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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

File No.: **2BE-GOO1520**

February 19, 2015

John Laitin, Manager – Site Operations  
Sabina Gold & Silver Corp.  
930 West 1<sup>st</sup> Street, Suite 202,  
North Vancouver, BC, V7P 3N4  
Email: [jlaitin@sabinagoldsilver.com](mailto:jlaitin@sabinagoldsilver.com)

**RE: NWB Licence No. 2BE-GOO1520**

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Dear Mr. Laitin,

Please find attached Licence No. 2BE-GOO1520 issued to Sabina Gold & Silver Corp. by the Nunavut Water Board (NWB) pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Land Claims Agreement or NLCA)*. The terms and conditions of the attached Licence related to water use and waste disposal are an integral part of this approval.

If the Licensee contemplates the renewal of this Licence, it is the responsibility of the Licensee to apply to the NWB for its renewal. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the Licence renewal. Note that if the Licence expires before the NWB issues a new one, then water use and waste disposal must cease, or the Licensee may be in contravention of the *Nunavut Land Claims Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. However, the expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence. The NWB recommends that an application for the renewal of this Licence be filed at least three months prior to the Licence expiry date.

If the Licensee contemplates or requires an amendment to this licence, the NWB may decide, in the public interest, to hold a public hearing. The Licensee should submit applications for amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The process and timing may vary depending on the scope of the amendment; however a minimum of sixty (60) days is required from time of acceptance by the NWB. It is the responsibility of the Licensee to ensure that all application materials have been received and are acknowledged by the Manager of Licensing.

The NWB strongly recommends that the Licensee consult the comments received by interested persons on issues identified. The NWB notes that AANDC recommends that *the Proponent be advised that in order to transport hazardous wastes in Nunavut the waste generator must be registered with the Government of Nunavut, Environmental Protection Division and provide the final destination for the hazardous wastes (approved registered facility)*. This information is attached for your consideration.<sup>1</sup>

Sincerely,



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Thomas Kabloona  
Nunavut Water Board  
Chair

TK/kk/mp

Enclosure: Licence No. **2BE-GOO1520**  
Comments – AANDC and EC

Cc: Kitikmeot Distribution List

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<sup>1</sup> Aboriginal Affairs and Northern Development Canada (AANDC), January 8, 2015 and Environment Canada (EC), December 24, 2014.

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## DECISION

### LICENCE NUMBER: 2BE-GOO1520

This is the decision of the Nunavut Water Board (NWB) with respect to an application dated October 20, 2014 for a renewal of a Water Licence made by:

#### SABINA GOLD & SILVER CORP.

to allow for the use of water and disposal of waste during camp operations and activities related to exploration that include prospecting, geophysical, drilling, quarrying, operating an all-weather airstrip etc. at the Goose Lake, Back River Project located within the Kitikmeot Region, Nunavut generally located at the geographical coordinates as follows:

#### Project Extents:

NW:	Latitude: 66° 04' N	Longitude: 108° 25' W
NE:	Latitude: 66° 04' N	Longitude: 106° 15' W
SE:	Latitude: 65° 02' N	Longitude: 106° 15' W
SW:	Latitude: 65° 02' N	Longitude: 108° 25' W

#### Camp Location:

Latitude: 65° 32' 40'' N                      Longitude: 106° 25' 35'' W

## DECISION

After having been satisfied that the application was for a location that falls outside of an area with an approved Land Use Plan<sup>1</sup> and exempt from the requirement for Screening by the Nunavut Impact Review Board (NIRB)<sup>2</sup> pursuant to Section 12.4.3 of the *Nunavut Land Claim Agreement (NLCA)*, activities therein remaining subject to the terms and conditions recommended in the NIRB's March 16, 2012 Screening Decision Report No. 08EA084, the NWB decided that the application could proceed through the regulatory process. In accordance with S.55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (Act)* and Article 13 of the *NLCA*, public notice of the application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and considering the representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *NLCA* and of the *Act*, waived the requirement to hold a public hearing, and determined that:

**Licence No. 2BE-GOO1015 be renewed as Licence No. 2BE-GOO1520 subject to the terms and conditions contained therein. (Motion #: 2014-B1-039)**

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<sup>1</sup> NPC Confirmation dated January 8, 2010.

<sup>2</sup> NIRB Exempt from the requirement for screening letter dated January 27, 2015.

Signed this 19<sup>th</sup> day of February 2015 at Gjoa Haven, NU.

A handwritten signature in dark ink, appearing to read 'T. Kabloona', enclosed within a rectangular box.

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Thomas Kabloona  
Nunavut Water Board  
Chair

TK/kk/mp

## **LICENCE NUMBER: 2BE-GOO1520**

### **I. INTRODUCTION**

The Goose Lake Property is located at Latitude 65° 35' N and Longitude 106° 25' W, approximately 525 km northeast of Yellowknife, NWT and 400 km south of the community of Cambridge Bay, Nunavut, near the headwaters of the Ellice River. The Goose Lake Property consists of seven mineral claims staked in 1987. Gold mineralization at the Goose Property is situated within folded silicified and sulphidized oxide iron formations and locally in the underlying greywacke located beneath iron antiform structures. Gold is associated with sulphide concentrations (pyrite, pyrrhotite and arsenopyrite) in the iron formation and is commonly accompanied by increased quartz veining, silicification and attendant chlorite and amphibole alteration of magnetite.

