

Cruise: 00469				Leg:	Cast:	Type:											
Date: 10/3/10		Time: 1445	Lat: 37 50.143	Long: 68 30.729	Samplers:												
Date:		Time:	Lat:	Long:													
Niskin #	Depth	Niskin temp	Oxygens	DIC Bates	DIC Keeling	TOC/N	Sugars	Salts	Nuts	TDP / SRP / APA	Bact.	Virus / Probes	POC/N vol =	Psi vol =	POP vol =	HPLC/FCM vol =	ChIA
1	700 ✓																
2	500 ✓																
3	300 ✓																
4	200 ✓																
5	140 ✓																
6	140 ✓																
7	120 ✓																
8	120 ✓																
9	100 ✓																
10	100 ✓																
11	80 ✓																
12	80 ✓																
13	80 ✓																
14	80 ✓																
15	60 ✓																
16	60 ✓																
17	40 ✓																
18	40 ✓																
19	20 ✓																
20	20 ✓																
21	0 ✓																
22	0 ✓																
23	0 ✓																
24	0 ✓																

555 27.45 C

[illegible]

[illegible]

20 m / 600 µE +

Cruise: 02469				Leg: 4		Cast: 4		Type: 4	
Date: 10/5/10		Time: 1330		Lat: 31		Long: 64		SST ZC.13	
Date:		Time:		Lat:		Long:		SST ZC.13	
Niskin #	Depth	Niskin temp	Oxygens	DIC Bates	DIC Keeling	TOC/N	Sugars	Salts	Nuts
1	30								
2	30								
3	30								
4	30								
5	30								
6	30								
7	30								
8	30								
9	30								
10	30								
11	30								
12	30								
13	30								
14	30								
15	30								
16	30								
17	30								
18	30								
19	30								
20	30								
21	30								
22	30								
23	30								
24	30								

Cruise: 00469			Leg: 5	Cast: 5	Type:												
Date: 10/5/10	Time: 1437	Lat: 31 41.115	Long: 64 6.400	Samplers:													
Date:	Time:	Lat:	Long:														
Niskin #	Depth	Chl Niskin	Styrene- Gum Expression	APA 200 Bios	DIC Keeling	TOC/N	Sugars	Salts	Nuts	TDP / SRP/ APA	Bact.	Virus/ Probes	POC/N vol =	PSI vol =	POP vol =	HPLC/PCW vol =	ChIA
1	700	✓		✓													
2	500	✓		✓													
3	300	✓		✓													
4	200	✓		✓													
5	140	✓		✓													
6	140	✓															
7	110	✓		✓													
8	120	✓															
9	100	✓		✓													
10	100	✓															
11	80	✓		✓													
12	80	✓	✓ 1µm														
13	80	✓	✓ (0.2)														
14	80	✓	✓ 1µm														
15	60	✓		✓													
16	60	✓		✓													
17	40	✓		✓													
18	40	✓															
19	20	✓		✓													
20	20	✓		✓													
21	0	✓		✓													
22	0																
23	0		✓ (0.2)														
24	0		✓ 1µm														

55T 26.23

[illegible]

[illegible]

[illegible]

Cruise: SC 469		Leg: 9		Cast: 9		Type:	
Date: 10/7/10		Time: 1006		Lat: 29 0.194		Long: 66 0.924	
Date:		Time:		Lat:		Long:	
Niskin #	Depth	Niskin temp	Oxygens	DIC Bates	DIC Keeling	TOC/N	Sugars
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

Sampplers: To 150m, NA BOTTLES

SST 26.71

POP vol =

Psi vol =

POC/N vol =

Virus/ Probes

Bact.

