

APPENDIX D

DRILL WATER MONITORING SUMMARY FOR DEPOSIT NOS. 1 TO 3

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2011 Drill Water Summary
2012/03/29

Date: 2011 March 29
To: Note for Record
From: Jim Millard
Subject: **2011 Drill Water Summary**

Taken from the 2011 NIRB Annual Report

- Exploration Drill Monitoring

An exploration drilling water quality monitoring program has been undertaken since 2005 at selected locations upstream (reference), downstream along Mary River (potentially affected), and along steep seasonal flow channels that drain the rugged topographic terrain that characterizes the land surface in the vicinity of Deposits Nos. 1, 2, and 3. The main objective of the monitoring programs was to identify and measure major ions, as well as TSS/turbidity in Mary River, both upstream at locations unaffected by drilling activities, and downstream at locations that may be potentially affected by drilling activities. Historical and 2011 monitoring sample locations are presented on Figure 2.5.

During 2011, there was no exploration drilling on Deposits 1, 2 or 3. Samples were collected upstream of potential drilling effects (reference stations) and at downstream stations (potentially affected) along the Mary River in late July, mid-August, and mid-September. Two samples were collected at reference station G0-01 as well as at the potentially affected station E0-03 on July 11th and August 29th, 2011. One sample was also collected for potentially affected station E0-10 on August 29th, 2011 for reference purposes.

Tables 2.5, 2.6 & 2.7 present the results of the Deposit Nos. 1 to 3 water quality monitoring program for 2011 as well as for previous years. These tables include all water quality monitoring stations where data is available, regardless of whether the stations were sampled in 2011 or in previous years. The results that were reported for 2011 are similar to previous years.

TABLE 2.5

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2010 ANNUAL REPORT TO THE NUNAVUT IMPACT REVIEW BOARD

EXPLORATION DRILLING WATER QUALITY MONITORING PROGRAM - SELECTED PARAMETERS

UPSTREAM REFERENCE STATIONS (NO INFLUENCE FROM DEPOSIT NO. 1)

Site ID (date)	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Chloride (mg/L)	Total Calcium (mg/L)	Alkalinity (mg/L as CaCO ₃)
H0-01 (Mary River - upstream of Deposit Nos. 1, 2, and 3)						
12-Aug-05	8.5	-	34	1	6	30
09-Sep-05	2.1	-	<30	3	13	55
04-Aug-06	14.4	-	41	1	6	31
01-Sep-06	-	-	81	4	15	57
16-Jun-07	1.7	<2	38	2	7	29
29-Jul-07	15.5	8	45	1	6	32
31-Aug-07	15.1	6	95	6	14	61
09-Jun-08	0.9	<2	30	1	4	23
13-Jul-08	26.9	23	23	<1	4	18
28-Aug-08	3.5	<2	112	5	16	75
G6-01 (Mary River - upstream of Deposit Nos. 1, 2, and 3)						
04-Aug-06	2.3	-	79	<1	14	64
01-Sep-06		-	105	<1	18	83
15-Jun-07	1.0	<2	29	2	5	22
23-Jul-07	0.5	<2	95	1	16	73
31-Aug-07	0.6	<2	127	3	22	95
09-Jun-08	0.8	<2	16	1	2	11
10-Jul-08	0.5	<2	60	<1	10	46
28-Aug-08	1.6	<2	116	3	19	86
G0-09 (Mary River - upstream of Deposit Nos. 1, 2, and 3)						
18-Jun-06	1.2	-	14	<1	2	8
26-Jun-06	2.1	-	13	<1	2	8
02-Jul-06	2.7	-	7	<1	1	<5
10-Jul-06	2.0	-	15	<1	2	11
19-Jul-06	6.4	-	19	<1	3	14
31-Jul-06	20.3	-	38	<1	6	29
06-Aug-06	10.5	-	53	1	8	39
14-Aug-06	-	-	60	1	9	44
20-Aug-06	6.7	-	77	3	11	56
01-Sep-06	-	-	85	3	13	63
20-Sep-06	-	-	98	3	15	70
18-Jun-07	2.3	<2	34	2	6	26
24-Jun-07	2.7	<2	30	1	4	23
01-Jul-07	1.7	<2	16	<1	2	10
07-Jul-07	5.1	<2	29	<1	4	26
17-Jul-07	11.0	3	36	<1	5	28
22-Jul-07	33.6	18	35	1	5	26
28-Jul-07	10.5	<2	53	2	8	39
05-Aug-07	30.3	31	60	2	9	43
12-Aug-07	34.6	36	69	3	12	50
19-Aug-07	21.1	4	87	5	14	58
27-Aug-07	24.5	10	97	4	15	68
03-Sep-07	4.2	<2	111	6	18	77
09-Sep-07	2.2	<2	116	5	19	82
18-Sep-07	1.2	<2	138	7	15	93

