PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213		RESURRECTION BAY

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
001	60	01.43 N	149	21.54 W	15	AUG	98	18	40	14.8		1127			000	05	8	7	2	297	RES25

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE	?			MAX. DEPTH = m
TEMP SN	☐ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER				☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	.	.	(deg)	(~~m/s~~)	*	*	*	(m)	Gulf of Alaska
002	59	50.68 N	149	27.95 W	15	AUG	98	2024	12	7		.	1	2	27	160	05	8	7	2026	9AK01

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☐ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 230 1.5	SBC1

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
003	55	05.85	N	163	51.28	W	20	AUG	98	01	31	4.3		085			230	46	-	2		28	SBC01

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☐ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER				☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	28									
2	20									
3	10									
4	0									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 230 1.0	SBC02

CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
004	55	00.31 N	163	53.21 W	26	AUG	98	00	57	12.8		08	5	F	230	18	-	-	2	32	SBC02

NBK Nov '98 of ships log
5508.31N

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

[ ] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	32									
2	20									
3	10									
4	0									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 230° 1.0m	STATION DESIGNATION
Alpha Helix		HX213		SCB03

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE .	VISIBILITY .	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
005	55	10.71 N	163	55.21 W	20	AUG	98	01	32	12.1		08	4		230	15	-	2		43	5CB03

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☐ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	40									
2	30									
3	20									
4	10									
5	0				31.506					
6										
7										
8										
9										
10										
11										
12										

Beginning of slight inflection at ~17m

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 200° 1.0m	SBC 04

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME > (GMT) HR	TIME > (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
006	55	13.10 N	163	57.35 W	208	AUG	98	02	08	11.9		0856			200	17	8	7	2	545	SBC04

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☐ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER				☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	48									
2	30				31.64					
3	20									
4	10									
5	0									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 220° 1.5m	STATION DESIGNATION
Alpha Helix		HX213		SBC05

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	.	.	(deg)	(m/s)	*	*	*	(m)	
007	55	15.68 N	163	59.22 W	20	AUG	98	02	57	11.4		0846			16	16	8	7	2	59	SBC05

CTD	TIMES	JD/TIME	DATA LOCATION 220°	REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID / File Name/Header	
PRESS SN	START DOWN			
TEMP SN	AT DEPTH			
COND SN	AT SURFACE			MAX. DEPTH = m
TEMP SN				

[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PUT PAR sensor on for first time				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	54						9701			
2	30									
3	20									
4	11 maybe 2 bottles fired									
5	0									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Wave Ht 1.5m	SBC08

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
													.	.			*	*	*		
008	55	18.02 N	164	01.37 W	20	AUG	98	03	34	11.2		.0	8	5	6	210	17	8	7	2	775 SBC08

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

[X] PAR [/] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	72	maybe 2 bottles								
2	50									
3	30									
4	20									
5	10									
6	0									
7										
8										
9										
10										
11										
12										

almost no structure - 70m

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213		SBC7

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C) (were WT 2.0m)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	.	.	(deg)	(~~m/s~~)	.	.	.	(m)	
009	55	20.46 N	164	03.45 W	220	AUG	98	04	11	10.8		085	56	210	17	8	7	2	87	SBC07

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	80	~				~				
2	50									
3	30									
4	20	maybe 2								
5	10									
6	0					~				
7										
8										
9										
10										
11										
12										

a 1°C step ~22/38 another ~65m

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Wave ht 2.0m	SBC08

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s) (kts)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
01	05522.07 N		164 05.49 W		20	AUG	98	04	52	10.8		086	6	2	16	19	8	7	2	945	SBC08

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER				[ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	92									
2	60									
3	50									
4	40									
5	30									
6	20									
7	10									
8	0									
9										
10										
11										
12										

34 [illegible] 80

Have crossed miner front since last Sta.
2° diff top & bot.

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	wave ht 2.0m	SBC09

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
011	55	26.34	N	164	07.46	W	209	AUG	98	0535	5:35	0.6	.	0866	2	2	220	19	8	7	2	965	SBC09

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m

TEMP SN

[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	962					~32.2				
2	60									
3	50 ~~40~~									
4	40									
5	30									
6	20									
7	10									
8	0									
9										
10										
11										
12										

T top 10.4 mixT 9.25
T bot ~6 mid b 70

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	dir 220 wave ht 2.0m	SBC10

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
01	25	27.75 N	164	09.49 W	20	AUG	98	06	19	10.6		086			220	18	8	7	2	78	

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	94									
2	70									
3	66									
4	50									
5	40									
6	30									
7	20									
8	10									
9	0									
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	wave ht 220° 2.2m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
																	220						
01	35	30.2	N	164	11.40	W	26	AUG	98	07	01	10.2		085	5		229	17			2	985	BC11

CTD	TIMES JD/TIME	DATA LOCATION	REMARKS
TYPE & SN	DATA ON	Tape/Diskette ID	File Name/Header
PRESS SN	START DOWN		
TEMP SN	AT DEPTH		
COND SN	AT SURFACE		MAX. DEPTH = m
TEMP SN	[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER	[ ] Cleaned air bleed valve	

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	93									
2	60									
3	56									
4	40									
5	31									
6	19									
7	10.4									
8	0									
9										
10										
11										
12										

sharp step at ~3Cms

SBC12 PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waveder 220 ht 2.2m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
																					?		
01	45	32.63	N	164	13.51	W	20	AUG	98	07	45	10.2		085	5	-	220	17	-	-	2	96	SBC12

CTD	TIMES	JD/TIME
TYPE & SN	DATA ON	
PRESS SN	START DOWN	
TEMP SN	AT DEPTH	
COND SN	AT SURFACE	
TEMP SN		

DATA LOCATION

Tape/Diskette ID	File Name/Header

REMARKS

MAX. DEPTH = m

[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	92									
2	60									
3	50									
4	40									
5	30									
6	20									
7	10									
8	0									
9										
10										
11										
12										

Step at 35m

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 220° 2.0m	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
01	55	35.38	N	162	02.92	W	220	AUG	98	99	06	10.2	.	085	5	2	220	17	-	-	2	96	58R162

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	92.6									
2	59.4									
3	42.2									
4	20.3									
5	11.7									
6	3.0									
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 2200 2m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
01	65	30.14	N	163	58.94	W	20	AUG	98	1004		10.2		695			220	17	-	-	2	069	25514/D

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	89.1									
2	60.1									
3	39.8									
4	20.9									
5	~~20~~ 11.5									
6	3.3									
7										
8										
9										
10										
11										
12										

* 39.8 - Bottle #3 may be two bottles @ two depths (All Bottles Fired Correctly)

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 220 1.5	SBA08

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
01	55	25.59 N	163	55.04 W	220	AUG	98	11	02	9.7		09	5		220	20	-	-	2	89	SBA08

