

February 12, 2019
Project No: 1CT022.028

Vice President Environmental Affairs
TMAC Resources Inc.
Suite 1010 – 95 Wellington Street West
Toronto, Ontario, M5J 2N7

Attention: Oliver Curran, MSc, Vice President Environmental Affairs

Dear Oliver:

RE: Boston Advanced Exploration Project: 2018 Annual Geotechnical Inspection

TMAC Resources Inc. contracted SRK Consulting (Canada) Inc. to conduct a geotechnical site inspection on their Boston Advanced Exploration Project in Nunavut, which has been intermittently used since its construction in 1993. The camp was temporarily closed and placed under Care and Maintenance (C&M) in November 2011. In 2017, the camp was re-opened for one summer season of exploration activities but has remained closed since then. This geotechnical inspection is an annual requirement in response to Part D, Item 13 of TMAC's Water Licence 2BB-BOS1217 issued by the Nunavut Water Board (NWB) on July 26, 2017.

Following the 2015 annual geotechnical inspection (AGI), SRK recommended that TMAC adopt a Surface Infrastructure Geotechnical Monitoring Program (SIGMP), followed by an annual audit style geotechnical inspection as documented in the 2016 AGI report. In 2018, TMAC however decided to revert to the pre-2016 approach of a comprehensive AGI, which is the subject of this letter.

The 2018 geotechnical site inspection was carried out by Principal Consultant Maritz Rykaart, PhD, PEng on August 5. Maritz was not accompanied by any TMAC personnel while he completed his walkover survey of site. Kyle Conway, Environmental Supervisor for TMAC accompanied Maritz during the aerial reconnaissance of the site via helicopter.

Formal geotechnical inspections of the Boston Camp have been carried out annually since 2007, and those reports are filed on the Nunavut Water Board (NWB) public registry. All previous inspections have been conducted by SRK. This letter presents the findings of the 2018 geotechnical inspection.

Except for some thermal erosion issues manifested on the airstrip and the western camp slope, the 2018 AGI generally showed no appreciable differences to 2017 conditions. The old lined sump still requires

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repairs if it was to be used, but since there are no immediate plans to recommission this sump its current state is not of concern.

The airstrip does have more pronounced shoulder tension cracks as illustrated in Photos 1 and 2 below, with some extending up to 3 m onto the runway. Some cracks are up to 100 mm wide at surface; however, their rounded surface edge suggest they are not new but are continuously progressing, which is supported by the fact that the cracks are associated with localized depressions, some extending 3 m from the shoulders onto the runway. There are also new smaller cracks, also extending a few meters onto the shoulder. Both old and new cracks are prevalent along most of the runway shoulders but are more pronounced in areas where seasonal ponding is experienced (see right-hand photo below).

