

## **WATER LICENCE NO: 2AM-MEA0815**



## NUNAVUT WATER BOARD WATER LICENCE

## LICENCE NO: 2AM-MEA0815

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## NUNAVUT WATER BOARD WATER LICENCE

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

AGNICO-I	EAGLE	MINIES	LTD
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(Licensee)

### 555 BURRARD, SUITE 375, BOX 209, TWO BENTALL CENTRE VANCOUVER, BRITISH COLUMBIA

V7X 1M8

(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:

Licence Number/Type:	2AM-MEA0815	Гуре "А"
Water Management Area:	06 and 07	
Location:	MEADOWBANK KIVALLIQ REGI	GOLD PROJECT ON, NUNAVUT
Purpose:	MINING AND MI	LLING AND ASSOCIATED USES
Description:	MINING AND PR	OCESSING
Quantity of Water not to be Exceeded:	700,000 CUBIC M	ETRES ANNUALLY
Date Licence Issuance:	June 9, 2008	
Expiry of Licence:	May 31, 2015	
This Licence issued and recorde annexed conditions.	ed at Qikiqtarjuaq, Nu	anavut includes and is subject to the
Lootie Toomasie,	APPROVED	Minister of Indian and
Nunavut Water Board Hearing Chair	BY:	Northern Affairs
<del>-</del>	NCE APPROVED:	Canada Tul 1 1 1000
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#### PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

#### 1. SCOPE

a. This Licence authorizes Agnico-Eagle Mines Ltd. ("AEM" or "Licensee") to use Water and dispose of Waste associated with the Mining and Milling undertakings at the Meadowbank Gold Project as outlined in the Water Licence Application, submitted to the Board throughout the regulatory process.

AEM may conduct mining, milling and associated activities at the Meadowbank Gold Project in the Kivalliq Region of Nunavut, (67°0'75" N, 96°4'39" W) including, in general, as follows:

- Use of Water from Third Portage Lake for mining and milling, associated activities and domestic purposes;
- Withdrawal and use of Water from unnamed lake approximately 250 metres from the Emulsion Plant for use in explosives mixing;
- Quarrying of materials from specified locations;
- Construction and operation of mine site facilities including bulk fuel storage, mill, shops, offices, laboratory, warehouse, camp, and explosives mixing;
- Construction and operation of a camp at the Meaodwbank Project site;
- Construction and operation of the Baker Lake Marshalling Facility;
- Construction and operation of the All Weather Private Access Road, site roads, airstrip, and Water crossings;
- Construction and operation of the Portage Waste Rock Storage Facility and the Vault Waste Rock Storage Facility;
- Construction and operation of a Sewage Treatment Plant and controlled discharge during Construction and Operations;
- Set-up and operation of a diesel fired equipment including the waste Incinerator;
- Construction and operation of Contact and Non-Contact Water management systems;
- Construction and operation of a Construction and Operations Landfill and a Demolition Landfill in the Portage Waste Rock Storage Facility;
- Construction and operation of a Landfarm;

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- Construction and operation of the Portage Attenuation Ponds and the Vault Attenuation pond;
- Management and disposal of Wastes associated with the Sewage Treatment Plant, the Portage Waste Rock Storage Facility, Vault Waste Rock Storage Facility, Portage Attenuation Pond, Vault Attenuation Pond, Reclaim Pond, Construction and Operation Landfill, Demolition Landfill, Landfarm, Incinerator, and other wastes as described in the Water Licence Application;
- Handling and storage of petroleum products and hazardous materials;
- Construction of a Central Dike, Stormwater Dike, Saddle Dams, Portage Attenuation Pond and Reclaim Pond needed for the operation of the northwest arm of Second Portage Lake as a Tailings Storage Facility;
- Deposition of tailings into the Tailings Storage Facility;
- Partial dewatering of the northwest arm of Second Portage Lake to allow construction of the Tailings Storage Facility;
- Construction of the East Dewatering Dike and Bay Zone Dewatering Dike to allow open pit mining at the Portage deposit;
- Dewatering of the northwest arm of Second Portage Lake to allow open pit mining of the Portage deposit;
- Construction of the Goose Island Dewatering Dike and South Camp Dike to allow open pit mining at the Goose Island deposit;
- Dewatering of Third Portage Lake to allow open pit mining of the Goose Island deposit;
- Construction of the Vault Dewatering Dike to allow open pit mining at the Vault deposit;
- Dewatering of Vault Lake to allow open pit mining of the Vault deposit;
- Controlled and regulated Discharge of effluent to Third Portage Lake from the Portage Attenuation Pond
- Controlled and regulated Discharge of effluent to Wally Lake from the Vault Attenuation Pond;
- Construction of fish habitat compensation measures in Second and Third Portage Lakes;

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- Rewatering of Portage, Goose Island, and Vault open pits following pit development; and
- Progressive Reclamation and Abandonment planning of site facilities and infrastructure.
- b. This Licence is issued subject to 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 Act, or other statutes imposing more stringent conditions relating to the quantity, type or manner under which any such Waste may be so deposited, this Licence shall be deemed to be subject to such requirements.
- c. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with all applicable legislation, guidelines and directives.

#### 2. **DEFINITIONS**

The Licensee shall refer to Schedule A for definitions of terms used in this Licence.

#### 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.
- 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. This Licence incorporates two previously issued Type B licences, 8BC-TEH0809 for the All Weather Private Access Road and 8BC-MEA0709 for the Baker Lake Marshalling Facility. To the extent that any reports, studies and plans pursuant to the Type B licences are not yet received or approved by the Board, the requirement(s) becomes part of this Licence.

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- 2. In the event of a conflict between the previously issued Type B licences and this Type A Licence, the condition of this Type A Licence prevail.
- 3. The amount of Water use fees shall be determined in accordance with the section 9(b) of the *Regulations*.
- 4. Payment of fees shall be made in accordance with section 9(6)(b) of the *Regulations*.
- 5. The Licensee shall file an Annual Report with the Board no later than March 31 in the year following the calendar year being reported. The Annual Report shall be developed in accordance with Schedule B.
- 6. The Licensee shall ensure a copy of this Licence is maintained at the sites of operation at all times in English, Inuktitut and French.
- 7. Any communication with respect to this Licence shall be made in writing to the attention of:

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@nunavutwaterboard.org

8. Any notice made to an Inspector shall be made in writing to the attention of:

Water Resources Officer Nunavut District, Nunavut Region P.O. Box 100 Iqaluit, NU X0A 0H0

Telephone: (867) 975-4295 Fax: (867) 979-6445

9. Any notice made to an Analyst shall be made in writing to the attention of:

Taiga Laboratories
Department of Indian and Northern Affairs
4601 – 52 Avenue, P.O. Box 1500
Yellowknife, NT X1A 2R3

Telephone: (867) 669-2781 Fax: (867) 669-2718

10. The Licensee shall submit one (1) paper copy and one (1) electronic copy of all reports, studies, and plans to the Board or as otherwise requested by the Board. Reports or studies

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submitted to the Board by the Licensee shall include an executive summary in English and Inuktitut.

- 11. This Licence is assignable as provided in section 44 of the Act.
- 12. The Licensee shall provide to the Board, notification in writing at least ten (10) days prior to the planned use of Water for the purpose of ore processing.
- 13. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the Board is received and acknowledged by the Manager of Licensing.
- 14. The Licensee shall notify the NWB of any changes in development plans or conditions associated with this project, including the intent to begin Operations, at least sixty (60) days prior to any such change.
- 15. The Licensee shall post signs in the appropriate areas to inform the public of the location of the Water Supply Facilities and the Waste Disposal Facilities. All signs must be in English, Inuktitut and French.
- 16. 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.
- 17. In the event that a Plan is not found acceptable to the Board, the Licensee shall provide a revised version to the Board for review within thirty (30) days of notification by the Board.
- 18. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board. The Board has approved the following Plans:
  - a. Mine Waste and Water Management (August 2007);
  - b. Landfill Design and Management Plan (August 2007);
  - c. Hazardous Materials Management Plan (August 2007);
  - d. Emergency Response Plan (August 2007);
  - e. Spill Contingency Plan (March 2008) 8BC-TEH0809;
  - f. Spill Contingency Plan (August 2007);
  - g. Water Quality and Flow Monitoring Plan (August 2007);
  - h. Aquatic Effects Management Program (October 2005); and
  - i. Fault Testing and Monitoring Plan (August 2007).
- 19. 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 condition 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.

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- 20. The Licensee shall review the Plans or Manuals referred to in this Licence as required by changes in operation and/or technology and modify the Plans or Manuals accordingly. Revisions to the Plans or Manuals are to be submitted in the form of an Addendum to be included with the Annual Report required by Part B, Item 5, complete with a revisions list detailing where significant content changes are made.
- 21. The expiry or cancellation of this Licence does not relieve the Licensee from any obligation imposed by the Licence, or any other regulatory requirement.

#### PART C: CONDITIONS APPLYING TO SECURITY

- 1. The Licensee shall furnish and maintain security with the Minister in the form that is satisfactory to the Minister, in the prescribed amounts:
  - a. within thirty (30) days of approval of this licence, an amount of twenty six (26) million \$26,000,000 dollars;
  - b. an additional amount of four (4) million on January 1, 2010;
  - c. an additional amount of four (4) million on January 1, 2011;
  - d. an additional amount of four (4) million on January 1, 2012;
  - e. an additional amount of four (4) million on January 1, 2013; and
  - f. an additional amount of one million nine hundred thousand (1.9) at January 1, 2014;

for a total of forty three (43) million and nine hundred (900) thousand dollars.

- 2. The Licensee shall furnish and maintain such further or other amounts as may be required by the Board based on annual estimates of current mine restoration liability.
- 3. The Licensee may submit to the Board for approval, a request for a reduction to the amount of security. The submission shall include supporting evidence to justify the request.
- 4. The security referred to in Part C, Item 1 shall be maintained until such time as it is fully or in part refunded by the Minister pursuant to section 76(5) of the Act. This clause shall survive the expiry of this Licence or renewals thereof and until full and final reclamation has been completed to the satisfaction of the Minister.