TABLE 2.5

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2010 ANNUAL REPORT TO THE NUNAVUT IMPACT REVIEW BOARD

EXPLORATION DRILLING WATER QUALITY MONITORING PROGRAM - SELECTED PARAMETERS

UPSTREAM REFERENCE STATIONS (NO INFLUENCE FROM DEPOSIT NO. 1)

Site ID (date)	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Chloride (mg/L)	Total Calcium (mg/L)	Alkalinity (mg/L as CaCO ₃)
23-Sep-07	0.7	<2	150	8	16	102
23-Jun-08	1.5	6	8	<1	1	8
02-Jul-08	1.5	<2	23	<1	4	18
08-Jul-08	1.0	<2	51	1	7	40
14-Jul-08	6.4	<2	46	1	7	34
21-Jul-08	6.9	<2	68	2	11	50
01-Aug-08	6.6	<2	74	2	11	55
05-Aug-08	0.6	<2	105	<1	13	86
11-Aug-08	3.5	5	107	3	18	79
18-Aug-08	3.0	<2	112	4	18	80
26-Aug-08	2.6	<2	111	4	18	79
01-Sep-08	1.5	<2	77	1	13	59
08-Sep-08	2.8	<2	100	4	16	73
29-Jun-09	1.5	<2	12	<1	2	12
06-Jul-09	1.3	6	21	1	3	14
20-Jul-09	9.6	2	37	<1	6	28
04-Aug-09	13.1	7	77	3	11	54
02-Sep-09	6.1	<2	117	9	18	76
14-Sep-09	1.6	2	137	7	21	94
13-Aug-10	20.4	8	60	5	9.62	39
15-Sep-10	1.3	<2	137	7	21.6	93
G0-03 (Mary River, upstream of Deposit Nos. 1 and 2)						
11-Jun-05	0.3	-	<30	1	2	9
08-Aug-05	4.9	-	40	<1	6	36
10-Sep-05	1.6	<2	51	2	13	57
17-Jun-06	0.4	-	18	<1	2	9
04-Aug-06	9.8	-	49	1	7	39
04-Sep-06	6.7	-	88	8	13	55
18-Jun-07	1.6	<2	29	1	5	23
22-Jul-07	11.4	<2	44	<1	6	32
09-Sep-07	2.5	<2	112	7	18	76
23-Jun-08	2.1	7	9	<1	1	<5
02-Jul-08	2.4	2	17	<1	3	11
08-Jul-08	7.0	5	27	1	4	22
14-Jul-08	7.2	<2	38	2	5	28
21-Jul-08	8.5	2	68	7	13	42
01-Aug-08	9.4	5	87	13	12	46
05-Aug-08	20.7	6	86	10	13	51
11-Aug-08	14.1	8	106	12	16	61
18-Aug-08	5.3	<2	101	5	16	66
26-Aug-08	1.7	6	106	4	16	73
01-Sep-08	5.8	3	71	3	11	49
08-Sep-08	4.5	<2	89	6	14	62
16-Sep-08	2.7	<2	102	5	16	71
29-Jun-09	1.7	<2	12	<1	2	8
06-Jul-09	0.4	<2	56	6	9	35

TABLE 2.5

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2010 ANNUAL REPORT TO THE NUNAVUT IMPACT REVIEW BOARD

EXPLORATION DRILLING WATER QUALITY MONITORING PROGRAM - SELECTED PARAMETERS

UPSTREAM REFERENCE STATIONS (NO INFLUENCE FROM DEPOSIT NO. 1)

