

Rosette Log for IOS Cruise ID 2007-20

Cast # RS-1
Station 43
CTD File 200720-

UTC Date (dmy) 07 Aug 2007
Lat (N) 75° 44' 650" N
Lon (W) 157° 5.850 W

UTC Time 20:26

Cast Type: Geochemistry

In Air pressure 0.6/0.5 Water Depth 981+9 (Knudsen, w/o +9 for ship hull)
Ice Coverage 4/10 Sound Speed 1479 (setting in Knudsen)
Start Scan 8200 Watch day team

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
822	bottom	981	✓ 1	✓	✓	3004	2087	3198			✓	✓					✓	✓									
823	900	890	✓ 2	✓													✓	✓									
824	800	800	✓ 3	✓	✓	3109					✓	✓					✓			✓	✓						
825	600	600	✓ 4	✓																							
826	500	500	✓ 5	✓	✓	3177					✓	✓					✓										
827	450	450	✓ 6	✓																							
828	tmax	443	✓ 7	✓	✓	3119					✓	✓					✓		✓								
829	400	400	✓ 8	✓																							
830	3475	339	✓ 9	✓																							
831	34.7	316	✓ 10	✓																							
832	34.6	290	✓ 11	✓																							
833	34.4	253	✓ 12	✓	✓	3204					✓	✓			✓		✓		✓	✓	✓						
834	34	215	✓ 13	✓	✓						✓	✓			✓				✓	✓	✓						
835	33.7	202	✓ 14	✓											✓												
836	33.4	188	✓ 15	✓											✓				✓	✓	✓						
837	33.1	171	✓ 16	✓	✓	3121	3199				✓	✓			✓		✓	✓	✓	✓	✓						
838	32.9	153	✓ 17	✓	✓	3181					✓	✓			✓		✓	✓	✓	✓	✓						
839	32.6	122	✓ 18	✓											✓				✓	✓	✓						
840	32.3	97	✓ 19	✓	✓						✓	✓			✓				✓	✓	✓						
841	t-max	58	✓ 20	✓	✓	3019					✓	✓			✓	✓	✓		✓	✓	✓						
842	Ch-max	48	✓ 21	✓	✓	3024									✓	✓	✓		✓	✓	✓						
843	20	20	✓ 22	✓	✓	3207					✓	✓			✓	✓	✓		✓	✓	✓						
844	5	5	✓ 23	✓	✓	2047				✓	✓	✓			✓	✓	✓	✓	✓	✓	✓						
			24																								

Comments:

Oxy - cpm, doc level
(2,

600
 500
 450
 Tmax
 400
 34.75
 34.17
 34.6
 34.4
 34.0

 33.7
 33.4
 33.1
 32.9
 32.6
 32.3
 C-max
 50
 20
 5

bottom
 900
 800
 700

Rosette Log for IOS Cruise ID 2007-20

Cast # 44 UTC Date (dmy) 7 Aug 2007 UTC Time 23:37
Station RS-2 Lat (N) 15° 39.960'N
CTD File 200720-44 Lon (W) 156° 17.809'W

Cast Type: Productivity, RNA/DNA, POC/TSS

In-Air Pressure 0.4 Water Depth 143/+9 (Knudsen, w/o +9 for ship hull)
Ice Coverage 3/10 Sound Speed 1479 (setting in Knudsen)
Start Scan 5300 Watch day Team

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Productivity (Ian Wrohan/Diana Varela)												RNA/DNA (Karen Scarcella/C. Lovejoy)								J.Jackson		Comments
					Pro NC	Pro NH ₄	Pro U	PON POC	Bio Si	Chl a	PID _L	PID _F	Nut NH ₄	Nut Urea	Nut NPS	DIC	Fish E	DNA	Chl a	RNA	HP LC	Bac	Nut	Bio mas	POC	TSS	
845	1000	1000	✓ 1	✓✓													2	2				1	1	1			
846	1000	1000	✓ 2																			1	1	1			
847	750	450	✓ 3														2	2				1	1	1			
848	750	450	✓ 4																								
849	200	200	✓ 5														2	2	2			1	1	1			
850	200	200	✓ 6																								
851		150	✓ 7														2	2	2			1	1	1			
852		150	✓ 8																								
853	Ch-max	48	✓ 9														2	2	2	2	2	1	1	1			
854	Ch-max	48	✓ 10																								
855		5	✓ 11														2	2	2	2	2	1	1	1			
856		5	✓ 12																								
			13																								
			14																								
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			18																								
			19																								
			20																								
			21																								
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			23																								
			24																								

Comments: Kitchen waste dumped just before cast. Went ahead + did cast. Will try to blow clear before bottles tripped

53

Rosette Log for IOS Cruise ID 2007-20

Cast # 45
Station RS-2
CTD File 200720-45

UTC Date (dmy) 8 Aug 2007
Lat (N) 75°39.989
Lon (W) 156°18.057

UTC Time 1:08

Cast Type: **Geochemistry**

In Air pressure 0.51
Ice Coverage 4/10
Start Scan 1452

Water Depth 1435+9m (Knudsen, w/o +9 for ship hull)
Sound Speed 1479 (setting in Knudsen)
Watch day team

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
857	bottom	1406	✓ 1	✓✓	✓✓	3209	3009										✓✓	✓✓									
858	1200	1200	✓ 2															✓									
859	1000	1000	✓ 3	✓✓	✓✓	2017	3048	3034			✓	✓					✓			✓	✓						
860	800	800	✓ 4	✓✓	✓	20810					✓	✓					✓										
861	700	700	✓ 5	✓✓																							
862	600		✓ 6	✓✓																							
863	500		✓ 7	✓✓	✓	2088					✓	✓					✓										2L Knudsen (!!)
864	4-max	430	✓ 8	✓✓	✓	2025					✓	✓					✓		✓✓								
865	400		✓ 9	✓✓																							
866	34.75	340	✓ 10	✓✓																							
867	34.7	320	✓ 11	✓✓																							
868	34.6	292	✓ 12	✓✓																							
869	34.4	253	✓ 13	✓✓	✓	3104					✓	✓			✓		✓✓		✓✓	✓	✓						
870	34	219	✓ 14	✓✓	✓	2092					✓	✓			✓		✓✓		✓✓	✓	✓						
871	33.7	205	✓ 15	✓✓											✓												
872	33.4	193	✓ 16	✓✓	✓										✓		✓	✓✓	✓✓	✓	✓						
873	33.1	173	✓ 17	✓✓							✓	✓			✓		✓✓	✓✓	✓✓	✓	✓						Spigot running.
874	32.9	153	✓ 18	✓✓											✓		✓	✓✓	✓✓	✓	✓						
875	32.6	120	✓ 19	✓✓											✓			✓✓	✓✓	✓	✓						
876	32.3	93	✓ 20	✓✓	✓	3116					✓	✓			✓		✓✓		✓✓	✓	✓						
877	T-max	60	✓ 21	✓✓	✓	3190					✓	✓			✓	✓	✓		✓✓	✓	✓						
878	O-max	48	✓ 22	✓✓	✓	2060					✓	✓			✓	✓	✓		✓✓	✓	✓						
879	20		✓ 23	✓✓	✓	3187					✓	✓			✓	✓	✓		✓✓	✓	✓						
880	5		✓ 24	✓✓	✓✓	3201				✓	✓	✓			✓	✓	✓	✓✓	✓✓	✓	✓						

Comments:

405 430

?? ? ? ?