#### PART D: CONDITIONS APPLYING TO CONSTRUCTION

1. All final design and construction drawings shall be stamped and signed by a Professional Engineer.

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- 2. The Licensee shall submit to the Board for approval, at least six (6) months prior to Construction of the Saddle Dams, Goose Island Dewatering Dike and Vault Dewatering Dike, final design and construction drawings accompanied by a detailed assessment report from the Independent Geotechnical Expert Review Panel.
- 3. The Licensee shall submit to the Board for approval, at least one (1) year prior to Construction, final design and construction drawings of the Vault Haul Road Crossing.
- 4. The Licensee shall submit to the Board for review, at least three (3) months prior to Construction, final design and construction drawings of the Water intake pipe required for the Emulsion Plant.
- 5. The Licensee shall submit to the Board for review, at least three (3) months prior to Construction, final design and construction drawings of the Landfarm.
- 6. The Licence shall submit to the Board for review, at least one (1) year prior to commissioning, final design and construction drawings of the Demolition Landfill.
- 7. If it is determined that the easternmost channel of Third Portage Lake requires capacity upgrading, the Licensee shall submit to the Board and DFO for review, at least six (6) months prior to construction, a management plan including final design and construction drawings of the channel modification.
- 8. The Licensee shall use fill material for construction from an approved source, which has been demonstrated not to produce Acid Rock Drainage and to be non-Metal Leaching.
- 9. The Licensee shall direct Contact Water as required from the Pre-Development starter pits to the Contact Water Collection System.
- 10. All Effluent from the Contact Water Collection System at monitoring stations at ST-35 and ST-36 shall be directed to the northwest arm of Second Portage Lake and not exceed the following Effluent quality limits:

Parameter	Maximum Average Concentration	Maximum Allowable Grab Sample Concentration
Arsenic (mg/L)	0.5	1.0
Copper (mg/L)	0.3	0.6
Cyanide (mg/L)	1.0	2.0
Lead (mg/L)	0.2	0.4
Nickel (mg/L)	0.5	1.0
Zinc (mg/L)	0.5	1.0
рН	6.0 to 9.0	6.0 to 9.0
Radium-226 (Bq/L)	0.37	1.11
TSS (mg/L)	15.0	30.0

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- 11. The Licensee shall submit for approval, at least thirty (30) days prior to Construction, a Final Water Quality Monitoring and Management Plan for Dike Construction and Dewatering. The Plan shall include a protocol to monitor and maintain Water levels in Third Portage Lake, Second Portage Lake and Wally Lake within natural variation.
- 12. During dike construction, the Licensee shall implement the action plan outlined in the Final Water Quality Monitoring and Management Plan for Dike Construction and Dewatering if TSS levels in a single sample exceed the Short Term Maximum Total Suspended Solids (TSS) concentration defined in Part D Item 15.
- 13. During dike construction, the Licensee shall implement the action plan outlined in the Final Water Quality Monitoring and Management Plan for Dike Construction and Dewatering if the moving 24 hour average TSS concentration exceeds the Short Term Maximum TSS concentration defined in Part D Item 15.
- 14. During dike construction, the Licensee shall implement the action plan outlined in the Final Water Quality Monitoring and Management Plan for Dike Construction and Dewatering if the 7-day moving average TSS concentration exceeds the Maximum Monthly Mean TSS concentration defined in Part D Item 15.
- 15. The Licensee shall compare TSS levels as required in Part D Items 12, 13, and 14 to the following Maximum Monthly Mean and Short Term Maximum concentrations:

Parameter	Maximum Monthly Mean (mg/L)	Short Term Maximum (mg/L)
TSS in areas where there is	6	25
spawning habitat and at times		
when eggs or larvae are		
expected to be present (applied		
at monitoring stations located		
closest to the high value shoal		
areas starting Sept 1, 2008)		
TSS in all other areas and at	15	50
times when eggs/larvae are not		
present		
TSS in impounded areas (e.g.	15	50
northwest arm of second		
portage lake) at all times in all		
areas.		

16. Effluent from pit dewatering at monitoring stations ST-DD-1 to ST-DD-TBD, shall not exceed the following Effluent quality limits:

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Parameter	Maximum Monthly Mean	Short Term Maximum	
Total Suspended Solids	15.0 mg/L	22.5 mg/L	
Turbidity	15 NTU	30 NTU	
pН	6.0 to 9.0	6.0 to 9.0	
Total Aluminium	1.5 mg/L	3.0 mg/L	

- 17. The Licensee shall, for the construction of the dewatering dikes, close the rockfill embankments by connecting them from shore to shore prior to placing core material.
- 18. The Licensee shall, prior to the commissioning of the Tailings Storage Facility, direct all Effluent from the Sewage Treatment Plant to the Stormwater Management Pond.
- 19. The Licensee shall submit to the Board for approval, within ninety (90) days of the approval of this Licence, an Operation and Maintenance Manual for the Sewage Treatment Plant prepared in accordance with the "Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories; 1996" and adapted for the use of a mechanical sewage treatment facility. This Manual shall include contingency measures in the event of plant malfunction, disposal of sludge, and incorporate the Operation and Maintenance Manual requirements of 8BC-TEH0809, Part D Item 10.
- 20. The Licensee shall, prior to the commissioning of the Tailings Storage Facility or in the absence of an approved Manual as per Part D Item 19, direct all sludge removed from the Sewage Treatment Plant to the Incinerator.
- 21. The Licensee shall, prior to the construction of the Tailings Storage Facility, direct Effluent from the Stormwater Management Pond at monitoring station ST-35 to the northwest arm of Second Portage Lake and not exceed the following Effluent quality limits:

Parameter	Maximum Average Concentration	Maximum Allowable Grab Sample Concentration
pН	6.0 to 9.5	6.0 to 9.5
TSS	25 mg/L	50 mg/L
$BOD_5$	25 mg/L	50 mg/L
Faecal Coliforms	1000 CFU/dl	2000 CFU/dl
Oil and Grease*	15 mg/L and no visible	15 mg/L and no visible sheen
	sheen	
Benzene*	370 μg/L	370 μg/L
Toluene*	2 μg/L	2 μg/L
Ethylbenzene*	90 μg/L	90 μg/L
Lead*	1 μg/L	1 μg/L
Al	1.5 mg/L	3.0 mg/L

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- \*Only if discharge from the Mine Site Bulk Fuel Storage Facility is directed to the Stormwater Management Pond
- 22. The Licensee shall implement sediment and erosion control measures prior to and during Construction, and Operations where necessary, to prevent entry of sediment into Water.
- 23. The Licensee shall inspect daily, all construction activities for signs of erosion.
- 24. All surface runoff during the construction of any facilities, where flow may directly or indirectly enter a Water body, shall be sampled Weekly and not exceed the following Effluent quality limits:

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

- 25. The construction of engineered earthworks shall be supervised and field checked by a qualified Engineer. Construction records shall be maintained and available at the request of the Board.
- 26. The Licensee shall submit a Construction Summary Report to the Board, within ninety (90) days following the completion of each structure designed to contain, withhold, divert or retain Waters or Wastes. The Construction Summary Report shall be prepared by a qualified Engineer(s) in accordance with Schedule D, Item 1.
- 27. The Licensee shall submit to the Board, within ninety (90) days following the completion of Portage Lake and Wally Lake Outfall Diffusers, as-built drawings, final configuration and location.
- 28. The Licensee shall submit, within ninety (90) days of completion of construction, as-built drawings of the All Weather Private Access Road and all details of Water crossings and structures, stamped by an appropriately qualified Engineer.
- 29. The Licensee shall prevent any chemicals, fuel or wastes associated with the undertaking from entering any Water body.
- 30. The Licensee shall minimize disturbance to terrain, permafrost and drainage during movement of contractor's equipment and personnel around the site during construction activities.
- 31. The Licensee shall not store material on the surface of frozen streams or lakes except what is for immediate use.

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- 32. The Licensee shall locate equipment storage areas shall on gravel, sand or other durable land, a distance of at least thirty (30) metres above the ordinary high Water mark of any Water body in order to minimize impacts on surface drainage and Water quality.
- 33. The Licensee shall undertake necessary corrective measures to mitigate impacts on surface drainage resulting from the Licensee's activities.
- 34. The Licensee shall limit any in-stream activity to low Water periods. In-stream activity is prohibited during fish migration.
- 35. For the purposes of culvert and bridge installations, the Licensee shall not encroach on the natural channel width by the placement of abutments, footings or armouring below the ordinary high Water mark.
- 36. The Licensee shall construct and operate the Mine Site and Marshalling Area Bulk Fuel Storage Facilities in accordance with all applicable legislation and industry standards, including:
  - a. Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Containing Petroleum and Allied Petroleum Products, 2003; CCME; and
  - b. National Fire Code, 1995.

#### PART E: CONDITIONS APPLYING TO WATER USE AND MANAGEMENT

- 1. The Licensee shall obtain fresh Water from Third Portage Lake at monitoring station ST-1 using the Fresh Water Intake Barge for domestic camp use, mining and milling and associated uses, or as otherwise approved by the Board in writing.
- 2. The Licensee shall obtain fresh Water from the unnamed lake at monitoring station ST-3 for purposes of explosives mixing, not to exceed a maximum of 2,400 cubic metres per year, or as otherwise approved by the Board in writing.
- 3. The total volume of fresh Water for all uses shall not exceed 700,000 cubic metres per vear.
- 4. The Licensee shall to the greatest practical extent recycle water and the use of reclaim water from the Tailings Storage Facility.
- 5. 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.
- 6. The Licensee shall submit a Water Balance and Water Quality Modelling Report to the Board for review, Biannually for a period of two (2) years following the commencement of

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- Operations and annually thereafter. The Report shall include a comparison of predicted and measured parameters.
- 7. The Water Balance and Water Quality Model shall be re-calibrated as necessary in accordance with the action plan outlined in section 3.2.5.2 of the Water Quality and Flow Monitoring Plan (August 2007), and at a minimum of once every two (2) years following the commencement of Operations. The results and implications of the re-calibrated model shall be reported to the Board.
- 8. The Licensee shall, on an annual basis during Operations, compare the predicted water quantity and quality within the pits, to the measured water quantity and quality. Should the difference between the predicted and measured values be 20% or greater, then the cause(s) of the difference(s) shall be identified and the implications of the difference shall be assessed and reported to the Board.
- 9. The Licensee shall carry out weekly inspections of all water management structures during periods of flow and maintain records of the inspections and findings, for review upon the request of the Board.
- 10. The Licensee shall implement measures to prevent the generation and deposition of dust and/or sediment into Water arising from road use.

