NWB Annual Report **Year being reported:** 2011

License No: 2BE-HOP0712 **Issued Date:** May 20, 2007
Expiry Date: June 30, 2012

Project Name: Hope Bay Regional Exploration Project

Licensee: Hope Bay Mining Ltd.

Mailing Address: 300-889 Harbourside Dr.
North Vancouver, BC
V7P 3S1

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):

This licence was re-assigned in 2008 from Miramar Hope Bay Ltd. to Hope Bay Mining Ltd.

General Background Information on the Project (*optional):

Licence 2BE-HOP0712 allows HBML to carry out activities in support of exploration drilling at the Hope Bay Regional Exploration Project and the Windy Camp, which supports exploration activities.

Licence Requirements: the licensee must provide the following information in accordance with

Part B | Item 2

A. A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management [see Part B Item 2(i)]

Water Source(s): Domestic from Windy Lake; drill water from local water sources

Water Quantity:

22995 cu.m	Quantity Allowable Domestic (cu.m)
1870 cu.m	Actual Quantity Used Domestic (cu.m)
29200 cu.m	Quantity Allowable Drilling (cu.m)
4543.6 cu.m	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- [x] Solid Waste Disposal
- [ ] Sewage
- [x] Drill Waste
- [ ] Greywater
- [ ] Hazardous
- [x] Other: Fuel Farm Berm Effluent

Additional Details:

When Windy Camp is in operation, water for domestic use is obtained from Windy Lake via a 2 inch diameter submerged pipe with a DFO compliant fish screen.

Water used for drilling is taken from the closest lake using a similar system to the domestic system. In the case of regional drilling, water is taken from the closest lake to the drill site in accordance with the June 2007 "Hope Bay Exploration Drilling Water Sources" authorized water sources map. Further to this, Amendment No. 3 to the 2BE-HOP0712 Licence issued July 20, 2010 permits water extraction for drilling from additional water bodies in accordance with the specific condictions of the amendment.

Water was not used at Windy Camp for domestic purposes in 2011 as the camp was closed.

When the facilities are open at Windy Camp, waste produced on site is generally treated according to Part D of the license, with specifics as follows:

-Food waste, wood waste, paper waste and untreated wood products is burned in the incinerator as per Part D Item 3.
-Solid waste that cannot be burned is taken offsite for disposal.
-Drill cuttings produced under this license are being stored at Doris by Quarry 2 and near Windy camp in Trench #1.
-Hazardous materials such as waste oil, glycol, and contaminated soil are shipped offsite for disposal at an approved facility as per Part D Item 5.
-Berm effluent is sampled for water quality against the dicharge criteria of the licence. Effluent that meets the standards for discharge is released in accordance with the licence following a notification to the Inspector; effluent that does not meet the licence criteria is treated onsite until it is treated to acceptable levels for discharge, or it is removed offsite for treatment/disposal.

B. A list of unauthorized discharges and a summary of follow-up actions taken. [see Part B Item 2(iii)]

Spill No.: (as reported to the Spill Hot-line)
Date of Spill:
Date of Notification to an Inspector:
Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

Please see Item 3 of attached supplement for a list , including details, of all unauthorized discharges that occured in 2011 under licence 2BE-HOP0712.

C. Revisions to the Spill Contingency Plan [see Part B Item 2(v)]

Other: (see additional details)

Additional Details:

The NWB approved the revised Spill Contingency Plan in October 2010. Since then, updates have been made to the contact numbers, as well as tank location information and drawings showing tank locations. An updated copy of this plan is included with the submission of the annual report.

D. Revisions to the Abandonment and Restoration Plan [see Part I Item 3]

Other: (see additional details)

Additional Details:

A revised Closure Plan for this licence was submitted to the NWB in early 2011. The plan is under review by the NWB.

E. Progressive Reclamation Work Undertaken [see Part B Item 2(vi)]

Additional Details (i.e., work completed and future works proposed)

During 2011, progressive reclamation consisted of removing waste from Windy Camp and the Patch Lake facility.

At Patch Lake, the following activities occured:
-Clean-up and removal of drums
-Clean-up of wood and debris (staged for winter backhaul)
-Clean up of one cuttings dump (removed cuttings bags)

At Windy Lake, the following activities occured:
-Clean-up and removal of most drums
-Clean-up and removal of chemicals from inside the shops
-General debris clean-up
-Core boxes within 30 m of water at the south end of Windy Camp removed
-Core boxes within 30 m of water at the north end of Windy Camp stacked and ready to be removed in spring 2012

On going reclamation work under this licence includes the clean-up of land-based and winter ice drilling sites. Upon completion of a winter ice drilling hole the drill crew cleans the site and removes all drill equipment. Drill cuttings are contained throughout the drilling process, dewatered and taken to a designated cuttings dump. Following clean-up by the drill crew, an inspection is made by the environmental department (ESR) or the Newmont Drill Services Manager. If further clean up is required, an inspection report stating the corrective actions is generated and follow up is performed by the drill contractor. Follow up inspections are then conducted by ESR or the Newmont Drill Services Manager.

Summer land-based drill site reclamation efforts involve complete clean-up of each drill site by back-filling drill holes with bentonite, permanently capping casings, and then stabalizing the tundra using coconut fibre matting and peat moss. Every land-based drill hole on the belt in 2011 was inspected at the end of season by ESR and any outstanding clean-up was performed, or flagged for reclamation in 2012.

F. Results of the Monitoring Program including [see Part B Items 2(ii)]

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;

Details described below

Additional Details:

Drilling water source coordinates are maintained on file in the HBML Geology Department for all water sources utilized proximal to the drill targets.

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited [Part J, Item 10];

Details described below

Additional Details:

Monitoring Stations HOP-2 and HOP-3 had no discharge because Windy Camp was closed in 2008 and these facilities were not operational in 2011. Discharges did not occur at the monitoring station HOP-4 because the land farm at the location was dismantled in 2008.

Water quality at HOP-5 was sampled and discharge occurred in 2011 in compliance with the licence. Details of the discharge location for HOP-5 are in Appendix A of attached supplement. No discharges occurred at HOP-6.

Results of any additional sampling and/or analysis that was requested by an Inspector

Additional Details: (date of request, analysis of results, data attached, etc)

N/A

G. Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported [see Part B Item 2(ix)]

Additional Details: (Attached or provided below)

N/A

H. Any responses or follow-up actions on inspection/compliance reports [see Part B Item 2(iv)]

Additional Details: (Dates of Report, Follow-up by the Licensee)

Details are set out at Item 4 of the attached supplement.

I. Any additional comments or information for the Board to consider

Please see attached supplement for additional information requirements set out in Licence No. 2BE-HOP0712.

Date Submitted:	March 31, 2012	
Submitted/Prepared by:	Chris Hanks	
Contact Information:	**Tel:**	(720) 917-4489
	Fax:	(604) 980-0731
	email:	chris.hanks@newmont.com

GPS Coordinates for water sources utilized

Source Description	Latitude			Longitude		
	Deg °	Min '	Sec "	Deg °	Min '	Sec "
HOP-1 - Raw water supply intake at Windy Lake	68	3	38	106	37	6

Source Description	UTM Easting	UTM Northing
Doris Lake	433420	7558840
Doris Lake	433438	7558964
Doris Lake	434030	7558900
Doris Lake	434070	7559100
Doris Lake	433600	7558251
Doris Lake	433621	7558020
Doris Lake	433571	7558438
Patch Lake	435236	7546820
Patch Lake	435464	7546689
Patch Lake	435452	7546705
Doris Lake	433900	7558910
Doris Lake	433665	7558760
Patch Lake	435300	7546945
Patch Lake	435575	7546880
Patch Lake	435245	7546945
Patch Lake	435545	7547040
Patch Lake	435485	7546697
Patch Lake	435479	7546643
Patch Lake	435265	7546798
Patch Lake	435500	7546587
Patch Lake	434835	7546355
Wolverine Lake	434800	7546345
Patch Lake	435820	7548980
Patch Lake	435289	7546750
Patch Lake	434630	7548370
Patch Lake	435490	7546718
Patch Lake	435529	7546775
Wolverine Lake	434750	7546330
Wolverine Lake	434689	7546350
Patch Lake	435960	7549059
Patch Lake	435486	7546709
Patch Lake	435167	7546744
Patch Lake	435055	7544855
Patch Lake	435419	7544720
Patch Lake	435060	7544532
Patch Lake	435015	7546720
Patch Lake	434991	7546705
Patch Lake	433406	7550760
Patch Lake	433229	7550639
Patch Lake	433203	7550617
Patch Lake	433055	7551250

Patch Lake	435016	7550849
Patch Lake	433000	7551020

GPS Locations of areas of waste disposal

Location Description (type)	Latitude			Longitude		
	Deg °	Min '	Sec "	Deg °	Min '	Sec "
HOP-2 - WWTF effluent discharge at the surge tank prior to being pumped over the ridge east of the Windy Camp facilities	68	3	50.4	106	37	3.4
HOP-3 - WWTF effluent at a point of entry into Windy Lake	68	3	58.5	106	37	16.2

Source Description	UTM Easting	UTM Northing
HOP-5 - Effluent from the Bulk Fuel Storage Facility located at the Windy Camp, prior to release.	432621	7550553
HOP-6 - Effluent from the Bulk Fuel Storage Facility located at the Patch Lake location, prior to release to a location approved by an Inspector.	433718	7551907

2011 2BE-HOP0712 Type B Water License Annual Report Supplemental Document

Windy Camp

Nunavut Water Board

Prepared by
Hope Bay Mining Ltd.
North Vancouver, BC

Prepared for
Nunavut Water Board
Gjoa Haven, NU

March 2012

Executive Summary
2BE-HOP0712 Annual Report

Hope Bay Mining Ltd. ("HBML") has filed its Annual Report on its activities during 2011 under Water Licence No. 2BE-HOP0712 issued by the Nunavut Water Board on May 27, 2007. Note in 2008 this licence was transferred from the previous owner, Miramar Hope Bay Mining Ltd., to HBML. As set out in Part B of the Licence, the report includes information with respect to the following topics:

- a summary of water use and waste disposal activities
- a summary of all information requested and results of the Monitoring Program
- a list of unauthorized discharges and a summary of follow-up actions taken
- a brief description of follow-up actions taken to address concerns detailed in inspection and compliance reports prepared by the Inspector
- up to date contact information with respect to the Spill Contingency Plan
- A description of all progressive and/or final reclamation work undertaken
- A summary of modification and/or major maintenance work carried out on the water supply and waste disposal facilities
- A brief description of future studies currently planned or proposed

