

Water Chemistry Sampling

Cruise: EOS 312 JAN 2018

201801

Station Name: S3Date: 25/01/18Time Sampled: 11:30 amCast #: 1 Event #: 2Sampler Names: Cassandra, Brandon, Mariko, Cavanaugh, Scott

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8								
7								
6	105	001D ✓ 002C ✓	C-02 ✓	A-20 ✓	✓	✓	✓	✓
5	110	003C ✓	/	A-21 ✓	✓	✓	✓	✓
sulphide → small 4	125	004C ✓	C-03 ✓	A-22 ✓	✓	✓	✓	✓
3	155	/	/	A-23 ✓	✓	✓	✓	✓
slight leak 2	180	/	C-05 ✓	A-24 ✓	/	/	✓	✓
1	200	/	/	A-25 ✓	/	/	✓	✓

NOTES: - No sulfide smelled in Niskin #5 and #6

- sulphide smell in Niskin 4

- Small leak in Niskin 2

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? 3:45

NH4 Time Analysed? _____

Water Chemistry Sampling

Cruise: EOS 312 JAN 2018

201801

Station Name: S3Date: Jan 25, 2018Time Sampled: 12:13 pmCast #: 2 Event #: 3Sampler Names: Cassandra, Brandon, Mariko, Cavanaugh, Scott

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8	0	² 005C ✓ 006C ✓	C-06 ✓	A-26 ✓	✓	✓	✓	✓
7	5	007C ✓	/	A-27 ✓	✓	✓	/	/
6	10	021C ✓	C-11 ✓	A-28 ✓	✓	✓	✓	/
5	15	009E ✓	/	A-29 ✓	✓	✓	/	/
4	40	010F ✓	/	A-30 ✓	✓	✓	✓	✓
3	70	011C ✓	C-08 ✓	A-31 ✓	✓	✓	✓	/
2	95	² 012C ✓ 019C ✓	C-09 ✓	A-32 ✓	✓	✓	✓	/
1	100	² 014C ✓ 015C ✓	C-10 ✓	A-33 ✓	✓	✓	✓	/

NOTES: C-07 do not run

Niskin # 6 RO4 sample had bubbles present

NH4 Stds Vial# ^{0.0M} STD1 = A34 ^{2.2} STD2 = A35 ^{7.5} STD3 = A36 ^{12.1} STD4 = A37 ^{15.8} STD5 = A38NH4 Spiked with Working Reagent: yes no Time Spiked? 3:45

NH4 Time Analysed? _____

Water Chemistry Sampling

Cruise: EOS 312 JAN 2018

201801

Station Name: S1Date: Jan 25thTime Sampled: 13:50Cast #: 1 Event #: 5Sampler Names: Ben Clemens, Kate Chadwick, Hanaiko Ischikawa, Brend

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8								
7								
6	95	016F ✓	—	A-39 ✓	✓			
5	100	✓ 017C/018C ✓	—	A-40 ✓	✓			
4	105	✓ 013C/020C ✓	—	A-41 ✓	✓		—	
3	110	—	—	A-42 ✓	✓			
Sulfide 2	120	—	—	A-43 ✓	✓	—		
1	135	—	—	A-44 ✓	—			

NOTES:

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? _____

Water Chemistry Sampling

Cruise: EOS 312 JAN 2018

201801

Station Name: SIDate: Jan. 25, 2018Time Sampled: 14:50Cast #: 2 Event #: 6Sampler Names: Ben Clemens, Kate Chadance, Hanako/sshiki, Brent

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	✓ NO3	NO2	PO4	Mn (✓ when acid spiked)
8	0	* 0296/028C	C-12 ✓	A-52 ✓				
7	5	* 026C/027C ✓	—	A-51 ✓				—
6	10	* 024C/025C ✓	C-13 ✓	A-50 ✓				—
5	15	023C ✓	—	A-49 ✓	—		—	—
4	20	022C ✓	—	A-48				—
3	50	—	—	A-47 ✓		—		
2	70	—	—	A-46 ✓				
1	90	008D ✓	—	A-45 ✓				

