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By Licensing Administrator at 11:19 am, May 06, 2011

Tables

Table 1.1: List of Reporting Requirements

Authorization Reference	Reporting Requirement	Report Section
NWB 2AM- MEA0815 Schedule B-1	Construction Details for dikes and dams.	2.1
NWB 2AM- MEA0815 Schedule B-2	Results of lake level monitoring conducted under the protocol developed as per Part D Item 11.	3.1
NWB 2AM- MEA0815 Schedule B-3	Summary of reporting results for the Water Balance Water Quality model and any calibrations as required in Part E Items 6 and 7.	3.2
NWB 2AM- MEA0815 Schedule B-4	The bathymetric survey(s) conducted prior to each year of shipping at the Baker Lake Marshalling Facility.	3.3
NWB 2AM- MEA0815 Schedule B-5	Geochemical monitoring results.	4.1
NWB 2AM- MEA0815 Schedule B-6	Volumes of waste rock used in construction and placed in the Rock Storage Facilities.	4.2
NWB 2AM- MEA0815 Schedule B-7	An update on the remaining capacity of the Tailings Storage Facility.	4.3.1
NWB 2AM- MEA0815 Schedule B-8	Summary of quantities and analysis of seepage and runoff monitoring from the landfills.	7.5
NWB 2AM- MEA0815 Schedule B-9	A summary report of solid waste disposal activities including monthly and annual quantities in cubic metres of waste generated and location of disposal.	5.2
NWB 2AM- MEA0815 Schedule B-10	Report of Incinerator test results including the materials burned and the efficiency of the Incinerator as they relate to water and the deposit of waste into water.	5.3
NWB 2AM- MEA0815 Schedule B-11	A list and description of all unauthorized discharges including volumes, spill report line identification number and summaries of follow-up action taken.	6
NWB 2AM- MEA0815 Schedule B-12	A summary of modifications and/or major maintenance work carried out on all water and waste related structures and facilities.	10.1
NWB 2AM- MEA0815 Schedule B-13	The results and interpretation of the Monitoring Program in accordance with Part I and Schedule I.	7 Table 1.2
NWB 2AM- MEA0815 Schedule B-14	The results of monitoring under the AEMP.	7.1
NWB 2AM- MEA0815 Schedule B-15	Results of monitoring pursuant to the Fault Testing and Monitoring Plan (August 2007).	4.3.3
NWB 2AM- MEA0815 Schedule B-16	A summary of any progressive closure and reclamation work undertaken including photographic records of site conditions before and after completion of operations, and an outline of any work anticipated for the next year, including any changes to implementation and scheduling.	8.1.1
NWB 2AM- MEA0815 Schedule B-17	A summary of on-going field trials to determine effective capping thickness for the Tailings Storage Facility and Waste Rock Storage Facilities for the purpose of long term environmental protection.	4.3.4
NWB 2AM- MEA0815 Schedule B-18	An updated estimate of the current restoration liability based on project development monitoring, results of restoration research and any changes or modifications to the Appurtenant Undertaking.	8.2.1
NWB 2AM- MEA0815 Schedule B-19	A summary of any studies requested by the Board that relate to Waste disposal, Water use or Reclamation, and a brief description of any future studies planned.	9.1

Authorization Reference	Reporting Requirement	Report Section
NWB 2AM- MEA0815 Schedule B-20	Where applicable, revisions as Addendums, with an indication of where changes have been made, for Plans, Reports, and Manuals.	9.2
NWB 2AM- MEA0815 Schedule B-21	An executive summary in English, Inuktitut and French of all plans, reports, or studies conducted under this Licence.	9.3
NWB 2AM- MEA0815 Schedule B-22	A summary of actions taken to address concerns or deficiencies listed in the inspection reports and/or compliance reports filed by an Inspector.	10.2
NWB 2AM- MEA0815 Schedule B-23	A summary of public consultation and participation with local organizations and the residents of the nearby communities, including a schedule of upcoming community events and information sessions.	10.4
NWB 2AM- MEA0815 Schedule B-24	Any other details on Water use or Waste Disposal requested by the Board by November 1st of the year being reported.	3.5 / 5.4
NWB 2AM- MEA0815 Part E Item 8	The Licensee shall, on an annual basis during Operations, compare the predicted water quantity and quality within the pits, to the measured water quantity and quality.	3.4
NWB 2AM- MEA0815 Part I Item 14	The Licensee shall submit to the Board as part of the Annual Report required under Part B Item 5, all reports and performance evaluations prepared by the Independent Geotechnical Expert Review Panel.	2.1.2
NWB 2AM- MEA0815 Part I Item 16	The Licensee shall submit the results and interpretation of the Seepage Monitoring program.	7.8
DFO HADD NU-03- 0190 AWPAP Condition 5.2.4	Creel survey results.	7.16
DFO HADD NU-03- 0190 AWPAP Condition 5.3 / 6	Submit written report summarizing 2008 monitoring results and photographic record of works and undertakings.	7.7
DFO HADD NU-03- 0191 Mine Site Condition 6.1	Submit Written Report and Photographic Record summarizing monitoring program results.	7.10 / 7.15
INAC Land Lease 66A/8-71-2 Condition 19	The lessee shall submit to the Minister every two years after the commencement date of this lease, a report describing any variations from the Abandonment and Restoration Plan and updated cost estimates.	8.2.2
INAC Land Lease 66A/8-71-2 Condition 33	The lessee shall file annually a report for the preceding year, outlining ongoing restoration completed in conformity with the approved Abandonment and Restoration Plan, as well as any variations from the said Plan.	8.1.2
INAC Land Lease 66A/8-72-2 Condition 8	The lessee shall file a report, annually ... i. Quantity of material removed and location of removal, for the immediately preceding calendar year ii. Such other data as are reasonably required by the Minister from time to time.	2.2
INAC Land Lease 66A/8-72-2 Condition 25	The lessee shall file, annually, a report for the preceding year, outlining the ongoing borrow area operations completed in conformity with the approved Borrow Management Plan, as well as any variations from the Plan.	2.2
INAC Land Lease 66A/8-72-2 Condition 33	The lessee shall file annually a report for the preceding year, outlining ongoing restoration completed in conformity with C&R Plan, as well as any variations from the said Plan.	8.1.3

Authorization Reference	Reporting Requirement	Report Section
INAC Land Lease 66A/8-72-2 Condition 37	The lessee shall submit to the Minister every 2 years after the commencement date of this lease, a report describing cumulative variations from the C&R Plan with updated cost estimates.	8.2.2
KIA ROW KVRW06F04 Condition 14	Submit to KIA every two years on each anniversary of the commencement date, a report describing any variations from the Abandonment and Restoration Plan and updated cost estimates.	8.2.2
KIA ROW KVRW06F04 Condition 26	File annually a progress report for the preceding year, outlining any ongoing restoration completed, in conformity with the Abandonment and Restoration plan.	8.1.2
KIA ROW KVRW06F04 Schedule E - Condition 8	The lessee shall file annually a report for the preceding year, outlining the ongoing borrow area operations completed in conformity with the approved Borrow Management Plan, as well as any variations from the Plan.	2.2

Table 1.2: Summary of Sample Stations

NWB Station	Description	Phase	2010 Reporting Status
ST-DC-1 to TBD	Monitoring stations during DiKE Construction as defined in Part D Item 11	Construction	Sections 2.1.4 & Appendix A4
ST-DD-1 to TBD	Monitoring stations during DiKE Dewatering as defined in Part D Item 11	Construction	Section 7.2
ST-1	Water Intake for camp and mill	Construction, early operation, late operation, closure	Section 7.14
ST-2	Reclaim Water Intake	Construction, early operation, late operation, closure	Section 7.14
ST-3	Water Intake for Emulsion Plant	Construction, early operation, late operation, closure	Section 7.14
ST-4	Water reclaimed from Tailings Storage Facility	Early operation, late operation, closure	same as ST-2
ST-5	Portage Area (east) diversion ditch	Early operation, late operation, closure	Not Applicable in 2010 - not yet constructed
ST-6	Portage Area (west) diversion ditch	Early operation, late operation, closure	Not Applicable in 2010 - not yet constructed
ST-7	Vault Area diversion ditch	Early operation, late operation, closure	Not Applicable in 2010 - not yet constructed
ST-9	Portage Attenuation Pond prior to discharge through Third Portage Lake Outfall Diffuser	Early operation	Not Applicable in 2010 - Section 7.3
ST-10	Vault Attenuation Pond prior to discharge through Wally Lake Outfall Diffuser	Late operation	Not Applicable in 2010
ST-11	Tailings Storage Facility	Post closure	Not Applicable in 2010
ST-12	Portage/ Goose Pit Lake	Post closure	Not Applicable in 2010
ST-13	Vault Pit Lake	Post closure	Not Applicable in 2010

NWB Station	Description	Phase	2010 Reporting Status
ST-14 (TEH-11)	Discharge to the land from Landfarm sump at mine site	Pre-development, Construction, early operation, late operation, closure	Not Applicable in 2010 - Section 7.5
ST-15	Vault non-contact diversion ditch	Early operation, late operation, closure	Not Applicable in 2010 - not yet constructed
ST-16	Portage Rock Storage Facility	Early operation, late operation, closure	Not Applicable in 2010 - Section 7.4
ST-17**	North Portage Pit Sump	Early operation	Section 7.3
	Portage Pit Lake	Late operation, closure	Not Applicable in 2010
ST-18	Portage Attenuation Pond	Early operation	Not Applicable in 2010 - Section 7.3
ST-19**	Third Portage Pit Sump	Early operations	Not Applicable in 2010 - not yet constructed
	Third Portage Pit Lake	Late operations	Not Applicable in 2010
ST-20	Goose Island Pit Sump	Early operations	Not Applicable in 2010 - not yet constructed
	Goose Island Pit Lake	Late operations, closure	Not Applicable in 2010
ST-21	Tailings Reclaim Pond	Early operation (south of central dike), late operation (north of central dike)	Section 7.4
ST-22	Tailings Storage Facility	Late operation, closure	Not Applicable in 2010
ST-23	Vault Pit Sump	Late operations	Not Applicable in 2010
ST-24***	Vault Rock Storage Facility	Late operation	Not Applicable in 2010
		Closure (east ditch)	Not Applicable in 2010
		ST-24-A	
		Closure (west ditch)	Not Applicable in 2010
		ST-24-B	
ST-25	Vault Attenuation Pond	Late operation	Not Applicable in 2010
ST-26	Vault Pit Lake	Closure	Not Applicable in 2010

NWB Station	Description	Phase	2010 Reporting Status
ST-S-1 to TBD	Seeps (to be determined)	Construction, Early operations, late operations, closure	Section 7.8
ST-GW-1 to TBD	Groundwater wells (to be determined)	Construction, Early operations, late operations, closure	Section 7.9 & Appendix F4
ST-AEMP-1 to TBD	Receiving AEMP	Construction, Early operations, late operations, closure	Section 7.10 & Appendix F2
ST-MMER-1 to TBD	Vault and Portage effluent outfall	Early and late operations	Not Applicable in 2010 - not yet constructed
ST-27 and ST-28 (TEH-1 & TEH-2)	Water Intake for camp and concrete batch plant purposes	Pre-development, Construction	No Longer Applicable - mine in operations phase
ST-29 and ST-30 (TEH-3 & TEH-4)	Water, if any, accumulated in north and south pre-development zones	Pre-development	No Longer Applicable - mine in operations phase
ST-31 and ST-32 (TEH-5 & TEH-6)	Water pumped from north and south pre-development zones to Contact Water Collection System	Pre-development	No Longer Applicable - mine in operations phase
ST-33 and ST-34 (TEH-7 & TEH-8)	Contact Water Collection System Lakes #1 and #2	Pre-development, Construction	No Longer Applicable - mine in operations phase
ST-35 (TEH-9)	Discharge from Lake #1 of Contact Water Collection System (Stormwater Management Pond) to Second Portage Lake	Pre-development, Construction	No Longer Applicable - mine in operations phase
ST-36 (TEH-10)	Discharge from Lake #2 of Contact Water Collection System to Second Portage Lake	Pre-development, Construction	No Longer Applicable - mine in operations phase
ST-37 (MEA-1)	Water sample location at Baker Lake in close proximity to the construction facilities	Pre-development, construction, early operation, late operation, closure	Sections 7.6 & 7.10 & Appendix F2

NWB Station	Description	Phase	2010 Reporting Status
ST-38 (MEA-2)	East Contact Water Pond located in the south-east corner of the lay-down area	Pre-development, construction, early operation, late operation, closure	Not Applicable in 2010 - not yet constructed
ST-39 (MEA-3)	West Contact Collection Pond located in the south-west corner of the lay-down area	Pre-development, construction, early operation, late operation, closure	Not Applicable in 2010 - not yet constructed
ST-40 (MEA-4)	Secondary containment sump at the Bulk Fuel Storage Facility	Pre-development, construction, early operation, late operation, closure	Section 7.6
ST-41 (MEA-5)	Water sample location at the ammonium nitrate storage area	Pre-development, construction, early operation, late operation, closure	Not Applicable in 2010 - not yet constructed
ST-42 (MEA-6)	Water sample location at the explosive storage area	Pre-development, construction, early operation, late operation, closure	Not Applicable in 2010 - not yet constructed

Table 2.1: Routine Geotechnical Monitoring Program

Instrumentation	Dewatering Frequency	Operations Frequency
Piezometers	Daily	Daily
Slope Inclinator Casings	Weekly	Monthly
Thermistors	Weekly	Weekly changing to Monthly
Surface Monuments and Surface Prisms	Daily	Weekly changing to Monthly
Seismographs	During blasting at the Portage Pit adjacent to the dike	

Footnotes:

All the instrumentations are monitored by a qualified employee (technician or engineer) during dewatering and operation.

The data is treated, verified and reported to the Engineering Superintendent.

Table 3.1: 2010 Lake Level Monitoring

DATE	Dewatering	Difference (masl)	Discharge	
	Intake (masl)		Third Portage Lake (masl)	Second Portage Lake (masl)
1/1/2010	124.355			
1/1/2010	124.343	-0.012		
1/2/2010	124.309	-0.034		
1/3/2010	124.237	-0.072		
1/3/2010	124.233	-0.004		
1/4/2010	124.193	-0.040		
1/4/2010	124.179	-0.014		
1/5/2010	124.152	-0.027		
1/5/2010	124.140	-0.012		
1/6/2010	124.126	-0.014	133.62	
1/6/2010	124.128	0.002		
1/7/2010	124.108	-0.020		
1/7/2010	124.078	-0.030		
1/8/2010	124.065	-0.013		
1/8/2010	124.050	-0.015		
1/9/2010	124.036	-0.014		
1/9/2010	124.002	-0.034		
1/10/2010	123.988	-0.014		
1/10/2010	123.966	-0.022		
1/11/2010	123.956	-0.010		
1/11/2010	123.939	-0.017		
1/12/2010	123.927	-0.012		
1/12/2010	123.909	-0.018		
1/13/2010	123.883	-0.026	133.63	
1/13/2010	123.874	-0.009		
1/14/2010	123.850	-0.024		
1/14/2010	123.830	-0.020		
1/15/2010	123.801	-0.029		
1/15/2010	123.788	-0.013		
1/16/2010	123.764	-0.024		
1/17/2010	123.720	-0.044		
1/17/2010	123.711	-0.009		
1/18/2010	123.700	-0.011		
1/18/2010	123.697	-0.003		
1/19/2010	123.697	0.000		
1/19/2010	123.674	-0.023		
1/20/2010	123.647	-0.027		
1/20/2010	123.630	-0.017		
1/21/2010	123.594	-0.036		
1/21/2010	123.584	-0.010		
1/22/2010	123.552	-0.032		
1/22/2010	123.532	-0.020		
1/23/2010	123.499	-0.033		
1/23/2010	123.489	-0.010		
1/24/2010	123.470	-0.019		
1/24/2010	123.433	-0.037		

Table 3.1: 2010 Lake Level Monitoring

DATE	Dewatering	Difference (masl)	Discharge	
	Intake (masl)		Third Portage Lake (masl)	Second Portage Lake (masl)
1/25/2010	123.383	-0.050		
1/26/2010	123.298	-0.085		
1/27/2010	123.263	-0.035		
1/27/2010	123.240	-0.023		
1/28/2010	123.212	-0.028		
1/28/2010	123.159	-0.053		
1/29/2010	123.086	-0.073		
1/30/2010	123.002	-0.084		
2/1/2010	122.800	-0.202		
2/2/2010	122.769	-0.031		
2/3/2010	122.687	-0.082	133.64	
2/4/2010	122.590	-0.097		
2/5/2010	122.498	-0.092		
2/6/2010	122.398	-0.100		
2/7/2010	122.258	-0.140		
2/8/2010	122.146	-0.112		
2/9/2010	122.098	-0.048		
2/10/2010	121.997	-0.101	133.62	
2/11/2010	121.894	-0.103		
2/12/2010	121.837	-0.057		
2/13/2010	121.807	-0.030		
2/14/2010	121.736	-0.071		
2/14/2010	121.719	-0.017		
2/15/2010	121.655	-0.064		
2/15/2010	121.613	-0.042		
2/16/2010	121.544	-0.069		
2/16/2010	121.494	-0.050		
2/17/2010	121.489	-0.005		
2/17/2010	121.438	-0.051		
2/18/2010	121.382	-0.056		
2/19/2010	121.249	-0.133		
2/20/2010	121.204	-0.045		
2/21/2010	121.130	-0.074		
2/22/2010	121.018	-0.112		
2/23/2010	120.913	-0.105		
2/24/2010	120.818	-0.095	133.606	
2/27/2010	120.640	-0.178		
3/4/2010	120.378	-0.262		
3/5/2010	120.231	-0.147		
3/6/2010	120.136	-0.095		
3/7/2010	120.024	-0.112		
3/9/2010	119.809	-0.215		
3/10/2010	119.690	-0.119	133.62	
3/11/2010	119.548	-0.142		
3/12/2010	119.444	-0.104		
3/13/2010	119.332	-0.112		

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DATE	Dewatering	Difference (masl)	Discharge	
	Intake (masl)		Third Portage Lake (masl)	Second Portage Lake (masl)
3/14/2010	119.233	-0.099		
3/15/2010	119.092	-0.141		
3/16/2010	118.968	-0.124		
3/17/2010	118.841	-0.127		
3/19/2010	118.602	-0.239		
3/20/2010	118.457	-0.145		
3/21/2010	118.338	-0.119		
3/22/2010	118.233	-0.105		
3/23/2010	118.148	-0.085		
3/24/2010	118.048	-0.100	133.62	
3/26/2010	117.784	-0.264		
3/27/2010	117.643	-0.141		
3/28/2010	117.545	-0.098		
3/29/2010	117.466	-0.079		
3/31/2010	117.358	-0.108	133.60	
4/2/2010	117.139	-0.219		
4/3/2010	117.066	-0.073		
4/4/2010	116.933	-0.133		
4/5/2010	116.792	-0.141		
4/6/2010	116.64	-0.148		
4/7/2010	116.50	-0.144	133.62	
4/14/2010	115.96	-0.539		
4/15/2010	115.922	-0.039	133.615	
4/16/2010	115.901	-0.021		
4/18/2010	115.780	-0.121		
4/19/2010	115.838	0.058		
4/21/2010	115.694	-0.144	133.609	
4/22/2010	115.575	-0.119		
4/23/2010	115.483	-0.092		
4/24/2010	115.448	-0.035		
4/25/2010	115.318	-0.130		
4/26/2010	115.204	-0.114		
4/27/2010	115.076	-0.128		
4/28/2010	114.957	-0.119	133.591	
4/29/2010	114.771	-0.186		
4/30/2010	114.648	-0.123		
5/1/2010	114.457	-0.191		
5/2/2010	114.327	-0.130		
5/3/2010	114.167	-0.160		
5/4/2010	114.008	-0.159		
5/5/2010	113.850	-0.158	133.594	
5/6/2010	113.657	-0.193		
5/7/2010	113.504	-0.153		
5/9/2010	113.222	-0.282		
5/10/2010	113.066	-0.156		
5/11/2010	112.897	-0.169		

Table 3.1: 2010 Lake Level Monitoring

DATE	Dewatering		Discharge	
	Intake (masl)	Difference (masl)	Third Portage Lake (masl)	Second Portage Lake (masl)
5/12/2010	112.784	-0.113	133.62	
5/15/2010	112.568	-0.216		
5/16/2010	112.485	-0.083		
5/19/2010			133.603	
5/26/2010			133.591	
5/28/2010	112.04	-0.445		
5/29/2010	111.88	-0.160		
5/30/2010	111.78	-0.100		
5/31/2010	111.66	-0.120		
6/1/2010	111.56	-0.100		
6/2/2010	111.48	-0.080	133.573	
6/3/2010	111.41	-0.070		
6/4/2010	111.34	-0.070		
6/5/2010	111.34	0.000		
6/5/2010	111.33	-0.010		
6/6/2010	111.28	-0.050		
6/7/2010	111.18	-0.100		
6/8/2010	111.15	-0.030		
6/9/2010	111.05	-0.100	133.612	
6/10/2010	110.97	-0.080		
6/11/2010	110.99	0.020		
6/12/2010	111.13	0.139		132.843
6/13/2010	111.17	0.041		
6/14/2010	111.26	0.088		
6/15/2010	111.30	0.039		
6/16/2010	111.41	0.117	133.702	
6/17/2010	111.47	0.055		
6/18/2010	111.54	0.068		
6/19/2010	111.57	0.030		
6/20/2010	111.59	0.027		
6/21/2010	111.61	0.012		
6/22/2010	111.62	0.013		
6/23/2010	111.63	0.006	133.766	
6/24/2010	111.67	0.045		
6/25/2010	111.71	0.038		
6/25/2010	111.72	0.012		
6/26/2010	111.71	-0.015		
6/27/2010	111.68	-0.025		
6/28/2010	111.65	-0.030		
6/29/2010	111.61	-0.040		
6/30/2010	111.55	-0.060	133.79	
7/1/2010	111.50	-0.050		
7/2/2010	111.45	-0.050		
7/3/2010	111.44	-0.010		
7/4/2010	111.38	-0.060		
7/5/2010	111.37	-0.010		

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DATE	Dewatering	Difference (masl)	Discharge	
	Intake (masl)		Third Portage Lake (masl)	Second Portage Lake (masl)
7/6/2010	111.39	0.020		
7/7/2010	111.47	0.080	133.879	
7/8/2010	111.44	-0.027		
7/9/2010	111.40	-0.046		
7/10/2010	111.37	-0.025		
7/11/2010	111.31	-0.062		
7/12/2010	111.27	-0.040		
7/13/2010	111.24	-0.035		
7/14/2010	111.21	-0.030	133.866	
7/15/2010	111.17	-0.033		
7/16/2010	111.13	-0.044		
7/17/2010	111.06	-0.065		
7/18/2010	111.078	0.015		
7/19/2010	111.064	-0.014		
7/20/2010	111.059	-0.005		
7/21/2010	111.057	-0.002	133.814	133.12
7/22/2010	111.04	-0.021		
7/23/2010	111.07	0.035		
7/24/2010	111.09	0.014		
7/25/2010	111.07	-0.019		
7/26/2010	111.07	0.002		
7/27/2010	111.07	0.006		
7/28/2010	111.07	-0.007	133.8	
7/29/2010	111.06	-0.003		
7/30/2010	111.06	-0.003		
7/31/2010	111.05	-0.008		
8/1/2010	111.08	0.022		
8/2/2010	111.06	-0.017		
8/3/2010	111.022	-0.036		
8/4/2010	111.00	-0.020	133.75	
8/5/2010	110.94	-0.064		
8/6/2010	110.98	0.044		
8/7/2010	111.01	0.027		
8/8/2010	111.02	0.010		
8/9/2010	111.02	0.002		
8/10/2010	111.00	-0.017		
8/11/2010	110.93	-0.077	133.759	
8/12/2010	110.95	0.026		
8/13/2010	110.89	-0.066		
8/14/2010	110.83	-0.060		
8/15/2010	110.80	-0.028		
8/16/2010	110.78	-0.018		
8/17/2010	110.77	-0.009		
8/18/2010	110.86	0.088		
8/19/2010	110.91	0.050	133.71	
8/20/2010	110.91	-0.005		

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DATE	Dewatering	Difference (masl)	Discharge	
	Intake (masl)		Third Portage Lake (masl)	Second Portage Lake (masl)
8/21/2010	110.88	-0.022		
8/22/2010	110.86	-0.025		
8/23/2010	110.87	0.015		
8/24/2010	110.89	0.013		
8/25/2010	110.92	0.035		
8/26/2010	110.85	-0.071		
8/27/2010	110.81	-0.040		
8/28/2010	110.74	-0.070		
8/29/2010	110.71	-0.030	133.7	
8/30/2010	110.60	-0.110		
9/1/2010	110.53	-0.072	133.685	
9/2/2010	110.50	-0.032		
9/3/2010	110.47	-0.024		
9/4/2010	110.45	-0.019		
9/5/2010	110.40	-0.052		
9/6/2010	110.41	0.008		
9/7/2010	110.37	-0.037		
9/8/2010	110.36	-0.011	133.64	
9/9/2010	110.35	-0.012		
9/10/2010	110.35	0.002		
9/11/2010	110.34	-0.011		
9/12/2010	110.35	0.007		
9/13/2010	110.32	-0.029		
9/14/2010	110.34	0.022		
9/15/2010	110.33	-0.010	133.65	132.88
9/16/2010	110.30	-0.030		
9/17/2010	110.31	0.010		
9/18/2010	110.27	-0.040		
9/19/2010	110.25	-0.020		
9/20/2010	110.20	-0.050		
9/21/2010	110.18	-0.020		
9/22/2010	110.17	-0.010	133.64	
9/23/2010	110.13	-0.040		
9/24/2010	110.12	-0.010		
9/25/2010	110.13	0.010		
9/28/2010	110.19	0.061		
9/29/2010	110.24	0.047	133.61	
9/30/2010	110.27	0.032		
10/1/2010	110.32	0.051		
10/2/2010	110.34	0.022		
10/3/2010	110.37	0.022		
10/4/2010	110.38	0.013		
10/5/2010	110.43	0.056		
10/6/2010	110.48	0.048	133.62	
10/7/2010	110.54	0.061		
10/8/2010	110.59	0.049		