Aolapkaeyin Naetomik Okaohen
2BE-HOP0712 Ukeogoagaagan Unipkaak

Hope Bay Mining Ltd.-kon ("HBML") tonihihimaliktun Ukeotoagaagan Unipkamiknik havaamigun 2011-mi ukeommi ilagani Imaknik Atogeagani Laeseoyum Napaa 2BE-HOP0712 toniyaohimayok Nunavumi Imalikiyin katimayenin May 27-mi 2007-mi. Kaoyimalogo 2008-mi una laeseoyok nuhimayok hivoagun nanminikaktugaloamin, Miramar-konin Kapihiliktumi Oyagaktakvik-kunin ukunuga HBML-kunin. Okakhimayumi Naonaepkun B-mi, Ilikuktok 1 Laeseoyumi, unipkak ilakaktok hivunikhiyotikhanik ukununa:

- naetomik okaoheoyonik imaknik atoknigagun ikagolikiyotilo
- naetomik okaoheoyonik tamaeta hivunikhiyotikhan tukhiktaohimayun kanogilinigilo Amigiyotinun Havaani
- titigakhimayonik agiktaohimagitun kuvigaeyun naetomilo okaoheoyunik upiyotinik kigoagun
- naetomik okaoheoyonik upiyotinik ihoakhiyaagani ihomalutaoyun titigakhimayun ilitokhaeyutinin maligoateakmagaalunen makpigaagini ihoakhakhimayaeni Ilitokhaeyim
- nutaanik okakatikhanik hivunikhiyumanikan Kuveyokakan Havaagiyakhaenun Upalogaeyaonmik
- okateaklogin tamaeta hivumuginaktun kigolelo nunan utiktitpaleayagani ilitkuhenun havaagiyaovaleayun
- naetomik okaoheoyonik notaguktitiyutinik ihoakhaotiniklunen imiktakvikon havaoheoyun ikagukvelo pikotaoyunik
- naetomik okaoheoyonik hivunikhami ilitokhaotikhanik taya ihoakhaktaoliktun atoktaoyumayolunen

ᓇᐃᓇᓵᔪᓂᖅ ᑐᓴᐅᒃᓴᓕᐅᔪᓂᖅ
2BE-HOP0712 ᐅᑭᐅᒧᑦ ᐊᑐᖅᑕᐅᔪᓂᖅ ᑐᓴᖏᒃᓴᓕᐅᔪᓂᖅ

Hope Bay Mining Ltd. ᐅᓵᖅᓯᐅᖅᑎᑦ ᐅᑭᐅᒧᑦ ᐊᑐᖅᒥᓂᒃ ᐅᓂᕆᓕᐅᖅᑐᑦ ᑐᓴᖏᒃᓴᓕᐅᖅᑐᑦ ᐱᓕᓇᐊᓇᓵᒥᓂᒃᓂᑦ ᐅᑭᐅᒧᑦ 2011 ᐃᒪᖅᒧᑦ ᓕᐃᓴᖏᑕ ᓇᓴᐅᑦ 2BE-HOP0712 ᐊᖏᑕᐅᓕᐅᖅᑐᖓ ᓄᓇᕐᒥ ᐃᒪᓕᓇᓵᑦ ᑲᑎᒪᓵᕐᒪᓂᒃᓂᑦ ᒪᐃ 27, 2007. ᑐᑭᓯᐊᓕᒃ 2008-ᒧᑦ ᓕᐃᓴ ᑭᒃᓇ ᓄᑎᖅᑕᐅᓕᐅᖅᑐᖓ ᓯᕗᖅᑕᐅᔪᓂᒃᓂᑦ ᑕᐃძᓇᖏᑕ ᓇᑫᒥᓂᖏᓕᐅᖅᑐᓂᒃ, ᓕᓂᑭᖏᒪᖏᑭ Hope Bay Mining_ძᒃᓂᑦ, HBML_ძᒃᓄᑦ. ᐊᖏᑕᐅᓯᒪᔪᖓ Lᓕᒃᓗᒍ Part B, ᓇᓴᐅᑎᖅᑐᖓ 1 ᓕᐃᓴᒥ, ᑐᓴᖏᒃᓴᓕᐅᖅᑐᒥᔪᖓ ᐅᓂᒃᓕᐅᖅᑐᒥᔪᖓ ᑐᖅᖏᖏᖓ ᐊᑐᖅᓂᒃ ᐊᑎᓂᒃ ᑎᑎᖅᑭᒥᔪᓄᑦ:

- ᓇᐃᓵᖅᓯᒪᔭᓗᑎᒃ ᐅᓂᒃᖅᓯᒪᔪᓂ ᐃᒪᐅᔭᑦ ᐊᑐᖅᑕᐅᓂᖏᓄᑦ ᐊᓚᒐᓗ ᐊᒃᑕᑯᖅᑕᖅᓂᕐᓂᑦ
- ᓇᐃᓇᓵᔪᓂᒃᓂᓗᑎᒃ ᐅᓂᒃᖅᓯᒪᔪᓂᑦ ᑕᒪᖅᒥᑦ ᑐᓴᖅᑕᐅᔪᓚᓕᐅᖅᑐᑦ ᐊᓚᒐᓗ ᖃᐅᔨᖅᑕᐅᑭᓕᓕᐊᓄᑦ ᐊᑐᖅᑐᑦ
- ᑎᑎᖅᓯᓯᒪᔪᓂᑦ ᐊᖏᑕᐅᓯᒪᓕᕐᓂᑐᑦ ᓴᖏᐊᑦᓕᓕᐊᔪᓂᑦ ᐊᓚᒐᓗ ᖃᓄᖃᓄᑦ ᑎᑎᖃᖅᓯᒪᔭᓗᑎᒃ
- ᓇᐃᓵᖅᓯᒪᔭᓗᑎᒃ ᑎᑎᖅᓯᓯᒪᔪᓂᑦ ᖃᐅᔨᓴᖅᑕᐅᖃᖅᑕᓇᐊᖃᖅᑐᑦ ᓯᓇᑐᐃᓐᓇᐃᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᕐᓂᑦ ᐊᓚᒐᓗ ᐃᓯᒪᓗᑕᐅᔨᓕᓕᐊᓄᑦ ᑭᐅᔪᕐᑐᐅᔪᓂᑦ ᑕᐃᔨᖅᑐᑦᓕᓕᐊᓄᑦ ᐅᖃᐅᓯᐅᓕᐅᖅᑐᑦ
- ᐅᑦᓗᒥᒃᓯᑦ ᐊᖏᑕᐅᓯᒪᔪᓂᑦ ᐃᐃᔪᖃᖅᑦᑎᓂᑦ ᐊᑐᖅᑕᐅᔪᓕᖅᓂᑦ ᐊᖏᐅᒪᔪᓂᑦ ᐊᑐᐃᓐᓇᐅᔪᓂᑦ
- ᐊᑐᖅᑕᐅᔪᓂᑦ ᓯᓇᑐᐃᓐᓇᐃᓂᑦ ᐊᓚᒐᓗ ᓴᓂᓕᑕᐅᓂᖅᓴᖅᑐᑦ ᓄᑭᖓᔪᖅᑎᑕᐅᓂᐊᖅᓯᓂᖓᓄᑦ ᓄᓇᑦ ᓴᓇᕐᓂᐅᔪᓂᑦ ᐊᖏᓂᖅᑕᐅᔪᓂᑦ ᐊᑐᖅᑐᑦ ᐊᓚᒐᓗ ᐃᒪᖅᒧᑦ ᖃᐃᐱᐊᖅᑕᐅᔪᓂᑦ ᐊᖏᓂᖅᑕᐅᔪᓂᑦ ᓴᓇᕐᓂᐅᔪᓂᑦ ᐃᒥᐊᕐᐃᑎᑦ ᐊᑐᖅᑐᑦ ᐊᓚᒐᓗ ᐃᒪᖅᒧᑦ ᖃᐃᐱᐊᖅᑕᐅᔪᓂᑦ
- ᓇᐃᓇᓵᔪᓂᒃᓂᓗᑎᒃ ᑎᑎᖅᓯᒪᔪᓂᑦ ᓂᕆᔨᖅᑐᑦ ᓴᖏᐊᑦᓕᓕᐊᔪᓂᑦ ᒪᓐᓇᒧᑦ ᐸᖅᑭᒃᑐᑦᓕᓕᐊᔪᓂᑦ ᐊᑐᖅᑐᑦ
- ᓇᐃᓇᓵᔪᓂᒃᓂᓗᑎᒃ ᑎᑎᖅᓯᒪᔪᓂᑦ ᓂᕆᔨᖅᑐᑦ ᒪᓐᓇᒧᑦ ᐊᖏᑕᐅᓯᒪᔪᓂᑦ ᐊᖏᓂᖅᑕᐅᔪᓂᑦ ᓴᓇᕐᓂᐅᔪᓂᑦ ᐃᒥᐊᕐᐃᑎᑦ ᐊᑐᖅᑐᑦ ᐊᓚᒐᓗ ᐃᒪᖅᒧᑦ ᖃᐃᐱᐊᖅᑕᐅᔪᓂᑦ
- ᓇᐃᓇᓵᔪᓂᒃᓂᓗᑎᒃ ᑎᑎᖅᓯᒪᔪᓂᑦ ᓂᕆᔨᖅᑐᑦ ᖃᐅᔨᓴᖅᑕᐅᓂᐊᖅᓯᑦ ᒪᓐᓇᒥᑦ ᐸᖅᓇᖅᑕᐅᓕᕐᓂᑦ ᐅᓕᓗᓐᓂᑦ ᑐᓴᖅᑕᐅᓂᐊᖅᓯᑦ

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1. A summary report of water use and waste disposal activities [see Part B Item 2 (i)]

General details on water use and waste disposal activities under licence 2BE-HOP0712 can be found at Item A of the annual report form.

Further details on water use in 2011 are presented in part b of Appendix A.

Waste disposal activities under licence 2BE-HOP0712 were focused on removing material from the old Windy Camp and the closed Patch Lake facility. From Windy Camp, there was clean-up and removal of general debris, drums, and chemicals inside the shops. From the Patch Lake facility, there was clean-up and removal of drums, the clean-up of one cuttings dump and removal of the cuttings bags, and the clean-up and staging of wood and debris in preparation for winter backhaul. Windy Camp was not operational in 2011 so no domestic waste was produced and the incinerator was not put into service. Food waste produced at the drill sites was returned to Doris Camp for proper disposal with the domestic waste. All waste removed is taken to the waste management facility at Doris North for sorting and eventual backhaul by plane or sealift.

