Annexe 3

GO-FLOs

LOG-BOOK of the GO-FLO casts (completed by M. Boye).

GF#0 (TEST) 0-1000 m

TEST station	Date (UTC): 08/02/17
GO-FLO N°: GF0	Starting time (UTC): 02H23 — Position start (°'): 34°25.433 S, 14°24.316 E
Closer CTD N°:	Ending time (UTC): 04H13 — Position end (°'): 34°25.704 S, 14°24.222 E
Station N°:	Bottom depth (m):
	Total lenght of cable out (m): 1107 m

GF#1 (L1A, TM's) 0-2100m

Station N°: L1A	Date (UTC): 08/02/17
GO-FLO N°: GF1	Starting time (UTC): 09H36 — Position start (°'): 34°25.553 S, 14°24.358 E
Closer CTD N°: 11	Ending time (UTC): 13H10 — Position end (°'): 34°25.606 S, 14°24.526 E
Station N°: 11	Bottom depth (m):
	Total lenght of cable out (m): 2157 m

GF#2 (S1, TM's & Cd-isot.) 0-850 m

Station N°: S1	Date start (UTC): 08/02/19 — Date end (UTC): 08/02/20
GO-FLO N°: GF2	Starting time (UTC): 22H57 — Position start (°'): 36°31.00 S, 13°07.00 E
Closer CTD N°: 19	Ending time (UTC): 01H20 — Position end (°'): 36°30.00 S, 13°06.00 E
Station N°: 18	Bottom depth (m): 4920
	Total lenght of cable out (m): 957

GF#3 (S1, TM's & Cd-isot.) 1000-4000 m

Station N°: S1	Date start (UTC): 08/02/20 — Date end (UTC): 08/02/20
GO-FLO N°: GF3	Starting time (UTC): 16H37 — Position start (°'): 36°31.35 S, 13°07.18 E
Closer CTD N°: 21	Ending time (UTC): 21H31 — Position end (°'): 36°28.00 S, 13°05.00 E
Station N°: 18	Bottom depth (m): 4920
	Total lenght of cable out (m): 4107 + 50 m

GF#4 (S1, Inc. Géraldine/Eva) 30-50 m

Station N°: S1	Date start (UTC): 08/02/21 — Date end (UTC): 08/02/21
GO-FLO N°: GF4	Starting time (UTC): 06H08 — Position start (°'): 36°31.021 S, 13°07.448 E
Closer CTD N°: 21	Ending time (UTC): 06H53 — Position end (°'): 36°30.403 S, 13°07.133 E
Station N°: 18	Bottom depth (m): 4920
	Total lenght of cable out (m):

GF#5 (S1, Inc. Bron/Marie) 25-45 m

Station N°: S1	Date start (UTC): 08/02/21 — Date end (UTC): 08/02/21
GO-FLO N°: GF5	Starting time (UTC): 09H27 — Position start (°'): 36°29.492 S, 13°06.976 E
Closer CTD N°: 22	Ending time (UTC): 10H39 — Position end (°'): 36°28.437 S, 13°06.422 E
Station N°: 18	Bottom depth (m): 4920
	Total lenght of cable out (m): 265 + 50

GF#6 (S1, Inc. Bron/Marie) 35-50 m

Station N°: S1	Date start (UTC): 08/02/21 — Date end (UTC): 08/02/21
GO-FLO N°: GF6	Starting time (UTC): 13H43 — Position start (°'): 36°27.997 S, 13°06.246 E
Closer CTD N°: 23	Ending time (UTC): 14H26 — Position end (°'): 36°27.497 S, 13°06.048 E
Station N°: 18	Bottom depth (m): 4920
	Total lenght of cable out (m): 50 + 50

GF#7 (S1, Cd-isot.) 30-200 m

Station N°: S1	Date start (UTC): 08/02/21 — Date end (UTC): 08/02/21
GO-FLO N°: GF7	Starting time (UTC): 15H50 — Position start (°'): 36°31.321 S, 13°07.177 E
Closer CTD N°: 23	Ending time (UTC): 16H29 — Position end (°'): 36°31.00 S, 13°06.00 E
Station N°: 18	Bottom depth (m): 4920
	Total lenght of cable out (m): 250 m

GF#8 (S1, Fe-isot.) 0-4000 m

Station N°: S1	Date start (UTC): 08/02/22 — Date end (UTC): 08/02/22
GO-FLO N°: GF8	Starting time (UTC): 01H50 — Position start (°'): 36°30.47 S, 13°07.110 E
Closer CTD N°: 23	Ending time (UTC): 06H01 — Position end (°'): 36°27.800 S, 13°07.337 E
Station N°: 18	Bottom depth (m): 4920
	Total lenght of cable out (m): 4007 + 50

GF#9 (L2B, TM's) 15-2100 m

Station N°: L2B	Date start (UTC): 08/02/25 — Date end (UTC): 08/02/26
GO-FLO N°: GF9	Starting time (UTC): 22H06 — Position start (°'): 41°10.71 S, 09°55.01 E
Closer CTD N°: 37	Ending time (UTC): 00H26 — Position end (°'): 41°11.28 S, 09°55.28 E
Station N°: 31	Bottom depth (m):
	Total lenght of cable out (m): 2107 + 50 m

LOG-BOOK of the GO-FLO casts (completed by M. Boye).

GF#10 (S2, TM's & Cd/Fe-isot.) 1441-3950 m

Station N°: S2	Date start (UTC): 08/02/27	Date end (UTC): 08/02/27
GO-FLO N°: GF10	Starting time (UTC): 00H23	Position start (°'): 42°28.19 S, 08°55.718 E
Closer CTD N°: 41	Ending time (UTC): 04H10	Position end (°'): 42°88.191 S, 08°55.731 E
Station N°: 34	Bottom depth (m): 4060	
	Total lenght of cable out (m): 3957+ 50 m	

GF#11 (S2, TM's & Cd/Fe-isot.) 196-1441 m

Station N°: S2	Date start (UTC): 08/02/27	Date end (UTC): 08/02/27
GO-FLO N°: GF11	Starting time (UTC): 12H34	Position start (°'): 42°28.135 S, 08°55.726 E
Closer CTD N°: 41	Ending time (UTC): 14H20	Position end (°'): 42°88.127 S, 08°55.73 E
Station N°: 34	Bottom depth (m): 4060	
	Total lenght of cable out (m): 1448+ 50 m	

GF#12 (S2, TM's & Cd/Fe-isot.) 15-196 m

Station N°: S2	Date start (UTC): 08/02/27	Date end (UTC): 08/02/27
GO-FLO N°: GF12	Starting time (UTC): 18H07	Position start (°'): 42°28.21 S, 08°55.854 E
Closer CTD N°: 42	Ending time (UTC): 18H50	Position end (°'): 42°28.354 S, 08°56.149 E
Station N°: 34	Bottom depth (m): 4060	
	Total lenght of cable out (m): 207+ 50 m	

GF#13 (S2, Inc. Géraldine/Eva) 30-60 m

Station N°: S2	Date start (UTC): 08/02/27	Date end (UTC): 08/02/27
GO-FLO N°: GF13	Starting time (UTC): 21H12	Position start (°'): 42°28.133 S, 08°55.850 E
Closer CTD N°: 43	Ending time (UTC): 22H11	Position end (°'): 42°28.111 S, 08°55.975 E
Station N°: 34	Bottom depth (m):	
	Total lenght of cable out (m):	

GF#14 (S2, Inc. Bron/Marie) 25-45 m

Station N°: S2	Date start (UTC): 08/02/28	Date end (UTC): 08/02/28
GO-FLO N°: GF14	Starting time (UTC): 07H50	Position start (°'): 42°28.111 S, 08°55.975 E
Closer CTD N°: 44	Ending time (UTC): 08H26	Position end (°'): 42°28.12 S, 08°55.970 E
Station N°: 34	Bottom depth (m):	
	Total lenght of cable out (m):	

GF#15 (S2, Inc. Bron/Marie & Pedro + Cd/Fe-isot.) 25-55 m

Station N°: S2	Date start (UTC): 08/02/28	Date end (UTC): 08/02/28
GO-FLO N°: GF15	Starting time (UTC): 09H30	Position start (°'): 42°28.111 S, 08°56.05 E
Closer CTD N°: 45	Ending time (UTC): 09H50	Position end (°'): 42°28.110 S, 08°56.05 E
Station N°: 34	Bottom depth (m):	
	Total lenght of cable out (m):	

GF#16 (L3B, TM's) 30-2100 m

Station N°: L3B	Date start (UTC): 08/03/01	Date end (UTC): 08/03/01
GO-FLO N°: GF16	Starting time (UTC): 16H22	Position start (°'): 44°53.900 S, 06°53.030 E
Closer CTD N°: 50	Ending time (UTC): 19H17	Position end (°'): 44°53.205 S, 06°54.204 E
Station N°: 41	Bottom depth (m):	
	Total lenght of cable out (m): 2100+ 7 + 100 m	

GF#17 (L4A, TM's) 30-2050 m

Station N°: L4A	Date start (UTC): 08/03/03	Date end (UTC): 08/03/03
GO-FLO N°: GF17	Starting time (UTC): 04H08	Position start (°'): 46°01.378 S, 05°51.639 E
Closer CTD N°: 57	Ending time (UTC): 07H10	Position end (°'): 46°00.850 S, 05°52.650 E
Station N°: 44	Bottom depth (m): 4100	
	Total lenght of cable out (m): 2050+ 7 + 80 m	

GF#18 (S3, Cd-isot.) 20-100 m

Station N°: S3	Date start (UTC): 08/03/04	Date end (UTC): 08/03/04
GO-FLO N°: GF18	Starting time (UTC): 13H59	Position start (°'): 47°33.267 S, 04°22.621 E
Closer CTD N°: 62	Ending time (UTC): 14H44	Position end (°'): 47°33.264 S, 04°22.622 E
Station N°: 48	Bottom depth (m):	
	Total lenght of cable out (m): 90 + 7 + 50 m	

GF#19: TEI's GEOTRACES INTERCALIBRATION (trace metals, GO-FLO cast)

THIRD SUPER STATION		
Station number: GF19		
Cast number: S3-GF19		
Date start (UTC): 04	Time start (UTC): 19H10	Position start (°'): 47°33.1658 S/ 04°22.3625 E
Date end (UTC): 04/	Time end (UTC): 22H50	Position end (°'): 47°33.160 S/ 04°22.3703 E
Closer CTD number: 63		

LOG-BOOK of the GO-FLO casts (completed by M. Boye).

Station N°: 48
with microcat

GF#20 (S3, TM's & Cd/Fe-isot.) 1070-4000 m

Station N°: S3	Date start (UTC): 08/03/05	Date end (UTC): 08/03/05
GO-FLO N°: GF20	Starting time (UTC): 07H07	Position start (°'): 47°33.156 S, 04°22.332 E
Closer CTD N°: 63	Ending time (UTC): 10H50	Position end (°'): 47°33.15 S, 04°22.330 E
Station N°: 48	Bottom depth (m):	
	Total lenght of cable out (m): 4007 + 50 m	

GF#21 (S3, TM's & Cd-isot.) 20-800 m

Station N°: S3	Date start (UTC): 08/03/05	Date end (UTC): 08/03/05
GO-FLO N°: GF21	Starting time (UTC): 14H40	Position start (°'): 47°33.0655 S, 04°22.226 E
Closer CTD N°: 64	Ending time (UTC): 16H01	Position end (°'): 47°33.1809 S, 04°22.388 E
Station N°: 48	Bottom depth (m):	
	Total lenght of cable out (m): 807+ 50 m	

GF#22 (S3, Inc. Géraldine/Eva) 30-60 m

Station N°: S3	Date start (UTC): 08/03/05	Date end (UTC): 08/03/05
GO-FLO N°: GF22	Starting time (UTC): 18H07	Position start (°'): 47°33.293 S, 04°22.543 E
Closer CTD N°: 65	Ending time (UTC): 19H01	Position end (°'): 47°33.261 S, 04°22.141 E
Station N°: 48	Bottom depth (m):	
	Total lenght of cable out (m):	

GF#23 (S3, Inc. Bron/Marie) 40-60 m

Station N°: S3	Date start (UTC): 08/03/06	Date end (UTC): 08/03/06
GO-FLO N°: GF23	Starting time (UTC): 03H45	Position start (°'): 47°33.36 S, 04°22.60 E
Closer CTD N°: 65	Ending time (UTC): 04H15	Position end (°'): 47°33.37 S, 04°22.60 E
Station N°: 48	Bottom depth (m):	
	Total lenght of cable out (m):	

GF#24 (S3, Inc. Bron/Marie + Fe-isot.) 25-1068 m

Station N°: S3	Date start (UTC): 08/03/06	Date end (UTC): 08/03/06
GO-FLO N°: GF24	Starting time (UTC): 06H00	Position start (°'): 47°33.32 S, 04°22.96 E
Closer CTD N°: 66	Ending time (UTC): 07H27	Position end (°'): 47°33.21 S, 04°23.14 E
Station N°: 48	Bottom depth (m):	
	Total lenght of cable out (m):	

GF#25 (L5B, TM's) 40-2200 m

Station N°: L5B	Date start (UTC): 08/03/07	Date end (UTC): 08/03/07
GO-FLO N°: GF25	Starting time (UTC): 14H53	Position start (°'): 49°01.69 S, 02°49.926 E
Closer CTD N°: 70	Ending time (UTC): 17H55	Position end (°'): 49°01.69 S, 02°49.93 E
Station N°: 52	Bottom depth (m):	
	Total lenght of cable out (m):	

GF#26 (L6A, TM's) 30-2100 m

Station N°: L6A	Date start (UTC): 08/03/09	Date end (UTC): 08/03/09
GO-FLO N°: GF26	Starting time (UTC): 02H50	Position start (°'): 50°22.55 S, 01°19.535 E
Closer CTD N°: 77	Ending time (UTC): 05H12	Position end (°'): 50°22.61 S, 01°19.971 E
Station N°: 57	Bottom depth (m):	
	Total lenght of cable out (m):	

GF#27 (S4, Inc. Pedro + Cd-isot.) 10-250 m

Station N°: S4	Date start (UTC): 08/03/10	Date end (UTC): 08/03/10
GO-FLO N°: GF27	Starting time (UTC): 07H03	Position start (°'): 51°51.24 S, 00°00.09 E
Closer CTD N°: 83	Ending time (UTC): 08H10	Position end (°'): 51°51.297 S, 00°00.38 E
Station N°: 62	Bottom depth (m):	
	Total lenght of cable out (m):	

GF#28 (S4, TM's + Cd-isot.) 30-450 m

Station N°: S4	Date start (UTC): 08/03/10	Date end (UTC): 08/03/10
GO-FLO N°: GF28	Starting time (UTC): 11H15	Position start (°'): 51°51.082 S, 00°00.307 E
Closer CTD N°: 84	Ending time (UTC): 13H06	Position end (°'): 51°51.241 S, 00°00.478 E
Station N°: 62	Bottom depth (m): 2400	
	Total lenght of cable out (m):	

GF#29 (S4, Inc. Géraldine/Eva) 30-60 m

Station N°: S4	Date start (UTC): 08/03/11	Date end (UTC): 08/03/11
GO-FLO N°: GF29	Starting time (UTC): 00H05	Position start (°'): 51°51.890 S, 00°00.140 E
Closer CTD N°: 85	Ending time (UTC): 01H15	Position end (°'): 51°51.899 S, 00°00.095 E
Station N°: 62	Bottom depth (m):	

LOG-BOOK of the GO-FLO casts (completed by M. Boye).

