

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 12/9/95

VESSEL: John P. Tully

STATION NO: 55d

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
1 11	1	1202	/	25 ✓	.565	86.46	1.983			
2 10	2	1203	12.5	20 ✓	.586	93.20	2.137			
3 9	3	1205	12.5	10 ✓	.611	102.74	2.356			
4 8	4	1204	14.6	0 ✓	1.392	301.28	6.906			
7										
6										
5										
4										
3										
2										
1										

ENTERED BY: DJS

CHECKED BY:

Bottom Depth: 26

Cast No: 006

LOCUTC

Begin:

Bottom:

End:

BEGIN POSITION (GPS)

LAT:

LONG:

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 12/9/95

VESSEL: John P. Tully

STATION NO: 552

HYDRO No.:

[illegible]

ENTERED BY: OJS

CHECKED BY:

Bottom Depth: 80

Cast No: 008

	LOC	UTC
1	100	100
2	100	100
3	100	100
4	100	100
5	100	100
6	100	100
7	100	100
8	100	100
9	100	100
10	100	100
11	100	100
12	100	100
13	100	100
14	100	100
15	100	100
16	100	100
17	100	100
18	100	100
19	100	100
20	100	100
21	100	100
22	100	100
23	100	100
24	100	100
25	100	100
26	100	100
27	100	100
28	100	100
29	100	100
30	100	100
31	100	100
32	100	100
33	100	100
34	100	100
35	100	100
36	100	100
37	100	100
38	100	100
39	100	100
40	100	100
41	100	100
42	100	100
43	100	100
44	100	100
45	100	100
46	100	100
47	100	100
48	100	100
49	100	100
50	100	100
51	100	100
52	100	100
53	100	100
54	100	100
55	100	100
56	100	100
57	100	100
58	100	100
59	100	100
60	100	100
61	100	100
62	100	100
63	100	100
64	100	100
65	100	100
66	100	100
67	100	100
68	100	100
69	100	100
70	100	100
71	100	100
72	100	100
73	100	100
74	100	100
75	100	100
76	100	100
77	100	100
78	100	100
79	100	100
80	100	100
81	100	100
82	100	100
83	100	100
84	100	100
85	100	100
86	100	100
87	100	100
88	100	100
89	100	100
90	100	100
91	100	100
92	100	100
93	100	100
94	100	100
95	100	100
96	100	100
97	100	100
98	100	100
99	100	100
100	100	100

Begin:

Bottom:

End:

BEGIN POSITION (GPS)

LAT:

LONG: _____

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 12/9/95

VESSEL: John P. Tully

STATION NO: 55

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	24	1225	15.3	0	bucket sample	1.289	275.80	6.321		
11	23	1224	12.5	10 ✓		.760	137.03	3.142		
10	22	1223	12.2	20 ✓		.668	114.34	2.622		
9	21	1222	11.7	30 ✓		.626	102.86	2.359		
8	20	1221	11.2	40 ✓		.693	118.70	2.723		
7	19	1220	11.1	50 ✓		.629	104.70	2.402		
6	18	1219	11.4	60 ✓		.599	93.29	2.140		
5	17	1218	9.9	80 ✓		.124	-26.41	-0.606		
4	16	1217	9.9	100 ✓		.165	-16.29	-0.374		
3	15	1216	9.8	125 ✓		.130	-25.62	-0.587		
2	14	1215	10.5	150 ✓		.004	-57.46	-1.318		
1	13	1214	10.4	180 ✓	batlle	.081	-37.98	-0.871		
										computer locked up - lost Dosi status live. - wo - restarted whole system.

ENTERED BY: DJS
CHECKED BY:

Bottom Depth:	183
Cast No:	0010

	LOC	UTC
Begin:		
Bottom:		
End:		

BEGIN POSITION (GPS)
LAT:
LONG:

computer locked
up - lost Dosi
status line. - would not zero colorimeter.
- restarted whole
system.

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 12/9/95

VESSEL: John P. Tully

STATION NO: 556

HYDRO No.:

ENTERED BY: ATS

CHECKED BY:

Bottom Depth: 156

Cast No: 012

LOC	UTC
10:00	10:00
11:00	11:00
12:00	12:00
13:00	13:00
14:00	14:00
15:00	15:00
16:00	16:00
17:00	17:00
18:00	18:00
19:00	19:00
20:00	20:00
21:00	21:00
22:00	22:00
23:00	23:00
00:00	00:00
01:00	01:00
02:00	02:00
03:00	03:00
04:00	04:00
05:00	05:00
06:00	06:00
07:00	07:00
08:00	08:00
09:00	09:00
10:00	10:00

Begin:

Bottom:

End:

BEGIN POSITION (GPS)

LAT:

LONG:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
11	35	2007	13.4	0 ✓	.985	196.40	4.503			
10	34	2008	12.6	10 ✓	.759	137.35	3.150			
9	33	2000	12.1	20 ✓	.630	104.19	2.390			
8	32	2001	11.7	30 ✓	.586	93.46	2.144			
7	31	2002	11.3	40 ✓	.695	120.95	2.774			
6	30	1231	11.1	50 ✓	.702	121.97	2.798			
5	29	1230	10.8	60 ✓	.560	85.69	1.966			
4	28	1229	10.3	80 ✓	.222	-1.57	-0.036			
3	27	1228	10.4	100 ✓	.137	-23.69	-0.544			
2	26	1227	10.2	125 ✓	.136	-23.84	-0.547			
1	25	1226	9.9	151 ✓	.020	-53.54	-1.228			

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 12/9/95

VESSEL: John P. Tully

STATION NO: 55a

HYDRO No.:

[illegible]

ENTERED BY: DJS

CHECKED BY:

Bottom Depth: 

Cast No: 014

LOC	UTC
1000	0800
1100	0900
1200	1000
1300	1100
1400	1200
1500	1300
1600	1400
1700	1500
1800	1600
1900	1700
2000	1800
2100	1900
2200	2000
2300	2100
2400	2200
0100	2300
0200	2400
0300	0100
0400	0200
0500	0300
0600	0400
0700	0500
0800	0600
0900	0700
1000	0800

Begin:

Bottom:

End:

BEGIN POSITION (GPS)

LAT:

LONG:

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 59

UTC DATE: 14/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	54	1213	12.5	0	Bottle Sample	.895	218.15	4.996	30.129	
11	53	1212	11.2	10 ✓		.729	176.84	4.052	30.545	
10	52	1211	10.9	20 ✓		.683	165.31	3.789	30.830	
9	51	1210	10.4	30 X		.654	158.08	3.624	31.238	
8	50	1209	10.4	40 ✓		.661	159.06	3.647	31.287	
7	49	1208	10.6	50 ✓		.639	155.57	3.567	31.289	
6	48	1207	10.9	60 ✓		.641	155.83	3.573	31.356	
5	47	1206	10.2	80 ✓		.622	151.43	3.473	31.499	
4	46	1205	10.1	100 ✓		.562	141.33	3.242	31.932	
3	45	1204	9.8	125 ✓		.570	138.25	3.172	32.006	
2	44	1203	9.8	150 ✓		.559	136.40	3.130	32.068	
1	43	1202	9.8	173 ✓		.560	134.66	3.090	32.125	

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 178
Cast No: 016

LOC	UTC
Begin:	
Bottom:	17:08
End:	

BEGIN POSITION (GPS)
LAT: 48° 43.46' N
LONG: 123° 15.29' W

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 58

UTC DATE: 14/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
11										
10										
9	63	1220	12.5	0 ✓		.988	243.03	5.563	29.503	
8	62	1222	12.3	10 ✓		.926	225.37	5.159	29.585	
7	61	1221	12.1	20 ✓		.919	220.93	5.058	29.622	
6	60	1219	11.8	30 ✓		.823	194.75	4.460	29.910	
5	59	1218	11.2	40 ✓		.764	182.44	4.179	30.290	✓
4	58	1217	11.0	50 ✓		.725	176.22	4.038	30.505	
3	57	1216	10.8	60 ✓		.711	174.42	3.997	30.538	
2	56	1215	10.8	80 ✓		.687	165.59	3.795	30.744	
1	55	1214	10.8	90 X		.668	162.13	3.716	30.877	

9 bottles tripped!