2. A summary of results of Monitoring Program [see Part B Item 2 (ii) and Part J Item 18]

This information is set out in Appendix A to this document.

3. A list of unauthorized discharges and a summary of follow-up actions taken [see Part B Item 2 (iii)]

Date of Spill: January 6, 2011
Spill No: N/A
Date of Notification to an Inspector: N/A
Product Spilled: Hydraulic Oil
Details of Spill: Challenger working on winter road in the vicinity of the intersection of Patch and Windy roads broke a hydraulic hose spilling approximately 45 litres of hydraulic oil onto the snow. The Challenger was repaired, the contaminated snow shoveled up and placed in 45 gal drums, and brought to waste management.

Date of Spill: June 13, 2011
Spill No: 11-222
Date of Notification to an Inspector: June 15, 2011
Product Spilled: Overflow from Fuel Facility Berm
Details of Spill: The Windy Camp Bulk Fuel Facility Berm (HOP-5) was found overflowing on June 13, 2011. A spill report was filed with the spill line and a notification was sent to the Inspector and the Nunavut Water Board on June 15 detailing the incident. Sandbags and polyethylene plastic sheeting were used to increase the berm height and the water level was lowered by pumping water into a portable containment berm. Water samples were collected on June 13 and results indicated that the water met the discharge criteria specified in the water license (2BE-HOP0712). Notification for discharge was submitted for on June 21. The water was

discharged to a location behind the berm (UTM 7550550 N, 432670 E) between July 10-12, 2011.

Date of Spill: July 6, 2011
Spill No: N/A
Date of Notification to an Inspector: N/A
Product Spilled: Hydraulic Fluid and Diesel
Details of Spill: A helicopter slinging a power pack for the RC drill from the Doris Camp to Boston dropped the load approximately 500 feet to the ground due to a chafed sling. The power pack was destroyed and a small quantity of hydraulic fluid and diesel fuel spilled (<1L). Sorbent pads were used to control leaking fluids until the equipment was removed.

Date of Spill: July 14, 2011
Spill No: N/A
Date of Notification to an Inspector: July 17, 2011
Product Spilled: Lead Contaminated Water
Details of Spill: A plastic water tank filled with approximately 2800 L of lead-contaminated water (0.04 mg/L lead) and located at the upper laydown area (68°30'40" N; 106°37'01" W), was found empty during a site inspection. The water had leaked out of the tank through a hole in the bottom caused by a sharp rock. The leaked water was absorbed by the ground and there was no risk of the water entering a water body. A spill report was filed with the Nunavut Spill Line but did not receive a number. A follow-up report was submitted to the inspector incorrectly using spill number 11-222 as a reference. This was an unrelated event to spill 11-222.

Date of Spill: September 18, 2011
Spill No: N/A
Date of Notification to an Inspector: N/A
Product Spilled: Water
Details of Spill: Water from drill cuttings escaped from the containment sump at a diamond drill set-up (67°53'16" N; 112°33'25" W), and lay in depressions in close proximity to the drill set-up. Upon detection, the discolored water was pumped back to the containment sump and the cuttings were picked up. None of the turbid water entered a water body.

Date of Spill: September 22, 2011
Spill No: N/A
Date of Notification to an Inspector: N/A
Product Spilled: Hydraulic Oil
Details of Spill: A diamond drill (68°3'54" N; 112°36'14" W) had a hydraulic system failure resulting in approximately 0.5 litres of hydraulic oil being spilled on the floor inside the drill. No oil contacted the ground. The system was repaired and placed back in service.

4. A brief description of follow-up action taken to address concerns detailed in inspection and compliance reports prepared by the Inspector [see Part B Item 2 (iv)]

No inspection or compliance reports were issued by the Inspector in 2011 for licence 2BE-HOP0712. However, the inspector made several comments during the inspection that took place between July 11 and 13 that HBML has addressed or will be addressing, including:

- Many old drill sites across the belt require reclamation to remove drill stems and general debris, and to repair vegetation die-off and thermokarsting.
    - HBML has scheduled a belt-wide inventory of drill sites to identify reclamation requirements at each historic hole for 2012. Drill stems will be cut and capped at as many holes as possible in 2012 during the inventory program. Reclamation for vegetation and thermokarsting will be scheduled after the 2012 inventory is completed.
- Patch laydown has drums, debris, mega-bags, and an old mechanical berm that need to be cleaned up.
    - HBML has cleaned up much of the wood debris and the drums since the inspection. The wood debris and drums will be removed before spring 2012, and additional clean-up activities are scheduled for summer 2012.
- Windy camp needs to be cleaned up, including debris, drums, small fuel tanks, and miscellaneous chemicals.
    - HBML has collected much of the loose debris, chemicals and the drums. The fuel tanks, remaining chemicals, and debris will be removed in summer 2012.
- Windy camp has erosion issues in the area where the landfarm used to be.
    - HBML will address erosion issues in the closure plan, which will be submitted in 2012.

5. An up-to-date copy of the Spill Contingency Plan, including contact information [see Part B Item 2 (v)]

The Spill Contingency Plan was approved by the NWB in October 2010. Since then, updates have been made to the contact numbers, tank location information, and drawings showing talk locations. An updated copy of this plan is included with the submission of the annual report.

6. A description of all progressive and or final reclamation work undertaken, including photographic records of site conditions before, during and after completion or operations [see Part B Item 2 (vi)]

Please refer to Item E of the Annual Report Form for a description of progressive reclamation undertaken in 2011 as part of this licence.

7. A summary of modification and/or major maintenance work carried out on the Water Supply and the Waste Disposal Facilities, including all associated structures, and an outline of any work anticipated for the next year [see Part B Item 2 (vii)]

Windy Camp was closed on October 23, 2008. No modification and/or maintenance work was carried out on the Water Supply and the Waste Disposal Facilities in 2011.

8. A summary of any specific studies or reports requested by the Board, and a brief description of any future studies planned or proposed [see Part B Item 2 viii)]

No specific studies or reports were requested by the Board in 2011 and no studies are planned or proposed for 2012.

9. Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported. [see Part B Item 2 ix)]

No other details on water use or waste disposal were requested by the Board in 2011.

10. Where drilling activity has penetrated below the permafrost layer, the NWB requests that the proponent record the depth of permafrost and location of the drill hole to be included within the Annual Report [see Part F Item 4]

Drilling activity in 2011 did not penetrate below the permafrost layer. For areas where exploration is carried out pursuant to Type B Water Licence 2BE-HOP0712, depth of permafrost is calculated using thermistor strings that measure ground temperature, installed in geotechnical drill holes (thermistor strings are not installed in all drill holes). The thermistor stings are used because it is not possible to visually assess when a drill hole has passed through the permafrost layer. Results obtained from the thermistor strings are used to extrapolate the lower depth of permafrost using thermal gradient. There are several such thermistor strings throughout the Hope Bay Belt and measurements are taken on an on-going basis. The depth of permafrost extrapolated from data collected at thermistor string SRK-50 (200 m in length) is 570 m. The depth of permafrost extrapolated from data collected at thermistor string 08TDD632 (350 m in length) is 435 m. Results collected from all thermistor strings are presented in the 2AM-DOH0713 2011 Annual Geotechnical Inspection Report filed with the NWB on March 31, 2012.

Appendix A

Annual Monitoring Report – 2BE-HOP0712

a) Summary of Monitoring Information

The following tables summarize the results of sampling undertaken as part of the monitoring program detailed in Part J of 2BE-HOP0712.

The camp water treatment and wastewater treatment facility (WWTF) under the Windy Exploration license were not operational in 2011, therefore no monitoring was conducted at stations HOP-1 (freshwater intake), HOP-2 (WWTF discharge), or HOP-3 (point of entry of WWTF discharge to Windy Lake). The landfarm at Windy Camp was dismantled in 2008 so no sampling was conducted at the monitoring station, HOP-4, associated with this facility.

The Bulk Fuel Storage tanks at Windy Camp were moved to Doris Camp in winter 2009 for use there. The containment berm surrounding the tanks at Windy Camp has not been dismantled however and the HOP-5 monitoring station within the berm continued to be monitored in 2011.

A spill report was filed with the spill line and a notification was sent to the AANDC site inspector on June 15 providing details regarding an overflow incident at the HOP-5 berm. Sandbags and polyethylene plastic sheeting were used to increase the berm height and the water level was lowered by pumping water into a portable containment berm. Samples of the accumulated snow melt effluent were collected immediately and results were found to be compliant with discharge criteria. Formal notification for discharge was submitted on June 21. Additional samples were collected from HOP-5 on July 5, 2011. Between July 10 and 12, 2011, 274 m^3 was discharged to a location upslope behind the berm (UTM 7550550 N, 432670 E). Analytical results from June and July compliance monitoring are provided in Table 1.

Table 1 - Summary water quality data for HOP-5 from June and July 2011, in mg/L, unless specified otherwise

Parameters	HOP-5	HOP-5
ALS Lab Reference #	L1017091-1	L1027725-1
Sample Date and Time	13/06/11@14:30	05/07/11@14:30
Benzene	<0.00050	<0.00050
Toluene	<0.00050	<0.00050
Ethylbenzene	<0.00050	<0.00050
Total Lead	0.0004	<0.00010
Oil and Grease	2.1mg/L; no visible sheen	<1.0m g/L; not reported*

**A reporting error occurred at the lab for the July 5th sample event which omitted the visibility analysis for oil and grease. Sampling of HOP-5 on June 13, 2011 indicated the effluent had no visible sheen.*

The fuel storage tanks at the Patch Lake Bulk Fuel Storage Facility were relocated to temporary storage at the Doris North Camp in 2010 where they remained throughout 2011. In June 2011, samples of melt water taken from the partially decommissioned berm at HOP-6 were found to be compliant for discharge, but evaporation over the period reduced the available melt water to only minor volumes in the facility eliminating the need for discharge.

No sampling occurred at monitoring stations HOP-7a, HOP-7b, HOP-7d (located in Quarries A, B or D, respectively) during 2011 because there was no ponded water to sample.

In accordance with Part F Item 7 and Part J Item 5, samples were taken to establish water quality prior to and upon completion of the 2011 winter drilling program through lake ice on Doris, Patch, and Wolverine Lakes. Doris Lake pre-drilling samples were taken January 8, 2011; Patch Lake pre-drilling samples were taken February 2, 2011; and Wolverine Lake pre-drilling samples were taken February 8, 2011. Due to unsafe ice conditions by the time the drills were removed, post-drilling samples were collected during open water at these three lakes on July 22, 2011. Sample results can be found in Tables 2 through 7.

No samples were collected at Windy Lake in support of the winter drilling program, as no drilling occurred on Windy Lake during winter 2011.