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	84									
2	59.1									
3	39.9									
4	19.9									
5	10.8									
6	~~3.0~~ 3.0									
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 220 1.5m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
018	55	20.42	N	163	51.09	W	220	AUG	98	1200		9.7	.	1015			220	18	-	-	2	171	5646

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☐ PAR ☐ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER				☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	60.9									
2	39.3									
3	21.6									
4	10.4									
5	4.9									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 220° 1.5m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
																			*	*	*	0065	
01	55	18.30	N	163	48.98	W	20	AUG	98	1236		9.7		1016	6		220	23	2	6	5		5R45

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	62.1									
2	41.4									
3	21.2									
4	9.4									
5	5.4									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 230 1.5m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
020	55	15.86	N	163	46.98	W	20	AUG	98	13	15	9.7	.	10	5		240	20	-	-	-	57	5Sta

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER				[ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	56									
2	40.4									
3	21.0									
4	10.4									
5	5.7									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 240 1.5	

CONSC CAST #	LATITUDE	LONGITUDE	DATE JD=	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG MIN	DEG MIN	DAY MO YR	HR MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
021	55 11.01 N	163 43.04 W	210 AUG 98	1407	9.7	.	11	5+		240	20	-	-	-	45	SBA02

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER				☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	45									
2	20									
3	10									
4										
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Wave 240° 1.5m	SBA01

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
023	55	08.52	N	163	41.02	W	20	AUG	98	1438		9.7		11	6	-	240	24	-	-	3/6	48	SBA01

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	38									
2	20									
3	10									
4	0									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 240° 1.5m	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE .	VISIBILITY .	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
U	23	55	03.02	N	164	01.67	W	240	AUG	98	1630	9.5		1013	5	5	240	18	8	7	2/0	2958	6

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	25									
2	10									
3	0									
4										
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 140° 1.5m	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
																	*	*	*		
024	55	05.45 N	164	03.81 W	220	AUG	98	17	08	9.2	.	1013	4	6	240	15	8	7	2	3355	BE02

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m

TEMP SN

[✓] PAR [✓] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	35									
2	32									
3	20									
4	16									
5	8									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Wave 280° 1.5m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	25	51.37	N	164	07.86	W	20	AUG	98	18	02	9.1		1144	6	2	280	14	8	7	2a	545	BET04

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m

TEMP SN

[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	48									
2	40	2 Bottles								
3	30									
4	20									
5	10									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 280° 1.5m	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	26	55.37	N	164	07.87	W	20	AUG	98	18	36	9.5	.	955	6	2	280	18	8	7	2	63	5

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	57									
2	41									
3	31									
4	8.4									
5	0									
6										
7										
8										
9										
10										
11										
12										

Check Pres?

PG ___ OF ___

VESSEL		PROJECT & LEG	Wave 270° 1.5m	STATION DESIGNATION
Alpha Helix		HX213		SBE06

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
027	65	15.22 N	164	11.91 W	20	AUG	98	19	16			01	4	6	270	15	8	7	2	0745	BE06

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m

☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	76									
2	50									
3	40									
4	30									
5	20									
6	10									
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix	PROD	HX213	Wave HT 1.5m dir 270	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
028	55	57.16 N	164	11.75 W	228	AUG	98	20	28	9.5		1636			270	10	8	7	2	725	BE06

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	20									
2	21.4									
3	20.6									
4	20.1									
5	15.1									
6	10.3									
7	5.6									
8	3.3									
9	2.6									
10	2.7									
11	2.5									
12										

Chlorophyll / Prod

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 270 1.5m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
02	55	15.23 N	164	1.58 W	20	AUG	98	21	04	9.6	.	16	3	6	270	10	8	7	2	725	BE04

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m

TEMP SN	[X] PAR	[X] FLUOR	[ ] ChlAM	[ ] TRANSMISSOMETER	[ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	36.3									
2	23.1									
3	16.5									
4	10.5									
5	5.1									
6	0 (2.5)									
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 270° 1.5m	STATION DESIGNATION
Alpha Helix		HX213		SBE 08

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE .	VISIBILITY .	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) .	CLOUD TYPE .	WEATHER .	BOTTOM DEPTH (m)	STA. NAME/ID
030	55	20.24	N	164	15.71	W	20	AUG	98	23	23	9.8	.	1746			270	12	8	7	2	965	SBE08

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	90									
2	60									
3	50									
4	40									
5	30									
6	20									
7	10									
8	0									
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 270 1.0	3BE10

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
031	55	25.06 N	164	19.60 W	21	AUG	98	00	22	9.4		17	5 4	6	270	15	8	7	3 2	1005	3BE10

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m

[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	90									
2	60									
3	40	Triumphed								
4	30									
5	20									
6	10									
7	0									
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213		SBE10 repeat

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	032	55	25.27	N 164	18.51	W	21	AUG	98	00	50	9.3	.	17	4	6	270	15	8	7	2	1005	BE10

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	938									
2	60									
3	40									
4	30									
5	20									
6	10									
7	0									
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 250° 1m	STATION DESIGNATION
Alpha Helix		HX213		SBC01

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
033	55	05.76	N	163	51.51	W	31	AUG	98	1904		9.5	.	1018	4	6	250	15	8	7	2	275	BC01

CTD	TIMES	JD/TIME	DATA LOCATION 4		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	20									
2	20									
3	20									
4	20									
5	15.5									
6	10.8									
7	5.8									
8	2.9									
9	3.0									
10	3.5									
11	2.8									
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 250° 1m	STATION DESIGNATION
Alpha Helix		HX213		SBC01

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
034	55	05.76	N	127	51.53	W	21	AUG	98	19	24		9.6	1846			250	12	8	7	2	27	SBC01

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	20.4									
2	20.8									
3	13.0									
4	13.4									
5	9.3									
6	9.5									
7	5.1									
8	5.0									
9	3 (2.8)									
10	3.1									
11	0	(2.5)								
12	0	(1.9)								

Prod

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
55	32	67	N	119	13.54	W	222	AUG	98	20	54	11.4		1046	1	6	140	15	8	7	2	985	BC12

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	40	~~41.4~~ 42.0								
2	40	42								
3	40	41.7								
4	20	42.4								
5	15	21.9								
6	10	17								
7	5	9.9								
8	0	5.0								
9	0	2.9								
10	0	2.9								
11	0	2.9								
12		2-								

Prod

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
036	55	32.70	N	164	13.57	W	22	AUG	98	21	18	10.2		093	3	6	160	10	8	7	2	985	012

CTD	TIMES	JD/TIME	DATA LOCATION	REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID / File Name/Header	
PRESS SN	START DOWN			
TEMP SN	AT DEPTH		Upcast only	
COND SN	AT SURFACE			MAX. DEPTH = m
TEMP SN	☐ PAR ☐ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve			