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 91
Cast No: 018

LOC	UTC
Begin:	
Bottom:	18:13
End:	

BEGIN POSITION (GPS)
LAT: 48° 43.39' N
LONG: 123° 25.01' W

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 14/9/95

VESSEL: John P. Tully

STATION NO: 56

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
11										
10										
9										
8	71	1230	14.0	0 ✓		1.182	287.73	6.583	29.258	
7	70	1229	12.2	10 ✓		.678	166.23	3.805	29.602	
6	69	1228	11.8	20 ✓		.663	162.29	3.716	29.768	
5	68	1227	11.7	30 X		.672	163.72	3.749	29.928	
4	67	1226	11.5	40 ✓		.688	166.54	3.814	29.993	
3	66	1225	11.1	50 X		.653	159.39	3.651	30.261	
2	65	1224	10.8	60 ✓		.551	133.19	3.052	30.545	
1	64	1223	10.7	69 X		.407	99.04	2.270	30.898	

ENTERED BY: DJS

CHECKED BY:

Bottom Depth: 73

Cast No: 020

LOC	UTC
1000	0800
1100	0900
1200	1000
1300	1100
1400	1200
1500	1300
1600	1400
1700	1500
1800	1600
1900	1700
2000	1800
2100	1900
2200	2000
2300	2100
2400	2200
0100	2300
0200	2400
0300	0100
0400	0200
0500	0300
0600	0400
0700	0500
0800	0600
0900	0700
1000	0800

Begin:

Bottom: 18:55

End:

BEGIN POSITION (GPS)

LAT: 48° 41.61' N

LONG: 123° 30.10' W

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 14/9/95

VESSEL: John P. Tully

STATION NO: 55

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	83	2035	17.4	0	back sample	1.335	326.00	7.452	29.136	
11	82	2010	12.6	10 ✓		.748	184.02	4.212	29.555	
10	81	2012	11.8	20 ✓		.622	151.13	3.460	29.740	
9	80	2014	11.5	30 ✓		.633	154.01	3.527	29.900	
8	79	2017	11.2	40 ✓		.658	159.09	3.644	30.090	
7	78	2038	10.8	50 ✓		.645	155.60	3.565	30.312	
6	77	2007	10.5	60 ✓		.522	127.02	2.911	30.604	
5	76	2008	10.1	80 ✓		.110	26.08	.598	30.941	
4	75	2000	10.2	100 ✓		.136	32.49	.745	31.138	
3	74	2002	10.2	125 ✓		.180	43.22	.991	31.179	
2	73	2001	10.1	150 ✓		.060	14.00	.321	31.225	
1	72	1231	10.2	180 bot ✓		.000	-0.76	-0.017	31.238	

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 183
Cast No: 022

LOC	UTC
Begin:	
Bottom:	19:29
End:	

BEGIN POSITION (GPS)
LAT: 48° 39.26' N
LONG: 123° 30.12' W

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 14/9/95

VESSEL: John P. Tully

STATION NO: 54

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
12	95	1268	18.9	0	bucket sample	1.307	322.25	7.365	29.308	
11	94	1266	12.2	10 X		.674	164.20	3.759	29.554	
10	93	2033	11.2	20 ✓		.468	113.67	2.603	29.751	
9	92	2034	11.2	30 ✓		.586	142.69	3.268	29.970	
8	91	2025	11.2	40 ✓		.647	155.17	3.554	30.161	
7	90	2004	10.8	50 ✓		.603	146.14	3.348	30.277	
6	89	1267	10.4	60 ✓		.422	101.70	2.330	30.445	
5	88	1264	9.7	80 ✓		.055	12.73	.292	30.914	
4	87	2028	9.8	100 ✓		.124	30.09	.690	31.109	
3	86	2018	9.9	125 ✓		.150	35.45	.813	31.142	
2	85	2027	9.6	150 ✓		.062	14.47	.332	31.178	
1	84	2013	10.5	201 ✓		0.000	-.77	-.018	31.248	

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 213
Cast No: 024

LOC	UTC
Begin:	
Bottom:	20:05
End:	

BEGIN POSITION (GPS)
LAT: 48° 37.27' N
LONG: 123° 29.86' W

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 14/9/95

VESSEL: John P. Tully

STATION NO: 53

HYDRO No.:

NISK. SAMPLE OXY. OXY. Sample
No. No. Flask TEMP Depth
db

ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
Trip	Trip	SERIAL	Temp (oC)	SERIAL	Temp (oC)
Depth (db)	Confirmed				
End Point Density μ mols/kg ml/l Salinity					
Buclat Sample	1.254	307.16	7.019	29.139	
	0.596	145.17	3.323	29.475	
	.517	128.50	2.942	29.659	
	.465	114.75	2.628	29.828	
	.457	111.06	2.544	30.048	
	.421	101.53	2.326	30.300	
	.334	81.09	1.858	30.500	
	.053	12.17	.279	30.956	
	.041	9.30	.213	31.101	
	.135	32.03	.734	31.180	
	.063	14.76	.338	31.219	
	.000	-.77	-.018	31.248	

ENTERED BY: UJS
CHECKED BY:

Bottom Depth: 220
Cast No: 026

LOC UTC
Begin:
Bottom: 20:44
End:

BEGIN POSITION (GPS)
LAT: 48° 35.27' N
LONG: 123° 30.09' W

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 14/9/95

VESSEL: John P. Tully

STATION NO: 52

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	119	2063	16.8	0						
11	118	2062	12.6	10 ✓	Bucket Sample	EPD	295.76	6.761	29.000	
10	117	2061	11.3	20 ✓		0.603	145.07	3.320	29.448	
9	116	2060	11.2	30 ✓		0.424	102.96	2.357	29.653	
8	115	2059	11.1	40 ✓		0.461	111.24	2.548	29.927	
7	114	2057	11.2	50 ✓		0.476	116.79	2.675	30.117	
6	113	2056	10.7	60 ✓		0.466	114.50	2.623	30.311	
5	112	2055	9.7	80 ✓		0.441	108.35	2.483	30.514	
4	111	2054	9.6	100 ✓		0.060	14.00	0.321	30.758	
3	110	2052	9.6	125 ✓		0.019	3.93	0.090	31.049	
2	109	2051	9.6	150 ✓		0.024	5.16	0.118	31.135	
1	108	2049	9.8	200 ✓		0.000	-0.77	-0.018	31.193	
						0.000	-0.77	-0.018	31.245	

ENTERED BY:	DSS
CHECKED BY:	

Bottom Depth:	216
Cast No:	028

	LOC	UTC
Begin:		
Bottom:		21:25
End:		

BEGIN POSITION (GPS)	
LAT:	48° 33.48
LONG:	123° 30.72

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 14/9/95

VESSEL: John P. Tully

STATION NO: 51

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
						EPD				
	131	2075	16.6	0	Bucket Sample	1.081	269.59	6.165	29.380	
11	130	2074	12.1	10 ✓		0.489	120.98	2.769	29.353	
10	129	2073	11.6	20 ✓		0.349	85.52	1.958	29.624	
9	128	2072	11.0	30 ✓		0.306	75.93	1.739	29.827	
8	127	2071	10.6	40 ✓		0.268	66.31	1.519	30.006	
7	126	2070	10.2	50 ✓		0.240	58.47	1.339	30.104	
6	125	2069	10.0	75 ✓		0.035	7.82	0.179	30.731	
5	124	2068	10.0	100m ✓		0.000	-0.78	-0.018	31.046	
4	123	2067	10.4	120 ✓	oops.	0.000	-0.77	-0.018	31.113	
3	122	2066	10.2	120 ✓	Double trip	0.000	-0.78	-0.018	31.113	
2	121	2064	10.1	140 ✓		0.000	-0.76	-0.018	31.157	
1	120	2065	10.1	170 ✓		0.000	-0.76	-0.017	31.191	

