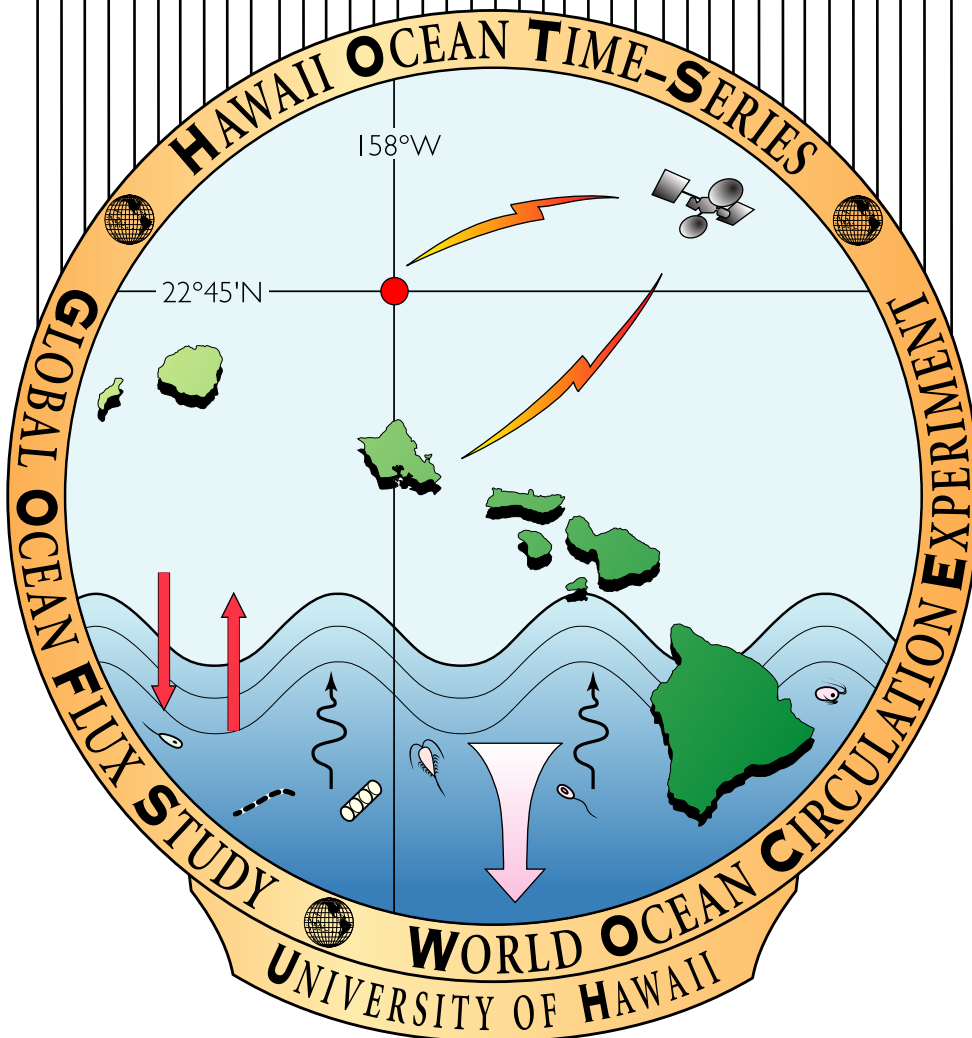


Hawaii Ocean Time-series Program

HOT 318



Hawaii Ocean Time-Series

HOT-318

KAHE Station Data Sheet

Station # 1
 Cast # 1
 Operator(s): DS,CF

Date: 1/6/2020 (HST)
 Time: 1400 (HST)

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/Alk	pH	Nuts	LLN/LLP	Chl <i>a</i>	
1	1000	1	7.7						
2	750	2,3,4	9.2						
3	500	5	9.7						
4	350	6	12.1			4			
5	250	7	16.4			5			
6	200								
7	175							7	
8	150	8	21.6			8	8	8	
9	125							9	
10	100	9,10,11	25.0			10	10	10A-B	
11	75							11	
12	45	12	25.7	12	1	12	12	12	
13	25	13	25.7	13	2			13A-B	
14	5	14	25.7	14	3,4,5	14	14	14	
15	5	QC	25.7						
16									
17									
18									
19									
20									
21									
22									
23									
24									

Notes:

Hawaii Ocean Time-Series

HOT-318

KAHE Station Data Sheet

Station # 1

Date: 1/6/2020 (HST)

Cast # 1

Time: 1400 (HST)

Operator(s): DS,CF

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/Alk	pH	Nuts	LLN/LLP	Chl <i>a</i>	
1	1000	1	7.7						
2	750	2,3,4 _{7B}	9.2						
3	500	5	9.7						
4	350	6	12.1			4			
5	250	7	16.4			5			
6	200								
7	175							7	
8	150	8	21.6			8	8	8	
9	125							9	
10	100	9,10,11	25.0			10	10	10A-B	
11	75							11	
12	45	12	25.7	12	1	12	12	12	
13	25	13	25.7	13	2			13A-B	
14	5	14	25.7	14	3,4,5	14	14	14	
15	5	QC	25.7						
16									
17									
18									
19									
20									
21									
22									
23									
24									

Notes:

Hawaii Ocean Time-series

HOT-318

WOCE Deep Data Sheet

Station # 2
 Cast # 1
 Operator(s): DS, CF, TC

Date: 1/7/2020 (HST)
 Time: 0730 (HST)

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/ Alk	pH	DOC	Nutrient	Refrig. Si	EC
1	4800	15	5.6				1	1	X
2	4600	16	5.5				2	2	X
3	4500	17,18,19	6.8	3A-B	1,2,3	3ABC	3A-B	3A-B	X
4	4400	20	5.5				4	4	X
5	4200	21	5.3				5	5	X
6	4000	22,23,24	5.8			6ABC	6A-B	6A-B	X
7	3800	25	5.3				7	7	X
8	3600	26	5.6				8	8	X
9	3400	27	5.3				9	9	X
10	3200	28	5.3				10	10	X
11	3000	29,30,31	6.2	11	4	11ABC	11A-B	11A-B	X
12	2800	32	5.5				12	12	X
13	2600	33	5.5				13	13	X
14	2400	34	5.9				14	14	X
15	2200	35	5.9				15	15	X
16	2000	36,37,38	6.9	16	5	16ABC	16A-B	16A-B	X
17	1800	39	6.3				17	17	X
18	1600	150	6.5				18	18	X
19	1400	41	7.0				19	19	X
20	1200	42	7.2				20	20	X
21	1000	43	7.5				21	21	X
22	750	44	8.3				22	22	X
23	500	45	9.8				23	23	X
24	5	46	24.9				24		X

Notes:

Bottle 8 leaking from bottom o-ring after vent opened

Hawaii Ocean Time-series

HOT-318

PO Shallow Data Sheet

Station # 2

Date: 1/7/20 (HST)

Cast # 2

Time: _____ (HST)

Operator(s): KB, BB, TB, RT

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/Alk	pH	DOC	Nutrient	Refrig. Si	Replicate Depths
1	1000	47,48,49		1	1	1	1A-B	1A-B	1000
2	845	50					2	2	
3	745	51					3	3	
4	685	52					4	4	
5	663	53					5	5	
6	607	54					6	6	
7	553 750	55,56,57		7	2	7	7	7	750
8	506	58					8	8	
9	480	59					9	9	
10	438 600	60		10	3	10	10	10	600
11	405 525	61					11A-B	11A-B	525
12	350 500	62		12	4	12	12	12	500
13	311 450	63,64,65					13	13	450
14	301	66					14		
15	254 350	67		15AB	5,6	15	15		350
16	244	68					16		
17	207 250	69		17	7	17	17		250
18	189 225	70,71,72					18		225
19	162	73					19		
20	145 150	74					20A-B		150
21	121	75					21		
22	115	76					22		
23	108	77					23		
24	5	78					24		

Notes:

Hawaii Ocean Time-series

HOT-318

PO Shallow Data Sheet

Station # 2
 Cast # 2
 Operator(s): KB, BB, TB, RT

Date: 1/7/20 (HST)
 Time: 1620 (HST)

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/Alk	pH	DOC	Nutrient	Refriger. Si	Replicate Depths
1	1000	47,48,49	7.3	1	1	1	1A-B	1A-B	
2	845	50	7.5				2	2	
3	745	51,52,53	8.3	3	2	3	3	3	750
4	685	54	7.9				4	4	
5	663	55	8.1				5	5	
6	607	56	8.3	6	3	6	6	6	600
7	553	57	8.7				7	7	
8	506	58	9.0	8	4	8	8A,B	8A,B	525,500
9	480	59	9.5				9	9	
10	438	60,61,62	10.3				10	10	450
11	405	63	10.6				11	11	
12	350	64	11.9	12A,B	5,6	12	12	12	350
13	311	65	12.8				13		
14	301	66	13.2				14		
15	254	67	15.2				15		
16	244	68	16.0	16	7	16	16		250
17	207	69,70,71	18.3				17		225
18	189	72	19.2				18		
19	162	73	20.7				19		
20	145	74	21.1				20A-B		150
21	121	75	21.9				21		
22	115	76	22.6				22		
23	108	77	23.2				23		
24	5	78	24.9				24		5

Notes:

Hawaii Ocean Time-series

HOT-318

PO Shallow Data Sheet

Station # 2
 Cast # 2
 Operator(s): KB, BB, TB, RT

Date: 1/7/20 (HST)
 Time: 1620 (HST)

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/Alk	pH	DOC	Nutrient	Refrig. Si	Replicate Depths
1	1000	47,48,49	7.3	1	1	1	1A-B	1A-B	
2	845	50	7.5				2	2	
3	745	51,52,53	8.3	3	2	3	3	3	
4	685	54	7.9				4	4	
5	663	55	8.1				5	5	
6	607	56	8.3	6	3	6	6	6	
7	553	57	8.7				7	7	750
8	506	58	9.0	8	4	8	8A,B	8A,B	
9	480	59	9.5				9	9	
10	438	60,61,62	10.3				10	10	600
11	405	63	10.6				11	11	525
12	350	64	11.9	12A,B	5,6	12	12	12	500
13	311	65	12.8				13		450
14	301	66	13.2				14		
15	254	67	15.2				15		350
16	244	68	16.0	16	7	16	16		
17	207	69,70,71	18.3				17		250
18	189	72	19.2				18		225
19	162	73	20.7				19		
20	145	74	21.2				20A-B		150
21	121	75	21.9				21		
22	115	76	22.6				22		
23	108	77	23.2				23		
24	5	78	24.9				24		5

Notes:

Hawaii Ocean Time-series

HOT-318

BEACH Shallow Data Sheet (1/2)

Station # 2
 Cast # 3
 Operator(s): KB, BB, RT, SI

Date: 1/7/20 (HST)
 Time: 1850 (HST)

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/ALK	Quay DIC	Keeling DIC	SF-S	pH	DOC
1	1000	79	7.4						
2	O ₂ min	80	8.3						
3	Sal min	81	10.3						
4	200	82	18.6	4				1	4
5	175	83	19.9						5
6	165	84	20.6						
7	150	85	20.9	7				2	7
8	130								
9	125	86	21.7						9
10	115	87	22.1						
11	110								
12	100	88,89,96	23.2	12				3	12
13	90								
14	85	91	24.5						
15	75	92	24.7	15				4	15
16	60								16
17	45	93	24.9	17				5	17
18	35								18
19	25	94	25.1	19				6	19
20	25				20		20A-B		
21	15								21
22	5	95	25.0	22A-B				7,8	22
23	5				23	23A-B			
24	5						24A-B		

Notes: two DO bottles labeled 87
Samples from 218-2-3-20 (25 m) for Jon Zehr

Hawaii Ocean Time-series

HOT-318

BEACH Shallow Data Sheet (2/2)

Station # 2
 Cast # 3
 Operator(s): KB, BB, RT, TB, SI

Date: 1/7/20 (HST)
 Time: 1850 (HST)

Rosette Position	Desired Depth	Nutrient	LLN	LLP				
1	1000							
2	O₂ min							
3	Sal min							
4	200	4						
5	175	5	5	5				
6	165		6					
7	150	7	7A-B	7				
8	130		8					
9	125	9A-B	9	9				
10	115		10	10				
11	110		11					
12	100	12	12A-B	12				
13	90		13					
14	85		14	14				
15	75	15	15	15				
16	60	16	16	16				
17	45	17A-B	17	17				
18	35	18	18					
19	25	19	19	19				
20	25							
21	15	21	21					
22	5	22	22A-B	22				
23	5							
24	5							

Notes:

Hawaii Ocean Time-series

HOT-318

BEACH Shallow Data Sheet (1/2)

Station # 2
 Cast # 3
 Operator(s): KB, BB, RT, SI

Date: 1/7/20 (HST)
 Time: 1850 (HST)

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/ALK	Quay DIC	Keeling DIC	SF-S	pH	DOC
1	1000	79	7.4						
2	O ₂ min	80	8.3						
3	Sal min	81	10.3						
4	200	82	18.6	4				1	4
5	175	83	19.9						5
6	165	84	20.6						
7	150	85	20.9	7				2	7
8	130								
9	125	86	21.7						9
10	115	87	22.1						
11	110								
12	100	88,89,96	23.2	12				3	12
13	90								
14	85	91	24.5						
15	75	92	24.7	15				4	15
16	60								16
17	45	93	24.9	17				5	17
18	35								18
19	25	94	25.1	19				6	19
20	25				20		20A-B		
21	15								21
22	5	95	25.0	22A-B				7,8	22
23	5				23	23A-B			
24	5						24A-B		

Notes: Two DO bottles labelled 87
 20 - 80 ml for John Zehr (25 m)

Hawaii Ocean Time-series

HOT-318

BEACH Shallow Data Sheet (2/2)

Station # 2
 Cast # 3
 Operator(s): KB, BB, RT, TB, SI

Date: 1/7/20 (HST)
 Time: 1850 (HST)

Rosette Position	Desired Depth	Nutrient	LLN	LLP				
1	1000							
2	O₂ min							
3	Sal min							
4	200	4						
5	175	5	5	5				
6	165		6					
7	150	7	7A-B	7				
8	130		8					
9	125	9A-B	9	9				
10	115		10	10				
11	110		11					
12	100	12	12A-B	12				
13	90		13					
14	85		14	14				
15	75	15	15	15				
16	60	16	16	16				
17	45	17A-B	17	17				
18	35	18	18					
19	25	19	19	19				
20	25							
21	15	21	21					
22	5	22	22A-B	22				
23	5							
24	5							

Hawaii Ocean Time-series

HOT- 318

PC/PN Data Sheet

Station # 2 Date: 1/7/20 (HST)
 Cast # 4 Time: 2230 (HST)
 Operator(s): KB, BB, RT, TB, SI Pre-screen mesh size: 202 um
 Blank #'s B1 B2 B3

Rosette Position	Desired Depth	Carboy #	Total Volume	Sample #	DNA	O2 SF-S	
1	1000						
2	Sal Min						
3	350	1	6	3			
4	350	2	10	4			
5	250	3	3.5	5			
6	200	4	10	6			
7	175	5	10	7			
8	150	6	10	8			
9	125	7,8	4,4	9A-B			
10	100	9	4	10			
11	75	10	4	11			
12	75				X		
13	45	11	4	13			
14	45				X		
15	25	12,13	4,4	15 A, B			
16	25				X		
17	25					17A,B	
18	5	14	4	17			
19	5				X		
20	5					20A,B	
21							
22							
23							
24							

**Notes: 218-2-3-3,4,5 all had brownish red stuff. -5 chalky, flaky looking
 -18, filtered fast (filter askew?), -9B filter ripped, 15A,B both had 'specks' of stuff.
 Water saved from -5 (2x500 ml).**

Hawaii Ocean Time-series

HOT- 318

PC/PN Data Sheet

Station # 2 Date: 1/7/20 (HST)
 Cast # 4 Time: _____ (HST)
 Operator(s): KB, BB, RT, TB, SI Pre-screen mesh size: 202 um
 Blank #'s B1 B2 B3

Rosette Position	Desired Depth	Carboy #	Total Volume	Sample #	DNA	O2 SF-S	
1	1000						
2	Sal Min						
3	350	1	10	3			
4	350	2	10	4			
5	250	3	10	5			
6	200	4	10	6			
7	175	5	10	7			
8	150	6	10	8			
9	125	7,8	4,4	9A-B			
10	100	9	4	10			
11	75	10	4	11			
12	75				X		
13	45	11	4	13			
14	45				X		
15	25	12,13	4,4	15 A, B			
16	25				X		
17	25					17A,B	
18	5	14	4	17			
19	5				X		
20	5					20A,B	
21							
22							
23							
24							

Notes:

*Carboy 14 fast
 maybe askew
 #8 filter ripped
 #12 small black
 #13 things on filter*

Hawaii Ocean Time-series

HOT- 318

Particulate Phosphorus Data Sheet

Station # 2 Date: 1/7/20 (HST)
 Cast # 5 Time: 2330 (HST)
 Operator(s): KB, BB, RT, TB Pre-screen mesh size: 202 um
 Blank #'s B1 B2 B3

Rosette Position	Desired Depth	Carboy #	Total Volume	Sample #	SF-S	O2 SF-S	BG	DNA/SCOPE	
1	1000						X		
2	Sal						X		
3	350	1	10	3					
4	350	2	10	4					
5	300						X		
6	250	3	10	6					
7	200	4	10	7					
8	200						X		
9	175	5	10	9					
10	175							X	
11	150	6	10	11			X		
12	150							X	
13	125	7,8	4,4	13A-B					
14	125							X	
15	DCM+5						X		
16	100						X		
17	100							X	
18	100	9	4	18					
19	DCM-5						X		
20	75	10	4	20			X		
21	45	11	4	21					
22	25	12,13	4,4,	22 A-B					
23	25				23 A,B		X		
24	5	14	4	24	24 A,B		X		

Notes: 318-3-5-3,6 had red stuff. Less than for PC/PN.

Hawaii Ocean Time-series

HOT- 318

Particulate Phosphorus Data Sheet

Station # 2 Date: 1/7/20 (HST)
 Cast # 5 Time: 2330 (HST)
 Operator(s): KB, BB, RT, TB Pre-screen mesh size: 202 um
 Blank #'s B1 B2 B3

Rosette Position	Desired Depth	Carboy #	Total Volume	Sample #	SF-S	O2 SF-S	BG	DNA/SCOPE	
1	1000						X		
2	Sal						X		
3	350	1	10	3					
4	350	2	10	4					
5	300						X		
6	250	3	10	6					
7	200	4	10	8					
8	200						X		
9	175	5	10	9					
10	175							X	
11	150	6	10	8/			X		
12	150							X	
13	125	7,8	4,4	12A-B					
14	125							X	
15	DCM+5						X		
16	100						X		
17	100							X	
18	100	17	4	18					
19	DCM-5						X		
20	75	10	4	20			X		
21	45	11	4	21					
22	25	12,13	4,4,	22A-B					
23	25				23 A.B		X		
24	5	14	4	24	24 A,B		X		

Notes: 318-3-5 -3 - Red stuff
 -6 - 11 - 2 (cont)

Hawaii Ocean Time-series

HOT-318

HPLC & Chl *a*. Bottle Data Sheet

Station # 2
 Cast # 6
 Operator(s): KB, BB, RT, TB

Date: 1/8/20 (HST)
 Time: 0210 (HST)

Rosette Position	Desired Depth	Carboy #	Total Volume	HPLC	Chl <i>a</i> .	FCM	KO	O2 SF-S
1	1000						X	
2	1000						X	
3	1000							
4	Sal min							
5	175	1	10	5	5	5A,B		
6	150	2	10	6	6	6A,B		
7	135	7	4	7	7A-B			
8	125	8,9	4,4	8A-B	8	8A,B		
9	115	10	4	9	9			
10	100	11	4	10	10	10A,B		
11	85	12	4	11	11			
12	75	13	4	12	12	12A,B		
13	60	14	4	13	13A-B			
14	45	15,16	4,4	14A-B	14	14A,B		
15	25	3	10	15	15	15A,B		
16	25							16A,B
17	5	4	10	17	17	17A,B		
18	5							18A,B
19	5						X	
20	5						X	
21								
22								
23								
24								

Notes
Chlorophyll 17 lost during processing, Carboy # 8 and 9 ripped filters
FCM 5 not sampled

Hawaii Ocean Time-series

HOT-318

HPLC & Chl *a*. Bottle Data Sheet

Station # 2
 Cast # ~~14~~ 6
 Operator(s): KB, BB, RT, TB

Date: 1/8/20 (HST)
 Time: 0210 (HST)

Rosette Position	Desired Depth	Carboy #	Total Volume	HPLC	Chl <i>a</i> .	FCM	KO	O2 SF-S
1	1000						X	
2	1000						X	
3	1000							
4	Sal min							
5	175	1	10	5	5	5A,B		
6	150	2	10	6	6	6A,B		
7	135	7	4	7	7A-B			
8	125	8,9	4,4	8A-B	8	8A,B		
9	115	10	4	9	9			
10	100	11	4	10	10	10A,B		
11	85	12	4	11	11			
12	75	13	4	12	12	12A,B		
13	60	14	4	13	13A-B			
14	45	15,16	4,4	14A-B	14	14A,B		
15	25	3	10	15	15	15A,B		
16	25							16A,B
17	5	4	10	17	17	17A,B		
18	5							18A,B
19	5						X	
20	5						X	
21								
22								
23								
24								