Note: Oxy, Salt same level as CDOM, DOC

bottom

1200

1000

800

700

600

500

450

tmax

34.75

34.7

34.6

34.4

34

33.7

33.4

33.1

32.9

32.6

32.3

T-max

C-max

20

5

Rosette Log for IOS Cruise ID 2007-20

Cast # 46
Station CB5
CTD File 200720-046

UTC Date (dmy) 08 08 2007 UTC Time 0925
Lat (N) 75 11.96
Lon (W) 153 17.26

Cast Type: Geochemistry

In Air pressure 0.5/0.6
Ice Coverage 9/10+
Start Scan ~3000?

Water Depth 3838⁺⁹ (Knudsen, w/o +9 for ship hull)
Sound Speed 1479 (setting in Knudsen)
Watch SE/MO/HO/RN

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
881		1000✓	1	✓✓	✓	3182					✓	✓					✓✓	✓✓									
882		800✓	2	✓✓	✓	3160	3135				✓	✓															
883		600✓	3	✓✓		3151																					
884		500✓	4	✓✓		3174					✓	✓															
885	Tmax	420✓	5	✓✓		3196					✓	✓					✓										
886	34.75	356✓	6	✓✓		3206																					
887	34.7	333✓	7	✓✓		3012														✓	✓						
888	34.6	303✓	8	✓✓	✓	3161	2027													✓	✓						
889	34.4	268✓	9	✓✓		3096					✓	✓			✓			✓		✓	✓						
890	34	234✓	10	✓✓		3028					✓	✓			✓					✓	✓						
891	33.5	210✓	11	✓✓		3047									✓					✓	✓						
892	33.1	185✓	12	✓✓		3052					✓	✓			✓					✓	✓						
893	32.9	164✓	13	✓✓		3153					✓	✓			✓					✓	✓						
894	32.6	129✓	14	✓✓		3063									✓					✓	✓						
895	32.3	103✓	15	✓✓		3033					✓	✓			✓					✓	✓						
896	ChlMax	48✓	16	✓✓		3191					✓	✓			✓	✓				✓	✓						
897	20	✓	17	x✓		3166					✓	✓			✓	✓	✓	✓		✓	✓						medium spigot drip with air vent open
898	5	20✓	18	✓✓	✓✓	2059	3082	3061		✓	✓	✓			✓	✓	✓	✓		✓	✓						
		5	19																								
			20																								
			21																								
			22																								
			23																								
	ISUS		24																								

Comments: COM issues with NMEA at start, Sensor restarted with rosette in water
- difficult ice field
- ice at surface while recovering

Winch change gears @ 500m ↓
567m ↑ 56

Rosette Log for IOS Cruise ID 2007-20

Cast # 47
Station CB-7
CTD File 200720-047

UTC Date (dmy) 9 8 2007
Lat (N) 75 59.09
Lon (W) 149 57.44

UTC Time 0932

Cast Type: **Geochemistry**

In Air pressure 0.5/0.4 Water Depth 3820⁺⁹ (Knudsen, w/o +9 for ship hull)
Ice Coverage 9/10 Sound Speed 1479 (setting in Knudsen)
Start Scan 10200 Watch SE/MD/HD/RN

3830

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen Box 4	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DOC	C-13	DOC	CDOM	Total Chl-a 0.7ur	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity Yellow	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
899	B ₀ -10	3819 ⁺⁹	✓ 1	✓✓	✓	3182									✓		✓	✓									
900	3000		✓ 2	✓✓	✓	3160	3135	2027									✓	✓									
901	2500		✓ 3	✓✓		3151												✓									
902	2000		✓ 4	✓✓		3174																					
903	1500		✓ 5	✓✓		3196																					
904	1200		✓ 6	✓✓		3206					✓	✓															
905	800		✓ 7	✓✓		3012					✓	✓															
906	600		✓ 8	✓✓		3161													✓	✓							
907	500		✓ 9	✓✓		3096					✓	✓					✓	✓									
908	Tmax	402	✓ 10	✓✓		3028					✓	✓															
909	34.75	341	✓ 11	✓✓	✓	3047	3082																				
910	34.7	317	✓ 12	✓✓		3052																					
911	34.6	286	✓ 13	✓✓		3193													✓	✓							
912	34.4	252	✓ 14	✓✓		3063					✓	✓															
913	34	215	✓ 15	✓✓		3033					✓	✓							✓	✓							
914	33.5	195	✓ 16	✓✓		3191													✓	✓							
915	33.1	175	✓ 17	X✓							✓	✓							✓	✓							fast spigot drip with air vent shut.
916	32.9	162	18	✓✓		2059					✓	✓							✓	✓							
917	32.6	139	✓ 19	✓✓		3003													✓	✓							
918	32.3	111	✓ 20	✓✓		3157					✓	✓							✓	✓							
919	Tmax	65	✓ 21	✓✓		3188					✓	✓							✓	✓							
920	Chlx	54	✓ 22	✓✓		3180							✓			✓	✓		✓	✓							
921	20		✓ 23	✓✓	✓	3113	3057				✓	✓	✓			✓	✓		✓	✓							
922	5		✓ 24	✓✓	✓	3006				✓	✓	✓	✓		✓	✓	✓		✓	✓							

Comments: steppy temperature near 400m
jellyfish tentacles draped over rosette
winch change gears 380 ↓ 600 ↑
(asked to wait until 600m in future.

Rosette Log for IOS Cruise ID 2007-20

Cast # 48
Station CB-8
CTD File 200720-048

UTC Date (dmy) 9 Aug 2007
Lat (N) 76° 59.982' N
Lon (W) 150° 0.066' W

UTC Time 18:26

Cast Type: **Geochemistry**

In Air pressure 0.5
Ice Coverage 9/10
Start Scan 13000

Water Depth 3817+9m (Knudsen, w/o +9 for ship hull)
Sound Speed 1479 (setting in Knudsen)
Watch day team

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients Yellow NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
923	B ₀ -10	3816	✓1	✓✓	✓	3004											✓	✓								
924	3000	3000	✓2	✓✓	✓✓	3051	2087	3199									✓	✓								
925	2500	2500	✓3	✓✓		3109												✓								
926	2000	2000	✓4	✓✓		3097																				
927	1500	1500	✓5	✓✓		3177																				
928	1000	1000	✓6	✓✓		3040					✓	✓														
929	800	800	✓7	✓✓		3119					✓	✓														
930	600	600	✓8	✓✓		3069													✓	✓						
931	500	500	✓9	✓✓		3130					✓	✓					✓	✓								
932	Tmax	432	✓10	✓✓		3164					✓	✓														
933	34.75	337	✓11	✓✓	✓	2063	3124																			
934	34.7	322	✓12	✓✓		3204																				
935	34.6	292	✓13	✓✓		3107									✓				✓	✓						
936	34.4	255	✓14	✓✓		2064					✓	✓			✓				✓	✓						
937	34	216	✓15	✓✓		3084					✓	✓			✓				✓	✓						
938	33.5	197	✓16	✓✓		3121									✓				✓	✓						
939	33.1	178	✓17	✓✓		3181					✓	✓			✓				✓	✓						
940	32.9	162	✓18	✓✓		3123					✓	✓			✓				✓	✓						
941	32.6	131	✓19	✓✓		3108									✓				✓	✓						
942	32.3	102	✓20	✓✓		3019					✓	✓			✓				✓	✓						
943	Tmax	58	✓21	✓✓		3024					✓	✓			✓				✓	✓						
944	ChlMax	53	✓22	✓✓		3207						✓			✓	✓	✓		✓	✓						
945	20	20	✓23	✓✓	✓	2047					✓	✓	✓		✓	✓	✓		✓	✓						
946	5		✓24	✓✓	✓	3016				✓	✓	✓	✓		✓	✓	✓		✓	✓						

