NWB Tools

Richard Dwyer <richard.dwyer@nwb-oen.ca>

meliadine Updated water management plan

Parsons, Ian (AADNC/AANDC) <ian.parsons@canada.ca> Wed, Dec 4, 2019 at 11:46 AM
To: Richard Dwyer <richard.dwyer@nwb-oen.ca>, Licensing Department <licensing@nwb-oen.ca>
Cc: "Okonkwo, Godwin (AADNC/AANDC)" <godwin.okonkwo@canada.ca>, "Forte, Sarah (AADNC/AANDC)" <sarah.forte@canada.ca>

Hi Richard,

In reviewing the latest updated water management plan for Meliadine CIRNAC had two questions for AEM.

CIRNAC took the proactive approach of emailing AEM the questions directly hoping for quick resolution as the questions were only to provide clarity on the movement of water to and from the storage ponds as it related to the mining activities at site. As the answers provided by AEM satisfied our concern we decided that a memo was not needed in this case and an email would suffice.

In reviewing the responses from AEM CIRNAC is satisfied with the responses as it has provided the information that was asked and now the movement of water around site can be followed. And recommends that the description provided be added to the water management plan.

I have attached CIRNAC questions and AEM responses for the board's files.

1) Can you please describe to me the mining plan of the pits as it relates to the saline ponds?

In reading the documentation I understand that SP4 will be developed so that SP2 can be dewatered and pit 2 can be mined. However what is not clear is if pit 1, where SP4 will be located is fully mined or not.

I can't seem to follow the scheme here. Please explain further.

2) Is there a SP3?

Any additional information you can provide would be greatly appreciated.

Here are the answers for your questions,

1- The mining plan of the pits relates to the saline ponds as SP2 and SP4 are located within the footprint of Tiriganiaq Pit 2 and Tiriganiaq Pit 1, respectively. As stated, SP4 will be developed to allow the draining of SP2 and the proceeding

mining of Tiriganiaq Pit 2. SP4 will then be drained to allow mining of Tiriganiaq Pit 1. Draining of SP4 will be made possible by a combination of treatment, discharge to sea and/or freeing up of additional storage. The requirement of additional storage will be dependent on the performance of treatment and discharge to sea as well as on the realized groundwater inflow rates. The current submitted water management plan is based on our site hydrogeological model, which expects that the storage provided by SP4 will be sufficient for the LOM. However, in the event that higher than expected inflows are realized, the mine plan as it relates to open pits, can be adapted to provide additional storage (for example mining Tiriganiaq Pit 2 can be stopped to accommodate saline water storage needs and SP4 water can be transferred so that mining of Tiriganiaq Pit 1 is made possible). Furthermore, additional adaptive management measures with regards to saline water at Meliadine are being explored but are not expected to be required at this time.

2- SP3 is the lined containment pond (maximum storage capacity 7,985 m3) implemented in 2019. The purpose of SP3 is to store treated saline water exiting the Saline Effluent Treatment Plant (SETP) before it is transported to Itivia for discharge into the marine environment. SP3 is used only to temporally store treated water from the SETP and is emptied at the end of each open water season.

Regards,

Ian Parsons

Regional Coordinator, Water Resources, Nunavut Regional Office

Crown-Indigenous Relations and Northern Affairs Canada

ian.parsons@canada.ca / Tel : (867) 222-9278

Coordinateur régional, Resources hydriques, Bureau régional du Nunavut

Relations Couronne-Autochtones et Affaires du Nord Canada

ian.parsons@canada.ca / Tel : (867) 222-9278