

**AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 8255-DMUQ3Y

Issue Date: December 24, 2025

Evolution Mining Gold Operations Ltd.  
15 Eric Radford Way  
Red Lake, Ontario  
M5K 1E6

Site Location: Red Lake Mine Site  
15 Eric Radford Way, Balmertown  
Municipality of Red Lake, District of Kenora  
P0V 1C0

*You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:*

modification/alteration, usage and operation of Works for the collection, transmission, treatment and disposal of Process Effluent including mill slurry water, accumulated runoff including stormwater runoff and tailings seepage from Tailings Areas, mine water from underground workings and all other contact stormwater runoff from the drainage areas of the Red Lake Mine Site, serving Red Lake Mine Site, a gold mining and milling complex processing a maximum production rate of 1,500 dry tonnes per day (calculated as annual average daily rate) of arsenical gold ore, as well as a milling facility - Campbell Mill that is located at an adjacent mining and milling complex - Campbell Mine Site with a maximum production rate of 2,200 dry tonnes per day (calculated as annual average daily rate), and discharging Final Process Effluent with a maximum Daily Volume of Effluent of 30,000 cubic metres per day, via a Final Process Effluent Discharge System including pipeline and outfall G2, into the Balmer Lake, which then drains through Balmer Lake outlet at L2 to Balmer Creek and then to the Chukuni River, consisting of the following:

**PROPOSED WORKS****Tailings Slurry Transference Pipeline**

- one (1) Tailings Slurry Transference Pipeline, 300 millimetre (mm) in diameter with a 400 mm diameter dual containment wall in areas outside of tailings management areas, from the Campbell Mill to the Tailings Area #1 of Red Lake Tailing Management Area (TMA).

## **North Saddle Dam to Complete Tailings Area #1 Dam Raise**

- construction of the North Saddle Dam to complete the perimeter of the Tailings Area #1 to the crest elevation of 378 meters above sea level (masl).

## **Effluent Treatment Plant (ETP)**

Upgrades to the existing Effluent Treatment Plant (also known as ETP or Mine Wastewater Treatment Facility) by retrofitting the existing treatment facility to a Metal Precipitation Reactor treatment system and adding a new Actiflo treatment system - Arsenic and Metals Treatment System, having a treatment capacity of 30,000 cubic metres per day and consisting of the following:

### **Metal Precipitation Reactor (MPR) Treatment System (Retrofitted)**

- one (1) inlet pipeline equipped with a flow meter and a modulating valve, splitting the flow from the Secondary Pond Water Pumping Station between the below described Metals Precipitation Reactor (MPR) Tanks;
- modifications of the two (2) existing Actiflo Clarifiers to transform them into two (2) Metals Precipitation Reactor (MPR) Tanks No.1 and No.2, operating in parallel, each having a treatment capacity of 15,000 cubic metres per day and a volume capacity of approximately 190 cubic metres and each consisting of three (3) chambers (basins) and equipped with four (4) agitators (3 for duty, 1 for standby), with coagulant injected into the inlet pipe, with lime slurry and sodium sulphide (Na<sub>2</sub>S) dosed in the first chamber, and recirculated sludge discharged into the first chamber;
- one (1) coagulant feed system consisting of two (2) 47,000 L capacity liquid coagulant storage tanks, one (1) 3,700 L tank, three (3) (two for duty, one for standby) chemical feed metering pumps, and chemical feed line for the dosing of coagulant into the inlet pipe of the MPR Tanks No.1 and/or No.2;
- one (1) new lime dosing system, consisting of a lime storage silo with a volume of approximately 163 cubic metres, a feeder agitator for preparing of lime powder, a lime slurry preparation tank with a volume of approximately 1.7 cubic metres with agitator and transfer pumps, a lime slurry storage tank with a volume of approximately 6 cubic metres, and metering pumps, for the dosing of lime slurry to the first chamber of MPR Tanks No.1 or No.2 for the pH adjustment and precipitation of metals;
- one (1) new sodium sulphide (Na<sub>2</sub>S) dosing system for the assisting of copper removal on an as-needed basis, housed in enclosures, consisting of duplex Na<sub>2</sub>S storage tanks, feeder pumps, a preparation tank with a volume of approximately 1 cubic metre, a dosing skit with three (3) (two for duty, one for standby) chemical feed metering pumps, and chemical feed lines for the dosing of Na<sub>2</sub>S to the first chambers of the MPR Tanks No.1 or No.2;

### **Arsenic and Metals Treatment System (New)**

- two (2) Actiflo Clarifiers No.1 and No.2, sand-ballasted settling units operating in parallel, each receiving slurry from one of the aforementioned MPR Tank No.1 and No.2, each having a treatment capacity of 15,000 cubic metres per day and a total working volume of 165 cubic metres, each

consisting of one (1) precipitation formation chamber equipped with a mixer, one (1) injection chamber (where microsand and flocculant aid polymers are injected) equipped with a mixer, one (1) maturation chamber equipped with a mixer, and one (1) settling chamber equipped with a lamella to provide rapid and effective removal of the microsand/sludge flow, each discharging:

- treated effluent via collection weirs into a pH Correction Tank; or discharging via a new Process Effluent transference pipeline to the Polishing Pond of the adjacent Campbell Mine Site for further ammonia treatment;
- sand-sludge mixture via scrapers and a centre cone into a hydrocyclone where sludge and microsand are separated and microsand to be returned and sludge discharged into a Sludge Splitter Box;
- one (1) polymer preparation and dosing system, consisting of two polymer storage tanks, feeder pumps, a 1,500 L maturation tank and a 1,500 L storage tank, and polymer dosing skit with three (3) (two for duty, one for standby) chemical feed metering pumps, and chemical feed lines for the dosing of polymer to the injection chambers of the Actiflo Clarifiers;
- two (2) Sludge Splitter Boxes, discharging part of the sludge to a Sludge Tank and recirculating the other part of sludge to the first chamber of a MPR tank;
- one (1) Sludge Tank with a volume of approximately 1.3 cubic metres, receiving sludge from the Sludge Splitter Boxes, discharging to the existing Sludge Ponds;
- two (2) pH Correction Tanks, each receiving effluent from an Actiflo Clarifier and each having a working volume of 168 cubic metres and consisting of two compartments with two mixers, with hydrochloric acid injected into inlet for pH adjustment via a dosing system connected to hydrochloric acid storage tank, discharging effluent via collection weirs into a Pump Box;
- one (1) treated effluent recirculation line to redirect treated effluent that does not meet final effluent criteria back to the Primary Pond; and
- one (1) Pump Box, equipped with a pump to discharge Final Process Effluent via either the Process Effluent Transference Pipeline or the Final Process Effluent Discharge System as described below:

### **Process Effluent Transference Pipeline**

- one (1) 500 mm diameter pipeline, with a 650 mm diameter dual containment wall in areas outside tailings management areas, discharging the treated effluent from the Effluent Treatment Plant (ETP) to the Polishing Pond of the adjacent Campbell Mine Site for further ammonia treatment, as required.

### **Final Process Effluent Discharge System**

- one (1) 500 mm diameter Final Process Effluent discharging pipeline, discharging Final Process Effluent via existing outfall G2 into Balmer Lake;
- Final Process Effluent Sampling Point at the sampling valve on the Final Process Effluent discharge

pipeline; and

- Final Process Effluent flow measurement device - one (1) flow meter located on the Final Process Effluent discharge pipeline.

## **EXISTING WORKS**

### **Cyanide Destruction System**

- One (1) slurry-type INCO SO<sub>2</sub>/Air wastewater treatment system, servicing the 1,500 tonnes per day gold mining and milling complex and located within Red Lake Mill, consisting of two (2) cyanide destruction and heavy metal (including arsenic) precipitation reaction tanks equipped with agitator mixers. Air compressors provide gaseous air that is pumped through a sparge promoting dissolution of oxygen into solution to provide oxygen for the reaction. Other reagents used are gaseous sulphur dioxide (SO<sub>2</sub>) and lime. All reagents are metered into the reaction tanks to ensure destruction of cyanide, prior to the treated slurry flowing to the final tailings pump box.

### **Tailings Management Area (TMA)**

#### **Tailings Area #1**

- One (1) Tailings Area - Tailings Area #1, bounded to the west by Splitter Dyke #1 with a dam crest elevation of 378 masl, to the north by natural high ground, to the south by natural high ground, and to the east by East End Dam with an average crest elevation of 378 masl, discharging tailing water supernatant into the downstream Tailings Area #2 via a corrugated culvert, with water levels regulated by a culvert gate valve, complete with an emergency spillway at the north end of the Splitter Dyke #1 to discharge effluent into the Tailings Area #2, including a North Diversion Ditch along Tailings Area #1 for the continuous intercepting and routing of non-contact water from surrounding catchment areas to Balmer Lake, including culverts and an emergency spillway at the Beaver Pond to route normal and flood waters from the Beaver Pond into the Diversion Ditch.

#### **Tailings Area #2**

Tailings Area #2, located downstream of Tailings Area #1, contained by Splitter Dyke #1 to the east and Splitter Dyke #2 (with an approved average dam crest elevation of 369.8 masl) to the west, with natural high ground on the north and south sides, also receiving underground mine dewatering water via a dedicated pipeline, complete with the following:

- a non-woven geotextile layer to function as a filter between mine waste rock and the upstream impervious clay zone; and
- a low permeability upstream face for operation of Splitter Dyke #2, providing a pond with a water storage volume of approximately 820,000 cubic meters to maximum operation level, with liquid effluent discharging into the primary pond through two culverts, one located at the south end of Splitter Dyke #2 using stop logs to regulate water levels, and one at the north end of Splitter Dyke #2 using a gate valve

to regulate water flows.

### **Primary Pond Tailings Area**

One (1) Tailings Area bounded by Splitter Dyke #2 and the Primary Dam with an average crest elevation of 363.4 masl, with natural high ground on the north and south sides, consisting of the following:

#### **Primary Pond**

- one (1) Primary Pond as the third pond within this Tailings Area, discharging effluent into the Secondary Pond through an outlet channel;

#### **Primary Pond Wetland**

- one (1) wetland treatment system within the Primary Pond with a total area of approximately 14 ha, designed to improve the natural degradation of ammonia within the system, with estimated water depth of 0.1 to 0.2 m and,
  - defined on the south side by a perimeter dyke with a maximum height and crest width of 1.0 m and 4.0 m respectively, with 2H:1V slope;
  - divided into internal cells that are approximately 30 to 50 m wide and long, defined by interior berms (with a maximum height and crest width of 1.0 m and 1.5 m respectively);
  - with Baffling to optimize treatment and retention time; and

#### **Sludge Ponds**

- two (2) Sludge Ponds, located within the footprint of the tailings area around Primary Pond and receiving sludge from the Sludge Tank of the Effluent Treatment Plant, each having a storage capacity of 14,600 cubic metres or 12,300 cubic metres, respectively, to condition the sludge through a freeze thaw cycle and provide sludge storage. The supernatant from the Sludge Ponds is to be discharged to the Primary Pond with the sludge residing in the Sludge Ponds.