Comments:

orange rack +
amber by yellow color

① Productivity, RNA, DNA

Rosette Log for IOS Cruise ID 2007-20

Cast # 49
Station CB-9
CTD File 200720-49

UTC Date (dmy) 10 Aug 2007 UTC Time 3:59
Lat (N) 17° 56.005' N
Lon (W) 149° 49.910' W

Cast Type: **Productivity, RNA/DNA, POC/TSS**
In-Air Pressure 0.5/0.5 Water Depth 3820+9 (Knudsen, w/o +9 for ship hull)
Ice Coverage 5/10 Sound Speed 1479 (setting in Knudsen)
Start Scan 8900 Watch day watch team

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Productivity (Ian Wrohan/Diana Varela)													RNA/DNA (Karen Scarcella/C. Lovejoy)							J.Jackson		Comments
					Pro NC	Pro NH ₄	Pro U	PON POC	Bio Si	Chl a	PID _L	PID _F	Nut NH ₄	Nut Urea	Nut NPS	DIC	Fish E	DNA	Chl a	RNA	HP LC	Bac	Nut	Bio mas	POC	TSS	
947	5	5	✓1														2	2	2	2	2	1	1	1			
948	5	5	✓2																								
949	5	5	✓3																								
950	5	5	✓4																								
			5																								
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Comments:

Rosette Log for IOS Cruise ID 2007-20

Cast # 50
Station CB-9
CTD File 200720-50

UTC Date (dmy) 10 Aug 2007
Lat (N) 77° 56.087' N
Lon (W) 149° 49.570' W

UTC Time 4=14

Cast Type: Productivity, RNA/DNA, POC/TSS

In-Air Pressure 0.5/0.5 Water Depth 3820+9m (Knudsen, w/o +9 for ship hull)
Ice Coverage 5/10 Sound Speed 1479 (setting in Knudsen)
Start Scan _____ Watch day team

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Productivity (Ian Wrohan/Diana Varela)														RNA/DNA (Karen Scarcella/C. Lovejoy)								J.Jackson		Comments
					Pro NC	Pro NH ₄	Pro U	PON POC	Bio Si	Chl a	PID _L	PID _F	Nut NH ₄	Nut Urea	Nut NPS	DIC	Fish E	DNA	Chl a	RNA	HP LC	Bac	Nut	Bio mas	POC	TSS			
951	800		✓ 1															2	2			1	1	1					
952	800		✓ 2																										
953	400		✓ 3															2	2			1	1	1					
954	400		✓ 4																										
955	79		✓ 5		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓												
956	79		✓ 6														✓												
957	75		✓ 7															2	2	2		1	1	1					
958	75		✓ 8																										
959	60		✓ 9															2	2	2		1	1	1					
960	60		✓ 10																										
961	49		✓ 11		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓												
962	49		✓ 12														✓												
963	47		✓ 13															2	2	2	2	2	1	1	1				
964	47		✓ 14																										
965	21		✓ 15		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓													
966	21		✓ 16														✓												
967	10		✓ 17		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓													
968	10		✓ 18														✓												
969	6		✓ 19		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓													
970	6		✓ 20														✓												
971	2		✓ 21		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓													
972	2		✓ 22														✓												
			23																										
			24																										

Comments:

Rosette Log for IOS Cruise ID 2007-20

Cast # 51 UTC Date (dmy) 10 08 2007 UTC Time 0555
Station C3-9 Lat (N) 77 56.400
CTD File 200720-051 Lon (W) 149 48.32

Cast Type: **Geochemistry**

In Air pressure 0.4/0.4 Water Depth 3817 +9 (Knudsen, w/o +9 for ship hull)
Ice Coverage 8 /10 Sound Speed 1479 (setting in Knudsen)
Start Scan 8000 Watch JE/HD/MD/RN

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PUJAM	Comments
973	1000		✓ 1	✓✓																				✓			
974	1000		✓ 2	✓✓																				✓			
975	1000		✓ 3	✓✓																				✓			
976	1000		✓ 4	✓✓													✓							✓	✓		
977	800		✓ 5	✓✓																				✓			
978	800		✓ 6	✓✓																				✓			
979	800		✓ 7	✓✓																				✓			
980	800		✓ 8	✓✓													✓							✓	✓		
981	600		✓ 9	✓✓																				✓			
982	600		✓ 10	✓✓																				✓			
983	600		✓ 11	✓✓																				✓			
984	600		✓ 12	✓✓													✓							✓	✓		
985	400		✓ 13	✓✓																				✓			
986	400		✓ 14	✓✓																				✓			
987	400		✓ 15	✓✓																				✓			
988	400		✓ 16	✓✓													✓							✓	✓		
989	300		✓ 17	✓✓																				✓			
990	300		✓ 18	✓✓																				✓			
991	300		✓ 19	✓✓																				✓			
992	300		✓ 20	✓✓													✓							✓	✓		
993	5		✓ 21	✓✓																				✓			
994	5		✓ 22	✓✓																				✓			
995	5		✓ 23	✓✓																				✓			
996	5		✓ 24	✓✓													✓							✓	✓		

Comments: CTD pumps on at end of 3 minute soak.

winch change gears 600m ↓
600m ↑

Rosette Log for IOS Cruise ID 2007-20

Cast # 52 UTC Date (dmy) 10 08 2007 UTC Time 0720
Station CB-9 Lat (N) 77 56.61
CTD File 200720-052 Lon (W) 149 46.30

Cast Type: **Geochemistry**

In Air pressure 0.5/0.4 Water Depth 3816 +9 (Knudsen, w/o +9 for ship hull)
Ice Coverage 7/10 Sound Speed 1479 (setting in Knudsen)
Start Scan 8600 Watch 3E/MD/HD/RN

Geochem

63
158
121

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen Box 2	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity Blue	Nutrients Green	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
997	Bottom	3813 ⁺⁸	✓ 1	✓✓	✓✓	3007	3202	3058	✓						✓		✓	✓									
998	3100		✓ 2	✓✓	✓	3200			✓						✓		✓✓	✓✓						✓			
999	2500		✓ 3	✓✓	✓	3067			✓						✓		✓	✓						✓			
1000	2000		✓ 4	✓✓	✓	2032			✓						✓		✓	✓						✓			slow lower O-ring drip
1001	1500		✓ 5	✓✓	✓	3043			✓						✓		✓	✓						✓			
1002	1000		✓ 6	✓✓	✓	3137			✓		✓	✓			✓	✓	✓	✓		✓	✓						
1003	800		✓ 7	✓✓	✓	2049			✓		✓	✓			✓		✓	✓									
1004	600		✓ 8	✓✓	✓✓	2015	3194		✓						✓		✓	✓									
1005	500		✓ 9	✓✓	✓	2089			✓		✓	✓			✓		✓	✓						✓			
1006	Emax	416	✓ 10	✓✓	✓	2084			✓		✓	✓			✓		✓	✓									
1007	34.75	313	✓ 11	✓✓	✓	3203			✓						✓		✓	✓						✓			
1008	34.7	299	✓ 12	✓✓	✓	2099			✓						✓		✓	✓									slow lower O-ring drip
1009	34.6	271	✓ 13	✓✓	✓	3126			✓						✓		✓	✓									
1010	34.4	232	✓ 14	✓✓	✓	3075			✓		✓	✓			✓	✓	✓	✓		✓	✓			✓			
1011	34	195	✓ 15	✓✓	✓	2085			✓		✓	✓			✓	✓	✓	✓		✓	✓			✓			
1012	33.5	177	✓ 16	✓✓	✓	2068			✓						✓	✓	✓	✓		✓	✓						
1013	33.1	157	✓ 17	✓✓	✓	2061			✓		✓	✓			✓	✓	✓✓	✓✓		✓	✓						slow lower O-ring drip
1014	32.9	143	✓ 18	✓✓	✓✓	3183	3038		✓		✓	✓			✓	✓	✓	✓		✓	✓						
1015	32.6	117	✓ 19	✓✓	✓	2044			✓						✓	✓	✓	✓		✓	✓						
1016	32.3	94	✓ 20	✓✓	✓	2033			✓		✓	✓			✓	✓	✓	✓		✓	✓			✓			
1017	4max	63	✓ 21	✓✓	✓	3094			✓		✓	✓			✓	✓	✓	✓		✓	✓						slow lower O-ring drip
1018	Chlmax	47	✓ 22	✓✓	✓	2056			✓						✓	✓	✓	✓		✓	✓			✓			
1019	20		✓ 23	✓✓	✓	2091			✓		✓	✓			✓	✓	✓	✓		✓	✓						
1020	5		✓ 24	✓✓	✓	3098			✓	✓	✓	✓			✓	✓	✓✓	✓✓		✓	✓						