#### PART F: CONDITIONS APPLYING TO WASTE DISPOSAL AND MANAGEMENT

- 1. The Licensee shall direct all Sewage and Greywater to the Sewage Treatment Plant as described in the application, or as otherwise approved by the Board in writing.
- 2. Effluent being discharged from the Portage Attenuation Pond at monitoring station ST-9 shall be directed to Third Portage Lake through the Third Portage Lake Outfall Diffuser and not exceed the following Effluent quality limits:

Parameter	Maximum Average Concentration	Maximum Allowable Grab Sample Concentration
pН	6.0 to 9.0	6.0 to 9.0
TSS (mg/L)	15	30
Turbidity (NTU)	15	15
Total (T)-Al (mg/L)	1.5	1.5
Dissolved (D)-Al (mg/L)	1.0	1.0
T-As (mg/L)	0.30	0.60
T-Cd (mg/L)	0.002	0.004
T-CN	0.5	1.0
T-Cu (mg/L)	0.1	0.2
T-Hg (mg/L)	0.0004	0.0008
NH <sub>3</sub> -N (mg/L)	16	32

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Parameter	Maximum Average Concentration	Maximum Allowable Grab Sample Concentration
T-Ni (mg/L)	0.2	0.4
T-NO <sub>3</sub> -N (mg/L)	20	40
T-Pb (mg/L)	0.10	0.20
T-P (mg/L)	1.0	2.0
T-Zn (mg/L)	0.4	0.8
T-Cl <sup>-</sup> (mg/L)	1000	2000
Total Petroleum	3	6
Hydrocarbons (TPH) (mg/L)		

3. Effluent being discharged from the Vault Attenuation Pond at monitoring station ST-10 shall be directed to Wally Lake through the Wally Lake Outfall Diffuser and not exceed the following Effluent quality limits:

Parameter	Maximum Average Concentration	Maximum Allowable Grab Sample Concentration
рН	6.0 to 9.0	6.0 to 9.0
TSS (mg/L)	15	30
Turbidity (NTU)	15	15
Total (T)-Al (mg/L)	1.5	3.0
Dissolved (D)-Al (mg/L)	1.0	2.0
T-As (mg/L)	0.1	0.2
T-Cd (mg/L)	0.002	0.004
T-Cu (mg/L)	0.1	0.2
T-Hg (mg/L)	0.004	0.008
NH <sub>3</sub> -N (mg/L)	20	40
T-Ni (mg/L)	0.2	0.4
T-NO <sub>3</sub> -N (mg/L)	50	100
T-Pb (mg/L)	0.10	0.20
T-P (mg/L)	1.5	3.0
T-Zn (mg/L)	0.2	0.4
T-Cl <sup>-</sup> (mg/L)	500	1000

4. Prior to discharge, all water collected within the Non-Contact Water diversions during Operations at monitoring stations ST-5, ST-6, and ST-7, shall not exceed the following Effluent quality limits:

		Maximum Allowable
	Maximum Average	Grab Sample
Parameter	Concentration (mg/L)	Concentration (mg/L)
TSS	15	30

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- 5. Effluent from the Mine Site Bulk Fuel Storage Facility and other fuel containment facilities that are within proximity of the Stormwater Management Pond shall be directed to the Stormwater Management Pond.
- 6. Effluent from fuel containment facilities that require Discharge to land, shall not exceed the following Effluent quality limits:

Parameter	Maximum Average Concentration
Benzene(µg/L)	370
Toluene(µg/L)	2
Ethylbenzene(µg/L)	90
Lead(ug/L)	1
Oil and Grease(mg/L)	15 and no visible sheen

- 7. The Licensee shall confirm compliance with Effluent quality limits in Part F, Items 2, 3, and 6 prior to Discharge.
- 8. The Licensee shall provide at least ten (10) days notice to the Inspector prior to any planned Discharges from any facilities. The notice shall include an estimated volume proposed for Discharge and the receiving location.
- 9. The Licensee shall, under Part Item 6, discharge effluent in such a manner as to minimize surface erosion at a distance of at least thirty (30) metres above the ordinary high water mark of any Water body, where direct flow into a Water body is not possible and no additional impacts are created, or as otherwise approved by the Board in writing.
- 10. The Licensee shall submit to the Board for approval, within three (3) months of Licence approval, a revised Incineration Management Plan. The Plan shall consider best management practices for ash disposal.
- 11. The Licensee shall submit to the Board for review, within three (3) months of Licence approval, a revised Landfill Design and Management Plan to include:
  - a. Testing protocol and criteria for the disposal of incinerator ash in Landfill #1 and Landfill #2:
  - b. The Government of Nunavut guidelines and policy documents regarding disposal of asbestos, equipment containing ozone depleting substances and fluorescent lamp tubes:
  - c. The protocol for the placement of materials in the Construction/Operation Landfill and the Demolition Landfill; and
  - d. An update to the planned design of Landfill #1 and Landfill #2.
- 12. The Licensee shall submit to the Board for review, within three (3) months of Licence approval, a revised Landfarm Design and Management Plan to include:

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- a. The remediation guidelines used for hydrocarbon contaminated soil, how the guidelines will be used and what parameters will be measured;
- b. Details on storage and treatment options for metals, solvent, glycol, and heavy oils that may find their way into the Landfarm;
- c. Contingency plans, should contaminated soil and/or snow/ice exceed expected volumes;
- d. Details describing the design components/specifications of the spillway;
- e. Contingency planning and monitoring to ensure sump volumes are not exceeded during the snow melt period; and
- f. Measures to prevent damage to the liner during mechanical operation of the Landfarm
- 13. The Licensee is authorized to dispose of and contain all non-hazardous solid Wastes at Landfill #1 and Landfill #2 or as otherwise approved by the Board in writing.
- 14. The Licensee shall remove from the project site, all hazardous Wastes generated through the course of the Operation, for disposal at an approved hazardous waste disposal facility.
- 15. The Licensee shall maintain records of all Waste backhauled and confirmation of proper disposal through the use of Waste manifest tracking systems and registration with the Government of Nunavut, Department of Environment.
- 16. The Licensee shall submit to the Board for approval, within six (6) months of Licence approval, a revised Mine Waste and Water Management Plan to include:
  - a. Detailed Ammonia Management Plan;
  - b. Integration of the Waste and Water Management Plan submitted under Water Licence 8BC-TEH0809, Part D Item 1;
  - c. Field testing program for closure cover depth of the Tailings Storage Facility and Waste Rock Storage Facilities with consideration for climate change; and
  - d. A protocol for distinguishing Seepage through facilities.
- 17. The Licensee shall dispose of tailings and operate the Tailings Storage Facility in accordance with the revised Mine Waste and Water Management Plan in Part F Item 16 and *Guide to the Management of Tailings Facilities* (Mining Association of Canada September 1998). The tailings solids fraction shall be permanently contained within the Tailings Storage Facility.
- 18. The Licensee shall incorporate Seepage management at Quarries using best management practices including ditches, diversions, sumps and berms where necessary.
- 19. The Licensee shall locate areas designated for Waste disposal at a minimum distance of thirty (30) metres from the ordinary high water mark of any Water body such that the quality, quantity or flow of Water is not impaired, or as otherwise approved by the Board in writing.

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- 20. The Licensee shall provide to the Board, thirty (30) days prior to any planned disposal of Waste in a facility operated by the Hamlet of Baker Lake, documented authorization from the Hamlet for the use of any waste disposal facility operated by the Hamlet.
- 21. The Licensee shall direct all Sewage generated at the Baker Lake Marshalling Facility to an approved sewage disposal facility, or as otherwise approved by the Board in writing.
- 22. The Licensee shall direct all solid waste generated at the Baker Lake Marshalling Facility to an approved solid waste disposal facility, or as otherwise approved by the Board in writing.
- 23. All Effluent being discharged from the constructed facilities at the Baker Lake Marshalling Facility, including the Marshalling Area Bulk Fuel Storage Facility, ammonia storage and explosives storage and general marshalling area at Monitoring Stations ST-38 through ST-42 respectively, shall not exceed the following Effluent quality limits:

Parameter	Maximum Average	Maximum Concentration of
	Concentration (MAC)	any single Grab Sample
pН	6.0 - 9.5	6.0 - 9.5
Total Arsenic (mg/L)	**0.5	1.00
Total Copper (mg/L)	**0.30	0.60
Total Lead (mg/L)	*0.05	0.10
Total Nickel (mg/L)	**0.50	1.00
Total Zinc (mg/L)	*0.50	1.00
Total Suspended Solids	*15.0	30.0
(mg/L)		
Ammonia (mg/L)	6.0	6.0
Total Cyanide	*0.1	0.2
Benzene (ug/L)	370	370
Toluene (ug/l)	2	2
Ethylbenzene (ug/L)	90	90
Lead (ug/L)	1	1
Oil and Grease (mg/L)	5.0 and no visible sheen	5.0 and no visible sheen

<sup>\*</sup>Environmental Guideline for Industrial Waste Discharges, 2004

- 24. All Effluent discharged from a Final Discharge Point at monitoring stations ST-9, ST-10, ST-35, and ST-36, shall be demonstrated to be non-Acutely Lethal Effluent under the following tests:
  - a. Acute lethality to Rainbow Trout, Oncorhynchus mykiss (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/13); and
  - b. Acute lethality to the crustacean, Daphnia magna (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/14).

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<sup>\*\*</sup>Metal Mines Effluent Regulations (MMER)

#### PART G: CONDITIONS APPLYING TO MODIFICATIONS

- 1. The Licensee may, without written consent from the Board, carry out Modifications 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 to include requirements of Part G, Item 3;
  - b. Such Modifications do not place the Licensee in contravention of the Licence or the Act:
  - c. Such Modifications are consistent with the NIRB Project Certificate;
  - d. The Board has not, within 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 any 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. Applications for modifications shall contain:
  - a. A description of the facilities and/or works to be constructed;
  - b. The proposed location of the structure(s);
  - c. Identification of any potential impacts to the receiving environment;
  - d. A description of any monitoring required, including sampling locations, parameters measured and frequencies of sampling;
  - e. Schedule for construction:
  - f. Drawings of engineered structures stamped by a Professional Engineer; and
  - g. Proposed sediment and erosion control measures.
- 4. 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 EMERGENCY RESPONSE AND CONTINGENCY PLANNING

1. The Licensee shall submit to the Board for review, at least ninety (90) days prior to the commencement of Operations, a revised and consolidated Emergency Response Plan. The revised Plan shall cover the activities included in the scope of the Licence taking into account as-built designs and emergency preparedness to include the consequences of failure of any dikes.

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- 2. The Licensee shall submit to the Board for review, within thirty (30) days of the approval of this Licence, a revised and consolidated Spill Contingency Plan in accordance with the *Spill Contingency Planning and Reporting Regulations* developed under the *Environmental Protection Act (Nunavut)*. The revised Plan shall cover mine related activities and consolidate the existing plans for the mine site, All Weather Private Access Road, and Baker Lake Marshalling Facility taking into account the issues raised during its review.
- 3. The Licensee shall prevent any chemicals, petroleum products or unauthorized Wastes associated with the project from entering Water.
- 4. The Licensee shall provide secondary containment for fuel and chemical storage as required by applicable standards and acceptable industry practice.
- 5. The Licensee shall perform weekly inspections of fuel containment facilities for leaks and settlement and shall keep a written log of inspections to be made available to an Inspector upon request.
- 6. If the Licensee provides notification under Part J Item 4, the Licensee shall submit to the Board, an Addendum to the Emergency Response Plan and the Spill Contingency Plan, detailing the changes in operations, personnel, responsibilities, availability of equipment and access to the site for assistance.
- 7. The Licensee shall keep a copy of the Emergency Response Plan and the Spill Contingency Plan at each site of operation.
- 8. The Licensee shall conduct emergency maintenance and servicing on equipment, in designated areas, and shall implement measures to collect motor fluids and other Waste and prevent and contain spills.
- 9. If, during the period of this Licence, an unauthorized Discharge of Waste and or Effluent occurs, or if such Discharge is foreseeable, the Licensee shall:
  - a. Employ as required, the Emergency Response Plan and the Spill Contingency Plan;
  - b. Report the incident immediately via the 24-Hour Spill Reporting Line (867) 920-8130 and to the Inspector at (867) 975-4295; and
  - c. For each spill occurrence, submit a detailed report to the Inspector, no later than thirty (30) days after initially reporting the event, which includes the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain, clean up and restore the spill site.

