

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 6439-C4MPJZ
Issue Date: April 11, 2022

Agnico Eagle Mines Limited/Mines Agnico Eagle Limited
10200 Route de Preissac
Rouyn-Noranda, Quebec
J0C 1C0

Site Location: Beaverhouse Road
(approximately 6 kilometres northeast of Dobie)
Township of Gauthier, District of Timiskaming
Ontario

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:

establishment of sewage works for the collection, transmission, treatment and disposal of mine wastewater, sanitary sewage and stormwater from the Upper Beaver Zone Advanced Exploration Project (approved for the collection of a maximum of 60,000 tonnes of bulk samples), discharging to the Misema River at a maximum rate of 12,000 cubic metres per day, located at the above Site Location, consisting of the following:

INDUSTRIAL WATER MANAGEMENT SYSTEM

Retention Pond #1

- one (1) geomembrane or clay lined wastewater retention pond, measuring approximately 170 metres by 104 metres by 5.55 metres deep, having a maximum total storage capacity of 73,772 cubic metres (with 1 metre of freeboard) for the daily operational water volume, two consecutive 24-hour 100-year storm events plus average snow melt, and 0.2 metre deep sediment accumulation, receiving mine wastewater from the underground mine, shaft sinking and wash bay, treated effluent from the domestic sewage treatment plant (described below), and contact stormwater from Contact Water Collection Ponds #1, 2 and 3 (described below), complete with one (1) 10 metre wide and 0.50 metre deep emergency overflow spillway weir with side slopes of 10:1 on the eastern berm, and one (1) pumping station on the western berm, equipped with submersible pumps (one duty and one standby) rated at minimum 500 cubic metres per hour, discharging all flows via a 400 millimetre diameter forcemain or alternative diameter allowing

an acceptable water velocity, to the Water Treatment Plant (WTP) as described below;

Water Treatment Plant (WTP)

one (1) package industrial wastewater treatment plant, designed and operated at a maximum treatment capacity of 500 cubic metres per hour (12,000 cubic metres per day), receiving wastewater from Retention Pond #1 and consisting of the following Works included in either Option A or Option B and the Effluent Pumping Station:

Option A by Veolia

- one (1) two-compartment Metal Precipitation Reactor (or Equivalent Equipment), approximately 9.0 metres by 4.6 metres by 5.3 metres tall, having a total working volume of 117 cubic metres at a water depth of 3.15 metres and a design retention time of approximately 14.3 minutes at the design nominal flow, with the first chamber equipped with a mixer and receiving raw wastewater from Retention Pond #1, chemical dosing of an alkali (sodium/potassium hydroxide or equivalent) and a coagulant (ferric sulphate or equivalent), as well as backwash water from the Discfilter and chemical dosing of a precipitant aid (sodium sulphide or equivalent); and the second chamber equipped with a mixer and receiving effluent of the first chamber, recycled sludge from the Actiflo sludge splitter box, discharging by gravity to the Actiflo clarification system described below;
- one (1) Actiflo clarification system (Model ACP2-60 or Equivalent Equipment), approximately 9.2 metres by 4.0 metres by 4.8 metres tall, having a design capacity of 12,000 cubic metres per day, comprised of a coagulation tank equipped with a mixer, a maturation tank equipped with Turbomix mixing and injected with an anionic polymeric flocculant and microsand, and a settling tank equipped with a lamella with a design rise rate of approximately 60 metres per hour, complete with a scraper to collect sludge at the bottom of the settling tank and a microsand recirculation system that includes two (2) sludge recirculation pumps and two (2) hydrocyclones that separate microsand for reuse and sludge for recycling/disposal, discharging treated effluent by gravity to the Discfilter described below;
- one (1) Hydrotech Discfilter (Model HSF-2212 or Equivalent Equipment), having a design capacity of 12,000 cubic metres per day, equipped with twelve (12) 2.2 metre diameter discs that have a filter cloth opening size between 1 and 50 microns, as required to achieve compliance and a net filter area of approximately 67.2 square metres, complete with a high pressure cleaning system and a backwash system consisting of nozzles and a backwash pump, discharging by gravity to the pH Adjustment Reactor described below;
- one (1) two-compartment pH Adjustment Reactor (or Equivalent Equipment), approximately 7.6 metres by 4.5 metres by 5.3 metres tall, having a total working volume of 93 cubic metres and a design retention time of approximately 11 minutes at the design capacity of 12,000 cubic metres per day, with the first chamber equipped with a mixer and receiving effluent from the Discfilter and chemical dosing of sulphuric acid (H_2SO_4) or equivalent for pH adjustment; and the second chamber equipped with a mixer and receiving effluent of the first chamber, discharging by

gravity to the Effluent Pumping Station described below (after Option B);

- two (2) geotextile sludge dewatering bags, one duty and one standby, placed on a lined pad, approximately 30.5 metres by 18.3 metres, each having a design capacity of 13 cubic metres per day (maximum capacity of 26 cubic metres per day) at a design filtration rate of approximately 815 litres per square metre per minute ($L/m^2/min$), receiving polymer thickened sludge from the sludge flocculator that treats raw sludge from the sludge splitter box, with the seepage water to be drained to Retention Pond #1 via the lined pad and the dewatered sludge to be transported for off-site disposal at an approved receiving facility;
- including chemical dosing systems, with duty and standby pumps and all necessary make-up and storage tanks, for the preparation and dosing of the alkali (sodium/potassium hydroxide or equivalent), the coagulant (ferric sulphate or equivalent), the precipitant aid (sodium sulphide or equivalent), anionic and cationic polymers (or equivalent) and the acid (sulphuric acid or equivalent) into the above treatment processes;

Option B by ASDR

- two (2) Baker Tanks connected in series (or Equivalent Equipment), each measuring approximately 11.4 metres by 2.4 metres by 3.3 metres tall, having a combined working volume of approximately 135 cubic metres and a design retention time of approximately 16 minutes at the design nominal flow, with the first quarter of Baker Tank 1 equipped with one (1) mixer and receiving raw wastewater from Retention Pond #1, chemical dosing of an alkali (NaOH/KOH or equivalent), a coagulant (ferric sulphate or equivalent), as well as backwash water from the Vortisand filters; the other three quarters of Baker Tank 1 equipped with three (3) mixers and injected with Metalsorb HCO (or equivalent); and Baker Tank 2 equipped with four (4) mixers and receiving effluent of Baker Tank 1, discharging by gravity to the Rapisand clarification system described below;
- one (1) Rapisand clarification system (or Equivalent Equipment), approximately 11.0 metres by 4.1 metres by 5.5 metres tall, having a maximum treatment capacity of 750 cubic metres per hour, comprised of a Coagulation Tank equipped with a mixer, a Flocculation Tank 1 equipped with a mixer and injected with a polymeric flocculant (CHEMFLOC AMX 232 or equivalent) and recycled sand, a Flocculation Tank 2 equipped with a mixer and injected with a polymeric flocculant (CHEMFLOC AMX 232 or equivalent), and a Lamella Clarifier with a design rise rate of approximately 45 metres per hour, complete with a scraper to collect sludge at the bottom of the Clarifier and a sand recirculation system that includes two (2) sludge recirculation pumps and two (2) hydrocyclones that separate sand for reuse and sludge for disposal, transferring treated effluent to the Vortisand filters described below;
- two (2) Vortisand filters (or Equivalent Equipment), each measuring approximately 6.3 metres by 2.4 metres by 2.6 metres tall and including two (2) filter vessels, having a total maximum flow rate of 790 cubic metres per hour (with 4 filter vessels in operation), a total filtration area of approximately 16 square metres and a filtration rate of approximately 31 metres per hour, complete with two (2) influent feed pumps and a backwash system, discharging treated effluent

to the Effluent Pumping Station described below;