ENTERED BY: DJS

CHECKED BY:

Bottom Depth: 175

Cast No: 030

LOC	UTC
1000	0600
1100	0700
1200	0800
1300	0900
1400	1000
1500	1100
1600	1200
1700	1300
1800	1400
1900	1500
2000	1600
2100	1700
2200	1800
2300	1900
2400	2000
0100	2100
0200	2200
0300	2300
0400	2400
0500	0100
0600	0200
0700	0300
0800	0400
0900	0500
1000	0600

Begin:

Bottom: 22.05

End:

BEGIN POSITION (GPS)

LAT: 48° 31.21' N

LONG: 123° 32.40' W

S 1220
F 1335

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 18/9/95

VESSEL: John P. Tully

STATION NO: 59

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
							Salinity	mmole/kg	EPD	ml/l
	✓	143	2038	14.6	0	bucket sample	27.967	272.64	1.125	6.231
**	✓11	142	2035	12.2	10 X		29.130	204.39	.839	4.677
**	✓10	141	2017	11.3	20 X		29.588	183.94	.760	4.212
	✓9	140	2014	11.1	30 X		30.025	181.61	.746	4.160
	✓8	139	2013	10.8	40 X		30.392	170.69	.700	3.911
	✓7	138	2012	11.2	50 X		30.545	167.62	.690	3.841
	✓6	137	2010	10.2	60 X		31.181	151.66	.618	3.477
	✓5	136	2008	9.0	80 X		32.418	121.10	.500	2.780
	✓4	135	2007	9.3	100 X		32.515	118.26	.487	2.715
	✓3	134	2002	9.0	120 X		32.757	110.76	.457	2.543
	✓2	133	2001	9.1	140 X		32.811	109.42	.448	2.512
**	✓1	132	2000	9.5	160 X		32.839	106.68	.440	2.449

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 163
Cast No: 078

LOC	UTC
Begin:	
Bottom:	17:07
End:	

BEGIN POSITION (GPS)
LAT: 48° 43.51' N
LONG: 123° 15.54' W

X = no confirmation on rosette deck until
yet all bottles were tripped.

** - change ^{sample} number!

S 1340
F 1430

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 18/9/95

VESSEL: John P. Tully

STATION NO: 58

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
11										
10										
✓ 9	152	2033	13.2	0 X			28.335	1.153	281.57	6.438
✓ 8	151	2034	12.3	10 X			29.046	.906	221.23	5.062
✓ 7	150	2025	12.2	20 X			29.482	.815	195.80	4.482
✓ 6	149	2004	11.7	30 X			29.844	.693	168.15	3.850
✓ 5	148	1267	11.5	40 X			30.011	.670	161.99	3.710
✓ 4	147	1264	11.2	50 X			30.216	.656	160.36	3.673
✓ 3	146	2028	11.0	60 X			30.347	.643	159.41	3.652
✓ 2	145	2027	10.0	80 X			31.751	.553	135.16	3.100
✓ 1	144	2018	10.4	90 X			32.142	.531	127.32	2.921

ENTERED BY: DJ S
CHECKED BY:

Bottom Depth: 92

Cast No: 080

LOC	UTC
Begin:	
Bottom:	18:06
End:	

BEGIN POSITION (GPS)

LAT: 48° 43.32' N

LONG: 123° 25.10' W

X = no confirmation on rosette deck unit

S 1424
F 1530

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 57

UTC DATE: 18/9/95
HYDRO No.:

VESSEL: John P. Tully

ENTERED BY: JSS
CHECKED BY:

Bottom Depth: 100
Cast No: 082

	LOC	UTC
Begin:		
Bottom:		19:06
End:		

BEGIN POSITION (GPS)
LAT: 48 43 83
LONG: 123 32 51

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
					Sal.					
11										
10										
✓9	161	2019	13.6	0 X	28.397			1.311	318.41	7.281
✓8	160	2032	13.0	10 X	28.898			1.020	249.63	5.711
✓7	159	2009	13.0	20 X	29.502			.810	197.22	4.514
✓6	158	1265	11.7	30 X	29.720			.724	177.35	4.061
* ✓5	157	2036	11.5	40 X	30.067			.683	165.31	3.786
✓4	156	2015	11.0	50 X	30.464			.635	155.92	3.572
✓3	155	1262	10.7	60 X	30.620			.619	150.72	3.454
✓2	154	1268	10.1	80 X	31.263			.569	139.41	3.197
✓1	153	1266	10.0	94 X	31.618			.564	137.01	3.142

* temp 11.5 not 11.7

X= no confirmation on rosette deck unit

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 18/9/95

VESSEL: John P. Tully

STATION NO: 56

HYDRO No.:

NISK. SAMPLE OXY. OXY. Sample
No. No. Flask TEMP Depth
db

ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
Trip	Trip	SERIAL	Temp (oC)	SERIAL	Temp (oC)
Depth (db)	Confirmed				

ENTERED BY: DJF
CHECKED BY:

11											
10											
9											
✓ 8	169	2052	13.0	0 X			28.323	11.42	282.52	6.461	
✓ 7	168	2051	12.7	10 X			29.321	.989	242.55	5.551	
✓ 6	167	2049	12.3	20 X			29.557	.711	172.88	3.957	
✓ 5	166	2047	11.9	30 X			29.657	.498	121.30	2.777	
✓ 4	165	2045	11.5	40 X			29.998	.639	155.61	3.564	
✓ 3	164	2044	11.0	50 X			30.278	.611	151.91	3.480	
✓ 2	163	2043	11.2	60 X			30.392	.605	149.47	3.424	
✓ 1	162	2040	10.1	72 X			31.374	.595	144.65	3.317	

Bottom Depth: 73
Cast No: 084

LOC	UTC
Begin:	19:31
Bottom:	
End:	

BEGIN POSITION (GPS)
LAT: 48 41 58
LONG: 123 30 29

X = no confirmation on rosette deck unit.

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 55

UTC DATE: 18/7/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	181	2066	16.0	0	bottle sample	29.420		1.402	347.92	7.958
✓ 11	180	2065	12.7	10 X	29.420			.924	223.73	5.121
✓ 10	179	2064	12.4	20 X	29.601			.760	184.65	4.227
✓ 9	178	2063	11.3	30 X	29.812			.514	125.85	2.881
✓ 8	177	2062	11.2	40 X	30.069			.628	151.00	3.459
✓ 7	176	2061	11.0	50 X	30.670			.633	154.03	3.528
✓ 6	175	2060	10.6	60 X	30.527			.590	142.50	3.265
✓ 5	174	2059	9.9	80 X	30.947			.105	25.14	.576
✓ 4	173	2057	9.8	100 X	31.113			0.097	23.20	.532
✓ 3	172	2056	9.7	125 X	31.168			.125	30.13	.691
✓ 2	171	2055	9.7	150 X	31.212			.083	19.66	.451
✓ 1	170	2054	9.7	181 X	31.234			.010	1.70	.039

X = no confirmation on rosette deck unit.