Table 3.1: 2010 Lake Level Monitoring

DATE	Dewatering	Difference (masl)	Discharge	
	Intake (masl)		Third Portage Lake (masl)	Second Portage Lake (masl)
10/9/2010	110.64	0.052		
10/10/2010	110.66	0.017		
10/11/2010	110.78	0.119		
10/12/2010	110.74	-0.040		
10/13/2010	110.77	0.030	133.63	
10/14/2010	110.79	0.020		
10/15/2010	110.81	0.020		
10/16/2010	110.77	-0.040		
10/17/2010	110.73	-0.040		
10/18/2010	110.68	-0.050		
10/19/2010	110.62	-0.060		
10/20/2010	110.59	-0.030	133.59	
10/21/2010	110.58	-0.010		
10/22/2010	110.56	-0.020		
10/23/2010	110.54	-0.020		
10/24/2010	110.52	-0.020		
10/25/2010	110.51	-0.010		
10/26/2010	110.48	-0.030		
10/27/2010	110.46	-0.020	133.61	
10/28/2010	110.45	-0.010		
10/29/2010	110.44	-0.010		
10/30/2010	110.43	-0.010		
10/31/2010	110.40	-0.030		
11/1/2010	110.40	0.000		
11/2/2010	110.41	0.008		
11/24/2010			133.60	
12/1/2010			133.59	
12/14/2010			133.60	
12/20/2010	109.78		133.59	
12/28/2010			133.65	

Table 4.1: 2010 Rock Volumes

	Portage Pit (tonnes)									Ore Processed in Mill (tonnes)
	Ore		Waste Rock							
	Dikes	Roads	Crushers	Waste Dump	Landfill	Stockpiles	Other	Total		
January	97,446	223,842	190,281	156,162	173,736	0	0	0	744,021	0
February	43,979	281,368	46,654	123,727	359,649	0	32,298	1,295	844,991	47,745
March	75,333	503,299	107,635	0	197,125	23,540	0	0	831,599	163,399
April	116,940	258,416	63,100	171,451	428,814	0	0	6,196	927,977	176,857
May	136,444	258,481	10,019	148,576	672,724	0	0	50,073	1,139,873	177,610
June	152,606	534,039	24,748	126,155	401,748	0	0	12,632	1,099,322	215,389
July	236,768	471,106	176,169	127,379	237,095	0	0	0	1,011,749	193,422
August	225,467	493,626	506,385	168,085	115,930	0	0	0	1,284,026	215,559
September	272,675	503,624	606,044	161,673	214,866	5,621	0	0	1,491,828	227,502
October	232,888	235,924	595,322	56,337	461,627	53,522	0	0	1,402,832	198,394
November	247,401	3,813	104,087	8,991	963,805	0	0	0	1,080,596	218,260
December	323,641	0	299,167	8,991	1,118,767	0	0	0	1,426,925	214,400
TOTAL	2,161,588	3,767,538	2,729,611	1,257,527	5,345,886	82,683	32,298	70,196	13,285,739	2,048,537

Table 4.2: 2010 Volume of Tailings Placed in the Tailings Storage Facility

	Tailings (tonnes)	Density of Tailings (% solid)	Density of Slurry (tonnes / m³)	Tailings Placed in TSF (m³)
January				0
February	47745	25%	1.20	39659
March	163399	28%	1.24	132243
April	176857	26%	1.21	145647
May	177610	28%	1.23	143823
June	215389	30%	1.25	172172
July	193422	34%	1.29	149412
August	215559	34%	1.30	165911
September	227502	35%	1.31	173635
October	198394	38%	1.34	147737
November	218260	35%	1.31	166505
December	214400	34%	1.30	165264
TOTAL				1,602,008

Table 5.1: 2010 Volume of Waste Transferred

Month	Volume of Waste Transferred to AEM Landfill (m³)	Volume of Waste sent to Incinerator (m³)
January	3720	233
February	3360	210
March	3720	233
April	3600	225
May	3720	233
June	3600	225
July	3720	233
August	3720	233
September	3600	225
October	3720	233
November	3600	225
December	3720	233
TOTAL	43,800	2,738

Table 5.2: 2010 Waste Oil Monitoring

Sample Location		Maximum Allowable Concentration	Incinerator	White coverall	Blue coverall	Incinerator	Incinerator	Incinerator
Date	Units		25-Apr-10	4-May-10	6-Jul-10	24-Aug-10	7-Sep-10	5-Oct-10
Cadmium	ppm	2	< 1	< 1	< 1	< 1	< 1	< 1
Chromium	ppm	10	2	< 1	< 1	< 1	< 1	3
Lead	ppm	100	< 5	< 5	< 5	< 5	< 5	< 5
PCB	ppm	2		< 3	< 3	3	< 3	< 3
Chlorine	ppm	1000	460		440	170	260	< 100
Flash point	°C	≥ 37.7	> 80	73	< 25	> 80	> 80	< 25

Footnotes: highlighted values are outside the criteria range

Sample Location		Maximum Allowable Concentration	Incinerator	Incinerator
Date	Units		29-Nov-10	7-Dec-10
Cadmium	ppm	2	< 1	< 1
Chromium	ppm	10	< 1	4
Lead	ppm	100	< 5	< 5
PCB	ppm	2	< 0.5	< 3
Chlorine	ppm	1000	1500	630
Flash point	°C	≥ 37.7	> 80	> 80

Footnotes: highlighted values are outside the criteria range

Table 6.1: 2010 Reported Spills

Date of Spill	Hazardous Material	Quantity	Location	Cause of spill	Clean-up action taken	Reported to Spill HotLine
2010-01-15	Hydraulic Oil	2 L	Dewatering pumps	Leak on cylinder	Absorbant pad placed underneath and material brought to hazmat area	N
2010-01-16	Diesel fuel	1177 L	AWR between the emulsion plant and mine	Blizzard and poor road conditions; tanker truck slipped off the road and rolled onto side	Sealed hatches; placed absorbent pads and bucket under the leaking valve; built a berm in case of a tanker rupture and pumped fuel into another tanker; contaminated snow removed and taken to the snow cells; contaminated soil removed and taken to Quarry 22	Y
2010-01-20	Antifreeze	4 L	Goose Island Shore	Hose was cut with a shovel	Remove contaminated snow and brought to snow cells	N
2010-01-23	Hydraulic oil	approximately 20 L	Near primary crusher	Hose broke on the Hyster container	Material collected with John Deere loader and taken to Quarry 22	N
2010-01-24	Hydraulic Oil	200 L	North Portage pit	Busted hose	Absorbant pads were placed to catch dripping hose and taken to hazmat area; contaminated soil was taken to Quarry 22	Y
2010-01-27	Oil	35 L	North Portage pit (pattern 5140136)	Broken engine	Absorbant pad place under engine; contaminated soil taken to Quarry 22 and absorbant pads taken to hazmat area	N
2010-01-27	Engine oil	8 L	North Portage pit (pattern 5140138)	Engine busted	Contaminated absorbent pads were disposed of at the HAZMAT area	N
2010-01-30	Hydraulic Oil	12 L	Overhead door "B" - Mill building	Hose broke due to extreme cold	Spill was contained; contaminated soil was removed and taken to Quarry 22	N

Date of Spill	Hazardous Material	Quantity	Location	Cause of spill	Clean-up action taken	Reported to Spill HotLine
2010-02-01	Anti-freeze	30 L	Between the main entrance of North Portage pit and the crush stone stockpile (Sana crusher site)	The grader broke a Preston hose	Contaminated soil removed and disposed of at Quarry 22	N
2010-02-06	Hydraulic oil	No estimate provided	Heavy equipment parking	Unknown	Contaminated soil removed and disposed of at Quarry 22	N
2010-02-08	Diesel fuel	20 L	Power house South side - Tank #630-TK-058	Refilling tank #58 valve sequence was not right	Placed absorbant pads under leak and pads were disposed of into Quatrex bags	N
2010-02-14	Hydraulic oil	approximately 240 L	South Portage pit	Hydraulic hose on the roc master drill broke	Absorbent pads were used to contain the spill and soil was cleaned up with a loader; pads were taken to the hazmat area and the contaminated soil was taken to Quarry 22.	Y
2010-02-20	Oil	No estimate provided	Cold storage	Unknown	Contaminated soil removed and disposed of at Quarry 22	N
2010-02-27	Hydraulic oil	No estimate provided	Truck shop	Unknown	Contaminated soil removed and disposed of at Quarry 22	N
2010-03-05	Diesel fuel	3 L	North Portage pit	Over filled tank	Removed contaminated soil and brought to hazmat area	N
2010-03-11	Oil	8 L	Outside the Dome	Broken hydraulic hose	Removed contaminated soil and brought to hazmat area	N
2010-03-17	Hydraulic oil	2 L	Bay Goose Dike	Broken hydraulic hose	Put down absorbent sheets; removed contaminated snow and brought to snow cells	N
2010-03-18	Transmission oil	0.5 L	Operation parking lot	Unplugged hose to the radiator	Put down absorbent sheets; removed contaminated snow and brought to snow cells	N

Date of Spill	Hazardous Material	Quantity	Location	Cause of spill	Clean-up action taken	Reported to Spill HotLine
2010-03-19	Leaching mud	No estimate provided	Leaching cell	Over flowed	Spill was contained in secondary containment berm; removed contaminated material and brought to hazmat area	N
2010-03-22	Jet-A-Fuel	< 50 L	Airport	Automatic vent failed to open; when it did the built up pressure caused the overflow	Put down absorbent sheets; removed contaminated snow and brought to snow cells	N
2010-04-03	Hydraulic oil	60 L	Bay Goose dike East Causeway	Broken hose	Contaminated soil taken to Quarry 22	N
2010-04-11	Hydraulic oil	20 L	Bay Goose dike Causeway	Broken hose	Removed contaminated snow and brought it to snow cells	N
2010-04-20	Oil	210 L	South Portage pit	Engine failure	Placed absorbent pads under engine; contaminated pads taken to hazmat area; contaminated soil taken to Quarry 22	Y
2010-04-21	Oil	700 L	Cold Storage	Fork lift pierced tub with fork	Contaminated absorbent pads taken to hazmat; contaminated rock taken to Quarry 22	N
2010-04-25	Diesel	15 L	Dewatering pumps	While moving tank with excavator the vent was broken	Lube truck removed remaining diesel in tank; placed absorbent pads on the ground; contaminated soil taken to Quarry 22 and contaminated absorbent pads taken to hazmat area	N
2010-04-28	Oil	210 L	South Portage pit	Engine failure	Placed absorbent pads under engine; contaminated soil taken to Quarry 22 and contaminated pads taken to hazmat area	Y

Date of Spill	Hazardous Material	Quantity	Location	Cause of spill	Clean-up action taken	Reported to Spill HotLine
2010-05-14	Oil	900 L	Seacan	Fork lift pierced tote with fork	Placed peat moss absorbent on ground; contaminated soil and contaminated peat moss taken to Quarry 22	Y
2010-05-26	Oil	approximately 30 L	Road between Service building and terminal pad	Broken hose on equipment	Contaminated soil taken to Quarry 22	N
2010-06-05	Fuel	45 gallons	Piping laydown	A drum fell	Contaminated soil was taken to Quarry 22	Y
2010-06-10	Hydraulic oil	50 L	Behind white coverall	A crane was parked for winter and slowly leaked the oil	Moved the crane; contaminated soil was taken to Quarry 22	N
2010-06-10	Fuel	Unknown small quantity	East dike	Leak from a secondary containment under a generator	Moved the generator and secondary containment (white coverall); contaminated soil was taken to Quarry 22	N
2010-06-12	Fuel	3 L	South side of the power plant	The genset fell from a block and fuel leaked out	Contaminated soil was taken to containment area box	N
2010-06-13	Oil	5 L	Heavy equipment parking lot	Leak from a broken drill	Contaminated soil was taken to Quarry 22	N
2010-07-03	Oil	22 L	Junction of Goose dike and Goose road	equipment vibration unscrewed an oil plug on a shovel	Contaminated soil was put in 3 drums and taken to Hazmat area	N
Unknown; Unreported spill	Oil	unknown	Nahanni shop (construction maintenance)	Maintenance on machine	Contaminated soil was put in drums and taken to Hazmat area	N
Unknown; Unreported spill	Oil	unknown	Heavy equipment parking lot	Maintenance on machine	Contaminated soil was put in drums and taken to Hazmat area	N
Unknown; Unreported spill	Gas	unknown	Refueling station	secondary containment for small pipe placed on uneven ground; consequently leaked	Ground beneath containment area leveled; contaminated soil was put in drums and taken to Hazmat area	N
Unknown; Unreported spill	Fuel	unknown	Emulsion plant	leaking pipe	Contaminated soil was taken to Quarry 22; pipe is scheduled for repair	N

Date of Spill	Hazardous Material	Quantity	Location	Cause of spill	Clean-up action taken	Reported to Spill HotLine
Unknown; Unreported spill	Drilling mud	unknown	Quarry	Cleaning drillers seacan	Contaminated soil was taken to Quarry 22	N
2010-07-09	Fuel	40 L	Bit shop near the Assay lab	Leak from Pick up truck (#7) fuel tank	Contaminated soil was put in drums and taken to Hazmat area	N
2010-07-10	Hydraulic Oil	10 L	Pipe Road near the airstrip	Broken hose	Contaminated soil was taken to Quarry 22	N
Unknown; Unreported spill	Oil	unknown	Between truck shop and Inukshuk statue	Maintenance on machine	Contaminated soil was taken to Quarry 22	N
2010-07-18	Oil	2 L	Nunamiut Hotel Parking lot	loose oil filter	Contaminated soil was taken to Quarry 6	N
2010-07-18	Oil	22 L	Quarry 3	Heavy equipment malfunction	Equipment repaired; contaminated soil was taken to Quarry 6	N
2010-07-18	Oil	5 L	AWPAR KM 34	Problem with compressor during transport from BL to MB	Contaminated soil was taken to Quarry 6	N
2010-07-29	Hydraulic Oil	40 L	Bay Goose dike	Hydraulic hose broke on a 777HTR	Contaminated soil was taken to Quarry 22	N
2010-07-30	Hydraulic Oil	25 L	Bay Goose dike	Hydraulic hose broke on a D9T	Contaminated soil was taken to Quarry 22	N
2010-07-29	Unknown, possibly glycol	20 L	AWPAR Km 31	Unknown	Next day, after the rain, spill was not visible	N
2010-08-03	Grease	20 L	Lay down row 6	2 drums fell to the ground when door opened to seacan	Remaining grease and contaminated soil taken to the Hazmat area	N
2010-08-03	Fuel	unknown	Emulsion plant	Leaking pipe	Contaminated soil was taken to Quarry 22; pipe is scheduled for repair	N
Unknown; Unreported spill	Oil	~ 20 to 30 L	North portage pit	Leak from the RH120	Contaminated soil was taken to Quarry 22	N
Unknown; Unreported spill	Fuel	unknown	TCG garage area	unknown	Contaminated soil was put in drums and taken to Hazmat area	N
Unknown; Unreported spill	Oil	unknown	Near the leaching tank and the power house	Equipment leak	Contaminated soil was put in drums and taken to Hazmat area	N
Unknown; Unreported spill	Oil	unknown	Heavy equipment parking lot	Equipment leak	Contaminated soil was put in drums and taken to Hazmat area	N

Date of Spill	Hazardous Material	Quantity	Location	Cause of spill	Clean-up action taken	Reported to Spill HotLine
Unknown; Unreported spill	Oil & Fuel	unknown	Construction garage yard	Equipment leak	Contaminated soil was put in drums and taken to Hazmat area	N
2010-08-07	Fuel	20 L	North portage pit	Fuel tank on haul truck punctured by rock	Spill was contained by a shovel bucket; fuel was transferred in pails to a tote and taken to Hazmat area; contaminated soil was taken to Quarry 22	N
2010-08-14	Oil	205 L	On the road between Baker Lake and Meadowbank	Drums damaged during transportation	Absorbent pads used to clean seacan; contaminated soil taken to Quarry 22	Y
2010-08-19	Fuel	80 L	North portage pit	Quick connect on fuel tank failed	Contaminated soil was taken to Quarry 22	N
2010-08-22	Hydraulic Oil	80 L	North portage pit	Hydraulic hose on loader broke	Contaminated soil was taken to Quarry 22	N
2010-08-28	Oil	1 L	Lay down row 5	Drums damaged during transportation	Contaminated soil was taken to Quarry 22	N
Since August 3, 2010	Fuel	5 drops/min	Emulsion plant	Broken gas line	The gas line was fixed; contaminated soil was taken to Quarry 22	N
2010-09-03	Oil	~ 5 to 10 L	North pit Crusher	Human Error	Contaminated soil was taken to Quarry 22	N
2010-09-03	Fuel	~ 5 to 10 L	Bay Goose Island	Human Error	Contaminated soil was taken to Quarry 22	N
2010-09-03	Oil & Grease & Fuel	~ 1 to 2 L	Emulsion plant	Equipment leak	Contaminated soil was taken to Quarry 22	N
Unknown; Unreported spill	Grease	~ 1 to 2 L	Fresh water barge parking lot	Equipment maintenance	Contaminated soil was taken to Quarry 22	N
Unknown; Unreported spill	Grease & Fuel	~ 5 to 10 L	Quarry 23	Equipment maintenance	Contaminated soil was taken to Quarry 22	N
Unknown; Unreported spill	Fuel & Oil	< 15L	New truck shop parking lot	Machinery leak	Contaminated soil was taken to Quarry 22	N
Unknown; Unreported spill	Fuel & Oil & Radiator fluid	< 15 L	Old construction parking lot	Leaking pick-up(s)	Contaminated soil was taken to Quarry 22	N
2010-09-05	Hydraulic oil	~ 20 to 30 L	In front of the cold storage	Equipment maintenance	Contaminated soil was taken to Quarry 22	N
2010-09-10	Oil	20 L	Lay down operation 7	Fork lift damaged tote	Absorbent pads used to clean area	N

Date of Spill	Hazardous Material	Quantity	Location	Cause of spill	Clean-up action taken	Reported to Spill HotLine
2010-09-14	Emulsifier N59-45	< 40L	Lay down transit	A small hole in the bottom of a drum caused a leak inside the seacan	Emptied the seacan and used absorbent pads to clean up spill	N
2010-10-06	Fuel	3 000 L	Km 22	Fuel truck went off the road	The ERT and environmental staff responded immediately. AEM contained the area with emergency berms and two ponds. Some fuel reached the stream but was contained and recovered with booms and peat. Fuel that was escaping from a hole in the tanker was directed to the ponds; the remaining fuel in the tanker was transferred to another holding tank. Contaminated soil (5,050 tons) was taken to Quarry 5. Contaminated water/oil in the ponds was recirculated and treated with an oil water separator. Follow up action will be completed in the spring after ice off.	Y
2010-10-11	Propylene glycol	1 800 L	Main Camp	One of the propylene glycol lines for the heat system broke in one of the rooms in wing 5. Glycol leaked on the ground underneath the camp.	The contaminated soil was removed and taken to Quarry 22.	Y

Date of Spill	Hazardous Material	Quantity	Location	Cause of spill	Clean-up action taken	Reported to Spill HotLine
2010-10-29	Fuel	200 L	Km 101	Fuel truck went off the road	Environmental staff responded immediately. AEM contained the area with peat moss and absorbents pads. All the fuel in the main tank was recovered. Contaminated soil was taken to Quarry 22.	Y
2010-11-08	Fuel	10 L	Emulsion plant	Leaking fuel line	Line fixed and contaminated snow taken to the snow cells	N
2010-11-12	Hydraulic oil	5-7 L	South pit	Mechanical pump failure	Absorbent pads placed under leak	N
2010-11-19	Hydraulic oil	20 L	Air strip hill	An oil filter came loose on a dozer	Contaminated soil taken to yellow bin at the Hazmat area; oil filter was tightened	N
2010-11-20	Hydraulic oil	30 L	South Portage pit	An oil filter came loose on a dozer	Contaminated soil was taken to yellow bin at Hazmat area; faulty 'O' ring replaced	N
2010-11-23	Hydraulic oil	30 L	Waste dump	Hydraulic oil hose broke on dozer #2	Contaminated soil was taken to yellow bin at Hazmat area	N
Unknown	Engine oil	30 L	Waste rock	RH-40 mechanical failure	Contaminated snow taken to the snow cells	N
Unknown	Hydraulic oil	20 L	Truck Shop	Hydraulic oil line failure	Contaminated snow taken to the snow cells	N
Unknown	Grease	40 L	Heavy equipment parking	Unknown	Contaminated snow taken to the snow cells	N
Unknown	Fuel	10 L	TSS plant	Unknown	Contaminated soil cleaned up and taken to Quarry # 22	N
2010-12-09	Hydraulic oil	4 L	South Portage Pit	Hydraulic oil hose broke	Absorbent pads placed under leak	N
2010-12-15	Glycol	80 L	Reclaim tunnel	Broken pipe	Absorbent pads placed under leak	N
2010-12-18	Coolant	1 L	Old kitchen	Broken radiator	Cleaned up with rags; contaminated soil taken to Hazmat area	N
2010-12-18	Hydraulic oil	50 L	South Portage Pit	Hydraulic oil hose broke	Contaminated soil taken to Hazmat area	N
2010-12-22	Hydraulic oil	300 L	South Portage Pit	Hydraulic oil hose broke	Blasted area; contaminated soil taken to Quarry 22	Y

Date of Spill	Hazardous Material	Quantity	Location	Cause of spill	Clean-up action taken	Reported to Spill HotLine
2010-12-26	Fuel and Oil	30 L	Km 18 AWP	Fuel tanker tipped to the side	Contaminated snow taken to the snow cells	N

Table 7.1: 2010 GPS Coordinates

Sample Description	Sample ID	GPS Coordinates Easting/Northing
<u>Dewatering northwest arm of Second Portage Lake</u>		
water quality monitoring at dewatering water treatment plant outlet (plants 1 and 2)	DD-WTP	14W 0637591 7215171
water quality monitoring in receiving environment - discharge area	DD-TPL	14W 0637022 7214994
lake level monitoring at dewatering intake	IN	14W 0638308 7214769
lake level monitoring in Second Portage Lake	SPL	14W 0637347 7213740
lake level monitoring in Third Portage Lake	TPL	14W 0639224 7213226
water quality monitoring of remaining water in area to be dewatered	DD-pond	14W 0638308 7214769
<u>MMER and EEM</u>		
effluent water quality monitoring and toxicity testing	DD-FD1	14W 0637591 7215171
water quality monitoring in receiving environment - discharge area	TPN	14W 0637022 7214994
water quality monitoring in receiving environment - reference area	TPS	14W 0633840 7208079
<u>Sewage Treatment Plant</u>		
STP discharge to stormwater management pond	STP-Out	14W 0638046 7214140
<u>Incinerator</u>		
ash sampling; stack testing; waste oil sampling	Incinerator	14W 0638193 7213406
<u>Baker Lake Bulk Fuel Storage Facility</u>		
water quality monitoring of discharge from fuel containment facility	BL-fuel	14W 0647534 7134776
<u>Meadowbank Bulk Fuel Storage Facilities</u>		
water quality monitoring of discharge from fuel containment facility	MB-fuel	14W 0638262 7213454
<u>Tailings Reclaim Pond</u>		
water quality monitoring	ST-21	14W 0637610 7215745

North Portage Pit

water quality monitoring from area of water accumulation

ST-17

14W 0638972 7214410

East Dike Seepage

water quality monitoring of seepage from East Dike - north location

EDS - north

14W 0639280 7214166

turbidity monitoring of seepage from East Dike - center location

EDS - center

14W 0639309 7214239

Blast Monitoring

PPV monitoring in Third Portage Lake - blasting in North Portage Pit

Portage (North)

14W 0639458 7214598

PPV monitoring in Third Portage Lake - blasting in South Portage Pit

Portage (South)

14W 0639350 7213663

Table 7.2: 2010 Dewatering Monitoring Program - Turbidity and TSS

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets				TPL - ENV	
	24-hour	Lab TSS	24-hour	Lab TSS	NTU 24-hour	TSS 24-hour	NTU 30-	TSS 30-	24-hour	Lab TSS
	Mean	mg/L	Mean	mg/L	Mean	Mean	day Mean	day Mean	Mean	mg/L
	NTU		NTU		NTU	mg/L	NTU	mg/L	NTU	
2010-01-01	1.8	7	7.4	12	4.6	10	4.4	10		
2010-01-02	2.3	7	3.2	3	2.8	5	4.4	10		
2010-01-03	3.2	14	3.7	2	3.4	8	4.4	10		
2010-01-04	3.1	3	2.9	1	3.0	2	4.4	9		
2010-01-05	Not in operation		2.0	1	2.0	1	4.3	9		
2010-01-06	Not in operation		5.1	2	5.1	2	4.4	8	2.8	<1
2010-01-07	Not in operation		4.2	2	4.2	2	4.4	8		
2010-01-08	Not in operation		3.4	8	3.4	8	4.4	8		
2010-01-09	2.8	3	3.0	3	2.9	3	4.4	8		
2010-01-10	Not in operation		4.0	8	4.0	8	4.4	8		
2010-01-11	Not in operation		3.2	5	3.2	5	4.4	7		
2010-01-12	Not in operation		3.1	4	3.1	4	4.4	6		
2010-01-13	Not in operation		4.0	8	4.0	8	4.4	6	1.1	<1
2010-01-14	Not in operation		3.1	2	3.1	2	4.3	5		
2010-01-15	3.1	2	3.7	3	3.4	3	4.3	5		
2010-01-16	3.2	4	3.1	4	3.1	4	4.1	5		
2010-01-17	4.4	4	3.0	3	3.7	4	4.1	5		
2010-01-18	Not in operation		Not in operation							
2010-01-19	3.1	3	3.2	3	3.2	3	4.0	5		
2010-01-20	3.1	3	2.5	4	2.8	4	3.9	4	0.8	1
2010-01-21	2.6	7	2.8	6	2.7	7	3.9	5		
2010-01-22	3.6	8	2.8	7	3.2	8	3.8	5		
2010-01-23	3.8	5	5.6	9	4.7	7	3.8	5		
2010-01-24	5.7	6	3.3	5	4.5	6	3.8	5		
2010-01-25	3.6	9	3.1	6	3.3	8	3.7	5		
2010-01-26	5.2	5	4.6	6	4.9	6	3.7	5		
2010-01-27	4.1	8	5.2	7	4.7	8	3.7	5		
2010-01-28	4.0	12	2.5	10	3.2	11	3.6	5	0.5	6
2010-01-29	3.6	8	3.0	6	3.3	7	3.6	5		
2010-01-30	3.3	3	3.8	3	3.5	3	3.5	5		
2010-01-31	Bad weather		Bad weather							