Table 2 – Water quality samples from Doris Lake pre-ice drilling, January 2011, in mg/L, unless specified otherwise

Parameters	DLHOP1-08Jan11	DLHOP2-08Jan11	DLHOP3-08Jan11	DLHOP4-08Jan11	DLHOP5-08Jan11
ALS Lab Reference #	L968531-1	L968531-2	L968531-3	L968531-4	L968531-5
Sample Date	08/01/11	08/01/11	08/01/11	08/01/11	08/01/11
Mercury (Hg) Total	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Aluminum (Al) Total	0.054	0.032	0.020	0.021	0.022
Antimony (Sb) Total	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Arsenic (As) Total	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Barium (BA) Total	0.0036	0.0038	0.0045	<0.0030	<0.0030
Beryllium (BE) Total	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron (B) Total	<0.050	<0.050	<0.050	<0.050	<0.050
Cadmium (Cd) Total	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Chromium (Cr) Total	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt (Co) Total	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Copper (Cu) Total	0.0020	0.0022	0.0023	0.0019	0.0019
Lead (Pb) Total	0.00014	0.00011	0.00013	<0.00010	<0.00010
Lithium (Li) Total	<0.010	<0.010	<0.010	<0.010	<0.010
Molybdenum (Mo) Total	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nickel (Ni) Total	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Selenium (Se) Total	<<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Silver (Ag) Total	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Thallium (Ti) Total	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn) Total	<0.050	<0.050	<0.050	<0.050	<0.050
Titanium (Ti) Total	0.0018	<0.0010	<0.0010	<0.0010	<0.0010
Uranium (U) Total	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Vanadium (V) Total	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc (Zn) Total	0.0498	0.0520	0.0209	0.0041	<0.0040
Calcium (Ca) Total	10.3	9.38	8.86	9.11	8.73
Iron (Fe) Total	0.101	0.060	0.059	0.061	0.056
Magnesium (Mg) Total	8.08	7.44	7.14	7.32	6.92
Manganese (Mn) Total	0.0045	0.0037	0.0039	0.0038	0.0037
Potassium (K) Total	2.76	2.40	2.37	2.29	2.23
Sodium (Na) Total	39.6	36.8	34.4	34.7	33.8
Total Suspended Solids	6.4	4.4	9.6	6.1	5.5
Chloride (Cl)	79.9	76.2	74.0	73.5	73.3
Calcium (Ca) Dissolved	10.4	10.2	9.22	9.69	9.73
Magnesium (Mg) Dissolved	8.14	7.45	7.18	7.74	7.86
Potassium (K) Dissolved	2.56	2.62	2.34	2.40	2.39
Sodium (Na) Dissolved	38.1	36.7	33.4	35.7	36.0
Fluoride (F)	0.072	0.060	0.080	0.072	0.052
TDS (Calculated)	164	157	149	152	153
Hardness (as CaCO3)	59.5	56.1	52.6	56.1	56.7
Nitrate (as N)	<0.050	<0.050	<0.050	<0.050	<0.050
Nitrate + Nitrite (as N)	<0.071	<0.071	<0.071	<0.071	<0.071
Nitrite (as N)	<0.050	<0.050	<0.050	<0.050	<0.050
Sulfate (SO4)	3.46	3.14	2.92	2.84	2.84
pH	7.64	7.65	7.66	7.67	7.68
Conductivity (EC)	333	321	315	318	315
Bicarbonate (HCO3)	44.1	42.1	40.5	41.3	41.6
Carbonate (CO3)	<5.0	<5.0	<5.0	<5.0	<5.0
Hydroxide (OH)	<5.0	<5.0	<5.0	<5.0	<5.0
Alkalinity, Total (as CaCO3)	36.1	34.5	33.2	33.8	34.1

Table 3 – Water quality samples from Doris Lake post-ice drilling, July 2011, in mg/L, unless specified otherwise

Parameters	HOPDL1-22JULY11	HOPDL2-22JULY11	HOPDL3-22JULY11	HOPDL4-22JULY11	HOPDL5-22JULY11
ALS Lab Reference #	L1035856-1	L1035856-2	L1035856-3	L1035856-4	L1035856-5
Sample Date	22/07/11	22/07/11	22/07/11	22/07/11	22/07/11
Total Suspended Solids	3	<3.0	<3.0	-	<3.0
Alkalinity, Total (as CaCO3)	27.5	27	27.8	-	28
Bicarbonate (HCO3)	33.5	32.9	33.9	-	34.1
Carbonate (CO3)	<5.0	<5.0	<5.0	-	<5.0
Chloride (Cl)	56.4	56.4	56.5	-	56.2
Conductivity (EC) (uS/cm)	253	253	254	-	255
Hardness (as CaCO3)	41.3	42	42	-	41.1
Hydroxide (OH)	<5.0	<5.0	<5.0	-	<5.0
Ion Balance (%)	91.5	93.4	91.5	-	89.9
Nitrate and Nitrite (as N)	<0.071	<0.071	<0.071	-	<0.071
Nitrate (as N)	<0.050	<0.050	<0.050	-	<0.050
Nitrite (as N)	<0.050	<0.050	<0.050	-	<0.050
pH	7.84	7.85	7.85	-	7.85
TDS (Calculated)	116	116	116	-	115
Sulfate (SO4)	2.27	2.27	2.28	-	2.25
Aluminum (Al)-Total	0.055	0.054	0.053	0.045	0.045
Antimony (Sb)-Total	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Arsenic (As)-Total	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Barium (Ba)-Total	0.0034	0.0033	0.0032	<0.0030	0.0032
Beryllium (Be)-Total	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron (B)-Total	<0.050	<0.050	<0.050	<0.050	<0.050
Cadmium (Cd)-Total	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Calcium (Ca)-Total	7.58	7.38	7.03	7.24	7.32
Chromium (Cr)-Total	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt (Co)-Total	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Copper (Cu)-Total	0.0018	0.0016	0.0016	0.0015	0.0015
Iron (Fe)-Total	0.11	0.104	0.102	0.098	0.099
Lead (Pb)-Total	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Lithium (Li)-Total	<0.010	<0.010	<0.010	<0.010	<0.010
Magnesium (Mg)-Total	5.48	5.35	5.08	5.11	5.37
Manganese (Mn)-Total	0.0076	0.0069	0.0064	0.0063	0.0063
Mercury (Hg)-Total	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum (Mo)-Total	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nickel (Ni)-Total	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Potassium (K)-Total	1.79	1.76	1.57	1.62	1.78
Selenium (Se)-Total	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Silver (Ag)-Total	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Sodium (Na)-Total	24	24	22.6	22.8	24.1
Thallium (Tl)-Total	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	<0.050	<0.050	<0.050	<0.050	<0.050
Titanium (Ti)-Total	0.0026	0.0012	0.0015	0.0012	0.0012
Uranium (U)-Total	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Vanadium (V)-Total	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc (Zn)-Total	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Calcium (Ca)-Dissolved	7.65	7.68	7.68	-	7.62
Magnesium (Mg)-Dissolved	5.4	5.54	5.54	-	5.36
Potassium (K)-Dissolved	1.87	1.94	1.86	-	1.9
Sodium (Na)-Dissolved	25.9	26.3	25.8	-	25.3

Table 4 – Water quality samples from Patch Lake pre-ice drilling, February 2011, in mg/L, unless specified otherwise

Parameters	HOPPL1-2FEB11	HOPPL2-2FEB11	HOPPL3-2FEB11	HOPPL4-2FEB11
ALS Lab Reference #	L976206-1	L976206-2	L976206-3	L976206-4
Sample Date	02/02/11	02/02/11	02/02/11	02/02/11
Total Suspended Solids	<3.0	<3.0	<3.0	<3.0
Alkalinity, Total (as CaCO3)	46.2	44.6	44.9	44.3
Bicarbonate (HCO3)	56.3	54.4	54.8	54
Carbonate (CO3)	<5.0	<5.0	<5.0	<5.0
Chloride (Cl)	96.5	93.5	94.2	93.5
Conductivity (EC) (uS/cm)	406	396	401	391
Fluoride (F)	0.056	0.054	0.058	0.057
Hardness (as CaCO3)	75.6	74	74.1	73.1
Hydroxide (OH)	<5.0	<5.0	<5.0	<5.0
Ion Balance (%)	92.2	93.7	93.8	93.2
Nitrate and Nitrite as N	<0.071	<0.071	<0.071	<0.071
Nitrate (as N)	<0.050	<0.050	<0.050	<0.050
Nitrite (as N)	<0.050	<0.050	<0.050	<0.050
pH	7.83	7.82	7.81	7.81
TDS (Calculated)	196	191	193	191
Sulfate (SO4)	2.95	2.85	2.83	2.85
Aluminum (Al)-Total	0.039	0.035	0.028	0.033
Antimony (Sb)-Total	<0.00040	<0.00040	<0.00040	<0.00040
Arsenic (As)-Total	0.00044	0.00049	0.00043	0.00045
Barium (Ba)-Total	0.0043	0.0039	0.004	0.0038
Beryllium (Be)-Total	<0.0010	<0.0010	<0.0010	<0.0010
Boron (B)-Total	<0.050	<0.050	<0.050	<0.050
Cadmium (Cd)-Total	<0.000050	<0.000050	<0.000050	<0.000050
Calcium (Ca)-Total	13.9	13.1	13.2	13.1
Chromium (Cr)-Total	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt (Co)-Total	<0.0020	<0.0020	<0.0020	<0.0020
Copper (Cu)-Total	0.0097	0.0014	0.0014	0.0013
Iron (Fe)-Total	0.016	0.013	<0.010	<0.010
Lead (Pb)-Total	<0.00010	<0.00010	<0.00010	<0.00010
Lithium (Li)-Total	<0.010	<0.010	<0.010	<0.010
Magnesium (Mg)-Total	10.1	9.35	9.41	9.2
Manganese (Mn)-Total	<0.0020	<0.0020	<0.0020	<0.0020
Mercury (Hg)-Total	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum (Mo)-Total	<0.0050	<0.0050	<0.0050	<0.0050
Nickel (Ni)-Total	<0.0020	<0.0020	<0.0020	<0.0020
Potassium (K)-Total	3.21	3	2.92	2.95
Selenium (Se)-Total	<0.0020 *	<0.0020 *	<0.0020 *	<0.0020 *
Silver (Ag)-Total	<0.00010	<0.00010	<0.00010	<0.00010
Sodium (Na)-Total	43.3	40.1	40.4	39.9
Thallium (Tl)-Total	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	<0.050	<0.050	<0.050	<0.050
Titanium (Ti)-Total	<0.0010	0.0016	<0.0010	<0.0010
Uranium (U)-Total	<0.00010	<0.00010	<0.00010	<0.00010
Vanadium (V)-Total	<0.0010	<0.0010	<0.0010	<0.0010
Zinc (Zn)-Total	0.0439	<0.0040	<0.0040	<0.0040
Calcium (Ca)-Dissolved	13.9	13.6	13.6	13.4
Magnesium (Mg)-Dissolved	9.92	9.73	9.75	9.62
Potassium (K)-Dissolved	3.22	3.12	3.15	3.14
Sodium (Na)-Dissolved	42	41.5	42.1	41.4