TDP / SRP / APA

Nuts

Salts

HPLC/FCM vol =

ChIA

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Cruise: 02469				Leg: 15	Cast: 4.814		Type: 15					
Date: 10/8/10		Time: 1626	Lat: 29	Long: 66 6.457	Samplers:							
Date:		Time:	Lat:	Long:	TDP / SRP / APA	Bact.	Virus / Probes	POC/N vol =	Psi vol =	POP vol =	HPLC/FCM vol =	ChIA
Niskin #	Depth	Chlorophyll	Quorum Sensing	DIC Keeling	TOC/N	Sugars	Salts	Nuts				
1	700						25					
2	500						25					
3	300						27					
4	200						28					
5	140											
6	140											
7	120											
8	120											
9	100											
10	100											
11	100		✓ 0.2um RNA									
12	100		✓ 1.0um RNA									
13	80	✓										
14	80											
15	60	✓										
16	60											
17	40	✓										
18	40											
19	20	✓										
20	20											
21	0	✓										
22	0											
23	0		✓ 0.2um RNA									
24	0		✓ 1.0um RNA									

555 26.65

[illegible]

[illegible]

[illegible]

• Tricho counts

Cruise: 00469				Leg: 20		Cast: 20		Type:									
Date: 10/11/10		Time: 1513		Lat: 22 29.795		Long: 67 17.802		Samplers:									
Date:		Time:		Lat:		Long:											
Niskin #	Depth	Niskin temp	Oxygens	DIC Bates	DIC Keeling	TOC/N	Sugars	Salts	Nuts	TDP / SRP / APA	Bact.	Virus / Probes	POC/N vol =	Psi vol =	POP vol =	HPLC/FCM vol =	ChIA
1	80																
2	80																
3	80																
4	80																
5	60																
6	60																
7	60																
8	60																
9	60																
10	40																
11	40																
12	40																
13	40																
14	40																
15	20																
16	20																
17	20																
18	20																
19	20																
20	0																
21	0																
22	0																
23	0																
24	0																

55T
29.90

[illegible]

[illegible]

[illegible]

Cruise: 00469			Leg:	Cast:	Type:		
Date: 10/12/10	Time: 1611	Lat: 21	15.989	Long: 64	0.198	Samplers:	
Date:	Time:	Lat:		Long:			
Niskin #	Depth	Time	DIC Keeling	TOC/N	Sugars	Salts	Nuts
1	700					I 17	
2	500					I 18	
3	300					I 19	
4	200					I 20	
5	140						
6	140						
7	120						
8	120						
9	100						
10	100						
11	100						
12	100						
13	80						
14	80						
15	60						
16	60						
17	40						
18	40						
19	20						
20	20						
21	0						
22	0						
23	0						
24	0						

Cruise: 02469			Leg:	Cast:	Type:
Date: 10/14/10	Time: 1157	Lat: 17	15.209	Long: 58	30.290
Date:	Time:	Lat:	DIC Keeling	TOC/N	Sugars
Niskin #	Depth	Chlorophyll	Chlorophyll	Salts	Nuts
1	700			I 21	
2	500			I 22	
3	300			I 23	
4	200			I 24	
5	140				
6	140				
7	120				
8	120				
9	100				
10	100				
11	80-15				
12	80-15				
13	80-15				
14	80-15				
15	60				
16	60				
17	40				
18	40				
19	20				
20	20				
21	0				
22	0				
23	0				
24	0				

• Tricho counts

Cruise: 00469			Leg:		Cast: 26		Type:										
Date: 10/14/10		Time: 1306		Lat: 17	15.813	Long: 58	30.827	SST 29.23									
Date:		Time:		Lat:		Long:											
Niskin #	Depth	Niskin temp	Oxygens	DIC Bates	DIC Keeling	TOC/N	Sugars	Salts	Nuts	TDP / SRP / APA	Bact.	Virus/ Probes	POC/N vol =	Psi vol =	POP vol =	HPLC/FCM vol =	ChIA
1	90																
2	80																
3	80																
4	80																
5	60																
6	60																
7	60																
8	60																
9	60																
10	40																
11	40																
12	40																
13	40																
14	40																
15	20																
16	20																
17	20																
18	20																
19	20																
20	0																
21	0																
22	0																
23	0																
24	0																

didn't trip

[illegible]