- including chemical dosing systems, with duty and standby pumps and all necessary make-up and storage tanks, for the preparation and dosing of the alkali (sodium/potassium hydroxide or equivalent), the coagulant (ferric sulphate or equivalent), the precipitant aid (MetalSorb HCO or equivalent), polymers (CHEMFLOC AMX 232 and CHEMFLOC CMX 123 or equivalent) and the acid (sulphuric acid or equivalent) into the above treatment processes;
- two (2) geotextile sludge dewatering bags, one duty and one standby, placed on a lined pad (approximately 38.1 metres by 36.6 metres), each measuring approximately 30.5 metres by 18.3 metres, receiving polymer thickened sludge from the Polymer 2 Plant, with the seepage water to be drained to Retention Pond #1 via the lined pad and the dewatered sludge to be transported for off-site disposal at an approved receiving facility;

Effluent Pumping Station & Forcemain

- one (1) effluent pumping station, with a pumping box of approximately 3.0 metres in diameter and 4.3 metres tall with an effective volume of approximately 25 cubic metres, equipped with two (2) centrifugal submersible pumps (one duty, one standby) with variable frequency drive (VFD) control, each rated at 500 cubic metres per hour (or 139 litres per second) at a total dynamic head (TDH) of approximately 27 metres, discharging treated effluent from the WTP to the Misema River via the forcemain described below;
- approximately 1,472 metres of 400 millimetre diameter HDPE forcemain (above ground), equipped with a flow measuring device and a multi-port submerged diffuser at the discharge point;

SANITARY SEWAGE WORKS

Sewage Treatment Plant (STP)

one (1) package domestic sewage treatment plant, designed and operated at a maximum treatment capacity of 13,000 litres per day, receiving raw sanitary sewage from on-site shower and bathroom facilities and consisting of the following:

- one (1) two-compartment septic tank with an effective volume of approximately 27 cubic metres, equipped with two (2) effluent filters (Polylok PL-525 or Equivalent Equipment) with a capacity of 37,855 litres per day, complete with a phosphorus removal unit that injects alum at the septic tank inlet, receiving raw sewage from on-site facilities described above, discharging by gravity to a BIONEST reactor, as described below;
- one (1) two-compartment BIONEST bioreactor with an effective volume of approximately 28 cubic metres, equipped with 2,553 square metres of polymer media equally distributed throughout the reactor, 15 metres of diffusers and six (6) air pumps (Hiblow HP-200 or

Equivalent Equipment), complete with two (2) water heaters, three (3) 75 millimetre diameter ventilation pipes, and one (1) recirculation pump (Jebao WPG-550 or Equivalent Equipment) that delivers a portion of the reactor effluent to the septic tank inlet at an approximate rate of 23 litres per minute (2.5 times the daily flow rate), receiving effluent from the septic tank and discharging by gravity to the UV disinfection unit, as described below; sludge accumulated in the bioreactor and septic tank will be hauled off-site for disposal at an appropriately approved receiving facility;

- one (1) UV disinfection unit comprised of two (2) Viqua UVMAX "F4" lamps (or Equivalent Equipment), with each lamp having a maximum treatment capacity of 27 litres per minute, receiving effluent from the BIONEST bioreactor and discharging into Retention Pond #1 via the equipped pumps and appurtenances;

STORMWATER MANAGEMENT FACILITIES

Collection Ditches

- collection ditches along the perimeter of or inside the following contact water areas:
 - Area 1 (approximately 5 hectares) - West half of the Rock Storage Facility (RSF) and access to the RSF;
 - Area 2 (approximately 10 hectares) - East half of the RSF, access to the RSF, WTP area and the majority of the Ore Stockpile pad;
 - Area 3 (approximately 4 hectares) - North half of the main/shaft laydown and offices area;
 - Area 4 (approximately 4 hectares) - Parking area and the south half of the main/shaft laydown and offices area; and
 - Area 5 (approximately 4 hectares) - Ramp, Laydown pad areas and a small portion of the Ore Stockpile pad;

each ditch having a bottom width of approximately 1 metre, a minimum depth of 1 metre with 0.3 metres of freeboard and side slopes of 2:1, receiving contact stormwater runoff from the areas above via overland flow and discharging to Retention Pond #1 (for Area 2) or the contact water collection ponds (for other areas), as described below;

Contact Water Collection Pond #1 (catchment area: approximately 8 hectares)

- one (1) contact water collection pond located at the west corner of Area 1, having a total depth of 3.5 metres, side slopes of 2.5:1, a minimum storage capacity of 7,250 cubic metres (with 1 metre of freeboard) at a depth of 2 metres under two consecutive 24-hour 100-year storm events plus average snow melt, equipped with pumps rated at 56 litres per second, receiving contact stormwater runoff from Area 1 and Area 5 via the collection ditches described above and discharging collected stormwater via 200 millimetre diameter HDPE forcemains (or equivalent) to Retention Pond #1;

Contact Water Collection Pond #2 (catchment area: approximately 4 hectares)

- one (1) contact water collection pond located at the northwest boundary of Area 3, having a total depth of 3.5 metres, side slopes of 2.5:1, a minimum storage capacity of 2,000 cubic metres (with 1 metre of freeboard) at a depth of 2 metres under two consecutive 24-hour 100-year storm events plus average snow melt, equipped with pumps rated at 56 litres per second, receiving contact stormwater runoff from Area 3 via the collection ditches described above and discharging collected stormwater via 200 millimetre diameter HDPE forcemains (or equivalent) to Retention Pond #1;

Contact Water Collection Pond #3 (catchment area: approximately 4 hectares)

- one (1) contact water collection pond located at the south corner of Area 4, having a total depth of 3.5 metres, side slopes of 2.5:1, a minimum storage capacity of 2,200 cubic metres (with 1 metre of freeboard) at a depth of 2 metres under two consecutive 24-hour 100-year storm events plus average snow melt, equipped with pumps rated at 56 litres per second, receiving contact stormwater runoff from Area 4 via the collection ditches described above and discharging collected stormwater via 200 millimetre diameter HDPE forcemains (or equivalent) to Retention Pond #1;

including all other controls, electrical equipment, instrumentation, piping, valves and appurtenances essential for the proper operation of the aforementioned sewage works;

all in accordance with the supporting documentation submitted to the Ministry as listed in the **Schedule A** of this Approval.