Total lenght of cable out (m):

GF#30 (S4, Inc. Bron/Marie) 40-60 m

Station N°: S4	Date start (UTC): 08/03/11	Date end (UTC): 08/03/11
GO-FLO N°: GF30	Starting time (UTC): 03H15	Position start (°'): 51°52.19 S, 00°00.26 E
Closer CTD N°: 86	Ending time (UTC): 04H18	Position end (°'): 51°52.44 S, 00°00.48 E
Station N°: 62	Bottom depth (m):	
	Total lenght of cable out (m): 191 m	

GF#31 (S4, TM's & Cd/Fe-isot.) 500-2500 m

Station N°: S4	Date start (UTC): 08/03/11	Date end (UTC): 08/03/11
GO-FLO N°: GF31	Starting time (UTC): 06H20	Position start (°'): 51°52.70 S, 00°00.32 E
Closer CTD N°: 87	Ending time (UTC): 09H04	Position end (°'): 51°52.91 S, 00°00.23 E
Station N°: 62	Bottom depth (m): 2550 m	
	Total lenght of cable out (m):	

GF#32 (S4, Fe-isot.) 50-1117 m

Station N°: S4	Date start (UTC): 08/03/11	Date end (UTC): 08/03/11
GO-FLO N°: GF32	Starting time (UTC): 16H20	Position start (°'): 51°53.28 S, 00°00.30 E
Closer CTD N°: 87	Ending time (UTC): 18H00	Position end (°'): 51°53.12 S, 00°00.22 E
Station N°: 62	Bottom depth (m): 2550 m	
	Total lenght of cable out (m):	

GF#33 (L7B, TM's) 30-2100 m

Station N°: L7B	Date start (UTC): 08/03/13	Date end (UTC): 08/03/13
GO-FLO N°: GF33	Starting time (UTC): 21H08	Position start (°'): 55°14.070 S, 00°02.2143 E
Closer CTD N°: 98	Ending time (UTC): 23H50	Position end (°'): 55°13.940 S, 00°02.6618 E
Station N°: 72	Bottom depth (m): 2800	
	Total lenght of cable out (m):	

GF#34 (S5, TM's & Cd/Fe-isot.) 800-3850 m

Station N°: S5	Date start (UTC): 08/03/15	Date end (UTC): 08/03/15
GO-FLO N°: GF34	Starting time (UTC): 20H30	Position start (°'): 57°33.15 S, 00°02.19 W
Closer CTD N°: 106	Ending time (UTC): 23H20	Position end (°'): 57°33.15 S, 00°02.19 W
Station N°: 78	Bottom depth (m): 3950	
	Total lenght of cable out (m): 3857 + 50 m	

GF#35 (S5, Inc. Pedro & Cd-isot.) 10-300 m

Station N°: S5	Date start (UTC): 08/03/16	Date end (UTC): 08/03/16
GO-FLO N°: GF35	Starting time (UTC): 03H40	Position start (°'): 57°33.13 S, 00°02.19 W
Closer CTD N°: 107	Ending time (UTC): 04H30	Position end (°'): 57°33.139 S, 00°02.1906 W
Station N°: 78	Bottom depth (m): 3932	
	Total lenght of cable out (m): 307 + 50 m	

GF#36 (S5, TM's & Cd-isot.) 30-750 m

Station N°: S5	Date start (UTC): 08/03/16	Date end (UTC): 08/03/16
GO-FLO N°: GF36	Starting time (UTC): 15H43	Position start (°'): 57°33.1401 S, 00°02.1910 W
Closer CTD N°: 108	Ending time (UTC): 17H20	Position end (°'): 57°33.154 S, 00°02.193 W
Station N°: 78	Bottom depth (m): 3950	
	Total lenght of cable out (m): 757 + 50 m	

GF#37 (S5, Fe-isot.) 25-2100 m

Station N°: S5	Date start (UTC): 08/03/16	Date end (UTC): 08/03/16
GO-FLO N°: GF37	Starting time (UTC): 19H20	Position start (°'): 57°33.143 S, 00°02.193 W
Closer CTD N°: 109	Ending time (UTC): 21H34	Position end (°'): 57°33.140 S, 00°02.190 W
Station N°: 78	Bottom depth (m): 3950	
	Total lenght of cable out (m):	

GF#38 (S5, Large Volumes Sampling) Fluo. Max.

Station N°: S5	Date start (UTC): 08/03/17	Date end (UTC): 08/03/17
GO-FLO N°: GF38	Starting time (UTC): 08H02	Position start (°'): 57°33.040 S, 00°03.048 W
Closer CTD N°: 110	Ending time (UTC): 08H50	Position end (°'): 57°33.040 S, 00°03.049 W
Station N°: 78	Bottom depth (m):	
	Total lenght of cable out (m):	

Go-Flo

– Sampling –

Responsible : *Marie BOYE*
File made by : *Marie BOYE*

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#1 (L1A, TM's) 0-2100m

Station N°: L1A
GO-FLO N°: GF1
Closer CTD N°: 11
Station N°: 11

Date (UTC): 08/02/17
Starting time (UTC): 09H3 Position start (°'): 34°25.553 S, 14°24.358 E
Ending time (UTC): 13H10 Position end (°'): 34°25.606 S, 14°24.526 E
Bottom depth (m):
Total lenght of cable out (m): 2157 m

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TH2O2	TM (ICPMS: 250 ml)	TFe (FIA)	DFeII	DH2O2	DFe	OrgaCo (250 ml)	DZn/Co/Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	Soluble Fe	NO3	S	micro cat	COMMENTS
10	20	X	X	X	X	X	X	X	X	X	X	X	X		N°205	X	
9	40	X	X	X	X	X	X	X	X	X	X	X	X			X	
8	60	X	X	X	X	X	X	X	X	X	X	X	X		N°204	X	max fluo
7	80	X	X	X	X	X	X	X	X	X	X	X	X			X	
6	200	X	X	X	X	X	X	X	X	X	X	X	X	X	N°203	X	Small leakage (before connecting N2)
5	700	X	X	X	X	X	X	X	X	X	X	X	X	X	N°202	X	at 750 m/min S)
4	800	X	X	X	X	X	X	X	X	X	X	X	X			X	AAIW
3	1000	X	X	X	X	X	X	X	X	X	X	X	X			X	UCDW
2	1200	X	X	X	X	X	X	X	X	X	X	X	X	X	N°201	X	at 1100 m/min O2)
1	2100	X	X	X	X	X	X	X	X	X	X	X	X			X	upper of NADW

Messenger sent at 11H12 UTC
Start cast up at 11H29 UTC
First bottle on deck at 11H32
New messenger sent at 11H45
Start 2nd cast up at 12H05
2nd bottle on the deck at 12H12
Last bottle on the deck at 13H10
Note a : glissement du cable lors de la 2eme descente d'environ 10 m.
Note b: microcat attached at 55 m below the deeper bottle

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#2 (S1, TM's & Cd-isot.) 0-850 m

Station N°: S1
GO-FLO N°: GF2
Closer CTD N°: 19
Station N°: 18

Date start (UTC): 08/02/19 **Date end (UTC): 08/02/20**
Starting time (UTC): 22H57 **Position start (°'): 36°31.00 S, 13°07.00 E**
Ending time (UTC): 01H20 **Position end (°'): 36°30.00 S, 13°06.00 E**
Bottom depth (m): 4920
Total lenght of cable out (m): 957

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TH2O2	TM (ICPMS: 250 ml)	TAl (125 ml PMP bottles)	TFe (FIA)		DFeII	DH2O2	DFe	OrgaCo (250 ml)	DZn/Co/Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	DAl (125 ml PMP)	Cd-isotopes (700/850m = 1L)	Soluble Fe	NO3	S	microcat	COMMENTS
10	850	X	X	X		X		X	X	X	X	X	X	X		X	X	X	X	X	
9	700	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	center of AAIW (S min/T min/O2max)
8	500	X	X	X		X		X	X	X	X	X	X	X			X	X	X	X	
7	300	X	X	X	X	X		X	X	X	X	X	X	X	X			X	X	X	subtropical waters
6	200	X	X	X		X		X	X	X	X	X	X	X			X	X	X	X	subtropical waters
5	100	X	X	X	X	X		X	X	X	X	X	X	X	X			X	X	X	cup leak + crash cable
4	70	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	maxO2/minT/minS
3	40	X	X	X	X	X		X	X	X	X	X	X	X	X			X	X	X	max chl
2	30	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	subtropical waters
1	20	X	X	X	X	X		X	X	X	X	X	X	X	X			X	X	X	back leakage

Note: microcat attached at 55 m below the deeper bottle

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#3 (S1, TM's & Cd-isot.) 1000-4000 m

Station N°: S1
GO-FLO N°: GF3
Closer CTD N°: 21
Station N°: 18

Date start (UTC): 08/02/20 **Date end (UTC): 08/02/20**
Starting time (UTC): 16H37 **Position start (°'): 36°31.35 S, 13°07.18 E**
Ending time (UTC): 21H31 **Position end (°'): 36°28.00 S, 13°05.00 E**
Bottom depth (m): 4920
Total lenght of cable out (m): 4107 + 50 m

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TM (ICPMS: 250 ml)	TAl (125 ml PMP bottles)	TFe (FIA)		DFe	OrgaCo (250 ml)	DZn/Co/Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	DAl (125 ml PMP)	Cd-isotopes (2800/1300/4000m = 1L)	Soluble Fe	NO3	S	Pinger	COMMENTS
10	1000	X	X	X	X		X	X	X	X	X	X		X	X	X	X	bottom of AAIW (?)
9	1200	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	UCDW (min O2)
8	1400	X	X	X	X		X	X	X	X	X	X		X	X	X	X	
7	1600	X	X		X		X	X	X	X	X			X	X	X	X	
6	2000	X	X	X	X		X	X	X	X	X	X		X	X	X	X	
4	2700	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	NADW (S max)
3	3050	X	X	X	X		X	X	X	X	X	X		X	X	X	X	
2	3500	X	X		X		X	X	X	X	X			X	X	X	X	
5	3800	X	X		X		X	X	X	X	X			X	X	X	X	contamination due to previous cast bottle cable crash (?)
1	4000	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	AABW

WARNING: PINGER (instead of microcat)

messenger sent at 19H30 UTC
change of puleys (troncanage) in wood at 19H29 UTC
start remontée cable at 19H54 UTC

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#4 (S1, Inc. Géraldine/Eva) 30-50 m

Station N°: S1
GO-FLO N°: GF4
Closer CTD N°: 21
Station N°: 18

Date start (UTC): 08/02/21 **Date end (UTC): 08/02/21**
Starting time (UTC): 06H08 **Position start (°'): 36°31.021 S, 13°07.448 E**
Ending time (UTC): 06H53 **Position end (°'): 36°30.403 S, 13°07.133 E**
Bottom depth (m): 4920
Total lenght of cable out (m):

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Go-Flo #	Depth (m)
1	50
2	40
3	30
4	50
6	40
7	30
8	50
9	40
10	30

All Go-Flo bottles were mixed and unfiltered samples were used for incubations

	Person in charge	CTD	Go-Flo	Bottle	depth	%light	Nitrate	Silicate	Phosphate	Chla	POC/ PON	BSi	Cytometry	Taxonomy	TDFe	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org
incub Fe-Cu-pore-waters	Sarthou-Bucciarelli		4	1-10	30-50	50	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#4 (S1, Inc. Géraldine/Eva) 30-50 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S1**
T (°C) =	**22**

Additions in the incubations

	+ Fe	+ Cu	+ NO3-	+ PO4-	+ Si(OH)4+	Pore waters
S1	1 nM	0.5 nM	100 µM	0.6 µM	10 µM	200 µl
S2	1 nM	0.5 nM	32 µM	2 µM	30 µM	-
S3	1 nM	0.5 nM	16 µM	1 µM	20 µM	-
S4	1 nM and 2 nM (2 x Fe)	0.5 nM	-	-	-	-

T0 **21/02/2008**

Treatment	Time	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	14:30	10 ml	10 ml	125 ml	500 ml	500 ml	500 ml	1 ml	250 ml	60 ml
Control - B	14:30	x	x	x	500 ml	500 ml	500 ml	1 ml	x	60 ml

T0 **21/02/2008**

Treatment	Time	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	Comments
Control - A	14:30	60 ml	60 ml	60 ml	60 ml	125 ml	x	
Control - B	14:30	60 ml	60 ml	60 ml	60 ml	125 ml	x	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#4 (S1, Inc. Géraldine/Eva) 30-50 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S1**
T (°C) =	**22**

T1	**21/02/2008**	**23/02/2008**	2,19									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	10:14	12:45	2,10	10 ml	10 ml	x	500 ml	500 ml	500 ml	1 ml	x	60 ml
Control - B	10:14	12:45	2,10	10 ml	10 ml	x	500 ml	450 ml	300 ml	1 ml	x	60 ml
+ Fe - A	10:24	14:25	2,17	10 ml	10 ml	x	500 ml	500 ml	300 ml	1 ml	x	60 ml
+ Fe - B	10:24	14:25	2,17	10 ml	10 ml	x	500 ml	500 ml	300 ml	1 ml	x	60 ml
+ Fe + SN - A	10:43	15:46	2,21	10 ml	10 ml	x	500 ml	500 ml	300 ml	1 ml	x	60 ml
+ Fe + SN - B	10:43	15:46	2,21	10 ml	10 ml	x	500 ml	500 ml	300 ml	1 ml	x	60 ml
+ Fe + Cu + SN - A	11:26	16:45	2,22	10 ml	10 ml	x	500 ml	500 ml	300 ml	1 ml	x	60 ml
+ Fe + Cu + SN - B	11:26	16:45	2,22	10 ml	10 ml	x	500 ml	500 ml	300 ml	1 ml	x	60 ml
+ Pore waters - A	11:26	17:35	2,26	10 ml	10 ml	x	500 ml	500 ml	300 ml	1 ml	x	60 ml
+ Pore waters - B	11:26	17:35	2,26	10 ml	10 ml	x	500 ml	500 ml	300 ml	1 ml	x	60 ml

T1	**21/02/2008**	**23/02/2008**	2,19							
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	Comments
Control - A	10:14	12:45	2,10	60 ml	60 ml	60 ml	60 ml	125 ml	x	BSi pb de fuite
Control - B	10:14	12:45	2,10	60 ml	60 ml	60 ml	60 ml	125 ml	x	
+ Fe - A	10:24	14:25	2,17	60 ml	60 ml	60 ml	60 ml	125 ml	x	
+ Fe - B	10:24	14:25	2,17	60 ml	60 ml	60 ml	60 ml	125 ml	x	
+ Fe + SN - A	10:43	15:46	2,21	60 ml	60 ml	60 ml	60 ml	125 ml	x	
+ Fe + SN - B	10:43	15:46	2,21	60 ml	60 ml	60 ml	60 ml	125 ml	x	
+ Fe + Cu + SN - A	11:26	16:45	2,22	60 ml	60 ml	60 ml	60 ml	125 ml	x	
+ Fe + Cu + SN - B	11:26	16:45	2,22	60 ml	60 ml	60 ml	60 ml	125 ml	x	
+ Pore waters - A	11:26	17:35	2,26	60 ml	60 ml	60 ml	60 ml	125 ml	x	
+ Pore waters - B	11:26	17:35	2,26	60 ml	60 ml	60 ml	60 ml	125 ml	x	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#4 (S1, Inc. Géraldine/Eva) 30-50 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S1**
T (°C) =	**22**

T2	**21/02/2008**	**25/02/2008**	4,16									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	10:14	12:20	4,09	10 ml	10 ml	125 ml	500 ml	300 ml	250 ml	1 ml	250 ml	60 ml
Control - B	10:14	12:20	4,09	10 ml	10 ml	125 ml	500 ml	130 ml	210 ml	1 ml	250 ml	60 ml
+ Fe - A	10:24	13:40	4,14	10 ml	10 ml	125 ml	500 ml	200 ml	235 ml	1 ml	250 ml	60 ml
+ Fe - B	10:24	13:40	4,14	10 ml	10 ml	125 ml	500 ml	300 ml	315 ml	1 ml	250 ml	60 ml
+ Fe + SN - A	10:43	14:50	4,17	10 ml	10 ml	125 ml	500 ml	300 ml	300 ml	1 ml	250 ml	60 ml
+ Fe + SN - B	10:43	14:50	4,17	10 ml	10 ml	125 ml	500 ml	290 ml	300 ml	1 ml	250 ml	60 ml
+ Fe + Cu + SN - A	11:26	15:37	4,17	10 ml	10 ml	125 ml	500 ml	250 ml	250 ml	1 ml	250 ml	60 ml
+ Fe + Cu + SN - B	11:26	15:37	4,17	10 ml	10 ml	125 ml	500 ml	250 ml	200 ml	1 ml	250 ml	60 ml
+ Pore waters - A	11:26	17:00	4,23	10 ml	10 ml	125 ml	500 ml	250 ml	346 ml	1 ml	250 ml	60 ml
+ Pore waters - B	11:26	17:00	4,23	10 ml	10 ml	125 ml	500 ml	250 ml	290 ml	1 ml	250 ml	60 ml