Tricho counts

Cruise: 00409				Leg:		Cast: 28		Type:									
Date: 10/15/10		Time: 1512		Lat: 15 13.447		Long: 54 40.174		Samplers:									
Date:		Time:		Lat:		Long:											
Niskin #	Depth	Niskin temp	Oxygens	DIC Bates	DIC Keeling	TOC/N	Sugars	Salts	Nuts	TDP / SRP / APA	Bact.	Virus/ Probes	POC/N vol =	Psi vol =	POP vol =	HPLC/FCM vol =	ChIA
1	80																
2	80																
3	80																
4	80																
5	60																
6	60																
7	60																
8	60																
9	60																
10	40																
11	40																
12	40																
13	40																
14	40																
15	20																
16	20																
17	20																
18	20																
19	20																
20	0																
21	0																
22	0																
23	0																
24	0																

557
29.24

Cruise: 0C469				Leg: 29	Cast:		Type:	
Date: 10/15/10		Time: 1606		Lat: 15	Long: 54 39.511	Samplers:		
Date:		Time:		Lat:	Long:	TDP / SRP / APA	Bact.	Virus / Probes
Niskin #	Depth	Aut Niskin	Oxygen	DIC Keeling	TOC/N	Sugars	Salts	Nuts
			Gum for presence					
1	700			✓			I 25	
2	500			✓			I 26	
3	300			✓			I 27	
4	200			✓			I 28	
5	140			✓				
6	140							
7	120			✓				
8	120							
9	120		✓ 12 min					
10	120		✓ 1 min					
11	100	✓		✓				
12	100							
13	80	✓		✓				
14	80							
15	60	✓		✓				
16	60							
17	40	✓		✓				
18	40							
19	20	✓		✓				
20	20							
21	0	✓		✓				
22	0							
23	0		✓ 12 min					
24	0		✓ 1 min					

SST
29.25

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

Time: 1606

Date: 10/15/10

Cruise: 0C469

Leg: 29

Cast:

Long: 54 39.511

Lat: 15

[illegible]

Cruise: 00469				Leg: 31		Type:	
Date: 10/14/10		Time: 1247		Lat: 13 25.060		Long: 51 19.718	
Date:		Time:		Lat:		Long:	
Niskin #	Depth	Niskin temp	Oxygens	DIC Bates	DIC Keeling	TOC/N	Sugars
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

Pump Station
 50 m - 400 m
 555
 29.20

TDP /
 SRP / APA
 Bact.
 Virus/
 Probes
 POC/N
 vol =
 Psi
 vol =
 POP
 vol =
 HPLC/FCM
 vol =
 ChIA

[illegible]

Cruise: 0C469				Leg:	Cast: 33		Type:										
Date: 10/16/10		Time: 1746	Lat: 13 29.444	Long: 51 18.528	Samplers:												
Date:		Time:	Lat:	Long:													
Niskin #	Depth	Chl <i>1000</i>	Chl <i>Gene Expression</i>	APC BAC -BACs	DIC Keeling	TOC/N	Sugars	Salts	Nuts	TDP / SRP / APA	Bact.	Virus/ Probes	POC/N vol =	Psi vol =	POP vol =	HPLC/FCM vol =	ChIA
1	700			✓				261									
2	500			✓				262									
3	300			✓				263									
4	200			✓				264									
5	140			✓													
6	140																
7	120			✓													
8	120																
9	100	✓		✓													
10	100																
11	100		✓ RNA 0.2u														
12	100		✓ DNA 1u														
13	80	✓		✓													
14	80																
15	60	✓		✓													
16	60																
17	40	✓		✓													
18	40																
19	20	✓		✓													
20	20																
21	0	✓		✓													
22	0																
23	0		✓ RNA 0.2u														
24	0		✓ DNA 1u														

555
28.45

[illegible]

[illegible]