The lands in the exploration area are Crown Lands and Inuit Owned Lands (IOL) pursuant to the Nunavut Land Claims Agreement (NLCA). Land use for the exploration activities has been authorized by the Aboriginal Affairs and Northern Development Canada (AANDC) and Kitikmeot Inuit Association (KIA), the regional Inuit Association who holds title to IOL in the Kitikmeot Region of Nunavut.

The Goose Camp is located on the slope of the western shore of Goose Lake. It has the capacity to support up to 120 people (as of June 2012) and is accessible by air only using Goose Lake (ice and open water), a gravel airstrip north of Goose Lake and an all-weather airstrip and road west of the camp. The lakeshore is approximately 50 m toward the north and the regional topographical gradient surrounding the camp ranges from 2% to 6% towards the north. The camp is approximately 300 m in length from east to west and 100 m wide from north to south, covering an area of 30,000 m<sup>2</sup>. The camp facilities are located on natural tundra underlain by a 10 cm organic layer overlying silt-sand parent material.

The results from many year exploration program conducted by Sabina Gold & Silver Corp. (Sabina or Proponent) and previous operators confirmed important aspects of the continuity and grade of gold mineralization at the Goose Lake Property for Goose, Umwel and Llama Gold Deposits, and a Feasibility Study is currently conducted. On January 20, 2014, Sabina submitted to the Nunavut Impact Review Board (NIRB) for the environmental assessment a Draft Environmental Impact Statement (DEIS) containing a detailed project description and supporting information for various components and activities associated with the Back River Project that includes the Goose Lake Property. After having the DEIS accepted by the NIRB the Proponent is currently preparing the Final Environmental Impact Statement (FIES) for the Back Rivet Project.

### **II. FILE PROCEDURAL HISTORY**

Following an application filed by Kit Resources Limited (Kit) on November 13, 1997 to the Nunavut Water Board (NWB or Board) for an industrial water licence for water use and waste disposal to conduct a four-phased exploration program including diamond drilling, trenching,

bulk sampling, and environmental monitoring in conjunction with its operations at Goose Lake, the NWB issued the Water Licence NWB1GOO9801 on September 1, 1998, and due to expire on August 31, 2001. Later, Kit changed its name to Wheaton River Nunavut Ltd. (Wheaton). In 1999, Kinross and Wheaton formed a joint venture, and Kinross Gold Corporation (Kinross) became the operator of the Goose Lake Project.

On July 3, 2001, Kinross filed with the Nunavut Water Board (NWB) an application for renewal (Application) of License NWB1GOO9801 without any changes to the original scope. The NWB renewed the Water Licence as Licence NWB1GOO0104 on September 1, 2001, with an expiry date set at December 31, 2004.

On November 15, 2004, a Water Licence renewal application was filed with the NWB by Miramar Bathurst Resources Ltd. (MBRL) for water use and waste disposal activities during camp operations, exploration drilling and trenching activities at the Goose Lake Project located within the West Kitikmeot Region, Nunavut (latitude 65° 35' N longitude 106° 25' W). This application was supplemented with additional information by the Proponent on January 17<sup>th</sup>, 20<sup>th</sup> and 28<sup>th</sup>, 2005 that included correct camp location, clarification of questionnaire items, a revised Spill Contingency Plan and an Abandonment and Restoration Plan. The Board was also advised that MBRL and Kinross Gold Corporation have entered into a joint venture partnership with MBRL being the operator and responsible for maintaining all permits of the Goose Lake Properties. On March 11, 2005, the Board issued the Water Licence NWB2GOO0510 to MBRL with an expiry date set at March 31, 2010. On February 3, 2006 the Licence renamed as Licence 2BE-GOO0510 was assigned to Dundee Precious Metals Inc. (Dundee) with all terms and conditions of the licence remaining in effect. The Amendment 1 to this licence was granted by the NWB on April 25, 2006, and the Amendment 2 was granted on May 11, 2009. On September 9, 2009, the Licence 2BE-GOO0510 was assigned from Dundee to Sabina Silver Corporation that later become Sabina Gold & Silver Corporation (Sabina).

On March 26, 2010 the Licence was renewed as Licence No. 2BE-GOO1015 with an expiry date set at March 31, 2015, to allow for the use of water (155 m<sup>3</sup> *per* day) and disposal of waste during camp operations and activities related to exploration that included prospecting, geological mapping, geophysical airborne surveys, trenching and diamond drilling on land and ice, based out of the Goose Lake Camp for the Goose Lake, Back River Project. On October 18, 2010, the License was amended (Amendment No. 1) to allow for the establishment of four (4) additional small seasonal camps. On January 31, 2011, the Board granted Amendment No. 2 to the Licence to allow for the increase of quantity of water use at the Goose Lake and local lakes in the area of seasonal camps from 155 cubic metres *per* day to 297 cubic metres *per* day. Amendment No. 3 was issued on May 20, 2012 to allow for the following activities: construction and operation of an all-weather airstrip; construction and operation of an all-weather single-lane road connecting the airstrip to the Goose Lake Camp; development and operation of rock quarries to supply aggregate for the above-referenced construction activities; and reducing the licence boundaries associated with the project as requested by the Board.

