Department of Environment and Conservation

Industrial Effluent Compliance
2013 Annual Report

Pollution Prevention Division

July 2014

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1) Executive Summary

The Newfoundland and Labrador Department of Environment and Conservation (NL ENVC) regulates industrial effluent under the *Environmental Control Water and Sewage Regulations NLR 65/03* (ECWSR). In April 2009, the ECWSR was amended. The amendment adopted specific limits from the corresponding federal regulations for each of the mining, pulp and paper and petroleum refining industrial sectors. Industries operating under a certificate of approval (COA) from the Pollution Prevention Division (PPD) have effluent streams identified and subsequent monitoring schedules developed to characterize the effluent. These schedules are designed to ensure that the effluent discharged from the industry meets regulatory requirements and is protective of the receiving environment.

Copies of the ECWSR, Metal Mining Effluent Regulations, the Pulp and Paper Effluent Regulations and the Petroleum Refinery Liquid Effluent Regulations can be obtained at:
www.assembly.nl.ca/Legislation/sr/Regulations/rc030065.htm
http://www.canlii.org/en/ca/laws/regu/sor-2002-222/latest/sor-2002-222.html
http://www.canlii.org/en/ca/laws/regu/sor-92-269/latest/sor-92-269.html
http://www.canlii.org/en/ca/laws/regu/crc-c-828/latest/crc-c-828.html

In 2013 there were more than 25 industries reporting effluent quality to the NL ENVC on a consistent basis. Figure 1 depicts the approximate geographic locations of these industries in Newfoundland and Labrador. This report provides a summary of the effluent quality discharged at the major industries within the province of Newfoundland and Labrador. It is important to note that the summaries provided are for the discharge locations only. Most industries conduct additional monitoring for general water quality characterization at discharge points as well as other locations in proximity to operations. Some industries operating in the province also participate in Environmental Effects Monitoring (EEM) programs. This report identifies EEM activities completed in 2013.

Disclaimer:

- The data presented is based upon reports submitted to the NL ENVC by industry, as of February 28th, 2014.
- The actual laboratory documentation is available upon request to verify analysis as required.
- If there is a discrepancy between the results depicted in this report and the laboratory documentation, the laboratory documentation is to be considered accurate.
- Average pH values have been corrected to reflect the logarithmic nature of the parameter.
- The number of samples listed in the tables is based on the maximum collected in a month for any one parameter. Some of the parameters may have been analyzed less frequently.
- *Daphnia magna* acute lethality tests (ALTs) are a required monitoring test but it is not a compliance determining test. It is a monitoring tool only.

Figure 1: Location of Industries Reporting Effluent Data to NL ENVC

2) Metal Mines

a) Anaconda Mining Inc

Current COA
Approval #: AA13-035579
Issue date: March 31, 2013
Expiration: March 31, 2018

Anaconda Mining Inc has one discharge point located at the Polishing Pond outflow. The effluent monitoring program requires analysis of numerous parameters; nine of these parameters have environmental limits. A monthly Acute Lethality Test (ALT) is also required as part of the COA. 39 samples were collected at the outflow of the Polishing Pond in 2013. There were no reported exceedances in any grab samples. The cyanide monthly average limit was exceeded in January. There were four rainbow trout ALTs with no failures and four *Daphnia magna* ALTs with no failures performed at this location.

Environmental Effects Monitoring
The Cycle 2 EEM Study Design was submitted in 2013.

See Table 1: Anaconda Mining Inc 2013: Effluent Discharge Criteria Summary.

b) Beaver Brook Antimony Inc

Current COA
Approval #: AA13-035578
Issue date: April 8, 2013
Expiration: March 19, 2018

Beaver Brook Antimony Inc has one discharge point located at Site 16. The effluent monitoring program requires analysis of numerous parameters, eight of which have compliance limits. In 2013, there were a total of 39 samples collected with no reported exceedances. There were seven rainbow trout ALTs with no failures and seven *Daphnia magna* ALTs with no failures performed at this location.

It is important to note that operations were ceased at Beaver Brook Antimony Inc. during 2013. Monitoring continued as part of the Care and Maintenance Plan for the facility.

Environmental Effects Monitoring
The Cycle 1 EEM Study Design was submitted in 2013.

See Table 2: Beaver Brook Antimony Inc 2013: Effluent Discharge Criteria Summary.

c) Iron Ore Company of Canada (IOCC)

Current COA
Approval #: AA13-045575
Issue date: April 9, 2013
Expiration: April 9, 2018

For most of 2013, the Iron Ore Company of Canada had five discharge points: FDP-MD5, FDP-TIA (Julienne Narrows), FDP-Hakim Culvert, PD-19 and PD-28. Late in 2013, an additional discharge point was added, FDP-MD30. The effluent monitoring program for the FDP locations requires analysis of numerous parameters; eight of these have environmental limits. PD-19 requires monitoring for TPH only. PD-28 requires monitoring for five parameters, two of which have environmental limits.

FDP-MD5: Discharge of effluent and the associated monitoring occurred at this location between May and November 2013. During this time, 29 samples were collected with no reported exceedances. There were five rainbow trout ALTs with no failures and five *Daphnia magna* ALTs with no failures performed at this location.

FDP-TIA: A total of 52 samples were collected at this location in 2013 with no exceedances. There were 10 rainbow trout ALTs with no failures and 10 *Daphnia magna* ALTs with no failures performed at this location.

FDP-Hakim Culvert: A total of 53 samples were collected at this location in 2013. There was one exceedance reported for TSS in November. There were 10 rainbow trout ALTs with no failures and 10 *Daphnia magna* ALTs with no failures performed at this location.

FDP-MD30: 12 samples were collected at FDP-MD30 in 2013. There was one rainbow trout ALT with no failure and one *Daphnia magna* ALT with no failure performed at this location.

PD-19: 12 TPH samples were collected in 2013 and all were analysed below the detection limit.

PD-28: Seven samples were collected at PD-28 between March and September 2013. There were no exceedances reported.

Environmental Effects Monitoring
The Cycle 4 EEM Study Design was submitted in 2013.

See Table 3: Iron Ore Company of Canada 2013 Effluent Discharge Criteria Summary.

d) Labrador Iron Mines

Current COA	Approval #:	AA10-095537
	Issue date:	September 8, 2010
	Expiration:	September 8, 2015

Labrador Iron Mines has 3 discharge locations at its mining operation: Ruth Pit Outlet, JSP-Out-1 and JSP-Out-2. The effluent monitoring program for these locations requires analysis of numerous parameters, eight of which have associated compliance limits.

Ruth Pit: 54 samples were collected in 2013 at Ruth Pit. There was one pH reported outside of acceptable range. Investigation into the event indicated that the sample was collected in a sample bottle containing an acidic preservative. There were no other exceedances reported at this site. There were 12 rainbow trout ALTs with no failures and 12 *Daphnia magna* ALTs with no failures performed at this location.

JSP-Out-1: 55 samples were collected at JSP-Out-1 in 2013. There were no reported exceedances. There were 15 rainbow trout ALTs with one failure in April and 10 *Daphnia magna* ALTs with no failures performed at this location.

JSP-Out-2: There were 53 samples collected at JSP-Out-2 in 2013. There were four TSS exceedances reported and the allowable TSS monthly average was exceeded in April, September and October. There were 12 rainbow trout ALTs with no failures and seven *Daphnia magna* ALTs with no failures performed at this location.

Environmental Effects Monitoring
There were no EEM submissions for 2013.

See Table 4: Labrador Iron Mines 2013: Effluent Discharge Criteria Summary.

e) Rambler Metals and Mining Canada Ltd (Ming Mine)

Current COA
Approval #: AA13-035580
Issue date: March 31, 2013
Expiration: March 31, 2018

Rambler Metals and Mining has one location at the Ming Mine site that discharges into South Brook Pond on the Baie Verte Peninsula. The effluent monitoring program consists of analysis of numerous parameters; nine of which have environmental compliance limits. There were 50 samples collected in 2013 with one copper and one zinc exceedance reported. The monthly average was exceeded in January for zinc. There were 16 rainbow trout ALTs with no failures and 15 *Daphnia magna* ALTs with six failures preformed at this location. It is important to note that the *Daphnia magna* ALT is a required monitoring test but it is not a compliance determining test. It is used as a monitoring tool only.

Environmental Effects Monitoring
The Cycle 1 EEM Interpretive Report was submitted in 2013.

See Table 5: Rambler Metals and Mining Canada Ltd. 2013: Effluent Discharge Criteria Summary.

f) Rambler Metals and Mining Canada Ltd (Nugget Pond)

Current COA
Approval #: AA13-035580
Issue date: March 31, 2013
Expiration: March 31, 2018

There is one discharge point located at the outflow of the Polishing Pond at the Rambler Metals and Mining Nugget Pond mill facility. The effluent monitoring program contains numerous parameters; nine of which have environmental compliance limits. ALTs are also required as part of the COA. In 2013, a total of 39 samples were collected and analysed at the Polishing Pond. No sampling was conducted in February as there was no discharge from the Polishing Pond. There were 12 rainbow trout ALTs with no failures and 11 *Daphnia magna* ALTs with no failures performed at this location.

Environmental Effects Monitoring
There were no EEM submissions for 2013.

See Table 6: Rambler Metals and Mining Canada Ltd (Nugget Pond Facility) 2013: Effluent Discharge Criteria Summary.

g) Tata Steel Mining Canada Ltd

Current COA
Approval #: AA12-085571
Issue date: August 10, 2012
Expiration: August 10, 2017

Tata Steel Mining Canada Ltd operates an iron ore mine in Labrador near Schefferville, Quebec. The mine site is still under significant development but there were some operations ongoing in 2013 that resulted in effluent being discharged occasionally through three discharge locations, SW2, SW11 and SW12. The effluent monitoring program requires analysis of numerous parameters, eight of which have associated compliance limits

SW2: One sample was collected in May at SW2. There was one reported TSS exceedance and the TSS monthly average was exceeded.

SW11: There were nine samples collected at SW11 in 2013. There was one zinc and two TSS exceedances reported. The monthly average for zinc was exceeded once and the TSS monthly average was exceeded four times. There was one rainbow trout ALT with no failure and one *Daphnia magna* ALT with no failure performed at this location.

SW12: One sample was collected in May at SW13. The reported TSS exceeded the daily grab limit and the monthly average limit.

Environmental Effects Monitoring
There were no EEM submissions for 2013.

See Table 7: Tata Steel Mining Canada Ltd 2013: Effluent Discharge Criteria Summary.

h) Teck Resources Ltd.

Current COA
Approval #: AA10-115540
Issue date: November 23, 2010
Expiration: November 23, 2015

Teck Resources Ltd. has one discharge point (Dam C) at their mining operation located near Millertown, NL. The effluent monitoring program requires analysis of numerous parameters. Nine of these parameters have associated compliance limits. In 2013, 38 samples were collected and there was no discharge in February or March. There were no exceedances reported in 2013. There were 11 rainbow trout ALTs with no failures and 10 *Daphnia magna* ALTs with two failures performed at this location. It is important to note that the *Daphnia magna* ALT is a required monitoring test but it is not a compliance determining test. It is used as a monitoring tool only.

Environmental Effects Monitoring
The Cycle 3 EEM Study Design was submitted in 2013.

See Table 8: Teck Resources Ltd. 2013: Effluent Discharge Criteria Summary.

i) Vale Newfoundland and Labrador Ltd. (Voisey's Bay)

Current COA
Approval #: AA13-125585
Issue date: December 31, 2013
Expiration: December 31, 2018

The Vale Newfoundland and Labrador Ltd. Mine Site located near Nain, Labrador has one discharge point at the Waste Water Treatment Plant. The effluent monitoring program consists of several parameters; eight of these have compliance limits. A total of 49 samples

were collected during the year, with one reported pH exceedance. There were 15 rainbow trout ALTs with one failure and 13 *Daphnia magna* ALTs with four failures performed at this location. It is important to note that the *Daphnia magna* ALT is a required monitoring test but it is not a compliance determining test. It is used as a monitoring tool only.

Environmental Effects Monitoring
There were no EEM submissions in 2013.

See Table 9: Vale Newfoundland and Labrador Ltd. (Mine Site) 2013: Effluent Discharge Criteria Summary.

j) Wabush Mines

Current COA
Approval #: AA12-055569
Issue date: May 31, 2012
Expiration: May 31, 2016

Wabush Mines has five discharge points: Flora Lake, Knoll Lake, West Pit Settling Pond, East Pit #2 and the Deep Well Discharge. The effluent monitoring program consists of several parameters, eight of which have compliance limits. There are ALT requirements at all of these locations with the exception of the Deep Well Discharge.

Flora Lake: 50 samples were taken at the Flora Lake discharge in 2013. Two TSS exceedances were reported, one in May and one in June. The monthly average for May and June exceeded the monthly average limit of 15 mg/L. There were four rainbow trout ALTs with no failures and four *Daphnia magna* ALTs with no failures performed at this location.

Knoll Lake: A total of 170 samples were taken at the Knoll Lake discharge in 2013. Wabush has upgraded the waste water treatment facility at this discharge location which has resulted in more sampling conducted, especially in the first quarter of the year when the new infrastructure was being commissioned. There was one reported TSS exceedance in December. There were 20 rainbow trout ALTs with no failures and 20 *Daphnia magna* ALTs with one failure performed at this location. It is important to note that the *Daphnia magna* ALT is a required monitoring test but it is not a compliance determining test. It is used as a monitoring tool only.

West Pit Settling Pond: 52 samples were collected at the West Pit Settling Pond in 2013. There were no reported exceedances. There were four rainbow trout ALTs with no failures and four *Daphnia magna* ALTs with one failure performed at his location. It is important to note that the *Daphnia magna* ALT is a required monitoring test but it is not a compliance determining test. It is used as a monitoring tool only.

East Pit #2: 52 samples were analysed at the East Pit #2 location in 2013 with no exceedances reported. There were four rainbow trout ALTs with no failures and four *Daphnia magna* ALTs with no failures performed at his location.

Deep Well Discharge: 26 samples were taken at this location with no exceedances reported.

See Table 10: Wabush Mines 2013: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring
The Cycle 4 EEM Study Design was submitted in 2013.

Table 1: Anaconda Mining Inc 2013: Effluent Discharge Criteria Summary (mg/L, unless noted)

Polishing Pond Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	2	1	4	3	4	4	5	5	5	3	1	2	39
pH, Maximum (Units)	8.06	8.30	8.09	8.00	8.15	7.90	8.13	8.22	8.14	7.97	8.08	7.84	8.30
pH, Minimum (Units)			7.97	7.86	7.88	7.87	7.84	8.13	8.02	7.84			7.84
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum			<0.001	<0.001			<0.001		<0.001	<0.001		<0.001	<0.001
As, Exceedance (>1)			0	0			0		0	0		0	0
Monthly Average (>0.50)			<0.001	<0.001			<0.001		<0.001	<0.001		<0.001	0
Cu, Maximum			0.0334	0.014			0.0099	0.0077	0.0085	0.0083		0.0069	0.0334
Cu, Exceedance (>0.6)			0	0			0	0	0	0		0	0
Monthly Average (>0.30)			0.0334	0.014			0.0097	0.0077	0.00825	0.0083		0.0069	0
CN, Maximum	1.3	0.63	0.39	0.197	0.252	0.45	0.27	0.17	0.33	0.22	0.38	0.058	1.3
CN, Exceedance (>2.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>1.00)	1.09	0.63	0.275	0.162667	0.16925	0.235	0.18	0.13275	0.2082	0.08165	0.38	0.058	1
Pb, Maximum			<0.0005	0.00097			0.00101	<0.0005	<0.0005	<0.0005		<0.0005	0.00101
Pb, Exceedance (>0.4)			0	0			0	0	0	0		0	0
Monthly Average (>0.20)			<0.0005	0.00097			0.00063	<0.0005	<0.0005	<0.0005		<0.0005	0
Ni, Maximum			<0.002	<0.002			<0.002	<0.002	<0.002	<0.002		<0.002	<0.002
Ni, Exceedance (>1)			0	0			0	0	0	0		0	0
Monthly Average (>0.50)			<0.002	<0.002			<0.002	<0.002	<0.002	<0.002		<0.002	0
Zn, Maximum			<0.005	0.0058			<0.005	<0.005	<0.005	0.005		<0.005	0.0058
Zn, Exceedance (>1)			0	0			0	0	0	0		0	0
Monthly Average (>0.50)			<0.005	0.0058			<0.005	<0.005	<0.005	0.005		<0.005	0
TSS, Maximum	11	12	8.4	6.8	17	3.2	3.2	16	3.4	3.8	4	8.4	17
TSS, Exceedance (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>15.00)	6.6	12	5.625	5.13	9.25	2.3	2.24	4.56	2.24	3.2667	4	8.4	0
Ra-226, Maximum			<0.01	0.01			<0.010		<0.010			<0.010	0.01
Ra-226, Exceedance (>1.11 Bq/l)			0	0			0		0			0	0
Monthly Average (>0.37)			<0.01	0.01			<0.010		<0.010			<0.010	0

Table 1 Continued: Anaconda Mining Inc 2013: Effluent Discharge Criteria Summary (mg/L, unless noted)

Polishing Pond Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Ammonia, Maximum							5.4	4.9	5.1	4.9			5.4
Cd, Maximum (ug/L)							<0.01	0.012	0.038	0.012			0.038
Fe, Maximum							0.135	0.144	0.078	0.403			0.403
Hg, Maximum (ug/L)							<0.013	<0.013	<0.013	<0.013			<0.013
Nitrate, Maximum							2.4	3.4	5.1	4.9			5.1
TDS, Maximum							520	550	540	500			550
TPH, Maximum				<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
ALT, Pass (RT)			1			1		1			1		4
ALT, Fail (RT)			0			0		0			0		0
ALT, Pass (DM)			1			1		1			1		4
ALT, Fail (DM)			0			0		0			0		0

Table 2: Beaver Brook Antimony Inc 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Site 16	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples			2	4	5	4	1	5	4	4	5	5	39
pH, Maximum (units)			8.12	8.53	8.72	8.67	8.23	8.45	8.28	8.11	8.21	8.08	8.72
pH, Minimum (units)			7.99	8.07	8.15	8.33		8.12	8.04	8.05	7.93	8.02	7.93
pH, Exceedance (<5.5, >9.0)			0	0	0	0	0	0	0	0	0	0	0
As, Maximum			0.067	0.078	0.076	0.09	0.095	0.147	0.118	0.124	0.144	0.102	0.147
As, Exceedance (>1)			0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)			0.066	0.0740	0.0710	0.08425	0.095	0.12760	0.1155	0.117	0.1064	0.092	0
Cu, Maximum			<0.002	0.003	0.004	<0.002	<0.002	0.01	0.002	0.032	0.002	<0.002	0.032
Cu, Exceedance (>0.6)			0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)			<0.002	<0.002	<0.002	<0.002	<0.002	0.0031	0.0015	0.00875	0.0013	<0.002	0
Pb, Maximum			0.0064	0.0101	0.0013	0.0008	0.002	0.0016	0.0036	0.0031	0.0027	0.0049	0.0101
Pb, Exceedance (>0.4)			0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)			0.005	0.0061	0.00098	0.00056	0.002	0.00057	0.0022	0.00193	0.00188	0.0033	0
Ni, Maximum			0.019	0.016	0.013	0.010	0.008	0.014	0.017	0.014	0.014	0.021	0.021
Ni, Exceedance (>1)			0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)			0.017	0.01525	0.0114	0.00875	0.008	0.0118	0.01375	0.0125	0.0126	0.0158	0
Zn, Maximum			0.034	0.012	0.015	0.008	0.007	0.009	0.011	0.01	0.029	0.029	0.034
Zn, Exceedance (>1)			0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)			0.0215	0.00825	0.0079	0.00775	0.007	0.0068	0.00975	0.00925	0.0136	0.0194	0
TSS, Maximum			17	11	10	10	10	4	12	11	12	8	17
TSS, Exceedance (>30)			0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>15.00)			14.5	8.5	5.2	7.25	10	3.00	7.25	6	7	4.8	0
Ra-226, Maximum			<0.005	0.008	<0.006	0.008		0.009	0.008		0.02		0.02
Ra-226, Exceedance (>1.11 Bq/l)			0	0	0	0		0	0		0		0
Monthly Average (>0.37)			<0.005	<0.006	<0.006	0.008		0.0090	0.0080		0.02		0
Ammonia, Maximum				0.008		0.07		<0.03	0.03		0.04		0.07
Cd, Maximum (ug/L)				0.027		0.034	0.025	0.023	0.024	<0.017	0.02		0.034
Fe, Maximum				0.332		0.393	0.529	0.136	0.747	0.219	0.317		0.747
Hg, Maximum (ug/L)				<0.05		<0.05		0.026			<0.026		<0.05
Nitrate, Maximum						1.91		1.66	1.89		0.77		3.81