Notes

Hawaii Ocean Time-series

HOT- 318

Particulate Silica Data Sheet

Station # 2 Date: 1/8/2020 (HST)
 Cast # 7 Time: 4:37 (HST)
 Operator(s): DS, TC, CF Pre-screen mesh size: none
 Blank # **B1, B2, B3**

Rosette Position	Desired Depth	Carboy #	Total Volume	Sample #	SF-S	MCA	AI	
1	1000							
2	Sal min							
3	175	7	4	3				
4	150	8	4	4				
5	125					X		
6	125					X		
7	125					X		
8	125					X		
9	125	9,10	4,4	9A-B				
10	100	11	4	10				
11	75	12	4	11				
12	45	13	4	12				
13	25	14,15	4,4	13A-B				
14	25				14AB			
15	5				15AB			
16	5	16	4	16				
17	5					X		
18	5					X		
19	5					X		
20	5					X		
21	5						X	
22	5						X	
23	5						X	
24								

Notes:

Hawaii Ocean Time-series

HOT- 318

Particulate Silica Data Sheet

Station # 2 Date: 1/8/2020 (HST)
 Cast # 7 Time: 4:37 (HST)
 Operator(s): DS, TC, CF Pre-screen mesh size: none
 Blank # B1, B2, B3

Rosette Position	Desired Depth	Carboy #	Total Volume	Sample #	SF-S	MCA	AI
1	1000						
2	Sal min						
3	175	7	4	3			
4	150	8	4	4			
5	125					X	
6	125					X	
7	125					X	
8	125					X	
9	125	9,10	4,4	9A-B			
10	100	11	4	10			
11	75	12	4	11			
12	45	13	4	12			
13	25	14,15	4,4	13A-B			
14	25				14AB		
15	5				15AB		
16	5	16	4	16			
17	5					X	
18	5					X	
19	5					X	
20	5					X	
21	5						X
22	5						X
23	5						X
24							

Notes:

Hawaii Ocean Time-series

HOT- 318

ATP Data Sheet

Station # 2 Date: 1/8/2020 (HST)
 Cast # 8 Time: 0803 (HST)
 Operator(s): DS, TC, CF Pre-screen mesh size: 202um
 Blank #'s 28, 29, 30

Rosette Position	Desired Depth	ATP Tube #'s	Volume Filtered	Carboy #	SF-S	DNA	
1	1000						
2	770					X	
3	500					X	
4	Sal min						
5	400					X	
6	350	1 – 3	3x2	1			
7	300					X	
8	250	4 – 6	3x2	2			
9	150	7 – 9	3x1	7			
10	125	10 – 12	3x1	8			
11	100	13 – 15	3x1	9			
12	75	16 – 18	3x1	10			
13	45	19 – 21	3x1	11			
14	25	22 – 24	3x1	12			
15	25				15A,B		
16	5	25 - 27	3x1	13			
17	5				17AB		
18							
19							
20							
21							
22							
23							
24							

Notes:

Hawaii Ocean Time-series

HOT- 318

ATP Data Sheet

Station # 2 Date: 1/8/2020 (HST)
 Cast # 8 Time: 0800 (HST)
 Operator(s): DS, TC, CF Pre-screen mesh size: 202um
 Blank #'s 28, 29, 30

Rosette Position	Desired Depth	ATP Tube #'s	Volume Filtered	Carboy #	SF-S	DNA	
1	1000						
2	770					X	
3	500					X	
4	Sal min						
5	400					X	
6	350	1 - 3	3x2	1			
7	300					X	
8	250	4 - 6	3x2	2			
9	150	7 - 9	3x1	7			
10	125	10 - 12	3x1	8			
11	100	13 - 15	3x1	9			
12	75	16 - 18	3x1	10			
13	45	19 - 21	3x1	11			
14	25	22 - 24	3x1	14 12			
15	25				15A,B		Andrés
16	5	25 - 27	3x1	16 13			Andrés
17	5				17AB		
18							
19							
20							
21							
22							
23							
24							

Notes:

Hawaii Ocean Time-series

HOT-318

OPEN CAST Data Sheet

Station # 2
 Cast # 9
 Operator(s): DS, TC, CF

Date: 2/8/20 (HST)
 Time: 10:34 (HST)

Rosette Position	Desired Depth	SW	SF-S	MC	DNA		
1	1000						
2	1000				X		
3	800	3					
4	600	4					
5	Sal Min						
6	400	6					
7	300	7					
8	275				X		
9	250				X		
10	225				X		
11	200				X		
12	200	12					
13	175	13		1			
14	150	14		2			
15	125	15		3			
16	100	16		4			
17	75	17		5			
18	45	18		6			
19	25	19		7			
20	25		20A,B				
21	5		21A,B				
22	5	22		8			
23							
24							

Notes

Hawaii Ocean Time-series

HOT-318

OPEN CAST Data Sheet

Station # 2
 Cast # 9
 Operator(s): PS CF

Date: 2/8/20 (HST)
 Time: 1034 (HST)

Rosette Position	Desired Depth	SW	SF-S	MC	DNA		
1	1000						
2	1000				X		
3	800	3					
4	600	4					
5	Sal Min						
6	400	6					
7	300	7					
8	275				X		
9	250				X		
10	225				X		
11	200				X		
12	200	12					
13	175	13		1			
14	150	14		2			
15	125	15		3			
16	100	16		4			
17	75	17		5			
18	45	18		6			
19	25	19		7			
20	25		20A,B				
21	5		21A,B				
22	5	22		8			
23							
24							

Notes

Hawaii Ocean Time-series

HOT- 318

OPEN Data Sheet

Station # 2
 Cast # 10
 Operator(s): KB, BB, RT, TB

Date: 1/8/20 (HST)
 Time: 1638 (HST)

Rosette Position	Desired Depth	SF-S	AI				
1	1000						
2	Sal Min						
3	175		X				
4	175		X				
5	175		X				
6	100		X				
7	100		X				
8	100		X				
9	75		X				
10	75		X				
11	75		X				
12	25	12A,B					
13	5	13A,B					
14	5		X				
15	5		X				
16	5		X				
17							
18							
19							
20							
21							
22							
23							
24							

Notes:

Hawaii Ocean Time-series

HOT- 318

OPEN Data Sheet

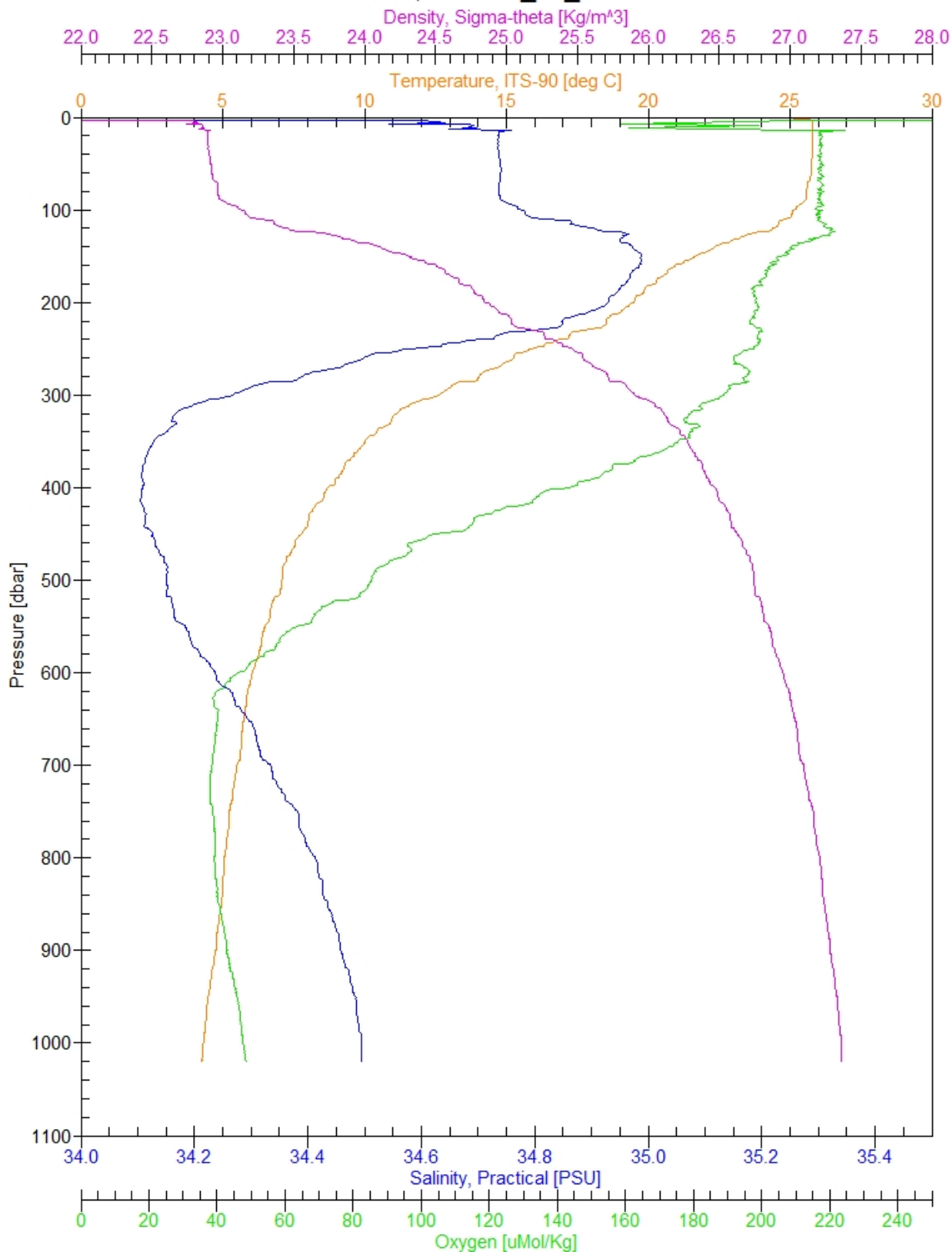
Station # 2
 Cast # 10
 Operator(s): KB, BB, RT, TB

Date: 2/8/20 (HST)
 Time: 16:38 (HST)

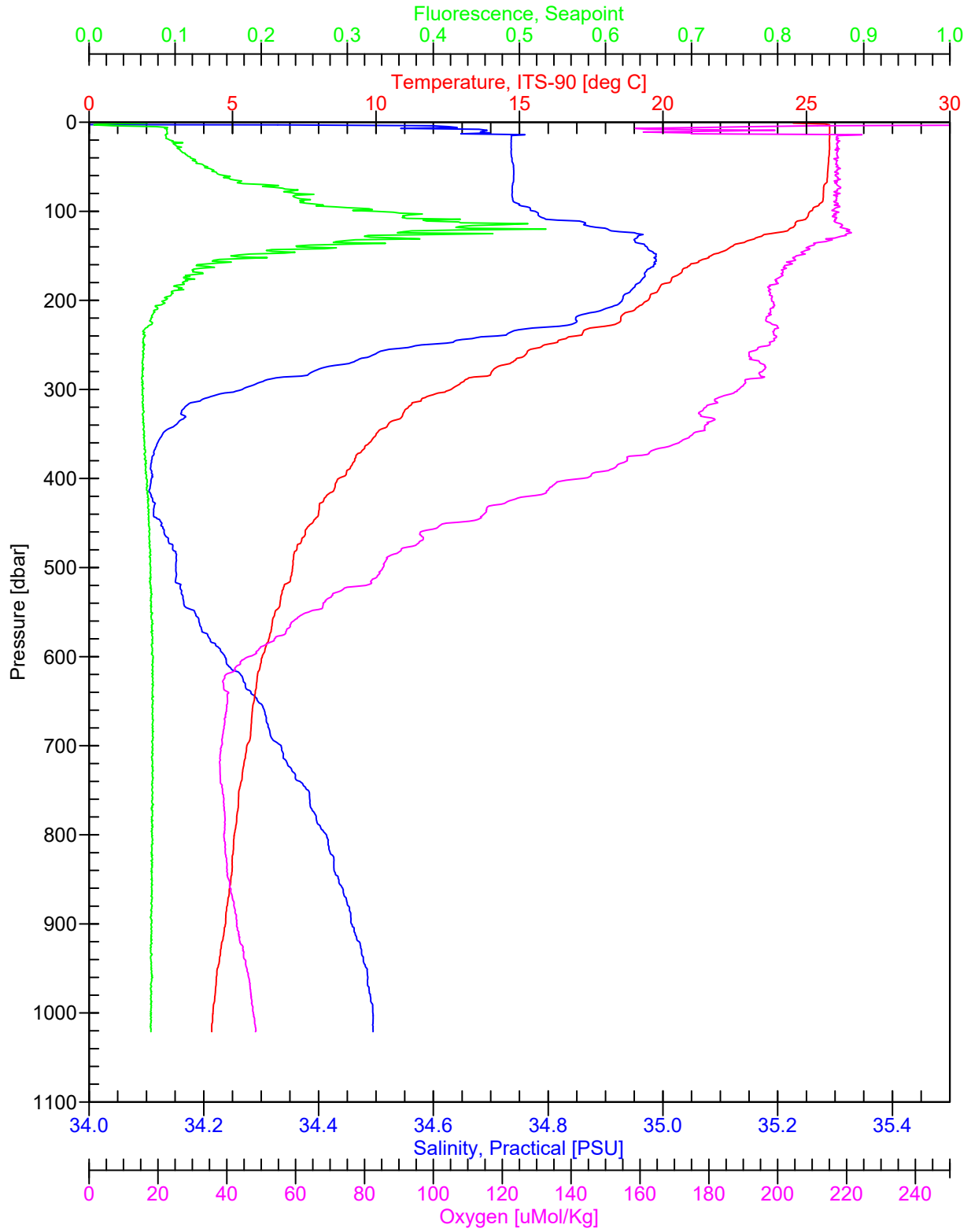
Rosette Position	Desired Depth	SF-S	AI				
1	1000						
2	Sal Min						
3	175		X				
4	175		X				
5	175		X				
6	100		X				
7	100		X				
8	100		X				
9	75		X				
10	75		X				
11	75		X				
12	25	12A,B					
13	5	13A,B					
14	5		X				
15	5		X				
16	5		X				
17							
18							
19							
20							
21							
22							
23							
24							

Notes:

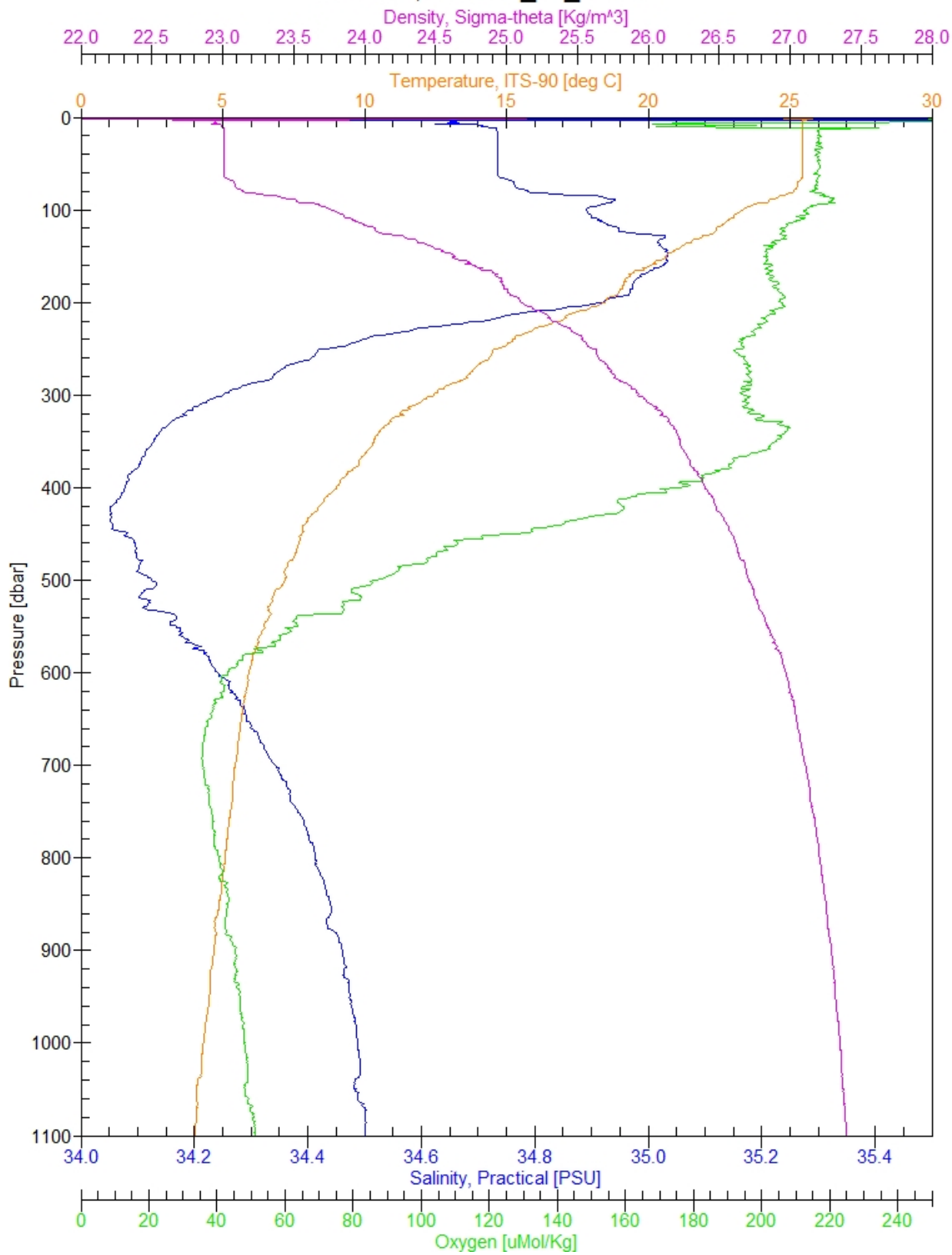
W-1000, hot-318_s1_c1.cnv



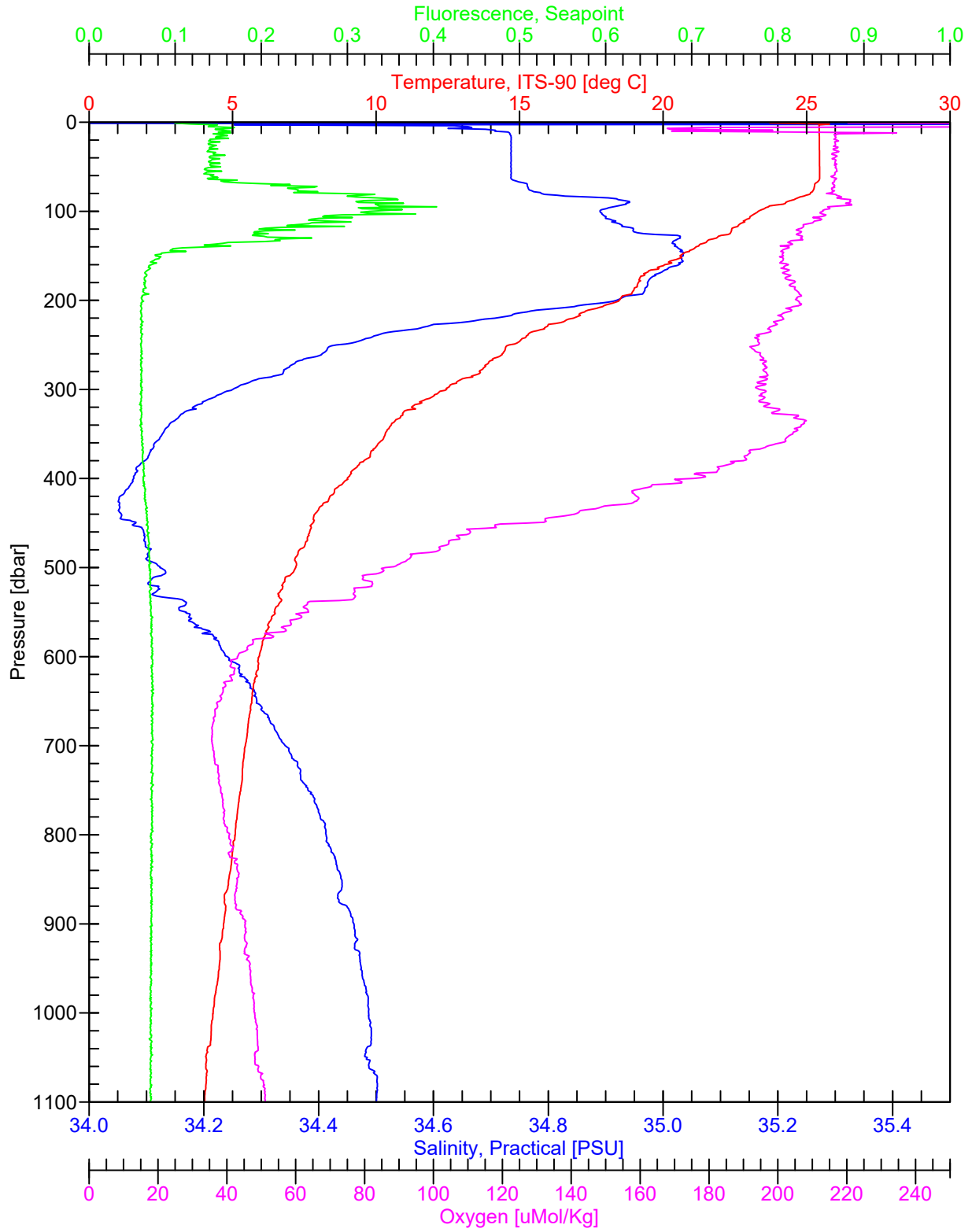
G-1000, hot-318_s1_c1.cnv



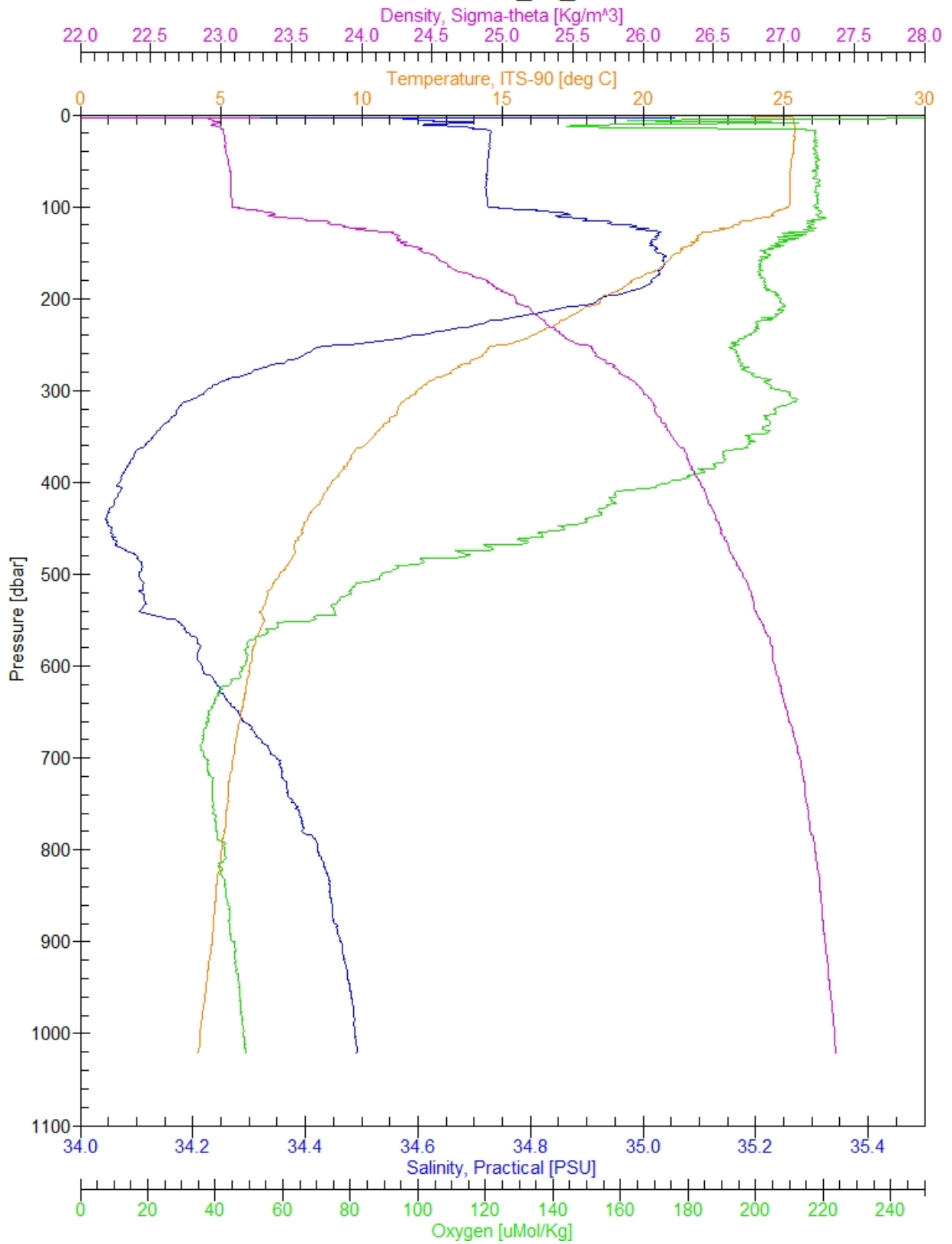
W-1000, hot-318_s2_c1.cnv



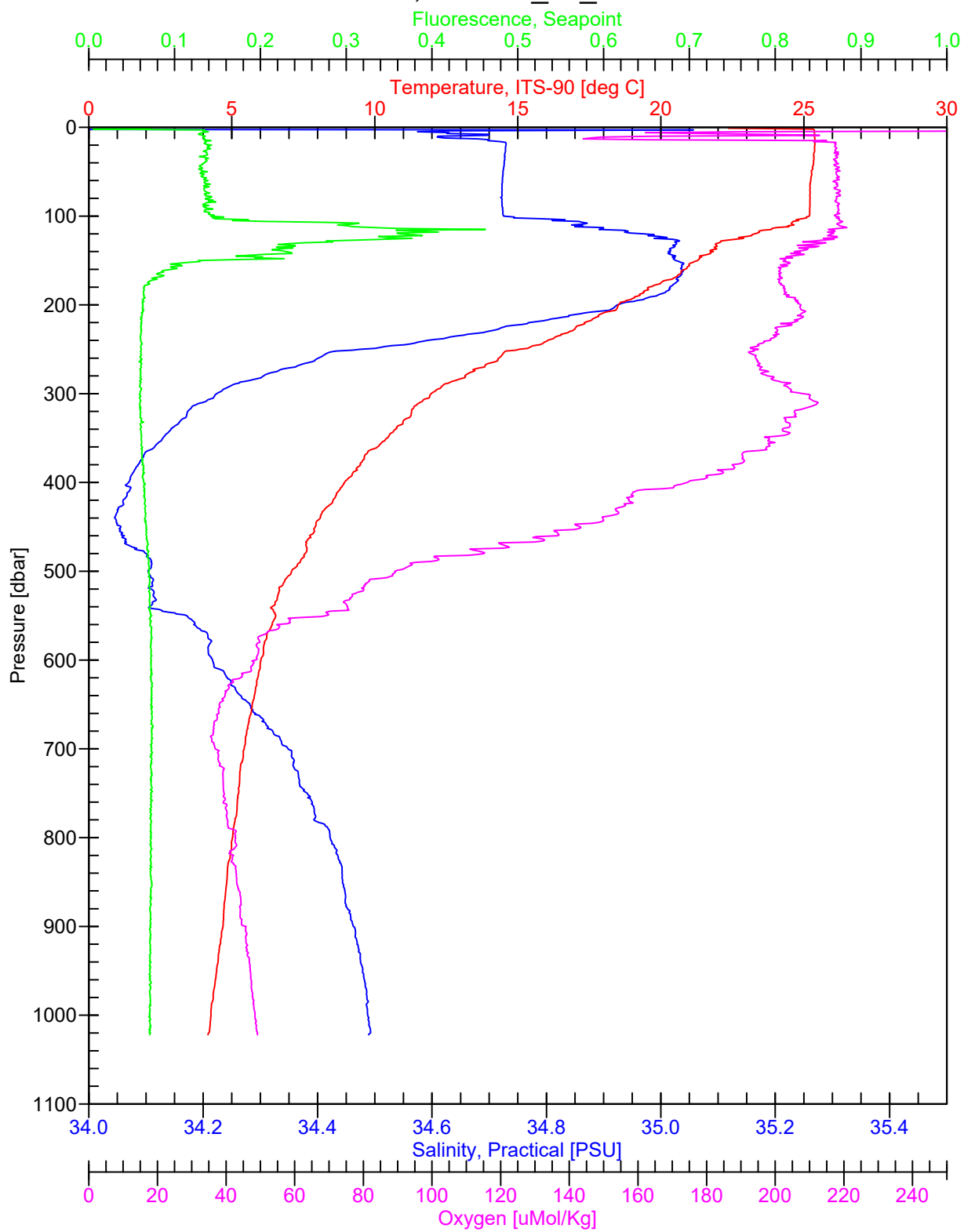
G-1000, hot-318_s2_c1.cnv



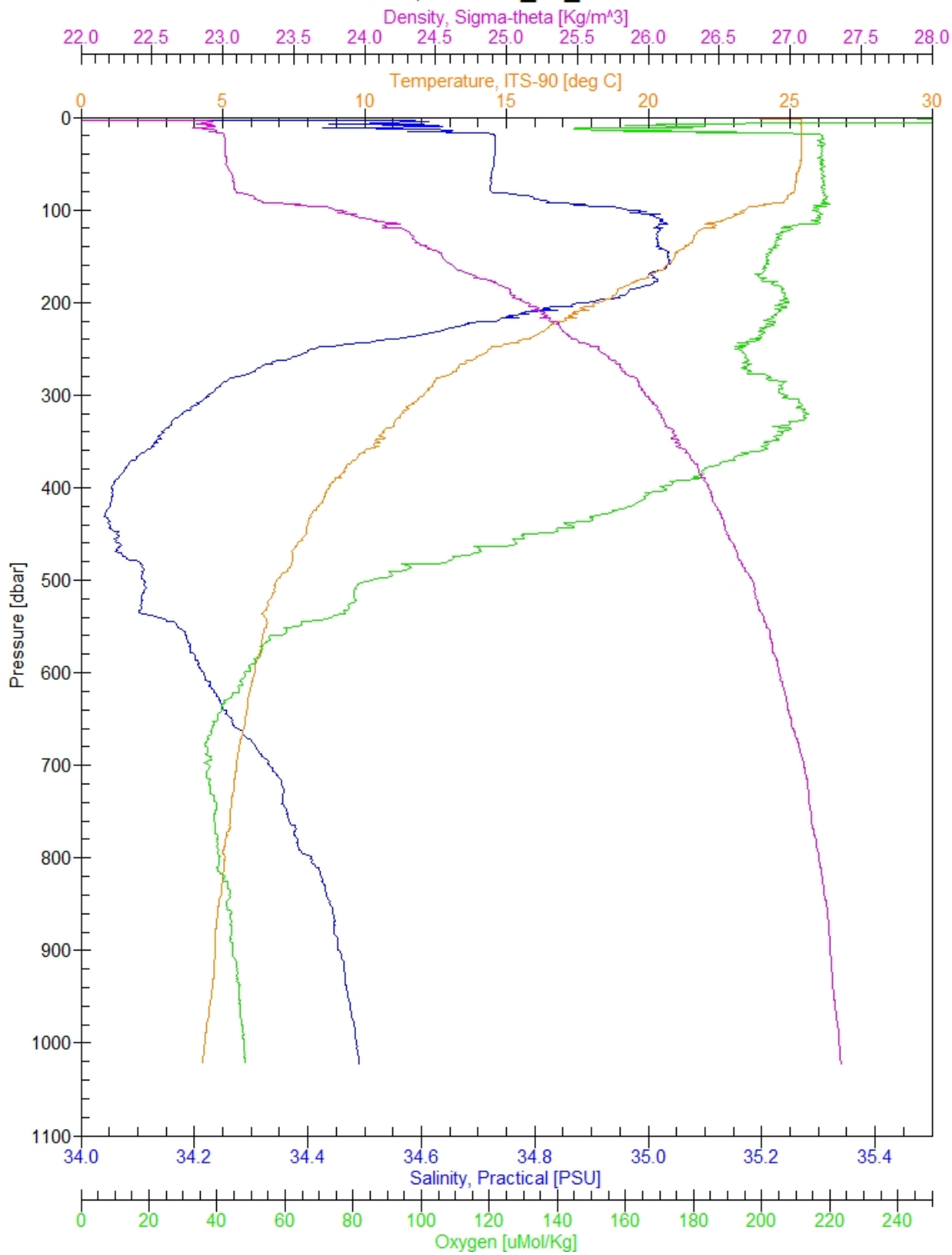
W-1000, hot-318_s2_c2.cnv



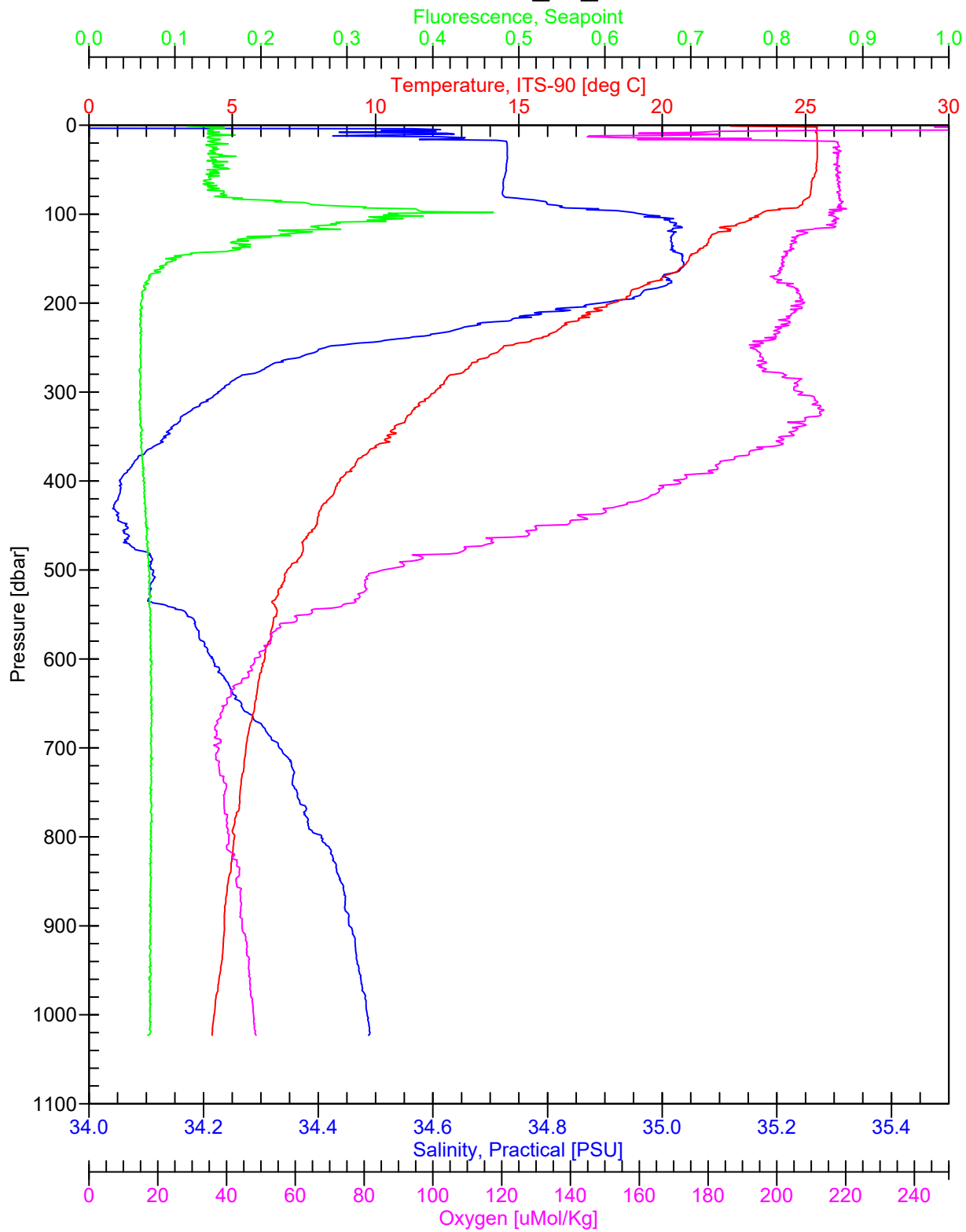
G-1000, hot-318_s2_c2.cnv



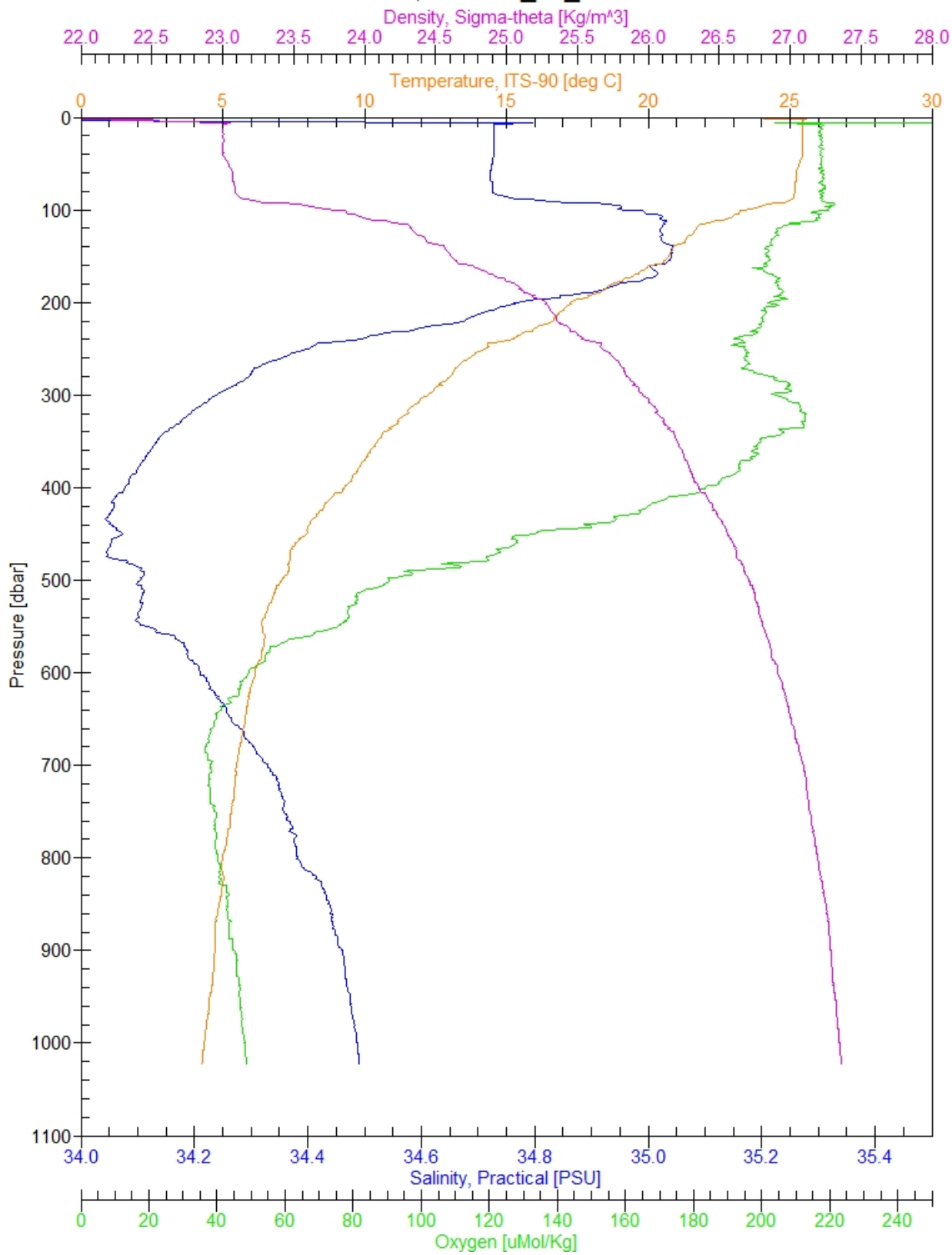
W-1000, hot-318_s2_c3.cnv



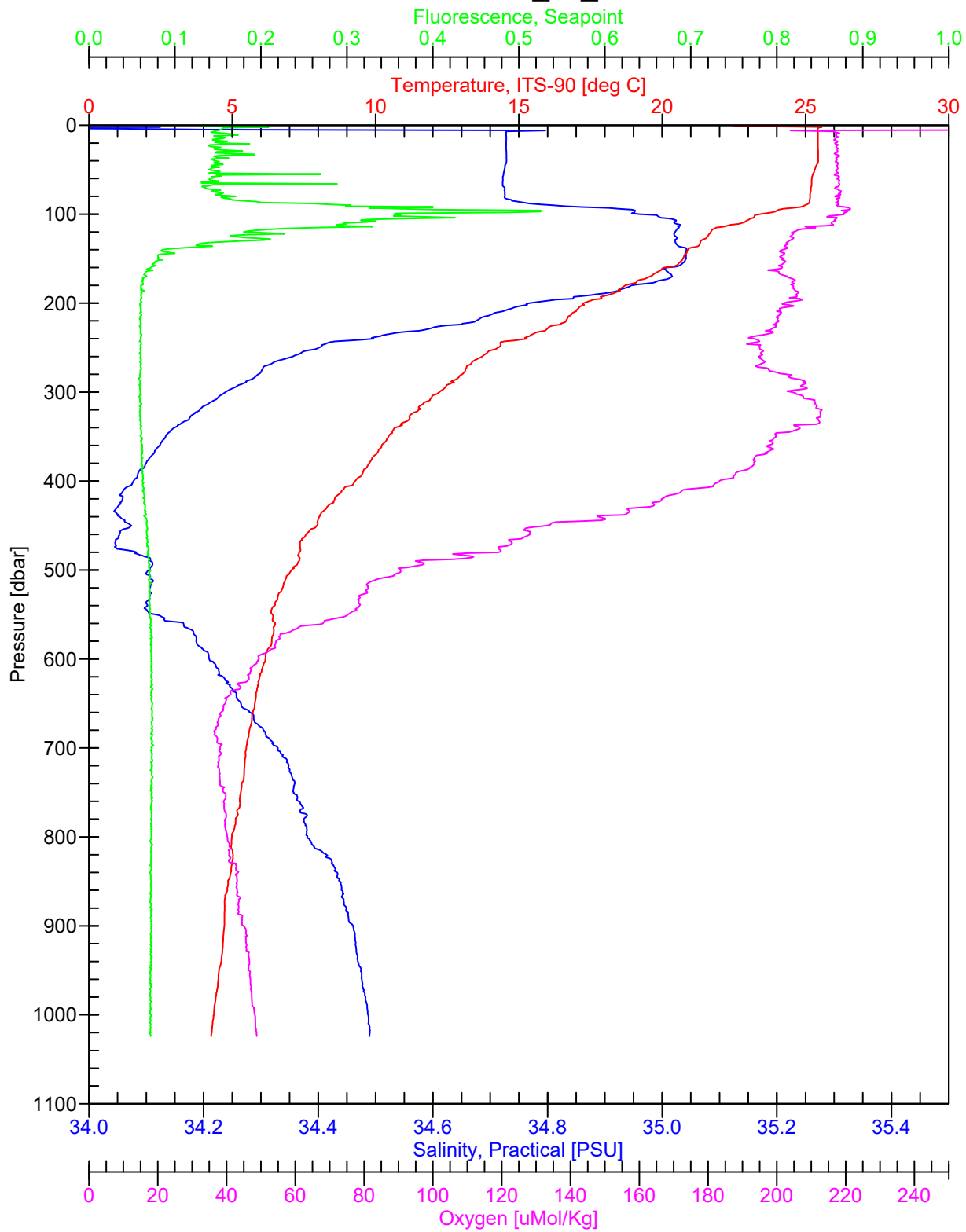
G-1000, hot-318_s2_c3.cnv



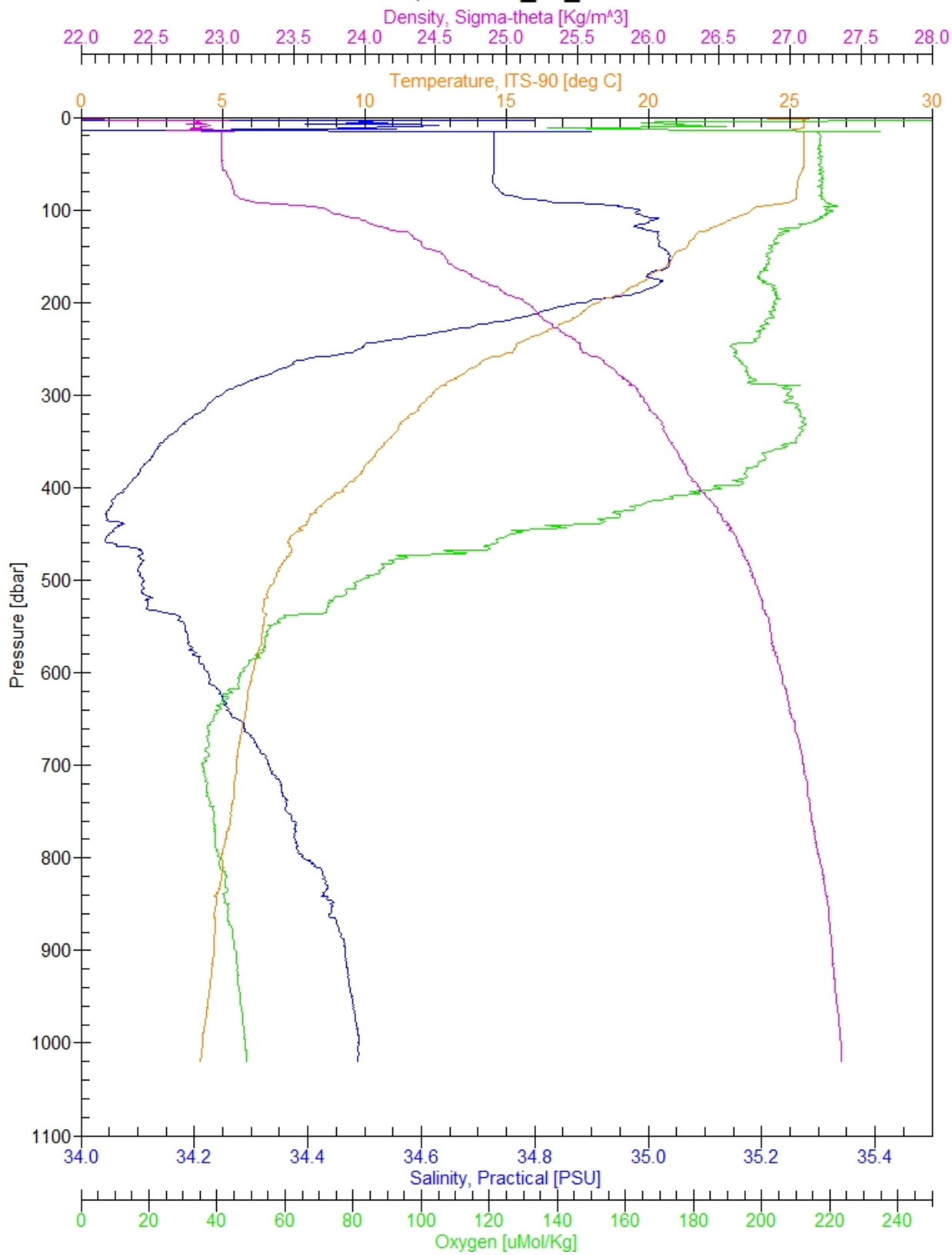
W-1000, hot-318_s2_c4.cnv



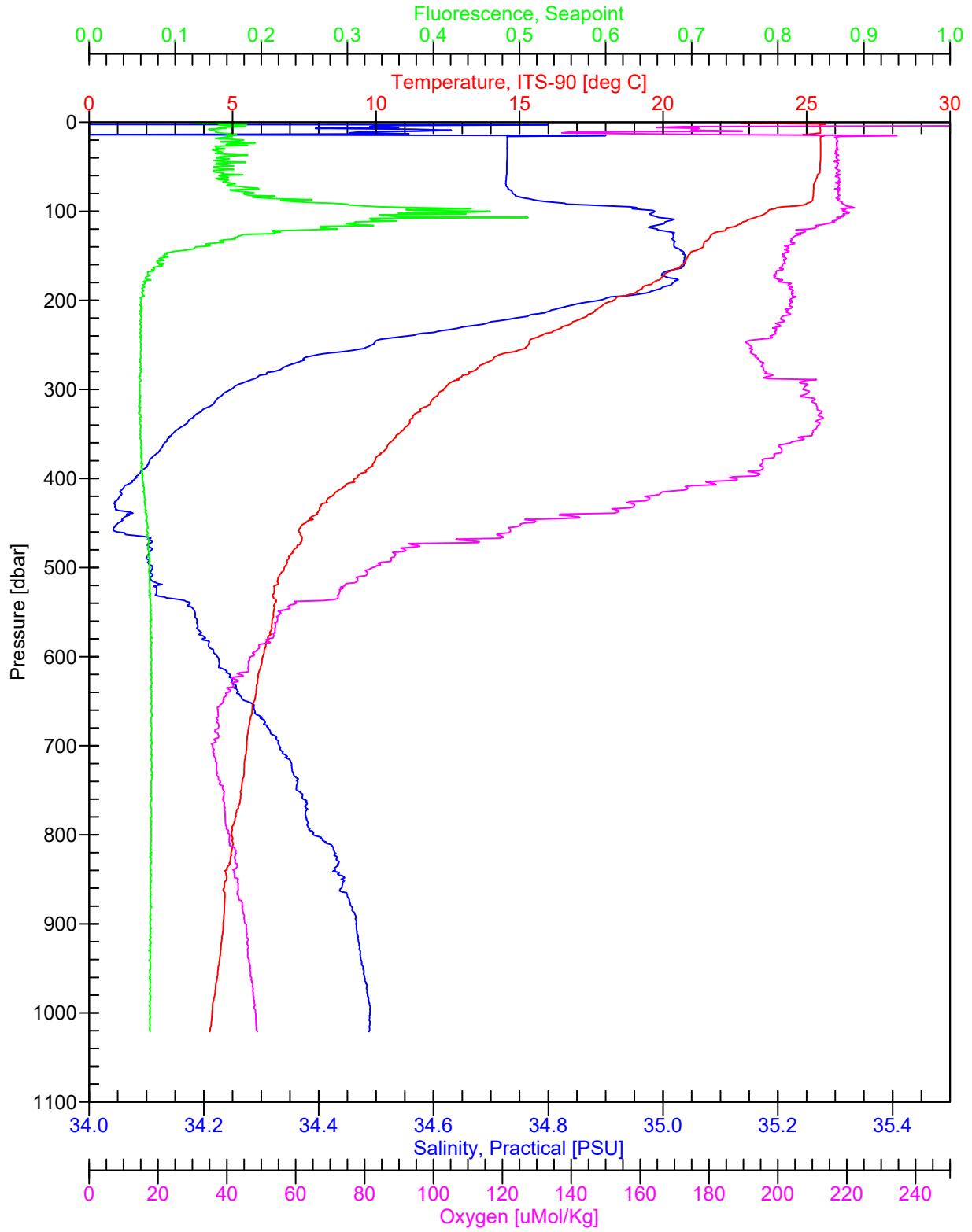
G-1000, hot-318_s2_c4.cnv



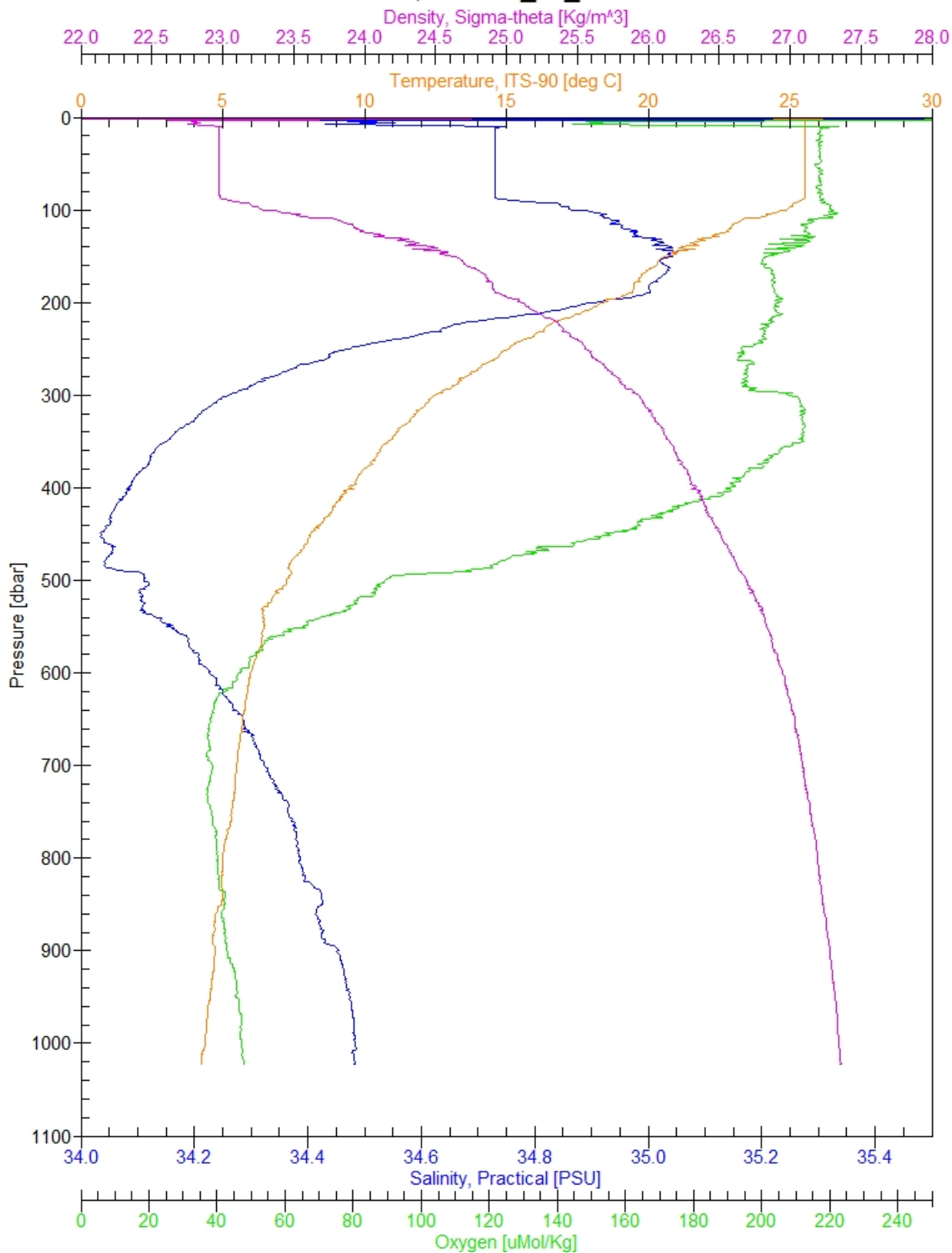
W-1000, hot-318_s2_c5.cnv



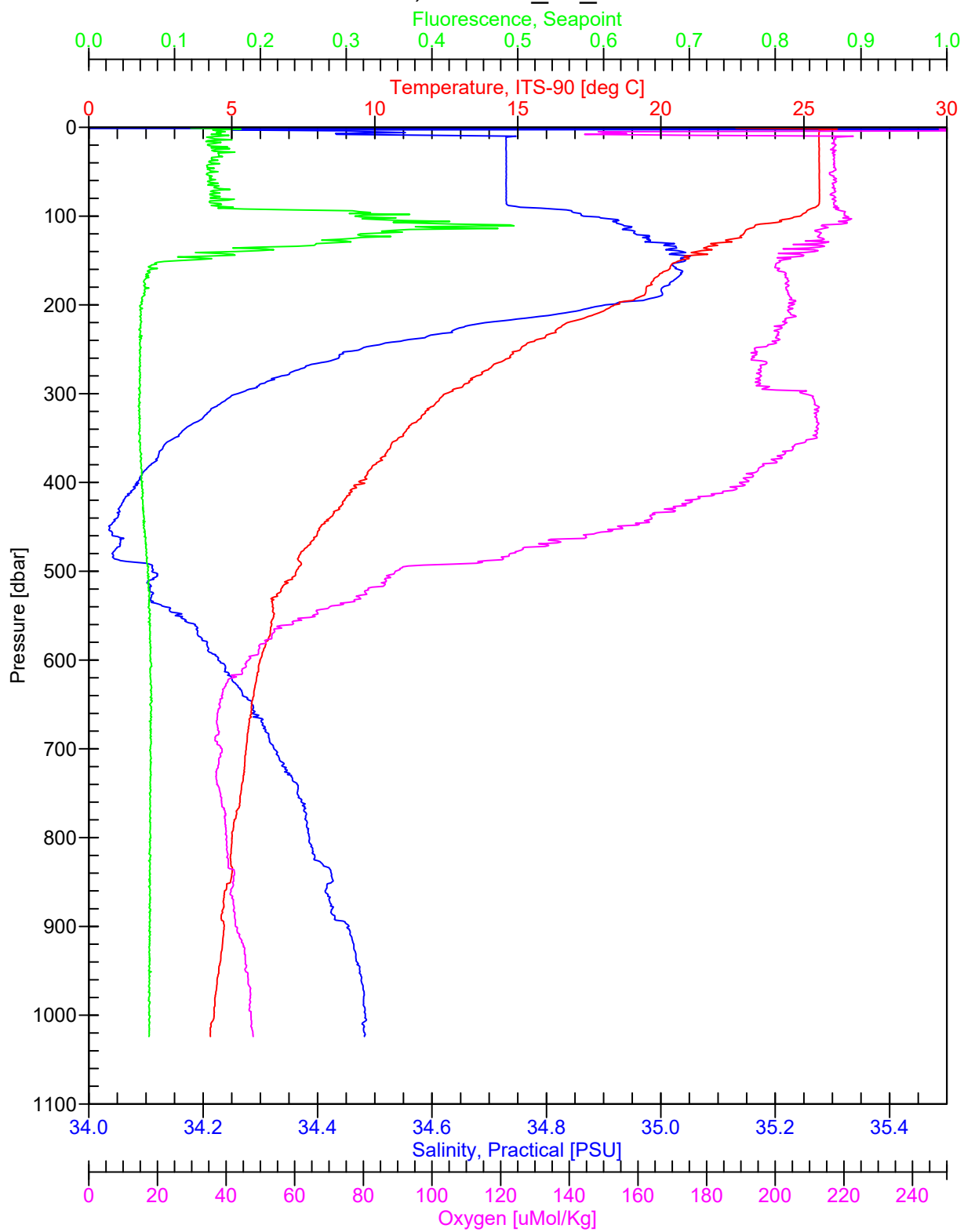
G-1000, hot-318_s2_c5.cnv



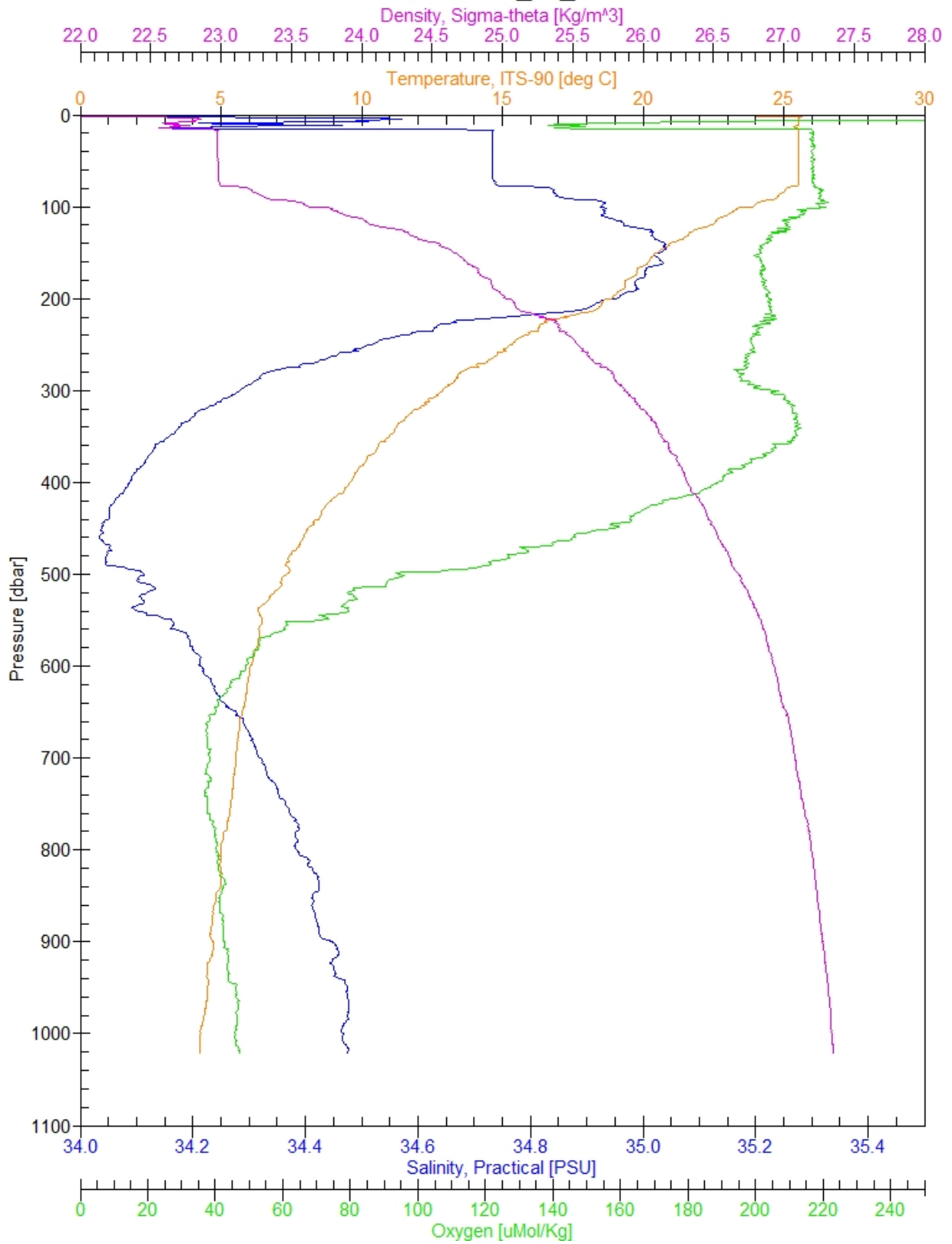
W-1000, hot-318_s2_c6.cnv



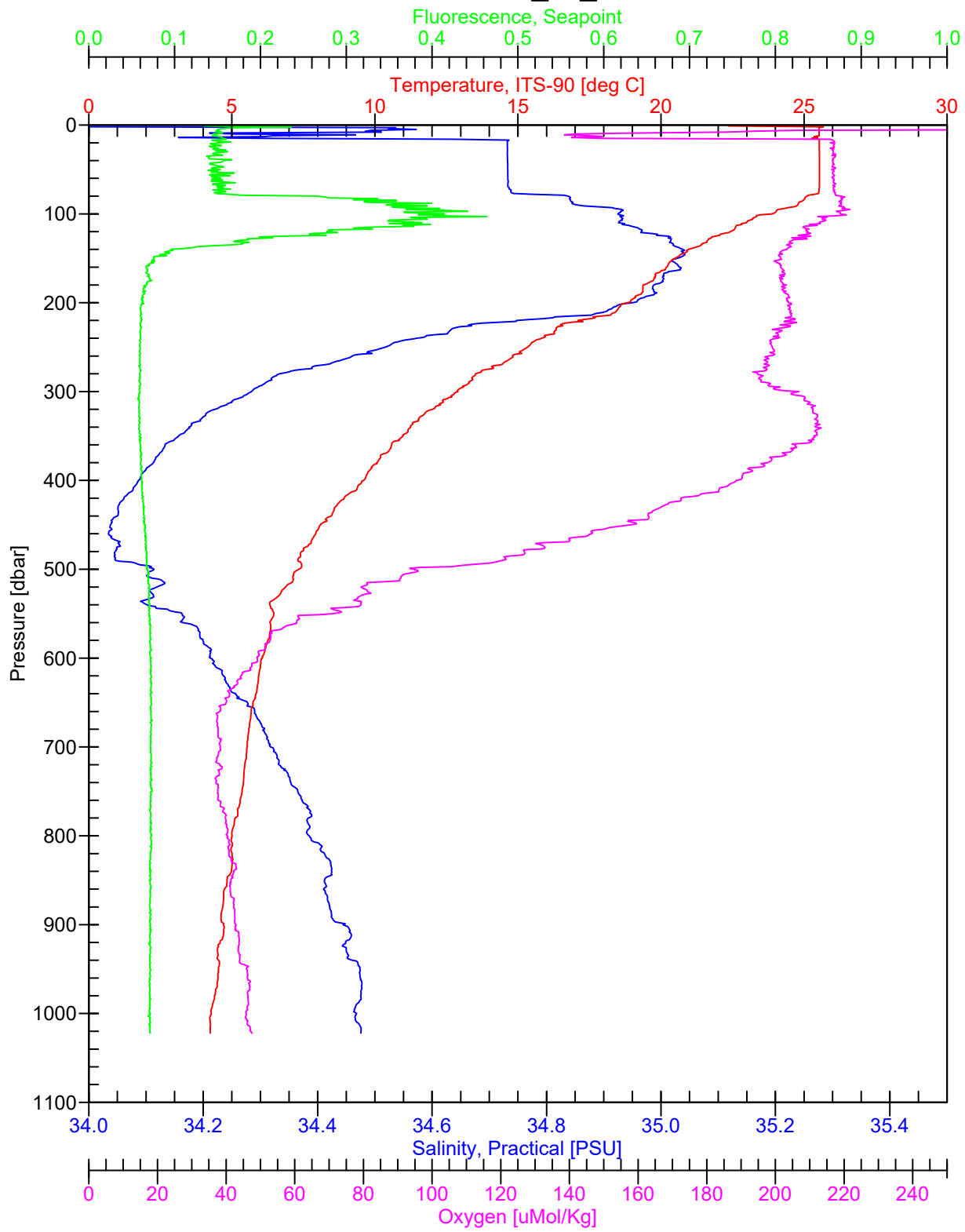
G-1000, hot-318_s2_c6.cnv



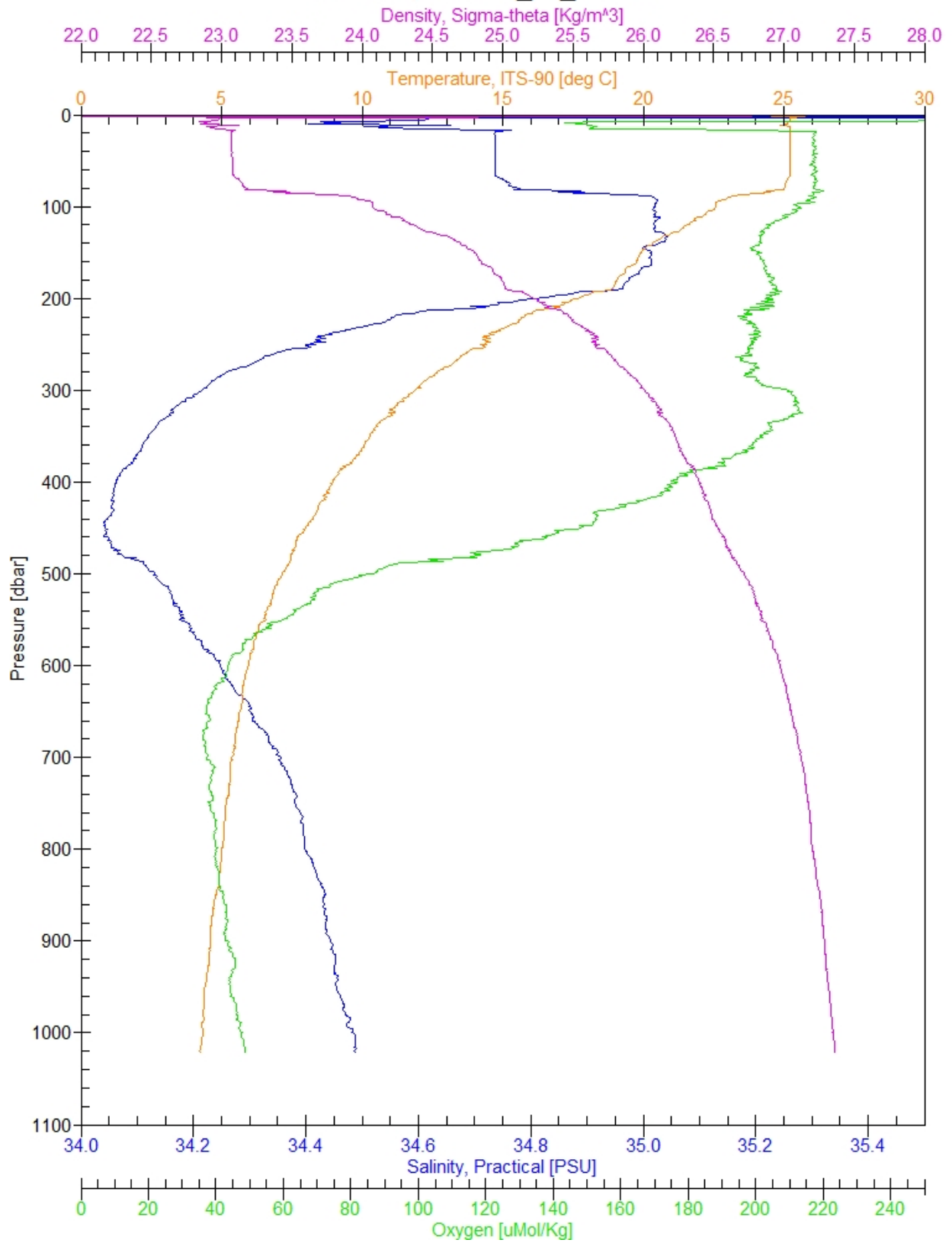
W-1000, hot-318_s2_c7.cnv



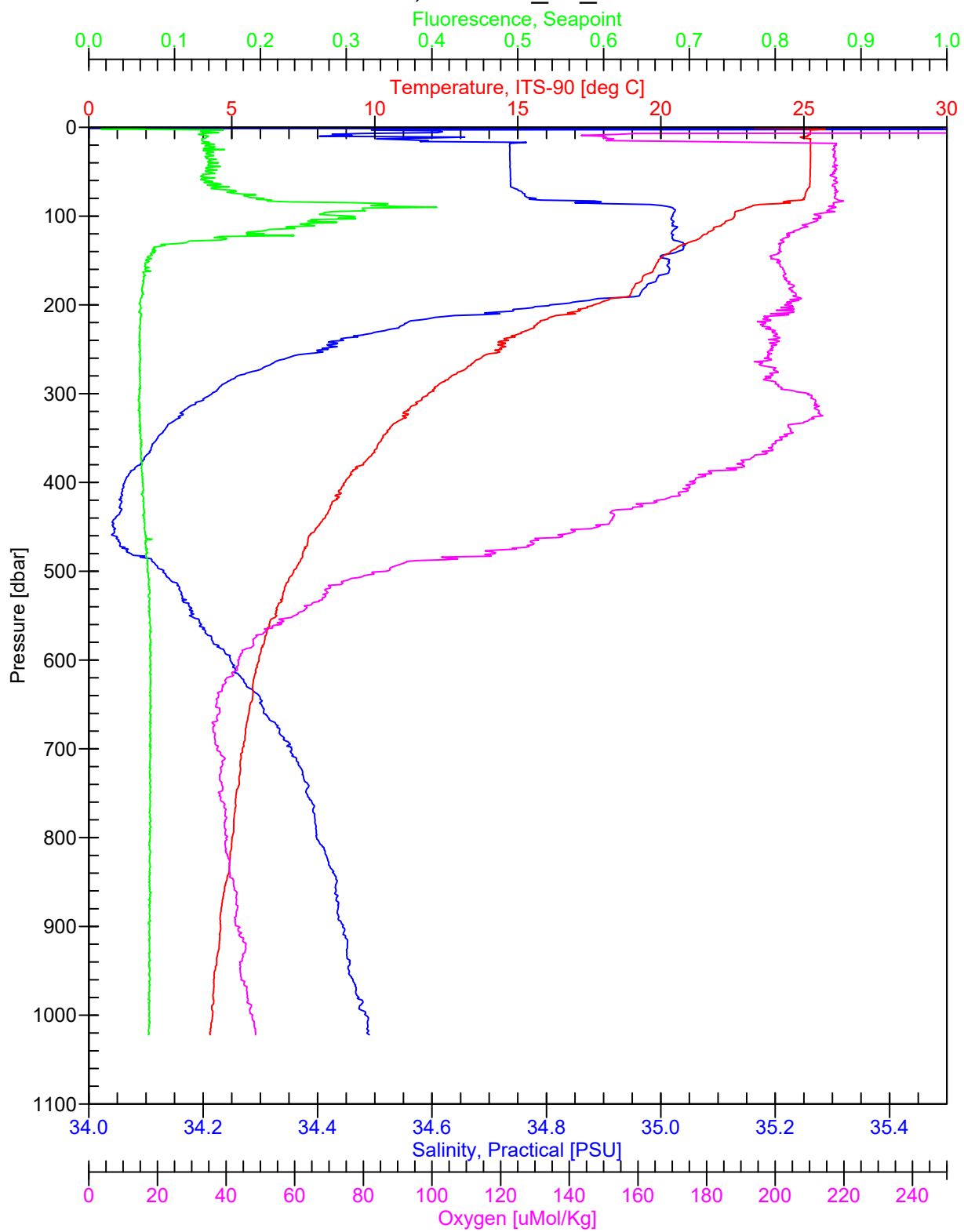
G-1000, hot-318_s2_c7.cnv



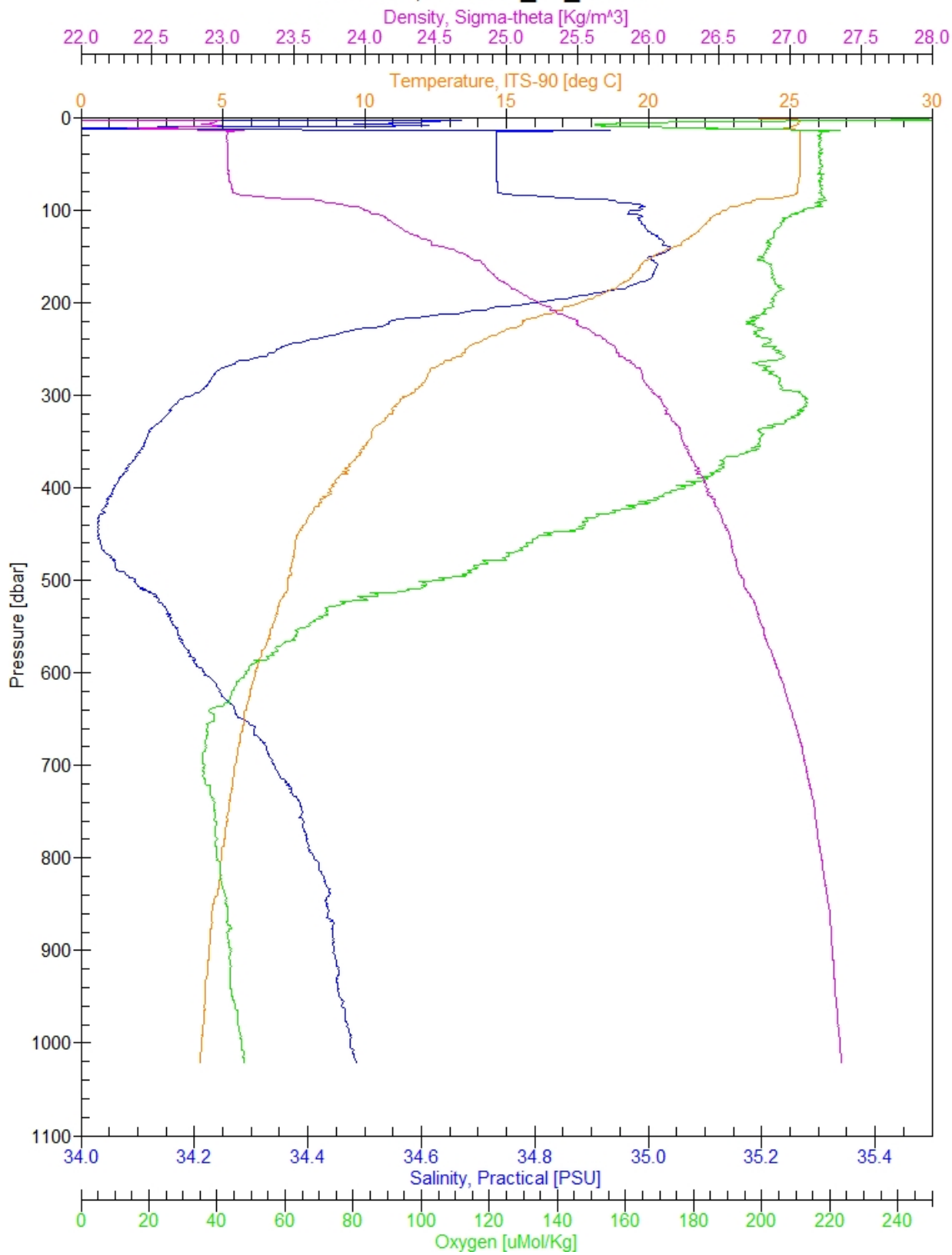
W-1000, hot-318_s2_c8.cnv



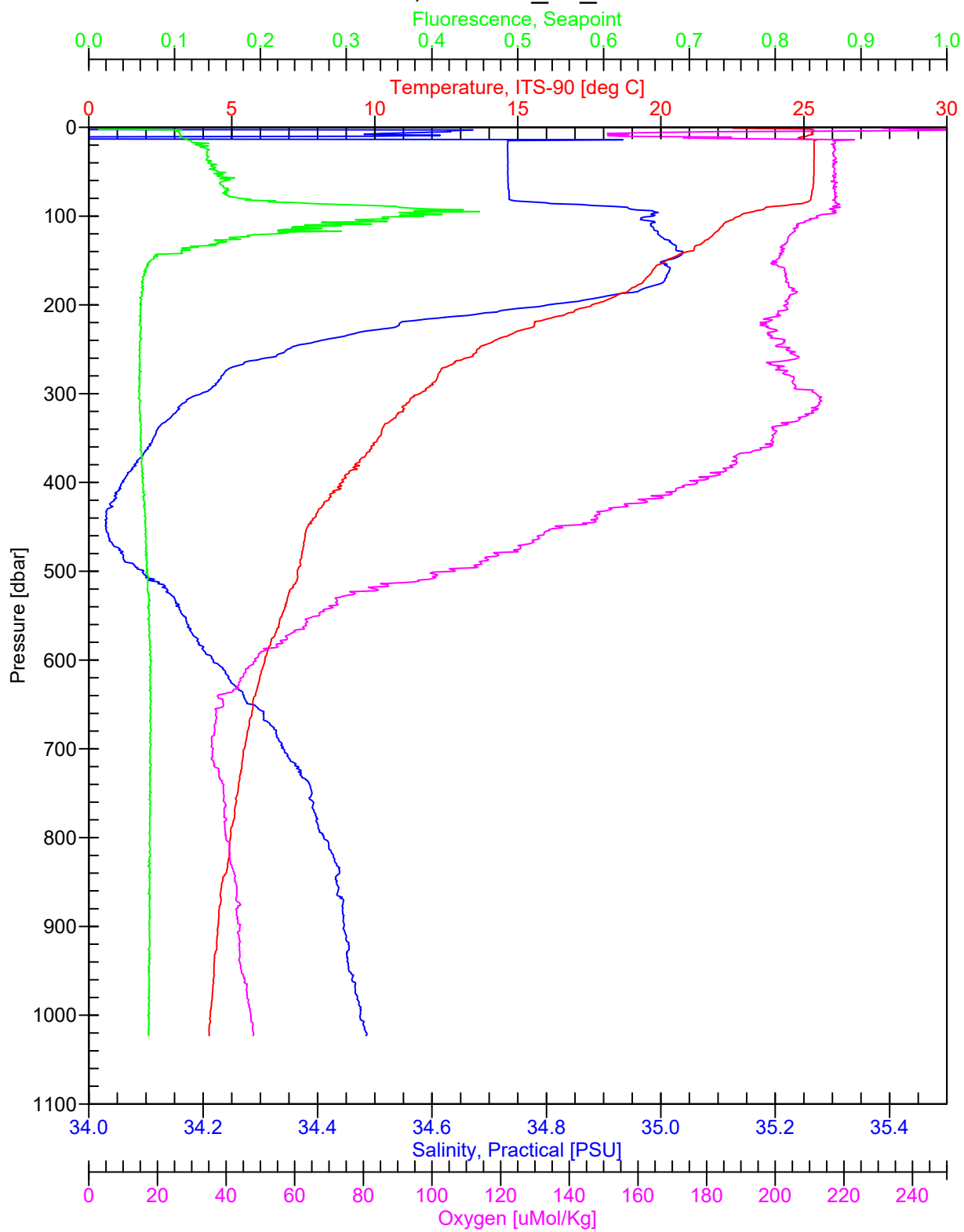
G-1000, hot-318_s2_c8.cnv



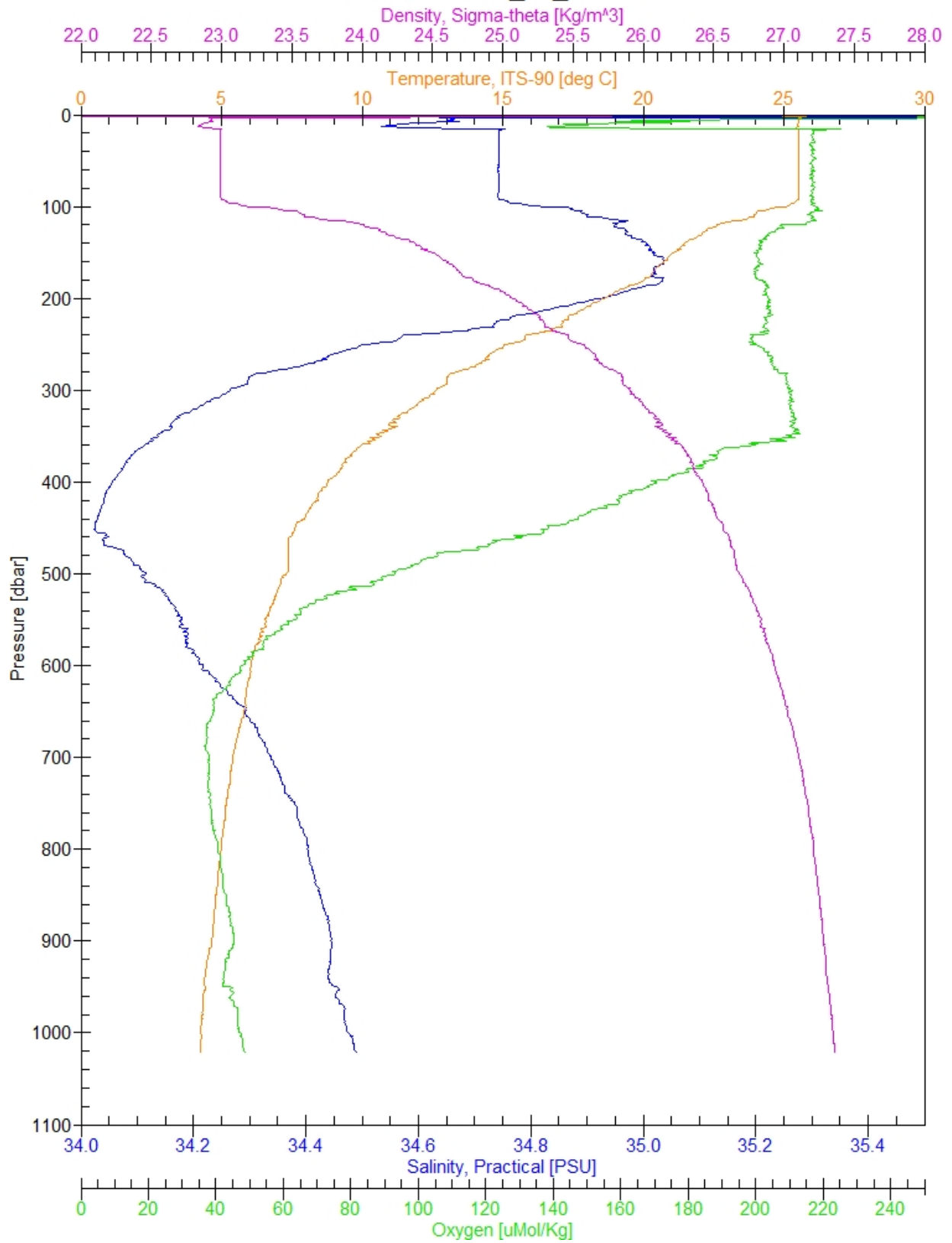
W-1000, hot-318_s2_c9.cnv



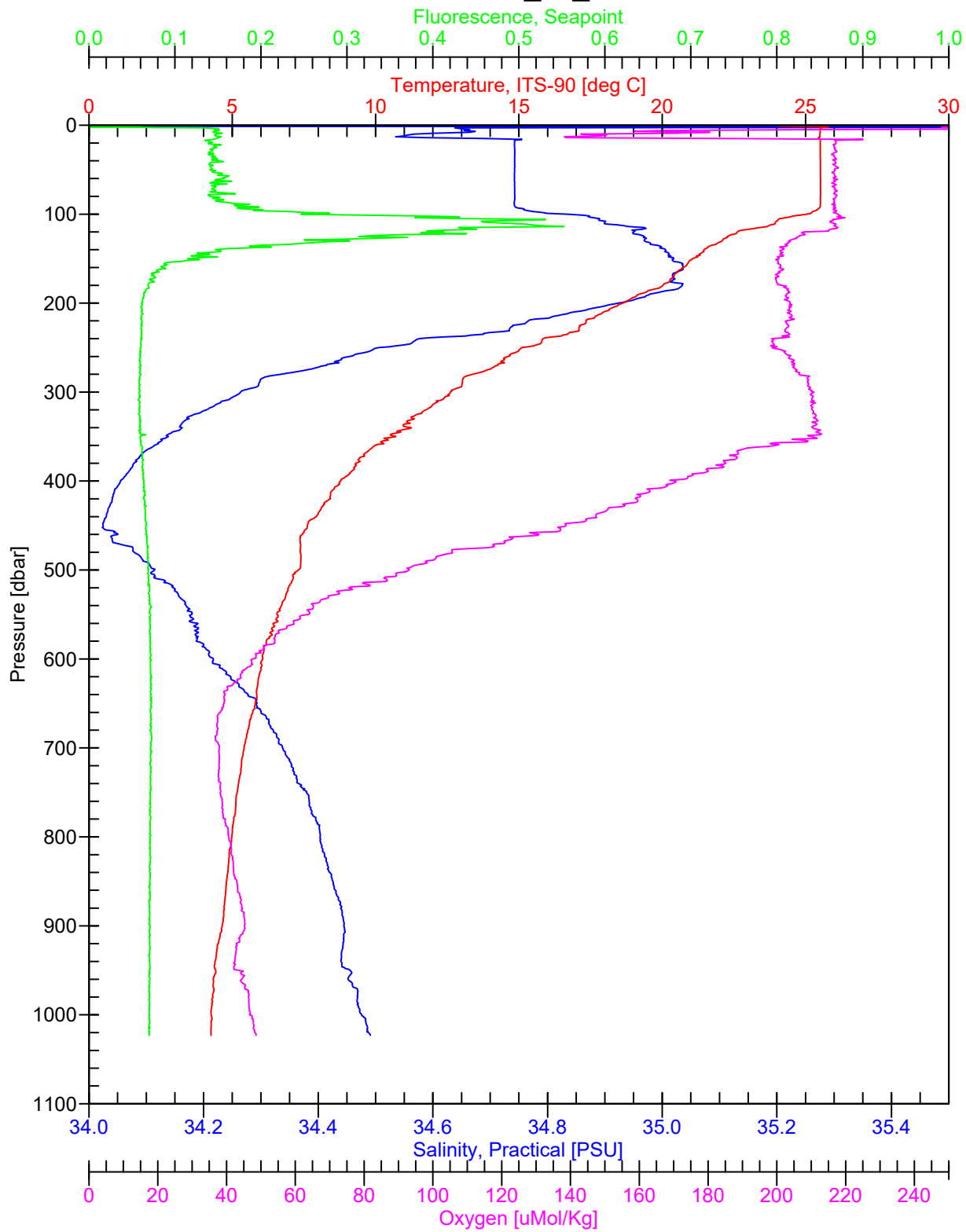
G-1000, hot-318_s2_c9.cnv



W-1000, hot-318_s2_c10.cnv



G-1000, hot-318_s2_c10.cnv



Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000GPS	12L	25.91	LK/TR

OKAHE

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

Station: 1	Cast: 1
Latitude start: 21°20.7697'N end: 21°20.766'N	Longitude start: 158°15.7819'W end: 158°15.784'
Depth of water: 1443 meters	Date (GMT): 01/07/20
Pressure on Deck	Time:
Begin: 0.47 End: 0.16	Start Log: 23:45 In Water: 23:52 Out of Water: 01:12
Max cast pressure: 1021 dbar	

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1	00:21:11	00:21:31	1020	1020	
2	00:28:00	00:28:20	750	750	
3	00:36:25	00:36:45	500	500	
4	00:40:30	00:40:50	350	350	
5	00:44:05	00:44:25	250	250	
6	00:45:56	00:45:16	200	200	
7	00:57:10	00:57:25	175	175	
8	00:58:30	00:58:45	149	150	
9	00:59:50	01:00:10	125	125	
10	01:01:25	01:01:45	100	100	
11	01:03:10	01:03:30	75	75	
12	01:05:01	01:05:21	45	45	
13	01:06:40	01:07:00	25	25	
14	01:08:30	01:08:50	5	5	
15	↓	01:08:55	5	5	
16					} fired for testing
17					
18					
19					
20					
21					
22					
23					
24					

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G5000GPS	12L	27.10	LK

DEEP

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

DCM = 90

S MIN = 425

Station: 2	Cast: 1
Latitude start: 22°44.3826'N	Longitude start: 157°59.9661'W
end:	end:
Depth of water: 4739 meters	Date (GMT): 01/07/20
Pressure on Deck	Time:
Begin: 0.45	Start Log: 17:23
End: -0.05	In Water: 17:38
Max cast pressure: 4806 dbar	Out of Water: 23:17

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1		19:33:45	4806	4800	
2	20:11:49	20:12:09	4602	4600	
3	20:16:40	20:17:00	4500	4500	
4	20:20:05	20:20:25	4401	4400	
5	20:27:15	20:27:35	4199	4200	
6	20:33:45	20:34:05	4000	4000	
7	20:39:15	20:39:35	3803	3800	
8	20:50:15	20:50:35	3597	3600	
