



**Department of Environment and  
Conservation**

**Industrial Effluent Compliance  
2011 Annual Report**

Pollution Prevention Division

July 2012

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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 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.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 2011 there were more than 20 industries reporting effluent quality to the NL ENVC on a consistent basis. 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 2011.

Disclaimer:

- The data presented is based upon reports submitted to the NL ENVC by industry, as of February 29<sup>th</sup>, 2012.
- The actual laboratory documentation is available upon request to verify analysis as required.
- 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.

## 2) Metal Mines

### a) Anaconda Mining Inc.

Current COA                      Approval #: AA08-035500  
   Issue date: March 31, 2008  
   Expiration: March 31, 2013

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. 27 samples were collected at the outflow of the Polishing Pond between February and December 2012 with no sampling conducted in January as there was no flow from the Polishing Pond. There were no exceedences for the year. All ATLS passed with the exception of one *Daphnia magna* test,

#### Environmental Effects Monitoring

The Cycle 1 Interpretive Report was submitted during 2011.

See Table 1: Anaconda Mining Inc. 2011: Effluent Discharge Criteria Summary.

### b) Iron Ore Company of Canada (IOCC)

Current COA                      Approval #: AA08-015498A  
   Issue date: January 14, 2008  
   Revised: December 15, 2011  
   Expiration: January 14, 2013

The Iron Ore Company of Canada has six discharge points: FDP-MD5, FDP-TIA (Julienne Narrows), FDP-Hakim Culvert, PD-19, PD-28 and PD-32. 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 and PD-32 requires monitoring for five parameters, two of which have environmental limits.

FDP-MD5: Discharge of effluent and the associated monitoring was conducted at this location between May and November 2011. During this time, 26 samples were collected; there were no exceedences of any environmental limits. A total of six rainbow trout ALTs and six *Daphnia magna* ALTs were performed at this location, all passed.

FDP-TIA: A total of 53 samples were collected at this location in 2011 with no exceedences. 11 rainbow trout ALTs and 11 *Daphnia magna* ALTs were conducted successfully.

FDP-Hakim Culvert: A total of 50 samples were collected at this location in 2011. There were two exceedences reported for TSS in May and the monthly average TSS for May exceeded 15mg/L. 14 rainbow trout and 14 *Daphnia magna* ALTs were conducted throughout the year with one failure reported in February for each species. IOCC is currently implementing upgrades in the Hakim Culvert area to improve the water quality. The improvement strategy should be fully implemented before the end of 2012.

PD-19: 12 TPH samples were collected in 2011 and all were analysed below the detection limits.

PD-28: Discharge was reported and analysed at PD-28 in June and August to November 2011. Five samples were collected and there were no exceedences reported.

PD-32: Discharge was reported and analysed at PD-32 in October and November 2011. There were no exceedences reported.

#### Environmental Effects Monitoring

The Cycle 3 EEM Interpretive Report was submitted in 2011.

See Table 2: Iron Ore Company of Canada 2011 Effluent Discharge Criteria Summary.

### **c) Labrador Iron Mines**

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

Labrador Iron Mines has three 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 Outlet: 10 Samples were collected between May and December 2011 at the Ruth Pit Outlet. There were no exceedences reported for any parameters that have compliance limits. Seven Rainbow trout and seven *Daphnia magna* ALTs were conducted successfully.

JSP-Out-1: Seven Samples were collected between July and December 2011 at JSP-Out-1. There were no reported exceedences and the six rainbow trout ALTs that were conducted were successful.

JSP-Out-2: Between July and December 2011, 7 samples were collected at JSP-Out-2. All analyses were compliant and the six rainbow trout ALTs passed.

#### Environmental Effects Monitoring

There were no EEM submissions for 2011.

See Table 3: Labrador Iron Mines 2011: Effluent Discharge Criteria Summary.

### **d) Rambler Metals and Mining Canada Ltd (Ming Mine)**

<u>Current COA</u>	Approval #:	AA09-055517
	Issue date:	May 14, 2009
	Expiration:	May 14, 2014

Rambler has one location 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 was no

discharge from this site in December. 13 samples were collected and analysed between January and November 2011. There were no reported exceedences of compliance limits. A total of eight rainbow trout ALTs were conducted in 2011 with one failure in November. The failure was attributed to ammonia levels in the wastewater. Adjustments were made in the wastewater treatment facility to address this issue and the effluent returned to acceptable quality.

Environmental Effects Monitoring

There were no EEM submissions for 2011.

See Table 4: Rambler Metals and Mining Canada Ltd. 2011: Effluent Discharge Criteria Summary.

**e) Rambler Metals and Mining Canada Ltd (Nugget Pond)**

Current COA                      Approval #: AA10-075529  
   Issue date: July 2, 2010  
   Expiration: March 31, 2013

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; eight of which have environmental compliance limits. ALTs are also required as part of the COA. In 2011, a total of 32 samples were collected and analysed at the Polishing Pond. No sampling was conducted in March. 19 rainbow trout ALTs and 19 *Daphnia magna* ALTS were conducted and passed. There was one TSS exceedence reported in June.

Environmental Effects Monitoring

The Cycle 3 EEM study design was submitted in 2011.

See Table 5: Rambler Metals and Mining Canada Ltd (Nugget Pond Facility) 2011: Effluent Discharge Criteria Summary.

**f) 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 2011, 46 samples were collected. There was no discharge in February or March. There were no exceedences reported in 2011 with the exception of one rainbow trout ALT failure in May and five *Daphnia magna* failures throughout the year.

Environmental Effects Monitoring

In 2011, the Cycle 2 interpretive report was submitted.

See Table 6: Teck Resources Ltd. 2011: Effluent Discharge Criteria Summary.

### **g) Vale Newfoundland and Labrador Ltd. (Voisey's Bay)**

Current COA                      Approval #: AA09-015510  
Issue date: January 1, 2009  
Expiration: December 31, 2013

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 50 samples were collected during the year, with 15 pH exceedences reported throughout the year. The pH exceedences that are being experienced at the Voisey's Bay mine site have been attributed to thiosalt degradation during shipment to the analytical laboratory. At the time of discharge, the pH is compliant according to online in situ measurement conducted at the final discharge point. There has been an ongoing issue with ALT failures at the mine site, therefore, a large number of ALTs have been conducted. A total of 42 rainbow trout ALTs were conducted during the year, five failures were reported and 28 of 42 *Daphnia magna* ALTs failed. Vale Newfoundland and Labrador Ltd. has installed a hydrogen peroxide dosing plant to address the intermittent toxicity issues that have been experienced at this facility.

#### Environmental Effects Monitoring

There were no EEM submissions in 2011.

See Table 7: Vale Newfoundland and Labrador Ltd. (Voisey's Bay) 2011: Effluent Discharge Criteria Summary.

### **h) Wabush Mines**

Current COA                      Approval #: AA06-055481C  
Issue date: May 31, 2006  
Revised: May 3, 2011  
Expiration: May 31, 2011  
Extended: May 31, 2012

Wabush Mines has five discharge points: Flora Lake, Knoll Lake, West Pit Settling Pond, East Pit #2 and the Deep Wells. 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 Deep Wells. Wabush Mines is currently undertaking a program to improve the total suspended solids discharges throughout the site. Initially, the focus is on the Knoll Lake discharge.

Flora Lake: 50 samples were taken at the Flora Lake discharge in 2011. Two TSS exceedences were reported in June. The monthly average for June exceeded 15mg/L. Four rainbow trout ALTs were conducted successfully in 2011 and there was one *Daphnia magna* failure reported in October.

Knoll Lake: A total of 51 samples were taken at the Knoll Lake discharge in 2011. There were 19 TSS exceedences reported with the monthly average TSS exceeding 15mg/L for 10 of the 12 months. All ALTs passed (4 rainbow trout and one *Daphnia magna*).

West Pit Settling Pond: 49 samples were collected at the West Pit Settling Pond in 2011. There were five exceedences of TSS reported during the year with the



monthly average TSS exceeding 15mg/L in April and August. There were four rainbow trout ALTs and one *Daphnia magna* ALT conducted, all passed.

East Pit #2: 50 Samples were analysed at the East Pit #2 location in 2011. There were three TSS exceedences reported and all ALTs passed (four rainbow trout and one *Daphnia magna*).

Deep Wells: A total of 48 samples were taken at this location with no exceedences reported.

See Table 8: Wabush Mines 2011: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

The Cycle 3 interpretive report was submitted in 2011.

**Table 1: Anaconda Mining Inc. 2011: Effluent Discharge Criteria Summary (mg/L, unless noted)**

<b>Polishing Pond Discharge</b>	<b>Jan.</b>	<b>Feb.</b>	<b>Mar.</b>	<b>Apr.</b>	<b>May</b>	<b>Jun.</b>	<b>Jul.</b>	<b>Aug.</b>	<b>Sept.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>	<b>Total</b>
Samples	0	2	3	3	3	3	3	3	2	2	2	1	27
pH, Maximum (units)		7.77	7.97	7.88	7.85	7.98	8.02	8.13	8.06	8.07	8.04	8.02	8.13
pH, Minimum (units)		7.71	7.65	7.59	7.59	7.80	7.85	8	7.89	8.04	7.82		7.59
pH, Exceedence (<5.5, >9.0)		0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum		<0.001	<0.01	<0.01	<0.01		<0.001		<0.001		<0.001		<0.001
As, Exceedence (>1)		0	0	0	0		0		0		0		0
Monthly Average (>0.50)		<0.001	<0.01	<0.01	<0.01		<0.001		<0.001		<0.001		
Cu, Maximum		0.0363	0.055	<0.02	<0.02		0.0109		0.0138		0.007		0.055
Cu, Exceedence (>0.6)		0	0	0	0		0		0		0		0
Monthly Average (>0.30)		0.0363	0.025	<0.02	<0.02		0.0109		0.0138		0.007		
CN, Maximum				0.23	0.42	0.44	0.085	0.13	0.61	0.55	0.17	0.5	0.61
CN, Exceedence (>2.0)				0	0	0	0	0	0	0	0	0	0
Monthly Average (>1.00)				0.2167	0.3367	0.35	0.064	0.094	0.49	0.46	0.15	0.5	
Pb, Maximum		0.00081	<0.005	<0.005	<0.005		0.0018		0.00053		<0.0005		0.0018
Pb, Exceedence (>0.4)		0	0	0	0		0		0		0		0
Monthly Average (>0.20)		0.000715	<0.005	<0.005	<0.005		0.0018		0.00053		<0.0005		
Ni, Maximum		<0.002	<0.02	<0.02	<0.02		<0.002		<0.002		<0.002		<0.002
Ni, Exceedence (>1)		0	0	0	0		0		0		0		0
Monthly Average (>0.50)		<0.002	<0.02	<0.02	<0.02		<0.002		<0.002		<0.002		
Zn, Maximum		<0.005	<0.05	<0.05	<0.05		<0.005		0.0052		<0.005		0.0052
Zn, Exceedence (>1)		0	0	0	0		0		0		0		0
Monthly Average (>0.50)		<0.005	<0.05	<0.05	<0.05		<0.005		0.0052		<0.005		
TSS, Maximum		<2	<3	4	5	19	11	7	24	13	5	<1	24
TSS, Exceedence (>30)		0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>15.00)		<2	<3	2.7	2.5	8.3	7	4.7	14	8.5	4.5	<1	
Ra-226, Maximum		<0.005	0.006	<0.005	0.006		0.008		<0.005		0.01		0.01
Ra-226, Exceedence (>1.11 Bq/l)		0	0	0	0		0		0		0		0
Monthly Average (>0.37)		<0.005	<0.005	<0.005	0.006		0.008		<0.005		0.01		

**Table 1 Continued: Anaconda Mining Inc. 2011: Effluent Discharge Criteria Summary (mg/L, unless noted)**

<b>Polishing Pond Discharge</b>	<b>Jan.</b>	<b>Feb.</b>	<b>Mar.</b>	<b>Apr.</b>	<b>May</b>	<b>Jun.</b>	<b>Jul.</b>	<b>Aug.</b>	<b>Sept.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>	<b>Total</b>
Ammonia, Maximum		6		1.6	3.6		2.8		3.6		1.1		6
Cd, Maximum (ug/L)		0.017		<0.017	0.35		0.027		<0.017		<0.017		0.35
Fe, Maximum		0.173		<0.5	<0.5		1.81		0.578		0.987		1.81
Hg, Maximum (ug/L)		<0.013		0.017	<0.013		<0.013		<0.013		<0.013		0.017
Nitrate, Maximum		1.4		1.4	0.77		2.8		3.5		3		3.5
TDS, Maximum		489		182	298		339		426		267		489
TPH, Maximum					<0.1		<0.1						<0.1
ALT, Pass (RT)		1	1	1	1	1	1	1	1	1	1	1	11
ALT, Fail (RT)		0	0	0	0	0	0	0	0	0	0	0	0
ALT, Pass (DM)		1	0	1	1	1	1	1	1	1	1	1	10
ALT, Fail (DM)		0	1	0	0	0	0	0	0	0	0	0	1

**Table 2: Iron Ore Company of Canada 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

FDP-MD5	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples					3	4	4	5	4	3	3		26
pH, Maximum (units)					7.73	7.92	7.98	8.06	8.06	8.07	7.86		8.07
pH, Minimum (units)					7.12	7.45	7.44	8.02	7.81	7.82	7.56		7.12
pH, Exceedence (<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, Exceedence (>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		
Cu, Maximum					0.0027	<0.0020	<0.0020	0.002	<0.0020	<0.0020	<0.0020		0.0027
Cu, Exceedence (>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		
Pb, Maximum					<0.00050	0.0026	<0.00050	0.00057	<0.00050	<0.00050	<0.00050		0.0026
Pb, Exceedence (>0.4)					0	0	0	0	0	0	0		0
Monthly Average (>0.20)					<0.00050	0.0008	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		
Ni, Maximum					<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020		<0.002
Ni, Exceedence (>1)					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		
Zn, Maximum					<0.005	0.0087	<0.0050	0.0064	<0.0050	<0.0050	0.013		0.013
Zn, Exceedence (>1)					0	0	0	0	0	0	0		0
Monthly Average (>0.50)					<0.005	0.006	<0.0050	<0.005	<0.0050	<0.0050	0.009		
TSS, Maximum					7	6	10	11	5	<2	2		11
TSS, Exceedence (>30)					0	0	0	0	0	0	0		0
Monthly Average (>15.00)					3.17	2.25	5.25	6	3	<2	<3		
Ra-226, Maximum													0
Ra-226, Exceedence (>1.11 Bq/l)													0
Monthly Average (>0.37)													
Ammonia, Maximum					0.24	0.19	0.09	0.21		0.21			0.24
Cd, Maximum (ugLL)						<0.017		<0.017	<0.017	<0.017			<0.017
Fe, Maximum						0.33		0.45	0.86	0.35			0.86
Hg, Maximum (ug/L)						<0.013	0.013	<0.013		<0.013			0.013
Nitrate, Maximum					0.16	<0.05	<0.05	<0.05		0.1			0.16

**Table 2 Continued: Iron Ore Company of Canada 2011 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						46	98	110		140			140
TPH, Maximum						<0.1	<0.1	<0.1		<0.1			<0.1
ALT, Pass (RT)						1	1	1	1	1	1		6
ALT, Fail (RT)						0	0	0	0	0	0		0
ALT, Pass (DM)						1	1	1	1	1	1		6
ALT, Fail (DM)						0	0	0	0	0	0		0