Comments: subsurface T_{max} @ 10-18 m

winch change gears 602 ↓
600 ↑

↑ add to nearest bottle for
56, 106, 200, 250, 350,

62

Rosette Log for IOS Cruise ID 2007-20

Cast # 53
Station RN-6
CTD File 200720-53

UTC Date (dmy) 11 Aug 2007 UTC Time 4:06
Lat (N) 78° 21.284' N
Lon (W) 152° 36.815' W

Cast Type: **Geochemistry**

In Air pressure 0.5/0.4
Ice Coverage 5/10
Start Scan 9280

Water Depth 3433+9m (Knudsen, w/o +9 for ship hull)
Sound Speed 1480 (setting in Knudsen)
Watch day team \$ night - team

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen Box 3	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity Yellow	Nutrients Orange/Yellow	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1021	bottom-50	3400	✓ 1	✓✓	✓✓✓	3004	3061	3034									✓✓	✓✓									
1022	3100	3100	✓ 2	✓✓	✓	3051											✓	✓									
1023	2500	2500	✓ 3	✓✓	✓	3109											✓	✓									
1024	2000	2000	✓ 4	✓✓	✓	3097											✓	✓									
1025	1500	1500	✓ 5	✓✓	✓✓	3177	2087										✓✓	✓✓									
1026	1000		✓ 6	✓✓	✓	3040					✓	✓					✓	✓✓✓		✓	✓						
1027	800		✓ 7	✓✓		3119					✓	✓					✓✓	✓✓									
1028	600		✓ 8	✓✓		3069																					
1029	500		✓ 9	✓✓		3130					✓	✓															
1030	430	430	✓ 10	✓✓		3164					✓	✓															
1031	34.75	316	✓ 11	✓✓		2063																					
1032	34.7	285	✓ 12	✓✓		3204																					
1033	34.6	260	✓ 13	✓✓		3107									✓												
1034	34.4	220	✓ 14	✓✓		2064					✓	✓			✓					✓	✓						
1035	34	182	✓ 15	✓✓		3084					✓	✓			✓					✓	✓						
1036	33.5	162	✓ 16	✓✓		3121									✓					✓	✓						
1037	33.1	150	✓ 17	✓✓		3181					✓	✓			✓					✓	✓						
1038	32.9	140	✓ 18	✓✓		3123					✓	✓			✓					✓	✓						
1039	32.6	119	✓ 19	✓✓	✓	3108									✓		✓	✓✓		✓	✓						
1040	32.3	94	✓ 20	✓✓	✓✓	3019	3171				✓	✓			✓		✓✓	✓✓✓		✓	✓						
1041	65	65	✓ 21	✓✓	✓	3024					✓	✓			✓	✓	✓	✓✓		✓	✓						
1042	42	42	✓ 22	✓✓		3207					✓	✓	✓	✓	✓	✓	✓	✓✓✓		✓	✓						
1043	20		✓ 23	✓✓		2047							✓	✓	✓	✓	✓	✓✓		✓	✓						
1044	5		✓ 24	✓✓	✓	3016				✓	✓	✓	✓	✓	✓	✓	✓✓	✓✓		✓	✓						

Comments:

↑
label + freeze / sent in glass tubes
w/ 100 ml H₂O

Spooling flaw @ 1362 m ↑
~ 2 wraps down
Winch change gears @ 597 ↑ 63

Rosette Log for IOS Cruise ID 2007-20

Cast # 54 UTC Date (dmy) 11 08 2007 UTC Time 0821
Station RN-4 Lat (N) 78 20.61
CTD File 200720-054 Lon (W) 153 07.79

Cast Type: **Geochemistry**

In Air pressure 0.4/0.4 Water Depth 2567 +9 (Knudsen, w/o +9 for ship hull)
Ice Coverage 9 /10 Sound Speed 1480 +9 (setting in Knudsen)
Start Scan 13600 Watch 3E/HD/HD/RN

08 29 00

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1045	B ₀ -10	2614 ⁺¹⁰	✓ 1	✓✓	✓	3007									✓	✓✓											
1046	2000		✓ 2	✓✓	✓✓✓	3200	3202	3038								✓	✓✓✓										
1047	1500		✓ 3	✓✓	✓	3067										✓✓	✓✓										
1048	1000		✓ 4	✓✓	✓	2032					✓	✓								✓	✓						
1049	800		✓ 5	✓✓	✓	3043					✓	✓															
1050	600		✓ 6	✓✓	✓	3137																					
1051	500		✓ 7	✓✓	✓	2049					✓	✓															
1052	Tmax	430	✓ 8	✓✓	✓✓	2015	3194				✓	✓															
1053	34.75	311	✓ 9	✓✓	✓	2089												✓✓									
1054	34.7	289	✓ 10	✓✓		2004												✓✓									
1055	34.6	260	✓ 11	✓✓		3203											✓	✓									
1056	34.4	221	✓ 12	✓✓		2099					✓	✓					✓✓										
1057	34	181	✓ 13	✓✓		3126					✓	✓			✓		✓										
1058	33.7	170	✓ 14	✓✓		3075									✓					✓	✓						
1059	33.4	160	✓ 15	✓✓		2085									✓					✓	✓						
1060	33.1	152	✓ 16	✓✓		2068					✓	✓			✓					✓	✓						
1061	32.9	140	✓ 17	✓✓		2061					✓	✓			✓					✓	✓						
1062	32.6	119	✓ 18	✓✓	✓	3183									✓			✓✓		✓	✓						
1063	32.3	95	✓ 19	✓✓	✓✓	2044	2027				✓	✓			✓			✓✓✓		✓	✓						
1064	Tmax	63	✓ 20	✓✓	✓	2033									✓			✓✓		✓	✓						
1065	Tmax	46	✓ 21	✓✓		3094					✓	✓			✓		✓			✓	✓						
1066	ChlMax	44	✓ 22	✓✓		2056					✓	✓	✓		✓	✓	✓✓			✓	✓						
1067	20		✓ 23	✓✓		2091							✓		✓	✓	✓			✓	✓						
1068	5		✓ 24	✓✓	✓	3098				✓	✓	✓	✓		✓	✓	✓	W		✓	✓						

Comments: subsurface Tmax @ ~18m
unusual layer in T between 100 & 150m
discolored snow (yellowish) ~1m² on nearby floe

bubbler active during cast
to keep ice away

wait with rosette hung for ice to clear on deployment
air temp ~0.5C

winch change gears 600m ↓ 600 ↑
not deep enough to fix wire laying flaw

Rosette Log for IOS Cruise ID 2007-20

Cast # 55 UTC Date (dmy) 11 08 2007 UTC Time 1158
Station RN-2 Lat (N) 78 20.49
CTD File 200720-055 Lon (W) 153 29.37