### **III. RENEWAL APPLICATION**

On October 20, 2014, the NWB received an application for the renewal of the Water Licence 2BE-GOO1015. The following documents were included within the renewal application:

- Location Map;
- NIRB Exemption Letter, dated August 5, 2010;
- AANDC Inspection Report, Dated April 2014;
- Greywater Disposal Details;
- July 2014 Inspection Report;
- NIRB Screening Decision, Dated May 15, 2006;
- Non-Technical Summary;
- NPC Email;
- Water Licence Renewal Application;
- Water Licence Application Cover Letter; and
- Updated Liability Assessment, Dated October 2014

Following an internal preliminary technical review, a notice of the Renewal Application (Application) was posted and the application information was made available for general comment from December 8, 2014 to January 8, 2015. On or by January 8, 2015, submissions were received from Aboriginal Affairs and Northern Development Canada (AANDC), and Environment Canada (EC).

On February 4, 2015, the Proponent provided the following additional information:

- Cover Letter, Re: AANDC January 8, 2015 Letter Providing Comments on Sabina's Type B Water Licence Renewal Application – Goose Lake Project – 2BE-GOO1015;
- Abandonment and Restoration Plan, Goose Camp and Exploration Project, dated September 2012;
- Back River Project Transportation Management Plan, Revision 1 January 2013;
- Comprehensive Hazardous Materials Management Plan, dated January 2012;
- Back River Project Comprehensive Waste Management Plan, Revision 1 January 2013;
- Back River Project Comprehensive Quarry management Plan, Revision 0 January 2012
- 2013 Quarry Development Plan, Back River Property – Goose Project Addendum to Quarry Management Plan, dated June 2013; and
- Comprehensive Spill Contingency Plan Goose Camp, dated March 2014.

Based upon the results of the detailed assessment, including consideration of any potential accidents, malfunctions, or impacts to water that the overall project might have in the area, the Board approved the application and has issued Licence 2BE-GOO1520.



#### **IV. GENERAL CONSIDERATIONS**

The following section outlines the issues identified by the NWB and raised by interested parties and provides the background on the terms and conditions imposed within the body of the Licence.

##### **Term of Licence**

In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* s. 45, the NWB may issue a Licence for a term not exceeding twenty-five years. In determining an appropriate term of a Water Licence, the Board considers a number of factors including, but not limited to; the results of AANDC site inspections and the corresponding compliance record of the Applicant, as well as intervenor comments provided during the application review process.

In review of the comments received on the application, the NWB has noted that there were no concerns expressed with respect to the requested Licence term of five (5) years. In review of the information available during the renewal process, the NWB concurs with the Applicant that a Licence term of approximately five (5) years could be appropriate.

The Licence duration will allow the Licensee to properly carry out the terms and conditions of the Licence and will ensure that sufficient time is given to permit the Licensee to develop, submit and implement the plans required under the Licence to the satisfaction of the NWB and carry out the proposed activities during this period.

##### **Annual Reporting**

The NWB has imposed on the Licensee, the requirement to produce an Annual Report. These Reports are for the purpose of ensuring that the NWB has an accurate annual update of the Licensee's activities related to water use and waste disposal during a calendar year. This information is maintained on the Public Register and is available to interested parties upon request. A "*Standardized Form for Annual Reporting*" is to be used by the Licensee and is available from the NWB file transfer protocol (FTP) site under the Public Registry link at the NWB Website.

Website Public Registry:

<ftp://ftp.nwb-oen.ca/OTHER/Standardized%20Forms/>).

This form provides the basis for annual reporting and format, however individual Licensees shall need to provide information in addition to that of the standard form to address project specific reporting requirements.

##### **Water Use**

Amendment No. 2 to the preceding Licence on January 31, 2011, permitted the Licensee to use two-hundred and ninety seven (297) cubic metres of freshwater *per* day. The Licensee has not requested a change in total allowable water use as part of the renewal application.

No concerns were expressed by intervenors in their submissions with respect to the requested

freshwater amount requested by the Licensee, or to the manner in which it is obtained or used.

In review of the application, the NWB relied on the definition of “Use” provided by the *Act*<sup>1</sup>. All water taken from a source and later returned to that water body would qualify under the definition as an “indirect use of water”, used to keep the water lines from freezing during use. Although this may not reflect the actual water consumption, it is an accurate measure of water use. Also, the Licensee was not clear in its application, whether water from the flow-through system that is not consumed by the camp or drills is returned directly to the source lake, or indirectly overland. Therefore, having given due consideration to the information presented during the review, the NWB has determined that water extracted from the source water supply, for any purpose, is considered a Use of water and that the Licensee is requested to measure directly on the sources all freshwater used for all purposes including the local lakes for drillings.

As such, the Monitoring Program Station GOO-1, raw water supply intake at Goose Lake shall remain active and shall be complemented by Monitoring Program Stations GOO-3 and GOO-4, raw water supply intakes at Llama Lake and Umwelt Lake, respectively, and the Licensee shall employ accurate means of measuring water from these and any other water sources including sources proximal to drill rigs.

## **Waste Disposal**

It is generally recommended that disposal locations for wastes including drilling wastes, be located at a minimum distance of thirty one (31) metres from any water body such that there is no adverse effects to the quality, quantity and flow of water.

The Proponent included as additional information within the Application the Plan entitled: “Back River Project Comprehensive Waste Management Plan” (WMP), Revision 1 January 2013. The original March 2012 Waste Management Plan was accepted by the Board with the issuance of Amendment No 3 to the previous Licence. It discusses aspects of waste management at the camp including the operation of the on-site incinerator and the segregation of wastes (Non-hazardous Combustible and Non-hazardous Non-combustible Waste, Hazardous Waste and Scrap metals) designated for disposal off-site. As per Part D, Item 2 the Licensee shall be required to implement the Plan accordingly.