FDP-TIA (Julienne Narrows)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	6	4	4	4	5	4	4	5	4	5	4	4	53
pH, Maximum (units)	7.77	8.02	7.81	7.89	7.85	7.80	7.84	7.88	7.93	7.94	7.85	7.89	8.02
pH, Minimum (units)	7.59	7.66	7.5	7.48	7.67	7.63	7.59	7.81	7.73	7.76	5.71	7.86	5.71
pH, Exceedence (<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, Exceedence (>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	<0.001
Cu, Maximum	0.0024	<0.002	<0.002	0.0031	<0.002	<0.002	0.0023	0.0023	0.0025	<0.002	<0.002	<0.002	0.0031
Cu, Exceedence (>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	<0.002
Pb, Maximum	<0.0005	0.00058	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00058
Pb, Exceedence (>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	<0.0005
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, Exceedence (>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	<0.002
Zn, Maximum	0.0058	<0.005	<0.005	<0.005	<0.005	0.0093	0.0053	<0.005	<0.005	<0.005	<0.005	<0.005	0.0093
Zn, Exceedence (>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	<0.005

**Table 2 Continued: Iron Ore Company of Canada 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

<b>FDP-TIA (Julienne Narrows)</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total</b>
TSS, Maximum	3	<2	<2	3	4	<2	2	7	3	2	<2	3	7
TSS, Exceedence (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>15.00)	<2	<2	<2	<2	<2	<2	<2	3	<2	<2	<2	<2	
Ra-226, Maximum			<0.005	<0.005									<0.005
Ra-226, Exceedence (>1.11 Bq/l)			0	0									0
Monthly Average (>0.37)			<0.005	<0.005									
Ammonia, Maximum						0.08	0.07	0.07		0.09			0.09
Cd, Maximum (ug/L)						0.024		0.042	<0.017	<0.017			0.042
Fe, Maximum						0.088		0.06	0.057	0.075			0.088
Hg, Maximum (ug/L)						<0.013	<0.013	<0.13		<0.013			<0.013
Nitrate, Maximum						0.92	0.79	0.74		0.8			0.92
TDS, Maximum						59	38	41		59			59
TPH, Maximum						<0.1	<0.1	<0.1		<0.1			<0.1
ALT, Pass (RT)	1		1	1	1	1	1	1	1	1	1	1	11
ALT, Fail (RT)	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

<b>FDP-Hakim Culvert</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total</b>
Samples	3	4	4	4	5	4	4	5	4	5	4	4	50
pH, Maximum (units)	8	7.83	8.08	8.1	8.05	8.19	8.16	8.16	8.10	8.17	8.17	8.08	8.19
pH, Minimum (units)	7.97	7.62	7.79	7.67	7.97	7.97	7.59	7.98	7.98	7.92	8.03	7.90	7.59
pH, Exceedence (<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	<0.001
As, Exceedence (>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	
Cu, Maximum	0.0026	0.0048	0.017	<0.0020	0.0034	0.009	0.0021	<0.0020	<0.0020	0.0038	<0.0020	<0.0020	0.017
Cu, Exceedence (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table 2 Continued: Iron Ore Company of Canada 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

<b>FDP-Hakim Culvert</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total</b>
Cu Monthly Average (>0.30)	<0.002	0.0023	0.005	<0.0020	<0.0020	0.003	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Pb, Maximum	0.00068	<0.00050	0.00091	<0.00050	0.00082	0.0014	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00381
Pb, Exceedence (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	<0.0005	<0.00050	0.0005	<0.00050	<0.00050	0.000775	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Ni, Maximum	<0.0020	<0.0020	<0.0020	<0.0020	0.0038	0.002	<0.0020	<0.0020	0.003	<0.0020	<0.0020	<0.0020	0.0038
Ni, Exceedence (>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	<0.0020	<0.0020	
Zn, Maximum	<0.0050	0.0066	0.014	0.022	0.025	0.021	<0.0050	<0.0050	<0.0050	<0.0050	0.005	<0.0050	0.025
Zn, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.0050	<0.005	0.0053	0.007	0.0089	0.007	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
TSS, Maximum	<2	16	2	6	42	19	15	13	25	9	5	6	42
TSS, Exceedence (>30)	0	0	0	0	2	0	0	0	0	0	0	0	2
Monthly Average (>15.00)	<2	10.5	<2	4.5	20	14	7.25	4.3	7.5	6.3	2.375	2.25	1
Ra-226, Maximum			<0.005	<0.005									<0.005
Ra-226, Exceedence (>1.11 Bq/l)			0	0									0
Monthly Average (>0.37)			<0.005	<0.005									
Ammonia, Maximum	2.8	38	7.5	3.4	4.6	3.9	6	9.9	26	5.5	2.6	4.7	38
Cd, Maximum (ug/L)		0.15	<0.017	0.022	0.020	0.035	<0.017	<0.017	<0.017	<0.017			0.15
Fe, Maximum		3	0.16	0.21	1.2	2.7	3.5	1.3	0.2	0.41			3.5
Hg, Maximum (ug?L)		<0.013	<0.013	<0.013	<0.013	<0.013	0.015	<0.013	<0.013	0.013			0.015
Nitrate, Maximum	16	49	21	16	20	17	22	27	45	40	16	16	49
TDS, Maximum		479	406	190	332	297	210	250	335	340			479
TPH, Maximum						<0.1	<0.1	<0.1	<0.1	0.1			0.1
ALT, Pass (RT)	1	0	1	1	1	1	1	1	1	3	1	1	13
ALT, Fail (RT)	0	1	0	0	0	0	0	0	0	0	0	0	1
ALT, Pass (DM)	1	0	1	1	1	1	1	1	1	3	1	1	13
ALT, Fail (DM)	0	1	0	0	0	0	0	0	0	0	0	0	1

**Table 2 Continued: Iron Ore Company of Canada 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0

PD 28 (Humphrey West Pit)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples						1		1	1	1	1		5
pH, Maximum (units)						8.24		8.33	8.24	8.33	8		8.33
pH, Minimum (units)													0
pH, Exceedence (<5.5, >9.0)						0		0	0	0	0		0
Fe, Maximum						0.078		<0.050	0.15	<0.00050			0.15
TDS, Maximum						270		300	300	340			340
TPH, Maximum						<0.1		<0.1	<0.1	<0.1	<0.1		0
TSS, Maximum						<1		<1	1	2			2
TSS, Exceedence (>30)						0		0	0	0			0
Monthly Average (>15.00)						<1		<1	1	2			

PD 32	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples										1	1		
pH, Maximum (units)										8.32	8.27		8.32
pH, Minimum (units)													0
pH, Exceedence (<5.5, >9.0)										0	0		0
Fe, Maximum										0.21	0.51		0.51
TDS, Maximum										170	160		170
TPH, Maximum										<0.1	<0.1		0
TSS, Maximum										1	1		1
TSS, Exceedence (>30)										0	0		0
Monthly Average (>15.00)										1	1		



**Table 3: Labrador Iron Mines 2011 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					1	1	2	2	1	1	1	1	10
pH, Maximum (units)					7.73	7.81	8.03	8.11	7.9	7.81	7.81	7.72	8.11
pH, Minimum (units)					7.14	7.67	7.7	7.82	7.67	7.69	7.71	7.67	7.14
pH, Exceedence (<5.5, >9.0)					0	0	0	0	0	0	0	0	0
As, Maximum					<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.001	<0.01
As, Exceedence (>1)					0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)					<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.001	
Cu, Maximum					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cu, Exceedence (>0.6)					0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Pb, Maximum					<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Pb, Exceedence (>0.4)					0	0	0	0	0	0	0	0	0
Monthly Average(>0.20)					<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Ni, Maximum					<0.002	<0.002	<0.002	0.015	<0.002	<0.002	<0.002	<0.002	0.015
Ni, Exceedence (>1)					0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)					<0.002	<0.002	<0.002	0.008	<0.002	<0.002	<0.002	<0.002	
Zn, Maximum					<0.007	<0.007	0.0071	<0.007	<0.007	0.0073	<0.007	<0.007	0.0073
Zn, Exceedence (>1)					0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)					<0.007	<0.007	0.0071	<0.007	<0.007	0.0073	<0.007	<0.007	
TSS, Maximum					2	8	7	10	4	3	2	7	10
TSS, Exceedence (>30)					0	0	0	0	0	0	0	0	0
Monthly Average (>15.00)					2	4.5	5.25	3.8	2.75	<2	<2	2.75	
Radium, Maximum						0.006	<0.005	<0.01	<0.005		<0.01		0.006
Radium, Exceedence (>1.11 Bq/L)						0	0	0	0		0		0
Ammonia, Maximum					0.07	<0.02	0.2	<0.02	0.08	0.04	<0.02	<0.02	0.2
Cd, Maximum (ug/L)					<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Fe, Maximum						0.081	0.18	0.37	0.18	0.12	<0.06	<0.06	0.37
Hg, Maximum (ug/L)					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	0.02
Nitrate, Maximum					0.21	0.3	0.33	0.26	0.42	0.3	0.32	0.2	0.42

**Table 3 Continued: Labrador Iron Mines 2011 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						76	120	130	66	83	53	96	130
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

JSP-Out-1	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples							2	1	1	1	1	1	7
pH, Maximum (units)							7.12	7.89	7.19	7.11	7.08	7.3	7.89
pH, Minimum (units)							6.94	7.18	6.89	6.88	7	6.97	6.88
pH, Exceedence (<5.5, >9.0)							0	0	0	0	0	0	0
As, Maximum							<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
As, Exceedence (>1)							0	0	0	0	0	0	0
Monthly Average (>0.50)							<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	
Cu, Maximum							<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cu, Exceedence (>0.6)							0	0	0	0	0	0	0
Monthly Average (>0.30)							<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Pb, Maximum							<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Pb, Exceedence (>0.4)							0	0	0	0	0	0	0
Monthly Average(>0.20)							<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Ni, Maximum							<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Ni, Exceedence (>1)							0	0	0	0	0	0	0
Monthly Average (>0.50)							<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
Zn, Maximum							0.011	<0.007	<0.007	<0.007	<0.007	0.013	0.013
Zn, Exceedence (>1)							0	0	0	0	0	0	0
Monthly Average (>0.50)							0.011	<0.007	<0.007	<0.007	<0.007	0.013	
TSS, Maximum							4	6	<2	<2	2	4	6
TSS, Exceedence (>30)							0	0	0	0	0	0	0
Monthly Average (>15.00)							3	3	<2	<2	<2	<2	

**Table 3 Continued: Labrador Iron Mines 2011 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							<0.005	<0.01	<0.005		<0.01		<0.01
Radium, Exceedence (>1.11 Bq/L)							0	0	0		0		0
Ammonia, Maximum							0.05	<0.02	0.15	0.02	<0.02	<0.02	0.15
Cd, Maximum (ug/L)							<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Fe, Maximum							0.099	0.19	0.069	0.14	<0.06	<0.06	0.19
Nitrate, Maximum							0.190	0.23	0.93	<0.2	0.21	0.3	0.93
TDS, Maximum							470	56	24	43	26	45	470
ALT, Pass (RT)							1	1	1	1	1	1	6
ALT, Fail (RT)							0	0	0	0	0	0	0

JSP-Out-2	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples							2	1	1	1	1	1	7
pH, Maximum (units)							7.8	7.23	7.22	7.24	7.2	7.11	7.8
pH, Minimum (units)							6.61	7.14	7.01	6.99	7.03	7.04	6.61
pH, Exceedence (<5.5, >9.0)							0	0	0	0	0	0	0
As, Maximum							<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	<0.01
As, Exceedence (>1)							0	0	0	0	0	0	0
Monthly Average (>0.50)							<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	
Cu, Maximum							<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cu, Exceedence (>0.6)							0	0	0	0	0	0	0
Monthly Average (>0.30)							<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Pb, Maximum							<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Pb, Exceedence (>0.4)							0	0	0	0	0	0	0
Monthly Average (>0.20)							<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Ni, Maximum							<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Ni, Exceedence (>1)							0	0	0	0	0	0	0
Monthly Average (>0.50)							<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	

**Table 3 Continued: Labrador Iron Mines 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

JSP-Out-2	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Zn, Maximum							<0.007	0.0075	<0.007	0.0093	0.0075	<0.007	0.0093
Zn, Exceedence (>1)							0	0	0	0	0	0	0
Monthly Average (>0.50)							<0.007	0.0075	<0.007	0.0093	0.0075	<0.007	
TSS, Maximum							6	<2	7	4	2	6	7
TSS, Exceedence (>30)							0	0	0	0	0	0	0
Monthly Average (>15.00)							2.5	<2	2.5	<2	<2	2.6	
Radium, Maximum							<0.005	<0.01	<0.005		<0.01		<0.01
Radium, Exceedence (>1.11 Bq/L)							0	0	0		0		0
Ammonia, Maximum							0.05	<0.02	0.07	<0.02	<0.02	<0.02	0.07
Cd, Maximum (ug/L)							<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Fe, Maximum							0.089	<0.06	<0.06	0.078	<0.06	0.065	0.089
Nitrate, Maximum							0.620	0.56	0.29	<0.2	0.20	<0.2	0.62
TDS, Maximum							97	26	30	32	20	38	97
ALT, Pass (RT)							1	1	1	1	1	1	6
ALT, Fail (RT)							0	0	0	0	0	0	0

**Table 4: Rambler Metals and Mining Canada Ltd. (Ming Mine) 2011 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	1	1	1	1	1	1	1	1	2	2		13
pH, Maximum (units)				7.96		8.04	7.69	8.31	7.91	8.32	8.38		8.38
pH, Minimum (units)											8.02		8.02
pH, Exceedence (<5.5, >9.0)				0		0	0	0	0	0	0		0
As, Maximum	<0.01	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0013	0.001		<0.01
As, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0		0
Monthly Average (<0.50)	<0.01	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0013	<0.001		
Cu, Maximum	<0.02	0.0056	0.005	0.038	0.005	<0.002	0.0023	0.12	0.116	0.0259	0.124		0.124
Cu, Exceedence (>0.6)	0	0	0	0	0	0	0	0	0	0	0		0
Monthly Average (<0.30)	<0.02	0.0056	0.005	0.038	0.005	<0.002	0.0023	0.12	0.116	0.0259	0.0723		
CN, Maximum				<0.002		0.008	0.005	0.004	<0.002	<0.002	0.01		0.01
CN, Exceedence (>2)				0		0	0	0	0	0	0		0
Monthly Average (<1.00)				<0.002		0.008	0.005	0.004	<0.002	<0.002	0.0065		
Pb, Maximum	<0.005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.005
Pb, Exceedence (>0.4)	0	0	0	0	0	0	0	0	0	0	0		0
Monthly Average (<0.20)	<0.005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
Ni, Maximum	<0.02	0.0021	0.002	0.035	0.0022	<0.002	0.0024	0.0384	0.0395	0.027	0.0428		0.0428
Ni, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0		0
Monthly Average (<0.50)	<0.02	0.0021	0.002	0.035	0.0022	<0.002	0.0024	0.0384	0.0395	0.0267	0.04165		
Zn, Maximum	0.128	0.108	0.106	0.097	0.108	0.0881	0.0897	0.448	0.452	0.106	0.585		0.585
Zn, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0		0
Monthly Average (<0.50)	0.128	0.108	0.106	0.097	0.108	0.0881	0.0897	0.448	0.452	0.106	0.5325		
TSS, Maximum	2	5		<5	1	3	<2	<5	<2	7	6		7
TSS, Exceedence (>30)	0	0		0	0	0	0	0	0	0	0		0
Monthly Average (<15.00)	2	5		<5	1	3	<2	<5	<2	7	5		
Ra-226, Maximum							0.03	0.02		<0.005	<0.01		0.03
Ra-226, Exceedence (>1.11 Bq/l)							0	0		0	0		0
Monthly Average (>0.37)							0.03	0.02		<0.005	<0.01		

**Table 4 Continued: Rambler Metals and Mining Canada Ltd. (Ming Mine) 2011 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				2					4.9		9.4		9.4
Cd, Maximum (ug/L)				1.05					1.32		15.0		15
Fe, Maximum				<0.5					0.059		0.074		<0.5
Hg, Maximum (ug/L)				0.018					<0.013		<0.013		0.018
Nitrate, Maximum				2.5					5.6		12		12
TDS, Maximum				1790					1590		1730		1790
TPH, Maximum				<0.1					<0.1				<0.1
ALT, Pass (RT)				1		1		1	1	2	1		7
ALT, Fail (RT)				0		0		0	0	0	1		1