#### **Secondary Pond**

One (1) Secondary Pond bounded by the Primary Dam and the North and South Secondary Dams, with a height of land to the northeast. The North and South Secondary Pond Dams are the eastern-most structures of the TMA and define the boundary between Balmer Lake and the TMA. The North Secondary Dam has an average crest elevation of 363.4 masl, with a maximum pond operating level of the Secondary Pond at 361.2 masl, providing a minimum freeboard of approximately 2.0 m, including:

- an emergency spillway crest elevation of 363 masl located on the North Secondary Dam, discharging the Overflow Effluent into Balmer Lake; and
- a weir spillway (G1) with an invert elevation of 360.1 and a top log elevation set at 362.2 masl acting as

a secondary emergency spillway with Balmer Lake as the receiving waterbody of the Overflow Effluent.

#### Secondary Pond Water Pumping Station

- one (1) Secondary Pond water pumping station consisting of two (2) vertical shaft pumps, mounted on a platform, each rated at 174 L/s against 24.9 m of Total Dynamic Head (TDH), discharging effluent from the Secondary Pond, via a 500 mm diameter pipe, to the Effluent Treatment Plant (ETP).

#### Water Recycling System

- one (1) permanent water recycling system to reduce the volume of water entering the TMA, consisting of a double walled pipeline running from the Secondary Pond to the Red Lake Mill tied into an existing line to feed the Red Lake milling circuits, equipped with a submersible pump in the Secondary Pond rated at a maximum capacity of 2,500 cubic metres per day.

Including all other mechanical system, electrical system, instrumentation and control system, piping, pumps, valves and appurtenances essential for the proper, safe and reliable operation of the Works in accordance with this Approval, in the context of process performance and general principles of wastewater engineering only.

All in accordance with the submitted supporting documents listed in **Schedule A**.

*For the purpose of this environmental compliance approval, the following definitions apply:*

1. "Approval" means this environmental compliance approval including any schedules attached to it, and the application;
2. "Daily Volume of Effluent" for a stream volume is the volume that flowed past the sampling point maintained in this Approval on the stream during the twenty four (24)-hour period preceding the Pick-Up of the first sample picked up from the stream for the day;
3. "Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;
4. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Works is geographically located, Kenora/Thunder Bay District Office in this Approval;
5. "Eight(8)-hour Period" means between,
  - a. midnight and 8 a.m.,
  - b. 8 a.m. and 4 p.m., or
  - c. 4 p.m. and midnight;
6. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19, as amended;
7. "Equivalent Equipment" means alternate piece(s) of equipment that meets the design requirements and

performance specifications of the piece(s) of equipment to be substituted;

8. "Existing Works" means those portions of the Works included in the Approval that have been constructed previously;
9. "Final Process Effluent" means Process Effluent that is discharged to the environment through the approved effluent disposal facilities, that are required to meet the compliance limits stipulated in the Approval for the Works at the Final Process Effluent Sampling Point;
10. "Final Process Effluent Monitoring Stream" means a process effluent stream on which a sampling point is maintained under **Condition 10** regarding monitoring and recording;
11. "Final Process Effluent Sampling Point" means a sampling point maintained on a process effluent stream under **Condition 10** regarding monitoring and recording;
12. "Limited Operational Flexibility" (LOF) means the conditions that the Owner shall follow in order to undertake any modification that is pre-authorized as part of this Approval;
13. "Licensed Engineering Practitioner" means a person who holds a licence, limited licence or temporary licence under the *Professional Engineers Act*, R.S.O. 1990, c. P.28, as amended;
14. "Limited Parameter" means a parameter for which a limit is specified in **Schedule B** for Final Process Effluent Limits in this Approval;
15. "metal mining plant" means any opening or excavation in, or working of, the ground for the purpose of winning any metal, metal concentrate or metal-bearing substance and includes all associated,
  - a. ways, works, machinery, buildings or premises below or above the ground,
  - b. waste disposal sites, wastewater treatment facilities, and
  - c. roasting or smelting furnaces, refineries, concentrators or mills, wherever located, that are used in connection with washing, crushing, grinding, sifting, reducing, leaching, roasting, smelting, refining or treating of any metal, metal concentrate or metal-bearing substance;
16. "Minewater Effluent" means a process effluent in a stream,
  - a. that flows from any opening or excavation in, or working of, the ground at the plant for the purpose of winning any Metal, and
  - b. that does not flow from a Tailings Area or other Effluent Treatment Plant associated with a Tailings Area;
17. "Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;

18. "Monthly Average Effluent Concentration" is the mean of all Single Sample Results of the concentration of a contaminant in the Final Process Effluent sampled or measured during a calendar month.
19. "Monthly Average Daily Volume of Effluent" means the cumulative total Daily Volume of Effluent discharged during a calendar month divided by the number of days during which the stream effluent was discharged that month;
20. "Overflow Effluent" means effluent discharged from the Tailing Area through a spillway or other engineered structure designed to protect the Tailings Area from failure in the event of an extraordinary thaw or storm event;
21. "Overflow Effluent Monitoring Stream" means an overflow effluent stream on which a sampling point is maintained under **Condition 6** regarding overflows;
22. "Overflow Effluent Sampling Point" means a sampling point maintained on an Overflow Effluent Monitoring Stream under **Condition 6** regarding overflows;
23. "Overflow Event" means an action or occurrence, at a given location within the Works that causes an Overflow Effluent. An Overflow Event ends when there is no recurrence of Overflow Effluent in the 12-hour period following the last Overflow Event;
24. "Owner" means Evolution Mining Gold Operations Ltd., and its successors and assignees;
25. "OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40, as amended;
26. "Pick-Up", in relation to a sample, means pick-up for the purpose of storage, including storage within an automatic sampling device, and transportation to and analysis at a laboratory;
27. "Process Effluent" means:
  - a. effluent that, by design, has come into contact with Process Materials other than Process Materials stored in a materials storage site, including but not limited to a waste rock storage site or a slag storage site,
  - b. blowdown water,
  - c. effluent that results from cleaning or maintenance operations at the plant during a period when all or part of the plant is shut down, and
  - d. any effluent described in paragraphs (a) to (c) combined with cooling water effluent or storm water effluent;
28. "Process Materials", in relation to this Approval, means raw materials for use in an industrial process, manufacturing intermediates produced, or products or by-products of an industrial process at the Red Lake Mine Site and the adjacent Campbell Mine Site, but does not include chemicals added to cooling

water for the purpose of controlling organisms, fouling and corrosion;

29. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;
30. "Single Sample Result" means the test result of a parameter in the effluent discharged on any day, as measured by a probe, analyzer or in a composite or grab sample, as required;
31. "Tailings Area" (also known as Tailings Management Area (TMA) in this Approval) means an area that is confined by artificial or natural structures or both and that is used for the disposal of finely divided solid waste materials produced as a result of the processing of metal, metal concentrates or metal-bearing substances; and
32. "Works" means the approved sewage works, and includes Proposed Works, Existing Works and modifications made under Limited Operational Flexibility.

*You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:*

## TERMS AND CONDITIONS

### 1. GENERAL PROVISIONS

1. The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the terms and conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
2. The Owner shall design, construct, operate and maintain the Works in accordance with the conditions of this Approval.
3. Where there is a conflict between a provision of any document referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.
4. The issuance of, and compliance with the conditions of this Approval does not:
  - a. relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement, including, but not limited to, the obligation to obtain approvals from the Ministry of Energy and Mines, and/or Ministry of Natural Resources, necessary to construct or operate the sewage Works; or
  - b. limit in any way the authority of the Ministry to require certain steps be taken to require the Owner to furnish any further information related to compliance with this Approval.

### 2. CHANGE OF OWNER

1. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within **thirty (30) days** of the change occurring:
  - a. change of address of Owner;
  - b. change of Owner, including address of new owner;
  - c. change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Business Names Act, R.S.O. 1990, c. B.17* shall be included in the notification;
  - d. change of name of the corporation and a copy of the most current information filed under the *Corporations Information Act, R.S.O. 1990, c. C.39* shall be included in the notification.
2. In the event of any change in ownership of the Works, the Owner shall notify the succeeding owner in writing, of the existence of this Approval, and forward a copy of the notice to the District Manager.
3. The Owner shall ensure that all communications made pursuant to this condition refer to the number of this Approval.

### **3. CONSTRUCTION OF PROPOSED WORKS**

1. All Proposed Works in this Approval shall be constructed and installed and must commence operation within **five (5) years** of issuance of this Approval, after which time the Approval ceases to apply in respect of any portions of the Works not in operation. In the event that the construction, installation and/or operation of any portion of the Proposed Works is anticipated to be delayed beyond the time period stipulated, the Owner shall submit to the Director an application to amend the Approval to extend this time period, at least six (6) months prior to the end of the period. The amendment application shall include the reason(s) for the delay and whether there is any design change(s).
2. Upon completion of construction of the Proposed Works, the Owner shall prepare and submit a written statement to the District Manager, certified by a Licensed Engineering Practitioner, that the Proposed Works is constructed in accordance with this Approval.
3. **One (1) week** prior to the commencement of the operation of the Proposed Works, the Owner shall notify the District Manager (in writing) of the pending start-up date.
4. Within **one (1) year** of completion of construction of the Proposed Works, a set of record drawings of the Works shall be prepared or updated. These drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be readily accessible for reference at the Works.

### **4. CHANGES IN MILLING PROCESS OR PROCESS MATERIALS**

1. The Owner shall give written notice to the District Manager a minimum of thirty (30) days in advance of any plans to change the milling process or Process Materials in the Owner's enterprise serviced by the

Works where the change(s) may significantly alter the quantity or quality of the influent to the Works.

2. The Owner need not comply with subsection 1 of this condition where the effect of the change or redirection on effluent quality is of less than one week's duration.

## **5. BYPASSES**

1. The Owner shall not permit effluent that would ordinarily flow past a Final Process Effluent Sampling Point maintained under this Approval to be discharged from the Works without flowing past that Final Process Effluent Sampling Point, including during a maintenance operation, a breakdown in equipment or any scheduled or unscheduled event.

## **6. OVERFLOWS**

1. The Owner shall not permit Overflow Effluent to be discharged from Red Lake Mine Site unless it is unavoidable as a result of an extraordinary thaw or storm event.
2. The Owner shall establish, an Overflow Effluent Sampling Point on each Overflow Effluent Monitoring Stream at Red Lake Mine Site. The Owner shall, during each Eight(8)-hour Period in which Overflow Effluent is discharged, collect a grab sample of the Overflow Effluent Sampling Point and shall analyze each sample for each Limited Parameter (excluding acute/chronic toxicity tests) while ensuring sample hold times are not exceeded. The Owner shall also collect a sample for toxicity test - Acute Toxicity to Rainbow Trout and Daphnia Magna in the first twelve (12) hour period in which Overflow Effluent is discharged.
3. Upon the discovery of an Overflow Event, the Owner shall notify the Ministry Spills Action Centre (SAC) (telephone number: 1-800-268-6060) forthwith. This notice shall include, at a minimum, the following information:
  - a. the date and time of the beginning of the overflow;
  - b. the point of the overflow from the Works, the treatment process(es) gone through prior to the overflow, and whether the overflow is discharged through the effluent disposal facilities or an alternate location; and
  - c. the effort(s) undertaken to maximize the flow through the downstream treatment process(es) and the reason(s) why the overflow was not avoided.
4. Upon confirmation of the end of an Overflow Event, the Owner shall immediately notify the SAC. This notice shall include, at a minimum, the following information:
  - a. the date and time of the end of the Overflow Effluent;
  - b. the estimated or measured volume of the Overflow Effluent.
5. The Owner shall develop a notification procedure in consultation with the District Manager and SAC

and notify the public and downstream water users that may be adversely impacted by any Overflow Events.