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets				TPL - ENV	
	24-hour	Lab TSS	24-hour	Lab TSS	NTU 24-hour	TSS 24-hour	NTU 30-day	TSS 30-day	24-hour	Lab TSS
	Mean NTU	mg/L	Mean NTU	mg/L	Mean NTU	Mean mg/L	Mean NTU	Mean mg/L	Mean NTU	mg/L
2010-02-01	4.7	6	2.2	3	3.4	5	3.5	5	0.6	<1
2010-02-02	3.2	18	2.5	13	2.9	16	3.5	5		
2010-02-03	2.4	2	2.0	3	2.2	3	3.5	5		
2010-02-04	3.9	NA	3.3	NA	3.6		3.5	5		
2010-02-05	5.8	6	7.2	4	6.5	5	3.6	5		
2010-02-06	2.8	13	2.5	9	2.6	11	3.6	6	0.5	<1
2010-02-07	3.3	6	2.2	1	2.8	4	3.5	6		
2010-02-08	3.1	1	2.4	3	2.7	2	3.5	6		
2010-02-09	11.8	12	5.1	7	8.4	10	3.7	6		
2010-02-10	6.0	17	3.9	9	5.0	13	3.7	6		
2010-02-11	5.8	12	3.9	2	4.9	7	3.8	6		
2010-02-12	5.4	2	4.4	3	4.9	3	3.8	6		
2010-02-13	7.2	4	5.1	4	6.2	4	3.9	6		
2010-02-14	Not in operation		Not in operation							
2010-02-15	6.5	11	4.8	4	5.6	8	4.0	6		
2010-02-16	6.3	6	5.8	13	6.0	10	4.1	6		
2010-02-17	7.9	7	11.9	10	9.9	9	4.3	6		
2010-02-18	6.7	5	7.6	6	7.1	6	4.4	7		
2010-02-19	3.6	2	Not in operation		3.6	2	4.4	6		
2010-02-20	6.4	6	4.5	7	5.4	7	4.5	7		
2010-02-21	9.6	6	8.2	8	8.9	7	4.7	7		
2010-02-22	6.9	4	6.5	4	6.7	4	4.8	7		
2010-02-23	3.6	4	4.7	2	4.1	3	4.9	6		
2010-02-24	6.5	2	6.0	4	6.3	3	4.9	6		
2010-02-25	4.6	4	3.8	4	4.2	4	4.9	6		
2010-02-26	3.8	6	3.8	4	3.8	5	4.9	6		
2010-02-27	Not in operation		Not in operation							
2010-02-28	Not in operation		Not in operation							

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets				TPL - ENV	
	24-hour	Lab TSS	24-hour	Lab TSS	NTU 24-hour	TSS 24-hour	NTU 30-day	TSS 30-day	24-hour	Lab TSS
	Mean NTU	mg/L	Mean NTU	mg/L	Mean NTU	Mean mg/L	Mean NTU	Mean mg/L	Mean NTU	mg/L
2010-03-01	7.5	7	14.8	16	11.2	12	5.1	6		
2010-03-02	3.7	3	4.7	22	4.2	13	5.1	7		
2010-03-03	2.7	3	3.1	8	2.9	6	5.1	6		
2010-03-04	4.2	3	5.0	5	4.6	4	5.1	6		
2010-03-05	4.0	4	6.5	9	5.2	7	5.2	6		
2010-03-06	8.2	8	Not in operation		8.2	8	5.4	7		
2010-03-07	Not in operation		7.2	5	7.2	5	5.5	6		
2010-03-08	2.8	8	10.2	20	6.5	14	5.6	7		
2010-03-09	3.3	2	8.1	15	5.7	9	5.7	7		
2010-03-10	3.4	5	4.0	7	3.7	6	5.6	7	0.5	2
2010-03-11	8.6	8	4.3	22	6.5	15	5.7	7		
2010-03-12	7.9	7	5.5	11	6.7	9	5.9	7		
2010-03-13	4.2	7	5.1	12	4.6	10	5.9	7		
2010-03-14	8.5	13	Not in operation		8.5	13	5.9	7		
2010-03-15	4.5	7	3.8	18	4.2	13	5.9	7		
2010-03-16	5.8	2	7.1	6	6.4	4	6.0	7		
2010-03-17	9.7	4	7.2	9	8.4	7	6.1	7	1.0	<1
2010-03-18	7.3	8	7.5	8	7.4	8	6.1	7		
2010-03-19	6.2	6	12.9	27	9.6	17	6.3	8		
2010-03-20	8.2	6	9.9	6	9.1	6	6.4	8		
2010-03-21	Not in operation		Not in operation							
2010-03-22	6.1	6	5.7	9	5.9	8	6.2	8		
2010-03-23	10.2	7	9.2	8	9.7	8	6.3	8		
2010-03-24	30.5	NA	6.8	NA	18.7		6.8	8	1.1	2
2010-03-25	4.7	3	5.6	2	5.1	3	6.8	8		
2010-03-26	6.2	9	7.2	18	6.7	14	6.7	8		
2010-03-27	6.6	8	4.1	8	5.4	8	6.7	8		
2010-03-28	5.6	6	4.2	16	4.9	11	6.7	8		
2010-03-29	3.4	4	4.5	4	4.0	4	6.6	8		
2010-03-30	Bad weather		Bad weather							
2010-03-31	Bad weather		Bad weather						2.6	7

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets				TPL - ENV	
	24-hour	Lab TSS	24-hour	Lab TSS	NTU 24-hour	TSS 24-hour	NTU 30-day	TSS 30-day	24-hour	Lab TSS
	Mean NTU	mg/L	Mean NTU	mg/L	Mean NTU	Mean mg/L	Mean NTU	Mean mg/L	Mean NTU	mg/L
2010-04-01	5.9	6	6.0	6	5.9	6	6.7	9	4.4	6
2010-04-02	4.1	6	3.8	4	4.0	5	6.7	9		
2010-04-03	4.0	3	3.6	2	3.8	3	6.4	8		
2010-04-04	7.5	6	6.3	6	6.9	6	6.5	8		
2010-04-05	6.1	8	6.4	9	6.3	9	6.6	8		
2010-04-06	6.6	7	4.3	8	5.4	8	6.7	8		
2010-04-07	5.5	8	6.8	9	6.2	9	6.7	8		
2010-04-08	Not in operation		Not in operation							
2010-04-09	Not in operation		Not in operation							
2010-04-10	11.2	11	5.0	4	8.1	8	6.7	8	0.8	2
2010-04-11	7.5	8	6.5	4	7.0	6	6.7	8		
2010-04-12	8.5	6	5.1	7	6.8	7	6.7	8		
2010-04-13	5.6	7	4.9	11	5.3	9	6.7	8		
2010-04-14	5.6	8	4.2	5	4.9	7	6.7	8		
2010-04-15	8.2	11	6.0	7	7.1	9	6.8	8		
2010-04-16	8.5	4	6.0	9	7.2	7	6.8	8		
2010-04-17	8.8	5	5.3	<1	7.1	5	6.9	8		
2010-04-18	5.8	5	11.6	9	8.7	7	6.9	7		
2010-04-19	6.5	5	6.9	7	6.7	6	6.9	7	0.4	<1
2010-04-20	8.6	4	7.6	2	8.1	3	7.0	7		
2010-04-21	6.5	4	6.6	4	6.6	4	6.9	7		
2010-04-22	6.7	4	6.7	6	6.7	5	6.9	7		
2010-04-23	Not in operation		Not in operation							
2010-04-24	8.2	10	6.7	10	7.4	10	6.8	7		
2010-04-25	7.1	13	5.8	22	6.4	18	6.8	7		
2010-04-26	8.1	7	6.9	16	7.5	12	6.8	7		
2010-04-27	6.4	10	6.7	2	6.6	6	6.7	7	2.7	18
2010-04-28	6.1	3	4.3	4	5.2	4	6.3	7		
2010-04-29	6.2	3	5.3	4	5.7	4	6.3	7		
2010-04-30	8.2	8	7.9	8	8.0	8	6.3	7		

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets				TPL - ENV			
	24-hour	Lab TSS	24-hour	Lab TSS	NTU 24-hour	TSS 24-hour	NTU 30-	TSS 30-	24-hour	Lab TSS		
	Mean		Mean		Mean	day Mean	day Mean	Mean				
	NTU	mg/L	NTU	mg/L	NTU	mg/L	NTU	mg/L	NTU	mg/L		
2010-05-01	5.8	7	5.7	5	5.8	6	6.3	7	5.6	8		
2010-05-02	6.7	6	9.8	9	8.3	8	6.4	7				
2010-05-03	6.7	6	6.9	8	6.8	7	6.5	7				
2010-05-04	9.1	5	8.8	8	8.9	7	6.6	7				
2010-05-05	6.7	3	6.1	3	6.4	3	6.7	7				
2010-05-06	4.9	4	4.4	2	4.7	3	6.7	7				
2010-05-07	6.2	5	5.4	5	5.8	5	6.7	7				
2010-05-08	6.1	4	5.2	7	5.7	6	6.7	7				
2010-05-09	2.3	1	1.5	2	1.9	2	6.6	6				
2010-05-10	8.7	8	8.1	6	8.4	7	6.7	6				
2010-05-11	7.0	6	12.2	14	9.6	10	6.7	7	1.0	<1		
2010-05-12	6.4	11	8.4	12	7.4	12	6.7	7				
2010-05-13	Bad weather		Bad weather		7.3	14	6.7	7				
2010-05-14	Bad weather		Bad weather									
2010-05-15	7.3	14	Not in operation									
2010-05-16	Not in operation		Not in operation									
2010-05-17	Not in operation		Not in operation									
2010-05-18	Not in operation		Not in operation		0.7	4						
2010-05-19	Not in operation		Not in operation									
2010-05-20	Not in operation		Not in operation									
2010-05-21	Not in operation		Not in operation									
2010-05-22	Not in operation		Not in operation									
2010-05-23	Not in operation		Not in operation									
2010-05-24	6.3	8	Not in operation				6.3	8	6.8	7		
2010-05-25	6.8	3	9.7	4			8.2	4	6.9	7		
2010-05-26	Not in operation		Not in operation				7.2	7	6.9	7	0.8	<1
2010-05-27	6.8	7	7.7	7								
2010-05-28	3.4	7	5.2	6								
2010-05-29	7.6	7	6.8	4								
2010-05-30	6.4	22	7.0	14								
2010-05-31	6.0	15	6.6	11	6.3	13	6.7	7				

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets				TPL - ENV	
	24-hour	Lab TSS	24-hour	Lab TSS	NTU 24-hour	TSS 24-hour	NTU 30-day	TSS 30-day	24-hour	Lab TSS
	Mean NTU	mg/L	Mean NTU	mg/L	Mean NTU	Mean mg/L	Mean NTU	Mean mg/L	Mean NTU	mg/L
2010-06-01	6.5	13	6.1	12	6.3	13	6.7	8	<0.1	1
2010-06-02	5.6	19	5.0	9	5.3	14	6.6	8		
2010-06-03	8.5	25	6.4	19	7.4	22	6.6	9		
2010-06-04	5.9	11	7.4	14	6.7	13	6.6	9		
2010-06-05	6.4	11	10.7	19	8.6	15	6.7	9	1.2	2
2010-06-06	5.2	8	5.3	11	5.2	10	6.6	9		
2010-06-07	Not in operation		Not in operation							
2010-06-08	8.7	10	9.0	20	8.9	15	6.7	9		
2010-06-09	9.8	14	9.7	20	9.8	17	6.8	9		
2010-06-10	8.6	13	7.7	18	8.1	16	6.9	10		
2010-06-11	6.2	11	3.6	15	4.9	13	6.8	10		
2010-06-12	Not in operation		7.6	15	7.6	15	6.9	10		
2010-06-13	Not in operation		9.0	18	9.0	18	6.9	10	0.6	2
2010-06-14	Not in operation		9.1	22	9.1	22	7.0	11		
2010-06-15	Not in operation		6.6	13	6.6	13	6.9	11		
2010-06-16	Not in operation		7.6	17	7.6	17	6.9	12		
2010-06-17	Not in operation		9.5	18	9.5	18	7.1	12		
2010-06-18	Not in operation		0.6	32	0.6	32	6.9	13		
2010-06-19	Not in operation		5.7	22	5.7	22	6.9	14		
2010-06-20	Not in operation		7.8	18	7.8	18	7.1	14	0.55	2
2010-06-21	Not in operation		5.6	12	5.6	12	7.0	14		
2010-06-22	Not in operation		8.2	13	8.2	13	7.0	14		
2010-06-23	Not in operation		9.6	13	9.6	13	7.1	14		
2010-06-24	Not in operation		7.7	11	7.7	11	7.1	14		
2010-06-25	Not in operation		8.0	13	8.0	13	7.1	14.6		
2010-06-26	Not in operation		9.2	13	9.2	13	7.2	14.9		
2010-06-27	Not in operation		12.1	19	12.1	19	7.3	15.3		
2010-06-28	Not in operation		9.1	12	9.1	12	7.5	15.5		
2010-06-29	Not in operation		6.9	NA	6.9		7.5			
2010-06-30	Not in operation		7.2	3	7.2	3	7.5	15.4		

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets				TPL - ENV	
	24-hour	Lab TSS	24-hour	Lab TSS	NTU 24-hour	TSS 24-hour	NTU 30-day	TSS 30-day	24-hour	Lab TSS
	Mean NTU	mg/L	Mean NTU	mg/L	Mean NTU	Mean mg/L	Mean NTU	Mean mg/L	Mean NTU	mg/L
2010-07-01	Not in operation		NA	NA						
2010-07-02	Not in operation		5.8	11	5.8	11	7.4	15.1		
2010-07-03	Not in operation		3.7	11	3.7	11	7.4	15.1		
2010-07-04	Not in operation		7.1	4	7.1	4	7.4	14.8		
2010-07-05	Not in operation		8.0	13	8.0	13	7.5	14.8		
2010-07-06	Not in operation		5.9	8	5.9	8	7.4	14.3		
2010-07-07	Not in operation		5.5	13	5.5	13	7.4	14.3	0.16	< 1
2010-07-08	Not in operation		7.1	16	7.1	16	7.3	14.3		
2010-07-09	Not in operation		Not in operation							
2010-07-10	Not in operation		7.1	14	7.1	14	7.4	14		
2010-07-11	Not in operation		5.6	6	5.6	6	7.3	14		
2010-07-12	Not in operation		4.8	4	4.8	4	7.1	14		
2010-07-13	Not in operation		5.0	8	5.0	8	7.0	14		
2010-07-14	Not in operation		3.5	2	3.5	2	7.0	13	0.19	< 1
2010-07-15	Not in operation		4.4	8	4.4	8	6.9	13		
2010-07-16	Not in operation		4.9	14	4.9	14	6.7	13		
2010-07-17	Not in operation		3.7	10	3.7	10	6.6	12		
2010-07-18	Not in operation		4.2	11	4.2	11	6.5	12		
2010-07-19	Not in operation		5.2	12	5.2	12	6.4	12		
2010-07-20	Not in operation		3.3	36	3.3	36	6.2	13		
2010-07-21	Not in operation		5.4	9	5.4	9	6.4	12		< 1
2010-07-22	Not in operation		4.7	9	4.7	9	6.3	12		
2010-07-23	Not in operation		3.0	1	3.0	1	6.2	11		
2010-07-24	Not in operation		2.3	5	2.3	5	6.1	11		
2010-07-25	Not in operation		2.7	6	2.7	6	5.9	11		
2010-07-26	Not in operation		2.4	4	2.4	4	5.7	10		
2010-07-27	Not in operation		5.0	10	5.0	10	5.6	10		
2010-07-28	Not in operation		5.9	11	5.9	11	5.5	10		
2010-07-29	Not in operation		Not in operation							
2010-07-30	Not in operation		7.0	14	7.0	14	5.4	10		
2010-07-31	Not in operation		7.3	14	7.3	14	5.3	10		

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets				TPL - ENV	
	24-hour	Lab TSS	24-hour	Lab TSS	NTU 24-hour	TSS 24-hour	NTU 30-day	TSS 30-day	24-hour	Lab TSS
	Mean NTU	mg/L	Mean NTU	mg/L	Mean NTU	Mean mg/L	Mean NTU	Mean mg/L	Mean NTU	mg/L
2010-08-01	Not in operation		4.44	13	4.4	13	5.1	10	1.00	1
2010-08-02	Not in operation		4.41	11	4.4	11	5.0	10		
2010-08-03	Not in operation		Not in operation							
2010-08-04	Not in operation		3.76	11	3.8	11	4.9	10		
2010-08-05	Not in operation		2.88	20	2.9	20	4.9	11		
2010-08-06	Not in operation		Not in operation							
2010-08-07	3.5	8	Not in operation		3.5	8	4.8	11		
2010-08-08	3.5	8	Not in operation		3.5	8	4.6	11		
2010-08-09	3.4	8	Not in operation		3.4	8	4.5	11		
2010-08-10	4.4	7	Not in operation		4.4	7	4.5	10		
2010-08-11	4.2	9	Not in operation		4.2	9	4.4	10		
2010-08-12	3.9	10	Not in operation		3.9	10	4.3	10		
2010-08-13	3.7	13	Not in operation		3.7	13	4.2	10		
2010-08-14	3.7	11	Not in operation		3.7	11	4.2	10		
2010-08-15	3.0	16	Not in operation		3.0	16	4.1	11		
2010-08-16	4.7	14	Not in operation		4.7	14	4.2	11		
2010-08-17	4.7	12	Not in operation		4.7	12	4.2	11		
2010-08-18	7.0	13	Not in operation		7.0	13	4.2	11		
2010-08-19	3.3	65	Not in operation		3.3	65	4.2	13		
2010-08-20	9.2	9	Not in operation		9.2	9	4.4	13		
2010-08-21	Not in operation		Not in operation							
2010-08-22	7.9	16	Not in operation		7.9	16	4.5	13		
2010-08-23	12.4	10	Not in operation		12.4	10	4.8	12		
2010-08-24	3.2	5	Not in operation		3.2	5	4.7	12	0.96	<1
2010-08-25	5.6	NA	Not in operation		5.6		4.7	12		
2010-08-26	9.7	15	Not in operation		9.7	15	5.0	13		
2010-08-27	7.6	12	Not in operation		7.6	12	5.1	13		
2010-08-28	4.6	7	Not in operation		4.6	7	5.2	13		
2010-08-29	4.0	12	Not in operation		4.0	12	5.3	13		
2010-08-30	7.3	10	Not in operation		7.3	10	5.3	13		
2010-08-31	7.0	11	Not in operation		7.0	11	5.4	13	0.18	2

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets				TPL - ENV	
	24-hour	Lab TSS	24-hour	Lab TSS	NTU 24-hour	TSS 24-hour	NTU 30-day	TSS 30-day	24-hour	Lab TSS
	Mean NTU	mg/L	Mean NTU	mg/L	Mean NTU	Mean mg/L	Mean NTU	Mean mg/L	Mean NTU	mg/L
2010-09-01	5.0	9	Not in operation		5.0	9	5.3	13		
2010-09-02	5.7	12	Not in operation		5.7	12	5.3	13		
2010-09-03	5.2	10	Not in operation		5.2	10	5.3	13		
2010-09-04	5.1	10	Not in operation		5.1	10	5.3	13		
2010-09-05	5.8	7	Not in operation		5.8	7	5.4	13		
2010-09-06	5.9	11	Not in operation		5.9	11	5.5	12		
2010-09-07	5.6	13	Not in operation		5.6	13	5.5	13		
2010-09-08	5.6	8	Not in operation		5.6	8	5.6	13	1.13	<1
2010-09-09	5.8	8	Not in operation		5.8	8	5.7	13		
2010-09-10	5.1	8	Not in operation		5.1	8	5.7	13		
2010-09-11	5.8	8	Not in operation		5.8	8	5.8	13		
2010-09-12	5.6	7	Not in operation		5.6	7	5.8	12		
2010-09-13	5.4	8	Not in operation		5.4	8	5.9	12		
2010-09-14	5.0	7	Not in operation		5.0	7	5.9	12		
2010-09-15	4.3	10	Not in operation		4.3	10	6.0	12	1.13	<1
2010-09-16	Not in operation		Not in operation							
2010-09-17	5.1	8	Not in operation		5.1	8	6.0	12		
2010-09-18	4.8	14	Not in operation		4.8	14	6.0	12		
2010-09-19	4.8	8	Not in operation		4.8	8	5.9	12		
2010-09-20	4.8	9	Not in operation		4.8	9	6.0	10		
2010-09-21	4.5	11	Not in operation		4.5	11	5.8	10		
2010-09-22	4.7	10	Not in operation		4.7	10	5.7	10	0.35	2
2010-09-23	4.6	11	Not in operation		4.6	11	5.4	10		
2010-09-24	4.4	12	Not in operation		4.4	12	5.5	10		
2010-09-25	Not in operation		Not in operation							
2010-09-26	Not in operation		Not in operation							
2010-09-27	Not in operation		Not in operation							
2010-09-28	Not in operation		Not in operation							
2010-09-29	Not in operation		Not in operation							
2010-09-30	Not in operation		Not in operation							

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets				TPL - ENV	
	24-hour	Lab TSS	24-hour	Lab TSS	NTU 24-hour	TSS 24-hour	NTU 30-day	TSS 30-day	24-hour	Lab TSS
	Mean NTU	mg/L	Mean NTU	mg/L	Mean NTU	Mean mg/L	Mean NTU	Mean mg/L	Mean NTU	mg/L
2010-10-01	Not in operation		Not in operation							
2010-10-02	Not in operation		Not in operation							
2010-10-03	Not in operation		Not in operation							
2010-10-04	Not in operation		Not in operation							
2010-10-05	Not in operation		Not in operation							
2010-10-06	Not in operation		Not in operation							
2010-10-07	Not in operation		Not in operation							
2010-10-08	Not in operation		Not in operation							
2010-10-09	Not in operation		Not in operation							
2010-10-10	Not in operation		Not in operation							
2010-10-11	Not in operation		Not in operation							
2010-10-12	Not in operation		Not in operation							
2010-10-13	Not in operation		Not in operation							
2010-10-14	Not in operation		Not in operation							
2010-10-15	Not in operation		Not in operation							
2010-10-16	5.9	5	Not in operation		5.9	5	5.5	10		
2010-10-17	3.9	10	Not in operation		3.9	10	5.3	10		
2010-10-18	5.8	6	Not in operation		5.8	6	5.2	9		
2010-10-19	6.6	4	Not in operation		6.6	4	5.3	9		
2010-10-20	5.9	4	Not in operation		5.9	4	5.4	9		
2010-10-21	5.4	9	Not in operation		5.4	9	5.3	9		
2010-10-22	5.3	7	Not in operation		5.3	7	5.3	9		
2010-10-23	6.4	5	Not in operation		6.4	5	5.3	9		
2010-10-24	6.1	3	Not in operation		6.1	3	5.3	8		
2010-10-25	6.3	2	Not in operation		6.3	2	5.3	8		
2010-10-26	3.5	4	Not in operation		3.5	4	5.3	8		
2010-10-27	4.8	3	Not in operation		4.8	3	5.3	8		
2010-10-28	4.8	5	Not in operation		4.8	5	5.2	8		
2010-10-29	5.1	6	Not in operation		5.1	6	5.2	7		
2010-10-30	5.5	2	Not in operation		5.5	2	5.2	7		
2010-10-31	5.5	3	Not in operation		5.5	3	5.2	7		

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets				TPL - ENV	
	24-hour	Lab TSS	24-hour	Lab TSS	NTU 24-hour	TSS 24-hour	NTU 30-day	TSS 30-day	24-hour	Lab TSS
	Mean NTU	mg/L	Mean NTU	mg/L	Mean NTU	Mean mg/L	Mean NTU	Mean mg/L	Mean NTU	mg/L
2010-11-01	4.3	3	Not in operation		4.3	3	5.2	7		
2010-11-02	10.3	NA	Not in operation		10.3		5.3			
2010-11-03	Not in operation		Not in operation							
2010-11-04	2.4	NA	Not in operation		2.4		5.2			
2010-11-05	5.0	2	Not in operation		5.0	2	5.2	7		
2010-11-06	4.0	1	Not in operation		4.0	1	5.2	6		
2010-11-07	3.6	4	Not in operation		3.6	4	5.1	6		
2010-11-08	3.3	1	Not in operation		3.3	1	5.1	6		
2010-11-09	3.3	1	Not in operation		3.3	1	5.0	5		
2010-11-10	3.2	1	Not in operation		3.2	1	5.0	5		
2010-11-11	3.7	1	Not in operation		3.7	1	4.9	5		
2010-11-12	3.8	1	Not in operation		3.8	1	4.9	5		
2010-11-13	4.2	2	Not in operation		4.2	2	4.9	4		
2010-11-14	3.7	1	Not in operation		3.7	1	4.9	4		
2010-11-15	2.7	1	Not in operation		2.7	1	4.8	3		
2010-11-16	2.7	3	Not in operation		2.7	3	4.7	3		
2010-11-17	Bad Weather		Not in operation							
2010-11-18	Pipes Frozen		Not in operation							
2010-11-19	Pipes Frozen		Not in operation							
2010-11-20	Pipes Frozen		Not in operation							
2010-11-21	Pipes Frozen		Not in operation							
2010-11-22	Pipes Frozen		Not in operation							
2010-11-23	Pipes Frozen		Not in operation							
2010-11-24	4.3	2	Not in operation		4.3	2	4.7	3	0.2	< 1
2010-11-25	3.1	3	Not in operation		3.1	3	4.6	3		
2010-11-26	Not in operation		Not in operation							
2010-11-27	Not in operation		Not in operation							
2010-11-28	3.6	4	Not in operation		3.6	4	4.5	3		
2010-11-29	2.8	1	Not in operation		2.8	1	4.4	3		
2010-11-30	2.9	2	Not in operation		2.9	2	4.3	3		