Table 2 Continued: Beaver Brook Antimony Inc 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Site 16	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
TDS, Maximum				258		235		278	240		190		278
ALT, Pass (RT)			1	1	1	1		1		1	1		7
ALT, Fail (RT)			0	0	0	0		0		0	0		0
ALT, Pass (DM)			1	1	1	1		1		1	1		7
ALT, Fail (DM)			0	0	0	0		0		0	0		0

Table 3: Iron Ore Company of Canada 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

FDP-MD5	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples					4	4	5	4	4	5	3		29
pH, Maximum (Units)					7.59	7.84	7.95	7.92	7.97	7.82	7.85		7.97
pH, Minimum (Units)					7.39	7.54	7.73	7.56	7.81	7.58	7.69		7.39
pH, Exceedance (<5.5, >9.0)					0	0	0	0	0	0	0		0
As, Maximum					<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		<0.0010
As, Exceedance (>1)					0	0	0	0	0	0	0		0
Monthly Average (>0.50)					<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		0
Cu, Maximum					0.0027	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020		0.0027
Cu, Exceedance (>0.6)					0	0	0	0	0	0	0		0
Monthly Average (>0.30)					<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020		0
Pb, Maximum					0.00057	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		0.00057
Pb, Exceedance (>0.4)					0	0	0	0	0	0	0		0
Monthly Average (>0.20)					<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		0
Ni, Maximum					0.026	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0024		0.026
Ni, Exceedance (>1)					0	0	0	0	0	0	0		0
Monthly Average (>0.50)					0.00725	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020		0
Zn, Maximum					0.014	0.0081	<0.0050	0.0054	0.0062	0.0067	0.0054		0.014
Zn, Exceedance (>1)					0	0	0	0	0	0	0		0
Monthly Average (>0.50)					0.01175	0.005225	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		0
TSS, Maximum					9.2	4.4	5.4	6.4	8	3.4	3.4		9.2
TSS, Exceedance (>30)					0	0	0	0	0	0	0		0
Monthly Average (>15.00)					7.3	2.53	3.84	4.4	5.15	2.6	3.066666		0
Ra-226, Maximum					<0.01	<0.01	<0.01	<0.010	<0.010		<0.010		<0.01
Ra-226, Exceedance (>1.11 Bq/l)					0	0	0	0	0		0		0
Monthly Average (>0.37)					<0.01	<0.01	<0.01	<0.010	<0.010		<0.010		0
Ammonia, Maximum					0.19	0.052	0.074	0.056		0.053			0.19
Cd, Maximum (ug/L)					<0.017	<0.017	0.022	<0.010		<0.010			0.022
Fe, Maximum					1.4	0.45	0.43	0.9		0.68			1.4
Hg, Maximum (ug/L)					0.013	<0.013	<0.013	<0.013		<0.013			0.013
Nitrate, Maximum					0.11	<0.050	<0.050	<0.050		<0.050			0.11

Table 3 Continued: Iron Ore Company of Canada 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

FDP-MD5	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
TDS, Maximum					70	110	130	120	140	150	160		160
TPH, Maximum					<0.10	<0.10	<0.10	0.13	<0.10	<0.10	<0.10		0.13
ALT, Pass (RT)					1	1	1	1	1				5
ALT, Fail (RT)					0	0	0	0	0				0
ALT, Pass (DM)					1	1	1	1	1				5
ALT, Fail (DM)					0	0	0	0	0				0

FDP-TIA (Julienne Narrows)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	4	4	4	5	4	4	5	4	5	4	4	5	52
pH, Maximum (units)	8.02	7.95	7.99	7.86	7.81	7.77	7.94	8.08	8.26	7.92	7.82	7.83	8.26
pH, Minimum (units)	7.88	7.83	7.82	7.68	7.29	7.56	7.85	7.78	7.84	7.77	7.80	7.75	7.29
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
As, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0
Cu, Maximum	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0026	<0.0020	0.002	<0.0020	<0.0020	<0.0020	0.0026
Cu, Exceedance (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0
Pb, Maximum	<0.0005	<0.0005	0.0014	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0014
Pb, Exceedance (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	<0.0005	<0.0005	0.00062	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0
Ni, Maximum	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0096	<0.0020	0.0096
Ni, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.00315	<0.0020	0
Zn, Maximum	0.23	0.0071	<0.0050	0.011	<0.0050	<0.0050	0.029	0.0071	0.018	<0.0050	<0.0050	<0.0050	0.23
Zn, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.0594	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0093	<0.0050	0.0056	<0.0050	<0.0050	<0.0050	0

Table 3 Continued: Iron Ore Company of Canada 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

FDP-TIA (Julienne Narrows)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
TSS, Maximum	<1.0	1.4	1.6	<1.0	1.2	4.8	4	1.6	1.2	1	3.4	1.6	4.8
TSS, Exceedance (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>15.00)	<1.0	<1.0	<1.0	<1.0	<1.0	2.15	1.820	1.125	<1.0	<1.0	1.575	<1.0	0
Ra-226, Maximum		0.04	<0.01	0.02	<0.01	<0.01	<0.01	<0.010	<0.010		<0.010	<0.010	0.04
Ra-226, Exceedance (>1.11 Bq/l)		0	0	0	0	0	0	0	0		0	0	0
Monthly Average (>0.37)		0.04	<0.01	0.02	<0.01	<0.01	<0.01	<0.010	<0.010		<0.010	<0.010	0
Ammonia, Maximum						<0.050	0.067	<0.050	0.055				0.067
Cd, Maximum (ug/L)	0.021	<0.017	0.2	0.021		0.022	<0.010	0.18	<0.010				0.2
Fe, Maximum	<0.050	<0.050	<0.050	<0.050		0.17	0.18	<0.050	<0.050				0.18
Hg, Maximum (ug/L)	0.14	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013				0.14
Nitrate, Maximum						0.71	0.63	0.59	0.64				0.71
TDS, Maximum	72	550	110	80	68	60	74	87	66	70	55	72	550
TPH, Maximum													
ALT, Pass (RT)	1	1	1	1	1	1	1	1	1			1	10
ALT, Fail (RT)	0	0	0	0	0	0	0	0	0			0	0
ALT, Pass (DM)	1	1	1	1	1	1	1	1	1			1	10
ALT, Fail (DM)	0	0	0	0	0	0	0	0	0			0	0

FDP-Hakim Culvert	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	4	4	4	5	4	4	5	4	5	4	5	5	53
pH, Maximum (units)	8.21	8.1	8.19	8.07	8.03	8.08	8.09	8.18	8.22	8.06	7.97	8.02	8.22
pH, Minimum (units)	8.03	7.98	8.06	7.86	7.89	8.00	7.98	7.95	8.07	7.88	7.74	7.79	7.74
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0024	<0.0010	0.0024
As, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0
Cu, Maximum	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cu, Exceedance (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 3 Continued: Iron Ore Company of Canada 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

FDP-Hakim Culvert	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Cu Monthly Average (>0.30)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0
Pb, Maximum	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pb, Exceedance (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0
Ni, Maximum	0.025	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.025
Ni, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.007	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0
Zn, Maximum	0.0064	<0.0050	0.0074	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.03	0.03	0.085	0.085
Zn, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.00938	0.0256	0.065	0
TSS, Maximum	4.6	2.6	<1.0	4.8	4	4.4	1	11	23	2	40	3	40
TSS, Exceedance (>30)	0	0	0	0	0	0	0	0	0	0	1	0	1
Monthly Average (>15.00)	1.75	1.4	<1.0	1.54	2.65	2.225	<1.0	3.975	6.36	<2.0	9.46	<2.0	0
Ra-226, Maximum		0.02	0.02	0.01	<0.01	<0.01	<0.01	<0.01	<0.010		<0.010	<0.010	0.02
Ra-226, Exceedance (>1.11 Bq/l)		0	0	0	0	0	0	0	0		0	0	0
Monthly Average (>0.37)		0.02	0.02	0.01	<0.01	<0.01	<0.01	<0.01	<0.010		<0.010	<0.010	0
Ammonia, Maximum	3	1.7	1.6	1.6	2.9	3.5	2.4	10	8.8	5.5	6.4	3	10
Cd, Maximum (ug/L)	0.096	<0.017	<0.017	<0.017	<0.017	<0.017	0.012	0.011	<0.010		<0.010		0.096
Fe, Maximum	0.29	<0.050	<0.050	0.44	0.68	0.37	0.11	0.43	0.18		0.087		0.68
Hg, Maximum (ug/L)	0.017	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013		0.048		0.048
Nitrate, Maximum	19	12	11	11	14	18	15	29	28	18	18	14	29
TDS, Maximum	300	211	250	189	350	310	280	360	340	260	220	230	360
TPH, Maximum	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.18	<0.10	<0.10	<0.11	<0.10	0.18
ALT, Pass (RT)	1	1	1	1	1	1	1	1	1			1	10
ALT, Fail (RT)	0	0	0	0	0	0	0	0	0			0	0
ALT, Pass (DM)	1	1	1	1	1	1	1	1	1			1	10
ALT, Fail (DM)	0	0	0	0	0	0	0	0	0			0	0

Table 3 Continued: Iron Ore Company of Canada 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

FDP-MD30	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples							1	1	1	2	3	4	12
pH, Maximum (Units)							7.78	7.79	7.59	7.47	7.51	7.58	7.79
pH, Minimum (Units)										7.45	7.40	7.34	7.34
pH, Exceedance (<5.5, >9.0)							0	0	0	0	0	0	0
As, Maximum							<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
As, Exceedance (>1)							0	0	0	0	0	0	0
Monthly Average (>0.50)							<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
Cu, Maximum							<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cu, Exceedance (>0.6)							0	0	0	0	0	0	0
Monthly Average (>0.30)							<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0
Pb, Maximum							<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pb, Exceedance (>0.4)							0	0	0	0	0	0	0
Monthly Average (>0.20)							<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0
Ni, Maximum							<0.002	<0.002	<0.002	<0.002	0.003	<0.002	0.003
Ni, Exceedance (>1)							0	0	0	0	0	0	0
Monthly Average (>0.50)							<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0
Zn, Maximum							<0.005	0.0064	<0.005	0.0092	0.0065	0.0053	0.0092
Zn, Exceedance (>1)							0	0	0	0	0	0	0
Monthly Average (>0.50)							<0.005	0.0064	<0.005	0.00745	<0.005	<0.005	0
TSS, Maximum							1.2	1.2	<1.0	<1.0	13	<1.0	13
TSS, Exceedance (>30)							0	0	0	0	0	0	0
Monthly Average (>15.00)							1.2	1.2	<1.0	<1.0	4.6666	<1.0	0
Ra-226, Maximum											<0.01	<0.01	<0.01
Ra-226, Exceedance (>1.11 Bq/l)											0	0	0
Monthly Average (>0.37)											<0.01	<0.01	0
Ammonia, Maximum							0.13	<0.050	0.07	0.086			0.13
Cd, Maximum (ug/L)							<0.010	0.013	<0.010	<0.010			0.013
Fe, Maximum							0.1	0.095	0.054	<0.050			0.1
Hg, Maximum (ug/L)							<0.013	<0.013	<0.013	<0.013			<0.013
Nitrate, Maximum							7.9	8	8.1	8.3			8.3

Table 3 Continued: Iron Ore Company of Canada 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

FDP-MD30	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
TDS, Maximum							170	140	140	140	150	150	170
TPH, Maximum											<0.10	<0.10	<0.10
ALT, Pass (RT)												1	1
ALT, Fail (RT)												0	0
ALT, Pass (DM)												1	1
ALT, Fail (DM)												0	0

PD 19 (Smallwood Pit)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	1	1	1	1	1	1	1	1	1	1	1	1	12
TPH, Maximum	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

PD 28 (Humphrey West Pit)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples			1	1	1	1	1	1	1				7
pH, Maximum (units)			8.26			8.09	8.20	8.20	8.21				8.26
pH, Minimum (units)													
pH, Exceedance (<5.5, >9.0)			0			0	0	0	0				0
Fe, Maximum			0.15			0.26	0.18	0.31	0.17				0.31
TDS, Maximum			390			320	360	330	350				390
TPH, Maximum			<0.10	<0.10	<0.10	<0.10	<0.10	0.14	<0.10				0.14
TSS, Maximum			1.4			1.4	<1.0	1	<1.0				1.4
TSS, Exceedance (>30)			0			0	0	0	0				0
Monthly Average (>15.00)			1.4			1.4	<1.0	1	<1.0				0

Table 4: Labrador Iron Mines 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Ruth Pit Outlet	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	5	3	4	5	4	5	5	5	5	4	4	5	54
pH, Maximum (units)	7.68	7.97	7.75	8.00	7.92	7.70	8.18	8.08	8.02	8.10	7.99	8.04	8.18
pH, Minimum (units)	6.40	1.47	7.09	7.38	7.62	7.38	7.17	7.82	7.58	7.54	7.84	7.89	1.47
pH, Exceedance (<5.5, >9.0)	0	1	0	0	0	0	0	0	0	0	0	0	1
As, Maximum	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0011	<0.001	<0.001	<0.001	<0.001	0.0011
As, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
Cu, Maximum	<0.002	<0.001	<0.001	0.0013	<0.001	<0.001	<0.001	<0.001	0.0012	0.0012	<0.001	<0.001	0.0013
Cu, Exceedance (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
Pb, Maximum	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001
Pb, Exceedance (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average(>0.20)	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0
Ni, Maximum	<0.002	<0.002	0.0026	<0.002	<0.002	<0.002	<0.002	<0.002	0.0036	<0.002	<0.002	<0.002	0.0036
Ni, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0
Zn, Maximum	0.025	<0.007	<0.007	0.027	<0.007	0.036	0.012	<0.007	<0.007	<0.007	0.014	<0.007	0.0360
Zn, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.00862	<0.007	<0.007	0.0082	<0.007	0.011625	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	0
TSS, Maximum	<2	5	<2	2	7	8	3	10	5	4	3	4	10
TSS, Exceedance (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>15.00)	<2	2.3333	<2	<2	4	2.2	<2	6.4	<2	<2	<2	<2	0
Radium, Maximum	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	0.004	0.002	0.002	<0.002	<0.002	0.004
Radium, Exceedance (>1.11 Bq/L)	0	0	0	0	0	0	0	0	0	0	0	0	0
Ammonia, Maximum	<0.02		0.02	<0.02	0.02	<0.02	0.02	0.03	<0.02	<0.02	<0.02	<0.02	0.03
Cd, Maximum (ug/L)	<0.2	<0.2	<0.2	<0.2	<0.2	1.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	1.5
Fe, Maximum	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.067	<0.06	0.072	<0.06	0.072
Hg, Maximum (ug/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1
Nitrate, Maximum	0.4	830	0.35	0.4	0.34	0.32	0.31	0.3	0.31	0.3	0.30	0.3	830

Table 4 Continued: Labrador Iron Mines 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Ruth Pit Outlet	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
TDS, Maximum	84	69	67	83	84	31	36	67	79	76	59	67	84
ALT, Pass (RT)	1	1	1	1	1	1	1	1	1	1	1	1	12
ALT, Fail (RT)	0	0	0	0	0	0	0	0	0	0	0	0	0
ALT, Pass (DM)	1	1	1	1	1	1	1	1	1	1	1	1	12
ALT, Fail (DM)	0	0	0	0	0	0	0	0	0	0	0	0	0

JSP-Out-1	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	5	3	4	6	5	4	5	5	5	4	4	5	55
pH, Maximum (units)	7.02	7.17	6.93	7.64	7.13	7.04	7.00	7.09	7.25	7.09	7.13	7.15	7.64
pH, Minimum (units)	6.46	6.98	6.76	6.99	6.88	6.83	6.80	6.89	6.92	6.65	6.86	6.79	6.46
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
As, Exceedance (>1)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
Cu, Maximum	0.0022		<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0022
Cu, Exceedance (>0.6)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)	0.0022		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
Pb, Maximum	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pb, Exceedance (>0.4)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average(>0.20)	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0
Ni, Maximum	0.0065		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0065
Ni, Exceedance (>1)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.0065		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0
Zn, Maximum	<0.007		<0.007	<0.007	<0.007	0.014	0.044	0.012	<0.007	<0.007	<0.007	<0.007	0.044
Zn, Exceedance (>1)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.007		<0.007	<0.007	<0.007	0.014	0.044	0.012	<0.007	<0.007	<0.007	<0.007	0
TSS, Maximum	11	8	<2	<2	4	<2	<2	10	21	<2	21	8	21
TSS, Exceedance (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>15.00)	6.8	4.5	<2	<2	2.25	<2	<2	2.8	5	<2	6.75	4	0

Table 4 Continued: Labrador Iron Mines 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

JSP-Out-1	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Radium, Maximum	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	0.002
Radium, Exceedance (>1.11 Bq/L)	0		0	0	0	0	0	0	0	0	0	0	0
Ammonia, Maximum	<0.02		<0.02	0.02	<0.02	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	0.03
Cd, Maximum (ug/L)	<0.2		<0.2	<0.2	<0.2	0.59	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.59
Fe, Maximum	0.13		<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.13
Hg, Maximum (ug/L)	<0.01		<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1
Nitrate, Maximum	0.2		0.26	0.28	0.22	0.26	0.240	0.23	0.22	0.25	0.23	0.23	0.28
TDS, Maximum	32		29	40	55	18	23	37	48	43	34	39	55
ALT, Pass (RT)	1	1	1	1	3	1	1	1	1	1	1	1	14
ALT, Fail (RT)	0	0	0	1	0	0	0	0	0	0	0	0	1
ALT, Pass (DM)	1	1	1	2	3	1	1						10
ALT, Fail (DM)	0	0	0	0	0	0	0						0

JSP-Out-2	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	5	3	4	5	4	4	5	5	5	4	4	5	53
pH, Maximum (units)	7.01	6.95	6.88	7.58	7.23	7.15	7.27	7.36	7.35	7.25	7.16	7.19	7.58
pH, Minimum (units)	6.09	6.78	6.59	7.08	6.94	7.03	6.98	7.17	6.94	6.86	6.71	6.95	6.09
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
As, Exceedance (>1)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
Cu, Maximum	<0.001		<0.001	<0.001	<0.001	<0.001	0.0027	0.0013	0.0013	<0.001	<0.001	<0.001	0.0027
Cu, Exceedance (>0.6)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)	<0.001		<0.001	<0.001	<0.001	<0.001	0.0027	0.0013	0.0013	<0.001	<0.001	<0.001	0
Pb, Maximum	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pb, Exceedance (>0.4)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average(>0.20)	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0

Table 4 Continued: Labrador Iron Mines 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