ENTERED BY: JJS
CHECKED BY:

Bottom Depth: 184
Cast No: 086

LOC	UTC
Begin:	
Bottom:	2012
End:	

BEGIN POSITION (GPS)
LAT: 48 39 19
LONG: 123 30 03

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 18/9/95

VESSEL: John P. Tully

STATION NO: 54

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	193	1203	14.6	0	buckley 50.75	28.693		1.462	359.21	8.214
✓11	192	1202	13.0	10 X		29.127		1.044	252.41	5.775
✓10	191	2076	12.5	20 X		29.430		.662	164.70	3.770
✓9	190	2075	11.5	30 X		29.688		.478	118.63	2.716
✓8	189	2074	11.2	40 X		29.975		.501	123.89	2.837
✓7	188	2073	10.9	50 X		30.221		.494	121.30	2.779
✓6	187	2072	10.4	60 X		30.539		.362	89.91	2.060
✓5	186	2071	10.1	80 X		30.990		.158	38.74	.888
✓4	185	2070	10.0	100 X		31.130		.089	21.78	.486
✓3	184	2069	10.1	125 X		31.183		.163	39.24	.900
✓2	183	2068	10.1	150 X		31.217		.068	16.06	.368
✓1	182	2067	10.0	200 X		31.250		0.000	-.77	-.018

ENTERED BY: DJS

CHECKED BY:

Bottom Depth: 214

Cast No: 088

LOC UTC

Begin:

Bottom: 20:59

End:

BEGIN POSITION (GPS)

LAT: 48 37 35

LONG: 123 29 89

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: S3

UTC DATE: 18/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	205	1214	16.3	0	28.698		28.837	1.390	339.07	7.751
✓ 11	204	1215	13.5	10 X	29.127		29.172	1.129	273.07	6.248
✓ 10	203	1212	12.6	20 X	29.430		29.458	.755	183.37	4.197
✓ 9	202	1213	11.5	30 X	29.688		29.536	.434	105.42	2.413
✓ 8	201	1210	11.0	40 X	29.975		29.915	.522	126.16	2.889
✓ 7	200	1211	10.9	50 X	30.221		30.277	.526	127.18	2.914
✓ 6	199	1209	10.4	60 X	30.539		30.563	.436	104.72	2.400
✓ 5	198	1208	9.9	80 X	30.990		31.008	.043	9.75	.224
✓ 4	197	1207	10.1	100 X	31.130		31.116	.047	10.72	.246
✓ 3	196	1206	10.0	125 X	31.183		31.173	.106	25.18	.577
✓ 2	195	1205	10.0	150 X	31.217		31.212	.019	4.01	.092
✓ 1	194	1204	9.9	200 X	31.250		31.251	.000	-.77	-.018

ENTERED BY: JSS
CHECKED BY:

Bottom Depth: 224
Cast No: 090

LOC	UTC
Begin:	
Bottom:	21:35
End:	

BEGIN POSITION (GPS)
LAT: 48 37 35
LONG: 123 29 89
Lat: 48 35 26
Long: 123 30 20

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 18/9/95

VESSEL: John P. Tully

STATION NO: 52

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
✓	217	1227	17.7	0	Buoy Sample		29.166	1.280	313.08	7.157
✓ 11	216	1226	13.5	10 X			29.293	1.166	283.03	6.476
✓ 10	215	1225	12.3	20 X			29.439	.628	153.39	3.511
✓ 9	214	1224	11.2	30 X			29.569	.390	94.13	2.155
✓ 8	213	1223	10.8	40 X			29.918	.380	92.49	2.118
✓ 7	212	1220	10.6	50 X			30.268	.380	92.91	2.129
✓ 6	211	1222	10.2	60 X			30.512	.299	72.18	1.654
✓ 5	210	1221	9.7	80 X			30.933	.072	16.59	.380
✓ 4	209	1219	9.9	100 X			31.074	.030	6.37	.146
✓ 3	208	1218	9.7	125 X			31.152	.012	2.12	.049
✓ 2	207	1212	10.4	150 X			31.201	%.11453	-.77	-.018
✓ 1	206	1216	9.9	200 X			31.258	000	-.77	-.018

ENTERED BY: 435

CHECKED BY:

Bottom Depth: 2 / /

Cast No: 092

LOC UTC

Begin:

Bottom: 2216

End:

BEGIN POSITION (GPS)

LAT: 48° 33.38' N

LONG: 123° 30.77' W

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 51

UTC DATE: 18/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
✓	229	2008	17.8	0	Buoy sample		29.042	1.351	329.87	7.540
✓11	228	2010	13.6	10 X			29.356	1.000	243.37	5.637
✓10	227	2012	12.6	20 X			29.399	.615	149.48	3.421
✓9	226	2013	11.3	30 X			29.614	.373	90.66	2.076
✓8	225	2014	10.2	40 X			29.944	.237	57.17	1.309
✓7	224	2017	9.9	50 X			30.375	.151	35.91	.823
✓6	223	2035	9.7	60 X			30.473	.100	23.65	.542
✓5	222	2000	9.6	80 X			30.893	.016	3.15	.072
✓4	221	1231	9.7	100 X			31.030	.004	.21	.005
✓3	220	1230	9.5	120 X	H ₂ S		31.084	.000	-.77	-.018
✓2	219	1229	9.9	140 X	H ₂ S		31.140	.000	-.77	-.018
✓1	218	1228	9.7	165 X	H ₂ S		31.210	.000	-.77	-.018

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 148
Cast No: 094

LOC	UTC
Begin:	
Bottom:	22:55
End:	

BEGIN POSITION (GPS)
LAT: 48° 31.14' N
LONG: 123° 32.31' W

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 20/9/95

VESSEL: John P. Tully

STATION NO: 59

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	241	2057	15.4	0	bucket sample dosage = 1.116 @ 98.7 computer locked				27.533	26.011.
11	240	2056	14.4	0 +		1.115	275.57	6.304	29.281	
10	239	2055	12.2	20 x		.817	200.64	4.593	29.574	
9	238	2054	12.1	30 x		.786	194.41	4.452	30.093	
8	237	2052	11.8	40 x		.735	181.28	4.152	30.108	
* 7	236	2051	11.5	50 +		.727	177.94	4.076	30.197	
6	235	2049	11.2	60 x		.722	175.45	4.019	30.217	
5	234	2047	11.2	80 x		.711	173.33	3.973	30.921	
4	233	2045	10.6	100 x		.664	157.63	3.614	31.294	
3	232	2044	10.4	120 x		.597	148.12	3.400	32.771	
2	231	2043	9.5	140 x		.433	106.52	2.446	32.845	
1	230	2040	9.0	160 x		.435	105.42	2.421	32.875	

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 163
Cast No: 096

LOC	UTC
Begin:	
Bottom:	17:04
End:	

BEGIN POSITION (GPS)
LAT:
LONG:

Nutrients
NP. at surface with only 10 bottles tripped but should have all 11 tripped.
+ bottle 11 tripped at surface.
x no confirmation on rosette deck unit

* there are 2 2051 #236 in this file. - the 1st is 2059 from 0098 cast. cross ref to deck sheet 0098.
- the 2nd is 2051 #236 from 0096 cast.
∴ disregard 1st 2051 #236.

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 20/9/95

VESSEL: John P. Tully

STATION NO: 58

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
11										
10										
9	250	2067		0					28.676	
8	249	2066	13.6	0 +		1.249	309.87	7.087	28.775	
7	248	2065	12.8	20 x		.991	240.03	5.493	29.346	
6	247	2064	12.4	30 x		.762	185.10	4.238	29.781	
5	246	2063	11.8	40 x		.716	175.58	4.021	29.962	
4	245	2062	11.6	50 x		.661	158.95	3.641	30.357	
3	244	2061	11.1	60 x		.640	155.68	3.567	30.601	
2	243	2060	10.9	80 x		.644	155.44	3.566	32.037	
* *	1	242	2059	86 x	**	.505	123.37	2.826	32.389	

ENTERED BY: DSS
CHECKED BY:

Bottom Depth: 91
Cast No: 098

LOC	UTC
Begin:	
Bottom:	18:01
End:	

BEGIN POSITION (GPS)
LAT:
LONG:

* at surface with only 7 bottles tripped but there should be 8 tripped!
+ bottle # 8 tripped at the surface
** in file # 0096 as 1st 2059 (#236) used. 11.5°C 30.197‰ resulting in .505 end closure. 123.37 2.826 point.
.505 end closure has to be recalculated using 2059 9.7 32.389.