6. The Owner shall forthwith develop a response plan for any Overflow Events, and document it in a site Emergency Response, Spill Reporting and Contingency Plan.

## 7. DESIGN OBJECTIVES

1. The Owner shall design and undertake everything practicable to operate the Works with the following objectives for the Final Process Effluent discharged via the Final Process Effluent discharge outfall G2 into Balmer Lake:
  - a. The effluent objectives outlined in the Table B-1 or Table B-3 of **Schedule B** are not exceeded;
  - b. The Daily Volume of Effluent of Final Process Effluent is within the design capacity of the Effluent Treatment Plant - **30,000 cubic metres per day**; and
  - c. Final Process Effluent is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film or sheen or foam or discolouration on the receiving waters.
2. The Owner shall in the event that an effluent concentration is greater than its corresponding Effluent Objective concentration outlined in the Table B-1 of **Schedule B** for the first two (2) consecutive Monthly Average Effluent Concentration results in the calendar year, notify the District Manager as soon as reasonable possible and submit to the District Manager, within sixty (60) days, a report that includes the following:
  - a. A corrective action plan to investigate the objective exceedance and develop actions with the intention to prevent environmental impairment;
  - b. A summary analysis/interpretation of all monitoring data required by **Condition 10** including a comparison to the effluent objectives and limits outlined in **Conditions 7 and 8** and an overview of the success and adequacy of the Works;
  - c. A description of any operating problems encountered, and corrective actions taken; and
  - d. Any other information the District Manager requires from time to time.

## 8. COMPLIANCE LIMITS

1. The Owner shall operate and maintain the Works such that compliance limits outlined in Table B-2 or Table B-4 of **Schedule B** are met for the Final Process Effluent discharged via the Final Process Effluent discharge outfall G2 into Balmer Lake.
2. The Owner shall, within ninety (90) days of issuance of this Approval, propose receiver-based limits for Selenium, Cobalt and Antimony, developed in accordance with Procedure B-1-5, to the acceptance of

the District Manager, and submit an application to the Director for approval.

## **9. OPERATION AND MAINTENANCE**

1. The Owner shall ensure that, at all times, the Works and the related equipment and appurtenances used to achieve compliance with this Approval are properly operated and maintained. Proper operation and maintenance shall include effective performance, adequate laboratory facilities, adequate staffing and training, including training in all procedures and other requirements of this Approval and the OWRA and relevant regulations made under the OWRA, process controls and alarms and the use of process chemicals and other substances used in the Works.
2. The Owner shall prepare/update the operations manual for the Works within **six (6) months** of completion of construction of the Proposed Works, that includes, but not necessarily limited to, the following information:
  - a. operating procedures for the Works under normal operating conditions;
  - b. inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;
  - c. repair and maintenance programs, including the frequency of repair and maintenance for the Works;
  - d. procedures for the inspection and calibration of monitoring equipment;
  - e. operating procedures for the Works to handle situations outside normal operating conditions and emergency situations such as a structural, mechanical or electrical failure, or an unforeseen flow condition, including procedures to minimize overflows;
  - f. a spill prevention control and countermeasures plan, consisting of contingency plans and procedures for dealing with equipment breakdowns, potential spills and any other abnormal situations, including notification of the Spills Action Centre (SAC) and District Manager; and
  - g. procedures for receiving, responding and recording public complaints, including recording any follow-up actions taken.
3. The Owner shall maintain an up-to-date operations manual and make the manual readily accessible for reference at the Works for the operational life of the Works. Upon request, the Owner shall make the manual available to Ministry staff.
4. The Owner shall ensure that the operating agency possesses the level of training and experience sufficient to allow safe and environmentally sound operation of the Works.

## **10. MONITORING, ASSESSMENT AND RECORDING**

1. The Owner shall carry out a scheduled Monitoring Program of collecting samples at the required sampling points, at the frequency specified or higher, by means of the specified sample type and

analyzed for each parameter listed in the tables under the monitoring program included in **Schedule C** and record all results, as follows:

- a. All samples and measurements are to be taken at a time and in a location characteristic of the quality and quantity of the sewage stream over the time period being monitored.
- b. Definitions and preparation requirements for each sample type are included in document referenced in subsection 4.a.
- c. Definitions for frequency:
  - i. Thrice Weekly means three days in every week
  - ii. Weekly means once every week
  - iii. Monthly means once every month
  - iv. Annually means once every year
- d. For Thrice Weekly sampling, there shall be an interval of at least twenty (24) hours between successive Pick-Up days.
- e. For Weekly sampling, there shall be an interval of at least four (4) days between successive Pick-Up days.
- f. For Monthly sampling, there shall be an interval of at least fifteen (15) days between successive Pick-Up days.
- g. For Annually sampling, there shall be an interval of at least one hundred and eighty (180) days between successive Pick-Up days.
- h. Where picking-up samples are required for parameters requiring Thrice Weekly or Weekly sampling, the Owner shall pick up samples collected over the twenty-four (24) hour period immediately preceding the Pick-Up.
  - i. For a Monthly acute lethality testing, the sample shall be collected on a day in a month that is also the day when Weekly sample is collected, and the Owner shall immediately pick up a grab sample and perform an acute lethality test on each sample.
  - j. For a chronic toxicity testing, the sample shall be collected on a day that is also the day when acute lethality testing sample is collected and the Owner shall immediately pick up a grab sample and perform a chronic toxicity testing test on each sample.
- k. The Owner shall undertake the Final Process Effluent monitoring quality control measures as outlined in **Table C-1A Quality Control - Final Process Effluent Monitoring of Schedule C**.

1. The sampling points, measurement frequencies, and sampling parameters specified in the monitoring program outlined in **Schedule C** in respect to any parameter may, after one (1) year of monitoring in accordance with this Condition, be modified by the Director in writing.
2. Despite Subsection 1, the Owner need not collect samples from any stream on a day on which Process Effluent is not being discharged from the Works.
3. The Owner shall keep an updated list and plot plan showing the sampling points maintained under this Approval and submit to the Ministry upon request.
4. The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following documents and all analysis shall be conducted by a laboratory accredited to the ISO/IEC:17025 standard or as directed by the District Manager:
  - a. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended;
  - b. the publication "Standard Methods for the Examination of Water and Wastewater", as amended;
  - c. the Environment Canada publications "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout" (EPS 1/RM/13 Second Edition - December 2000) and "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to *Daphnia magna* " (EPS 1/RM/14 Second Edition - December 2000), as amended subject to the following:
    - i. the use of pH stabilization in the determination of acute lethality of Final Effluent to Rainbow Trout in accordance with the Environment Canada publication "Procedure for pH Stabilization during the Testing of Acute Lethality of Wastewater Effluent to Rainbow Trout (EPS 1/RM/50)" (2008), as amended, is permitted only if:
      - a. all the three criteria stipulated in the Environment Canada EPS 1/RM/50 are met;
      - b. the Final Effluent is not discharged to a receiver in which the Final Effluent contributes more than 50% of the total flow in the receiving water, unless the District Manager, having reviewed additional information submitted regarding the Final Effluent and the receiving water approves on the use of RM50 on a site-specific basis;
    - d. Environment Canada publication entitled "Biological Test Method: Test of Larval Growth and Survival Using Fathead Minnows", "Biological Test Method: Test of Reproduction and Survival Using the Cladoceran *Ceriodaphnia dubia*", and/or "Biological Test Method: Test of Reproduction and Survival Using the *Lemma minor*", as amended from time to time; and
    - e. for any parameters not mentioned in the documents referenced in Paragraphs 4.a, 4.b, 4.c and 4.d, the Owner shall ensure that those parameters are analysed by a laboratory accredited, by the Canadian Association for Laboratory Accreditation, to analyse that particular parameter.

## 5. Mixing Zone Validation Assessment

- a. The Owner shall submit to the satisfaction of the District Manager within ninety (90) days of the issuance of this Approval, a plan for a mixing zone validation assessment to ensure there is adequate mixing in the receiver for the effluent discharges included in this Approval. This sampling plan shall include, but not be limited to the following:
  - i. In-situ conductivity and temperature measurements in the water column taken at regular intervals across the mixing zone in a transect or a radius to delineate the extent of the mixing zone;
  - ii. The sampling shall occur during effluent discharge over a range of wind speeds, wind directions and water depths, while ensuring that the modelled worst-case scenario is targeted to be sampled; and
  - iii. Reporting requirements and proposed additional monitoring.
- b. Following acceptance of the plan by the District Manager, the Owner shall complete the mixing zone assessment including sampling within eighteen (18) months.

## 6. Surface Water Level and Flow Monitoring

- a. The Owner shall conduct water level and flow monitoring at the Balmer Lake outlet at L2 where water drains from Balmer Lake to Balmer Creek, as per Table C-3 Surface Water Monitoring included in **Schedule C**. Monitoring methodology shall be completed as per Section 4 within the updated ACS report (document entitled "assimilative Capacity Assessment for Red Lake Site Effluent" prepared by Minnow Environmental Inc. and dated December 2023).

## 7. Chronic Toxicity Assessment

- a. Should chronic toxicity be observed during required testing under Table C-1 in **Schedule C**, the Owner shall, within sixty (60) days of receipt of the chronic toxicity test results, conduct an assessment of chronic toxicity, including at minimum:
  - i. an investigation of cause into chronic toxicity observed in effluent including consideration of the potential role of sulphate, and other parameters which may cause chronic toxicity, including but not limited to arsenic, cobalt, antimony, and selenium; and
  - ii. The extent of impact be determined through prediction of a mixing zone, and a mixing zone validation study that is acceptable to the Ministry. For the prediction of a sulphate mixing zone, the Owner shall use the hardness based chronic toxicity water quality guideline from British Columbia's Ministry of the Environment as a benchmark.

## 8. Additional Surface Water Quality Monitoring

- a. The Owner shall establish, within six (6) months from the issuance of this Approval, additional

surface water quality monitoring locations within the local watershed:

- i. An additional monitoring location downstream of the current Chukuni Downstream (CHUK-D) location, and upstream of the mouth of Keg Lake, at or near the georeferenced point 51.012336, -93.695362 (CHUK-K);
- ii. An additional monitoring location in Keg Lake, at or near georeferenced point 50.991788, -93.687361; and
- iii. Newly established surface water monitoring locations shall be monitored for all parameters, and at all frequencies outlined in Table C-3 in **Schedule C**, except when and where ice conditions make sampling unsafe or where there is no flow at the creek locations.

- b. Surface water monitoring data collected from all newly established sampling locations shall be incorporated into the existing reporting frameworks, including monthly and annual submissions. Annual reports shall include data from these locations and present it in a format acceptable to the District Manager, along with the following:
  - i. An evaluation of the suitability of monitoring locations after the first year of sampling;
  - ii. Tabulation and interpretation of monitoring data and a comparison to surface water quality benchmarks, along with a description and evaluation of water quality impacts; and
  - iii. Graphs illustrating data trends with a comparison to all receiver surface water monitoring locations.