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

1. "Advanced Exploration" has the same meaning as in the *Mining Act*, R.S.O. 1990, c. M.14;
2. "Approval" means this entire Environmental Compliance Approval and any Schedules attached to it;
3. "BOD5" (also known as TBOD5) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demands;
4. "CBOD₅" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;
5. "Daily Maximum Concentration" means the concentration of a contaminant in the effluent discharged over any single day, as measured by a composite or grab sample, whichever is required;
6. "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;

7. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Works is geographically located;
8. "*E. coli* " refers to coliform bacteria that possess the enzyme beta-glucuronidase and are capable of cleaving a fluorogenic or chromogenic substrate with the corresponding release of a fluorogen or chromogen, that produces fluorescence under long wavelength (366 nm) UV light, or color development, respectively. Enumeration methods include tube, membrane filter, or multi-well procedures. Depending on the method selected, incubation temperatures include $35.5 + 0.5$ °C or $44.5 + 0.2$ °C (to enumerate thermotolerant species). Depending on the procedure used, data are reported as either colony forming units (CFU) per 100 mL (for membrane filtration methods) or as most probable number (MPN) per 100 mL (for tube or multi-well methods);
9. "EPA" means the *Environmental Protection Act* , R.S.O. 1990, c.E.19;
10. "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;
11. "Grab Sample" or "Grab" means an individual sample of at least 1000 millilitres collected in an appropriate container at a randomly selected time over a period of time not exceeding 15 minutes;
12. "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;
13. "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;
14. "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;
15. "Monthly Average Concentration" is the mean of all Daily Maximum Concentrations of the concentration of a contaminant in the effluent sampled or measured during a calendar month;
16. "Monthly Geometric Mean Density" is the mean of all Single Sample Results of *E.coli* measurement in the samples taken during a calendar month, calculated and reported as per the methodology specified in Schedule F;
17. "Notice of Modifications" means the form entitled "Notice of Modifications to Sewage Works";
18. "Owner" means Agnico Eagle Mines Limited/Mines Agnico Eagle, including any successors and assignees;
19. "OWRA" means the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40;
20. "Project" means the Upper Beaver Zone Advanced Exploration Project at the Site Location above;

21. "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;
22. "Works" means the sewage works described in the Owner's application, this Approval 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 CONDITIONS

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 conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
2. Except as otherwise provided by these conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with the description given in this Approval, and the application for approval of the Works.
3. Where there is a conflict between a provision of any document in the schedule referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence, and where there is a conflict between the documents in the schedule, the document bearing the most recent date shall prevail.
4. Where there is a conflict between the documents listed in Schedule A and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.
5. The conditions of this Approval are severable. If any condition of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.
6. 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 Northern Development, Mines, Natural Resources and Forestry 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. EXPIRY OF APPROVAL

1. All 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 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).

3. 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 Owner;
 - b. change of address of the 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.B17 shall be included in the notification to the District Manager; or
 - d. change of name of the corporation where the Owner is or at any time becomes a corporation, and a copy of the most current information filed under the *Corporations Information Act*, R.S.O. 1990, c. C39 shall be included in the notification to the District Manager.
2. In the event of any change in ownership of the Works, other than a change to a successor municipality, the Owner shall notify in writing the succeeding owner of the existence of this Approval, and a copy of such notice shall be forwarded to the District Manager and the Director.
3. The Owner shall ensure that all communications made pursuant to this condition refer to the number at the top of this Approval.

4. CHANGES IN PROCESS OR MATERIALS

1. The Owner shall give written notice to the District Manager of any plans to change the processes or process materials in the Owner's enterprise serviced by the Works where the change may significantly alter the quantity or quality of the influent to or effluent from the Works, and no such change(s) shall be made unless with the written concurrence of the District Manager.

5. CONSTRUCTION

1. The Owner shall not construct the Works listed under "Option A by Veolia" or "Option B by ADSR" without an amendment to this Approval to confirm the selected treatment technologies.
2. Upon completion of construction of the Works, the Owner shall prepare and submit a written statement to the District Manager, certified by a Licensed Engineering Practitioner, that the Works is constructed in accordance with this Approval.
3. Within **one (1) year** of completion of construction of the 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. The Owner shall ensure that the treatment technologies and processes are installed in accordance with the manufacturer's installation manual.

6. EROSION AND SEDIMENT CONTROL

1. The Owner shall install and maintain temporary sediment and erosion control measures during construction and conduct inspections once every two (2) weeks and after each significant storm event (a significant storm event is defined as a minimum of 25 millimetres of rain in any 24 hours period). The inspections and maintenance of the temporary sediment and erosion control measures shall continue until they are no longer required and at which time they shall be removed and all disturbed areas reinstated properly.
2. The Owner shall submit an Erosion and Sedimentation Control Plan for the overburden stockpile storage area within 90 days of construction commencing, and obtain concurrence by the District Manager, before construction activities related to the overburden stockpile begin. The Plan shall include a figure that shows distances to the nearest surface water features and the topography between these and the overburden storage area.
3. The Owner shall maintain records of inspections and maintenance which shall be made available for inspection by the Ministry, upon request. The record shall include the name of the inspector, date of inspection, and the remedial measures, if any, undertaken to maintain the sediment and erosion control measures.

7. OPERATIONS AND MAINTENANCE

1. The Owner shall make all necessary investigations, take all necessary steps and obtain all necessary approvals so as to ensure that the physical structure, siting and operations of the Works do not constitute a safety or health hazard to the general public.
2. 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.

3. The Owner shall prepare an operations manual prior to the commencement of operation of the Works that includes, but is not necessarily limited to, the following information:
 - a. operating and maintenance procedures for routine operation of the Works;
 - 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. contingency plans and procedures for dealing with potential abnormal situations and for notifying the District Manager; and
 - e. procedures for receiving, responding and recording public complaints, including recording any follow-up actions taken.
4. 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.
5. The Owner shall ensure that the operator(s) of the Works possess the level of training and experience sufficient to allow safe and environmentally sound operation of the Works.
6. The Owner shall prepare an **ammonia management plan** prior to the commencement of operation of the Works that includes the following:
 - a. best management practice for the use, handling, and management of explosives;
 - b. water management plan for water that may come into contact with materials that contain ammonia or residual ammonia;
 - c. monitoring program;
 - d. reporting requirements; and
 - e. adaptive management plan.
7. The Owner shall ensure that all mine-related structures and stockpiles that are adjacent to the Works (e.g. Rock Storage Facility, overburden & ore stockpiles, etc.) are physically stable.
8. The Owner shall collect representative samples of the on-site materials that have been excavated, exposed or otherwise disturbed by mining activities (e.g., overburden and mine

rock stockpiles, etc.) sufficient to determine the potential for acid generation and metal leaching. The information acquired will help inform on-site water management practices, to ensure that effective preventative, mitigation, and monitoring strategies are developed and implemented throughout the Project lifetime. Monitoring shall be in accordance with Technical Memorandum, Re: Upper Beaver Advanced Exploration Project: ML/ARD Management Plan, prepared by Lorax Environmental, and dated April 15, 2021, as amended from time to time.