9	20:57:37	20:57:57	3402	3400	
10	21:07:30	21:07:50	3200	3200	
11	21:14:56	21:15:16	3002	3000	
12	21:22:15	21:22:35	2802	2800	
13	21:33:00	21:33:20	2600	2600	
14	21:39:15	21:39:40	2400	2400	
15	21:46:55	21:47:15	2200	2200	
16	21:57:14	21:57:34	2003	2000	
17	22:03:09	22:03:29	1798	1800	
18	22:12:25	22:12:45	1601	1600	
19	22:21:54	22:22:17	1401	1400	
20	22:27:40	22:28:00	1200	1200	
21	22:35:09	22:35:29	1000	1000	
22	22:46:33	22:46:53	751	750	
23	22:55:19	22:55:39	501	500	
24	23:10:40	23:11:00	6.8	5	

Hawaii Ocean Time Series		Station #: 2	Cast #: 1	Box #: 12
Salinity Sample Log Sheet		Cruise #: HOT-318		Sampler: LK, CM, SI
Niskin #	Depth	Serial #	Comments	
1	4800	265		
2	4600	266		
3	4500	267		
4	4400	268		
5	4200	269		
6	4000	270		
7	3800	271		
8	3600	272		
9	3400	273		
10	3200	274		
11	3000	275		
12	2800	276		
13	2600	277		
14	2400	278		
15	2200	279		
16	2000	280		
17	1800	281		
18	1600	282		
19	1400	283		
20	1200	284		
21	1000	285		
22	750	286		
23	500	287		
24	5	288		

Hawaii Ocean Time Series			Station #: 2	Cast #: 1	Box #: 13-DVPS
Salinity Sample Log Sheet			Cruise #: HOT-318	Sampler: LK, CM, SI	
Niskin #	Depth	Serial #	Comments		
1	4800	289	— DUPLICATES —		
2	4600	290			
3	4500	291			
4	4400	292			
5	4200	293			
6	4000	294			
7	3800	295			
8	3600	296			
9	3400	297			
10	3200	298			
11	3000	299			
12	2800	300			
13	2600	301			
14	2400	302			
15	2200	303			
16	2000	304			
17	1800	305			
18	1600	306			
19	1400	307			
20	1200	308			
21	1000	309			
22	750	310			
23	500	311			
24	5	312			

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000GPS	12L	25.29	JR/FP

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

Station: 2	Cast: 2
Latitude start: 22° 45.1790' N end: 22° 45.290' N	Longitude start: 158° 00.0760' W end: 158° 00.101' W
Depth of water: 4737 meters	Date (GMT): 1 / 8 / 20
Pressure on Deck	Time:
Begin: 0.645 End: 0.169	Start Log: 02:16 In Water: 02:20 Out of Water: 03:42
Max cast pressure: 1022 dbar	

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1	02:50:45	02:51:05	1014	1020	
2	02:55:48	02:56:08	846	845	
3	02:58:30	02:58:50	747	745	
4	03:00:25	03:00:45	688	685	O _{MIN}
5	03:01:40	03:02:00	662	663	
6	03:03:30	03:03:50	608	607	
7	03:06:09	03:06:29	555	553	
8	03:08:10	03:08:30	506	506	
9	03:09:54	03:10:14	480	480	
10	03:11:46	03:12:06	436	438	S _{MIN}
11	03:13:35	03:13:55	409	405	
12	03:15:53	03:16:13	350	350	
13	03:18:09	03:18:29	313	311	O _{MAX} LAYER
14	03:19:32	03:19:52	302	301	
15	03:22:20	03:22:50	253	254	O _{MIN} LAYER
16	03:24:13	03:24:33	244	244	F _{MIN}
17	03:26:31	03:26:51	206	207	O _{MAX} LAYER
18	03:28:12	03:28:32	189	189	
19	03:30:30	03:30:50	163	162	O _{MIN} LAYER / S _{MAX}
20	03:32:09	03:32:29	145	145	
21	03:33:56	03:34:16	121	121	F _{MAX}
22	03:34:55	03:34:15	115	115	O _{MAX}
23	03:35:59	03:36:19	108	108	
24	03:40:32	03:40:52	4	5	

Hawaii Ocean Time-Series

HOT - 318

Station:	<u>2</u>	Cast:	<u>2</u>
Latitude:	<u>22° 45.179' N</u>	Longitude:	<u>158° 00.076' W</u>
Date:	<u>1/8/2020</u>	Time (GMT):	<u>02:20</u>
Operator:	<u>TR</u>		

$\delta\theta$	$\sigma\theta$	Depth
700	20.76	_____
650	21.28	_____
600	21.80	_____
550	22.33	_____
500	22.85	_____