## 9. Updated Reporting Requirements

- a. The Owner shall submit an updated Groundwater and Surface Water Monitoring Framework for the Red Lake Site to the District Manager for review and acceptance by June 30, 2026. The updated report must include:
  - i. A comprehensive summary of monitoring requirements for all active groundwater and surface water programs at the Red Lake Site and updated trigger thresholds and contingency plans. All groundwater monitoring wells must be identified, including those containing data logging pressure transducers;
  - ii. Assessment for inclusion of additional groundwater sampling locations: DK93-6B/C, BH3-15, BH3-30, SP16-01, SP16-02, SP16-04, MW21-03A/B, HGBH21-5/5A, HGBH21-8, MW06-01A/B/C, MW06-08, MW06-10, MW06-11;
  - iii. Updated Trigger Action Response Plans thresholds (TARPs) and associated contingency plans by:
    1. Updating surface water threshold values through use of the most recent water quality

guideline (FEQG, CWQG, PWQO/iPWQO);

2. Confining established TARPs with reference to data collected at the permanent local watershed background site (PSW-02); and
3. Updating the sulphate ( $\text{SO}_4$ ) threshold to reflect maximum measured background values plus the establish buffer value where buffer value refers +50% for groundwater and +20% for surface water reference in *Red Lake Groundwater and Surface Water Monitoring Framework* listed in **Schedule A**.

b. The Owner shall prepare, and submit to the District Manager, a performance report, on an annual basis, by March 31st for the previous calendar year. The reports shall contain, but shall not be limited to, the following information.

- i. a summary analysis/interpretation of all monitoring data (effluent and receiving environment) and a comparison to the effluent limits and objectives outlined in **Condition 8 and Condition 7**, including an overview of the success and adequacy of the Works;
- ii. a description of any operating problems encountered and corrective actions taken;
- iii. a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;
- iv. a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- v. a summary of the calibration and maintenance carried out on all effluent monitoring equipment;
- vi. all flow data and total arsenic loading calculations;
- vii. all flow data and sulphate loading calculations;
- viii. all flow data and total phosphorus loading calculations; and
- ix. any other information the District Manager requires from time to time.

## **10. Sulphate Receiver Impact Assessment (SRIA)**

- a. Within ninety (90) days of the issuance of this approval, the Owner shall develop and submit to the District Manager for approval, a plan for a Sulphate Receiver Impact Assessment (SRIA) to assess the potential impacts of sulphate in site discharges on receiving waters downstream of the Red Lake Operations.
- b. Upon approval by the District Manager, the Owner shall implement the approved plan and shall commence sampling by the freshet period in 2026.

- c. The Sulphate Receiver Impact Assessment (SRIA) plan shall include, at minimum, a sampling, analysis, and reporting plan for the media as follow:
  - i. Surface Water
    - 1. Monitoring parameters shall include those listed in the Table C-3 in **Schedule C**;
    - 2. Surface water data should be compared to the British Columbia Ministry of the Environment's Ambient Water Quality Guidelines for Mercury (2001, or as amended) to assess chronic mercury effects, considering both total and methylmercury;
    - 3. Comparison of individual monthly results to the BC MOE mercury guideline. If exceedances occur, weekly mercury and methylmercury sampling shall be initiated as confirmation. Continued exceedances shall trigger full implementation of BC MOE's monitoring approach until such time that sample results show levels below the BC MOE Mercury Guideline;
    - 4. An assessment of chronic toxicity, as per Condition 10.7; and
    - 5. Method detection limits shall be a minimum of 5 to 10 times lower than the identified protection of aquatic life criterion, and notification shall be given to the District Manager if this is not possible for a given parameter.
  - ii. Sediment
    - 1. Monitoring parameters shall include sulphate, sulphide, total and dissolved mercury and methylmercury, total and dissolved metals, pH, chloride, nitrates, ammonium, total nitrogen, Total Organic Carbon and Loss on Ignition (TOC/LOI), particle size, and redox;
    - 2. If methylmercury is detected above guidelines within sediments at any of the receiver sampling locations, additional monitoring including porewater assessment shall be conducted at those locations; and
    - 3. If deemed necessary, porewater sampling parameters shall include: sulphate, sulphide, ultra low-level total/dissolved mercury and methylmercury, total and dissolved metals, pH, and dissolved organic carbon.
  - iii. Biological Monitoring – Fish Tissue
    - 1. Fish tissue monitoring for large fish should follow MECP's "Protocol for the Collection of Large (Sport) Fish Samples For Contaminant Analysis" (2019) or as amended. Fish tissue monitoring for small-bodied fish should follow MECP's "Protocol for the Collection of Forage Fish Samples For Contaminant Analysis". The assessment shall include:
      - a. Fish tissue analysis for total and methylmercury in small- and large-bodied fish.
      - b. Results shall be compared to the reference concentration of 0.062 µg/g based on

protection of the belted kingfisher.

- c. Length-standardized baseline data shall support comparisons across monitoring locations.
- d. Small-bodied fish: 50–100 mm length, Composite whole-body samples (~10 g) from 5–10 individuals; minimum of five composites required.
- e. Large-bodied fish: 10–20 individuals per species (20–75+ cm), with gender mix where possible. Biopsy plugs may be used if fish numbers are low; fish <20 cm should not be sampled non-lethally.
- f. Species-specific regressions between length and mercury concentrations shall be used to derive standard-length concentrations at 5 cm intervals.
- g. These concentrations shall be compared to Ontario's fish consumption advisory benchmarks and evaluated across Chukuni River and reference sites.
- h. Selected species shall reflect those present and of interest to local communities, e.g., walleye and northern pike (large-bodied), spottail shiner and/or yellow perch (small-bodied).
- i. ICP Metals scans shall be conducted at all sampling locations, for both large and small-bodied fish.

- d. If any of the above specific requirements cannot be reasonably met or are not practical for each monitoring location, the Ministry shall be notified and the plan amended, as acceptable to the District Manager.
- e. The SRIA plan shall include monitoring location coordinates, and a description and justification for selected monitoring locations. Location selection should be informed by the following:
  - i. Presence of locations susceptible to seasonal anoxic conditions in lake environments downstream, and in wetlands if present; and
  - ii. Mid-field and far-field downstream locations representative of lentic and lotic environments downstream.
- f. The SRIA plan shall outline standard QA/QC procedures that will be followed to ensure the integrity of samples and reliability of data.
- g. The SRIA plan shall include details on the planned data analysis and reporting, including, but not limited to:
  - i. Data summaries and trend analysis;

- ii. Review of the adequacy of the SRIA monitoring program based on a comprehensive data analysis;
- iii. Identification of any additional monitoring needed to address any identified data gaps to adequately assess downstream receiver impacts;
- iv. Reporting requirements, with a minimum of annual reporting by December 31<sup>st</sup> of the year of sampling;
- v. Include comparison of monitoring data collected from potential impacted stations (e.g. Balmer Creek, Chukuni River) against reference monitoring data; and
- vi. Reporting requirements, with a minimum of annual reporting by December 31 of the year of sampling.

- h. Within twelve (12) months of Ministry acceptance of the SRIA plan, the Owner shall submit to the District Manager a final report including conclusions of the assessment and recommended monitoring programs.

## **11. Sulphate Reduction Feasibility Assessment (SRFA)**

- a. The Owner shall submit, within one hundred and fifty (150) days of issuance of this Approval, a term of reference for a Sulphate Reduction Feasibility Assessment (SRFA). The SRFA to identify potential methods for reducing sulphate concentrations in final effluent at Red Lake Operations shall be submitted to District Manager for review and include the following:
  - i. Mass balance characterization of site-wide sulphate sources within Red Lake Operations, and their relative contribution to overall sulphate discharges from the site;
  - ii. All available technologies for removing sulphate from the effluent, including in-process and source effluent streams;
  - iii. Conducting industrial bench-marking to inform strategies for the reduction of sulphate discharges from process; and
- b. Within twelve (12) months of the District Manager's approval of the terms of reference, the Owner shall submit to the District Manager the final SRFA, including conclusions of the assessment and potential process improvements with implementation timelines, if applicable.

## **12. Sulphate Mitigation Implementation Plan**

- a. Within six (6) months of completion of the SRIA and SFRA, the Owner shall submit an implementation plan to the District Manager with a copy to the Director for review and approval that address the findings and recommendations of assessments. This plan shall include, but is not limited to, a sulphate effluent limit, a plan for treatment implementation, rehabilitation measures, or other actions as deemed appropriate depending on the outcome of the assessments, including economic

and technological feasibility considerations.

- b. The implementation plan shall include details and estimated timelines associated with any necessary design, engineering, procurement, permitting and implementation of recommended mitigations.

13. Within three (3) years of the issuance of the Approval, the Owner shall apply to the Director for a review of the Approval in accordance with s.20.12(1) of the EPA. The application shall include:

- a. a summary of system performance and compliance with this Approval since the issuance of the Approval;
- b. a summary of all monitoring results and analyses required under Condition 10 (Monitoring, Assessment and Recording) and related schedules;
- c. a description of any proposed changes to the Works (including any Limited Operational Flexibility actions taken under Condition 11), and any anticipated changes to influent/effluent quality or quantity;
- d. any updated receiver assessments and risk evaluations (including sulphate and mercury assessments required under Conditions 10.10–10.12); and
- e. any additional information that the Director may require under section 20.8 of the EPA.

#### **14. Numerical Groundwater Flow Model**

- a. The Owner shall update and re-calibrate the numerical groundwater flow model for the Red Lake Mine Site and submit an updated Groundwater Modelling Report to the District Manager for review and acceptance. The first updated report is due by June 30, 2026. Subsequent reports shall be submitted by June 30 every three (3) years thereafter. Each re-calibrated model and report shall include the following:
  - i. additional hydraulic conductivity data from the overburden and tailings materials from recent boreholes and monitoring well installations;
  - ii. updated groundwater level/elevation measurements;
  - iii. updated streamflow measurements;
  - iv. assessment of residual values between measured and simulated groundwater levels/elevations;
  - v. updated particle tracking simulations and computed estimates of mass loading from the Red Lake Tailings Management Area (TMA) to surface water receivers; and
  - vi. updated mitigation measures that include timelines to address seepage and loading impacts to surface water receivers.

## **15. Balmer Lake and Balmer Creek Management Plan**

- a. The Owner shall submit an updated Balmer Lake and Balmer Creek Management Plan to the District Manager for review and acceptance by March 31, 2026. This updated management plan shall also include:
  - i. routine groundwater monitoring and reporting requirements for Lower Balmer Creek to incorporate the on-going groundwater monitoring in this area;
  - ii. assessment of groundwater and seepage quality, and loadings from various sources, including: active and historic tailings, waste rock and water treatment plant sludge in the Balmer Lake and Balmer Creek catchment areas (e.g. Red Lake tailings, Campbell tailings, Balmer tailings, Southeast tailings, Southern tailings, Detta tailings, and progressive rehabilitation areas), effluent discharges, and any other contaminant sources;
  - iii. Balmer Lake mass balance assessment results, and mass loading estimates from the most recent Groundwater Modelling Reports for the Red Lake Mine Site and Campbell Mine Site;
  - iv. contingency measures including trigger action and response plans (TARP) to address potential degradation of water quality in Balmer Lake; and
  - v. additional remedial options to address loading impacts, and to maintain groundwater elevations and saturation levels within the Balmer Tailings Area.