Cast Type: **Geochemistry**
In Air pressure 0.5 Water Depth 1823¹⁹ (Knudsen, w/o +9 for ship hull)
Ice Coverage 9/10 Sound Speed 1480 (setting in Knudsen)
Start Scan 8200 Watch SE/MD/HD/RN

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1069	1000		✓ 1	✓✓													✓							✓	✓		comm error when tried to fire. b like it
1070	1000		✓ 2																								
1071	1000		✓ 3																								
1072	1000		✓ 4																								
1073	800		✓ 5														✓							✓	✓		
1074	800		✓ 6																								
1075	800		✓ 7																								
1076	800		✓ 8																								
1077	600		✓ 9														✓							✓	✓		
1078	600		✓ 10																								
1079	600		✓ 11																								
1080	600		✓ 12																								
1081	400		✓ 13														✓	✓						✓			
1082	400		✓ 14																								
1083	400		✓ 15																								
1084	400		✓ 16																								
1085	300		✓ 17														✓							✓			
1086	300		✓ 18																								
1087	300		✓ 19																								
1088	300		✓ 20	✓✓																							
1089	5		21														✓							✓			
1090	5		22																								
1091	5		23																								
1092	5		24																								

Comments: Winch change gears 600↓
600↑ 65

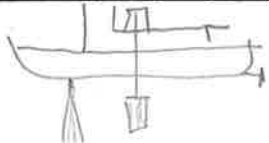
Rosette Log for IOS Cruise ID 2007-20

Cast # 56 UTC Date (dmy) 11 08 2007 UTC Time 1350
Station CB-10a2 Lat (N) 78 21.06
CTD File 200720-056 Lon (W) 153 28.12

Cast Type: **Geochemistry**
In Air pressure 0.6/0.4 Water Depth 1811+9 (Knudsen, w/o +9 for ship hull)
Ice Coverage 9/10 Sound Speed 1480 (setting in Knudsen)
Start Scan 13700 Watch JE/MD/HD/RN/KS

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinty	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1093	B0-10	1880 +9	✓ 1	✓✓	✓	3009											✓	✓✓									
1094	1500		✓ 2	✓✓		3209											✓	✓									
1095	1200		✓ 3	✓✓	✓	2017	3142																				
1096	1000		✓ 4	✓✓		3048																					
1097	800		✓ 5	✓✓		2069														✓	✓						
1098	700		✓ 6	✓✓		2086																					
1099	600		✓ 7	✓✓		2088																					
1100	500		✓ 8	✓✓		2025																	✓				
1101	Tmax	430	✓ 9	✓✓		3104											✓	✓					✓				
1102	34.75	308	✓ 10	✓✓		2092																					
1103	34.7	290	✓ 11	✓✓		2074																	✓				
1104	34.6	261	✓ 12	✓✓		3116																					had to redraw 1st oxy - sticky bubbles
1105	34.4	221	✓ 13	✓✓		3190									✓								✓				
1106	34	179	✓ 14	✓✓	✓	2060	3189								✓					✓	✓						had to redraw 1st oxy - sticky bubbles
1107	33.7	169	✓ 15	✓✓		3187									✓					✓	✓						
1108	33.4	161	✓ 16	✓✓		3201									✓					✓	✓						
1109	33.1	152	✓ 17	✓✓		3178									✓					✓	✓						
1110	32.9	141	✓ 18	✓✓		3018									✓					✓	✓						
1111	32.6	123	✓ 19	✓✓		3055									✓					✓	✓		✓				
1112	32.3	96	✓ 20	✓✓		2051									✓					✓	✓						
1113	Tmax	62	✓ 21	✓✓		3118									✓					✓	✓		✓				
1114	ChlMax	45	✓ 22	✓✓		2014									✓	✓		✓✓		✓	✓						
1115	20		✓ 23	✓✓	✓	2007	2023	3124							✓	✓				✓	✓						
1116	5		✓ 24	✓✓	✓	3186				✓	✓	✓	✓		✓	✓	✓	✓✓		✓	✓						

Comments: waiting @ 8m on up cast for ice



NUTS = Red caps/blue rack
Winch change gears 596 ↓
463 ↑ 66

Rosette Log for IOS Cruise ID 2007-20

Cast # 57 UTC Date (dmy) 11 08 2007 UTC Time 17:10
Station CB10a Lat (N) 78°19.33N
CTD File 200720-057 Lon (W) 154 2.615

Cast Type: Productivity, RNA/DNA, POC/TSS

In-Air Pressure 0.5/0.4 Water Depth 1014m (Knudsen, w/o +9 for ship hull)
Ice Coverage 8/10 Sound Speed 1480 m/s (setting in Knudsen)
Start Scan 12457 Watch JE/RN/ND/MS

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Productivity (Ian Wrohan/Diana Varela)													RNA/DNA (Karen Scarcella/C. Lovejoy)										J.Jackson		Comments
					Pro NC	Pro NH ₄	Pro U	PON POC	Bio Si	Chl a	PID _L	PID _F	Nut NH ₄	Nut Urea	Nut NPS	DIC	Fish E	DNA	Chl a	RNA	HP LC	Bac	Nut	Bio mas	POC	TSS				
1117	1000		✓ 1														2	2			1	1	1							
1118	1000		✓ 2																											
1119	430	434	✓ 3														2	2			1	1	1							
1120	430	434	✓ 4																											
1121	222		✓ 5																					XX	XXX					
1122	152		✓ 6																					XX	XXX					
1123	150	150	✓ 7														2	2	2		1	1	1							
1124	150	150	✓ 8																											
1125	140	140	✓ 9	✓✓																				XX	XXX					
1126	140	140	✓ 10	✓✓																				XX	XXX					
1127	121		✓ 11																					XX	XXX					
1128	97		✓ 12																					XX	XXX					
1129	75	75	✓ 13														2	2	2		1	1	1							
1130	75	75	✓ 14																											
1131	60		✓ 15	✓✓																				XX	XXX					
1132	Chl max	43	✓ 16														2	2	2	2	2	1	1	1						
1133	Chl max	43	✓ 17																											
1134	Chl max	43	✓ 18																					XX	XXX					
1135	20		✓ 19																					XX	XXX					
1136	10		✓ 20																					XX	XXX					
1137	5		✓ 21														2	2	2	2	2	1	1	1						
1138	5		✓ 22																											
1139	5		✓ 23																					XX	XXX					
—	1505	—	24																											

Comments: Winch switch gear 900 ↓ 600 ↑ 67

Rosette Log for IOS Cruise ID 2007-20

Cast # 58
 Station CB10a
 CTD File 200720-58

UTC Date (dmy) 11 Aug 2007 UTC Time 19:36
 Lat (N) 78°19.726'N
 Lon (W) 154°0.689'W

Cast Type: Geochemistry

In Air pressure 0.4/0.5 Water Depth 1056+9 (Knudsen, w/o +9 for ship hull)
 Ice Coverage 8/10 Sound Speed 1480 (setting in Knudsen)
 Start Scan 1200 Watch day team