NOTES:

NH4 Stds Vial# ^{0.0M} STD1 = A53 ^{2.2} STD2 = A54 ^{~7.5} STD3 = A55 ^{~12.1} STD4 = A56 ^{~15.5} STD5 = A57

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? _____

Water Chemistry Sampling

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201801

Station Name: S4Date: Jan. 26th / 2018Time Sampled: 10:49Cast #: 1 Event #: 8Sampler Names: Sarah, Carmen, Alex, Evan

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8									
7									
6	100	030C ✓ 031C ✓	C-14 ✓	A-115 ✓	✓	✓	✓	✓	✓
5	105	032C ✓	X	A-116 ✓	✓	✓	✓	✓	✓
4	120	033C ✓	C-15 ✓	A-117 ✓	✓	✓	✓	✓	✓
3	140	X	X	A-118 ✓	X	X	✓	✓	✓
2	160	X	X	A-119 ✓	X	X	X	✓	✓
1	180	X	C-16 ✓	A-120 ✓	✓	✓	✓	✓	✓

NOTES: sulphur smell @ 4 (120m), strong smell @ 3 (140m)

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? _____

Water Chemistry Sampling

Cruise: EOS 312 JAN 2018

201801

Station Name: S4Date: Jan 26, 2018Time Sampled: 11:40Cast #: 2 Event #: 9Sampler Names: Sarah, Carmen, Alex, Evan

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8	0	034-D ✓ 035-C ✓	C-17 ✓	A121 ✓	✓	✓	✓	X	
7	5	036C ✓	X	A122 ✓	✓	✓	✓	X	
6	10	037C ✓	C-18 ✓	A123 ✓	✓	✓	X	X	
5	30	038C ✓	X	A124 ✓	✓	✓	✓	X	
4	50	039C ✓	C-19 ✓	A125 ✓	✓	✓	✓	✓	✓
3	65	040E ✓	X	A126 ✓	✓	✓	✓	✓	✓
2	80	041C ✓	C-20 ✓	A127 ✓	✓	✓	✓	✓	✓
1	95	042C ✓ 043 ✓	C-21 ✓	A128 ✓	✓	✓	✓	✓	✓

NOTES:

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3= _____ STD4= _____ STD5= _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? _____

Water Chemistry Sampling

Cruise: EOS 312 JAN 2018

201801

Station Name: SZ.5Date: Jan. 26 /18Time Sampled: 1:19 PMCast #: 1 Event #: 11Sampler Names: Felix, Tan, Dana, Chloe

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8								
7								
6	105	044C ✓ 045F ✓	X	✓ A-58	✓	✓	✓	✓ ✓
5	110	46D ✓		✓ A-59	✓	✓	✓	✓ ✓
4	120	047C ✓		✓ A-60	✓	✓	✓	✓ ✓
3	130			✓ A-61	✓	✓	✓	✓ ✓
2	170			✓ A-62				✓ ✓
1	210			✓ A-63			✓	✓ ✓

NOTES: smelled sulphide on 4 & below

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? _____

Water Chemistry Sampling

Cruise: EOS 312 JAN 2018

201801

Station Name: S2.5Date: Jan 26 / 2018Time Sampled: 1:53 PMCast #: 2 Event #: 12Sampler Names: Felix, Tan, Dana, Chloe

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8	0	049C ✓ 050E ✓ *	C22 ✓	A-64 ✓	✓	✓	✓	✓	✓
7	5	051C ✓	C23 ✓	A-65 ✓	✓	✓	✓		
6	10	052C ✓ 053C ✓ *	X	A-66 ✓	✓	✓	✓		
5	15			A-67 ✓	✓	✓	✓	✓	✓
4	25	054D ✓ 055C ✓ *		A-68 ✓	✓	✓	✓		
3	55	056C ✓		A-69 ✓	✓	✓		✓	✓
2	85	057C ✓ 058C ✓ *		A-70 ✓	✓	✓	✓		
1	100	059C ✓		A-71 ✓	✓	✓	✓	✓	✓