T2	**21/02/2008**	**25/02/2008**	4,16							
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	Comments
Control - A	10:14	12:20	4,09	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	
Control - B	10:14	12:20	4,09	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	
+ Fe - A	10:24	13:40	4,14	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	
+ Fe - B	10:24	13:40	4,14	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	
+ Fe + SN - A	10:43	14:50	4,17	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	
+ Fe + SN - B	10:43	14:50	4,17	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	
+ Fe + Cu + SN - A	11:26	15:37	4,17	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	
+ Fe + Cu + SN - B	11:26	15:37	4,17	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	
+ Pore waters - A	11:26	17:00	4,23	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	
+ Pore waters - B	11:26	17:00	4,23	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#4 (S1, Inc. Géraldine/Eva) 30-50 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S1**
T (°C) =	**22**

T3	**21/02/2008**	**26/02/2008**	5,25									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	10:14	15:15	5,21	10 ml	10 ml	125 ml	400 ml	300 ml	300 ml	1 ml	250 ml	60 ml
Control - B	10:14	15:15	5,21	10 ml	10 ml	125 ml	500 ml	300 ml	300 ml	1 ml	250 ml	60 ml
+ Fe - A	10:24	16:00	5,23	10 ml	10 ml	125 ml	500 ml	220 ml	300 ml	1 ml	250 ml	60 ml
+ Fe - B	10:24	16:00	5,23	10 ml	10 ml	125 ml	500 ml	300 ml	345 ml	1 ml	250 ml	60 ml
+ Pore waters - A	11:26	16:40	5,22	10 ml	10 ml	125 ml	500 ml	280 ml	300 ml	1 ml	250 ml	60 ml
+ Pore waters - B	11:26	16:40	5,22	10 ml	10 ml	125 ml	400 ml	283 ml	300 ml	1 ml	250 ml	60 ml
+ Fe + SN - A	10:43	17:40	5,29	10 ml	10 ml	125 ml	400 ml	300 ml	340 ml	1 ml	250 ml	60 ml
+ Fe + SN - B	10:43	17:40	5,29	10 ml	10 ml	125 ml	300 ml	250 ml	250 ml	1 ml	250 ml	60 ml
+ Fe + Cu + SN - A	11:26	18:50	5,31	10 ml	10 ml	125 ml	500 ml	250 ml	200 ml	1 ml	250 ml	60 ml
+ Fe + Cu + SN - B	11:26	18:50	5,31	10 ml	10 ml	125 ml	500 ml	250 ml	200 ml	1 ml	250 ml	60 ml
+ Cu + SN - A	11:26	22:35	5,46	10 ml	10 ml	125 ml	500 ml	250 ml	200 ml	1 ml	250 ml	60 ml
+ Cu + SN - B	11:26	22:35	5,46	10 ml	10 ml	125 ml	500 ml	250 ml	200 ml	1 ml	250 ml	60 ml

T3	**21/02/2008**	**26/02/2008**	5,25								
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	10:14	15:15	5,21	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
Control - B	10:14	15:15	5,21	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe - A	10:24	16:00	5,23	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe - B	10:24	16:00	5,23	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Pore waters - A	11:26	16:40	5,22	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Pore waters - B	11:26	16:40	5,22	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + SN - A	10:43	17:40	5,29	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + SN - B	10:43	17:40	5,29	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - A	11:26	18:50	5,31	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - B	11:26	18:50	5,31	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Cu + SN - A	11:26	22:35	5,46	60 ml (x2)	x	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Cu + SN - B	11:26	22:35	5,46	60 ml	x	60 ml	60 ml	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#5 (S1, Inc. Bron/Marie) 25-45 m

Station N°: S1
GO-FLO N°: GF5
Closer CTD N°: 22
Station N°: 18

Date start (UTC): 08/02/21 **Date end (UTC): 08/02/21**
Starting time (UTC): 09H27 **Position start (°'): 36°29.492 S, 13°06.976 E**
Ending time (UTC): 10H39 **Position end (°'): 36°28.437 S, 13°06.422 E**
Bottom depth (m): 4920
Total lenght of cable out (m): 265 + 50

Cast responsible: Marie Boye & Bronwyn Wake

GO-FLO bottle number	Target depth (m)	Water sampling	microcat+pinger	COMMENTS
10	25	x	x	
9	35	x	x	
8	45	x	x	
7	25	x	x	
6	35	x	x	
4	45	X	X	
3	25	X	X	
2	35	X	X	
1	45	X	X	

bottle#5 attached, but just for cleaning
Krill taken on the bottles (stored in liquid-N2)
avec microcat et pinger
WARNING: 9 bottles at the max fluo

Parameters sampled in the trace metals incubations using Go-Flo (GF5 + GF6)

Station Position S1
GF5 36°29.492 S 13°06.976 E

GF6 36°27.997 S 13°06.246 E

Added concentrations: 2 nM trace metal, 0.63 microM P, 5 microM N

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#5 (S1, Inc. Bron/Marie) 25-45 m

Parameters sampled in the trace metals incubations using Go-Flo (GF5 + GF6)

Addition time and date: 21/02/08

GoFlo #	Bottle	Treatment	Day sampled	ICPMS	TM int cell or	P	N	Si	POC/PON/PIC	Pig/Chl a	Flow	NH4	Urea
		T0	0	200 ml	yes	100 ml	10 ml	With N					
	1	Control	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	960 ml	1 ml	15 ml	15 ml
	2	Control	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	910 ml	1 ml	15 ml	15 ml
	3	Control	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	1000 ml	1 ml	-	-
	4	Control	8	200 ml	yes	100 ml	10 ml	With N	900 ml	850 ml	1 ml	-	-
	5	+Zn	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	900 ml	1 ml	15 ml	15 ml
	6	+Zn	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	930 ml	1 ml	15 ml	15 ml
	7	+Zn	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	960 ml	1 ml	-	-
	8	+Zn	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	970 ml	1 ml	-	-
	9	+Zn	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	860 ml	1 ml	15 ml	15 ml
	10	+Zn	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	900 ml	1 ml	15 ml	15 ml
	11	+Zn	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	1000 ml	1 ml	-	-
	12	+Zn	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	950 ml	1 ml	-	-
	13	+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	870 ml	1 ml	15 ml	15 ml
	14	+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	860 ml	1 ml	15 ml	15 ml
	15	+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	950 ml	1 ml	-	-
	16	+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	940 ml	1 ml	-	-
	17	+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml	15 ml	15 ml
	18	+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	860 ml	1 ml	15 ml	15 ml
	19	+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	970 ml	1 ml	-	-
	20	+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	820 ml	1 ml	-	-
	21	+Fe Bronwyn Wake comments : 4 of these had insufficient N added	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	860 ml	1 ml	15 ml	15 ml
	22	+Fe	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	840 ml	1 ml	15 ml	15 ml
	23	+Fe	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml	-	-
	24	+Fe	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	980 ml	1 ml	-	-
	25	+Fe	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml	15 ml	15 ml
	26	+Fe	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	910 ml	1 ml	15 ml	15 ml
	27	+Fe	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	990 ml	1 ml	-	-
	28	+Fe	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	940 ml	1 ml	-	-
	29	+Zn+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	925 ml	1 ml	15 ml	15 ml
	30	+Zn+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml	15 ml	15 ml

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#5 (S1, Inc. Bron/Marie) 25-45 m

Parameters sampled in the trace metals incubations using Go-Flo (GF5 + GF6)

Addition time and date: 21/02/08

GoFlo #	Bottle	Treatment	Day sampled	ICPMS	TM int cell or	P	N	Si	POC/PON/PIC	Pig/Chl a	Flow	NH4	Urea
	31	+Zn+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	890 ml	1 ml	-	-
	32	+Zn+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	970 ml	1 ml	-	-
	33	+Zn+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	870 ml	1 ml	15 ml	15 ml
	34	+Zn+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	820 ml	1 ml	15 ml	15 ml
	35	+Zn+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	880 ml	1 ml	-	-
	36	+Zn+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	930 ml	1 ml	-	-
	37	+Zn+Fe	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	940 ml	1 ml	15 ml	15 ml
	38	+Zn+Fe	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	860 ml	1 ml	15 ml	15 ml
	39	+Zn+Fe	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	990 ml	1 ml	-	-
	40	+Zn+Fe	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	940 ml	1 ml	-	-
	41	+Zn+Fe	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	940 ml	1 ml	15 ml	15 ml
	42	+Zn+Fe	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	850 ml	1 ml	15 ml	15 ml
	43	+Zn+Fe	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	990 ml	1 ml	-	-
	44	+Zn+Fe	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	990 ml	1 ml	-	-
	45	Control	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	840 ml	1 ml	15 ml	15 ml
	46	Control	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	880 ml	1 ml	15 ml	15 ml
	47	Control	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	930 ml	1 ml	-	-
	48	Control	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	830 ml	1 ml	-	-

NB: acidified with 305 ul of HNO3 All nutrients analysed onboard

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#6 (S1, Inc. Bron/Marie) 35-50 m

Station N°: S1
GO-FLO N°: GF6
Closer CTD N°: 23
Station N°: 18

Date start (UTC): 08/02/21 **Date end (UTC): 08/02/21**
Starting time (UTC): 13H43 **Position start (°'): 36°27.997 S, 13°06.246 E**
Ending time (UTC): 14H26 **Position end (°'): 36°27.497 S, 13°06.048 E**
Bottom depth (m): 4920
Total lenght of cable out (m): 50 + 50

Cast responsible: Marie Boye & Bronwyn Wake

GO-FLO bottle number	Target depth (m)	Water sampling	microcat (+pinger ?)	COMMENTS
4	35	X	X	
3	40	X	X	
2	45	X	X	
1	50	X	X	

WARNING: 4 bottles at the max fluo

Parameters sampled in the trace metals incubations using Go-Flo (GF5 + GF6)

Station	Position	S1
GF5	36°29.492 S	13°06.976 E
GF6	36°27.997 S	13°06.246 E

Added concentrations: 2 nM trace metal, 0.63 n

see GF#5 for parameters

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#7 (S1, Cd-isot.) 30-200 m

Station N°: S1
GO-FLO N°: GF7
Closer CTD N°: 23
Station N°: 18

Date start (UTC): 08/02/21 **Date end (UTC): 08/02/21**
Starting time (UTC): 15H50 **Position start (°'): 36°31.321 S, 13°07.177 E**
Ending time (UTC): 16H29 **Position end (°'): 36°31.00 S, 13°06.00 E**
Bottom depth (m): 4920
Total lenght of cable out (m): 250 m

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	Cd-isotopes (10L/depth)	Cd-isotopes (5L)	Cd-isotopes (1L)	Microcat	COMMENTS
7	30	X			X	
6	35	X			X	
4	50	X			X	Fluoro max
3	55	X			X	
2	90		X		X	
1	200			X	X	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#8 (S1, Fe-isot.) 0-4000 m

Station N°: S1
GO-FLO N°: GF8
Closer CTD N°: 23
Station N°: 18

Date start (UTC): 08/02/22 **Date end (UTC): 08/02/22**
Starting time (UTC): 01H50 **Position start (°'): 36°30.47 S, 13°07.110 E**
Ending time (UTC): 06H01 **Position end (°'): 36°27.800 S, 13°07.337 E**
Bottom depth (m): 4920
Total lenght of cable out (m): 4007 + 50

Operators: François / Amandine / Marie

GO-FLO bottle number	Target depth (m)	TFeisotopes	DFeisotopes	NO3	S	pinger	COMMENTS
10	30	X	X			X	
9	broken					X	broken
8	50	X	X			X	Fluoro max
7	100	X	X			X	
6	200	X	X			X	
5	400	X	X			X	lost of messenger above #5
4	750	X	X			X	AAIW
3	1250	X	X			X	UCDW
2	2750	X	X			X	NADW
1	4000	X	X			X	

WARNING: pinger (instead of microcat)

Comments:
Pas de microcat. Derniere CTD: CTD23
Messager lancé a 4h00 UTC. Remontée debutée a 4h30UTC
La bouteille 9 a volé contre le montant du portique, le robinet a cassé,
on l'a retirée de cette palanquée
on n'a pas récupéré le messager au dessus de la bouteille 5.

BONUS-GOODHOPE

RV Marion-Dufresne

FICHE PRELEVEMENTS GF#9 (L2B, TM's) 15-2100 m

Station N°: L2B

GO-FLO N°: GF9

Closer CTD N°: 37
Station N°: 31

Date start (UTC): 08/02/25 Date end (UTC): 08/02/26

Starting time (UTC): 22H06 Position start (°'): 41°10.71 S, 09°55.01 E

Ending time (UTC): 00H26 Position end (°'): 41°11.28 S, 09°55.28 E
Bottom depth (m):
Total lenght of cable out (m): 2107 + 50 m

just south of STF

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TH2O2	TM (ICPMS: 250 ml)	TFe (FIA)		DFeII	DH2O2	DFe	OrgaCo (250 ml)	DZn/Co/Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	Soluble Fe	NO3	S	micro cat	COMMENTS
10	15	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	remanent thermocline
8	35	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	max fluo
9	45	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	
7	95	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	
6	300	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	#6: air leakage from right side of pressure valve when N2 on.
5	600	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	AAIW (center at 600 m/min S)
4	800	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	AAIW
3	1200	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	LCDW
2	1400	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	LCDW (center at 1400 m/min O2)
1	2100	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	upper of NADW

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#10 (S2, TM's & Cd/Fe-isot.) 1441-3950 m

Station N°: S2
GO-FLO N°: GF10
Closer CTD N°: 41
Station N°: 34

Date start (UTC): 08/02/27 **Date end (UTC): 08/02/27**
Starting time (UTC): 00H23 **Position start (°'): 42°28.19 S, 08°55.718 E**
Ending time (UTC): 04H10 **Position end (°'): 42°88.191 S, 08°55.731 E**
Bottom depth (m): 4060
Total lenght of cable out (m): 3957+ 50 m

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	expected depth (m)	TFeII	TM (ICPMS: 250 ml)	TAl (125 ml PMP bottles)	TFe (FIA)	TFe - isot		DFe	OrgaCo (250 ml)	DZn/Co/Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	DAl (125 ml PMP)	Cd-isotopes (2700/4000m = 1L)	Soluble Fe	DFe - isot	NO3	S	Pinger	COMMENTS
10	1441	1441	X	X	X	X			X	X	X	X	X	X		X		X	X	X	UCDW
9	1764	1764	X	X		X			X	X	X	X	X			X		X	X	X	
8	2156	2156	X	X		X			X	X	X	X	X			X		X	X	X	
7	2548	2548	X	X		X			X	X	X	X	X		X	X		X	X	X	
6	2881	2881					X										X	X	X	X	NADW
5	2891	2891	X	X	X	X			X	X	X	X	X	X		X		X	X	X	NADW
4	3234	3245	X	X		X			X	X	X	X	X			X		X	X	X	aurait glissée (705 au lieu de 716)
3	3626	3636	X	X		X			X	X	X	X	X			X		X	X	X	
2	3940	3950	X	X	X	X			X	X	X	X	X	X	X	X		X	X	X	ABW
1	3950	3960					X										X	X	X	X	ABW

WARNING: PINGER (instead of microcat)

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#11 (S2, TM's & Cd/Fe-isot.) 196-1441 m

Station N°: S2
GO-FLO N°: GF11
Closer CTD N°: 41
Station N°: 34

Date start (UTC): 08/02/27 **Date end (UTC): 08/02/27**
Starting time (UTC): 12H34 **Position start (°'): 42°28.135 S, 08°55.726 E**
Ending time (UTC): 14H20 **Position end (°'): 42°88.127 S, 08°55.73 E**
Bottom depth (m): 4060
Total lenght of cable out (m): 1448+ 50 m