Site ID (date)	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Chloride (mg/L)	Total Calcium (mg/L)	Alkalinity (mg/L as CaCO ₃)
20-Jul-09	7.6	<2	34	<1	5	27
04-Aug-09	14.3	14	81	7	12	51
02-Sep-09	3.3	<2	252	31	23	153
14-Sep-09	1.4	<2	131	8	21	88
13-Aug-10	15.1	8	75	7	12	49
15-Sep-10	1.5	<2	128	9	19.3	81
G0-05 (Mary River, upstream of Deposit Nos. 1 and 2)						
04-Aug-06	6.0	-	48	<1	7	38
04-Sep-06	6.0	-	66	1	10	50
13-Jun-07	1.5	<2	29	2	4	23
23-Jul-07	30.7	20	48	<1	7	38
31-Aug-07	6.2	<2	93	4	15	65
09-Jul-08	6.2	2	36	<1	5	28
28-Aug-08	2.3	<2	88	2	14	63
G0-01 (Mary River, upstream of Deposit No. 1 and 2)						
09-Jun-05	0.6	-	31	1	4	17
08-Aug-05	4.8	-	49	<1	6	34
10-Sep-05	1.4	-	63	2	14	60
12-Jun-06	0.6	-	42	<1	6	32
18-Jun-06	1.0	-	19	1	2	10
26-Jun-06	2.6	-	15	2	2	8
10-Jul-06	2.5	-	15	<1	2	12
19-Jul-06	4.5	-	19	<1	3	13
31-Jul-06	17.8	-	38	1	6	28
06-Aug-06	5.3	-	62	2	9	45
14-Aug-06	-	-	66	2	11	50
20-Aug-06	6.1	-	36	2	11	56
29-Aug-06	-	-	68	2	11	50
20-Sep-06	-	-	105	5	16	75
19-Jun-07	1.5	2	33	4	5	21
24-Jun-07	1.2	<2	38	3	5	27
01-Jul-07	2.4	<2	20	<1	2	15
07-Jul-07	5.7	<2	24	<1	4	22
17-Jul-07	9.1	<2	36	1	5	28
24-Jul-07	8.7	2	55	2	8	40
28-Jul-07	8.9	<2	55	2	9	40
05-Aug-07	11.5	3	70	3	11	49
12-Aug-07	7.2	4	81	4	14	57
19-Aug-07	20.9	3	85	5	13	58
27-Aug-07	11.0	6	94	5	15	64
01-Sep-07	9.3	<2	106	7	16	69
08-Sep-07	2.6	<2	115	8	19	78
18-Sep-07	0.8	<2	152	14	24	92
01-Jul-08	3.1	4	18	<1	3	13
08-Jul-08	4.9	2	29	1	4	24

TABLE 2.5

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2010 ANNUAL REPORT TO THE NUNAVUT IMPACT REVIEW BOARD

EXPLORATION DRILLING WATER QUALITY MONITORING PROGRAM - SELECTED PARAMETERS
UPSTREAM REFERENCE STATIONS (NO INFLUENCE FROM DEPOSIT NO. 1)

Site ID (date)	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Chloride (mg/L)	Total Calcium (mg/L)	Alkalinity (mg/L as CaCO ₃)
14-Jul-08	7.4	3	36	1	5	28
21-Jul-08	6.1	<2	62	4	9	43
01-Aug-08	7.4	6	72	4	11	49
05-Aug-08	19.2	6	81	5	13	55
11-Aug-08	11.5	5	95	6	14	63
18-Aug-08	5.4	<2	106	7	16	69
26-Aug-08	2.5	<2	116	7	18	75
01-Sep-08	5.9	2	79	5	12	53
08-Sep-08	3.9	<2	99	6	15	66
16-Sep-08	1.9	<2	112	7	17	75
22-Jul-11	9.8	<2	56	2	8	43
29-Aug-11	5.9	<2	134	11	19	84
F0-05 (Mary River - upstream of steep drainage pathways near Deposit No. 1)						
4-Aug-06	0.2	-	89	<1	15	72
4-Sep-06	0.3	-	101	<1	17	82
23-Jul-07	0.1	<2	90	<1	15	70
1-Sep-07	0.2	<2	125	<1	22	99
2-Jul-08	0.4	<2	29	<1	5	26
8-Jul-08	0.2	<2	60	<1	9	48
14-Jul-08	0.3	<2	68	<1	11	54
21-Jul-08	0.1	<2	89	<1	15	71
1-Aug-08	0.4	<2	95	<1	16	77
5-Aug-08	18.1	6	82	3	19	60
11-Aug-08	0.3	<2	112	<1	20	90
18-Aug-08	0.6	7	116	<1	20	92
26-Aug-08	0.4	<2	123	<1	21	99
1-Sep-08	0.2	<2	76	<1	13	61
8-Sep-08	0.2	<2	107	<1	18	84

Notes: Bolded dates indicate sampling events during 2011.