The Application included also the Plan entitled “Comprehensive Hazardous Materials Management Plan” (HMMP), dated January 2012 that discusses transportation, storage, handling and use of hydrocarbon products and all other hazardous materials at site. The Proponent advised that the HMMP will be reviewed and updated at least annually with a record

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<sup>1</sup> “use”, in relation to waters, means a direct or indirect use of any kind, including, but not limited to,

- (a) Any use of water power an geothermal resources;
- (b) Any diversion or obstruction of waters;
- (c) Any alteration of the flow of waters; and
- (d) Any alteration of the bed or banks of a river, stream, lake or other body of water, whether or not the body of water is seasonal.

However it does not include navigation or any other use connected with shipping activities that are governed by the *Canada Shipping Act*.

documenting all significant changes incorporated in the HMMP subsequent to the latest annual review. In its comment the AANDC recommended that the *“Proponent be advised that in order to transport hazardous wastes in Nunavut the waste generator must be registered with the Government of Nunavut, Environmental Protection Division and provide the final destination for the hazardous wastes (approved registered facility)”*.

### Greywater

The previous Licence authorised the greywater discharge to a sump. The Aboriginal Affairs and Northern Development Canada (AANDC) Inspection of July 10, 2014 states that Part A, Item 3 of the Licence defines a sump as “an excavation in impermeable soil for the purpose of catching or storing water or waste”. However, Sabina is *“actually discharging to a wetland, which is an excellent system for waste water treatment, but does not meet the definition of sump”*. The Inspector recommendation was for Sabina to request to the NWB in its renewal application that *“terms are set for wetland discharge of greywater”*. Subsequently, Sabina made a request within the Application that *“Part D, Item 8 of the renewed licence be modified to accurately reflect the current practice on site”*.

The Board has included conditions in Part D of the Licence allowing the Licensee to discharge the greywater directly to the wetland.

### Quarrying

The Amendment No. 3 to the previous Licence authorised the Licensee to develop and operate rock quarries to supply aggregate for construction of an all-weather airstrip and Single-lane road connecting the airstrip to the Goose Lake Camp. As quarrying was included with the renewal Application’s scope the NWB has included specific conditions related to the operation of a quarry. In its comment, AANDC requested clarification *“on how the water will be prevented from entering a receiving water body if it has already exited the quarry”*.

It is generally recommended by the Board that quarrying activities be conducted at a distance of at least thirty one (31) metres of the high water mark of any water body. Also, as per Part E, Item 7, the Licensee shall not remove material from the quarry beyond a depth of one (1) metre above the high water mark of the groundwater table so as to prevent the contamination of groundwater sources. Further the Licensee is advised that quarrying shall be carried out in accordance with all applicable legislation and industry standards including the *Northern Land Use Guidelines, Pits and Quarries* (INAC, 2010).

The Proponent included as additional information within the Application the Plan entitled: *“Back River Project Comprehensive Quarry Management Plan”* (QMP), Revision 0 January 2013 that was approved under the previous Licence with the *“Back River Property – Goose Project Addendum to Quarry Management Plan”*, dated June 2013. The Licensee shall implement the Quarry Management Plan with the Addendum to the Plan to minimize or eliminate negative impacts to the environment as a result of its activities.

## **Spill Contingency Planning**

As part of the Application, the Licensee submitted a revised version of previously approved Plan entitled “Comprehensive Spill Contingency Plan GOOSE CAMP”, dated March 2014. The Board has approved the revised Plan under Part H, Item 1 of the Licence.

The “Back River Project Transportation Management Plan”, Revision 1, January 2013 was included within the Application. The Licensee shall implement this Plan with respect to the construction, operation and management of access and transportation to the Goose Camp including construction, operation and closure of an all-weather airstrip, a connecting road to Goose Camp and associated rock quarries.

## **Abandonment and Restoration Planning**

As part of the Application, the Licensee submitted the document entitled “Back River Project Abandonment and Restoration Plan Goose Camp and Exploration Project” (A&R Plan), dated September 2012 that was approved under the previous Licence. The Licensee provided the Goose Camp Updated Liability Assessment: Goose Camp Reclamation Estimate – October 2014 that is slightly different from the Reclamation Cost Estimate included within the approved A&R Plan. Therefore the Licensee shall be required under Part I, Item 1 to submit within the 2014 Annual Report an updated A&R Plan to reflect these changes.

In its submission, AANDC recommended that the “*Proponent submit an updated and revised site specific Abandonment and Restoration Plan to reflect any new structures associated with the Goose Lake project, Water License #2BE-GOO1015, that will be constructed and that will have to undergo reclamation activities in the future. Any other information contained in the Abandonment and Restoration Plan not relevant to this specific water license should be omitted from the A&R Plan*”.

The NWB advises the Licensee to take into consideration AANDC recommendations in the future update of the A&R Plan.

## **Monitoring**

The Licensee shall continue to measure all water used from Goose Lake at Monitoring Program Station GOO-1 and ensure that all effluent discharged from Bulk Fuel Storage Facility at Monitoring Program Station GOO-2 does not exceed the effluent quality limits included within Part D, Item 12 of the Licence.