9. The Owner shall ensure that soil stripping and excavation is only conducted when there is no precipitation occurring that is substantial enough to cause stormwater runoff and sediment to bypass the Works and enter adjacent surface water features (e.g., wetlands, watercourses, and waterbodies).
10. The Owner shall conduct visual inspections of all construction areas during and after surface water runoff (i.e., snowmelt, precipitation, and stormwater) events to ensure that potentially contaminated runoff is being captured by the Works.
11. The Owner shall regularly conduct visual inspections of the Works for erosion, blockage or potential blockage caused by sediment, ice, debris accumulation or animal activity; and deterioration of materials.
12. The Owner shall undertake an inspection of the condition of Retention Pond #1, conveyance ditches and collection ponds at least **once a week** during spring, summer, and fall; after a storm event (i.e., 15 mm of precipitation or greater in 24 hours); and at least **once a month** in the winter, and undertake any necessary cleaning and maintenance to ensure that sediment, debris and excessive decaying vegetation are removed from the Works to prevent the excessive build-up of sediment, oil/grit, debris and/or decaying vegetation, to avoid reduction of the capacity and/or permeability of the Works, as applicable. The Owner shall also regularly inspect and clean out the inlet to and outlet from the Works to ensure that these are not obstructed.
13. The Owner shall ensure the immediate clean-out of the Works after a fuel or oil spill capture.
14. The Owner shall ensure that equipment and material for the containment, clean-up and disposal of fuel and oil and materials contaminated with such, is on hand and in good repair for immediate use in the event of:
 - a. loss of fuel or oil to the Works; or
 - b. a spill within the meaning of Part X of the EPA.
15. The Owner shall ensure that all adjacent surface water features (e.g., wetlands, watercourses, and waterbodies) are protected from potential fuel, oil and lubricant spills. Equipment used at the water taking sites is to be located as far away as reasonably practicable from surface water features with containment infrastructure for all fuels and lubricants found at the site, to

prevent spills from entering these features.

16. In the event of a spill or other contaminant release which could cause any detrimental effects on the quality of water discharging from the site, the Owner shall ensure that the discharge is immediately ceased. Furthermore, the Owner shall only resume discharging after an investigation of the incident is undertaken, remedial and preventive measures are taken, and the effluent discharged from the site is deemed not to cause any impairment to the receiver.
17. The Owner shall ensure that the septic tank of the Sewage Treatment Plant (STP) be inspected at least twice per year by trained personnel, and the sewage sludge accumulated in the septic tanks be periodically withdrawn at the frequency required to maintain efficiency of the treatment system. The effluent filter in the septic tank shall be cleaned out at a frequency recommended by the manufacturer, when the tank is pumped out, or as determined necessary by the operator, whichever comes first.
18. The Owner shall have a valid written agreement with a hauler who is in possession of a Waste Management Systems Approval, for the treatment and disposal of the sludge generated from the Works, at all times during operation of the Works.
19. The Owner shall maintain a physical or electronic logbook to record the results of these inspections and any cleaning and maintenance operations undertaken, and shall keep the logbook at the Works for inspection by the Ministry. The logbook shall include the following:
 - a. the name of the Works;
 - b. the date and results of each inspection, maintenance and cleaning, including an estimate of the quantity of any materials removed and method of clean-out of the Works; and
 - c. the date of each spill within any of the catchment areas, including follow-up actions and remedial measures undertaken.
20. 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 operation and maintenance activities required by this Approval.

8. EFFLUENT OBJECTIVES

1. The Owner shall design and undertake everything practicable to operate the Works such that the concentrations or values of the effluent parameters in **Table B-1 in Schedule B** meet the objectives values at the locations specified using the averaging calculator statistic specified.
2. In the event that the effluent water quality consistently exceeds any one or more of the objectives noted in **Table B-1** (i.e. three consecutive monthly average sampling results are above the monthly average concentration objective for a given parameter), the Owner shall, within **four (4) months** of occurrence, submit a study reporting on the causes and impacts of the higher concentration(s), along with a proposed corrective action plan, if the results of the

study indicate that a corrective action plan is necessary, for approval by the District Manager.

9. EFFLUENT LIMITS

1. The Owner shall design, construct and operate the Works such that the compliance limits for the effluent parameters in **Table C-1 in Schedule C** are met at the locations specified.
2. For the purposes of determining compliance with and enforcing subsection 1:
 - a. non-compliance with respect to a Daily Maximum Concentration Limit is deemed to have occurred when any single grab sample analyzed for a parameter named in Column 1 of Table C-1 is greater than the corresponding maximum concentration set out in Column 3 of Table C-1;
 - b. non-compliance with respect to a Monthly Average Concentration Limit is deemed to have occurred when the arithmetic mean concentration of all grab samples taken in a month analyzed for a parameter named in Column 1 of Table C-1 is greater than the corresponding average concentration set out in Column 4 of Table C-1;
 - c. non-compliance with respect to pH is deemed to have occurred when any single measurement is outside of the indicated range.
3. The Owner shall operate and maintain the Works such that the effluent from the Water Treatment Plant is non-acutely lethal to Rainbow Trout and Daphnia magna by ensuring that each Rainbow Trout acute lethality test and each Daphnia magna acute lethality test performed on any grab sample of effluent shall result in mortality of no more than 50% of the test organism in 100% effluent.

10. EFFLUENT - VISUAL OBSERVATIONS

1. Notwithstanding any other condition in this Approval, the Owner shall ensure that the effluent from the Works 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, sheen or foam on the receiving waters.

11. MONITORING AND RECORDING

1. The Owner shall, upon commencement of operation of the Works, carry out scheduled monitoring programs 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 (**Tables D-1 through D-6**) under the monitoring programs included in **Schedule D** and record all results, as follows:
 - a. The Owner shall, upon commencement of operation of the Works, carry out the effluent monitoring program in accordance with **Table D-1 in Schedule D**.
 - b. The Owner shall, upon commencement of operation of the Works, carry out the receiving

water monitoring program in accordance with **Tables D-2 and D-3 in Schedule D**.

