2002:05 209:05 38 B 0 20.974 2.804 29,149 32,127 21 2007:10 5 Thing 7 8 9 10 П 12

Initials SAW

Pg. <u>18</u> of ____ Sta. Designation Instructions CTD to make depth with Consec.Cast # Event# Vessel Sta. I.D. Vessel NOAA Ship Proj. & Leg ○ 18 MILLER FREEMAN MF-91-084 311 Weath Cloud Sb. Latitude Longitude E Date ID = 114 Sta. Name Time Bottom Wet Wind Dry Consec. **GMT** or I.D Cast # Deg. or S. S. Vis. Depth, m Dir. Bulb Bulb mb Deg. Day Mo. Hr. Min. Min. **Data Location** CTD **Monitor Checks** Times , JD/Time Type & SN 91220-A Data on 114/0330:24 Tape/Diskette I.D. File Name/Header on Deck at Surface at Surface 0330105 Press. SN 25084 CASTIF Side A CASTIB-24APRO329 Start Down 0330:32 Temp. SN 701 at Bottom <u>0333</u>; 27 Temp. _____ Cond. SN 304 Start Up 0333:45 Cond._____ Remarks at Surface 0339:28 vulticuts. Other_____ Data off.____ Other si Sample Bot.Data Sal. Conv. Mon. Values-CTD **Monitor Values** Trip Time @ Pos. Therm-P Avg Tw Bot. # Sal. Temp. Sal. Bot. Rack Depth | Depth | Trip Press. Other Cond. Press. Temp. Cond. 432 10 1 28 27.894 3,215 29,739 32,400 78 0333:40 433 50.605 3.214 29,723 32,397 50 6335:27 434 3 26 3,204 29.698 32.386 30 30.683 1336:43 435 20,555 3.192 29,470 32,370 4 29 20 6337:42 436 10.397 3.375 29.797 32.346 5 16 0338:48 6 20 19 8 8 24 9 25 10 10 22 11 23 12

Initials SAM

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С	onsec.	Cast #	9	Vessel I MILLER	NOAA Sh FREEMA	nip Proj. N MF-9	& Leg	4	Event 312	# V	'essel Sta.	I.D.	Instru	ections CTD	to 600 m	l chloras	mo	10-Jun	المعالة	Sta. Desig	natio	n , 52	
5	onsec. ast #	Deg.	_atitud		1	ongitude.	E or		JD =   \L	١.	<b>Time</b> GMT Hr. Mir		Dry Bulb	Wet Bulb	Bar.			Vind p			S	or I.D	e
0	19	55	54	0 6 N	1 5	599	5 W	241	PR9	1 6	40	20	50	035	04	1835	1 1		1 1	308	30	015	2
Ty P	CT pe & Sl ress. Sl	D N_912 N_250	220-A 084				Deck		Checks at Su	rface		<b>Tim</b> Data at Surfa	on 114/0 ace04	00:05	,	pe/Diskett	e I.D		File	e Name/			7
		N 701 N 304		<del> </del>		5 D			<u> </u>		——   St	art Do	1	02:22		1-1 9-100	<u>چيد                                     </u>						i
-		4				d						Start at Surf Data	Up <u> 0년</u> ace <u>0년</u> off	10:50	Rem							nu!	
Sos	Bot.	T 7	rip enth I	Time (	@	Press.	<b>Mon</b> Temp	itor V		Othe	r Pre		nv. Mon. Temp.	Values-CT Cond.	D Sal.	Therm-		le <b>Bot.[</b> Avg Tw		ial. B	Sal. ot.#	Other Samp.	Pos
1	28		60		63'62	1 1 €33.	Citip	<u>'-                                    </u>	20110.	Othe	60.7		3.222		<b>!</b>	7,10,111	-			- , .		MZ	1
2	27		50		04: 67								3.215									U	2
	26		50		14:25	<u>-</u> -							3.215		T						· ·	Me	E
	29		40		105:38							Î	3,124	29.598								WZ	4
5	21		10	σų	05:57						40.4	155	3.155	29.638								Ce	<u> </u> :
6	20		30		w:57						30.5	193	3.546	29.931	32,324							MZ	ŀ
7	19		30		07:14						38, U	190	3.535	29,921	32,324							Q	
8	24		20	O4	જ્રઃ ↓પ						20.7	747	3,562	29,931	32.314							MZ	1
	25		عرا	Ì	08:43						20.	726	3.569	29.939	32317							Ce	1
	عدا		10		109:49						10.6	93	3.363	29.681	32,219							1.00	
1	23		10	S ₁	1008						Ю.5	719	3,362	29.680	32.217	·					· <u></u>	Cl	
12	2 -	wide			. [	9.					1		ļ									1	ļ

Initials SAW

																						of	
Conse		t #		NOAA R FREE		Proj. & MF-91	Leg -034	Ever 3 (	11# Ve	essel Sta. I.D.	Instr	uctions CTD Ww	to M	tux 6	dlep? impl	h with	n		Si	ta. Desig	natio J. Stn	n . 153	
Conse Cast #	c.	Latit	ude	N or S De	Long	itude		e JD =	14	Time GMT lr. Min.	Dry Bulb	Wet Bulb	Bar mb	r.			Wind Sp.	Cloud	1 1	Bottom Depth, r	S	ta. Namo	3
02	05	555	02		5611	44	w 2 4	A PR	1 0	5120	45	050	٥١	1	8	350	04	26	000	20	20	015	3
		91220-/	4			on De		r Checks at S	urface	Tir Data	a on 114/	JD/Time ひらむら		Тар	e/Dis	skette l	<b>Data</b> .D.	Loca		Name/	Head	er	
		25084								at Sur	face	0506:06	i i	•		side		1		20 <u></u> 2			
Temp	.SN_	701		'						Start D		506 20 512745	<u> </u>										
Cond	. SN_	304			•					at Bot Start	Up	513:20											
							<del>_</del>		<u> </u>	at Sur	face	524:59		Rema	ırks							. 1	L
	<del></del>	T.:.	!	<del></del> _	ther		1onitor	Values			a off	. Values-CT	.D		T .	San	nple B	ot.D	ata		Sal.	Other	
တ္က Β၀	t. Racl	│ Trip 〈Depth	Time Depth	e @ Trip	Pres		emp.	Cond.	Other		Temp.			al.	The	erm-P			Sa			Samp.	Pos
1 2		197		0512115						196 890	4.748	31.832	33.2	74								437	ı
2 2		150		051525								30,675										438	2
3 2	6	100		0517:30						100.785	3.233	29.777	32.4	116							· · · <del></del>	439	3
4 2	9	75		0518:57						75,707	3.187	-29.710	32.3	394								440	┿
5 2	1	50		0550:26						50.991	3,170	29.646	32,3	348								44/	
6 2	0	30		०ईवाः परे						30.950	3, 180	29,507	32.1	80								442	╈
7 1		26	<del> </del>	O \$23:24	<del>`</del>					19.777	<del>                                     </del>	- 29.481	1						-			443	╫
<b>8</b> 2	4	10		०५४:२८						9.770	3.541	29.741	32,	114	igspace	,			1		<u>35′</u>	444	
9 2				,															-				'
10 2	ح ا										111		_		_						<u>.</u>	-	1
11 5	3										ļ			-									י
12	- þi	ger															<u> </u>						ı

Initials 8MM

Co	nsec	.Cast	#021	Vessel N	OAA FREE	Ship Proj	. & Leg -91-02	4	Even 31	t# Ves	sel Sta. I.D.	Instru	uctions CTI	oro shul	m w/ mie	nozaapla	WW Sta. De	esignatio		
Co	nsec. st #	T	Latitu			Longitude		Date		Ч т	ime GMT Min.	Dry Bulb	Wet Bulb	Bar.	Wind Dir.	Wind P	Botto		Sta. Nam or I.D	e
0	21	5	554	9 1 N	15	6108	OW	24,	A P R 9	1 0 4	080	51	038	041		045		000	015	3
P	ess. S		01220-A 25084		Pr	on ess.	<b>M</b> o Deck	onitor	Checks at Su	ırface	Data at Sur	on_ <u>  4</u>	JD/Time <u>060く</u> 05:34 05:45		pe/Diskette		File Nam			
	•	SN_3			Te Co	mp ond ther		<del></del> .			— Start at Sur	face 6 C	608:40	Rema	arks computations of	(5CS) GMT, ;	clock 30	seon	<u></u>	
SS		T	Trip	Time @			Mon	itor V			C	onv. Mon.	. Values-CT			nple Bot.E		Sal.	Other Samp.	ו חו
14.	Т		Depth	Depth T		Press.	Temp	). (	Cond.	Other	Press.	Temp.	Cond.	Sal.		Avg Tw	Sal.	Bot. #	1	
-	28	1	60	060	8:36								29.712					-	MZ	╁
2	27		50	হত	9740						50,233	3.298	29,766	32,364					ce	2
3	24		50	оьф	8010	£.					50,109	3.296	29.765	37.365					m2	3
4	29		40	<u></u> જહા	:05						39.984	3.429	29839	32.326	,				M2-	4
5	21		40	٥٤١	hC:1						39,974	3.430	29.841	32.327	-				a	5
6	20		30		2:52						30,056	3.470	29,834	32, 284	The state of the s				MS-	6
7	٩		30		3:01							3,471	- I						a	7
8	24		20		4:62							1	36.004	32.207					m2	8
9	25		20		4130						19.851	3.769		-	1				Q	9
10	22		10		5:31	3					9.881	3.813	30,019	32.171					MS	10
_	23		10		16.61						9,884	3,811	30.019	32.177	1				cl	11
12	1	and	eb			134										5				12
		4	<u>4)</u>	<u> </u>			<u> </u>				1		<u> </u>	<del>'</del>		<u> </u>		Initials	Str	