**Table 5: Rambler Metals and Mining (Nugget Pond) 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

Polishing Pond	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	8	1		3	6	4	2	1	1	4	1	1	32
pH, Maximum (units)	7.96	7.29		7.25	7.76	7.5	7.4	7.46	7.76	7.74	7.76	7.59	7.96
pH, Minimum (units)	7.30			7.19	6.82	7.24	7.08			7.68			6.82
pH, Exceedence (<5.5, >9.0)	0	0		0	0	0	0	0	0	0	0	0	0
As, Maximum	0.009	0.0061		<0.01	<0.01	0.0149	0.0041	<0.002	0.002	0.002	0.0013	0.0017	0.0149
As, Exceedence (>1)	0	0		0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.007	0.0061		<0.01	<0.01	0.008	0.0032	<0.002	0.002	0.0019	0.0013	0.0017	
Cu, Maximum	0.067	0.007		<0.02	<0.02	0.125	0.033	0.019	0.017	0.018	0.0139	0.017	0.125
Cu, Exceedence (>0.6)	0	0		0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)	0.018	0.007		<0.02	<0.02	0.065	0.0315	0.019	0.017	0.0157	0.0139	0.017	
CN, Maximum	0.011	0.025		0.014	0.03	0.10	0.027	0.037	0.042	0.037	0.035	0.05	0.1
CN, Exceedence (>2)	0	0		0	0	0	0	0	0	0	0	0	0
Monthly Average (>1.00)	0.0075	0.025		0.009	0.012	0.048	0.0225	0.037	0.042	0.035	0.035	0.05	
Pb, Maximum	0.0007	<0.0005		<0.005	<0.005	0.0055	0.0013	<0.0005	<0.0005	<0.0005	<0.0005	0.003	0.0055
Pb, Exceedence (>0.4)	0	0		0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	<0.0005	<0.0005		<0.005	<0.005	0.003	0.0011	<0.0005	<0.0005	<0.0005	<0.0005	0.003	
Ni, Maximum	0.002	<0.002		<0.02	<0.02	0.0066	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.02
Ni, Exceedence (>1)	0	0		0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.002	<0.002		<0.02	<0.02	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
Zn, Maximum	0.014	<0.005		<0.05	<0.05	0.032	<0.005	<0.005	<0.005	0.006	0.006	0.008	0.032
Zn, Exceedence (>1)	0	0		0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.005	<0.005		<0.05	<0.05	0.019	<0.005	<0.005	<0.005	<0.005	0.006	0.008	
TSS, Maximum	6	3		1	5	32	6	<2	<2	2	1	<1	32
TSS, Exceedence (>30)	0	0		0	0	1	0	0	0	0	0	0	1
Monthly Average (>15.00)	3.63	3		<1	2.25	20	4	<2	<2	1	1	<1	
Ammonia, Maximum	0.8	0.5		0.2	0.36	0.57	0.75	0.55	0.49	0.62	0.22	0.25	0.8

**Table 5 Continued: Rambler Metals and Mining (Nugget Pond) 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

<b>Polishing Pond</b>	<b>Jan.</b>	<b>Feb.</b>	<b>Mar.</b>	<b>Apr.</b>	<b>May</b>	<b>Jun.</b>	<b>Jul.</b>	<b>Aug.</b>	<b>Sept.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>	<b>Total</b>
Cd, Maximum (ug/L)								<0.017	<0.017	<0.017	<0.017	0.029	0.029
Fe, Maximum								0.188	0.158	0.191	0.145	0.205	0.205
Hg, Maximum (ug/L)	0.01	<0.013		0.015	<0.013	0.17	0.11	0.12	0.094	0.072	0.06	0.06	0.17
Nitrate, Maximum	4.9	4		2.1	3.3	3.5	3	3.2	3.3	3.1	2.7	2.6	4.9
TDS, Maximum								190	193	196	153	154	196
ALT, Pass (RT)	2	1		2	3	2	2	1	1	3	1	1	19
ALT, Fail (RT)	0	0		0	0	0	0	0	0	0	0	0	0
ALT, Pass (DM)	2	1		2	3	2	2	1	1	3	1	1	19
ALT, Fail (DM)	0	0		0	0	0	0	0	0	0	0	0	0



**Table 6: Teck Resources Ltd. 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

<b>DPM - Dam C</b>	<b>Jan.</b>	<b>Feb.</b>	<b>Mar.</b>	<b>Apr.</b>	<b>May</b>	<b>Jun.</b>	<b>Jul.</b>	<b>Aug.</b>	<b>Sept.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>	<b>Total</b>
Samples	2			2	3	8	6	3	5	5	7	5	<b>46</b>
pH, Maximum (units)	7.96			7.30	7.26	8.88	7.28	7.40	7.39	7.53	7.70	7.76	8.88
pH, Minimum (units)	7.14			7.05	7.05	6.62	6.83	7.32	6.87	7.33	7.39	7.49	6.62
pH, Exceedence (<5.5, >9.0)	0			0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.004			0.011	0.008	0.026	0.013	0.01	0.012	0.012	0.01	0.015	0.026
As, Exceedence (>1)	0			0	0	0	0	0	0	0	0	0	0
Monthly Average (<0.50)	<0.004			0.0065	0.004	0.009	0.0095	0.00567	0.0054	0.0068	<0.004	0.0084	
Cu, Maximum	0.193			0.068	0.259	0.273	0.268	0.321	0.233	0.256	0.348	0.279	0.348
Cu, Exceedence (>0.6)	0			0	0	0	0	0	0	0	0	0	0
Monthly Average (<0.30)	0.193			0.068	0.184	0.182	0.243	0.287	0.198	0.234	0.268	0.199	
CN, Maximum	<0.002			0.005	0.028	0.004	0.007	<0.002	<0.002	<0.002	<0.005	<0.004	0.028
CN, Exceedence (>2)	0			0	0	0	0	0	0	0	0	0	0
Monthly Average (<1.00)	<0.002			0.003	0.011	<0.002	0.0025	<0.002	<0.002	<0.002	<0.005	<0.004	
Pb, Maximum	0.024			0.009	0.048	0.052	0.065	0.076	0.073	0.052	0.094	0.081	0.094
Pb, Exceedence (>0.4)	0			0	0	0	0	0	0	0	0	0	0
Monthly Average (<0.20)	0.022			0.0058	0.033	0.036	0.0505	0.061	0.0542	0.046	0.0579	0.0512	
Ni, Maximum	0.006			0.003	0.002	0.005	0.007	0.004	0.004	0.005	0.006	0.006	0.007
Ni, Exceedence (>1)	0			0	0	0	0	0	0	0	0	0	0
Monthly Average (<0.50)	0.004			0.00175	0.0017	0.00319	0.00533	0.004	0.0021	0.003	0.005	0.0048	
Zn, Maximum	0.199			0.088	0.147	0.19	0.2	0.201	0.194	0.183	0.162	0.11	0.201
Zn, Exceedence (>1)	0			0	0	0	0	0	0	0	0	0	0
Monthly Average (<0.50)	0.187			0.085	0.121	0.164	0.186	0.181	0.174	0.169	0.135	0.0896	
TSS, Maximum	2			2	3	4	5	4	4	6	5	3	6
TSS, Exceedence (>30)	0			0	0	0	0	0	0	0	0	0	0
Monthly Average (<15.00)	<2			<2	2.7	2.9	3.8	3.3	3	3	2.3	<2	
Ra-226, Maximum	0.013			0.009			0.03					0.01	0.03
Ra-226, Exceedence (>1.11 Bq/l)	0			0			0					0	0
Monthly Average (<0.37)	0.013			0.009			0.03					0.01	
Ammonia, Maximum	4.81			1.16	3.95	5.17	5.6	6.08	6.44	6.2	6.39	6.59	6.59
Cd, Maximum (ug/L)	0.9			0.5	1.4	3.0	2.2	1.5	1.3	1.3	1.3	0.9	0.003

**Table 6 Continued: Teck Resources Ltd. 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

<b>DPM - Dam C</b>	<b>Jan.</b>	<b>Feb.</b>	<b>Mar.</b>	<b>Apr.</b>	<b>May</b>	<b>Jun.</b>	<b>Jul.</b>	<b>Aug.</b>	<b>Sept.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>	<b>Total</b>
Fe, Maximum	0.134			0.387	0.341	0.285	0.718	0.333	0.362	0.294	0.272	0.279	0.718
Hg, Maximum (ug/L)	<0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate, Maximum	0.96			0.35	0.8	1.36	0.92	1.07	0.78	0.65	0.60	0.60	1.36
TDS, Maximum	694			240	589	943	811	1000	960	963	1010	1040	1040
ALT, Pass (RT)	1			1	0	2	2	1	1	1	1	1	11
ALT, Fail (RT)	0			0	1	0	0	0	0	0	0	0	1
ALT, Pass (DM)	0			1	0	1	1	1	1	1	0	1	7
ALT, Fail (DM)	1			0	1	1	1	0	0	0	1	0	5

**Table 7: Vale Newfoundland and Labrador Ltd. (Voisey's Bay) 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

Treated Effluent	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	6	4	4	4	6	4	4	5	3	5	1	4	50
pH, Maximum (units)	8.98	9.10	8.64	6.52	7.08	6.93	6.53	6.88	5.01	4.45	6.83	7.06	9.1
pH, Minimum (units)	6.78	6.83	6.57	5.09	4.49	4.87	5.19	6.71	4.31	3.25		4.37	3.25
pH, Exceedence (<5.5, >9.0)	0	1	0	1	1	1	1	0	3	5	0	2	15
As, Maximum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	0.0354	0.0354
As, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	0.01035	
Cu, Maximum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.0096	0.0109	0.0064	<0.02	<0.02
Cu, Exceedence (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.009	0.00624	0.0064	<0.02	
Pb, Maximum	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.0005	<0.0005	<0.005	<0.005
Pb, Exceedence (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.0005	<0.0005	<0.05	
Ni, Maximum	0.031	<0.02	0.027	0.025	0.046	0.028	0.064	0.057	0.084	0.071	0.0487	0.0702	0.084
Ni, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.021	<0.02	<0.02	0.02	0.034	0.021	0.052	0.050	0.065	0.0569	0.0487	0.0564	
Zn, Maximum	<0.05	<0.05	<0.05	0.062	<0.05	<0.05	<0.05	0.147	0.0086	0.009	<0.005	<0.05	0.147
Zn, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.005	<0.005	<0.005	<0.05	
TSS, Maximum	12	8	6	16	15	5	7	7	6	6	4	9	16
TSS, Exceedence (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>15.00)	3.67	4.75	4.5	6.88	7.67	4.25	5.5	5	5	5	4	6.5	
Ra-226, Maximum (Bq/l)	<0.01	0.02	<0.005	0.01	0.007	0.008	0.009	<0.005	<0.005	<0.005	0.006	0.01	0.02
Ra-226, Exceedence (>1.11 Bq/l)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.37)	<0.005	0.011	<0.005	<0.006	<0.005	<0.005	<0.006	<0.005	<0.005	<0.005	0.006	0.00625	
Ammonia, Maximum	0.37	0.33	0.40	0.44	0.43	0.42	0.44	0.49	0.43	0.46	0.42	0.45	0.49
Cd, Maximum(ug/L)	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	0.026	0.022	<0.17	<0.17	<0.17
Fe, Maximum	5.55	1.47	2.06	3.86	5.46	1.81	2.39	1.97	2.21	3.03	2.05	3.5	5.55
Hg, Maximum (ug/L)	0.017	<0.013	<0.013	0.015	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013

**Table 7 Continued: Vale Newfoundland and Labrador Ltd. (Voisey's Bay) 2011 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	0.34	0.36	0.40	0.38	0.61	0.44	0.51	0.54	0.47	0.51	0.52	0.53	0.61
TDS, Maximum	1300	1380	1430	1430	1840	1270	1300	1390	1480	1580	1380	1530	1840
TPH, Maximum	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.3	0.3
ALT, Pass (RT)	2	4	4	4	4	4	4	4	2	0	1	4	37
ALT, Fail (RT)	2	0	0	0	0	0	0	0	0	3	0	0	5
ALT, Pass (DM)	3	3	2	2	1	2	0	1	0	0	0	0	14
ALT, Fail (DM)	1	1	2	2	3	2	4	3	2	3	1	4	28

**Table 8: Wabush Mines 2011 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	4	3	5	4	5	4	4	4	4	4	5	4	50
pH, Maximum (units)	7.45	7.26	7.59	7.55	7.45	7.52	7.49	7.53	7.74	7.74	7.77	7.73	7.77
pH, Minimum (units)	7.32	7.13	7.22	7.22	7.39	7.37	7.39	7.35	7.33	7.41	7.54	7.59	7.13
pH, Exceedence (<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	0.0014	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0014
As, Exceedence (>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	
Cu, Maximum	<0.002	<0.002	0.0021	<0.002	0.0047	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0047
Cu, Exceedence (>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	
Pb, Maximum	0.00055	<0.0005	0.00114	<0.0005	0.00081	0.00057	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00114
Pb, Exceedence (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	<0.0005	<0.0005	0.0007	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Ni, Maximum	<0.002	<0.002	<0.002	<0.002	0.0085	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0085
Ni, Exceedence (>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	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
Zn, Maximum	<0.005	<0.005	0.0209	<0.0050	0.0067	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0209
Zn, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.005	<0.005	0.007	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
TSS, Maximum	4	4	7	<5	17	39	11	12	9	5	8	5	39
TSS, Exceedence (>30)	0	0	0	0	0	2	0	0	0	0	0	0	2
Monthly Average(>15.00)	2.9	2.7	4.8	<5	7	30.25	11	8	6.5	4.75	6	3	
Ra-226, Maximum	<0.01			<0.005			<0.005			<0.01			<0.01
Ra-226, Exceedence (>1.11 Bq/l)	0			0			0			0			0
Monthly Average (>0.37)	<0.01			<0.005			<0.005			<0.01			
Ammonia, Maximum						<0.05	<0.05	<0.05	<0.05				<0.05
Cd, Maximum (ug/L)						<0.017	<0.017	<0.017	<0.017				<0.017
Fe, Maximum						4.98	3.25	3.24	0.362				4.98
Hg, Maximum (ug/L)						<0.013	<0.013	<0.013	<0.013				<0.013

**Table 8 Continued: Wabush Mines 2011 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						0.44	0.43	0.47	0.47				0.47
TDS, Maximum						54	46	42	50				54
TPH, Maximum						<0.1	<0.1	<0.1	<0.1				<0.1
ALT, Pass (RT)	1			1			1			1			4
ALT, Fail (RT)	0			0			0			0			0
ALT, Pass (DM)	0			0			0			0			0
ALT, Fail (DM)	0			0			0			1			1

Knoll Lake	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	4	4	5	4	5	4	4	4	4	4	5	4	51
pH, Maximum (units)	7.35	7.27	7.47	7.43	7.45	7.64	7.49	7.47	7.55	7.54	7.47	7.38	7.64
pH, Minimum (units)	7.16	6.90	6.91	7.05	7.34	7.30	7.42	7.32	7.24	7.07	6.92	6.96	6.90
H, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.001	<0.001	0.0013	<0.0010	0.002	0.0014	0.0016	<0.0010	0.0059	0.0036	<0.0010	0.0017	0.0059
As, Exceedence (>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	<0.0010	0.001125	<0.0010	0.00185	0.001275	<0.0010	<0.0010	
Cu, Maximum	0.0026	<0.002	0.005	<0.0020	<0.0020	<0.0020	<0.0020	0.0026	0.0043	0.0031	0.0035	<0.0020	0.005
Cu, Exceedence (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)	0.0014	<0.002	0.0025	<0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.002	<0.0020	<0.0020	<0.0020	
Pb, Maximum	0.00085	0.00102	0.00164	<0.00050	0.00098	0.00112	0.0013	0.00059	0.00198	0.0012	<0.00050	0.00053	0.00198
Pb, Exceedence (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	<0.0005	0.00059	0.00072	<0.0005	<0.0005	0.00057	0.000513	<0.00050	0.000683	<0.00050	<0.00050	<0.00050	
Ni, Maximum	<0.002	<0.002	<0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0025	<0.0020	0.0048	0.0021	0.0048
Ni, Exceedence (>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	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Zn, Maximum	0.009	0.0064	0.0068	0.0109	0.007	0.0091	0.0088	0.0082	0.0227	0.0121	0.0116	0.0094	0.0227
Zn, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.005	<0.005	<0.005	0.0062	0.0064	0.0067	<0.005	0.006325	0.00755	0.0064	0.00706	0.006275	