**Detection limit adjusted for sample matrix effects*

Table 5 – Water quality samples from Patch Lake post-ice drilling, July 2011, in mg/L, unless specified otherwise

Parameters	HOPPL1-22JULY11	HOPPL2-22JULY11	HOPPL3-22JULY11	HOPPL4-22JULY11
ALS Lab Reference #	L1035854-1	L1035854-2	L1035854-3	L1035854-4
Sample Date	22/07/11	22/07/11	22/07/11	22/07/11
Total Suspended Solids	<3.0	<3.0	<3.0	<3.0
Alkalinity, Total (as CaCO3)	33.5	33.7	34.1	34.3
Bicarbonate (HCO3)	40.9	41.1	41.6	41.8
Carbonate (CO3)	<5.0	<5.0	<5.0	<5.0
Chloride (Cl)	68.4	68.4	68.3	68.4
Conductivity (EC) (uS/cm)	303	306	305	305
Hardness (as CaCO3)	52.9	53	52.3	53
Hydroxide (OH)	<5.0	<5.0	<5.0	<5.0
Ion Balance (%)	91.3	91.8	90.9	91.1
Nitrate and Nitrite (as N)	<0.071	<0.071	<0.071	<0.071
Nitrate (as N)	<0.050	<0.050	<0.050	<0.050
Nitrite (as N)	<0.050	<0.050	<0.050	<0.050
pH	7.92	7.92	7.91	7.92
TDS (Calculated)	139	140	140	140
Sulfate (SO4)	2.1	2.1	2.17	2.1
Aluminum (Al)-Total	0.101	0.136	0.095	0.094
Antimony (Sb)-Total	<0.00040	<0.00040	<0.00040	<0.00040
Arsenic (As)-Total	<0.00040	<0.00040	<0.00040	<0.00040
Barium (Ba)-Total	0.0039	0.004	0.0036	0.0038
Beryllium (Be)-Total	<0.0010	<0.0010	<0.0010	<0.0010
Boron (B)-Total	<0.050	<0.050	<0.050	<0.050
Cadmium (Cd)-Total	<0.000050	<0.000050	<0.000050	<0.000050
Calcium (Ca)-Total	9.15	9.84	9.35	9.43
Chromium (Cr)-Total	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt (Co)-Total	<0.0020	<0.0020	<0.0020	<0.0020
Copper (Cu)-Total	0.0017	0.0013	0.0016	0.0014
Iron (Fe)-Total	0.09	0.098	0.105	0.082
Lead (Pb)-Total	0.00015	<0.00010	<0.00010	<0.00010
Lithium (Li)-Total	<0.010	<0.010	<0.010	<0.010
Magnesium (Mg)-Total	6.48	7.23	6.74	6.66
Manganese (Mn)-Total	0.0035	0.004	0.0035	0.0038
Mercury (Hg)-Total	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum (Mo)-Total	<0.0050	<0.0050	<0.0050	<0.0050
Nickel (Ni)-Total	<0.0020	<0.0020	<0.0020	<0.0020
Potassium (K)-Total	2.09	2.32	2.08	2.21
Selenium (Se)-Total	<0.00040	<0.00040	<0.00040	<0.00040
Silver (Ag)-Total	<0.00010	<0.00010	<0.00010	<0.00010
Sodium (Na)-Total	27	29.8	27.2	28
Thallium (Tl)-Total	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	<0.050	<0.050	<0.050	<0.050
Titanium (Ti)-Total	0.0034	0.0053	0.0034	0.0037
Uranium (U)-Total	<0.00010	<0.00010	<0.00010	<0.00010
Vanadium (V)-Total	<0.0010	<0.0010	<0.0010	<0.0010
Zinc (Zn)-Total	<0.0040	<0.0040	<0.0040	<0.0040
Calcium (Ca)-Dissolved	9.76	9.85	9.68	9.88
Magnesium (Mg)-Dissolved	6.94	6.89	6.83	6.87
Potassium (K)-Dissolved	2.29	2.38	2.38	2.43
Sodium (Na)-Dissolved	29.8	30.1	30	29.9

Table 6 – Water quality samples from Wolverine Lake pre-ice drilling, February 2011, in mg/L, unless specified otherwise

Parameter	HOPWVL1-8FEB11	HOPWVL2-8FEB11	HOPWVL3-8FEB11
ALS Lab Reference #	L977852-1	L977852-2	L977852-3
Sample Date	08/02/11	08/02/11	08/02/11
Total Suspended Solids	<3.0	<3.0	<3.0
Alkalinity, Total (as CaCO3)	63.8	65.8	64.6
Bicarbonate (HCO3)	77.9	80.3	78.8
Carbonate (CO3)	<5.0	<5.0	<5.0
Chloride (Cl)	138	140	140
Conductivity (EC) (uS/cm)	580	585	586
Fluoride (F)	0.105	0.097	0.105
Hardness (as CaCO3)	96.2	97.2	97.4
Hydroxide (OH)	<5.0	<5.0	<5.0
Ion Balance (%)	93.9	93.6	94
Nitrate and Nitrite as N	0.079	<0.071	<0.071
Nitrate (as N)	0.079	0.066	0.057
Nitrite (as N)	<0.050	<0.050	<0.050
pH	7.68	7.78	7.69
TDS (Calculated)	275	280	279
Sulfate (SO4)	0.55	0.55	0.57
Aluminum (Al)-Total	0.016	0.011	0.013
Antimony (Sb)-Total	<0.00040	<0.00040	<0.00040
Arsenic (As)-Total	0.00076	0.00074	0.0008
Barium (Ba)-Total	0.0089	0.0086	0.0085
Beryllium (Be)-Total	<0.0010	<0.0010	<0.0010
Boron (B)-Total	<0.050	<0.050	<0.050
Cadmium (Cd)-Total	<0.000050	<0.000050	<0.000050
Calcium (Ca)-Total	12.4	14.4	14.2
Chromium (Cr)-Total	<0.0050	<0.0050	<0.0050
Cobalt (Co)-Total	<0.0020	<0.0020	<0.0020
Copper (Cu)-Total	0.0012	<0.0010	<0.0010
Iron (Fe)-Total	0.204	0.23	0.185
Lead (Pb)-Total	<0.00010	<0.00010	<0.00010
Lithium (Li)-Total	<0.010	<0.010	<0.010
Magnesium (Mg)-Total	12.6	14.6	14.4
Manganese (Mn)-Total	0.104	0.103	0.099
Mercury (Hg)-Total	<0.00010	<0.00010	<0.00010
Molybdenum (Mo)-Total	<0.0050	<0.0050	<0.0050
Nickel (Ni)-Total	<0.0020	<0.0020	<0.0020
Potassium (K)-Total	2.85	3.18	3.21
Selenium (Se)-Total	<0.0020 *	<0.0020 *	<0.0020 *
Silver (Ag)-Total	<0.00010	<0.00010	<0.00010
Sodium (Na)-Total	58.2	67.1	66.1
Thallium (Tl)-Total	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	<0.050	<0.050	<0.050
Titanium (Ti)-Total	<0.0010	<0.0010	<0.0010
Uranium (U)-Total	<0.00010	<0.00010	<0.00010
Vanadium (V)-Total	<0.0010	<0.0010	<0.0010
Zinc (Zn)-Total	0.0876	<0.0040	<0.0040
Calcium (Ca)-Dissolved	14.3	14.5	14.6
Magnesium (Mg)-Dissolved	14.7	14.8	14.8
Potassium (K)-Dissolved	3.08	3.06	3.09
Sodium (Na)-Dissolved	66	67.3	67.1

**Detection Limit Adjustment for sample matrix effects*

Table 7 – Water quality samples from Wolverine Lake post-ice drilling, July 2011, in mg/L, unless specified otherwise

Parameters	HOPWVL1-22JULY11	HOPWVL2-22JULY11	HOPWVL3-22JULY11
ALS Lab Reference #	L1035856-6	L1035856-7	L1035856-8
Sample Date	22/07/11	22/07/11	22/07/11
Total Suspended Solids	<3.0	<3.0	<3.0
Alkalinity, Total (as CaCO3)	36.3	36.3	36.2
Bicarbonate (HCO3)	44.3	44.3	44.2
Carbonate (CO3)	<5.0	<5.0	<5.0
Chloride (Cl)	75.3	75.0	75.1
Conductivity (EC) (uS/cm)	327	329	329
Hardness (as CaCO3)	52.6	52.1	51.7
Hydroxide (OH)	<5.0	<5.0	<5.0
Ion Balance (%)	95	94.5	92.7
Nitrate and Nitrite (as N)	<0.071	<0.071	<0.071
Nitrate (as N)	<0.050	<0.050	<0.050
Nitrite (as N)	<0.050	<0.050	<0.050
pH	7.99	7.98	7.99
TDS (Calculated)	152	151	150
Sulfate (SO4)	<0.50	<0.50	<0.50
Aluminum (Al)-Total	0.043	0.044	0.032
Antimony (Sb)-Total	<0.00040	<0.00040	<0.00040
Arsenic (As)-Total	<0.00040	<0.00040	<0.00040
Barium (Ba)-Total	0.0043	0.0045	0.0042
Beryllium (Be)-Total	<0.0010	<0.0010	<0.0010
Boron (B)-Total	<0.050	<0.050	<0.050
Cadmium (Cd)-Total	<0.000050	<0.000050	<0.000050
Calcium (Ca)-Total	7.47	7.32	7.25
Chromium (Cr)-Total	<0.0050	<0.0050	<0.0050
Cobalt (Co)-Total	<0.0020	<0.0020	<0.0020
Copper (Cu)-Total	<0.0010	0.0011	<0.0010
Iron (Fe)-Total	0.082	0.087	0.074
Lead (Pb)-Total	<0.00010	<0.00010	<0.00010
Lithium (Li)-Total	<0.010	<0.010	<0.010
Magnesium (Mg)-Total	7.5	7.31	7.28
Manganese (Mn)-Total	0.0085	0.0084	0.0079
Mercury (Hg)-Total	<0.00010	<0.00010	<0.00010
Molybdenum (Mo)-Total	<0.0050	<0.0050	<0.0050
Nickel (Ni)-Total	<0.0020	<0.0020	<0.0020
Potassium (K)-Total	1.69	1.76	1.68
Selenium (Se)-Total	<0.00040	<0.00040	<0.00040
Silver (Ag)-Total	<0.00010	<0.00010	<0.00010
Sodium (Na)-Total	32.1	32.1	31
Thallium (Tl)-Total	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	<0.050	<0.050	<0.050
Titanium (Ti)-Total	0.0013	0.0012	<0.0010
Uranium (U)-Total	<0.00010	<0.00010	<0.00010
Vanadium (V)-Total	<0.0010	<0.0010	<0.0010
Zinc (Zn)-Total	<0.0040	<0.0040	<0.0040
Calcium (Ca)-Dissolved	7.84	7.84	7.84
Magnesium (Mg)-Dissolved	8.01	7.9	7.81
Potassium (K)-Dissolved	2	2.03	1.88
Sodium (Na)-Dissolved	36.9	36.6	35.7