- c. The Owner shall, upon commencement of operation of the Works, carry out the groundwater monitoring program in accordance with **Tables D-4 and D-5 in Schedule D**.
 - d. The Owner shall, upon commencement of operation of the Works, carry out the hydrometric monitoring program in accordance with **Table D-6 in Schedule D**.
 - e. 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.
 - f. definitions and preparation requirements for each sample type are included in document referenced in Paragraph 2.a.
 - g. definitions for frequency:
 - i. Thrice (3x) Weekly means three times every week;
 - ii. Weekly means once every week;
 - iii. Monthly means once every month;
 - iv. Quarterly means once every three months;
 - v. Semi-annually means once every six months.
 - h. The measurement frequencies specified in Tables D-1 to D-6 in **Schedule D** in respect to any parameter (i.e., locations/stations, frequencies, parameters, etc.) may, after **three (3) year** of monitoring in accordance with this Condition, be modified by the Director in writing after consultation with the District Manager.
2. 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; and
 - 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; and
 - 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. for any parameters not mentioned in the documents referenced in Paragraphs 2.a, 2.b and 2.c, the written approval of the District Manager shall be obtained prior to sampling.
3. The Owner shall monitor and record the flow rate and daily quantity using flow measuring devices or other methods of measurement as approved below calibrated to an accuracy within plus or minus 15 per cent (+/- 15%) of the actual flowrate of the following:
 - a. final effluent flow discharged from the Water Treatment Plant (WTP) by continuous flow measuring devices and instrumentations.
 4. 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.

12. BIOLOGICAL MONITORING PROGRAM

1. Within **six (6) months** of the issuance of the Approval, the Owner shall submit for approval by the District Manager, a study design for a biological monitoring program. The study design may be, as much as possible, harmonized with the federal Environmental Effects Monitoring (EEM) program, but must also include additional Ministry requirements where specified. The study design shall include at minimum:
 - a. methods for assessing the potential impact from the Site effluent, on biological communities in the receiving surface waters (benthic invertebrates and fish);
 - b. at least one reference and one exposure area, each comprised of 5 sampling locations

- (each of the 5 samples to be comprised of 3 sub-samples);
- c. monitoring of sediment quality (including metals);
 - d. biological triggers that if exceeded will require an investigation of cause; and;
 - e. mitigation measures, established in consultation with the Ministry's Northern Region Office and to the satisfaction of the District Manager, that will be implemented if the Site effluent is found to be the cause of the trigger exceedance(s).
2. Following the acceptance of the study design by the Ministry, the Owner shall carry out the biological monitoring program **every three (3) years** or at such other frequency as agreed to in writing by the District Manager.
 3. Prior to discharge from the industrial sewage works to the Misema River system, the Owner shall carry out baseline biological monitoring at one or more exposure and one or more reference study areas:
 - a. each exposure and reference area shall be composed of 5 replicate sampling locations, taken at a distance of about 20 meters apart, each made up of 3 sub-samples;
 - b. the reference area must be located in an area of similar historical impacts as the exposure area to avoid confounding factors, between the reference and exposure areas, as a result of the historical mining at the Upper Beaver Site;
 - c. at least one exposure area shall be in the 'near field' located as close as possible to the effluent discharge point, but beyond the area of initial discharge zone;
 - d. sediment samples shall be collected at each of the 5 replicate locations and analyzed at minimum for total organic carbon (TOC) and particle size; and
 - e. at each sample location, sediment samples shall also be analyzed for metals.

13. MIXING ZONE VALIDATION ASSESSMENT

1. Within **six (6) months** of the issuance of the Approval, the Owner shall submit for approval by the District Manager, a plan for a mixing zone validation assessment.
2. The plan described in subsection 1 shall include, but not be limited to, the following:
 - a. in-situ conductivity and temperature measurements, or other parameters which are appropriate based on the characteristics of the effluent and the receiver, taken at regular intervals across the mixing zone in a transect or a radius to delineate the extent of the mixing zone;
 - b. the sampling shall occur during effluent discharge at the maximum discharge rate and

- under average and low flows in the receiver; and
- c. reporting requirements and proposed additional monitoring.
3. Following the acceptance of the plan by the Ministry, the Owner shall carry out the mixing zone validation assessment including sampling under average and low receiver flows within **two (2) years** following the issuance of the Approval, or such other date as agreed to in writing by the District Manager.

14. 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 E** 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 maximum treatment or storage 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.

15. REPORTING

1. **One (1) week** prior to the start-up of the operation of the Works, the Owner shall notify the District Manager (in writing) of the pending start-up date.
2. The Owner shall, upon request, make all reports, manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.
3. The Owner shall report to the Spills Action Centre (at 1-800-268-6060) any non-compliance with the effluent limits specified in Condition 9, verbally **as soon as reasonably possible**, and in writing within **seven (7) days** of the exceedance to the District Manager.
4. The Owner shall report to the Spills Action Centre (at 1-800-268-6060) any acute toxicity test failures verbally **as soon as reasonably possible** and in writing within **seven (7) days** of the knowledge of such toxicity test failure to the District Manager. Within **fifteen (15) days** of the toxicity test failure, the Owner shall submit a written report to the District Manager outlining the cause(s) of toxicity and proposed or implemented remedial measures to control toxicity.
5. 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.
6. The Owner shall prepare performance reports on a calendar year basis and submit to the District Manager in an electronic format by **March 31** of each calendar year following the first year when operations commence. The reports shall contain, but shall not be limited to,

the following information pertaining to the reporting period:

- a. a summary and interpretation of all influent monitoring data, and a review of the historical trend of the flow rates;
- b. a summary and interpretation of all effluent monitoring data collected in accordance with Condition 11, including concentrations, flow rates and a comparison to the design objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works;
- c. chronic toxicity test results reporting shall include a plot of percentage reduction in growth or reproduction against the logarithm of test concentration, and a calculation of the concentration at which a twenty-five (25) per cent reduction in growth or reproduction would occur. Further, plume delineation data and the chronic toxicity tests results shall be used to comment on the potential for chronic toxicity within the effluent plume.
- d. a summary and interpretation of groundwater monitoring data collected in accordance with Condition 11;
- e. a summary and interpretation of receiving water monitoring data collected in accordance with Condition 11;
- f. any changes to the groundwater or receiving water monitoring programs (e.g. any new monitoring well locations or sites or any sites to be removed);
- g. a summary and interpretation of all hydrometric data collected in accordance with Condition 11 that includes but not limited to:
 - i. current and historical data provided in a usable format such as Microsoft Excel, updates to rating curves, calibration verification of the flow measurement devices, updates to the hydrometric monitoring plan, a description of the establishment, calibration, and ongoing maintenance of hydrometric stations, and site visits conducted within the year, hydrographs from all stations to visualize flow;
 - ii. current rating curves for all stations, noting if any rating curve shifts were applied based on manually collected data;
 - iii. all manual water level measurements taken over the year, noting ice conditions within the water body;
 - iv. full time series of the water level and flow data for each station within a Microsoft Excel file;
 - v. note which stations are equipped with vented water level loggers, and which are