C	onsec.	Cast (	# 522	Vessel MILLE	NOAA R FRE	Ship EMAN	Proj. MF-	& Leg 91-08	4	E	vent# 317	Vesse	Sta. I.D.	Instr	ructions Cl	int c	same	Ses m	ام ا	(	ta. Desig کیند (آج	natio	n <u> </u>	_
5	onsec. ast #		Latit	ude	N or	<b>Lo</b> n	ngitude	E or		JD =		Tin GM		Dry Bulb	Wet Bulb	Ba ml	r.	Wind Dir.	Wind Page 1	Type Weath.	Bottom Depth, n	•	ta. Name or I.D	<u>.</u>
0	22	5	155	83	N \	561	50	6 W	24	A P F	9 1	06	500	50	640	d	11	8 290	046	710	022	10	015	4
	~~		1220-						onitor				Tir	nes	JD/Time		_	<b></b>	Data Loc					
'7   P	ress. S	N_2	5084	· · · · · · ·			on !	Deck		a	t Surfa	ce	Data at Sur		642:55		•	/Diskette			e Name/I T22_2			
	emp. S				•	ress		<del></del>				· · · · · · · · · · · · · · · · · · ·	- Start D	own	643:40			900 800						
C	ond. S	N_3	104	<u> </u>	.   Т	emp	<u></u>					<del> </del>	at Bot	tom <u> </u>	050:35									
-								·					at Sur	face 0	08:44				in mon				v 1	-
<u> </u>			+ .			Other_			<u> </u>		<u>  -</u>	<u> </u>	- Dat	a off	·		202		nple Bot.			Sal	Muhia l	<u>\$</u>
Pos	Bot.	T Rack	Trip Depth	Time Depth	e @ Trip	Pre	ess.	Tem	nitor V	Cond.	TO	ther	Press.	Temp.	Cond.		al.		Avg Tw		al. B	ot. #	Other Samp.	å
$\Box$	28		Bot		(6)0:5	_							221,260	4.785	31.887	33.2	88						445	1
2	38	B	200	0652:40	0657140	٥									31.699				4.64			18	446	2
_	24		150		67co; 0	7							151.005	3,598	30.306	32.4	157						447	3
1	29		100		0702:01	6							100,772	2.667	29.179	32.8	259						448	4
5	21		75		अ <b>ः</b> ऽ	1							74.959	2.565	29.046	32.	213	·					961	5
6	20		50		5905;1c	>							50.075	2.616	29.068	37.	203						962	6
7	19		30		S706;25	5							30,303	2.824	29.203	32.	168						963	7
8	24		20		379:11	960							19.901	2.815	29,176	32	151						964	8
1	25		10		०२०८:।३	2_							10.048	3.323	29.547	- 32.	097						965	9
10	12		1																					10
II	23		1																			_	_	11
12	2 -	r.v.c	u/-		2	12										}								12

Initials SAM

Pg. <u>22</u> of ___

Pg. <u>⊇.3</u> of ____ Instructions CTD to GOM of microzarplantion Sta. Designation like 17, Stn. 154 Event# Vessel Sta. I.D. Vessel NOAA Ship Proj. & Leg Consec.Cast # and chlorophase samples 023 MF-91-0**2**4 314 MILLER FREEMAN Wind Wind Dir. Sp. Jane Longitude E Date JD = 114 Latitude Time Sta. Name Bottom Wet Dry Bar. Consec. **GMT** Depth, m or I.D S. S. Bulb Bulb mb Cast # Deg. Day Mo, Yr. Hr. Min. Min. Deg. W 3 9 8 H F O **Data Location Monitor Checks** JD/Time **Times** Type & SN 91220-A Tape/Diskette I.D. File Name/Header Data on 114 on Deck at Surface Press. SN __ 25084 CAST 23_ 24APC 0745 HHEO at Surface_ con 23 side B Temp. SN ___701 Start Down____ ZIJHFO OSRPFO at Bottom____ Cond. SN 304 Temp. _____ Start Up_____ BIPHEO Cond._____ Remarks 0756 at Surface_____ Other____ Data off__ Other Sample Bot.Data Sal. Conv. Mon. Values-CTD **Monitor Values** Trip Time @ Bot. Rack Depth Depth Trip Bot. # Samp. Therm-P Avg Tw Temp. Sal. Cond. Sal. Other Press. Press. Cond. Temp. M2 28 29.065 32.214 2.595 60 074854 4FE.02 d 2 27 60.37b 2.590 39,061 33.213 60 SIPPFO MZ-3 24 48.261 2.606 29.051 32.193 50 075015 4 29 M2 40 40.336 2.684 29.109 32.189 075139 Cl 5 21 0P1.56 FO1.PG 082.6 412.04 075156 M2 6 6 30 EF1.65 SH1.PS 34.173 20 075244 a 19 30 29.916 07530a SF1.66 39.142 32.173 MZ 124 20 F08, P1 2.869 29.191 32.114 075346 Q 9 9 25 20 19.942 2.836 29.169 32.121 075H03 MZ-10 10 22 10 9,953 P20.55 F07.95 408.8 075447 cl 11 П 23 10 809,9 3.317 29.519 32.030 075505

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																						Pg. ∠	24 .	of		
Со	nsec.	.Cast	# 24		NOAA ER FREE			& Leg		<b>I</b>	ent#	Vessel	Sta. I.D.	Instru	ctions CTI	to M	sav	depth w	146	, <u>, , , , , , , , , , , , , , , , , , </u>	,	Sta. Des Qual	ignation 子, ちんへ	n \55		
1	nsec. st #		Latiti g.		N or S De	•	itude	E or W	<b>Date</b> Day	<b>JD</b> = Mo.	114 Yr.	<b>Tim</b> GM Hr.	<b>⊤</b>	Dry Bulb	Wet Bulb	Bar. mb	S. S.	Wind Dir.	Wind Sp.	Cloud	Weath.	Bottor Depth,		a. Namor I.D	e	
0	24	5	556	01	N \ 5	620	9 9	8 W	24	A P R	9 1	08	340	50	0 3 5	04	١	8260	06	1 =	1	23	40	015	5	
T	C	TD (	91220-/	1			•	Mo	nitor	Checks			Tim		D/Time				Data	Loca			14		-	
l yp	e & 3	)N :N	25084	•	-		on E	Deck		at :	Surfac	ce		on_114	<b>A822</b>		•	/Diskette I				e Name	-		-	
		N_			Pr	ess				-			at Surf		0823		AST 8	14 sible A	·		CAST	54-541	+11CO8	524		
		N_			•	mp						<del></del>	at Bott		088400										ļ	
_						ond	1520						1	Up		R	emar	ks	<del></del>	20						
					1	ther							at Suri Data	face		_							Y	whichts	,	
ن		Т	Trip	Tim	<del></del>			Mon	itor \	<b>Values</b>	<u> </u>				Values-CT	D			ple B				Sal.	Other Samp.	os.	
Po	Bot.	Rack	Depth	Tim Depth	Trip	Press	s.	Temp		Cond.	Ot	her	Press.	Temp.	Cond.	Sal	-	Therm-P	Avg	Γw	<u> </u>	al.	Bot. #	Samp.	_	
· 1	28	П	228	- 	D8 34 <b>35</b>	1						а	128.526	4.825	31.945	33.31	va.		· · · · · · · · · · · · · · · · · · ·				34	973	-	
2	27	-	200		083552							1	FP 2.PP	1F1.H	31.057	32.94	17							972	2	
3	26		150	S	083736							١	50.399	2.819	29.358	32.3	98		<del></del>	<u> </u>				150	3	
4	29		100	0	083922							. 1	98.399	2.602	29,099	32.2	29							OFP	4	
5	21		75		180480								480.HF	2.565	29.043	32,2	10							969	5	1
6	20		50		084136							\	44.474	2.694	29.139	32.1	99					-		968	6	=
7	<u> </u>	ļ	30		084230					<u></u> .			29.129	<del> </del>	29.225	1		P	. 9	<u> </u>	<u>.</u>			F0P	7	Witnest Los
	24		90		084319								20.143	2.926	29.295	39.1	84	otto	priv		-	<u> </u>			8	Nutricat con
9	25		10		184418								10.304			L .								966		
10	u				72.											<u> </u>									10	
11	23		_	ļ	ļ						_				-					····					111	
12	pi	190	1		<u>0</u> 4																		<u></u>	-	12	]
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Initials <u>© ©</u>

Со	nsec.	Cast	#5		NOAA Ship FREEMAN	Proj. & L MF-91-			ent#	Vessel S	sta. I.D.		uctions CT				Line	esignatio <u>ハチ、ら</u> り	n r <u>a 155</u>	5
	nsec. st #	Deg	Latitud		Lo	ngitude d	Date	JD =		Time GMT Hr.	1	Dry Bulb	Wet Bulb	Bar.	Wind ত্র	Wind Pio	Bott Dept	om S h, m	ta. Namor or I.D	e
a	25	5	555	8 1 N	1563	108	w 24	A P R	9 1	093	270	49	035	041	8260	041-		340	015	5
Тур	CT e & S	D 9	1220-A 5084				<b>Monitor</b> k				<b>Tin</b> Data	nes 1 on 114			e/Diskette l		ation File Nar			
Te	mp. S	N_7	01		Press		<del></del>				Start Do	face own	0925				CAST 25	- JAUL	<del></del>	
Co	nd. S	N_3	04		1								F690 8690	-	<u></u>					-
	<del></del>	- :		<del></del>							at Sur	face		Rema	arks					
- -		тТ	Trip	Time	<del>-</del>	M	onitor V			Ī	1	onv. Mon	. Values-CT	D		nple Bot.D		Sal. Bot. #	Other	os.
Po	Bot.	Rack	Depth [	Depth	Trip Pt	ess. Te	mp.	Cond.	Ot	her	Press.	Temp.	Cond.	Sai.	Therm-P	Avg Tw	Sal.	Bot. #	1 :	<u>-</u>
1	28	Ţ- =	60	- 09	12832				ļ	ما	825.00	3.588	29.043	32.194					M2	
2	27		60	09	13848					4	168.0	2.595	29.049	32.194					d	2
3	26		50	00	12937					n	408.81	3.744	29.171	32.199					MS	3
4	27		40	00	13036					1.1	40.196	2.809	29.218	32,196					M2	4
5	ર-1		40	00	13056						10.263	2.800	1 29.218	32.196					cl	5
6	20		30	00	13210					(S	29-59 <u>3</u>	2.873	29.259	32.188	\u00e4				MZ	+
7	19		30	00	73225	_				,,	29.599	SF8.6	29.259	32.188					ce	7
8	24		20	00	43310					\	19,199	3.148	29.465	32.168					MZ	8
	25		20	0	93326					\	19.355	3.139	30.429	32.170	5	*	N.	974	Q N	14.7°S
-	22		10	0,	13413						9,584	ĺ	E1F.PE 0	32.155					MZ	10
11	23		10	0	93429						9.634	3.47	PIF.PE 8	32.154					cl	11
12	1	Pi	geb													p.		Initials		12