## **16. Metal Leaching and Acid Rock Drainage (ML-ARD) Monitoring Report**

- a. The Owner shall prepare and submit a Metal Leaching and Acid Rock Drainage (ML-ARD) Monitoring Report for the Red Lake Operation (Campbell, Red Lake, Balmer, Cochenour, and Bateman Sites) to the District Manager for review and acceptance. The first report is due by March 31, 2027. Subsequent reports shall be submitted by March 31 every three (3) years thereafter. Each report shall include the following:
  - i. metal leaching and acid rock drainage monitoring program and test results for waste rock, ore, tailings and combined tailings stream, water treatment plant sludge, overburden, and associated field kinetic tests, as per the most up-to-date guidance documents and analysis techniques [i.e. "Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials", MEND (Mine Environment Neutral Drainage Program) Report 1.20.1, December 2009];
  - ii. water chemistry test results for underground operations, tailings ponds, sludge ponds, tailings pore water, seeps and down-gradient groundwater, and comparison with relevant water quality criteria;
  - iii. evaluation of test results with respect to impacts on the various receptors, including loading assessments, and

- iv. recommendations for future monitoring, waste management and mitigation measures.
- 17. The Owner shall monitor and record, in cubic metres a **Daily Volume of Effluent** from the outfall G2 for each day on which a sample is collected under this Approval for the Final Process Effluent, using **continuous flow measuring devices** and instrumentations/pumping rates calibrated to an accuracy within plus or minus fifteen per cent (+/- 15%).
- 18. The Owner shall determine by calibration or confirm by means of a certified report of a Licensed Engineering Practitioner that each flow measurement method used under **Subsection 17** meets the accuracy requirements for each effluent stream.
- 19. Where the Owner uses a new flow measurement method or alters an existing flow measurement method, the Owner shall determine by calibration, manufactures certification or confirm by means of a certified report of a Licensed Engineering Practitioner that each new or altered flow measurement method meets the accuracy requirements of **Subsection 17** of this section, as the case may be, within two weeks after the day on which the new or altered method or system is used.
- 20. The Owner shall develop and implement a maintenance schedule and a calibration schedule for each flow measurement system installed at the Red Lake Mine Site and shall maintain each flow measurement system according to good operating practices.
- 21. The Owner shall use reasonable efforts to set up each flow measurement system used for the purposes of this section in a way that permits inspection by a provincial officer.
- 22. The Owner shall retain for a minimum of five (5) years from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

## **11. LIMITED OPERATIONAL FLEXIBILITY**

- 1. The Owner may make modifications to the Works in accordance with the Terms and Conditions of this Approval and subject to the Ministry's "Limited Operational Flexibility Criteria for Modifications to Sewage Works", included under **Schedule D** of this Approval, as amended.
- 2. Sewage Works under Limited Operational Flexibility shall adhere to the design guidelines contained within the Ministry's publication "Design Guidelines for Sewage Works 2008", as amended.
- 3. The Owner shall ensure at all times, that the Works, related equipment and appurtenances which are installed or used to achieve compliance are operated in accordance with all Terms and Conditions of this Approval.
- 4. For greater certainty, the following are not permitted as part of Limited Operational Flexibility:
  - a. Modifications to the Works that result in an increase of the approved rated capacity of the Works;

- b. Modifications to the Works that may adversely affect the approved effluent quality criteria or the location of the discharge/outfall;
- c. Modifications to the treatment process technology of the Works, or modifications that involve construction of new reactors (tanks) or alter the treatment train process design;
- d. Modifications to the Works approved under s.9 of the EPA, and
- e. Modifications to the Works pursuant to an order issued by the Ministry.

5. Implementation of Limited Operational Flexibility is not intended to be used for piecemeal measures that result in major alterations or expansions.

6. If the implementation of Limited Operational Flexibility requires changes to be made to the Emergency Response, Spill Reporting and Contingency Plan, the Owner shall, provide a revised copy of this plan for approval to the local fire services authority prior to implementing Limited Operational Flexibility.

7. For greater certainty, any modification made under the Limited Operational Flexibility may only be carried out after other legal obligations have been complied with, including those arising from the *Environmental Protection Act, Lakes and Rivers Improvements Act* and the *Mining Act*.

8. At least thirty (30) days prior to implementing Limited Operational Flexibility, the Owner shall complete a **Notice of Modifications** describing any proposed modifications to the Works and submit it to the District Manager.

9. The Owner shall not proceed with implementation of Limited Operational Flexibility until the District Manager has provided written acceptance of the Notice of Modifications or a minimum of thirty (30) days have passed since the day the District Manager acknowledged the receipt of the Notice of Modifications.

## 12. REPORTING

1. The Owner shall report to the District Manager orally as soon as possible any non-compliance with the compliance limits, and in writing within seven (7) days of non-compliance.
2. In addition to the obligations under Part X of the EPA and O. Reg. 675/98 (Classification and Exemption of Spills and Reporting of Discharges), the Owner shall, within fifteen (15) days of the occurrence of any reportable spill as provided in Part X of the EPA and Ontario Regulation 675/98, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill, clean-up and recovery measures taken, preventative measures to be taken and a schedule of implementation.
3. The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.
4. On or before June 1 in each year, the Owner shall prepare a report "Reports Available to the Public" and

submit it to the District Manager upon request, and ensure this report is available to any person on request during the normal office hours, in an electronic format related to the previous calendar year and including the following:

- a. a summary of daily Final Process Effluent total loadings calculated under sections 2 and 3 of **Schedule E**;
- b. a summary of concentrations determined under sections 4 and 5 of **Schedule E**;
- c. a summary of the results of monitoring performed under **Condition 10** regarding monitoring and reporting;
- d. a summary of calculations performed for the volume of effluent for Overflow Effluent Monitoring Stream and Daily Volume of Effluent for each Final Process Effluent Monitoring Stream;
- e. a summary of the concentrations or other results that exceeded limit prescribed in **Schedule B**; and
- f. a summary of the Overflow Effluent incidents in which Process Effluent was discharged from the Red Lake Mine Site without flowing past a sampling point maintained on a Final Process Effluent stream in accordance with this Approval before being discharged.

5. The Owner shall prepare a Quarterly Report (in this subsection, "Quarter" means a period of three (3) consecutive months beginning on the first day of January, April, July or October), no later than forty five (45) days after the end of each Quarter, and submit to the District Manager in an electronic format via Ministry on-line submission platform/portal - MEWS. The reports shall contain, but shall not be limited to, the following information pertaining to the reporting period (throughout the Quarter):
  - a. all information relating to reporting requirements of the Approval for bypasses, Overflow Events, and non-compliance during the Quarter;
  - b. for each month in the Quarter, the monthly average Final Process Effluent total loadings and the highest and lowest daily Final Process Effluent total loadings calculated under **Schedule E**.
  - c. for each day in the Quarter, each daily Overflow Effluent stream loading calculated under **Schedule E** for each Limited Parameter;
  - d. for each month in the Quarter, the monthly average concentrations and the highest and lowest analytical results for each Limited Parameter in the Final Process Effluent Monitoring Stream with Thrice Weekly or Weekly monitoring frequency.
  - e. for each day in the Quarter, the daily concentrations calculated and the highest and lowest analytical results for each Limited Parameter in each Overflow Effluent Monitoring Stream;
  - f. for each month in the Quarter, the monthly average total volume and the highest and lowest daily total volumes for the Final Process Effluent.

- g. for each day in the Quarter, the daily Overflow Effluent stream volumes calculated;
- h. The Owner shall report the number of days in each month in the Quarter on which Final Process Effluent was discharged from the Works; and
- i. The Owner shall report, for each month in the Quarter, the highest and lowest pH results obtained for the Final Process Effluent Monitoring Stream.

6. The Owner shall prepare and submit a monitoring and compliance report to the District Manager in an electronic format on a monthly basis within **forty (40) days** following the period being reported upon. The Report should contain at a minimum:

- a. estimate of total effluent discharged from the sewage works during the reporting period;
- b. status of storage capacity occupied and remaining in sewage works system;
- c. a summary and interpretation of all monitoring data and a comparison with the effluent limits outlined in **Condition 8** regarding compliance limits, and PWQOs, including an overview of the success and adequacy of the sewage works;
- d. a description of any operating problems encountered and corrective actions taken;
- e. a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the sewage works;
- f. a summary of any effluent quality assurance or control measures undertaken in the reporting period; and
- g. a summary of the calibration and maintenance carried out on all effluent monitoring equipment.

7. The Owner shall prepare and submit a performance report to the District Manager in an electronic format by **March 31** of the calendar year following the period being reported upon. The reports shall contain, but shall not be limited to, the following information:

- a. a summary and interpretation of all Final Process Effluent monitoring data, including concentrations/results, acute and chronic toxicity test results, Daily Volume of Effluent, Monthly Average Daily Volume of Effluent, and a comparison to the objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works;
- b. a summary and interpretation of all surface water monitoring results;
- c. a summary and interpretation of all monitoring and assessment results undertaking in accordance with Conditions 10.5 to 10.15;
- d. a description of any operating problems encountered and corrective actions taken;

- e. a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the sewage works;
- f. a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- g. a summary of the calibration and maintenance carried out on all effluent monitoring equipment;
- h. a copy of all Notice of Modifications submitted to the District Manager, with a status report on the implementation of Limited Operational Flexibility;
- i. data comparison describing the ongoing recovery/degradation of the Balmer Creek / Balmer Creek watershed;
- j. evaluation summary of the surface water, sediment and biological habitat in the Balmer Lake watershed, including a science-based approach with indicators measuring the potential for recovery of the watershed system; and
- k. any other information the District Manager may require from time to time (all information request will be submitted to the Owner in writing).

8. The Owner shall prepare and submit an annual Groundwater Monitoring Report for the Red Lake Site to the District Manager for review and acceptance by June 30<sup>th</sup> of each year that includes the monitoring data for the 12-month period ending December 31<sup>st</sup> of the previous year. The annual monitoring report must be prepared and signed/stamped by a licensed independent Professional Geoscientist or Professional Engineer qualified in the field of hydrogeology. The annual report is intended as a stand-alone document, and as a minimum must contain the following information:

- a. A site plan or plans of the entire site (mine site, tailings facilities and ponds, historic tailings areas, waste rock piles, sludge ponds, dam structures) illustrating significant site features such as lakes, rivers, seeps, ponds, ditches, collection and treatment facilities, and roadways, as well as all of the monitoring and sampling locations;
- b. A section of text explaining the background of the facility, including location, size, operating history, elevation, flows and any other details which may be critical to assessment and understanding of the facility operations;
- c. A location map illustrating the site relative to nearby potentially sensitive surface water and groundwater features (i.e., lakes, streams, wetlands, wells);
- d. Groundwater table contour maps;
- e. Stratigraphic cross-sections which clearly illustrate the subsurface distribution of geological materials;
- f. Borehole logs for all monitoring wells;

- g. Tables illustrating the most recent annual groundwater chemistry and groundwater level/elevation data with digital spreadsheets (MS Excel or equivalent) including historical data;
- h. Graphs illustrating historical water quality trends with time for key analytical parameters;
- i. Assessment of the monitoring data to evaluate the impact on the down-gradient receptors with consideration for the site-specific trigger mechanisms; also including: reassessment of background groundwater monitoring locations and quality, estimation of groundwater flows, seepage volumes and quality, and loading assessments for the various receptors;
- j. Recommendations for future monitoring;
- k. Recommendations for any necessary remedial actions as they relate to the current Contingency Plans, Trigger Action Response Plans, and any associated mitigation measures for the site; and
- l. A section detailing the field sampling protocols and QA/QC measures.