# PART I: CONDITIONS APPLYING TO GENERAL AND AQUATIC EFFECTS MONITORING

1. The Licensee shall submit to the Board for approval by March 31, 2009, a revised Aquatic Effects Management Program (AEMP) prepared in consultation with Department of

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Fisheries and Oceans, Environment Canada, and Indian and Northern Affairs Canada. The revised AEMP shall include:

- a. A detailed monitoring protocol to verify that the Canadian Council of Ministers of Environment Fresh Water Aquatic Life guidelines are met thirty (30) metres from the outfall diffusers;
- b. Annual reporting for more immediate adaptive management;
- c. Mechanisms to measure changes to productivity in the lake as a result of the mine adding nutrients;
- d. Sampling and Analysis Plans; and
- e. Monitoring under Fisheries Authorizations, NWB Licence Compliance Monitoring, Environmental Effects Monitoring, and Groundwater Monitoring.
- 2. The Licensee shall submit to the Board for approval, within thirty (30) days following approval of the Licence, a revised and consolidated Water Quality and Flow Monitoring Plan. Revisions to the Plan shall consolidate the Monitoring Plan submitted under Licence 8BC-TEH0809, Part I Item 1.
- 3. The Licensee shall submit to the Board for approval, within thirty (30) days of Licence approval, a Ground Water Monitoring Plan.
- 4. The Licensee shall submit to the Board for approval, within thirty (30) days of Licence approval, a revised Operational ARD and ML Sampling and Testing Plan. The Plan shall include:
  - a. A detailed sampling, analysis and segregation system for rock and till that incorporates conservative criteria where there is uncertainty as to the character of material to ensure that problematic material is not incorporated into environmentally sensitive structures planned for construction;
  - b. Analyses to establish a correlation between metal concentration and leach rates; and
  - c. A plan or schedule for periodic auditing of the segregation system.
- 5. The Licensee shall install and maintain flow metres or other such devices to measure Water use and Effluent Discharge volumes.
- 6. The Licensee shall undertake the Monitoring Program provided in the Tables 1 and 2 of Schedule I.
- 7. The Licensee shall confirm the locations and GPS coordinates for all monitoring stations referred to in Schedule I with an Inspector.
- 8. The Licensee shall, establish the locations for the proposed compliance and internal monitoring locations as they relate to existing drainage courses beneath the Portage and Vault Waste Rock Storage Facilities and Tailing Storage Facility dikes to ensure potential seep locations are adequately identified.

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- 9. The Licensee shall install and maintain signs that identify monitoring stations. The signs shall be posted in English, Inuktitut and French.
- 10. The Licensee shall measure and record the following on a Monthly basis in cubic metres or as otherwise stated:
  - a. The volume of fresh Water obtained from Third Portage Lake;
  - b. The volume of reclaim water obtained from the Tailings Storage Facility for process water;
  - c. The volume of Effluent transferred to the pit lakes;
  - d. The flow during periods of discharge from the Landfarm, Landfills, Waste Rock Storage Facilities, Sewage Treatment Plant, Contact Water Collection System, and area Sumps collecting Contact Water;
  - e. The volume of water transferred from the Marshalling Area Bulk Fuel Storage Facility to the East Contact Water Pond;
  - f. The volume of Sewage sludge removed from the Sewage Treatment Plant;
  - g. Quantity of mill tailings placed within the Tailings Storage Facility;
  - h. Tonnes of mineralized and un-mineralized waste rock stored; and
  - i. Tonnes of ore processed through the mill.
- 11. The Licensee shall undertake the Thermal Monitoring Program detailed in the following documents:
  - a. Mine Waste and Water Management Plan (August 2007);
  - b. Detailed Design of the Central Dike (March 2007);
  - c. Detailed Design of Dewatering Dike (March 2007); and
  - d. Report Addendum: Detailed Design of Dewatering Dike (July 2007).
- 12. The Licensee shall undertake a geotechnical inspection, to be carried out Annually by a Geotechnical Engineer, between the months of July and September. The inspection shall be conducted in accordance with the *Canadian Dam Safety Guidelines* where applicable and take into account all major earthworks, including:
  - a. Dewatering Dikes;
  - b. Stormwater Dikes:
  - c. Saddle Dams;
  - d. Pit walls:
  - e. Tailings Storage Facility;
  - f. Shoreline protection at the location of the Wally Lake and Portage Lake Outfall Diffusers;
  - g. Geotechnical instrumentation;
  - h. All Weather Private Access Road and site roads, in particular water course crossings;
  - i. Ouarries;
  - i. Landfill:
  - k. Landfarm:
  - 1. Bulk Fuel Storage Facilities at both the mine site and marshalling area;

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- m. Attenuation Ponds:
- n. Reclaim Pond; and
- o. Sumps.
- 13. The Licensee shall submit to the Board within sixty (60) days of completion of the geotechnical inspection, the Geotechnical Engineer's inspection Report. The Report shall include a cover letter from the Licensee outlining an implementation plan to address the recommendations of the Geotechnical Engineer.
- 14. The Licensee shall submit to the Board as part of the Annual Report required under Part B Item 5, all reports and performance evaluations prepared by the Independent Geotechnical Expert Review Panel.
- 15. The Licensee shall monitor Seepage observations pursuant to Part I Item 8 according to the following:

Characterization of seepage including: precise location; discharge rates and volumes; respective hazard(s) and consequences and prescribed mitigative measure	Minimum Frequency of Observation
Lake water Seepage Through Dewatering Dikes	Monthly
Seepage (of any kind) Through Central Dike	Monthly
Seepage and Runoff from the Landfill(s)	Quarterly
Subsurface Seepage and Surface Runoff from Waste	Quarterly
Rock Piles	-
Seepage at Pit Wall and Pit Wall Freeze/Thaw and	Quarterly
Permafrost Aggradation	

- 16. The Licensee shall submit the results and interpretation of the Seepage monitoring required in Part I Item 15 in the Annual Report required under Part B Item 5.
- 17. The Licensee shall submit to the Board for approval, within six (6) months following construction of each the Mine Site Bulk Fuel Storage Facility and Marshalling Area Bulk Fuel Storage Facility, a plan for the environmental and performance monitoring of each Facility. The Plans are to include:
  - a. An assessment of performance;
  - b. Location, environmental setting and the potential for leaks or Seepage that could impact Water;
  - c. An assessment of the need for, and if required, the design for installation, monitoring, and maintenance of vertical Ground Water monitoring wells to be installed in accordance with the *Environmental Code of Practice for Aboveground Storage Tank Systems Containing Petroleum Products*, 2003; CCME; and
  - d. Recommended sampling for ongoing monitoring of the integrity of the secondary containment.

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- 18. The Licensee shall obtain a digital photographic record of all the watercourse crossings before, during, and after construction has been completed.
- 19. The Licensee shall submit within six (6) months of Licence approval to an Analyst for approval, a Quality Assurance/ Quality Control Plan that includes requirements for independent third party sampling and analysis. This Plan shall be developed in accordance with the 1996 Quality Assurance (QA) and Quality Control (QC) Guidelines for Use by Class "A" (INAC).
- 20. If the Analyst does not approve the Plan referred to in Part I, Item 19, the Licensee shall revise the Plan and resubmit to the Analyst for approval within thirty (30) days of notification by the Analyst.
- 21. The Analyst shall notify the Board of its decision with respect to the QA/QC Plan referred to in Part I Items 19 and 20.
- 22. All analyses shall be conducted as described in the most recent edition of "Standard Methods for the Examination of Water and Wastewater" or by other such methods approved by an Analyst.
- 23. The Licensee shall file a letter with the Board confirming application for accreditation for the on-site environmental laboratory prior to commencing Operations.
- 24. All compliance analyses shall be performed in a accredited laboratory according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
- 25. The Licensee shall submit to the Board, within thirty (30) days following the month being reported, a Monthly monitoring Report. The Report shall include:
  - a. All data and information required by this Part and generated by the Monitoring Program in the Tables of Schedule I;
  - b. An assessment of data to identify areas of non-compliance with regulated discharge parameters referred to in Parts D and F;
- 26. The Licensee shall confirm bathymetric survey at the Baker Lake Marshalling Facility.
- 27. The NWB can modify the Monitoring Program without a public hearing. Requests for changes to the Program should be forwarded to the NWB in writing, and should include the justification for the change.

# PART J: CONDITIONS APPLYING TO ABANDONMENT, RECLAMATION AND CLOSURE

1. The Licensee shall submit to the Board for approval, within six (6) months of the start of Operations, an Interim Closure and Reclamation Plan prepared in accordance with the

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Mine Site Reclamation Guidelines for the Northwest Territories, 2007 and consistent with the INAC Mine Site Reclamation Policy for Nunavut, 2002. The Plan shall cover mine related components, the All Weather Private Access Road and the Baker Lake Facilities. The Plan shall include:

- a. Detailed description, including maps and other visual representations, of the preconstruction conditions for each site, accompanied by a detailed description of the proposed final landscape, with emphasis on the reclamation of surface drainage over the restored area:
- b. A description of how progressive reclamation will be employed and monitored throughout the life of the mine, plus reclamation scheduling and coordination of activities with the overall sequence of the project; details of reclamation scheduling and procedures for coordinating reclamation activities within the overall mining sequence and materials balance;
- c. Implications of any updated water balance and water quality model prediction results and any adaptive management measures that may be required;
- d. An evaluation of closure and reclamation measures for each mine component, including the goals, objectives, closure criteria and the rationale for selection of the preferred measures;
- e. A comprehensive assessment of materials suitability, including geochemical and physical characterization and a schedule of availability for reclamation needs. Particular attention on to cover materials, including maps showing sources and stockpile locations of all reclamation construction materials;
- f. An assessment and description of any required post-closure treatment for pit water that is not acceptable for discharge;
- g. Contingency measures for all reclamation components including action thresholds that are linked to the monitoring programs;
- h. Monitoring programs to assess reclamation performance and environmental conditions including monitoring locations for surface water and Ground Water, parameters;
- i. Monitoring schedules and overall timeframes;
- j. QA/QC procedures for managing the demolition landfill and other waste disposal areas;
- k. A list of non-salvageable materials and disposal locations;
- l. Rock storage facility closure design plans and sections including the types of material placed and volumes;
- m. Protocol for the disposal of any contaminated soil;
- n. An assessment of the long-term physical stability of all remaining project components including the central and east dike;
- o. Detailed criteria for the final breaching of dikes;
- p. A revised closure and reclamation cost estimate; and
- q. A detailed implementation schedule for completion of reclamation work
- 2. The Licensee shall notify the Board in writing, at least sixty (60) days prior to any intent to achieve Recognized Closed Mine status.

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- 3. The Licensee shall submit to the Board for approval, a Final Closure and Reclamation Plan at least twelve (12) months prior to the expected end of mining. The Final Plan shall incorporate revisions, which reflect the pending closed status of the mine, and include:
  - a. Soil Quality Remediation Objectives along with CCME Guidelines and the Government of Nunavut *Environmental Guideline for Site Remediation*;
  - b. Environmental Site Assessment plans in accordance Canadian Standards Association (CSA) criteria; and
  - c. An evaluation of the Human Health and Ecological Risk associated with closure options.
- 4. The Licensee shall notify the Board in writing, a soon as practically possible, of any intent to enter into a Care and Maintenance Phase. The notification shall include plans for maintaining compliance with the Terms and Conditions of the Licence.
- 5. The Licensee shall review the Plans referred to in this Part as required by changes in operation and/or technology and modify the Plan accordingly. Revisions to the Plan should incorporate design changes and adaptive engineering required and implemented during Construction and on the basis of actual site conditions and monitoring results over the life of the project.
- 6. The Licensee shall implement progressive reclamation, including progressive covering of the tailings and revegetation as soon as practically possible.