Initials _____

Pg. <u>< >></u> 이 _

Pg. <u>26</u> of ____

Co	nsec	.Cast	#026	Vessel	free	man Pro	j. & Leg	44	Event# 323	Vessel	Sta. I.D.	Instru	uctions CT.	D to mo	ex depth	, with	Sta	Designation	on	56
	nsec. st #	De	<b>Latit</b> ı g.			Longitud eg.		Date	JD = 114 Mo. Yr.	Tim GM Hr.	т	Dry Bulb	Wet Bulb	Bar.	Wir S Dir	d Wind Page	Type Weath. O	ottom epth, m	Sta. Nan or I.D	
0	26	5	556	a I N	1	56259	a w	24	APR91	10	040	40	030	041	824	0051	71	2160	015	56.
Тур	C & S	D N_				on	<b>M</b> o Deck	onitor	Checks at Surfa	ice.		nes a on 114/	D/Time	Tai	ne/Diskeri	Data Lo e I.D.		اده Jame/Head	łer	
				<del></del>	   _P	Press.					at Sur	face	0953			DEA				5
1	•				1	emp					at Bot	own	1004			<del></del>				
-				<del></del> ,	1	Cond					at Sur	face	1005	Rema	arks				. \	
 	,	T	Trip	Time (	<del>!</del>	Other		itor V	alues			off	Values-CT	<u> </u>	S	ample Bot.	Data	Sal.	Other Other	l s
Po	Bot.	Rack	Depth	Time (	rip	Press.	Tem	). (	Cond. O	ther	Press.	Temp.	Cond.	Sal.	Therm-	P Avg Tw	Sal.	Bot. #	Samp.	14
	28		209	10	042-	7				- 3	181.908	3.618	30.313	32.626					_	11
2	27		200	100	)5a=				<u> </u>	\	199.052	3.570	30.253	32.597		·II.				2
3	26		150	100	POFC	4				\	011.94	2.842	29.390	33.315						3
4	29		100	100	0854	P				(	PEH, PP	2.591	29.090	FSS-SE	<u> </u>					4
5	21		75	101	1004						74.599	2.508	189.86	191.68			Q.			5
6	०ऽ		50	101	1115	L		36			0F.S.07	2.683	29.110	32.186						6
7	19		30	10	1210	)					30.455	158.6	39.248	32.17b	<u> </u>				-	7
8	24		30	10	<u> 1253</u>	,					116.06	1.891	39.260	dF1.6E					<u> </u>	8
9,	25		10	10'	(343	<b>b</b>					9,150	3.308	29.579	32.151						9
$\overline{}$	22											Til.								10
Ш	23																		_	11
12	1	Pin																		12

Initials <u>CD</u>

Pg. <u>27</u> of ____

C	onsec	Cast	27	Vessel Miller	FRE	EEMAN M	j. & Leg F-91-	04	Event# 325	Vessel	Sta. I.D.	Instr wic	uctions CT	D to 60	nd chlore	shyll saw	Si Society	ta. Designation	on M. 151	6
	nsec. ast #	De	<b>Latit</b> i g.			Longitud		Date	JD =   4 Mo. Yr.	Tim GM Hr.	т	Dry Bulb	Wet Bulb	Bar.		Wind PSO		t t	Sta. Nan or I.D	ne
0	27	CI	556	, 3 L N	15	56265	ΙW	24	APR91	10	54 C	40	030	04	1822	0041	<del>+</del>	3110	015	56
		TD	•	<del></del>				nitor	Checks				JD/Time			Data Loc				
	-						Deck		at Surfa	ice	Dat at Sui	a on 114/ face	1051		pe/Diskette			Name/Head		
	-				Ĭ.	ress		<del></del>	<del></del>		Start D	own	1053	_ <u> </u> _	st et ma	L 😓	CAST	CT= CT - 1	(10.5)	
C	ond. S	N				emp					at Bot		1054	_ _		<del></del>			<del></del>	
_				<del> </del>		ond ther		<del></del> •			at Sui	face		Rem	narks					
S.	1	Т	Trip	Time (		ther	Mon	itor V	alues			a off onv. Mon	. Values-CT	D D	Sai	nple Bot.D	ata	Sal.	Other	1 0 1
8	Bot.	Rack	Depth	Depth 1		Press.	Temp		Cond. Of	ther	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal	l. Bot. #	Samp.	Ğ
1	28		600	105	5456	-		No.		(	11.095	2.549	29,006	32.188					ME	╀┦
2	27	1/201	50	105545 11	PHO									32.178				03	l	2
3	26		50	110	P010									32.178					m2	3
4	29		40	\\0	)20Z				,					32.176				_	MZ	4
5	21		40	W	0518									32.176	ŀ				e	5
6	20		30	//	0302			6.2						32.176					MZ	6
7	19	be _g u	30	110	319									1	4				cl	7
8	24		20		355	)													MZ	8
9	25	_	20	1/4	०मग्र							13							d	9
	27		10	110	1516					-						_			m2	10
	23		10	i i	<b>७</b> 5३२	)												***	d	11
12	_	Rin	Est.																	12
													• • •				47	Initials		

Pg. <u>38</u> of ____ Sta. Designation Wind Wind Photos Sp. O Charles W Sta. Name Bottom Depth, m or I.D

CTD			_			or Checks		Tim	nes JE on_\\\\	D/Time		e/Diskette l	<b>Data Loc</b> I.D.	ation File Nam	ne/Heade	er	
ess. SN mp. SN	25084 701 304		Ten	ss np nd	Deck		Juriace	at Surfa Start Do at Botto Start at Surf Data	om om Up face	1135			00670	CAST 28.  CAST 28.  28.— 349PT  upeat of  upeat of  CAST28.— 34	- 24AG	BENH	H
	T Trip	Tin			Monito	r Values				Values-CTI Cond.	D Sal.	San Therm-P	nple Bot.D	)ata	Bot. #	Samp.	
Bot. R	ack Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.		-	i liei i i i - i				191	- 1
28	104		113517					1		30.146						190	┪
27	150		113656							29.852	Ì			<del> </del>	+	189	_
26	100		113833							29.129	1				-	188	
29	75		114540	,				35766	198.6	29.304	33.230	1 .		<del> </del>		<del> </del>	
al	50		1147				,	50,478	1956	29.168	32.178	ļ		<del> </del>	-	187	_
20	30	T	114846					30723	F08.6	39.168	32.143	<u> </u>	<del> </del>		-	186	_
19	20		114947					20906	2.963	126.96	32.104				-	185	
24	10		115046			.ž.		100636	3.301	29,535	32.105					184	•
25		_										<u> </u>			-	<del> </del>	_
0 22									ji.			<u> </u>				<del> </del>	-
1 23		_										<u> </u>	<u> </u>				_
2 P°4	~201									梅							-
1, 7	18. J			<u> </u>											Initials		

Vessel Sta. I.D.

Time

GMT

Hr. Min.

Event#

326

E Date JD = \\\

W Day Mo. Yr.

Vessel NOAA Ship Proj. & Leg MILLER FREEMAN MF-91-04

Longitude

or

N

or

S Deg.

Consec.Cast #

Cast # Deg.

Consec.

028

Latitude

Min.

Instructions CTD to max depth

Wet

Bulb

Dry

Bulb

Bar.

mb

with nutrient samples

S. S.

С	onse	:.Cası ৃ ১ু		Vessel N			roj. & Leg M≃-91		Event# යිදු9		el Sta. I.D.	Inst	ructions CT.	orto	60 m	to est	the word the	61.0	Sta. Design	nation	157
	onsec ast #	•	Latit	u <b>de</b> N or Min. S		Longite	ıde E or		JD = \\\	Ti G	me MT Min.	Dry Bulb	Wet Bulb	Bar. mb	1 1 1	• •	Wind Pio	· 1		Sta. Na	ıme
0	20	5	55-	133N	15	631	17W	246	1PR91	13	080	50	040	04	283	115	5081	7 1	200	2001	57
Ту	pe &	TD SN_						onitor	Checks			mes	JD/Time				Data Lo				
P	ress.	N_			D		on Deck		at Surfa	ace	at Su	rface	1305		ape/Disl	kette I	I.D.		e Name/F		Ę.
	•		72									own	1305	_ -		,					
-	2			·		•					Star	t Up rface					MISKEN	_T2df	てんそ プロ	N'T TR	17
_	1		Trip	Time @	<del>                                     </del>	ner	Mon	itor V			_ Da	a off	. Values-CT		C1 C-3/ T: 3. 130	CE)	<u> </u>		PR1239	al. Othe	rl
Pos	Bot.	Rack	Depth	Time © Depth T	rip	Press.	Temp			ther	Press.	Temp.		Sal.	Ther		Avg Tw			t. # Samp	
I	38		60	130	o755					B)»	60.238	2.816	29.232	32.19	6					s/M	1
2	FG		ಶ೦	130	853						50.207	2.875	29.266	32.18	4				6	29 CK	2
3	26		50	131	1909						PF1.00	2.887	29.235	32.18	a					Wz	3
4	29		40	/3	1005						40.148	2.925	29.295	FLEE	+		8			2/11	4
5	31		40	4 13	1030						40.265	2.927	29.296	32.17	3					Ch	5
6	20		30	131	129			ii 19	<u>u</u>		30.765	78965	29.319	32.16	0					m -2	6
7	19		30	13	1155						30.232	2.968	29.320	32.16	0		–			CN	7
8	24		30	13	12.58	(2)				76	20.334	PF0.6	736.96	32.11	7					11/2	8
9	25		90	131	30b						30.705	3.096	29.381	32.11	٦ -					Ch	9
10	22		10	131	401						10.009	3,505	29,694	32.09	4					W	<u> </u>
II	1 3		10	13	1415						9.960	3.501								Jh)	
	1 1	,362		l l					1							- 1					12