450	23.37	<u>108</u>
400	23.90	<u>121</u>
350	24.42	<u>145</u>
300	24.95	<u>189</u>
250	25.47	<u>244</u>
200	26.00	<u>301</u>
180	26.21	<u>350</u>
160	26.42	<u>405</u>
140	26.63	<u>480</u>
130	26.73	<u>506</u>
120	26.84	<u>553</u>
110	26.94	<u>607</u>
100	27.05	<u>663</u>
90	27.16	<u>745</u>
80	27.26	<u>845</u>
70	27.37	_____

S _{max}	<u>162</u>
S _{min}	<u>438</u>
S _{max}	_____
S _{min}	_____

O _{max}	<u>115</u>
O _{min}	<u>162 (layer)</u>
O _{max}	<u>207 (layer)</u>
O _{min}	<u>254 (layer)</u>
O _{max}	<u>311 (layer)</u>
O _{min}	<u>685</u>

F _{max}	<u>121</u>
F _{min}	<u>244</u>
F _{max}	_____
F _{min}	_____
F _{max}	_____

Bottle	Depth
1	<u>1020</u>
2	<u>845</u>
3	<u>745</u>
4	<u>685</u>
5	<u>663</u>
6	<u>607</u>
7	<u>553</u>
8	<u>506</u>
9	<u>480</u>
10	<u>438</u>
11	<u>405</u>
12	<u>350</u>
13	<u>311</u>
14	<u>301</u>
15	<u>254</u>
16	<u>244</u>
17	<u>207</u>
18	<u>189</u>
19	<u>162</u>
20	<u>145</u>
21	<u>121</u>
22	<u>115</u>
23	<u>108</u>
24	<u>5</u>

Hawaii Ocean Time Series			Station #: 2	Cast #: 2	Box #: 14
Salinity Sample Log Sheet			Cruise #: HOT-318	Sampler: TR, KM, FP, XD, ST	
Niskin #	Depth	Serial #	Comments		
1	1020	313			
2	845	314			
3	745	315			
4	685	316			
5	663	317			
6	607	318			
7	553	319			
8	506	320			
9	480	321			
10	438	322			
11	405	323			
12	350	324			
13	311	325			
14	301	326			
15	254	327			
16	244	328			
17	207	329			
18	189	330			
19	162	331			
20	145	332			
21	121	333			
22	115	334			
23	108	335			
24	5	336			

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G-1000GPS	12L	25.19	TR

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

Station: 2	Cast: 3
Latitude start: 22°45.314'N end: 22°45.211'N	Longitude start: 158°00.109'W end: 158°00.081'W
Depth of water: 4742 meters	Date (GMT): 1 / 8 / 2020
Pressure on Deck	Time:
Begin: 0.5456	Start Log: 04:46
End: 0.3895	In Water: 04:49
Max cast pressure: 1022 dbar	Out of Water: 06:02

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1	05:19:37	05:20:10	1021	1020	
2	05:26:20	05:26:40	701	700	OMIN
3	05:32:05	05:32:25	430	430	S MIN
4	05:36:59	05:37:20	200	200	
5	05:38:20	05:39:42	175	175	
6	05:39:31	05:39:51	165	165	
7	05:40:40	05:41:00	152	150	
8	05:42:20	05:42:40	130	130	
9	05:43:13	05:43:33	124	125	
10	05:44:20	05:44:40	116	115	
11	05:45:50	05:46:10	110	110	
12	05:47:10	05:47:30	100	100	
13	05:48:38	05:48:58	91	90	
14	05:49:48	05:50:08	84	85	
15	05:50:59	05:51:19	75	75	
16	05:52:33	05:52:53	58	60	
17	05:54:33	05:54:53	45	45	
18	05:55:38	05:56:18	35	35	
19	05:57:10	05:57:30	25	25]
20	↓	05:57:35	25	25	
21	05:58:50	05:59:10	14	15]
22	05:59:59	06:00:19	7	5	
23	↓	:27	8	5	
24	↓	:33	7	5	

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000G.P5	12L	25.08	TR

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

Station: 2	Cast: 4
Latitude start: 22° 45.221' N end: 22° 45.212' N	Longitude start: 158° 00.092' W end: 158° 00.091' W
Depth of water: 4740 meters	Date (GMT): 11812020
Pressure on Deck	Time:
Begin: 0.55	Start Log: 07:11
End: 0.15	In Water: 07:19
Max cast pressure: 1024 dbar	Out of Water: 08:28

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
2	08:02:30	08:02:50	429	430	5min
3	08:05:06	08:05:26	350	350	}