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### Schedules are provided for:

- A Scope, Definitions and Enforcement
- **B** General Conditions
- D Conditions Applying to ConstructionI Conditions Applying to General and Aquatic Effects Monitoring

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#### Schedule A – Scope, Definitions, and Enforcement

In this Licence: 2AM-MEA0815

- "<u>Abandonment</u>" means the permanent dismantlement of a facility so it is permanently incapable of its intended use. This includes the removal of associated equipment and structures;
- "Act" means the Nunavut Waters and Nunavut Surface Rights Tribunal Act;
- "Acid Rock Drainage (ARD)" means the production of acidic leachate, seepage or drainage from underground workings, open pits, ore piles, waste rock, construction rock that can lead to the release of metals to groundwater or surface water during the life of the Project and beyond closure;
- "Acutely Lethal Effluent" means effluent as defined in the *Metal Mining Effluent Regulations* SOR/2002-222 dated 6 June 2002;
- "<u>Adaptive Management</u>" means a management plan that describes a way of managing risks associated with uncertainty and provides a flexible framework for mitigation measures to be implemented and actions to be taken when specified thresholds are exceeded;
- "<u>Addendum</u>" 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. Also considered to be an appendix or supplement;
- "<u>All Weather Private Access Road</u>" means the 115 kilometre all weather access road and associated water crossings between the Hamlet of Baker Lake and the Meadowbank Gold Project site as described in the application dated, October 26, 2006;
- "<u>Amendment</u>" means a change to any terms and conditions of this Licence, through application to the NWB, requiring a change, addition, or deletion of specific terms and conditions of the Licence;
- "Analyst" means an Analyst designated by the Minister under section 85 (1) of the Act;
- "Annually" means, in the context of monitoring frequency, one sampling event occurring every 365 days with a minimum of 200 days between sampling events;
- "Aquatic Effects Monitoring Plan (AEMP)" means a monitoring program designed to determine the short and long-term effects in the aquatic environment resulting from the Project, to evaluate the accuracy of impact predictions, to assess the effectiveness of planned impact mitigation measures and to identify additional impact mitigation measures to avert or reduce environmental effects;

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- "<u>Attenuation Pond #1</u>" means the facility designed as part of the Contact Water Collection System, implemented during the Pre-development phase, to retain contact water for water quality monitoring and treatment, if necessary, prior to discharge to Second Portage Lake as described in the Water Licence Application document entitled "<u>Waste and Water Management Plan for Mine Pre-Development Work, Spring 2008</u>" dated March 2008.;
- "Baker Lake Marshalling Facility" means the facilities associated with the Meadowbank Project, located within the Hamlet of Baker Lake, that includes the barge unloading facilities, a lay-down, storage and marshalling area, a fuel tank farm, ammonium nitrate and explosive storage areas, and associated access roads, described in the Application filed with the NWB on April 8, 2007;
- "Batch Concrete Plant" means the plant used to mix cement, aggregate, and water to produce concrete for footings, foundations and floors during construction as described in the Water Licence Application document entitled "Pre-Development Batch Concrete Plant Description Agnico-Eagle Meadowbank Project" dated January 9, 2008;
- "Bayzone Dewatering Dike" means the structure designed to isolate the Portage open pit mining area from Third Portage Lake, for the purpose of dewatering and development of the Third Portage Open Pit, as described in the Water Licence Application document entitled "Final Report Detailed Design of Dewatering Dikes Meadowbank Gold Project" Volumes 1, 2 and 3, dated March 13, 2007 and "Report Addendum Detailed Dewatering Dikes Meadowbank Gold Project" dated July 12, 2007, and illustrated in DWGs 6000-4, and 6000-24 to 6000-27, dated March 13, 2007, Golder Associates Project Number 06-1413-081;
- "<u>Biannual</u>" means, in the context of monitoring frequency, one sampling event occurring every six months with a minimum of one hundred eighty days between sampling events;
- "Board" means the Nunavut Water Board established under Article 13 of the *Nunavut Land Claims Agreement* and under section 14 of the Act;
- "Canadian Council of the Minister of Environment (CCME)" means the organizations of Canadian Ministers of Environment that sets guidelines for environmental protection across Canada such as the Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life;
- "Care and Maintenance" in respect of a mine, means the status of the facility when the Licensee ceases production or commercial operation temporarily for an undefined period of time;
- "Central Dike" means the structure, designed to isolate the Tailings Storage Facility from Second Portage Lake for the purpose of retaining tailings as described in the Water Licence Application documents entitled "Final Report Detailed Design of Central Dike Meadowbank Gold Project" dated March 16, 2007, Volumes 1,2 and 3 and as illustrated in DWGs 4000-7 and 4000-17, dated January 10, 2007, Golder Associates Project Number 06-1413-089;
- "Chief Administrative Officer" means the Executive Director of the Nunavut Water Board;

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- "Closure" means when an Operator ceases operations at a facility without the intent to resume mining activities in the future;
- "<u>Commercial Operation</u>" in respect of a mine, means an average rate of production that is equal to or greater than 25% of the design capacity of the mine over a period of ninety consecutive days;
- "Construction" means any activities undertaken to construct or build any component of, or associated with, the development of the Meadowbank Gold Project, as described in the Water Licence Application, Supporting Documents, and Technical Meeting Information Supplement documents submitted to the Board throughout the regulatory process;
- "Contact Water" means any water that may be physically or chemically affected by mining activities;
- "Contact Water Collection System" means the system of trenches, attenuation ponds #1 and #2, lakes #1 and #2 designed to manage water that may be affected physically or chemically by mine pre-development activities as described in the Water Licence Application document entitled "Waste and Water Management Plan for Mine Pre-Development Work Spring 2008 Agnico-Eagle Meadowbank Project" dated March 2008;
- "<u>Dam Safety Guidelines</u>" means the *Canadian Dam Association (CDA) Dam Safety Guidelines* (DSG), January 1999 or subsequent approved editions;
- "Deleterious Substances" means a substance as defined in section 34(1) of the Fisheries Act;
- "<u>Deposit</u>" means the placement of waste rock, tailings or other solids materials on land or in water;
- "Discharge" means the release of any water or waste to the receiving environment;
- "<u>Dissolved Metals</u>" means the suite of metals referred to in Group 4 of Table 1 Monitoring Groups located in Schedule J of this Licence. Dissolved metals shall be analyzed on a filtered sample;
- "<u>Domestic Waste</u>" means all solid waste generated form the accommodations, kitchen facilities and all other site facilities, excluding those hazardous wastes associated with the mining and processing of ore;
- "East Contact Water Pond" means the storage pond located in the southeast corner of the Baker Lake Marshalling Facility that receives contact water as described in the Water Licence Application document for 8BC-MEA0709 entitled "Water Use and Management Plan Baker Lake Marshalling Area Meadowbank Gold Project" dated March 8, 2007;
- "<u>East Dewatering Dike</u> (<u>Second Portage Dewatering Dike</u>)" means the structure designed to isolate the a portion of the northwest arm of Second Portage Lake, for the purpose of dewatering

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and development of the North Portage Open Pit, as described in the Water Licence Application documents entitled "<u>Final Report – Detailed Design of Dewatering Dikes Meadowbank Gold Project</u>" Volumes 1, 2 and 3, dated March 13, 2007; and "<u>Report Addendum Detailed Dewatering Dikes Meadowbank Gold Project</u>" dated July 12, 2007, and illustrated in DWGs 6000-5, 6000-28, and 6000-29, dated March 13, 2007, Golder Associates Project Number 06-1413-081;

- "Effluent" means the liquid discharge from all site water management facilities;
- "Emulsion Plant (Explosives Mixing Facility)" means the facility designed for storage of Ammonium Nitrate, detonators, and explosives; and designed for the mixing and storage of Ammonium Nitrate Fuel Oil (ANFO), as illustrated in Appendix F of the Water Licence Application Supplemental document entitled "AEM's Response to Pre-Hearing Commitments" dated March 7, 2008, DWG. Number 600-C-0130 entitled "Plantsite Infrastructure Emulsion Plant Location and Finish Grading Plan" dated March 2007, Hatch Project Number 3251744;
- "Engineer" means a professional engineer registered to practice in Nunavut in accordance with the Engineering, Geological and Geophysical Act (Nunavut) S.N.W.T. 1998, c.38, s.5;
- "Engineering Geologist" means a professional geologist registered with the Association of Professional Engineers, Geologist and Geophysicists of Nunavut and whose principal field of specialization is the investigation and interpretation of geological conditions for civil engineering purposes;
- "Engineered Structure" means any facility, which was designed and approved by a Professional Engineer registered with the Association of Professional Engineers, Geologists and Geophysicists of Nunavut;
- "<u>Final Discharge Point</u>" in respect of an effluent, means an identifiable discharge point of a mine beyond which the operator of the mine no longer exercises control over the quality of the effluent (Metal Mining Effluent Regulations, SOR/2002-222, 6 June, 2002);
- "Fresh Water Intake Barge" means the pre-packaged floating water pump barge fabricated and supplied by Chamco Industries Ltd. of Vancouver, for the purpose of supplying freshwater to the Meadowbank Project as illustrated in Appendix A of the Water Licence Application document entitled "Meadowbank Gold Project Type A Water Licence Application" dated August 2007, DWG Numbers C1011158-21, C1011158-22, and C1011158-23, dated 27.06.05, Chamco Job No. 1011160ABS;
- "Geotechnical Engineer" means a professional engineer registered with the Association of Professional Engineers, Geologist and Geophysicists of Nunavut and whose principal field of specialization with the engineering properties of earth materials in dealing with man-made structures and earthworks that will be built on a site. These can include shallow and deep foundations, retaining walls, dams, and embankments;