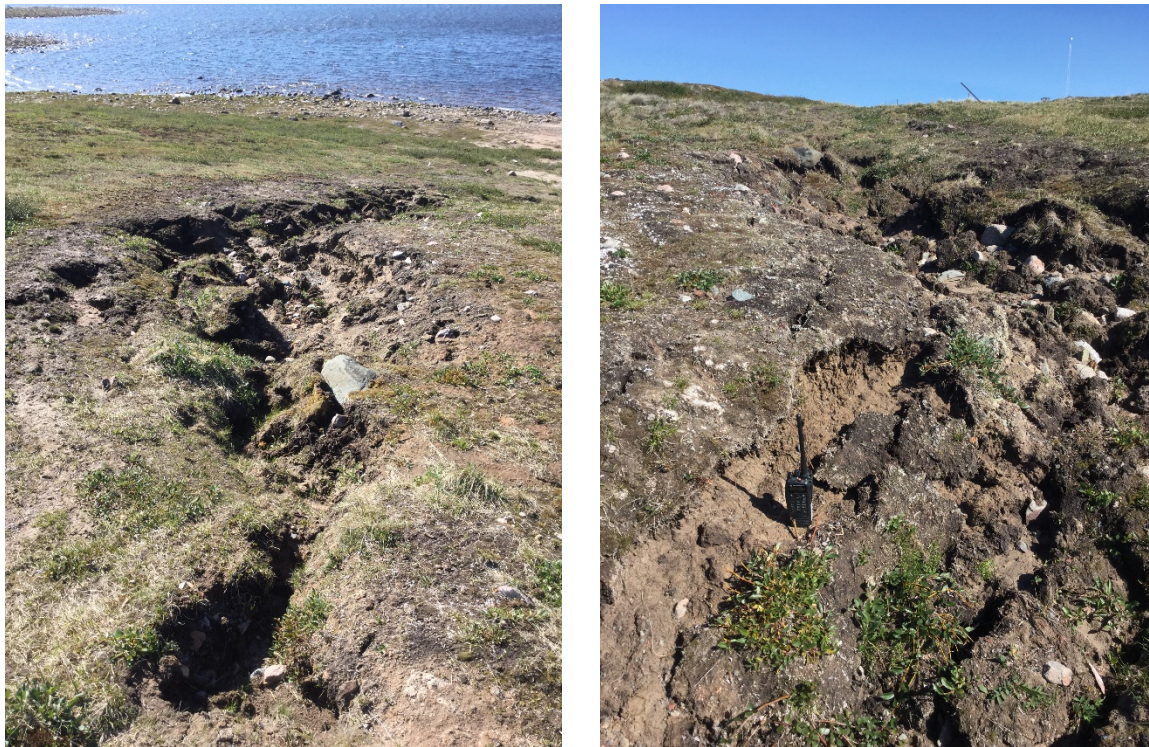
These cracks and depressions are normal and form because of permafrost thaw associated with the airstrip rockfill placed directly onto the tundra, thereby deepening the active layer along the shoulder where the fill is thin. This has always occurred but is more visible now because airstrip regrading and maintenance has not been carried out for several years. Beyond the affected airstrip shoulders, the central part of the runway appears relatively smooth with no major depressions. The condition of the runway is likely sufficiently compromised that aircraft operators should conduct an inspection of the runway prior to using it to satisfy themselves that they can operate aircraft safely. Based on recommendations by the aircraft operators, TMAC may have to carry out some airstrip maintenance, likely in the form of regrading of the runway surface.



Photos 1 and 2: The left-hand photo shows some of the more extensive and wider shoulder tension cracks along the airstrip shoulder. The right-hand shoulder depicts some of the newer, but still extensive shoulder cracking.

Photos 3 and 4 below shows an erosion gulley along the western slope of the camp leading towards Aimaokatalok Lake. Historically, water has been discharged in this area causing the original gulley. It is however apparent that this gulley is increasing because of thermal erosion as evidenced from the fresh scarp cuts, which were not present in 2017, along the gulley perimeter as shown on the photos. Multiple tension cracks extend beyond the exposed scarps, which confirm that this thermal erosion is progressing rapidly.

TMAC will have to remediate this area; however, considering the fact that there are no suitable construction material or equipment at the site to readily do this, SRK recommends that as a minimum TMAC install silt fencing downstream of the area to avoid sediment loads from entering Aimaokatalok Lake. When construction of the Phase 2 Boston mine commences, this area will however have to be permanently remediated. Meanwhile the area must be monitored carefully (visually), and if the erosion progresses extensively alternate remediation plans may be required.



Photos 3 and 4: The left-hand photo is looking downstream from the camp towards Aimaokatalok Lake showing the extent of the erosion feature. The right-hand photo shows a close-up depicting some fresh scarps suggesting thermal erosion progression during the 2018 summer season.

Table 1 below summarize the overall recommendations stemming from the 2018 AGI completed for the Boston Advanced Exploration Camp.

Table 1. Summary of Recommendations – Boston Advanced Exploration Project 2018 AGI

Observation	Recommendation
Extensive shoulder tension cracks and depressions along most of the runway shoulders caused by permafrost thaw of underlying foundation.	<ul style="list-style-type: none">• Prior to landing any aircraft on the runway, the aircraft operators should conduct their own assessment of the runway conditions and make recommendations for maintenance.
Ongoing progressive thermal erosion of existing erosion gulley west of the camp, upstream of Aimaokatalok Lake.	<ul style="list-style-type: none">• Install silt fencing downstream of the erosion gulley to minimise risk of sediment release to Aimaokalaok Lake.• Continue to monitor area carefully and implement permanent remediation if damage becomes excessive. Remediation may be deferred until Phase 2 Boston mining commences.

Sincerely,

SRK Consulting (Canada) Inc.

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Maritz Rykaart, PEng, PhD
Practice Leader

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