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TH2O2	TM (ICPMS: 250 ml)	TAl (125 ml PMP bottles)	TFe (FIA)	TFe-isot		DFeII	DH2O2	DFe	Orga Co (250 ml)	DZn/Co/Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	DAl (125 ml PMP)	Cd-isotopes 196/598/809/1250m = 1L)	DFe-isot	Soluble Fe	NO3	S	micro cat	COMMENTS
10	196	X	X	X		X				X	X	X	X	X	X		X		X	X	X	X	
9	314	X	X	X	X	X				X	X	X	X	X	X	X			X	X	X	X	
8	392						X											X		X	X	X	
7	461	X	X	X		X				X	X	X	X	X	X					X	X	X	AAIW
6	598	X	X	X	X	X				X	X	X	X	X	X	X	X		X	X	X	X	AAIW
5	608						X											X		X	X	X	AAIW
4	809	X	X	X		X				X	X	X	X	X	X		X		X	X	X	X	
3	1029	X	X	X		X				X	X	X	X	X	X					X	X	X	
2	1250	X	X	X		X				X	X	X	X	X	X		X		X	X	X	X	UCDW
1	1441						X											X		X	X	X	UCDW

BONUS-GOODHOPE

RV Marion-Dufresne

FICHE PRELEVEMENTS GF#12 (S2, TM's & Cd/Fe-isot.) 15-196 m

Station N°: S2
GO-FLO N°: GF12
Closer CTD N°: 42
Station N°: 34

Date start (UTC): 08/02/27 Date end (UTC): 08/02/27
Starting time (UTC): 18H07 Position start (°'): 42°28.21 S, 08°55.854 E
Ending time (UTC): 18H50 Position end (°'): 42°28.354 S, 08°56.149 E
Bottom depth (m): 4060
Total lenght of cable out (m): 207+ 50 m

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TH2O2	TM (ICPMS: 250 ml)	TAl (125 ml PMP bottles	TFe (FIA)	TFe-isot		DFeII	DH2O2	DFe	OrgaCo (250 ml)	DZn/Co/Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	DAl (125 ml PMP)	Cd-isotopes (100m, 5L)	DFe-isot	Soluble Fe	NO3	S	micro cat	COMMENTS
10	15	X	X	X	X	X			X	X	X	X	X	X	X	X			X	X	X	X	remanent thermocline
9	30	X	X	X	X	X			X	X	X	X	X	X	X	X			X	X	X	X	
8	35	X	X	X	X	X			X	X	X	X	X	X	X	X			X	X	X	X	max fluo (37 m)
7	40						X											X		X	X	X	max fluo
6	45						X											X		X	X	X	
5	80	X	X	X	X	X			X	X	X	X	X	X	X	X			X	X	X	X	
4	90						X											X		X	X	X	
3	120	X	X	X	X	X			X	X	X	X	X	X	X	X	X		X	X	X	X	base of MLD
2	125						X											X		X	X	X	base of ML (about 110m)
1	196						X											X		X	X	X	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#13 (S2, Inc. Géraldine/Eva) 30-60 m

Station N°: S2
GO-FLO N°: GF13
Closer CTD N°: 43
Station N°: 34

Date start (UTC): 08/02/27 — **Date end (UTC): 08/02/27**
Starting time (UTC): 21H12 — **Position start (°'): 42°28.133 S, 08°55.850 E**
Ending time (UTC): 22H11 — **Position end (°'): 42°28.111 S, 08°55.975 E**
Bottom depth (m):
Total lenght of cable out (m):

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Go-Flo #	Depth (m)
1	60
2	50
3	40
4	30
5	50
6	40
7	30
8	50
9	40
10	30

All Go-Flo bottles were mixed and unfiltered samples were used for incubations

	Person in charge	CTD	Go-Flo	Bottle	depth	%light	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org
incub Fe-Cu	Sarthou-Bucciarelli		13	1-10	30-60	50	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#13 (S2, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S2**
T (°C) =	**12**

Additions in the incubations

	+ Fe	+ Cu	+ NO3-	+ PO4-	+ Si(OH)4+	Pore waters
S1	1 nM	0.5 nM	100 µM	0.6 µM	10 µM	200 µl
S2	1 nM	0.5 nM	32 µM	2 µM	30 µM	-
S3	1 nM	0.5 nM	16 µM	1 µM	20 µM	-
S4	1 nM and 2 nM (2 x Fe)	0.5 nM	-	-	-	-

T0 **28/02/2008**

Treatment	Time	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	02:50	10 ml	10 ml	125 ml	500 ml	400 ml	380 ml	1 ml	250 ml	60 ml
Control - B	02:50	10 ml	10 ml	125 ml	500 ml	300 ml	320 ml	1 ml	250 ml	60 ml

T0 **28/02/2008**

Treatment	Time	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	02:50	x	x	60 ml	x	125 ml	125 ml	60 ml	
Control - B	02:50	x	x	60 ml	x	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#13 (S2, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S2**
T (°C) =	**12**

T1	**28/02/2008**	**29/02/2008**	1,52									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	01:00	13:45	1,53	10 ml	10 ml	x	700 ml	300 ml	250 ml	1 ml	x	60 ml
Control - B	01:00	13:45	1,53	10 ml	10 ml	x	700 ml	270 ml	250 ml	1 ml	x	60 ml
+ SN - A	02:00	13:55	1,50	10 ml	10 ml	x	700 ml	300 ml	250 ml	1 ml	x	60 ml
+ SN - B	02:00	13:55	1,50	10 ml	10 ml	x	700 ml	300 ml	250 ml	1 ml	x	60 ml
+ Fe + SN - A	02:00	14:15	1,51	10 ml	10 ml	x	700 ml	300 ml	250 ml	1 ml	x	60 ml
+ Fe + SN - B	02:00	14:15	1,51	10 ml	10 ml	x	500 ml	300 ml	250 ml	1 ml	x	60 ml
+ Cu + SN - A	02:00	14:35	1,52	10 ml	10 ml	x	700 ml	250 ml	300 ml	1 ml	x	60 ml
+ Cu + SN - B	02:00	14:35	1,52	10 ml	10 ml	x	750 ml	300 ml	250 ml	1 ml	x	60 ml
+ Fe + Cu + SN - A	02:00	14:55	1,54	10 ml	10 ml	x	700 ml	300 ml	250 ml	1 ml	x	60 ml
+ Fe + Cu + SN - B	02:00	14:55	1,54	10 ml	10 ml	x	900 ml	300 ml	250 ml	1 ml	x	60 ml

T1	**28/02/2008**	**29/02/2008**	1,52								
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	01:00	13:45	1,53	x	x	x	x	125 ml	125 ml	60 ml	
Control - B	01:00	13:45	1,53	x	x	x	x	125 ml	125 ml	60 ml	
+ SN - A	02:00	13:55	1,50	x	x	x	x	125 ml	125 ml	60 ml	
+ SN - B	02:00	13:55	1,50	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe + SN - A	02:00	14:15	1,51	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe + SN - B	02:00	14:15	1,51	x	x	x	x	125 ml	125 ml	60 ml	
+ Cu + SN - A	02:00	14:35	1,52	x	x	x	x	125 ml	125 ml	60 ml	
+ Cu + SN - B	02:00	14:35	1,52	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - A	02:00	14:55	1,54	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - B	02:00	14:55	1,54	x	x	x	x	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#13 (S2, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S2**
T (°C) =	**12**

T2	**28/02/2008**	**02/03/2008**	3,15									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	10:14	12:40	3,10	10 ml	10 ml	125 ml	500 ml	320 ml	250 ml	1 ml	250 ml	60 ml
Control - B	10:14	12:40	3,10	10 ml	10 ml	125 ml	500 ml	400 ml	300 ml	1 ml	250 ml	60 ml
+ SN - A	10:24	14:00	3,15	10 ml	10 ml	125 ml	500 ml	370 ml	300 ml	1 ml	250 ml	60 ml
+ SN - B	10:24	14:00	3,15	10 ml	10 ml	125 ml	500 ml	180 ml	250 ml	1 ml	250 ml	60 ml
+ Fe + SN - A	10:43	14:35	3,16	10 ml	10 ml	125 ml	500 ml	290 ml	300 ml	1 ml	250 ml	60 ml
+ Fe + SN - B	10:43	14:35	3,16	10 ml	10 ml	125 ml	500 ml	172 ml	250 ml	1 ml	250 ml	60 ml
+ Cu + SN - A	11:26	15:21	3,16	10 ml	10 ml	125 ml	500 ml	140 ml	250 ml	1 ml	250 ml	60 ml
+ Cu + SN - B	11:26	15:21	3,16	10 ml	10 ml	125 ml	500 ml	245 ml	250 ml	1 ml	250 ml	60 ml
+ Fe + Cu + SN - A	11:26	16:00	3,19	10 ml	10 ml	125 ml	500 ml	180 ml	250 ml	1 ml	250 ml	60 ml
+ Fe + Cu + SN - B	11:26	16:00	3,19	10 ml	10 ml	125 ml	500 ml	100 ml	250 ml	1 ml	250 ml	60 ml

T2	**28/02/2008**	**02/03/2008**	3,15								
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	10:14	12:40	3,10	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
Control - B	10:14	12:40	3,10	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ SN - A	10:24	14:00	3,15	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ SN - B	10:24	14:00	3,15	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + SN - A	10:43	14:35	3,16	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + SN - B	10:43	14:35	3,16	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Cu + SN - A	11:26	15:21	3,16	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Cu + SN - B	11:26	15:21	3,16	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - A	11:26	16:00	3,19	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - B	11:26	16:00	3,19	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#13 (S2, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S2**
T (°C) =	**12**

T3	**28/02/2008**	**04/03/2008**	5,16									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	10:14	12:55	5,11	10 ml	10 ml	x	700 ml	320 ml	350 ml	1 ml	x	60 ml
Control - B	10:14	12:55	5,11	10 ml	10 ml	x	500 ml	400 ml	350 ml	1 ml	x	60 ml
+ SN - A	10:24	13:45	5,14	10 ml	10 ml	x	700 ml	370 ml	400 ml	1 ml	x	60 ml
+ SN - B	10:24	13:45	5,14	10 ml	10 ml	x	500 ml	180 ml	450 ml	1 ml	x	60 ml
+ Cu + SN - A	11:26	14:50	5,14	10 ml	10 ml	x	650 ml	140 ml	456 ml	1 ml	x	60 ml
+ Cu + SN - B	11:26	14:50	5,14	10 ml	10 ml	x	700 ml	245 ml	400 ml	1 ml	x	60 ml
+ Fe + SN - A	10:43	15:55	5,22	10 ml	10 ml	x	650 ml	290 ml	378 ml	1 ml	x	60 ml
+ Fe + SN - B	10:43	15:55	5,22	10 ml	10 ml	x	700 ml	172 ml	462 ml	1 ml	x	60 ml
+ Fe + Cu + SN - A	11:26	16:20	5,20	10 ml	10 ml	x	700 ml	180 ml	330 ml	1 ml	x	60 ml
+ Fe + Cu + SN - B	11:26	16:20	5,20	10 ml	10 ml	x	700 ml	100 ml	330 ml	1 ml	x	60 ml

T3	**28/02/2008**	**04/03/2008**	5,16								
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	10:14	12:55	5,11	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
Control - B	10:14	12:55	5,11	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ SN - A	10:24	13:45	5,14	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ SN - B	10:24	13:45	5,14	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Cu + SN - A	11:26	14:50	5,14	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Cu + SN - B	11:26	14:50	5,14	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + SN - A	10:43	15:55	5,22	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + SN - B	10:43	15:55	5,22	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - A	11:26	16:20	5,20	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - B	11:26	16:20	5,20	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#13 (S2, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S2**
T (°C) =	**12**

T4	**28/02/2008**	**06/03/2008**	7,18									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	10:14	13:30	7,14	10 ml	10 ml	125 ml	500 ml	330 ml	350 ml	1 ml	250 ml	60 ml
Control - B	10:14	13:30	7,14	10 ml	10 ml	125 ml	500 ml	310 ml	300 ml	1 ml	250 ml	60 ml
+ SN - A	10:24	14:20	7,16	10 ml	10 ml	125 ml	500 ml	250 ml	300 ml	1 ml	250 ml	60 ml
+ SN - B	10:24	14:20	7,16	10 ml	10 ml	125 ml	500 ml	300 ml	350 ml	1 ml	250 ml	60 ml
+ Cu + SN - A	11:26	15:15	7,16	10 ml	10 ml	125 ml	500 ml	310 ml	300 ml	1 ml	250 ml	60 ml
+ Cu + SN - B	11:26	15:15	7,16	10 ml	10 ml	125 ml	500 ml	300 ml	310 ml	1 ml	250 ml	60 ml
+ Fe + SN - A	10:43	15:50	7,21	10 ml	10 ml	125 ml	500 ml	305 ml	300 ml	1 ml	250 ml	60 ml
+ Fe + SN - B	10:43	15:50	7,21	10 ml	10 ml	125 ml	500 ml	300 ml	330 ml	1 ml	250 ml	60 ml
+ Fe + Cu + SN - A	11:26	16:30	7,21	10 ml	10 ml	125 ml	500 ml	400 ml	300 ml	1 ml	250 ml	60 ml
+ Fe + Cu + SN - B	11:26	16:30	7,21	10 ml	10 ml	125 ml	500 ml	300 ml	275 ml	1 ml	250 ml	60 ml

T4	**28/02/2008**	**06/03/2008**	7,18								
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	10:14	13:30	7,14	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
Control - B	10:14	13:30	7,14	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ SN - A	10:24	14:20	7,16	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ SN - B	10:24	14:20	7,16	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Cu + SN - A	11:26	15:15	7,16	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Cu + SN - B	11:26	15:15	7,16	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + SN - A	10:43	15:50	7,21	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + SN - B	10:43	15:50	7,21	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - A	11:26	16:30	7,21	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - B	11:26	16:30	7,21	60 ml	60 ml	60 ml	60 ml	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#14 (S2, Inc. Bron/Marie) 25-45 m

Station N°: S2
GO-FLO N°: GF14
Closer CTD N°: 44
Station N°: 34

Date start (UTC): 08/02/28 **Date end (UTC): 08/02/28**
Starting time (UTC): 07H50 **Position start (°'): 42°28.111 S, 08°55.975 E**
Ending time (UTC): 08H26 **Position end (°'): 42°28.12 S, 08°55.970 E**
Bottom depth (m):
Total lenght of cable out (m):

Cast responsible: Marie Boye & Bronwyn Wake

GO-FLO bottle number	Target depth (m)	Water sampling	microcat	COMMENTS
1	27	x		
2	32	x	x	
3	37	x	x	
4	42	x	x	
5	30	x	x	
6	37	x	x	
7	44	X	X	
8	30	X	X	
9	37	X	X	
10	44	X	X	

Parameters sampled in the trace metals incubations using Go-Flo (GF14 + GF15)

Station	Position
GF14	42°28.111 S 08°55.975 E
GF15	42°28.11 S 08°56.05 E

Added concentrations: 2 nM trace metal, 0.63 micr

Addition time and dat 28/02/08

GoFlo #	Bottle	Treatment	Day sampled	ICPMS	TM int cell or Bsi	P	N	Si	POC/PON/PIC	Pig/Chl a	Flow	Comments
		T0	0	200 ml	yes	100 ml	10 ml	With N	1190 ml	1180 ml	1 ml	
	1	Control	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	900 ml	1 ml	
	2	Control	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	880 ml	1 ml	
	3	Control	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	900 ml	1 ml	
	4	Control	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	880 ml	1 ml	
	5	+Zn	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	880 ml	1 ml	
	6	+Zn	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	900 ml	1 ml	
	7	+Zn	6	200 ml	yes	100 ml	10 ml	With N	780 ml	800 ml	1 ml	
	8	+Zn	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	880 ml	1 ml	
	9	+Zn	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml	
	10	+Zn	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	840 ml	1 ml	
	11	+Zn	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	950 ml	1 ml	
	12	+Zn	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	900 ml	1 ml	
	13	+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	910 ml	1 ml	
	14	+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	830 ml	1 ml	
	15	+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	870 ml	1 ml	
	16	+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	770 ml	1 ml	
	17	+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	750 ml	1 ml	
	18	+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	890 ml	1 ml	
	19	+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	910 ml	1 ml	
	20	+Co	8	200 ml	yes	100 ml	10 ml	With N	800 ml	820 ml	1 ml	
	21	+Cd	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml	
	22	+Cd	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	880 ml	1 ml	
	23	+Cd	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	940 ml	1 ml	
	24	+Cd	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	930 ml	1 ml	
	25	+Cd	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	760 ml	1 ml	
	26	+Cd	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	830 ml	1 ml	
	27	+Cd	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	880 ml	1 ml	
	28	+Cd	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	780 ml Bronwyn Wake Comment: maybe 20 ml spilt	1 ml	
	29	+Zn+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	850 ml	1 ml	
	30	+Zn+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	900 ml	1 ml	
	31	+Zn+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	890 ml	1 ml	
	32	+Zn+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml Bronwyn Wake Comment : maybe 40 ml spilt	860 ml	1 ml	
	33	+Zn+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	860 ml	1 ml	