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- "Goose Island Dewatering Dike" means the structure designed to isolate the Goose Island area from Third Portage Lake for the purpose of dewatering and development of the Goose Island Pit, as described in the Water Licence Application document entitled "Final Report Detailed Design of Dewatering Dikes Meadowbank Gold Project" Volumes 1, 2 and 3, dated March 13, 2007 and "Report Addendum Detailed Dewatering Dikes Meadowbank Gold Project" dated July 12, 2007, and illustrated in DWGs 6000-3, and 6000-19 to 6000-23, dated March 13, 2007, Golder Associates Project Number 06-1413-081;
- "Grab Sample" means an undiluted quantity of material collected at a particular time and place that may be representative of the total substance being sampled at the time and place it was collected;
- "Greywater" means the component of effluent produced from domestic use (i.e. washing, bathing, food preparation and laundering), excluding sewage;
- "Ground Water" means water that occupies pores and fractures in rock and soil below the ground surface in a liquid or frozen state;
- "<u>Hazardous Materials</u>" means a contaminant which is a dangerous good that is no longer used for its original purpose and is intended for recycling, treatment, disposal or storage;
- "ICP Metals Scan" means, for the purpose of the Licence, elements detected in an inductively coupled plasma (ICP) mass spectrometer. Metal parameters should be consistent with baseline data previously collected and include any other metals of concern or interest;
- "Incinerator" means the dual chamber, high temperature facility designed with the capacity to service the camp as described in the Water Licence Application document entitled "Incineration Waste Management Plan, Meadowbank Gold Project" dated December 19, 2007 and the Hatch Specification dated April, 2008 Inquiry MDB-S-M-268, REV.OC;
- "Independent Geotechnical Expert Review Panel" means the panel of geotechnical specialists established by AEM to review the designs and performance of the dikes and dams;
- "<u>Inspector</u>" means an Inspector designated by the Minister under section 85 (1) of the Act;
- "Interim Closure and Reclamation Plan" means a conceptual detailed plan on the reclamation of mine components which will not be closed until the end of the mining operations, and operational detail for components which are to be progressively reclaimed throughout the mine life;
- "Landfill #1 (Construction and Operations Landfill)" means the facility to be constructed and operated until year 9 of the mine life and designed to contain non-salvageable, non-organic, non-hazardous, solid wastes from mining activities that cannot be incinerated, as described in the Water Licence Application document entitled "Landfill Design and Management Plan" dated April 27, 2007 and the letter from Agnico-Eagle Mines Ltd. to Larry Connell regarding "Landfill

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- <u>Design and Management Plan Supplementary Information Meadowbank Gold Project, Nunavut</u>" containing DWGS 2 and 3 dated November 27, 2007. Golder Associates Project Number 06-1413-089;
- "Landfill #2 (Demolition Landfill)" means the facility to be developed on top of the Portage Waste Rock Storage Facility later in mine life as described in the Water Licence Application document entitled "Landfill Design and Management Plan" dated April 27, 2007 and the letter from Agnico-Eagle Mines Ltd. to Larry Connell regarding "Landfill Design and Management Plan Supplementary Information Meadowbank Gold Project, Nunavut" containing DWGS 2 and 3 dated November 27, 2007, Golder Associates Project Number 06-1413-089;
- "Landfarm" means the lined, engineered facility designed to treat petroleum hydrocarbon contaminated snow and soil that may be generated during mining activities using bioremediation as described in the Water Licence Application document entitled "Landfarm Design and Management Plan Meadowbank Gold Project" containing DWGS 2, 3, 4 and 5 dated November 27, 2007, Golder Associates Project Number 07-1413-0047;
- "<u>Licence</u>" means this Type "A" Water Licence 2AM-MEA0815, issued by the Nunavut Water Board in accordance with the *Act*, to Agnico-Eagle Mines Ltd. (AEM) for the Meadowbank Project;
- "Licensee" means to whom Licence 2AM-MEA0815 is issued to or assigned;
- "Marshalling Area Bulk Fuel Storage Facility" means the facility, constructed to contain a nominal capacity of approximately twenty (20) million litres of diesel fuel and all associated infrastructure, as described in the Application dated April 8, 2007 and all supporting documentation;
- "<u>Maximum Average Concentration</u>" means the average concentration of any four consecutively collected samples taken from the identical sampling location and taken during any given timeframe;
- "<u>Maximum Monthly Mean</u>" means the average concentration of all samples collected over a thirty day period from the identical sampling location;
- "Metal Leaching" means the mobilization of metals into solution under neutral, acidic or alkaline conditions;
- "Mine Site Bulk Fuel Storage Facility" means the facility, constructed to contain a nominal capacity of approximately five (5) million litres of diesel fuel and all associated infrastructure, as described in the Amendment Application for Water Licence 2BE-MEA0813 dated May 1, 2006 and all supporting documentation;
- "Mine Water" means any water, including Ground Water, that is pumped or flows out of any underground workings or open pit;

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- "Minister" means the Minister of Indian and Northern Affairs Canada;
- "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;
- "Monitoring Program" means the program to collect data on surface water and Ground Water quality to assess impacts to the environment of an appurtenant undertaking;
- "Monthly" means, in the context of monitoring frequency, one sampling event occurring every 30 days with a minimum of 21 days between sampling events;
- "Non-Contact Water" means the runoff originating from areas unaffected by mining activity that does not come into contact with developed areas;
- "<u>Nunavut Land Claims Agreement</u>" (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;
- "<u>Operations</u>" means the set of activities associated with mining, ore processing and recovery of gold; excluding construction and decommissioning activities;
- "Operator" means the person who operates, has control or custody of, or is in charge of a mine or recognized closed mine;
- "Portage Attenuation Pond" means the facility located in the basin at the northwest end of the northwest arm of Second Portage Lake where mine site contact water will be discharged, and where water in the pond will be reclaimed to satisfy mill process water make up requirements with any excess water being treated if required and discharged to Third Portage Lake as described in the Water Licence Application Document entitled "Meadowbank Gold Project Mine Waste and Water Management Plan" dated August 2007;
- "Portage Waste Rock Storage Facility" means the facility designed to store waste rock from the Portage and Goose Island open pits as described in the Water Licence Application document entitled "Meadowbank Gold Project Mine Waste and Water Management Plan" dated August 2007;
- "<u>Pre-development</u>" means the phase of the Project that occurs before the start of construction to allow for the development of a stockpile of broken rockfill material that will be required to construct the outer shells of the East Dewatering Dike;
- "<u>Progressive Reclamation</u>" means actions that can be taken during mining operations before permanent closure, to take advantage of cost and operating efficiencies by using the resources available from mine operations to reduce the overall reclamation costs incurred. It enhances environmental protection and shortens the timeframe for achieving the reclamation objectives and goals;

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- "Project" means the Meadowbank Project as outlined in the Final Environmental Impact Statement and supplemental information submitted by Cumberland Resources Limited to the Nunavut Impact Review Board (NIRB) as well as the Water Licence Application, Supporting Documents, and Technical Meeting Information Supplement documents submitted by the Meadowbank Mining Corporation and Agnico-Eagle Mines Ltd. to the Nunavut Water Board throughout the regulatory process. It comprises an open pit mine, an all weather private access road from Baker Lake to the mine site, and a marshalling facility in the Hamlet of Baker Lake;
- "Quarry" means the areas of surface excavation for extracting rock material for use as construction materials along the All Weather Private Access Road, as identified in the document entitled "Meadowbank Gold Project 2007 Annual Report All-Weather Private Access Road";
- "Quality Assurance / Quality Control (QA/QC)" Quality Assurance means the system of activities designed to better ensure that quality control is done effectively; Quality Control means the use of established procedures to achieve standards of measurement for the three principle components of quality: precision, accuracy and reliability;
- "Quarterly" means, in the context of monitoring frequency, one sampling event occurring every three months with a minimum of ninety days between sampling events;
- "<u>Reclamation</u>" means the process of returning the mine sites and affected areas to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and with human activities;
- "Receiving Environment" means both the aquatic and terrestrial environments that receive any discharge resulting from the Project;
- "Reclaim Pond" means the facility located within the Tailings Storage Facility, designed to contain process (tailings related) water, and where water in the pond will be used to satisfy mill process water make up requirements as described in the Water Licence Application document entitled "Meadowbank Gold Project Mine Waste and Water Management Plan" dated August 2007;
- "Recognized Closed Mine" means a recognized closed mine as defined by section (1) of the *Metal Mining Effluent Regulations* SOR/2002-222 dated 6 June 2002;
- "Regulations" means the Northwest Territories Water Regulations SOR/93-303 8 June, 1993;
- "Saddle Dam" means the structures located around the Tailings Storage Facility including the North Saddle Dam and the South Saddle Dam where the South Saddle Dam is designed as a permanent tailings retaining structure and the North Saddle Dam is to act as a berm, as described in the Water Licence Application documents entitled "Final Report Detailed Design of Central Dike Meadowbank Gold Project" dated March 16, 2007, Volumes 1, 2 and 3 and as illustrated in DWGs 4000-18 and 4000-20, dated January 10, 2007, Golder Associates Project Number 06-1413-089;

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- "Seepage" means any water that drains through or escapes from any structure designed to contain, withhold, divert or retain water or waste. Seepage also includes any flows that have emerged through open pits, runoff from waste rock storage facilities, ore stockpile areas, quarries, landfill or landfarm areas;
- "Sewage" means all toilet wastes and greywater;
- "Sewage Treatment Plant" means the rotary biological contactor sewage treatment plant described in the Water Licence Application document entitled "Pre-development Camp and Sewage Treatment Plant Description for the Meadowbank Project Site" dated March 05, 2008;
- "Short Term Maximum" means the maximum concentration of all samples collected over a 24 hour period or less taken from the identical sampling location;
- "South Camp Dike" means the dike that encloses the Goose Island area along with the Bay Zone Dewatering Dike, Goose Island Dewatering Dike, and nearby land, such that it can be isolated from Third Portage Lake as illustrated in Figure 3.1 of the Water Licence Application document entitled "Meadowbank Gold Project Type A Water Licence Application" dated August 2007:
- "<u>Stormwater Dike</u>" means the structure designed to isolate the Portage Attenuation Pond from tailings as described in the Water Licence Application documents entitled "<u>Final Report Detailed Design of Central Dike Meadowbank Gold Project</u>" dated March 16, 2007, Volumes 1, 2 and 3 and as illustrated in DWG 4000-19, dated January 10, 2007, Golder Associates Project Number 06-1413-089;
- "Stormwater Management Pond" means the facility that incorporates the existing Tear Drop Lake designed with impervious walls to contain treated sewage and contact water as described in the Water Licence Application document entitled "Pre-development Camp and Sewage Treatment Plant Description for the Meadowbank Project Site" dated March 05, 2008;
- "Sump" means an excavation in impermeable soil for the purpose of catching or storing water or waste;
- "<u>Tailings Storage Facility</u>" means the facility designed to permanently contain the solid fraction of the mill tailings, located in the northwest arm of the partially dewatered Second Portage Lake. The facility includes the Reclaim Pond, the Central Dike, Saddle Dams, and the Stormwater Dike;
- "<u>Third Portage Lake Outfall Diffuser</u>" means the effluent pipe located in low value fish habitat within Third Portage Lake, designed to discharge and enhance mixing of effluent from the Portage Attenuation Pond in the receiving environment as described in the Water Licence Application document entitled "<u>Design for the Third Portage Lake Effluent Outfall Diffuser Meadowbank Gold Project, Nunavut</u>" dated November 27, 2007;