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: SGCC

UTC DATE: 20/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
11										
10										
9										
8	257	2074	14.2	0		1.352	336.23	7.688	28.470	
7	256	2073	13.0	10 X		1.044	257.50	5.892	29.277	
6	255	2072	12.8	20 X		.856	213.95	4.897	29.413	
5	254	2071	12.3	30 X		.675	168.30	3.853	29.605	
4	253	2070	11.2	40 X		.583	143.18	3.279	29.928	
3	252	2069	11.2	50 X		.563	137.54	3.151	30.426	
2	251	2068	10.9	60 X		.525	129.30	2.963	30.558	
1	250	2067	11.0	77 X		.516	125.63	2.880	31.227	

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 78
Cast No: 0100

LOC	UTC
Begin:	
Bottom:	19:03
End:	

BEGIN POSITION (GPS)
LAT:
LONG:

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 55

UTC DATE: 20/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	269	1211	15.6	0			1.462	355.56	8.130	28.863
11	268	1210	13.0	10 x			1.073	260.39	5.958	29.112
10	267	1209	12.3	20 x			.668	161.02	3.686	29.549
9	266	1208	11.1	30 x			.459	111.67	2.557	29.728
8	265	1207	11.1	40 x			.623	151.57	3.472	30.221
7	264	1206	10.8	50 x			.595	144.96	3.321	30.421
6	263	1205	10.2	60 x			.272	68.06	1.560	30.648
5	262	1204	9.9	80 x			.174	41.70	0.956	31.086
4	261	1203	9.9	100 x			.108	25.75	0.590	31.147
3	260	1202	9.9	125 x			.148	35.05	0.804	31.201
2	259	2076	10.1	150 x			.013	2.46	0.56	31.236
1	258	2075	10.1	180 x			.052	12.19	0.279	31.290

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 183
Cast No: 102

LOC	UTC
Begin:	
Bottom:	19:38
End:	

BEGIN POSITION (GPS)
LAT:
LONG:

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 20/9/95

VESSEL: John P. Tully

STATION NO: 54

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	281	1223	14.4	0		1.483	363.80	8.318	28.527	
11	280	1220	13.5	10 X		1.112	273.78	6.263	28.996	
10	279	1222	12.5	20 X		.687	167.03	3.823	29.443	
9	278	1221	11.5	30 X		.516	123.70	2.832	29.648	
8	277	1219	11.0	40 X		.555	131.06	3.002	30.006	
7	276	1218	10.7	50 X		.492	117.19	2.685	30.458	
6	275	1217	9.9	60 X		.217	52.19	1.196	30.708	
5	274	1216	9.9	80 X		.065	15.24	.349	31.063	
4	273	1214	9.6	100 X		.046	10.45	.240	31.137	
3	272	1215	9.6	125 X		.142	33.61	.771	31.187	
2	271	1212	9.8	150 X	bubble	.146	34.78	.797	31.234	
1	270	1213	9.9	200 X		.142	33.92	.778	31.303	

ENTERED BY: DJS

CHECKED BY:

Bottom Depth: 213

Cast No: 0104

LOC	UTC
Begin:	
Bottom:	20:20
End:	

BEGIN POSITION (GPS)

LAT:

LONG:

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 20/9/95

VESSEL: John P. Tully

STATION NO: 53

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
11										
10										
9										
8										
7										
6										
5	286	2045	9.6	140 X		.034	7.54	.173	31.213	
4	285	2044	9.9	160 X		.000	-0.78	-.018	31.222	
3	284	2043	9.6	180 X	H ₂ S	.000	-0.78	-.018	31.241	
2	283	2040	9.6	200 X	H ₂ S	.000	-0.77	-.018	31.250	
1	282	2057	9.9	220 X	H ₂ S	.022	4.66	.107	31.296	

ENTERED BY: DJS

CHECKED BY:

Bottom Depth: 224

Cast No: 106

LOC	UTC
1000	0600
1100	0700
1200	0800
1300	0900
1400	1000
1500	1100
1600	1200
1700	1300
1800	1400
1900	1500
2000	1600
2100	1700
2200	1800
2300	1900
2400	2000
0100	2100
0200	2200
0300	2300
0400	2400
0500	0100
0600	0200
0700	0300
0800	0400
0900	0500
1000	0600

Begin:

Bottom: 20:59

End:

BEGIN POSITION (GPS)

LAT:

LONG:

* on same file as 95270106

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 20/9/95

VESSEL: John P. Tully

STATION NO: 53

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
11										
10	296	2061	13.8	0 X		1.561	381.42	8.726	29.149	
9	295	2060	13.3	10 X		1.151	279.14	6.387	29.156	
8	294	2059	12.3	20 X		.565	138.87	3.179	29.460	
7	293	2056	11.2	30 X		.451	110.90	2.539	29.685	
6	292	2055	10.8	40 X		.487	119.21	2.731	30.122	
5	291	2054	10.4	50 X		.399	98.26	2.251	30.357	
4	290	2052	10.1	60 X		.354	86.85	1.990	30.594	
3	289	2051	9.7	80 X		.066	15.44	.354	31.004	
2	288	2049	9.9	100 X		.044	9.96	.228	31.116	
1	287	2047	9.8	120 X		.064	14.90	.342	31.182	

ENTERED BY: DSS
CHECKED BY:

Bottom Depth: 224
Cast No: 108

LOC	UTC
Begin:	
Bottom:	21:28
End:	

BEGIN POSITION (GPS)
LAT:
LONG:

on file 95270106

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 20/9/95

VESSEL: John P. Tully

STATION NO: S2

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	308	2073	17.5	0	bucket sample	1.284	317.21	7.251	29.003	
11	307	2072	13.4	10 X		1.131	282.99	6.475	29.285	
10	306	2071	12.0	20 X		.463	115.20	2.637	29.472	
9	305	2070	10.8	30 X		.377	92.32	2.114	29.729	
8	304	2069	10.4	40 X		.367	89.40	2.048	30.004	
7	303	2068	10.2	50 X		.365	89.66	2.054	30.364	
6	302	2067	9.9	60 X		.232	56.08	1.285	30.531	
5	301	2066	9.5	80 X		.015	2.94	.067	30.988	
4	300	2065	9.5	100 X		.017	3.36	.077	31.083	
3	299	2064	9.6	125 X		.026	5.57	.128	31.185	
2	298	2063	9.8	150 X		.000	- .77	-.018	31.219	
1	297	2062	9.7	200 X		.000	- .76	-.017	31.253	

ENTERED BY: DJJ
CHECKED BY:

Bottom Depth: 213

Cast No: 0110

LOC	UTC
Begin:	
Bottom:	22.02
End:	

BEGIN POSITION (GPS)

LAT:

LONG:

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 20/9/95

VESSEL: John P. Tully

STATION NO: 51

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
12	320	2056			buckshot sample					
11	319	2055								
10	318	2054	16.1	0 x		1.396	346.50	7.921	28.788	
9	317	2052	14.3	10 x		1.144	282.91	6.472	29.227	
8	316	2051	12.8	20 x		.704	172.44	3.946	29.369	
7	315	2049	11.9	30 x		.393	95.21	2.180	29.511	
6	314	2047	10.4	40 x		.259	62.69	1.436	29.950	
5	313	2045	10.1	50 x		.180	43.26	.991	30.275	
4	312	2044	9.8	60 x		.083	19.95	.457	30.496	
3	311	2043	9.6	80 x		.013	2.45	.056	31.001	
2	310	2040	9.6	100 x		.000	-.77	-.018	31.095	
1	309	2057	9.9	120 x		.000	-.78	-.018	31.155	

ENTERED BY:	DJS
CHECKED BY:	

Bottom Depth:	168
Cast No:	0112

	LOC	UTC
Begin:		
Bottom:		2241
End:		

BEGIN POSITION (GPS)
LAT:
LONG:

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: S 3

UTC DATE: 21 SEP 95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
						Salinity	uMol/kg			
11	329	2055	11.0	120	120.1	31.177	.053			
10	328	2054	11.5	130	130	31.203	.068			
9	327	2052	12.0	140	140	31.215	.014			
8	326	2051	11.9	150	150.2	31.224	-0.77			
7	325	2049	11.3	160	160.2	31.233	-0.77			
6	324	2047	11.0	170	170	31.243	-0.77			
5	323	2045	10.7	180	179.5	31.245	-0.77			
4	322	2044	10.2	190	190	31.267	12.95			
3	321	2043	10.1	200	199	31.281	22.79			
2	320	2040	10.2	210	210	31.309	34.18			
1	319	2057	10.1	3-5	220	31.357	49.14			