Addition time and dat 28/02/08

GoFlo #	Bottle	Treatment	Day sampled	ICPMS	TM int cell or Bsi	P	N	Si	POC/PON/PIC	Pig/Chl a	Flow	Comments
	34	+Zn+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	900 ml Bronwyn Wake Comment: guesstimate….	1 ml	
	35	+Zn+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	760 ml	1 ml	
	36	+Zn+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	750 ml	1 ml	
	37	+Co+Cd	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	810 ml	1 ml	
	38	+Co+Cd	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	830 ml	1 ml	
	39	+Co+Cd	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	820 ml	1 ml	
	40	+Co+Cd	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	890 ml	1 ml	
	41	+Co+Cd	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	730 ml	1 ml	
	42	+Co+Cd	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	800 ml	1 ml	
	43	+Co+Cd	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	850 ml	1 ml	
	44	+Co+Cd	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	840 ml	1 ml	
	45	Control	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	830 ml	1 ml	
	46	Control	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	800 ml	1 ml	
	47	Control	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	900 ml	1 ml	
	48	Control	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	870 ml	1 ml	

NB: acidified with 305 ul of HNO3 All nutrients analysed onboard

BONUS-GOODHOPE

RV Marion-Dufresne

FICHE PRELEVEMENTS GF#15 (S2, Inc. Bron/Marie & Pedro + Cd/Fe-isot.) 25-55 m

Station N°: S2
GO-FLO N°: GF15
Closer CTD N°: 45
Station N°: 34

Date start (UTC): 08/02/28 **Date end (UTC): 08/02/28**
Starting time (UTC): 09H30 **Position start (°'): 42°28.111 S, 08°56.05 E**
Ending time (UTC): 09H50 **Position end (°'): 42°28.110 S, 08°56.05 E**
Bottom depth (m):
Total lenght of cable out (m):

Cast responsible: Marie Boye, Bronwyn Wake, François Lacan

GO-FLO bottle number	Target depth (m)	Water sampling	DCd-isot (2x10 L/depth)	T&DFe-isotopes	microcat	COMMENTS
10	55		X		X	
9	50		X		X	
8	45		X		X	
7	40		X		X	
6	35			X	X	
5	30			X	X	
4	42	X			X	
3	37	X			X	
2	32	X			X	
1	27	X			X	

WARNING: 4 bottles at the max fluo (50 m)

Parameters sampled in the trace metals incubations Bron/Marie using Go-Flo (GF14 + GF15)

Station Position	S2
GF14	42°28.111 S 08°55.975 E
GF15	42°28.11 S 08°56.05 E

Added concentrations: 2 nM trace metal, 0.63 microM P, 10 microM N

see GF#14 for parameters

BONUS-GOODHOPE

RV Marion-Dufresne

FICHE PRELEVEMENTS GF#15 (S2, Inc. Bron/Marie & Pedro + Cd/Fe-isot.) 25-55 m

Parameters sampled in the trace metals & 15N incubations Pedro using Go-Flo (GF15)

Added concentrations: 2 nM Fe, ?? 15N

Treatment	Day sampled	ICPMS	15N	Flow
	0	200 ml		1 ml
	1	200 ml		1 ml
	2	200 ml		1 ml
	3	200 ml		1 ml
	4	200 ml		1 ml
	5	200 ml		1 ml
	6	200 ml		1 ml

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#16 (L3B, TM's) 30-2100 m

Station N°: L3B
GO-FLO N°: GF16
Closer CTD N°: 50
Station N°: 41

Date start (UTC): 08/03/01 **Date end (UTC): 08/03/01**
Starting time (UTC): 16H22 **Position start (°'): 44°53.900 S, 06°53.030 E**
Ending time (UTC): 19H17 **Position end (°'): 44°53.205 S, 06°54.204 E**
Bottom depth (m):
Total lenght of cable out (m): 2100+ 7 + 100 m

at the SAF (northern frontier)

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TH2O2	TM (ICPMS: 250 ml)	TFe (FIA)	DFeII	DH2O2	DFe	OrgaCo (250 ml)	DZn /Co/ Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	Soluble Fe	NO3	S	microcat	COMMENTS	COMMENTS
10	30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	max fluo	clamp cassé à la remontée
9	50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	max fluo	robinet arraché à la remontée sur le pont
8	100	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	subantarctic surface waters	
7	150	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	subantarctic surface waters	
6	270	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	min O2	
5	400	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	AAIW (center at 400 m/min S)	
4	600	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	AAIW	
3	1200	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	UCDW	
2	1400	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	UCDW (center at 1400 m/min O2)	
1	2100	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	upper of NADW and LCDW	

new weight (100 kg)

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#17 (L4A, TM's) 30-2050 m

Station N°: L4A
GO-FLO N°: GF17
Closer CTD N°: 57
Station N°: 44

Date start (UTC): 08/03/03 Date end (UTC): 08/03/03
Starting time (UTC): 04I Position start (°'): 46°01.378 S, 05°51.639 E
Ending time (UTC): 07H Position end (°'): 46°00.850 S, 05°52.650 E
Bottom depth (m): 4100
Total lenght of cable out (m): 2050+ 7 + 80 m

at the SAF (southern frontier)

ZONE DE FORMATION DE L'AAIW
(dans les 80/300m de prof)

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TH2O2	TM (ICPMS: 250 ml)	TFe (FIA)		DFeII	DH2O2	DFe	Orga Co (250 ml)	DZn/ Co/ Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	Soluble Fe	NO3	S	microcat	COMMENTS	
10	30	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	max fluo	
5	60	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	max fluo	
8	100	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	AAIW	
7	150	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	AAIW	
6	270	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	AAIW	
9	400	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		new tape
4	800	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		
3	1300	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	UCDW	not closed, so down-cast again and then messenger again
2	1600	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	UCDW (center at 1300 m/min O2)	
1	2050	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	min S	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#18 (S3, Cd-isot.) 20-100 m

Station N°: S3
GO-FLO N°: GF18
Closer CTD N°: 62
Station N°: 48

Date start (UTC): 08/03/04 **Date end (UTC): 08/0**
Starting time (UTC): 13H59 **Position start (°'): 47°33.267 S, 04°**
Ending time (UTC): 14H44 **Position end (°'): 47°33.264 S, 04°2**
Bottom depth (m):
Total lenght of cable out (m): 90 + 7 + 50 m

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	Cd-isotopes (20L/depth)	Cd-isotopes (5L)	Microcat	COMMENTS
5	20	X		X	max fluo
4	25	X		X	max fluo
3	55	X		X	max fluo
2	60	X		X	max fluo
1	90		X	X	MLD

TEI's GEOTRACES INTERCALIBRATION (trace metals, GO-FLO cast)

BONUS-GOODHOPE (*Marion Dufresne II*)

THIRD SUPER STATION
Station number: GF19
Cast number: S3-GF19
Date start (UTC): Time start (UTC): Position start (°'): 47°33.1658 S/ 04°22.3625 E
Date end (UTC): (Time end (UTC): 2 Position end (°'): 47°33.160 S/ 04°22.3703 E
Closer CTD number: 63
Station N°: 48
with microcat

Cast leader: Marie Boye [marie.boye@univ-brest.fr]
Sampling: Johann Bown [johann.bown@univ-brest.fr] & Marie Boye [marie.boye@univ-brest.fr]

TEI's GEOTRACES INTERCALIBRATION (trace metals, GO-FLO cast)

BONUS-GOODHOPE (*Marion Dufresne II*)

Position start (°'): 47°33.1658 S/ 04°22.3625 E
Position end (°'): 47°33.160 S/ 04°22.3703 E

THIRD SUPER STATION **Cast number: S3-GF19** **Date start (UTC): 04/03/08** **Time start (UTC): 19H10**
Station number: GF19 **Closer CTD number: 63** **Date end (UTC): 04/03/08** **Time end (UTC): 22H50**

		Marie Boye for													
		Patrick Laan	Marie Boye	Johann Bown	Bronwyn Wake	Fanny Chever	For Rémi Losno	For Peter Croot	For Loes Gerringa	Johann Bown	For Loes Gerringa	Annick Masson &	Volfango Ruppolo	IFREMER	
		Intercal.	**Library**	**Zn/Co/ Cd**	**trace metals**	**Fe**	**trace metals**	**Al**	**Zn/Co/ Cd/Fe**	**Zn/Co/ Cd-orga**	**Zn/Co/ Cd/Fe-orga**	Frederic Le Moigne		[Michel Arhan]	
		filtered	filtered	filtered	filtered	filtered	filtered	filtered	filtered	filtered	filtered				
GO-FLO bottle number	**Target depth (m)**	**Intercal. conc.**	**Library LEMAR**	**Zn/Co/Cd (voltam.)**	**Trace metals (ICPMS)**	**Fe (FIA-chem.)**	**Trace metals (ICPAES)**	**Al (FIA-chem)**	**Zn/Co/Cd/ Fe**	**OrgaZn/Co /Cd**	**OrgaZn/Co/Cd**	**NO3/Si**	**S**	**microcat**	**COMMENTS**
10	50	X	X	X	X	X	X	X	X	X	X	X	X	X	
9	200	X	X	X	X	X	X	X	X	X	X	X	X	X	
8	400	X	X	X	X	X	X	X	X			X	X	X	
7	750	X	X	X	X	X	X	X	X			X	X	X	
6	1000	X	X	X	X	X	X	X	X	X	X	X	X	X	
5	1750 (NADW/S min)	X	X	X	X	X		X	X			X	X	X	liniking, prb of cartridge (1 for the 5L, and then new one for the rest used after sampling #1-4)
4	2000	X	X	X	X	X	X	X	X	X	X	X	X	X	
3	2500	X	X	X	X	X	X	X	X			X	X	X	
2	3000	X	X	X	X	X	X	X	X			X	X	X	
1	3500	X	X	X	X	X	X	X	X	X	X	X	X	X	
	Volume per depth (ml)	2500	2500	250	250	60	120	125	250	1000	1000	125	100		**8280**
	Storage	HCl ultra. 30%, pH 1.8	HCl ultra. 30%, pH 1.8	HCl ultra. 30%, pH 1.8	HNO3 ultra.	HCl	HCl (seastar)	HCl ultra. 30%, pH 1.8	HCl ultra. 30%, pH 1.8	frozen	frozen	analysed on board	analysed on board		

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#20 (S3, TM's & Cd/Fe-isot.) 1070-4000 m

Station N°: S3
GO-FLO N°: GF20
Closer CTD N°: 63
Station N°: 48

Date start (UTC): 08/03/05 **Date end (UTC): 08/03/05**
Starting time (UTC): 07H07 **Position start (°'): 47°33.156 S, 04°22.332 E**
Ending time (UTC): 10H50 **Position end (°'): 47°33.15 S, 04°22.330 E**
Bottom depth (m):
Total lenght of cable out (m): 4007 + 50 m

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TM (ICPMS: 250 ml)	TAl (125 ml PMP bottles)	TFe (FIA)	TFe-isot		DFe	OrgaCo (250 ml)	DZn/Co/Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	DAl (125 ml PMP)	Cd-isotopes (1070/2020/3980 = 1L)	Soluble Fe	DFe-isot	NO3	S	COMMENTS
10	1070	X	X	X	X			X	X	X	X	X	X	x	X		X	X	
9	1500	X	X		X			X	X	X	X	X			X		X	X	
8	2000					X										X	x	x	
7	2006					X										X	X	X	
6	2020	X	X	X	X			X	X	X	X	X	X	x	X		X	X	
5	2500	X	X		X			X	X	X	X	X			X		X	X	
4	3000	X	X	X	X			X	X	X	X	X	X		X		X	X	
3	3500	X	X		X			X	X	X	X	X			X		X	X	
2	3980	X	X	X	X			X	X	X	X	X	X	x	X		X	X	
1	4000					X										X	X	X	

without microcat!!!!!

BONUS-GOODHOPE

RV Marion-Dufresne

FICHE PRELEVEMENTS GF#21 (S3, TM's & Cd-isot.) 20-800 m

Station N°: S3
GO-FLO N°: GF21
Closer CTD N°: 64
Station N°: 48

Date start (UTC): 08/03/05 Date end (UTC): 08/03/05
Starting time (UTC): 14H4 Position start (°'): 47°33.0655 S, 04°22.226 E
Ending time (UTC): 16H01 Position end (°'): 47°33.1809 S, 04°22.388 E
Bottom depth (m):
Total lenght of cable out (m): 807+ 50 m

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TH2O2	TM (ICPMS: 250 ml)	TAl (125 ml PMP bottles)	TFe (FIA)		DFeII	DH2O2	DFe	Orga Co (250 ml)	DZn/ Co /Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	DAl (125 ml PMP)	Cd-isotopes 4 depths below MLD x 1L)	Soluble Fe	NO3	S	micro cat	COMMENTS
10	20	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	
9	30	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	
8	40	X	X	X	X	X		X	X	X	X	X	X	X	X			X	X	X	
7	70	X	X	X	X	X		X	X	X	X	X	X	X	X			X	X	X	
6	100	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	
5	200	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	
4	300	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	
3	450	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	
2	600	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	
1	800	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#22 (S3, Inc. Géraldine/Eva) 30-60 m

Station N°: S3
GO-FLO N°: GF22
Closer CTD N°: 65
Station N°: 48

Date start (UTC): 08/03/0 Date end (UTC): 08/03/05
Starting time (UTC Position start (°'): 47°33.293 S, 04°22.543 E
Ending time (UTC): Position end (°'): 47°33.261 S, 04°22.141 E
Bottom depth (m):
Total lenght of cable out (m):

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Go-Flo #	Depth (m)
9	60
2	50
3	40
4	30
5	50
6	40
7	30
8	50
1	40
10	30

All Go-Flo bottles were mixed and unfiltered samples were used for incubations

	Person in charge	CTD	Go-Flo	Bottle	depth	%light	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org
incub Fe-Cu	Sarthou-Bucciarelli		22	1-10	30-60	50	x	x	x	x	x	x	x	x	x	x	x	x		x	x

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#22 (S3, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S3**
T (°C) =	**8**

Additions in the incubations

	+ Fe	+ Cu	+ NO3-	+ PO4-	+ Si(OH)4+	Pore waters
S1	1 nM	0.5 nM	100 µM	0.6 µM	10 µM	200 µl
S2	1 nM	0.5 nM	32 µM	2 µM	30 µM	-
S3	1 nM	0.5 nM	16 µM	1 µM	20 µM	-
S4	1 nM and 2 nM (2 x Fe)	0.5 nM	-	-	-	-

T0 **06/03/2008**

Treatment	Time	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	01:00	10 ml	10 ml	125 ml	500 ml	400 ml	380 ml	1 ml	250 ml	60 ml
Control - B	01:00	10 ml	10 ml	125 ml	500 ml	300 ml	320 ml	1 ml	250 ml	60 ml

T0 **06/03/2008**

Treatment	Time	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	01:00	x	x	60 ml	x	125 ml	125 ml	60 ml	
Control - B	01:00	x	x	60 ml	x	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#22 (S3, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S3**
T (°C) =	**8**