4	↓	08:05:35	350	350	
5	08:08:22	08:08:42	248	250	
6	08:10:48	08:11:08	200	200	
7	08:12:35	08:12:55	178	175	
8	08:14:21	08:14:41	151	150	
9	08:15:59	08:16:19	126	125	
10	08:17:48	08:18:08	101	100	
11	08:19:25	08:19:45	75	75	}
12	↓	08:19:50	75	75	
13	08:21:22	08:21:42	45	45	}
14	↓	08:21:47	47	45	
15	08:23:10	08:23:30	25	25	}
16	↓	08:23:35	25	25	
17		08:23:45	25	25	}
18	08:24:59	08:25:20	5	5	
19		08:25:25	5	5	
20		08:25:30	6	5	}
21					
22					
23					
24					

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000GFS	12L	24.98	TR

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

Station: 2	Cast: 5
Latitude start: 22° 45.113' N	Longitude start: 158° 00.048' W
end: 22° 45.089' N	end: 158° 00.044' W
Depth of water: 4741 meters	Date (GMT): 1 / 8 / 20
Pressure on Deck	Time:
Begin: 0.53	Start Log: 09:32
End: 0.11	In Water: 09:36
Max cast pressure: 1021 dbar	Out of Water: 10:49

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1	10:09:10	10:09:30	1021	1620	
2	10:23:10	10:23:30	459	460	5min
3	10:26:39	10:26:59	350	350	
4	↓	10:27:06	352	350	
5	10:29:04	10:29:24	300	300	
6	10:31:05	10:31:25	250	250	
7	10:32:58	10:33:18	200	200	
8	↓	10:33:23	200	200	
9	10:34:32	10:34:52	175	175	
10	↓	10:34:57	↓	175	
11	10:36:18	10:36:38	149	150	
12	↓	10:36:43	150	150	
13	10:37:48	10:38:08	125	125	
14	↓	10:38:13	125	125	
15	10:39:21	10:39:41	106	105	DCM+5
16	10:40:01	10:40:21	101	100	DCM
17	↓	10:40:26	101	100	
18	↓	10:40:31	101	100	
19	10:41:20	10:41:40	95	95	DCM-5
20	10:42:45	10:43:05	75	75	
21	10:44:27	10:44:47	45	45	
22	10:45:53	10:46:13	26	25	
23	↓	10:46:18	25	25	
24	10:47:43	10:48:03	7	5	

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000GPS	12L	24.81	TR/LK

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

Station: 2	Cast: 6
Latitude start: 22° 44' 797" N end: 22° 44' 6457" N	Longitude start: 157° 59.982' W end: 157° 59.9396' W
Depth of water: 4739 meters	Date (GMT): 1 / 8 / 2020
Pressure on Deck	Time:
Begin: 0.48	Start Log: 12:09
End: 0.35	In Water: 12:11
Max cast pressure: 1022 dbar	Out of Water: 13:30

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1	12:47:24	12:47:44	1019	1020	
2	12:47:24	12:47:55	1020	1020	
3	12:47:24	12:48:08	1020	1020	EXTRA MARK: 1003
4	13:01:25	13:01:45	451	450	SMIN
5	13:08:23	13:08:43	173	175	
6	13:10:15	13:10:35	151	150	
7	13:11:42	13:12:02	134	135	
8	13:13:05	13:13:25	125	125	
9	13:14:50	13:15:10	116	115	
10	13:16:25	13:16:45	100	100	
11	13:17:56	13:18:16	85	85	
12	13:19:12	13:19:32	73	75	
13	13:21:09	13:21:29	60	60	
14	13:22:40	13:23:00	46	45	
15	13:24:28	13:24:48	25	25	
16	13:24:28	13:25:02	24	25	MISSING MARK: 25
17	13:26:56	13:27:16	5	5	
18	13:26:56	13:27:26	5	5	
19	13:26:56	13:27:37	4	5	
20	13:26:56	13:27:48	5	5	
21					
22					
23					
24					

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
91000GPS	12L	25.30	LK

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

DCM: 100

MLD: 80

Station: 2	Cast: 7
Latitude start: 22°44.504'N end: 22°44.704'N	Longitude start: 157°59.911'W end: 158°0.008'W
Depth of water: 4739 meters	Date (GMT): 01/08/20
Pressure on Deck	Time:
Begin: 0.68	Start Log: 14:30
End: 0.05	In Water: 14:37
Max cast pressure: 1021 dbar	Out of Water: 15:39