b) Quantities of water utilized for camp, drilling and other purposes

During 2011, water was utilized for exploration drilling and winter ice road construction to support access to drill sites. Geographical locations of water extraction are retained on file per Part J Item 9 of the licence. Water usage recorded for each drill was recorded using water metres. During October, however, when drilling locations were proximal to the Doris-Windy all-weather road, water was taken from Doris Lake and transported by truck and stored in holding tanks at the drills. The total water extracted and delivered over this period was divided over the number of drilling days to provide a daily water usage value. Overall, water volumes utilized for drilling in 2011 were in compliance with Part C Item 1 that states that the volume of water for drilling purposes shall not exceed 80 m^3 per day.

No water was used for domestic purposes because Windy Camp remained closed throughout 2011, and no water was used for dust suppression during the period authorized for use (May-September). Furthermore, no Windy Lake water was used for Doris Camp domestic purposes in 2011. Water usage for ice road construction exceeded the maximum daily value allowed (63 m^3/day) for 9 of 19 days of ice road construction. Water usage for 2011 is provided in Table 8.

Table 8 – 2011 Daily Drilling and Ice Road Construction Water Use Totals for 2BE-HOP0712, in cubic meters (m^3)

Date	Water Usage by Drill Rig							Daily Drill Usage Total (max 80 m^3/day)	Daily Ice Road Usage (max 63 m^3/day)	Daily Total for All Uses (343 m^3/ day)
	Orbit 21	Orbit 22	Orbit 23	Orbit 24	Geo 1	Geo 2	Geo 3			
01/01/11	-	-	-	-	-	-	-	0	-	0
02/01/11	-	-	-	-	-	-	-	0	-	0
03/01/11	-	-	-	-	-	-	-	0	-	0
04/01/11	-	-	-	-	-	-	-	0	-	0
05/01/11	-	-	-	-	-	-	-	0	-	0
06/01/11	-	-	-	-	-	-	-	0	-	0
07/01/11	-	-	-	-	-	-	-	0	-	0
08/01/11	-	-	-	-	-	-	-	0	-	0
09/01/11	-	-	-	-	-	-	-	0	-	0
10/01/11	-	-	-	-	-	-	-	0	-	0
11/01/11	-	-	-	-	-	-	-	0	-	0
12/01/11	-	-	-	-	-	-	-	0	-	0
13/01/11	-	-	-	-	-	-	-	0	-	0
14/01/11	-	-	-	-	3	-	-	3	-	3
15/01/11	-	-	-	-	11	-	-	11	-	11
16/01/11	-	-	-	-	32	-	-	32	-	32
17/01/11	-	-	-	-	9	-	-	9	-	9
18/01/11	6	8	-	-	31	-	-	45	-	45
19/01/11	3	0	-	-	16	-	-	19	-	19
20/01/11	4	9	-	-	27	2	-	42	-	42
21/01/11	9	12	-	-	21	5	-	47	-	47
22/01/11	4	14	-	-	1	4	-	23	-	23
23/01/11	4	28	-	-	6	4	-	42	-	42
24/01/11	6	29	-	-	5	2	-	42	-	42
25/01/11	8	21	-	-	9	2	-	40	-	40

Date	Water Usage by Drill Rig							Daily Drill Usage Total (max 80 m^3/day)	Daily Ice Road Usage (max 63 m^3/day)	Daily Total for All Uses (343 m^3/ day)
	Orbit 21	Orbit 22	Orbit 23	Orbit 24	Geo 1	Geo 2	Geo 3			
26/01/11	6	9	-	-	11	0	-	26	-	26
27/01/11	4.4	19	-	-	9.7	2.2	-	35.3	18	53.3
28/01/11	9.3	7.1	-	-	18	-	-	34.4	-	34.4
29/01/11	5.3	16.7	-	-	7.1	-	-	29.1	-	29.1
30/01/11	9.2	3.8	-	-	4.4	-	-	17.4	-	17.4
31/01/11	6.7	6.9	-	-	5.7	3.9	-	23.2	-	23.2
01/02/11	-	-	-	-	-	4.5	-	4.5	**110**	**114.5**
02/02/11	-	-	-	-	-	-	-	0	**396**	**396**
03/02/11	-	-	-	-	-	-	-	0	**253**	**253**
04/02/11	-	-	-	-	-	-	-	0	**133**	**133**
05/02/11	-	-	-	-	-	8.1	-	8.1	-	8.1
06/02/11	-	-	-	-	-	2.7	-	2.7	-	2.7
07/02/11	-	-	-	-	-	3.3	-	3.3	-	3.3
08/02/11	-	-	-	-	-	3.2	-	3.2	-	3.2
09/02/11	-	-	-	-	19.3	3.2	-	22.5	-	22.5
10/02/11	-	-	-	-	7.4	7.4	-	14.8	-	14.8
11/02/11	-	4.8	-	-	5.9	3.8	3.3	17.8	-	17.8
12/02/11	-	4.5	-	3.9	6.1	2.6	2.4	19.5	-	19.5
13/02/11	14.6	2.9	-	4.4	16.8	5.1	3.2	47	-	47
14/02/11	4.7	5.6	-	4.1	3.9	4.2	2.6	25.1	-	25.1
15/02/11	6.7	3.5	-	3.8	12	4.3	4.5	34.8	-	34.8
16/02/11	7.8	4.4	-	5.4	9.7	2.9	13.5	43.7	-	43.7
17/02/11	1.7	3.9	-	4.3	0	5.1	20.3	35.3	-	35.3
18/02/11	5.6	2.8	-	0.3	2.2	3.8	2.4	17.1	-	17.1
19/02/11	7	1.7	-	4.2	9.1	3.9	10.6	36.5	21	57.5
20/02/11	2	3.4	-	4.4	10.5	3.4	3.3	27	-	27
21/02/11	4	3.3	-	3.6	9.9	3.2	1.5	25.5	-	25.5
22/02/11	3	0.5	-	4.8	12.6	4.3	2	27.2	-	27.2
23/02/11	5	0.8	-	3.8	13.7	4.7	2.1	30.1	-	30.1
24/02/11	3	0.6	-	3.3	14.2	3.8	5	29.9	-	29.9
25/02/11	3	2.3	-	3.8	14.7	6.3	4.7	34.8	-	34.8
26/02/11	2	1.4	-	2.8	14.3	3.8	4.1	28.4	-	28.4
27/02/11	3	-	-	2.3	16.5	4.5	4.7	28.7	-	28.7
28/02/11	2	-	-	0.8	17.9	6.8	3.9	31.4	-	31.4
01/03/11	-	-	-	-	14.2	0	3.6	17.8	-	17.8
02/03/11	-	-	-	-	14.7	16.5	2.7	33.9	-	33.9
03/03/11	-	-	-	-	9.2	15.2	2.2	26.6	-	26.6
04/03/11	-	-	-	-	7.5	18	7.6	33.1	-	33.1
05/03/11	-	-	-	-	7.4	17.9	1.2	26.5	-	26.5
06/03/11	-	-	-	-	5.8	13	3.5	22.3	-	22.3
07/03/11	-	-	-	-	15.9	13.7	8.6	38.2	-	38.2
08/03/11	-	-	-	-	8.5	10.5	2.3	21.3	-	21.3
09/03/11	-	-	-	-	12.6	15.9	3.1	31.6	-	31.6
10/03/11	-	-	-	-	15.6	16.1	3.7	35.4	-	35.4
11/03/11	-	-	-	-	12.8	27.1	5.7	45.6	-	45.6
12/03/11	-	-	-	-	14.4	21.1	0.9	36.4	8	44.4
13/03/11	-	-	-	-	19.1	23.5	1.4	44	**108**	**152**
14/03/11	-	-	-	-	17.8	25.6	3.8	47.2	-	47.2
15/03/11	-	-	-	-	14.3	15.2	1.5	31	-	31
16/03/11	-	-	-	-	13.9	18.1	5.4	37.4	**132**	**169.4**
17/03/11	-	-	-	-	12.3	9.4	1.8	23.5	36	59.5
18/03/11	-	-	-	-	9	9.8	2.1	20.9	**108**	**128.9**
19/03/11	-	-	-	-	9	3.5	3.5	16	-	16
20/03/11	-	-	-	-	13.5	4.1	3.3	20.9	-	20.9

