Newfoundland Labrador

Government of Newfoundland and Labrador
Department of Municipal Affairs and Environment
Water Resources Management Division

PERMIT TO ALTER A BODY OF WATER

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 48

Date: **OCTOBER 16, 2017**

File No: **526**
Permit No: **ALT9398-2017**

Permit Holder: **Anaconda Mining Inc.**
P.O. Box 238
Baie Verte, NL, A0K 1B0

Attention: **Rick Canning**

Re: **Baie Verte (Fox Pond) - Installation of Culvert and Dewatering System for the Expansion of Stog'er Tight Gold Mine**

Permission is hereby given for : **the installation of 1-1000mm culvert and a dewatering pump with a capacity of 4361 cubic metre/day to temporarily decrease water levels in Fox Pond from the current water elevation of 114 metres (above sea-level) down to 111 metres (above sea-level) to ensure the safe operations of mine at depth by creating a 15m buffer zone between mining activity and the pond, with reference to the application dated August 9, 2017 and additional information received on October 13, 2017.**

- This Permit does not release the Permit Holder from the obligation to obtain appropriate approvals from other concerned municipal, provincial and federal agencies.
- The Permit Holder must obtain the approval of the Crown Lands Administration Division if the project is being carried out on Crown Land.
- This Permit is subject to the terms and conditions indicated in Appendices A and B (attached).
- It should be noted that prior to any significant changes in the design or installation of the proposed works, or in event of changes in ownership or management of the project, an amendment to this Permit must be obtained from the Department of Municipal Affairs and Environment under Section 49 of the *Water Resources Act*.
- Failure to comply with the terms and conditions will render this Permit null and void, place the Permit Holder and their agent (s) in violation of the *Water Resources Act* and make the Permit Holder responsible for taking any remedial measures as may be prescribed by this Department.

MINISTER

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
Department of Municipal Affairs and Environment

File No: **526**
Permit No: **ALT9398-2017**

APPENDIX A

Terms and Conditions for Permit

Culvert Design

1. A 26.53 metre long - 1000 mm diameter aluminum culvert may be installed at the west end of Fox Pond to ensure undisturbed fish migration near the Town of Baie Verte.

2. The crossing structure must provide adequate capacity to safely discharge flood flows without causing backwater effects upstream or increased flow velocity downstream.

3. To safely convey peak flows the culvert installations must be designed according to the following hydraulic criteria:

Crossing Name / No.	Design Return Period (years)	Design Flow (m^3/s)	Minimum Size (mm)	Number of Pipes	Length (m)
Culvert across an Unnamed Stream of Fox Pond	100	0.035	1000	1	26.53

Culvert Installation

4. Drainage ditches must collect and transport surface runoff in a manner that does not cause flooding, erosion or sedimentation of adjacent land or receiving waters.

5. Inlet and outlet areas of culvert installations must be adequately protected from erosion by placing rip-rap, fitted stone, or concrete headwalls.

6. Culvert installations must follow the stream channel gradient to the maximum extent possible and placed in line with the direction of the main flow to minimize disturbance to the channel. Culverts must not disrupt the flow of water or cause ponding at the upstream side of the installation.

7. In multiple culvert installations, one culvert must be set a minimum of 150 mm lower than the others to provide adequate water depth and velocity for fish passage during low flow conditions. In addition, multiple culverts must be installed within 0.6 to 0.9 metres apart for maximum stability.

8. Where pumping is used to bypass flow, cofferdams must be installed both above and below areas of construction. The Permit Holder must provide pumps with sufficient capacity to prevent washout of cofferdams.

9. Cofferdams must be properly designed and constructed of suitable materials to prevent leakage and to resist loss of any material as a result of erosion. Cofferdams must be removed upon completion of their intended function. All material must be removed carefully to prevent disturbance of the water body and to prevent water quality degradation.

10. All work involving minor alteration to the stream channel to permit culvert placement must be carried out at a time of low flow, and in a manner that prevents downstream siltation and unnecessary alteration of the channel.

11. Grading and finishing of roadways or road embankments must not cause damage to culverts or allow road material to enter the watercourse.