Initials OS

Pg. 30 of _

C	onsec	.Cast	#	Vessel N MILLER	OAA Ship	Proj. &	Leg 1-04	Eve	ent#	Vessel S	ta. I.D.	Ins	tructions 🔍	mat at	7.	Wille U		a. Designat		K Q
	nsec ast #		Latit	ıde N or	Lon	gitude	E Dat	e JD = \	14	Time GMT	-	Dry Bulb	Wet Bulb	Bar.		Wind Phoop		Bottom Depth, m	Sta. Na or I.[	me
0	30	De 5		Min. S	Deg.	797	W Day		Yr. 9 1	Hr. 3	50 C	38	028	032	8100	067	- >  	199		58
T√	C	TD	91220-/	1				r Checks				nes	JD/Time	_	<b></b>	Data Loca		194		
			25084		i _	on De	ck	at S	Surfac	e		a on <u> </u>	1343	Тар	e/Diskette			Name/Hea		
	-		701		Press			-		<del></del>		own					CHE	CODEMINA	27.00-	
١	on <b>a</b> . :	SN	304		•						Starr	: Up	1351	Rema	rke					
_					Other_							face a off	1402	INCINA	i K3				Nut	
os.	Pos	T	Trip	Time @			1onitor				С	onv. Mo	n. Values-C			nple Bot.D		Sal.	Othe # Samp	٦١٥
1	T	T	I	l		SS. I	emp.	Cond.	Oth		Press.	Temp		Sal.	Therm-P	Avg Iw	Sal	DOL.	+   Sainb	
1	28		185	-	5012							<u> </u>	JEF.PG .C					-	-	2
2	27		150		5243		12			1		1	0 29.185							-
3	9.6		100	135	1502			0.		· Q	500.19	SEE &	5 29.183	33.206					_	3
4	29		75	135	1627						14.433	375	2 29.191	32.202						4
5	. 21		50	\35	751					5	F10.00	2.890	1 29,287	32.185						5
6	20		30	135	8118					3	950.036	3,065	29.392	32.160						6
7	19		5.0	141	00/0					6	103.63	3.06	8 27.386	32.151						7
8	24		10	140	1010						F28.P	3,23	4 29,514	32.146						8
9	a5	,						*:							13					9
10	T		***************************************								<del></del>									10
11	<del>                                     </del>																			11
12																				12
	1,,	10	2.0						<u> </u>			1 -	38		1	<u>.                                    </u>	L	lnitials		

Co		c.C	Cast	#	Vessel   MILLER	NOAA FREE	Ship Proj	. <b>&amp; L</b> eg F-91 <b>-</b> 04		Event#	Vessel S	ta. I.D.	Instru	ctions CT	D to 6	u mon	Mukan		Designation		8
	nse	. 1	Deg	Latitu . I	de N or Min. S	Deg	Longitude	or	<b>Date J</b> I Day M	D = 114 10. Yr.	Time GMT Hr.		Dry Bulb	Wet Bulb	Bar.	1 1	Wind Pno		ottom S	Sta. Nam or I.D	ne
0	3	١	5	558	05 N	15	6379	8 W 2	AHAI	P R 9 1	14	110	45	3 3 8	032	8085	5067	1 F	197	15	8
Туј	) pe 8	CTE	N_9	1220-A			on	<b>Mo</b> i Deck	nitor Ch	recks at Surfac	-6	Tin Data	nes J	D/Time	Tan	e/Diskette	Data Loc		lame/Head	lar	
1				5084 01		Pre	ess	Deck		at Julius	.e 	at Sur	face	1438	_				1_24A79		
	-		۷ <u></u> 2 ا3			1	mp					at Boti	own	1440	_				· <del></del>		
_	<u> </u>					1	ond				· · · · · · · · · · · · · · · · · · ·	at Sur	Up face	,	Rema	rks					
S.	<u> </u>	Ţ	7	Trip	Time (		her		tor Valu	ies			off onv. Mon.	Values-CT	 D	Sar	nple Bot.E	Data		Other	Pos.
Pos.	Во	t. R	≀ack	Depth		rip	Press.	Temp.	Col	nd. Ot		Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	$\square$
	25	2		60-	14	4103			- 4			1.086	2.735	29.163	32.193					WE	$\Box$
2	2	1		50	14	4203					1.	8 F F. P	OHF.S	29.158	F81.65				22	CHIL	2
3	21	9		50	14	मवान					17	9.753	FHF.6	29.162	32.186					WF	3
4	3	6		NO	14	4311					7.1	10.146	2,946	29.313	32.175					ME	4
5	21			40	14	4326					1	10.186	2.934	29.305	37.68					CHL	5
6	2	0		30.	14	4423					6	495.64	4F0.E	29.409	32.168					配	6
7	10	P		30	In	14438			1540		3	19784	3,062	29,400	OF1.6E					CHIL	7
8	21	4		2.0	10	14533					30	10.442	3.116	a9.435	32.163					MZ	8
9	3	5		20	- //	14548		Þ			2	10.365	3.117	29.436	39.163					CHL	9
10	a	a		10	1/2	14644					١	811.0	3.159	29.457	32-152					MZ	10
III	3	3		0	1)	44700					١	0.150	3,159	29.459	32.153					-JHS	11
12	P	98	'GE	2 de apr		·				*				82							12
																			Initials	00	

Initials <u>Co</u>

Pg. <u>중</u> of _____ Instructions CTD to may deptin Consec.Cast # Event# Sta. Designation Vessel NOAA Ship Proj. & Leg Vessel Sta. I.D. Sind Il Sta 147 032 MILLER FREEMAN MF-91-04 336 tagentin Atom Latitude N Longitude E Date JD = \\\ Mind Wind Dir. Sp. Cloud Cloud Sp. Cloud Time Sta. Name Bottom Consec. Dry Wet Bar. or or GMT wp S.S. S.S. Depth, m or I.D Cast # Bulb Bulb Deg. Min. S Deg. W Day Mo. Yr. Hr. Min. **Data Location Monitor Checks** JD/Time Times Type & SN __91220-A 1655 Tape/Diskette I.D. on Deck Data on 114 at Surface File Name/Header Press. SN 25084 1656 at Surface____ 2972A2 Temp. SN 701 Start Down 1656 CAST 32 - 24APR LAOT OOFI Cond. SN 304 Temp. _____ at Bottom_____ Start Up______\701 Cond._____ Remarks at Surface_____ Data off___ NUTS Sal. Other Samp. Monitor Values Conv. Mon. Values-CTD Sample Bot. Data T Trip Time @ Bot. Rack Depth Depth Trip Press. Temp. Cond. Therm-P Avg Tw Temp. Cond. Press. Sal. Other 1005 28 170044 95 170300 32,195 1004 2 75 170646 2,63 80 74.3 2.622 1003 3 26 50 171004 1002 4 171130 29 30 1001 5 21 17,1232 20 1000 20 171331 7 19 8 24 9 25 10 22 10 H 23 12 12 PINGE

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Initials	
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	nsec.	Cast	#	Vessel N	IOAA Shi FREEMAN	p Proj.	& Leg -91-0	<u> </u>	Event		sel Sta. I.D.	Instru	uctions CT	ot a	10 m 00	citics Variables	St	a. Designati	on	7
Cor	nsec. st #	De _{	Latitu g. l			ngitude			JD = //\	7	ime GMT Min.	Dry Bulb	Wet Bulb	Bar.	Wind	Wind pnolO	Type Weath.		Sta. Nan or I.D	ne
0	33	5	018	NFI	1561	479	o W	24	A P R 9	1 1	7460	5 5	038	011	814	0066	7 1	105		<b>∤</b> = <i>I</i>
		N_	91220-A			on l	<b>M</b> a Deck	nitor	Checks at Sur	face	Tin Data	nes con <u>114</u> √	JD/Time リリリス	Ta	pe/Diskette	Data Lo I.D.		Name/Head	der	-
		N N	25084 701	2	Press						at Sur Start Do		HHEL	_ -	<del></del>		CAST	33_24 <u>AT</u>	RIZUS	),
		N				.,					at Bot	tom	44F1 F4F1							
_	<del>_</del> .										at Sur	face a off	-	Rem	arks					<b>#</b> 33
os.	Bot	T	Trip	Time @	<del>!                                    </del>	ress.	Mon	itor V		Other			Values-CT	D Sal.	Sa Therm-P	mple Bot.I		Sal.	Other Samp.	ß
	28	1 Cack	60		1652	ress.	Temp	·	Cond. C	Juner	60.845	.,	29,050			A S I W	Sai	, Bot. #	MZ	1
	27		50		1802								29.063					-	CHL	2
3	26		50	17	4818					<del> </del>			39.063						ME	3
4	29		40	1.41	1915						40.046	2.623	29.036						W-F	4
5	21		HO	17	4930						40.095	2.623	29.035						CHL	5
6	20		30	171	5028						30.081	3000	39.056						MZ	6
7	19		30	171	5044						30.206	3.668	27.05%		<u> </u>		ļ		CHI	7
_	9.4		30	. 17	5143						19,580	3.95.3	951.382						WF	+ -
-	25		20	171	5158						191,610	2976	105,96		<del> </del>				CHL	
10			10	17	5255	1.7						3.132			1				WE	1
11			10	FI	53\\					. <u>-</u>	9.786	3,140	29,433						CHIL	+
12	119	105	R								1		9.5		<u> </u>			Initials		12