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- "<u>Traditional Knowledge</u>" means the practical knowledge that has been gathered through the experience of living in close contact with nature and has been passed along or communicated orally, and handed down from generation to generation;
- "<u>Total Metals</u>" means the suite of metals referred to in Group 4 of Table 1 Monitoring Groups located in Schedule J of this Licence. Total metals shall be analyzed on an un-filtered sample;
- "Use" means use as defined in section 4 of the Act;
- "<u>Vault Attenuation Pond</u>" means the facility located in the Vault mining area where contact water including pit water will be discharged and treated, if required, prior to final discharge to Wally Lake as described in the Water Licence Application Document entitled "<u>Mine Waste and Water Management Plan</u>" dated August 2007;
- "<u>Vault Dewatering Dike</u>" means the structure designed to isolate Vault Lake from Wally Lake, for the purpose of dewatering and development of the Vault Open Pit and allow for storage of effluent in the Vault Attenuation Pond as illustrated in Figure 3.1 of the Water Licence Application document entitled "<u>Meadowbank Gold Project Type A Water Licence Application</u>" dated August 2007;
- "<u>Vault Haul Road Crossing</u>" means the crossing located at the outlet of Turn Lake to Drill Tail Lake along the road that connects the Portage mining area to the Vault mining area, as described in the Water Licence Application document entitled "<u>Meadowbank Gold Project, No Net Loss Plan</u>" dated November 2006;
- "<u>Vault Waste Rock Storage Facility</u>" means the facility designed to store waste rock from the Vault open pit as described in the Water Licence Application document entitled "<u>Meadowbank Gold Project Mine Waste and Water Management Plan</u>" dated August 2007;
- "Wally Lake Outfall Diffuser" means the effluent pipe located in low value fish habitat within Wally Lake, designed to discharge and enhance mixing of effluent from the Vault Attenuation Pond in the receiving environment as described in the Water Licence Application document entitled "Conceptual Design of the Effluent Outfall Diffuser for Wally Lake" dated July 25, 2007;
- "Waste" means waste as defined in section 4 of the Act;
- "<u>Waste Rock</u>" means all unprocessed rock materials that are or were produced as a result of mining operations and have no current economical value;
- "<u>Waste Water</u>" means the water generated by site activities or originates on-site that requires treatment or any other water management activity;
- "Water" means water as defined in section 4 of the Act;

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- "<u>Water Supply Facilities</u>" means the facilities designated for the supply of water including the Fresh Water Intake Barge at Third Portage Lake, the Reclaim Barge, and the Emulsion Plant fresh Water intake;
- "Waste Disposal Facilities" means all facilities designated for the disposal of waste including: the mine site Sewage Treatment Plant, Landfill #1, Landfill #2, Landfarm, Tailings Storage Facility, Portage Waste Rock Storage Facility, Vault Waste Rock Storage Facility, Portage Attenuation Pond and Vault Attenuation Pond;
- "<u>Water Licence Application</u>" for the purposes of this Licence includes the totality of the NWB and NIRB Public Registries established as a result of the filing of the application dated March, 2003, including Supporting Documents, and Technical Meeting Information Supplement documents;
- "Weekly" means, in the context of monitoring frequency, one sampling event occurring every 7 days with a minimum of 5 days between sampling events.

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#### **Schedule B - General Conditions**

The Annual Report referred to in Part B Item 5, shall include:

#### **CONSTRUCTION**

- 1. For the dikes and dams:
  - a. An overview of methods and frequency used to monitor deformations, seepage and geothermal responses;
  - b. A comparison of measured versus predicted performance;
  - c. A discussion of any unanticipated observations including changes in risk and mitigation measures implemented to reduce risk;
  - d. As-built drawings of all mitigative works undertaken;
  - e. Any changes in the design and/or as-built condition and respective consequences of any changes to safety, water balance and water quality;
  - f. Data collected from instrumentation used to monitor earthworks and an interpretation of that data;
  - g. A summary of maintenance work undertaken as a result of settlement or deformation of dikes and dams; and
  - h. The monthly and annual quantities of seepage from dikes and dams in cubic metres;

#### WATER

- 2. Results of lake level monitoring conducted under the protocol developed as per Part D Item 11.
- 3. Summary of reporting results for the Water Balance Water Quality model and any calibrations as required in Part E Items 6 and 7.
- 4. The bathymetric survey(s) conducted prior to each year of shipping at the Baker Lake Marshalling Facility;

### WASTE

- 5. Geochemical monitoring results including:
  - a. Operational acid/base accounting and paste pH test work used for waste rock designation (PAG and NPAG rock);
  - b. As-built volumes of waste rock used in construction and sent to the Waste Rock Storage Facilities with estimated balance of acid generation to acid neutralization capacity in a given sample as well as metal toxicity;
  - c. All monitoring data with respect to geochemical analyses on site and related to roads, quarries, and the All Weather Access Road;
  - d. Leaching observations and tests on pit slope and dike exposure;
  - e. Any geochemical outcomes or observations that could imply or lead to environmental impact;

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- f. Geochemical data associated with tailings solids, tailings supernatant, cyanide leach residue, and bleed from the cyanide destruction process including an interpretation of the data: and
- g. Results related to the road quarries and the All Weather Private Access Road.
- 6. Volumes of waste rock used in construction and placed in the Rock Storage Facilities;
- 7. An update on the remaining capacity of the Tailings Storage Facility;
- 8. Summary of quantities and analysis of seepage and runoff monitoring from the landfills;
- 9. A summary report of solid waste disposal activities including monthly and annual quantities in cubic metres of waste generated and location of disposal;
- 10. Report of Incinerator test results including the materials burned and the efficiency of the Incinerator as they relate to water and the deposit of waste into water;

#### **SPILLS**

11. A list and description of all unauthorized discharges including volumes, spill report line identification number and summaries of follow-up action taken;

#### **MODIFICATIONS**

12. A summary of modifications and/or major maintenance work carried out on all water and waste related structures and facilities;

#### **MONITORING**

- 13. The results and interpretation of the Monitoring Program in accordance with Part I and Schedule I;
- 14. The results of monitoring under the AEMP;
- 15. Results of monitoring pursuant to the Fault Testing and Monitoring Plan (August 2007);

### **CLOSURE**

16. A summary of any progressive closure and reclamation work undertaken including photographic records of site conditions before and after completion of operations, and an outline of any work anticipated for the next year, including any changes to implementation and scheduling;

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- 17. A summary of on-going field trials to determine effective capping thickness for the Tailings Storage Facility and Waste Rock Storage Facilities for the purpose of long term environmental protection;
- 18. An updated estimate of the current restoration liability based on project development monitoring, results of restoration research and any changes or modifications to the Appurtenant Undertaking;

#### PLANS/ REPORTS/ STUDIES

- 19. A summary of any studies requested by the Board that relate to Waste disposal, Water use or Reclamation, and a brief description of any future studies planned
- 20. Where applicable, revisions as Addendums, with an indication of where changes have been made, for Plans, Reports, and Manuals.
- 21. An executive summary in English, Inuktitut and French of all plans, reports, or studies conducted under this Licence:

#### **GENERAL**

22. A summary of actions taken to address concerns or deficiencies listed in the inspection reports and/or compliance reports filed by an Inspector;

#### **OTHER**

- 23. A summary of public consultation and participation with local organizations and the residents of the nearby communities, including a schedule of upcoming community events and information sessions; and
- 24. Any other details on Water use or Waste Disposal requested by the Board by November 1<sup>st</sup> of the year being reported.

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# Schedule C – Conditions Applying to Security

There is no Schedule for Part C – Conditions Applying to Security

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## **Schedule D - Conditions Applying to Construction**

- 1. The Construction Monitoring Report referred to in Part D Item 26 shall include:
  - a. A summary of construction activities including photographic records before, during and after construction;
  - b. As-built drawings,
  - c. Documentation of field decisions that deviate from original plans and any data used to support these decisions;
  - d. Discussion of mitigation measures implemented during construction and effectiveness;
  - e. Monitoring undertaken in accordance with Part D;
  - f. Blast vibration monitoring for quarrying activity carried out in close proximity to fish bearing waters; and
  - g. Monitoring for sediment release from construction areas.

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## Schedule E – Conditions Applying to Water Use and Management

There is no Schedule for Part E – Conditions Applying to Water Use and Management

## Schedule F - Conditions Applying to Waste Disposal and Management

There is no Schedule for Part F – Conditions Applying to Waste Disposal and Management

## **Schedule G – Conditions Applying to Modifications**

There is no Schedule for Part G – Conditions Applying to Modifications

## Schedule H – Conditions Applying to Emergency Response and Contingency Planning

There is no Schedule for Part H – Conditions Applying to Emergency Response and Contingency Planning

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## Schedule I - Conditions Applying to General and Aquatics Effects Monitoring

## **TABLE 1 - MONITORING GROUP**

Group	Parameters
1	pH, turbidity, hardness, alkalinity, ammonia, aluminum, arsenic, barium, cadmium, chloride, chromium, copper, fluoride, iron, lead, manganese, mercury, molybdenum, nickel, nitrate, selenium, silver, sulphate, thallium, zinc,
2	pH, turbidity, total dissolved solids (TDS), alkalinity, ammonia, arsenic, copper, lead, nickel, zinc,
3	pH, alkalinity, turbidity, hardness, ammonia nitrogen, nitrate, nitrite, chloride, fluoride, sulphate, TDS, total and free cyanide for wells in ground water flow path of the tailings storage facility. Dissolved Metals: aluminum, arsenic, barium, cadmium, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, thallium and zinc.
4	Total and Dissolved metals: aluminum, antimony, arsenic, boron, barium, beryllium, cadmium, copper, chromium, iron, lithium, manganese, mercury, molybdenum, nickel, lead, selenium, tin, strontium, titanium, thallium, uranium, vanadium and zinc; Nutrients: Ammonia-nitrogen, total kjeldahl nitrogen, nitrate nitrogen, nitrite-nitrogen, ortho-phosphate, total phosphorous, total organic carbon, total dissolved organic carbon and reactive silica; Conventional Parameters: bicarbonate alkalinity, chloride, carbonate alkalinity, conductivity, hardness, calcium, potassium, magnesium, sodium, sulphate, pH, total alkalinity, TDS, and TSS
5	MMER parameters (total cyanide, arsenic, copper, lead, nickel, zinc, radium 226, total suspended solids, pH), sulphate and turbidity
6*	pH, TSS, Electrical Conductivity, Total Ammonia, Total Arsenic, 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), Oil and Grease, TPH (Total Petroleum Hydrocarbons), and BTEX (Benzene, Toluene, Ethylbenzene and Xylene)
7 *	Total Arsenic, Total Copper, Total Lead, Total Nickel, TSS, Ammonia, Cyanide, Benzene, Toluene, Ethylbenzene, Lead, Oil & Grease, pH
MMER	total cyanide, arsenic, copper, lead, nickel, zinc, radium 226, total suspended solids, pH, effluent volumes and flow rate of discharge, acute toxicity, Daphnia Magna and environmental effects monitoring (EEM).
Full Suite	Group 4, Total Petroleum Hydrocarbons, Turbidity

<sup>\*</sup> Groups 6 and 7 are referenced from 8BC-MEA0709

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**TABLE 2 – MONITORING PROGRAM** 

