

April 5, 2022

Attention: Ms. Debra Sikora

Review Panel Chair
Marathon Palladium Project
Impact Assessment Agency of Canada
marathonminereview-examenminemarathon@iaac-aeic.gc.ca

Dear Ms. Sikora,

Reference: Marathon Palladium Project (Ref. Number 54755) – Undertaking #27

I am writing in response to Undertaking 27 from the Panel session held on March 29, 2022.

With respect to Undertaking #27, we enclose information related to the 2021 sampling activities in support of the Country Food Monitoring Program.

Thank you for your consideration of these additional technical filings.

Regards,

Generation PGM

<Original signed by>

Drew Anwyll, P. Eng
Chief Operating Officer
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Cc. Laurie Bruce, Joint Review Panel Member (by email)
Gay Drescher, Joint Review Panel Member (by email)
Jason Patchell, Panel Manager (by email)

Undertaking 27: Soil Sampling

Panel Information Session: 3/28/2022

Undertaking Request # 27

To provide updated data and analysis on soil sampling based on the preliminary results and conclusions from the country food sampling carried out in 2021. On March 31, 2022, the JRP clarified that soil data results were not required, rather it should be confirmed if the soil data would change the assessment in any way.

GenPGM Response

Between September 13 and 17, 2021, five plant species (birch, blueberry, bunchberry, Labrador tea and raspberry) were sampled at five monitoring stations near the Project (Hare Lake, May's Gifts, Airport, Pic River, Field Office) and two reference stations (one to the northwest and another to the southeast of the Project). All five plant species were collected at all monitoring stations except for Labrador tea which was not found at the Pic River monitoring station. Five replicates of each plant species were collected at each location. Soil samples were collected from the root zone of every plant that was sampled.

Between September 11 and 18, 2021, fish were collected from Pic River, Hare Lake and Sand Lake (reference lake for Hare Lake). One northern pike, four walleye, three white sucker, one chinook salmon and two coho salmon were sampled from Pic River. Eleven northern pike and ten yellow perch were sampled from Hare Lake. Nine northern pike and eight yellow perch were sampled from Sand Lake.

All plant, soil and fish samples were submitted to the analytical laboratory for analysis of metals, including mercury. The data will provide baseline concentrations of metals and mercury in plants, soils and fish near the Project and improve understanding of spatial and temporal variability in baseline constituent concentrations.

The baseline data will provide a point of comparison, so that future data for these media can be compared back to baseline, allowing for recognition of any change in plant, soil and fish quality at the harvesting locations. This will serve as a check on the EIS prediction of no substantive change from baseline arising from the Project at these locations.

The soil data, specifically, will facilitate interpretation of any detected change in the quality of country food plant species. For example, if soil and plant quality change in parallel, uptake from soil may be considered as a likely mechanism for the change in plant quality.

The EIS has predicted that there will be no substantive change in constituent concentrations in harvested plants, considering that air quality at harvesting locations is predicted to be minimally changed, and to meet ambient air quality criteria that are protective of terrestrial pathways. Having the updated soil baseline data would not change the prediction of effects in the assessment.

Analytical results and the assessment of those results with respect to human health will be shared with Indigenous groups through established environmental committees. The country food monitoring program is expected to evolve through ongoing engagement activities. The framework for the country food monitoring program was initially described in response to AIR #16 (CIAR #725) with an update provided in the response to IR6-33 (CIAR #950) and the March 29 human health presentation (CIAR #1165).