## Schedule A

1. Application for Environmental Compliance Approval, dated February 28, 2024 and received on March 11, 2024 and revised on July 8, 2025, from Evolution Mining Gold Operations Ltd., for the proposed consolidated tailings operation including transference and deposition of Campbell Mill tailing to Red Lake Tailing Areas, Tailings Area #1 dam raise, modifications and upgrades to Effluent Treatment Plant, tailings and treated effluent transference pipe lines, including design reports, engineering drawings and specifications.
2. British Columbia Ministry of the Environment's Ambient Water Quality Guidelines for Mercury (2001, or as amended).
3. MECP's "Protocol for the Collection of Fish Samples For Contaminant Analysis" (2016, or as amended).
4. MECP's "Protocol for the Collection of Forage Fish Samples For Contaminant Analysis".
5. A document entitled "*Red Lake Site, Groundwater and Surface Water Monitoring Framework*", prepared by BGC Engineering Inc. and Lorax Environmental Services Ltd., June 14, 2023, as revised from time to time.
6. A document entitled "*Assimilative Capacity Assessment for Red Lake Site Effluent*" prepared by Minnow Environmental Inc., December, 2023.
7. *Red Lake Operation, Red Lake Complex, Tailings Management Area Numerical Groundwater Flow Model*, prepared by BGC Engineering Inc., prepared for Evolution Mining – Red Lake Operation, June 1, 2020, as revised from time to time.
8. *Evolution Mining Red Lake Operation, Balmer Lake and Balmer Creek Management Plan - Draft*, prepared by Lorax Environmental Services Ltd. and Minnow Environmental Inc., prepared for Evolution Mining, February 26, 2021, as revised from time to time.
9. *2019-2024 Red Lake Operation, Metal Leaching and Acid Rock Drainage Monitoring Report* , prepared by Lorax Environmental Services Ltd., prepared for Evolution Mining, October 7, 2025.
10. *Red Lake Operation, Metal Leaching and Acid Rock Drainage Management Plan* , prepared by Lorax Environmental Services Ltd., prepared for Evolution Mining Red Lake Operation, April 16, 2025.

## Schedule B

**Table B-1 Final Process Effluent Objectives**

For the Final Process Effluent discharged via the Final Process Effluent discharge outfall G2 into Balmer Lake

Parameter	Monthly Average Effluent Concentration (maximum unless otherwise indicated)
Total Arsenic (As)	0.05 mg/L <sup>1</sup>
Sulphate (SO <sub>4</sub> )	1,721 mg/L

**Note\*<sup>1</sup>:** mg/L means milligrams per litre.

**Table B-2 Final Process Effluent Compliance Limits**

For the Final Process Effluent discharged via the Final Process Effluent discharge outfall G2 into Balmer Lake

	Monthly Average Effluent Concentration	Single Sample Result (maximum unless otherwise indicated)
Total Suspended Solid	15 mg/L <sup>1</sup>	30 mg/L
Un-ionized Ammonia* <sup>2</sup>	0.02 mg/L	0.028 mg/L
Total Phosphorus	0.03 mg/L	0.035 mg/L
Cyanide Free	0.005 mg/L	0.008 mg/L
Total Arsenic (As)	0.10 mg/L	0.14 mg/L
Total Copper (Cu)	0.035 mg/L	0.036 mg/L
Total Iron (Fe)	0.78 mg/L	1.17 mg/L
Total Lead (Pb)	0.022 mg/L	0.033 mg/L
Total Mercury (Hg)	0.026 µg/L	0.026 µg/L
Total Nickel (Ni)	0.15 mg/L	0.21 mg/L
Total Zinc (Zn)	0.12 mg/L	0.17 mg/L
pH	between 6.0 - 9.5 inclusive (Single Sample Result)	
Toxicity to Rainbow Trout	Non-acute lethality - no more than 50% mortality in 100% effluent	
Toxicity to Daphnia magna	(Single Sample Result)	

**Note\*<sup>1</sup>:** mg/L means milligrams per litre.

**Note\*<sup>2</sup>:** The concentration of Un-ionized Ammonia shall be calculated using the total ammonia concentrations, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives (PWQO)" dated July 1994, as amended, for Ammonia (unionized).

**Note\*<sup>3</sup>:** µg/L: means micrograms per litre.

**Table B-3 Final Process Effluent Objective (Prior to the upgraded ETP fully operational)**  
 For the Final Process Effluent discharged via the Final Process Effluent discharge outfall G2 into Balmer Lake

	<b>Monthly Average Effluent Concentration</b>	<b>Single Sample Result</b> (maximum unless otherwise indicated)
Total Arsenic (As)	0.05 mg/L <sup>1</sup>	/
Total Iron	1.5 mg/L	3.0 mg/L

**Note<sup>1</sup>:** Effluent objective from ECA Number 7435-BW4KJM Condition 6.

**Table B-4 Final Process Effluent Compliance Limits (Prior to the upgraded ETP fully operational)**  
 For the Final Process Effluent discharged via the Final Process Effluent discharge outfall G2 into Balmer Lake

	<b>Monthly Average Effluent Concentration</b>	<b>Single Sample Result</b> (maximum unless otherwise indicated)
Total Suspended Solid	15 mg/L <sup>1</sup>	30 mg/L
Total Ammonia Nitrogen (Ammonia + Ammonium)	/	10 mg/L
Total Arsenic (As)	0.25 mg/L	0.5 mg/L
Total Copper (Cu)	0.3 mg/L	0.6 mg/L
Total Iron (Fe)	0.78 mg/L	1.17 mg/L
Total Lead (Pb)	0.2 mg/L	0.4 mg/L
Total Nickel (Ni)	0.5 mg/L	1.0 mg/L
Total Zinc (Zn)	0.5 mg/L	1.0 mg/L
Total Cyanide	1.0 mg/L	2.0 mg/L
pH	between 6.0 - 9.5 inclusive ( <b>Single Sample Result</b> )	

## Schedule C

**Table C-1 Final Process Effluent Monitoring (During Discharge)**

<b>Sampling Points:</b> at the Final Process Effluent Sampling Point at the Final Effluent Discharge outfall G2		
Parameter	Minimum Frequency (During Discharge)	Sample Type
Total Daily Volume of Effluent (m <sup>3</sup> /day)	Daily	Flow meter
Total Suspended Solid (TSS)	Thrice Weekly	Grab
Total Dissolved Solid (TDS)	Thrice Weekly	Grab
Total Cyanide	Thrice Weekly	Grab
Free Cyanide	Thrice Weekly	(Calculated)
Total Ammonia Nitrogen (Ammonia + Ammonium)* <sup>1</sup>	Thrice Weekly	Grab
Unionized Ammonia* <sup>1</sup>	Thrice Weekly	Grab
Temperature (Field)* <sup>1</sup>	Thrice Weekly	Grab
pH (Field)* <sup>1</sup>	Thrice Weekly	Grab
Specific Conductance (Field)	Thrice Weekly	Grab
Total Hardness (as CaCO <sub>3</sub> )	Thrice Weekly	Grab
Total Alkalinity (as CaCO <sub>3</sub> )	Thrice Weekly	Grab
Sulphate (SO <sub>4</sub> )	Thrice Weekly	Grab
Total and dissolved Metals (ICP - MS Metal Scan)* <sup>2</sup>	Thrice Weekly	Grab
Ultra Low Total Mercury (Hg) and Methyl Mercury (unfiltered and filtered)	Monthly	Grab
Dissolved Organic Carbon (DOC)	Monthly	Grab
Sulphide (S <sup>2-</sup> )	Monthly	Grab
Biological Oxygen Demand (BOD <sub>5</sub> )	Monthly	Grab
Dissolved Oxygen (DO)	Monthly	Grab/Probe
Nitrite Nitrogen (NO <sub>2</sub> -N)	Monthly	Grab
Nitrate Nitrogen (NO <sub>3</sub> -N)	Monthly	Grab
Oil and Grease	Monthly	Grab
Acute Toxicity to Rainbow Trout* <sup>3</sup>	Monthly	Grab
Acute Toxicity to Daphnia Magna* <sup>3</sup>	Monthly	Grab
Sublethal/Chronic Toxicity to Fathead Minnows* <sup>3</sup>	Annually	Grab
Sublethal/Chronic Toxicity to Ceriodaphnia Dubia* <sup>3</sup>	Annually	Grab
Sublethal/Chronic Toxicity to Lemna minor* <sup>3</sup>	Annually	Grab

**Note\*<sup>1</sup>:** The temperature and pH of the Final Process Effluent shall be determined in the field at the time of sampling for Total Ammonia Nitrogen. The concentration of Un-ionized Ammonia Nitrogen

shall be calculated using the total ammonia concentrations, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives (PWQO)" dated July 1994, as amended, for Ammonia (unionized).

**Note<sup>2</sup>:** ICP-MS metals scan shall include total and dissolved: Aluminium (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Beryllium (Be), Boron (B), Bismuth (Bi), Cadmium (Cd), Calcium (Ca), Chromium (Cr), Cobalt (Co), Copper (Cu), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Phosphorus (P), Potassium (K), Selenium (Se), Silver (Ag), Sodium (Na), Strontium (Sr), Sulphur (S), Thallium (Tl), Tungsten (W), Uranium (U), Vanadium (V), Zinc (Zn) and Zirconium (Zr).

**Note<sup>3</sup>:** All samples picked up for toxicity tests shall be picked up on the same day as effluent samples.

**Table C-1A Quality Control - Final Process Effluent Monitoring**

Effluent from the Wastewater Treatment Facilities at the Final Process Effluent Sampling Point

1. On one day in each year, on a day on which samples are picked up as in above **Table C-1**, the Owner shall collect and pick up a duplicate sample for each sample picked up on that day and shall analyze each duplicate sample for the parameters for which the frequency of monitoring, is "Thrice Weekly", or "Weekly".
2. The same Final Process Effluent Sampling Point shall be used for the purposes of sampling under subsection 1 of this Table in a year.
3. The Owner shall prepare a travelling blank and travelling spiked blank sample for each sample for which a duplicated sample is picked up under subsection 1 of this Table and shall analyzed the travelling blank and travelling spiked blank samples in accordance with the directions set out in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended.
4. There shall be an interval of at least six (6) months between successive Pick-Up days at the Red Lake Mine Site under subsection 1 of this Table.