To ensure that water used from all sources under this Licence is measured and reported, the NWB added the Monitoring Program Stations GOO-3: Raw water supply intake at Llama Lake, and GOO-4: Raw water supply intake at Umwelt Lake to the existing two Monitoring Program Stations. The results of the monitoring program outlined in Part J are to be included in the Annual Report.



## NUNAVUT WATER BOARD WATER LICENCE RENEWAL

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### Licence No. 2BE-GOO1520

Pursuant to the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada*, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to

SABINA GOLD & SILVER CORP.

(Licensee)

930 WEST 1<sup>st</sup> STREET, SUITE 202, NORTH VANCOUVER, BC, V7P 3N4

(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use water or dispose of waste for a period subject to restrictions and conditions contained within this Licence renewal:

Licence Number/Type: 2BE-GOO1520 TYPE "B"

Water Management Area: QUEEN MAUD GULF WATERSHED - 30

Location: GOOSE LAKE, BACK RIVER PROJECT  
KITIKMEOT REGION, NUNAVUT

Classification: MINING UNDERTAKING

Purpose: DIRECT WATER USE AND DEPOSIT OF WASTE

Quantity of Water use not  
to Exceed: TWO HUNDRED AND NINETY SEVEN (297) CUBIC  
METRES PER DAY

Date of Licence Issuance: FEBRUARY 19, 2015

Expiry of Licence: FEBRUARY 18, 2020

This Licence renewal, issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

**Thomas Kabloona,**  
**Nunavut Water Board Chair**

## **PART A: SCOPE, DEFINITIONS AND ENFORCEMENT**

### **1. Scope**

This Licence allows for the use of water and the disposal of waste for a Mining undertaking classified as per Schedule 1 of the *Regulations* based at the Goose Lake Camp as part of the Back River Project, located approximately 160 km south of Bathurst Inlet and 525 km northeast of Yellowknife, with exploration drilling occurring within the property described as Goose Lake, within the Kitikmeot Region, Nunavut.

- a. This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposits of such waste may enter any waters. Whenever new Regulations are made or existing *Regulations* are amended by the Governor in Council under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity or type of waste that may be so deposited or under which any such waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and
- b. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

### **2. Definitions**

**“Act”** means the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

**“Addendum”** means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report;

**“All-Weather Airstrip”**: Engineered facility designed to permit landing and taking off of aircrafts without regard to operational weather limits as described in the Amendment No. 3 Application and supporting documents dated March 25, 2012;

**“Amendment”** means a change to original terms and conditions of this Licence requiring correction, addition or deletion of specific terms and conditions of the Licence; modifications inconsistent with the terms of the set terms and conditions of the Licence;

**“Appurtenant Undertaking”** means an undertaking in relation to which a use of water or a deposit of waste is permitted by a licence issued by the Board;

**“Board”** means the Nunavut Water Board established under the *Nunavut Land Claims Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

**“Bulk Fuel Storage Facility”** means the fuel storage facility as described in the Application and supporting documents submitted October 20, 2014;

**“Effluent”** means treated or untreated liquid waste material that is discharged into the environment from a structure such as a settling pond, landfarm or a treatment plant;

**“Engineer”** means a professional engineer registered to practice in Nunavut in accordance with the *Consolidation of Engineers and Geoscientists Act S. Nu 2008, c.2* and the *Engineering and Geoscience Professions Act S.N.W.T. 2006, c.16 Amended by S.N.W.T. 2009, c.12*;

**“Greywater”** means all liquid wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet wastes;

**“High Water Mark”** means the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land (ref. Department of Fisheries and Oceans Canada, Operational Statement: Mineral Exploration Activities);

**“ICP Scan”** means the laboratory method for determining trace metals in water through Emission Spectroscopy using inductively coupled plasma (including from approximately 22 to 32 elements, depending on the laboratory performing the analysis);

**“Inspector”** means an Inspector designated by the Minister under Section 85 (1) of the *Act*;

**“Licensee”** means the holder of this Licence;

**“Modification”** means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;

**“Nunavut Land Claims Agreement (NLCA)”** means the “*Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada*”, including its preamble and schedules, and any amendments to that agreement made pursuant to it;

**“Quarry”** means the areas of surface excavation for extracting rock material for use as construction materials in the development of infrastructure and facilities for the project;

**“Regulations”** means the *Nunavut Waters Regulations* SOR/2013-69 18th April, 2013;

**“Sewage”** means all toilet wastes and greywater;

**“Spill Contingency Plan”** means a Plan developed to deal with unforeseen petroleum and hazardous materials events that may occur during the operations conducted under the Licence;

**“Sump”** means a structure or depression that collects, controls, and filters liquid waste before it is released to the environment. This structure should be designed to prevent erosion while allowing percolation of liquid waste;

**“Toilet Wastes”** means all human excreta and associated products, but does not include greywater;

**“Waste”** means, as defined in S.4 of the *Act*, any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means;

**“Water” or “Waters”** means waters as defined in section 4 of the *Act*.

### **3. Enforcement**

- a. Failure to comply with this Licence will be a violation of the *Act*, subjecting the Licensee to the enforcement measures and the penalties provided for in the *Act*;
- b. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- c. For the purpose of enforcing this Licence and with respect to the use of water and deposit or discharge of waste by the Licensee, Inspectors appointed under the *Act*, hold all powers, privileges and protections that are conferred upon them by the *Act* or by other applicable law.