Pg. <u>34</u> of ____

Со	nsec.	Cast 54	#	Vessel MILLE	NOAA R FREE	Ship Pr	oj. & Leg MF-91-(	)4		ent#	Vessel S	Sta. I.D.		uctions CT		jeb war	tru viti		Sta. Desig	natio	n ta 14	8
i	nsec. st #	Deg	Latitu g.	0	r Deg	Longitu	de E or		lo =		Time GMT Hr.	r	Dry Bulb	Wet Bulb	Bar.	Wind	Wind Pnol O	Type Weath.	Bottom Depth, n	4	sta. Nam or I.D	
0	34	5		60	N 15		TT			9 1		<del>-   -</del>	62	050	<b>1</b>	8116			130		14	18
	CI	ĮD (	91220+A			<u> 1                              </u>		onitor	Checks			Tin	nes	JD/Time		<del></del>	Data Loc	cation	4 -4			
			25084			c	n Deck		at:	Surfac	e		on <u> </u>		Тар	e/Diskette	I.D.		e Name/I			
1			701	<del></del>		ess	<del> </del>	<del></del>			· · · · · ·			1824			<del></del>	CAS	6-PET	487	<u>8183</u> .5	پر
Co	nd. S	N	304	<del></del>	Te	mp		<del></del> ·	•		<del></del>		tom	1829 1829	1				· · · · · · · · · · · · · · · · · · ·			
-				<del></del>	1	ond		<del></del> ·		<del></del> -			ор face		Rema	rks						
_			Trin		_	her	Mar	itor V			<del></del>	1	off	Values-CT		<b>C</b> 31	nple Bot.[	)ata	<del>.                                      </del>	Cal	Other	
Pos	Bot.	Rack	Trip Depth	Time Depth	@ Trip	Press.	Tem		Cond.	Otl	ner	Press.	Temp.	Cond.	Sal.		Avg Tw		al. Bo	ot. #	Other Samp.	Pos
1	28		123		,82852				•		1	810.46	3.632	39.112	32.210				,	5	1012	
2	7	_	100	١	83010						10	00.350	2.625	29.104	32.210						1011	2
3	26		75		83124		ļ					195.45	2.597	39.055	32.192	Ü.					1010	3
4	29		50	١	83236						ç	50.626	3.673	29.095	FF1.6E			<u> </u>			1009	4
5	21		30	١	83348					ļ	3	30.251	145.6	981.62	32.157			<u> </u>			1008	5
6	20		90	١	83446						\	9.916	2.914	87.258	32.150						1007	6
7	19		10	١	83539		<del> </del>			<u> </u>	\	0.546	3.104	20.412	32.152						1006	7
8	24		<u> </u>		-																<u> </u>	8
9	25		لتوبين وتتعيين						<del></del>	ļ		<del></del>		)0						Ē	<u> </u>	9
10	22		CHARLES									····										10
II	23		AND DESCRIPTION OF				3									ν.		ļ			ļ	11
12	PI	166	R							<u> </u>				0						tiale		12

		,								·						···				of	
C		.Cast	#	Vessel MILLE	NOAA ER FRE	Ship <b>Pro</b> EMAN M	. <b>&amp; L</b> eg F-91 <b>-</b> 0	4	Even 34	t# Ve	ssel Sta. I.D.	Instru	uctions CT	ot C	io m 00	CHÔS Dhun		Sta. Desig	gnatio	n å 149	ر ا
i i	nsec. ast #		Latitu g.	ıde	N or S De	Longitud	e E or	Date		4	Time GMT - Min.	Dry Bulb	Wet Bulb	Bar.	Wind S S Dir.	Wind Pool				ita. Nam or I.D	
0	35	5 (	١٤٥	61	N 1 5	56523	\ W	24	APR 9	1	9120	5 5	032	001	8120	1 1 1	7 1	12		1 .	18
P Te	ress. S emp. S	N_3 N_3 N_7	9 <u>1220+/</u> 25084 701	··-		ess	Deck			ırface	Dat at Sui Start D	a on 114 rface	1908	Tap	oe/Diskette		Fil	e Name/	' 'Head		
- -	ond. S	N	304	_	. c	emp ond ther					Star at Sur Dat	tom t Up rface a off	1911	Rema				······································			100
Pos.	Bot.	T Rack	Trip Depth	Time Depth		Press.	Temp	itor V	Cond.	Other	Press.	Temp.	Values-CT Cond.	Sal.		nple Bot.E Avg Tw			Sal. ot.#	Other Samp.	Pos
1	28		9		191055	_					61.794	3.633	29.074	32.197						mz.	1
2			50		191303	)					50.028	2.665	190.96	32.181						CHL	2
3	26		50		191216						50.020	2.665	190.96	33.181					•	ME	3
4	29		40	الے	191314						40.157	2.707	34.111	32.169						MZ	4
5	21		40		191329						40.156	3.708	34.115	32.168						CHL	5
6	30		30		191429						29.886	2.764	29.145	32.157						ME	6
7	1 2 7		30		191443						FPP.PG	2.766	29.146	32.157						CHL	7
8	24		90		191532						30.008	2.915	39.363	39.154						WF	8
9	25		20		191547	ł					20.005	2914	39.261	32.155						CHL	9
10	-100		10		191639						10.384	3.114	29.422	3a.154						WE	10
11	23	ļ	10		191653	·					10.383	3.111	39,430	33.154						CHL	11
1	. 1	1	. 00		1			1				1	1	1		I	[			1	1.

Pg. <u>36</u> of ____ Sta. Designation

Conse	c.Cast		Vessel NO	DAA Ship	Proj. & Leg		Event# 34と	Vessel St	a. I.D.	Instru	ictions CT	D to 1	mark 8	tru utga	Sta	Designati	on	
Consec		Latitu	ide N or	Lon	MF-91-0 gitude E or	Date	JD = //4	GMT	İ	Dry Bulb	Wet Bulb	Bar. mb	1 1	(4000		· · · · · · · · · · · · · · · · · · ·	Sta. Nan or I.D	ne
A 2 1	Deg	g. / 2 U		Deg.	W 8 9 W		Mo. Yr.	Hr. M		61	038	007	1 1 1	10136	210	·	014	<del></del>
	TD (	21220-1	<u> </u>	11000		onitor C	PR 91 Checks	117	Tin	nes .	D/Time		<del></del>	Data Lo			•	<u> </u>
		91220- <i>P</i> 25084			on Deck		at Surfac	ce	Data	on <u>114</u> face	1940	Tap	e/Disket	te I.D.	File N	lame/Hea	der	?
•		701						:				COV	سي وزو	deA	CAST 3		<u> </u>	•
Cond.	3N	304		•					Start	om194 Up194 face195	<u> </u>	Rema	arks					_
							10		Data	off							NIIT	_
SO Bot	T Rack	Trip Depth	Time @ Depth Tr	ip Pre		itor Va		her P	Co ress.	nv. Mon. Temp.	Values-CT Cond.	D Sal.		Sample BotP Avg Tw	<del></del>	Sal. Bot. #	Other Samp.	370
1 3.8		Bol.	1945							····	29.089				Jun	. =	1013	1
2 2		00	1946								29.084						1614	:
3 26		75	1947	:46					í	İ	29,092					,	1615	
<b>4</b> 20		50	1949:	63				50	1.064	2.696	29.108	32.170					616	1
5 21		30	1950	;12				2	1.926	2.797	29.168	32.152	<u> </u>			Į.	1617	
6 20	)	20	1957;	64				20	0.639	3.269	29,516	32-169					1018	
7 10		10	1957	153				9	884	3.322	29.551	32,103					1019	1
8 2	1							i ive										_!
9 25	5					- 2	3				,=				,		-	
10 බ	À																_	1
11 33	3																-	1
12 P	N GE	`							· <u></u> · · · · · ·		4							* I
																Initials	SWW	V

Pg. <u>37</u> of ____ Sta. Designation

	nec	c. Çaş	<del></del>	Voccel	NO A A	Chin Proj	l oa	Eva	<u>ьен</u> (У/	essel Sta. I.D.	Inctri	ictions CT	B +2 1-0	in latter	7		Designation		
	112E	C. Cas	<u> </u>	MILLER	NUAA FRE	Ship Proj EMAN M	F-91-04	3	nt# Ve ∤५	essei sid. I.D.	mser c	almonto,	if Contains	Ino roll	a Mus	Std.	Designation in the contraction i	eta 14	$\mathcal{D}_{\mathbf{z}}$
	nsed st #	. I	Latit	ude N or Min. S	1	Longitude	or	ate $JD = \{1$	`	Time GMT Ir. Min.	Dry Bulb	Wet Bulb	Bar.	1 1	Wind PnolO	Weath.	pth, m	Sta. Nam or I.D	
٥	3		624	1041	15	56553	2 W Z	APR	9 1 2	0170	50	030	992	7 1110	0107	7101	290	014	4
	oe &		91220-	Α		on	<b>Monit</b> Deck	or Checks	urface	Data	a on 114/	D/Time 2014	Тар	e/Diskette	Data Lo		ame/Head	der	
			25084	iv	D.	ress				at Sur	face 20 1	4:47	l '	T37 pide		CNST 37-	-		
	•		701					<del></del>	-	Start De	own <u>20 1</u>	7120					_ <del></del>		
رر	ona.	21/3	304			emp				Start	Up 261	7155							
_		<u> </u>	<u> </u>			ond				at Sur	face <u> </u>	4:55	Rema	rks					
	T	T <del>-</del>	Trip			ther	Manita	r Values			off	Values-CT		Car	nple Bot.I	) ₀₄₌	Sal.	Other	_
Pos.	Bot	t. Raci		Time Depth	<u>@</u> Trip ∣	Press.	Temp.	Cond.	Other		Temp.	Cond.	Sal.	Therm-P				Samp.	1 1
i	38		60		17:54					60 259	2.704	29.131	32185					MZ	
2	27		50	20	षःऽ।					58.121	2,745	29.149	32,171					CHL	2
3	al	,	50	20	19170	,				50.141	2.746	29.150	32171					WF	3
4	20	١	40	= )e	49:5 <u>9</u>					40.119	2,809	29.189	32.161			ļ		WF	<u> </u>
5	21		40	2.	201.26					40.081	2.808	29,189	32.162					CHL	!
6	20		30	2	શાય					29.918	2.852	29,211	32,150					WE	'
7	19		30	20	u:39					29.907	2.848	29,20%	32,150					CHI	<u> </u> ;
8	9,	4	90	Že.	C:23	3			<del> </del>	19.870	3.230	29.486	32.111					FM	1
9	25	5	9.0	24	X2:53					19.883	3.232	29,487	32.110					CHL	
_	23	1	10	2	7 <b>3</b> ;36	1				9.912	3,368	29.583	37.095					ME	l
11	23	3	10	2	જ્યાં હા	•		0		9.820	3.362	29.577	32.695					CHL	┰
12	19	100	T									- RE 0							1
																	Initials	SAFM	

