

# MINASADAT SEYEDALI, Ph.D.

CONSULTANT (GEOCHEMISTRY)



## EDUCATION

Ph.D., School of Earth and Ocean Sciences (SEOS), University of Victoria, Canada, 2020

M.Sc., Mining Engineering, Amirkabir University of Technology, Iran, 2014

B.Sc., Mining Engineering, Amirkabir University of Technology, Iran 2012

## SUMMARY

Mina has a M.Sc. and B.Sc. in Mining Exploration Engineering with special focus on use of geostatistical techniques in exploration of ore deposits. She completed her Ph.D. in Earth and Ocean Sciences with focus on use of stable isotopes and trace metals in understanding the role of low-temperature hydrothermal systems in evolution of paleo-seawater chemistry. Mina has ten years of research experience in areas of active hydrothermal systems.

Mina joined Robertson GeoConsultants Inc. in 2021 as a consultant in geochemistry. She has extensive experience in operating and interpreting results of various analytical techniques (e.g., ICP-MS, XRD, SEM) as well as implementing predictive models, data processing and visualization.

## PROFESSIONAL HISTORY

2021-present: Consultant (Geochemistry), Robertson GeoConsultants Inc.

2021: ICP-MS Analyst, ALS Geochemistry

## PROJECT EXPERIENCE

### WATER QUALITY DATA PROCESSING AND INTERPERETATION

#### ***Former Bouchard Hebert Mine Site, Quebec (2021-2022) for Breakwater Resources Ltd.***

- Analysis of the chemical characteristics of the groundwater and surface water data from the Industrial Area to identify sources of ARD/ML
- Assessment of groundwater quality near the proposed Seepage Interception System (SIS) near Dike 2 North.
- Assessing contribution of tailing porewater to groundwater and seepages at the Downstream Seepage Area
- ABA analysis and acid potential assessment of partially-oxidized waste rock used to backfill the pit

#### ***Los Bronces Mine Site, Chile (2022) for Anglo American Chile***

- Surface and groundwater analysis to investigate sources of ARD/ML
- Data processing and assisting with GIS maps preparation for the annual environmental report

***Myra Falls Mine, British Columbia (2022) for Nyrstar***

- Data processing and visualization for preparation of the Annual Effluent Report and Annual Reclamation Report

***Faro Mine Complex, Yukon Territory (2021) for CIRNAC***

- Consolidation of recent 2021 water quality data with the old data and update the depth profile plots

***Sandy Flat Mine Site, Australia (2021) for Northern Territory Government***

- Water quality data processing and implementing templates for time-series plots
- Investigating geochemical proxies to differentiate between different seepage types to the groundwater
- XRD analysis for mine waste characterization

**CHEMICAL ANALYSIS*****Various Sites (2021)***

- Operating Inductive Coupled Plasma Mass Spectrometer (ICP-MS) instrument
  - ICP-MS optimization, troubleshooting and tuning
  - Results processing, analysis, and quality control
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**SELECTED PUBLICATIONS**

Seyedali, M., Coogan, L.A., Gillis, K.M., 2021. The effect of solution chemistry on elemental and isotopic fractionation of lithium during inorganic precipitation of calcite. *Geochimica et Cosmochimica Acta*, (Accepted).

Seyedali, M., Coogan, L.A. and Gillis, K.M., 2021. Li-isotope exchange during low-temperature alteration of the upper oceanic crust at DSDP Sites 417 and 418. *Geochimica et Cosmochimica Acta*, 294, pp.160-173.

Seyedali, M., Coogan, L.A., Gillis, K.M., 2019. The effect of solution chemistry on elemental and isotopic fractionation of lithium during inorganic precipitation of calcite. *Goldschmidt conference: 2019002491*

Seyedali, M., Coogan, L.A., Gillis, K.M., 2016. Li-isotopic composition of upper oceanic crust: Implications for the link between global change in climate and seawater chemistry over the past 100 Myr. *American Geophysical Union: PP23C-2343*