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	46	40.6								
2	40	40.4								
3	40	40.4								
4	20	40								
5	15	20.1								
6	10	15								
7	5	9.6								
8	0	5								
9	0	2.1								
10	0	2.3								
11	0	2.0								
12		2.4								

Prod

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
037	55	32.66	N	164	13.54	W	22	AUG	98	21	53	10.1		09	3	6	160	10	8	7	2	98	SBC12

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

[✓] PAR [✓] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA SALINITY	SAMPLE BOTTLE NUMBER SAL.	NUTR.	CHL.	WHIT's NUTR.
1	32	32.6								
2	32	31.6								
3	21	21.3								
4	21	21.1								
5	15	15.4								
6	15	15.5								
7	8	7.9								
8	8	8.2								
9	5	5.4								
10	5	5.0								
11	0	2.1								
12	0	2.5								

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	210° 2.5m	CNC20

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
					23			0652													
0	38	56.38.70 N	164	14.84 W	~~22~~	AUG	98	~~23~~	52	10.4		98	7	-	210	30	-	-	2/6	76	CNC20

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	Coccoliths
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	50									
2	30									
3	26									
4	10									
5	0									
6										
7										
8										
9										
10										
11										
12										

MLD ~ 28 & 30 $T_B = 3.45$ S_B 31.92 $T_S = 9.7$ S_S 31.69

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 230° 3.0m	CNC18

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt.)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
039	56	48.00	N	164	04.94	W	23	AUG	98	0650		9.6		967	6	2	30	30	8	7	6	74	CNC18

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	50	53.1								
2	30	34.1								
3	20	23.3								
4	10	13.2								
5	0	3.6								
6										
7										
8										
9										
10										
11										
12										

MLD 29 T_T 9.72 S_T 31.71 T_B 3.56 S_B 31.92

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 240 30m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
040	56	57.30	N	163	54.92	W	23	AUG	98	17	44	9.5		967	5	5	230	30	8	7	2/6	72	CNF16

CTD	TIMES	JD/TIME	DATA LOCATION 5	REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID / File Name/Header	
PRESS SN	START DOWN			
TEMP SN	AT DEPTH			
COND SN	AT SURFACE			MAX. DEPTH = m
TEMP SN				

☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA SALINITY	SAMPLE BOTTLE NUMBER SAL.	NUTR.	CHL.	WHIT's NUTR.
1										
2	50	51.3								
3	30	30.9								
4	20	20.0								
5	10	10								
6	0	5.5								
7										
8										
9										
10										
11										
12										

Top 9.6 31.78 Bot T_0 = 3.4 S = 31.92
MLD 28

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	2600 ~~2610~~ 3m	CNC14

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
04	57	06.55	N	163	44.89	W	23	AUG	98	19	12	9.1	. .	967	6	260	30	8	7	2/8	68	CNC14	

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	[/] PAR [/] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	50	48.9								
2	30	30								
3	20	21								
4	10	10.4								
5	0	0.7								
6										
7										
8										
9										
10										
11										
12										

$T_T = 8.18$ S 31.8 MLD 28 T = 3.9 S = 31.9 MLD 30

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 2 to 3m	CNC 12

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	42	57.90	N	163	34.81	W	23	AUG	98	20	30	8.7	.	971	7	5	260	03	8	7	2		CNC 12

Need to correct in file

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN		I think it's the bottom		
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	20.1									
2	20	19.4								
3	14	13.9								
4	8	8.5								
5			30							
6		3.0	28							
7		3.0	14							
8		3.0	8							
9		2.8	5							
10			0000							
11										
12										

Spikes in Sal

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 260° 3m	CNC0910

CONSC CAST #	57 LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	.	.	(deg)	(m/s)	*	*	*	(m)	
0	43	55 20.56 N	163	29.81 W	23	AUG	98	21	59	8.7		986	5	2	260	25	8	7	2	55	CNC09

Need to correct in Files

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER				[ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	43.2									
2	29.0									
3	19.2									
4	12.5									
5	3.2									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 2 to 3 m	CNC08

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
		25.20			24.68					42													
04	45	~~30.5~~	C N	163	~~24.78~~	W	23	AUG	98	~~23~~	~~35~~	8.7		006	5	2	260	25	8	7	2	52	CNC08

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	40	39.5								
2	30	30.5								
3	20	20.8								
4	10	10.7								
5	0	4.2								
6										
7										
8										
9										
10										
11										
12										

sta 45 upcast is cast 46

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 260° 3.5m	STATION DESIGNATION
Alpha Helix		HX213		CNCOR

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
045	57	29.87 N	163	19.97 W	244	AUG	98	0037		8.7		0175		5	260	30	8	7	2	47	CNC06

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	41.7									
2	31.4									
3	20									
4	10.6									
5	3.5									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	CNC04	

Winds 280° 3.5

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
													.	.			*	*	*		
	04	57.34.56 N	163	14.88 W	24	AUG	98	01	35	8.5		01	8	6	260	34	8	7	2	4700	CNC04

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	40	39.8								
2		30.9								
3		19.8								
4		10.7								
5		3.7								
6										
7										
8										
9										
10										
11										
12										

be sure to find surf const to 20m MLD 20-28

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	CNC02	

Waves 280 3.5m

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
04	75739.1	N	163 09.91	W	24	AUG	98	0235		8.3		028		6	280	33 40	8	7	2	45	CNC02

CTD	TIMES	JD/TIME
TYPE & SN	DATA ON	
PRESS SN	START DOWN	
TEMP SN	AT DEPTH	
COND SN	AT SURFACE	
TEMP SN		

DATA LOCATION

Tape/Diskette ID — File Name/Header

Can't get change to five bottles Fixed

REMARKS

MAX. DEPTH = m

☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	427	?								
2	39	?								
3	431	maybe 2								
4	31									
5	19.6									
6	10									
7	0									
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 240° 1.5m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
048	58	25.93	N	168	34.27	W	25	AUG	98	1208		5.1		972	2		300	05			2	62	HY2

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	54.9									
~~2~~ 3	19.6									
~~3~~ 4	11.0									
~~4~~ 5	4.0									
~~5~~ 6	2.5									
~~6~~ 7	2.4									
~~7~~ 8	1.4									
~~8~~ 9	32.0									
9										
10										
11										
12										

* 2

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 240° 1m	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. ~~(m/s)~~ *	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
4	58	28.38	N	68	31.17	W	25	AUG	98	12	56	5.3	.	984			300	12			1	62	HX213

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	56.6									
2	32.4									
3	20.4									
4	11.3									
5	2.6									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	260° Waves 1m	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
50	58	30.73	N	168	29.20	W	25	AUG	98	1333		5.3		994			300	15			1	60	A/C/D