ENTERED BY: J.W.
CHECKED BY:

Bottom Depth: 223 m
Cast No: 113 / 114

	LOC	UTC
Begin:	0940	1640
Bottom:		1644
End:		

BEGIN POSITION (GPS)
LAT: 48 35.36
LONG: 123 30.12

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 21 Sep 95

VESSEL: John P. Tully

STATION NO: 93

HYDRO No.:

NISK No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
11	340	2068		5	5.1					
10	339	2067		10	10.1					
9	338	2066		20	19.8					
8	337	2065		30	28.5					
7	336	2064		40	40.3					
6	335	2063		50	49.6	✓				
5	334	2062		60	60.8					
4	333	2061	14.5	80	80.2		Salinity		umol/kg	
3	332	2060	10.9	100	100.6	✓	30.448	50m	321.41	
2	331	2059	10.6	120	120.	✓	31.130	guess - ✓ brand depth confirmed	11.13	
1	330	2056	14.9	0	surf	✓	31.172		12.06	
							28.857		356.77	

ENTERED BY: JW
CHECKED BY:

Bottom Depth: 223

Cast No: 115/116/117

↑ 5 samples
↑ 4 samples

LOC	UTC
Begin: 1811	1811
Bottom:	1815
End:	

1835

1838

BEGIN POSITION (GPS)

LAT: 48 35.36

LONG: 123 30.08

4 Samples only 330-333

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 21 Sep 95

VESSEL: John P. Tully

STATION NO: 53 (CFC)

HYDRO No.: 118 119

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
							µmol/Kg			
11	340	2068	15.0	5	4.7		28.773	354.95		
10	339	2067	13.5	10	9.4 x		29.213	252.52		
9	338	2066	12.2	20	19.3	?	29.458	136.65		
8	337	2065	11.5	30	30.8 x		29.717	110.46		
7	336	2064	11.6	30	30.8 x		29.717	108.74		
6	335	2063	11.0	50	49.6	✓	30.346	105.58		
5	334	2062	10.8	75	74.6	✓	30.997	41.50		
4				0						
3				170	✓					
2				170	✓					
1				170	✓					

ENTERED BY: FW.
CHECKED BY:

Bottom Depth: 224
Cast No: 118//119

LOC	UTC
Begin:	
Bottom:	
End:	2005

BEGIN POSITION (GPS)
LAT: 48 35.30
LONG: 123 30.17

119

118

CFC {
only 3 deep samples

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: S6cc

UTC DATE: 21 Sep 95
HYDRO No.: 120

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
11										
10	350	2040		0	Surf	✓				
9	349	2057	14.0	10	10.0			339.61		
8	348	2076	13.8	20	20.0			330.87		
7	347	2075	13.3	30	30.3			262.81		
6	346	2074	13.0	40	40.4			212.30		
5	345	2073	12.5	50	49.9			172.04		
4	344	2072	11.9	60	59.8			150.38		
3	343	2071	11.1	70	69.6			107.37		
2	342	2070	10.4	75	75.4			80.20		
1	341	2069	10.4	B-1	81.6			93.58		

ENTERED BY: fw
CHECKED BY:

Bottom Depth: 78m
Cast No: 120

LOC	UTC
Begin:	2052
Bottom:	2056
End:	2101

BEGIN POSITION (GPS)
LAT: 48 41.58
LONG: 123 29.75

9 bottles only tripped

Notes: Used a Salinity of 30.00 for
all oxygen analysis
Correct when salinities analyzed
Depth may be incorrect depending which Niskin did not close

CFC cast

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE:

VESSEL: John P. Tully

STATION NO: S 4.5 ?

HYDRO No.: 121

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2				
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)			
11					✓								
10					✓								
9					✓								
8					✓								
7					✓								
6					✓								
5					✓								
4					✓								
3					✓								
2					✓								
1								170	✓ 171.1				
8 bottles					closed, all for Bullister								

ENTERED BY: JWD.
CHECKED BY:

Bottom Depth: 201m
Cast No: 121

(PDT) LOC	UTC
Begin: 1435	2135
Bottom:	
End: 1443	2143

BEGIN POSITION (GPS)
LAT: 48 38.01
LONG: 123 30.08

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 25/9/95

VESSEL: John P. Tully

STATION NO: S1

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
✓	367	2038	16.4	0 ✓	Bucket Sample		28.80	1.383	335.25	7.664
11	366	2035	13.0	10 ✓			29.358	.704	171.38	3.922
✓10	365	2017	12.0	20 ✓			29.494	.452	109.11	2.498
✓9	364	2014	11.2	30 ✓			29.677	.345	83.62	1.914
✓8	363	2013	10.4	40 ✓			29.895	.266	64.41	1.475
✓7	362	2012	9.9	50 ✓			30.311	.129	30.71	.704
✓6	361	2010	9.6	60 ✓			30.615	.043	9.84	.225
✓5	360	2007	9.9	80 ✓			31.099	.000	-.77	-.018
✓4	359	2009	9.6	100 ✓	H ₂ S		31.158	.000	-.77	-.018
✓3	358	2002	9.8	120 ✓	H ₂ S		31.190	.000	-.77	-.018
✓2	357	2001	9.7	140 ✓	H ₂ S		31.240	.000	-.77	-.018
✓1	356	2000	9.6	160 ✓			31.302	.062	14.39	.330

ENTERED BY:	OJS
CHECKED BY:	

Bottom Depth:	165
Cast No:	0158

	LOC	UTC
Begin:		
Bottom:		1642
End:		

BEGIN POSITION (GPS)
LAT:
LONG:

check
Sal.
entered
on disk. →

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 52

UTC DATE: 25/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	379	2019	16.0	0	bucket + sample		29.259	1.364	331.26	7.576
11	378	2032	12.3	10 ✓			29.364	.723	176.63	4.043
10	377	2009	11.8	20 ✓			29.573	.468	113.59	2.601
9	376	2033	11.1	30 ✓			29.698	.369	89.46	2.049
✓ 8	375	2034	10.4	40 ✓			29.947	.312	75.60	1.732
✓ 7	374	2025	10.4	50 ✓			30.338	.323	77.07	1.766
✓ 6	373	2004	10.0	60 ✓			30.635	.141	33.57	.769
✓ 5	372	1267	9.9	80 ✓			31.066	.015	2.88	.066
✓ 4	371	1264	9.7	100 ✓			31.162	.026	5.61	.129
3	370	2028	9.6	125 ✓	H ₂ S		31.205	.000	-.77	-.018
✓ 2	369	2027	9.6	150 ✓	H ₂ S		31.241	.000	-.77	-.018
✓ 1	368	2018	9.9	200 ✓			31.316	.142	33.51	.768

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 216
Cast No: 0160

LOC	UTC
Begin:	
Bottom:	17:22
End:	

BEGIN POSITION (GPS)
LAT:
LONG:

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 25/9/95

VESSEL: John P. Tully

STATION NO: 53

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	391	1207	15.5	0	Bucket Sample		28.73	1.342	328.02	7.499
11	390	1206	12.8	10 ✓			29.400	.768	187.54	4.292
10	389	1205	12.0	20 ✓			29.534	.626	157.86	3.614
9	388	1204	11.3	30 ✓			29.743	.421	102.11	2.338
8	387	1203	10.6	40 ✓			29.909	1.151	282.17	6.463
7	386	1202	10.4	50 ✓			30.390	.375	90.05	2.063
6	385	1266	9.9	60 ✓			30.904	.081	19.03	.436
5	384	1268	9.8	80 ✓			31.123	.039	7.60	.174
4	383	1262	9.8	100 ✓			31.217	.156	37.39	.857
3	382	2015	9.9	125 ✓			31.229	.000	~.77	-.08
2	381	2036	9.9	150 ✓			31.269	.096	22.55	.517
1	380	1265	10.1	200 ✓			31.341	.176	42.46	.974