NOTES:

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? _____

Water Chemistry Sampling

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201801

Station Name: 1.5Date: Jan 26 2018Time Sampled: 3:00 PMCast #: 1 Event #: 14Sampler Names: Devon, He, Marisa, Wiley

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8			/					
7								
6 ✓	105	060 E ✓ 061 C ✓	X	A-01 ✓ * A-02 ✓	✓	x ✓	✓	✓
leakage 5	110	062 C ✓	X	A-03 ✓	✓	✓	✓	✓
4	125	063 C ✓	C24 ✓	A-04 ✓	✓	✓	✓	✓
3	145	X	X	A-05 ✓	✓	X	✓	✓
2	170	X	X	A-06 ✓	✓	✓	✓	✓
1	195	X	C25 ✓	1 X	X	X	X	✓

NOTES: Nisk 5, leakage Sulfide smell 4' definite 5 maybe
Nisk 6 - leakage

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? _____

Water Chemistry Sampling

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201801

Station Name: 115Date: Jan 26 2018Time Sampled: 4:15 pmCast #: 2 Event #: 15Sampler Names: Devon, Wiley, Marisa, HC

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8	0	064C ✓ * 065E ✓ 066C ✓	C26 ✓	A-07 ✓	✓	✓	✓	✓ ✓
7	10	067C ✓	C27 ✓	X	✓	✓	✓	X
6	20	068E ✓	C28 ✓	A08 ✓	✓	X	✓	X
5	40	069E ✓	C29 ✓	X	X	X	X	X
4	60	070C ✓	X	A09 ✓	✓	✓	✓	X
3	80	071C ✓	C30 ✓	A10 ✓	✓	✓	✓	✓ ✓
2	95	* 072C ✓	X	* A11 ✓ A12 ✓	✓	✓	✓	✓ ✓
1	100	075C ✓ * 076C ✓	C31 ✓	* A13 ✓ A14 ✓	✓	* ✓ ✓	✓	✓ ✓

NOTES:

rain

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? _____

Water Chemistry Sampling

Cruise: EOS 312 JAN 2018

201801

Station Name: S. 4.5Date: 27-Jan-18Time Sampled: 10:30 amCast #: 17 Event #: 17Sampler Names: Anieha, Trevor, Dawson, Dawson

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8								
7								
6	105	073C 074C	X	A-134				
5	110	077D	X	A-135				
4	115	X	X	A-136				
3	120	X	X	A-137				
2	130	X	X	A-138	X	X	X	
1	150	X	X	A-139	X	X		

NOTES:

sulfide smelled @ N#2

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? _____

Water Chemistry Sampling

Cruise: EOS 312 JAN 2018

201801

Station Name: S4.5Date: 27-Jan-18Time Sampled: 11:20Cast #: #2 Event #: 1BSampler Names: Aniesha, Trevor, Dawson, Dawn

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8	0	<u>78C</u> <u>79C</u>	<u>C-33</u> ✓	✓ <u>A-140</u>	✓	✓	✓	✓
7	5	<u>80C</u> <u>81C</u>	X	✓ <u>A-141</u>	✓	✓	✓	✓
6	10	<u>82C</u> <u>83C</u>	<u>C-34</u> ✓	✓ <u>A-142</u>	✓	✓	✓	✓
5	30	X	X	✓ <u>A-143</u>	✓	✓	X	X
4	50	<u>84C</u> ✓	X	✓ <u>A-144</u>	✓	✓	✓	✓
3	80	<u>85C</u> ✓	X	✓ <u>A-145</u>	✓	✓	✓	✓
2	95	<u>86C</u> ✓	X	✓ <u>A-146</u>	✓	✓	✓	✓
1	100	<u>87E</u> <u>88C</u>	X	✓ <u>A-147</u>	✓	✓	✓	✓

*Spigot bung
"possible"