JSP-Out-2	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Ni, Maximum	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Ni, Exceedance (>1)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0
Zn, Maximum	<0.007		<0.007	<0.007	<0.007	0.0076	0.011	<0.007	<0.007	<0.007	<0.007	<0.007	0.011
Zn, Exceedance (>1)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.007		<0.007	<0.007	<0.007	0.0076	0.011	<0.007	<0.007	<0.007	<0.007	<0.007	0
TSS, Maximum	10	4	5	60	6	4	3	18	49	200	17	5	200
TSS, Exceedance (>30)	0	0	0	1	0	0	0	0	1	2	0	0	4
Monthly Average (>15.00)	4.6	2	2	15.2	<5	2.5	<2	4.6	20.6	68.75	6.25	3	3
Radium, Maximum	0.002		<0.002		<0.002	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	<0.002	0.003
Radium, Exceedance (>1.11 Bq/L)	0		0		0	0	0	0	0	0	0	0	0
Ammonia, Maximum	<0.02		<0.02	0.03	<0.02	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	0.03
Cd, Maximum (ug/L)	<0.2		<0.2	<0.2	<0.2	0.37	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.37
Fe, Maximum	<0.06		<0.06	<0.06	0.11	<0.06	<0.06	<0.06	0.19	<0.06	0.11	<0.06	0.19
Hg, Maximum (ug/L)	0.01		0.01	<0.01	0.02	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1
Nitrate, Maximum	0.3	0.2	0.34	0.24	0.22	0.23	0.2	0.2	0.25	0.2	0.22	0.55	0.55
TDS, Maximum	18	35	20	33	48	22	15	30	35	52	23	34	52
ALT, Pass (RT)	1	1	1	1	1	1	1	1	1	1	1	1	12
ALT, Fail (RT)	0	0	0	0	0	0	0	0	0	0	0	0	0
ALT, Pass (DM)	1	1	1	1	1	1	1						7
ALT, Fail (DM)	0	0	0	0	0	0	0						0

Table 5: Rambler Metals and Mining Canada Ltd. (Ming Mine) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Treated Mine Effluent	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	1	3	3	5	8	3	5	4	5	4	4	5	50
pH, Maximum (units)	7.87	8.78	8.51	8.97	8.67	8.95	8.85	8.94	8.72	8.49	8.30	8.65	8.97
pH, Minimum (units)		8.43	8.27	8.47	8.28	8.35	8.31	8.52	7.63	8.23	7.44	7.22	7.22
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.001	<0.001	0.0019	0.0017	0.0011	<0.001	0.0011	<0.0010	0.0024	0.0028	0.0018	0.0015	0.0028
As, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (<0.50)	<0.001	<0.001	<0.001	0.00122	<0.001	<0.001	<0.001	<0.0010	0.00138	0.00173	0.00128	0.02384	0
Cu, Maximum	0.0728	0.759	0.0166	0.357	0.0567	0.0277	0.0421	0.0637	0.071	0.0551	0.12	0.0417	0.759
Cu, Exceedance (>0.6)	0	1	0	0	0	0	0	0	0	0	0	0	1
Monthly Average (<0.30)	0.0728	0.26143	0.01287	0.09026	0.0279	0.0158	0.02126	0.03395	0.03018	0.03875	0.052	0.03018	0
CN, Maximum				<0.0020	0.0058	0.0055	0.011	0.011	0.0081	0.0046	0.0074	0.013	0.013
CN, Exceedance (>2)				0	0	0	0	0	0	0	0	0	0
Monthly Average (<1.00)				<0.0020	0.0023	0.0048	0.00798	0.01023	0.00612	0.00245	0.00485	0.00632	0
Pb, Maximum	<0.0005	0.00348	0.00071	0.00179	0.00056	0.00061	0.00097	0.00237	0.0012	0.00683	<0.0005	<0.0005	0.00683
Pb, Exceedance (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (<0.20)	<0.0005	0.00133	0.00052	0.00062	<0.0005	<0.0005	<0.0005	0.00078	<0.0005	0.0019	<0.0005	<0.0005	0
Ni, Maximum	0.159	0.0428	0.0337	0.0254	0.0276	0.0155	0.0157	0.0221	0.0313	0.0111	0.0145	0.0079	0.159
Ni, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (<0.50)	0.159	0.0379	0.02467	0.01334	0.016425	0.01297	0.00934	0.01315	0.01622	0.0074	0.01063	0.00532	0
Zn, Maximum	5.29	0.27	0.181	0.67	0.605	0.205	0.154	0.211	0.279	0.418	0.336	0.363	5.29
Zn, Exceedance (>1)	1	0	0	0	0	0	0	0	0	0	0	0	1
Monthly Average (<0.50)	5.29	0.23833	0.125	0.31922	0.26061	0.0928	0.08462	0.13055	0.17658	0.195	0.238	0.177	1
TSS, Maximum	2	8.5	12	8	8	6	12	10	27	8.2	4	6	27
TSS, Exceedance (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (<15.00)	2	<5.0	7.5	<5.0	5.1625	<5.0	6.66	6.75	8.4	4.925	2.925	‘<5.0	0
Ra-226, Maximum	0.03	0.02	0.05	0.03	0.04	0.04	0.033	0.017	0.034	0.019	0.022	0.04	0.05
Ra-226, Exceedance (>1.11 Bq/l)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.37)	0.03	0.01	0.03	0.016	0.02625	0.02667	0.02	0.01075	0.0148	0.01075	0.016	0.0158	0

Table 5 Continued: Rambler Metals and Mining Canada Ltd. (Ming Mine) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Treated Mine Effluent	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Ammonia, Maximum					14				14	13		13	14
Cd, Maximum (ug/L)					2.18				15.4	2.6		1.27	15.4
Fe, Maximum					0.326				0.146	0.338		0.171	0.338
Hg, Maximum (ug/L)					<0.013				<0.013	<0.013		<0.013	<0.013
Nitrate, Maximum					22				18	22		18	22
TDS, Maximum					1870				2300	2400		1700	2400
TPH, Maximum					<0.10				<0.10	<0.10		<0.10	<0.10
ALT, Pass (RT)	1	1	2	2	2	1	1	1	1	1	2	1	16
ALT, Fail (RT)	0	0	0	0	0	0	0	0	0	0	0	0	0
ALT, Pass (DM)	0	1	1	1	2		1	1	0	0	1	1	9
ALT, Fail (DM)	1	0	1	1	0		0	0	1	1	1	0	6

Table 6: Rambler Metals and Mining (Nugget Pond) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Polishing Pond	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	1		2	4	5	4	5	4	5	2	4	3	39
pH, Maximum (Units)	7.31		7.41	7.58	7.64	7.69	7.74	7.77	7.71	7.95	7.44	7.37	7.95
pH, Minimum (Units)			7.28	7.00	7.11	7.41	7.53	7.61	7.58	7.44	7.27	6.67	6.67
pH, Exceedance (<5.5, >9.0)	0		0	0	0	0	0	0	0	0	0	0	0
As, Maximum	0.0024		0.0011	0.004	0.0037	0.0039	0.004	0.004	0.0032	0.0027	0.013	0.002	0.013
As, Exceedance (>1)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.0024		<0.001	0.002325	0.0028	0.00338	0.00306	0.0033	0.00296	0.00255	0.0049	0.001467	0
Cu, Maximum	0.08		0.01	0.0447	0.0437	0.0192	0.017	0.0682	0.0085	0.0085	0.012	0.02	0.08
Cu, Exceedance (>0.6)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)	0.08		0.01	0.02355	0.02648	0.017	0.01248	0.02455	0.00766	0.00815	0.00705	0.013067	0
CN, Maximum	0.38		0.18	0.581	0.560	0.620	0.440	0.280	0.37	0.003	0.2	0.32	0.62
CN, Exceedance (>2)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>1.00)	0.38		0.18	0.272375	0.3058	0.41775	0.1978	0.205	0.25	0.003	0.081625	0.2035	0
Pb, Maximum	0.002		0.001	0.00146	0.00253	0.00197	0.0142	0.0066	0.0081	0.0018	<0.002	0.00096	0.0142
Pb, Exceedance (>0.4)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	0.002		0.001	0.001068	0.001708	0.00134	0.00433	0.00204	0.002008	0.001025	<0.002	0.00059	0
Ni, Maximum	0.0031		<0.002	0.003	0.0026	<0.002	0.0031	0.003	<0.002	<0.002	0.006	<0.002	0.006
Ni, Exceedance (>1)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.0031		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0028	<0.002	0
Zn, Maximum	0.0342		0.006	0.0265	0.369	0.074	0.0432	0.0107	0.0212	0.0082	0.032	0.0305	0.369
Zn, Exceedance (>1)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.0342		0.00565	0.018575	0.08266	0.038	0.01654	0.0086	0.00752	0.0078	0.014525	0.022033	0
TSS, Maximum	6.40		3.10	1.70	1	1.2	1.6	1.6	15	1.6	2	1.4	15
TSS, Exceedance (>30)	0		0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>15.00)	6.40		3.05	<1.0	<0.1	<1.0	<1.0	<1.0	5.1	1.4	1.275	<1.0	0

Table 6 Continued: Rambler Metals and Mining (Nugget Pond) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Polishing Pond	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Ra-226, Maximum				<0.01	0.01	0.01	0.012	<0.01	<0.01	<0.01	<0.01	<0.01	0.012
Ra-226, Exceedance (>1.11 Bq/l)				0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.37)				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0
Ammonia, Maximum					4.1	3.8			2.5			2.1	4.1
Cd, Maximum (ug/L)					0.944	0.085			0.04			0.23	0.944
Fe, Maximum			0.11		0.112	0.054			<0.05			0.11	0.112
Hg, Maximum (ug/L)					0.013	<0.013			<0.013			<0.013	0.013
Nitrate, Maximum					2.7	2.3			2.5			1.9	2.7
TDS, Maximum					312	305			278			250	312
TPH, Maximum					<0.10	<0.10			<0.10			<0.10	<0.10
ALT, Pass (RT)	1	1	1	1	1	1	1	1	1	1	1	1	12
ALT, Fail (RT)	0	0	0	0	0	0	0	0	0	0	0	0	0
ALT, Pass (DM)	1	1	1	1	1		1	1	1	1	1	1	11
ALT, Fail (DM)	0	0	0	0	0		0	0	0	0	0	0	0

Table 7: Tata Steel Mining Canada Ltd 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

SW 2	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples					1								1
pH, Maximum (units)					7.22								7.22
pH, Minimum (units)					7.22								7.22
pH, Exceedance (<5.5, >9.0)					0								0
As, Maximum					<0.001								<0.001
As, Exceedance (>1)					0								0
Monthly Average (<0.50)					<0.001								0
Cu, Maximum					0.005								0.005
Cu, Exceedance (>0.6)					0								0
Monthly Average (<0.30)					0.005								0
Pb, Maximum					0.0026								0.0026
Pb, Exceedance (>0.4)					0								0
Monthly Average (<0.20)					0.0026								0
Ni, Maximum					0.0023								0.0023
Ni, Exceedance (>1)					0								0
Monthly Average (<0.50)					0.0023								0
Zn, Maximum					0.012								0.012
Zn, Exceedance (>1)					0								0
Monthly Average (<0.50)					0.012								0
TSS, Maximum					130								130
TSS, Exceedance (>30)					1								1
Monthly Average (<15.00)					130								1

SW 11	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples					1	1		1	4	2			9
pH, Maximum (Units)					6.61	6.89		6.83	7.27	7.09			7.27
pH, Minimum (Units)									6.75	6.77			6.75
pH, Exceedance (<5.5, >9.0)					0	0		0	0	0			0

Table 7 Continued: Tata Steel Mining Canada Ltd 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

SW 11	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
As, Maximum					<0.001	<0.001		0.0033	0.0024	0.0084			0.0084
As, Exceedance (>1)					0	0		0	0	0			0
Monthly Average (>0.50)					<0.001	<0.001		0.0033	0.002125	0.00475			
Cu, Maximum					0.00085	0.00055		0.0047	0.0038	0.021			0.021
Cu, Exceedance (>0.6)					0	0		0	0	0			0
Monthly Average (>0.30)					0.00085	0.00055		0.0047	0.00315	0.0128			
Pb, Maximum					0.00038	0.00014		0.0015	0.00097	0.0052			0.0052
Pb, Exceedance (>0.4)					0	0		0	0	0			0
Monthly Average(>0.20)					0.00038	0.00014		0.0015	0.00085	0.00289			
Ni, Maximum					<0.001			0.0038	0.003	0.014			0.014
Ni, Exceedance (>1)					0			0	0	0			0
Monthly Average (>0.50)					<0.001			0.0038	0.00275	0.00805			
Zn, Maximum					0.029			0.043	0.19	1.3			1.3
Zn, Exceedance (>1)					0			0	0	1			1
Monthly Average (>0.50)					0.029			0.043	0.1675	0.72			1
TSS, Maximum					53	18		30	13	120			120
TSS, Exceedance (>30)					1	0		0	0	1			2
Monthly Average (>15.00)					53	18		30	4.5	62			4
Radium, Maximum								<0.002					<0.002
Radium, Exceedance (>1.11 Bq/L)								0					0
Monthly Average (<0.37)													
Ammonia, Maximum						<0.02		0.02					0.02
Cd, Maximum (ug/L)						<0.2		<0.2		<0.2			<0.2
Fe, Maximum						<0.1		11					11
Hg, Maximum (ug/L)								<0.1					<0.1
Nitrate, Maximum								0.64					0.64
TDS, Maximum								76					76

Table 7 Continued: Tata Steel Mining Canada Ltd 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

SW 11	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
ALT, Pass (RT)										1			1
ALT, Fail (RT)										0			0
ALT, Pass (DM)										1			1
ALT, Fail (DM)										0			0

SW 12	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples					1								1
pH, Maximum (Units)					6.06								6.06
pH, Minimum (Units)													
pH, Exceedance (<5.5, >9.0)					0								0
As, Maximum					<0.001								<0.001
As, Exceedance (>1)					0								0
Monthly Average (>0.50)					<0.001								0
Cu, Maximum					0.0015								0.0015
Cu, Exceedance (>0.6)					0								0
Monthly Average (>0.30)					0.0015								0
Pb, Maximum					0.0005								0.0005
Pb, Exceedance (>0.4)					0								0
Monthly Average(>0.20)					0.0005								0
Ni, Maximum					<0.001								<0.001
Ni, Exceedance (>1)					0								0
Monthly Average (>0.50)					<0.001								0
Zn, Maximum					0.0071								0.0071
Zn, Exceedance (>1)					0								0
Monthly Average (>0.50)					0.0071								0
TSS, Maximum					84								84
TSS, Exceedance (>30)					1								1
Monthly Average (>15.00)					84								1

Table 8: Teck Resources Ltd. 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

DPM - Dam C	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	2			3	5	5	5	4	4	3	4	3	38
pH, Maximum (units)	7.73			7.45	7.30	7.71	7.74	7.50	7.62	7.56	7.63	7.61	7.74
pH, Minimum (units)	7.57			7.20	6.93	7.06	7.31	7.23	7.41	7.51	7.32	7.50	6.93
pH, Exceedance (<5.5, >9.0)	0			0	0	0	0	0	0	0	0	0	0
As, Maximum	0.018			0.006	0.018	0.022	0.012	0.009	0.005	0.007	0.007	0.01	0.022
As, Exceedance (>1)	0			0	0	0	0	0	0	0	0	0	0
Monthly Average (<0.50)	0.015			<0.004	0.0142	0.0092	0.0068	<0.004	0.00425	0.0056666	0.004	0.007	0
Cu, Maximum	0.234			0.2	0.231	0.201	0.114	0.076	0.052	0.062	0.061	0.11	0.234
Cu, Exceedance (>0.6)	0			0	0	0	0	0	0	0	0	0	0
Monthly Average (<0.30)	0.2145			0.125	0.2008	0.179	0.097	0.06725	0.05075	0.0563333	0.05325	0.082666	0
CN, Maximum	<0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
CN, Exceedance (>2)	0			0	0	0	0	0	0	0	0	0	0
Monthly Average (<1.00)	<0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0
Pb, Maximum	0.022			0.015	0.038	0.021	0.017	0.025	0.027	0.012	0.021	0.01	0.038
Pb, Exceedance (>0.4)	0			0	0	0	0	0	0	0	0	0	0
Monthly Average (<0.20)	0.02			0.01233	0.0274	0.015	0.0152	0.0203	0.015075	0.011	0.016	0.009666	0
Ni, Maximum	0.006			0.003	0.002	0.003	0.005	0.003	0.01	<0.002	0.002	0.004	0.01
Ni, Exceedance (>1)	0			0	0	0	0	0	0	0	0	0	0
Monthly Average (<0.50)	0.0055			0.002	<0.002	<0.002	0.0026	<0.002	0.00535	<0.002	<0.002	0.002666	0
Zn, Maximum	0.106			0.071	0.123	0.126	0.189	0.158	0.148	0.171	0.211	0.52	0.211
Zn, Exceedance (>1)	0			0	0	0	0	0	0	0	0	0	0
Monthly Average (<0.50)	0.1025			0.067	0.0954	0.118	0.1584	0.118	0.13125	0.1656666	0.17075	0.362	0
TSS, Maximum	<2			2	3	3	7	5	5	4	2	2	7
TSS, Exceedance (>30)	0			0	0	0	0	0	0	0	0	0	0
Monthly Average (<15.00)	<2			<2	2	2.0	5.2	5	4.5	2.67	<2	2	0
Ra-226, Maximum				0.018	0.031	0.034	0.023	0.019	0.015	<0.005	<0.005	<0.005	0.034
Ra-226, Exceedance (>1.11 Bq/l)				0	0	0	0	0	0	0	0	0	0
Monthly Average (<0.37)				0.012	0.0225	0.029	0.0161	0.013125	0.00875	<0.005	<0.005	<0.005	0
Ammonia, Maximum	6.4			3.5	5.4	5.4	5	3.5	2.3	1.8	1.6	1.8	6.4
Cd, Maximum (ug/L)	0.9			<0.5	1	1.4	1.5	2	4.85	1.6	2.1	3.5	4.85

Table 8 Continued: Teck Resources Ltd. 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

DPM - Dam C	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Fe, Maximum	0.264			0.532	0.262	0.129	0.272	0.217	0.614	0.176	0.201	0.152	0.614
Hg, Maximum (ug/L)	<0.01			<0.01	0.07	0.01	0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.07
Nitrate, Maximum	0.71			0.32	0.63	0.78	0.93	1.17	1.13	1.18	1.30	1.31	1.31
TDS, Maximum	1170			554	866	926	974	1010	1000	1110	1070	1070	1170
ALT, Pass (RT)	1			2		2	1	1	1	1	1	1	11
ALT, Fail (RT)	0			0		0	0	0	0	0	0	0	0
ALT, Pass (DM)	0			2		0	1	1	1	1	1	1	8
ALT, Fail (DM)	1			0		1	0	0	0	0	0	0	2

Table 9: Vale Newfoundland and Labrador Ltd. (Voisey's Bay) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Treated Effluent	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	5	5	5	5	4	4	5	4	2	1	4	5	49
pH, Maximum (units)	8.78	8.18	8.68	8.74	8.98	8.70	7.89	7.83	7.67	8.42	8.69	8.86	8.98
pH, Minimum (units)	7.24	7.89	6.72	7.75	8.68	7.24	6.69	4.99	7.66		7.01	8.11	4.99
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	1	0	0	0	0	1
As, Maximum	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
As, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
Cu, Maximum	<0.002	<0.002	0.0039	0.0035	<0.002	0.0124	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0124
Cu, Exceedance (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)	<0.002	<0.002	0.00266	<0.002	<0.002	0.00418	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0
Pb, Maximum	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00097	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00097
Pb, Exceedance (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0
Ni, Maximum	0.0269	0.02	0.0331	0.0424	0.0596	0.0637	0.0189	0.08	0.0933	0.047	0.056	0.065	0.0933
Ni, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.020	0.0163	0.02712	0.02444	0.0326	0.03548	0.017	0.046	0.090	0.047	0.04825	0.0534	0
Zn, Maximum	0.0052	0.006	0.0084	<0.005	0.0102	0.0553	0.0104	0.0057	<0.005	<0.005	<0.005	<0.005	0.0553
Zn, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.005	<0.005	<0.005	<0.005	0.0051	0.0157	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0
TSS, Maximum	4.4	6	6	6.8	8.4	5.8	6.4	6.6	4.4	1	1.6	1.6	8.4
TSS, Exceedance (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>15.00)	3.08	3.68	3.37	5.16	6.85	4.45	4.88	3.650	4	1	1.2	1.22	0
Ra-226, Maximum (Bq/l)	0.02	0.04	0.02	<0.01	<0.01	0.01	0.017	0.011	<0.01	<0.01	<0.01	<0.01	0.04
Ra-226, Exceedance (>1.11 Bq/l)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.37)	<0.01	0.01875	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0
Ammonia, Maximum	0.59	0.61	0.65	0.85	0.83	0.79	0.72	0.7	0.7	0.76	0.85	0.9	0.9
Cd, Maximum(ug/L)	<0.017	<0.017	<0.017	<0.017	0.032	0.03	0.026	0.017	0.01	0.055	<0.010	0.026	0.055
Fe, Maximum	1.24	1.97	1.92	3.07	2.74	1.84	2.01	1.63	1.7	0.38	0.69	0.8	3.07
Hg, Maximum (ug/L)	<0.013	0.020	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.02