**Table C-2 Influent Monitoring for the Effluent Treatment Plant**

<b>Parameter</b>	<b>Minimum Frequency</b>	<b>Sample Type</b>
Total Suspended Solid (TSS)	Thrice Weekly	Grab
pH	Thrice Weekly	Grab
Total Hardness (as CaCO <sub>3</sub> )	Monthly	Grab
Sulphate (SO <sub>4</sub> )	Monthly	Grab
Specific Conductance	Monthly	Grab
Total and dissolved Metals (ICP - MS Metal Scan)* <sup>1</sup>	Monthly	Grab
Sulphide (S <sup>2-</sup> )	Monthly	Grab

**Note\*<sup>1</sup>:** ICP-MS metals scan shall include total and dissolved: Aluminum (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Beryllium (Be), Boron (B), Bismuth (Bi), Cadmium (Cd), Calcium (Ca), Chromium (Cr), Cobalt (Co), Copper (Cu), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Phosphorus (P), Potassium (K), Selenium (Se), Silver (Ag), Sodium (Na), Strontium (Sr), Sulphur (S), Thallium (Tl), Tungsten (W), Uranium (U), Vanadium (V), Zinc (Zn) and Zirconium (Zr).

**Table C-3 Surface Water Monitoring**

**Sample Points:** at the Balmer Lake outlet L2 - from Balmer Lake to Balmer Creek, and Receiving Water Monitoring CHUK-D and CHUK-K. Surface receiving water monitoring locations will be sampled **Monthly** except when and where ice conditions make sampling unsafe.

Parameter	Minimum Frequency	Sample Type
Water Level Measurement	Weekly	/
Flow (Balmer Lake outlet L2 only)	Continuous	/
Total Suspended Solids (TSS)	Monthly	Grab
Total Dissolved Solids (TDS)	Monthly	Grab
Total Ammonia Nitrogen (Ammonia + Ammonium)* <sup>1</sup>	Monthly	Grab
Unionized Ammonia* <sup>2</sup>	Monthly	(Calculated)
Total Cyanide	Monthly	Grab
Free Cyanide	Monthly	Grab
Total Hardness (as CaCO <sub>3</sub> )	Monthly	Grab
Total Alkalinity (as CaCO <sub>3</sub> )	Monthly	Grab
Dissolved Organic Carbon (DOC)	Monthly	Grab
Sulphate (SO <sub>4</sub> )	Monthly	Grab
pH (Field)	Monthly	Grab
Ultra Low Total Mercury (Hg) and Methyl Mercury (unfiltered and filtered)	Monthly	Grab
Total and dissolved Metals (ICP - MS Metal Scan)* <sup>2</sup>	Monthly	Grab
Sulphide (S <sub>2</sub> -)	Monthly	Grab
Chloride (Cl)	Monthly	Grab
Biological Oxygen Demand (BOD <sub>5</sub> )	Monthly	Grab
Total Nitrogen	Monthly	Grab
Nitrite Nitrogen (NO <sub>2</sub> -N)	Monthly	Grab
Nitrate Nitrogen (NO <sub>3</sub> -N)	Monthly	Grab
pH (Field)* <sup>2</sup>	Monthly	Grab
Specific Conductance (Filed)	Monthly	Grab
Temperature (Field)* <sup>2</sup>	Monthly	Grab
Dissolved Oxygen (DO) (Field)	Monthly	Grab

**Note\*<sup>1</sup>:** The temperature and pH shall be determined in the field at the time of sampling for Total Ammonia Nitrogen. The concentration of Un-ionized Ammonia shall be calculated using the total ammonia concentrations, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives (PWQO)" dated July 1994, as amended, for Ammonia (unionized).

**Note\*<sup>2</sup>:** ICP-MS metals scan shall include total and dissolved: Aluminum (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Beryllium (Be), Boron (B), Bismuth (Bi), Cadmium (Cd), Calcium (Ca), Chromium (Cr), Cobalt (Co), Copper (Cu), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Phosphorus (P), Potassium (K), Selenium (Se), Silver (Ag), Sodium (Na), Strontium (Sr), Sulphur (S), Thallium (Tl), Tungsten (W), Uranium (U), Vanadium (V), Zinc (Zn) and Zirconium (Zr).

**Table C-4 Groundwater Monitoring**

Sample Location (Groundwater Quality)	<p>BH2-15, BH2-30, BH4, BH5, BH6, BH7, MW21-01B, MW21-01C, MW21-02B, MW21-02C, PGW-01A, PGW-01B, MW24-02, MW24-01, HGBH21-6, HGBH21-6A, MW24-04, HGBH21-9, PGW-04A, PGW-04B, HGBH22-2, HGBH22-5, HGBH22-5A, HGBH22-7, HGBH22-9, PGW-05A, PGW-05B, PGW-06A, PGW-06B, PGW-07A, PGW-07B, HGBH21-4, HGBH21-4A, MW18-12A, MW18-12B, PGW-08A, PGW-08B.</p> <p>Locations are identified in Tables 6-1 and Map 04 of “Red Lake Site, Groundwater and Surface Water Monitoring Framework”, prepared by BGC Engineering Inc. and Lorax Environmental Services Ltd., June 14, 2023, as revised from time to time (Document included Schedule A of this ECA).</p>
Minimum Frequency	3 times per year (spring freshet, summer, fall), with a minimum of 60 days between sampling events.
Sample Type	Grab
Sample Parameter	<p><u>Field Measurements</u></p> <ul style="list-style-type: none"><li>• Static groundwater levels, well stick-up height, calculated groundwater elevations reported in metres above sea level;</li><li>• pH, conductivity, temperature, turbidity.</li></ul> <p><u>Laboratory Parameters</u></p> <ul style="list-style-type: none"><li>• Physical tests [pH, conductivity (EC), hardness (as CaCO<sub>3</sub>), total suspended solids, total dissolved solids, turbidity];</li><li>• Anions [total acidity (as CaCO<sub>3</sub>), total alkalinity (as CaCO<sub>3</sub>), bicarbonate HCO<sub>3</sub> (as CaCO<sub>3</sub>), carbonate CO<sub>3</sub> (as CaCO<sub>3</sub>), hydroxide OH (as CaCO<sub>3</sub>), bromide, chloride, fluoride, sulphate];</li><li>• Nutrients and Organic Carbon [total ammonia (as N), unionized ammonia (as N), nitrate and nitrite (as N), nitrate (as N), nitrite (as N), dissolved organic carbon];</li><li>• Cyanides [total cyanide, free cyanide, weak acid dissociable cyanide];</li><li>• Dissolved metals [aluminum, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, calcium, cesium, chromium, cobalt, copper, iron, lead, lithium, magnesium, manganese, molybdenum, nickel, phosphorous, potassium, rubidium, selenium, silicon, silver, sodium, strontium, sulphur, tellurium, thallium, thorium, tin, titanium, tungsten, uranium, vanadium, zinc, zirconium, and mercury].</li></ul>

## Schedule D

### **Limited Operational Flexibility Criteria for Modifications to Industrial Sewage Works**

1. The modifications to sewage works approved under an Environmental Compliance Approval (Approval) that are permitted under the Limited Operational Flexibility (LOF), are outlined below and are subject to the LOF conditions in the Approval, and require the submission of the Notice of Modifications. If there is a conflict between the sewage works listed below and the Terms and Conditions in the Approval, the Terms and Conditions in the Approval shall take precedence.
  - a. Pumping Stations
    - i. Alter pumping capacity by adding or replacing equipment where new equipment is located within the site of an existing sewage/effluent treatment system or an existing sewage pumping station, provided that the modifications do not result in an increase of the sewage/effluent treatment works/systems design capacity and the existing flow process and/or treatment train are maintained, as applicable.
    - ii. Force main relining and replacement with similar pipe size where the nominal diameter is not greater than 1,200 mm.
  2. Sewage Treatment Process
    - a. Installing additional chemical dosage equipment including replacing with alternative chemicals for pH adjustment or coagulants (non-toxic polymers) provided that there are no modifications of treatment processes or other modifications that may alter the intent of operations and may have negative impacts on the effluent quantity and quality.
    - b. Expanding the buffer zone between a sanitary sewage lagoon facility or land treatment area and adjacent uses provided that the buffer zone is entirely on the proponent's land.
    - c. Optimizing existing sanitary sewage lagoons with the purpose to increase efficiency of treatment operations provided that existing sewage treatment rated plant capacity is not exceeded and where no land acquisition is required.
    - d. Optimizing existing sewage/effluent treatment equipment with the purpose to increase the efficiency of the existing treatment operations, provided that there are no modifications to the works that result in an increase of the approved rated capacity, and may have adverse effects to the final effluent quality or location of the discharge.
    - e. Replacement, refurbishment of previously approved equipment in whole or in part with Equivalent Equipment, like-for-like of different make and model, provided that the firm capacity, reliability, performance standard, level of quality and redundancy of the group of equipment is kept the same or

exceeded. For clarity purposes, the following equipment can be considered under this provision: pumps, screens, grit separators, blowers, aeration equipment, sludge thickeners, de-watering equipment, UV systems, chlorine contact equipment, bio-disks, and sludge digester systems.

### 3. Final Effluent Disposal Facility

- a. Replacement of discharge pipe with similar pipe size or diffusers provided that the outfall location is not changed.

### 4. Sewers

- a. Pipe relining and replacement with similar pipe size within the site of the Works, where the nominal diameter is not greater than 1,200 mm.

### 5. Pilot Systems

- a. Installation of pilot systems for new or existing technologies provided that:
  - i. any effluent from the pilot system is discharged to the inlet of the sewage/effluent treatment plant or hauled off-site for proper disposal,
  - ii. any effluent from the pilot system discharged to the inlet of the sewage/effluent treatment plant or conveyance system does not significantly alter the composition/concentration of the influent to be treated in the downstream process; and that it does not add any inhibiting substances to the downstream process, and
  - iii. the pilot system's duration does not exceed a maximum of two years; and a report with results is submitted to the Director and District Manager three months after completion of the pilot project.

### 6. Tailings Management Facilities

- a. Routine dam raises and dam extensions to allow continued management of tailings and storage of mineral materials and sewage, provided that:
  - i. Routine dam raises and extensions are in adherence with a tailings management plan prepared by a Licensed Engineering Practitioner.
  - ii. Routine dam raises and extensions engineering drawings that are sealed by a Licensed Engineering Practitioner.
  - iii. Routine dam raises and extensions have an associated erosion and sediment control plan applying best management practices that is to be implemented during construction.
- b. New dams are not eligible under LOF, unless already included as part of the Works for which an Environmental Compliance Approval or an amended Environmental Compliance Approval has

already been issued describing how new Works would affect the management of tailings and water at the site.

- c. Pipe replacement or extension with similar pipe size within the tailings management area, where the nominal diameter is not greater than 1,200 mm.
- d. Clause 1.6 does not relieve the Owner of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement, including, but not limited to, the obligation to obtain necessary approval from Ministry of Energy and Mines, and/or Ministry of Natural Resources to proceed with the undertaking.

2. Sewage works that are exempt from section 53 of the OWRA by O. Reg. 525/98 continue to be exempt and are not required to follow the notification process under this Limited Operational Flexibility.
3. Normal or emergency operational modifications, such as repairs, reconstructions, or other improvements that are part of maintenance activities, including cleaning, renovations to existing approved sewage works equipment, provided that the modification is made with Equivalent Equipment, are considered pre-approved.
4. The modifications noted in section (3) above are not required to follow the notification protocols under Limited Operational Flexibility, provided that the number of pieces and description of the equipment as described in the Approval does not change.

This page contains an image of the form entitled "Notice of Modification to Sewage Works". A digital copy can be obtained from the District Manager.



Ministry of the  
Environment,  
Conservation and  
Parks

## Notice of Modification to Sewage Works

RETAIN COPY OF COMPLETED FORM AS PART OF THE ECA ON-SITE PRIOR TO THE SCHEDULED  
IMPLEMENTATION DATE.