Pg. <u>25%</u> of _____

										<u>,</u>		A.	<del></del>			- <u>2078</u>	
Consec		# 3 &	Vessel	NOAA	Ship Pro	j. & Leg  F-91-04	Eve 3	ent# Vesse	l Sta. I.D.	Instru	ictions CT	n st a	my deep	जींग्य ज	Sta. D	esignatio	
Consec. Cast #		Latitu	ıde	N or S De	Longitud		ate JD =	114 <b>Ti</b> r G1		Dry Bulb	Wet Bulb	Bar.	Wind Si Dir.	Wind Page 1	1 1	Ι,	Sta. Nam or I.D
038	5	0 26	46	N 1 S	56569	8 W 2	Ҷ _{АРR}	9120	490	5 2	030	992	7115	187	7101	040	019
C Type & S Press. S Temp. S	TD SN_ SN_ SN_	91220+ <i>F</i> 25084 701	<u>.</u>	- 1	ress.	Deck	<del>.</del>	Surface	at Sur Start D	nes a on 114 face 204 own 204	(127 (135 ?		e/Diskette			•	
Cond. 9	SN	304		.   c	emp Cond Other	<del></del>			Start at Sur	tom <u>204</u> t Up <u>204</u> face <u>205</u> a off	9:38	Rema	rks them	come for	المن العنا	'nΖ	NUTS
si Dat	T	Trip	Time Depth	e @			r Values		C	onv. Mon.	Values-CT			nple Bot.		Sal. Bot. #	Other
1 38		Depth Sottom		1 rip 2049:34	Press.	Temp.	Cond.	Other	Press.	Temp.	29,029	Sal.	Inerm-P	Avg Tw	Sal.	BOL. #	1020
2 38		75	9050125	Po55;35							28.984			2.56		24	1021
3 26		50		2056137					50.832	2.637	29.018	32.119					1022
4 29	T -	30	T.	2057:48	N N				30.029	2,701	29.029	32,080					1023
5 21		20		2058:3	}				19.869	2.928	29.183	32.046					1024
6 20	,	10		2059:17	4				9.750	3.346		1					1217
7 19					76					1.5						19	_
8 34		_		1000													
9 25		_									10						-
10 33		1.777		-													
11 23	>			1	<u> </u>												-
12 P1	1168	<b>\</b> =									39						
										-			. ==:			Initials _	SAM

Pg. <u>39</u> of ___

Сс	nsec	Cast	39	Vesse	NOA/	A Ship Pro	j. & Leg 4F-91-04	Ever 3	nt# Ves	sel Sta. I.D.	Instru	uctions CT	ot a	50 m 5	all when	Sta. D	esignation	pn	0
	nsec. st #	T	Latitu		N or	Longitud	e E Da	ite JD = \	T	ime GMT Min.	Dry Bulb	Wet Bulb	Bar.	1 1	Wind pnolO	1 1	,	Sta. Nam or I.D	
0	39	5	026	48	N L	56568	9 W 2	4 A P R	912	1210	050	030	982	1 1 1	_	1111	040	015	5 0
Туг	C se &	TD SN_	91220- <i>l</i>	4	_		Monit n Deck	or Checks	urface		mes a on <u>11</u> 4 /	JD/Time	Tan	e/Diskette	Data Loc		/- l d	1	
Pr	ess. S	5N_	25084	<del></del>	-   _				ипасе	at Sur	1۱ <u>'</u> face	8:37				File Nar			
			701 304		-	Press emp				Start D	own 211 tom 212	8:56 1:10	_						
	on <b>a.</b> S	)IV	304			Cond			•	Star	: Up_217	11:43	Rema	rle					
						Other					face <u>212</u> a off	8,04	Kema	ii Ka					ę
Pos.		T	Trip		ne @			r Values		С	onv. Mon.	. Values-CT			nple Bot.	1-		Other	1 0
			Depth		7rip		Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	
	38		60		<del> </del>				· · · · · · · · · · · · · · · · · · ·	60.052		28.967		-				WF	'
2	75	<u> </u>	50		2122113	3				49.990	2.577	28.973	32.126					CHL	2
3	26		50		2123;6	0				50051	2.570	38,969	32.127					WF	3
4	20		40	4	5153733	3				40,060	2.593	28.977	32119					WF	4
5	31		40		2124:04	f				40.106	2.594	28.977	32.118			<u> </u>		CHL	5
6	90		30	<u> </u>	21 24:47	<b>+</b>				30.190	2.723	29.048	32.081					WF	6
7	19		30		2125;10					36.255	2.730	29.054	37,081					CHL	7
8	24	-	30		5126:0	0				9.829	3.093	29.316	32.042					ME	8
9	3.5	)	90		s 126:3	0				19.862	3,078	29.305	32.044		,			CHL	9
10	22		10		ठ। <b>३</b> २।०	P				10.130	3.363	29.525	32.031					TIN.	10
-11	23	>	10		2177:3	5				10.096	3,364	29.524	32.031					CHL	Į!
12	71	NISCI	. –		-					_									12
	•						<u> </u>		<del></del>		-	-	-				Initials		

Consec. Cast # Deg.  Cast # Deg.  CTD  CTD  CTD  CTD  CTD  CTD  CTD  CT	Min. 2999 1220-A 15084	7 N 1 S	EMAN N Longitud g. or	MF-91-04 le E D or W D Monit	ate JD =  ay Mo.  A P R  tor Checks	48  \4 Ti G Yr. Hr.	090 Tir	Dry Bulb	Wet Bulb	Bar. mb	<del></del>	Wind Pholology	Botto Depti		ta. Nam or I.D
CTD Type & SN 9  Press. SN 7  Temp. SN 7	Latitude  Min. 2999 1220-A 5084	N De De Pr	Longitud g. 6 5 9 8 or ess.	or W D  W 2  Monit	ay Mo.  A P R  tor Checks	9 1 2 2	MT Min.	Bulb 6 0	Bulb 0 4 0	mp S.		147	7100	h, m	or I.D
CTD ype & SN 9 Press. SN 2 emp. SN 7	1220-A 5084	Pr	ess	n Deck			Tir			982		147	7100	480	015
ype & SN <u>9</u> Press. SN <u>2</u> emp. SN <u>7</u>	01	Te	ess	n Deck			ł	mes l		1					
			ond				at Sur Start Do at Bot Start at Sur	a on 114, face 23 own 25 tom 23 t Up 23 face 23	D/Time 12906 007:23 007:55 09:55 09:50 212:30		e/Diskette   Tyo sada rks		File Nam	24APR	
1 1-1	Trip 7		ther		r Values			a off	Values-CT	 D	San	nple Bot.D	lata /		Other
Bot. Rack [	Trip <b>T</b> Depth Dep	Time @ pth Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sai.	Therm-P	<u> </u>	Sal.	Bot. #	1
	Bod.	2209146	_				43.874	2.889	29.242	32,143	:1:	~		$T^{r-1}$	118
27	30	2210:42					30.113	2.891	24,232	32.137	2.1				119
26	20	2011/22					20.122	2.925	29,245	32,124	,				20
29	10	22105					10,076	3,101	29.331	32,057				23	12
a1	_					,						,			
20	-														-
19	-														-
3 24														<u> </u>	-
9 a5	Mark /														-
0 22														<u> </u>	-
1 23	-						<u> </u>							<del> </del>	
2 PM 65	~ -		<u> </u>						12				<u></u>	Initials _	

Consec.	Cast	#	Vessel	NOAA	Ship P	roi. & Leg		Ever	t# Ves	sel Sta. I.D.	Instru	ictions CT	D to	50 m 00	odino.		esignatio		
		D41	MILLER	FRE	EMAN	MF-91-0	)4	135	0		mi	mass cours	antitan) &	approva	5 Bude	Line	ع المرار	ta 15	\$
Consec. Cast #	_	Latitu	10	r	Longitu	or		1D = []	`  (	Time GMT	Dry Bulb	Wet Bulb	Bar.	Wind Dir.	Wind pno Sp. O	Bott Dept	com S	Sta, Nam or I.D	ie
Cast #	Deg	ζ. (	Min. S	De	eg. <del>- Transa</del>	W	Day	Mo.	/r. Hr	. Min.	1 11	1 11	""   ~	Dir.	1 3p.   O				<b>,</b>
041		30	091	115	5700	18 M		APRS	12	2990	1 1	035	988	7100	<del></del>		480	015	11
CT Type & SI	N 9	1220-A	١				onitor	Checks		1		D/Time	_		Data Loc				
Press. SI						on Deck		at Si	ırface	1		27:30	1 1	e/Diskette					
Temp. Si	N7	01		P	ress	<u> </u>				Start D	own <u> ્ર</u> ા	27:40	cast	4 side B		CAST41.	-Z HIII	ماددن	
Cond. SI	N_3	304		T€	emp	<del></del>				at Bot	tom_ 200	39115							
			<del></del>	C	ond					- Start	Up <u>∂∂∂</u> face <u>∂</u> ⊇3	4:35	Rema	ırks	·				
				0	other					Dat	a off					-			
S Bot	T Rack	Trip	Time Depth	@ T-::-	Dance	Mon Temp	itor V		Other	Press.	onv. Mon. Temp.	Values-CT		Sar Therm-P	nple Bot.[			Other Samp.	
1 28	CACK	yo.		1 rip	Press.	reini	<del>"   '</del>	Cond.	Otner			29.255	Sal.	· · · · · · · · · · · · · · · · · · ·	Avg Tw	Sal.	BUL. #	MZ.	
			3"	230:11	1														2
. OL 1		40			+	<del> </del>			<del></del>	40.895	2.709	29.255	76176	1				CHIL.	
3 26		33	P =	Ø:35	1							_					-	ME	3
4 29		30	<u> </u>	131:05						29.826	2.906	29.253	32,147					ME	4
5 21		30	2;	231:42	-					29.894	2.966	29.253	32.146				,	CHL	5
6 20		20	2 :	232:3	4	_				20 061	3.001	29.312	32.129					WF	6
7 19		20	5:	233;63	3					20.069	3.000	29.311	32.128	1				CHL	7
8 24		D	a	33;42	2					9.927	3.175	29.402	32.070					WI	8
9 25		10	5:	34:10						9,923	3.169	29.403	32.076				Name .	CHL	9
10 33									,								-	WF	10
11 23		-		_														CHL	11
12 P/V	10E	R-		_								à					-	-	12
																	Initials	RAW	

