# HAMMOND REEF GOLD PROJECT RESPONSE TO COMMENTS ON FINAL EIS/EA

## **COMMENT - T-29**

Source: Canadian Environmental Assessment Agency

### **Summary of Comment**

In Table 4-7 of the Hammond Reef Gold Project Site Water Quality TSD, the Proponent has provided the proportions of different rock units (expressed as a fraction) that are encountered in the Project area. This information is also presented in the Hammond Reef Gold Project Geochemistry, Geology and Soils TSD version 2 (page 2/13), where the Proponent has reported the distribution of various rock units in percentage.

It appears that the proportions of various rock units as reported in different TSDs are not consistent. For example, in the Hammond Reef Gold Project Site Water Quality TSD, the proportion of tonalite is reported as 0.49 whereas in the Hammond Reef Gold Project Geochemistry, Geology and Soils TSD version 2, it is reported as 24% for waste rock.

#### **Proposed Action**

Clarify the proportions of various rock units. Explain why the tailings sample has a different composition than the composition of the deposit.

#### Reference to EIS

Hammond Reef Gold Project Geochemistry, Geology and Soils TSD

Hammond Reef Gold Project Site Water Quality TSD

#### Response

The characterization of rock units within the deposit has shown some variability at this stage of the planning process. This inconsistency was identified and discussed in detail in IR MOE-NR-GW-02, and the "Geochemical Sample Representation Letter" found in the Supplemental Information Package of the Version 2 Geochemistry Geology and Soils TSD.

After receiving additional comments on the Final EIS/EA Report, Canadian Malartic Corporation hosted a workshop on June 2, 2014 with the Government Review Team to further discuss and explain water quality modelling methods and predictions. This workshop included detailed explanation of geochemical influence on water quality. Further detail explaining the similarity of the geochemistry of the rock types and tailings is also provided in the attached memorandum entitled 'Water Quality Background Information', which is also provided in Part D of the Addendum to the Version 3 EIS/EA as Attachment 4 of the Final EIS/EA Report Addendum.

Early stage geologic information is developed through various sources, including government records (e.g. OGS open file reports) and various exploration programs by private companies. Several rock types may be similar in nature, and vary only slightly in visual properties or chemical properties, as such different geologists may label these units differently. As the Project develops to a block modelling stage, the units often get further simplified based on key properties to allow for appropriate model development.

The production of tailings samples from metallurgical testing used all available information to develop appropriate samples which were used to test recovery methods for the expected ore. The tailings products from



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the metallurgical testing were relatively large samples (on the order of 10s to 100s of kg) and are the most representative materials with respect to tailings characteristics that are possible to produce, short of operational tailings production.

The geochemical characterization work, by necessity, takes place early in the mine planning process, resulting in some variability. The representativeness of sampling for tailings is described in IR MOE-NR-GW-02 which was provided in Appendix 1.IV of the Final EIS/EA Report in response to comments on the Draft EIS/EA Report.

Based on the information available on tailings, and waste rock sample rock types that make up those tailings, it is considered that the tailings samples produced are reasonable. The results of testing of these samples are appropriately conservative with respect to water quality predictions for the site.

