

The Canadian
Geotechnical Society



La Société Canadienne
de Géotechnique

CGS Luncheon Presentation

Installation of Groundwater Monitoring Systems in Permafrost Environments - Obtaining Reliable Groundwater Information for Mine Dewatering Designs

Presented by:

Adrian Kowalchuk, P.Geo.

Environmental Geoscientist, Golder Associates

Presentation Abstract:

Two precious metals mines are undergoing development and expansion programs in Nunavut. The initial designs for both sites involve the use of open pit mines, with potential for underground portions to be added in the future. Both mines are located in regions of the arctic with continuous permafrost. The deep groundwater in these environments can be highly saline which can result in increased treatment costs for groundwater removed during mining dewatering operations. Characterization of the groundwater flow conditions, and groundwater chemistry is required early in the development process of a mine site so that the technical and financial requirements for groundwater management can be accounted for in the project design. The baseline information is used to define future effects of the mine workings on the groundwater flow regime and overall site water quality from development to post-closure. This presentation will discuss the installation and testing of groundwater monitoring wells designed for deep permafrost environments.

About the Presenter(s):

Adrian is an environmental geoscientist with Golder Associates. Adrian graduated with his B.Sc. in Geoscience from the University of Manitoba and has over 12 years of experience in geoscience, specializing in environmental remediation and characterization projects in Manitoba, Ontario, and Nunavut. Adrian also specializes in site characterization projects of deep geological repositories for the long-term storage of used nuclear fuel.

Date: Thursday, December 10, 2020

Time: Presentation at 12:00 PM

Registration Fee: Free Event!

Location: MS Teams Meeting

For event information, please visit:

<http://www.cgsmanitoba.ca/lunch-seminars/upcoming/>

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