12. Roadside embankments near the watercourse must be adequately protected from erosion by sodding, seeding or placing of rip-rap.

13. Culverts must be inspected regularly so that immediate action can be taken to clear blockages caused by ice or debris or to undertake repairs as required.

14. The inlet and outlet of culverts must be clearly marked so that operators of road grading and snow clearing equipment can avoid blocking culverts.

15. Any damage to culverts during installation or due to inadequate capacity and or improper construction must be reported to this Department. Damaged culverts must be replaced immediately to prevent overtopping, erosion, or flooding.

16. If a culvert is installed in natural fish habitat it must be embedded a minimum of 150 mm below the natural streambed (up to a maximum of 1/3 of the culvert diameter).

Special Conditions

17. The maximum pumping rate must not exceed 3.03 cubic metre per minute or 800 USGPM, based on agreement with the Department of Fisheries and Oceans.

18. Alteration of the natural minimum streamflow is not permitted in order to preserve aquatic life.

19. The natural course of any stream must not be altered.

20. The intake must be fitted with a removable mesh screen or a trash rack.

21. Intake ports must be located above the bottom of the stream, lake, or impoundment, but at sufficient depth to be kept submerged at low water levels and below ice level. The intake structure must not draw air.

22. Adequate protection must be provided against clogging by sediment, debris, ice, frazil ice, wind, floatation and wave pressure.

23. The constructed works must be inspected regularly so that action can be taken to undertake repairs as required.

24. The work must not prohibit, restrict, or impeded public access along the shoreline reservation.

General Alterations

25. Any work that must be performed below the high water mark must be carried out during a period of low water levels.

26. Any flowing or standing water must be diverted around work sites so that work is carried out in the dry.

27. Water pumped from excavations or work areas, or any runoff or effluent directed out of work sites, must have silt and turbidity removed by settling ponds, filtration, or other suitable treatment before discharging to a body of water. Effluent discharged into receiving waters must comply with the *Environmental Control Water and Sewage Regulations, 2003*.

28. All operations must be carried out in a manner that prevents damage to land, vegetation, and watercourses, and which prevents pollution of bodies of water.

29. The use of heavy equipment in streams or bodies of water is not permitted. The operation of heavy equipment must be confined to dry stable areas.

30. All vehicles and equipment must be clean and in good repair, free of mud and oil, or other harmful substances that could impair water quality.

31. During the construction of concrete components, formwork must be properly constructed to prevent any fresh concrete from entering a body of water. Dumping of concrete or washing of tools and equipment in any body of water is prohibited.

32. Wood preservatives such as penta, CCA or other such chemicals must not be applied to timber near a body of water. All treated wood or timber must be thoroughly dry before being brought to any work site and installed.

33. Any areas adversely affected by this project must be restored to a state that resembles local natural conditions. Further remedial measures to mitigate environmental impacts on water resources can and will be specified, if considered necessary in the opinion of this Department.

34. The bed, banks and floodplains of watercourses, or other vulnerable areas affected by this project, must be adequately protected from erosion by seeding, sodding or placing of rip-rap.

35. All waste materials resulting from this project must be disposed of at a site approved by the Department of Service NL.

36. Periodic maintenance such as painting, resurfacing, clearing of debris, or minor repairs, must be carried out without causing any physical disruption of any watercourse. Care must be taken to prevent spillage of pollutants into the water.

37. The owners of structures are responsible for any environmental damage resulting from dislodgement caused by wind, wave, ice action, or structural failure.

38. Sediment and erosion control measures must be installed before starting work. All control measures must be inspected regularly and any necessary repairs made if damage is discovered.

39. Fill material must be of good quality, free of fines or other substances including metals, organics, or chemicals that may be harmful to the receiving waters.

40. The attached Completion Report (Appendix C) for Permit No. 9398 must be completed and returned to this Department upon completion of the approved works. Pictures must be submitted along with the completion report, showing the project site prior to and after development.

41. This Permit is valid for two years from the date of issue. Work must be completed by that date or the application and approval procedure must be repeated.