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
2	15:18:50	15:19:10	450	450	SALMIN
3	15:24:26	15:24:46	174	175	
4	15:26:00	15:26:20	149	150	
5	15:27:22	15:27:42	123	125	
6	15:27:22	15:27:58	125	125	
7	15:27:22	15:28:14	124	125	
8	15:27:22	15:28:26	124	125	
9	15:27:22	15:28:39	125	125	
10	15:29:40	15:30:00	100	100	
11	15:31:05	15:31:25	76	75	
12	15:32:32	15:32:52	46	45	
13	15:33:47	15:34:07	24	25	
14	15:33:47	15:34:25	25	25	
15	15:35:22	15:35:42	5	5	79x
16	"	15:35:52	5	5	
17	"	15:36:02	5	5	
18	"	15:36:15	5	5	
19	"	15:36:29	4	5	
20	"	15:36:40	5	5	
21	"	15:36:50	5	5	
22	"	15:37:00	5	5	
23	"	15:37:16	5	5	
24					

Hawaii Ocean Time Series			Station #: 2	Cast #: 7	Box #: 17, 18
Salinity Sample Log Sheet			Cruise #: HOT-318	Sampler: DF, LK, CM	
Niskin #	Depth	Serial #	Comments		
1	1020	400			
2	450	401	Sal min		
3	175	402			
4	150	403			
5	 	 			
6	 	 			
7	 	 			
8	 	 			
9	125	404			
10	100	405			
11	75	406			
12	45	407			
13	25	408			
14	 	 			
15	 	 			
16	5	409			
17	 	 			
18	 	 			
19	 	 			
20	 	 			
21	 	 			
22	 	 			
23	 	 			
24	 	 			

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000G PS ATP	12 L	25.05	LK

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

Station: 2	Cast: 8
Latitude start: 22°39.5971'N end: 22°39.5771'N	Longitude start: 158°00.4724'W end: 158°00.4681'W
Depth of water: 4757 meters	Date (GMT): 01 / 08 / 20
Pressure on Deck Begin: 0.40 End: 0.12	Time: Start Log: 17:55 In Water: 18:03 Out of Water: 19:17
Max cast pressure: 1022 dbar	

Trip/ Niskin	Time	Confirm	Pressure	Target Depth	Comments
	stopped	tripped			
1	18:39:58	18:40:18	1021	1020	
2	18:45:50	18:46:10	770	770	
3	18:52:10	18:52:30	500	500	
4	18:54:05	18:54:25	450	450	SAL MIN
5	18:55:50	18:56:10	399	400	
6	18:57:32	18:57:52	350	350	
7	18:59:22	18:59:42	301	300	
8	19:01:02	19:01:22	249	250	
9	19:04:00	19:04:20	151	150	
10	19:05:29	19:05:49	125	125	
11	19:06:44	19:07:04	101	100	
12	19:08:08	19:08:28	74	75	
13	19:09:32	19:09:52	45	45	
14	19:10:48	19:11:08	25	25	
15	19:10:48	19:11:16	25	25	
16	19:12:14	19:12:34	7	5	
17	19:12:14	19:13:09	7	5	
18					
19					
20					
21					
22					
23					
24					

Hawaii Ocean Time Series Station #: 2 Cast #: 8 Box #: 18

Salinity Sample Log Sheet Cruise #: HOT-318 Sampler: DF, LK, KM, CM

Niskin #	Depth	Serial #	Comments
1	1020	410	
2	 	 	
3	 	 	
4		411	Sal min
5	 	 	
6	350	412	
7	 	 	
8	250	413	
9	150	414	
10	125	415	
11	100	416	
12	75	417	
13	45	418	
14	25	419	
15	 	 	
16	5	420	
17	 	 	
18	 	 	
19	 	 	
20	 	 	
21	 	 	
22	 	 	
23	 	 	
24	 	 	

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000GPS	PL	25.25	LK

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

Station: 2	Cast: 9
Latitude start: 22°39.5769'N	Longitude start: 158°00.4461'W
end: 22°39.5904'N	end: 158°00.4898'W
Depth of water: 4762 meters	Date (GMT): 01/08/19
Pressure on Deck	Time:
Begin: 0.58	Start Log: 20:22
End: 0.25	In Water: 20:34
Max cast pressure: 1022 dbar	Out of Water: 22:10

Trip/ Niskin	Time	Confirm	Pressure	Target Depth	Comments
	stopped	tripped			
1	21:19:35	21:19:55	1020	1020	
2	21:19:35	21:20:05	1020	1020	
3	21:27:20	27:45	799	800	
4	21:33:40	21:34:00	602	600	
5	21:38:45	21:39:05	453	450	Sal min
6	21:40:52	21:41:12	401	400	
7	21:44:43	21:45:03	302	300	
8	21:46:18	21:46:38	277	275	
9	21:47:57	21:48:17	249	250	
10	21:49:26	21:49:46	226	225	
11	21:51:00	21:51:20	200	200	
12	21:51:00	21:51:33	199	200	
13	21:52:36	21:52:56	176	175	
14	21:54:20	21:54:40	148	150	Sal max
15	21:56:00	21:56:20	123	125	
16	21:57:36	21:57:56	101	100	
17	21:59:30	21:59:50	74	75	
18	22:01:21	22:01:41	46	45	
19	22:02:54	22:03:14	25	25	
20	22:02:54	22:03:26	25	25	
21	22:04:50	22:05:10	5	5	
22	22:04:50	22:05:26	5	5	MISSING MARK
23					
24					

Hawaii Ocean Time Series		Station #: 2	Cast #: 9	Box #: 18
Salinity Sample Log Sheet		Cruise #: HOT-318	Sampler: DF, KM, UK, CM	
Niskin #	Depth	Serial #	Comments	
1	1020	421		
2	 	 		
3	 	 		
4	 	 		
5	450	422	sal min	
6	 	 		
7	 	 		
8	 	 		
9	 	 		
10	 	 		
11	 	 		
12	 	 		
13	 	 		
14	150	423	sal max	
15	 	 		
16	 	 		
17	 	 		
18	 	 		
19	 	 		
20	 	 		
21	5	424		
22	 	 		
23	 	 		
24	 	 		

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000GPS	12L	25.42	TR

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

Station: 2	Cast: 10
Latitude start: 22° 39.616' N end: 22° 39.338' N	Longitude start: 157° 59.123' W end: 157° 59.059' W
Depth of water: 4751 meters	Date (GMT): 1 / 9 / 2020
Pressure on Deck	Time:
Begin: 0.48	Start Log: 02:33
End: 0.15	In Water: 02:39
Max cast pressure: 1023 dbar	Out of Water: 03:50

Trip/ Niskin	Time	Confirm	Pressure	Target Depth	Comments
	stopped	tripped			
1	03:18:48	03:19:08	1019	1020	
2	03:32:40	03:33:00	450	450	SMIN
3	03:38:33	03:38:53	175	175	
4	" : "	03:39:10	175	175	
5	" : "	03:39:44	175	175	
6	03:41:43	03:41:53	100	100	
7	"	"	"	100	
8	"	"	"	100	
9	03:43:47	03:43:07	75	75	
10	"	"	"	75	
11	"	"	"	75	
12	03:46:20	03:46:40	25	25	
13	03:47:55	03:47:15	5	5	
14	↓	↓	↓	5	
15	↓	↓	↓	5	
16	↓	↓	↓	5	
17					
18					
19					
20					
21					
22					
23					
24					

HOT-318

KM 2001

CTD Configuration

CTD: 91361

Deck Unit: 112060

Pressure: 75434

Carousel: 1261

T₁: 1416T₂: 5519C₁: 3984C₂: 2959O₁: 982O₂: 262

Pump: 968

Pump₂: 494

Fluorometer: 3831

Altimeter: 7769

Bucket Thermometer: 3638

Transmissometer: 1366 DR

Cruise Participants:

K. Björkman

B. Watkins

Ximena Boza (Volunteer/
Smithsonian)

J. Diehl

T. Clemete

L. Frymire

D. Fitzgerald

Alex Sid elev

C. Funky - Chief Sci

Andre's Salazar (Grad stud / UH)

L. Knor

C. Morgan

D. Sadler

B. Brenes

T. Burrell

F. Pacheco

T. Rohrer

R. Tabata

Sophia Indebetouw (volunteer)

K. Maloney

M. Caffin

Eric Chan (scientist / UTexas)

Benjamin Granzow (Grad student / MIT)

Alexa Curioz (undergrad / UH)

4 Jan. 2020

Transmissometer: V7 1366-DR

Open: 4.67643

Blocked: 0.02320

LAST
• thermosal SALT box = 10

SICI - slightly large C differences

HOT-318

6 Jan 2020³

UTC

1845 LEFT PORT (UH MARINE CENTER)

1920 SAFETY BRIEFING

2000 DRILLS START

20:40 DRILLS FINISH

21:36 Begin weight cast to 500M w/ 1300 lb weight

NO Tension: -90 lbs

In Air: 1200 lbs

In Water: 980 lbs

22:10 End weight cast

22:30 HYPERPRO DEPLOYED ($158^{\circ}16.2369'W$) @ 22:45
($21^{\circ}20.7501'N$)

1 YOYO CAST, 1 PROFILE WITH HYPERPRO 0207 22:30-22:52

1 PROFILE, 1 YOYO WITH HYPERPRO 0120 23:00-23:28

23:30 END HYPERPRO

23:54 BEGIN SIC1 $21^{\circ}20.7759'N$
 $158^{\circ}15.7800'W$

TROUBLE WITH THE LEVELWIRE @ $\approx 600M$ UPCAST
AND AGAIN AT 200M

01:12 END SIC1, 15 MARKS OK

LADCP did not record successfully - tiny files, split cast into two parts. Battery voltage found to be low. Battery swapped out after SIC1. Needs compass calibration.

proc. computer: adjust G5000PSA to get
the altimeter channel

xchange LADCP Bat. every ~8 cruises

HOT-318

7 JAN 202

- 01:20 TRANSIT TO ALOHA STATION.
- 09:05 ENTERED ALOHA CIRCLE
- SUSTAINED WINDS 27 kts, GUSTS TO 30
- 09:20 WIRE WALKER AND SEDIMENT TRAP ARRAYS CANCELLED
10:20 CONDITIONS BAD ENOUGH THAT OPERATIONS HAVE BEEN
POSTPONED UNTIL MORNING (7 AM HST / 1700 UTC)
- 1700 REASSESSED CONDITIONS, WIND IS DOWN TO ~20kts
SO WILL PROCEED WITH DEEP CAST
- 1738 BEGIN S2 C1, DEEP CAST $22^{\circ}44.9664'N$
 $157^{\circ}59.9945'W$
- 1933 FIRED BOTTLE 1 @ 4806 dbar, 8m OFF THE
BOTTOM AT $22^{\circ}44.9712'N$
 $157^{\circ}59.7839'W$
- WINCH STOPPED UPCAST @ 4695 dbar BECAUSE OF
A GAP, WENT BACK DOWN TO 4800 TO REMOVE IT.
HAD TO STOP AGAIN AT 4790, TOOK A WHILE TO
FIX LEVEL WIRE, PROCEEDING AFTER ADJUSTMENTS.
- 2014 STARTED VCR TAPE 2 AFTER I SAW #1 HAD BEEN EJECT
- 2043 STOPPED & PAID OUT A BIT OF WIRE BEFORE
PROCEEDING SLOWLY
- 2105 STOPPED & PAID OUT AGAIN @ 3205
- 2206 & AT 1788
- 2317 END S2 C1 $22^{\circ}45.1654'N$ $157^{\circ}59.8865'W$ 24 MARKS

6

0.681 WIRE
RED CONDUCTOR, 35 Ω

HOT-318

7 JAN 2020

2320 TRANSIT TO PUMP SEWAGE KRVN INCINERATOR

BOTTLE 8 IS LEAKING FROM THE BOTTOM CAP

REPLACED O-RING AFTER CAST, BOTTLE PASSED VACUUM TEST.

01:12 SPENT SEWAGE RUN SETTING UP 0.681 WIRE 8 JAN 2020

AS CONDITIONS ARE TOO ROUGH FOR 0.322 WIRE,

ESPECIALLY WITH LEVELWIND ISSUES ON CTD WINCH.

THE CURRENT ELECTRICAL TERMINATION WAS NOT

WORKING, SO RED CONDUCTOR WAS RETERMINATED.

01:30 AFTER RETERMINATION, SINGLE PIN PIGTAIL WAS FOUND TO BE FAULTY. ANOTHER RETERMINATION REQUIRED.

02:20 BEGIN S2C2, 61000 GPS, PO SHALLOW
22° 45.179' N, 158° 00.076' W

03:42 END S2C2, 24 MARKS OK

04:49 BEGIN S2C3, 61000 GPS, BEACH CAST
22° 45.314' N, 158° 00.109' W

06:02 END S2C3, 24 MARKS OK

07:19 BEGIN S2C4, 61000 GPS, PC/PN CAST
22° 45.221' N, 158° 00.092' W

08:28 END S2C4, 20 MARKS OK.

09:36 BEGIN S2C5, 61000 GPS
22° 45.113' N, 158° 00.048' W

HOT-318

8 JAN 2020

10:49 END S2C5, 24 MARKS OK

12:11 BEGIN S2C6, 61000GPS, HPLC CAST
22° 44.797' N, 157° 59.982' W1532 END S2C6, EXTRA MARK: 1003 dbar, MISSING MARK: 25
22° 44.6404' N 157° 59.9405' W14:37 BEGIN S2C7, 91000GPS (PSi)
22° 44.5278 N 157° 59.9258' W1541 END S2C7, 23 MARKS OKAY
22° 44.712' N 158° 0.008' W

1644 PUMPING TANKS

1803 START S2C8, 91000GPS (ATP)
22° 39.5874' N 158° 00.4688' W1917 END S2C8, 17 MARKS OKAY
22° 39.5761' N 158° 00.4697' W2034 START S2C9, 91000GPS (OPEN)
22° 39.5777' N 158° 00.4742' W2210 END S2C9, MISSING MARK: 25m
22° 39.5903' N 158° 00.4880' W

2300 MET / ADCP INTERCOMPARISON AT WHOTS MOORING

02:39 BEGIN S2C10, 61000GPS, OPEN CAST
22° 39.616' N, 157° 59.123' W

9 JAN 2020

03:50 END S2C10, 16 MARKS OK

HOT-318

9 JAN 2020

04:00 BEGIN TRANSIT TO HONOLULU

DUE TO INCREASING SEAS AND FORECASTED WINDS
GREATER THAN 30 KNOTS, OPERATIONS HAVE BEEN
CALLED OFF. THERE WERE ALSO CONCERNS SURROUNDING
THE INTEGRITY OF THE 0.681 WIRE WITH REGARD
TO THE UPCOMING R.O.V. CRUISE.

1845 - FIRST LINE AT PIER 35
END HOT-318

R/V KILO MOANA

ZONE DESCRIPTION 410

DATE MONDAY 6 JANUARY 2020

AT/ON CRUISE HOOVERW, MI / KM 20-01

BERTH PIER 35

WEATHER OBSERVATIONS

TIME ZONE	COURSE			WEATHER	VISIBILITY	WIND		SEA		SWELL		BARO.	TEMP.		CLOUDS	
	TRUE	GYRO	STAND. OR STEER.			DIRECT.	FORCE	DIRECT.	CONDIT.	DIRECT.	HEIGHT		DRY BULB	WET BULB	TYPE	AMOUNT
01																
02																
03																
04																
05																
06																
07																
08																
09																
10																
11																
12																
13																
14	ON	STATION	PCWY	12	090	20	090	SXT	SSE	3	1018.3	30	27	CU	4	
15																
16	344	335	326	PCWY	12	095	17	095	SXT	SE	3	1018.1	28	23	CU	2
17																
18	015	017	002	PCWY	10	075	28	045	S	030	4	1019	23	21	STCU	5
19																
20	015	018	003	OCST	10	062	24	045	MOD	NE-E	3	1020.2	24	21	STCU	6
21																
22	015	018	003	PCWY	10	078	26	050	MOD	E-N	5	1023	23	21	STCU	5
23																
24	ON	STATION	SPRERS	8	070	25	090	MOD	ENT	6	1023.7	23	21	CU	8	

STEAMING TIME		TOTAL STEAMING TIME		DISTANCE	TOTAL DISTANCE	FUEL OIL CONSUMED	FUEL OIL ON HAND	LUB OIL CONSUMED	LUB OIL ON HAND	FRESH WATER CONSUMED	FRESH WATER ON HAND
HRS.	MIN.	DAYS	HRS.	MIN.	MILES	GAL	GAL	GAL	GAL	GAL	GAL
3	14	0	3	14	27.9	406	25103	56	110	124	8114

STATION TIME		DETECTION		COMPASS ERROR		DRAFT		FUEL OIL RECEIVED		LUB. OIL RECEIVED		FRESH WATER RECEIVED	
HR.	MIN.	HR.	MIN.	GYRO	PORT	STBD	ARR	GAL	GAL	GAL	GAL	TREATED	YES
TOTAL STATION TIME		TOTAL DETENTION		STAND.	FWD	AFT	TYPE						
DAYS	HRS.	MIN.	HR.	MIN.	DEV.	AFT	CO.						
						24'06"	24'06"						
						26'03"	26'03"						

POSITION BY OBSERVATION

LEGEND 1 CELESTIAL 3 VISUAL
2 ELECTRONIC 4 D.R.

TIME	TYPE OBS.	1200	TIME	TYPE OBS.
0100		LATITUDE 21° 20.7N	2000	LATITUDE 22-11N
		LONGITUDE 158° 16.4W		LONGITUDE 158-9.2W

REMARKS

0920 CAPTAINS SCIENCE SAFETY BRIEF
 1007 FIRE DRILL L 21° 15' N 158° 10' W HAZMAT LOCKER A/C
 1008 FIRE VENTILATION SEVERED 1013 ALL ACCOUNTED W/LE EP 1 STARTED
 1018 'A' TEAM ON AIR MAKING ENTRY 1019 FIRE OUT OVERHAUL + FIREWAT
 1028 ABANDON SHIP DRILL 1032 ALL ACCOUNTED FOR REVIEW 1/2 LADDER
 PROCEDURES 1040 SEVERE FROM DRILLS | POST DRILL CRITIQUE HELD

0001 VESSEL MOORED PORT SIDE STA TO PIER 35
HONOLULU, HI RECEIVING SHORE POWER + POTABLE
WATER WASTE ASHORE MARSEL 1 IN EFFECT.

0700 MAKING PREPARATIONS TO GET U/W 0824 PRE
DEPARTURE (HEAT TEST COMPLETED AS PER 53 CFR 164.25
& NOS? 22-25-F1 0842 (TANKWAY ASHORE 0843 COMMENCE
LET TO ALL LINES 0846 LAST LINE 0901 ~~ALPHA~~
TOWER 0910 EXIT HONOLULU HARBOR MAIN SHIP
CHANNEL 2 ~~←~~ 1 BUOYS 0914 STBD ~~↓~~ SECURE FOR SEA
0914 HOTEL BUOY ~~←~~ 0919 RELIEVED BY 3/m MURRAY
A. B. B.

0800-1200 MURRAY

FISHER/RIOS

0924 VESSEL U/W FOR STATION ALOHA IN POS Δ 21-15.5N Δ 157-54.5W @
120RPM, 06 22.4°C 0930 CLK TO 270° PCE 1035 WP BARBERS Δ 310°
1120 SLOW DOWN FOR STATION APPROACH 1130 ON STATION IN POS Δ 21-20.7N
 Δ 158-10.4W 1138 WEIGHT CAST Δ 1145 WEIGHT CAST IN THE WATER RELIEVED
BY 2/m BARBER

1200-1400 BARBER

MELVILLE/NIELSON

VESSEL ON STATION KEHE CONDUCTING WEIGHT CAST AS IS BEFORE
1200 DAILY TEST SHIPS WHISTLE + G.A.B. ALL SAT. 1210
WEIGHT CAST Δ 1231 HYPERPRO Δ 1253 HYPERPRO Δ 1300 HYPERPRO Δ
1329 HYPERPRO Δ 1354 CTD SIC1 Δ 1513 CTD SIC1 Δ RESUME
U/W STATIONS 1525 VESSEL U/W ENROUTE TO ALOHA STATION
USE 344° @ 120 RPM 1541 RELIEVED BY 3/m MANN
A. B. B.

1600-2000 MANN

HODGE/ALTIERI

VSL TRANSIT TO ALOHA STA AS BEFORE 1615 SECURITY RWDS
COMPLETE 1622 % COU'T KA-ENA AT ϕ 053° Δ 36' 1636 % COU'ST ϕ 99.7° Δ 2.84'
1735 SEC RWDS Comp 1900 SEC RWDS Comp 1943 Rel'vd by 3/m MURRAY
M. M. M.