T1	**05/03/2008**	**08/03/2008**	2,66									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	22:20	13:40	2,64	10 ml	10 ml	x	800 ml	410 ml	400 ml	1 ml	x	60 ml
Control - B	22:20	13:40	2,64	10 ml	10 ml	x	700 ml	390 ml	400 ml	1 ml	x	60 ml
+ SN - A	23:00	14:00	2,63	10 ml	10 ml	x	800 ml	450 ml	400 ml	1 ml	x	60 ml
+ SN - B	23:00	14:00	2,63	10 ml	10 ml	x	700 ml	470 ml	400 ml	1 ml	x	60 ml
+ Cu + SN - A	23:30	15:05	2,65	10 ml	10 ml	x	700 ml	450 ml	450 ml	1 ml	x	60 ml
+ Cu + SN - B	23:30	15:05	2,65	10 ml	10 ml	x	800 ml	400 ml	410 ml	1 ml	x	60 ml
+ Fe + SN - A	00:00	16:30	2,69	10 ml	10 ml	x	800 ml	450 ml	450 ml	1 ml	x	60 ml
+ Fe + SN - B	00:00	16:30	2,69	10 ml	10 ml	x	700 ml	435 ml	435 ml	1 ml	x	60 ml
+ Fe + Cu + SN - A	00:30	17:10	2,69	10 ml	10 ml	x	800 ml	465 ml	450 ml	1 ml	x	60 ml
+ Fe + Cu + SN - B	00:30	17:10	2,69	10 ml	10 ml	x	700 ml	435 ml	400 ml	1 ml	x	60 ml

T1	**05/03/2008**	**08/03/2008**	2,66								
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	22:20	13:40	2,64	x	x	x	x	125 ml	125 ml	60 ml	
Control - B	22:20	13:40	2,64	x	x	x	x	125 ml	125 ml	60 ml	
+ SN - A	23:00	14:00	2,63	x	x	x	x	125 ml	125 ml	60 ml	
+ SN - B	23:00	14:00	2,63	x	x	x	x	125 ml	125 ml	60 ml	
+ Cu + SN - A	23:30	15:05	2,65	x	x	x	x	125 ml	125 ml	60 ml	
+ Cu + SN - B	23:30	15:05	2,65	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe + SN - A	00:00	16:30	2,69	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe + SN - B	00:00	16:30	2,69	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - A	00:30	17:10	2,69	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - B	00:30	17:10	2,69	x	x	x	x	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#22 (S3, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S3**
T (°C) =	**8**

T2	**05/03/2008**	**12/03/2008**	6,63									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	22:20	12:40	6,60	10 ml	10 ml	100 ml	400	250	289	1 ml	250 ml	60 ml
Control - B	22:20	12:40	6,60	10 ml	10 ml	100 ml	500	290	300	1 ml	250 ml	60 ml
+ SN - A	23:00	14:00	6,63	10 ml	10 ml	100 ml	400	310	310	1 ml	250 ml	60 ml
+ SN - B	23:00	14:00	6,63	10 ml	10 ml	100 ml	400	350	300	1 ml	250 ml	60 ml
+ Cu + SN - A	23:30	14:35	6,63	10 ml	10 ml	100 ml	600	300	300	1 ml	250 ml	60 ml
+ Cu + SN - B	23:30	14:35	6,63	10 ml	10 ml	100 ml	600	300	360	1 ml	250 ml	60 ml
+ Fe + SN - A	00:00	15:21	6,64	10 ml	10 ml	100 ml	600	320	310	1 ml	250 ml	60 ml
+ Fe + SN - B	00:00	15:21	6,64	10 ml	10 ml	100 ml	500	250	284	1 ml	250 ml	60 ml
+ Fe + Cu + SN - A	00:30	16:00	6,65	10 ml	10 ml	100 ml	500	275	300	1 ml	250 ml	60 ml
+ Fe + Cu + SN - B	00:30	16:00	6,65	10 ml	10 ml	100 ml	600	275	300	1 ml	250 ml	60 ml

T2	**05/03/2008**	**12/03/2008**	6,63								
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	22:20	12:40	6,60	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
Control - B	22:20	12:40	6,60	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ SN - A	23:00	14:00	6,63	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ SN - B	23:00	14:00	6,63	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Cu + SN - A	23:30	14:35	6,63	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Cu + SN - B	23:30	14:35	6,63	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe + SN - A	00:00	15:21	6,64	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe + SN - B	00:00	15:21	6,64	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - A	00:30	16:00	6,65	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - B	00:30	16:00	6,65	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#22 (S3, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S3**
T (°C) =	**8**

T3	**05/03/2008**	**15/03/2008**	9,64									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	22:20	12:55	9,61	10 ml	10 ml	x	400	250	289	1 ml	x	60 ml
Control - B	22:20	12:55	9,61	10 ml	10 ml	x	500	290	300	1 ml	x	60 ml
+ SN - A	23:00	13:45	9,61	10 ml	10 ml	x	400	310	310	1 ml	x	60 ml
+ SN - B	23:00	13:45	9,61	10 ml	10 ml	x	400	350	300	1 ml	x	60 ml
+ Cu + SN - A	23:30	14:50	9,64	10 ml	10 ml	x	600	300	300	1 ml	x	60 ml
+ Cu + SN - B	23:30	14:50	9,64	10 ml	10 ml	x	600	300	360	1 ml	x	60 ml
+ Fe + SN - A	00:00	15:55	9,66	10 ml	10 ml	x	600	320	310	1 ml	x	60 ml
+ Fe + SN - B	00:00	15:55	9,66	10 ml	10 ml	x	500	250	284	1 ml	x	60 ml
+ Fe + Cu + SN - A	00:30	16:20	9,66	10 ml	10 ml	x	500	275	300	1 ml	x	60 ml
+ Fe + Cu + SN - B	00:30	16:20	9,66	10 ml	10 ml	x	600	275	300	1 ml	x	60 ml

T3	**05/03/2008**	**15/03/2008**	9,64								
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	22:20	12:55	9,61	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
Control - B	22:20	12:55	9,61	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ SN - A	23:00	13:45	9,61	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ SN - B	23:00	13:45	9,61	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Cu + SN - A	23:30	14:50	9,64	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Cu + SN - B	23:30	14:50	9,64	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe + SN - A	00:00	15:55	9,66	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe + SN - B	00:00	15:55	9,66	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - A	00:30	16:20	9,66	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - B	00:30	16:20	9,66	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#22 (S3, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S3**
T (°C) =	**8**

T4	**05/03/2008**	**18/03/2008**	12,72									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	22:20	15:35	12,72	10 ml	10 ml	100 ml	500	250	300	1 ml	250 ml	60 ml
Control - B	22:20	15:35	12,72	10 ml	10 ml	100 ml	500	250	250	1 ml	250 ml	60 ml
+ SN - A	23:00	16:10	12,72	10 ml	10 ml	100 ml	500	250	250	1 ml	250 ml	60 ml
+ SN - B	23:00	16:10	12,72	10 ml	10 ml	100 ml	500	250	250	1 ml	250 ml	60 ml
+ Cu + SN - A	23:30	16:40	12,72	10 ml	10 ml	100 ml	500	350	342	1 ml	250 ml	60 ml
+ Cu + SN - B	23:30	16:40	12,72	10 ml	10 ml	100 ml	500	390	350	1 ml	250 ml	60 ml
+ Fe + SN - A	00:00	17:15	12,72	10 ml	10 ml	100 ml	500	250	250	1 ml	250 ml	60 ml
+ Fe + SN - B	00:00	17:15	12,72	10 ml	10 ml	100 ml	500	250	250	1 ml	250 ml	60 ml
+ Fe + Cu + SN - A	00:30	17:45	12,72	10 ml	10 ml	100 ml	500	250	250	1 ml	250 ml	60 ml
+ Fe + Cu + SN - B	00:30	17:45	12,72	10 ml	10 ml	100 ml	500	250	250	1 ml	250 ml	60 ml

T4	**05/03/2008**	**18/03/2008**	12,72								
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	22:20	15:35	12,72	x	x	x	x	125 ml	125 ml	60 ml	
Control - B	22:20	15:35	12,72	x	x	x	x	125 ml	125 ml	60 ml	
+ SN - A	23:00	16:10	12,72	x	x	x	x	125 ml	125 ml	60 ml	
+ SN - B	23:00	16:10	12,72	x	x	x	x	125 ml	125 ml	60 ml	
+ Cu + SN - A	23:30	16:40	12,72	x	x	x	x	125 ml	125 ml	60 ml	
+ Cu + SN - B	23:30	16:40	12,72	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe + SN - A	00:00	17:15	12,72	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe + SN - B	00:00	17:15	12,72	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - A	00:30	17:45	12,72	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe + Cu + SN - B	00:30	17:45	12,72	x	x	x	x	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#23 (S3, Inc. Bron/Marie) 40-60 m

Station N°: S3
GO-FLO N°: GF23
Closer CTD N°: 65
Station N°: 48

Date start (UTC): 08/03/06 **Date end (UTC): 08/03/06**
Starting time (UTC): 03H45 **Position start (°'): 47°33.36 S, 04°22.60 E**
Ending time (UTC): 04H15 **Position end (°'): 47°33.37 S, 04°22.60 E**
Bottom depth (m):
Total lenght of cable out (m):

Cast responsible: Marie Boye & Bronwyn Wake

GO-FLO bottle number	Target depth (m)	Water sampling	microcat	COMMENTS
1	40	x		
2	45	x		
3	50	x		
4	55	x		
5	40	x		
6	47	x		
7	54	X		
8	40	X		
9	47	X		
10	54	X		

MAX FLUO BETWEEN SURFACE AND ABOUT 80 M

Parameters sampled in the trace metals incubations using Go-Flo (GF23 + GF24)

Station	Position	S3
GF23	**47°33.36 S 04°22.60 E**	
GF24	**47°33.32 S 04°22.96 E**	

Added concentrations: 2 nM trace metal, no nutrients addition

Addition time and date: 06/03/08

FICHE PRELEVEMENTS GF#23 (S3, Inc. Bron/Marie) 40-60 m

Parameters sampled in the trace metals incubations using Go-Flo (GF23 + GF24)

Station	Position	S3
GF23	47°33.36 S	04°22.60 E
GF24	47°33.32 S	04°22.96 E

Added concentrations: 2 nM trace metal, no nutrients addition

Addition time and date: 06/03/08

GoFlo #	Bottle	Treatment Bronwyn Wake comments : No nutrient additions	Day sampled	ICPMS	TM int cell or Bsi	P	N	Si	POC/PON/PIC	Pig/Chl a	Flow
		T0	0	200 ml	yes	100 ml	10 ml	With N	1000 ml		1 ml
	1	Control	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml
	2	Control	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	930 ml	1 ml
	3	Control	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	860 ml	1 ml
	4	Control	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	940 ml	1 ml
	5	+Zn	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml
	6	+Zn	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	870 ml	1 ml
	7	+Zn	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	860 ml	1 ml
	8	+Zn	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	960 ml	1 ml
	9	+Zn	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	870 ml	1 ml
	10	+Zn	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	860 ml	1 ml
	11	+Zn	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	900 ml	1 ml
	12	+Zn	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	930 ml	1 ml
	13	+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	910 ml	1 ml
	14	+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	870 ml	1 ml
	15	+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	940 ml	1 ml
	16	+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	940 ml	1 ml
	17	+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml
	18	+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	870 ml	1 ml
	19	+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	890 ml	1 ml
	20	+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	930 ml	1 ml

FICHE PRELEVEMENTS GF#23 (S3, Inc. Bron/Marie) 40-60 m

Parameters sampled in the trace metals incubations using Go-Flo (GF23 + GF24)

Station Position	S3
GF23	47°33.36 S 04°22.60 E
GF24	47°33.32 S 04°22.96 E

Added concentrations: 2 nM trace metal, no nutrients addition

Addition time and date: 06/03/08

GoFlo #	Bottle	Treatment Bronwyn Wake comments : No nutrient additions	Day sampled	ICPMS	TM int cell or Bsi	P	N	Si	POC/PON/PIC	Pig/Chl a	Flow
	21	+Fe	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	950 ml Bronwyn Wake comment: minus ~40 ml spilt	1 ml
	22	+Fe	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	890 ml	1 ml
	23	+Fe	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	850 ml	1 ml
	24	+Fe	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	930 ml	1 ml
	25	+Fe	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	900 ml	1 ml
	26	+Fe	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	? Bronwyn Wake comment: not recorded, thought to be slightly more than average	1 ml
	27	+Fe	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	850 ml	1 ml
	28	+Fe	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	940 ml	1 ml
	29	+Zn+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	950 ml	1 ml
	30	+Zn+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml

FICHE PRELEVEMENTS GF#23 (S3, Inc. Bron/Marie) 40-60 m

Parameters sampled in the trace metals incubations using Go-Flo (GF23 + GF24)

Station	Position	S3
GF23	47°33.36 S	04°22.60 E
GF24	47°33.32 S	04°22.96 E

Added concentrations: 2 nM trace metal, no nutrients addition

Addition time and date: 06/03/08

GoFlo #	Bottle	Treatment Bronwyn Wake comments : No nutrient additions	Day sampled	ICPMS	TM int cell or Bsi	P	N	Si	POC/PON/PIC	Pig/Chl a	Flow
	31	+Zn+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml
	32	+Zn+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	910 ml	1 ml
	33	+Zn+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	930 ml	1 ml
	34	+Zn+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	830 ml	1 ml
	35	+Zn+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	910 ml	1 ml
	36	+Zn+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	880 ml	1 ml
	37	+Zn+Fe	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	930 ml	1 ml
	38	+Zn+Fe	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	870 ml	1 ml
	39	+Zn+Fe	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	880 ml	1 ml
	40	+Zn+Fe	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	950 ml	1 ml
	41	+Zn+Fe	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml
	42	+Zn+Fe	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml
	43	+Zn+Fe	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	880 ml	1 ml
	44	+Zn+Fe	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	940 ml	1 ml
	45	Control	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	not recorded	1 ml
	46	Control	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	830 ml	1 ml
	47	Control	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	860 ml	1 ml
	48	Control	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	960 ml	1 ml

NB: acidified with 305 ul of HNO_3 Day 2 - Nutrients analysed onboard

BONUS-GOODHOPE

RV Marion-Dufresne

FICHE PRELEVEMENTS GF#24 (S3, Inc. Bron/Marie + Fe-isot.) 25-1068 m

Station N°: S3
GO-FLO N°: GF24
Closer CTD N°: 66
Station N°: 48

Date start (UTC): 08/03/06 **Date end (UTC): 08/03/06**
Starting time (UTC): 06H00 **Position start (°'): 47°33.32 S, 04°22.96 E**
Ending time (UTC): 07H27 **Position end (°'): 47°33.21 S, 04°23.14 E**
Bottom depth (m):
Total lenght of cable out (m):

Cast responsible: Marie Boye, Bronwyn Wake, François Lacan

GO-FLO bottle number	Target depth (m)	Water sampling	T&DFe-isotopes	NO3	S	microcat	COMMENTS
10	25		X	X	X	X	
9	30		X	X	X	X	
8	50		X	X	X	X	
7	55		X	X	X	X	
6	60	X				X	
5	99		X	X	X	X	
4	149		X	X	X	X	
3	248		X	X	X	X	
2	495		X	X	X	X	
1	1068		X	X	X	X	

WARNING: 1 bottle at the max fluo

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#25 (L5B, TM's) 40-2200 m

Station N°: L5B
GO-FLO N°: GF25
Closer CTD N°: 70
Station N°: 52

Date start (UTC): 08/03/07 **Date end (UTC): 08/03/07**
Starting time (UTC): 14H53 **Position start (°'): 49°01.69 S, 02°49.926 E**
Ending time (UTC): 17H55 **Position end (°'): 49°01.69 S, 02°49.93 E**
Bottom depth (m):
Total lenght of cable out (m):

north of the PF

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TH2O2	TM (ICPMS: 250 ml)	TFe (FIA)		DFeII	DH2O2	DFe	Orga Co (250 ml)	DZn/ Co/ Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	Soluble Fe	NO3	S	microcat	COMMENTS
10	40	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	max fluo (deep MLD of 110 m)
8	80	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	max fluo
7	150	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	antarctic winter waters
6	170	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	antarctic winter waters
5	250	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	
4	350	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	
9	700	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	UCDW (center at 1000 m/min O2)
3	1000	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	UCDW
2	1600	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	UCDW (center at 1000 m/min O2)
1	2200	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#26 (L6A, TM's) 30-2100 m