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	55.4									
2	30.2									
3	21.2									
4	11.6									
5	4.4									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 270° 1.2m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
052	58	33.05 N	168	26.47 W	25	AUG	98	14	12	5.5		994			300	15			1	58	NIC 09

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	54.3									
2	30.2									
3	21									
4	10									
5	3.3									
6										
7										
8										
9										
10										
11										
12										

T_f = 6.26 S = 31.478 MLD = 18.28 T 3.36 S = 31.854 MLD B/L 40

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 270° 1.2m	NIC08

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
058	05	35.40 N	128	23.90 W	25	AUG	98	14	42	5.5	.	995	.	.	300	17			1	54	NIC08

CTD	TIMES	JD/TIME
TYPE & SN	DATA ON	
PRESS SN	START DOWN	
TEMP SN	AT DEPTH	
COND SN	AT SURFACE	
TEMP SN		

DATA LOCATION

Tape/Diskette ID _____ File Name/Header _____

_____ _____

REMARKS

MAX. DEPTH = m

☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ **Cleaned air bleed valve**

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	54									
2	31.7									
3	20.6									
4	10.9									
5	5.3									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	270° 1.2m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
053	58	37.71	N	168	21.31	W	25	AUG	98	15	19	5.6	.	99	5	6	300	17	8	7	3/4	53	NIC07

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	46									
2	31.2									
3	26.5									
4	11.5									
5	1.8									
6										
7										
8										
9										
10										
11										
12										

Sal spike near surface

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 270° 1.2	NIC06

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
054	58	40.09	N	168	18.71	W	25	AUG	98	15	52	5.6		996.6			300	2.5	8	7	6	50	NIC06

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	44.8									
2	32.8									
3	21.9									
4	11.3									
5	2.1									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	270°, 1.2 m	NICO5

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
055	58	42.58	N	168	16.26	W	25	AUG	98	1629		5.7	.	996	6	6	300	25	8	7	2/6	49	NICO5

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER				☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	47.5									
2	30.2									
3	20.7									
4	10.1									
5	7.7									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 280° 1.5m	NIC04

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)*	CLOUD (amt)*	TYPE*	WEATHER*	BOTTOM DEPTH (m)	STA. NAME/ID
4b	56	58.70	N	168	13.49	W	25	AUG	98	16	56	5.7	.	997	6	3	032	8	7	3/6		48	NIC04

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	43.3 ?									
2	33.3									
3	20.2									
4	10.4									
5	3.1									
6	2.9									
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 300° 2.0m	NJC03

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
05	15	8	47.03 N	168	10.89 W	25	AUG	98	1734	5.7		007	6	3	20	30	8	7	2		47	NJC03	

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	45.4									
2	31.0									
3	22.7									
4	9.3									
5	6.7									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 300° 2.5m	NJC02

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. ~~(m/s)~~ *	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	58	58.49	N	168	08.33	W	25	AUG	98	18	10	5.8	.	0176	.	.	326	30	8	7	2	44	NJC02

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	39									
2	30.0									
3	21.4									
4	10.8									
5	3.7									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	NIC01	

Waves 310° 3.0m

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. ~~(m/s)~~ *	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
059	58	51.72 N	168	05.77 W	25	AUG	98	1850		6.0		007	6	3	203	08	7	2		43	NIC01

CTD	TIMES	JD/TIME
TYPE & SN	DATA ON	
PRESS SN	START DOWN	
TEMP SN	AT DEPTH	
COND SN	AT SURFACE	
TEMP SN		

DATA LOCATION

Tape/Diskette ID	File Name/Header

REMARKS

MAX. DEPTH = m

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	30	30.8								
2	20	19.1								
3	10	12.6								
4	0	4.2								
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Wares 310 2.5m	NIA1

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. ~~(m/s)~~ *	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
0	60	58 49.97 N	168 16.59 W		26	AUG	98	16	47	6.4		09	5	-	310	20	-	-	2	45	TNIA01

CTD	TIMES	JD/TIME
TYPE & SN	DATA ON	
PRESS SN	START DOWN	
TEMP SN	AT DEPTH	
COND SN	AT SURFACE	
TEMP SN		

DATA LOCATION

Tape/Diskette ID	File Name/Header

REMARKS

MAX. DEPTH = m

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	30	28.5								
2	20	20								
3	10	10								
4	0	3.7								
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 320° 2.5m	N1A03

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
061	58	50.36 N	168	21.70 W	26	AUG	98	17	41	6.0		095			320	20	6	7	2	46	N1A03

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

[/] PAR [/] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	43									
2	30	30.4								
3	20	19.8								
4	10	11.9								
5	0	1.5								
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 320° 2.5m	N1405

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	62	58 45.70 N	168 24.85 W		26	AUG	98	18	41	5.9		1005			320	20			1		50 NIA05

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	45.8									
2	32.8									
3	22									
4	10.9									
5	4.1									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	320° 2.0m	NF06

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
													*	*			*	*	*		
06	35	43.36 N	168	29.42 W	26	AUG	98	19	16	5.9		09	5		32	20			1	51	NF06

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	~~465~~	47.8								
2		32.4								
3		20.2								
4		10								
5		2.5								
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	NIC07	

Waves 320° 2m

CONSC CAST #	LATITUDE	LONGITUDE	DATE JD=	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG MIN	DEG MIN	DAY MO YR	HR MIN	(°C)	(°C)	(mb)	*	*	(deg)	~~(m/s)~~	*	*	*	(m)	
064	58 40.93 N	168 32.17 W	26 AUG 98	1959	6.3	.	0954			320	15			1	53	NIA07

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	52									
2	33.2									
3	21.5									
4	12.4									
5	2.7									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	320° 2.0m	NL809

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
005	58	6.23 N	168	37.22 W	244	AUG	98	21	17	6.1		094			320	15		1		STNL809

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	55.3									
2	31.8									
3	21									
4	10.7									
5	2.6									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 320° 2.0m	NIA 11

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
066	58	31.57 N	168	42.45 W	24	AUG	98	2208		6.5	.	094			320	15			1	63	NIA11

CTD	TIMES	JD/TIME
TYPE & SN	DATA ON	
PRESS SN	START DOWN	
TEMP SN	AT DEPTH	
COND SN	AT SURFACE	
TEMP SN		

DATA LOCATION

Tape/Diskette ID _____ File Name/Header _____

_____ _____

REMARKS

MAX. DEPTH = m

☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ **Cleaned air bleed valve**

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	~~12~~	61								
2	~~12~~	29.8								
3	~~12~~	12.1								
4		13.2								
5		12.4								
6		11.2								
7		10.9								
8		8.9								
9		2.5								
10										
11										
12										

12, 12, 12, 8.