## **PART B: GENERAL CONDITIONS**

1. The water use fees, payable to the Receiver General for Canada, shall be sent to the Board annually for the right to the use of water in accordance with Section 12 of the *Regulations*.
2. The Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than March 31<sup>st</sup> of the year following the calendar year being reported, containing the following information:
  - a. A summary report of water use and waste disposal activities;
  - b. A list of unauthorized discharges and a summary of follow-up actions taken;
  - c. Any revisions to the Spill Contingency Plan, Abandonment and Restoration Plan



- any other Plan and Assessment of Current Restoration Liability, as required by Part B, Item 7, submitted in the form of an Addendum;
- d. A description of all progressive and or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations;
  - e. Report all artesian flow occurrences as required under Part F, Item 3;
  - f. A summary of all information requested and results of the Monitoring Program; and
  - g. Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.
3. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
  4. The Licensee shall install flow meters or other such devices, or implement suitable methods required for the measuring of water volumes as required under Part J, Item 1.
  5. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted, cannot be undertaken without subsequent written Board approval and direction. The Board may alter or modify a Plan if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.
  6. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
  7. The Licensee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plan accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.
  8. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
  9. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:

(a) **Manager of Licensing:**  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU X0B 1J0  
Telephone: (867) 360-6338  
Fax: (867) 360-6369  
Email: [licensing@nwb-oen.ca](mailto:licensing@nwb-oen.ca)

**(b) Inspector Contact:**  
Manager of Field Operations, AANDC  
Nunavut District, Nunavut Region  
P.O. Box 100  
Iqaluit, NU X0A 0H0  
Telephone: (867) 975-4295  
Fax: (867) 979-6445

10. The Licensee shall submit one paper copy and one electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in Inuktitut.
11. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the NWB is received and acknowledged by the Manager of Licensing.
12. This Licence is assignable as provided for in Section 44 of the *Act*.

**PART C: CONDITIONS APPLYING TO WATER USE**

1. The Licensee shall obtain all water for domestic camp use from Goose Lake. Total camp water use shall not exceed thirty (30) cubic metres per day. Drill water (including for miscellaneous industrial use) shall be obtained from Goose Lake and Llama Lake in winter and from Goose Lake and Umwelt Lake in summer as outlined in the Application and shall not exceed two hundred and sixty seven (267) cubic metres per day. The volume of water for the purposes of this Licence shall not exceed two hundred and ninety seven (297) cubic metres per day.
2. Streams cannot be used as a water source unless authorized and approved by the Board in writing.
3. The Licensee shall submit, at least thirty (30) days prior to the use of water of a sufficient volume that the source water body may be drawn down, to the Board for approval in writing, the following: volume required, hydrological overview of the water body, details of impacts, and proposed mitigation measures.
4. The Licensee shall equip all water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained and shall withdraw water at a rate such that fish do not become impinged on the screen.
5. The Licensee shall not remove any material from below the ordinary high water mark of any water body unless authorized.
6. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.

7. Sediment and erosion control measures shall be implemented prior to and maintained during the undertaking to prevent entry of sediment into water.

**PART D: CONDITIONS APPLYING TO WASTE DISPOSAL**

1. The Licensee shall locate areas designated for waste disposal at a minimum distance of thirty one (31) metres from the ordinary high water mark of any water body such that the quality, quantity or flow of water is not impaired, unless otherwise approved by the Board in writing.
2. The Licensee shall implement the Plan entitled “Back River Project Comprehensive Waste Management Plan”, revised January 2013, submitted as additional information with the Application and originally accepted by the Board. The Licensee is required to update the Plan annually and submit any changes, in the form of an addendum complete with a record of revision, to the Board for review by March 31<sup>st</sup> of the year following the update.
3. The Licensee shall implement the Plan entitled “Comprehensive Hazardous Materials Management Plan”, dated January 2012, submitted as additional information with the Application and originally accepted by the Board. The Licensee is required to update the Plan annually and submit any changes, in the form of an addendum complete with a record of revision, to the Board for review by March 31<sup>st</sup> of the year following the update.
4. The Licensee shall not practice on-site land filling of domestic waste, unless otherwise approved by the Board in writing.
5. The Licensee is authorized to dispose of all acceptable food waste, paper waste and untreated wood products in an incinerator.
6. The Licensee shall not open burn plastics, wood treated with preservatives, electric wire, Styrofoam, asbestos or painted wood to prevent the deposition of waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding waters, unless otherwise approved by the Board in writing.
7. The Licensee shall provide to the Board documented authorization from all communities in Nunavut receiving wastes from the Goose Lake, Back River Project prior to any backhauling and disposal of wastes to those communities.
8. The Licensee shall backhaul and dispose of all hazardous wastes, waste oil and non-combustible waste generated through the course of the operation at a licensed waste disposal site.
9. The Licensee shall maintain records of all waste backhauled and records of confirmation of proper disposal of backhauled waste. These records shall be made available to an Inspector upon request.