Station N°: L6A
GO-FLO N°: GF26
Closer CTD N°: 77
Station N°: 57

Date start (UTC): 08/03/09 **Date end (UTC): 08/03/09**
Starting time (UTC): 02H50 **Position start (°'): 50°22.55 S, 01°19.535 E**
Ending time (UTC): 05H12 **Position end (°'): 50°22.61 S, 01°19.971 E**
Bottom depth (m):
Total lenght of cable out (m):

in the PF

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TH2O2	TM (ICPMS: 250 ml)	TFe (FIA)		DFeII	DH2O2	DFe	OrgaCo (250 ml)	DZn/ Co/ Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	Soluble Fe	NO3	S	microcat	COMMENTS
10	30	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	max fluo (deep MLD of 80 m)
8	60	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	max fluo
7	100	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	antarctic winter waters
6	135	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	antarctic winter waters
5	180	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	base of the antarctic winter waters
4	300	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	
9	600	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	UCDW (center at 600 m/min O2)
3	850	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	UCDW
2	1600	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	
1	2100	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#27 (S4, Inc. Pedro + Cd-isot.) 10-250 m

Station N°: S4
GO-FLO N°: GF27
Closer CTD N°: 83
Station N°: 62

Date start (UTC): 08/03/10 **Date end (UTC): 08/03/10**
Starting time (UTC): 07H03 **Position start (°'): 51°51.24 S, 00°00.09 E**
Ending time (UTC): 08H10 **Position end (°'): 51°51.297 S, 00°00.38 E**
Bottom depth (m):
Total lenght of cable out (m):

just a bit south of the PF

Cast responsible: Marie Boye, Bronwyn Wake

GO-FLO bottle number	Target depth (m)	Cd-isotopes (20L/depth)	Cd-isotopes (5L)	Cd-isotopes (1L)	Pedro incub.	salinity	nuts	microcat	COMMENTS	
10	10				X			X	max fluo	bouteille non fermée (redescente à 257 m pour 2eme fermeture)
9	25				X			X	max fluo	
5	30	X						X	max fluo	
8	35	X				X	X	X	max fluo (deep MLD of 125 m)	
7	50	X				X	X	X	max fluo	
6	55	X				X	X	X	max fluo (deep MLD of 125 m)	
4	125				X			X	MLD	
3	140		X			X	X	X	antarctic winter waters	
2	170							X	antarctic winter waters	bouchon cassé sur la coque
1	250			X		X	X	X		bouteille non fermée (redescente à 257 m)

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#27 (S4, Inc. Pedro + Cd-isot.) 10-250 m

Parameters sampled in the trace metals & 15N incubations Pedro using Go-Flo (GF27)

Added concentrations: 2 nM Fe, ?? 15N

Treatment	Day sampled	ICPMS	15N	Flow
	0	200 ml		1 ml
	1	200 ml		1 ml
	2	200 ml		1 ml
	3	200 ml		1 ml
	4	200 ml		1 ml
	5	200 ml		1 ml
	6	200 ml		1 ml

BONUS-GOODHOPE

RV Marion-Dufresne

FICHE PRELEVEMENTS GF#28 (S4, TM's + Cd-isot.) 30-450 m

Station N°: S4
GO-FLO N°: GF28
Closer CTD N°: 84
Station N°: 62

Date start (UTC): 08/03/10 **Date end (UTC): 08/03/10**
Starting time (UTC): 11H15 **Position start (°'): 51°51.082 S, 00°00.307 E**
Ending time (UTC): 13H06 **Position end (°'): 51°51.241 S, 00°00.478 E**
Bottom depth (m): 2400
Total lenght of cable out (m):

just a bit south of the PF

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TM (ICPMS: 250 ml)	TAl (125 ml PMP bottles)	TFe (FIA)		DFe	OrgaCo (250 ml)	DZn/ Co/ Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	DAl (125 ml PMP)	Cd-isotopes (1L)	Soluble Fe	NO3	S	micro cat	COMMENTS
10	30	X	X	X	X		X	X	X	X	X	X		X	X	X		max fluo
9	60	X	X		X		X	X	X	X	X			X	X	X		max fluo
8	130	X	X	X	X		X	X	X	X	X	X		X	x	x		antarctic winter waters
7	160	X	X	X	X		X	X	X	X	X	X		X	X	X		antarctic winter waters
6	180	X	X	X	X		X	X	X	X	X	X	x	X	X	X		base of the antarctic winter waters
5	250	X	X		X		X	X	X	X	X			X	X	X		
4	300	X	X	X	X		X	X	X	X	X	X		X	X	X		
3	350	X	X		X		X	X	X	X	X			X	X	X		
1	400	X	X	X	X		X	X	X	X	X	X	x	X	X	X		
2	450																	bottle rincing

with microcat!!!!!

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#29 (S4, Inc. Géraldine/Eva) 30-60 m

Station N°: S4
GO-FLO N°: GF29
Closer CTD N°: 85
Station N°: 62

Date start (UTC): 08/03/11 **Date end (UTC): 08/03/11**
Starting time (UTC): 00H05 **Position start (°'): 51°51.890 S, 00°00.140 E**
Ending time (UTC): 01H15 **Position end (°'): 51°51.899 S, 00°00.095 E**
Bottom depth (m):
Total lenght of cable out (m):

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

Go-Flo #	Depth (m)
2	60
1	50
3	40
4	30
5	50
6	40
7	30
8	50
9	40
10	30

All Go-Flo bottles were mixed and unfiltered samples were used for incubations

	Person in charge	CTD	Go-Flo	Bottle	depth	%light	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org
incub Fe-Cu	Sarthou-Bucciarelli		29	1-10	30-60	50	x	x	x	x	x	x	x	x	x	x	x	x		x	x

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#29 (S4, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S4**
T (°C) =	**2**

Additions in the incubations

	+ Fe	+ Cu	+ NO3-	+ PO4-	+ Si(OH)4+	Pore waters
S1	1 nM	0.5 nM	100 µM	0.6 µM	10 µM	200 µl
S2	1 nM	0.5 nM	32 µM	2 µM	30 µM	-
S3	1 nM	0.5 nM	16 µM	1 µM	20 µM	-
S4	1 nM and 2 nM (2 x Fe)	0.5 nM	-	-	-	-

T0 **11/03/2008**

Treatment	Time	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	05:45	10 ml	10 ml	125 ml	700	400	390	1 ml	250 ml	60 ml
Control - B	05:45	10 ml	10 ml	125 ml	700	410	400	1 ml	250 ml	60 ml

T0 **11/03/2008**

Treatment	Time	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	05:45	x	x	60 ml	x	125 ml	125 ml	60 ml	
Control - B	05:45	x	x	60 ml	x	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#29 (S4, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S4**
T (°C) =	**2**

T1	**11/03/2008**	**13/03/2008**	2,43									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	05:00	13:55	2,37	10 ml	10 ml	x	700	360	350	1 ml	x	60 ml
Control - B	05:00	13:55	2,37	10 ml	10 ml	x	700	400	420	1 ml	x	60 ml
+ Cu - A	05:10	14:50	2,40	10 ml	10 ml	x	700	350	350	1 ml	x	60 ml
+ Cu - B	05:10	14:50	2,40	10 ml	10 ml	x	750	420	400	1 ml	x	60 ml
+ Fe - A	05:20	15:30	2,42	10 ml	10 ml	x	700	430	400	1 ml	x	60 ml
+ Fe - B	05:20	15:30	2,42	10 ml	10 ml	x	700	380	400	1 ml	x	60 ml
+ Fe + Cu - A	05:30	16:30	2,46	10 ml	10 ml	x	700	385	400	1 ml	x	60 ml
+ Fe + Cu - B	05:30	16:30	2,46	10 ml	10 ml	x	700	460	450	1 ml	x	60 ml
+ 2 x Fe - A	05:40	17:05	2,48	10 ml	10 ml	x	700	410	400	1 ml	x	60 ml
+ 2 x Fe - B	05:40	17:05	2,48	10 ml	10 ml	x	700	440	440	1 ml	x	60 ml

T1	**11/03/2008**	**13/03/2008**	2,43								
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	05:00	13:55	2,37	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
Control - B	05:00	13:55	2,37	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Cu - A	05:10	14:50	2,40	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Cu - B	05:10	14:50	2,40	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe - A	05:20	15:30	2,42	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe - B	05:20	15:30	2,42	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe + Cu - A	05:30	16:30	2,46	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe + Cu - B	05:30	16:30	2,46	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ 2 x Fe - A	05:40	17:05	2,48	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ 2 x Fe - B	05:40	17:05	2,48	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#29 (S4, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S4**
T (°C) =	**2**

T2	**11/03/2008**	**17/03/2008**	6,39									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	05:00	13:30	6,35	10 ml	10 ml	100 ml	500	310	300	1 ml	250 ml	60 ml
Control - B	05:00	13:30	6,35	10 ml	10 ml	100 ml	600	350	386	1 ml	250 ml	60 ml
+ Cu - A	05:10	14:05	6,37	10 ml	10 ml	100 ml	600	360	350	1 ml	250 ml	60 ml
+ Cu - B	05:10	14:05	6,37	10 ml	10 ml	100 ml	600	395	396	1 ml	250 ml	60 ml
+ Fe - A	05:20	14:45	6,39	10 ml	10 ml	100 ml	600	425	400	1 ml	250 ml	60 ml
+ Fe - B	05:20	14:45	6,39	10 ml	10 ml	100 ml	600	380	405	1 ml	250 ml	60 ml
+ Fe + Cu - A	05:30	15:10	6,40	10 ml	10 ml	100 ml	600	410	400	1 ml	250 ml	60 ml
+ Fe + Cu - B	05:30	15:10	6,40	10 ml	10 ml	100 ml	600	375	400	1 ml	250 ml	60 ml
+ 2 x Fe - A	05:40	15:45	6,42	10 ml	10 ml	100 ml	600	340	400	1 ml	250 ml	60 ml
+ 2 x Fe - B	05:40	15:45	6,42	10 ml	10 ml	100 ml	600	360	350	1 ml	250 ml	60 ml

T2	**11/03/2008**	**17/03/2008**	6,39								
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	05:00	13:30	6,35	x	x	x	x	125 ml	125 ml	60 ml	
Control - B	05:00	13:30	6,35	x	x	x	x	125 ml	125 ml	60 ml	
+ Cu - A	05:10	14:05	6,37	x	x	x	x	125 ml	125 ml	60 ml	
+ Cu - B	05:10	14:05	6,37	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe - A	05:20	14:45	6,39	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe - B	05:20	14:45	6,39	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe + Cu - A	05:30	15:10	6,40	x	x	x	x	125 ml	125 ml	60 ml	
+ Fe + Cu - B	05:30	15:10	6,40	x	x	x	x	125 ml	125 ml	60 ml	
+ 2 x Fe - A	05:40	15:45	6,42	x	x	x	x	125 ml	125 ml	60 ml	
+ 2 x Fe - B	05:40	15:45	6,42	x	x	x	x	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#29 (S4, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S4**
T (°C) =	**2**

T3	**11/03/2008**	**19/03/2008**	8,39									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	05:00	12:55	8,33	10 ml	10 ml	x	700	374	400	1 ml	x	60 ml
Control - B	05:00	12:55	8,33	10 ml	10 ml	x	700	340	400	1 ml	x	60 ml
+ Cu - A	05:10	13:45	8,36	10 ml	10 ml	x	600	400	400	1 ml	x	60 ml
+ Cu - B	05:10	13:45	8,36	10 ml	10 ml	x	700	400	410	1 ml	x	60 ml
+ Fe - A	05:20	14:50	8,40	10 ml	10 ml	x	720	260	350	1 ml	x	60 ml
+ Fe - B	05:20	14:50	8,40	10 ml	10 ml	x	708	400	350	1 ml	x	60 ml
+ Fe + Cu - A	05:30	15:55	8,43	10 ml	10 ml	x	700	350	400	1 ml	x	60 ml
+ Fe + Cu - B	05:30	15:55	8,43	10 ml	10 ml	x	700	357	400	1 ml	x	60 ml
+ 2 x Fe - A	05:40	16:20	8,44	10 ml	10 ml	x	600	380	400	1 ml	x	60 ml
+ 2 x Fe - B	05:40	16:20	8,44	10 ml	10 ml	x	600	370	400	1 ml	x	60 ml

T3	**11/03/2008**	**19/03/2008**	8,39								
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	05:00	12:55	8,33	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
Control - B	05:00	12:55	8,33	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Cu - A	05:10	13:45	8,36	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Cu - B	05:10	13:45	8,36	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe - A	05:20	14:50	8,40	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe - B	05:20	14:50	8,40	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe + Cu - A	05:30	15:55	8,43	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe + Cu - B	05:30	15:55	8,43	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ 2 x Fe - A	05:40	16:20	8,44	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ 2 x Fe - B	05:40	16:20	8,44	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#29 (S4, Inc. Géraldine/Eva) 30-60 m

Cast responsible: Géraldine Sarthou & Eva Bucciarelli

Sampling and parameter Fe incubations Go-Flo

N° station	**S4**
T (°C) =	**2**

T4	**11/03/2008**	**20/03/2008**	9,40									
Treatment	Time in	Time out	T (d)	Nitrate	Silicate	Phosphate	Chla	POC/PON	BSi	Cytometry	Taxonomy	TDFe
Control - A	05:00	13:30	9,35	10 ml	10 ml	100 ml	500	250	250	1 ml	250 ml	60 ml
Control - B	05:00	13:30	9,35	10 ml	10 ml	100 ml	500	350	350	1 ml	250 ml	60 ml
+ Cu - A	05:10	14:20	9,38	10 ml	10 ml	100 ml	500	350	350	1 ml	250 ml	60 ml
+ Cu - B	05:10	14:20	9,38	10 ml	10 ml	100 ml	500	350	350	1 ml	250 ml	60 ml
+ Fe - A	05:20	15:15	9,41	10 ml	10 ml	100 ml	500	300	300	1 ml	250 ml	60 ml
+ Fe - B	05:20	15:15	9,41	10 ml	10 ml	100 ml	600	300	300	1 ml	250 ml	60 ml
+ Fe + Cu - A	05:30	15:50	9,43	10 ml	10 ml	100 ml	600	265	300	1 ml	250 ml	60 ml
+ Fe + Cu - B	05:30	15:50	9,43	10 ml	10 ml	100 ml	600	300	375	1 ml	250 ml	60 ml
+ 2 x Fe - A	05:40	16:00	9,43	10 ml	10 ml	100 ml	500	250	250	1 ml	250 ml	60 ml
+ 2 x Fe - B	05:40	16:00	9,43	10 ml	10 ml	100 ml	600	285	300	1 ml	250 ml	60 ml

T4	**11/03/2008**	**20/03/2008**	9,40								
Treatment	Time in	Time out	T (d)	DFe	sFe	Fe(II)	H2O2	Fe org	Cu org	TDCu	Comments
Control - A	05:00	13:30	9,35	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
Control - B	05:00	13:30	9,35	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Cu - A	05:10	14:20	9,38	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Cu - B	05:10	14:20	9,38	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe - A	05:20	15:15	9,41	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe - B	05:20	15:15	9,41	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe + Cu - A	05:30	15:50	9,43	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ Fe + Cu - B	05:30	15:50	9,43	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ 2 x Fe - A	05:40	16:00	9,43	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	
+ 2 x Fe - B	05:40	16:00	9,43	60 ml	60 ml	60 ml	x	125 ml	125 ml	60 ml	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#30 (S4, Inc. Bron/Marie) 40-60 m

Station N°: S4
GO-FLO N°: GF30
Closer CTD N°: 86
Station N°: 62

Date start (UTC): 08/03/11 **Date end (UTC): 08/03/11**
Starting time (UTC): 03H15 **Position start (°'): 51°52.19 S, 00°00.26 E**
Ending time (UTC): 04H18 **Position end (°'): 51°52.44 S, 00°00.48 E**
Bottom depth (m):
Total lenght of cable out (m): 191 m

Cast responsible: Marie Boye & Bronwyn Wake

GO-FLO bottle number	Target depth (m)	Water sampling	microcat	COMMENTS
10	35	x		
9	45	x		
8	55	x		
7	35	x		
6	45	x		
5	55	x		
4	30	X		
3	40	X		
2	50	X		
1	60	X		

WARNING: 10 bottles at the max fluo

Parameters sampled in the trace metals incubations using Go-Flo (GF30)

Station Position	S4
GF30	51°52.19 S 0°00.26 E

Added concentrations: 2 nM trace metal, no nutrients addition

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#30 (S4, Inc. Bron/Marie) 40-60 m

Parameters sampled in the trace metals incubations using Go-Flo (GF30)