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7ur	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1140	B.-10	1037	✓1	✓✓																		✓✓	✓✓				
1141	B.-10	1037	✓2	✓✓	✓✓	3160	3082	3135			✓	✓					✓✓	✓✓									
1142	800	800db	✓3	✓✓	✓	3151					✓	✓					✓	✓✓									
1143	700	700db	✓4	✓✓		3174											✓	✓✓		✓	✓						
1144	600	600db	✓5	✓✓		3196											✓✓										
1145	500	500db	✓6	✓✓		3206					✓	✓					✓										
1146	Tmax	420	✓7	✓✓	✓✓	3012	3057				✓	✓															
1147	400	→390	✓8	✓✓	✓	3161																					depth is rearrange
1148	34.8	→330	✓9	✓✓		3096																					to big step structure of sal.
1149	34.75	309	✓10	✓✓		3028												✓✓									
1150	34.7	294	✓11	✓✓		3047									✓			✓✓									
1151	34.6	266	✓12	✓✓		3052									✓			✓✓									
1152	34.4	223	✓13	✓✓		3193					✓	✓			✓												
1153	34	182	✓14	✓✓		3063					✓	✓			✓					✓	✓						
1154	33.7	171	✓15	✓✓		3033									✓					✓	✓						
1155	33.4	161	✓16	✓✓		3191									✓					✓	✓						
1156	33.1	153	✓17	✓✓	✓	3166					✓	✓			✓					✓	✓						
1157	32.9	142	✓18	✓✓	✓✓	2059	3100				✓	✓			✓					✓	✓						
1158	32.6	121	✓19	✓✓	✓	3003									✓					✓	✓						
1159	32.3	97	✓20	✓✓		3157					✓	✓			✓					✓	✓						
1160	32	74	✓21	✓✓		3188									✓			✓✓		✓	✓						
1161	Tmax	57	✓22	✓✓		3180					✓	✓			✓	✓		✓✓		✓	✓						
1162	ChlMax	43	✓23	✓✓		3113					✓	✓			✓	✓		✓✓		✓	✓						
1163	5		✓24	✓✓	✓	3006				✓	✓	✓			✓		✓✓	✓✓		✓	✓						

Comments:

green

1 Bottle for Jan TSS/POC at bottom

Rosette Log for IOS Cruise ID 2007-20

Cast # 59
Station CB10aa
CTD File 200720-59

UTC Date (dmy) 11 Aug 2007
Lat (N) 78° 20.245' N
Lon (W) 154° 19.355' W

UTC Time 21:43

Cast Type: **Geochemistry**

In Air pressure 0.4
Ice Coverage 6 / 10
Start Scan 6457

Water Depth 9179 (Knudsen, w/o +9 for ship hull)
Sound Speed 1480 (setting in Knudsen)
Watch day team *rathy*

Samp #	Target Property	Actual Depth(m)	Niskin #	✓ Bottle Integrity	✓ Oxygen	✓ Oxy Flask #	✓ Oxy Dup Flask #	✓ Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	✓ Chl-a 0.3um	✓ Bacteria	✓ FW-Alkalinity	✓ Salinity	✓ Nutrients	NH4	✓ Barium	✓ O-18	POC	TSS	✓ I-129	✓ CS-137	✓ PU/AM	Comments
1164	Bot-10	917	V1	✓	✓	3004					✓	✓					✓	✓									
1165	800	800	V2	✓	✓	3051	3061	2087			✓	✓					✓	✓									
1166	700	700	V3	✓														✓									
1167	600	600	V4	✓														✓									
1168	500	500	V5	✓	✓	3177					✓	✓					✓										
1169	4max	406	V6	✓	✓	3097					✓	✓					✓										
1170	34.8	360	V7	✓	✓																						
1171	34.75	307	V8	✓	✓																						
1172	34.7	286	V9	✓	✓																						
1173	34.6	260	V10	✓	✓										✓												
1174	34.4	224	V11	✓	✓	3109					✓	✓			✓		✓			✓	✓						
1175	34	185	V12	✓	✓	3040					✓	✓		✓	✓		✓			✓	✓						
1176	33.7	173	V13	✓	✓									✓	✓					✓	✓						
1177	33.4	161	V14	✓	✓									✓	✓			✓		✓	✓						
1178	33.1	152	V15	✓	✓	3119					✓	✓		✓	✓		✓	✓		✓	✓						
1179	32.9	143	V16	✓	✓	3069					✓	✓		✓	✓		✓	✓		✓	✓						
1180	32.6	123	V17	✓	✓									✓	✓					✓	✓						
1181	32.3	97	V18	✓	✓	3130					✓	✓		✓	✓					✓	✓						
1182	32	75	V19	✓	✓									✓	✓					✓	✓						
1183	4max	62	V20	✓	✓	3164					✓	✓		✓	✓		✓			✓	✓						
1184	churn	42	V21	✓	✓	2063					✓	✓		✓	✓		✓			✓	✓						
1185	20	20	V22	✓	✓									✓	✓			✓		✓	✓						
1186	5	5	V23	✓	✓	3204				✓	✓	✓		✓	✓		✓	✓		✓	✓						
			24																								

Comments:

Productivity

Rosette Log for IOS Cruise ID 2007-20

Cast # 60 UTC Date (dmy) 12 Aug 2007 UTC Time 14:14
 Station CB-116 Lat (N) 79°59.32 N
 CTD File 200720-060 Lon (W) 150°0.71 W

Cast Type: Productivity, RNA/DNA, POC/TSS

In-Air Pressure 0.5/0.5 Water Depth 3811+9 (Knudsen, w/o +9 for ship hull)
 Ice Coverage 8/10 Sound Speed 1480 m/s (setting in Knudsen)
 Start Scan 7633 Watch FE/MD/HD/RN/LB
 (started @ surface - scan # before last 30 sec.)

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Productivity (Ian Wrohan/Diana Varela)												RNA/DNA (Karen Scarcella/C. Lovejoy)								J. Jackson		Comments	
					Pro NC	Pro NH ₄	Pro U	PON POC	Bio Si	Chl a	PID _L	PID _F	Nut NH ₄	Nut Urea	Nut NPS	DIC	Fish E	DNA	Chl a	RNA	HP LC	Bac	Nut	Bio mas	POC	TSS		
1187	95		✓ 1		✓	✓	✓	✓	✓	✓			✓	✓	✓													
1188	95		✓ 2	✓												✓												
1189	63		✓ 3		✓	✓	✓	✓	✓	✓			✓	✓	✓													
1190	63		✓ 4	✓												✓												
1191	27		✓ 5		✓	✓	✓	✓	✓	✓			✓	✓	✓													
1192	27		✓ 6	✓												✓												
1193	14		✓ 7		✓	✓	✓	✓	✓	✓			✓	✓	✓													
1194	14		✓ 8	✓												✓												
1195	7		✓ 9		✓	✓	✓	✓	✓	✓			✓	✓	✓													
1196	7		✓ 10	✓												✓												
1197	2		✓ 11		✓	✓	✓	✓	✓	✓			✓	✓	✓													
1198	2		✓ 12	✓												✓												
			13																									
			14																									
			15																									
			16																									
			17																									
			18																									
			19																									
			20																									
			21																									
			22																									
			23																									
—	1505	—	24																									

Comments:

RNA/DNA + POC/TSS

Rosette Log for IOS Cruise ID 2007-20

Cast # 61 UTC Date (dmy) 12 Aug 2007 UTC Time 15:24
 Station CB11b Lat (N) 29 59.49
 CTD File 200720-061 Lon (W) 149 59.36

Cast Type: Productivity, RNA/DNA, POC/TSS

In-Air Pressure 0.5/0.4 Water Depth 3811+9 (Knudsen, w/o +9 for ship hull)
 Ice Coverage 8/10 Sound Speed 1480 m/s (setting in Knudsen)
 Start Scan 15313 Watch JE/PN/HD/MD/CB