TABLE 2.6

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2010 ANNUAL REPORT TO THE NUNAVUT IMPACT REVIEW BOARD

EXPLORATION DRILLING WATER QUALITY MONITORING PROGRAM - SELECTED PARAMETERS
PROXIMAL STATIONS (TO DEPOSIT NO. 1)

Station ID (date)	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Chloride (mg/L)	Total Calcium (mg/L)	Alkalinity (mg/L as CaCO ₃)
F0-01						
09-Jun-05	0.9	-	<30	1	6	28
08-Aug-05	0.3	-	63	1	15	68
10-Sep-05	<0.1	-	40	2	22	96
12-Jun-06	0.5	-	68	<1	10	51
18-Jun-06	0.7	-	31	<1	5	25
26-Jun-06	1.0	-	66	20	10	13
02-Jul-06	1.7	-	14	1	2	7
10-Jul-06	0.5	-	29	<1	4	23
19-Jul-06	0.6	-	43	<1	7	36
31-Jul-06	0.4	-	90	3	14	68
06-Aug-06	0.8	-	114	3	18	86
14-Aug-06	-	-	101	3	17	76
20-Aug-06	0.3	-	126	4	19	94
29-Aug-06	-	-	111	2	19	88
20-Sep-06	-	-	153	8	25	109
19-Jun-07	1.1	<2	59	2	10	45
24-Jun-07	1.4	<2	33	2	5	25
01-Jul-07	1.5	<2	25	<1	4	19
07-Jul-07	0.6	<2	48	<1	7	40
17-Jul-07	0.4	<2	87	1	14	68
24-Jul-07	0.3	<2	98	1	16	75
28-Jul-07	0.2	<2	109	2	18	84
05-Aug-07	0.2	<2	102	1	17	79
12-Aug-07	0.1	<2	125	3	22	95
19-Aug-07	0.2	<2	135	5	23	102
27-Aug-07	0.1	<2	129	3	21	98
01-Sep-07	0.2	<2	145	5	24	107
08-Sep-07	0.2	<2	137	4	24	106
18-Sep-07	<0.1	<2	166	8	16	119
24-Sep-07	0.1	<2	178	9	29	127
01-Jul-08	0.8	3	31	<1	5	27
08-Jul-08	0.5	<2	55	<1	8	43
14-Jul-08	0.4	<2	77	<1	13	61
21-Jul-08	0.3	<2	99	2	16	76
01-Aug-08	0.9	<2	137	14	22	87
05-Aug-08	0.7	<2	144	11	24	97
11-Aug-08	0.9	2	166	22	30	94
18-Aug-08	1.9	3	176	24	31	98
26-Aug-08	1.0	<2	186	21	30	111
01-Sep-08	0.7	4	112	12	19	68

TABLE 2.6

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2010 ANNUAL REPORT TO THE NUNAVUT IMPACT REVIEW BOARD

EXPLORATION DRILLING WATER QUALITY MONITORING PROGRAM - SELECTED PARAMETERS
PROXIMAL STATIONS (TO DEPOSIT NO. 1)

Station ID (date)	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Chloride (mg/L)	Total Calcium (mg/L)	Alkalinity (mg/L as CaCO₃)
08-Sep-08	0.4	<2	157	18	25	95
16-Sep-08	0.9	<2	176	21	31	105
F0-02						
23-Jun-08	4.7	10	11	<1	2	7
2-Jul-08	0.5	3	33	<1	5	30
8-Jul-08	0.4	<2	57	<1	9	45
14-Jul-08	7.1	<2	75	<1	12	58
21-Jul-08	0.4	<2	97	1	16	75
1-Aug-08	0.7	<2	125	11	21	83
5-Aug-08	0.8	<2	129	8	22	91
11-Aug-08	0.9	<2	157	19	29	92
18-Aug-08	0.4	3	162	19	30	95
26-Aug-08	0.4	<2	167	17	28	104
1-Sep-08	0.6	<2	110	12	19	66
8-Sep-08	0.4	<2	153	18	25	91
16-Sep-08	0.2	<2	166	19	31	99
E4-01						
09-Jun-05	0.4	-	51	2.1	6	24
08-Aug-05	0.2	-	926	250	138	93
10-Sep-05	<0.1	-	1270	480	256	128
17-Jun-06	0.7	-	37	4	6	26
28-Jul-06	1.1	-	229	51	41	93
29-Aug-06	-	-	428	120	93	136
13-Jun-07	0.9	<2	59	2	9	45
24-Jul-07	0.3	<2	1380	585	340	116
19-Aug-07	0.1	<2	1830	804	319	136
27-Aug-07	0.2	<2	1700	710	370	137
01-Sep-07	0.1	4	2020	905	481	139
08-Sep-07	0.1	<2	1980	892	496	139
16-Sep-07	0.3	<2	1380	575	217	143
01-Jul-08	0.8	2	70	10	12	38
08-Jul-08	2.5	4	115	17	19	59
14-Jul-08	0.4	<2	216	49	45	87
21-Jul-08	0.2	<2	322	82	67	119
01-Aug-08	0.3	<2	306	69	63	129
05-Aug-08	0.2	<2	355	90	78	135
11-Aug-08	0.2	<2	374	92	81	145
18-Aug-08	0.3	6	326	67	66	146