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets				TPL - ENV	
	24-hour	Lab TSS	24-hour	Lab TSS	NTU 24-hour	TSS 24-hour	NTU 30-day	TSS 30-day	24-hour	Lab TSS
	Mean NTU	mg/L	Mean NTU	mg/L	Mean NTU	Mean mg/L	Mean NTU	Mean mg/L	Mean NTU	mg/L
2010-12-01	3.8	2	Not in operation		3.8	2	4.3	2	4.1	< 1
2010-12-02	5.7	3	Not in operation		5.7	3	4.3	2		
2010-12-03	3.6	1	Not in operation		3.6	1	4.2	2		
2010-12-04	2.9	1	Not in operation		2.9	1	4.1	2		
2010-12-05	0.7	1	Not in operation		0.7	1	4.0	2		
2010-12-06	2.1	6	Not in operation		2.1	6	3.9	2		
2010-12-07	2.2	3	Not in operation		2.2	3	3.8	2		
2010-12-08	4.0	4	Not in operation		4.0	4	3.8	2	0.8	2
2010-12-09	2.3	7	Not in operation		2.3	7	3.7	2		
2010-12-10	1.3	9	Not in operation		1.3	9	3.5	3		
2010-12-11	1.6	5	Not in operation		1.6	5	3.4	3		
2010-12-12	1.5	7	Not in operation		1.5	7	3.1	3		
2010-12-13	3.5	12	Not in operation		3.5	12	3.2	3		
2010-12-14	1.4	10	Not in operation		1.4	10	3.0	3	0.4	7
2010-12-15	2.6	17	Not in operation		2.6	17	3.0	4		
2010-12-16	1.3	6	Not in operation		1.3	6	2.9	4		
2010-12-17	2.2	7	Not in operation		2.2	7	2.9	4		
2010-12-18	0.9	4	Not in operation		0.9	4	2.8	4		
2010-12-19	0.9	4	Not in operation		0.9	4	2.7	4		
2010-12-20	1.3	12	Not in operation		1.3	12	2.6	5		
2010-12-21	Not in operation		Not in operation						0.9	5
2010-12-22	1.7	4	Not in operation		1.7	4	2.6	5		
2010-12-23	1.6	4	Not in operation		1.6	4	2.5	5		
2010-12-24	3.2	3	Not in operation		3.2	3	2.5	5		
2010-12-25	1.7	2	Not in operation		1.7	2	2.4	5		
2010-12-26	1.1	3	Not in operation		1.1	3	2.4	5		
2010-12-27	1.1	3	Not in operation		1.1	3	2.3	5		
2010-12-28	0.6	4	Not in operation		0.6	4	2.2	5	1.0	< 1
2010-12-29	2.6	7	Not in operation		2.6	7	2.2	5		
2010-12-30	1.5	5	Not in operation		1.5	5	2.1	5		
2010-12-31	2.1	1	Not in operation		2.1	1	2.1	5		

Footnotes: highlighted values exceed license criteria

Table 7.3: 2010 Dewatering Monitoring Program - pH and Aluminum

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets		TPL - ENV
	pH units	Total Al mg/L	pH units	Total Al mg/L	pH 24-hour Mean units	Al 24-hour Mean mg/L	pH units
2010-01-04		0.464		0.323		0.394	
2010-01-11				0.202		0.202	
2010-01-19	7.05	0.433	7.07	0.472	7.06	0.453	
2010-01-20							7.25
2010-01-27	7.27	0.735	7.26	0.721	7.27	0.728	
2010-01-28							6.75
2010-02-02	7.28	0.835	7.26	0.427	7.27	0.631	
2010-02-08	7.33	0.467	7.27	0.454	7.30	0.461	
2010-02-15	7.41		7.42		7.42		
2010-02-17	7.29	0.455	7.25	0.628	7.27	0.542	
2010-02-22	7.00	0.299	7.06	0.341	7.03	0.320	
2010-03-01	6.95	0.416	7.03	0.580	6.99	0.498	
2010-03-08	7.03	0.306	7.09	0.836	7.06	0.571	
2010-03-10							6.83
2010-03-15	7.51	0.318	7.44	0.724	7.48	0.521	
2010-03-17							6.71
2010-03-22	7.15	0.388	7.05	0.535	7.10	0.462	
2010-03-24							6.63
2010-03-29	7.21	0.445	7.17	0.589	7.19	0.517	
2010-03-31							7.79
2010-04-05	8.28	0.278	7.86	0.606	8.07	0.442	
2010-04-07							6.78
2010-04-12	7.00	0.524	6.95	0.586	6.98	0.555	
2010-04-15							6.87
2010-04-20	6.95	0.480	7.04	0.487	7.00	0.484	
2010-04-21							6.64
2010-04-26	7.17	0.771	7.18	0.727	7.18	0.749	
2010-04-28							7.78
2010-05-03	7.47	0.440	7.16	0.387	7.32	0.414	
2010-05-05							5.83

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets		TPL - ENV
	pH units	Total Al mg/L	pH units	Total Al mg/L	pH 24-hour Mean units	Al 24-hour Mean mg/L	pH units
2010-05-10	7.00	0.554	7.05	0.478	7.03	0.516	6.94 6.54 6.57
2010-05-12							
2010-05-19							
2010-05-24	7.09	0.814			7.09	0.814	
2010-05-26							
2010-05-28	6.91		6.92		6.92		
2010-05-29	6.89				6.89		
2010-05-30	6.94		7.01		6.98		
2010-05-31	6.90	0.369	6.94	0.380	6.92	0.375	
2010-06-02		1.31		1.10		1.21	6.43
2010-06-09							8.17
2010-06-14			6.54	1.06	6.54	1.06	6.45
2010-06-16							
2010-06-21				0.687		0.687	
2010-06-28			6.68	1.000	6.68	1.000	
2010-07-05			7.23	0.483	7.23	0.483	6.52 6.27 5.43
2010-07-07							
2010-07-12			6.88	0.418	6.88	0.418	
2010-07-14							
2010-07-19			5.93	0.251	5.93	0.251	
2010-07-21							
2010-07-26			6.07	0.880	6.07	0.880	6.51 6.89 6.36 6.91
2010-08-02			6.50	0.682	6.50	0.682	
2010-08-09	6.53	1.15			6.53	1.150	
2010-08-10							
2010-08-16	7.79	0.867			7.79	0.867	
2010-08-19							
2010-08-24	7.21	0.370			7.21	0.370	
2010-08-25							
2010-08-30	6.41	0.624			6.41	0.624	
2010-08-31							
2010-09-06	6.63	1.20			6.63	1.20	

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets		TPL - ENV
	pH units	Total Al mg/L	pH units	Total Al mg/L	pH 24-hour Mean units	Al 24-hour Mean mg/L	pH units
2010-09-08	6.37				6.37		6.92
2010-09-13	6.59	1.10			6.59	1.10	
2010-09-15	6.44				6.44		6.74
2010-09-20	6.64	1.25			6.64	1.25	
2010-09-22	6.55				6.55		
2010-10-18	6.75	0.41			6.75	0.41	
2010-10-25		1.04				1.04	
2010-11-01	6.30	0.93			6.30	0.93	
2010-11-08	6.45	0.65			6.45	0.65	
2010-11-15	6.59	0.62			6.59	0.62	
2010-11-24	6.55	0.68			6.55	0.68	6.70
2010-11-29	6.67	0.58			6.67		
2010-12-01	6.70				6.70		6.72
2010-12-06	6.68	0.89			6.68	0.89	
2010-12-07	6.62				6.62		
2010-12-08	6.61				6.61		6.45
2010-12-13	6.71	0.60			6.71	0.60	
2010-12-14	6.56				6.56		6.67
2010-12-15	6.44				6.44		
2010-12-20	6.57	0.68			6.57	0.68	
2010-12-21							6.95
2010-12-28	6.82	0.53			6.82	0.53	7.07

Footnotes: highlighted values exceed license criteria

Table 7.4: 2010 Water Quality of Dewatering Impoundment Area

	Units	14-Sep-10
pH	Units	7.08
Turbidity	NTU	134
Total Dissolved Solids	mg/L	118
Alkalinity	mg CaCO ₃ /L	31
Ammonia	mg N/L	2
Arsenic	mg/L	0.0046
Copper	mg/L	0.0079
Lead	mg/L	0.0008
Nickel	mg/L	0.0129
Zinc	mg/L	0.014
pH	Units	7.07
Alkalinity	mg CaCO ₃ /L	31
Turbidity	NTU	138
Hardness	mg CaCO ₃ /L	61
Ammonia (NH ₃ -NH ₄)	mg/L	1
Nitrate (NO ₃)	mg N/L	0.8
Nitrite (NO ₂)	mg N/L	0.09
Chloride	mg/L	4.6
Fluoride	mg/L	0.25
Sulphate (SO ₄ -2)	mg/L	39
Total Dissolved Solids	mg/L	115
Dissolved Aluminum	mg/L	0.1
Dissolved Arsenic	mg/L	< 0.005
Dissolved Barium	mg/L	0.025
Dissolved Cadmium	mg/L	< 0.005
Dissolved Copper	mg/L	< 0.005
Dissolved Iron	mg/L	< 0.05
Dissolved Lead	mg/L	0.009
Dissolved Manganese	mg/L	0.126
Dissolved Mercury	mg/L	< 0.0005
Dissolved Molybdenum	mg/L	< 0.01
Dissolved Nickel	mg/L	0.007
Dissolved Selenium	mg/L	< 0.005
Dissolved Silver	mg/L	< 0.005
Dissolved Thallium	mg/L	< 0.01
Dissolved Zinc	mg/L	0.007

Table 7.5: 2010 North Portage Pit Sump (ST-17)

	Units	25-Jul-10
pH	Units	7.6
Turbidity	NTU	88.6
Total Dissolved Solids	mg/L	646
Alkalinity	mg CaCO ₃ /L	124
Ammonia	mg N/L	2.9
Arsenic	mg/L	0.0165
Copper	mg/L	0.0189
Lead	mg/L	<0.0003
Nickel	mg/L	0.0729
Zinc	mg/L	<0.001

Table 7.6: 2010 Tailings Reclaim Pond (ST-21)

	Units	20-Jul-10	31-Jul-10	9-Aug-10	16-Aug-10
pH	Units	7.12	7.63	7.34	7.47
Alkalinity	mg CaCO ₃ /L	50	63	55	58
Turbidity	NTU	7.7	1.8		
Hardness	mg CaCO ₃ /L	482	381		
Ammonia (NH ₃ -NH ₄)	mg/L	23.8	27.5		
Nitrate (NO ₃)	mg/L		3.5		
Nitrite (NO ₂)	mg/L		0.09		
Nitrite - Nitrate	mg/L	3.4			
Chloride	mg/L	208	264		
Fluoride	mg/L	0.5	0.4		
Sulphate	mg/L	1181	800		
Total Dissolved Solids	mg/L	1369	1178		
Cyanide (total)	mg/L	0.57	0.136		0.475
Dissolved Aluminum	mg/L	< 0.01	< 0.01	< 0.01	0.03
Dissolved Arsenic	mg/L	0.044	0.143	0.152	0.087
Dissolved Barium	mg/L	0.025	0.022	0.026	0.02
Dissolved Cadmium	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Dissolved Copper	mg/L	2.41	2.16	2.12	1.07
Dissolved Iron	mg/L	0.09	0.28	0.11	0.3
Dissolved Lead	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Dissolved Manganese	mg/L	0.184	0.1	0.063	0.045
Dissolved Mercury	mg/L	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Dissolved Molybdenum	mg/L	0.061	0.072	0.064	0.073
Dissolved Nickel	mg/L	0.121	0.05	0.043	0.026
Dissolved Selenium	mg/L	0.01	0.009	0.008	< 0.005
Dissolved Silver	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Dissolved Thallium	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Dissolved Zinc	mg/L	0.012	0.01	< 0.005	0.005
Aluminum	mg/L	0.146	0.1		0.24
Arsenic	mg/L	0.0716	0.174		0.1057
Barium	mg/L	0.0234	0.0206		0.0201
Cadmium	mg/L	< 0.00008	0.00013		0.00011
Copper	mg/L	2.31	1.89		1.431
Iron	mg/L	0.47	< 0.01		0.83
Lead	mg/L	< 0.0003	< 0.0003		0.0014
Manganese	mg/L	0.1856	0.0869		0.0488
Mercury	mg/L	0.00024	0.00027		0.00028
Molybdenum	mg/L	0.0585	0.07		0.0733
Nickel	mg/L	0.1233	0.0557		0.0294
Selenium	mg/L	0.006	0.006		0.007
Silver	mg/L	0.0032	0.0043		0.0045
Thallium	mg/L		< 0.01		< 0.01
Zinc	mg/L	0.004	0.002		0.005

	Units	18-Aug-10	24-Aug-10	14-Sep-10	20-Sep-10	21-Oct-10
pH	Units	7.6	7.4	7.56		7.81
Alkalinity	mg CaCO ₃ /L	58	61	73		79
Turbidity	NTU	17.5	2.6	4		
Hardness	mg CaCO ₃ /L	565	611	728		713
Ammonia (NH ₃ -NH ₄)	mg/L	24.8	13.7	33.8		33.1
Nitrate (NO ₃)	mg/L	3.9	3.9	3.8		
Nitrite (NO ₂)	mg/L	0.12	0.11	0.12		
Nitrite - Nitrate	mg/L					
Chloride	mg/L	294	281	338		
Fluoride	mg/L	0.5	0.54	0.64		
Sulphate	mg/L	1380	1003	1255		
Total Dissolved Solids	mg/L	1180	1012	1190		1443
Cyanide (total)	mg/L		0.34	0.25	0.6	0.602
Dissolved Aluminum	mg/L	0.05	0.02	0.02		0.06
Dissolved Arsenic	mg/L	0.089	0.075	0.107		0.087
Dissolved Barium	mg/L	0.019	0.022	0.025		0.029
Dissolved Cadmium	mg/L	< 0.005	< 0.005	< 0.005		< 0.005
Dissolved Copper	mg/L	1.17	1.35	1.57		1.5
Dissolved Iron	mg/L	0.21	0.27	< 0.05		0.25
Dissolved Lead	mg/L	< 0.005	< 0.005	0.017		< 0.005
Dissolved Manganese	mg/L	0.05	0.089	0.062		0.036
Dissolved Mercury	mg/L	< 0.0005	< 0.0005	< 0.0005		< 0.0005
Dissolved Molybdenum	mg/L	0.072	< 0.005	0.1		0.09
Dissolved Nickel	mg/L	0.109	0.024	0.061		0.03
Dissolved Selenium	mg/L	0.01	0.008	0.007		0.029
Dissolved Silver	mg/L	< 0.005	< 0.005	0.005		0.005
Dissolved Thallium	mg/L	< 0.01	< 0.01	< 0.01		< 0.01
Dissolved Zinc	mg/L	< 0.005	0.008	0.009		< 0.005
Aluminum	mg/L					
Arsenic	mg/L					
Barium	mg/L					
Cadmium	mg/L					
Copper	mg/L					
Iron	mg/L					
Lead	mg/L					
Manganese	mg/L					
Mercury	mg/L					
Molybdenum	mg/L					
Nickel	mg/L					
Selenium	mg/L					
Silver	mg/L					
Thallium	mg/L					
Zinc	mg/L					

Table 7.7: 2010 Water Quality at STP Discharge

Parameter	04-Jan-10	11-Jan-10	18-Jan-10	27-Jan-10	02-Feb-10	08-Feb-10	15-Feb-10	22-Feb-10	01-Mar-10
NH3-NH4 (mg/L)	14.4	24.0	38.0	34.4	38.8	32.1	28.3	16.1	16.7
BOD-5 (mg/L)	5	6	14	14	12	9	11	11	9
COD (mg/L)	55	90	89	75	42	48	44	68	54
TSS (mg/L)	19	44	17	19	44	14	18	23	29
NO2-NO3 (mg N/L)	34.8	43.4	63.8	59.4	47.2	49.4	51.7	42.5	42.0
pH (mg/L)	4.45	5.57	6.31	6.09	6.52	6.20	4.17	4.39	4.20
P tot (mg P/L)	18.2	17.2	17.7	18.2	15.6	19.0	22.8	16.5	16.3
Fecal Coliform (UFC/100mL)	560	460	16	12	10	< 100	24	16	30
Total Coliform (UFC/100mL)	720	3,100	600	< 100	< 100	6,000	300	300	2,000
Atypical Colony (UFC/100mL)	30	9,300	4,800	6,100	1,000	33,000	8,100	16,300	43,000

Parameter	08-Mar-10	15-Mar-10	22-Mar-10	29-Mar-10	05-Apr-10	12-Apr-10	19-Apr-10	26-Apr-10	03-May-10
NH3-NH4 (mg/L)	15.7	16.8	16.6	32.8	17.0	15.9	17.2	18.5	21.8
BOD-5 (mg/L)	5	19	10	36	8	4	9	9	9
COD (mg/L)	53	77	112	88	136	86	39	81	88
TSS (mg/L)	21	48	20	20	30	20	38	48	28
NO2-NO3 (mg N/L)	40.8	3.6	44.2	54.1	42.6	44.9	43.2	23.1	48.4
pH (mg/L)	4.12	5.86	4.41	6.60	5.60	4.43	4.40	3.87	3.89
P tot (mg P/L)	16.5	19.5	15.9	15.3	18.5	17.6	17.6	18.4	18.0
Fecal Coliform (UFC/100mL)	12	200	40	800	100	24	24	100	12
Total Coliform (UFC/100mL)	2,000	1,000	2,000	10,000	< 1,000	< 1,000	< 1,000	< 1,000	200
Atypical Colony (UFC/100mL)	115,000	77,000	23,000	350,000	23,000	24,000	40,000	39,000	8,800

Parameter	10-May-10	17-May-10	24-May-10	31-May-10	07-Jun-10	14-Jun-10	21-Jun-10	28-Jun-10	05-Jul-10
NH3-NH4 (mg/L)	NA	25.8	22.5	17.4	20.5	22.1	30.8	23.3	21.7
BOD-5 (mg/L)	NA	8	12	8	14	7	9	9	14
COD (mg/L)	NA	82	71	66	75	72	75	94	89
TSS (mg/L)	NA	29	35	96	37	24	38	34	28
NO2-NO3 (mg N/L)	NA	50.9	46.4	43.7	47.0	46.3	53.4	48.7	48.2
pH (mg/L)	NA	3.63	4.05	3.90	3.91	3.87	4.16	4.03	3.93
P tot (mg P/L)	NA	16.0	17.0	17.1	28.4	13.8	17.4	16.9	13.9
Fecal Coliform (UFC/100mL)	NA	< 4	20	28	< 1 000	20	10	< 4	28
Total Coliform (UFC/100mL)	NA	700	300	700	30 000	1,000	100	< 100	< 10 000
Atypical Colony (UFC/100mL)	NA	2,000	8,200	8,700	1 000	14,000	700	200	890 000

Parameter	12-Jul-10	19-Jul-10	27-Jul-10	02-Aug-10	09-Aug-10	16-Aug-10	23-Aug-10	30-Aug-10	06-Sep-10
NH3-NH4 (mg/L)	23.6	15.5	24.7	22.5	21.9	27.8	21.3	21.2	24.0
BOD-5 (mg/L)	23	5	8	8	21	10	9	7	7
COD (mg/L)	107	94	99	80	98	40	52	43	73
TSS (mg/L)	28	20	18	27	20	21	15	19	16
NO2-NO3 (mg N/L)	38.9	40.7	38.8	41.9	46.5	53.8	42.4	45.0	48.7
pH (mg/L)	6.71	5.44	6.38	6.16	5.60	5.82	4.86	4.04	5.10
P tot (mg P/L)	15.0	15.0	16.7	16.3	15.6	71.6	12.8	17.7	13.2
Fecal Coliform (UFC/100mL)	96	4	128	80	< 4	20	10	< 4	32
Total Coliform (UFC/100mL)	5000	2,800	< 10,000	500	< 1,000	1,000	< 100,000	100	200
Atypical Colony (UFC/100mL)	68000	7,800	> 2,000,000	5800	21,500	30,000	13,800,000	4,000	1,600

Parameter	13-Sep-10	20-Sep-10	27-Sep-10	04-Oct-10	13-Oct-10	18-Oct-10	25-Oct-10	01-Nov-10	08-Nov-10
NH3-NH4 (mg/L)	23.3	25.4	23.9	19.7	34.9	20.5	27.1	28.9	28.9
BOD-5 (mg/L)	8	8	32	8	11	4	4	2	3
COD (mg/L)	69	49	98	73	107	52	54	47	40
TSS (mg/L)	15	10	7	14	27	10	7	9	7
NO2-NO3 (mg N/L)	49.7	50.2	39.2	42.7	34.2	46.5	49.5	46.7	46.2
pH (mg/L)	4.22	4.06	6.56	4.83	7.09	3.96	3.76	3.75	3.63
P tot (mg P/L)	12.6	14.1	14.5	15.1	15.8	15.4	14.5	16.1	15.8
Fecal Coliform (UFC/100mL)	< 4	< 4	152	12	330	< 10	< 4	< 2	< 2
Total Coliform (UFC/100mL)	< 100	200	1,200	300	2 900	< 100	100	< 10	20
Atypical Colony (UFC/100mL)	200	300	6,000	600	12 700	< 100	< 100	< 10	< 10

Parameter	15-Nov-10	22-Nov-10	29-Nov-10	06-Dec-10	13-Dec-10	20-Dec-10	28-Dec-10
NH3-NH4 (mg/L)	22.5	22.6	30.3	25.2	19.4	12.0	21.7
BOD-5 (mg/L)	2	2	5	2	1	3	67
COD (mg/L)	48	46	43	39	57	46	374
TSS (mg/L)	8	6	8	7	19	14	91
NO2-NO3 (mg N/L)	42.0	42.7	47.9	44.5	38.1	27.6	35.2
pH (mg/L)	3.82	3.88	3.65	3.72	3.53	3.77	6.19
P tot (mg P/L)	16.0	15.0	14.3	15.5	13.3	12.0	8.9
Fecal Coliform (UFC/100mL)	0	4	< 2	< 2	< 2	< 2	NA
Total Coliform (UFC/100mL)	30	< 10	< 10	< 10	< 10	4,800	NA
Atypical Colony (UFC/100mL)	10	< 10	< 10	< 10	< 10	7,700	NA

Table 7.8: 2010 Volume of STP Waste

Month	Volume of Sewage Collected (m³)	Volume of Water Discharged (m³)
January	46.375	2430
February	46.375	2228
March	93.418	2503
April	36.339	2360
May	64.094	2397
June	49.217	2496
July	51.314	2607
August	49.895	3026
September	32.336	3214
October	38.109	3035
November	21.292	3146
December	27.741	3039
TOTAL	557	32,481

Table 7.9: 2010 Secondary Containment Water Quality at the Meadowbank Bulk Fuel Storage Facility

		Maximum Allowable				
	Units	Concentration		22-Jun-10		8-Jul-10
Benzene	ug/L	370	<	0.3	<	0.3
Toluene	ug/L	2	<	0.3	<	0.3
Ethylbenzene	ug/L	90	<	0.3	<	0.3
Total Xylenes	ug/L		<	0.3	<	0.3
Hydrocarbons (C10-C50)	mg/L		<	0.1		
Total oil and grease	mg/L	15				1
Lead	mg/L	0.001				0.0012

Table 7.10: 2010 Secondary Containment Water Quality at the Baker Lake Bulk Fuel Storage Facility (ST-40)

	Units	Maximum Concentration of				
		Single Grab Sample	22-Jun-10		8-Jul-10	
Arsenic	mg/L	1		<	0.0005	
Benzene	ug/L	370	<	0.3	<	0.3
Toluene	ug/L	2	<	0.3	<	0.3
Ethylbenzene	ug/L	90	<	0.3	<	0.3
Total Xylenes	ug/L		<	0.3	<	0.3
Hydrocarbons (C10-C50)	mg/L			0.1		
Copper	mg/L	0.6				0.003
Total Cyanide	mg/L	0.2			<	0.005
Total oil and grease	mg/L	5			<	1
TSS	mg/L	30				11
Nickel	mg/L	1				0.0008
Ammonia	mg N/L	6				0.13
pH	units	6.0 - 9.5				7.24
Lead	mg/L	0.001				0.0058
Zinc	mg/L	1				0.009

Table 7.11: 2010 East Dike Seepage - EDS-North

		2-Dec-10
pH	Units	7.88
Turbidity	NTU	9.57
Aluminum	mg/L	0.347
Arsenic	mg/L	0.0011
Copper	mg/L	0.0043
Lead	mg/L	< 0.0003
Nickel	mg/L	0.0015
Zinc	mg/L	0.023