**Table 8 Continued: Wabush Mines 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

<b>Knoll Lake</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total</b>
TSS, Maximum	27	20	54	33	110	150	43	75	66	150	45	120	150
TSS, Exceedence (>30)	0	0	2	1	3	2	1	3	2	1	1	3	19
Monthly Average(>15.00)	14.75	8.5	21.6	19.5	57.6	67	26.75	44.25	30.5	47.25	16.4	57	10
Ra-226, Maximum	<0.01			<0.005			<0.005			<0.01			<0.01
Ra-226, Exceedence (>1.11 Bq/l)	0			0			0			0			0
Monthly Average (>0.37)	<0.01			<0.005			<0.005			<0.01			
Ammonia, Maximum						0.17	0.31	1.2	0.52				1.2
Cd, Maximum (ug/L)						<0.017	0.023	0.018	<0.017				0.025
Fe, Maximum						2.88	6.97	8.3	1.07				8.3
Hg, Maximum (ug/L)						<0.013	<0.013	<0.013	<0.013				<0.013
Nitrate, Maximum						2.1	1.9	3.5	3.2				3.5
TDS, Maximum						57	50	41	63				63
TPH, Maximum						<0.1	<0.1	0.2	<0.1			<0.1	<0.1
ALT, Pass (RT)	1			1			1			1			4
ALT, Fail (RT)	0			0			0			0			0
ALT, Pass (DM)	0			0			0			1			1
ALT, Fail (DM)	0			0			0			0			0

**Table 8 Continued: Wabush Mines 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

<b>West Pit Settling Pond</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total</b>
Samples	4	4	3	4	5	4	4	4	4	4	5	4	49
pH, Maximum (units)	7.45	6.98	7.53	7.66	7.58	7.74	7.65	7.56	7.52	7.56	7.53	7.45	7.74
pH, Minimum (units)	7.01	6.79	6.91	7.11	7.06	6.96	7.04	6.76	7.18	7.20	7.06	7.09	6.76
pH, Exceedence (<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	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.001
As, Exceedence (>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	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Cu, Maximum	<0.002	<0.002	0.0086	<0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0086
Cu, Exceedence (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.30)	<0.002	<0.002	0.004	<0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Pb, Maximum	0.0025 9	0.0006 1	0.0005 6	0.0005 7	<0.0005 0	<0.0005 0	<0.0005 0	0.00061 0	0.00051 0	<0.0005 0	<0.0005 0	<0.0005 0	0.0025 9
Pb, Exceedence (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	0.0008	<0.000 5	<0.000 5	<0.000 5	<0.0005 0	<0.0005 0	<0.0005 0	<0.0005 0	<0.0005 0	<0.0005 0	<0.0005 0	<0.0005 0	
Ni, Maximum	<0.002	<0.002	<0.002	<0.002	<0.0020	<0.0020	<0.0020	0.0025	<0.0020	<0.0020	<0.0020	<0.0020	0.0025
Ni, Exceedence (>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	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Zn, Maximum	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050	<0.0050	0.0075	<0.0050	0.0057	0.0058	0.0058	0.0075
Zn, Exceedence (>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	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
TSS, Maximum	2	7	33	45	28	2	2	63	54	<1	1	<2	63
TSS, Exceedence (>30)	0	0	1	2	0	0	0	1	1	0	0	0	5
Monthly Average(>15.00)	1	2.75	14	28	8.6	<2	1.375	17	14	<1	<1	<2	
Ra-226, Maximum	<0.01			<0.005			<0.005			<0.01			<0.01
Ra-226, Exceedence (>1.11 Bq/l)	0			0			0			0			0
Monthly Average (>0.37)	<0.01			<0.005			<0.005			<0.01			
Ammonia, Maximum						1.1	0.57	0.56	0.23	0.28			1.1
Cd, Maximum (ug/L)						<0.017	<0.017	0.051	0.035	<0.0017			0.051



**Table 8 Continued: Wabush Mines 2011 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						0.074	0.084	0.194	3.46	<0.050			3.46
Hg, Maximum (ug/L)						<0.013	<0.013	<0.013	<0.013				<0.013
Nitrate, Maximum						2.4	1.6	2.1	1.2	1.6			2.4
TDS, Maximum						48	30	47	51	47			51
TPH, Maximum						<0.1	<0.1	<0.1	<0.1	<0.1			<0.1
ALT, Pass (RT)	1			1			1			1			4
ALT, Fail (RT)	0			0			0			0			0
ALT, Pass (DM)	0			0			0			0			0
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	4	4	5	4	5	4	4	4	4	4	5	3	50
pH, Maximum (units)	7.73	7.27	7.77	7.71	7.63	7.88	7.65	7.74	7.84	7.92	7.77	7.75	7.92
pH, Minimum (units)	7.48	7.18	7.19	7.57	7.46	7.23	7.50	7.28	7.33	7.61	7.34	7.29	7.18
pH, Exceedence (<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	0.0014	0.0012	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	0.0014
As, Exceedence (>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	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	
Cu, Maximum	<0.002	<0.002	<0.002	0.21	0.0074	<0.002	<0.010	0.004	<0.002	<0.002	<0.002	<0.002	0.21
Cu, Exceedence (>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	0.057875	0.00258	<0.002	<0.010	<0.002	<0.002	<0.002	<0.002	<0.002	
Pb, Maximum	0.00078	0.00084	0.00057	0.0596	0.0033	<0.0005	<0.0025	0.00159	<0.0005	<0.0005	<0.0005	<0.0005	0.0596
Pb, Exceedence (>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	0.015565	0.00086	<0.0005	0.008	0.000585	<0.0005	<0.0005	<0.0005	<0.0005	
Ni, Maximum	<0.002	<0.002	<0.002	0.0117	0.0111	<0.002	<0.010	0.0055	<0.002	<0.002	0.018	<0.002	0.018
Ni, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	<0.002	<0.002	<0.002	0.003925	0.00302	<0.002	<0.010	0.002125	<0.002	<0.002	<0.005	<0.002	
Zn, Maximum	0.0157	<0.005	<0.005	0.127	0.0223	<0.005	<0.025	0.0133	<0.005	<0.005	<0.005	<0.005	0.127
Zn, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table 8 Continued: Wabush Mines 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

<b>East Pit # 2</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total</b>
Zn, Monthly Average (>0.50)	0.0058	<0.005	<0.005	0.0388	0.00646	<0.005	<0.005	0.006525	<0.005	<0.005	<0.005	<0.005	
TSS, Maximum	4	10	8	98	110	10	16	56	5	2	6	6	110
TSS, Exceedence (>30)	0	0	0	1	1	0	0	1	0	0	0	0	3
Monthly Average(>15.00)	2.125	5.5	5.1	31.25	30.6	6.5	8.5	21	2.75	1.25	3.8	2.66666	
Ra-226, Maximum	<0.01			<0.005			<0.005			<0.01			<0.01
Ra-226, Exceedence (>1.11 Bq/l)	0			0			0			0			0
Monthly Average (>0.37)	<0.01			<0.005			<0.005			<0.01			
Ammonia, Maximum						1.7	0.94	0.69	0.59				1.7
Cd, Maximum (ug/L)						<0.017	<0.017	0.018	<0.017				0.018
Fe, Maximum						0.195	0.977	10.4	0.243				10.4
Hg, Maximum (ug/L)						<0.013	0.017	<0.013	<0.013				0.017
Nitrate, Maximum						7.9	5.4	4	5.2				7.9
TDS, Maximum						120	85	110	110				120
TPH, Maximum						<0.1	<0.1	<0.1	<0.1				<0.1
ALT, Pass (RT)	1			1			1			1			4
ALT, Fail (RT)	0			0			0			0			0
ALT, Pass (DM)	0			0			0			0			0
ALT, Fail (DM)	0			0			0			1			1

<b>Deep Well Discharge</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total</b>
Samples	3	4	4	4	5	3	4	4	4	4	5	4	48
pH, Maximum (units)	7.33	6.82	7.40	7.33	7.32	7.34	7.34	7.48	7.55	7.48	7.46	7.42	7.55
pH, Minimum (units)	7.19	6.77	6.64	7.08	6.92	7.29	7.29	7.16	7.26	7.29	6.84	6.83	6.64
pH, Exceedence (<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, Exceedence (>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	

**Table 8 Continued: Wabush Mines 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

<b>Deep Well Discharge</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total</b>
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, Exceedence (>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	<0.002
Pb, Maximum	0.00054	0.00053	0.00061	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00061
Pb, Exceedence (>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	<0.0005
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, Exceedence (>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	<0.002
Zn, Maximum	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006
Zn, Exceedence (>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	<0.005
TSS, Maximum	2	1	<3	<2	2	<2	<1	2	2	<1	<1	<2	2
TSS, Exceedence (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average(>15.00)	1.17	<1	<3	<2	1.1	<2	<1	<1	1	<1	<1	<2	<2
Ra-226, Maximum	<0.01			<0.005			<0.005			<0.01			<0.01
Ra-226, Exceedence (>1.11 Bq/l)	0			0			0			0			0
Monthly Average (>0.37)	<0.01			<0.005			<0.005			<0.01			<0.01
Ammonia, Maximum						<0.05	<0.05	<0.05	<0.05				<0.05
Cd, Maximum (ug/L)						<0.017	<0.017	<0.017	<0.017				<0.017
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						0.27	0.27	0.38	0.22				0.38
TPH, Maximum						<0.1	<0.1	<0.1	<0.1				<0.1
TDS, Maximum						52	41	45	53				53

### **3) Petroleum Refining**

#### **a) North Atlantic Refining Ltd.**

<u>Current COA</u>	Approval #:	AA06-055480
	Issue date:	May 11, 2006
	Expiration:	December 31, 2010
	Extension:	June 29, 2012

North Atlantic Refining Limited has one discharge point which releases effluent into Placentia Bay. The effluent monitoring program consists of 6 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 156 samples were collected in 2011. There were two TSS samples collected that exceeded the daily limit and the never to exceed limit, however these events were not considered exceedences due to the clause in the federal legislation that allows the refinery to account for storm water and subsequent volatile suspended solids analyses. There was one oil and grease sample that exceeded the daily limit. A total of 12 ALTs were conducted, all passed.

#### Environmental Effects Monitoring

There were no EEM submissions reviewed in 2011.

See Table 9: North Atlantic Refining Ltd. 2011: Effluent Discharge Criteria Summary.

**Table 9: North Atlantic Refining Ltd. 2011 Effluent Discharge Criteria Summary**

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<b>Samples Taken</b>	13	12	14	12	14	13	13	13	13	13	13	13	156
Reference Crude Rate (bbls / stream day)	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	
Avg Flow (Cdn. gal day)	1,386,923	1,465,833	1,302,857	1,361,667	1,389,286	1,143,077	1,266,154	1,259,231	1,060,769	1,298,462	1,210,000	1,231,538	15375797
<b>pH</b>													
Average (units)	7.43	7.66	7.41	7.43	7.30	7.24	7.42	8.08	8.12	7.48	7.55	7.58	7.6
Maximum (units)	7.70	8.50	7.60	8.00	7.70	7.70	8.00	8.70	8.70	7.80	8.10	8.30	8.7
Minimum (units)	7.10	7.00	7.20	7.30	7.00	6.70	7.00	7.10	7.70	7.20	7.30	7.10	6.7
Exceedences (< 5.5, > 9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Oil &amp; Grease</b>													
Average (300 lbs)	71.45	99.79	225.00	114.19	38.24	38.73	27.39	15.28	18.59	23.16	25.36	37.86	61.25
Maximum (lbs)	223.37	286.14	647.79	240.26	102.38	260.92	97.06	20.75	74.38	62.54	75.22	138.56	647.79
Daily Limit (550 lbs)*	0	0	1	0	0	0	0	0	0	0	0	0	1
Never to Exceed (750 lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Phenol</b>													
Average (30 lbs)	0.74	0.62	5.57	1.55	0.28	0.23	0.23	0.14	0.13	0.14	0.16	0.28	0.84
Maximum (lbs)	2.42	2.84	16.04	3.13	0.47	0.45	1.53	0.26	0.45	0.27	0.35	1.62	16.04
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
<b>Sulphide</b>													
Average (10 lbs)	0.45	0.86	1.52	0.73	0.52	0.40	0.25	0.29	0.36	0.22	0.66	0.34	0.55
Maximum (lbs)	0.95	1.66	3.90	1.08	0.93	0.90	0.51	0.52	1.34	0.38	4.64	0.84	4.64
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
<b>Ammonia Nitrogen</b>													
Average (360 lbs)	9.01	145.75	143.36	63.19	73.74	27.16	19.54	5.73	5.60	10.88	22.94	50.35	48.1
Maximum (lbs)	17.26	375.43	259.92	103.33	160.11	69.73	132.82	10.26	13.60	28.37	68.38	113.36	375.4
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 9 Continued: North Atlantic Refining Ltd. 2011 Effluent Discharge Criteria Summary**

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<b>TSS</b>													
Average (720 lbs)	223.86	376.74	357.64	202.09	171.80	226.95	358.19	220.84	128.68	125.32	122.57	189.86	225.38
Maximum (lbs)	570.42	710.27	665.79	520.03	369.08	1529.51	2707.43	358.99	290.31	423.86	222.23	533.43	2707.43
Daily Limit (1200 lbs)*	0	0	0	0	0	1	1	0	0	0	0	0	2
Never to Exceed (1500 lbs)	0	0	0	0	0	1	1	0	0	0	0	0	2
<b>pH at Outfall</b>													
Samples	31	28	31	30	31	30	31	31	30	31	30	16	350
Average (units)	7.38	7.62	7.43	7.33	7.25	7.22	7.38	8.05	8.08	7.49	7.47	7.53	7.5
Maximum (units)	7.70	8.50	7.80	8.00	7.70	7.80	8.70	8.70	8.10	7.90	8.30	7.90	8.7
Minimum (units)	7.00	7.00	7.20	7.00	6.90	6.70	7.50	7.00	6.50	7.30	7.10	7.30	6.5
Exceedences (< 5.5, > 9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>ALT, pass</b>	1	1	1	1	1	1	1	1	1	1	1	1	12
<b>ALT, fail</b>	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 #: AA09-115522  
   Issue date: November 10, 2009  
   Expiration: July 7, 2013

Corner Brook Pulp and Paper has two discharge locations, the Secondary Clarifier (Effluent Treatment) and 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 exceedences of the limits. Rainbow trout ALTs were conducted successfully monthly. *Daphnia magna* ALTs are required weekly. There were five failures reported in 2011 at the East Sewer.

##### Environmental Effects Monitoring

There were no EEM submissions for 2011.

See Table 10: Corner Brook Pulp and Paper 2011: Effluent Discharge Criteria Summary.

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

Current COA                      Approval #: Memo written by Dan Michielsen  
   Issue date: May 3, 2011  
   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 weekly for pH and TPH. There was one pH analysis reported as below the 5.5 limit.

##### Environmental Effects Monitoring

There were no EEM activities at this site in 2011.

See Table 11: Grand Falls Mill 2011: Effluent Discharge Criteria Summary.