Table 9 Continued: Vale Newfoundland and Labrador Ltd. (Voisey's Bay) 2013 Effluent Discharge Criteria Summary
(mg/L, unless noted)

Treated Effluent	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Nitrate, Maximum	0.71	0.72	0.70	0.81	1.00	0.95	0.86	0.81	0.76	0.77	0.91	0.89	1.00
TDS, Maximum	1610	1680	1700	1650	1540	1360	1370	1380	1420	1300	1500	1500	1700
TPH, Maximum	0.66	0.4	0.52	0.31	0.26	0.26	0.29	0.24	0.27	0.24	0.26	0.26	0.66
ALT, Pass (RT)	1	1	1	3	1	1	1	1	1	1	1	1	14
ALT, Fail (RT)	0	0	1	0	0	0	0	0	0	0	0	0	1
ALT, Pass (DM)	1	0	1	2	0	1	0	1	1		1	1	9
ALT, Fail (DM)	0	1	0	1	1	0	1	0	0		0	0	4

Table 10: Wabush Mines 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Flora Lake Discharge	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	5	4	4	5	4	3	4	4	4	5	3	5	50
pH, Maximum (units)	7.79	7.79	7.74	7.76	7.49	7.62	7.73	7.80	7.79	7.73	7.69	7.58	7.80
pH, Minimum (units)	7.66	7.70	7.64	7.46	7.38	7.52	7.50	7.56	7.71	7.49	7.53	7.46	7.38
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.001	<0.001	<0.001	<0.001	0.0014	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
As, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
Cu, Maximum	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cu, Exceedance (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0
Pb, Maximum	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pb, Exceedance (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0
Ni, Maximum	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	0.003
Ni, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0
Zn, Maximum	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0096	<0.005	<0.005	<0.005	0.0064	<0.005	<0.005	0.0096
Zn, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0
TSS, Maximum	5	2.8	12	3.6	31	31	6.4	3.8	2.4	5.4	2.6	2	31
TSS, Exceedance (>30)	0	0	0	0	1	1	0	0	0	0	0	0	2
Monthly Average(>15.00)	3.2	1.7	3.725	1.62	23.25	24	3.6	2.25	1.9	3	1.7333	1.5	2
Ra-226, Maximum	<0.01			<0.01			<0.01			<0.01			<0.01
Ra-226, Exceedance (>1.11 Bq/l)	0			0			0			0			0
Monthly Average (>0.37)	<0.01			<0.01			<0.010			<0.010			0
Ammonia, Maximum						0.17	0.07	0.055		0.14			0.17
Cd, Maximum (ug/L						<0.017	<0.010	<0.01		0.012			<0.017
Fe, Maximum						2.86	0.129	0.064		0.227			2.86
Hg, Maximum (ug/L)						<0.013	0.017	<0.013		0.33			0.33

Table 10 Continued: Wabush Mines 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Flora Lake Discharge	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Nitrate, Maximum						0.35	0.38	0.39		0.38			0.39
TDS, Maximum						45	41	44		49			49
TPH, Maximum	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		<0.10		<0.10	<0.10
ALT, Pass (RT)	1			1			1			1			4
ALT, Fail (RT)	0			0			0			0			0
ALT, Pass (DM)	1			1			1			1			4
ALT, Fail (DM)	0			0			0			0			0

Knoll Lake	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	36	30	35	35	4	4	5	4	4	5	3	5	170
pH, Maximum (units)	7.95	7.86	8.07	7.94	8.51	7.60	7.71	7.73	7.61	7.58	7.25	7.82	8.51
pH, Minimum (units)	7.30	7.61	7.47	7.06	7.39	7.40	7.26	7.43	7.23	7.28	7.23	7.11	7.06
H, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
As, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
Cu, Maximum	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003
Cu, Exceedance (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0
Pb, Maximum	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pb, Exceedance (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0
Ni, Maximum	0.006	<0.002	0.0026	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0036	0.003	0.006
Ni, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0
Zn, Maximum	0.0147	0.0104	0.014	0.0168	0.0109	0.0506	0.0103	0.008	0.0129	0.0156	0.0063	0.0106	0.0506
Zn, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.00967	0.065	0.0053	0.00656	<0.005	0.021075	0.00702	<0.005	0.00815	0.01084	<0.005	0.00564	0

Table 10 Continued: Wabush Mines 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Knoll Lake	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
TSS, Maximum	6.6	4.4	4.4	10	4	21	2.8	3.6	3	4.8	4	38	38
TSS, Exceedance (>30)	0	0	0	0	0	0	0	0	0	0	0	1	1
Monthly Average(>15.00)	2.09	<2.0	<2.0	2.44	2.7	7.10	<2.0	2.4	1.725	2.76	2.2	13.92	0
Ra-226, Maximum	0.01			0.02			<0.01			<0.01			0.02
Ra-226, Exceedance (>1.11 Bq/l)	0			0			0			0			0
Monthly Average (>0.37)	0.01			0.02			<0.01			<0.01			0
Ammonia, Maximum	1	0.35	0.18	0.17		0.29	0.19	0.25		0.24			1
Cd, Maximum (ug/L)	0.018	<0.017	0.266	0.03		<0.017	0.123	0.043		0.026			0.266
Fe, Maximum	0.887	0.554	0.856	0.809		0.816	0.113	0.558		0.753			0.887
Hg, Maximum (ug/L)	<0.013	0.04	0.015	0.11		0.032	0.018	0.018		<0.013			0.11
Nitrate, Maximum	3.8	2.8	2.1	2.1		2.5	2.7	1.7		2.5			3.8
TDS, Maximum	116	119	110	105		106	67	130		69			130
TPH, Maximum	<0.10	<0.12	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		<0.10		<0.10	<0.12
ALT, Pass (RT)	6	4	4	4			1			1			20
ALT, Fail (RT)	0	0	0	0			0			0			0
ALT, Pass (DM)	5	4	4	4			1			1			19
ALT, Fail (DM)	1	0	0	0			0			0			1

Table 10 Continued: Wabush Mines 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

West Pit Settling Pond	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	5	4	4	5	4	4	5	4	4	5	3	5	52
pH, Maximum (units)	7.62	7.50	7.46	7.57	7.34	7.33	7.38	7.80	7.34	7.35	7.50	7.07	7.80
pH, Minimum (units)	7.28	7.34	7.27	7.10	7.23	7.21	7.13	7.22	7.16	7.19	6.98	6.82	6.82
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
As, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
Cu, Maximum	<0.002	<0.002	<0.002	0.0057	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0057
Cu, Exceedance (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0
Pb, Maximum	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00243	0.00243
Pb, Exceedance (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.000686	0
Ni, Maximum	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0023	<0.002	0.0023
Ni, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0
Zn, Maximum	0.0071	0.0056	0.0073	<0.005	<0.005	0.0052	0.0089	<0.005	<0.005	0.0065	<0.005	<0.005	0.0089
Zn, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0
TSS, Maximum	2	<1.0	<1.0	1.4	1.8	2.8	2	1.4	1.4	1.2	<1.0	<1.0	2.8
TSS, Exceedance (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average(>15.00)	2	<1.0	<1.0	<1.0	1.1	1.2	1.08	<1.0	<1.0	<1.0	<1.0	<1.0	0
Ra-226, Maximum	0.02			0.01			<0.010			<0.010			0.02
Ra-226, Exceedance (>1.11 Bq/l)	0			0			0			0			0
Monthly Average (>0.37)	0.02			0.01			<0.010			<0.010			0
Ammonia, Maximum						0.068	<0.050	0.087		0.26			0.26
Cd, Maximum (ug/L)						0.064	<0.010	0.012		0.021			0.064

Table 10 Continued: Wabush Mines 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

West Pit Settling Pond	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Fe, Maximum						<0.050	<0.050	<0.050		<0.050			<0.050
Hg, Maximum (ug/L)						<0.013	<0.013	0.037		<0.013			0.037
Nitrate, Maximum						0.56	0.66	0.5		0.56			0.66
TDS, Maximum						42	41	43		44			44
TPH, Maximum	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		<0.10		<0.10	<0.10
ALT, Pass (RT)	1			1			1			1			4
ALT, Fail (RT)	0			0			0			0			0
ALT, Pass (DM)	1			1			1			0			3
ALT, Fail (DM)	0			0			0			1			1

East Pit # 2	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	5	4	4	5	4	4	5	4	4	5	3	5	52
pH, Maximum (units)	7.85	7.89	7.88	7.86	7.73	7.81	7.78	7.85	7.86	7.81	7.70	7.58	7.89
pH, Minimum (units)	7.66	7.75	7.70	7.59	7.59	7.67	7.66	7.61	7.76	7.61	7.47	7.32	7.32
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
As, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0
Cu, Maximum	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cu, Exceedance (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0
Pb, Maximum	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00056	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00056
Pb, Exceedance (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0
Ni, Maximum	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0027	<0.002	0.0027
Ni, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0
Zn, Maximum	0.0064	0.0053	0.0063	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0064
Zn, Exceedance (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 10 Continued: Wabush Mines 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

East Pit # 2	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Zn, Monthly Average (>0.50)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0
TSS, Maximum	1.4	1.4	1	6.6	7.6	2.6	7.8	14	4	5.2	3.8	6.8	14
TSS, Exceedance (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average(>15.00)	<1.0	<1.0	<1.0	2.12	4.4	1.65	3.68	5.55	2.8	3.44	3.13	3.56	0
Ra-226, Maximum	<0.01			0.02			<0.010			<0.010			0.02
Ra-226, Exceedance (>1.11 Bq/l)	0			0			0			0			0
Monthly Average (>0.37)	<0.01			0.02			<0.010			<0.010			0
Ammonia, Maximum						0.73	2.3	0.29		0.18			2.3
Cd, Maximum (ug/L)						<0.017	<0.010	<0.010		<0.010			<0.01
Fe, Maximum						0.112	0.12	0.062		0.165			0.165
Hg, Maximum (ug/L)						<0.013	<0.013	<0.013		<0.013			<0.013
Nitrate, Maximum						5	5.3	2.6		1.9			5.3
TDS, Maximum						106	109	94		86			109
TPH, Maximum	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		<0.10		<0.10	<0.10
ALT, Pass (RT)	1			1			1			1			4
ALT, Fail (RT)	0			0			0			0			0
ALT, Pass (DM)	1			1			1			1			4
ALT, Fail (DM)	0			0			0			0			0

Deep Well Discharge	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	5	4	4	5	4	1	1	1		1			26
pH, Maximum (units)	7.58	7.59	7.51	7.68	7.16	6.82	7.27	7.21		7.18			7.68
pH, Minimum (units)	7.37	7.37	7.40	7.16	7.08								7.08
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0		0			0
As, Maximum	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001			<0.001
As, Exceedance (>1)	0	0	0	0	0	0	0	0		0			0
Monthly Average (>0.50)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001			0

Table 10 Continued: Wabush Mines 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Deep Well Discharge	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Cu, Maximum	<0.002	<0.002	<0.002	0.0025	<0.002	<0.002	<0.002	<0.002		<0.002			0.0025
Cu, Exceedance (>0.6)	0	0	0	0	0	0	0	0		0			0
Monthly Average (>0.30)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002			0
Pb, Maximum	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005			<0.0005
Pb, Exceedance (>0.4)	0	0	0	0	0	0	0	0		0			0
Monthly Average (>0.20)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005			0
Ni, Maximum	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002			<0.002
Ni, Exceedance (>1)	0	0	0	0	0	0	0	0		0			0
Monthly Average (>0.50)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002			0
Zn, Maximum	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005			<0.005
Zn, Exceedance (>1)	0	0	0	0	0	0	0	0		0			0
Monthly Average (>0.50)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005			0
TSS, Maximum	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0			<2.0
TSS, Exceedance (>30)	0	0	0	0	0	0	0	0		0			0
Monthly Average(>15.00)	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0			0
Ra-226, Maximum	0.01						<0.01	<0.01		<0.01			0.01
Ra-226, Exceedance (>1.11 Bq/l)	0						0	0		0			0
Monthly Average (>0.37)	0.01						<0.01	<0.01		<0.01			0
Ammonia, Maximum						0.17	<0.050	0.15		0.13			0.17
Cd, Maximum (ug/L)						<0.017	0.057	<0.01		<0.01			0.057
Fe, Maximum						<0.05	<0.05	<0.05		<0.05			<0.05
Hg, Maximum (ug/L)						<0.013	<0.013	<0.013		<0.013			<0.013
Nitrate, Maximum						0.15	0.14	0.18		0.14			0.18
TDS, Maximum						49	47	47		49			49
TPH, Maximum						<0.10	<0.10	<0.10		<0.10			<0.10

3) Petroleum Refining

a) North Atlantic Refining Ltd.

Current COA

Approval #: AA13-115583
Issue date: November 15, 2013
Expiration: December 31, 2016

North Atlantic Refining Limited has one discharge point which releases effluent into Placentia Bay. The effluent monitoring program consists of six compliance parameters along with flow monitoring and ALT. The average flow for the month is determined by averaging the measurements taken three times per week. Daily loadings are calculated from the daily flow and measured concentrations (flow measurements are taken at the same time as sample collection). A total of 157 samples were collected in 2013. There were no reported exceedances in 2013. There were 12 rainbow trout ALTs performed with no failures at this location.

Environmental Effects Monitoring

The Marine EEM Report was submitted in 2013.

See Table 11: North Atlantic Refining Ltd. 2013: Effluent Discharge Criteria Summary.

Table 11: North Atlantic Refining Ltd. 2013 Effluent Discharge Criteria Summary

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples Taken	14	12	13	13	13	13	13	13	13	14	12	14	157
Reference Crude Rate (bbls / stream day)	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	
Avg Flow (Cdn. gal day)	1,330,000	1,840,000	1,520,000	1,390,000	880,000	1,040,000	1,040,000	1,830,000	1,580,000	1,790,000	1,470,000	1,060,000	
pH													
Average (units)	7.37	7.45	7.51	7.37	7.67	7.87	7.84	7.82	7.92	7.66	7.63	7.50	
Maximum (units)	7.80	7.90	7.70	7.90	8.40	8.40	8.30	8.20	8.40	8.00	7.90	7.80	8.40
Minimum (units)	6.90	6.90	7.10	7.00	7.20	7.40	7.50	7.40	7.60	7.30	7.30	7.20	6.90
Exceedances (< 5.5, > 9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
Oil & Grease													
Average (300 lbs)	32.66	33.34	28.32	44.83	15.11	22.92	19.75	28.48	23.55	35.52	25.07	25.39	
Maximum (lbs)	96.83	110.36	50.38	181.29	33.47	64.97	63.88	86.55	63.34	206.68	69.58	48.94	206.7
Daily Limit (550 lbs)*	0	0	0	0	0	0	0	0	0	0	0	0	0
Never to Exceed (750 lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
Phenol													
Average (30 lbs)	0.22	0.19	0.27	0.28	0.22	0.14	0.12	0.27	0.23	0.18	0.54	0.46	
Maximum (lbs)	0.54	0.38	0.83	0.77	0.86	0.53	0.28	1.44	0.80	0.83	3.98	2.58	3.98
Daily Limit(55 lbs)*	0	0	0	0	0	0	0	0	0	0	0	0	0
Never to Exceed (75 lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
Sulphide													
Average (10 lbs)	0.33	0.48	0.36	0.55	0.40	0.34	0.19	0.46	0.48	0.49	1.03	0.34	
Maximum (lbs)	1.00	1.15	0.75	1.67	2.41	0.70	0.33	1.19	1.29	2.48	7.96	0.73	7.96
Daily Limit (30 lbs)*	0	0	0	0	0	0	0	0	0	0	0	0	0
Never to Exceed (50 lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
Ammonia Nitrogen													
Average (360 lbs)	20.06	22.13	31.40	22.57	5.01	19.68	7.29	13.38	11.37	24.01	16.08	44.82	
Maximum (lbs)	40.07	41.39	83.17	55.63	7.40	51.64	14.76	79.28	23.30	107.48	42.41	233.93	233.93
Daily Limit (570 lbs)*	0	0	0	0	0	0	0	0	0	0	0	0	0
Never to Exceed (720 lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0

*Not to exceed more than one day per month

Table 11 Continued: North Atlantic Refining Ltd. 2013 Effluent Discharge Criteria Summary

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
TSS													
Average (720 lbs)	196.70	304.32	183.59	138.10	90.72	208.95	98.31	165.43	179.51	155.93	201.98	165.60	
Maximum (lbs)	429.06	551.82	350.89	362.58	233.73	903.00	213.13	291.00	375.08	583.00	487.04	491.24	903.0
Daily Limit (1200 lbs)*	0	0	0	0	0	0	0	0	0	0	0	0	0
Never to Exceed (1500 lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
pH at Outfall													
Samples	31	28	31	30	31	30	31	31	30	31	30	31	365
Average (units)	7.37	7.48	7.53	7.38	7.65	7.86	7.81	7.81	7.96	7.68	7.66	7.46	
Maximum (units)	7.80	7.90	7.80	7.90	8.40	8.40	8.30	8.20	8.50	8.00	8.00	7.80	8.5
Minimum (units)	6.80	6.80	7.10	7.00	7.20	7.40	7.50	7.40	7.60	7.00	7.30	7.10	6.8
Exceedances (< 5.5, > 9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
ALT, pass	1	1	1	1	1	1	1	1	1	1	1	1	12
ALT, fail	0	0	0	0	0	0	0	0	0	0	0	0	0

*Not to exceed more than one day per month

4) Pulp and Paper

a) Corner Brook Pulp and Paper Ltd.

Current COA — Approval #: AA13-125584
Issue date: December 23, 2013
Expiration: July 7, 2018

Corner Brook Pulp and Paper has two discharge locations, the Effluent Treatment and the East Sewer. The effluent monitoring program consists of two parameters for compliance, TSS and BOD along with ALTs. TSS and flow are measured daily while BOD is measured three times per week. The total loadings are reported in tonnes/day and there were no exceedances reported in 2013. There were 13 rainbow trout ALTs with no failures and 51 *Daphnia magna* ALTs with one failure preformed at the Effluent Treatment. There were 14 rainbow trout ALTs with no failures and 51 *Daphnia magna* ALTs with two failures preformed at the East Sewer.

Environmental Effects Monitoring
The Cycle 6 EEM Interpretive Report was submitted in 2013.

See Table 12: Corner Brook Pulp and Paper 2013: Effluent Discharge Criteria Summary.

b) Grand Falls Mill (Previously Abitibi-Consolidated Company of Canada)

Current Monitoring — As per memo from PPD
Issue date: June 12, 2013
Expiration: No expiration date established

This site is currently owned and monitored by the Province of Newfoundland and Labrador. The Grand Falls Mill has one compliance point, the combined sewer that is monitored for pH and TPH. There were no reported exceedances in 2013.

Environmental Effects Monitoring
There were no EEM activities at this site in 2013.

See Table 13: Grand Falls Mill 2013: Effluent Discharge Criteria Summary.