TABLE 2.6

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2010 ANNUAL REPORT TO THE NUNAVUT IMPACT REVIEW BOARD

EXPLORATION DRILLING WATER QUALITY MONITORING PROGRAM - SELECTED PARAMETERS
PROXIMAL STATIONS (TO DEPOSIT NO. 1)

Station ID (date)	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Chloride (mg/L)	Total Calcium (mg/L)	Alkalinity (mg/L as CaCO ₃)
26-Aug-08	0.2	<2	280	52	56	135
01-Sep-08	0.2	<2	272	48	53	135
08-Sep-08	0.6	87	296	57	63	140
29-Jun-09	0.3	<2	74	4	13	51
06-Jul-09	0.3	<2	94	7	17	61
20-Jul-09	0.9	<2	144	14	25	91
04-Aug-09	0.2	<2	255	38	51	139
02-Sep-09	0.2	<2	252	31	50	153
14-Sep-09	0.3	6	260	30	49	157
15-Sep-10	0.3	2	210	14	35.5	136
E3-01						
09-Jun-05	21.2	-	586	180	80	28
08-Aug-05	0.1	-	2770	1200	449	60
10-Sep-05	0.1	-	5050	2600	1130	65
17-Jun-06	>100	-	359	139	72	31
28-Jul-06	1.9	-	1970	922	406	51
29-Aug-06	-	-	2390	1105	500	68
13-Jun-07	0.5	<2	735	322	145	45
24-Jul-07	1.2	8	5910	2890	1600	58
19-Aug-07	2.2	13	5540	2790	1380	64
27-Aug-07	1.3	9	5300	2650	1190	62
01-Sep-07	0.9	9	5130	2490	1150	66
08-Sep-07	1.9	4	4590	2210	1050	68
16-Sep-07	1.3	4	4430	2160	806	66
01-Jul-08	8.8	51	607	243	127	60
08-Jul-08	>100	2080	708	278	166	61
14-Jul-08	3.0	<2	1180	502	261	87
21-Jul-08	2.5	5	1380	607	310	90
01-Aug-08	7.6	16	3270	1470	785	83
05-Aug-08	6.6	25	4950	2300	1300	88
11-Aug-08	0.9	7	2330	1120	520	83
18-Aug-08	44.6	88	1940	904	394	89
26-Aug-08	1.7	54	1650	727	344	89
01-Sep-08	1.1	104	1740	795	364	79
08-Sep-08	23.4	87	3240	1580	777	83
29-Jun-09	7.9	171	360	126	78	40
06-Jul-09	7.8	15	96	1050	601	63
20-Jul-09	0.5	<2	1700	779	402	77
04-Aug-09	6.2	81	1750	751	343	93

TABLE 2.6

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2010 ANNUAL REPORT TO THE NUNAVUT IMPACT REVIEW BOARD

EXPLORATION DRILLING WATER QUALITY MONITORING PROGRAM - SELECTED PARAMETERS
PROXIMAL STATIONS (TO DEPOSIT NO. 1)

Station ID (date)	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Chloride (mg/L)	Total Calcium (mg/L)	Alkalinity (mg/L as CaCO₃)
18-Aug-09	18.5	1580	1010	421	212	85
02-Sep-09	3.0	7	722	279	121	89
14-Sep-09	5.4	52	1160	474	214	94
15-Sep-10	0.2	<2	254	20	43.6	162