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Prod Waves 320° 1.5m	N/A 11

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
D	67	58 31.58 N	168	42.44 W	26	AUG	98	22	46	6.3		094			320	15		1		63	NIA11

CTD	TIMES	JD/TIME
TYPE & SN	DATA ON	
PRESS SN	START DOWN	
TEMP SN	AT DEPTH	
COND SN	AT SURFACE	
TEMP SN		

DATA LOCATION

Tape/Diskette ID	File Name/Header

REMARKS

MAX. DEPTH = m

☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
Hr	20 ✓									
2	20	19.3								
3	13	12.8								
4	13	12.4								
5	10	9.8								
6	10	9.5								
7	5	6.0								
8	5	5.1								
9	3	3.6								
10	3	2.4								
11	0	1.8								
12	0	1.1								

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 320° 1.0m	NIE11

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
01	68	58.25.10 N	168	20.83 W	27	AUG	98	0049		7.3		093		3	320	10			1	61	NIE11

CTD	TIMES	JD/TIME	DATA LOCATION	REMARKS
TYPE & SN	DATA ON	0108	Tape/Diskette ID	File Name/Header
PRESS SN	START DOWN			
TEMP SN	AT DEPTH			
COND SN	AT SURFACE			MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve			

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA SALINITY	SAMPLE BOTTLE NUMBER SAL.	NUTR.	CHL.	WHIT's NUTR.
1	56.5									
2	40	40.9								
3	30	30.1								
4	20	19.5								
5	10	9.8								
6	0	2.3								
7										
8										
9										
10										
11										
12										

Had problem with electronics. -OK

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 310° 1m	NIE 9

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE .	VISIBILITY .	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
069	52	9.86 N	168	15.87 W	27	AUG	98	0158		6.4	.	094	4		310	14			1	57	NIE09

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	52.5	?								
2	40	41.1								
3	30	32								
4	20	20								
5	10	10.7								
6	0	2.9								
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	310° / 1m	N1E08

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
070	58	32.19	N	168	13.33	W	27	AUG	98	02	27	6.5	.	094			316	16			1	5	S N1E08

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	51.4									
2	30.3									
3	21.2									
4	10.6									
5	1.8									
6										
7										
8										
9										
10										
11										
12										

Mooring 3 calib. Site Warmer Slab between 20 & 30

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 3(0° Im	NIE07

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
07	58	34.53	N	168	10.72	W	27	AUG	98	02	55	6.4		095	5		310	21			1	52	NIE07

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	46.5									
2	30.1									
3	20.7									
4	11.1									
5	3.2									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	310° 1m	NIEOS

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
07	25	83	9.21 N	168	05.51 W		27	AUG	98	03	41	6.4	.	09	5	3	101	6			1	49	NIEOS

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER		[ ] Cleaned air bleed valve		

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	43.7									
2	30.2									
3	20.3									
4	10.8									
5	2.1									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 3.0 m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
73	58	41.54	N	168	02.94	W	215	AUG	98	09	10	~~7.0~~ 6.5		094	-	-	295	16	-	-	1	44	1

CTD	TIMES	JD/TIME	DATA LOCATION 3 1 0 1 6	REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header
PRESS SN	START DOWN			
TEMP SN	AT DEPTH			
COND SN	AT SURFACE			MAX. DEPTH = m
TEMP SN				

[/] PAR [/] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA SALINITY	SAMPLE BOTTLE NUMBER SAL.	NUTR.	CHL.	WHIT's NUTR.
1	44.7									
2	29.9									
3	20.3									
4	10.9									
5	2.5									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 310° 1m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	44	58	43.88 N	168	00.35	W	27	AUG	98	04	37	6.5	.	09	4	-	310	16	-	-	1	~~47~~	11503

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	43.7									
2	30.8									
3	19.0									
4	10.9									
5	3.1									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 310° 1m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	45	58.55	N	164	55.13	W	235	AUG	98	0952		6.5		0086	-	3	310	22	-	1		43	F01

CTD	TIMES	JD/TIME 24	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	39.1									
2	30.6									
3	20									
4	10.3									
5	2.9									
6										
7										
8										
9										
10										
11										
12										

Brad

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 300 1m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
07	55	51.71 N	168	05.55 W	27	AUG	98	21	22	7.0	.	093	3		295	10				44	KOK

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	15	15.7								
2	10	9								
3	5	5.1								
4	0	1.9								
5	0	1.9								
6	0	2.3								
7	0	2.4								
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	300°/1m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
07	76	85.65 N	168	05.80 W	227	AUG	98	2149		7.0	.	0936	2	9	295	10			2	44	NLK01

CTD	TIMES	JD/TIME	DATA LOCATION	REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID / File Name/Header	
PRESS SN	START DOWN			
TEMP SN	AT DEPTH			
COND SN	AT SURFACE			MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLU	CTD CON	☐ Cleaned air bleed valve	

POS.	TRIP DEPTH	PRESSURE	PRI. TE	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
#5								
1	18	18.6						
2	18	18.0						
3	12	11.9						
4	12	12.1						
5	8	8.3						
6	8	8.0						
7	5	5.7						
8	5	5.9						
9	3	3.7						
10	3	3.2						
11	0	1.8						
12	0	2.1						

STA 61 NIA03
62 NIA05
63 NIA06
64 NIA07
65 NIA09

15 18
10 18
5 12
0000 12
8
5
3
3
0

Prod

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213		NICX8

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
078	59	10.43 N	167	45.09 W	28	AUG	98	19	56	7.6	.	0936			295	10			2	40	NICX8

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA SALINITY	SAMPLE BOTTLE NUMBER SAL.	NUTR.	CHL.	WHIT's NUTR.
1	15	16								
2	10	10.5								
3	5	5.4								
4	0	2.5								
5	0	2.3								
6	0	2.3								
7	0	2.4								
8										
9										
10										
11										
12										

Started collecting data

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix	prod	HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
079	59	10.43 N	167	44.94 W	218	AUG	98	20	22	7.0		093	6	2	95	10			2	40	1XX8

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	20	21.2								
2	~~20~~	20.8								
3	13	13.2								
4	13	14.2								
5	9	8.3								
6	9	9.2								
7	5	4.3								
8	5	5.0								
9	3	3.4								
10	3	3.3								
11	0	2.2								
12	0	1.71								

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 3 5 0 / m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE .	VISIBILITY .	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
90	59	38.38	N	167	13.98	W	99	AUG	98	11	90	7.5		013			040	08			2	30	NLC X15

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☐ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER				☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	29.5									
2	10.9									
3	1.4									
4										
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE .	VISIBILITY .	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) .	TYPE .	WEATHER .	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	.	.	(deg)	(m/s)	.	.	.	(m)	
8	5	9 2 5	N	16	7 24 .33	W	29	AUG	98	14	58	7.5	.	013			010	08			2	31	MCX13