Table 12: Corner Brook Pulp and Paper 2013 Effluent Discharge Criteria Summary

				TSS Concentration				BOD Concentration		Monthly Average Maximum Allowable Limit	
	Average Production	Average TSS Discharge		East Sewer	Effluent Treatment	Average BOD Discharge		East Sewer	Effluent Treatment	TSS	BOD
Month	Tonne/Day	Tonne/Day	kg / FMT	mg/L	mg/L	Tonne/Day	kg / FMT	mg/L	mg/L	Tonne/Day	Tonne/Day
Jan-13	721.8	2.4	3.3	3.74	42.77	0.7	0.9	1.25	11.75	9.34	6.23
Feb-13	687.1	2.6	3.7	2.79	43.39	0.5	0.8	0.67	9.67	9.34	6.23
Mar-13	759.5	2.2	3.0	1.58	41.23	0.5	0.6	0.67	8.67	9.34	6.23
Apr-13	695.0	2.8	4.1	2.10	51.90	0.4	0.6	0.69	8.08	9.34	6.23
May-13	654.3	1.4	2.1	2.87	25.35	0.2	0.4	0.43	4.43	9.34	6.23
Jun-13	674.0	3.0	4.5	2.07	60.83	0.7	1.1	0.50	14.33	9.34	6.23
Jul-13	665.6	1.2	1.7	2.61	20.94	0.2	0.3	0.00	4.15	9.34	6.23
Aug-13	690	2.2	3.3	2.13	38.74	0.4	0.5	0.00	6.62	9.34	6.23
Sep-13	726	2.7	3.7	1.90	52.93	0.3	0.4	0.00	5.92	9.34	6.23
Oct-13	686.6	1.39	2.0	2.87	24.68	0.29	0.4	0.93	5.07	9.34	6.23
Nov-13	725.5	3.18	4.4	5.00	57.10	0.43	0.6	0.67	8.25	9.34	6.23
Dec-13	675.1	1.71	2.5	2.84	32.32	0.32	0.5	1.23	6.54	9.34	6.23

Table 12 Continued: Corner Brook Pulp and Paper 2013 Effluent Discharge Criteria

	96 Hr LC50 (Rainbow Trout)				48 Hr LC50 (*Daphnia magna*)			
	East Sewer		Effluent Treatment		East Sewer		Effluent Treatment	
Month	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail
Jan-13	1	0	1	0	5	0	5	0
Feb-13	1	0	1	0	3	0	3	0
Mar-13	3	0	1	0	2	2	4	0
Apr-13	1	0	1	0	4	0	4	0
May-13	1	0	1	0	4	0	4	0
Jun-13	1	0	1	0	4	0	4	0
Jul-13	1	0	1	0	5	0	5	0
Aug-13	1	0	1	0	4	0	4	0
Sep-13	1	0	1	0	5	0	5	0
Oct-13	1	0	1	0	4	0	4	0
Nov-13	1	0	2	0	4	0	3	1
Dec-13	1	0	1	0	5	0	5	0

Table 13: Grand Falls Mill 2013 Effluent Discharge Criteria Summary

	Samples	TPH, Maximum	TPH, Exceedance (>15 mg/L)	pH, Maximum (units)	pH, Minimum (units)	pH, Exceedance (<5.5, >9.0 pH units)
January	4	1.6	0	8.13	7.51	0
February	4	0.5	0	8.13	7.55	0
March	4	0.78	0	7.99	7.38	0
April	3	0.37	0	7.81	7.08	0
May	4	0.39	0	7.98	7.37	0
June	1	0.23	0	7.57		0
July						
August	1	0.13	0	7.72		0
September						
October	1	0.26	0	7.62		0
November						
December	1	0.41	0	7.08		0
Total	**23**	**1.6**	**0**	**8.13**	**7.08**	**0**

5) Thermal Generation

a) Newfoundland and Labrador Thermal Generating Station

Current COA

Approval #: AA11-085563
Issue date: August 31, 2011
Expiration: August 31, 2016

The Holyrood Thermal Generating Station (HTGS) has two discharge points, the continuous basin outfall and the periodic basin (batch reactor). The effluent monitoring program consists of five parameters and ALT.

Continuous Basin: There was no discharge in August. 47 samples were collected during the year and there were no reported exceedances. There were 13 rainbow trout ALTs with two failures performed at this location.

Periodic Basin: 43 samples were collected in 2013. There were 25 rainbow trout ALTs with no failures performed at this location.

Environmental Effects Monitoring

There EEM Study Design was submitted in 2013.

See Table 14: Newfoundland and Labrador Hydro 2013: Effluent Discharge Criteria Summary.

Table 14: Holyrood Thermal Generating Station 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

CONTINUOUS BASIN	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Samples	6	4	4	5	5	3	3		1	6	4	6	47
pH Maximum (units)	6.90	6.90	6.70	7.00	7.00	6.90	6.70		6.90	6.90	7.10	6.90	7.1
pH Minimum (units)	6.40	6.60	6.30	6.22	6.40	6.60	6.50			6.60	6.30	6.70	6.22
pH Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0		0	0	0	0	0
Fe Maximum	0.079	0.069	0.177	0.098	0.120	0.270	0.290		0.082	0.061	0.140	0.170	0.290
Fe Exceedance (>10 mg/L)	0	0	0	0	0	0	0		0	0	0	0	0
Ni Maximum	0.005	0.005	0.068	0.0188	0.010	0.140	0.040		0.016	0.019	0.0041	0.0039	0.140
Ni Exceedance (>0.5 mg/L)	0	0	0	0	0	0	0		0	0	0	0	0
V Maximum	0.0476	0.0157	0.0282	0.0278	0.0268	0.0243	0.036		0.091	0.200	0.012	0.026	0.200
V Exceedance (>0.5 mg/L)	0	0	0	0	0	0	0		0	0	0	0	0
TSS Maximum	4.80	6.50	5.80	5.50	23	4.8	2.5		<2	5.0	16.3	5.8	23
TSS Exceedance (>30 mg/L)	0	0	0	0	0	0	0		0	0	0	0	0
ALT, Pass (RT)	2	1	0	0	1	1	1			1	2	2	11
ALT, Fail (RT)	0	0	2	0	0	0	0			0	0	0	2

Table 14 Continued: Holyrood Thermal Generating Station 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

PERIODIC BASIN (WWTP)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Samples		6	8	4	3	3	1	2	3	3	7	3	43
pH Maximum (units)		8.90	8.50	8.4	8.50	8.50	8.60	8.20	8.70	8.70	8.80	8.60	8.90
pH Minimum (units)		6.60	8.40	8.4	8.40	8.00		8.00	8.50	8.60	8.40	8.30	6.60
pH Exceedance (<5.5, >9.0)		0	0	0	0	0	0	0	0	0	0	0	0
Fe Maximum		0.3	0.160	<0.5	<0.5	0.670	<0.005	<0.5	<0.5	<0.5	<0.5	0.43	0.670
Fe Exceedance (>10 mg/L)		0	0	0	0	0	0	0	0	0	0	0	0
Ni Maximum		0.110	0.086	0.055	0.050	0.070	0.050	0.110	0.064	0.051	0.071	0.089	0.110
Ni Exceedance (>0.5 mg/L)		0	0	0	0	0	0	0	0	0	0	0	0
V Maximum		0.374	0.132	0.032	0.050	0.110	0.060	0.070	0.064	0.070	0.076	0.082	0.374
V Exceedance (>0.5 mg/L)		0	0	0	0	0	0	0	0	0	0	0	0
TSS Maximum		4.3	4.5	<2	28.7	15.8	11.3	9.5	5.0	5.3	3.5	4.2	28.7
TSS Exceedance (>30 mg/L)		0	0	0	0	0	0	0	0	0	0	0	0
ALT, Pass (RT)		3	5	2	1	1	1	2	2	2	4	2	25
ALT, Fail (RT)		0	0	0	0	0	0	0	0	0	0	0	0

6) Other

a) Atlantic Minerals Ltd. (Lower Cove)

Current COA — Approval #: AA09-035515
Issue date: March 31, 2009
Expiration: March 30, 2014

Atlantic Minerals Ltd. collected three samples at each of two locations in 2013 for effluent monitoring. There were no reported exceedances during the year.

Environmental Effects Monitoring
There is no EEM program at this site.

See Table 15: Atlantic Minerals Ltd. (Lower Cove) 2013: Effluent Discharge Criteria Summary.

b) Atlantic Minerals Ltd. (North Star Cement)

Current Monitoring — As per letter from PPD
Issue date: March 10, 2005
Expiration: No expiration date established

Atlantic Minerals Ltd. collected five samples at each of two locations in 2013 for effluent monitoring. pH was monitored at Series 1 and there was one exceedance. Six parameters were analysed at the Shale Quarry location and there were two reported TDS exceedances.

Environmental Effects Monitoring
There is no EEM program at this site.

See Table 16: Atlantic Minerals Ltd. (North Star Cement) 2013: Effluent Discharge Criteria Summary

c) Black Mountain Quarry

Current Monitoring — Directed by Environmental Protection Plan
Submitted: June 2009
Expiration: No expiration date established

Monitoring is conducted at three locations on the Black Mountain Quarry site. Two of these locations are waterbodies in the vicinity that are monitored for general water chemistry to ensure that the operation is not having an effect. Additionally, the operation has a series of settling ponds on site to treat generated process effluent. The effluent is recirculated through the process and during 2013 there were no discharges to the environment. As such, data was collected for information only in the settling pond during 2013 but it is not presented in this report as it was not released to the environment.

Environmental Effects Monitoring
There is no EEM program at this site.

d) Buchans

Current Monitoring As per internal memo, PPD
Issue date: September 8, 2010
Expiration: No expiration date established

The NL ENVC has undertaken effluent monitoring at several locations around the town of Buchans. The intent of this monitoring is to evaluate the efficiency of remediation efforts undertaken in the area following the closure of the mine. There are four locations that discharge into the environment, Tailings Pond 1 (TP1), Tailings Pond 2 (TP2), the Mucky Ditch and the outflow of the Polishing Pond.

TP1: There were four samples collected at TP1 in 2013. There were four zinc exceedances reported.
TP2: There were four samples collected at TP2 in 2013 and there were three zinc exceedances reported.
Mucky Ditch: There were four samples collected at the Mucky Ditch. All four samples exceeded copper, zinc and lead limits.
Polishing Pond: There were four samples collected at the Polishing Pond in 2013. There were four zinc exceedances reported.

Environmental Effects Monitoring
There is no EEM program at this site.

See Table 17: Buchans 2013: Effluent Discharge Criteria Summary.

e) DJ Composites

Current Monitoring As per letter from PPD
Issue date: March 8, 2012
Expiration: No expiration date established

The monitoring at DJ Composites is directed by a letter from the PPD dated March 8, 2012. DJ Composites occasionally discharges effluent to the municipal sewer in Gander, NL. In 2013, there were six discharges to the environment and monitoring indicated that all discharges were compliant with the exception of one phosphate exceedance.

Environmental Effects Monitoring
There is no EEM program at this site.

See Table 18: DJ Composites 2013: Effluent Discharge Criteria Summary.

f) GC Rieber Carino Company

Current COA Approval #: AA13-125586
Issue date: December 18, 2013
Expiration: December 18, 2018
Compliance Agreement: January 31, 2013-June 30, 2014

GC Rieber Carino has one location that discharges effluent directly to the ocean. The effluent monitoring program contains numerous water quality parameters, 14 of which have associated compliance limits. 59 samples were collected in 2013. Exceedances included: 21 pH, one chromium, one copper, four iron, 12 TDS, eight TSS, 47 BOD, 10 ammonia, 18 oil and grease and eight phenol.

Environmental Effects Monitoring
The EEM Study Design was reviewed in 2013.

See Table 19: GC Rieber Carino Company 2013: Effluent Discharge Criteria Summary.

g) Gullbridge Mine Site

The Gullbridge mine site is an abandoned mine site that is being managed by the Government of Newfoundland and Labrador. The Department of Natural Resources has undertaken work at this site to maintain the integrity of the tailing impoundment area of the mine site and monitoring has been completed sporadically throughout 2013 at the site. Review of the monitoring provided for the outflow of the sedimentation pond indicates that there was one TSS exceedance in March 2013. This was during a period of active work at the site to perform repairs on the tailings dam. There were no other reported exceedances.

Environmental Effects Monitoring
There is no EEM program at this site.

See Table 20: Gullbridge Mine Site 2013: Effluent Discharge Criteria Summary.

h) Hebron Bull Arm Construction Site

Current Monitoring Directed by Environmental Protection Plan
Submitted: February 2011
Expiration: No expiration date established

Hebron monitors effluent discharge from the site located at Bull Arm as per their Environmental Protection Plan. In 2013, TSS and TPH were measured at two discharge locations, the Trench and the Filters. Both of these locations discharge into the ocean. There were two TSS exceedances reported at the Trench location and two TSS exceedances reported at the Filters location. There were no TPH exceedances reported at either location.

Environmental Effects Monitoring
There is no EEM program at this site.

See Table 21: Hebron Bull Arm Construction Site 2013: Effluent Discharge Criteria Summary

i) Hope Brook Mine Site

Current Monitoring As per letter from PPD
Issue date: January 30, 2008
Expiration: No expiration date established

The Hope Brook mine site has been remediated by the Government of Newfoundland and Labrador. The Department of Natural Resources monitors effluent from seven different areas of the mine site to ensure remediation efforts are stable. There was a copper exceedance reported at the BH6 location. There were five rainbow trout ALTs with no failures performed at the Hope Brook mine site.

Environmental Effects Monitoring
There is no EEM program at this site.

See Table 22: Hope Brook Mine Site 2013: Effluent Discharge Criteria Summary.

j) Labatt Breweries Newfoundland

Current COA Approval #: AA09-125523
Issue date: December 10, 2009
Expiration: December 10, 2014

Labatt Breweries Newfoundland has one discharge point that deposits effluent into the City of St. John's municipal sewer. 20 samples were collected and analysed in 2013. There were 10 pH samples reported as out of acceptable range, 19 BOD exceedances and seven TSS exceedances. There were no sample results provided to NL ENVC between March and September.

Environmental Effects Monitoring
There is no EEM program at this site.

See Table 23: Labatt Breweries Newfoundland 2013: Effluent Discharge Criteria Summary.

k) Molson Coors Canada, St. John's

Current COA Approval #: AA11-125568
Issue date: December 14, 2011
Expiration: December 28, 2016

Molson Coors Canada has one discharge point that deposits effluent into the City of St. John's municipal sewer. 32 samples were collected and analysed in 2013. There were 12 pH samples reported as out of acceptable range, 24 BOD exceedances and four TSS exceedances. There were no sample results provided in April, May, June and July.

Environmental Effects Monitoring
There is no EEM program at this site.

See Table 24: Molson Coors Canada 2013: Effluent Discharge Criteria Summary.

l) Newfoundland Transshipment Terminal

Current COA	Approval #:	AA13-035577
	Issue date:	March 13, 2013
	Expiration:	March 12, 2018

Newfoundland Transshipment Terminal monitors water quality at nine locations. The effluent monitoring program for discharge criteria compliance consists of three parameters, with ALT analysis at Containment Pond. There were no exceedances of the allowable discharge criteria. There were three rainbow trout ALTs with one failure performed at the Containment Pond location.

Environmental Effects Monitoring
There were no EEM activities at this site in 2013.

See Table 25: Newfoundland Transshipment Terminal 2013: Effluent Discharge Criteria Summary.

m) Pardy's Waste Management Facility – Incinerator Road

Current COA	Approval #:	WMS-08-05-007
	Issue date:	June 13, 2008
	Expiration:	June 13, 2010
	Extension:	March 31, 2014

Pardy's operates a waste management facility on Incinerator Road that discharges effluent as per a letter to operate from the Waste Management Division of NL ENVC. In 2013, 42 samples of effluent were collected and analysed. Reported exceedances included: one zinc, 13 TSS, 15 BOD, 20 total coliform, 22 fecal coliform, 34 total phosphate, 36 TDS, 19 nitrate and 27 ammonia.

Environmental Effects Monitoring
There is no EEM program at this site.

See Table 26: Pardy's Waste Management Facility – Incinerator Road 2013: Effluent Discharge Criteria Summary.

n) Vale Newfoundland and Labrador Ltd. (Argentia Hydrometallurgical Demonstration Plant)

Current COA	Approval #:	AA10-055525
	Issue date:	May 1, 2010
	Expiration:	April 30, 2014

Vale Newfoundland and Labrador Ltd. Argentia Hydrometallurgical Demonstration Plant has one discharge point at the Polishing Pond. In 2013 there was discharge from the Polishing Pond in March and October with four samples collected. There were four rainbow trout ALTs with no failures performed at this location.

Environmental Effects Monitoring
There is no EEM program at this site.

See Table 27: Vale Newfoundland and Labrador Ltd. (Argentia) 2013: Effluent Discharge Criteria Summary.

o) Vale Newfoundland and Labrador Ltd. (Long Harbour Hydrometallurgical Plant)

Current COA

Approval #: AA13-125573
Issue date: December 18, 2013
Expiration: December 18, 2018

Vale Newfoundland and Labrador Ltd. Long Harbour Hydrometallurgical Plant had eight active discharge points in 2013 (D2, D3, D5, D11, D13, D18, D21 and D25). The effluent monitoring program consists of numerous parameters, most of which have regulatory environmental limits.

D2: A total of 53 samples were taken at this location. There were 13 TSS exceedances reported.
D3: A total of 50 samples were taken at this location. There were 15 TSS exceedances reported.
D5: A total of 28 samples were taken at this location. There were three TSS exceedance reported.
D11: There was 41 samples were taken at this location. There were 16 TSS exceedances reported.
D13: A total of 26 samples were taken at this location with three TSS exceedances reported.
D18: A total of four samples were taken at this location in 2013 with no reported exceedances.
D21: One sample was taken at this location in 2013 and there was one TSS exceedance reported.
D25: 56 samples were taken at this location in 2013. There were no reported exceedances.

Environmental Effects Monitoring
There were no EEM activities at this site in 2013.

See Table 28: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2013: Effluent Discharge Criteria Summary.