Table 7.12: 2010 East Dike Seepage - EDS-Center

Date	Time (hh:mm)	Turbidity (NTU)
2010-07-16	10:00	4.94
2010-07-16	18:00	4.91
2010-07-18	16:00	2.71
2010-07-20	15:30	2.31
2010-07-21	16:00	6.50
2010-07-22	11:00	1.84
2010-07-23	9:15	2.37
2010-07-24	14:00	2.25
2010-07-25	11:00	2.48
2010-07-26	14:15	2.24
2010-07-29	17:30	1.68
2010-07-30	10:30	1.75
2010-07-31	9:40	2.24
2010-08-01	17:00	2.61
2010-08-02	15:37	1.36
2010-08-03	9:45	3.08
2010-08-04	18:35	5.76
2010-08-05	11:50	3.96
2010-08-06	16:00	1.98
2010-08-07	8:15	1.96
2010-08-08	11:30	1.76
2010-08-09	17:30	2.29
2010-08-10	11:45	3.02
2010-08-11	8:30	1.47
2010-08-12	10:30	2.44
2010-08-13	13:30	2.37
2010-08-14	14:15	3.03
2010-08-15	15:00	2.67
2010-08-16	16:00	2.25
2010-08-17	12:15	3.67
2010-08-18	10:00	3.11
2010-08-19	11:30	2.87
2010-08-20	10:00	2.87
2010-08-28	6:30	2.52
2010-09-10	7:45	0.99
2010-09-17	10:00	0.64
2010-09-24	9:00	0.84
2010-10-01	14:00	3.63
2010-10-16	14:00	1.04
2010-10-22	14:00	1.25

Table 7.13: 2010 Blast Monitoring

Date of Blast	Location	Blast Pattern #	Planned Tonnage (tonnes)	PPV (mm/s)	Peak Sound Pressure (pa)	# Holes in Blast Pattern
2-Jan-10	PORTAGE (SOUTH)	5135149	46,638	7.78	28	127
3-Jan-10	PORTAGE (SOUTH)	5135139	48,463	16.80	405	165
5-Jan-10	PORTAGE (SOUTH)	5135141	49,727	16.40	207	179
6-Jan-10	PORTAGE (SOUTH)	5135147	33,271	9.53	180	113
7-Jan-10	PORTAGE (NORTH)	5140080	26,080	1.21	92	82
7-Jan-10	PORTAGE (NORTH)	5140080	37,530	1.21	92	118
8-Jan-10	PORTAGE (SOUTH)	5135143	49,499	13.30	104	164
10-Jan-10	PORTAGE (NORTH)	5140118	35,619	2.16	1	80
11-Jan-10	PORTAGE (SOUTH)	5135169	72,003	6.90	2	188
13-Jan-10	PORTAGE (SOUTH)	5135145	45,530	12.40	7	131
18-Jan-10	PORTAGE (NORTH)	5140106	52,052	1.33	24	137
19-Jan-10	PORTAGE (NORTH)	5140112	42,412	1.21	11	170
19-Jan-10	PORTAGE (NORTH)	5130044	27,659	3.17	59	0
19-Jan-10	PORTAGE (NORTH)	5130046	30,007	3.17	59	208
21-Jan-10	PORTAGE (NORTH)	5135163	61,074	5.35	50	97
23-Jan-10	PORTAGE (SOUTH)	5135179	78,975	15.50	200	182
25-Jan-10	PORTAGE (NORTH)	5140110	76,616	1.57	79	272
26-Jan-10	PORTAGE (SOUTH)	5135181	64,921	7.11	36	157
26-Jan-10	PORTAGE (SOUTH)	5135181	36,685	7.11	36	75
26-Jan-10	PORTAGE (NORTH)	5135151	28,720	1.92	52	104
29-Jan-10	PORTAGE (SOUTH)	5135181	64,921	4.54	76	157
29-Jan-10	PORTAGE (SOUTH)	5135181	36,685	4.54	76	75
30-Jan-10	PORTAGE (NORTH)	5140138	43,785	2.39	85	165
3-Feb-10	PORTAGE (SOUTH)	5135187	45,114	6.03	56	166
3-Feb-10	PORTAGE (NORTH)	5140108	98,514	1.69	171	273
3-Feb-10	PORTAGE (SOUTH)	5140136	0	1.69	171	0
3-Feb-10	PORTAGE (SOUTH)	5135189	0	6.03	56	0
4-Feb-10	PORTAGE (NORTH)	5135165	40,019	3.42	20	88
5-Feb-10	PORTAGE (SOUTH)	5135207	27,581	12.10	236	76
6-Feb-10	PORTAGE (NORTH)	5135171	40,900	1.87	50	87

Date of Blast	Location	Blast Pattern #	Planned Tonnage (tonnes)	PPV (mm/s)	Peak Sound Pressure (pa)	# Holes in Blast Pattern
8-Feb-10	PORTAGE (NORTH)	5135167	52,143	1.66	51	158
9-Feb-10	PORTAGE (NORTH)	5130PS16	0	1.59	57	59
10-Feb-10	PORTAGE (NORTH)	5135185	22,314	1.23	44	79
14-Feb-10	PORTAGE (SOUTH)	5135209	24,239	6.62	28	95
14-Feb-10	PORTAGE (SOUTH)	5135209	5,413	6.62	28	0
14-Feb-10	PORTAGE (SOUTH)	5135191	63,854	4.00	87	155
16-Feb-10	PORTAGE (NORTH)	5135177	92,635	2.16	91	313
18-Feb-10	PORTAGE (SOUTH)	5135211	24,239	4.93	68	260
18-Feb-10	PORTAGE (SOUTH)	5135209	24,239	4.93	68	95
18-Feb-10	PORTAGE (SOUTH)	5135209	5,413	4.93	68	0
20-Feb-10	PORTAGE (NORTH)	5135155	70,843	2.15	98	356
20-Feb-10	PORTAGE (NORTH)	5135155FM	0	2.15	98	0
20-Feb-10	PORTAGE (NORTH)	5130PS14	0	2.15	0	0
20-Feb-10	PORTAGE (NORTH)	5130PS15	0	2.15	0	0
21-Feb-10	PORTAGE (SOUTH)	5135193	27,917	3.32	143	69
23-Feb-10	PORTAGE (NORTH)	5135011R	16,531	1.45	55	0
23-Feb-10	PORTAGE (NORTH)	5135011R	0	1.45	55	83
24-Feb-10	PORTAGE (SOUTH)	5135199	84,978	1.66	63	206
25-Feb-10	PORTAGE (NORTH)	5130PS13	0	2.00	98	68
26-Feb-10	PORTAGE (SOUTH)	5135213	45,554	4.10	86	182
26-Feb-10	PORTAGE (SOUTH)	5135215	0	4.10	86	0
26-Feb-10	PORTAGE (NORTH)	5135217	11,000	1.61	107	0
28-Feb-10	PORTAGE (NORTH)	5135157	75,560	1.70	53	266
3-Mar-10	PORTAGE (SOUTH)	5135195	62,368	3.58	254	190
4-Mar-10	PORTAGE (NORTH)	5135219	113,971	4.51	153	297
5-Mar-10	PORTAGE (SOUTH)	5135201	55,348	4.57	59	130
6-Mar-10	PORTAGE (SOUTH)	5130048	0	15.00	390	0
6-Mar-10	PORTAGE (SOUTH)	5130050	53,160	15.00	390	183
8-Mar-10	PORTAGE (NORTH)	5135051	19,446	3.45	96	144
8-Mar-10	PORTAGE (SOUTH)	5135057	20,267	3.18	169	165
8-Mar-10	PORTAGE (SOUTH)	5135203	51,887	2.89	57	147
10-Mar-10	PORTAGE (NORTH)	5135159	43,303	1.30	89	165

Date of Blast	Location	Blast Pattern #	Planned Tonnage (tonnes)	PPV (mm/s)	Peak Sound Pressure (pa)	# Holes in Blast Pattern
10-Mar-10	PORTAGE (NORTH)	5135159	42,444	1.30	89	165
12-Mar-10	PORTAGE (NORTH)	5135053	40,950	9.47	140	239
13-Mar-10	PORTAGE (SOUTH)	5130060	0	10.10	198	0
13-Mar-10	PORTAGE (SOUTH)	5130054	77,354	10.10	198	262
14-Mar-10	PORTAGE (NORTH)	5135159	43,303	1.14	149	165
14-Mar-10	PORTAGE (NORTH)	5135159	42,444	1.14	149	165
15-Mar-10	PORTAGE (SOUTH)	5130056	27,800	3.28	95	105
18-Mar-10	PORTAGE (SOUTH)	5135223	31,168	2.32	79	117
20-Mar-10	PORTAGE (SOUTH)	5130020	28,140	7.99	150	197
20-Mar-10	PORTAGE (SOUTH)	5130020	0	7.99	150	0
21-Mar-10	PORTAGE (NORTH)	5135059	51,310	1.86	74	274
21-Mar-10	PORTAGE (SOUTH)	5135055	40,600	2.30	64	148
23-Mar-10	PORTAGE (SOUTH)	5130058	57,930	15.50	278	284
24-Mar-10	PORTAGE (NORTH)	5135049	49,080	13.60	238	243
24-Mar-10	PORTAGE (NORTH)	5135049	48,610	13.60	238	162
24-Mar-10	PORTAGE (NORTH)	5135227	0	13.60	238	0
24-Mar-10	PORTAGE (NORTH)	5135227	0	13.60	238	0
26-Mar-10	PORTAGE (SOUTH)	5135221	94,900	2.36	181	256
27-Mar-10	PORTAGE (SOUTH)	5130088	71,000	11.40	173	246
28-Mar-10	PORTAGE (SOUTH)	5130124	46,353	6.35	305	157
29-Mar-10	PORTAGE (SOUTH)	5130100	49,617	5.78	96	276
31-Mar-10	PORTAGE (SOUTH)	5130118	95,460	4.77	155	351
31-Mar-10	PORTAGE (SOUTH)	5130120	0	4.77	155	
31-Mar-10	PORTAGE (SOUTH)	5130120	0	4.77	155	0
1-Apr-10	PORTAGE (SOUTH)	5135225	44,669	1.28	193	207
1-Apr-10	PORTAGE (SOUTH)	5135225	51,395	1.28	193	186
2-Apr-10	PORTAGE (SOUTH)	5130128	29,508	5.48	130	106
3-Apr-10	PORTAGE (SOUTH)	5130090	70,082	6.70	254	216
4-Apr-10	PORTAGE (SOUTH)	5130052	0	8.63	304	0
4-Apr-10	PORTAGE (SOUTH)	5130052	73,538	8.63	304	281
4-Apr-10	PORTAGE (SOUTH)	5130020	28,140	8.63	304	197
4-Apr-10	PORTAGE (SOUTH)	5130020	0	8.63	304	0

Date of Blast	Location	Blast Pattern #	Planned Tonnage (tonnes)	PPV (mm/s)	Peak Sound Pressure (pa)	# Holes in Blast Pattern
6-Apr-10	PORTAGE (SOUTH)	5130126	118,519	4.03	252	405
6-Apr-10	PORTAGE (SOUTH)	5130120	0	4.03	252	
6-Apr-10	PORTAGE (SOUTH)	5130120	0	4.03	252	0
7-Apr-10	PORTAGE (SOUTH)	5130106	22,389	1.98	187	117
7-Apr-10	PORTAGE (SOUTH)	5130106	26,703	1.98	187	148
7-Apr-10	PORTAGE (SOUTH)	5130POP1	0	5.04	10	0
8-Apr-10	PORTAGE (NORTH)	5140RS	2,586	1.75	145	38
9-Apr-10	PORTAGE (SOUTH)	5130122	94,128	4.72	87	269
11-Apr-10	PORTAGE (SOUTH)	5130094	28,540	3.92	34	173
12-Apr-10	PORTAGE (SOUTH)	5130130	50,132	4.31	64	173
12-Apr-10	PORTAGE (SOUTH)	5130106	22,389	2.23	17	117
12-Apr-10	PORTAGE (SOUTH)	5130106	26,703	2.23	17	148
13-Apr-10	PORTAGE (NORTH)	5130148	80,864	2.67	58	290
14-Apr-10	PORTAGE (SOUTH)	5130138	42,865	5.37	21	159
14-Apr-10	PORTAGE (SOUTH)	5130RT	5,875	2.93	16	70
16-Apr-10	PORTAGE (NORTH)	5130076	40,175	3.17	73	167
16-Apr-10	PORTAGE (NORTH)	5130076	77,187	3.17	73	268
18-Apr-10	PORTAGE (NORTH)	5130152	118,809	4.02	37	410
20-Apr-10	PORTAGE (NORTH)	5130076	40,175	2.68	48	167
20-Apr-10	PORTAGE (NORTH)	5130076	77,187	2.68	48	268
23-Apr-10	PORTAGE (SOUTH)	5130098	62,537	8.58	54	266
23-Apr-10	PORTAGE (SOUTH)	5130052	0	8.58	54	0
23-Apr-10	PORTAGE (SOUTH)	5130052	73,538	8.58	54	281
24-Apr-10	PORTAGE (SOUTH)	5130136	54,932	4.63	115	197
25-Apr-10	PORTAGE (NORTH)	5130156	62,373	1.56	21	248
27-Apr-10	PORTAGE (NORTH)	5130068	52,925	2.55	143	242
2-May-10	PORTAGE (SOUTH)	5130092	143,762	0.33	9	283
3-May-10	PORTAGE (NORTH)	5130182	58,087	2.12	78	269
5-May-10	PORTAGE (NORTH)	5130066	79,600	3.31	290	276
9-May-10	PORTAGE (SOUTH)	5123001	88,076	11.30	56	181
10-May-10	PORTAGE (SOUTH)	5130112	83,579	1.26	60	320
17-May-10	PORTAGE (SOUTH)	5123005	64,761	10.60	113	177

Date of Blast	Location	Blast Pattern #	Planned Tonnage (tonnes)	PPV (mm/s)	Peak Sound Pressure (pa)	# Holes in Blast Pattern
19-May-10	PORTAGE (SOUTH)	5130158	92,174	2.76	34	330
27-May-10	PORTAGE (NORTH)	5135231	122,558	11.10	288	532
31-May-10	PORTAGE (SOUTH)	5130190	40,279	6.99	169	132
31-May-10	PORTAGE (SOUTH)	5130102	56,725	6.27	226	125
31-May-10	PORTAGE (SOUTH)	5130102	31,313	6.27	226	162
3-Jun-10	PORTAGE (NORTH)	5130252	17,905	13.50	122	67
3-Jun-10	PORTAGE (NORTH)	5130164	100,829	6.31	86	349
3-Jun-10	PORTAGE (NORTH)	5130186	13,909	5.44	70	52
13-Jun-10	PORTAGE (SOUTH)	5123035	185,371	9.85	168	464
15-Jun-10	PORTAGE (SOUTH)	5123013	22,045	29.70	61	56
19-Jun-10	PORTAGE (SOUTH)	5123017	133,309	18.90	129	293
25-Jun-10	PORTAGE (SOUTH)	5109PS045	0	19.80	223	57
25-Jun-10	PORTAGE (SOUTH)	5109PS043	0	13.20	103	14
25-Jun-10	PORTAGE (SOUTH)	5109PS043	0	13.20	103	20
25-Jun-10	PORTAGE (SOUTH)	5123043	107,896	12.10	153	286
25-Jun-10	PORTAGE (SOUTH)	5123045	12,428	19.80	223	84
25-Jun-10	PORTAGE (SOUTH)	5123045	138,476	19.80	223	378
25-Jun-10	PORTAGE (NORTH)	5123253	113,467	7.18	117	408
25-Jun-10	PORTAGE (NORTH)	5130162	18,371	7.51	41	106
25-Jun-10	PORTAGE (NORTH)	5130162	53,603	7.51	41	228
25-Jun-10	PORTAGE (NORTH)	5123255	144,670	8.92	40	441
25-Jun-10	PORTAGE (NORTH)	5123255	64,197	8.92	40	295
25-Jun-10	PORTAGE (SOUTH)	5130102	56,725	14.90	73	125
25-Jun-10	PORTAGE (SOUTH)	5130102	31,313	14.90	73	162
1-Jul-10	PORTAGE (SOUTH)	5123011	106,452	9.98	70	295
1-Jul-10	PORTAGE (SOUTH)	5123041	120,722	10.50	255	345
1-Jul-10	PORTAGE (SOUTH)	5123045	12,428	10.00	89	84
1-Jul-10	PORTAGE (SOUTH)	5123045	138,476	10.00	89	378
1-Jul-10	PORTAGE (SOUTH)	5109PS023	0	34.30	461	105
1-Jul-10	PORTAGE (NORTH)	5123257	73,560	13.50	122	217
1-Jul-10	PORTAGE (NORTH)	5123257	85,085	13.50	122	488
1-Jul-10	PORTAGE (SOUTH)	5109PS043	0	10.00	89	14

Date of Blast	Location	Blast Pattern #	Planned Tonnage (tonnes)	PPV (mm/s)	Peak Sound Pressure (pa)	# Holes in Blast Pattern
1-Jul-10	PORTAGE (SOUTH)	5109PS043	0	10.00	89	20
7-Jul-10	PORTAGE (SOUTH)	5109PS041	0	14.90	73	14
7-Jul-10	PORTAGE (NORTH)	5123257	73,560	8.06	32	217
7-Jul-10	PORTAGE (NORTH)	5123257	85,085	8.06	32	488
14-Jul-10	PORTAGE (NORTH)	5123261	19,191	8.92	35	26
24-Jul-10	PORTAGE (NORTH)	5123255	144,670	7.18	117	441
24-Jul-10	PORTAGE (NORTH)	5123255	64,197	7.18	117	295
24-Jul-10	PORTAGE (SOUTH)	5109PS025	0	15.90	97	10
24-Jul-10	PORTAGE (SOUTH)	5109PS025	0	15.90	97	46
24-Jul-10	PORTAGE (SOUTH)	5109PS025	0	15.90	97	12
24-Jul-10	PORTAGE (SOUTH)	5109PS025	0	15.90	97	92
28-Jul-10	PORTAGE (SOUTH)	5109PS025	0	6.80	74	10
28-Jul-10	PORTAGE (SOUTH)	5109PS025	0	6.80	74	46
28-Jul-10	PORTAGE (SOUTH)	5109PS025	0	6.80	74	12
28-Jul-10	PORTAGE (SOUTH)	5109PS025	0	6.80	74	92
29-Jul-10	PORTAGE (SOUTH)	5123019	81,384	6.75	98	212
30-Jul-10	PORTAGE (SOUTH)	5109PS051	0	2.36	49	8
30-Jul-10	PORTAGE (SOUTH)	5109PS051	0	2.36	49	37
1-Aug-10	PORTAGE (SOUTH)	5123023	120,293	12.70	171	0
1-Aug-10	PORTAGE (SOUTH)	5123023	80,460	12.70	171	241
2-Aug-10	PORTAGE (NORTH)	5123259	145,993	7.05	118	403
4-Aug-10	PORTAGE (SOUTH)	5109PS039	0	5.96	78	15
4-Aug-10	PORTAGE (SOUTH)	5109PS039	0	5.96	78	37
5-Aug-10	PORTAGE (SOUTH)	5123021	124,347	13.00	42	340
5-Aug-10	PORTAGE (SOUTH)	5109PS025	0	13.00	42	10
5-Aug-10	PORTAGE (SOUTH)	5109PS025	0	13.00	42	46
5-Aug-10	PORTAGE (SOUTH)	5109PS025	0	13.00	42	12
5-Aug-10	PORTAGE (SOUTH)	5109PS025	0	13.00	42	92
5-Aug-10	PORTAGE (SOUTH)	5109PS027	0	13.00	42	53
5-Aug-10	PORTAGE (SOUTH)	5109PS027	0	13.00	42	56
5-Aug-10	PORTAGE (SOUTH)	5109PS039	0	11.60	54	15
5-Aug-10	PORTAGE (SOUTH)	5109PS039	0	11.60	54	37

Date of Blast	Location	Blast Pattern #	Planned Tonnage (tonnes)	PPV (mm/s)	Peak Sound Pressure (pa)	# Holes in Blast Pattern
5-Aug-10	PORTAGE (SOUTH)	5109PS047	0	5.96	78	29
5-Aug-10	PORTAGE (SOUTH)	5109PS047	0	5.96	78	6
5-Aug-10	PORTAGE (SOUTH)	5109PS047	0	5.96	78	82
8-Aug-10	PORTAGE (SOUTH)	5109PS027	0	9.14	76	53
8-Aug-10	PORTAGE (SOUTH)	5109PS027	0	9.14	76	56
10-Aug-10	PORTAGE (NORTH)	5123265	7,662	7.51	41	22
10-Aug-10	PORTAGE (NORTH)	5123265	145,430	7.51	41	397
14-Aug-10	PORTAGE (SOUTH)	5109PS047	0	9.33	89	29
14-Aug-10	PORTAGE (SOUTH)	5109PS047	0	9.33	89	6
14-Aug-10	PORTAGE (SOUTH)	5109PS047	0	9.33	89	82
14-Aug-10	PORTAGE (SOUTH)	5130POP4	1,200	9.33	89	12
14-Aug-10	PORTAGE (SOUTH)	5123039	149,460	9.33	89	408
14-Aug-10	PORTAGE (SOUTH)	5109PS025	0	9.33	153	10
14-Aug-10	PORTAGE (SOUTH)	5109PS025	0	9.33	153	46
14-Aug-10	PORTAGE (SOUTH)	5109PS025	0	9.33	153	12
14-Aug-10	PORTAGE (SOUTH)	5109PS025	0	9.33	153	92
16-Aug-10	PORTAGE (NORTH)	5123267	99,038	4.64	102	0
16-Aug-10	PORTAGE (NORTH)	5123267	26,802	4.64	102	76
16-Aug-10	PORTAGE (NORTH)	5123265	7,662	4.64	102	22
16-Aug-10	PORTAGE (NORTH)	5123265	145,430	4.64	102	397
17-Aug-10	PORTAGE (NORTH)	5130172	73,811	4.72	140	300
17-Aug-10	PORTAGE (NORTH)	5130162	18,371	4.72	140	106
17-Aug-10	PORTAGE (NORTH)	5130162	53,603	4.72	140	228
18-Aug-10	PORTAGE (SOUTH)	5109PS047	0	12.70	171	29
18-Aug-10	PORTAGE (SOUTH)	5109PS047	0	12.70	171	6
18-Aug-10	PORTAGE (SOUTH)	5109PS047	0	12.70	171	82
18-Aug-10	PORTAGE (NORTH)	5130184	78,349	15.00	326	335
22-Aug-10	PORTAGE (NORTH)	5109PS277	0	3.23	25	0
22-Aug-10	PORTAGE (NORTH)	5109PS277	0	3.23	25	33
22-Aug-10	PORTAGE (NORTH)	5109PS277	0	3.23	25	50
24-Aug-10	PORTAGE (SOUTH)	5116002	33,450	9.03	127	115
24-Aug-10	PORTAGE (SOUTH)	5123025	129,285	4.81	156	241

Date of Blast	Location	Blast Pattern #	Planned Tonnage (tonnes)	PPV (mm/s)	Peak Sound Pressure (pa)	# Holes in Blast Pattern
24-Aug-10	PORTAGE (SOUTH)	5123025	47,772	4.81	156	142
24-Aug-10	PORTAGE (NORTH)	5109PS279	0	2.99	33	57
24-Aug-10	PORTAGE (NORTH)	5109PS279	0	2.99	33	0
24-Aug-10	PORTAGE (NORTH)	5109PS279	0	2.99	33	6
24-Aug-10	PORTAGE (SOUTH)	5116004	30,218	8.55	117	80
31-Aug-10	PORTAGE (SOUTH)	5116006	94,379	10.20	223	224
2-Sep-10	PORTAGE (NORTH)	5109PS279	0	4.47	125	57
2-Sep-10	PORTAGE (NORTH)	5109PS279	0	4.47	125	0
2-Sep-10	PORTAGE (NORTH)	5109PS279	0	4.47	125	6
2-Sep-10	PORTAGE (SOUTH)	5123047	90,906	5.14	62	256
9-Sep-10	PORTAGE (NORTH)	5123279	74,870	7.48	22	253
9-Sep-10	PORTAGE (NORTH)	5123279	55,936	7.48	22	186
9-Sep-10	PORTAGE (SOUTH)	5116008	186,016	9.43	77	444
9-Sep-10	PORTAGE (NORTH)	5109PS281	0	3.26	38	26
9-Sep-10	PORTAGE (SOUTH)	5109PS051	0	2.13	1	8
9-Sep-10	PORTAGE (SOUTH)	5109PS051	0	2.13	1	37
10-Sep-10	PORTAGE (NORTH)	5109PS277	0	7.48	32	0
10-Sep-10	PORTAGE (NORTH)	5109PS277	0	7.48	32	33
10-Sep-10	PORTAGE (NORTH)	5109PS277	0	7.48	32	50
10-Sep-10	PORTAGE (NORTH)	5123277	49,190	8.47	68	175
15-Sep-10	PORTAGE (SOUTH)	5116010	122,175	11.10	136	299
17-Sep-10	PORTAGE (NORTH)	5116252	50,794	10.40	106	111
17-Sep-10	PORTAGE (NORTH)	5116252	48,254	10.40	106	120
17-Sep-10	PORTAGE (SOUTH)	5130POP6	0	1.45	13	8
17-Sep-10	PORTAGE (NORTH)	5116250	106,928	12.70	177	262
18-Sep-10	PORTAGE (SOUTH)	5130114	21,427	1.28	67	70
18-Sep-10	PORTAGE (SOUTH)	5130114	92,747	1.28	67	303
22-Sep-10	PORTAGE (NORTH)	5116254	18,111	13.50	144	49
22-Sep-10	PORTAGE (NORTH)	5116254	223,365	13.50	144	473
23-Sep-10	PORTAGE (SOUTH)	5123POP1	0	5.04	10	13
25-Sep-10	PORTAGE (SOUTH)	5116012	131,253	15.70	316	327
28-Sep-10	PORTAGE (NORTH)	5109PS271	0	5.14	76	17

