INTERLABORATORY COMPARISON OF SURFACE AND GROUNDWATER MONITORING RESULTS AT THE STIBNITE GOLD PROJECT SITE, 2024

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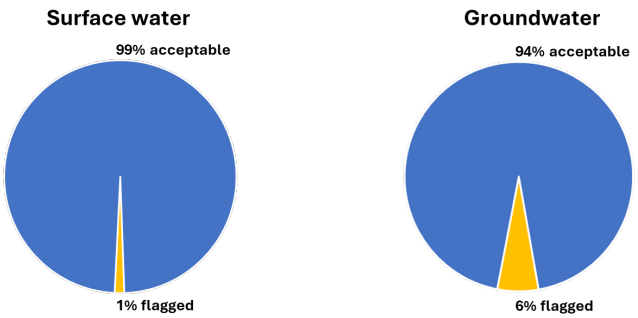

Figure 1. The proportion of acceptable and flagged data from surface and groundwater sampling at the Stibnite Gold Project site in 2024.

Summary

In conjunction with the Stibnite Advisory Council, the University of Idaho has been contracted to independently verify groundwater and surface water quality analyses from the Stibnite Project site. Groundwater samples were collected from 9 sites plus 2 quality control sites on July 24, 2024. Surface water samples were collected from 7 sites along with 2 quality control sites on September 2, 2024. The 2024 surface water sample collection was truncated due to lightning activity near the mine. A total of 25 water quality parameters were evaluated at each of the groundwater and surface water sites resulting in a total of 275 and 225 site-analyte combinations, respectively. The primary objective of this study is to quantify differences in analyte concentrations measured by Anatek Labs in Moscow, Idaho and SVL Analytical in Kellogg, Idaho.

Methods

Collection of ground and surface water for laboratory analysis occurred via split sampling, that is the separation of a water sample into two parts such that each part was representative of the original sample. Water was taken from a single source (e.g., a groundwater well or stream) then divided in two, with each sample analyzed by Anatek Labs (Moscow, ID) and SVL Analytical (Kellogg, ID).

Results

Results of the 225 surface water analyte comparisons indicated that 99% (n=222) were acceptable and 1% (n=3) were flagged (Figure 1). Results of the 275 ground water analyte comparisons indicated that 94% (n=259) were acceptable and 6% (n=16) were flagged. The majority of flagged analyses were for very low concentrations of dissolved chromium close to analytical detection limits.

Conclusions

Based on the results of surface and groundwater quality comparisons in 2024, two primary conclusions can be drawn: 1) there was strong agreement between surface and groundwater analyses performed by Anatek and SVL laboratories; 2) there was no consistent site-specific bias between laboratories relative to any specific analyte.

Perpetua Resources

STIBNITE ADVISORY COUNCIL

Anatek Labs

University of Idaho

For more information, please contact: Dr. Timothy Link (tlink@uidaho.edu), College of Natural Resources, University of Idaho, Moscow, Idaho, 83844