Table 15: Atlantic Minerals Ltd. (Lower Cove) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Duck Pond (DL-HC Quarry)	Jun	Oct	Nov	Total
Samples	1	1	1	3
pH, Maximum (units)	7.84	8.04	7.97	8.04
pH, Minimum (units)				
pH, Exceedance (<5.5, >9.0)	0	0	0	0
As, Maximum	<0.001	<0.001	<0.001	<0.001
As, Exceedance (>1)	0	0	0	0
Cu, Maximum	<0.002	<0.002	<0.002	<0.002
Cu, Exceedance (> 0.6)	0	0	0	0
Pb, Maximum	0.00086	0.00063	0.00067	0.00086
Pb, Exceedance (>0.4)	0	0	0	0
Ni, Maximum	<0.002	<0.002	<0.002	<0.002
Nii, Exceedance (>1)	0	0	0	0
Zn, Maximum	0.0097	0.027	0.0074	0.027
Zn, Exceedance (>1)	0	0	0	0
TSS, Maximum	3.6	9.2	5.4	9.2
TSS, Exceedance (>30)	0	0	0	0
Ammonia, Maximum	0.07	<0.050	0.69	0.69
Fe, Maximum	0.054	0.064	0.11	0.11
Nitrate, Maximum	0.54	0.63	5.1	5.1
TDS, Maximum	118	130	220	220

DL Quarry 2	Jun	Oct	Nov	Total
Samples	1	1	1	3
pH, Maximum (units)	8.31	8.24	8.05	8.31
pH, Minimum (units)				
pH, Exceedance (<5.5, >9.0)	0	0	0	0
As, Maximum	<0.001	<0.001	<0.001	<0.001
As, Exceedance (>1)	0	0	0	0
Cu, Maximum	0.0036	<0.002	<0.002	0.0036
Cu, Exceedance (> 0.6)	0	0	0	0
Pb, Maximum	0.00545	0.0032	0.014	0.014
Pb, Exceedance (>0.4)	0	0	0	0
Ni, Maximum	<0.002	<0.002	<0.002	<0.002
Ni, Exceedance (>1)	0	0	0	0
Zn, Maximum	0.015	0.0081	0.028	0.028
Zn, Exceedance (>1)	0	0	0	0
TSS, Maximum	4.4	4.8	4.6	4.8
TSS, Exceedance (>30)	0	0	0	0
Ammonia, Maximum	0.071	<0.050	0.19	0.19
Fe, Maximum	0.081	0.062	<0.05	0.081
Nitrate, Maximum	2	0.53	1.2	2
TDS, Maximum	187	170	180	187

Table 16: Atlantic Minerals Ltd. (North Star Cement) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Series 1	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
- Samples					1	1	1	1	1				5
- pH, Maximum					8.66	8.46	8.55	9.10	8.61				9.10
- pH, Exceedance (<5.5, >9.0)					0	0	0	1	0				1

Shale Quarry	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
- Samples					1	1	1	1	1				5
- pH, Maximum					7.97	7.92	7.90	7.92	7.82				7.97
- pH, Exceedance (<5.5, >9.0)					0	0	0	0	0				0
- TSS, Maximum					<1.0	16	6.6	1.6	<1.0				16
- TSS, Exceedance (>30)					0	0	0	0	0				0
- TDS, Maximum					930	1100	490	1100	930				1100
- TDS, Exceedance (>1000)					0	1	0	1	0				2
- Ca, Maximum					129	153	82.3	188	140				188
- Mg, Maximum					19	26.4	12.2	29.7	21				29.7
- Hardness, Maximum					400	490	260	590	440				590

Table 17: Buchans 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

TP1 (Site 1)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples					1		1		1	1			4
pH, Maximum (Units)					6.97		7.19		7.41	7.19			7.41
pH, Minimum (Units)													
pH, Exceedance (<5.5, >9.0)					0		0		0	0			0
As, Maximum					<0.002		<0.002		<0.002	<0.002			<0.002
As, Exceedance (>0.5)					0		0		0	0			0
Cu, Maximum					0.02		0.02		0.025	0.01			0.025
Cu, Exceedance (>0.3)					0		0		0	0			0
Pb, Maximum					0.079		0.109		0.158	0.0484			0.158
Pb, Exceedance (>0.2)					0		0		0	0			0
Ni, Maximum					<0.002		<0.002		<0.002	<0.002			<0.002
Ni, Exceedance (>0.5)					0		0		0	0			0
Zn, Maximum					2.04		2.45		2.4	2.38			2.45
Zn, Exceedance (>0.5)					1		1		1	1			4
TSS, Maximum					<5		<5		10	<5			10
TSS, Exceedance (>30)					0		0		0	0			0
Ammonia, Maximum					<0.03		<0.03		<0.03	0.03			0.03
Ammonia, Exceedance (>2)					0		0		0	0			0
Cd, Maximum (ug/L)					5.46		6.49		7.09	3.74			7.09
Fe, Maximum					0.385		0.252		0.503	0.091			0.503
Hg, Maximum (ug/L)													
Nitrate, Maximum					<0.05		<0.05		<0.05	0.1			0.1
Nitrate, Exceedance (>10)					0		0		0	0			0

TP2 (Site 2)	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples					1		1		1	1			4
pH, Maximum (Units)					7.40		7.31		7.47	7.27			7.47
pH, Minimum (Units)													
pH, Exceedance (<5.5, >9.0)					0		0		0	0			0

Table 17 Continued: Buchans 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

TP2 (Site 2)	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
As, Maximum					<0.002		<0.002		<0.002	<0.002			<0.002
As, Exceedance (>0.5)					0		0		0	0			0
Cu, Maximum					0.009		0.012		0.018	0.007			0.018
Cu, Exceedance (>0.3)					0		0		0	0			0
Pb, Maximum					0.0293		0.0598		0.114	0.0237			0.114
Pb, Exceedance (>0.2)					0		0		0	0			0
Ni, Maximum					<0.002		<0.002		<0.002	<0.002			<0.002
Ni, Exceedance (>0.5)					0		0		0	0			0
Zn, Maximum					0.49		0.607		0.609	0.531			0.609
Zn, Exceedance (>0.5)					0		1		1	1			3
TSS, Maximum					<5		<5		<5	<5			<5
TSS, Exceedance (>30)					0		0		0	0			0
Ammonia, Maximum					<0.03		<0.03		<0.03	0.03			0.03
Ammonia, Exceedance (>2)					0		0		0	0			0
Cd, Maximum (ug/L)					1.9		1.9		2.31	1.8			2.31
Fe, Maximum					0.19		0.159		0.242	0.079			0.242
Hg, Maximum (ug/L)													
Nitrate, Maximum					<0.05		<0.05		<0.05	<0.05			<0.05
Nitrate, Exceedance (>10)					0		0		0	0			0

Mucky Ditch (Site 12)	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples					1		1		1	1			4
pH, Maximum (Units)					6.81		6.95		7.17	7.07			7.17
pH, Minimum (Units)													
pH, Exceedance (<5.5, >9.0)					0		0		0	0			0
As, Maximum					<0.002		<0.002		<0.002	<0.002			<0.002
As, Exceedance (>0.5)					0		0		0	0			0
Cu, Maximum					0.725		1.07		0.537	0.68			1.07
Cu, Exceedance (>0.3)					1		1		1	1			4

Table 17 Continued: Buchans 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Mucky Ditch (Site 12)	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Pb, Maximum					0.287		0.625		0.434	0.227			0.625
Pb, Exceedance (>0.2)					1		1		1	1			4
Ni, Maximum					0.008		0.009		0.011	0.008			0.011
Ni, Exceedance (>0.5)					0		0		0	0			0
Zn, Maximum					29.2		39.1		32.3	24.7			39.1
Zn, Exceedance (>0.5)					1		1		1	1			4
TSS, Maximum					<5		<5		6	5			6
TSS, Exceedance (>30)					0		0		0	0			0
Ammonia, Maximum					0.1		<0.03		0.06	0.09			0.1
Ammonia, Exceedance (>2)					0		0		0	0			0
Cd, Maximum (ug/L)					121		133		136	94.9			136
Fe, Maximum					0.315		0.305		0.134	0.666			0.666
Hg, Maximum (ug/L)													
Nitrate, Maximum					0.29		0.44		0.27	0.26			0.44
Nitrate, Exceedance (>10)					0		0		0	0			0

Polishing Pond (Site 17)	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples					1		1		1	1			4
pH, Maximum (Units)					7.75		7.94		7.97	7.96			7.97
pH, Minimum (Units)													
pH, Exceedance (<5.5, >9.0)					0		0		0	0			0
As, Maximum					<0.002		<0.002		<0.002	<0.002			<0.002
As, Exceedance (>0.5)					0		0		0	0			0
Cu, Maximum					0.003		0.004		0.004	0.003			0.004
Cu, Exceedance (>0.3)					0		0		0	0			0
Pb, Maximum					0.0011		0.0017		0.0018	0.0014			0.0018
Pb, Exceedance (>0.2)					0		0		0	0			0
Ni, Maximum					<0.002		<0.002		<0.002	<0.002			<0.002
Ni, Exceedance (>0.5)					0		0		0	0			0

Table 17 Continued: Buchans 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Polishing Pond (Site 17)	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Zn, Maximum					2.91		1.72		2.01	3.19			3.19
Zn, Exceedance (>0.5)					1		1		1	1			4
TSS, Maximum					<5		<5		<5	<5			<5
TSS, Exceedance (>30)					0		0		0	0			0
Ammonia, Maximum					<0.03		<0.03		<0.03	0.03			0.03
Ammonia, Exceedance (>2)					0		0		0	0			0
Cd, Maximum (ug/L)					4.4		2.96		3.37	3.83			4.4
Fe, Maximum					0.214		0.268		0.316	0.251			0.316
Hg, Maximum (ug/L)													
Nitrate, Maximum					<0.05		<0.05		0.25	<0.05			0.25
Nitrate, Exceedance (>10)					0		0		0	0			0

Table 18: DJ Composites 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Samples		**1**		**1**	**1**					**1**	**1**	**1**	**6**
pH Maximum (Units)		8.69		8.11	8.53					8.33	8.78	7.04	8.78
pH Minimum (Units)													
pH Violations (<5.5, >9.0)		0		0	0					0	0	0	0
BOD Maximum		7.6		4.4	<5.0					<15	15	21	21
BOD Violations (>300)		0		0	0					0	0	0	0
TSS, Maximum		76		120	37					36	8.2	40	120
TSS Violations (>350)		0		0	0					0	0	0	0
B, Maximum		2.81		1.97	0.56					0.48	1	0.51	2.81
Exceedance (5.0)		0		0	0					0	0	0	0
Cd, Maximum (ug/L)		0.515		<0.17	<0.17					0.55	0.64	0.68	0.68
Exceedance (0.05)		0		0	0					0	0	0	0
Cr, Maximum		0.225		0.244	0.089					0.13	0.24	0.068	0.244
Exceedance (1 as Cr(III))		0		0	0					0	0	0	0
Cr (+3), Maximum		0.23		0.24						0.096	0.24	0.06	0.24
Exceedance (1)		0		0						0	0	0	0
Chromium (VI), Maximum		<0.0010		<0.005	0.0013					0.033	<0.005	0.0037	0.033
Exceedance (0.05)		0		0	0					0	0	0	0
Cu, Maximum		0.0327		0.06	<0.02					0.0047	0.026	0.12	0.12
Exceedance (0.3)		0		0	0					0	0	0	0
Fe, Maximum		0.181		<0.5	<0.5					0.18	<0.5	0.82	0.82
Exceedance (15)		0		0	0					0	0	0	0
Pb, Maximum		0.00717		0.0053	<0.005					0.007	0.0053	<0.005	0.00717
Exceedance(0.2)		0		0	0					0	0	0	0
Hg, Maximum (ug/L)		<0.13		<0.013	<1.3					<1.3	<1.3	<1.3	<1.3
Exceedance (0.005)		0		0	0					0	0	0	0
Ni, Maximum		0.0117		<0.02	<0.02					0.0043	<0.02	0.022	0.022
Exceedance (0.5)		0		0	0					0	0	0	0
Zn, Maximum		0.42		0.164	0.126					0.16	0.35	0.092	0.42
Exceedance (0.5)		0		0	0					0	0	0	0

Table 18 Continued: DJ Composites 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Orthophosphate, Maximum		<1.0		4.4	<1.0					<1.0	<1.0	0 .244	4.4
Exceedance (4.36)		0		1	0					0	0	0	1
Total Oil & Grease, Maximum		25		21	22					29	23	24	29
Exceedance (100)		0		0	0					0	0	0	0
Phenol		0.16		0.23	0.13					0.03	<1.0	<0.10	0.23
Exceedance (0.5)		0		0	0					0	0	0	0
Cyanide		0.7		0.15	0.0636					0.052	0.0093	0.032	0.7
Exceedance (2.0)		0		0	0					0	0	0	0
As, Maximum		0.0034		<0.01	<0.01					<0.001	<0.01	<0.01	<0.01
Ba, Maximum		0.0021		<0.01	<0.01					0.0026	<0.01	0.015	0.015
Se, Maximum		<0.001		<0.01	<0.01					<0.001	<0.01	<0.01	<0.01
Ag, Maximum		<0.001		<0.001	<0.001					0.00018	<0.001	<0.001	<0.001

Table 19: GC Rieber Carino Company 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	5	5	5	6	5	5	3	5	6	5	5	4	59
pH, Maximum (units)	9.69	11.4	8.76	10.7	8.55	11.30	12.2	12.2	9.76	9.50	9.15	8.75	12.2
pH, Minimum (units)	8.41	6.86	7.07	6.75	5.63	6.66	6.18	6.94	5.24	5.58	7.35	7.08	5.24
pH, Exceedance (<5.5, >9.0)	3	3	0	2	0	3	2	1	5	1	1	0	21
As, Maximum	<0.001	<0.001	<0.001	0.0032	<0.01	<0.1	0.0023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.1
Exceedance (0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Ba, Maximum	0.0033	0.0046	0.0039	0.0063	0.025	<0.1	0.0161	0.0231	0.018	0.011	0.019	0.0015	<0.1
Exceedance (0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
B, Maximum	<0.05	<0.05	<0.05	<0.5	<0.5	<5	0.066	<0.5	0.058	<0.5	<0.5	<0.05	<5.0
Exceedance (5.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cd, Maximum (ug/L)	0.128	0.032	0.032	0.26	0.76	<1.7	0.329	0.23	0.75	0.011	0.22	0.096	<1.7
Exceedance(0.05)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cr (III), Maximum	1.4	0.17	0.36	0.03	0.3	<0.1	0.14	0.05	0.53	0.75	0.26	0.45	1.4
Exceedance (1)	1	0	0	0	0	0	0	0	0	0	0	0	1
Cr (VI), Maximum	0.0118	0.0054	0.01	0.00086	0.0068	0.0042	0.0042	0.0015	0.0074	0.019	0.0036	0.0051	0.019
Exceedance (0.05)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cu, Maximum	0.102	0.0502	0.027	0.0233	0.0413	<0.2	0.0325	0.0536	0.72	0.068	0.06	0.083	0.72
Exceedance (0.3)	0	0	0	0	0	0	0	0	1	0	0	0	1
Fe, Maximum	3.42	4.32	1.81	7.75	50.2	<5.0	12	2.77	34	39	2.2	2.3	50.2
Exceedance (10)	0	0	0	0	1	0	1	0	1	1	0	0	4
Pb, Maximum	0.00053	<0.0005	0.00075	<0.005	<0.005	<0.05	0.00121	0.008	0.0021	<0.005	<0.005	<0.0005	<0.05
Exceedance(0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Hg, Maximum (ug/L)	0.018	<0.013	<0.013	0.027	<0.013	0.022	0.05	<0.013	<0.013	<0.013	<0.013	<0.013	0.05
Exceedance (0.005)	0	0	0	0	0	0	0	0	0	0	0	0	0
Ni, Maximum	0.0241	0.0168	0.0134	0.043	0.121	<0.2	0.0728	0.072	0.12	0.085	0.064	0.069	<0.2
Exceedance (0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: Monthly water chemistry analysis for July was collected August 5 and the October analysis was collected November 12.

Table 19 Continued: GC Rieber Carino Company 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Zn, Maximum	0.0254	0.0142	<0.005	0.0116	0.213	<0.5	0.0306	<0.05	0.38	0.13	<0.05	0.0097	<0.5
Exceedance (0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Se, Maximum	<0.001	<0.001	<0.001	0.0074	<0.01	<0.1	0.0021	0.0027	0.0034	0.0036	0.0049	0.0021	<0.1
Exceedance (0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Ag, Maximum	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.01	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.01
Exceedance (0.05)	0	0	0	0	0	0	0	0	0	0	0	0	0
TDS, Maximum	2030	2640	1710	3780	9610	9490	2700	9010	12000	8800	12000	2100	12000
Exceedance (1000)	1	1	1	1	1	1	1	1	1	1	1	1	12
TSS, Maximum	26	33	5.2	36	37	22	34	18	230	48	24	31	230
Exceedance (30)	0	1	0	1	1	0	1	0	2	1	0	1	8
BOD, Maximum	270	190	170	1500	3200	680	990	820	970	1000	1100	740	3200
Exceedance (20)	4	4	4	5	4	4	2	4	5	4	4	3	47
Ammonia, Maximum	2.3	4.1	1	49	20	13	7.9	5.3	66	30	8.1	0.98	66
Exceedance (2.0)	1	1	0	1	1	1	1	1	1	1	1	0	10
Sulfide, Maximum	<0.020	<0.020	<0.020	<0.020	<0.020	0.027	0.26	<0.020	0.024	0.022	<0.020	<0.020	0.26
Exceedance (0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Oil & Grease, Maximum	11	9.1	5.6	7.5	17	22	24	25	49	28	42	24	49
Exceedance (15)	0	0	0	0	2	1	2	2	3	3	4	1	18
Phenol	0.41	0.66	0.057	<0.10	1.6	6.8	0.093	11	14	17	17	0.19	17
Exceedance (0.1)	1	1	0	0	1	1	0	1	1	1	1	0	8
Cyanide	<0.0020	0.0025	<0.0020			0.0031	<0.010	0.007	0.0086	0.015	0.0066	<0.0010	0.015
Exceedance (0.025)	0	0	0			0	0	0	0	0	0	0	0

Table 20: Gullbridge Mine Site 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples			3		1	1						1	6
pH, Maximum (Units)			7.13		7.30	7.22						6.60	7.30
pH, Minimum (Units)			5.97										5.97
pH, Exceedance (<5.5, >9.0)			0		0	0						0	0
As, Maximum			<0.002		<0.002	<0.002							<0.002
As, Exceedance (>1)			0		0	0							0
Monthly Average (>0.50)			<0.002		<0.002	<0.002							<0.002
Cu, Maximum			0.25		0.028	0.008						0.1	0.25
Cu, Exceedance (>0.6)			0		0	0						0	0
Monthly Average (>0.30)			0.11433		0.028	0.008						0.1	0.11433
Pb, Maximum			0.00077		<0.0005	<0.0005						<0.01	0.00077
Pb, Exceedance (>0.4)			0		0	0						0	0
Monthly Average (>0.20)			<0.00050		<0.0005	<0.0005						<0.01	0
Ni, Maximum			0.028		0.017	0.004						0.04	0.04
Ni, Exceedance (>1)			0		0	0						0	0
Monthly Average (>0.50)			0.0232		0.017	0.004						0.04	0.04
Zn, Maximum			0.0243		0.01	0.006						<0.04	<0.04
Zn, Exceedance (>1)			0		0	0						0	0
Monthly Average (>0.50)			0.01777		0.01	0.006						<0.04	<0.04
TSS, Maximum			40		<5	7							40
TSS, Exceedance (>30)			1		0	0							1
Monthly Average (>15.00)			24		<5	7							24
Ammonia, Maximum			0.13		0.11	0.34							0.34
Cd, Maximum (ug/L)			0.185		0.099	<0.017						<8	<8
Fe, Maximum			5.08		0.257	0.519						1.5	5.08
Nitrate, Maximum			0.21		0.10	<0.05							0.21
TDS, Maximum			136		170	265						359	359

Table 21: Hebron Bull Arm Construction Site 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Trench Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	1		5	5	6	4	5	4	2		2		34
TSS, Maximum	87.8		4.8	3.9	23.6	5	4.4	6.5	34.5		8		87.8
TSS, Exceedance (>30)	1		0	0	0	0	0	0	1		0		2
Samples			1	5	5	4	5	4	2		2		28
TPH, Maximum			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1		<0.1
TPH, Exceedance (>15)			0	0	0	0	0	0	0		0		0

Filters Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples			2	4	4	4	5	4	6	4	4	3	40
TSS, Maximum			2.9	8.6	3	3.1	45.2	11.2	31.8	6.2	8.2	5.5	45.2
TSS, Exceedance (>30)			0	0	0	0	1	0	1	0	0	0	2
Samples			1	4	5	4	5	4	4	4	3	3	37
TPH, Maximum			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TPH, Exceedance (>15)			0	0	0	0	0	0	0	0	0	0	0

Table 22: Hope Brook Mine Site 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Banana Pond	Sept.	Total
Samples	1	1
pH, Maximum (Units)	6.44	6.44
pH, Minimum (Units)		
pH, Exceedance (<5.5, >9.0)	0	0
As, Maximum		
As, Exceedance (>1.0)		
Monthly Average (0.5)		
Cu, Maximum	0.04	0.04
Cu, Exceedance (>0.6)	0	0
Monthly Average (>0.30)	0.04	
Pb, Maximum	<0.01	<0.01
Pb, Exceedance (>0.4)	0	0
Monthly Average (>0.20)	<0.01	
Ni, Maximum	<0.01	<0.01
Ni, Exceedance (>1)	0	0
Monthly Average (>0.50)	<0.01	
Zn, Maximum	<0.04	<0.04
Zn, Exceedance (>1)	0	0
Monthly Average (>0.50)	<0.04	
Sulphate, Maximum	67	67
Cd, Maximum (ug/L)	<8	<8
Fe, Maximum	<0.1	<0.1
TDS, Maximum	129	129