- corrected for barometric pressure;
- vi. QA/QC procedures, including any anomalies in the dataset noted by field staff; and
 - vii. any other information the District Manager may require from time to time.
- h. a summary of all operating issues encountered and corrective actions taken.
 - i. a summary of all normal and emergency repairs and maintenance activities carried out on any major structure, equipment, apparatus or mechanism forming part of the Works;
 - j. a summary of any effluent quality assurance or control measures undertaken;
 - k. a summary of the calibration and maintenance carried out on the effluent monitoring equipment to ensure that the accuracy is within the tolerance of that equipment as required in this Approval or recommended by the manufacturer;
 - l. a summary of any complaints received and any steps taken to address the complaints;
 - m. a summary of all bypasses, overflows, other abnormal situations and spills within the meaning of Part X of EPA and abnormal discharge events;
 - n. a summary of all Notice of Modifications to Sewage Works completed under Condition 14.8, including a report on status of implementation of all modification;
 - o. any changes or updates to the schedule for the completion of construction and commissioning operation of major process(es) / equipment groups in the Proposed Works; and
 - p. any other information the District Manager requires from time to time.
 - q. summary and interpretation of data collected from geochemical sampling and analysis carried out in accordance with Condition 7(8).
7. Within **one (1) year** of the issuance of this Approval, the Owner shall complete and submit to the District Manager, a storm water control study in accordance with the Ministry's "Protocol for Conducting a Storm Water Control Study" (August 1994), as amended.
 8. Within **one (1) year** of the completion of each study for the biological monitoring program required by Condition 12, the results of the study shall be submitted to the District Manager.
 9. Within **ninety (90) days** of the completion of the mixing zone validation assessment required by Condition 13, the results of the assessment shall be submitted to the District Manager.

16. APPROVAL BEYOND ADVANCED EXPLORATION

1. This Project shall not move beyond the Advanced Exploration stage without an amendment or new environmental compliance approval. Any application for an environmental compliance approval for a subsequent stage of the Project shall be accompanied by all records required by the conditions of this Approval.

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 expiry of approval is included to ensure that, when the Works are constructed, the Works will meet the standards that apply at the time of construction to ensure the ongoing protection of the environment.
3. Condition 3 regarding change of Owner is included to ensure that the Ministry records are kept accurate and current with respect to ownership and Operating Authority 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.
4. Conditions 4 regarding changes in process or materials is included to ensure that the Works are operated in accordance with the information submitted by the Owner relating to the process and materials which are served by the Works, and to ensure that any contemplated changes in them which could potentially affect the characteristics of effluent from the Works will be properly reviewed and approved.
5. Condition 5 regarding construction is included to ensure that the works are constructed, and may be operated and maintained such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented.
6. Condition 6 regarding erosion and sediment control is included as installation, regular inspection and maintenance of the temporary sediment and erosion control measures are required to mitigate the impact on the downstream receiving watercourse during construction until they are no longer required.
7. Condition 7 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.
8. Condition 8 regarding effluent 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.

9. Conditions 9 & 10 regarding effluent limits and effluent visual observations are imposed to ensure that the final effluent discharged from the Works to the environment meets the Ministry's effluent quality requirements.
10. Condition 11 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.
11. Condition 12 regarding biological monitoring program is included to ensure that the design of the program is submitted to the Ministry for review and approval in a timely manner prior to implementation.
12. Condition 13 regarding mixing zone validation assessment is included to ensure there is adequate mixing in the receiver as demonstrated through a mixing zone validation assessment and the plan for such assessment is reviewed and approved by the Ministry prior to implementation.
13. Condition 14 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.
14. Condition 15 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.
15. Condition 16 regarding approval beyond Advanced Exploration is included to ensure the Owner obtain an amendment or new environmental compliance approval for a subsequent stage of the Project.

Schedule A

1. Application for Environmental Compliance Approval for Industrial Sewage Works, dated December 10, 2020 and received on December 14, 2020, submitted by Agnico Eagle Mines Limited, including the assimilative capacity study, water management plan, design reports, engineering drawings, specifications and all supporting documentation and correspondence submitted in support of this application.
2. Memorandum to Steven Momy entitled: “Agnico Eagle - Upper Beaver Zone - Advanced Exploration Project Environmental Compliance Approval Application (November 2020)” prepared by Eva Maciaszek, Surface Water Specialist, MECP, dated May 6, 2021.
3. Memorandum to Steven Momy entitled: “Industrial Sewage Works Environmental Compliance Approval Application for Agnico Eagle’s Upper Beaver Advanced Exploration Project – Hydrologist Review” prepared by Brooke Campbell-Patterson, MECP, dated May 12, 2021.
4. Response to MECP Surface Water Specialist and Hydrologist Comments/ Recommendations on the Upper Beaver Zone Advanced Exploration Project Environmental Compliance Approval Application, prepared by Story Environmental Inc., dated June 17, 2021.
5. Presentation entitled: “Upper Beaver Advanced Exploration Project, Discussion with MECP on the Draft ECA for Industrial and Domestic Sewage”, prepared by Story Environmental Inc., December 2021.
6. Technical Memorandum, Re: Upper Beaver Advanced Exploration Project: ML/ARD Management Plan, prepared by Lorax Environmental, and dated April 15, 2021.

Schedule B

Table B-1: Effluent Objectives

Effluent Parameter	Assessment Location	Averaging Calculator	Objective
CBOD5	Sampling valve on the final discharge pipeline downstream of the Effluent Pumping Station prior to final discharge to the Misema River	Monthly Average Effluent Concentration	15 mg/L
Total Phosphorus		Monthly Average Effluent Concentration	0.05 mg/L
<i>E. coli</i>		Monthly Geometric Mean Density	200 CFU/100 mL*
Total Cadmium		Monthly Average Effluent Concentration	0.0002 mg/L
Total Molybdenum		Monthly Average Effluent Concentration	0.16 mg/L
Dissolved Lead		Monthly Average Effluent Concentration	0.002 mg/L

Note* If the MPN method is utilized for *E. coli* analysis the objective shall be 200 MPN/100 mL.