**Table 10: Corner Brook Pulp and Paper 2011 Effluent Discharge Criteria Summary**

		TSS Concentration				BOD Concentration				Monthly Average Limits	
		Average Production	Average TSS Discharge		East Sewer	Effluent Treatment	Average BOD Discharge		East Sewer	Effluent Treatment	TSS
Month	Tonne/Day	Tonne/Day	kg / FMT	mg/L	mg/L	Tonne/Day	kg / FMT	mg/L	mg/L	Tonne/Day	Tonne/Day
Jan-11	703	1.4	2.0	2.23	25.29	0.7	1.0	1.25	11.92	11.4	7.6
Feb-11	669	3.4	5.0	4.54	60.18	1.2	1.8	2.00	20.42	11.4	7.6
Mar-11	700	1.9	2.6	5.97	36.77	0.7	1.1	1.73	15.00	11.4	7.6
Apr-11	715	1.6	2.2	8.90	28.63	0.6	0.9	2.75	11.75	11.4	7.6
May-11	733	0.9	1.3	6.45	15.42	0.3	0.4	2.00	4.92	11.4	7.6
Jun-11	639	1.9	3.0	6.53	34.97	0.5	0.8	2.14	8.93	11.4	7.6
Jul-11	573	1.5	2.7	6.06	27.68	0.5	0.9	1.61	9.00	11.4	7.6
Aug-11	703	1.0	1.5	4.55	18.39	0.3	0.4	1.00	5.07	11.4	7.6
Sep-11	664	0.8	1.2	6.07	12.93	0.2	0.3	1.62	3.85	11.4	7.6
Oct-11	710	0.8	1.1	5.61	14.03	0.3	0.4	1.67	5.42	11.4	7.6
Nov-11	681	1.2	1.8	4.07	27.03	0.5	0.7	1.36	11.79	11.4	7.6
Dec-11	725	3.3	4.6	3.29	74.06	0.9	1.3	1.38	20.62	11.4	7.6



**Table 10 Continued: Corner Brook Pulp and Paper 2011 Effluent Discharge Criteria**

Month	Toxicity (% by volume)							
	96 Hr LC50 (Rainbow Trout)				48 Hr LC50 ( <i>Daphnia magna</i> )			
	East Sewer		Effluent Treatment		East Sewer		Effluent Treatment	
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail
Jan-11	1	0	1	0	3	1	4	0
Feb-11	1	0	1	0	4	0	4	0
Mar-11	1	0	1	0	4	0	4	0
Apr-11	1	0	1	0	4	0	4	0
May-11	1	0	1	0	4	0	4	0
Jun-11	1	0	1	0	4	0	4	0
Jul-11	1	0	1	0	4	0	4	0
Aug-11	1	0	1	0	3	1	4	0
Sep-11	1	0	1	0	2	2	4	0
Oct-11	1	0	1	0	3	1	4	0
Nov-11	1	0	1	0	4	0	4	0
Dec-11	1	0	1	0	4	0	4	0

**Table 11: Grand Falls Mill 2011 Effluent Discharge Criteria Summary**

	Samples	TPH, Maximum	TPH, Exceedence (>15 mg/L)	pH, Maximum (units)	pH, Minimum (units)	pH, Exceedence (<5.5, >9.0 pH units)
January	4	<0.1	0	8.19	7.03	0
February	3	<0.1	0	7.87	7.77	0
March	3	0.3	0	7.69	5.03	1
April	3	0.1	0	7.89	7.34	0
May	3	<0.1	0	8.05	8.02	0
June	5	2.4	0	8.00	7.35	0
July	3	0.1	0	8.06	7.68	0
August	4	0.4	0	7.96	6.96	0
September	2	0.2	0	8.90	8.08	0
October	2	<0.1	0	8.14	8.09	0
November	3	0.3	0	8.10	7.80	0
December	4	2.8	0	7.98	7.65	0
<b>Total</b>	<b>39</b>	<b>2.8</b>	<b>0</b>	<b>8.90</b>	<b>5.03</b>	<b>1</b>

## 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 September. 44 samples were collected during the year and there were no reported exceedences. In total there were nine rainbow trout ALTs conducted with one failure in October.

Periodic Basin: 30 samples were collected in 2011. There were no discharges in September. All samples were in compliance and all conducted ALTs passed.

#### Environmental Effects Monitoring

There were no EEM submissions in 2011.

See Table 12: Newfoundland and Labrador Hydro 2011: Effluent Discharge Criteria Summary.

**Table 12: Holyrood Thermal Generating Station 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

CONTINUOUS BASIN	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Samples	5	4	5	4	4	4	4	1		4	5	4	44
pH Maximum (units)	7.20	6.90	6.80	6.9	7.00	6.80	6.80	6.50		6.80	7.20	7.60	7.6
pH Minimum (units)	6.40	6.40	6.50	6.6	6.80	6.70	6.50			6.60	6.40	6.70	6.4
pH Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0		0	0	0	0
Fe Maximum	0.170	0.110	0.117	0.128	0.122	0.296	0.240	0.240		0.123	0.160	0.104	0.296
Fe Exceedence (>10 mg/L)	0	0	0	0	0	0	0	0		0	0	0	0
Ni Maximum	0.010	0.005	0.006	0.005	0.010	0.052	0.020	0.010		0.270	0.040	0.007	0.270
Ni Exceedence (>0.5 mg/L)	0	0	0	0	0	0	0	0		0	0	0	0
V Maximum	0.050	0.030	0.068	0.037	0.044	0.053	0.040	0.030		0.150	0.150	0.063	0.150
V Exceedence (>2.0 mg/L)	0	0	0	0	0	0	0	0		0	0	0	0
TSS Maximum	2.3	0.6	<2	<2	<2	<2	<2	<2		<2	<2	<2	2.3
TSS Exceedence (>30 mg/L)	0	0	0	0	0	0	0	0		0	0	0	0
ALT, Pass (RT)		1	1	1	1	1	1			0	1	1	8
ALT, Fail (RT)		0	0	0	0	0	0			1	0	0	1

**Table 12 Continued: Holyrood Thermal Generating Station 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

<b>PERIODIC BASIN (WWTP)</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total</b>
Samples	3	2	5	3	3	2	2	2		2	1	5	30
pH Maximum (units)	8.70	8.50	8.50	8.7	8.70	8.70	8.60	8.40		8.80	8.40	8.50	8.8
pH Minimum (units)	7.80	8.50	8.40	8.4	8.40	8.50	8.40	8.40		8.70		8.40	7.8
pH Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0		0	0	0	0
Fe Maximum	0.210	0.018	0.119	0.083	0.101	0.173	0.085	0.053		0.010	0.016	0.064	0.210
Fe Exceedence (>10 mg/L)	0	0	0	0	0	0	0	0		0	0	0	0
Ni Maximum	0.190	0.068	0.096	0.067	0.097	0.066	0.070	0.079		0.055	0.050	0.112	0.190
Ni Exceedence (>0.5 mg/L)	0	0	0	0	0	0	0	0		0	0	0	0
V Maximum	0.190	0.085	0.175	0.165	0.026	0.029	0.155	0.251		0.171	0.195	0.129	0.251
V Exceedence (>2.0 mg/L)	0	0	0	0	0	0	0	0		0	0	0	0
TSS Maximum	1.1	0.9	<2	<2	9.0	4.6	<2	3.0		2.0	<2	5.3	9.0
TSS Exceedence (>30 mg/L)	0	0	0	0	0	0	0	0		0	0	0	0
ALT, Pass (RT)	3	1	3	2	1	1	2	1		1	1	2	18
ALT, Fail (RT)	0	0	0	0	0	0	0	0		0	0	0	0

## 6) Other

### a) Atlantic Minerals Ltd.

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

Atlantic Minerals Ltd. collected four samples from three locations in 2011 for effluent monitoring. There were no reported exceedences during the year. There is no sampling conducted during the winter season due to frozen surface water conditions.

#### Environmental Effects Monitoring

There is no EEM program at this site.

See Table 13: Atlantic Minerals Ltd. 2011: Effluent Discharge Criteria Summary.

### b) Beaver Brook Antimony Mine Inc.

Current COA                      Approval #: AA08-035501  
   Issue date: March 19, 2008  
   Expiration: March 19, 2013

Beaver Brook has one discharge point located at Site 16. The effluent monitoring program for discharge criteria compliance consists of eight parameters and ALT analysis. During the year, there were a total of 34 samples collected; there was one exceedence of zinc in May. Although no TSS analyses were reported as greater than 30mg/L, the average TSS was greater than 15mg/L for four months in 2011. A total of 10 rainbow trout ALTs were conducted for the year, they all passed.

It is important to note that some data presented for Beaver Brook was obtained from Site 17. Site 17 is taken from inside the Polishing Pond. Site 16 is collected from the weir when the pond is actually discharging. Site 16 is an intermittent discharge location.

It is important to note that although Beaver Brook is a metal mine, it has been treated as "other" in this report because in 2011 the facility did not trigger the federal MMER.

#### Environmental Effects Monitoring

There were no EEM submissions in 2011.

See Table 14: Beaver Brook 2011: Effluent Discharge Criteria Summary.

### c) GC Rieber Carino Company

Current COA                      Approval #: AA10-095535  
   Issue date: September 1, 2010  
   Expiration: September 1, 2013

Carino has one effluent discharge location. The effluent monitoring program contains numerous water quality parameters, 14 of which have associated compliance limits. 49 samples were collected in 2011. Exceedences included: eight

pH, one chromium, two hexavalent chromium, one copper, one iron, one TSS, 41 BOD, 12 ammonia, 12 phenols and 10 oil and grease.

Carino has entered into a compliance agreement (September 20, 2010) with NL ENVC to assess any effects on the environment as a result of effluent discharged from the facility.

Environmental Effects Monitoring

The EEM study design was reviewed in 2011.

See Table 15: GC Rieber Carino Company 2011: Effluent Discharge Criteria Summary.

**d) Labatt Breweries Newfoundland**

<u>Current COA</u>	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. A total of 48 samples were collected and analysed in 2011. There were seven pH samples reported as out of acceptable range, 46 BOD exceedences and 21 TSS exceedences.

Environmental Effects Monitoring

There is no EEM program at this site.

See Table 16: Labatt Breweries Newfoundland 2011: Effluent Discharge Criteria Summary.

**e) Molson Coors Canada, St. John's**

<u>Current COA</u>	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. A total of 49 samples were collected and analysed. Reported exceedences included: 20 pH, 45 BOD, one TSS, two zinc, one TDS, two phenols and two ammonia.

Environmental Effects Monitoring

There is no EEM program at this site.

See Table 17: Molson Coors Canada 2011: Effluent Discharge Criteria Summary.

**f) Newfoundland Transshipment Terminal**

<u>Current COA</u>	Approval #:	AA08-035499
	Issue date:	March 13, 2008
	Expiration:	March 12, 2013

Newfoundland Transshipment Terminal monitors water quality at nine locations. Discharge to the environment only occurs from the containment pond. The effluent monitoring program for discharge criteria compliance consists of three parameters, with ALT analysis at Containment Pond. There were no exceedences of the allowable discharge criteria, and there were no ALT failures at the Containment Pond.

Environmental Effects Monitoring

The 7<sup>th</sup> instalment of the Marine EEM program was submitted in 2011.

See Table 18: NTT 2011: Effluent Discharge Criteria Summary.

**g) NuTan Furs Inc.**

<u>Current COA</u>	Approval #:	AA10-095536
	Issue date:	September 1, 2010
	Expiration:	September 1, 2013

NuTan Furs Inc. operated the tannery in Catalina for limited duration in 2011. Effluent discharge occurred in July and August with 19 samples collected for water quality analysis. Compliance limits were applied to 13 parameters. Reported exceedences included: four pH, 18 chromium, four copper, 15 TSS, 15 BOD, three ammonia, four phenols, one cyanide and 15 oil and grease.

NuTan has entered into a compliance agreement (September 20, 2010) with NL ENVC to assess any effects on the environment as a result of effluent discharged from the facility.

Environmental Effects Monitoring

The EEM study design was reviewed in 2011.

See Table 19: NuTan 2011: Effluent Discharge Criteria Summary.

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

<u>Current COA</u>	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. The effluent monitoring program for discharge criteria compliance consists of 14 parameters and ALT. In 2011 there was discharge in May, August, September and December. A total of five samples were taken with no exceedences or ALT failures reported.

Environmental Effects Monitoring

There is no EEM program at this site.

See Table 20: Vale Newfoundland and Labrador Ltd. (Argentia) 2011: Effluent Discharge Criteria Summary.



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

Current COA                      Approval #: AA11-055560A  
   Issue date: May 16, 2011  
   Revision: September 9, 2011  
   Expiration: December 31, 2013

Vale Newfoundland and Labrador Ltd., Long Harbour Hydrometallurgical Plant had 9 active discharge points in 2011 (D2, D3, D5, D11, D12, D13, D15, D18 and D19). The effluent monitoring program consists of several parameters, all of which have regulatory environmental limits.

D2: A total of 39 samples were taken at this location. There were nine TSS exceedences and one exceedences of nitrate.

D3: A total of 38 samples were taken at this location. There were seven reported TSS exceedences.

D5: A total of 21 samples were taken at this location. There was one TSS exceedence reported.

D11: There was 53 samples were taken at this location. There were 12 TSS exceedences, 1 ammonia exceedence, and 27 nitrate exceedences. pH was reported as below the 5.5 pH unit criteria twice in January.

D12: There were 11 samples taken at this location between January and May 2011. There was one TSS exceedence.

D13: A total of 31 samples were taken at this location with four TSS exceedences.

D15: There were four samples collected in January and February. There were three TSS exceedences.

D18: A total of 12 samples were taken at this location in 2011. There was one TSS exceedence.

D19: A total of 16 samples were taken at this location in 2011. There was one TSS exceedence and two nitrate exceedences reported.

Environmental Effects Monitoring

There is no EEM program at this site.

See Table 21: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2011: Effluent Discharge Criteria Summary.

