Supplementary data for near-surface mercury vapour haloes in air above ore deposits and faults on Vancouver Island: Insights into buried materials in real-time?

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Front cover: Measuring mercury vapour concentrations at the Lara polymetallic volcanogenic massive sulphide occurrence, southern Vancouver Island. **Photo by Adrian Hickin.**

Back cover. Atmospheric measurement at exposed terrane-bounding fault, Harling Point, Victoria. **Photo by Adrian Hickin.**

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Keywords: Mercury vapour haloes, portable RA-915M mercury spectrometer, Leech River fault, Vancouver Island, mineral exploration, polymetallic volcanogenic massive sulphide, epithermal Au-Ag-Cu, shear-hosted sulphide Cu-Ag-Au, Lara-Coronation, Mount Washington Copper, Sunro, Bentley Au, Ralph

Summary

This GeoFile serves as a data repository for interpretations presented by Rukhlov et al. (2021). It provides complete field data and plots of real-time mercury vapour concentrations in near-surface air and simultaneously measured meteorological parameters at 15 locations that include the British Columbia Geological Survey and a variety of known ore deposits, fault structures, and barren rocks on Vancouver Island (BCGS_GF2020-13.zip).

Table 1. contains real-time mercury vapour concentrations in air 1-50 cm above ground, simultaneously measured air temperature, relative humidity, atmospheric station pressure, relative pressure adjusted to sea level, wind speed, wind azimuth, GPS locations, and elevation above sea level.

Appendix 1 contains real-time meteorological conditions and Hg vapour concentrations in near-surface atmosphere for each survey of this study. **(a)** Time (s) vs wind speed ($m \cdot s^{-1}$). **(b)** Time (s) vs relative pressure (hPa). **(c)** Time (s) vs relative humidity (%). **(d)** Time (s) vs air temperature (^oC). **(e)** Time (s) vs Hg^0 in air ($ng \cdot m^{-3}$). **(f)** Rose diagram of wind azimuth. **(g)** Frequency distribution, Tukey box plot, and probability plot of Hg^0 in air ($ng \cdot m^{-3}$).

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Reference cited

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