BH6	Sept.	Total
Samples	1	1
pH, Maximum (Units)	5.63	5.63
pH, Minimum (Units)		
pH, Exceedance (<5.5, >9.0)	0	0
As, Maximum		
As, Exceedance (>1.0)		
Monthly Average (0.5)		
Cu, Maximum	0.39	0.390
Cu, Exceedance (>0.6)	0	0
Monthly Average (>0.30)	0.39	1
Pb, Maximum	<0.01	<0.01
Pb, Exceedance (>0.4)	0	0
Monthly Average (>0.20)	<0.01	
Ni, Maximum	<0.01	<0.01
Ni, Exceedance (>1)	0	0
Monthly Average (>0.50)	<0.01	
Zn, Maximum	0.12	0.12
Zn, Exceedance (>1)	0	0
Monthly Average (>0.50)	0.12	
Sulphate, Maximum	107	107
Cd, Maximum (ug/L)	<8	<8
Fe, Maximum	<0.1	<0.1
TDS, Maximum	174	174

Table 22 Continued: Hope Brook Mine Site 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Pine Pond Outflow	Sept.	Total
Samples	1	1
pH, Maximum (Units)	6.83	6.83
pH, Minimum (Units)		
pH, Exceedance (<5.5, >9.0)	0	0
As, Maximum		
As, Exceedance (>1.0)		
Monthly Average (0.5)		
Cu, Maximum	<0.01	<0.01
Cu, Exceedance (>0.6)	0	0
Monthly Average (>0.30)	<0.01	
Pb, Maximum	<0.01	<0.01
Pb, Exceedance (>0.4)	0	0
Monthly Average (>0.20)	<0.01	
Ni, Maximum	<0.01	<0.01
Ni, Exceedance (>1)	0	0
Monthly Average (>0.50)	<0.01	
Zn, Maximum	<0.04	<0.04
Zn, Exceedance (>1)	0	0
Monthly Average (>0.50)	<0.04	
Sulphate, Maximum	15	15
Cd, Maximum (ug/L)	<8	<8
Fe, Maximum	<0.1	<0.1
TDS, Maximum	54	54
ALT, Pass (RT)	1	1
ALT, Fail (RT)	0	0

Inlet to Boat Hole Brook	Sept.	Total
Samples	1	1
pH, Maximum (Units)	6.69	6.69
pH, Minimum (Units)		
pH, Exceedance (<5.5, >9.0)	0	0
As, Maximum		
As, Exceedance (>1.0)		
Monthly Average (0.5)		
Cu, Maximum	0.02	0.02
Cu, Exceedance (>0.6)	0	0
Monthly Average (>0.30)	0.02	
Pb, Maximum	<0.01	<0.01
Pb, Exceedance (>0.4)	0	0
Monthly Average (>0.20)	<0.01	
Ni, Maximum	<0.01	<0.01
Ni, Exceedance (>1)	0	0
Monthly Average (>0.50)	<0.01	
Zn, Maximum	<0.04	<0.04
Zn, Exceedance (>1)	0	0
Monthly Average (>0.50)	<0.04	
Sulphate, Maximum	30	30
Cd, Maximum (ug/L)	<8	<8
Fe, Maximum	0.2	0.2
TDS, Maximum	76	76
ALT, Pass (RT)	1	1
ALT, Fail (RT)	0	0

Catch Basin Drainage	Sept.	Total
Samples	1	1
pH, Maximum (Units)	7.58	7.58
pH, Minimum (Units)		
pH, Exceedance (<5.5, >9.0)	0	0
As, Maximum		
As, Exceedance (>1.0)		
Monthly Average (0.5)		
Cu, Maximum	<0.01	<0.01
Cu, Exceedance (>0.6)	0	0
Monthly Average (>0.30)	<0.01	
Pb, Maximum	<0.01	<0.01
Pb, Exceedance (>0.4)	0	0
Monthly Average (>0.20)	<0.01	
Ni, Maximum	<0.01	<0.01
Ni, Exceedance (>1)	0	0
Monthly Average (>0.50)	<0.01	
Zn, Maximum	<0.04	<0.04
Zn, Exceedance (>1)	0	0
Monthly Average (>0.50)	<0.04	
Sulphate, Maximum	334	334
Cd, Maximum (ug/L)	<8	<8
Fe, Maximum	0.2	0.2
TDS, Maximum	492	492
ALT, Pass (RT)	1	1
ALT, Fail (RT)	0	0

Table 22 Continued: Hope Brook Mine Site 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Open Pit Spillway	Sept.	Total
Samples	1	1
pH, Maximum (Units)	7.71	7.71
pH, Minimum (Units)		
pH, Exceedance (<5.5, >9.0)	0	0
As, Maximum		
As, Exceedance (>1.0)		
Monthly Average (0.5)		
Cu, Maximum	<0.01	<0.01
Cu, Exceedance (>0.6)	0	0
Monthly Average (>0.30)	<0.01	
Pb, Maximum	<0.01	<0.01
Pb, Exceedance (>0.4)	0	0
Monthly Average (>0.20)	<0.01	
Ni, Maximum	<0.01	<0.01
Ni, Exceedance (>1)	0	0
Monthly Average (>0.50)	<0.01	
Zn, Maximum	<0.04	<0.04
Zn, Exceedance (>1)	0	0
Monthly Average (>0.50)	<0.04	
Sulphate, Maximum	483	483
Cd, Maximum (ug/L)	<8	<8
Fe, Maximum	0.1	0.1
TDS, Maximum	689	689
ALT, Pass (RT)	1	1
ALT, Fail (RT)	0	0

Polish Pond	Sept.	Total
Samples	1	1
pH, Maximum (Units)	6.57	6.57
pH, Minimum (Units)		
pH, Exceedance (<5.5, >9.0)	0	0
As, Maximum		
As, Exceedance (>1.0)		
Monthly Average (0.5)		
Cu, Maximum	0.03	0.03
Cu, Exceedance (>0.6)	0	0
Monthly Average (>0.30)	0.03	
Pb, Maximum	<0.01	<0.01
Pb, Exceedance (>0.4)	0	0
Monthly Average (>0.20)	<0.01	
Ni, Maximum	<0.01	<0.01
Ni, Exceedance (>1)	0	0
Monthly Average (>0.50)	<0.01	
Zn, Maximum	<0.04	<0.04
Zn, Exceedance (>1)	0	0
Monthly Average (>0.50)	<0.04	
Sulphate, Maximum	21	21
Cd, Maximum (ug/L)	<8	<8
Fe, Maximum	<0.1	<0.1
TDS, Maximum	53	53
ALT, Pass (RT)	1	1
ALT, Fail (RT)	0	0

Table 23: Labatt Breweries Newfoundland 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Samples	3	4								7	4	2	20
pH Maximum (Units)	7.00	8.11								11.7	12	10.2	12.0
pH Minimum (Units)	6.13	6.34								2.22	5.76	10	2.22
pH Violations (<5.5, >9.0)	0	0								6	2	2	10
BOD Maximum	900	1300								2100	1200	640	2100
BOD Violations (>300)	3	4								6	4	2	19
TSS, Maximum	620	450								1100	1700	400	1700
TSS Violations (>350)	1	1								2	2	1	7
B, Maximum												<0.05	<0.05
Exceedance (5.0)												0	0
Cd, Maximum (ug/L)												0.095	0.095
Exceedance(0.05 mg/L)												0	0
Cr, Maximum												0.014	0.014
Exceedance (1.0)												0	0
Cu, Maximum												0.047	0.047
Exceedance (0.3)												0	0
Fe, Maximum												0.66	0.66
Exceedance (15)												0	0
Pb, Maximum												0.0024	0.0024
Exceedance(0.2)												0	0
Hg, Maximum (ug/L)												<0.013	<0.013
Exceedance (0.005 mg/L)												0	0
Ni, Maximum												0.0059	0.0059
Exceedance (0.5)												0	0

Table 23 Continued: Labatt Breweries Newfoundland 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Zn, Maximum												0.15	0.15
Exceedance (0.5)												0	0
Phenol												0.026	0.026
Exceedance (0.5)												0	0
Se, Maximum												<0.001	<0.001
As, Maximum												<0.001	<0.001
Ba, Maximum												0.028	0.028
Ag, Maximum												<0.0001	<0.0001
TDS, Maximum												470	470
Ammonia, Maximum												0.94	0.94
Sulfide, Maximum												0.041	0.041

Table 24: Molson Coors Canada 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Samples	5	4	4					4	4	4	4	3	32
pH Maximum (Units)	10.20	11.00	10.90					7.32	9.14	6.32	6.51	6.59	11.00
pH Minimum (Units)	6.63	9.08	6.51					6.84	6.66	4.43	3.98	6.08	3.98
pH Violations (<5.5, >9.0)	1	4	2					0	1	2	2	0	12
BOD Maximum	1600	1500	1400					5.2	650	8100	5100	1600	8100
BOD Violations (>300)	4	4	3					0	2	4	4	3	24
TSS, Maximum	100	95	58					82	380	1100	820	120	1100
TSS Violations (>350l)	0	0	0					0	1	2	1	0	4
B, Maximum			<0.05							<0.05			<0.05
Exceedance (5.0)			0							0			0
Cd, Maximum (ug/L)			0.175							0.074			0.175
Exceedance(0.05 mg/L)			0							0			0
Cr, Maximum			0.0128							0.0069			0.0128
Exceedance (1.0)			0							0			0
Cu, Maximum			0.0659							0.17			0.17
Exceedance (0.3)			0							0			0
Fe, Maximum			0.637							1.1			1.1
Exceedance (15)			0							0			0
Pb, Maximum			0.0531							0.011			0.0531
Exceedance(0.2)			0							0			0
Hg, Maximum (ug/L)			0.019							0.015			0.019
Exceedance (0.005)			0							0			0
Ni, Maximum			0.0056							0.008			0.008
Exceedance (0.5)			0							0			0

Table 24 Continued: Molson Coors Canada 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Zn, Maximum			0.0892							0.16			0.16
Exceedance (0.5)			0							0			0
Phenol			0.15							0.033			0.15
Exceedance (0.5)			0							0			0
Se, Maximum			<0.001							<0.001			<0.001
As, Maximum			0.0012							<0.001			0.0012
Ba, Maximum			0.0365							0.011			0.0365
Ag, Maximum			<0.0001							0.00017			0.00017
TDS, Maximum			488							610			610
Ammonia, Maximum			0.56							0.21			0.56
Sulfide, Maximum			0.042							0.021			0.042

Table 25: Newfoundland Transhipment Terminal 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Tank No. 1- Sump No. 1	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples	**1**			**1**			**1**			**1**			**4**
TSS, Maximum	<1.6			<1.6			<1.6			<1.6			<1.6
TSS, Exceedance (>30)	0			0			0			0			0
pH, Maximum (units)	7.1			7.5			7.7			6.4			7.70
pH, Exceedance (<5.5, >9.0)	0			0			0			0			0
TPH, Maximum	5.3			3.7			5.6			10.9			10.90
TPH, Exceedance (>15)	0			0			0			0			0

Tank No. 2- Sump No. 2	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples	**1**			**1**			**1**			**1**			**4**
TSS, Maximum	<1.6			<1.6			<1.6			<1.6			<1.6
TSS, Exceedance (>30)	0			0			0			0			0
pH, Maximum (units)	7.6			7.7			7.8			6.6			7.80
pH, Exceedance (<5.5, >9.0)	0			0			0			0			0
TPH, Maximum	8.5			7.7			5.2			9.2			9.20
TPH, Exceedance (>15)	0			0			0			0			0

Tank No. 3- Sump No. 3	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples	**1**			**1**			**1**			**1**			**4**
TSS, Maximum	<1.6			<1.6			<1.6			<1.6			<1.6
TSS, Exceedance (>30)	0			0			0			0			0
pH, Maximum (units)	7.7			7.7			7.8			6.9			7.80
pH, Exceedance (<5.5, >9.0)	0			0			0			0			0
TPH, Maximum	8.4			4			6.8			10.7			10.70
TPH, Exceedance (>15)	0			0			0			0			0

Table 25 Continued: Newfoundland Transhipment Terminal 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Tank No. 4- Sump No. 4	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples	**1**			**1**			**1**			**1**			**4**
TSS, Maximum	<1.6			<1.6			<1.6			<1.6			<1.6
TSS, Exceedance (>30)	0			0			0			0			0
pH, Maximum (units)	7.6			7.6			7.6			6.5			7.60
pH, Exceedance (<5.5, >9.0)	0			0			0			0			0
TPH, Maximum	9.9			7.1			1			8.6			9.90
TPH, Exceedance (>15)	0			0			0			0			0

Tank No. 5- Sump No. 5	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples	**1**			**1**			**1**			**1**			**4**
TSS, Maximum	<1.6			<1.6			<1.6			<1.6			<1.6
TSS, Exceedance (>30)	0			0			0			0			0
pH, Maximum (units)	7.5			7.6			7.6			6.9			7.6
pH, Exceedance (<5.5, >9.0)	0			0			0			0			0
TPH, Maximum	8.8			2.2			5.8			8.6			8.8
TPH, Exceedance (>15)	0			0			0			0			0

Tank No. 6- Sump No. 6	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples	**1**			**1**			**1**			**1**			**4**
TSS, Maximum	<1.6			<1.6			<1.6			<1.6			<1.6
TSS, Exceedance (>30)	0			0			0			0			0
pH, Maximum (units)	7.3			7.8			7.5			6.9			7.80
pH, Exceedance (<5.5, >9.0)	0			0			0			0			0
TPH, Maximum	6.7			2.7			4.1			5.4			6.7
TPH, Exceedance (>15)	0			0			0			0			0

Table 25 Continued: Newfoundland Transhipment Terminal 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Tank No. 7- Sump No. 7	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples	**1**			**1**			**1**			**1**			**4**
TSS, Maximum	<1.6			<1.6			<1.6			<1.6			<1.6
TSS, Exceedance (>30)	0			0			0			0			0
pH, Maximum (units)	7.7			8			7.7			6.9			8.00
pH, Exceedance (<5.5, >9.0)	0			0			0			0			0
TPH, Maximum	6.1			4.3			2			9.8			9.8
TPH, Exceedance (>15)	0			0			0			0			0

Containment Pond	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples				**2**		**1**			**1**				**4**
TSS, Maximum				<1.6		4.2			<1.6				4.2
TSS, Exceedance (>30)				0		0			0				0
pH, Maximum (units)				7.2		7.1			6.6				7.20
pH, Exceedance (<5.5, >9.0)				0		0			0				0
TPH, Maximum				4.9		9.8			1.2				9.8
TPH, Exceedance (>15)				0		0			0				0
ALT, Pass (RT)				0		1			1				2
ALT, Fail (RT)				1		0			0				1

Oily Water Separator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples			**1**					**1**			**1**		**3**
TSS, Maximum			<1.6					<1.6			<1.6		<1.6
TSS, Exceedance (>30)			0					0			0		0
pH, Maximum (units)			6.9					6.9			6.8		6.90
pH, Exceedance (<5.5, >9.0)			0					0			0		0
TPH, Maximum			7.2					6.1			9.7		9.7
TPH, Exceedance (>15)			0					0			0		0
TDS, Maximum			1914					1178			386		1914
TDS, Exceedance (>36000)			0					0			0		0

Table 26: Pardy's Waste Management Facility – Incinerator Road 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Weekly Samples - Effluent	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	2	4	4	3	5	4	4	4	3	5	4		42
pH, Maximum (Units)	6.92	7.17	7.27	7.20	6.56	6.81	7.71	7.83	7.97	7.94	7.82		7.97
pH, Minimum (Units)	6.77	6.65	6.84	6.56	6.55	5.75	7.48	7.41	7.48	7.74	7.44		5.75
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0		0
As, Maximum	<0.01	0.0029	0.0026			0.005	0.006		0.005	0.002	<0.002		<0.01
As, Exceedance (>0.5)	0	0	0			0	0		0	0	0		0
Ba, Maximum	<0.01	0.0077	0.0056			0.038	0.114		0.027	0.02	0.022		0.114
Ba, Exceedance (>5.0)	0	0	0			0	0		0	0	0		0
B, Maximum	1.66	0.401	0.630			0.869	0.422		0.26	0.429	0.807		1.66
B, Exceedance (>5.0)	0	0	0			0	0		0	0	0		0
Cd, Maximum (ug/L)	<0.17	0.939	<0.017			0.032	0.058		<0.017	0.073	0.092		0.939
Cd, Exceedance (>50ug/L)	0	0	0			0	0		0	0	0		0
Cr, Maximum	0.012	0.0023	0.0011			0.003	0.003		<0.001	0.001	0.002		0.012
Cr, Exceedance (1.0)	0	0	0			0	0		0	0	0		0
Cu, Maximum	<0.02	0.0066	<0.002			0.018	0.024	0.01	0.005	0.004	0.005		0.024
Cu, Exceedance (>0.3)	0	0	0			0	0	0	0	0	0		0
Fe, Maximum	<0.5	0.263	0.391			0.233	3.32	1.22	0.345	1.26	0.904		3.32
Fe, Exceedance (>10)	0	0	0			0	0	0	0	0	0		0
Pb, Maximum	<0.005	<0.0005	0.00072			<0.0005	0.0026		0.0008	0.0006	0.0012		<0.005
Pb, Exceedance (>0.2)	0	0	0			0	0		0	0	0		0
Ni, Maximum	0.025	0.0146	0.0199			0.01	0.011		0.011	0.011	0.012		0.025
Ni, Exceedance (>0.5)	0	0	0			0	0		0	0	0		0
Se, Maximum	<0.01	<0.001	<0.001			0.007	0.007		0.002	0.003	0.002		<0.01
Se, Exceedance (0.01)	0	0	0			0	0		0	0	0		0
Ag, Maximum	<0.001	<0.0001	<0.0001			<0.0001	0.0001		<0.0001	<0.0001	<0.0001		<0.001
Ag, Exceedance (0.05)	0	0	0			0	0		0	0	0		0
Zn, Maximum	0.059	0.0723	0.0443			0.178	0.78	0.024	0.045	0.099	0.02		0.178
Zn, Exceedance (>0.5)	0	0	0			0	1	0	0	0	0		1

Table 26: Pardy's Waste Management Facility – Incinerator Road 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Weekly Samples - Effluent	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
TSS, Maximum	23	35	58	9.8	51	38	116	106	32	15	20		116
TSS, Exceedance (>30)	0	1	2	0	2	1	4	2	1	0	0		13
BOD, Maximum	36	43	72	12	92	9	80	219	47	21	18		219
BOD, Exceedance (>20)	1	1	4	0	2	0	3	2	1	1	0		15
Total Coliform, Maximum	79	330	2100	17	220	130	9500	11000	330	700	4900		11000
Total Coliform, Exceedance (>50)	1	1	3	0	1	1	4	3	2	2	2		20
Fecal Coliform, Maximum	23	330	110	11	130	79	700	540	79	230	13		700
Fecal Coliform, Maximum (>10)	1	1	3	1	3	1	4	3	2	2	1		22
Total Phosphorus, Maximum	26	36	71	24	39	46	30.7	35.1	17.2	8.69	4.37		71
Total Phosphorus, Maximum (>0.44)	2	4	4	3	2	4	4	3	3	4	1		34
TDS, Maximum	4000	3300	3300	3500	3400	4930	7440	2130	2090	2120	1510		7440
TDS, Exceedance (>1000)	1	4	4	3	2	4	4	3	3	4	4		36
Nitrate, Maximum	41	75	17	44	79	130	<1.00	1.38	3.79	15.3	16.5		130
Nitrate, Exceedance (>10)	2	4	2	3	2	4	0	0	0	1	1		19
TPH, Maximum	<5.0	<5.0	<5.0	<5.0	<5.0	5.3	6.1	3.8	5.4	2.9	9		9
TPH, Exceedance (>15)	0	0	0	0	0	0	0	0	0	0	0		0
Ammonia, Maximum	38	49	87	0.92	88	44	124	226	21.8	16.1	14		226
Ammonia, Exceedance (>2.0)	2	4	3	0	2	4	4	3	2	1	2		27
ALT, Pass (RT)													
ALT, Fail (RT)													
ALT, Pass (DM)													
ALT, Fail (DM)													