Samp #	Target Property +2m	Actual Depth(m)	Niskin #	Bottle Integrity	Productivity (Ian Wrohan/Diana Varela)													RNA/DNA (Karen Scarcella/C. Lovejoy)								J.Jackson		Comments
					Pro NC	Pro NH ₄	Pro U	PON POC	Bio Si	Chl a	PID _L	PID _F	Nut NH ₄	Nut Urea	Nut NPS	DIC	Fish E	DNA	Chl a	RNA	HP LC	Bac	Nut	Bio mas	POC	TSS		
1199	1000	1001	✓ 1															2	2			1	2	1				
1200	1000	1001	✓ 2																									
1201	410	410	✓ 3															2	2			1	2	1				
1202	410	410	✓ 4																									
1203	218		✓ 5																						xx	xxx		
1204	150	150	✓ 6															2	2	2		1	2	1				
1205	150	150	✓ 7																									
1206	142	142	✓ 8																						xx	xxx		
1207	142	142	✓ 9																						xx	xxx		
1208	132		✓ 10																						xx	xxx		
1209	114		✓ 11																						xx	xxx		
1210	94		✓ 12																						xx	xxx		
1211	80		✓ 13															2	2	2		1	2	1				
1212	80		✓ 14																									
1213	56	CHLmax T _{min}	✓ 15															2	2	2	2	2	1	2	1			
1214	56		✓ 16																									
1215	56		✓ 17	XV																					xx	xxx	small leak from spigot w valve shut	
1216	40		✓ 18																						xx	xxx		
1217	22		✓ 19																						xx	xxx		
1218	10		✓ 20															2	2	2	2	2	1	2	1			
1219	10		✓ 21																									
1220	10		✓ 22																						xx	xxx		
1221	5		✓ 23																						xx	xxx		
—	SUS	—	24																									

Comments: .a bit of a fuel leak off the side (from helicopter fueling??) at start of cast

winch change gears @ ~600m. ↓
592m ↑

Rosette Log for IOS Cruise ID 2007-20

Cast # 62
Station CB116
CTD File 200720-062

UTC Date (dmy) 12 Aug 2007 UTC Time 20:30
Lat (N) 79° 54.936 N
Lon (W) 150° 9.098' W

Cast Type: **Geochemistry**

In Air pressure 0.3/0.3
Ice Coverage 9+/10
Start Scan 11497

Water Depth 3813+9m (Knudsen, w/o +9 for ship hull)
Sound Speed 1480 (setting in Knudsen)
Watch power off
Lost power to winch + crane @ 1942 UTC

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7m	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1222	B0-50	3750	✓ 1	✓✓	✓✓	3182	3198	3082									✓	✓									
1223	3100	3000	✓ 2	✓✓	✓	3160											✓	✓						✓			
1224	2500	2500	✓ 3	✓✓		3151											✓	✓						✓			
1225	2000	2000	✓ 4	✓✓		2174												✓						✓			
1226	1500	1495	✓ 5	✓✓		3196												✓						✓			
1227	1000	1000	✓ 6	✓✓		3206					✓	✓															
1228	800	798	✓ 7	✓✓		3012					✓	✓								✓	✓						
1229	600	600	✓ 8	✓✓	✓	3161																					
1230	500	500	✓ 9	✓✓	✓	3096	3057				✓	✓												✓			
1231	Tmax	395	✓ 10	✓✓	✓	3028					✓	✓					✓	✓									
1232	34.75	302	✓ 11	✓✓		3041											✓	✓									
1233	34.7	291	✓ 12	✓✓		3052											✓	✓									
1234	34.6	264	✓ 13	✓✓		3193									✓												
1235	34.4	219	✓ 14	✓✓		3063					✓	✓			✓					✓	✓						
1236	34	171	✓ 15	✓✓		3030					✓	✓			✓					✓	✓						
1237	33.5	152	✓ 16	✓✓		3191									✓					✓	✓						
1238	33.1	140	✓ 17	✓✓	✓	3166					✓	✓			✓					✓	✓						
1239	32.9	132	✓ 18	✓✓		2059					✓	✓			✓					✓	✓						
1240	32.6	117	✓ 19	✓✓		3003									✓					✓	✓						
1241	32.3	92	✓ 20	✓✓	✓	3151					✓	✓			✓					✓	✓						
1242	Finney Channel	751	✓ 21	✓✓	✓	3188	3100				✓	✓			✓	✓		✓	✓	✓	✓						
1243	35	361	✓ 22	✓✓	✓	3180									✓	✓		✓	✓	✓	✓						
1244	20	26	✓ 23	✓✓	✓	3113					✓	✓			✓	✓		✓	✓	✓	✓						
1245	5	5	✓ 24	✓✓	✓	3006				✓	✓	✓			✓	✓	✓	✓	✓	✓	✓						

Comments:

CTD to 10m off bottom, first bottle @ 50m off bottom

Drawn by Sarah R.D.

1-129 @ nearest bottles to 50, 100, 200, 250, 350

S. 7:02:23.

Rosette Log for IOS Cruise ID 2007-20

Cast # CB-11 UTC Date (dmy) 13 08 2007 UTC Time 7:07
Station 63 Lat (N) 78°59.97
CTD File 200720-063 Lon (W) 150°01.83

Cast Type: Geochemistry

In Air pressure 0.5/0.5 Water Depth 3822⁺⁹ (Knudsen, w/o +9 for ship hull)
Ice Coverage 9/10 Sound Speed 1480 (setting in Knudsen)
Start Scan 10039 Watch JE.MD

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen Bot	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1246	1000		✓ 1	✓✓	✓✓	3009	3142	3189			✓	✓					✓✓	✓✓									
1247	800		✓ 2	✓✓	✓	3209					✓	✓					✓	✓✓									
1248	600		✓ 3	✓✓		2017														✓	✓						
1249	500		✓ 4	✓✓		3048					✓	✓															
1250	Tmax	403	✓ 5	✓✓		2069					✓	✓															
1251	34.75	299	✓ 6	✓✓		2086																					
1252	34.7	285	✓ 7	✓✓		2088																					
1253	34.6	256	✓ 8	✓✓	✓	2025	2073								✓			✓✓									
1254	34.4	216	✓ 9	✓✓		3104					✓	✓			✓		✓✓			✓	✓						
1255	34	175	✓ 10	✓✓		2092					✓	✓			✓		✓✓			✓	✓						
1256	33.5	159	✓ 11	✓✓		2074									✓					✓	✓						
1257	33.1	147	✓ 12	✓✓		3116					✓	✓			✓					✓	✓						
1258	32.9	138	✓ 13	✓✓		3190					✓	✓			✓					✓	✓						
1259	32.6	123	✓ 14	✓✓		2060									✓					✓	✓						
1260	32.3	96	✓ 15	✓✓		3187					✓	✓			✓					✓	✓						
1261	Tmax	58	✓ 16	✓✓		3201					✓	✓			✓					✓	✓						
1262	Chlmy	4x49	✓ 17	✓✓		3178					✓				✓	✓	✓	✓✓		✓	✓						Air vent screw loose, bubble
1263	20		✓ 18	✓✓	✓	3018	3058				✓	✓			✓	✓	✓✓	✓✓		✓	✓						
1264	5		✓ 19	✓✓	✓	3055				✓	✓	✓			✓	✓	✓	✓✓		✓	✓						
			20																								
			21																								
			22																								
			23																								
			24																								

Comments: (Helen training on CTD.) only to 1000m?! Need to leave by 1am Winch @ 60 zmb & 60m↑

Rosette Log for IOS Cruise ID 2007-20

Cast # 65 UTC Date (dmy) 14 08 2007 UTC Time 0648
Station CB 12 Lat (N) 77 42.12
CTD File 200720-065 Lon (W) 146 48.39

Cast Type: **Geochemistry**
In Air pressure 0.5/0.5 Water Depth 3806^{T9} (Knudsen, w/o +9 for ship hull)
Ice Coverage 8/10 Sound Speed 1480 (setting in Knudsen)
Start Scan 11200 Watch JE/HD/RN/MD
06:12