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☐ PAR ☐ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER				☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	29.0									
2	19.8									
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 350° 1m	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	.	.	(deg)	(m/s)	*	*	*	(m)	NIAXII
0	52	59.67 N	167	34.23 W	29	AUG	98	14	04	7.3	.	024			350	11			2	32	NCXII

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

[X] PAR [✓] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	32									
2	23.1									
3	10.8									
4	2.6									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 350° 1m	N1C X8

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
083	59	10.27 N	147	51.15 W	229	AUG	98	1524		7.3		0214			350	11			2	38	N1CX8

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	36.5									
2	10.4									
3	3.3									
4										
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 350° 1m	STATION DESIGNATION
Alpha Helix		HX213		N1C X4

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID (N1X04)
																15					
084	59	01.08 N	167	55.58 W	29	AUG	98	1639		7.4	.	034	6	3	350	15	8	7	2	41	N1CX4

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	[x] PAR [x] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	36.2									
2	12.1									
3	1.5									
4										
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 000 1m	NIC01

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	NAME/ID
08	55	58.71.73 N	168	05.94 W	29	AUG	98	17	55	7.5	.	0446			000	16	8	7	2	43	NIC01

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	[/] PAR [/] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	39.5									
2	12.1									
3	2.4									
4										
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 000 1m	STATION DESIGNATION
Alpha Helix		HX213		NIC03

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
086	58	47.07	N	168	11.11	W	29	AUG	98	18	46	7.2	.	044	4	6	009	16	8	7	2	46	N1C03

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	43.6									
2	21.7									
3	10.8									
4	2.2									
5										
6										
7										
8										
9										
10										
11										
12										

looks like air in Cond at surface

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	000° 1.2 m	NICO4

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
087	58	44.74	N	168	13.65	W	29	AUG	98	19	13	7.0	.	0856	.	.	000	19	8	7	2	47	NICO4

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	46.1									
2	22.2									
3	9.6									
4	3.0									
5										
6										
7										
8										
9										
10										
11										
12										

A little air at top

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 000 = 1.2m	NICO5

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
08	58	42.40 N	168	16.25 W	09	AUG	98	19	38	7.0	.	0456	.	.	000	19	8	7	2	46	N1C05

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	41.6									
2	19.8									
3	10.6									
4	4.4									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 000 1.5m	NICO6

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
089	58	40.02 N	148	18.86 W	29	AUG	98	20	15	6.7	.	0456			000	20	8	7	2	51	NICO6

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	48.7									
2	22									
3	10.6									
4	1.9									
5										
6										
7										
8										
9										
10										
11										
12										

MOORING CALIB - 100m away

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 090 1.5m	STATION DESIGNATION
Alpha Helix		HX213		N1C08

9 is upcast

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
09	058	35.39 N	168	23.94 W	29	AUG	98	21	01	6.4		0556			000	02	8	7	2	5	5N1C08

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	50.7									
2	43.3									
3	30.1									
4	15.?									
5	13.9									
6	10.7									
7	11.2									
8	10.6									
9	10.6									
10	5.9									
11	1.8									
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 000 1.5m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. ~~(m/s)~~ *	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
092	58	35.34	N	168	23.93	W	29	AUG	98	21	25	6.3		0555	6	0	000	20	8	7	2	55	N1C08

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	52.5									
2	41.2									
3	31.6									
4	14.7									
5	15.0									
6	~~15.3~~	13.8								
7	14.9									
8	9.9									
9	4.9									
10	2.8									
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Prod	NIC08

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
093	58	35.34 N	168	24.05 W	29	AUG	98	22	02	5.8		1006			560	20	8	7	2	55	NIC08

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	~~22~~									
2	~~24~~ 22	21.9								
3	14	14.7								
4	14	14.2								
5	10	10.6								
6	10	10.2								
7	6	6.6								
8	6	6.1								
9	3	3.7								
10	3	3.2								
11	0	1.4								
12	0	1.1								

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 000 1.5	N 1 C 10

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
													.	.			*	*	*		
	09	45830.67 N	168	29.08 W	30	AUG	98	0005		6.4		0556			000	18			P		1/N/1C/10

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☐ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	55.8									
2	30.2									
3	20.6									
4	10.2									
5	2.3									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 000° 1.2 m	NIC12

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
095	58	26.00 N	168	34.32 W	30	AUG	98	0049		6.3		0646	6	00	0	15			1	63	NIC12

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	57.7									
2	29.9									
3	20.1									
4	10.3									
5	3.0									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 340 1.2m	NIC13

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE .	VISIBILITY .	WIND DIRN. (deg)	WIND SPD. ~~(m/s)~~	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
09	65	8 21.08	N	165	39.19	W	30	AUG	98	01	35	6.1	.	064	6	3	340	13	8	7	2	66	NIC13

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	60.3									
2	31.6									
3	20.8									
4	10.7									
5	2.4									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 340° 1.2	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
097	58	12.6	N	168	49.91	W	30	AUG	98	02	47	6.3		064	4	6	340	14	8	7	2	69	M1C15

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	64									
2	29.7									
3	9.7									
4	3.2									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE .	VISIBILITY .	WIND DIRN. (deg)	WIND SPD. (kn/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	58	00.84	N	169	02.38	W	30	AUG	98	09	15	6.5	.	0064	6	3	330	16	8	7	2	71	WP1

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	67.6									
2	29.5									
3	10.4									
4										
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 330 1.6	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
99	57	49.64	N	69	14.99	W	30	AUG	98	0541		6.6	.	0656	3	3	018	8	7	2		67	HP2

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	61.4									
2	24.4									
3	25.8									
4	10.1									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	350 1.5	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	CLOUD TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
1	57	38.39	N	69	27.16	W	30	AUG	98	07	14	6.2		065			000	17			7	71	1193

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	64.8									
2	24.0									
3	9.8									
4	3.0									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 350 1.5	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
101	57	27.16	N	169	39.69	W	30	AUG	98	08	46	6.2	.	065			000	20			2	50	HP4

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☐ PAR ☐ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER				☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	67.5									
2	29.4									
3	10.0									
4	3.0									
5										
6										
7										
8										
9										
10										
11										
12										

* problems w/ pump CTD refsrem after this cast

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 350 1.5	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
1	02	57.97	N	169	57.06	W	30	AUG	98	10	44	6.5		0555			000	20			2	49	11x95

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☐ PAR ☐ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER				☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	44.9									
2	32.3									
3	11.5									
4	3.6									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 080° 1.5m	CNC12

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. ~~(m/s)~~	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
1	03	57.89 N	163	35.07 W	31	AUG	98	1606		8.8		936	6	6	340	22	8	72		61	CNC12

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	58	7								
2	32.1									
3	20.4									
4	10.4									
5	1.4									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	040° 1.5m	CNC10