TABLE 2.7

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2010 ANNUAL REPORT TO THE NUNAVUT IMPACT REVIEW BOARD

EXPLORATION DRILLING WATER QUALITY MONITORING PROGRAM - SELECTED PARAMETERS
POTENTIALLY AFFECTED STATIONS

Site ID (date)	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Chloride (mg/L)	Total Calcium (mg/L)	Alkalinity (mg/L as CaCO ₃)
E0-10						
12-Jun-06	0.5	-	43	<1	6	32
19-Jun-06	1.0	-	24	<1	3	16
26-Jun-06	1.6	-	38	9	6	11
02-Jul-06	3.0	-	11	<1	2	5
10-Jul-06	1.9	-	17	<1	2	13
19-Jul-06	3.4	-	23	<1	4	18
31-Jul-06	17.6	-	39	1	6	31
06-Aug-06	5.4	-	62	2	9	47
14-Aug-06	-	-	67	2	11	50
20-Aug-06	5.8	-	77	2	12	57
29-Aug-06	-	-	76	2	12	57
20-Sep-06	-	-	114	5	18	81
19-Jun-07	1.8	<2	35	4	5	20
24-Jun-07	0.7	<2	62	4	9	42
01-Jul-07	1.2	<2	25	<1	4	17
07-Jul-07	3.8	<2	31	1	5	26
17-Jul-07	9.3	<2	40	1	6	30
24-Jul-07	8.6	<2	55	2	8	40
28-Jul-07	6.9	<2	61	2	9	45
05-Aug-07	3.0	<2	94	2	15	71
13-Aug-07	6.9	<2	85	4	15	60
19-Aug-07	17.9	4	87	5	13	59
27-Aug-07	9.0	7	100	5	16	69
01-Sep-07	7.6	4	108	7	17	72
08-Sep-07	2.3	<2	117	7	19	81
18-Sep-07	0.8	<2	152	13	13	94
01-Jul-08	3.0	4	20	<1	3	14
08-Jul-08	4.1	2	32	1	5	25
14-Jul-08	0.3	<2	79	<1	13	61
21-Jul-08	5.5	<2	68	3	11	48
01-Aug-08	7.1	<2	74	4	11	50
05-Aug-08	18.2	5	83	5	13	56
11-Aug-08	10.4	6	100	7	16	65
26-Aug-08	2.2	<2	118	8	18	76
01-Sep-08	6.8	3	75	4	11	51
29-Jun-09	2.2	3	18	1	2	13
20-Jul-09	7.0	<2	34	1	6	32
04-Aug-09	10.4	6	111	9	17	73
02-Sep-09	5.4	<2	117	7	19	80
14-Sep-09	0.1	2	196	19	34	125

TABLE 2.7

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2010 ANNUAL REPORT TO THE NUNAVUT IMPACT REVIEW BOARD

EXPLORATION DRILLING WATER QUALITY MONITORING PROGRAM - SELECTED PARAMETERS
POTENTIALLY AFFECTED STATIONS

Site ID (date)	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Chloride (mg/L)	Total Calcium (mg/L)	Alkalinity (mg/L as CaCO ₃)
29-Aug-11	4.8	<2	139	12	20	90
G0-10						
08-Jul-08	6.4	<2	34	3	5	24
14-Jul-08	9.1	5	39	3	6	28
21-Jul-08	14	47	72	7	11	43
1-Aug-08	5.3	4	111	20	19	51
5-Aug-08	15	6	156	38	33	58
11-Aug-08	12.4	8	120	16	21	65
1-Sep-08	6.1	7	88	8	14	53
29-Jun-09	3.2	35	75	22	14	17
6-Jul-09	2.8	9	109	6	5	58
20-Jul-09	6	2	49	5	8	32
18-Aug-09	14.3	52	180	50	33	52
2-Sep-09*	0.7	2	1270	544	269	100
14-Sep-09	1	<2	148	12	23	94
E0-03						
09-Jun-05	0.9	-	69	11	8	21
09-Aug-05	4.1	-	40	4	9	34
12-Sep-05	0.6	-	130	42	35	70
12-Jun-06	4.2	-	71	13	11	31
18-Jun-06	2.3	-	28	4	5	14
26-Jun-06	2.6	-	27	6	4	10
02-Jul-06	4.9	-	8	<1	1	<5
10-Jul-06	2.6	-	16	<1	2	10
19-Jul-06	4.2	-	22	1	3	15
30-Jul-06	15.1	-	47	4	7	30
06-Aug-06	5.8	-	75	7	12	46
14-Aug-06	-	-	78	7	13	49
20-Aug-06	5.3	-	90	8	14	58
29-Aug-06	-	-	73	4	12	50
19-Sep-06	-	-	126	13	22	77
18-Jun-07	1.4	<2	51	8	9	27
24-Jun-07	1.6	<2	31	<1	4	25
01-Jul-07	2.3	<2	17	1	3	10
07-Jul-07	0.6	<2	45	<1	7	37
16-Jul-07	10.4	2	40	3	6	28
22-Jul-07	12.7	5	59	6	9	35
28-Jul-07	8.4	<2	76	11	13	41
05-Aug-07	9.6	3	100	14	17	53