Date of Blast	Location	Blast Pattern #	Planned Tonnage (tonnes)	PPV (mm/s)	Peak Sound Pressure (pa)	# Holes in Blast Pattern
28-Sep-10	PORTAGE (NORTH)	5109PS271	0	5.14	76	33
28-Sep-10	PORTAGE (NORTH)	5109PS271	0	5.14	76	24
7-Oct-10	PORTAGE (SOUTH)	5116018	211,888	13.20	207	526
7-Oct-10	PORTAGE (NORTH)	5109PS271	0	13.20	207	17
7-Oct-10	PORTAGE (NORTH)	5109PS271	0	13.20	207	33
7-Oct-10	PORTAGE (NORTH)	5109PS271	0	13.20	207	24
7-Oct-10	PORTAGE (SOUTH)	5109PS053	0	1.58	68	52
9-Oct-10	PORTAGE (SOUTH)	5123027	103,135	5.33	47	118
9-Oct-10	PORTAGE (SOUTH)	5123027	57,391	5.33	47	244
14-Oct-10	PORTAGE (SOUTH)	5123PS053	0	2.36	5	0
18-Oct-10	PORTAGE (SOUTH)	5123049	194,999	3.59	60	638
18-Oct-10	PORTAGE (SOUTH)	5123049	9,672	3.59	60	112
18-Oct-10	PORTAGE (SOUTH)	5116014	19,072	12.40	152	96
22-Oct-10	PORTAGE (SOUTH)	5116020	109,545	14.20	44	310
22-Oct-10	PORTAGE (SOUTH)	5116020	73,087	14.20	44	148
25-Oct-10	PORTAGE (SOUTH)	5123049	194,999	7.10	34	638
25-Oct-10	PORTAGE (SOUTH)	5123049	9,672	7.10	34	112
31-Oct-10	PORTAGE (SOUTH)	5116026	127,878	14.50	56	336
3-Nov-10	PORTAGE (NORTH)	5116258	187,527	8.41	58	465
8-Nov-10	PORTAGE (SOUTH)	5116028	128,828	11.00	118	342
8-Nov-10	PORTAGE (SOUTH)	5116036	25,687	8.79	81	63
8-Nov-10	PORTAGE (SOUTH)	5116036	104,787	8.79	81	257
8-Nov-10	PORTAGE (NORTH)	5130166	96,814	3.68	20	344
13-Nov-10	PORTAGE (SOUTH)	5116020	109,545	19.10	31	310
13-Nov-10	PORTAGE (SOUTH)	5116020	73,087	19.10	31	148
16-Nov-10	PORTAGE (NORTH)	5130070	107,014	8.54	110	330
22-Nov-10	PORTAGE (SOUTH)	5109003	27,216	10.00	127	0
22-Nov-10	PORTAGE (SOUTH)	5109003	136,560	10.00	127	323
29-Nov-10	PORTAGE (SOUTH)	5109001	83,150	12.90	68	224
29-Nov-10	PORTAGE (SOUTH)	5109001	77,387	12.90	68	170
2-Dec-10	PORTAGE (SOUTH)	5109001	83,150	11.20	39	224
2-Dec-10	PORTAGE (SOUTH)	5109001	77,387	11.20	39	170

Date of Blast	Location	Blast Pattern #	Planned Tonnage (tonnes)	PPV (mm/s)	Peak Sound Pressure (pa)	# Holes in Blast Pattern
2-Dec-10	PORTAGE (NORTH)	5145081	63,746	15.80	12	265
5-Dec-10	PORTAGE (NORTH)	5130074	85,541	5.60	4	452
10-Dec-10	PORTAGE (NORTH)	5150250	5,833	7.66	78	163
10-Dec-10	PORTAGE (SOUTH)	5116POP4	0	1.64	84	29
12-Dec-10	PORTAGE (SOUTH)	5109009	141,730	13.70	143	371
13-Dec-10	PORTAGE (NORTH)	5116264	127,645	3.65	9	278
13-Dec-10	PORTAGE (SOUTH)	5109PS046	0	4.35	23	0
13-Dec-10	PORTAGE (SOUTH)	5109PS046	0	4.35	23	0
13-Dec-10	PORTAGE (SOUTH)	5116046	206,740	4.44	233	0
13-Dec-10	PORTAGE (NORTH)	5135255	53,934	2.04	29	0
13-Dec-10	PORTAGE (NORTH)	5135255	77,530	2.04	29	0
13-Dec-10	PORTAGE (NORTH)	5130POP3	0	1.94	84	162
20-Dec-10	PORTAGE (SOUTH)	5109015	136,323	10.20	109	77
20-Dec-10	PORTAGE (NORTH)	5130256	44,998	11.80	232	220

Footnotes: highlighted cells exceed DFO PPV criteria of 13 mm/s during the spawning season (August 15 to June 30)

Table 7.14: 2010 MMER Monitoring Results

January	As	Cu	CN	Pb	Ni	Zn	TSS	Ra226	pH	Effluent Volume	Daphnia magna	Rainbow trout
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(Bq/L)	(units)	(m ³)	LC ₅₀ (48h)	LC50 (96h)
Max Conc.	1	0.6	2	0.4	1	1	30	1.11	6-9.5		%	%
Max	0.5	0.3	1	0.2	0.5	0.5	15	0.37	6-9.5			
1										31727		
2										31558		
3										29789		
4										20121		
5	< 0.0005	< 0.0005	NMR	< 0.0005	0.0012	< 0.001	9	< 0.002	7.42	21143		
6										20003		
7										20813		
8										20943		
9										22507		
10										20229		
11	< 0.0005	0.0017	NMR	< 0.0005	0.0021	< 0.001	16	0.007	7.15	19131	> 100	> 100
12										21513		
13										21592		
14										22963		
15										23563		
16										22039		
17										21923		
18										0		
19	< 0.0005	0.0008	NMR	0.0008	0.0010	< 0.001	4	< 0.002	7.07	22626		
20										23606		
21										24723		
22										24821		
23										26898		
24										36155		
25										35126		
26										31383		
27	< 0.0005	0.0018	NMR	< 0.0005	0.0015	0.004	7	0.003	7.06	35098		
28										34572		
29										37632		
30										42242		
31										42000		
Max	0.0005	0.0018	0	0.0008	0.0021	0.004	16	0.007	7.42	42242		
Min	0.0005	0.0005	0	0.0005	0.0010	0.001	4	0.002	7.06	0		
Mean	0.0005	0.0012	0	0.0006	0.0015	0.002	9	0.004	7.18	26079		
Total										808439		

Footnotes:

NDEP (No Deposit) = Any measurement not taken because there was no deposit from the final discharge point

NMR (No Measurement Required) = Any measurement not taken in accordance with the conditions set out in section 12 or 13 of the MMER

* Measurement erroneously not taken

February	As		Cu		CN		Pb		Ni		Zn		TSS		Ra226	pH	Effluent Volume	Daphnia magna	Rainbow trout
	(mg/L)		(mg/L)		(mg/L)		(mg/L)		(mg/L)		(mg/L)		(mg/L)		(Bq/L)	(units)	(m ³)	LC ₅₀ (48h)	LC50 (96h)
Max Conc.	1		0.6		2		0.4		1		1		30		1.11	6-9.5		%	%
Max	0.5		0.3		1		0.2		0.5		0.5		15		0.37	6-9.5			
1																	30297		
2	0.0034	<	0.0005		NMR		0.0162		0.0014	<	0.001		5		0.003	7.20	33385	>	100
3																	43972		
4																	43609		
5																	44001		
6																	40350		
7																	43808		
8																	43677		
9																	43456		
10	<	0.0005		0.0011	NMR		0.0027		0.0014		0.006		10		0.005	7.24	44506		
11																	39693		
12																	42796		
13																	32889		
14																	32883		
15																	42136		
16																	24356		
17																	34269		
18	<	0.0005		0.0013	NMR	<	0.0005		0.0019		0.006		7		0.008	7.21	42880		
19																	26485		
20																	33355		
21																	41879		
22																	38987		
23																	38544		
24		0.0034		0.0010	NMR		0.0037		0.0019		0.004		6		0.005	6.76	25584		
25																	23151		
26																	21633		
27																	2203		
28																	1077		
Max	0.0034		0.0013		0		0.0162		0.0019		0.006		10		0.008	7.24	44506		
Min	0.0005		0.0005		0		0.0005		0.0014		0.001		5		0.003	6.76	1077		
Mean	0.0020		0.0010		0		0.0058		0.0017		0.004		7		0.005	7.10	34138		
																	Total	955861	

Footnotes:

NDEP (No Deposit) = Any measurement not taken because there was no deposit from the final discharge point

NMR (No Measurement Required) = Any measurement not taken in accordance with the conditions set out in section 12 or 13 of the MMER

* Measurement erroneously not taken

March	As	Cu	CN	Pb	Ni	Zn	TSS	Ra226	pH	Effluent Volume	Daphnia magna	Rainbow trout		
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(Bq/L)	(units)	(m ³)	LC ₅₀ (48h)	LC50 (96h)		
Max Conc.	1	0.6	2	0.4	1	1	30	1.11	6-9.5		%	%		
Max	0.5	0.3	1	0.2	0.5	0.5	15	0.37	6-9.5					
1										23789				
2										35249				
3	0.0017	0.0010	0.005	<	0.0005	0.0012	0.006	4	<	0.002	7.07	46.19	>	100
4										42101				
5										43027				
6										35535				
7										28570				
8										43255				
9										41834				
10	<	0.0005	0.0008	0.006	<	0.0005	0.0015	0.003	9	0.006	7.03			
11										35815				
12										42661				
13										30846				
14										42765				
15										41519				
16										40027				
17	<	0.0005	0.0012	*	<	0.0005	0.0015	<	0.001	5	0.004	6.87		
18										34775				
19										39758				
20										41341				
21										11806				
22										40079				
23										41607				
24										40375				
25	0.0017	0.0023	*		0.0028	0.0016	<	0.001	7	0.008	6.85			
26										35339				
27										31891				
28										26373				
29										25659				
30										14061				
31										29113				
Max	0.0017	0.0023	0.006	0.0028	0.0016	0.006	9	0.008	7.07	43849				
Min	0.0005	0.0008	0.005	0.0005	0.0012	0.001	4	0.002	6.85	11806				
Mean	0.0011	0.0013	0.006	0.0011	0.0015	0.003	6	0.005	6.96	35635				
Total										1104674				

Footnotes:

NDEP (No Deposit) = Any measurement not taken because there was no deposit from the final discharge point

NMR (No Measurement Required) = Any measurement not taken in accordance with the conditions set out in section 12 or 13 of the MMER

* Measurement erroneously not taken

April	As	Cu	CN	Pb	Ni	Zn	TSS	Ra226	pH	Effluent Volume	Daphnia magna	Rainbow trout
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(Bq/L)	(units)	(m ³)	LC ₅₀ (48h)	LC50 (96h)
Max Conc.	1	0.6	2	0.4	1	1	30	1.11	6-9.5		%	%
Max	0.5	0.3	1	0.2	0.5	0.5	15	0.37	6-9.5			
1										15867		
2										36727		
3										37252		
4										39735		
5										39336		
6										38530		
7	< 0.0005	0.0063	< 0.005	0.0004	0.0017	0.029	58	0.038	6.89	36358	> 100	> 100
8										2149		
9										0		
10										34037		
11										32790		
12										37955		
13										16993		
14	< 0.0005	0.001	0.017	0.0029	0.0019	< 0.001	9	0.006	6.80	9120		
15										14930		
16										12041		
17										7616		
18										8234		
19										9874		
20										27923		
21	0.042	0.002	0.023	< 0.0003	0.0026	0.004	6	0.005	7.08	25887		
22										32865		
23										45274		
24										28245		
25										38454		
26										34324		
27										35538		
28	< 0.0005	0.0015	0.029	< 0.0003	0.0027	0.007	12	0.006	7.75	38476		
29										39777		
30										39218		
Max	0.042	0.0063	0.029	0.0029	0.0027	0.029	58	0.038	7.75	45274		
Min	0.0005	0.001	0.005	0.0003	0.0017	0.001	6	0.005	6.80	0		
Mean	0.0109	0.0027	0.019	0.0010	0.0022	0.010	21	0.014	7.13	27184		
									Total	815525		

Footnotes:

NDEP (No Deposit) = Any measurement not taken because there was no deposit from the final discharge point

NMR (No Measurement Required) = Any measurement not taken in accordance with the conditions set out in section 12 or 13 of the MMER

* Measurement erroneously not taken

May	As	Cu	CN	Pb	Ni	Zn	TSS	Ra226	pH	Effluent Volume	Daphnia magna	Rainbow trout
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(Bq/L)	(units)	(m ³)	LC ₅₀ (48h)	LC50 (96h)
Max Conc.	1	0.6	2	0.4	1	1	30	1.11	6-9.5		%	%
Max	0.5	0.3	1	0.2	0.5	0.5	15	0.37	6-9.5			
1										39939		
2										39219		
3										37531		
4										39563		
5	< 0.0005	0.0048	0.006	< 0.0003	0.002	0.008	13	0.007	6.59	39137	> 100	> 100
6										39484		
7										39821		
8										38695		
9										37825		
10										39343		
11										38677		
12										28423		
13										6566		
14										13203		
15	< 0.0005	0.0016	0.021	< 0.0003	0.0027	0.003	14	*	6.43	19153		
16										1296		
17										0		
18										0		
19										0		
20										0		
21										0		
22										0		
23										0		
24										10863		
25										37662		
26										39168		
27	< 0.0005	0.0019	0.012	< 0.0003	0.0034	0.003	12	NMR	6.98	38247		
28										39437		
29										38553		
30										38946		
31										37561		
Max	0.0005	0.0048	0.021	0.0003	0.0034	0.008	14	0.007	6.98	39939		
Min	0.0005	0.0016	0.006	0.0003	0.0020	0.003	12	0.007	6.43	0		
Mean	0.0005	0.0028	0.013	0.0003	0.0027	0.005	13	0.007	6.67	25107		
Total										778312		

Footnotes:

NDEP (No Deposit) = Any measurement not taken because there was no deposit from the final discharge point

NMR (No Measurement Required) = Any measurement not taken in accordance with the conditions set out in section 12 or 13 of the MMER

* Measurement erroneously not taken

June	As	Cu	CN	Pb	Ni	Zn	TSS	Ra226	pH	Effluent Volume	Daphnia magna	Rainbow trout
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(Bq/L)	(units)	(m ³)	LC ₅₀ (48h)	LC50 (96h)
Max Conc.	1	0.6	2	0.4	1	1	30	1.11	6-9.5		%	%
Max	0.5	0.3	1	0.2	0.5	0.5	15	0.37	6-9.5			
1										39550		
2	< 0.0005	0.0031	0.014	0.0011	0.0045	0.011	25	NMR	6.97	39295		
3										38848		
4										36052		
5										37745		
6										38367		
7										26306		
8										29114		
9	0.0013	0.0028	0.012	0.00040	0.0040	0.001	22	NMR	6.80	34645	> 100	> 100
10										29381		
11										19454		
12										19595		
13										19173		
14										19677		
15										19555		
16	< 0.0005	0.0035	0.015	0.0099	0.0046	0.006	25	NMR	6.81	19013		
17										14042		
18										14053		
19										19132		
20										17070		
21	< 0.0005	0.0027	0.008	< 0.0003	0.0039	0.002	18	NMR	6.67	19904		
22										19531		
23										17724		
24										18131		
25										17028		
26										18795		
27										20006		
28	< 0.0005	0.0033	0.013	< 0.0003	0.0043	0.013	20	NMR	6.36	20042		
29										19554		
30										17963		
Max	0.0013	0.0035	0.015	0.0099	0.0046	0.013	25	0	6.97	39550		
Min	0.0005	0.0027	0.008	0.0003	0.0039	0.001	18	0	6.36	14042		
Mean	0.0007	0.0031	0.012	0.0024	0.0043	0.007	22		6.72	23958		
Total										718745		

Footnotes:

NDEP (No Deposit) = Any measurement not taken because there was no deposit from the final discharge point

NMR (No Measurement Required) = Any measurement not taken in accordance with the conditions set out in section 12 or 13 of the MMER

* Measurement erroneously not taken

July	As	Cu	CN	Pb	Ni	Zn	TSS	Ra226	pH	Effluent Volume	Daphnia magna	Rainbow trout
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(Bq/L)	pH	(m ³)	LC ₅₀ (48h)	LC50 (96h)
Max Conc.	1	0.6	2	0.4	1	1	30	1.11	6-9.5		%	%
Max	0.5	0.3	1	0.2	0.5	0.5	15	0.37	6-9.5			
1										19793		
2										19962		
3										19087		
4										20055		
5										9563		
6										9542		
7	< 0.0005	0.0013	< 0.005	0.0005	0.0038	< 0.001	17	0.013	6.94	17383	> 100	> 100
8										20058		
9										13377		
10										19744		
11										14677		
12										12823		
13										12673		
14	0.0039	0.0011	< 0.005	0.0163	0.005	< 0.001	9.2	NMR	6.54	12812		
15										12710		
16										10946		
17										11258		
18										11516		
19										12080		
20										12140		
21	< 0.0005	0.0017	< 0.005	< 0.0003	0.0046	0.002	7	NMR	5.85	12176		
22										6732		
23										10830		
24										10959		
25										10980		
26										11150		
27										11063		
28	< 0.0005	0.0008	< 0.005	< 0.0003	0.0034	0.004	14	NMR	6.37	14571		
29										7454		
30										14388		
31										9155		
Max	0.0039	0.0017	0.005	0.0163	0.005	0.004	17	0.013	6.94	20058		
Min	0.0005	0.0008	0.005	0.0003	0.0034	0.001	7	0.013	5.85	6732		
Mean	0.0014	0.0012	0.005	0.0044	0.0042	0.002	12	0.013	6.43	13279		
									Total	411657		

Footnotes:

NDEP (No Deposit) = Any measurement not taken because there was no deposit from the final discharge point

NMR (No Measurement Required) = Any measurement not taken in accordance with the conditions set out in section 12 or 13 of the MMER

* Measurement erroneously not taken

August	As	Cu	CN	Pb	Ni	Zn	TSS	Ra226	pH	Effluent Volume	Daphnia magna	Rainbow trout
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(Bq/L)	pH	(m ³)	LC ₅₀ (48h)	LC50 (96h)
Max Conc.	1	0.6	2	0.4	1	1	30	1.11	6-9.5		%	
Max	0.5	0.3	1	0.2	0.5	0.5	15	0.37	6-9.5			
1										17081		
2										17287		
3										16878		
4										14360		
5										7990		
6										3350		
7										7970		
8										7081		
9	< 0.0005	0.002	0.005	< 0.0003	0.0034	< 0.001	7	NMR	6.53	15350	> 100	> 100
10										16417		
11	< 0.0005	0.0036	0.006	0.0159	0.0038	0.031	8	NMR	6.28	16017		
12										15307		
13										16781		
14										11631		
15										10962		
16										10170		
17										7628		
18	*	*	*	*	*	*	*	NMR	*	4545		
19										11726		
20										17352		
21										19777		
22										19433		
23										5180		
24										16164		
25	0.0024	0.0017	0.005	< 0.0003	0.0038	< 0.001	1	NMR	6.28	15288		
26										16847		
27										16288		
28										16728		
29										16798		
30										16420		
31										15258		
Max	0.0024	0.0036	0.006	0.0159	0.0038	0.031	8	0	6.53	19777		
Min	0.0005	0.0017	0.005	0.0003	0.0034	0.001	1	0	6.28	3350		
Mean	0.0011	0.0024	0.005	0.0055	0.0037	0.011	5	0	6.36	13550		
Total										420064		

Footnotes:

NDEP (No Deposit) = Any measurement not taken because there was no deposit from the final discharge point

NMR (No Measurement Required) = Any measurement not taken in accordance with the conditions set out in section 12 or 13 of the MMER

* Measurement erroneously not taken

September	As	Cu	CN	Pb	Ni	Zn	TSS	Ra226	pH	Effluent Volume	Daphnia magna	Rainbow trout
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(Bq/L)	pH	(m ³)	LC ₅₀ (48h)	LC50 (96h)
Max Conc.	1	0.6	2	0.4	1	1	30	1.11	6-9.5		%	%
Max	0.5	0.3	1	0.2	0.5	0.5	15	0.37	6-9.5			
1	< 0.0005	0.001	< 0.005	< 0.0003	0.0055	< 0.001	9	NMR	6.68	10180	> 100	> 100
2										9700		
3										9850		
4										9420		
5										9451		
6										10825		
7										7160		
8	< 0.0005	0.0009	< 0.005	< 0.0003	0.0042	0.003	8	NMR	6.37	7770		
9										8960		
10										5020		
11										7910		
12										7840		
13										7860		
14										8030		
15	< 0.0005	< 0.0005	< 0.005	0.0004	0.0053	0.001	8	NMR	6.44	9108		
16										6940		
17										9041		
18										7810		
19										8600		
20										12582		
21										11093		
22	0.0029	0.0017	< 0.005	0.003	0.0055	0.007	10	NMR	6.55	8439		
23										9457		
24										3320		
25										0		
26										0		
27										0		
28										0		
29	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NMR	NDEP	0		
30										0		
Max	0.0029	0.0017	0.005	0.003	0.0055	0.007	10	0	6.68	12582		
Min	0.0005	0.0005	0.005	0.0003	0.0042	0.001	8	0	6.37	0		
Mean	0.0011	0.0010	0.005	0.001	0.0051	0.003	8.8	0	6.51	6879		
Total										206366		

Footnotes:

NDEP (No Deposit) = Any measurement not taken because there was no deposit from the final discharge point

NMR (No Measurement Required) = Any measurement not taken in accordance with the conditions set out in section 12 or 13 of the MMER

* Measurement erroneously not taken

October	As	Cu	CN	Pb	Ni	Zn	TSS	Ra226	pH	Effluent Volume	Daphnia magna	Rainbow trout
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(Bq/L)	pH	(m ³)	LC ₅₀ (48h)	LC50 (96h)
Max Conc.	1	0.6	2	0.4	1	1	30	1.11	6-9.5		%	%
Max	0.5	0.3	1	0.2	0.5	0.5	15	0.37	6-9.5			
1										0		
2										0		
3										0		
4										0		
5										0		
6										0		
7										0		
8										0		
9										0		
10										0		
11										0		
12										0		
13										0		
14										0		
15										7277		
16										13060		
17										14040		
18	0.0016	0.002	0.009	<	0.0003	0.0074	0.002	5	0.006	7.00	14767	> 100
19											10921	
20											10592	
21	0.0037	0.0016	0.013		0.0036	0.0078	0.006	10	NMR	6.81	9529	
22											9153	
23											9288	
24											7662	
25											9832	
26											8465	
27	0.0054	0.002	0.018		0.005	0.0108	0.027	5	NMR	6.54	8233	
28											8440	
29											8250	
30											8270	
31											4340	
Max	0.0054	0.002	0.018		0.005	0.0108	0.027	10	0.006	7.00	14767	
Min	0.0016	0.0016	0.009		0.0003	0.0074	0.002	5	0.006	6.54	0	
Mean	0.0036	0.0019	0.013		0.0030	0.0087	0.012	7	0.006	6.78	5230	
Total										162119		

Footnotes:

NDEP (No Deposit) = Any measurement not taken because there was no deposit from the final discharge point

NMR (No Measurement Required) = Any measurement not taken in accordance with the conditions set out in section 12 or 13 of the MMER

* Measurement erroneously not taken

November	As	Cu	CN	Pb	Ni	Zn	TSS	Ra226	pH	Effluent Volume	Daphnia magna	Rainbow trout
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(Bq/L)	pH	(m ³)	LC ₅₀ (48h)	LC50 (96h)
Max Conc.	1	0.6	2	0.4	1	1	30	1.11	6-9.5		%	%
Max	0.5	0.3	1	0.2	0.5	0.5	15	0.37	6-9.5			
1										8171		
2										5790		
3										0		
4	*	*	*	*	*	*	*	NMR	6.37	7010		
5										5877		
6										8370		
7										8333		
8										8067		
9										4193		
10	0.0026	0.0013	0.013	< 0.0003	0.0086	0.001	3	NMR	6.73	3340		
11	0.003	0.0015	0.014	< 0.0003	0.0084	< 0.001	< 1	NMR	6.53	3480	> 100	> 100
12										3600		
13										3200		
14										8818		
15										9510		
16										6610		
17										0		
18										0		
19										0		
20										0		
21										0		
22										0		
23										4300		
24	0.0032	< 0.0005	0.018	0.0005	0.0101	0.002	4	NMR	6.55	8320		
25										8300		
26										1390		
27										5230		
28										8250		
29										8198		
30										8672		
Max	0.0032	0.0015	0.018	0.0005	0.0101	0.002	4	0	6.73	9510		
Min	0.0026	0.0005	0.013	0.0003	0.0084	0.001	1	0	6.37	0		
Mean	0.0029	0.0011	0.015	0.0004	0.0090	0.001	3	0	6.55	4901		
Total										147029		

Footnotes:

NDEP (No Deposit) = Any measurement not taken because there was no deposit from the final discharge point

NMR (No Measurement Required) = Any measurement not taken in accordance with the conditions set out in section 12 or 13 of the MMER

