

INTERLABORATORY COMPARISON OF SURFACE AND GROUNDWATER MONITORING RESULTS AT THE STIBNITE PROJECT SITE - 2023

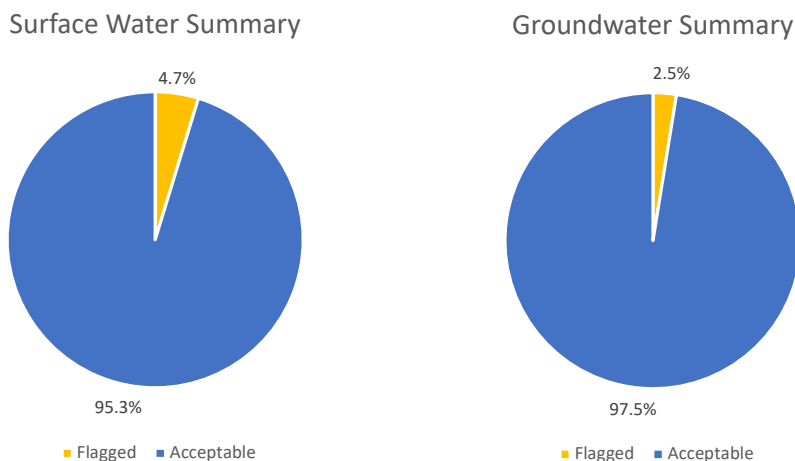


Figure 1. The proportion of acceptable and flagged data from surface and groundwater sampling at the Stibnite Project site in 2023.

Purpose:

In conjunction with the Stibnite Advisory Council (SAC), the University of Idaho (U of I) is contracted to independently assess surface and groundwater quality analyses from the Stibnite Project site. The primary objective of this study is to quantify differences in analyte concentrations reported by SVL Analytical in Kellogg, Idaho and Anatek Labs in Moscow, Idaho.

Methods:

Surface and groundwater samples were collected from 9 sites plus 2 for quality control on August 8 and July 18, 2023, respectively. A total of 25 water quality parameters were evaluated for each of the 11 samples resulting in a total of 275 sample-analyte combinations per sampling event. Collection of surface and groundwater 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 independently analyzed by Anatek Labs (Moscow, ID) and SVL Analytical (Kellogg, ID). Data were transmitted to the U of I for assessment of differences in the analyses reported by the two laboratories.

Results:

Results of the 275 surface water analysis comparisons indicated that 95.3% (n=262) were acceptable and 4.7% (n=13) were flagged. Results of the 275 comparisons of groundwater analyte concentrations indicated that 97.5% (n=268) were acceptable and 2.5% (n=7) were flagged. Most flagged values were for very low concentrations close to the method detection limits.

Conclusions:

Based on the results of surface and ground water comparisons in 2023, two primary conclusions can be drawn: 1) There was strong interlaboratory agreement in both surface and groundwater results between Anatek and SVL laboratories; 2) There was no consistent site-specific or analyte differences between laboratories other than slightly higher (~1 part per trillion) mercury concentrations reported by SVL, mostly at extremely low concentrations.