**Table 13: Atlantic Minerals Ltd. 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

Site #1	Jul	Total
Samples	1	1
pH, Maximum (units)	8.18	8.18
pH, Minimum (units)		0.00
pH, Exceedence (<5.5, >9.0)	0	0
As, Maximum	<0.001	<0.001
As, Exceedence (>1)	0	0
Cu, Maximum	<0.002	<0.002
Cu, Exceedence (>0.6)	0	0
Pb, Maximum	0.00282	0.00282
Pb, Exceedence (>0.4)	0	0
Ni, Maximum	<0.002	<0.002
Ni, Exceedence (>1)	0	0
Zn, Maximum	0.0051	0.0051
Zn, Exceedence (>1)	0	0
TSS, Maximum	2	2
TSS, Exceedence (>30)	0	0
TDS, Maximum	168	168
Fe, Maximum	0.097	0.097
Ammonia, Maximum	<0.05	0
Nitrate, Maximum	0.13	0.13

Duck Pond (DL-HC Quarry)	Jul	Oct	Total
Samples	1	1	2
pH, Maximum (units)	8.11	8.02	8.11
pH, Minimum (units)			0.00
pH, Exceedence (<5.5, >9.0)	0	0	0
As, Maximum	<0.001	<0.001	<0.0010
As, Exceedence (>1)	0	0	0
Cu, Maximum	<0.002	<0.002	<0.002
Cu, Exceedence (> 0.6)	0	0	0
Pb, Maximum	0.00092	0.00263	0.00263
Pb, Exceedence (>0.4)	0	0	0
Ni, Maximum	<0.002	<0.002	<0.002
Nii, Exceedence (>1)	0	0	0
Zn, Maximum	<0.005	0.0138	0.0138
Zn, Exceedence (>1)	0	0	0
TSS, Maximum	2	9	9
TSS, Exceedence (>30)	0	0	0
Ammonia, Maximum	0.06	0.14	0.14
Fe, Maximum	<0.05	0.165	0.165
Nitrate, Maximum	2.1	1.8	2.1
TDS, Maximum	130	148	148

DL Quarry 2	Oct	Total
Samples	1	1
pH, Maximum (units)	7.97	7.97
pH, Minimum (units)		
pH, Exceedence (<5.5, >9.0)	0	0
As, Maximum	<0.001	<0.001
As, Exceedence (>1)	0	0
Cu, Maximum	<0.0020	<0.0020
Cu, Exceedence (> 0.6)	0	0
Pb, Maximum	0.00447	0.00447
Pb, Exceedence (>0.4)	0	0
Ni, Maximum	<0.0020	<0.0020
Ni, Exceedence (>1)	0	0
Zn, Maximum	0.0076	0.0076
Zn, Exceedence (>1)	0	0
TSS, Maximum	4	4
TSS, Exceedence (>30)	0	0
Ammonia, Maximum	10	10
Fe, Maximum	0.105	0.105
Nitrate, Maximum	20	20
TDS, Maximum	324	324

**Table 14: Beaver Brook 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

Site 16	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	1		1		4	4	4	4	4	4	5	3	34
pH, Maximum (units)	8.00		8.00		8.40	8.50	8.50	8.50	8.30	8.70	8.40	8.2	8.7
pH, Minimum (units)					8.20	8.30	8.20	8.30	8.20	8.20	8.10	8.2	8.1
pH, Exceedence (<5.5, >9.0)	0		0		0	0	0	0	0	0	0	0	0
As, Maximum	0.013		0.014		0.025	0.05	0.091	0.111	0.162	0.097	0.059	0.058	0.162
As, Exceedence (>1)	0		0		0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.013		0.014		0.0213	0.0385	0.087	0.096	0.123	0.08325	0.0526	0.056	
Cu, Maximum	<0.002		<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.009	0.009
Cu, Exceedence (>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	<0.002	<0.002	<0.002	<0.002	0.004	
Pb, Maximum	0.0014		0.0007		0.0012	0.0047	0.0101	<0.0005	<0.0005	0.0065	0.0082	0.0018	0.0101
Pb, Exceedence (>0.4)	0		0		0	0	0	0	0	0	0	0	0
Monthly Average (>0.20)	0.0014		0.0007		0.00084	0.0028	0.0039	<0.0005	<0.0005	0.0034	0.006	0.0013	
Ni, Maximum	0.018		0.017		0.014	0.017	0.012	0.012	0.019	0.025	0.026	0.026	0.026
Ni, Exceedence (>1)	0		0		0	0	0	0	0	0	0	0	0
Monthly Average (>0.50)	0.018		0.017		0.0135	0.0145	0.0115	0.01	0.0155	0.0185	0.0238	0.0247	
Zn, Maximum	0.007		<0.005		2.18	0.013	0.009	0.006	0.009	0.014	0.007	0.006	2.18
Zn, Exceedence (>1)	0		0		1	0	0	0	0	0	0	0	1
Monthly Average (>0.50)	0.007		<0.005		0.548	0.0085	0.0061	<0.005	0.0053	0.0076	<0.005	<0.005	
TSS, Maximum	16		21		10	19	21	27	13	24	25	14	27
TSS, Exceedence (>30)	0		0		0	0	0	0	0	0	0	0	0
Monthly Average (>15.00)	16		21		8	14.25	14.25	14.125	9.5	18.25	20.2	12.3	
Ra-226, Maximum	<0.01		0.01				<0.01	<0.01					0.01
Ra-226, Exceedence (>1.11 Bq/l)	0		0				0	0					0
Monthly Average (>0.37)	<0.01		0.01				<0.01	<0.01					
Ammonia, Maximum					1.28	0.3		0.89		0.23			1.28
Cd, Maximum (ug/L)					<0.3	<0.3		<0.3		<0.3	<0.3		<0.3
Fe, Maximum					0.388	0.438		0.119		0.436	0.862		0.862
Hg, Maximum (ug/L)					0.026	0.026		<0.026		<0.026			0.026
Nitrate, Maximum					23.6	20.2		14.7		25.9			25.9

**Table 14 Continued: Beaver Brook 2011 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					424	410		370		475	424		475
ALT, Pass (RT)			1		1	1	1	1	1	1	1	1	9
ALT, Fail (RT)			0		0	0	0	0	0	0	0	0	0

**Table 15: GC Rieber Carino Company 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	1	4	6	3	6	3	2	4	6	4	4	6	49
pH, Maximum (units)	9.69	10.7	10.7	8.23	8.06	7.52	7.01	8	8.17	8.07	8.32	8.96	10.7
pH, Minimum (units)		8.76	6.94	7.17	7.08	7.08	6.86	6.99	6.96	6.87	4.54	8.25	4.54
pH, Exceedence (<5.5, >9.0)	1	3	3	0	0	0	0	0	0	0	1	0	8
As, Maximum Exceedence (0.5 mg/L)		<0.01 0	<0.01 0		0.01 0		0.0017 0	<0.001 0	<0.0001 0	<0.001 0		<0.0001 0	0.01 0
Ba, Maximum Exceedence (0.5 mg/L)		<0.01 0	<0.01 0		0.011 0		0.0207 0	0.043 0	<0.0001 0	0.0384 0		0.012 0	0.043 0
B, Maximum Exceedence (5.0 mg/L)	<0.5 0	<0.5 0	<0.5 0	0.096 0	<0.5 0	<0.5 0	<0.05 0	<0.5 0	<0.05 0	<5 0	<0.5 0	<0.5 0	<0.5 0
Cd, Maximum (ug/L) Exceedence( 0.05 mg/L)	<0.17 0	<0.17 0	0.48 0	0.11 0	<0.17 0	0.42 0	0.29 0	<0.17 0	<0.17 0	<0.17 0	0.33 0	<0.17 0	<0.17 0
Cr, Maximum Exceedence (1.0 mg/L Cr(III))	0.099 0	0.238 0	0.294 0	0.288 0	0.177 0	1.48 1	0.0107 0	0.436 0	0.271 0	0.58 0	0.156 0	0.385 0	1.48 1
Cr (+3), Maximum Exceedence (1 mg/L)	0.08 0	0.2 0	0.29 0	0.007 0	0.2 0	1.4 1	<0.01 0	0.42 0	0.26 0	0.57 0	0.15 0	0.38 0	1.4 1
Chromium (VI), Maximum Exceedence (0.05 mg/L)	0.02 0	<0.1 0	0.02 0	0.02 0	<0.1 0	0.07 2	0.02 0	0.02 0	<0.05 0	0.0063 0	0.0032 0	0.008 0	<0.1 2
Cu, Maximum Exceedence (0.3 mg/L)	0.029 0	0.125 0	0.13 0	0.0949 0	0.155 0	0.0493 0	0.0024 0	0.0498 0	0.0249 0	<0.2 0	0.029 0	0.03 0	<0.2 0
Fe, Maximum Exceedence (10 mg/L)	<0.5 0	8.53 0	2.42 0	16.2 1	1.92 0	1.4 0	1.46 0	1.86 0	1.76 0	<5 0	7.54 0	0.606 0	16.2 1
Pb, Maximum Exceedence( 0.2 mg/L)	<0.005 0	<0.005 0	<0.005 0	0.00783 0	0.0061 0	0.00179 0	0.00125 0	<0.005 0	<0.005 0	<0.05 0	<0.005 0	<0.005 0	0.00783 0
Hg, Maximum (ug/L) Exceedence (0.005 mg/L)		0.029 0	0.015 0		0.015 0		0.072 0	0.039 0	<0.013 0	0.018 0		0.015 0	0.072 0
Ni, Maximum Exceedence (0.5 mg/L)	<0.02 0	0.064 0	0.086 0	0.0474 0	0.059 0	0.0472 0	0.0288 0	0.0361 0	0.041 0	<0.2 0	0.021 0	<0.02 0	<0.2 0
Zn, Maximum Exceedence (0.5 mg/L)	<0.05 0	0.0216 0	<0.2 0	0.0127 0	0.013 0	<0.05 0	0.0104 0	0.0097 0	0.0121 0	<0.5 0	<0.05 0	<0.05 0	0.0216 0

**Table 15 Continued: GC Rieber Carino Company 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Se, Maximum Exceedence (0.5 mg/L)		<0.01 0	<0.01 0		0.0048 0		0.0012 0	0.057 0	<0.01 0	<0.001 0		<0.0001 0	0.057 0
Ag, Maximum Exceedence (0.05 mg/L)		<0.001 0	<0.001 0		<0.001 0		<0.0001 0	<0.001 0	<0.001 0	<0.0001 0		<0.001 0	<0.001 0
TDS, Maximum Exceedence (1000 mg/L)		10100 1	9100 2		11000 1		4520 1	7900 2	8020 1	15600 1		9520 2	15600 11
TSS, Maximum Exceedence (30 mg/L)	6 0	24 0	23 0	140 1	21 0	18 0	9 0	10 0	20 0	14 0	12 0	19 0	140 1
BOD, Maximum Exceedence (20 mg/L)	87 1	240 4	260 5	710 3	580 4	590 3	590 1	340 3	490 5	330 4	370 4	130 4	710 41
Ammonia, Maximum Exceedence (2.0mg/L)		35 1	24 2		49 2		30 1	48 2	150 1	16 1		81 2	150 12
Sulfide, Maximum Exceedence (0.5 mg/L)		<0.02 0	0.02 0		0.05 0		0.38 0	0.08 0	<0.02 0	<0.02 0		0.04 0	0.38 0
Total Oil & Grease, Maximum Exceedence (15 mg/L)	9 0	13 0	12 0	9 0	18 1	11 0	15 0	25 2	21 3	150 3	16 1	7 0	150 10
Phenol Exceedence (0.1 mg/L)		0.5 1	0.4 2		1.6 2		1.2 1	12 2	6.9 1	5.8 1		1 2	12 12
Cyanide Exceedence (0.025mg/L)		0.002 0	0.004 0		0.004 0		0.012 0	0.011 0	0.003 0	<0.002 0		0.004 0	0.012 0

**Table 16: Labatt Breweries Newfoundland 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Samples	3	3	5	4	4	4	4	4	5	4	4	4	48
pH Maximum (Units)	9.41	6.37	11.2	6.08	6.18	7.11	6.67	6.60	11.6	6.88	7.43	7.44	11.6
pH Minimum (Units)	6.23	6.17	5.22	5.38	5.75	5.89	6.32	5.75	5.91	5.69	6.48	6.21	5.22
pH Violations (<5.5, >9.0)	1	0	3	2	0	0	0	0	1	0	0	0	7
BOD Maximum	690	1000	940	690	780	960	1300	1100	1100	1200	1000	620	1300
BOD Violations (>300 mg/l)	3	3	5	4	4	3	4	4	4	4	4	4	46
TSS, Maximum	380	750	400	490	430	810	540	590	600	810	670	440	810
TSS Violations (>350 mg/l)	1	2	1	1	2	1	3	2	2	2	2	2	21
As, Maximum Exceedence (0.5 mg/L)						<0.001 0			<0.001 0			<0.001 0	<0.001 0
Ba, Maximum Exceedence (0.5 mg/L)						0.049 0			0.0136 0			0.149 0	0.049 0
B, Maximum Exceedence (5.0 mg/L)						<0.05 0			<0.05 0			0.382 0	0.382 0
Cd, Maximum Exceedence( 0.05 mg/L)						0.000031 0			0.000072 0			0.000031 0	0.000072 0
Cr, Maximum Exceedence (1.0 mg/L Cr(III) Limit)						0.0125 0			0.0164 0			0.0034 0	0.0164 0
Cu, Maximum Exceedence (0.3 mg/L)						0.0397 0			0.171 0			0.0413 0	0.171 0
Fe, Maximum Exceedence (10 mg/L)						0.473 0			0.783 0			0.463 0	0.783 0
Pb, Maximum Exceedence( 0.2 mg/L)						0.00138 0			0.023 0			0.0035 0	0.023 0
Ni, Maximum Exceedence (0.5 mg/L)						0.0063 0			0.0185 0			0.0033 0	0.0185 0
Zn, Maximum Exceedence (0.5 mg/L)						0.142 0			0.301 0			0.342 0	0.342 0
Se, Maximum Exceedence (0.5 mg/L)						<0.001 0			<0.001 0			<0.001 0	<0.001 0

**Table 16 Continued: Labatt Breweries Newfoundland 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Ag, Maximum						<0.0001			<0.0001			<0.0001	<0.0001
Exceedence (0.05 mg/L)						0			0			0	0
TDS, Maximum						236			335			664	664
Exceedence (1000 mg/L)						0			0			0	0
Ammonia, Maximum						<0.05			<0.05			0.91	0.91
Exceedence (2.0mg/L)						0			0			0	0



**Table 17: Molson Coors Canada 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Weekly Samples	4	4	5	3	4	5	4	5	4	4	5	2	49
pH Maximum (Units)	9.92	9.98	9.62	10.4	6.45	7.64	7.73	10.8	11	9.28	10.8	7.72	11.0
pH Minimum (Units)	4.9	5.02	4.77	5.61	4.45	5.14	5.08	6.01	6.1	5.85	5.11	6.55	4.45
pH Violations (<5.5, >9.0)	2	4	2	1	2	1	1	2	1	1	3	0	20
BOD Maximum	860	5300	2600	840	1800	2000	1100	1100	930	1100	2200	1400	5300
BOD Violations (>300 mg/l)	4	4	4	2	4	5	4	4	4	4	4	2	45
TSS, Maximum	74	90	100	120	250	480	120	100	130	120	180	180	480
TSS Violations (>350 mg/l)	0	0	0	0	0	1	0	0	0	0	0	0	1
As, Maximum Exceedence (0.5 mg/L)			<0.001 0			<0.001 0			<0.001 0			0.0012 0	0.0012 0
Ba, Maximum Exceedence (0.5 mg/L)			0.0511 0			0.0103 0			0.0057 0			0.0138 0	0.0511 0
B, Maximum Exceedence (5.0 mg/L)			<0.05 0			<0.05 0			<0.05 0			<0.05 0	<0.05 0
Cd, Maximum Exceedence( 0.05 mg/L)			0.000257 0			0.000095 0			0.00004 0			0.000144 0	0.000257 0
Cr, Maximum Exceedence (1.0 mg/L Cr(III) Limit)			0.0063 0			0.0879 0			0.0121 0			0.0451 0	0.0879 0
Cu, Maximum Exceedence (0.3 mg/L)			0.0385 0			0.0765 0			0.0322 0			0.126 0	0.126 0
Fe, Maximum Exceedence (10 mg/L)			7.56 0			1.01 0			0.66 0			1.39 0	7.56 0
Pb, Maximum Exceedence( 0.2 mg/L)			0.00635 0			0.00408 0			0.0027 0			0.00118 0	0.00635 0
Hg, Maximum Exceedence (0.005 mg/L)			<0.000013 0			<0.000013 0			<0.000013 0			<0.000013 0	<0.000013 0
Ni, Maximum Exceedence (0.5 mg/L)			0.0115 0			0.0056 0			0.0035 0			0.0089 0	0.0115 0
Zn, Maximum Exceedence (0.5 mg/L)			0.332 0			0.726 1			0.345 0			1.31 1	1.31 2

**Table 17 Continued: Molson Coors Canada 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Se, Maximum			0.0014			<0.001			<0.001			<0.001	0.0014
Exceedence (0.5 mg/L)			0			0			0			0	0
Ag, Maximum			<0.0001			0.00024			<0.0001			<0.0001	<0.0001
Exceedence (0.05 mg/L)			0			0			0			0	0
TDS, Maximum			962			897			443			1490	1490
Exceedence (1000 mg/L)			0			0			0			1	1
Ammonia, Maximum			49			1.8			0.26			3.9	49
Exceedence (2.0mg/L)			1			0			0			1	2
Sulfide, Maximum			0.11						0.03			0.12	0.12
Exceedence (0.5 mg/L)			0						0			0	0
Phenol			0.17			0.04			0.06			0.4	0.4
Exceedence (0.1 mg/L)			1			0			0			1	2

