Appendix 10

Meadowbank 2020 Annual Pit Slope Performance Review

AGNICO EAGLE
MEADOWBANK

REPORT FOR

2020 Annual Pit Slope Performance Review

Meadowbank Mine, Nunavut

JANUARY 7, 2021

TETRA TECH

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EXECUTIVE SUMMARY

Tetra Tech Canada Inc. (Tetra Tech) completed the 2020 annual site visit to inspect the pit slope performance and in-pit waste dump performance at Agnico Eagle Mines Limited (Agnico) Meadowbank Mine. Mining of the Meadowbank Mine open pits was completed in October 2019, with Pit E being the final pit mined. Tailings deposition to the inactive Goose Pit began in 2019 and to Pit E in 2020 with plans to expand tailings deposition to Pit A.

The annual inspection is required as part of the Type-A, Part I, Item 12 Water License which indicates the inspection of the pits by a third party to assess their performance.

The annual site visit was carried out during the period 24 August 2020 to 31 August 2020. The inspection included the following areas:

- Portage Pit A (inactive pit, active water management, future tailings disposal);
- Portage Pit B (inactive pit and inactive in-pit dump);
- Portage Pit C (inactive pit and inactive in-pit dump);
- Portage Pit D (inactive pit and active in-pit dump);
- Portage Pit E (inactive pit, inactive in-pit dump, active tailings disposal);
- Goose Pit (inactive pit, inactive in-pit dump, active water management);
- Vault Pit (inactive pit and inactive in-pit dump);
- Phaser Pit (inactive pit); and
- BB Phaser Pit (inactive pit).

A review of available geotechnical monitoring instrumentation for the Pit E, Goose Pit, and Vault Pit (piezometers, thermistors, inclinometer, Time Domain Reflectometry (TDR), seepage data), and associated ground control measures and inspection reports since the last annual inspection was completed. These data sets are presented in Appendices A, B, and C, respectively. As the pits transition into various states of closure or use for water management and tailings, the need for bi-weekly instrumentation monitoring can be reduced or in some cases eliminated. In some cases, the instrumentation can be re-purposed; for example, the instrumentation installed behind the South Wall of Pit E and the East Wall of Goose Pit is now included for review as part of the on-going dike instrumentation monitoring plan. Vault Pit, which is now closed, no longer requires monitoring of instrumentation. Future pit inspections will focus more on pit areas that continue to place personnel, equipment, or infrastructure below pit walls as part of the management of the tailings facilities.

Many of the observations and recommendations presented following this year's inspection consider the possible effects that tailings deposition might have on pit slope stability. Where possible, these are referred to studies by Tetra Tech (2018a, 2018b) which assessed the potential risks associated with tailings deposition into the mined-out pits.

GEOTECHNICAL REPORTING

The last quarterly report summarizing instrumentation monitoring and field observations was June 2019. This is presented in Appendix D. Regular bi-weekly pit wall inspections were continued until July 10, 2020, just before final mining at Pit E. These are presented in Appendix E. Rockfall events that are within the pits used for tailing and water management and where there is the potential for worker access will continue to be recorded in the rock fall log and reported to the Mines Inspector as per Sections 16.01 and 16.02 of the Mine Health and Safety Act and Regulations for NWT and NU. Rockfalls in restricted pit areas where there is no worker access will no longer be reported, but may be recorded to maintain an updated reference database. The rockfall log is presented in Appendix F.

Following the completion of mining in October 2019, and the transition of the pits to tailings and water management facilities, the bi-weekly inspections and quarterly inspection reviews have been reduced to monthly inspections to reflect the restricted access to the pits and dumps as the operation transitions from open pit mining to tailings and water management. The formal monthly inspections are supplemented by informal but regular general inspections of the site which are focussed more closely on areas where personnel access may still be required for pump maintenance and moving of tailings and reclaim water pipelines.

GEOTECHNICAL RISK PRIORITY CLASSIFICATION SYSTEM

Agnico have developed a geotechnical risk priority classification system as part of their focus on continuous improvement.

- **Priority 1 (P1) -** A high priority or structural safety issue considered immediately dangerous to life, health or the environment. Also includes issues with a significant risk of regulatory enforcement.
- **Priority 2 (P2) -** An issue that, if not corrected, could plausibly result in a structural safety issue leading to injury, environmental impact or significant regulatory enforcement. Also includes repeated deficiencies that demonstrate a systematic breakdown of procedures.
- **Priority 3 (P3) -** Single occurrences of deficiencies or non-conformances that in isolation are unlikely to result in structural safety issues. Also includes recommendations for pro-active measures.
- **Priority 4 (P4) -** Opportunity for improvement, for example to meet industry best practices.

The key recommendations provided as part of this inspection are tabulated in Table 8-1, and ranked in order of this qualitative scale to allow prioritization of efforts to address areas of risk.