* Measurement erroneously not taken

December	As	Cu	CN	Pb	Ni	Zn	TSS	Ra226	pH	Effluent Volume	Daphnia magna	Rainbow trout
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(Bq/L)	pH	(m ³)	LC ₅₀ (48h)	LC50 (96h)
Max Conc.	1	0.6	2	0.4	1	1	30	1.11	6-9.5		%	%
Max	0.5	0.3	1	0.2	0.5	0.5	15	0.37	6-9.5			
1	0.0015	0.0019	0.018	<	0.0003	0.0123	0.002	2	NMR	6.7	8253	> 100 > 100
2											6677	
3											8070	
4											8200	
5											7480	
6											4640	
7											3580	
8	0.0061	0.0013	<	0.005	<	0.0003	0.0079	<	0.001	5	NMR	6.45
9											4116	
10											4068	
11											10680	
12											12860	
13											12660	
14											12750	
15	0.0014	0.0014	<	0.005	<	0.0003	0.0083		0.002	14	NMR	6.44
16											12700	
17											12948	
18											13150	
19											11510	
20	0.0028	0.001	0.024	<	0.0003	0.0109	0.01	6	NMR	6.57	12680	
21											14450	
22											11890	
23											9980	
24											15280	
25											13210	
26											12490	
27											22080	
28	<	0.0005	0.0009	0.029	<	0.0003	0.0085		0.009	2	NMR	7.07
29											12400	
30											10190	
31											18250	
											14550	
Max	0.0061	0.0019	0.029	0.0003	0.0123	0.01	14	0	7.07		22080	
Min	0.0005	0.0009	0.005	0.0003	0.0079	0.001	2	0	6.44		3580	
Mean	0.0025	0.0013	0.016	0.0003	0.0096	0.005	6	0	6.65		11380	
Total										352792		

Footnotes:

NDEP (No Deposit) = Any measurement not taken because there was no deposit from the final discharge point

NMR (No Measurement Required) = Any measurement not taken in accordance with the conditions set out in section 12 or 13 of the MMER

* Measurement erroneously not taken

Table 7.15: 2010 EEM Monitoring Results

DD-FD1 (Effluent)	Date	2010-04-19	2010-08-24	2010-10-27	2010-11-29
	Time	NA	15:00	7:30	6:30
Aluminium	mg/L	0.630	0.484	1.5	0.619
Ammonia	mg N/L	0.17	0.47	2.7	4.8
Cadmium	mg/L	< 0.00008	NR	0.00013	< 0.00008
Iron	mg/L	0.15	0.33	0.51	< 0.01
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	0.00001
Molybdenum	mg/L	0.0014	0.0036	0.0069	0.0112
Nitrate	mg N/L	0.52	NR	1.2	1.7
Fathead Minnow IC25	% v/v	> 100	> 100		
Fathead Minnow LC50	% v/v	> 100	> 100		
Ceriodaphnia dubia IC25	% v/v	> 100	> 100		
Ceriodaphnia dubia LC50	% v/v	> 100	> 100		
Freshwater Alga IC25	% v/v	> 90.9	> 90.9		
Lemna minor IC25 (dw)	% v/v	> 97	> 97		
Lemna minor IC25 (f#)	% v/v	> 97	81.4		

TPN (Exposure Area)	Date	2010-04-19	2010-05-22	2010-07-28	2010-08-31
	Time	NA	16:45	16:20	9:45
Alkalinity	mg CaCO3/L	6	6	40	6
Aluminum	mg/L	0.026	0.027	0.019	0.01
Arsenic	mg/L	0.0023	< 0.0005	< 0.0005	< 0.0005
Ammonia	mg N/L	0.16	0.31	0.07	0.06
Cadmium	mg/L	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Copper	mg/L	< 0.0005	< 0.0005	< 0.0005	0.0006
Total Cyanide	mg/L	0.008	NR	< 0.005	< 0.005
Hardness	mg CaCO3/L	5	6	5	5
Iron	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Total suspended solids	mg/L	< 1	< 1	< 1	< 1
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0005	< 0.0005	< 0.0005	< 0.001
Nickel	mg/L	< 0.0005	0.0006	0.0012	0.0013
Nitrate	mg N/L	0.01	0.08	0.03	0.03
Dissolved oxygen *	mg/L	14.04	11.27	FEM	10.56
pH *	Units	6.88	FEM	6.72	6.88
Lead	mg/L	< 0.0003	0.0068	< 0.0003	< 0.0003
Radium	Bq/L	< 0.002	< 0.002	< 0.003	< 0.003
Zinc	mg/L	< 0.001	0.006	< 0.001	< 0.001
Temperature *	(°C)	0.47	0.74	7.75	9.16

TPS (Reference Area)	Date Time	2010-04-19 NA	2010-05-22 12:30	2010-07-28 15:02	2010-08-31 9:00
Alkalinity	mg CaCO ₃ /L	7	4	27	5
Aluminum	mg/L	0.019	0.024	< 0.002	0.018
Arsenic	mg/L	0.0033	< 0.0005	< 0.0005	< 0.0005
Ammonia	mg N/L	0.17	0.29	0.07	0.06
Cadmium	mg/L	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Copper	mg/L	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Total Cyanide	mg/L	0.020	NR	< 0.005	< 0.005
Hardness	mg CaCO ₃ /L	4	5	5	5
Iron	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Total suspended solids	mg/L	< 1	< 1	1	< 1
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0005	< 0.0005	< 0.0005	< 0.001
Nickel	mg/L	< 0.0005	< 0.0005	< 0.0005	0.0013
Nitrate	mg N/L	< 0.01	< 0.01	0.03	0.05
Dissolved oxygen *	mg/L	12.51	11.2	FEM	10.44
pH *	Units	7.08	FEM	7.06	6.91
Lead	mg/L	< 0.0003	0.0108	< 0.0003	0.0069
Radium	Bq/L	< 0.002	0.003	< 0.003	0.003
Zinc	mg/L	< 0.001	0.006	0.003	< 0.001
Temperature *	(°C)	0.52	0.22	9.22	9.37

Footnotes:

NR = parameter erroneously not requested for analysis

FEM = field equipment malfunction

* Parameters measured in the field

Table 7.16: 2010 MMER & EEM QAQC Data

Duplicate Name	UNITS	16-Jun-10			28-Jun-10		
		Original ID MMER-1	DUP ID DUP-3 MMER	RPD	Original ID MMER-1	DUP ID DUP-1 MMER	RPD
Total suspended solid (TSS)	mg/L	25	26	-3.9	20	22	-9.5
Alkalinity	mg CaCO ₃ /L						
Ammonia	mg N/L						
Hardness	mg CaCO ₃ /L						
Nitrate	mg/L						
Aluminum	mg/L						
Arsenic	mg/L	<i>0.0005</i>	0.0034	-148.7	<i>0.0005</i>	<i>0.0005</i>	0.0
Copper	mg/L	0.0035	0.0033	5.9	0.0033	0.0026	23.7
Cyanide (total)	mg/L				0.0130	<i>0.0050</i>	88.9
Lead	mg/L	0.0099	<i>0.0003</i>	188.2	<i>0.0003</i>	0.0067	-182.9
Nickel	mg/L	0.0046	0.0042	9.1	0.0043	0.0047	-8.9
Zinc	mg/L	0.0060	0.0060	0.0	0.0130	0.0120	8.0
Radium 226	mg/L						
Cadmium	mg/L						
Iron	mg/L						
Mercury	mg/L						
Molybdenum	mg/L						

Footnotes:

RPD = Relative Percent Difference

Italicized values represent the method detection limit

Duplicate Name	UNITS	14-Jul-10			28-Jul-10		
		Original ID MMER	DUP ID DUP-1 MMER	RPD	Original ID TPN	DUP ID TPN-DUP	RPD
Total suspended solid (TSS)	mg/L	9	11	-16.0	1	1	0.0
Alkalinity	mg CaCO3/L				40.0	44.0	-9.5
Ammonia	mg N/L				0.1	0.1	33.3
Hardness	mg CaCO3/L				5	5	0.0
Nitrate	mg/L						
Aluminum	mg/L				0.0190	0.0130	37.5
Arsenic	mg/L	0.0039	0.0042	-7.4	0.0005	0.0005	0.0
Copper	mg/L	0.0011	0.0008	31.6	0.0005	0.0005	0.0
Cyanide (total)	mg/L	0.0050	0.0180	-113.0	0.0050	0.0050	0.0
Lead	mg/L	0.0163	0.0003	192.8	0.0003	0.0067	-182.9
Nickel	mg/L	0.0050	0.0047	6.2	0.0012	0.0006	66.7
Zinc	mg/L	0.0010	0.0010	0.0	0.0010	0.0010	0.0
Radium 226	mg/L				0.0030	0.0030	0.0
Cadmium	mg/L				0.0001	0.0001	0.0
Iron	mg/L				0.0100	0.0100	0.0
Mercury	mg/L				0.00001	0.00001	0.0
Molybdenum	mg/L				0.0005	0.0005	0.0

Footnotes:

RPD = Relative Percent Difference

Italicized values represent the method detection limit

Duplicate Name	UNITS	28-Jul-10			29-Nov-10		
		Original ID MMER-1	DUP ID MMER-1 dup-2	RPD	Original ID EEM-1	DUP ID EEM-1 DUP-1	RPD
Total suspended solid (TSS)	mg/L	14	13	7.4			
Alkalinity	mg CaCO3/L						
Ammonia	mg N/L				4.8	4.9	-2.1
Hardness	mg CaCO3/L						
Nitrate	mg/L				1.70	1.60	6.1
Aluminum	mg/L				0.6190	0.5210	17.2
Arsenic	mg/L	0.0005	0.0005	0.0			
Copper	mg/L	0.0008	0.0006	28.6			
Cyanide (total)	mg/L	0.0050	0.0050	0.0			
Lead	mg/L	0.0003	0.0003	0.0			
Nickel	mg/L	0.0034	0.0035	-2.9			
Zinc	mg/L	0.0040	0.0010	120.0			
Radium 226	mg/L						
Cadmium	mg/L				0.0001	0.0001	0.0
Iron	mg/L				0.0100	0.0100	0.0
Mercury	mg/L				0.00001	0.00001	0.0
Molybdenum	mg/L				0.0112	0.0112	0.0

Footnotes:

RPD = Relative Percent Difference

Italicized values represent the method detection limit

Table 7.17: 2010 Dewatering QAQC Data

Duplicate Name	UNITS	15-Jun-10			16-Jun-10		
		Original ID DD-WTP-02	DUP ID DUP-2 WTP-2	RPD	Original ID DD-WTP-02	DUP ID DUP-1 WTP-2	RPD
Total suspended solids (TSS)	mg/L	13	13	0	17	18	-5.7
Aluminum	mg/L						

Duplicate Name	UNITS	16-Jun-10			17-Jun-10		
		Original ID DD-TPL	DUP ID DUP-2 TPL	RPD	Original ID DD-WTP-02	DUP ID DUP-01 WTP-2	RPD
Total suspended solids (TSS)	mg/L	2	1	66.7	18	18	0
Aluminum	mg/L						

Duplicate Name	UNITS	18-Jun-10			19-Jun-10		
		Original ID DD-WTP-02	DUP ID DUP-01 WTP-2	RPD	Original ID DD-WTP-02	DUP ID DUP-1 WTP-2	RPD
Total suspended solids (TSS)	mg/L	32	35	-9.0	22	17	25.6
Aluminum	mg/L						

Duplicate Name	UNITS	20-Jun-10			21-Jun-10		
		Original ID DD-WTP-2	DUP ID DUP-1 WTP-2	RPD	Original ID DD-TPL	DUP ID DUP-1 TPL	RPD
Total suspended solids (TSS)	mg/L	18	20	-10.5	2	4	-66.7
Aluminum	mg/L						

Footnotes:

RPD = Relative Percent Difference

Italicized values represent the method detection limit

Duplicate Name	UNITS	21-Jun-10			28-Jun-10		
		Original ID DD-WTP-2	DUP ID DUP-1 WTP-2	RPD	Original ID DD-WTP-2	DUP ID DUP-1 WTP-2	RPD
Total suspended solids (TSS)	mg/L	12	10	18.2	12	10	18.2
Aluminum	mg/L	0.6870	0.5500	22.2	1.00	1.07	-6.8

Duplicate Name	UNITS	5-Jul-10			7-Jul-10		
		Original ID DD-WTP-2	DUP ID 2010-07-05 DUP-2	RPD	Original ID DD-WTP-2	DUP ID 2010-07-07 - DUP-1	RPD
Total suspended solids (TSS)	mg/L	13	12	8.0	13	12	8.0
Aluminum	mg/L	0.4830	0.4140	15.4			

Duplicate Name	UNITS	7-Jul-10			13-Jul-10		
		Original ID DD-TPL	DUP ID 2010-07-07 - DUP-2	RPD	Original ID DD-WTP-2	DUP ID WTP-02 - DUP-1	RPD
Total suspended solids (TSS)	mg/L	1	1	0	8	6	28.6
Aluminum	mg/L						

Duplicate Name	UNITS	1-Aug-10			2-Aug-10		
		Original ID DD-WTP-2	DUP ID 2010-08-01 DUP-1	RPD	Original ID DD-WTP-02	DUP ID 2010-08-02 - DUP-3	RPD
Total suspended solids (TSS)	mg/L	13	12	8.0	11	13	-16.7
Aluminum	mg/L	0.6820			0.6490		5.0

Footnotes:

RPD = Relative Percent Difference

Italicized values represent the method detection limit

Duplicate Name	UNITS	11-Aug-10			10-Sep-10		
		Original ID	DUP ID	RPD	Original ID	DUP ID	RPD
		DD-WTP-01	DD-WTP-01 DUP-1		DD-WTP-01	2010-09-10 DUP-1	
Total suspended solids (TSS)	mg/L	9	10	-10.5	7	8	-13.3
Aluminum	mg/L						

Duplicate Name	UNITS	24-Sep-10			29-Oct-10		
		Original ID	DUP ID	RPD	Original ID	DUP ID	RPD
		DD-WTP-01	DUP-1		DD-WTP-01	DUP-1	
Total suspended solids (TSS)	mg/L	12	12	0	6	5	18.2
Aluminum	mg/L						

Duplicate Name	UNITS	29-Nov-10		
		Original ID	DUP ID	RPD
		DD-WTP-01	DD-WTP-01 DUP-2	
Total suspended solids (TSS)	mg/L	1	3	-100.0
Aluminum	mg/L	0.5820	0.5660	2.8

Footnotes:

RPD = Relative Percent Difference

Italicized values represent the method detection limit

Table 7.18: 2010 STP QAQC Data

Duplicate Name	UNITS	2-Aug-10			6-Sep-10		
		Original ID STP-OUT	DUP ID 2010-08-02 DUP-1	RPD	Original ID STP-OUT	DUP ID DUP-2 STP-OUT	RPD
Total suspended solids (TSS)	mg/L	27	22	20.4	16	14	13.3
Ammonia	mg N/L	22.5	27.2	-18.9	24.0	22.3	7.3
Nitrite-Nitrate	mg/L	41.90	42.20	-0.7	48.70	47.70	2.1
Total phosphate	mg/L				13.20	16.40	-21.6
COD	mg/L	80.0	70.0	13.3	73.0	57.0	24.6
BOD5	mg/L	8.0	8.0	0.0	7.0	4.0	54.5
Phosphorus	mg/L	16.3	15.7	3.8			

Footnotes:

RPD = Relative Percent Difference

Italicized values represent the method detection limit

Table 7.19: 2010 Surface Water QAQC Data

Duplicate / Field Blank Name	UNITS	20-Jul-10			
		Original ID SW2a	DUP ID SW2a DUP	RPD	F.B. ID SW2a blank
Total dissolved solids (TDS)	mg/L	1369	1382	-0.9	2
Alkalinity	mg CaCO ₃ /L	50.0	51.0	-2.0	12.0
Ammonia	mg N/L	23.8	24.9	-4.5	0.1
Hardness	mg CaCO ₃ /L	482	480	0.4	<1
Fluoride	mg/L	0.5	0.4	22.2	<0.1
Chloride	mg/L	208.0	202.0	2.9	< 0.5
Sulfate	mg/L	1181	1047	12.0	1
Nitrite-Nitrate	mg/L	3.40	3.40	0.0	0.34
Aluminium	mg/L				
Arsenic	mg/L				
Copper	mg/L				
Cyanide (total)	mg/L	0.5700	0.3700	42.6	0.0050
Lead	mg/L				
Nickel	mg/L				
Zinc	mg/L				
Cadmium	mg/L				
Barium	mg/L				
Manganese	mg/L				
Titanium	mg/L				
Selenium	mg/L				
Iron	mg/L				
Mercury	mg/L				
Molybdenum	mg/L				
Silver	mg/L				
Dissolved Aluminum	mg/L	0.0100	0.0100	0.0	0.0100
Dissolved Arsenic	mg/L	0.0440	0.0480	-8.7	0.0050
Dissolved Barium	mg/L	0.0250	0.0250	0.0	0.0050
Dissolved Cadmium	mg/L	0.0050	0.0050	0.0	0.0050
Dissolved Copper	mg/L	2.41	2.40	0.4	0.01
Dissolved Iron	mg/L	0.09	0.10	-10.5	0.05
Dissolved Lead	mg/L	0.01	0.01	0.0	0.01
Dissolved Manganese	mg/L	0.184	0.185	-0.5	0.005
Dissolved Mercury	mg/L	0.00	0.00	0.0	0.00
Dissolved Molybdenum	mg/L	0.061	0.060	1.7	0.005
Dissolved Nickel	mg/L	0.121	0.117	3.4	0.005
Dissolved Selenium	mg/L	0.010	0.011	-9.5	0.005
Dissolved Silver	mg/L	0.0050	0.0050	0.0	0.0050
Dissolved Thallium	mg/L	0.0100	0.0100	0.0	0.0100
Dissolved Zinc	mg/L	0.012	0.009	28.6	0.010

Footnotes:

RPD = Relative Percent Difference

Italicized values represent the method detection limit

Duplicate / Field Blank Name	UNITS	20-Jul-10			
		Original ID SW2b	DUP ID SW2b DUP	RPD	F.B. ID SW2b blank
Total dissolved solids (TDS)	mg/L				
Alkalinity	mg CaCO ₃ /L				
Ammonia	mg N/L				
Hardness	mg CaCO ₃ /L				
Fluoride	mg/L				
Chloride	mg/L				
Sulfate	mg/L				
Nitrite-Nitrate	mg/L				
Aluminium	mg/L	0.1460	0.1800	-20.9	0.0020
Arsenic	mg/L	0.0716	0.0709	1.0	0.0005
Copper	mg/L	2.3100	2.3430	-1.4	0.0026
Cyanide (total)	mg/L				
Lead	mg/L	0.0003	0.0003	0.0	0.0003
Nickel	mg/L	0.1233	0.1237	-0.3	0.0005
Zinc	mg/L	0.0040	0.0090	-76.9	0.0080
Cadmium	mg/L	0.0001	0.0001	0.0	0.0001
Barium	mg/L	0.0234	0.0234	0.0	0.0008
Manganese	mg/L	0.1856	0.1857	-0.1	0.0005
Titanium	mg/L	0.1400	0.1400	0.0	0.0100
Selenium	mg/L	0.0060	0.0070	-15.4	0.0010
Iron	mg/L	0.4700	0.4700	0.0	0.0100
Mercury	mg/L	0.00024	0.00025	-4.1	0.00001
Molybdenum	mg/L	0.0585	0.0596	-1.9	0.0005
Silver	mg/L	0.0032	0.0034	-6.1	0.0005
Dissolved Aluminum	mg/L				
Dissolved Arsenic	mg/L				
Dissolved Barium	mg/L				
Dissolved Cadmium	mg/L				
Dissolved Copper	mg/L				
Dissolved Iron	mg/L				
Dissolved Lead	mg/L				
Dissolved Manganese	mg/L				
Dissolved Mercury	mg/L				
Dissolved Molybdenum	mg/L				
Dissolved Nickel	mg/L				
Dissolved Selenium	mg/L				
Dissolved Silver	mg/L				
Dissolved Thallium	mg/L				
Dissolved Zinc	mg/L				

Footnotes:

RPD = Relative Percent Difference

Italicized values represent the method detection limit

Duplicate / Field Blank Name	UNITS	2-Aug-10		
		Original ID Reclaim pond	DUP ID 2010-08-02 DUP-4	RPD
Total dissolved solids (TDS)	mg/L			
Alkalinity	mg CaCO ₃ /L			
Ammonia	mg N/L			
Hardness	mg CaCO ₃ /L			
Fluoride	mg/L			
Chloride	mg/L			
Sulfate	mg/L			
Nitrite-Nitrate	mg/L			
Aluminium	mg/L			
Arsenic	mg/L			
Copper	mg/L			
Cyanide (total)	mg/L	0.6300	0.7330	-15.1
Lead	mg/L			
Nickel	mg/L			
Zinc	mg/L			
Cadmium	mg/L			
Barium	mg/L			
Manganese	mg/L			
Titanium	mg/L			
Selenium	mg/L			
Iron	mg/L			
Mercury	mg/L			
Molybdenum	mg/L			
Silver	mg/L			
Dissolved Aluminum	mg/L			
Dissolved Arsenic	mg/L			
Dissolved Barium	mg/L			
Dissolved Cadmium	mg/L			
Dissolved Copper	mg/L			
Dissolved Iron	mg/L			
Dissolved Lead	mg/L			
Dissolved Manganese	mg/L			
Dissolved Mercury	mg/L			
Dissolved Molybdenum	mg/L			
Dissolved Nickel	mg/L			
Dissolved Selenium	mg/L			
Dissolved Silver	mg/L			
Dissolved Thallium	mg/L			
Dissolved Zinc	mg/L			

Footnotes:

RPD = Relative Percent Difference

Italicized values represent the method detection limit

Table 7.20: 2010 Hanna Multi-Parameter Meter Calibration Data

Date	Quick Calibration	pH			Dissolved Oxygen			Conductivity		
		Standard	Initial Reading	Final Reading	Standard	Initial Reading	Final Reading	Standard	Initial Reading	Final Reading
14-Jan-10	No	4.00	4.02	4.02	100%	105%	98.10%	1365	1411	1413
		7.00	6.99	6.99						
18-Jan-10	Yes									
19-Jan-10	Yes									
22-Feb-10	Yes									
25-Feb-10	Yes									
26-Feb-10	Yes									
20-Mar-10	Yes									
21-Mar-10	Yes									
22-Mar-10	Yes									
23-Mar-10	Yes									
24-Mar-10	Yes									
9-Apr-10	Yes									
10-Apr-10	Yes				100%	109.60%	99.80%			
28-Jul-10	No	7	7.46	6.99						
7-Aug-10	Yes									
10-Aug-10	No	7.00	7.09	7.02						
		4.00	4.99	4						
18-Aug-10	No	7.00	7.03	7						
		4.00	4.05	4.01						
20-Aug-10	No	7.00	6.89	6.98						
		4.00	4.21	4						

Table 7.21: 2010 Hoskin Scientific 340I pH Meter Calibration Data

Date	Standard	Initial Reading	Final Reading	Slope (mV)
2010-01-04	4.01	4.01	4.01	-58.1
	7.00	7.04	7.02	
2010-01-06	4.01	4.03	4.00	-59.3
	7.00	7.03	7.00	
2010-01-12	4.01	4.18	4.00	-58.8
	7.00	7.21	7.01	
2010-01-13	4.01	4.00	4.00	-58.7
	7.00	6.97	7.02	
2010-01-27	4.01	3.99	4.00	-59.6
	7.00	7.05	7.00	
2010-02-04	4.01	4.01	4.00	58.6
	7.00	7.06	7.01	
2010-02-10	4.01	4.05	4.01	-58.4
	7.00	6.99	7.00	
2010-02-15	4.01	4.06	4.00	-59.1
	7.00	6.99	6.98	
2010-02-22	4.01	4.04	4.02	
	7.00	7.06	7.01	
2010-03-01	4.01	4.07	4.01	-58.6
	7.00	6.92	6.99	
2010-03-17	4.01	3.96	3.99	59.2
	7.00	6.95	7.00	
2010-03-23	4.01	3.97	4.01	-58.7
	7.00	6.98	7.00	
2010-03-31	4.01	4.02	4.00	
	7.00	7.05	7.01	
2010-04-15	4.01	3.97	4.01	-58.6
	7.00	7.01	6.99	
2010-04-20	4.01	4.01	4.02	-59.0
	7.00	6.98	7.00	
2010-04-20	4.01	4.06	4.01	-58.3
	7.00	6.98	7.01	
2010-05-10	4.01	4.02	4.00	-58.6
	7.00	7.03	7.01	
2010-05-19	4.01	3.94	3.96	-57.1
	7.00	7.04	7.04	
2010-06-14	4.01	4.01	3.98	-60.0
	7.00	6.92	7.00	
2010-06-16	4.01	4.04	4.00	-59.4
	7.00	6.97	7.03	
2010-07-05	4.01	4.09	4.01	-58.7
	7.00	7.08	6.97	
2010-07-07	4.01	4.11	3.97	-60.0
	7.00	7.11	7.00	
2010-07-12	4.01	4.02	4.00	-60.5
	7.00	7.02	7.02	

Date	Standard	Initial Reading	Final Reading	Slope (mV)
2010-07-14	4.01	4.02	4.00	-58.2
	7.00	7.00	7.00	
2010-07-19	4.01	4.08	4.00	-59.8
	7.00	7.05	7.00	
2010-07-21	4.01	4.01	4.00	-59.2
	7.00	7.00	7.00	
2010-07-25	4.01	4.03	4.00	-58.3
	7.00	7.01	7.00	
2010-08-09	4.01	4.01	3.99	-58.4
	7.00	7.00	6.99	
2010-08-10	4.01	3.98	4.00	-58.6
	7.00	7.02	7.00	
2010-08-18	4.01	4.05	4.01	
	7.00	7.03	4.01	
2010-08-25	4.01	4.19	4.01	-57.1
	7.00	7.06	7.01	
2010-08-30	4.01	4.08	3.97	-56.6
	7.00	7.03	6.99	
2010-08-31	4.01	3.96	4.01	-56.8
	7.00	6.94	7.02	
2010-09-02	4.01	4.09	4.02	-57.7
	7.00	7.04	7.00	
2010-09-04	4.01	3.90	4.00	-58.1
	7.00	7.00	7.00	
2010-09-06	4.01	4.11	3.98	-57.3
	7.00	7.03	6.97	
2010-09-08	4.01	4.10	4.01	-57.3
	7.00	7.08	6.98	
2010-09-11	4.01	4.02	3.99	-57.9
	7.00	6.96	6.98	
2010-09-13	4.01	4.09	3.99	-57.8
	7.00	7.05	6.99	
2010-09-14	4.01	4.12	3.98	-56.9
	7.00	7.05	7.00	
2010-09-15	4.01	4.04	3.99	-57.3
	7.00	7.01	6.99	
2010-09-22	4.01	4.01	4.05	-58.2
	7.00	7.00	7.00	
2010-09-25	4.01	4.08	3.99	-57.6
	7.00	6.97	6.97	
2010-10-21	4.01	4.06	4.01	-57.2
	7.00	6.99	7.00	
2010-10-25	4.01	4.02	4.00	-57.4
	7.00	6.99	7.02	
2010-10-27	4.01	4.06	4.01	
	7.00	7.03	7.00	
2010-11-01	4.01	4.24	3.96	-55.3
	7.00	7.10	7.02	