TABLE 2.7

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2010 ANNUAL REPORT TO THE NUNAVUT IMPACT REVIEW BOARD

EXPLORATION DRILLING WATER QUALITY MONITORING PROGRAM - SELECTED PARAMETERS
POTENTIALLY AFFECTED STATIONS

Site ID (date)	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Chloride (mg/L)	Total Calcium (mg/L)	Alkalinity (mg/L as CaCO ₃)
13-Aug-07	12.9	10	104	15	19	54
19-Aug-07	14.6	3	114	17	19	60
27-Aug-07	10.5	5	109	11	18	65
01-Sep-07	10.0	<2	134	19	22	70
09-Sep-07	1.9	<2	161	25	30	82
16-Sep-07	1.1	<2	287	73	50	95
24-Sep-07	0.3	<2	300	73	44	107
23-Jun-08	2.8	11	12	<1	2	8
01-Jul-08	2.9	4	20	<1	3	15
08-Jul-08	4.5	2	29	1	4	23
14-Jul-08	9.3	3	38	2	5	27
21-Jul-08	7.2	<2	74	8	12	45
01-Aug-08	10.7	5	85	10	13	48
05-Aug-08	27.0	<2	99	13	16	55
11-Aug-08	14.8	8	111	12	17	64
18-Aug-08	3.1	<2	120	14	20	71
26-Aug-08	2.5	<2	144	20	23	76
01-Sep-08	5.9	3	85	8	13	51
08-Sep-08	3.9	<2	148	27	26	66
15-Sep-08	1.9	<2	150	21	25	78
29-Jun-09	2.0	4	18	2	3	8
06-Jul-09	4.6	13	19	1	3	12
20-Jul-09	8.0	<2	40	3	6	29
04-Aug-09	15.5	17	95	10	15	55
02-Sep-09	6.0	<2	117	9	19	76
14-Sep-09	1.1	<2	147	11	23	94
13-Aug-10	22.3	7	71	7	11	47
15-Sep-10	3	<2	144	13	21.8	85
22-Jul-11	9.2	<2	59	3	8.73	46
29-Aug-11	7.6	<2	138	12	20.2	87
C0-10						
11-Jun-05	0.6	-	57	6	10	37
09-Aug-05	4.7	-	<30	3	8	36
12-Sep-05	0.7	-	91	23	25	68
12-Jun-06	0.6	-	62	4	9	41
18-Jun-06	1.1	-	43	4	7	29
26-Jun-06	2.1	-	33	6	5	13
02-Jul-06	5.4	-	10	<1	2	5
10-Jul-06	2.4	-	18	<1	3	12
19-Jul-06	3.9	-	23	1	4	16

TABLE 2.7

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2010 ANNUAL REPORT TO THE NUNAVUT IMPACT REVIEW BOARD

EXPLORATION DRILLING WATER QUALITY MONITORING PROGRAM - SELECTED PARAMETERS
POTENTIALLY AFFECTED STATIONS

Site ID (date)	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Chloride (mg/L)	Total Calcium (mg/L)	Alkalinity (mg/L as CaCO ₃)
30-Jul-06	6.7	-	53	4	8	37
06-Aug-06	6.6	-	72	6	12	47
14-Aug-06	-	-	77	5	13	53
20-Aug-06	4.9	-	90	7	14	59
30-Aug-06	-	-	84	5	13	58
19-Sep-06	-		122	12	21	73
18-Jun-07	0.8	<2	59	6	9	36
24-Jun-07	0.9	<2	74	16	13	30
01-Jul-07	1.9	<2	19	<1	3	11
08-Jul-07	5.5	<2	27	<1	4	21
16-Jul-07	10.4	9	44	2	7	32
22-Jul-07	25.6	6	51	4	8	33
28-Jul-07	8.1	<2	70	8	11	42
05-Aug-07	8.2	2	101	14	17	54
13-Aug-07	6.0	<2	104	13	19	59
19-Aug-07	9.1	2	103	13	19	58
28-Aug-07	8.4	<2	100	9	16	60
03-Sep-07	3.2	<2	137	18	23	75
09-Sep-07	1.9	<2	152	21	26	82
18-Sep-07	0.7	<2	157	21	31	64
24-Sep-07	0.3	<2	194	34	23	90
30-Sep-07	0.2	<2	241	53	45	104
23-Jun-08	2.4	6	15	<1	2	7
01-Jul-08	2.9	3	19	<1	3	15
08-Jul-08	4.4	<2	29	1	4	22
14-Jul-08	11.3	4	38	2	6	29
21-Jul-08	3.8	<2	74	7	12	47
01-Aug-08	11.3	6	81	8	12	49
05-Aug-08	14.9	3	105	14	18	58
11-Aug-08	17.3	9	110	12	18	64
18-Aug-08	3.6	<2	127	15	20	72
26-Aug-08	1.7	<2	130	13	21	76
01-Sep-08	5.7	<2	84	8	13	52
08-Sep-08	3.5	<2	129	19	22	66
15-Sep-08	1.5	<2	138	17	22	76
29-Jun-09	1.9	<2	21	2	3	14
06-Jul-09	5.5	10	20	1	4	13
20-Jul-09	8.7	<2	40	2	7	29
04-Aug-09	13.9	7	97	9	15	58
02-Sep-09	5.5	<2	118	8	19	80
14-Sep-09	1.1	2	142	10	23	93