2000-2400 MURRAY

FISHER/RIOS

2000 VESSEL U/W AS BEFORE IN POS Δ 22-10.5N Δ 158-10.0W ENROUTE STATION
ALOHA, 120RPM, 06 015° T 2315 SLOW DOWN FOR STATION APPROACH
2330 ON STATION IN POS Δ 22-14.9N Δ 158-00.0W, BOW TRANSFER ONLINE
AWAITING SUI OPS. 2345 VESSEL ON STATION AS BEFORE STANDING BY FOR SUI
OPS RELIEVED BY 2/m BARBER

RV KILO MOANA

ZONE DESCRIPTION HU

DATE TUESDAY 7 JANUARY 2020

AT/ON CRUISE 15m 20-01

BERTH

WEATHER OBSERVATIONS

TIME ZONE	COURSE			WEATHER	VISIBILITY	WIND		SEA		SWELL		BARO.	TEMP.		CLOUDS	
	TRUE	GYRO	STAND. OR STEER			DIRECT.	FORCE	DIRECT.	CONDIT.	DIRECT.	HEIGHT		DRY BULB	WET BULB	TYPE	AMOUNT
01																
02	ON	STATION	CLW	12	075	25	075	MOD	ENE	10	1021.6	24	21	CU	4	
03																
04	ON	STATION	CLW	12	075	25	075	MOD	ENE	10	1021.2	24	21	CU	6	
05																
06	ON	STATION	MOSTLY CLW	12	072	21	072	MOD	ENE	10	1021.1	23	21	CU	1	
07																
08	ON	STATION	CLW	12	080	23	070	MOD	NE	10	1021.1	24	21	CU	6	
09																
10	ON	STATION	PCLW	12	080	30	080	MOD	ENE	10-12	1021.2	21	20	CU	3	
11																
12	ON	STATION	PCLW	12	075	31	075	MOD	ENE	10	1021.0	25	20	SC CU	4	
13																
14	VARIOUS		PCLW	12	075	27	075	MOD	ENE	10-11	1020.0	25	20	CU	5	
15																
16	ON	STATION	PCLW	12	080	25	080	MOD	ENE	10	1019.6	27	21	CU	5	
17							07 ^{hr}									
18	ON	STATION	PCLW	12	078	25	078	MOD	ENE	10	1020.5	24	19	CU	5	
19																
20	ON	STATION	PCLW	12	066	27	068	MOD	ENE	8	1021.1	24	19	CU	6	
21																
22	ON	STATION	PCLW	12	080	25	080	MOD	ENE	8	1022.5	23.5	20	AC CU	4	
23																
24	ON	STATION	PCLW	12	080	30	080	MOD	ENE	10-12	1022.3	23.5	19.5	CU	6	

STEAMING TIME		TOTAL STEAMING TIME		DISTANCE	TOTAL DISTANCE	FUEL OIL CONSUMED	FUEL OIL ON HAND	LUB OIL CONSUMED	LUB OIL ON HAND	FRESH WATER CONSUMED	FRESH WATER ON HAND
HR.	MIN.	DAYS	HR.	MILES	MILES	GAL.	GAL.	GAL.	GAL.	GAL.	GAL.
24	0	1	3	14	92	1194	1912	2391	8	102	8059

STATION TIME		DETENTION		COMPASS ERROR	DRAFT		FUEL OIL RECEIVED		LUB OIL RECEIVED		FRESH WATER RECEIVED	
HR.	MIN.	HR.	MIN.		DEP.	ARR.	GAL.		GAL.		GAL.	
TOTAL STATION TIME		TOTAL DETENTION		GYRO	PORT	STBD	GAL.		GAL.		GAL.	
DAYS	HR.	MIN.	HR.	MIN.	STAND.	FWD.	FWD.	TYPE	TYPE	TREATED	YES	NO
				DEV.	AFT.	AFT.	CO.	CO.				

POSITION BY OBSERVATION

LEGEND 1 CELESTIAL 3 VISUAL
2 ELECTRONIC 4 D.R.

TIME	TYPE OBS.	1200	TIME	TYPE OBS.
0400			2000	
LATITUDE 22°45'6" W		LATITUDE 22°45'0" W	LATITUDE 22°45'2" W	
LONGITUDE 158°00'2" W		LONGITUDE 157°59'8" W	LONGITUDE 158°00'0" W	

REMARKS

0015 ANCHORED SUCRE OPS TILL DAYLIGHT DUE TO WX.

0000-0400 BARBER NIELSEN/MELVILLE
 0001 VESSEL ON STATION ALPHA AWAITING NEXT SCIENCE
 OP DAY "2" HOT SIS CRUISE L22°45.0'N A 158°00.0'W
 GENERATORS 2,3,4 & STEERING PUMPS #2 0032 SWITCH
 TO SP#1 0341 RELIEVED BY C/M MANN *[Signature]*

0400-0800 MURPHY HODGE/ALTERI
 VSL STD BY, ON STA, AWAITING SCIENCE OPS 0455 SECURITY
 RND COMPLETE 0545 SEC RND COMPLETE 0700 PROCEED TO
 CENTER ALPHA STATION 0710 ON STATION L22°49.0'N A 158°00'W
 0737 CTD ↓ 0745 VSL ON STA CONT. CTD LAST REL'VD BY
 3/M MURPHY *[Signature]*

0800-1200 MURPHY FISHER/RIOS
 0800 VSL ON STATION AS BEFORE IN POS L22-49'N A 157-57.8W CONDUCTING
 DEEP CAST 0950 ENGINE REPT. CALLED TO INSPECT WINCH DURING DEEP CAST
 RECOVERY 1145 ON STATION AS BEFORE RECOVERING CTD RELIEVED BY 2/M
 SPANGLER *[Signature]*

1200-1600 BARBER NIELSEN/MELVILLE
 VESSEL ON STATION CONDUCTING CTD CAST AS BEFORE
 1200 DAILY TEST SHIPS WHISTLE + G.A.B. ALL SAT. 1317
 CTD 5201 ↑ 1325 VSL TO PUMP SEWAGE 1507 ON
 STATION 1548 RELIEVED BY C/M MANN *[Signature]*

1600-2000 MURPHY HODGE/ALTERI
 VSL ON STATION - STAND BY FOR SCIENCE OPS 1620 CTD ↓ 1743
 CTD ↑ 1848 CTD ↓ 1950 CONT SCI OPS AS BEFORE
 REL'VD BY MURPHY *[Signature]*

2000-2400 MURPHY FISHER/RIOS
 2000 VSL ON STATION AS BEFORE IN POS L22-45'N A 158-00'W
 2005 CTD ↑ 2120 CTD ↓ 2150 ~~ALL SAT~~ 2232 CTD ↑ 2337 CTD ↓
 2345 VSL ON STATION AS BEFORE RELIEVED BY 2/M BARBER *[Signature]*

R/V KILO MOANA

ZONE DESCRIPTION +10

DATE WEDNESDAY 8 JANUARY 2020

AT/ON CRUISE

BERTH

WEATHER OBSERVATIONS

TIME ZONE	COURSE			WEATHER	VISIBILITY	WIND		SEA		SWELL		BARO.	TEMP.		CLOUDS	
	TRUE	GYRO	STAND. OR STEER			DIRECT.	FORCE	DIRECT.	CONDIT.	DIRECT.	HEIGHT		DRY BULB	WET BULB	TYPE	AMOUNT
01																
02	ON STATION			PELWY	12	080	31	080	MOD	ESE	11	1019.7	24	19	CU	2
03																
04	ON STATION			PELWY	12	070	27	070	MOD	ESE	11-12	1015.9	24	20	SCW	4
05																
06	ON STA			PELWY	12	075	22	075	MOD	ESE	10	1018.2	24	19	CU	5
07																
08	ON STA			PELWY	12	075	23	075	MOD	ESE	10	1118.1	25	20	CU	5
09																
10	ON STATION			PELWY	12	080	30	080	MOD	E*W	10	1021.0	24	20	SCW	5
11																
12	ON STATION			PELWY	12	080	32	080	MOD	E*W	11-13	1020.5	25	21	SCW	5
13																
14	ON STATION			PELWY	12	075	30	075	MOD	ESE	12-14	1017.2	27	22	CU	3
15																
16	ON STATION			PELWY	12	075	25	072	MOD	ESE	10	1017.6	24	21	ST/CU	6
17																
18	ON STA			PELWY	12	065	21	070	MOD	ESE	10	1018.1	24	21	ST/CU	6
19																
20	195	193	190	PELWY	12	082	24	050	MOD	N*E*W	10	1018.6	24	21	ST/CU	6
21																
22	190	190	185	PELWY	12	070	28	070	MOD	ESE	10	1020	23	21	ST/CU	6
23																
24	196	196	191	PELWY	12	060	26	055	MOD	N*E*E	6-8	1019.8	23	21	CU	6

STEAMING TIME		TOTAL STEAMING TIME		DISTANCE	TOTAL DISTANCE	FUEL OIL CONSUMED	FUEL OIL ON HAND	LUB OIL CONSUMED	LUB OIL ON HAND	FRESH WATER CONSUMED	FRESH WATER ON HAND
HRS	MIN	DAYS	HRS	MILES	MILES	GAL	GAL	GAL	GAL	GAL	GAL
24	0	2	3	14	33.6	1535	1555	2163	0	102	1725

STATION TIME		DETENTION		COMPASS ERROR		DEP DRAFT		ARR		FUEL OIL RECEIVED		LUB OIL RECEIVED		FRESH WATER RECEIVED		
HR	MIN	HR	MIN	GYRO	PORT	STBD				GAL	GAL	GAL	GAL	TREATED	YES	NO
TOTAL STATION TIME		TOTAL DETENTION		STAND.	FWD	FWD	TYPE			TYPE		TYPE				
DAYS	HRS	MIN	HR	MIN	DEV	AFT	AFT	CO.		CO.		CO.				

POSITION BY OBSERVATION

LEGEND 1 CELESTIAL 3 VISUAL
2 ELECTRONIC 4 D.R.

TIME	TYPE OBS.	1200	TIME	TYPE OBS.
0400			2000	
LATITUDE	22° 44.5N	LATITUDE 22° 39.6N	LATITUDE	22-18.8N
LONGITUDE	157-54.9 W	LONGITUDE 158° 00.5 W	LONGITUDE	158-07.4 W

REMARKS

SEAS TRAINING 1230 L 22-38.7N 157-55.5W FIRE SAFETY
PIROTECHNICS & FIRE EXTINGUISHERS

0800-04 Barker MELVILLE/NIELSEN
VESSEL ON STATION CONTINUING CTD CAST "3"
HOT 318 CRUISE 22°45'N λ 158°00'W RAW STARS
GENERATORS 2,3,4 O/L STEERING PUMPS # 1 & 2 SWITCH
TO SP# 2 CDS CTD \uparrow 0212 CTD \downarrow 0332 CTD 0342
REL'D BY C/M MURRAY

0400-0800 MURRAY HODGE/ALTER 1
ON STATION AS BEFORE STANDING BY FOR SCIENCE
0437 CTD \downarrow 0539 CTD \uparrow 0542 U/W TO PUMP TANKS
0650 COMPLETE PUMP'G 0739 ON STATION λ 22°39'N λ 158°00'W
0745 REL'D BY 3/M MURRAY

0800-1200 MURRAY R/W/FILTER
0800 U/W AS BEFORE IN POS λ 22°39'N λ 158°00'W STANDING
BY FOR SCIENCE, RAW STARS ONLINE, 3000 RPM RAW STARS 0903 CTD \downarrow
1019 CTD \uparrow 1055 CTD \downarrow 1145 U/W AS BEFORE (COPYING SLIP)
AS REL'D BY C/M BARKER

1200-1600 Barker MELVILLE/NIELSEN
VESSEL ON STATION CONTINUING CTD CAST AS BEFORE
1200 DAILY TEST SHIPS WHISTLE + G.A.B. ALL STAT.
1211 CTD \uparrow 1220 VESSEL U/W FOR WHOLE BODY 1245
HOLDING STATION NEAR WHOLE BODY FOR ADCP INTERCOMD
1419 U/W FOR 1 hr INSIDE THE CIRCLE + PUMP SEWAGE
1503 ON STATION 1535 REL'D BY C/M MURRAY

1600-2000 MURRAY HODGE/ALTER 1
ON STATION AWAIT SCIENCE READINESS 1639 CTD \downarrow
1750 CTD \uparrow 1800 U/W FOR HODGE \uparrow 120 RPM CSE 195°T - BT SECURED
1849 U/W AS BEFORE REL'D BY 3/M MURRAY

2000-2400 MURRAY R/W/FILTER
2020 U/W AS BEFORE IN POS λ 22°18'N λ 158°07'W ENROUTE
HONOLULU O/L 195°T, SEEMS 120 RPM 2140 KAREN AT 190°T @ 28.5 km
2345 U/W AS BEFORE REL'D BY 2/M BARKER

PAGE No.

RV KILO MOANA

ZONE DESCRIPTION 410

DATE THURSDAY 07 JANUARY 2020

ATON CRUISE 20-01

BERTH

WEATHER OBSERVATIONS

TIME ZONE	COURSE			WEATHER	VISIBILITY	WIND		SEA		SWELL		BARO.	TEMP.		CLOUDS	
	TRUE	GYRO	STAND ON STEER			DIRECT	FORCE	DIRECT	CONDIT	DIRECT	HEIGHT		DRY BULB	WET BULB	TYPE	AMOUNT
01																
02	1604	165	150	Partly	12	070	11	070	WLT	SE	2	1650	23	20	CU	6
03																
04	152	124	148	Partly	12	070	13	070	WLT	SE	2	1616.5	23	20	CU	4
05																
06	D90	085	088	STCU	12	063	12	063	SFT	SFT		1619.1	24	20	CU	3
07																
08																
09																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

STEAMING TIME		TOTAL STEAMING TIME		DISTANCE	TOTAL DISTANCE	FUEL OIL CONSUMED	FUEL OIL ON HAND	LUB. OIL CONSUMED	LUB. OIL ON HAND	FRESH WATER CONSUMED	FRESH WATER ON HAND
HR	MIN	DAYS	HR	MILES	MILES	GAL	GAL	GAL	GAL	GAL	GAL
		3	23								
		2	23								

STATION TIME		DETENTION	COMPASS ERROR	DRAFT	FUEL OIL RECEIVED		LUB. OIL RECEIVED	FRESH WATER RECEIVED
HR	MIN	HR	MIN	PORT	STBD	GAL	GAL	GAL

TOTAL STATION TIME		TOTAL DETENTION	STAND.	FWD.	FWD.	TYPE	TYPE	TREATED	YES	NO
DAYS	HR	MIN	HR	DEV.	AFT	AFT	CO	CO		

POSITION BY OBSERVATION

LEGEND 1 CELESTIAL 3 VISUAL
2 ELECTRONIC 4 D.R.

TIME	TYPE OBS.	1200	TIME	TYPE OBS.
LATITUDE		LATITUDE	LATITUDE	
LONGITUDE		LONGITUDE	LONGITUDE	

REMARKS



0000 0400 BARILETZ MELVILLE/NIELSON
 0001 VESSEL ENROUTE TO HONOLULU, HI CSE 195° @ 120 RPM
 DRY 4" HOT OIL CRUISE 121° 36.5' N 158° 14.5' W
 GENERATORS 2, 3, H₀L STEERING PUMPS # 2 0009 WP
 KAENA PT C/C 180° 0024 WP FAS V 1207 LEG C 164°
 0025 REDUCE TO 50 RPM 0030 SWITCH TO SP#1
 0029 WP KEHE TRANSIT C/C 130° 0341 RELIEVED BI C/W
 MANU ~~INTERVIEW~~

0400-0800 ALMAN HADLER/ALTERI
 VSL ENROUTE TO HONO, HI, CSE 130 POC @ 60 RPM 0418 9% 090T
 BARBERS PT 035° 36' 070 GEAR TEST COMPLETE AS PER
 33 CFR 164.25 / MDSP-2.2-25-FZ U/W INBOUND HONO
 0728 INBOUND AS BEFORE 2/m BTHE RELIEVES ~~ALMAN~~
 0730 BARBER ON ARRIVAL WATCH

0730 VLD ENROUTE TO HOTEL APPROACH Pt. (SEC 90 @ 100 RPM
 0805 ~~←~~ HOTEL BODY 0808 STOP & READY TO WORK 0809
 1 ~~→~~ 2 BODYS ENTER HONOLULU HARBOR MAIN SHIP CHANNEL
 0820 ~~→~~ HOTEL BODY ALOHA TOWER 0842 FIRST LINE
 0900 ALL FAST PORT SIDE TO PIER 35 HONOLULU, HI 0900
 FIVE 0905 GANGWAY ABOARD

KILO MOANA
 POSITION AND SCIENCE EVENT LOG
 CRUISE 20-01

PAGE 1

ZD +10

DATE	ZT	LAT	LON	EVENT
1/6/2020	0930	21°14.5N	157-55.4W	c/c to 270°
	1100	21°17.5N	158°13.0W	
	1138	21-20N	158-16.4W	WEIGHT CAST ↓
	1200	21°20.7N	158°16.4W	
	1210	21°20.8N	158°16.4W	WEIGHT CAST ↑
	1231	21°20.7N	158°16.4W	HYPERPRO ↓
	1253	21°20.7N	158°16.1W	HYPERPRO ↑
	1300	21°20.8N	158°16.0W	HYPERPRO ↓
	1329	21°20.7N	158°15.6W	HYPERPRO ↑
	1354	21°20.8N	158°15.8W	CTD SIC1 ↓
	1400	21°20.8N	158°15.8W	
	1500	21°20.7N	158°15.8W	
	1513	21°20.8N	158°15.8W	CTD SIC1 ↑
	1600	21-27.5 N	158-18.5 W	TRANSIT
	1622	21-32.1	158-19.9	c/c 000°T KA-ENA 0.53° @ 3.6 NM
	1636	21-34.8	158-19.9	c/c 015°T OFF.7 @ 2.84'
	1700	21°39.3N	158°18.8W	
	1800	21-51.1	158-15.5	
	1900	22-01.1	158-12.4	TRANSIT
	2000	22-11.8N	158-9.2W	
	2100	22-21.6N	158-06.6W	
	2200	22-31.5N	158-03.0W	
	2300	22-42.2N	158-00.7W	
	2330	22-44.9N	158-00.0	ON STATION, POW TRANSIT ONLINE
	0000	22°45N	158°00.0W	
	0100	22°45.0N	158°00.0W	
	0200	22°45.0N	158°00.1W	
	0300	22°45.4N	158°00.2W	
	0400	22°45.0N	158°00.2W	ON STATION

KILO MOANA
 POSITION AND SCIENCE EVENT LOG
 CRUISE 20-01

PAGE 2

ZD +10

DATE	ZT	LAT	LON	EVENT
11/7/20	0500	22°45.6 N	158°00.8 W	
	0600	22°45.9 N	158°00.3 W	
	0710	22°45.0 N	158°00.0 W	
	0737	" "	" "	CTD ↓
	0800	22-44.9 N	157-59.8 W	
	0905	"	"	ALL STOP 4500 m
	0915	"	"	ALL STOP 4500
	0925	"	"	ALL STOP 4700
	1000	"	"	
	1006	"	"	BUCKET TEMP STBD SIDE
	1100	"	"	
	1200	22°45.0 N	157°59.8 W	
	1300	22°45.1 N	157°59.9 W	
	1317	22°45.2 N	157°59.9 W	CTD 5200 ↑
	1400	22°43.5 N	158°05.6 W	
	1500	22°44.9 N	158°00.4 W	
	1507	22°45.0 N	158°00.0 W	ON STATION
	1600	22°45.0	158°00.0	
	1620	22-45.1	158-00.0	CTD ↓
	1700	22°45.3 N	158°00.1 W	
	1743	22-45.3	158-00.1	CTD ↑
	1800	22-45.3	158-00.1	
	1848	22-45.3	158-00.1	CTD ↓
	1900	22-45.2	158-00.1	
	2000	22-45.2	158-00.0	
	2005	"	"	CTD ↑
	2100	22-45.2	158-00.0	
	2120	"	"	CTD ↓
	2150	"	"	ALL STOP mtg PERM 1020m

KILO MOANA
 POSITION AND SCIENCE EVENT LOG
 CRUISE 20-01

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ZD +10

DATE	ZT	LAT	Lon	EVENT
1/7/20	2200	22-45.2N	158-00.0W	
	2232	"	"	CTD ↑
	2300	"	"	
	2337	"	"	CTD ↓
1/8/20	0000	22°45.1N	158°00.1W	
	0053	22°45.1N	158°00.0W	CTD ↑
	0100	22°45.0N	158°00.0W	
	0200	22°44.5N	158°00.0W	
	0212	22°44.8N	158°00.0W	ETD ↓
	0300	22°44.7N	157°59.9W	
	0332	22°44.6N	157°59.9W	CTD ↑
	0400	22°44.5N	157°59.9W	
	0437	22°44.5	157-59.5	CTD ↓
	0500	22°44.5	157-59.9	
	0539	22-44.7	158100	CTD ↑
	0542			Y/W TO Pump TANKS
	0650			COMPLETE Pump
	0739	22-39.6	158-00.4	ON STATION
	0800	22-39.5N	158-00.4W	
	0803	"	"	CTD ↓
	0840	"	"	MAX DEPTH 1020m
	0900	"	"	
	0919	22-39.5N	158-00.7W	CTD 8 ↑
	1000	"	"	
	1035	"	"	CTD 9 ↓
	1100	"	"	
	1120	"	"	MAX DEPTH 1020
	1200	22°39.6N	158°00.5W	
	1211	22°39.6N	158°00.5W	CTD ↑