Schedule C

Table C-1: Effluent Limits

Effluent Parameter	Assessment Location	Daily Maximum Concentration Limit (unless otherwise indicated)	Monthly Average Concentration Limit (unless otherwise indicated)
CBOD5	Sampling valve on the final discharge pipeline downstream of the Effluent Pumping Station prior to final discharge to the Misema River	25 mg/L	-
Total Suspended Solids		30 mg/L	15 mg/L
Un-ionized Ammonia		-	0.04 mg/L
Total Arsenic		-	0.01 mg/L
Total Copper		-	0.01 mg/L
Total Iron		-	0.38 mg/L
Total Nickel		-	0.05 mg/L
Total Lead		-	0.006 mg/L
Dissolved Zinc		-	0.01 mg/L
Toxicity to Rainbow Trout and Daphnia magna		Single Sample Result: Non-acutely lethal (no more than 50% mortality)	
pH		Single Sample Result: 6.0 - 9.5 inclusive	

Schedule D - Monitoring Program

Table D-1: Effluent Monitoring

Effluent Parameter	Sampling Location	Sample Type	Minimum Frequency
CBOD5	Sampling valve on the final discharge pipeline downstream of the Effluent Pumping Station prior to final discharge to the Misema River	Grab	Weekly
Total Phosphorus - low level		Grab	Weekly
<i>E. Coli</i>		Grab	Weekly
Total Ammonia Nitrogen		Grab	Weekly
Un-ionized Ammonia ¹		As Calculated	Weekly
ICPMS Metals Scan (dissolved and total) ²		Grab	Weekly
Mercury ³		Grab	Weekly
Hardness		Grab	Weekly
Sulphate		Grab	Weekly
Total Dissolved Solids		Grab	Weekly
Toxicity to Rainbow Trout		Grab	Monthly
Toxicity to <i>Daphnia magna</i>		Grab	Monthly
Total Suspended Solids - low level		Grab	Thrice (3x) Weekly
Conductivity (Field) ⁴		Grab/Probe/Analyzer	Thrice (3x) Weekly
Temperature (Field) ⁴		Grab/Probe/Analyzer	Thrice (3x) Weekly
pH (Field) ⁴		Grab/Probe/Analyzer	Thrice (3x) Weekly
Chronic Toxicity (Fathead Minnows & <i>Ceriodaphnia dubia</i>) ⁵	Grab	Semi-annually	

Note 1: The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, field pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended.

Note 2: Analysis shall be for both total and dissolved (field filtered) metals. ICP metal scan shall include: aluminium, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, molybdenum, nickel, phosphorus, potassium, selenium, silver, sodium, strontium, thallium, tin, titanium, tungsten, uranium, vanadium, zinc and zirconium.

Note 3: Analysis shall be for both total and dissolved mercury with a Method Detection Limit equal to, or less than, the Canadian Water Quality Guideline (0.000026 mg/L).

Note 4: pH, conductivity and temperature of the effluent shall be determined in the field at the time of sampling for Total Ammonia Nitrogen.

Note 5: The Owner shall perform the chronic toxicity test for fathead minnows according to the procedure described in the Environment and Climate Change Canada publication entitled "Biological Test Method: Test of Larval Growth and Survival Using Fathead Minnows", as amended from time to time; The Owner shall perform the chronic toxicity test for

Ceriodaphnia dubia according to the procedure described in the Environment and Climate Change Canada publication entitled "Biological Test Method: Test of Reproduction and Survival Using the Cladoceran *Ceriodaphnia dubia*".

Table D-2: Receiving Water Monitoring Parameters

(Samples to be collected at the sites and frequencies specified in Table D-3 below)

Parameter	Sample Type
Total Ammonia Nitrogen	Grab
Un-ionized Ammonia	Grab
ICPMS Metals Scan (dissolved and total) ¹	Grab
Mercury ²	Grab
Hardness	Grab
Sulphate	Grab
Total Dissolved Solids	Grab
BOD ₅	Grab
Total Phosphorus - low level	Grab
Total Suspended Solids - low level	Grab
Conductivity (Field)	Grab/Probe/Analyzer
Temperature (Field)	Grab/Probe/Analyzer
pH (Field)	Grab/Probe/Analyzer

Note 1: Analysis shall be for both total and dissolved (field filtered) metals. ICP metal scan shall include: aluminium, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, molybdenum, nickel, phosphorus, potassium, selenium, silver, sodium, strontium, thallium, tin, titanium, tungsten, uranium, vanadium, zinc and zirconium.

Note 2: Analysis shall be for both total and dissolved mercury with a Method Detection Limit equal to, or less than, the Canadian Water Quality Guideline (0.000026 mg/L).

Table D-3: Receiving Water Sampling Sites and Frequencies

Sampling Site	Description ¹	Frequency
MX1	Misema River, approximately 50 metres downstream of the discharge point	Monthly ²
MX2	Misema River, approximately 200 metres downstream of the effluent discharge location	Monthly ²
MX3	Fork Lake outlet	Monthly ²
M3	Misema River/York Lake prior to effluent discharge into Misema River	Monthly ²
V3	Victoria Creek upstream of the confluence with the Misema River	Monthly ²
M1	Outlet of Beaverhouse Lake	Monthly ²
M2	Misema River, approximately halfway between the effluent discharge point and the Fork Lake Outlet	Quarterly

Note 1: As illustrated in Figure 6.2.1 Agnico Eagle Monthly and Quarterly Sampling Locations, dated August 6, 2020, in the document titled Upper Beaver Zone Advanced Exploration Project Sewage Works Design Brief, Design Basis, Drawings and Specifications, prepared by Story Environmental Inc.

Note 2: Monthly samples shall be collected during open water months. During ice-covered and partly ice-covered periods, sampling shall continue on a monthly basis when conditions allow it to be carried out safely.

Table D-4: Groundwater Monitoring Parameters

(Samples to be collected at the monitoring wells and frequency specified in Table D-5 below)

Parameter	Sample Type
Groundwater Elevation	Probe
Total Ammonia Nitrogen	Grab
Total Suspended Solids	Grab
Total Dissolved Solids	Grab
ICPMS Metals Scan (dissolved) ¹	Grab
Mercury ²	Grab
Acidity	Grab
Alkalinity	Grab
Hardness	Grab
Sulphate	Grab
Conductivity (Field)	Grab/Probe/Analyzer
Dissolved Oxygen (Field)	Grab/Probe/Analyzer
Temperature (Field)	Grab/Probe/Analyzer
pH (Field)	Grab/Probe/Analyzer

Note 1: ICP metal scan shall include: aluminium, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, molybdenum, nickel, phosphorus, potassium, selenium, silver, sodium, strontium, thallium, tin, titanium, tungsten, uranium, vanadium, zinc and zirconium.

Note 2: Analysis shall be for both total and dissolved mercury with a Method Detection Limit equal to, or less than, the Canadian Water Quality Guideline (0.000026 mg/L).