TABLE 2.7

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2010 ANNUAL REPORT TO THE NUNAVUT IMPACT REVIEW BOARD

EXPLORATION DRILLING WATER QUALITY MONITORING PROGRAM - SELECTED PARAMETERS
POTENTIALLY AFFECTED STATIONS

Site ID (date)	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Chloride (mg/L)	Total Calcium (mg/L)	Alkalinity (mg/L as CaCO ₃)
13-Aug-10	18.6	6	74	6	11.9	50
15-Sep-10	2.3	<2	131	9	20.2	82
L0-01						
10-Jun-05	0.5	-	31	1	5	24
09-Aug-05	0.2	-	86	0	15	70
09-Sep-05	0.2	-	74	1	21	99
12-Jun-06	0.4	-	53	<1	8	40
18-Jun-06	0.5	-	46	<1	7	36
26-Jun-06	0.6	-	27	<1	4	21
02-Jul-06	0.5	-	30	<1	4	24
10-Jul-06	0.3	-	53	<1	7	41
19-Jul-06	0.3	-	56	<1	8	45
30-Jul-06	0.6	-	98	<1	16	77
06-Aug-06	1.1	-	118	1	18	93
14-Aug-06	-	-	105	<1	17	84
20-Aug-06	0.7	-	125	2	19	99
29-Aug-06	-	-	118	2	19	91
19-Sep-06	-	-	144	3	24	110
19-Jun-07	0.5	<2	53	1	8	41
24-Jun-07	1.1	<2	50	1	7	37
01-Jul-07	1.6	<2	55	<1	7	42
08-Jul-07	0.3	<2	58	<1	9	46
16-Jul-07	0.4	<2	79	<1	12	62
23-Jul-07	0.7	<2	88	3	17	68
28-Jul-07	0.3	<2	109	2	17	85
05-Aug-07	0.9	4	96	2	15	72
12-Aug-07	0.3	<2	129	3	22	100
19-Aug-07	0.3	<2	140	3	23	107
27-Aug-07	0.4	2	134	4	21	100
02-Sep-07	0.3	5	147	5	23	108
10-Sep-07	0.4	<2	151	5	24	111
19-Sep-07	0.3	<2	163	6	26	123
22-Jun-08	0.9	<2	40	2	6	31
02-Jul-08	0.3	<2	63	<1	10	48
08-Jul-08	0.6	<2	70	2	10	52
14-Jul-08	0.2	<2	103	4	16	75
21-Jul-08	0.5	<2	120	9	20	86
01-Aug-08	0.5	<2	131	8	21	91
05-Aug-08	0.7	<2	151	11	25	104
11-Aug-08	0.4	<2	152	11	24	103

TABLE 2.7

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2010 ANNUAL REPORT TO THE NUNAVUT IMPACT REVIEW BOARD

EXPLORATION DRILLING WATER QUALITY MONITORING PROGRAM - SELECTED PARAMETERS
POTENTIALLY AFFECTED STATIONS

Site ID (date)	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Chloride (mg/L)	Total Calcium (mg/L)	Alkalinity (mg/L as CaCO₃)
27-Aug-08	0.6	<2	157	11	25	105
01-Sep-08	0.6	<2	123	9	20	82
08-Sep-08	0.8	<2	157	16	25	101
16-Sep-08	0.9	<2	174	16	30	111
I0-04						
17-Jun-06	0.7	-	35	<1	5	26
28-Jul-06	10.7	-	61	<1	10	49
23-Aug-06	1.6	-	108	2	17	83
20-Jun-07	4.6	2	51	2	8	37
19-Jul-07	1.8	3	67	2	10	52
10-Sep-07	0.5	<2	148	7	24	103
06-Jun-08	0.8	<2	37	1	6	27
14-Jul-08	0.7	<2	55	1	9	43
01-Sep-08	0.8	<2	89	1	15	69

Notes: Bolded dates indicate sampling events during 2011. Sample collected at G0-10 on September 2, 2009 collected further upstream, close to where drainage discharges to Mary River. This result is not considered to be representative of Mary River water quality at this location due to little mixing. Sample not collected further downstream at designated location due to safety considerations.