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1265	1000		✓ 1	✓✓													✓							✓	✓		
1266	1060		✓ 2	✓✓																							
1267	1000		✓ 3	✓✓																							
1268	1000		✓ 4	✓✓																							
1269	800		✓ 5	✓✓													✓							✓			
1270	800		✓ 6	✓✓																							
1271	800		✓ 7	✓✓																							
1272	800		✓ 8	✓✓																							
1273	600		✓ 9	✓✓													✓							✓			
1274	600		✓ 10	✓✓																							
1275	600		✓ 11	✓✓																							
1276	600		✓ 12	✓✓																							
1277	400		✓ 13	✓✓													✓							✓			
1278	400		✓ 14	✓✓																							
1279	400		✓ 15	✓✓																							
1280	400		✓ 16	✓✓																							
1281	300		✓ 17	X✓													✓							✓			spigot drip even with air vent tight
1282	300		✓ 18	✓✓																							
1283	300		✓ 19	✓✓																							
1284	300		✓ 20	✓✓																							
1285	5		✓ 21	✓✓													✓							✓			
1286	5		✓ 22	✓✓																							
1287	5		✓ 23	✓✓																							
1288	5		✓ 24	✓✓																					✓		spigot was open

Comments: Subsurface T_{max} @ 15m

winch change gears 600↓600↑

Rosette Log for IOS Cruise ID 2007-20

Cast # 66
Station CB12
CTD File 200720-066
UTC Date (dmy) 14 08 2007 UTC Time 0806
Lat (N) 77 42.80
Lon (W) 146 49.40

Cast Type: Geochemistry

In Air pressure 0.4/0.4 Water Depth 3807⁺⁹ (Knudsen, w/o +9 for ship hull)
Ice Coverage 8/10 Sound Speed 1480 (setting in Knudsen)
Start Scan 8800 Watch SE/MD/HD/RN

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1289	B ₀ -50	3761 ^{±50}	✓ 1	✓✓	✓✓	3007	3202	2027									✓✓	✓✓									50m off bottom
1290	3100		✓ 2	✓✓	✓	3200											✓	✓						✓			
1291	2500		✓ 3	✓✓	✓	3067																		✓			
1292	2000		✓ 4	✓✓	✓	2032																		✓			
1293	1500		✓ 5	✓✓		3043																		✓			
1294	1000		✓ 6	✓✓		3137					✓	✓								✓	✓						
1295	800		✓ 7	✓✓		2049					✓	✓															
1296	600		✓ 8	✓✓		2015																					
1297	500		✓ 9	✓✓		2089					✓	✓												✓			
1298	T _{max}	410	✓ 10	✓✓	✓	2084					✓	✓															
1299	34.75	312	✓ 11	✓✓	✓✓	3203	3194																	✓			
1300	34.7	300	✓ 12	✓✓	✓	2099																					
1301	34.6	273	✓ 13	✓✓		3126									✓												
1302	34.4	234	✓ 14	✓✓		3075					✓	✓			✓		✓	✓✓		✓	✓						
1303	34	192	✓ 15	✓✓		2085					✓	✓			✓		✓✓	✓✓		✓	✓			✓			
1304	33.5	172	✓ 16	✓✓		2068									✓		✓	✓✓		✓	✓						
1305	33.1	157	✓ 17	✓✓		2061					✓	✓			✓					✓	✓						air vent was shut extra tightly
1306	32.9	145	✓ 18	✓✓		3183					✓	✓			✓					✓	✓						
1307	32.6	122	✓ 19	✓✓		2044									✓					✓	✓						
1308	32.3	97	✓ 20	✓✓		2033									✓					✓	✓			✓			
1309	T _{max} /Chl _{max}	50	✓ 21	✓✓	✓	3094					✓	✓	✓		✓	✓				✓	✓			✓			
1310	T _{min}	37	✓ 22	✓✓	✓✓	2056	3199				✓	✓	✓		✓	✓		✓✓		✓	✓						room taken between 200 samples
1311	20		✓ 23	✓✓	✓	2091					✓	✓	✓		✓	✓	✓	✓✓		✓	✓						
1312	5		✓ 24	✓✓	✓	3098				✓	✓	✓	✓		✓	✓	✓✓	✓✓		✓	✓						

Comments: top 100m complicated in T_{miss}, flurr.

primary xmissometer has + offset on upcast.

winch change gears 600m ↓ 597↑

Rosette Log for IOS Cruise ID 2007-20

Cast # 67 UTC Date (dmy) 14 Aug 2007 UTC Time 16:28
Station CB-13 Lat (N) 77 18.449
CTD File 200720-067 Lon (W) 143 14.36

Cast Type: Geochemistry

In Air pressure 0.5/0.4 Water Depth 3778 ^{+9m} (Knudsen, w/o +9 for ship hull)
Ice Coverage 8/10^{ms} Sound Speed 1480ms (setting in Knudsen)
Start Scan N8000(?) Watch JE/HD/HD/DN/KB
Sorry I missed it

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Rea Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1313	B ₀ -50	3780	✓ 1	✓✓	✓✓	3009	3135	2073									✓✓	✓✓									
1314	3100	3101	✓ 2	✓✓	✓	3209											✓	✓✓									
1315	2500	2500	✓ 3	✓✓		2017												✓✓									
1316	2000	2001	✓ 4	✓✓		3048																					
1317	1500	1500	✓ 5	✓✓		2069																					
1318	1000	1000	✓ 6	✓✓		2086					✓	✓					✓										
1319	800	800	✓ 7	✓✓		2088					✓	✓					✓✓			✓	✓						
1320	600	600	✓ 8	✓✓		2025											✓										
1321	500	500	✓ 9	✓✓		3104					✓	✓															2L for ammonium (Knudsen ")
1322	T _{max}	397	✓ 10	✓✓		2092					✓	✓															
1323	34.75	305	✓ 11	✓✓		2074																					
1324	34.7	294	✓ 12	✓✓	✓	3116																					
1325	34.6	266	✓ 13	✓✓	✓✓	3190	3142							✓													
1326	34.4	226	✓ 14	✓✓	✓	2060					✓	✓			✓					✓	✓						
1327	34	184	✓ 15	✓✓		3187					✓	✓			✓			✓✓		✓	✓						
1328	33.5	167	✓ 16	✓✓		3201								✓			✓✓✓			✓	✓						
1329	33.1	153	✓ 17	✓✓		3178					✓	✓			✓		✓✓			✓	✓						
1330	32.9	141	✓ 18	✓✓		3018					✓	✓			✓					✓	✓						
1331	32.6	123	✓ 19	✓✓		3055								✓						✓	✓						
1332	32.3	100	✓ 20	✓✓		2051								✓						✓	✓						
1333	chl max	62	✓ 21	✓✓	✓	3118					✓	✓			✓		✓✓			✓	✓						
1334	t _{min}	92	✓ 22	✓✓	✓✓	2014	3058				✓	✓	✓		✓	✓	✓✓			✓	✓						
1335	20		✓ 23	✓✓	✓	2007					✓	✓	✓		✓	✓	✓✓	✓✓		✓	✓						
1336	5		✓ 24	✓✓	✓	3186				✓	✓	✓	✓		✓	✓	✓✓			✓	✓						

Comments: 21,22 T_{min}, T_{max}, chl max 2 of. Labels set up but not printed. change wind speed 533mV change gears @ 617↓
* Woods hole release test also → 3 releases for acoustic test (sit @ bottom @ 10 min) T_{min} 42 chl max 65
T_{max} 50 76