Table D-5: Groundwater Monitoring Well Locations and Frequency

Sampling Site	Description	Frequency
MW-UB1S	Located within the overburden unit (varved silty clay), downgradient of the proposed portal area	Three times per year (spring, summer and fall)
MW-UB1D	Located within the shallow fractured bedrock unit (Tisdale Tuff) downgradient of the proposed portal area	Three times per year (spring, summer and fall)
MW-UB2S	Located within the overburden unit (silty clay) upgradient of the proposed Project infrastructure (Background well)	Three times per year (spring, summer and fall)
MW20-UB2D	Located within the bedrock unit upgradient of the proposed Project infrastructure (Background well)	Three times per year (spring, summer and fall)
MW-UB3S	Located within the overburden unit (sandy till) in the vicinity of the shaft complex area	Three times per year (spring, summer and fall)
MW-UB3D	Located within the shallow fractured bedrock unit (Altered Mafic Syenite), in the vicinity of the shaft complex area	Three times per year (spring, summer and fall)
MW-UB4S	Located within the overburden unit (Silty Clay to Silty Sand) downgradient of the RSF, ore pad, and Retention Pond #1	Three times per year (spring, summer and fall)
MW-UB4D	Located within the shallow fractured bedrock unit (undetermined lithology), downgradient of the RSF, ore pad, and Retention Pond #1	Three times per year (spring, summer and fall)
MW-UB5D	Located within the shallow fractured bedrock unit (Altered Mafic Syenite), downgradient of the shaft complex area	Three times per year (spring, summer and fall)
MW-UB6S	Located within the overburden unit (sand) within the area of the historical Upper Beaver West Mine	Three times per year (spring, summer and fall)
MW-UB6D	Located within the shallow fractured bedrock unit (Basalt) within the area of the historical Upper Beaver West Mine	Three times per year (spring, summer and fall)
MW20-UB14S	Located within the overburden unit downgradient of Retention Pond #1 and the Shaft Complex Area	Three times per year (spring, summer and fall)
MW20-UB14D	Located within the shallow bedrock unit downgradient of Retention Pond #1 and the Shaft Complex Area	Three times per year (spring, summer and fall)
MW20-UB15	Located within the overburden unit downgradient of the Rock Storage Facility.	Three times per year (spring, summer and fall)

Table D-5: Groundwater Monitoring Well Locations and Frequency (Cont'd)

Sampling Site	Description	Frequency
MW20-UB16S	Located within the overburden unit upgradient of the proposed Rock Storage Facility (Background Well)	Three times per year (spring, summer and fall)
MW20-UB-16D	Located within the shallow bedrock unit upgradient of the proposed Rock Storage Facility (Background Well)	Three times per year (spring, summer and fall)

Table D-6: Hydrometric Monitoring Program

Station (Waterbody)	UTM Coordinates		In-situ Measurement Parameters	In-situ Level Logger Frequency ¹	Manual Measurement Parameters	Manual Measurement Frequency
	Easting	Northing				
M1 (Misema River at Beaverhouse Lake outflow)	592311	5335601	Flow and Water Level	15-minute	Flow and Water Level	Monthly water level measurements in Beaverhouse Lake and monthly manual flow measurements ²
M2 (Misema River)	591823	5332181	Flow and Water Level	15-minute	Flow and Water Level	Monthly water level measurements and monthly manual flow measurements ²
M-NEW (Misema River)	594160	5338135	Flow and Water Level	15-minute	Flow and Water Level	Monthly water level measurements and monthly manual flow measurements ³
V1 (Baseline Victoria Creek at Victoria Lake outflow)	584590	5338602	Flow and Water Level	15-minute	Flow and Water Level	Quarterly
V3G (Victoria Creek - Reach 2)	591594	5335265	Flow and Water Level	15-minute	Flow and Water Level	Monthly water level measurements and monthly manual flow measurements ²
V3F (Reference Victoria Creek)	590814	5336472	Flow and Water Level	15-minute	Flow and Water Level	Monthly water level measurements and monthly manual flow measurements ²
Ava Lake	592033	5335605	Water Level	15-minute	Water level	Quarterly
York Lake	591915	5335434	Water Level	15-minute	Water level	Quarterly

Note 1: Data from level loggers shall be downloaded quarterly.

Note 2: Monthly manual flow measurements shall be taken during the ice-free season and one measurement during under-ice flow measurement in late winter if it is safe to do so.

Note 3: Monthly manual flow measurements shall be taken during the ice-free season.

Schedule E

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.

1.1 Sewage Pumping Stations

- a. Alter pumping capacity by adding or replacing equipment where new equipment is located within an existing sewage treatment plant site or an existing sewage pumping station site, provided that the modifications do not result in an increase of the sewage treatment plant Rated Capacity and the existing flow process and/or treatment train are maintained, as applicable.
- b. Forcemain relining and replacement with similar pipe size where the nominal diameter is not greater than 1,200 mm.

1.2 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 plant rated capacity is not exceeded and where no land acquisition is required.
- d. Optimizing existing sewage treatment plant 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 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, dewatering equipment, UV systems, chlorine contact equipment, bio-disks, and sludge digester systems.

1.3 Sewage Treatment Plant Outfall

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

1.4 Sanitary Sewers

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

1.5 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 treatment plant or hauled off-site for proper disposal,
 - ii. any effluent from the pilot system discharged to the inlet of the sewage treatment plant or sewage conveyance system does not significantly alter the composition/concentration of the influent sewage 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.

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 <i>(Insert the ECA's owner, number and issuance date and notice number, which should start with "01" and consecutive numbers thereafter)</i>		
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 <i>(Attach a detailed description of the sewage works)</i>
<p>Description shall include:</p> <ol style="list-style-type: none"> 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	
<p>I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:</p> <ol style="list-style-type: none"> 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. <p>I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate</p>	
Name (Print)	PEO License Number
Signature	Date (mm/dd/yy)
Name of Employer	

Part 4 – Declaration by Owner	
<p>I hereby declare that:</p> <ol style="list-style-type: none"> 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 <i>Environmental Assessment Act</i>. <p>I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate</p>	
Name of Owner Representative (Print)	Owner representative's title (Print)
Owner Representative's Signature	Date (mm/dd/yy)

EAPB Form July 26, 2018

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing 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.

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:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Minister of the Environment,
Conservation and Parks
777 Bay Street, 5th Floor
Toronto, Ontario
M7A 2J3

AND

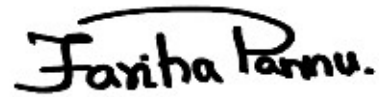
The Director appointed for the purposes of
Part II.1 of the Environmental Protection Act
Ministry of the Environment,
Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

This instrument is subject to Section 38 of the Environmental Bill of Rights, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at <https://ero.ontario.ca/>, you can determine when the leave to appeal period ends.

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

DATED AT TORONTO this 11th day of April, 2022



Fariha Pannu, P.Eng.

Director

appointed for the purposes of Part II.1 of the
Environmental Protection Act

SW/

c: District Manager, MECP Timmins District Office
Maria Story & Jason Plamondon, Story Environmental Inc.