Instructions CTO to max depth with maro- Sta. Designation 3 organic for i allow yell samples G136 A

Consec. Cast #		Latitu g.	ide Min.	N or S I	<b>L</b> o Deg.	ongitud	e E or W		JD = 1 Mo.	ا ( <u>.</u> ۲۲.	Tim GM Hr.	т	Dry Bulb	Wet Bulb	Bar. mb	S. S.	Wind Dir.	Wind Sp.	Cloud	Botto Depth		Sta. Nam or I.D	
0 42		747	8-	1		537		1	APR	9 1	22	57	063	052	02	48	1 1 1	1 1 1	1 1	02	7 8 G	136	6
ype & S Press. S Temp. S	TD SN SN	91220 <i>-1</i> 25084	1	   	Press. Temp. Cond.		Me Deck	onitor	Checks at S	urfac		Ti Da at Su Start E at Bo Stai at Su	ta on 16 prince 22 to Up 22 trace 23 trace 23 trace 23 trace 23	47:20 48:30 157:20 57:30		st42	Diskette   Sold	.D.	<u>CA</u>	File Nam			
	Т	Trip	Tir	ne @				itor V	alues		T			a. Values-C	<u> </u> [D		San	nple Bo	t.Data		Sal.	Other	
S Bot.	Rack	Depth	Depth	Tri	p F	Press.	Tem		Cond.	Ot	her	Press.	Temp.		Sal.	1	herm-P			Sal.	Bot. #	Samp.	_
1 28	_	60		1301.	56		-	_	_		- 5	19.812	3.657	- 29.982	32.20	۰۵۰			. =		-	MZ	
2 27		50		2303:	31						۷	19.667	3.577	29.882	32.23	1					16	Cl	
26		50		2303;	58					_	L	19.737	3.579	29.888	32,23	31						M2-	
29		40	Ų	2504;	37						3	9.773	3,737	- 29-960	32,16	6				.===		MZ	
21	ļ	40		23051	04						I I		4-	2 29.923		- 1						a	
20		30		2365	42						15	29.867	3.965	30.068	32.07	4						WZ-	
19		30		0306	10		i				6	29933	1	30.069	1							a	
24		20		50€c	:60					-		19.603	3,931	29.979	3200	٦						MZ	
25		20		2307	130							9.559	3.931	29979	37,00	7						d	
0 22		10		23:58	i_							9.280	3.997	2 30.026	32,00	8						m3	
1 23		10		2381	37							9.795	3.994	30.026	32.00	8						cl	
2 -	più	sec		_	-																	_	
												·				-					Initials	SAM	

Event# Vessel Sta. I.D.

Consec.Cast #

Vessel NOAA Ship Proj. & Leg MILLER FREEMAN MF-91-04

Pg. <u>43</u> of _____ Sta. Designation G-13 7A Bottom Sta. Name

or I.D

Depth, m

Instructions (T) to man depth with www.zoroplank.ton(M2) and Chlorophyll (C1)

wp S. S.

Bar.

Wet

Bulb

Dry

Bulb

Wind Wind Pno Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cloud Sp. Cl

	CT	D ,					Monit	or Checks	<b>,</b>	Tir	nes l	D/Time	1		Data Loc	cation			
			)1220 <i>-1</i>	1	-	on	Deck		Surface	Data	nes J a on 116/	2352	Tar	e/Diskette	I.D.	File N	ame/Head	ler	
Pres	ss. S	N_2	25084		-   _					at Sur	face 235	2:30		43 sid					
Геm	ıp. S	N7	701		-   Pr	ess				· Start De	own_ <i>235</i> 1	3:15	<u></u>	(4.5 (A.A.		Ortal 10-	2611		-
Con	d. S	N_3	304		_   Te	mp:				at Bot	tom 117/0	50:100	_						
×.				_	_   C	ond			· · · <u>.</u>	Start	Up	4520	Rema	arks (vole	Leed w	char, 4-6	menune	Jacks	_
						ther					face <u>002</u> a off	11.9	_ w	posin. Z		, ,		ō	
.1		<b>T</b> I	Trip	Tim			Monitor	r Values	T			Values-CT			nple Bot.	_		Other	-
S. B	ot.	Rack		Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.		Avg Tw	Sal.		Samp.	
	18		60		0010:40					66.571	3.673	29,988	32.251					MZ	
	38	B		011;35	००१७: ५४							30.140			3,87		20	cl	_
	76		50		0017:160		:	×			i	30,110						M3	-
4 (	29		40	L	૦૦૧૪ : વહ							30,035						mz	
5 2	21		40		∞19112							30,031						d	
6 (	20		30		faiosoc		×					29,789						MZ	
7	19		30		2020; 35						İ	29.796		i				d	
8	24		20		1021:38							29.860						MZ	
9	25		20		0003165					20,348	3.787	29.798	31.935					d	_
0	22		10		0022:57	266				10.569	3.969	29.943	31.932					MZ	
11	23		10		•0Z;25					10,569	3.951		31.432	1				d	_
2	_	NN	pl				(4)					22							
		*	×	•	<del></del>	<u> </u>		•	•	·		•	•		-		Initials	SHA	í

Consec.Cast #

Deg.

Consec.

Cast #

Latitude

Min.

Ν

or

S Deg.

Vessel NOAA Ship Proj. & Leg
MILLER FREEMAN MF-91-04

Event#

Day Mo. Yr.

Longitude E Date JD = 117

or

w

Vessel Sta. I.D.

Time

GMT

Hr. Min.

			<u> </u>														·	
Cc	nse	c.Cas	St #	Vessel	NOAA R FRFF	Ship Pro	j. & Leg 1F-91-04	Ęy	ent# Ve	ssel Sta. I.D	). Instr	ructions CTD plank km	to many de	upth with	e (cl) sam	plus) Sta. D	esignation - 138-A	on
	nsed	<u>.</u>	Latitu	ıde	N or S De	Longitud	e E D or	ate JD =		Time GMT r. Min.	Dry Bulb	Wet Bulb	Bar.	1 1 4	Wind -	1 1	om :	Sta. Nan or I.D
0	44	15	746	51	N ( 5	5084	8 WZ	7 APR	910	134	080	067	<del></del>			7102	68 G	138
Гуј Pr Те	pe & ress. emp.	SN_ SN_ SN_	91220- <i>H</i> 25084 701 304	1	Pr		<b>Moni</b> n Deck	tor Checks		D at S Start at B	Times  ata on 117  ourface 016  Down 016  ottom 016	D/Time  G123  C4:17  C4:40  33:50	Тар	e/Diskette - ५५	Data Loc I.D.	cation File Nan	ne/Head	ler
_	<u></u>		<del></del> -		·   -	ond		<u></u>		at 9	art Up <u>01</u> Surface <u>01</u>		Rema	rks				
 	<u> </u>	T	Trip	Time		ther		r Values			ata off Conv. Mon	. Values-CT	 D	Sar	nple Bot.[	Data	Sal.	Other
Pos.	Во	t. Rac	k Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.
ľ	28	_	60		013916					5964	9 4.026	30.152	32,098					W-Z
2	27	<u>-</u>	50		0140152					50.34	24.018	30.137	32.093					cl
3	50	o	50		0140;5Z				ļ. <u>.</u>	50.19	2 4.018	30.137	32.092				<u> </u>	WZ
4	20	ì	40	÷	0141:53					40,33	1 3,964	30,053	32051					mz
5	21		40		3142: 19					40,33	2 3,962	30,048	32.648					Q
6	20	>	30		0143:20					30.193	3.956	30.025	37,632					W2
7	۱۹	Î	30		હત્પ3:48					30.43	7 3,941	30.012	32.031					cl
8	24	ł	20		0144:37					1	i	30,033						MZ
9	25	5	26		0 HSI 05					20.36		30.061						cl
10	27	2	10		वापुरः ०७					10.26			31.978		,			M2
11	2	3	10		o1461.36						0 4.112		31.978	-			28	Q
12	1		wight									9						1
_	•		<del> </del>														Initials	MARS