Date	Water Usage by Drill Rig							Daily Drill Usage Total (max 80 m^3/day)	Daily Ice Road Usage (max 63 m^3/day)	Daily Total for All Uses (343 m^3/ day)
	Orbit 21	Orbit 22	Orbit 23	Orbit 24	Geo 1	Geo 2	Geo 3			
21/03/11	-	-	-	6.4	6.2	4.5	3.2	20.3	-	20.3
22/03/11	-	-	-	5.2	5.5	3.8	3.2	17.7	-	17.7
23/03/11	-	-	-	4.8	5	7.5	2	19.3	-	19.3
24/03/11	-	-	-	5.9	16.9	9	1.2	33	-	33
25/03/11	-	-	-	5.5	18.9	3.2	1.8	29.4	-	29.4
26/03/11	-	-	-	6	15	2.7	1.4	25.1	-	25.1
27/03/11	-	-	-	8.5	18	3.7	11	41.2	-	41.2
28/03/11	-	-	-	14	7	2.5	5.4	28.9	-	28.9
29/03/11	-	-	-	20	7.4	15.4	9.1	51.9	**208**	**259.9**
30/03/11	-	-	-	24.3	7.3	9.7	3.8	45.1	-	45.1
31/03/11	-	-	-	22.4	5.6	15.2	7.8	51	-	51
01/04/11	-	-	-	-	5.4	13	6.9	25.3	-	25.3
02/04/11	-	-	-	-	5.8	12.9	7.6	26.3	28	54.3
03/04/11	-	-	-	-	8.8	14.3	1.9	25	-	25
04/04/11	-	-	-	-	5.5	4.4	5.9	15.8	56	71.8
05/04/11	-	-	-	-	4.7	7.6	3.4	15.7	11	26.7
06/04/11	-	-	-	-	4.3	8.5	3.7	16.5	-	16.5
07/04/11	-	-	-	-	5.2	5	3.7	13.9	-	13.9
08/04/11	-	-	-	-	6.3	2.9	3.7	12.9	-	12.9
09/04/11	-	-	-	-	7.2	3.4	2.8	13.4	-	13.4
10/04/11	-	-	-	-	10.3	3.5	6.5	20.3	-	20.3
11/04/11	-	-	-	-	4.2	3	6.4	13.6	-	13.6
12/04/11	-	-	-	-	3.5	3.4	4.1	11	-	11
13/04/11	-	-	-	-	6.7	3.5	3.3	13.5	-	13.5
14/04/11	-	-	-	-	6.4	9.7	3.2	19.3	12	31.3
15/04/11	-	-	-	-	1.1	15.5	1.5	18.1	-	18.1
16/04/11	-	-	-	-	8.6	10.5	1.1	20.2	**124**	**144.2**
17/04/11	-	-	-	-	10.8	11.4	7.9	30.1	-	30.1
18/04/11	-	-	-	-	10	8.9	11.8	30.7	**90**	**120.7**
19/04/11	-	-	-	-	11.6	8	12.3	31.9	-	31.9
20/04/11	-	-	-	-	9.7	8.7	10.3	28.7	-	28.7
21/04/11	-	-	-	-	9.6	8.8	4	22.4	-	22.4
22/04/11	-	-	-	-	9.6	8.1	4.8	22.5	-	22.5
23/04/11	-	-	-	-	12	12.9	3.5	28.4	-	28.4
24/04/11	-	-	-	-	22	5.9	3.2	31.1	-	31.1
25/04/11	-	-	-	-	18.2	6.6	1.7	26.5	-	26.5
26/04/11	-	-	1.4	-	27.3	8.4	0.9	38	-	38
27/04/11	-	-	3.8	-	20.9	6.2	8.6	39.5	18	57.5
28/04/11	-	-	0.9	-	12	7.2	4.1	24.2	-	24.2
29/04/11	-	-	0.5	-	7.6	10.2	4.6	22.9	-	22.9
30/04/11	-	-	1.8	-	10.7	7.3	3.1	22.9	-	22.9
01/05/11	-	-	1.9	-	11.8	9.1	2.9	25.7	-	25.7
02/05/11	-	-	2.9	-	6.9	3.3	1.3	14.4	-	14.4
03/05/11	-	-	5.1	-	4.2	8.1	2.2	19.6	-	19.6
04/05/11	-	-	1.7	-	5.6	11.7	0.9	19.9	-	19.9
05/05/11	-	-	1.3	-	2.5	21	0.2	25	-	25
06/05/11	-	-	1.8	-	3.1	13.7	0.1	18.7	-	18.7
07/05/11	-	-	1.9	-	2.4	7.9	1.7	13.9	-	13.9
08/05/11	-	-	1	-	0.6	5	0.6	7.2	-	7.2
09/05/11	-	-	1.3	-	3.9	10.9	1	17.1	-	17.1
10/05/11	-	-	-	-	2.2	9	0.5	11.7	-	11.7
11/05/11	-	-	-	-	0.1	5.7	-	5.8	-	5.8
12/05/11	-	-	-	-	-	-	-	0	-	0
13/05/11	-	-	-	-	-	-	-	0	-	0

Date	Water Usage by Drill Rig							Daily Drill Usage Total (max 80 m^3/day)	Daily Ice Road Usage (max 63 m^3/day)	Daily Total for All Uses (343 m^3/ day)
	Orbit 21	Orbit 22	Orbit 23	Orbit 24	Geo 1	Geo 2	Geo 3			
14/05/11	-	-	-	-	-	-	-	0	-	0
15/05/11	-	-	-	-	-	-	-	0	-	0
16/05/11	-	-	-	-	-	-	2.7	2.7	-	2.7
17/05/11	-	-	-	-	-	-	2.1	2.1	-	2.1
18/05/11	-	-	-	-	-	-	1.1	1.1	-	1.1
19/05/11	-	-	-	-	1.6	-	1.5	3.1	-	3.1
20/05/11	-	-	-	-	3.8	-	1.7	5.5	-	5.5
21/05/11	-	-	-	-	3.3	-	1.1	4.4	-	4.4
22/05/11	-	-	-	-	0	-	2.2	2.2	-	2.2
23/05/11	-	-	-	-	11.5	-	2.7	14.2	-	14.2
24/05/11	-	-	-	-	8.9	-	3.3	12.2	-	12.2
25/05/11	-	-	-	-	6.5	-	10.6	17.1	-	17.1
26/05/11	-	-	-	-	3.1	-	10	13.1	-	13.1
27/05/11	-	-	-	-	0.6	-	6.6	7.2	-	7.2
28/05/11	-	-	-	-	2	-	8.8	10.8	-	10.8
29/05/11	-	-	-	-	3.4	-	7.3	10.7	-	10.7
30/05/11	-	-	-	-	0.6	-	6.9	7.5	-	7.5
31/05/11	-	-	-	-	3.4	-	7.8	11.2	-	11.2
01/06/11	-	-	1.8	-	1.6	-	2.6	6	-	6
02/06/11	-	-	6.5	-	2.1	-	2.4	11	-	11
03/06/11	-	-	10.1	-	4.2	-	1.4	15.7	-	15.7
04/06/11	-	-	9.4	-	3.7	-	6.9	20	-	20
05/06/11	-	-	3.2	-	1	-	3.9	8.1	-	8.1
06/06/11	-	-	3.8	-	0.8	-	0.7	5.3	-	5.3
07/06/11	-	-	3.2	-	2.9	-	10.5	16.6	-	16.6
08/06/11	-	-	3.3	-	1.7	4.7	5.5	15.2	-	15.2
09/06/11	-	-	1.7	-	1.1	1.5	1.9	6.2	-	6.2
10/06/11	-	-	8	-	0.9	1.7	0.0	10.6	-	10.6
11/06/11	-	-	7.3	-	0.4	2.2	1.8	11.7	-	11.7
12/06/11	-	-	11	-	3.3	2.7	7.4	24.4	-	24.4
13/06/11	-	-	4.7	-	2.5	1.8	3.6	12.6	-	12.6
14/06/11	-	-	5.6	-	2.2	2.4	2	12.2	-	12.2
15/06/11	-	-	4.3	-	1.2	1.5	2.5	9.5	-	9.5
16/06/11	-	-	2.4	-	3.4	2	2.1	9.9	-	9.9
17/06/11	-	-	2.8	-	3.7	2.3	2.9	11.7	-	11.7
18/06/11	-	-	-	-	3.3	2.5	1.2	7	-	7
19/06/11	-	-	-	-	2.2	4.2	8.1	14.5	-	14.5
20/06/11	-	-	-	-	0.7	3.2	4.2	8.1	-	8.1
21/06/11	-	-	-	-	2.5	2.7	5.4	10.6	-	10.6
22/06/11	-	-	-	-	3.4	3.2	2.6	9.2	-	9.2
23/06/11	-	-	-	-	5.9	2.6	3.2	11.7	-	11.7
24/06/11	-	-	-	-	2.8	2.5	4.5	9.8	-	9.8
25/06/11	-	-	-	-	1.1	2.3	3.4	6.8	-	6.8
26/06/11	-	-	-	-	1.1	2.8	3.5	7.4	-	7.4
27/06/11	-	-	-	-	0.3	1.6	9.3	11.2	-	11.2
28/06/11	-	-	-	-	2.7	1.5	4.7	8.9	-	8.9
29/06/11	-	-	-	-	1.8	4.6	3.4	9.8	-	9.8
30/06/11	-	-	-	-	2.1	1.9	2.9	6.9	-	6.9
01/07/11	-	-	-	-	5.8	1.4	4.2	11.4	-	11.4
02/07/11	-	-	-	-	3.2	3.7	5.1	12	-	12
03/07/11	-	-	-	-	2.5	2.8	5	10.3	-	10.3
04/07/11	-	-	-	-	1.1	2.4	2.8	6.3	-	6.3
05/07/11	-	-	-	-	3.3	2.3	0.8	6.4	-	6.4
06/07/11	-	-	-	-	2.6	1	2.8	6.4	-	6.4