42. The location of the work is highlighted on the Location Map for this Permit attached as Appendix D.

43. All work must be carried out within the Permit Holder's legal property boundaries.

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
Department of Municipal Affairs and Environment

File No: **526**
Permit No: **ALT9398-2017**

APPENDIX B

Special Terms and Conditions for Permit

1. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall keep all systems and works in good condition and repair and in accordance with all laws, by-laws, directions, rules and regulations of any governmental authority. The Permit Holder or its agent(s), subcontractor(s), or consultant(s) shall immediately notify the Minister if any problem arises which may threaten the structural stability of the systems and works, endanger public safety and/or the environment or adversely affect others and/or any body of water either in or outside the said Project areas. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall be responsible for all damages suffered by the Minister and Government resulting from any defect in the systems and works, operational deficiencies/inadequacies, or structural failure.

2. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall operate the said Project and its systems and works in a manner which does not cause any water related and/or environmental problems, including but not limited to problems of erosion, deposition, flooding, and deterioration of water quality and groundwater depletion, in or outside the said Project areas. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall be responsible for any and all damages associated with these problems caused as a result of changes, deficiencies, and inadequacies in the operational procedures by the Permit Holder or its agent(s), subcontractor(s), or consultant(s).

3. If the Permit Holder or its agent(s), subcontractor(s), or consultant(s) fails to perform, fulfil, or observe any of the terms and conditions, or provisions of this Permit and/or Ministerial orders and guidelines, as determined by this Department, the Minister may, after providing ten (10) day notice to the Permit Holder, amend, modify, suspend or cancel this Permit in accordance with the *Water Resources Act*.

4. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) indemnify and hold the Minister and Government harmless against any and all liabilities, losses, claims, demands, damages or expenses including legal expenses of any nature whatsoever whether arising in tort, contract, statute, trust or otherwise resulting directly or indirectly from granting this Permit, systems and works in or outside the said Project areas, or any act or omission of the Permit Holder or its agent(s), subcontractor (s), or consultant(s) in or outside the said Project areas, or arising out of a breach or non-performance of any of the terms and conditions, or provisions of this Permit by the Permit Holder or its agent(s), subcontractor(s), or consultant(s).

5. This Permit is subject to all provisions of the *Water Resources Act* and any regulations in effect either at the date of this Permit or hereafter made pursuant thereto or any other relevant legislation enacted by the Province of Newfoundland and Labrador in the future.

6. This Permit shall be construed and interpreted in accordance with the laws of the Province of Newfoundland and Labrador.

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cc: Amir Ali Khan, Ph.D., P.Eng.
Manager, Water Rights, Investigations and Modelling Section
Water Resources Management Division
Department of Municipal Affairs and Environment
4th Floor, Confederation Building, West Block
P.O. Box 8700, St. John's NL Canada A1B-4J6
akhan *a* gov.nl.ca

cc: File Copy for Binder

cc: Jonathan Grandy (Western)
Regional Lands Manager, Western Regional Lands Office
Crown Lands Administration Division
Department of Fisheries and Land Resources
Lower Level, Sir Richard Squires Building
84 Mount Bernard Ave, P.O. Box 2006
Corner Brook, NL A2H 6J8
jonathangrandy *a* gov.nl.ca

cc: Fisheries Protection Division
Ecosystem Management Branch
Fisheries and Oceans Canada
P.O. Box 5667
St. John's, NL A1C 5X1
FPP-NL *a* dfo-mpo.gc.ca

cc: Town of Baie Verte
Ms. Angela Furey
P.O. Box 218
Baie Verte, NL A0K 1B0
info *a* townofbaieverte.ca

Newfoundland Labrador

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Appendix C - Completion Report

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 48

Date: **OCTOBER 16, 2017**

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P.O. Box 238
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I (the Permit Holder named above or agent authorized to represent the Permit Holder) do hereby certify that the project described above was completed in accordance with the plans and specifications submitted to the Department of Municipal Affairs and Environment and that the work was carried out in strict compliance with the terms and conditions of the Permit issued for this project.

Date: Signature:

This completion report must be completed and forwarded to the following address upon completion of the approved work.

Department of Municipal Affairs and Environment
Water Resources Management Division
PO Box 8700
St. John's NL A1B 4J6

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
Department of Municipal Affairs and Environment

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APPENDIX D

Location Map for Permit