**Table 18: Newfoundland Transshipment Terminal 2011 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
<b>Number of Samples</b>	1			1			1			1			4
TSS, Maximum	<1.6			<1.6			<1.6			<1.6			<1.6
TSS, Exceedence (>30)	0			0			0			0			0
pH, Maximum (units)	7.2			7.6			8			7.9			8.00
pH, Minimum (units)	7.2			7.6			8			7.9			7.2
pH, Exceedence (<5.5, >9.0)	0			0			0			0			0
TPH, Maximum	9.3			8.4			8.5			8			9.30
TPH, Exceedence (>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
<b>Number of Samples</b>	1			1			1			1			4
TSS, Maximum	<1.6			<1.6			<1.6			<1.6			<1.6
TSS, Exceedence (>30)	0			0			0			0			0
pH, Maximum (units)	7.8			7.7			8.1			7.9			8.10
pH, Minimum (units)	7.8			7.7			8.1			7.9			7.7
pH, Exceedence (<5.5, >9.0)	0			0			0			0			0
TPH, Maximum	10			10			11.9			10.2			11.90
TPH, Exceedence (>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
<b>Number of Samples</b>	1			1			1			1			4
TSS, Maximum	<1.6			<1.6			<1.6			<1.6			<1.6
TSS, Exceedence (>30)	0			0			0			0			0
pH, Maximum (units)	7.8			7.8			8			7.9			8.00
pH, Minimum (units)	7.8			7.8			8			7.9			7.8
pH, Exceedence (<5.5, >9.0)	0			0			0			0			0
TPH, Maximum	9.9			8.8			9.8			7.2			9.90
TPH, Exceedence (>15)	0			0			0			0			0

**Table 18 Continued: Newfoundland Transshipment Terminal 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

<b>Tank No. 4- Sump No. 4</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Year To Date</b>
<b>Number of Samples</b>	1			1			1			1			4
TSS, Maximum	3.1			1.6			<1.6			<1.6			3.1
TSS, Exceedence (>30)	0			0			0			0			0
pH, Maximum (units)	7.7			7.6			7.9			7.5			7.90
pH, Minimum (units)	7.7			7.6			7.9			7.5			7.5
pH, Exceedence (<5.5, >9.0)	0			0			0			0			0
TPH, Maximum	1.3			9			10.7			4.7			10.70
TPH, Exceedence (>15)	0			0			0			0			0

<b>Tank No. 5- Sump No. 5</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Year To Date</b>
<b>Number of Samples</b>	1			1			1			1			4
TSS, Maximum	<1.6			<1.6			<1.6			<1.6			<1.6
TSS, Exceedence (>30)	0			0			0			0			0
pH, Maximum (units)	7.5			7.4			7.7			7.4			7.7
pH, Minimum (units)	7.5			7.4			7.7			7.4			7.4
pH, Exceedence (<5.5, >9.0)	0			0			0			0			0
TPH, Maximum	6.7			11			10.2			5.8			11
TPH, Exceedence (>15)	0			0			0			0			0

<b>Tank No. 6- Sump No. 6</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Year To Date</b>
<b>Number of Samples</b>	1			1			1			1			4
TSS, Maximum	<1.6			<1.6			13.2			<1.6			13.2
TSS, Exceedence (>30)	0			0			0			0			0
pH, Maximum (units)	7.5			7.4			8.3			7.5			8.30
pH, Minimum (units)	7.5			7.4			8.3			7.5			7.4
pH, Exceedence (<5.5, >9.0)	0			0			0			0			0
TPH, Maximum	1.5			11			8.5			8.6			11
TPH, Exceedence (>15)	0			0			0			0			0

**Table 18 Continued: Newfoundland Transshipment Terminal 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

<b>Tank No. 7- Sump No. 7</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Year To Date</b>
<b>Number of Samples</b>	<b>1</b>			<b>1</b>			<b>1</b>			<b>1</b>			<b>4</b>
TSS, Maximum	2.4			2			2.5			<1.6			2.50
TSS, Exceedence (>30)	0			0			0			0			0
pH, Maximum (units)	7.8			8.1			7.8			8			8.10
pH, Minimum (units)	7.8			8.1			7.8			8			7.8
pH, Exceedence (<5.5, >9.0)	0			0			0			0			0
TPH, Maximum	9.9			4.5			6.5			13.5			13.5
TPH, Exceedence (>15)	0			0			0			0			0
<b>Containment Pond</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Year To Date</b>
<b>Number of Samples</b>					<b>1</b>					<b>1</b>			<b>2</b>
TSS, Maximum					<1.6					1.7			1.7
TSS, Exceedence (>30)					0					0			0
pH, Maximum (units)					7.2					6.7			7.20
pH, Minimum (units)					7.2					6.7			6.7
pH, Exceedence (<5.5, >9.0)					0					0			0
TPH, Maximum					7.7					7.6			7.7
TPH, Exceedence (>15)					0					0			0
ALT, Pass (RT)					1						1		2
ALT, Fail (RT)					0						0		0

**Table 18 Continued: Newfoundland Transshipment Terminal 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

Oily Water Separator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
<b>Number of Samples</b>					1				1				2
TSS, Maximum					<1.6				<1.6				<1.6
TSS, Exceedence (>30)					0				0				0
pH, Maximum (units)					6.6				7.3				7.30
pH, Minimum (units)					6.6				7.3				6.6
pH, Exceedence (<5.5, >9.0)					0				0				0
TPH, Maximum					8.3				9.4				9.4
TPH, Exceedence (>15)					0				0				0
TDS, Maximum					1308				1162				1308
TDS, Exceedence (>36000 mg/L)					0				0				0

**Table 19: Nutan Furs Inc. 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples							9	10					19
pH, Maximum (units)							7.90	8.00					8
pH, Minimum (units)							5.60	4.00					4.00
pH, Exceedence (<5.5, >9.0)							0	4					4
As, Maximum Exceedence (0.5 mg/L)							<0.04 0	<0.1 0					<0.1 0
Ba, Maximum Exceedence (0.5 mg/L)							<0.04 0	<0.1 0					<0.1 0
B, Maximum Exceedence (5.0 mg/L)							<0.01 0	0.15 0					0.15 0
Cd, Maximum Exceedence( 0.05 mg/L)							<0.001 0	<0.001 0					<0.001 0
Cr, Maximum Exceedence (1.0 mg/L Cr(III) Limit)							6.9 9	5.1 9					6.9 18
Chromium (VI), Maximum Exceedence (0.05 mg/L)							<0.025 0	<0.005 0					<0.025 0
Cu, Maximum Exceedence (0.3 mg/L)							1.01 3	0.45 1					1.01 4
Fe, Maximum Exceedence (10 mg/L)							1.9 0	1.7 0					1.9 0
Pb, Maximum Exceedence( 0.2 mg/L)							0.011 0	0.01 0					0.011 0
Hg, Maximum Exceedence (0.005 mg/L)							0.18 0	0.1 0					0.18 0
Ni, Maximum Exceedence (0.5 mg/L)							<0.1 0	<0.1 0					<0.1 0
Zn, Maximum Exceedence (0.5 mg/L)							0.28 0	0.16 0					0.28 0

**Table 19 Continued: Nutan Furs Inc. 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Se, Maximum Exceedence (0.5 mg/L)							<0.04 0	<0.1 0					<0.1 0
Ag, Maximum Exceedence (0.05 mg/L)							<0.004 0	<0.01 0					<0.01 0
TDS, Maximum Exceedence (1000 mg/L)							30100 2	33400 2					33400 4
TSS, Maximum Exceedence (30 mg/L)							617 7	332 8					617 15
BOD, Maximum Exceedence (20 mg/L)							6360 7	2640 8					6360 15
Ammonia, Maximum Exceedence (2.0mg/L)							340 2	56.9 1					340 3
Sulfide, Maximum Exceedence (0.5 mg/L)							0.19 0	0.54 0					0.54 0
Total Oil & Grease, Maximum Exceedence (15 mg/L)							2090 7	990 8					2090 15
Phenol Exceedence (0.1 mg/L)							1.1 2	0.5 2					1.1 4
Cyanide Exceedence (0.025mg/L)							0.028 1	0.018 0					0.028 1



**Table 20: Vale Newfoundland and Labrador Ltd. (Argentia) 2011 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			1	1			1	5
pH, Maximum (units)					6.96			7.04	7.33			7.23	7.33
pH, Minimum (units)					6.74								6.74
pH, Exceedence (<5.5, >9.0)					0			0	0			0	0
As, Maximum					<0.01			<0.001	<0.001			<0.001	<0.01
As, Exceedence (>0.5)					0			0	0			0	0
Cd, Maximum					<0.00017			0.000048	0.000037			0.000028	<0.00017
Cd, Exceedence (>0.05)					0			0	0			0	0
Cu, Maximum					0.022			0.0037	<0.002			<0.002	0.0037
Cu, Exceedence (>0.3)					0			0	0			0	0
Fe, Maximum					1.94			1.21	0.058			<0.05	1.94
Fe, Exceedence (> 10)					0			0	0			0	0
Pb, Maximum					<0.005			<0.0005	<0.0005			<0.0005	<0.005
Pb, Exceedence (>0.2)					0			0	0			0	0
Hg, Maximum					0.000018			<0.000013	<0.000013			<0.000013	0.000018
Hg, Exceedence (>0.005)					0			0	0			0	0
Ni, Maximum					0.274			0.296	0.294			0.251	0.296
Ni, Exceedence (>0.5)					0			0	0			0	0
Zn, Maximum					<0.05			<0.005	0.0115			0.0058	<0.05
Zn, Exceedence (>0.5)					0			0	0			0	0
Ammonia, Maximum					<0.05			<0.05	<0.05			<0.05	<0.05
Ammonia, Exceedence (>2)					0			0	0			0	0
Nitrate, Maximum					<0.05			0.05	<0.05			<0.05	0.05
Nitrate, Exceedence (>10)					0			0	0			0	0
TDS, Maximum					601			657	719			551	719
TDS, Exceedence (>1000)					0			0	0			0	0
TPH, Maximum					0.2			<0.1	<0.1			<0.1	0.2
TPH, Exceedence (>15)					0			0	0			0	0

**Table 20 Continued: Vale Newfoundland and Labrador Ltd. (Argentia) 2011 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					4			3	1			<1	4
TSS, Exceedence (>30)					0			0	0			0	0
ALT, Pass (RT)					2			1	1			1	5
ALT, Fail (RT)					0			0	0			0	0

**Table 21: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2011 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 2011- site inactive													
D2 - Plant Site Diversion Ditch North Discharge	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Samples	5	3	4	1	1	1	5	5	4	5	1	4	39
pH, Maximum (units)	7.70	7.40	7.20	6.94	8.06	7.50	7.83	7.73	7.98	7.56	7.78	7.65	8.06
pH, Minimum (units)	7.06	7.03	6.73				6.87	6.91	7.72	7.11		7.05	6.73
pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	0.0106	0.0108	0.0016	0.0013	0.0013	0.0035	0.0064	0.0028	0.0025	0.0041	0.001	0.0031	0.0108
As, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cu, Maximum	0.0091	0.0334	0.0033	0.0026	<0.002	0.005	0.0187	0.0084	0.0059	0.0095	0.0027	0.0063	0.0334
Cu, Exceedence (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pb, Maximum	0.0118	0.0935	0.00237	0.00284	0.00089	0.00411	0.0421	0.0138	0.00528	0.0172	0.00077	0.00701	0.0935
Pb, Exceedence (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Ni, Maximum	0.0035	0.0091	<0.002	<0.002	<0.002	<0.002	0.0037	0.271	<0.002	0.0021	<0.002	0.0029	0.271
Ni, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn, Maximum	0.133	0.0919	0.0487	0.0301	0.0282	0.053	0.0658	0.0471	0.0485	0.0566	0.0321	0.0475	0.133
Zn, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
TSS, Maximum	34	420	3	190	21	10	180	37	44	58	7	63	420
TSS, Exceedence (>30)	1	1	0	2	0	0	1	1	1	1	0	1	9
Ammonia, Maximum	0.15	0.18	0.1	<0.05	0.11	0.07	0.1	0.06	0.1	0.07	0.17	1.2	1.2
Ammonia, Exceedence (<2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cd, Maximum (ug/L)	2.1	0.397	0.144	0.082	0.064	0.091	0.196	0.225	0.087	0.148	0.058	0.224	2.1
Fe, Maximum	1.24	8.58	0.325	0.455	0.168	0.487	3.82	1.84	0.901	2.15	0.153	3.41	8.58
Hg, Maximum (ug/L)	0.24	<0.13	<0.013	<0.013	<0.013	<0.013	0.028	0.022	<0.013	<0.013	<0.013	<0.013	0.028
Nitrate, Maximum	12	7.2	4.6	1.2	4	2.1	2.9	2.7	2.1	2.3	2.2	1.7	12
Nitrate, Exceedence (>10)	1	0	0	0	0	0	0	0	0	0	0	0	1

**Table 21 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2011 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	5	4	4	1	1	1	5	5	2	5	1	4	38
pH, Maximum (units)	7.48	7.46	7.13	6.92	8.42	7.55	7.90	8.03	7.89	7.57	7.57	7.44	8.42
pH, Minimum (units)	6.90	6.86	6.68				7.15	7.07	7.33	7.21		6.94	6.68
pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	0.0042	0.0052	0.0026	0.0069	0.0023	0.0024	0.006	0.0048	0.0042	0.0073	0.0019	0.0029	0.0073
As, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cu, Maximum	0.0123	0.0124	0.0081	0.02	0.0054	0.0073	0.0158	0.0156	0.0132	0.0185	0.0048	0.0095	0.02
Cu, Exceedence (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pb, Maximum	0.0297	0.041	0.0163	0.0505	0.00845	0.00961	0.0393	0.034	0.0257	0.0426	0.00558	0.0178	0.0505
Pb, Exceedence (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Ni, Maximum	0.0025	0.0042	<0.002	0.0037	<0.002	<0.002	0.0049	0.0026	0.0027	0.0057	<0.002	<0.002	0.0057
Ni, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn, Maximum	0.0304	0.0379	0.0226	0.0325	0.0073	0.0119	0.0431	0.0304	0.0267	0.0482	0.0094	0.0235	0.0482
Zn, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
TSS, Maximum	54	220	20	15	6	6	190	50	30	57	9	19	220
TSS, Exceedence (>30)	2	1	0	0	0	0	2	1	0	1	0	0	7
Ammonia, Maximum	0.1	0.09	0.008	<0.05	0.05	<0.05	0.17	0.06	0.07	0.29	0.13	0.14	0.29
Ammonia, Exceedence (>2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cd, Maximum	0.317	0.264	0.236	0.235	0.103	0.137	0.279	0.243	0.221	0.248	0.093	0.168	0.317
Fe, Maximum	2.3	4.46	1.37	3.02	0.874	1.2	5.6	3.31	3.06	7.1	1.66	2.5	7.1
Hg, Maximum	0.033	<0.013	<0.013	<0.013	<0.013	0.018	0.033	0.033	0.017	0.017	0.015	0.013	0.033
Nitrate, Maximum	5.3	1.5	1.3	0.53	0.58	0.27	0.52	0.35	0.27	0.5	0.2	0.45	5.3
Nitrate, Exceedence (>10)	0	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 2011 - site inactive													