Station Position	S4
GF30	51°52.19 S 0°00.26 E

Added concentrations: 2 nM trace metal, no nutrients addition

Addition time and date: 11/03/08

GoFlo #	Bottle	Treatment Bronwyn Wake comments: No nutrient additions	Day sampled	ICPMS	TM int cell or Bsi	P	N	Si	POC/ PON/ PIC	Pig/ Chl a	Flow
		T0	0	200 ml	yes	100 ml	10 ml	With N	1000 ml	1000 ml	1 ml
	1	Control	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	885 ml	1 ml
	2	Control	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	840 ml	1 ml
	4	Control	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	850 ml	1 ml
	5	+Zn	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	705 ml	1 ml
	6	+Zn	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	910 ml	1 ml
	7	+Zn	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	960 ml	1 ml
	8	+Zn	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	825 ml	1 ml
	9	+Zn	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	895 ml	1 ml
	10	+Zn	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	840 ml	1 ml
	11	+Zn	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	910 ml	1 ml
	12	+Zn	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	905 ml	1 ml
	13	+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	850 ml Bronwyn Wake comment: leaked a bit	1 ml
	14	+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml
	15	+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	1000 ml	1 ml
	16	+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	890 ml	1 ml
	17	+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	920 ml	1 ml
	18	+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	910 ml	1 ml
	20	+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	940 ml	1 ml

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#30 (S4, Inc. Bron/Marie) 40-60 m

Parameters sampled in the trace metals incubations using Go-Flo (GF30)

Station Position	S4
GF30	51°52.19 S 0°00.26 E

Added concentrations: 2 nM trace metal, no nutrients addition

Addition time and date: 11/03/08

GoFlo #	Bottle	Treatment Bronwyn Wake comments: No nutrient additions	Day sampled	ICPMS	TM int cell or Bsi	P	N	Si	POC/ PON/ PIC	Pig/ Chl a	Flow
	21	+Fe	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	905 ml Bronwyn Wake comment : some lost when straw re-adjusted	1 ml
	22	+Fe	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	840 ml	1 ml
	23	+Fe	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	950 ml	1 ml
	24	+Fe	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	980 ml	1 ml
	25	+Fe	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	900 ml Bronwyn Wake comment : guesstimate	1 ml
	26	+Fe	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	845 ml	1 ml
	28	+Fe	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	880 ml	1 ml
	29	+Zn+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	835 ml	1 ml
	30	+Zn+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	870 ml	1 ml
	31	+Zn+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	950 ml	1 ml
	32	+Zn+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	945 ml	1 ml
	33	+Zn+Co	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	840 ml	1 ml

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#30 (S4, Inc. Bron/Marie) 40-60 m

Parameters sampled in the trace metals incubations using Go-Flo (GF30)

Station Position	S4
GF30	51°52.19 S 0°00.26 E

Added concentrations: 2 nM trace metal, no nutrients addition

Addition time and date: 11/03/08

GoFlo #	Bottle	Treatment Bronwyn Wake comments: No nutrient additions	Day sampled	ICPMS	TM int cell or Bsi	P	N	Si	POC/ PON/ PIC	Pig/ Chl a	Flow
	34	+Zn+Co	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	890 ml Bronwyn Wake comment : some of 38 filtered (~100 ml) thru here	1 ml
	35	+Zn+Co	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	980 ml	1 ml
	36	+Zn+Co	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	800 ml	1 ml
	37	+Zn+Fe	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	890 ml	1 ml
	38	+Zn+Fe	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	925 ml Bronwyn Wake: some lost (~100 ml), filtered thru 34	1 ml
	39	+Zn+Fe	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	830 ml	1 ml
	40	+Zn+Fe	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	885 ml	1 ml
	41	+Zn+Fe	2	200 ml	yes	100 ml	10 ml	With N	1000 ml	905 ml	1 ml
	42	+Zn+Fe	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	910 ml	1 ml
	43	+Zn+Fe	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	960 ml	1 ml
	44	+Zn+Fe	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	820 ml	1 ml
	45	Control	4	200 ml	yes	100 ml	10 ml	With N	1000 ml	840 ml	1 ml
	46	Control	6	200 ml	yes	100 ml	10 ml	With N	1000 ml	890 ml	1 ml

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#30 (S4, Inc. Bron/Marie) 40-60 m

Parameters sampled in the trace metals incubations using Go-Flo (GF30)

Station Position	S4
GF30	51°52.19 S 0°00.26 E

Added concentrations: 2 nM trace metal, no nutrients addition

Addition time and date: 11/03/08

GoFlo #	Bottle	Treatment Bronwyn Wake comments: No nutrient additions	Day sampled	ICPMS	TM int cell or Bsi	P	N	Si	POC/ PON/ PIC	Pig/ Chl a	Flow
	48	Control	8	200 ml	yes	100 ml	10 ml	With N	1000 ml	870 ml	1 ml

NB: acidified with 305 ul of HNO3 All nutrients analysed onboard
T6 & T8 acidified with 380 ul HNO3

T0		0900
T2		2130-2330
	Saturday 15	
T4	**March**	1900-2045
	Tuesday 18	
T6	**March**	2130-2330
	Friday 21	
T8	**March**	1900-2045

4 bottles short at the start of the experiment so minus control (#3&#47), +Co (#19) and +Fe (#27)

BONUS-GOODHOPE

RV Marion-Dufresne

FICHE PRELEVEMENTS GF#31 (S4, TM's & Cd/Fe-isot.) 500-2500 m

Station N°: S4
GO-FLO N°: GF31
Closer CTD N°: 87
Station N°: 62

Date start (UTC): 08/03/11 Date end (UTC): 08/03/11
Starting time (UTC): 06H2 Position start (°'): 51°52.70 S, 00°00.32 E
Ending time (UTC): 09H04 Position end (°'): 51°52.91 S, 00°00.23 E
Bottom depth (m): 2550 m
Total lenght of cable out (m):

just a bit south of the PF

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TM (ICPMS: 250 ml)	TAl (125 ml PMP bottles)	TFe (FIA)		DFe	OrgaCo (250 ml)	DZn/Co/Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	DAl (125 ml PMP)	Cd-isotopes (1L)	Fe-isotopes	Soluble Fe	NO3	S	micro cat	COMMENTS
10	500	X	X	X	X		X	X	X	X	X	X			X	X	X	X	
9	700	X	X		X		X	X	X	X	X		X		X	X	X	X	
8	900	X	X	X	X		X	X	X	X	X	X			X	x	x	X	
7	1117	X	X		X		X	X	X	X	X				X	X	X	X	
6	1534	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	
5	1679													X	X	X	X	X	
4	1950	X	X	X	X		X	X	X	X	X	X			X	X	X	X	
3	2300	X	X		X		X	X	X	X	X				X	X	X	X	
2	2490	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	
1	2500													X				X	

with microcat and pinger!!!!!

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#32 (S4, Fe-isot.) 50-1117 m

Station N°: S4
GO-FLO N°: GF32
Closer CTD N°: 87
Station N°: 62

Date start (UTC): 08/03/11 **Date end (UTC): 08/03/11**
Starting time (UTC): 16H20 **Position start (°'): 51°53.28 S, 00°00.30 E**
Ending time (UTC): 18H00 **Position end (°'): 51°53.12 S, 00°00.22 E**
Bottom depth (m): 2550 m
Total lenght of cable out (m):

Cast responsible: François Lacan

GO-FLO bottle number	Target depth (m)	T&DFe-isotopes	NO3	S	COMMENTS
10	50	x	x	x	chloro
9	60	x	x	x	chloro
8	121	x	x	x	
7	131	x	x	x	WW
6	168	x	x	x	
5	267	x	x	x	
4	416	x	x	x	
3	421	x	x	x	
2	742	x	x	x	
1	1117	x	x	x	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#33 (L7B, TM's) 30-2100 m

Station N°: L7B
GO-FLO N°: GF33
Closer CTD N°: 98
Station N°: 72

Date start (UTC): 08/03/13 **Date end (UTC): 08/03/13**
Starting time (UTC): 21H08 **Position start (°'): 55°14.070 S, 00°02.2143 E**
Ending time (UTC): 23H50 **Position end (°'): 55°13.940 S, 00°02.6618 E**
Bottom depth (m): 2800
Total lenght of cable out (m):

south of the PF

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TH2O2	TM (ICPMS: 250 ml)	TFe (FIA)		DFeII	DH2O2	DFe	Orga Co (250 ml)	DZn/Co/Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	Soluble Fe	NO3	S	micro cat	COMMENTS
9	30																	max fluo bouchon cassé
8	60	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	max fluo
7	100	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	antarctic winter waters
6	120	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	antarctic winter waters
5	200	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	
4	300	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	
3	650	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	
2	1000	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	
10	1500	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	
1	2100	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	

BONUS-GOODHOPE

RV Marion-Dufresne

FICHE PRELEVEMENTS GF#33 (L7B, TM's) 30-2100 m

Station N°: L7B

GO-FLO N°: GF33

Closer CTD N°: 98
Station N°: 72

Date start (UTC): 08/03/13 **Date end (UTC): 08/03/13**

Starting time (UTC): 21H08 **Position start (°'): 55°14.070 S, 00°02.2143 E**

Ending time (UTC): 23H50 **Position end (°'): 55°13.940 S, 00°02.6618 E**
Bottom depth (m): 2800
Total lenght of cable out (m):

south of the PF

Cast responsible: Marie Boye

2eme descente

GO-FLO bottle number	Target depth (m)	TFeII	TH2O2	TM (ICPMS: 250 ml)	TFe (FIA)		DFeII	DH2O2	DFe	Orga Co (250 ml)	DZn/Co/Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	Soluble Fe	NO3	S	micro cat	COMMENTS
8	30	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	max fluo

BONUS-GOODHOPE

RV Marion-Dufresne

FICHE PRELEVEMENTS GF#34 (S5, TM's & Cd/Fe-isot.) 800-3850 m

Station N°: S5
GO-FLO N°: GF34
Closer CTD N°: 106
Station N°: 78

Date start (UTC): 08/03/15 **Date end (UTC): 08/03/15**
Starting time (UTC): 20H30 **Position start (°'): 57°33.15 S, 00°02.19 W**
Ending time (UTC): 23H20 **Position end (°'): 57°33.15 S, 00°02.19 W**
Bottom depth (m): 3950
Total lenght of cable out (m): 3857 + 50 m

in the weddel gyre

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TM (ICPMS: 250 ml)	TAl (125 ml PMP bottles)	TFe (FIA)	DFe	OrgaCo (250 ml)	DZn/Co/Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	DAl (125 ml PMP)	Cd-isotopes (1L)	Fe-isotopes	Soluble Fe	Dmetals (R. Losno)	NO3	S	micro cat	COMMENTS
10	800	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X		
2	1250	X	X	X	X	X	X	X	X	X	X			X	X	X	X		
8	1700	X	X	X	X	X	X	X	X	X	X			X	X	x	x		
7	2150	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X		
6	2600	X	X		X	X	X	X	X	X				X		X	X		
5	3000												X	X		X	X		
4	3050	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X		
3	3500	X	X		X	X	X	X	X	X				X		X	X		
9	3840	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X		
1	3850												X						

NO MICROCAT!!!!!

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#35 (S5, Inc. Pedro & Cd-isot.) 10-300 m

Station N°: S5
GO-FLO N°: GF35
Closer CTD N°: 107
Station N°: 78

Date start (UTC): 08/03/16 **Date end (UTC): 08/03/16**
Starting time (UTC): 03H40 **Position start (°'): 57°33.13 S, 00°02.19 W**
Ending time (UTC): 04H30 **Position end (°'): 57°33.139 S, 00°02.1906 W**
Bottom depth (m): 3932
Total lenght of cable out (m): 307 + 50 m

in the weddel gyre

Cast responsible: Marie Boye, Bronwyn Wake

GO-FLO bottle number	Target depth (m)	Cd-isotopes (20L/depth)	Cd-isotopes (5L)	Cd-isotopes (1L)	Pedro incub.	salinity	nuts	microcat	COMMENTS
10	10				X			X	max fluo (deep MLD of 100 m)
5	25				X			X	max fluo
9	30	X				X	X	X	max fluo
8	35	X				X	X	X	max fluo
7	45				X			X	max fluo
6	50	X				X	X	X	max fluo
4	55	X				X	X	X	max fluo (deep MLD of 100 m)
3	120		X			X	X	X	antarctic winter waters
2	140			X		X	X	X	antarctic winter waters
1	300			X		X	X	X	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#35 (S5, Inc. Pedro & Cd-isot.) 10-300 m

Parameters sampled in the trace metals & 15N incubations Pedro using Go-Flo (GF35)

Added concentrations: 2 nM Fe, ?? 15N

Treatment	Day sampled	ICPMS	15N	Flow
	0	200 ml		1 ml
	1	200 ml		1 ml
	2	200 ml		1 ml
	3	200 ml		1 ml
	4	200 ml		1 ml
	5	200 ml		1 ml
	6	200 ml		1 ml

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#36 (S5, TM's & Cd-isot.) 30-750 m

Station N°: S5
GO-FLO N°: GF36
Closer CTD N°: 108
Station N°: 78

Date start (UTC): 08/03/16 **Date end (UTC): 08/03/16**
Starting time (UTC): 15H43 **Position start (°'): 57°33.1401 S, 00°02.1910 W**
Ending time (UTC): 17H20 **Position end (°'): 57°33.154 S, 00°02.193 W**
Bottom depth (m): 3950
Total lenght of cable out (m): 757 + 50 m

in the weddel gyre

Cast responsible: Marie Boye

GO-FLO bottle number	Target depth (m)	TFeII	TM (ICPMS: 250 ml)	TAl (125 ml PMP bottles)	TFe (FIA)		DFe	OrgaCo (250 ml)	DZn/ Co/ Cd (volt: 250 ml)	DM (ICPMS: 250 ml)	OrgaM (2*500 ml)	DAl (125 ml PMP)	Cd-isotopes (1L)	DMetals (R. Losno)	Soluble Fe	NO3	S	micro cat	COMMENTS
10	30	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	max fluo
9	60	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	max fluo
8	120	X	X	X	X		X	X	X	X	X	X			X	x	x	X	antarctic winter waters
7	140	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	antarctic winter waters
6	190	X	X	X	X		X	X	X	X	X	X			X	X	X	X	base of the antarctic winter waters
5	250	X	X		X		X	X	X	X	X				X	X	X	X	
4	350	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	
3	450	X	X		X		X	X	X	X	X				X	X	X	X	
2	550	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	
1	750				X		X	X	X	X	X		X		X	X	X	X	

with microcat!!!!!

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#37 (S5, Fe-isot.) 25-2100 m

Station N°: S5
GO-FLO N°: GF37
Closer CTD N°: 109
Station N°: 78

Date start (UTC): 08/03/16
Starting time (UTC): 19H20
Ending time (UTC): 21H34
Bottom depth (m): 3950
Total lenght of cable out (m):

Date end (UTC): 08/03/16
Position start (°'): 57°33.143 S, 00°02.193 W
Position end (°'): 57°33.140 S, 00°02.190 W

Cast responsible: François Lacan

GO-FLO bottle number	Target depth (m)	T&DFe-isotopes	NO3	S	COMMENTS
10	25	x	x	x	chloro
2	35	x	x	x	chloro
8	75	x	x	x	
7	85	x	x	x	WW
6	140	x	x	x	
5	200	x	x	x	
4	400	x	x	x	
3	700	x	x	x	
9	1200	x	x	x	
1	2100	x	x	x	

BONUS-GOODHOPE
RV Marion-Dufresne

FICHE PRELEVEMENTS GF#38 (S5, Large Volumes Sampling) Fluo. Max.

Station N°: S5
GO-FLO N°: GF38
Closer CTD N°: 110
Station N°: 78

Date start (UTC): 08/03/17 — **Date end (UTC): 08/03/17**
Starting time (UTC): 08H02 — **Position start (°'): 57°33.040 S, 00°03.048 W**
Ending time (UTC): 08H50 — **Position end (°'): 57°33.040 S, 00°03.049 W**
Bottom depth (m):
Total lenght of cable out (m):

Cast responsible: Marie Boye

in the weddel gyre

Large volume sampling in the Chl-a maximum (filtered O.2 microm)
10 GOFLO bottles (5 for Marie, 5 for Géraldine)