Station	Description	Phase	Monitoring Parameters	Frequency
		Mine Site		
ST-DC-1 to TBD	Monitoring stations during Dike Construction as defined in Final Water Quality Monitoring and Management Plan for Dike Construction and Dewatering referred to in Part D Item 11	Construction	As defined in Final Water Quality Monitoring and Management Plan for Dike Construction and Dewatering referred to in Part D Item 11	As defined in Final Water Quality Monitoring and Management Plan for Dike Construction and Dewatering referred to in Part D Item 11
ST-DD-1 to TBD	Monitoring stations during Dike Dewatering as defined in Final referred to in Part D Item 11	Construction	As defined in Final Water Quality Monitoring and Management Plan for Dike Construction and Dewatering referred to in Part D Item 11	As defined in Final Water Quality Monitoring and Management Plan for Dike Construction and Dewatering referred to in Part D Item 11
ST-1	Water Intake for camp and mill	Construction, early operation, late operation, closure	Volume (m <sup>3</sup> )	Monthly
ST-2	Reclaim Water Intake	Construction, early operation, late operation, closure	Volume (m <sup>3</sup> )	Monthly
ST-3	Water Intake for Emulsion Plant	Construction, early operation, late operation, closure	Volume (m <sup>3</sup> )	Monthly
ST-4	Water reclaimed from Tailings Storage Facility	Early operation, late operation, closure	Volume (m <sup>3</sup> )	Monthly
ST-5	Portage Area (east) diversion ditch	Early operation, late operation, closure	Group 5, Aluminum	Monthly during open water
ST-6	Portage Area (west) diversion ditch	Early operation, late operation, closure	Group 5, Aluminum	Monthly during open water
ST-7	Vault Area diversion ditch	Early operation, late operation, closure	Group 5, Aluminum	Monthly during open water
ST-9	Portage Attenuation Pond prior to discharge through Third Portage	Early operation	Full Suite	Prior to discharge and Weekly during discharge
	Lake Outfall Diffuser		Volume (m <sup>3</sup> )	Daily during periods of discharge
			Acute Lethality	Once prior to discharge and Monthly thereafter

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ST-10	Vault Attenuation Pond prior to discharge through Wally Lake	Late operation	Full Suite	Prior to discharge and Weekly during discharge
	Outfall Diffuser		Volume (m <sup>3</sup> )	Daily during periods of discharge
			Acute Lethality	Once prior to discharge and Monthly thereafter
ST-11	Tailings Storage Facility	Post closure	MMER, Ammonia- Nitrogen, Nitrate- Nitrogen, Nitrite- Nitrogen	Annually during open water
ST-12	Portage/ Goose Pit Lake	Post closure	Full Suite	Annually during open water season
ST-13	Vault Pit Lake	Post closure	Full Suite	Annually during open water
ST-14 (TEH-11)	Discharge to the land from Landfarm sump at mine site	Pre-development, Construction, early operation, late operation, closure	Benzene, Toluene, Ethylbenzene, Lead, Oil & Grease	Prior to discharge and Weekly during discharge
			Volume (m <sup>3</sup> )	Daily during periods of discharge
ST-15	Vault non-contact diversion ditch	Early operation, late operation, closure	Group 5, Aluminum	Monthly during open water
ST-16	Portage Rock Storage Facility	Early operation	Group 3	Bi-annually during open water
			Total Metals	Once Annually immediately following spring freshet
		Late operation	Group 2	Monthly during open water
		Closure	Group 3	Bi-annually during open water
			Total Metals	Once Annually immediately following spring freshet
ST-17**	North Portage Pit Sump	Early operation	Group 2	Monthly during open water
			Group 3	Bi-annually during open water
			Volume (m <sup>3</sup> )	Daily during periods of discharge
	Portage Pit Lake	Late operation	Group 4	Monthly during open water
		Closure	Group 3	Bi-annually during open water
ST-18	Portage Attenuation Pond	Early operation	Group 2	Monthly during open water

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			Group 3	Bi-annually during
ST-19**	Third Portage Pit Sump	Early operations	Group 2	open water  Monthly during
			Group 3	open water Bi-annually during
			Volume	open water Daily during
			Volume	periods of
				discharge
	Third Portage Pit Lake	Late operations	Group 4	Monthly during open water
ST-20	Goose Island Pit Sump	Early operations	Group 2	Monthly during open water
			Group 3	Bi-annually during open water
			Volume	Daily during periods of discharge
	Goose Island Pit Lake	Late operations	Group 4	Monthly during open water
		Closure	Group 3	Bi-annually during open water
ST-21	Tailings Reclaim Pond	Early operation (south of central	Group 3, Cyanide	Monthly during open water
		dike)	Total Metals	Once Annually immediately following spring freshet
		Late operation (north of central dike)	Group 3, Cyanide	Bi-annually during open water
			Total Metals	Once Annually immediately following spring freshet
ST-22	Tailings Storage Facility	Late operation	Group 3, Cyanide	Bi-annually during open water
			Total Metals	Once Annually immediately following spring freshet
		Closure (drainage runoff)	Group 3, Cyanide	Bi-annually during open water
			Total Metals	Once Annually immediately following spring freshet
ST-23	Vault Pit Sump	Late operations	Group 2	Monthly during open water
			Group 3	Bi-annually during open water
			Volume (m <sup>3</sup> )	Daily during periods of discharge
ST-24***	Vault Rock Storage Facility	Late operation	Group 2	Monthly during open water

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			Group 3	Bi-annually during
			T	open water
			Total Metals	Once annually
				immediately
				following spring
		Clearme (east	Group 3	freshet
		Closure (east ditch) ST-24-A	Group 3	Monthly during
		uncii) 51-24-A	Total Metals	open water Once Annually
			Total Metals	immediately
				following spring
				freshet
		Closure (west	Group 3	Monthly during
		ditch) ST-24-B		open water
			Total Metals	Once Annually
				immediately
				following spring
CT 25	V-1 A	T - t t	C	freshet
ST-25	Vault Attenuation Pond	Late operation	Group 2	Monthly during open water
			Total Metals	Once Annually
			1 otal Wotalls	immediately
				following spring
				freshet
			Group 3	Bi-annually during
				open water
ST-26	Vault Pit Lake	Closure	Group 4	Monthly during
				open water
			Group 3	(flooding)
			Group 3	Quarterly (fully flooded)
ST-S-1 to	Seeps (to be	Construction	Group 3	Monthly during
TBD	determined)			open water
		Early operations,	Group 1	Monthly or as
		late operations,		found
		closure		
ST-GW-1 to	Groundwater wells (to	Construction,	Group 3	Annually
TBD	be determined)	Early operations,		
		late operations, closure		
ST-AEMP-1	Receiving AEMP	Construction,	Group 4	Monthly during
to TBD	Receiving Meivii	Early operations,	Gloup 4	open water season
		late operations,		all AEMP stations.
		closure		Monthly
				throughout year at
				a smaller number
				of locations
CT MACD 1	V-10 - 1D - 1	T1	MATER	(through ice)
ST-MMER-1 to TBD	Vault and Portage effluent outfall	Early and late operations	MMER	Weekly during open water
W IDD	Ciriuciii Outidii	8BC-TEH0809		Open water
ST-27 and	Water Intake for camp	Pre-development,	Volume for each	Monthly
ST-28	and concrete batch plant	Construction	purpose (m <sup>3</sup> )	
	-		* * * ′	
(TEH-1 &	purposes			

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ST-29 and	Water, if any, accumulated in north	Pre-development	pH, Turbidity	Weekly
ST-30 (TEH-3 &	and south pre-		Metals using an ICP-Metals 36	Monthly
TEH-4)	development zones		element scan,	
			Total Ammonia,	
ST-31 and	Water pumped from	Pre-development	Nitrate, Sulphate pH, Turbidity	Daily during
ST-31 and ST-32	north and south pre-	rie-development	pri, ruibidity	periods of
(TEH-5 &	development zones to			pumping
TEH-6)	Contact Water			
GE 22	Collection System	7		*** 11 1 1
ST-33 and ST-34	Contact Water Collection System	Pre-development, Construction	pH, Turbidity, Metals using an	Weekly during periods of
(TEH-7 &	Lakes #1 and #2	Construction	ICP-Metals 36	pumping from the
TEH-8)			element scan,	pre-development
			Total Ammonia,	pits
ST-35	Disaharaa from Lalea #1	Dra davalanmant	Nitrate, Sulphate	Once prior to
(TEH-9)	Discharge from Lake #1 of Contact Water	Pre-development, Construction	pH, TSS, T-Al, BOD <sub>5</sub> , Fecal	Once prior to discharge and
(IZII)	Collection System	Construction	Coliforms, T-As,	Weekly during
	(Stormwater		T-Cu, T-CN, T-Pb,	periods of
	Management Pond) to		T-Ni, T-Zn, T-	discharge
	Second Portage Lake		Radium <sub>226</sub> Acute Lethality	Once prior to
			Acute Lemanty	discharge and
				Monthly thereafter
			Volume (m3)	Daily during
				periods of
	In addition, if discharge		Benzene, Lead,	discharge Once prior to
	from Bulk Fuel Storage		Toluene,	discharge and
	Facility directed to		Ethylbenzene, Oil	Weekly during
	Lake #1		& Grease	periods of
ST-36	Discharge from Lake #2	Pre-development,	pH, TSS, T-As, T-	discharge Once prior to
(TEH-10)	of Contact Water	Construction	Cu, T-CN, T-Pb,	discharge and
,	Collection System to		T-Ni, T-Zn, T-	Weekly during
	Second Portage Lake		Radium <sub>226</sub>	periods of
			Acute Lethality	discharge Once prior to
			1 Route Demanty	discharge and
				Monthly thereafter
			Volume (m3)	Daily during
				periods of discharge
		8BC-MEA0709		discharge
ST-37	Water sample location	Pre-development,	Group 6	Annually
(MEA-1)	at Baker Lake in close	construction, early		
	proximity to the construction facilities	operation, late operation, closure		
ST-38	East Contact Water	Pre-development,	Group 6 & 7	Prior to discharge
(MEA-2)	Pond located in the	construction, early		or transfer of
	south-east corner of the	operation, late		Effluent
	lay-down area	operation, closure	Volume (m3)	Monthly

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ST-39 (MEA-3)	West Contact Collection Pond located	Pre-development, construction, early	Group 6 & 7	Prior to discharge or transfer of
	in the south-west corner	operation, late		Effluent
	of the lay-down area	operation, closure	Volume (m3)	Monthly
ST-40 (MEA-4)	Secondary containment sump at the Bulk Fuel Storage Facility	Pre-development, construction, early operation, late operation, closure	Group 6 & 7	Prior to discharge or transfer of Effluent
ST-41 (MEA-5)	Water sample location at the ammonium nitrate storage area	Pre-development, construction, early operation, late operation, closure	Group 7	Prior to discharge or transfer of Effluent
ST-42 (MEA-6)	Water sample location at the explosive storage area	Pre-development, construction, early operation, late operation, closure	Group 7	Prior to discharge or transfer of Effluent

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<sup>\*\*</sup> ST-17 and ST-19 in Closure become one sampling point
\*\*\* During Closure, two contact water monitoring points will be assigned to the Vault Storage Facility at ST-24

## Schedule J - Conditions Applying to Abandonment, Reclamation and Closure

There is no Schedule for Part  $J-\mbox{Conditions}$  Applying to Abandonment, Reclamation and Closure

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