PORTAGE PITS

The Portage Pit is subdivided into five pits, labelled A through E from north to south. Mining of the pits was finished in October 2019.

PIT A

The pit is currently being used to manage site water, and the pit lake is combined with Pit B pit lake. The pit lake is at elevation 5085 mRL. Most of the geotechnical hazards associated with the pit walls are submerged by the current pit lake level and no longer present a risk. Pit A will be transitioned to tailings storage in 2021.

- Since there is no longer any regular access to this pit, bi-weekly pit wall inspections and quarterly inspection summaries can be suspended.
- General (informal) visual inspections could be undertaken when the opportunity presents.

PIT B (B DUMP)

The Pit B is currently being used for site water management along with Pit A, and the combined lake elevation is currently 5085 mRL. A pump station and controls are located on the south access ramp to the pit, which passes between C Dump and B Dump, and then travels north to the current pit lake at elevation 5085 mRL. Pump maintenance and movement of water lines require regular visits to this area, including working near the toe of B Dump. Most of the geotechnical hazards associated with the pit walls are submerged by the current pit lake level and no longer present a risk.

The B Dump platform has experienced significant settlement in the past. As the lake level continues to rise, ongoing settlement should be expected, and the dump platform should remain closed. During the inspection of the dump platform it was noted substantial sinkholes had developed. On further inspection, it was determined that a depression on the upper dump platform allowed ice and snow to accumulate during winter leading to outflow of large water volumes to the lower platform during freshet.

- Maintain the B Dump crests as closed and inactive and ensure barrier berms are installed to prevent vehicles from accessing the crest area.
- Since personnel will be accessing the pit lake at the bottom of the Pit B ramp to maintain the pit water management system in place, visual inspections of the dump platforms and dump faces should be included in the monthly inspections.
- If practical the depression at the north end of the upper dump should be backfilled and graded to prevent the release of water to the lower dump platform and the ongoing development of sinkholes.

PIT C (C DUMP)

There has been no change in the geometry of C Dump since the 2019 site inspection. A new garage (ABF Garage) was constructed at the north end of the dump platform, between 35 m and 47 m from the dump crest. As the water in Pit A/B rises, it will infiltrate the waste dump voids and could lead to settlement of the dump platform, conceivably extending back to the garage slab. This is based on observations of dump performance at Goose Pit and at B Dump. Furthermore, the garage slab elevation is 1 m lower than the planned final lake elevation for the tailings facility.

- An alternate location for the ABF Garage should be identified outside of the tailings management areas, and an appropriate geotechnical evaluation of the new site should be undertaken prior to proceeding with construction.
- The dump platform should be bermed off, and the platform closed to all access. A berm should be placed to restrict access to the dump platform following relocation of the ABF Garage.

PIT D (D DUMP)

Tension cracks observed on the D Dump platforms during previous inspections do not show any additional growth or reactivation. The crest along the west side of the 5126 mRL platform shows some settlement and tension crack formation. Agnico installed two wireline extensometers to monitor the dump following recommendations made during the 2019 inspection. The extensometers show little to no movement. A reclaim water line is planned along the Pit E west wall ramp below the dump. As the water level in Pit E rises, D Dump will be inundated by water and this will likely lead to additional settlement and deformations of the dumps and this should be regularly monitored.

- Continue to maintain the D Dump crests as closed and inactive and ensure barrier berms are installed to prevent vehicles from accessing the crest area.

- The development of any infrastructure on the closed in-pit dumps (B Dump, C Dump and D Dump) should be prohibited.
- Maintain and monitor the existing wireline extensometer to confirm dump stability in the area above the access ramp which will continue to be used to access pump controls and the pump station during filling of the Pit E tailings area.
- Continue visual monitoring as part of monthly inspections the D Dump platforms, crests, and dump faces, s and recording of observations such as tension cracks, crest settlement, or dump profile changes.

PIT E

Mining of the Portage Pit E was completed in Q4 2019. The pit is now being used as a tailings management facility, for tailings storage and water management. The pit lake water elevation was approximately 5015 mRL at the time of the site visit. The instrumentation in the south crest area continues to be maintained and monitored, although formal quarterly reporting is not currently being undertaken. The radar system used to monitor the south wall of the pit until the end of mining has been removed.

The East Wall continues to perform well and there are no significant geotechnical concerns.

The South Wall experienced three rockfall events above the south ramp, associated with the weak ultramafic rock and adversely oriented structure. The ramp has been closed to access.

Subsidence and sinkholes were noted to have developed on the ring road at the crest of the south wall, adjacent to the location of the south wall sump. The access to the ring road from the west side is blocked to prevent access and an alternate entry to the instrumentation at the crest of the South Wall has been constructed from the east. If the South Wall sump is not pumped there may be additional erosion of the road prism; however, the South Ramp to Portage Pit E is also bermed, and there is no access for personnel near this area.