*Cap broke

NOTES:

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? _____

Water Chemistry Sampling

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201801

Station Name: S3.5Date: Jan 27 2018Time Sampled: 12:50Cast #: 1 Event #: 20Sampler Names: pandora, shoa, stephanie, lee

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8	X	X	X	X	X	X	X	X	X
7	X	X	X	X	X	X	X	X	X
6	110	089C ✓	X	A-96 ✓	/	/	/	/	
5	115	090C ✓ 091C ✓*	X	A-97 ✓	/	/	/	/	
4	135	X	X	A-98 ✓	/	/	X	/	
3	160	X	X	A-99 ✓	/	/	/	/	
2	185	X	X	A-100 ✓	X	X	X	/	
1	215	X	X	A-101 ✓	X	X	/	/	

NOTES:

Smelled H_2S at Niskin 4

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? _____

Water Chemistry Sampling

Cruise: EOS 312 JAN 2018

201801

Station Name: S3-5Date: Jan 27 2018Time Sampled: 13:30Cast #: 2 Event #: 21Sampler Names: pandora, shea, stephanie, lee

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8	0	✓092D★ ✓093C	✓C-35	A-102✓	/	/	/	X	X
7	10	✓094C	✓C-36	A-103✓	/	/	/	X	X
6	25	✓095C	X	A-104✓	/	/	/	X	X
5	50	✓096C★ ✓097C	X	A-105✓	/	/	/	X	X
4	75	✓098E	X	A-106✓	/	/	/	/	/
3	90	✓099C★ ✓100C	X	A-107✓	/	/	/	/	/
2	100	✓101C	X	A-108✓	/	/	/	/	/
1	105	✓102C★ ✓103F	X	A-109✓	/	/	/	/	/

NOTES:

Vent for Niskin #5 left open / Niskin ³⁴4 was leaking

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? _____

Water Chemistry Sampling

Cruise: EOS 312 JAN 2018

201801

Station Name: S2Date: Jan 27, 2018Time Sampled: 15:00Cast #: 1 Event #: 23Sampler Names: Alvord, Jorg, Mott, Emma

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8	105	104E 105D	C-37	A77	✓	✓	✓	✓
7	110	106C 107F	C-38	A78	✓	✓	✓	✓
6	105	^D 104E 105D	C-37 ✓	A77 ✓	✓	✓	✓	✓
5	110	^D 106C 107F	C-38 ✓	A78	✓	✓	✓	✓
4	120	108G 109H	C-39	A79 ✓	✓	✓	✓	✓
3	130	110I 111J	C-40	A80 ✓	✓	✓	✓	✓
2	170	112K 113L	C-39 ✓	A81 ✓	✓	✓	✓	✓
1	210	114M 115N	C-41	A82 ✓	✓	✓	✓	✓

NOTES:

Smelled Sulphide at Niskin 4.

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? _____

Water Chemistry Sampling

Cruise: EOS 312 JAN 2018

201801

Station Name: S2Date: Jan 27, 2018Time Sampled: 15:37Cast #: 2 Event #: 24Sampler Names: Alexis, Jing, Emma, Mast

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8	0	^D ✓ 108C 109C	C-40 ✓	A83✓	✓	✓	✓	✗	✗
7	5	^D ✓ 110F 111D	C-41 ✓	A84✓	✓	✓	✓	✗	✗
6	10	112C ✓	C-41✓	A85✓	✓	✓	✓	✗	✗
5	20	113D ✓	C-42✓	A86✓	✓	✗	✓	✗	
4	40	114C ✓	C-43 ✓	A87✓	✓	✓	✓	✓	
3	75	115C ✓	C-44 ✓	A88✓	✓	✓	✓	✓	
2	85	116E ✓	C-43✓	A89✓	✓	✓	✓	✓	
1	95	^D ✓ 117C 118C	C-44✓	A90✓	✓	✓	✓	✓	

NOTES:

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? _____

Small bubbles
in tubing
for carbon →