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
1	04	57.20	N	163	30.10	W	31	AUG	98	1	00	9.2	.	91	6	6	340	22	8	7	2	54	CNC10

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER				☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	50.5									
2	32.2									
3	19.4									
4	9.7									
5	1.6									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	040° 1.5m	CNCO8

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. ~~(m/s)~~	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
1	05	57.25	N	163	25.04	W	31	AUG	98	17	55	9.1		915	5	6	340	21	8	7	2	5	CNCO8

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	45.1									
2	30.6									
3	21.5									
4	9.5									
5	1.6									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	000° 1.5m	CNC06

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
1	06	57.88	N	163	20.05	W	31	AUG	98	18	51	8.9		896	4	4	330	25	8	7	2	49	CNC06

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	46.0									
2	31.0									
3	21.4									
4	10.9									
5	2.1									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	000° 1.5m	CNC04

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
10	57	34.50	N	163	14.88	W	31	AUG	98	19	47	9.2		876	6	3	330	25	8	7	2	47	CNC04

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	49.6									
2	31.1									
3	14.9									
4	14.9									
5	15.1									
6	15.1									
7	10.7									
8	5.1									
9	1.9									
10										
11										
12										

Prod

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 000° 1.5m	CNC04

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
1	08	57.34.56 N	163	15.14 W	31	AUG	98	20	23	9.2	.	876	6	6	330	25	5	7	2	47	CNC04

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☐ FLUOR		CTD CONVERT		...ked valve

POS.	TRIP DEPTH	PRESSURE	PRI. TEMP							BOTTLE NUMBER ...UTR.	CHL.	WHIT's NUTR.
1	~~1~~											
2	16	15.8										
3	10	9.2										
4	10	9.7										
5	7	7.1										
6	7	7.1										
7	4	5.2										
8	4	4.4										
9	3	2.4										
10	3	3.3										
11	0	1.6										
12	0	1.6										

0
3
4
7
10
16
1

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 000° 2.0 m	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
			09 79																	46	
109	57	39.14 N	163	09.99 W	31	AUG	98	22	44	9.3		8	5	2	6	350	25	8	7	2	CNC02

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	41.7									
2	22.5									
3	12.6									
4	1.9									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213		CNCX2

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
1	10	57	46.04 N	143	02.35 W		01	~~AUG~~	98	00	33	9.9	.	84	~~X~~ 7	6	330	~~15~~ 28	8	7	2	45	CNCX2

CTD	TIMES	JD/TIME Sep 98	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER				☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										

aborted

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Water 000 3.5m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. ~~(m/s)~~ *	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
11	54	46.13	N	163	02.39	W	015	AUG	98	01	55	9.9		844	4	6	300	15	8	7	2	75	CNC X2

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	42.2									
2	20.2									
3	12.1									
4	1.4									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	350° 3.0m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)*	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
1	12	54	50.85 N	162	54.38 W		01	SEP	98	02	58	9.9		8346	3	5	060	16	8	7	2		KAC9CXX4

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	[1] PAR [1] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	36.9									
2	20.5									
3	10.0									
4	3.5									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 000 to 3m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	13	57 55.59	N	162 58.40	W	01	SEP	98	0352			9.4		833	5	6	000	18	8	7	2	43	CTC-X6

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	36.7									
2	20.8									
3	10.9									
4	4.0									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	350° 2.5m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. ~~(m/s)~~	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
1	14	58.47	N	162	42.48	W	01	SEP	98	05	28	9.6		844	6	6	000	05	8	1	2	3697	CMCX1

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	32.8									
2	21.2									
3	9.9									
4	4.2									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 350° 2.5m	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
1	55	8/14.14	N	162	32.48	W	61	SEP	98	07	02	10.2		845	6	3	350	21	8	TZ		35	CNC X12

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER				☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	32.9									
2	21.3									
3	10.6									
4	3.3									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 350° 2.5m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
116	58	23.49	N	160	22.51	W	1	SEP	98	08	31	10.2		845.6			330	20	8	7	2	36	CTD CX 14

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	33.6									
2	20.6									
3	10.9									
4	3.5									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 350° 2.0m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
1	58	32.82	N	162	12.64	W	01	SEP	98	1005		10.2		855			330	20			2	43	CMC X16

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☐ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER				☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	10.8									
2	20.1									
3	11.4									
4	0.9									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 300° 1.0m	CNEX17

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
118	58	34.33	N	161	56.78	W	01	SEP	98	21	23	10.2		9	1	5	360	17	8	7	2	27	CNEX17

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	26									
2	15.4									
3	10.1									
4	5.3									
5	2.3									
6	1.8									
7	2.4									
8	2.2									
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	360° 1.0m	CNEX17

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE #	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
119	58	34.30	N	161	57.24	W	01	SEP	98	21	49	10.0		9.1	4	6	30	15	8	7	2	28	CNEX17

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	22	~~22.5~~								
2	14	15.6								
3	14	14.5								
4	10	10.7								
5	10	10.0								
6	6	7.5								
7	6	6.3								
8	3	2.7								
9	3	3.8								
10	0	1.4								
11	0	1.7								
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	300° 2.5m	CNEX 15

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
1	20	58.24.87 N	120	6.87 W	02	SEP	98	00	48	9.9		973	7	6	300	30	8	7	2	44	CNEX15

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	40.2									
2	21.2									
3	9.5									
4	1.9									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 2.0 330° ~5m	STATION DESIGNATION
Alpha Helix		HX213		CNEX15

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (~~m/s~~)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
					07.21																		
12	58	24.94	N	167 ~~06.27~~		W	02	SEP	98	19	51	8.1		984	6	3	30	15	8	7	2	44	CNEX15

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	40.4									
2	21.2									
3	8.2									
4	2.1									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 330° 1.5m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
12	25	8/5.54 N	121/7.02 W		02	SEP	98	21	04	8.2	.	994	6	3	330	12	8	7	2	33	CNEXI3

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	[/] PAR [/] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	31.8									
2	20.4									
3	10.7									
4	1.5									
5										
6										
7										
8										
9										
10										
11										
12										

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Wound 330° 1.5 nm	CNEX11

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH . (m)	STA. NAME/ID
123	58	06.26	N	162	27.03	W	02	SEP	98	22	15	8.1	.	99	4	6	330	~~35~~ 13	8	7	2	36	CNEX11

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	33.9									
2	20.6									
3	10.6									
4	2.2									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	330° 1.5m	~~CNEX10~~

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID (CNEX09)
124	57	59.22 N	162	34.67 W	02	SEP	98	23	23	8.1		995	C	3	30	18	8	7	2	41	CNEX09

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	NEX09
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	39									
2	20.2									
3	10.5									
4	23									
5										
6										
7										
8										
9										
10										
11										
12										

prod

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 330° 1.5	CNEX 9

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	12	57	59.35 N	162	34.46 W		02	SEP	98	23	40	8.1		995.6			330	18	7	2		41	CNEX9