Date	Standard	Initial Reading	Final Reading	Slope (mV)
2010-11-04	4.01	4.05	4.01	-54.3
	7.00	6.95	6.98	
2010-11-08	4.01	3.96	3.98	-55.8
	7.00	6.93	7.00	
2010-11-10	4.01	3.99	4.00	-52.6
	7.00	6.97	7.01	
2010-11-11	4.01	4.03	3.98	-55.7
	7.00	6.99	7.00	
2010-11-13	4.01	4.06	4.02	-55.1
	7.00	7.02	6.99	
2010-11-15	4.01	4.05	3.99	-55.4
	7.00	7.04	7.00	
2010-11-24	4.01	4.08	4.00	-59.5
	7.00	7.03	7.00	
2010-11-29	4.01	4.12	4.00	-58.5
	7.00	7.05	7.00	
2010-12-01	4.01	4.00	4.00	-58.6
	7.00	6.99	7.00	
2010-12-02	4.01	3.97	3.97	-58.8
	7.00	7.02	7.03	
2010-12-05	4.01	4.16	4.00	-58.0
	7.00	7.02	7.01	
2010-12-06	4.01	4.04	3.98	-58.0
	7.00	7.06	7.01	
2010-12-07	4.01	4.07	3.99	-58.4
	7.00	7.07	7.00	
2010-12-08	4.01	4.12	3.99	-58.2
	7.00	7.10	7.00	
2010-12-13	4.01	4.07	4.01	-58.1
	7.00	7.08	7.02	
2010-12-14	4.01	4.08	3.99	-58.2
	7.00	7.11	7.00	
2010-12-15	4.01	4.02	4.01	-58.7
	7.00	7.03	7.02	
2010-12-20	4.01	4.01	4.00	-59.3
	7.00	7.06	7.00	
2010-12-21	4.01	3.95	4.00	-58.5
	7.00	6.91	7.00	
2010-12-28	4.01	4.17	4.00	-57.9
	7.00	7.06	7.02	

Table 7.22: 2010 Analite NEP 160 Meter Calibration Data

Date	Standard	Initial Reading (NTU)	Final Reading (NTU)
2010-02-21	0	0.04	-0.02
	10	10.16	10.00
2010-02-22	0	-0.05	0.01
	10	10.00	10.00
2010-02-23	0	0.13	-0.03
	10	10.01	9.99
2010-02-24	0	-0.04	-0.01
	10	10.72	9.96
2010-02-25	0	0.17	-0.01
	10	10.27	9.98
2010-02-26	0	0.03	0.01
	10	10.53	10.01
2010-02-27	0	-0.04	-0.05
	10	9.65	9.96
2010-03-01	0	-0.05	0.02
	10	10.26	9.97
2010-05-15	0	0.33	-0.03
	10	10.70	9.99
	100	99.10	99.80
2010-05-16	0	-0.03	-0.01
	10	9.98	9.99
	100	99.70	100.10
2010-05-17	0	-0.25	0.01
	10	9.76	10.04
	100	100.20	100.20
2010-05-18	0	0.02	0.01
	10	10.05	10.03
	100	100.20	9.99
2010-05-19	0	-0.01	-0.01
	10	10.00	10.00
	100	100.00	99.80
2010-05-20	0	0.01	0.02
	10	10.02	10.03
	100	99.80	99.90
2010-05-21	0	0.05	-0.02
	10	10.04	9.99
	100	99.90	99.90
2010-05-22	0	0.05	0.02
	10	10.04	10.03
	100	100.01	99.90
2010-05-23	0	0.02	0.00
	10	10.05	10.00
	100	99.90	100.00
2010-05-24	0	0.00	0.02
	10	10.02	10.03
	100	99.80	100.10

Date	Standard	Initial Reading (NTU)	Final Reading (NTU)
2010-05-25	0	0.02	0.02
	10	10.03	10.01
	100	101.50	99.70
2010-05-26	0	0.05	0.00
	10	10.10	9.99
	100	99.80	10.00
2010-05-27	0	0.03	1.00
	10	10.07	10.00
	100	100.20	100.00
2010-05-28	0	-0.02	-0.08
	10	10.02	10.01
	100	100.30	100.00
2010-05-29	0	0.03	0.01
	10	10.04	10.01
	100	100.70	100.10
2010-05-30	0	0.07	0.02
	10	10.48	10.00
	100	100.80	100.20
2010-05-31	0	0.03	0.00
	10	10.07	10.03
	100	101.10	100.00
2010-06-01	0	0.03	0.00
	10	10.04	10.01
	100	100.20	100.00
2010-06-02	0	0.05	0.01
	10	10.06	10.00
	100	101.00	100.00
2010-06-03	0	-0.04	0.00
	10	10.13	10.02
	100	98.40	10.01
2010-06-04	0	0.02	0.00
	10	9.81	9.96
	100	98.60	100.00
2010-06-05	0	0.01	0.02
	10	9.96	9.98
	100	100.00	99.80
2010-06-06	0	0.02	0.00
	10	10.06	9.98
	100	100.40	100.00
2010-06-07	0	0.16	0.00
	10	9.99	9.99
	100	99.80	100.00
2010-06-08	0	-0.04	-0.02
	10	9.88	10.04
	100	98.50	100.00
2010-06-09	0	-0.01	0.01
	10	9.98	10.00
	100	99.90	99.90

Date	Standard	Initial Reading (NTU)	Final Reading (NTU)
2010-06-10	0	0.03	0.01
	10	10.01	9.99
	100	100.20	100.00
2010-06-11	0	0.00	-0.01
	10	9.98	10.01
	100	100.02	99.70
2010-06-12	0	-0.01	0.02
	10	9.98	10.01
	100	99.70	100.00
2010-06-13	0	0.01	0.02
	10	10.03	9.97
	100	100.10	100.00
2010-06-14	0	0.03	-0.01
	10	9.99	9.99
	100	100.10	100.20
2010-06-15	0	0.01	0.01
	10	9.98	10.02
	100	100.10	100.20
2010-06-16	0	0.04	0.02
	10	10.21	10.02
	100	100.20	99.90
2010-06-17	0	0.03	0.00
	10	10.02	10.00
	100	100.10	99.90
2010-06-18	0	0.03	0.01
	10	10.28	10.00
	100	100.30	100.00
2010-06-19	0	-0.01	0.00
	10	10.08	9.99
	100	100.10	100.00
2010-06-20	0	0.01	-0.02
	10	10.03	9.98
	100	100.00	100.20
2010-06-21	0	-0.03	0.01
	10	10.03	10.00
	100	100.10	100.00
2010-06-22	0	0.02	0.01
	10	10.08	9.99
	100	100.10	100.00
2010-06-23	0	0.22	0.02
	10	10.07	10.00
	100	100.20	100.00
2010-06-24	0	0.05	0.01
	10	10.11	10.00
	100	100.10	100.10
2010-06-25	0	0.04	0.00
	10	10.02	10.01
	100	100.20	100.00

Date	Standard	Initial Reading (NTU)	Final Reading (NTU)
2010-06-26	0	0.01	0.00
	10	10.04	10.00
	100	100.10	99.90
2010-06-27	0	0.09	0.00
	10	10.07	10.01
	100	100.30	100.00
2010-06-28	0	0.06	0.01
	10	10.04	10.01
	100	100.10	100.00
2010-06-29	0	0.16	0.02
	10	10.01	10.00
	100	100.30	100.00
2010-06-30	0	0.06	0.00
	10	10.03	10.00
	100	100.10	100.00
2010-07-02	0	0.12	0.00
	10	9.92	10.01
	100	94.60	100.40
2010-07-03	0	-0.02	error
	10	4.80	error
	100	42.50	error
2010-07-04	0	-0.02	0.00
	10	9.78	9.99
	100	99.90	100.20
2010-07-05	0	0.01	0.01
	10	10.04	9.97
	100	91.60	99.90
2010-07-06	0	0.15	-0.01
	10	13.19	9.97
	100	103.30	99.70
2010-07-07	0	0.15	-0.02
	10	13.19	9.98
	100	103.30	100.10
2010-07-08	0	0.15	-0.03
	10	13.19	9.98
	100	103.30	100.10
2010-07-09	0	-0.03	0.00
	10	10.00	10.02
	100	100.40	99.90
2010-07-10	0	-0.01	-0.01
	10	10.02	10.03
	100	100.10	100.00
2010-07-11	0	-0.04	-0.03
	10	10.07	9.96
	100	99.80	100.30
2010-07-12	0	-0.06	-0.01
	10	9.94	9.99
	100	100.10	99.90

Date	Standard	Initial Reading (NTU)	Final Reading (NTU)
2010-07-13	0	-0.01	0.00
	10	9.99	9.99
	100	99.30	99.90
2010-07-14	0	-0.01	0.02
	10	9.95	9.99
	100	99.30	99.90
2010-07-15	0	0.02	0.00
	10	10.08	9.99
	100	100.10	100.00
2010-07-16	0	-0.03	-0.03
	10	10.00	10.00
	100	100.10	100.10
2010-07-17	0	0.02	0.01
	10	10.04	10.00
	100	100.00	100.00
2010-07-18	0	0.10	0.01
	10	10.03	10.01
	100	100.10	100.00
2010-07-19	0	0.06	0.01
	10	10.01	10.00
	100	100.00	100.00
2010-07-20	0	0.04	0.01
	10	10.03	9.99
	100	100.10	99.90
2010-07-21	0	0.00	0.00
	10	10.01	10.01
	100	100.00	100.00
2010-07-22	0	0.09	0.01
	10	14.70	10.00
	100	100.50	100.10
2010-07-23	0	0.00	0.00
	10	10.02	10.01
	100	100.00	99.90
2010-07-24	0	0.00	0.00
	10	10.01	10.01
	100	100.00	100.00
2010-07-26	0	0.87	0.00
	10	12.65	10.02
	100	106.60	99.80
2010-07-27	0	-0.12	-0.04
	10	9.97	9.97
	100	97.00	100.10
2010-07-28	0	-0.07	-0.04
	10	9.94	9.95
	100	99.70	100.00
2010-07-29	0	-0.09	-0.04
	10	9.95	10.20
	100	99.90	100.00

Date	Standard	Initial Reading (NTU)	Final Reading (NTU)
2010-07-30	0	-0.32	-0.01
	10	10.03	10.00
	100	100.20	100.40
2010-07-31	0	-0.04	0.04
	10	10.01	10.00
	100	100.50	100.10
2010-08-01	0	-0.01	0.01
	10	10.05	9.95
	100	100.30	100.30
2010-08-02	0	-0.03	0.00
	10	9.98	9.99
	100	100.10	100.10
2010-08-03	0	-0.80	0.02
	10	10.01	9.98
	100	100.30	100.20
2010-08-04	0	-0.05	-0.01
	10	10.00	9.99
	100	100.20	100.10
2010-08-05	0	-0.01	0.01
	10	9.92	9.96
	100	100.20	100.20
2010-08-06	0	0.02	0.01
	10	9.99	9.98
	100	99.80	100.40
2010-08-07	0	-0.03	0.01
	10	9.97	10.02
	100	100.50	100.20
2010-08-08	0	0.01	0.02
	10	10.02	10.02
	100	100.00	99.80
2010-08-09	0	-0.61	-0.01
	10	9.73	10.00
	100	102.50	99.80
2010-08-10	0	-0.02	-0.01
	10	10.01	9.99
	100	100.20	100.00
2010-08-11	0	0.01	0.02
	10	9.98	10.01
	100	99.80	100.10
2010-08-12	0	0.05	0.01
	10	10.05	10.01
	100	100.10	100.00
2010-08-13	0	0.22	-0.02
	10	11.16	9.99
	100	107.30	100.00
2010-08-14	0	-0.03	-0.02
	10	9.99	9.99
	100	99.70	100.10

Date	Standard	Initial Reading (NTU)	Final Reading (NTU)
2010-08-15	0	-0.02	0.03
	10	10.03	10.01
	100	100.30	100.10
2010-08-16	0	0.04	0.01
	10	10.02	10.00
	100	99.90	100.00
2010-08-17	0	0.22	-0.01
	10	11.19	9.99
	100	109.00	100.00
2010-08-19	0	0.10	0.02
	10	10.00	9.99
	100	100.10	100.00
2010-08-20	0	0.04	0.01
	10	10.03	9.99
	100	100.10	100.00
2010-08-21	0	0.00	0.00
	10	9.99	9.99
	100	99.60	99.80
2010-08-21	0	0.04	-0.01
	10	10.03	9.99
	100	100.80	99.70
2010-08-22	0	-0.02	-0.01
	10	9.69	9.97
	100	100.40	99.50
2010-08-23	0	0.01	-0.01
	10	9.99	9.98
	100	100.90	100.00
2010-08-24	0	-0.02	0.02
	10	10.08	10.00
	100	100.50	99.80
2010-08-25	0	-0.01	0.01
	10	10.10	10.00
	100	100.50	99.70
2010-08-26	0	0.04	0.02
	10	9.98	10.03
	100	100.40	100.20
2010-08-27	0	0.01	0.04
	10	10.09	10.02
	100	100.60	99.90
2010/28/08	0	0.01	0.00
	10	9.96	10.00
	100	99.80	99.90
2010-28-08	0	0.44	0.02
	10	11.64	9.97
	100	106.00	99.90
2010-29-08	0	0.01	0.00
	10	10.02	10.01
	100	100.10	99.90

Date	Standard	Initial Reading (NTU)	Final Reading (NTU)
2010-30-08	0	0.00	0.02
	10	10.16	9.98
	100	101.00	100.00
2010-31-08	0	0.00	0.00
	10	10.01	9.99
	100	100.10	99.98
2010-09-01	0	-0.01	0.00
	10	10.09	9.97
	100	100.90	99.98
2010-09-02	0	-0.01	-0.02
	10	9.98	9.96
	100	100.30	100.00
2010-09-03	0	-0.04	-0.01
	10	9.96	9.98
	100	100.10	99.90
2010-09-03	0	-0.06	0.03
	10	10.03	10.00
	100	100.00	100.00
2010-09-04	0	0.01	-0.01
	10	10.03	10.02
	100	100.60	100.00
2010-09-05	0	0.02	0.00
	10	9.97	10.02
	100	99.60	99.90
2010-09-06	0	-0.01	-0.02
	10	10.09	10.04
	100	99.90	100.00
2010-09-07	0	0.01	0.02
	10	10.12	9.95
	100	101.30	99.80
2010-09-08	0	0.04	-0.01
	10	9.95	10.00
	100	99.90	100.00
2010-09-09	0	0.01	0.00
	10	10.07	10.01
	100	99.10	99.50
2010-09-09	0	-0.16	-0.03
	10	10.08	10.01
	100	99.70	100.00
2010-09-10	0	0.03	-0.03
	10	10.06	9.97
	100	100.30	100.00
2010-09-11	0	0.16	0.00
	10	10.00	9.97
	100	98.80	99.90
2010-09-12	0	-0.03	0.03
	10	10.10	9.95
	100	100.50	100.00

Date	Standard	Initial Reading (NTU)	Final Reading (NTU)
2010-09-13	0	-0.12	0.00
	10	9.93	10.01
	100	100.60	100.20
2010-09-14	0	0.01	-0.05
	10	9.98	9.97
	100	100.20	99.80
2010-09-15	0	0.04	0.00
	10	9.89	10.00
	100	99.50	99.90
2010-09-16	0	0.19	0.03
	10	10.39	10.01
	100	99.80	100.20
2010-09-17	0	-0.06	0.01
	10	9.94	9.98
	100	100.10	
2010-09-18	0	0.13	-0.01
	10	10.05	10.07
	100	100.10	100.20
2010-09-19	0	-0.07	0.00
	10	10.06	10.00
	100	100.10	99.90
2010-09-20	0	0.02	-0.01
	10	10.01	10.00
	100	99.50	99.90
2010-09-21	0	0.14	0.01
	10	10.34	10.01
	100	105.12	100.02
2010-09-22	0	-0.05	0.00
	10	10.04	9.80
	100	109.70	99.40
2010-09-23	0	0.05	0.01
	10	10.03	10.00
	100	100.70	100.10
2010-09-24	0	0.31	0.02
	10	9.98	9.99
	100	102.20	100.00
2010-09-25	0	0.06	0.02
	10	9.98	9.99
	100	100.20	100.00
2010-09-27	0	0.06	-0.01
	10	10.09	9.98
	100	99.90	99.80
2010-09-28	0	-0.03	0.01
	10	9.86	10.01
	100	100.00	99.90
2010-09-29	0	0.05	0.01
	10	9.93	9.96
	100	99.90	100.10

Date	Standard	Initial Reading (NTU)	Final Reading (NTU)
2010-09-30	0	0.14	0.03
	10	9.98	9.99
	100	97.80	100.30
2010-10-01	0	0.05	0.01
	10	9.93	10.04
	100	99.70	100.10
2010-10-02	0	0.25	0.03
	10	10.33	10.04
	100	101.60	100.00
2010-10-03	0	0.03	0.03
	10	9.96	10.01
	100	99.70	100.20
2010-10-04	0		
	10		
	100		
2010-10-05	0	-0.11	-0.02
	10	9.38	9.97
	100	98.80	99.90
2010-10-08	0	0.00	-0.08
	10	9.94	9.96
	100	101.20	99.80
2010-10-16	0	-0.03	-0.01
	10	9.92	9.98
	100	99.40	100.00
2010-10-18	0	0.04	0.00
	10	9.96	9.99
	100	99.40	100.00
2010-10-19	0	0.03	0.00
	10	9.94	10.00
	100	99.50	99.80
2010-10-20	0	0.02	0.01
	10	10.06	10.02
	100	99.60	100.00
2010-10-21	0	0.04	0.01
	10	9.99	10.01
	100	100.40	100.00
2010-10-22	0	0.02	0.00
	10	10.06	10.01
	100	100.20	100.00
2010-10-23	0	0.01	0.00
	10	10.14	10.00
	100	100.50	99.90
2010-10-24	0	0.04	0.02
	10	10.06	10.01
	100	100.20	100.00
2010-10-25	0	0.04	0.00
	10	10.02	10.01
	100	100.10	100.00

Date	Standard	Initial Reading (NTU)	Final Reading (NTU)
2010-10-26	0	0.02	0.01
	10	9.98	10.01
	100	99.60	99.90
2010-10-27	0	0.04	0.00
	10	10.02	10.00
	100	99.80	99.90
2010-10-28	0	0.05	0.00
	10	9.93	10.03
	100	101.60	100.00
2010-10-29	0	0.03	0.01
	10	9.96	9.97
	100	99.70	100.10
2010-10-30	0	-0.02	0.01
	10	10.06	9.99
	100	101.20	100.10
2010-10-31	0	0.00	0.01
	10	9.95	9.84
	100	100.20	99.40
2010-11-01	0	0.00	0.00
	10	9.83	10.01
	100	99.20	100.20
2010-11-02	0	0.07	0.01
	10	10.04	9.95
	100	100.20	99.80
2010-11-04	0	0.07	0.03
	10	9.74	10.01
	100	99.70	99.90
2010-11-05	0	0.05	0.04
	10	9.91	10.00
	100	99.80	99.90
2010-11-06	0	0.13	0.03
	10	9.97	10.00
	100	99.60	100.00
2010-11-07	0	0.02	-0.01
	10	10.10	9.98
	100	101.20	100.00
2010-11-08	0	0.04	0.02
	10	10.05	10.05
	100	100.20	99.80
2010-11-09	0	0.04	0.02
	10	10.05	10.05
	100	100.20	99.80
2010-11-10	0	0.03	0.03
	10	10.14	10.01
	100	100.10	99.70
2010-11-11	0	-0.11	0.00
	10	9.90	9.99
	100	99.90	99.90

Date	Standard	Initial Reading (NTU)	Final Reading (NTU)
2010-11-12	0	0.02	0.01
	10	9.98	10.03
	100	99.20	99.90
2010-11-13	0	-0.05	-0.01
	10	10.06	9.98
	100	100.10	100.30
2010-11-14	0	0.01	0.02
	10	9.99	9.98
	100	100.30	100.10
2010-11-15	0	0.00	0.00
	10	10.01	9.96
	100	100.30	99.70
2010-11-16	0	-0.05	0.01
	10	9.94	9.98
	100	99.50	99.80
2010-11-24	0	-0.02	0.05
	10	10.00	9.95
	100	100.60	99.50
2010-11-25	0	0.01	0.06
	10	10.00	10.03
	100	100.10	99.70
2010-11-26	0	0.00	0.02
	10	9.92	10.61
	100	99.60	100.60
2010-11-28	0	0.09	0.02
	10	10.50	9.98
	100	100.30	99.80
2010-11-29	0	0.03	-0.01
	10	10.01	9.99
	100	101.30	99.80
2010-11-30	0	0.03	0.01
	10	9.96	9.99
	100	99.60	99.90
2010-12-01	0	-0.01	0.02
	10	9.95	10.03
	100	100.10	100.10
2010-12-02	0	-0.46	0.04
	10	9.99	9.97
	100	100.00	100.20
2010-12-03	0	-0.07	-0.02
	10	10.01	9.96
	100	100.20	99.70
2010-12-04	0	0.02	0.00
	10	9.96	10.03
	100	99.80	99.80
2010-12-05	0	0.03	0.01
	10	9.96	9.98
	100	99.40	100.00

Date	Standard	Initial Reading (NTU)	Final Reading (NTU)
2010-12-06	0	0.08	-0.02
	10	10.09	10.01
	100	99.80	100.20
2010-12-07	0	0.00	0.03
	10	10.05	9.96
	100	100.90	99.90
2010-12-08	0	0.02	0.00
	10	10.04	9.97
	100	99.70	99.60
2010-12-09	0	0.00	0.00
	10	9.96	10.03
	100	99.60	99.90
2010-12-10	0	0.00	0.01
	10	10.02	9.99
	100	100.30	99.90
2010-12-11	0	0.05	0.00
	10	10.01	9.98
	100	100.10	100.00
2010-12-12	0	0.00	-0.03
	10	9.97	10.02
	100	99.90	100.00
2010-12-13	0	0.03	0.00
	10	9.97	10.00
	100	99.80	100.00
2010-12-14	0	-0.04	0.01
	10	9.87	9.98
	100	100.60	100.00
2010-12-15	0	-0.11	0.01
	10	9.89	9.98
	100	99.20	99.60
2010-12-16	0	0.02	0.02
	10	10.02	10.00
	100	99.80	99.90
2010-12-17	0	0.07	0.02
	10	10.03	10.03
	100	99.80	100.00
2010-12-18	0	0.03	0.01
	10	10.09	10.02
	100	100.20	100.00
2010-12-19	0	0.06	0.01
	10	10.03	10.01
	100	100.20	100.00
2010-12-20	0	0.06	0.02
	10	9.95	9.98
	100	100.00	100.00
2010-12-21	0	0.02	0.03
	10	9.92	10.03
	100	100.10	100.10

Date	Standard	Initial Reading (NTU)	Final Reading (NTU)
2010-12-22	0	0.11	0.01
	10	10.09	10.01
	100	100.30	100.00
2010-12-23	0	0.02	0.01
	10	10.50	10.00
	100	100.10	100.00
2010-12-24	0	0.14	0.02
	10	10.06	10.02
	100	100.10	99.70
2010-12-25	0	0.06	0.01
	10	10.05	10.01
	100	100.30	100.1
2010-12-26	0	0.05	0.01
	10	10.13	10.05
	100	100.40	100.20
2010-12-28	0	0.04	0.01
	10	10.07	9.99
	100	103.10	100.00
2010-12-29	0	0.02	0.00
	10	10.03	10.01
	100	100.30	99.9
2010-12-30	0	0.03	0.01
	10	10.02	10.01
	100	100.20	100.10
2010-12-31	0	0.01	0.01
	10	10.04	10.00
	100	100.10	100.00

Table 7.23: 2010 Freshwater Usage (m³)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Camp	2430	2228	2503	2360	2397	2496	2607	3026	3214	3035	3146	3039	
Batch Plant	61	34	57	43	40	0	0	0	0	NA	NA	NA	
Mill & Production Drills & Dust Control	1548	90000	228786	95380	77589	98673	93898	95954	91838	85176	71344	78527	
Water for dust control	0	0	0	0	5262	708	NA	NA	NA	NA	NA	NA	
Emulsion plant	0	0	0	0	0	155	178	182	176	199	136	27	
Water truck (Emulsion plant and production drills)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	52	
Total (m³)	4039	92262	231346	97784	85288	102032	96683	99162	95228	88410	74626	81645	1148505
Reclaim Water Usage (m³)	NA	NA	227000	234214	232620	247991	231471	215896	187311	171929	156498	162165	2067095
Ore Water (m³)	NA	727	5054	5470	2408	2616	2349	2618	2763	1556	1097	1077	27735

Footnotes:

water for dust control is included with the mill totals as of July

water for the Batch plant is included in the mill totals as of October

the water truck was used in December due to frozen valves on the freshwater storage tanks at the mill and emulsion plant

	Source Lake
Camp	Third Portage Lake
Batch Plant	Second Portage Lake
Mill & Production Drills & Dust Control	Third Portage Lake
Water for dust control	Third Portage Lake
Emulsion plant	No-name Lake
Water truck (Emulsion plant and production drills)	Second Portage Lake