ENTERED BY: JTS
CHECKED BY:

Bottom Depth: 224
Cast No: 0162

LOC	UTC
Begin:	
Bottom:	17:57
End:	

BEGIN POSITION (GPS)
LAT:
LONG:

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 54

UTC DATE: 25/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	403	1219	15.3	0	Buoyed Sample		29.044	1.437	341.06	7.800
11	402	1218	12.6	10 ✓			29.375	.781	186.69	4.273
10	401	1217	12.0	20 ✓			29.620	.689	167.57	3.836
9	400	1216	11.3	30 ✓			29.841	.453	110.92	2.540
8	399	1215	11.0	40 ✓			30.085	.476	114.56	2.624
7	398	1214	10.4	50 ✓			30.457	.366	88.51	2.028
6	397	1213	10.4	60 ✓			30.786	.118	28.07	.643
5	396	1212	9.9	80 ✓			31.076	.036	8.0	.183
4	395	1211	9.9	100 ✓			31.174	.191	45.66	1.047
3	394	1210	9.9	125 ✓			31.181	.138	32.75	.751
2	393	1209	9.9	150 ✓			31.219	.131	30.91	.709
1	392	1208	9.9	200 ✓			31.360	.187	44.98	1.031

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 214
Cast No: 0164

LOC	UTC
Begin:	
Bottom:	18:59
End:	

BEGIN POSITION (GPS)
LAT: 48 37.30
LONG: 123 29.76

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 55

UTC DATE: 25/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	415	1231	15.2	0	Buoyed sample		28.862	1.465	355.87	8.137
11	414	1230	12.6	10 ✓			29.434	.793	192.71	4.411
10	413	1229	12.0	20 ✓			29.654	.637	156.12	3.574
9	412	1228	11.3	30 ✓			29.866	.499	121.94	2.792
8	411	1227	11.0	40 ✓			30.125	.526	127.95	2.931
7	410	1226	10.5	50 ✓			30.467	.415	100.10	2.294
6	409	1225	10.1	60 ✓			30.671	.238	57.58	1.320
5	408	1224	10.1	80 ✓			31.115	.060	13.82	.317
4	407	1223	9.7	100 ✓			31.224	.164	39.43	.904
3	406	1222	9.7	125 ✓			31.244	.079	18.49	.424
2	405	1221	9.7	150 ✓			31.268	.100	23.33	.535
1	404	1220	9.7	180 ✓			31.294	.110	26.32	.604

ENTERED BY: JTS
CHECKED BY:

Bottom Depth: 183
Cast No: 0166

LOC	UTC
Begin:	
Bottom:	19:33
End:	

BEGIN POSITION (GPS)
LAT: 48 39.28
LONG: 123 30.17

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 25/9/95

VESSEL: John P. Tully

STATION NO: 56cc

HYDRO No.:

[illegible]

ENTERED BY: DJS
CHECKED BY:

Bottom Depth:	76
Cast No:	0168

	LOC	UTC
Begin:		
Bottom:		20:11
End:		

BEGIN POSITION (GPS)	
LAT:	48.41.64
LONG:	123.29.67

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 58

UTC DATE: 25/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
							Salinity		umole/kg	
11										
10										
9	432	2063	12.6	0 ✓			29.351	0.967	237.54	5.436
8	431	2062	11.7	10 ✓			29.555	0.841	202.57	4.638
7	430	2061	11.5	20 ✓			29.768	0.804	195.91	4.486
6	429	2060	10.9	30 ✓			30.074	0.739	178.75	4.094
5	428	2059	10.7	40 ✓			30.177	0.715	175.81	4.027
4	427	2056	10.6	50 ✓			30.370	0.683	168.25	3.855
3	426	2055	10.2	60 ✓			30.867	0.621	152.12	3.487
2	425	2054	9.6	80 ✓			31.569	0.542	131.67	3.020
1	424	2052	9.6	89 ✓			31.631	0.535	131.54	3.017

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 91
Cast No: 0170

LOC	UTC
Begin:	
Bottom:	20:45
End:	

BEGIN POSITION (GPS)

LAT: 48° 43.39' N
LONG: 123° 25.09' W

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 25/9/95

VESSEL: John P. Tully

STATION NO: 59

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
12	444	2075	11.7	0	Bucket Sample		29.78	0.791	196.82	4.507
11	443	2074	11.0	10 ✓			29.965	0.735	182.12	4.171
10	442	2073	10.7	20 ✓			30.226	0.719	176.90	4.053
9	441	2072	10.4	30 ✓			30.282	0.693	172.89	3.961
8	440	2071	10.6	40 ✓			30.525	0.662	164.88	3.778
7	439	2070	10.4	50 ✓			30.621	0.664	163.08	3.737
6	438	2069	10.4	60 ✓			30.708	0.658	160.82	3.686
5	437	2068	10.0	80 ✓			31.099	0.609	150.03	3.440
4	436	2067	9.9	100 ✓	lost sample		31.214			
3	435	6066	9.7	120 ✓			31.518	0.568	140.10	3.213
2	434	2065	9.6	140 ✓			31.631	0.568	136.94	3.141
1	433	2064	9.2	175 ✓			32.188	0.503	121.65	2.792

ENTERED BY: DJS

CHECKED BY:

Bottom Depth: 174

Cast No: 0174

LOC UTC

Begin:

Bottom: 21:55

End:

BEGIN POSITION (GPS)

LAT: 48° 43.66' N

LONG: 123° 16.65' W

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 59

UTC DATE: 28/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. SAMPLE OXY. OXY. Sample
No. No. Flask TEMP Depth
db

ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
Trip	Trip	SERIAL	Temp (oC)	SERIAL	Temp (oC)
Depth (db)	Confirmed				

ENTERED BY: DJS
CHECKED BY:

✓12	457	2038	11.3	0	Buoy Sample	30.526	200.27			
✓11	456	2035	10.7	10 ✓		30.727	167.81			
✓10	455	2017	10.5	20 ✓		30.917	159.42			
✓9	454	2014	10.4	30 ✓		30.932	159.44			
✓8	453	2013	10.4	40 ✓		30.934	159.30			
✓7	452	2012	10.4	50 ✓		30.953	158.72			
✓6	451	2010	10.4	60 ✓		30.974	158.30			
✓5	450	2008	10.2	80 ✓		31.297	149.21			
✓4	449	2007	9.8	100 ✓		31.629	141.98			
✓3	448	2002	9.6	125 ✓		31.992	133.42			
✓2	447	2001	9.7	150 ✓		32.024	132.75			
✓1	446	2000	9.6	175 ✓		29.103	125.31			
						?				

Bottom Depth: 183
Cast No: 0215

LOC	UTC
Begin:	
Bottom:	16:58
End:	

BEGIN POSITION (GPS)
LAT: 48 43.49 N
LONG: 123 16.19 W

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 58

UTC DATE: 28/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
11										
10										
✓ 9	466	2033	13.2	0 ✓	29.364	224.97				
✓ 8	465	2034	11.8	10 ✓	29.932	197.13				
✓ 7	464	2025	11.5	20 ✓	30.052	192.61				
✓ 6	463	2004	11.0	30 ✓	30.168	182.24				
✗ 5	462	1267	11.0	40 ✓	30.472	220.33	late stir bar			
✓ 4	461	1264	11.0	50 ✓	30.494	172.58				
✓ 3	460	2028	10.8	60 ✓	30.603	167.56				
✓ 2	459	2027	10.4	80 ✓	30.889	157.34				
✓ 1	458	2018	10.4	85 ✓	30.930					

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 85
Cast No: 217

LOC	UTC
Begin:	
Bottom:	18:00
End:	

48?
BEGIN POSITION (GPS)
LAT: 49 43.44 N
LONG: 123 24.72 W

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 56

UTC DATE: 28/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)