10. The Licensee shall contain all greywater in a sump located at a distance of at least thirty one (31) metres above the ordinary high water mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created or to a wetland area located at a distance of at least thirty one (31) metres above the ordinary high water mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created, unless otherwise approved by the Board in writing.
11. The Licensee shall dispose of all toilet wastes through incineration, chemical or composting toilets. Any remaining residue generated through the course of the operation shall be backhauled and disposed of in an approved waste disposal site.
12. All Effluent discharge from the Bulk Fuel Storage Facility at Monitoring Program Station GOO-2 shall not exceed the following effluent quality limits:

Parameter	Maximum Concentration of any Grab Sample (µg/L)
Benzene	370
Toluene	2
Ethylbenzene	90
Phenols	20
Oil and Grease	5000
pH	6 to 9 (pH units)

13. In the event that Effluent at the Bulk Fuel Storage Facility under Part D, Item 12 does not meet the required discharge criteria, it shall be considered hazardous waste and be backhauled for proper disposal.
14. The Licensee shall, at least ten (10) days prior to initiating any release of effluent, notify an Inspector. The notice shall include water quality results, an estimate of volume and the proposed receiving location.

**PART E: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS**

1. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes including the immediate banks except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage.
2. The Licensee shall conduct all activities in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake corrective measures in the event of any impacts on surface drainage.

3. The Licensee shall construct all winter lake and stream crossings, including ice bridges, entirely of water, ice or snow. The Licensee shall minimize disturbance by locating ice bridges in an area that requires the minimum approach grading and the shortest crossing route. Stream crossings shall be removed or the ice notched prior to spring break-up.
4. With respect to access road, pad construction or other earthworks, the deposition of debris or sediment into or onto any water body is prohibited. These materials shall be disposed of distance of at least thirty one (31) metres from the ordinary high water mark in such a fashion that they do not enter the water.
5. The Licensee shall not mobilize heavy equipment or vehicles for trenching or other activities unless the ground surface is capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles shall be suspended if rutting occurs.
6. The Licensee shall, within ninety (90) days of completion of construction of facilities and/or infrastructure associated with the project, submit to the Board a Construction Summary Report along with stamped as-built plans and drawings, providing explanation to reflect any deviations from construction drawings taking into account construction and field decisions and how they may affect the performance of engineered facilities.
7. The Licensee shall maintain a minimum of thirty-one (31) metres buffer zone between the periphery of quarry sites and the high water mark of any water body. The Licensee shall not excavate and/or remove material from the quarry beyond a depth of one (1) metre above the high water mark or above the groundwater table so as to prevent the contamination of groundwater sources. Further the Licensee is advised that quarrying shall be carried out in accordance with all applicable legislation and industry standards including the *Northern Land Use Guidelines, Pits and Quarries* (INAC, 2010).
8. Sediment and erosion control measures shall be implemented prior to and maintained during the construction and operation where necessary to prevent entry of sediment into water.
9. The Licensee shall ensure that all containment and runoff control structures are constructed and maintained to prevent escape of wastes to the surface or groundwater systems.
10. The Licensee shall limit any in-stream activity including crossing/fording to low water period. Machinery fording the watercourse to bring equipment required for construction to the opposite side is limited to a one-time event (over and back) and should occur only if an existing crossing at another location is not available or practical to use. In-stream activity is prohibited during fish migration.
11. The Licensee shall ensure that all fill material used during the construction is from an approved potentially non-acid generating and non-metal leaching source and is free of contaminants.

12. The Licensee shall, for the purposes of clear span bridge installation, ensure that all activities remain outside of the natural channel width by the placement of abutments, footings or armoring above the ordinary high water mark so that there is no restriction to the natural channel processes.
13. All surface runoff during the construction of any facilities, where flow may directly or indirectly enter a water body, shall meet the following Effluent quality limits:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of any Grab Sample (mg/L)
Total Suspended Solids	50.0	100.0

14. The Licensee shall ensure that all construction of engineered structures is supervised and field checked by an appropriately qualified and experienced Engineer in such a manner that the project specification can be enforced and, where required, the quality control measures can be followed. The Licensee shall maintain and make available at the request of the Board and/or an Inspector, all construction records of all engineered structures.

#### **PART F: CONDITIONS APPLYING TO DRILLING OPERATIONS**

1. The Licensee shall not conduct any land based drilling within thirty one (31) metres of the ordinary high water mark of any water body, unless otherwise approved by the Board in writing.
2. The Licensee shall dispose of all drill waste, including water, chips, muds and salts (CaCl<sub>2</sub>) in any quantity or concentration, from land-based and on-ice drilling, in a properly constructed sump or an appropriate natural depression located at a distance of at least thirty one (31) metres from the ordinary high water mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created.
3. If artesian flow is encountered, drill holes shall be immediately sealed and permanently capped to prevent induced contamination of groundwater or salinization of surface waters. The Licensee shall report all artesian flow occurrences within the Annual Report, including the location (GPS coordinates) and dates.
4. Drilling additives or mud shall not be used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the water, or are demonstrated to be non-toxic.

5. For “on-ice” drilling where drill additives are not being used, return water released must be nontoxic, and not result in an increase in total suspended solids in the immediate receiving waters, above the Canadian Council of Ministers for the Environment, Guidelines for the Protection of Freshwater Aquatic Life (i.e. 10 mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100 mg/L).
6. The Licensee shall establish water quality conditions prior to and upon completion of any drilling program through lake ice.
7. The Licensee shall provide to the Board for approval at least sixty (60) days prior to the beginning of any trenching operations, a proposed Trenching Plan which shall include the following:
  - a. Size and location of trenches including GPS coordinates;
  - b. Approximate dimensions (length, width and depth) of each trench;
  - c. Proposed mitigation measures for the prevention of the transport of sediments, blasting residues, fly rock and other materials, from the trench area to nearby water bodies;
  - d. Projected volume and quality of water discharged from each trench with potential treatment required; and
  - e. Proposed monitoring program to be carried out on trench waste water prior to discharge.