### Part 1 – Environmental Compliance Approval (ECA) with Limited Operational Flexibility (Insert the ECA's owner, number and issuance date and notice number, which should start with "01" and consecutive numbers thereafter)

ECA Number	Issuance Date (mm/dd/yy)	Notice number (if applicable)
ECA Owner		Municipality

### Part 2: Description of the modifications as part of the Limited Operational Flexibility (Attach a detailed description of the sewage works)

Description shall include:

1. A detail description of the modifications and/or operations to the sewage works (e.g. sewage work component, location, size, equipment type/model, material, process name, etc.)
2. Confirmation that the anticipated environmental effects are negligible.
3. List of updated versions of, or amendments to, all relevant technical documents that are affected by the modifications as applicable, i.e. submission of documentation is not required, but the listing of updated documents is (design brief, drawings, emergency plan, etc.)

### Part 3 – Declaration by Professional Engineer

I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:

1. Has been prepared or reviewed by a Professional Engineer who is licensed to practice in the Province of Ontario;
2. Has been designed in accordance with the Limited Operational Flexibility as described in the ECA;
3. Has been designed consistent with Ministry's Design Guidelines, adhering to engineering standards, industry's best management practices, and demonstrating ongoing compliance with s.53 of the Ontario Water Resources Act; and other appropriate regulations.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name (Print)	PEO License Number
Signature	Date (mm/dd/yy)
Name of Employer	

### Part 4 – Declaration by Owner

I hereby declare that:

1. I am authorized by the Owner to complete this Declaration;
2. The Owner consents to the modification; and
3. This modifications to the sewage works are proposed in accordance with the Limited Operational Flexibility as described in the ECA.
4. The Owner has fulfilled all applicable requirements of the *Environmental Assessment Act*.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name of Owner Representative (Print)	Owner representative's title (Print)
Owner Representative's Signature	Date (mm/dd/yy)

## Schedule E

### 1. CALCULATION OF LOADINGS — GENERAL

1. For the purposes of performing a calculation under sections 2 to 5 of this Schedule, the Owner shall use the actual analytical result obtained by the laboratory.
2. Despite subsection 1 of this section, where the actual analytical result is less than one-tenth of the analytical method detection limit set out in the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended, the Owner shall use the value zero for the purpose of performing a calculation under sections 2 to 5 of this Schedule.
3. The Owner shall ensure that each calculation of a Final Process Effluent loading required by section 2 and each calculation of a Final Process Effluent concentration required by section 4 is performed as soon as reasonably possible after the analytical results on which the calculation is based become available to the Owner.
4. The Owner shall ensure that each calculation of an Overflow Effluent loading required by section 3 is performed in time and each calculation of an Overflow Effluent concentration required by section 5 is performed in time to comply with Quarterly Reports to the District Manager requirements.

### 2. CALCULATION OF LOADINGS — FINAL PROCESS EFFLUENT

1. The Owner shall calculate, in kilograms, a daily Final Process Effluent stream loading for each Limited Parameter (excluding pH and Toxicity), in each Final Process Effluent Monitoring Stream for each day on which a sample is collected under this Approval from the stream for analysis for the parameter.
2. When calculating a daily stream loading under subsection 1, the Owner shall multiply, with the necessary adjustment of units to yield a result in kilograms, the analytical result obtained from the sample for the parameter by the Daily Volume of Effluent, as determined under **Condition 10** regarding monitoring and reporting, for the stream for the day.
3. The Owner shall calculate, in kilograms, a daily Final Process Effluent total loading for each Limited Parameter (excluding pH and Toxicity), for each day for which the Owner is required to calculate a daily Final Process Effluent stream loading for the parameter under subsection 1 of this section.
4. For the purposes of subsection 3 of this section, a Final Process Effluent total loading for a parameter for a day is the sum, in kilograms, of the daily Final Process Effluent stream loadings for the parameter calculated under subsection 1 of this section for the day.
5. Where the Owner calculates only one daily Final Process Effluent stream loading for a parameter for

a day under subsection 1 of this section, the daily Final Process Effluent total loading for the parameter for the day for the purposes of subsection 3 of this section is the single daily Final Process Effluent stream loading for the parameter for the day.

6. The Owner shall calculate, in kilograms, a monthly average Final Process Effluent total loading for each Limited Parameter (excluding pH and Toxicity) for each month in which a sample is collected under this Approval more than once from a Final Process Effluent Monitoring Stream for analysis for the parameter.
7. For the purposes of subsection 6 of this section, a monthly average Final Process Effluent total loading for a parameter for a month is the arithmetic mean of the daily Final Process Effluent total loadings for the parameter calculated under subsection 3 of this section for the month.

### **3. CALCULATION OF LOADINGS — OVERFLOW EFFLUENT**

1. The Owner shall calculate, in kilograms, an Overflow Effluent stream loading for each Limited Parameter (excluding pH and Toxicity), in each Overflow Effluent Monitoring Stream for each Eight (8)-hour Period during which a sample is collected under this Approval from the stream for analysis for the parameter.
2. When calculating a stream loading under subsection 1 of this section, the Owner shall multiply, with the necessary adjustment of units to yield a result in kilograms, the analytical result obtained from the sample for the parameter by the volume of effluent, as determined under **Condition 10** regarding monitoring, assessment and recording, for the stream for the Eight (8)-hour Period.
3. The Owner shall calculate, in kilograms, a daily Overflow Effluent stream loading for each Limited Parameter (excluding pH and Toxicity), in each Overflow Effluent Monitoring Stream for each day for which the Owner is required to calculate an Overflow Effluent stream loading for the parameter under subsection 1 of this section.
4. For the purposes of subsection 3 of this section, a daily Overflow Effluent stream loading for a parameter for a day is the sum, in kilograms, of all the Eight (8)-hour period Overflow Effluent stream loadings for the parameter calculated under subsection 1 of this section for the day.
5. Where the Owner calculates only one Overflow Effluent stream loading for a parameter under subsection 1 of this section for a stream for a day, the daily Overflow Effluent stream loading for the parameter for the day for the purposes of subsection 3 of this section is the single Overflow Effluent stream loading calculated for the parameter under subsection 1 of this section.

### **4. CALCULATION OF CONCENTRATIONS — FINAL PROCESS EFFLUENT**

1. The Owner shall calculate, in milligrams per litre, a Monthly Average Effluent Concentration for each Limited Parameter (excluding pH and Toxicity) in each Final Process Effluent Monitoring Stream for each month.

## 5. CALCULATION OF CONCENTRATIONS — OVERFLOW EFFLUENT

1. The Owner shall calculate, in milligrams per litre, a daily concentration for each Limited Parameter (excluding pH and Toxicity), in each Overflow Effluent Monitoring Stream for each day on which a sample is collected under this Approval from the stream for analysis for the parameter.
2. For the purposes of subsection the above subsection 5.1, a daily concentration for a parameter for a stream for a day is the arithmetic mean of the analytical results obtained for the parameter from the samples collected under **Condition 6** regarding overflows from the stream for the day.
3. Where there is only one analytical result obtained for a parameter from the stream for a day, the daily concentration for the parameter for the stream for the day for the purposes of subsection (1) of this condition is the single analytical result obtained for the parameter.

*The reasons for the imposition of these terms and conditions are as follows:*

1. Condition 1 regarding general provisions is imposed to ensure that the Works are constructed and operated in the manner in which they were described and upon which approval was granted.
2. Condition 2 regarding change of Owner is included to ensure that the Ministry records are kept accurate and current with respect to ownership of the Works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.
3. Condition 3 regarding construction of Proposed Works is included to ensure that the Works are constructed in a timely manner so that standards applicable at the time of Approval of the Works are still applicable at the time of construction to ensure the ongoing protection of the environment, and also ensure that the Works are constructed in accordance with the Approval and that record drawings of the Works "as constructed" are updated and maintained for future references.
4. Conditions 4 regarding changes in milling process or Process Materials is included to ensure that the Works are operated in accordance with the information submitted by the Owner relating to the milling process and Process Materials which are served by the Works, and to ensure that any contemplated changes in them which could potentially affect the characteristics of influent to the Works will be properly reviewed.
5. Condition 5 regarding bypasses is included to indicate that bypass is prohibited, except in circumstances where the failure to bypass could result in greater damage to the environment than the Bypass itself. The notification and documentation requirements allow the Ministry to take action in an informed manner and will ensure the Owner is aware of the extent and frequency of bypass events.
6. Condition 6 regarding overflows is included to indicate that overflow of untreated or partially treated sewage to the receiver is prohibited, except in circumstances where the failure to overflow could result in greater damage to the environment than the overflow itself. The notification and documentation requirements allow the Ministry to take action in an informed manner and will ensure the Owner is aware of the extent and frequency of overflow events.
7. Condition 7 regarding design objectives is imposed to establish non-enforceable design objectives to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs.
8. Condition 8 regarding compliance limits is imposed to ensure that the Final Process Effluent and stormwater / groundwater effluent discharged from the Works to the environment meets the Ministry's effluent quality requirements.
9. Condition 9 regarding operation and maintenance is included to require that the Works be properly operated, maintained, funded, staffed and equipped such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented. As well, the inclusion of a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared,

implemented and kept up-to-date by the Owner. Such a manual is an integral part of the operation of the Works. Its compilation and use should assist the Owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the Owner's operation of the Works.

10. Condition 10 regarding monitoring and recording is included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and maintained at a level which is consistent with the design objectives and compliance limits; regarding assessment is to assess the potential impacts of sulphate discharges on receiving waters, identify potential mitigation measures and implementation plan for reducing sulphate concentrations in Final Process Effluent.
11. Condition 11 regarding Limited Operational Flexibility is included to ensure that the Works are constructed, maintained and operated in accordance with the Approval, and that any pre-approved modification will not negatively impact on the performance of the Works.
12. Condition 12 regarding reporting is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for this Approval.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 7435-BW4KJM and its Notice No.1 and No.2 issued on February 4, 2021, July 7, 2025 and October 31, 2025.**

In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me and the Ontario Land Tribunal within 15 days after receipt of this notice, require a hearing by the Tribunal. Section 142 of the *Environmental Protection Act* provides that the notice requiring the hearing ("the Notice") shall state:

- a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the *Environmental Protection Act*, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

Registrar\*  
Ontario Land Tribunal  
655 Bay Street, Suite 1500  
Toronto, Ontario  
M5G 1E5  
OLT.Registrar@ontario.ca

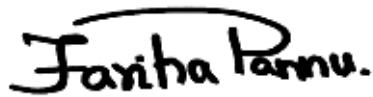
and

The Director appointed for the purposes of Part II.1 of the *Environmental Protection Act*  
Ministry of the Environment, Conservation and  
Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

\* **Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or [www.olt.gov.on.ca](http://www.olt.gov.on.ca)**

The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act*.

DATED AT TORONTO this 24th day of December, 2025



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Fariha Pannu, P.Eng.  
Director  
appointed for the purposes of Part II.1 of the  
*Environmental Protection Act*

AL/

c: Area Manager, MECP Kenora Area Office  
c: District Manager, MECP Thunder Bay District Office  
Renee Bausch, Evolution Mining Gold Operations Ltd.