Cruise: 00469			Leg:		Cast: 36		Type:										
Date: 10/17/10		Time: 1442		Lat: 11 53.917	Long: 48 27.196		Samplers:										
Date:		Time:		Lat:	Long:												
Niskin #	Depth	Niskin temp	Oxygens	DIC Bates	DIC Keeling	TOC/N	Sugars	Salts	Nuts	TDP / SRP / APA	Bact.	Virus/ Probes	POC/N vol =	Psi vol =	POP vol =	HPLC/FCM vol =	ChIA
1	80																
2	80																
3	80																
4	80																
5	60																
6	60																
7	60																
8	60																
9	60																
10	40																
11	40																
12	40																
13	40																
14	40																
15	20																
16	20																
17	20																
18	20																
19	20																
20	0																
21	0																
22	0																
23	0																
24	0																

557
29.5%

Cruise: 02 469		Leg: 37		Cast: 37		Type: 55T 29.64											
Date: 10/17/10		Time: 1535		Lat: 11 54.858		Long: 48 21.521											
Date:		Time:		Lat:		Long:											
Niskin #	Depth	Chl	Chlorophyll	DOC	DIC Keeling	TOC/N	Sugars	Salts	Nuts	TDP / SRP / APA	Bact.	Virus/ Probes	POC/N vol =	Psi vol =	POP vol =	HPLC/FCM vol =	ChIA
1	700							26 5									
2	500							26 6									
3	300							26 7									
4	200							26 8									
5	140																
6	140																
7	120																
8	120																
9	90	✓															
10	90																
11	90		✓ RNA 0.2um														
12	90		✓ RNA 1.0um														
13	90	✓															
14	90																
15	60	✓															
16	60																
17	40	✓															
18	40																
19	20?	✗															
20	20	✓															
21	0?	✗															
22	0	✓	✓ RNA 1.0um														
23	0		✓ RNA 0.2um														
24	0	✗															

* 19 skipped by data acquisition program - see bottle file.
bottles 20-24 appear to be o.k.

Cruise: 0C469			Leg: 38		Cast: 38		Type:		
Date: 10/18/10		Time: 1233		Lat: 11 32.174		Long: 51 19.359		PUMP STATION NO BOTTLES	
Date:		Time:		Lat:		Long:		555 29.58	
Niskin #	Depth	Niskin temp	Oxygens	DIC Bates	DIC Keeling	TOC/N	Sugars	Salts	Nuts
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									

Samplers: 6m ~ 2000µE
50m ~ 350µE

HPLC/FCM vol =
POP vol =
Psi vol =
POC/N vol =
Virus/ Probes
Bact.
TDP / SRP / APA

ChIA

[illegible]

[illegible]

[illegible]

Cruise: 00469		Leg: 42		Cast:		Type:	
Date: 10/19/10	Time: 1232	Lat: 12 9.857	Long: 54 29.885	Samplers: 6m ~ 1600mE PUMP STATION 50m ~ 335mE NO BOTTLES			
Date:	Time:	Lat:	Long:	Nuts	Salts	Sugars	TOC/N
Niskin #	Depth	Niskin temp	Oxygens	DIC Bates	DIC Keeling	DIC	POC/N
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

Tricho counts

Cruise: 00469				Leg: 43		Cast: 43		Type:									
Date: 10/19/10		Time: 1442		Lat: 12 11.911		Long: 54 30.967		Samplers:									
Date:		Time:		Lat:		Long:		Tg 150m									
Niskin #	Depth	Niskin temp	Oxygens	DIC Bates	DIC Keeling	TOC/N	Sugars	Salts	Nuts	TDP / SRP / APA	Bact.	Virus / Probes	POC/N vol =	Psi vol =	POP vol =	HPLC/FCM vol =	ChIA
1	80																
2	80																
3	80																
4	80																
5	60																
6	60																
7	80																
8	60																
9	60																
10	40																
11	40																
12	40																
13	40																
14	40																
15	20																
16	20																
17	20																
18	20																
19	10																
20	0																
21	0																
22	0																
23	0																
24	0																

55T
29.77

Cruise: 06469				Leg: 45		Cast: 45		Type:									
Date: 10/20/10		Time: 1230		Lat: 12 52.301		Long: 58 34.412		Samplers:									
Date:		Time:		Lat:		Long:		T0 100m NO BOTTLES									
Niskin #	Depth	Niskin temp	Oxygens	DIC Bates	DIC Keeling	TOC/N	Sugars	Salts	Nuts	TDP / SRP / APA	Bact.	Virus / Probes	POC/N vol =	Psi vol =	POP vol =	HPLC/FCM vol =	CHIA
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