Pg. 45 of ____

Со	nsec.		#5	Vesse	NOA	A Ship Pro	oj. & Leg	Eve	nt# V	essel Sta. I.D.	Instru	uctions CTD	to may de	Sp H	6. 01	Sta. D	esignation 139 A		
ī	nsec. st #	De	Latitu		N or	Longitud	or	ate JD =		Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar.			1771		Sta. Nam or I.D	ne
0	15	15	740	87	N (	54375	5 W 2	7 A P R	9 1 0	8090	0 0	052	031	8200	1 1 1		166	139	A
Pro Ter	ess. S np. S	Z Z Z	91220- <i> </i> 25084 701		-   '	Press	n Deck	<u> </u>	urface	Dat at Su Start D	a on <u>ll7/</u> face own	0803		pe/Diskette		File Nar	-		63
— —	nd. S	N	304		-   '	Temp.            Cond.            Other				Star at Su	tom t Up rface a off	0810	Rem	arks wi	0 205				43
Pos.	Bot.	T Rack	Trip Depth	<b>Tim</b> Depth	e @	Press.	Monito Temp.	r Values  Cond.	Othe		onv. Mon. Temp.	Values-CT Cond.	D Sal.		nple Bot.D Avg Tw		Sal. Bot. #	Other Samp.	Pos.
	28		60		08143	_				60.311	3.984				<b>G</b>			M2	
$\vdash \neg$	27		50		08152						4.014	30.309					12	l	2
3	24		50		08154	13				50.048	4,014	30.308	32.298					MZ	3
4	29		40	-	08165	o _u				40.033	3,983	30.260	३३.३नन	}				m2	4
5	21		40		:0F180	7				40.138	3.986	30.263	32.279					d	5
6	w		30		08134	19				30.161	3.893	30.135	32.223	Š		ļ		M2	6
7	9		30		08180	16				30.164	3.894	30.136	32.222	5				d	7
<u> </u>	24		20		19180	00				19.814	F1P.E	30.124	32.192					M5-	8
	25		го		08191	18				19.863	3.914	30.125	32.195	Ś	3			d	9
•	27		10	:	08301	٥4				9,754	3.913	30,080	32.149	1				MZ	10
11	23		10		0830	20				9.641	3.915	30.083	33.150	0				2	11
12	-	Pin	Ex.																12
		•	-														Initials		

Pg. 46 of ____

Consect   Cast #   Deg.   Min.   S   Deg.	Cons	sec.		# 46		NOAA ER FRE	Ship P	roj. & Leş MF-91-	3 04	Event:		Sta. I.D.	Instr	uctions CTD	to max	depth in	the	Sta	Designation		
CTD   1220-A   Press   Monitor Checks   On Deck   at Surface   Data on IIT   Tape/Diskette I.D.   File Name/Header   Tape/Diskette I.D.   File Name/Header   Tape/Diskette I.D.   File Name/Header   Tape/Diskette I.D.   Cond.   Cond.   Sarr Up   Q918   at Surface   Q928   At Surface			Deg			or		or	l _	JD=117	Tim GM	т	Dry	Wet	Bar.	1 1	1 4 1 1	Type Weath. O Θ			ne
Type & SN _ 31220-A   Press. SN _ 25084   Press. STAT Down _ 25094   Start Down _ 25094   Start Down _ 25094   Press. Start Up _ 25184   Press. Start Up _ 25	04	6	5	38	F P	N 1	5441	39 W	27	APR9	109	160	5	056	031	8 1 7 C	FFO	71	2206	140	A
Press   SN 2004   Temp. SN 701   Temp. Start Up	Туре	CT & SI	D N_9	1220-A	<del>1</del> .	.					ace.			JD/Time	Tan	e/Diskette			lame/Heac	ler.	
Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp.   Temp	1										ace.	at Sur	face						· ·		
Start Up		•				•						1			_ -			CASTY	STARFG_	19160	$\mathcal{C}$
Data off			•				•					Start	Up	0918	Rema	rks wo	9/3	- % - 11	7D 6 6		$\dashv$
& Bot. Rack         Depth         Trip         Press.         Temp.         Cond.         Other         Press.         Temp.         Cond.         Sal.         Therm-P         Avg Tw         Sal.         Bot. # Samp.           1         28         60         0 94145         60.061         3,940         30.280         32.284         82.284         83.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         84.284         8	_	<del></del>				. c	other					Data	a off		273	D FILE P	911 40	2857			.
1 28	SO B	ot.	T Rack		Tim Depth	e @	Press.	$\rightarrow$ $-$			Other							<del>, </del>			
2 38 B 60 093135 093132 593133 59.988 4.002 30.395 32.390 3.991 33 CL 3 86 58 693325 49.883 40.002 30.395 32.390 3.991 33 CL 4 29 40 693830 39.893 30.105 32.189 CL 6 20 30 693917 29.993 39.927 30.091 32.138 CL 8 24 26 693916 30.99332 20.091 32.138 CL 9 25 20 693918 30.99332 30.091 32.138 CL 10 22 10 693326 30.99318 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993 30.993							<del> </del>										. =			i.	1
4 29 40 60880 0000 0000 0000 0000 0000 0000			B		092135	09363	3		,		2	59.988					3.99		33	d	2
5 21 40 093830 39.905 3.892 30.109 32.189 Cl 6 20 30 093917 29.907 32.091 32.138 MZ 7 19 36 093939 36 093939 32.140 MZ 8 24 20 093032 30.91 32.135 MZ 9 25 20 093032 32.974 30.138 32.141 Cl	3	76		58	· -	०१३५३	5				1	<u> </u>	3.984	30.236	32.243					m2	3
6 20 30 092917 29.997 3.927 30.091 32.138 MZ  7 19 36 092938 29.934 3.927 30.091 32.138  8 24 20 093016 20.767 3.974 30.128 32.140  9 25 20 093032 20.339 3.974 30.128 32.141  10 27 10 093130 10.283 3.999 30.140 32.135 MZ	4 2	9		40	, gla j	518690						FP8.PE	3.889	30.105	781.5E					WZ	4
7 19 36 092938 20, 91391 3.927 30.091 32.138 CL 8 24 20 093016 20, 467 3.974 30.128 32.140 ME 9 25 20 093032 20, 339 3.974 30.128 32.141 CL 10 27 10 093130 10.283 3.999 30.140 32.135 ME 11 23 10 093136 10.317 3.999 30.140 32.135 CL	5 2	1		40	·	188690						39.905	3.892	70.109	32.189					cl	5
8 24 20 093016 20.467 3.774 30.071 32.138 32.140 MZ 9 25 20 093032 20.339 3.974 30.128 32.141 Q 10 22 10 093130 10.283 3.999 30.140 32.135 MZ 11 23 10 093136 10.317 3.999 30.140 32.135 Q	6 2	ಒ		30		09391	7				ê	29.997	F6P.E	30.091	32.138					mz	6
9 25 20 093032 20.339 3.974 30.128 32.141 CD 10 27 10 093130 10.283 3.999 30.140 32.135 MZ 11 23 10 093136 10.317 3.999 30.140 32.135 CD	7	9		36		09293	3					29,934	F.G.P.E	30.091	32.138					d	7
10       22       10       093130       10.283       3.999       30.140       32.135       MZ         11       23       10       093136       10.317       3.999       30.140       32.135       CL	8	24		20		093016					· ·	F214.06	4FP.6	30.128	32.140	*)				MZ	8
11 23 10 093136 10.317 3.999 30.140 32.135	9	25		20		09303	2					20.339	3.974	30,128	32.141					Q	9
	10 2	n		10		093/3	a					10.283	3,999	30.140	32.135					MZ	10
	11 2	23		10		09313	Ь	<u> </u>				F16.01	3,999	30.140	32.135			-		d	11
12 - mgw	12	_	m	ger (										19			<u> </u>				12

Instructions CTD to max depth, mouseoplants Sta. Designation
and chlorosphale G141A

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Consec.(	Cast # 04	7	Vessel MILLER	NOAA R FREE	Ship Pro	j. & Leg 1F-91-04	Ev u	ent# Ves	sel Sta. I.D.	Instru	ond chil	to max	depth, v	man 340bg	owl & Sta	i. Designatio	on A	
Consec. Cast #	L: Deg.	atitud M	de N or 1in. S	·	Longitud	e E C	ate JD =	117	Time GMT . Min.	Dry Bulb	Wet Bulb	Bar.	`	Wind Boo	Type Weath. Om	Bottom Pepth, m	Sta. Nan or I.D	
047	573	37	1/2 1	1 15	4471	6 W 2	7 A P R	9 1 1	0 25 0	5 5	0 4 5	041	8150	FPOC	7	2246	14	
CT Type & SI	D N 912	20-A					itor Checks	;	Tir		D/Time	_		Data Lo		224		
Press. SI				:		Deck		Surface	Data at Sur	a on <u>1171</u> face	F101		e/Diskette + 47			Vame/Head スーコンターの		
Temp. St			····	l l					— Start D	own	F101	_	4 4 7		<u> </u>	T - CTIII	<u> </u>	Ė
Cond. St	۷ <u>304</u>		<del></del>	1	•			<u> </u>		tom : Up		<b></b>					<del></del>	_
	-·-				ond				at Sur	face	,	Rema	irks wo	216				
	7 T	ip	Time	<u> </u>	:her		or Values			a off onv. Mon.	Values-CT	<u>l</u>	Sai	mple Bot.[	Data	Sal.	Other	7
S Bot.	Rack De	pth [	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.		Avg Tw		<del></del>	Samp.	
1 28	୍ । ଓ		10	1859					60.040	3.830	FF1.0E	32.320					MS	e P
2 27		0	10	2949					50.156	3.643	29.981	8FG.6E				02	d	
3 26		0	11	3008		,			50.150	3.642	29.980	FF6.68					W5	,
4 29	Ų	0	. 7/	১३०५२					40.438	3.611	FERRE	33.262					Mf	,
5 21	į	0	16	3107					40.303	3.614	29,939	32.262					d	_
6 20		30	18	०३/५२					30.014	3.606	29.913	32.244					M-5-	,
7 19		50	1/2	33208					4FP.PS	3.609	30.916	32.244					cl	_
8 <u>2</u> 4		20	15	033558					30,432	30F.E	29.960	32,206					MZ	
9 25	ē	20		3308	<del> </del>				20.409	00F.E	29,956	32.303					cl	_
10 22		0	N.	033528					501.01	4.136	F45.08	337138					MZ	
11 23		0	\	103413					10.027	41.132	FM5.05	32.131					d	_
12	Ruise	1									,		<u> </u>	<u> </u>				,
																Initials		