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

17

NEX09

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	2.4									
2	2.8									
3	1.9									
4	1.9									
5										
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	330° 1.2	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
1	26	57.59.32 N	162	34.42 W	02	S E P	98	2355		8.1	.	9946	3	3	060	17 15	8	7	2	41	CN EN 9

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	NEXOS
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	26	26.0								
2	26	26.0								
3	17	16.2								
4	17	17.5								
5	12	12.6								
6	12	12.4								
7	7	7.6								
8	7	6.4								
9	4	4.6								
10	4	3.9								
11	0	2.2								
12	0	2.1								

Prod

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	320° 1.5 m	CNC01

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
127	57	41.53	N	163	07.53	W	03	SEP	98	20	59	~~8.3~~ 8.4		1064			~~314~~ 290	~~11~~ 15			1	45	CNC01

CTD	TIMES	JD/TIME	DATA LOCATION	REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header
PRESS SN	START DOWN			
TEMP SN	AT DEPTH			
COND SN	AT SURFACE			MAX. DEPTH = m
TEMP SN				

☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	42.6									
2	29.3									
3	15.1									
4	15.4									
5	15.0									
6	15 14.9									
7	10.0									
8	5 4.8									
9	0 2.4									
10	2.1									
11	2.1									
12										

prod CNCO PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	310° 1.5m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
12	57	41.47 N	163	07.61 W	03	SEP	98	21	27	8.7	.	063			290	10			1	45	CNCO1

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

[X] PAR [X] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	18	18.0								
2	12	12.1								
3	12	12.0								
4	8	8.1								
5	8	8.4								
6	5	5.4								
7	5	5.1								
8	3	3.1								
9	3	3.1								
10	0	1.8								
11	0	1.3								
12										

0
3
5
8
12
18

Prod

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	340° 1.6m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
129	56	52.64 N	164	0.16 W	254	SEP	98	21	31	7.1	.	1547			310	11	4	6	2	71	ENC/7

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	68.2									
2	29.8									
3	15.5									
4	15.6									
5	15.3									
6	15.2									
7	9.9									
8	4.8									
9	2.1									
10										
11										
12										

Cold pool T_b = 3.58 S = 31.89 mldn-thick T_T 8.3 S_T 31.80

Prod

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	310° 1.0m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN	LONGITUDE DEG	LONGITUDE MIN	DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
1	30	56.52.49 N	164	00.15 W	04	SEP	98	21	58	7.2	.	15	3	7	310	03	4	6	2		CNC17

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN					

☒ PAR ☒ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	3.0									
2	2.4									
3	2.1									
4	2.9									
5	2.6									
6	2.5									
7	2.9									
8	2.8									
9	2.6									
10	2.3									
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves	STATION DESIGNATION
Alpha Helix		HX213	330° 0.5 m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
13	56	38.64	N	164	15.00	W	05	SEP	98	2301		7.4		1537			336	07	8	7	2	46	1C2D

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	✓ PAR ✓ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	40									
2	29.8									
3	19.2									
4	9.7									
5	2.1									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	Waves 330° 0.5	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE JD= MO	DATE JD= YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
132	36	41.32	N	161	10.05	W	05	SEP	98	03	45	7.4	.	1527	3	3	060	8	7	2	74	CAST 15

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	[1] PAR [1] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	69.8									
2	30.4									
3	20.0									
4	10.7									
5	2.0									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	waves 330° 0.5m	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	DATE MO	DATE YR	TIME (GMT) HR	TIME (GMT) MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	CLOUD TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
133	56	47.93	N	164	05.06	W	05	SEP	98	07	30	7.6		15	2	2	290	05	8	12		7	CAC 18

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☐ PAR ☐ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER		☐ Cleaned air bleed valve		

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	69.3									
2	29.8									
3	20.0									
4	10.1									
5	1.7									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	waves	STATION DESIGNATION
Alpha Helix		HX213	330° 0.5m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
134	56	52.59	N	160	09.94	W	05	SEP	98	05	19	7.4		1527			330	05	8	7	2	52	rock 1 5

CTD	TIMES	JD/TIME	DATA LOCATION 290	REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID / File Name/Header	
PRESS SN	START DOWN			
TEMP SN	AT DEPTH			
COND SN	AT SURFACE			MAX. DEPTH = m
TEMP SN				

[ ] PAR [1] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	57.7									
2	29.8									
3	20.0									
4	10.3									
5	5.0									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 280 0.5m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
135	56	57.25	N	163 55.08		W	05	SEP	98	0603		7.5	.	1013	3	7	280	07	8	7	2	70	CHC16

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	[/] PAR [/] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	64.6									
2	30.1									
3	20.1									
4	9.6									
5	2.0									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG		STATION DESIGNATION
Alpha Helix		HX213	Waves 160° 0.5 m	

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
136	54	01.89	N	163	0.06	W	05	SEP	98	06	51	7.5		1637.2		7	260	6	8	7	2	2800	HX213

CTD	TIMES	JD/TIME
TYPE & SN	DATA ON	
PRESS SN	START DOWN	
TEMP SN	AT DEPTH	
COND SN	AT SURFACE	
TEMP SN		

1.3 **DATA LOCATION**

Tape/Diskette ID	File Name/Header

REMARKS

MAX. DEPTH = m

[x] PAR [x] FLUOR [ ] ChlAM [ ] TRANSMISSOMETER [ ] **Cleaned air bleed valve**

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES: PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SAMPLE BOTTLE DATA: SALINITY	SAMPLE BOTTLE NUMBER: SAL.	NUTR.	CHL.	WHIT's NUTR.
1	62.5									
2	27.3									
3	19.5									
4	10.2									
5	3.1									
6										
7										
8										
9										
10										
11										
12										

PG ___ OF ___

VESSEL		PROJECT & LEG	260° 0.5m Waves	STATION DESIGNATION
Alpha Helix		HX213		

CONSC CAST #	LATITUDE DEG	LATITUDE MIN		LONGITUDE DEG	LONGITUDE MIN		DATE JD= DAY	MO	YR	TIME (GMT) HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
13	57	06.54	N	143	45.11	W	05	SEP	98	07	37	7.3		16	2	2	260	06	8	7	2	67	9/C/12

CTD	TIMES	JD/TIME	DATA LOCATION		REMARKS
TYPE & SN	DATA ON		Tape/Diskette ID	File Name/Header	
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				MAX. DEPTH = m
TEMP SN	☑ PAR ☑ FLUOR ☐ ChlAM ☐ TRANSMISSOMETER ☐ Cleaned air bleed valve				

POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
1	61.7									
2	24.2									
3	20.6									
4	10.4									
5	1.4									
6										
7										
8										
9										
10										
11										
12										