Date	Water Usage by Drill Rig							Daily Drill Usage Total (max 80 m^3/day)	Daily Ice Road Usage (max 63 m^3/day)	Daily Total for All Uses (343 m^3/ day)
	Orbit 21	Orbit 22	Orbit 23	Orbit 24	Geo 1	Geo 2	Geo 3			
07/07/11	-	-	-	-	1.4	2.4	2.8	6.6	-	6.6
08/07/11	-	-	-	-	0.9	2.8	2	5.7	-	5.7
09/07/11	-	-	-	-	2.6	3.4	1	7	-	7
10/07/11	-	-	-	-	0.4	3.7	2.2	6.3	-	6.3
11/07/11	-	-	-	-	9.9	4.9	1.9	16.7	-	16.7
12/07/11	-	-	-	-	4	2.7	8.2	14.9	-	14.9
13/07/11	-	-	-	-	2.8	3.9	3.2	9.9	-	9.9
14/07/11	-	-	-	-	2.8	2	5.4	10.2	-	10.2
15/07/11	-	-	-	-	0.7	2.5	4.4	7.6	-	7.6
16/07/11	-	-	-	-	0.9	2.2	0.7	3.8	-	3.8
17/07/11	-	-	-	-	1.5	1.1	3.3	5.9	-	5.9
18/07/11	-	-	-	-	0.6	3.7	2.9	7.2	-	7.2
19/07/11	-	-	-	-	0.6	4.2	3.2	8	-	8
20/07/11	-	-	-	-	1.1	3.1	0.6	4.8	-	4.8
21/07/11	-	-	-	-	6	2.6	7.1	15.7	-	15.7
22/07/11	-	-	-	-	2.3	4.4	4.9	11.6	-	11.6
23/07/11	-	-	-	-	5.3	1.9	5.1	12.3	-	12.3
24/07/11	-	-	-	-	5	2.1	4.9	12	-	12
25/07/11	-	-	-	-	9.5	1.8	4.4	15.7	-	15.7
26/07/11	-	-	-	-	10.2	3.2	2.8	16.2	-	16.2
27/07/11	-	-	-	-	2.2	1.7	1.8	5.7	-	5.7
28/07/11	-	-	-	-	1.6	1.7	5.2	8.5	-	8.5
29/07/11	-	-	-	-	0.4	2.6	1.9	4.9	-	4.9
30/07/11	-	-	-	-	0.2	1.9	1.2	3.3	-	3.3
31/07/11	-	-	-	-	7.7	3.1	0.8	11.6	-	11.6
01/08/11	-	-	4.6	-	1.9	1.3	1.2	9	-	9
02/08/11	-	-	6.3	-	2.3	1.7	2.1	12.4	-	12.4
03/08/11	-	-	1.2	-	3.1	0.8	0.6	5.7	-	5.7
04/08/11	-	-	0.1	-	1.5	1.7	0.6	3.9	-	3.9
05/08/11	-	-	1.5	-	2.3	3.8	1	8.6	-	8.6
06/08/11	-	-	4.6	-	0.3	3.2	1	9.1	-	9.1
07/08/11	-	-	2.8	-	0.5	3.3	0.2	6.8	-	6.8
08/08/11	-	-	2	-	4	3.2	0.1	9.3	-	9.3
09/08/11	-	-	0.4	-	3.5	2.7	4.4	11	-	11
10/08/11	-	-	0.2	-	3.4	1.6	2.7	7.9	-	7.9
11/08/11	-	-	0	-	2	2.3	3.3	7.6	-	7.6
12/08/11	-	-	0	-	1.4	2	1.4	4.8	-	4.8
13/08/11	-	-	0	-	2.9	1.4	3.4	7.7	-	7.7
14/08/11	-	-	3.7	-	2.7	1.6	0.3	8.3	-	8.3
15/08/11	-	-	10.7	-	2.2	1.5	0.5	14.9	-	14.9
16/08/11	-	-	10.7	-	1	1	0.4	13.1	-	13.1
17/08/11	-	-	11.2	-	6.6	0.6	0.5	18.9	-	18.9
18/08/11	-	-	2.3	-	2.7	2.5	0.2	7.7	-	7.7
19/08/11	-	-	2.6	-	3.2	3.1	0	8.9	-	8.9
20/08/11	-	-	2.3	-	2.8	2	0	7.1	-	7.1
21/08/11	-	-	1.7	-	0.4	2.5	0	4.6	-	4.6
22/08/11	-	-	4	-	0.6	1.6	0.2	6.4	-	6.4
23/08/11	-	-	3.9	-	3.6	3.1	2	12.6	-	12.6
24/08/11	-	-	3	-	7.5	1.2	2	13.7	-	13.7
25/08/11	-	-	0.2	-	1.3	2.3	2.7	6.5	-	6.5
26/08/11	-	-	0.3	-	2.4	1.8	0.6	5.1	-	5.1
27/08/11	-	-	11.9	-	3	4.2	0.2	19.3	-	19.3
28/08/11	-	-	4.3	-	0.9	2.2	1.1	8.5	-	8.5
29/08/11	-	-	2	-	4.1	3.6	1.4	11.1	-	11.1

Date	Water Usage by Drill Rig							Daily Drill Usage Total (max 80 m^3/day)	Daily Ice Road Usage (max 63 m^3/day)	Daily Total for All Uses (343 m^3/ day)
	Orbit 21	Orbit 22	Orbit 23	Orbit 24	Geo 1	Geo 2	Geo 3			
30/08/11	-	-	6.3	-	2.4	1.3	0.4	10.4	-	10.4
31/08/11	-	-	4	-	0	0.5	0.7	5.2	-	5.2
01/09/11	-	0.1	-	-	2.9	0	3.2	6.2	-	6.2
02/09/11	-	0	-	-	2.7	4.1	4.8	11.6	-	11.6
03/09/11	-	0	-	-	2.7	2.6	3.4	8.7	-	8.7
04/09/11	-	0	-	-	3.1	2.4	1.1	6.6	-	6.6
05/09/11	-	4.3	-	-	0	2.2	2.6	9.1	-	9.1
06/09/11	-	0.6	-	-	17.8	2.6	3.2	24.2	-	24.2
07/09/11	-	10.8	-	-	5.2	3.9	0.9	20.8	-	20.8
08/09/11	-	2	-	-	2.4	0.2	5.7	10.3	-	10.3
09/09/11	-	2.6	-	-	2.6	3.5	3.8	12.5	-	12.5
10/09/11	-	1.3	-	-	1.4	8.1	3.2	14	-	14
11/09/11	-	3.1	-	-	2.4	0.9	3.1	9.5	-	9.5
12/09/11	-	5.9	-	-	8.8	3.2	3.3	21.2	-	21.2
13/09/11	-	5.9	-	-	8	2.8	2.5	19.2	-	19.2
14/09/11	-	3.4	-	-	17.1	4.3	3.3	28.1	-	28.1
15/09/11	-	6.3	-	-	3.7	6.1	2.3	18.4	-	18.4
16/09/11	-	6.3	-	-	11.7	2.7	2.5	23.2	-	23.2
17/09/11	-	8.6	-	-	2.7	2.5	3.1	16.9	-	16.9
18/09/11	-	7.9	-	-	3.6	0.8	4.2	16.5	-	16.5
19/09/11	-	0.8	-	-	3.8	4.4	6.8	15.8	-	15.8
20/09/11	-	1.9	-	-	3.8	3.9	2.9	12.5	-	12.5
21/09/11	-	0.2	-	-	8.6	1.9	2	12.7	-	12.7
22/09/11	-	3.7	-	-	5.0*	1.8	3.1	8.6	-	8.6
23/09/11	-	4.4	-	-	5.0*	2.8	3.1	10.3	-	10.3
24/09/11	-	1.9	-	-	5.0*	2.1	3.9	7.9	-	7.9
25/09/11	-	1	-	-	5.0*	1.9	2.2	5.1	-	5.1
26/09/11	-	-	-	-	1.4	2.7	2.6	6.7	-	6.7
27/09/11	-	-	-	-	2.9	3.1	-	6	-	6
28/09/11	-	-	-	-	2.5	2.6	-	5.1	-	5.1
29/09/11	-	-	-	-	3.1	1.4	-	4.5	-	4.5
30/09/11	-	-	-	-	4.1	2.2	-	6.3	-	6.3
01/10/11	-	-	-	-	3.5	3.5	-	7	-	7
02/10/11	-	-	-	-	3.5	3.5	-	7	-	7
03/10/11	-	-	-	-	3.5	3.5	-	7	-	7
04/10/11	-	-	-	-	3.5	3.5	-	7	-	7
05/10/11	-	-	-	-	3.5	3.5	-	7	-	7
06/10/11	-	-	-	-	3.5	3.5	-	7	-	7
07/10/11	-	-	-	-	3.5	3.5	-	7	-	7
08/10/11	-	-	-	-	3.5	3.5	-	7	-	7
09/10/11	-	-	-	-	3.5	3.5	-	7	-	7
10/10/11	-	-	-	-	3.5	3.5	-	7	-	7
11/10/11	-	-	-	-	3.5	3.5	-	7	-	7
12/10/11	-	-	-	-	3.5	3.5	-	7	-	7
13/10/11	-	-	-	-	3.5	3.5	-	7	-	7
14/10/11	-	-	-	-	3.5	3.5	-	7	-	7
15/10/11	-	-	-	-	3.5	3.5	-	7	-	7
16/10/11	-	-	-	-	3.5	3.5	-	7	-	7
17/10/11	-	-	-	-	3.5	3.5	-	7	-	7
18/10/11	-	-	-	-	3.5	3.5	-	7	-	7
19/10/11	-	-	-	-	3.5	3.5	-	7	-	7
20/10/11	-	-	-	-	3.5	3.5	-	7	-	7
21/10/11	-	-	-	-	3.5	3.5	-	7	-	7
22/10/11	-	-	-	-	3.5	3.5	-	7	-	7

Date	Water Usage by Drill Rig							Daily Drill Usage Total (max 80 m^3/day)	Daily Ice Road Usage (max 63 m^3/day)	Daily Total for All Uses (343 m^3/ day)
	Orbit 21	Orbit 22	Orbit 23	Orbit 24	Geo 1	Geo 2	Geo 3			
23/10/11	-	-	-	-	3.5	3.5	-	7	-	7
24/10/11	-	-	-	-	-	3.5	-	3.5	-	3.5
25/10/11	-	-	-	-	-	3.5	-	3.5	-	3.5
26/10/11	-	-	-	-	-	3.5	-	3.5	-	3.5
27/10/11	-	-	-	-	-	3.5	-	3.5	-	3.5
28/10/11	-	-	-	-	-	3.5	-	3.5	-	3.5
29/10/11	-	-	-	-	-	3.5	-	3.5	-	3.5
30/10/11	-	-	-	-	-	3.5	-	3.5	-	3.5
31/10/11	-	-	-	-	-	3.5	-	3.5	-	3.5
November	-	-	-	-	-	-	-	-	-	-
December	-	-	-	-	-	-	-	-	-	-
Total	**160**	**312.9**	**225.2**	**180.7**	**1633.6**	**1249.9**	**781.3**	**4543.6**	**1870**	**6413.6**

c) Quantity of effluent discharged

Windy Camp was closed throughout 2011 therefore no discharges occurred related to the waste water treatment facility (WWTF) at monitoring station HOP-2.

Effluent was discharged from the HOP-5 Windy Camp bulk fuel storage facility containment berm in July 2011 after compliant effluent sample results were obtained and the Inspector was notified in accordance with the provisions of Water Licence 2BE-HOP0712. The discharge location was an area upslope behind the berm at coordinates UTM 7550550 N, 432670 E. Approximately 274 m^3 was discharged. See section (a) for more details.

No discharges occurred at the Patch Lake bulk fuel storage facility HOP-6 in 2011 due to lack of effluent accumulation as a result of evaporation.

d) Volume of sludge removed from sewage disposal facility

No sludge was removed from the Windy Camp WWTF in 2011 because this facility was not operational and the camp was closed.

e) Results of Toxicity Testing

HBML did not perform toxicity testing to demonstrate the non-acute toxicity of the effluent discharged from the WWTF at HOP-3. No effluent was available for sampling at this location due to the closure of Windy Camp throughout 2011. The testing is normally conducted in accordance with the following test procedures:

i. Acute lethality to Rainbow Trout, Oncorhynchus mykiss (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/13); and
ii. Acute lethality to the crustacean, Daphnia magna (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/14).