#### **PART G: CONDITIONS APPLYING TO MODIFICATIONS**

1. The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
  - a. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
  - b. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
  - c. such Modifications are consistent with the NIRB Screening Decision;
  - d. the Board has not, during the sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
  - e. the Board has not rejected the proposed Modifications.
2. Modifications for which all of the conditions referred to in Part G, Item 1 have not been met can be carried out only with written approval from the Board.

3. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

**PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING**

1. The Board has approved the Plan entitled “Comprehensive Spill Contingency Plan GOOSE CAMP”, dated March 2014 that was submitted as additional information with the Application.
2. The Licensee shall prevent any chemicals, petroleum products or wastes associated with the project from entering water. All sumps and fuel caches shall be located at a distance of at least thirty one (31) metres from the ordinary high water mark of any adjacent water body and inspected on a regular basis.
3. The Licensee shall conduct any equipment maintenance and servicing in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other waste and contain potential spills.
4. If during the term of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
  - a. Employ the approved Spill Contingency Plan;
  - b. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
  - c. For each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.
5. The Licensee shall, in addition to Part H, Item 4, regardless of the quantity of releases of harmful substances, report to the NWT/NU Spill Line if the release is near or into a Water body.

**PART I: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION OR TEMPORARY CLOSING**

1. The Licensee shall submit for Board review within the 2014 Annual Report, an updated Abandonment and Restoration Plan prepared in accordance with applicable sections of the "Guidelines for Abandonment and Restoration Planning for Mines in the Northwest Territories (1990)" that has originally been approved by the Board. Updates are to reflect, at a minimum changes on the Reclamation Cost Estimate and AANDC comments expressed during the Application review.
2. The Licensee shall complete all restoration work prior to the expiry of this Licence.



3. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
4. The Licensee shall backfill and restore all sumps to the pre-existing natural contours of the land.
5. The Licensee shall remove from the site, all infrastructure and site materials, including all fuel caches, drums, barrels, buildings and contents, docks, water pumps and lines, material and equipment prior to the expiry of this Licence.
6. All roads and airstrip, if any, shall be re-graded to match natural contours to reduce erosion.
7. The Licensee shall remove any culverts and restore the drainage to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.
8. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
9. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation, 2010. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.
10. The Licensee shall restore all drill holes and disturbed areas to natural conditions immediately upon completion of the drilling. The restoration of drill holes must include the removal of any drill casing materials and if having encountered artesian flow, the capping of holes with a permanent seal.
11. The Licensee may store drill cores produced by the appurtenant undertaking in an appropriate manner and location at least thirty one (31) metres above the ordinary high water mark of any adjacent water body, where any direct flow into a water body is not possible and no additional impacts are created.
12. The Licensee shall restore all trenches prior to the closure of seasonal exploration programs and removal of equipment from site. Trenches are to be in-filled and covered with stockpiled overburden materials and re-contoured to the natural terrain, providing drainage away from nearby watercourses.
13. The Licensee shall contour and stabilize all disturbed areas to a pre-disturbed state upon completion of work.

**PART J:      CONDITIONS APPLYING TO THE MONITORING PROGRAM**

1. The Licensee shall maintain Monitoring Program Stations at the following locations:

Monitoring Program Station	Description	Status
GOO-1	Raw water supply intake at Goose Lake.	Active (Volume)
GOO-2	Final discharge point from Bulk Fuel Storage Facility.	Active (Volume and water quality)
GOO-3	Raw water supply intake at Llama Lake.	New (Volume)
GOO-4	Raw water supply intake At Umwelt Lake.	New (Volume)

2. The Licensee shall measure and record, in cubic metres, the daily quantities of water utilized for camp, drilling and other purposes.
3. The Licensee shall provide the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where sources of water are utilized for all purposes.
4. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where wastes associated with camp operations and drilling operations are deposited.
5. The Licensee shall obtain representative samples of the water column below any ice where required under Part F, Item 5 and 6. Monitoring shall include but not be limited to the following:
- Total Suspended Solids  
pH  
Electrical Conductivity,  
Total Trace Metals as determined by a standard ICP Scan (to include at a minimum, the following elements: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, Se, Sn, Sr, Tl, Ti, U, V, Zn), and  
Trace Arsenic and Mercury
6. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by the Board in writing.
7. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.

8. The Licensee shall, during periods of flow and just after a major rainfall event, conduct water quality testing immediately upstream and downstream of the water crossings, any significant water seeps in contact with the road and any flows originating from borrow pits or rock quarries on a monthly basis prior to construction, during the construction and upon completion while testing for criteria listed under Part J, Item 6.
9. The Licensee shall implement a water crossings visual inspection and maintenance program prior to, during spring freshet and after heavy rainfall events to identify issues related to watercourse crossings structural integrity and hydraulic function.
10. The Licensee shall obtain a digital photographic record of all water crossings before, during and after construction has been completed.
11. The Licensee shall include in the Construction Summary Report required under Part E, Item 8 all data, monitoring results and information required by this Part.
12. Additional monitoring requirements may be requested by the Inspector.
13. The Licensee shall include in the Annual Report required under Part B, Item 2 all data, monitoring results and information required by this Part.