**Table 21 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2011 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	1	2	1	1	1	1	3	2	1	3	1	4	21
pH, Maximum (units)	6.78	6.89	6.90	6.90	7.19	7.39	7.62	7.03	7.27	7.40	7.40	7.40	7.62
pH, Minimum (units)		6.54					6.96	6.72		7.10		7.29	6.54
pH, Exceedence (<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	0.0017	0.0011	<0.001	0.0018	<0.001	<0.001	0.0018
As, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cu, Maximum	0.0027	0.002	<0.002	0.0036	<0.002	0.0029	0.0077	0.0026	<0.002	0.0106	<0.002	0.0028	0.0106
Cu, Exceedence (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pb, Maximum	0.00229	0.00181	0.00057	0.00334	0.00082	0.00167	0.00718	0.00407	<0.0005	0.0064	0.00051	0.00247	0.00718
Pb, Exceedence (>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	0.0031	<0.002	<0.002	0.0039	<0.002	<0.002	0.0039
Ni, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn, Maximum	0.0058	0.0068	<0.005	0.0065	<0.005	0.0088	0.0182	0.0086	0.0071	0.0239	<0.005	0.0082	0.0239
Zn, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
TSS, Maximum	6	27	1	7	4	4	36	7	3	18	1	8	36
TSS, Exceedence (>30)	0	0	0	0	0	0	1	0	0	0	0	0	1
Ammonia, Maximum	0.08	0.07	<0.05	<0.05	<0.05	0.06	0.21	0.12	0.1	0.08	0.1	0.26	0.26
Ammonia, Exceedence (>2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cd, Maximum (ug/L)	0.026	0.043	<0.017	0.024	<0.017	<0.017	0.056	0.068	0.019	0.054	<0.017	0.044	0.068
Fe, Maximum	0.75	1.16	0.438	1.4	0.58	0.896	3.5	3.42	0.475	5.08	0.36	1.16	5.08
Hg, Maximum (ug/L)	<0.013	<0.013	<0.013	<0.013	<0.013	0.014	0.022	0.017	<0.013	<0.013	<0.013	<0.013	0.022
Nitrate, Maximum	0.76	0.77	1.2	0.7	0.39	0.44	1.8	1	0.61	0.33	0.49	0.56	1.8
Nitrate, Exceedence (>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 2011 - site inactive													

**Table 21 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2011 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 2011 - site inactive													

D8	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2011 - site inactive													

D9	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2011 - site inactive													

D10	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2011 - site inactive													

D11 - Quarry 2 Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	5	5	5	4	4	5	5	5	4	5	2	4	53
pH, Maximum (units)	6.30	6.13	6.57	6.91	6.45	6.49	6.58	6.16	6.14	6.33	6.21	6.67	6.91
pH, Minimum (units)	5.45	5.64	5.79	6.04	5.73	6.00	5.20	5.87	5.62	6.01	6.20	6.48	5.2
pH, Exceedence (<5.5, >9.0)	2	0	0	0	0	0	0	0	0	0	0	0	2
As, Maximum	0.0015	0.0044	<0.001	0.0042	0.0016	<0.001	0.0036	0.001	<0.001	0.0023	<0.001	0.0021	0.0044
As, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cu, Maximum	0.0228	0.0204	0.0039	0.0203	0.0068	0.0051	0.0194	0.0055	0.0027	0.0117	0.0037	0.0099	0.0228
Cu, Exceedence (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pb, Maximum	0.00983	0.0341	0.00337	0.0241	0.00839	0.00406	0.0192	0.00524	0.001	0.0121	0.00257	0.017	0.0341
Pb, Exceedence (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Ni, Maximum	0.0022	0.0058	<0.002	0.0088	0.0029	0.004	0.0071	0.0032	0.0025	0.0042	<0.002	0.0032	0.0088
Ni, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn, Maximum	0.0204	0.0483	0.0112	0.0471	0.0192	0.0117	0.0456	0.0207	0.0199	0.0335	0.0097	0.0211	0.0483
Zn, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table 21 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2011 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	100	510	22	170	38	17	290	50	14	160	13	150	510
TSS, Exceedence (>30)	1	1	0	2	2	0	2	1	0	1	0	2	12
Ammonia, Maximum	0.12	0.11	0.22	0.08	0.07	2.8	1.5	2.3	1.2	0.24	0.35	2.5	2.8
Ammonia, Exceedence (>2)	0	0	0	0	0	1	0	0	0	0	0	0	1
Cd, Maximum (ug/L)	0.131	0.185	0.131	0.223	0.067	0.125	0.203	0.188	0.225	0.179	0.093	0.141	0.141
Fe, Maximum	2.86	10.6	2.18	12.5	2.61	1.46	10.5	3.03	0.51	6.31	0.75	3.88	12.5
Hg, Maximum (ug/L)	0.026	<0.013	<0.013	<0.013	<0.013	0.014	0.025	0.026	<0.013	<0.013	<0.013	<0.013	0.026
Nitrate, Maximum	24	18	11	11	12	25	19	23	21	13	7.5	5.9	25
Nitrate, Exceedence (>10)	4	2	1	1	1	5	2	5	4	2	0	0	27

D12 - Plant Site Runoff	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	3	2	4	1	1								11
pH, Maximum (units)	7.75	7.19	7.12	7.11	6.92								7.75
pH, Minimum (units)	6.74	6.92	6.91										6.74
pH, Exceedence (<5.5, >9.0)	0	0	0	0	0								0
As, Maximum	0.008	0.0107	0.0017	0.0015	0.0011								0.0107
As, Exceedence (>0.5)	0	0	0	0	0								0
Cu, Maximum	0.0055	0.031	0.0036	0.0027	<0.002								0.031
Cu, Exceedence (>0.3)	0	0	0	0	0								0
Pb, Maximum	0.00605	0.0986	0.00306	0.0029	0.00096								0.0986
Pb, Exceedence (>0.2)	0	0	0	0	0								0
Ni, Maximum	<0.002	0.0082	<0.002	<0.002	<0.002								0.0082
Ni, Exceedence (>0.5)	0	0	0	0	0								0
Zn, Maximum	0.102	0.0922	0.05	0.024	0.0339								0.102
Zn, Exceedence (>0.5)	0	0	0	0	0								0
TSS, Maximum	25	350	5	4	4								350
TSS, Exceedence (>30)	0	1	0	0	0								1
Ammonia, Maximum	0.11	0.18	0.08	<0.05	0.07								0.18
Ammonia, Exceedence (>2)	0	0	0	0	0								0

**Table 21 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

D12 - Plant Site Runoff	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Cd, Maximum (ug/L)	0.239	0.358	0.212	0.111	0.088								00358
Fe, Maximum	0.385	8.16	0.246	0.306	<0.05								8.16
Hg, Maximum ( ug/L)	<0.013	<0.013	<0.013	<0.013	<0.013								<0.013
Nitrate, Maximum	6.3	8.7	7.1	3.7	5.5								8.7
Nitrate, Exceedence (>10)	0	0	0	0	0								0

D13 - USM Site 2 Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	1	2	4	1	1	1	5	3	3	5	1	4	31
pH, Maximum (units)	5.84	6.11	6.08	6.15	6.06	6.55	6.69	7.20	6.71	6.56	6.46	6.38	7.2
pH, Minimum (units)		5.84	5.83				6.40	6.40	6.61	6.31		5.94	5.83
pH, Exceedence (<5.5,>9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
As, Maximum	<0.001	0.0011	<0.001	<0.001	<0.001	<0.001	0.0029	0.0018	0.0013	0.0012	<0.001	<0.001	0.0029
As, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cu, Maximum	0.0023	0.005	0.0032	<0.002	<0.002	<0.002	0.0055	0.0022	<0.002	0.0035	<0.002	0.003	0.0055
Cu, Exceedence (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pb, Maximum	0.00144	0.00582	0.0032	0.00082	<0.0005	<0.0005	0.00585	0.00087	0.00057	0.00383	<0.0005	0.00125	0.00585
Pb, Exceedence (>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, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn, Maximum	0.0082	0.0168	0.0077	<0.005	0.0064	0.0264	0.0166	0.0105	0.0109	0.0174	0.0051	0.009	0.0264
Zn, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
TSS, Maximum	6	59	7	7	4	<5	64	18	11	53	4	10	64
TSS, Exceedence (>30)	0	1	0	0	0	0	2	0	0	1	0	0	4
Ammonia, Maximum	<0.05	0.26	0.17	<0.05	0.12	0.07	0.45	0.39	0.29	0.72	0.45	1.1	1.1
Ammonia, Exceedence (>2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cd, Maximum (ug/L)	0.041	0.072	<0.08	0.018	0.041	<0.017	0.094	0.042	0.022	0.047	<0.017	0.029	0.094
Fe, Maximum	0.971	2.87	1.57	0.687	2.25	2.42	13.9	9.17	5.73	4.08	2.62	1.75	13.9
Hg, Maximum (ug/L)	<0.013	<0.013	<0.013	<0.013	0.013	0.013	0.03	0.029	0.013	<0.013	<0.013	<0.013	0.03



**Table 21 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2011 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
Nitrate, Maximum	2.7	6.4	7.9	0.51	0.53	0.23	0.25	0.57	0.34	0.44	0.16	0.53	7.9
Nitrate, Exceedence (>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 2011 - site inactive													

D15 - USM Site #1 Southwest Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	1	3											4
pH, Maximum (units)	6.43	7.85											7.85
pH, Minimum (units)		7.12											7.12
pH, Exceedence (<5.5, >9.0)	0	0											0
As, Maximum	<0.001	0.0111											0.0111
As, Exceedence (>0.5)	0	0											0
Cu, Maximum	0.0044	0.0358											0.0358
Cu, Exceedence (>0.3)	0	0											0
Pb, Maximum	0.0006	0.0548											0.0548
Pb, Exceedence (>0.2)	0	0											0
Ni, Maximum	<0.002	0.0257											0.0257
Ni, Exceedence (>0.5)	0	0											0
Zn, Maximum	<0.005	0.0942											0.0942
Zn, Exceedence (>0.5)	0	0											0
TSS, Maximum	2	460											460
TSS, Exceedence (>30)	0	3											3
Ammonia, Maximum	<0.05	0.14											0.14
Ammonia, Exceedence (>2)	0	0											0
Cd, Maximum (ug/L)	0.065	0.341											0.341
Fe, Maximum	0.444	10.7											10.7
Hg, Maximum (ug/L)	<0.013	0.024											0.024

**Table 21 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

D15 - USM Site #1 Southwest Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Nitrate, Maximum	1.1	0.69											1.1
Nitrate, Exceedence (>10)	0	0											0

  

D16	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2011 - site inactive													

  

D17	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2011 - site inactive													

  

D18 - EPCM Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	1	2	4	1	1	1			1			1	12
pH, Maximum (units)	6.33	6.49	6.45	6.21	6.71	6.73			7.16			6.24	7.16
pH, Minimum (units)		6.47	6.16										6.16
pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0			0			0	0
As, Maximum	0.0012	0.0037	<0.001	<0.001	<0.001	<0.001			<0.001			<0.001	0.0037
As, Exceedence (>0.5)	0	0	0	0	0	0			0			0	0
Cu, Maximum	0.0035	0.0102	0.0025	<0.002	<0.002	<0.002			<0.002			<0.002	0.0102
Cu, Exceedence (>0.3)	0	0	0	0	0	0			0			0	0
Pb, Maximum	0.00452	0.0218	0.00253	<0.0005	0.0013	0.0006			<0.0005			<0.0005	0.0218
Pb, Exceedence (>0.2)	0	0	0	0	0	0			0			0	0
Ni, Maximum	<0.002	0.0059	<0.002	<0.002	<0.002	<0.002			<0.002			<0.002	0.0059
Ni, Exceedence (>0.5)	0	0	0	0	0	0			0			0	0
Zn, Maximum	0.0116	0.0407	0.0302	0.0057	0.0357	0.0297			0.0561			0.0115	0.0561
Zn, Exceedence (>0.5)	0	0	0	0	0	0			0			0	0
TSS, Maximum	18	150	10	3	12	3			2			5	150
TSS, Exceedence (>30)	0	1	0	0	0	0			0			0	1
Ammonia, Maximum	<0.05	0.17	0.15	<0.05	0.06	0.07			0.13			0.08	0.17
Ammonia, Exceedence (>2)	0	0	0	0	0	0			0			0	0

**Table 21 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2011 Effluent Discharge Criteria Summary (mg/L, unless noted)**

D18 - EPCM Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Cd, Maximum (ug/L)	00041	0.13	<0.08	<0.017	0.026	0.023			<0.017			0.026	0.13
Fe, Maximum	1.96	7.86	1.01	0.308	0.522	0.381			0.221			0.339	7.86
Hg, Maximum (ug/L)	<0.013	<0.013	<0.013	<0.013	<0.013	0.014			<0.013			<0.013	0.014
Nitrate, Maximum	0.07	0.08	0.12	0.05	0.1	0.14			<0.05			<0.05	0.14
Nitrate, Exceedence (>10)	0	0	0	0	0	0			0			0	0

D19 - Quarry 3 Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Samples	5	2	4	1	1	1			1			1	16
pH, Maximum (units)	7.81	7.22	7.42	7.65	7.04	7.65			7.60			7.90	7.9
pH, Minimum (units)	7.11	7.07	7.06										7.06
pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0			0			0	0
As, Maximum	0.0026	0.0053	0.0013	0.0014	<0.001	0.0011			0.001			0.0014	0.0053
As, Exceedence (>0.5)	0	0	0	0	0	0			0			0	0
Cu, Maximum	0.0072	0.0149	0.0039	0.0034	0.0025	0.004			<0.002			0.0043	0.0149
Cu, Exceedence (>0.3)	0	0	0	0	0	0			0			0	0
Pb, Maximum	0.011	0.0343	0.00306	0.00371	0.00096	0.00122			0.00062			0.00239	0.0343
Pb, Exceedence (>0.2)	0	0	0	0	0	0			0			0	0
Ni, Maximum	<0.002	0.0039	<0.002	<0.002	<0.002	<0.002			<0.002			<0.002	0.0039
Ni, Exceedence (>0.5)	0	0	0	0	0	0			0			0	0
Zn, Maximum	0.0134	0.0224	<0.005	<0.005	0.0072	0.0079			0.0069			0.0054	0.0224
Zn, Exceedence (>0.5)	0	0	0	0	0	0			0			0	0
TSS, Maximum	15	100	3	6	5	1			2			4	100
TSS, Exceedence (>30)	0	1	0	0	0	0			0			0	1
Ammonia, Maximum	0.32	0.19	0.09	<0.05	0.06	0.11			0.32			0.24	0.32
Ammonia, Exceedence (>2)	0	0	0	0	0	0			0			0	0
Cd, Maximum (ug/L)	0.083	0.129	<0.08	0.032	0.043	0.06			<0.017			0.027	0.129
Fe, Maximum	0.685	2.82	0.198	0.303	0.093	0.15			0.507			0.111	2.82
Hg, Maximum (ug/L)	0.024	<0.013	<0.013	<0.013	<0.013	<0.013			<0.013			<0.013	0.024

**Table 21 Continued: Vale Newfoundland and Labrador Ltd. (Long Harbour) 2011 Effluent Discharge Criteria Summary** (mg/L, unless noted)

D19 - Quarry 3 Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Nitrate, Maximum	11	11	9.5	5.3	3.1	4.3			0.09			4.5	11
Nitrate, Exceedence (>10)	1	1	0	0	0	0			0			0	2

D20	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2011 - site inactive													

D21	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
No samples collected in 2011 - site inactive													

## **7) Exploration/Small Mining Ventures**

### **a) Tenacity Gold Mining Co. Ltd. (Stog'er Tight)**

Current COA            Approval #: AA10-075526  
                                 Issue date: July 19, 2010  
                                 Expiration: July 19, 2012

COA was issued in 2010 for this project. No effluent data was reported to NL ENVC.

### **b) Tenacity Gold Mining Co. Ltd. (Deer Cove)**

Current COA            Approval #: AA10-075527  
                                 Issue date: July 19, 2010  
                                 Expiration: July 19, 2012

COA was issued in 2010 for this project. No effluent data was reported to NL ENVC.

### **c) Golden Promise**

Current COA            Approval #: AA10-105539  
                                 Issue date: October 28, 2010  
                                 Expiration: October 28, 2011

COA was issued in 2010 for this project. No effluent data was reported to NL ENVC.

## 8) 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:

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## **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

TDS – Total Dissolved Solids

TIA – Tailings Impoundment Area

TIE – Toxicity Identification Evaluation

TPH – Total Petroleum Hydrocarbons

TSS – Total Suspended Solids