Table 27: Vale Newfoundland and Labrador Ltd. (Argentia) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Polish Pond Discharge	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples			2							2			4
pH, Maximum (units)			7.26							7.38			7.38
pH, Minimum (units)			6.91							7.01			6.91
pH, Exceedance (<5.5, >9.0)			0							0			0
As, Maximum			<0.001							0.0004			<0.001
As, Exceedance (>0.5)			0							0			0
Cd, Maximum			0.043							0.028			0.043
Cd, Exceedance (>0.05)			0							0			0
Cu, Maximum			0.0051							0.0048			0.0051
Cu, Exceedance (>0.3)			0							0			0
Fe, Maximum			0.139							0.21			0.21
Fe, Exceedance (> 10)			0							0			0
Pb, Maximum			<0.0005							0.00003			<0.0005
Pb, Exceedance (>0.2)			0							0			0
Hg, Maximum (ug/L)			<0.013							<0.01			<0.01
Hg, Exceedance (>0.005)			0							0			0
Ni, Maximum			0.496							0.299			0.496
Ni, Exceedance (>0.5)			0							0			0
Zn, Maximum			0.0064							0.005			0.0064
Zn, Exceedance (>0.5)			0							0			0
Ammonia, Maximum			<0.050							<0.1			<0.1
Ammonia, Exceedance (>2)			0							0			0
Nitrate, Maximum			<0.050							<0.06			<0.06
Nitrate, Exceedance (>10)			0							0			0
TDS, Maximum			612							640			640
TDS, Exceedance (>1000)			0							0			0
TPH, Maximum			<0.10							<0.5			<0.10
TPH, Exceedance (>15)			0							0			0

Table 27 Continued: Vale Newfoundland and Labrador Ltd. (Argentia) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

Polish Pond Discharge	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
TSS, Maximum			1							3			3
TSS, Exceedance (>30)			0							0			0
ALT, Pass (RT)			2							2			4
ALT, Fail (RT)			0							0			0

Table 28: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

D1	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2013- site inactive													

D2 - Plant Site Diversion Ditch North Discharge	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	4	8	3	2	1	4	1	5	8	6	8	3	53
pH, Maximum (units)	7.93	7.84	7.76	7.86	7.83	7.30	7.51	7.99	7.71	7.84	7.52	7.62	7.99
pH, Minimum (units)	7.50	7.12				7.25			7.19	6.69	7.32	7.41	6.69
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	0.0023	0.0025	0.0013	0.0012	0.0012	0.0018	<0.0010	0.0018	0.0035	0.0029	0.0043	<0.001	0.0043
As, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cu, Maximum	0.0044	0.0059	0.0023	<0.002	<0.002	0.0038	<0.0020	0.0024	0.007	0.0069	0.008	0.0026	0.008
Cu, Exceedance (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pb, Maximum	0.00285	0.00835	0.0009	0.00067	<0.0005	0.00346	<0.00050	<0.00050	0.0081	0.011	0.012	0.00068	0.012
Pb, Exceedance (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Ni, Maximum	0.0071	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0023	0.0036	0.0044	0.0024	0.0071
Ni, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn, Maximum	0.0477	0.0416	0.0346	0.0292	0.0158	0.0589	0.0248	0.0177	0.059	0.052	0.081	0.029	0.081
Zn, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
TSS, Maximum	6.2	400	41	44	<1.0	81	1.2	210	38	59	55	59	400
TSS, Exceedance (>30)	0	4	1	1	0	1	0	1	1	1	2	1	13
Ammonia, Maximum	0.078	0.061	0.15	<0.050	0.16	0.068	0.16	0.12	0.35	0.063	<0.050	<0.050	0.35
Ammonia, Exceedance (<2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cd, Maximum (ug/L)	0.216	0.241	0.219	0.234	0.149	0.372	0.314	0.192	0.34	0.24	0.37	0.23	0.372
Fe, Maximum	0.651	2.15	0.15	0.176	0.052	3.25	<0.05	0.066	1.8	4.9	5.1	0.2	5.1
Hg, Maximum (ug/L)	<0.013	<0.013	<0.013	<0.013	<0.013	0.013	<0.013	<0.013	0.018	<0.013	<0.013	<0.013	0.018
Nitrate, Maximum	0.84	0.80	0.5	0.4	0.15	0.27	0.23	0.33	0.4	0.33	0.29	0.22	0.84
Nitrate, Exceedance (>10)	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 28 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

D3 - Plant Site Diversion Ditch South Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	3	6	2	2	1	7	3	5	8	5	7	1	50
pH, Maximum (units)	7.70	7.65	7.49	7.35	7.71	7.74	7.63	7.51	7.57	7.49	7.37		7.74
pH, Minimum (units)	7.34	6.91	7.33			6.84	7.38	6.77	6.89	6.64	6.97		6.64
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0		0
As, Maximum	0.0011	0.0032	0.0011	0.0019	0.0011	0.0021	0.0012	0.0016	0.006	0.0033	0.0021		0.006
As, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0		0
Cu, Maximum	0.0033	0.0118	0.0033	0.0056	<0.002	0.009	0.0029	0.0042	0.019	0.011	0.0058		0.019
Cu, Exceedance (>0.3)	0	0	0	0	0	0	0	0	0	0	0		0
Pb, Maximum	0.00546	0.0226	0.0049	0.00976	0.00139	0.0161	0.00339	0.00555	0.039	0.021	0.0095		0.039
Pb, Exceedance (>0.2)	0	0	0	0	0	0	0	0	0	0	0		0
Ni, Maximum	0.0061	0.0022	0.0028	0.0022	<0.002	<0.002	<0.002	<0.002	0.0068	0.0031	0.003		0.0068
Ni, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0		0
Zn, Maximum	0.0229	0.03	0.0155	0.0196	0.0053	0.0225	0.0061	0.0109	0.057	0.037	0.022		0.057
Zn, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0		0
TSS, Maximum	12	63	6.4	170	2.6	190	9.4	24	84	86	56	7.6	190
TSS, Exceedance (>30)	0	3	0	1	0	3	0	0	5	2	1	0	15
Ammonia, Maximum	0.073	0.33	0.066	0.053	<0.050	0.14	0.24	0.16	0.2	0.09	0.058		0.33
Ammonia, Exceedance (>2)	0	0	0	0	0	0	0	0	0	0	0		0
Cd, Maximum	0.11	0.195	0.12	0.129	0.049	0.21	0.065	0.078	0.23	0.19	0.12		0.23
Fe, Maximum	2.14	2.89	1.28	3.03	1.59	2.36	1.98	2.14	8.7	5.1	4.8		8.7
Hg, Maximum	<0.013	<0.013	<0.013	0.013	<0.013	0.02	<0.013	<0.013	0.037	0.017	<0.013		0.037
Nitrate, Maximum	0.096	0.11	0.085	0.072	<0.050	0.13	0.12	0.06	0.11	0.084	0.1		0.13
Nitrate, Exceedance (>10)	0	0	0	0	0	0	0	0	0	0	0		0

D4	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2013 - site inactive													

Table 28 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

D5 - Laydown Pad Storm Pond Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	3	5	1	1	1	2	1	1	5	5	2	1	28
pH, Maximum (units)	7.40	7.80	7.47	7.61	7.45	7.24	7.32	7.70	7.44	7.24	7.34	7.23	7.80
pH, Minimum (units)	7.14	6.19				7.22			7.22	6.88	7.14		6.19
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.001	0.0015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0024	0.0026	<0.001	<0.001	0.0026
As, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cu, Maximum	<0.002	0.0027	<0.002	<0.002	<0.002	0.0032	<0.002	<0.002	0.011	0.0084	0.0029	<0.002	0.011
Cu, Exceedance (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pb, Maximum	0.00085	0.00212	<0.0005	<0.0005	<0.0005	0.00224	0.00069	<0.0005	0.012	0.0096	0.0029	0.00063	0.012
Pb, Exceedance (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Ni, Maximum	0.0051	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0062	0.0045	<0.002	<0.002	0.0062
Ni, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn, Maximum	0.0059	0.0243	<0.005	<0.005	<0.005	0.0112	<0.005	<0.005	0.036	0.034	0.012	<0.005	0.036
Zn, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
TSS, Maximum	9.2	50	<1.0	3.2	1	15	4.8	2.4	73	100	28	2.2	100
TSS, Exceedance (>30)	0	1	0	0	0	0	0	0	1	1	0	0	3
Ammonia, Maximum	<0.050	0.084	0.051	0.079	0.075	0.097	0.12	0.22	0.74	0.075	<0.050	<0.050	0.74
Ammonia, Exceedance (>2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cd, Maximum (ug/L)	0.021	0.156	<0.017	0.072	<0.017	0.03	0.02	0.015	<1.0	0.2	0.032	0.014	0.2
Fe, Maximum	0.95	1.02	0.262	0.274	0.285	1.44	1.03	0.485	8.1	6.9	2.5	0.93	8.1
Hg, Maximum (ug/L)	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.018	0.013	<0.013	<0.013	0.018
Nitrate, Maximum	0.62	0.80	0.31	0.26	0.19	0.45	0.35	0.13	0.17	0.15	0.16	0.21	0.8
Nitrate, Exceedance (>10)	0	0	0	0	0	0	0	0	0	0	0	0	0

D6	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2013 - site inactive													

Table 28 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

D7	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2013 - site inactive													

D8	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2013 - site inactive													

D9	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2013 - site inactive													

D10	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2013 - site inactive													

D11 - Quarry 2 Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	5	5	1	1	1	5	3	2	5	5	5	3	41
pH, Maximum (units)	6.88	7.04	6.83	6.88	6.43	6.75	6.53	6.63	6.72	6.93	6.95	6.69	7.04
pH, Minimum (units)	6.78	6.90				6.09	6.19	6.52	6.61	6.16	6.57	6.41	6.09
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	0.0014	0.0019	<0.001	<0.001	<0.001	0.0023	<0.001	<0.001	0.0055	0.0043	0.0032	<0.001	0.0055
As, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cu, Maximum	0.0058	0.0086	<0.002	0.0021	<0.002	0.0068	0.0027	0.0022	0.022	0.019	0.014	0.0045	0.022
Cu, Exceedance (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pb, Maximum	0.0104	0.012	0.00158	0.00202	0.00081	0.0126	0.00153	0.00115	0.032	0.037	0.021	0.0046	0.037
Pb, Exceedance (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Ni, Maximum	0.0071	0.0028	<0.002	<0.002	<0.002	0.0051	<0.002	<0.002	0.014	0.012	0.011	0.0026	0.014
Ni, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn, Maximum	0.023	0.0219	0.008	0.0081	0.0075	0.0332	0.0096	0.0096	0.094	0.076	0.055	0.016	0.094
Zn, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 28 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

D11 - Quarry 2 Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
TSS, Maximum	38	110	7.4	7.6	5.2	120	16	12	55	660	250	32	660
TSS, Exceedance (>30)	1	1	0	0	0	4	0	0	4	2	3	1	16
Ammonia, Maximum	<0.050	0.055	0.17	0.063	0.064	0.057	0.27	0.24	0.25	0.094	<0.050	0.066	0.27
Ammonia, Exceedance (>2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cd, Maximum (ug/L)	0.157	<0.17	0.097	0.091	0.082	0.303	0.142	0.125	0.73	0.44	0.26	0.1	0.73
Fe, Maximum	3.45	4.14	0.482	0.78	0.442	8.25	1.15	0.927	21	18	16	2.8	21
Hg, Maximum (ug/L)	<0.013	0.014	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.02	<0.013	0.015	<0.013	0.02
Nitrate, Maximum	1.6	1.4	2.1	1.6	1.5	2.3	1.4	1.4	0.81	0.65	0.6	0.46	2.3
Nitrate, Exceedance (>10)	0	0	0	0	0	0	0	0	0	0	0	0	0

D12	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2013 - site inactive													

D13 - USM Site 2 Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	3	2	1	1	1	2	1	1	3	4	5	2	26
pH, Maximum (units)	6.60	7.16	6.63	6.57	6.27	6.20	6.42	6.54	6.25	6.17	6.47	6.18	7.16
pH, Minimum (units)	6.34	6.17				6.18			6.14	5.86	6.14	6.15	5.86
pH, Exceedance (<5.5,>9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0015	0.0012	<0.001	0.0011	<0.001	<0.001	0.0015
As, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cu, Maximum	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0023	0.0041	0.0038	<0.002	0.0041
Cu, Exceedance (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pb, Maximum	0.00099	0.0012	0.0011	<0.0005	<0.0005	0.00163	0.00064	<0.0005	0.00222	0.0057	0.0062	<0.0005	0.0062
Pb, Exceedance (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Ni, Maximum	0.0047	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0026	0.0035	<0.002	0.0047
Ni, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn, Maximum	0.0123	0.0392	0.008	0.0057	0.0058	0.0099	0.0053	<0.005	0.0121	0.023	0.019	<0.005	0.0392
Zn, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 28 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

D13 - USM Site 2 Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
TSS, Maximum	6.8	9	1.2	2	6	17	20	6.5	14	50	72	2.8	72
TSS, Exceedance (>30)	0	0	0	0	0	0	0	0	0	1	2	0	3
Ammonia, Maximum	0.24	<0.050	0.11	0.15	0.12	0.11	0.6	0.2	0.3	0.24	0.17	0.13	0.6
Ammonia, Exceedance (>2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cd, Maximum (ug/L)	0.037	0.026	0.019	0.019	<0.017	0.082	0.013	0.014	0.049	0.088	0.07	0.015	0.088
Fe, Maximum	3.82	0.913	3.19	2.33	3.49	3.28	8.44	4.57	2.2	4	4.8	1.5	8.44
Hg, Maximum (ug/L)	<0.013	<0.013	<0.013	<0.013	<0.013	0.015	<0.013	0.018	0.015	<0.013	<0.013	<0.013	0.018
Nitrate, Maximum	0.16	0.28	0.082	0.088	0.074	0.22	0.076	0.064	0.13	0.13	0.14	0.22	0.28
Nitrate, Exceedance (>10)	0	0	0	0	0	0	0	0	0	0	0	0	0

D14	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2013 - site inactive													

D15	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2013 - site inactive													

D16	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2013 - site inactive													

D17	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2013 - site inactive													

Table 28 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

D18 - EPCM Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples			1			1			1			1	4
pH, Maximum (units)			6.95			6.51			6.63			6.61	6.95
pH, Minimum (units)													
pH, Exceedance (<5.5, >9.0)			0			0			0			0	0
As, Maximum			<0.001			<0.0010			<0.001			<0.001	<0.001
As, Exceedance (>0.5)			0			0			0			0	0
Cu, Maximum			<0.002			<0.0020			<0.002			<0.002	<0.002
Cu, Exceedance (>0.3)			0			0			0			0	0
Pb, Maximum			0.00081			<0.00050			0.00076			0.00096	0.00096
Pb, Exceedance (>0.2)			0			0			0			0	0
Ni, Maximum			0.0024			<0.0020			<0.002			<0.002	0.0024
Ni, Exceedance (>0.5)			0			0			0			0	0
Zn, Maximum			0.0136			0.0102			0.0116			0.0075	0.0136
Zn, Exceedance (>0.5)			0			0			0			0	0
TSS, Maximum			1.4			1			5.6			8.4	8.4
TSS, Exceedance (>30)			0			0			0			0	0
Ammonia, Maximum			0.33			1.9			0.31			0.069	1.9
Ammonia, Exceedance (>2)			0			0			0			0	0
Cd, Maximum (ug/L)			0.021			0.018			0.033			0.018	0.033
Fe, Maximum			0.211			0.294			0.803			0.72	0.803
Hg, Maximum (ug/L)			<0.013			<0.013			0.013			<0.013	0.013
Nitrate, Maximum			<0.050			<0.050			<0.050			<0.050	<0.050
Nitrate, Exceedance (>10)			0			0			0			0	0

D19 - Quarry 3 Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
No samples collected in 2013 - site inactive													

Table 28 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

D20	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2013 - site inactive													

D21	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples		1											1
pH, Maximum (Units)		7.70											7.70
pH, Minimum (Units)													
pH, Exceedance (<5.5, >9.0)		0											0
As, Maximum		0.0055											0.0055
As, Exceedance (>0.5)		0											0
Cu, Maximum		0.0146											0.0146
Cu, Exceedance (>0.3)		0											0
Pb, Maximum		0.0247											0.0247
Pb, Exceedance (>0.2)		0											0
Ni, Maximum		0.008											0.008
Ni, Exceedance (>0.5)		0											0
Zn, Maximum		0.108											0.108
Zn, Exceedance (>0.5)		0											0
TSS, Maximum		210											210
TSS, Exceedance (>30)		1											1
Ammonia, Maximum		1											1
Ammonia, Exceedance (>2)		0											0
Cd, Maximum (ug/L)		0.33											0.33
Fe, Maximum		12.3											12.3
Hg, Maximum (ug/L)		<0.013											<0.013
Nitrate, Maximum		1.1											1.1
Nitrate, Exceedance (>10)		0											0

Table 28 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2013 Effluent Discharge Criteria Summary (mg/L, unless noted)

D25	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	5	5	4	4	5	6	3	5	6	5	5	3	56
pH, Maximum (Units)	6.72	6.57	6.46	6.46	6.72	6.88	6.97	6.94	6.75	6.64	6.36	6.32	6.97
pH, Minimum (Units)	6.45	6.37	6.35	6.27	6.35	6.22	6.66	6.26	6.18	6.09	6.20	6.23	6.09
pH, Exceedance (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
As, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cu, Maximum	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0021	<0.002	<0.002	<0.002	0.0021
Cu, Exceedance (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pb, Maximum	<0.0005	0.00056	<0.0005	<0.0005	<0.0005	<0.0005	0.00055	<0.0005	<0.0005	0.00066	0.00059	<0.0005	0.00066
Pb, Exceedance (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Ni, Maximum	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Ni, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn, Maximum	0.0072	0.0059	<0.005	0.0136	<0.005	0.0212	0.0102	<0.005	0.0079	0.0067	0.029	0.29	0.29
Zn, Exceedance (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
TSS, Maximum	13	8.8	4.8	3.4	3.2	4.2	27	2.6	2.8	2.2	6	5.2	27
TSS, Exceedance (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
Ammonia, Maximum	0.079	0.32	0.12	<0.050	<0.050	0.31	0.47	<0.050	0.28	0.056	0.057	<0.050	0.47
Ammonia, Exceedance (>2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cd, Maximum (ug/L)	0.021	0.023	<0.017	<0.017	<0.017	0.156	0.024	0.02	0.025	0.033	0.023	0.012	0.156
Fe, Maximum	0.337	0.421	0.369	0.2	0.108	0.21	0.696	0.392	0.71	0.68	1	0.64	1
Hg, Maximum (ug/L)	<0.013	<0.013	<0.013	<0.013	<0.013	0.015	<0.013	<0.013	0.018	<0.013	<0.013	0.015	0.018
Nitrate, Maximum	<0.050	<0.050	<0.050	0.09	0.61	0.4	0.19	0.39	0.36	0.24	0.13	0.21	0.61
Nitrate, Exceedance (>10)	0	0	0	0	0	0	0	0	0	0	0	0	0

7) Conclusion

The NL ENVC regulates effluent discharged from the industrial sectors of the province. As can be concluded from this short summary report, the nature of these industries and the types of effluent generated are very different and specific; no two industries can be viewed exactly the same. Differences within the industrial facilities and the receiving environment make this a dynamic field that has to be constantly monitored.

The industries operating within Newfoundland and Labrador are diligent in working with the NL ENVC to achieve the mutual goals of environmental sustainability and protection.

Additional effluent monitoring and water quality monitoring data from the industrial sector is available upon request.

For further information related to industrial effluent quality and monitoring, please contact the Pollution Prevention Division at:

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8) Appendix A: Abbreviations and Acronyms

ALT – Acute Lethality Test

BOD – Biological Oxygen Demand

COA – Certificate of Approval

ECWSR – Environmental Control Water and Sewer Regulations

HTGS – Holyrood Thermal Generating Station

IOCC – Iron Ore Company of Canada

MMER – Metal Mining Effluent Regulations

NL ENVC – Newfoundland and Labrador Department of Environment and Conservation

PPD – Pollution Prevention Division

TDS – Total Dissolved Solids

TIA – Tailings Impoundment Area

TIE – Toxicity Identification Evaluation

TPH – Total Petroleum Hydrocarbons

TSS – Total Suspended Solids