[illegible]

Cruise: 00469			Leg: 47	Cast:		Type:
Date: 10/20/10		Time: 1340	Lat: 12 53.749	Long: 58 35.617	Samplers:	
Date:	Time:	Lat:	Long:			
Niskin #	Depth	Salinity	Temp	Stem	Wet Weight	Dry Weight
1	700					
2	500					
3	300					
4	200					
5	140					
6	140					
7	120					
8	120					
9	100					
10	100					
11	80					
12	80					
13	80					
14	80					
15	60					
16	60					
17	40					
18	40					
19	20					
20	20					
21	0					
22	0					
23	0					
24	0					

Cruise: 02469				Leg: 48		Cast: 48		Type: 48									
Date: 10/21/10		Time: 0152		Lat: 12 33.755		Long: 56 39.825		Samplers: To 150m									
Date:		Time:		Lat:		Long:		Type:									
Niskin #	Depth	Niskin temp	Oxygens	DIC Bates	DIC Keeling	TOC/N	Sugars	Salts	Nuts	TDP / SRP / APA	Bact.	Virus / Probes	POC/N vol =	Psi vol =	POP vol =	HPLC/FCM vol =	ChIA
1	80																
2	80																
3	80																
4	80																
5	60																
6	60																
7	60																
8	60																
9	60																
10	40																
11	40																
12	40																
13	40																
14	40																
15	20																
16	20																
17	20																
18	20																
19	20																
20	0																
21	0																
22	0																
23	0																
24	0																

55T
29.45

Cruise: 02469				Leg:	Cast:	49		Type:									
Date: 10/21/10		Time: 0323	Lat: 12 32.497	Long: 56 30.329	TS 150 m												
Date:		Time:	Lat:	Long:	Samplers:												
Niskin #	Depth	Niskin temp	Oxygens	DIC Bates	DIC Keeling	TOC/N	Sugars	Salts	Nuts	TDP / SRP / APA	Bact.	Virus / Probes	POC/N vol =	Psi vol =	POP vol =	HPLC/FCM vol =	ChIA
1	80																
2	80																
3	80																
4	80																
5	60																
6	60																
7	60																
8	60																
9	60																
10	40																
11	40																
12	40																
13	40																
14	40																
15	20																
16	20																
17	20																
18	20																
19	20																
20	0																
21	0																
22	0																
23	0																
24	0																

55T
29.45 29.34

Cruise: 00469				Leg: 50	Cast: 50		Type: SST	
Date: 10/21/10		Time: 0444	Lat: 12 30.679		Long: 56 20.375	Samplers:		
Date:		Time:	Lat:	DIC Bates	DIC Keeling	TOC/N	Nuts	
Niskin #	Depth	Niskin temp	Oxygens	Sugars	Salts	TDP / SRP / APA	Bact.	
			Virus/ Probes	POC/N vol =	Psi vol =	POP vol =	HPLC/FCM vol =	
			ChIA					
1	80							
2	90							
3	90							
4	90							
5	60							
6	60							
7	60							
8	60							
9	60							
10	40							
11	40							
12	40							
13	40							
14	40							
15	20							
16	20							
17	20							
18	20							
19	20							
20	0							
21	0							
22	0							
23	0							
24	0							

[illegible]

[illegible]

Cruise:	Leg:	Cast:	Type:
0C469	Lat: 17° 33' N Long: 83° 31' W	SST	T _a 100m
Date: 10/21/10	Time: 1805		
Date:	Time:		
Niskin #	Depth	Oxygens	DIC Bates
1	20	VV	
2	20		
3	20		
4	20		
5	20		
6	20		
7	20		
8	20		
9	20		
10	20		
11	20		
12	20		
13	0	VV	
14	0		
15	0		
16	0		
17	0		
18	0		
19	0		
20	0		
21	0		
22	0		
23	0		
24	0		