11										
10										
9										
✓ 8	474	1268	13.0	0 ✓	29.287	221.53				
✓ 7	473	1262	11.8	10 ✓	29.704	174.11				
✓ 6	472	2015	11.5	20 ✓	29.962	172.77				
✓ 5	471	2036	11.2	30 ✓	30.140	164.29				
✓ 4	470	1265	10.9	40 ✓	30.297	144.71				
✓ 3	469	2019	10.4	50 ✓	30.555	97.65				
✓ 2	468	2032	10.2	60 ✓	30.789	105.62				
✓ 1	467	2009	9.9	75 ✓	31.137	18.91				

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 78
Cast No: 219

LOC	UTC
Begin:	
Bottom:	20:00
End:	

BEGIN POSITION (GPS)
LAT: 48 41.66
LONG: 123 27.674

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 28/9/95

VESSEL: John P. Tully

STATION NO: 55

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
✓12	486	1213	14.4	0	Bucket Sample		29.269	277.17		
✓11	485	1212	12.5	10 ✓			29.609	179.21		
✓10	484	1211	11.6	20 ✓			29.834	137.12		
✓9	483	1210	11.5	30 ✓			30.058	164.79		
✓8	482	1209	11.0	40 ✓			30.170	123.26		
✓7	481	1208	11.0	50 ✓			30.524	135.98		
✓6	480	1207	10.4	60 ✓			30.772	117.11		
✓5	479	1206	9.9	80 ✓			31.096	9.05		
✓4	478	1205	9.8	100 ✓			31.185	21.53		
✓3	477	1204	9.8	125 ✓			31.247	19.79		
✓2	476	1203	9.7	150 ✓			31.265			
✓1	475	1202	9.9	180 ✓			31.294	27.63		

ENTERED BY: DJS

CHECKED BY:

Bottom Depth: 184

Cast No: 221

LOC	UTC
Begin:	
Bottom:	20:27
End:	

BEGIN POSITION (GPS)

LAT: 48 39.27 N

LONG: 123 30.31 W

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 54

UTC DATE: 28/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
	498	1225	14.3	0	Buclut Sample		29.282	245.02		
✓ 11	497	1224	12.1	10 ✓			29.633	147.11		
✓ 10	496	1223	11.5	20 ✓			29.898	163.15		
✓ 9	495	1222	11.1	30 ✓			30.134	162.47		
✓ 8	494	1221	10.9	40 ✓			30.318	140.17		
✓ 7	493	1220	10.7	50 ✓			30.464	133.21		
✓ 6	492	1219	10.4	60 ✓			30.663	123.26		
✓ 5	491	1218	9.6	80 ✓			31.043	8.38		
✓ 4	490	1217	9.9	100 ✓			31.223	47.91		
✓ 3	489	1216	9.9	125 ✓			31.239	31.82		
✓ 2	488	1215	9.7	150 ✓			31.273	33.46		
✓ 1	487	1214	9.7	210 ✓			31.349	33.45		

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 214
Cast No: 0223

LOC	UTC
Begin:	
Bottom:	21:03
End:	

^{ST-P}
BEGIN POSITION (GPS)
LAT: 48 37.44 N
LONG: 123 30.00 W

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: S3

UTC DATE: 28/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)

ENTERED BY: DJS

CHECKED BY:

✓ 11	509	2045	10.9	40 ✓	30.161	115.04				
✓ 10	508	2044	10.7	50 ✓	30.453	90.42				
✓ 9	507	2043	10.1	60 ✓	30.699	51.99				
✓ 8	506	2040	10.0	80 ✓	31.098	7.08				
✓ 7	505	2057	10.0	100 ✓	31.193	26.73				
✓ 6	504	1231	9.7	120 ✓	31.189	9.7	Tiny Bubble			
✓ 5	503	1230	9.7	140 ✓	31.208	0	Tiny Bubble			
✓ 4	502	1229	9.7	160 ✓	31.243	12.79	Popped Top Air Space			
✓ 3	501	1228	9.7	180 ✓	31.269	43.07	Popped Top Air Space			
✓ 2	500	1227	9.7	200 ✓	31.314	42.86	Broken Top Popped Top			
✓ 1	499	1226	9.7	220 ✓	31.383	34.55				

Bottom Depth: 224

Cast No: 0225

LOC	UTC
Begin:	
Bottom:	21:38
End:	

End

BEGIN POSITION (GPS)

LAT: 48 35.35 N

LONG: 123 29.98 W

* Nutrients

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: 53

UTC DATE: 28/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
11										
10										
9										
8										
7										
6										
✓ 5	514	2055	13.4	0 ✓	29.324	206.98				
✓ 4	513	2054	11.9	10 ✓	29.620	121.28				
✓ 3	512	2052	11.5	20 ✓	29.702	112.27				
✓ 2	511	2051	11.0	30 ✓	29.954	113.37				
✓ 1	510	2049	10.9	40 ✓	30.083	105.70				

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 224
Cast No: 0227

LOC	UTC
Begin:	
Bottom:	22:19
End:	

BEGIN POSITION (GPS)
LAT: 48 35.37 N
LONG: 123 30.13 W

Rosette 2: 12 bottle

CRUISE NO: 9527

UTC DATE: 28/9/95

VESSEL: John P. Tully

STATION NO: 52

HYDRO No.:

NISK. No.	SAMPLE No.	OXY. Flask	OXY. TEMP	Sample Depth db	ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
					Trip Depth (db)	Trip Confirmed	SERIAL	Temp (oC)	SERIAL	Temp (oC)
✓	526	2075	15.1	0	Baglax Sample	29.22	262.54			
✓11	525	2069	11.8	10 ✓		29.577	109.92			
✓10	524	2068	11.5	20 ✓		29.770	112.60			
✓9	523	2066	11.0	30 ✓		29.865	97.11			
✓8	522	2065	10.7	40 ✓		30.195	112.67			
✓7	521	2064	10.4	50 ✓		30.471	85.75			
✓6	520	2063	10.0	60 ✓		30.636	43.65			
✓5	519	2062	9.6	80 ✓		31.005	1.66			
✓4	518	2061	9.6	100 ✓		31.145	4.13			
✓3	517	2060	9.7	125 ✓	H ₂ O	31.217	-1.01			
✓2	516	2059	9.9	150 ✓	H ₂ O	31.254	-1.02			
✓1	515	2056	9.8	210 ✓		31.335	33.44			

ENTERED BY: JTS

CHECKED BY:

Bottom Depth: 214

Cast No: 0229

LOC	UTC
Begin:	
Bottom:	22:45
End:	

BEGIN POSITION (GPS)

LAT: 48° 33.45' N

LONG: 123° 30.86' W

Rosette 2: 12 bottle

CRUISE NO: 9527
STATION NO: S1

UTC DATE: 28/9/95
HYDRO No.:

VESSEL: John P. Tully

NISK. SAMPLE OXY. OXY. Sample
No. No. Flask TEMP Depth
db

ROSETTE OPERATION		THERMOMETER 1		THERMOMETER 2	
Trip	Trip	SERIAL	Temp (oC)	SERIAL	Temp (oC)
Depth (db)	Confirmed				

						Sal	O ₂			
11										
✓10	536	2007	13.2	20 ✓		29.338	183.37			
✓9	535	2002	11.2	20 ✓		29.607	89.07			
✓8	534	2001	10.8	20 ✓		29.742	77.12			
✓7	533	2000	10.7	30 ✓		29.833	68.45			
✓6	532	2076	10.2	40 ✓		30.001	57.07			
✓5	531	2074	10.1	50 ✓		30.208	45.12			
✓4	530	2073	9.7	60 ✓		30.490	24.74			
✓3	529	2072	9.6	80 ✓		30.756	4.99			
✓2	528	2071	9.5	100 ✓	H ₂ S	31.092	-1.04			
✓1	527	2070	9.6	115 ✓	H ₂ S	31.177	-1.02			

ENTERED BY: DJS
CHECKED BY:

Bottom Depth: 119
Cast No: 0231

LOC	UTC
Begin:	
Bottom:	23:20
End:	

BEGIN POSITION (GPS)
LAT: 48° 31.21' N
LONG: 123° 32.24' W