Tailings are currently being discharged from the crest of the south end of the West Wall, near the south ramp entry to the pit. The tailings are being discharged on to weak ultramafic rock. Agnico should monitor the crest area and pit wall closely for the possible development of tension cracks in the adjacent road surface, and any other signs of instability in the bench faces.

The West Wall Ramp remains accessible although it is not currently maintained. The nine key areas of potential instability observed immediately adjacent to the West Wall Ramp were reviewed. The rockfall berm has been well maintained and shaped, and access below this area is restricted. However, a pump station is planned to be located adjacent to this area. It is recommended that this be relocated higher up the ramp, away from this potential rockfall risk.

A water reclaim line is planned to run along the inside edge of the ramp, butted against the rockfall berm, extending to the switchback at the 5040 mRL elevation. It is recommended that the reclaim line be moved to the outside edge of the ramp, abutting the berm, so that it is not directly exposed to the rockfall hazards that have been identified along the west wall.

- Continue to maintain the South Ramp as closed and inactive and ensure barrier berms are installed to prevent vehicles and personnel from accessing the area.
- Continue to maintain the South Wall ring road as closed and inactive to all vehicles and personnel.
- Incorporate monitoring of the thermistor and piezometer instrumentation installed behind the South Wall of the pit into the dike instrumentation monitoring program. The monitoring can be scaled back to exclude TDR and inclinometer readings; however, the ongoing collection of the thermistor and piezometer data is important to

develop a record of the response of the thermal and hydrogeological regime to the introduction of tailings and water. This may become important information for modelling other aspects of the management areas in the future, such as for closure purposes.

- Implement bi-weekly inspections (once every two weeks) of the ultramafic wall performance at the tailings discharge point to identify indicators of potential instability such as formation of tension cracks, erosion and degradation of the rock mass, bench scale failures.
- If practical, relocate the planned pump station location on the West Wall Ramp to an area further up the ramp, clear of potential rockfall risk areas, if practical to do so. If not practical, ensure appropriate rockfall containment berms in place to protect pump station and personnel.
- If practical, relocate the reclaim water line on the West Wall Ramp to the outside edge of the ramp, away from potential rockfall risk areas, if practical to do so. If not practical, ensure rockfall containment berm along inside of ramp is well maintained and sufficient to control rockfall hazards.
- Continue visual monitoring and recording of observations of rock falls and other potential instability as part of regular monthly site geotechnical inspections in areas where personnel, equipment, or infrastructure could be affected. This will predominantly be the West Wall Ramp that access the pit for the placement of a water reclaim line, pump station and pump controls.

GOOSE PIT

The pit lake elevation at the time of the site visit was 5115 mRL, and only the uppermost first single bench platform was visible above water.

TAILINGS DISCHARGE

Tailings were not being discharged to the pit at the time of the site visit, but ongoing use as tailings management facility is planned. The area where tailings had been discharged was reviewed for any indications of erosion or degradation of the rock mass and none were seen. Tailings had been discharged over the competent and strong intermediate volcanic rock as recommended previously by Tetra Tech.

- Continue visual monitoring and recording of observations as part of monthly site geotechnical inspections.

IN-PIT WASTE ROCK DUMPS

The in-pit waste rock dumps at the Goose Pit have been inactive since 2017. The toe of the dumps extends out into the Goose Pit Lake. The South Dump platform that was accessible during the 2019 inspection is no longer visible as it is beneath the lake surface. Tension cracks and significant settlement of n the North Dump continues. This is likely in in response to the increasing pit lake elevation. The extent of the affected area extends some 40 m behind the crest of the dump.

A pump station is located adjacent to the entryway to the North Dump platform, effectively blocking vehicle entry. Additionally, coarse rockfill berms have been constructed.

- Maintain restricted access to the in-pit dump platform and ensure barrier berms are installed to prevent vehicles and personnel from accessing the area.
- Continue visual monitoring and recording of observations as part of monthly site geotechnical inspections (P3).

GOOSE PIT INSTRUMENTATION

A review of the instrumentation installed along the east wall of the pit showed no significant changes in measurements for the TDR cables, thermistors, and piezometers. However, it was noted that no new TDR readings had been taken since December 2019.

- Incorporate monitoring of the instrumentation with the dike instrumentation monitoring program. The instrumentation to be monitored can be scaled back to exclude the TDR readings.

VAULT PIT

Mining of the Vault Pit was completed in March 2019 to a final depth of approximately 4955 m. The pit and in-pit dumps are inactive, and access to these areas is restricted by barrier berms. Access to the base of the pit for water quality sampling is undertaken by the environmental group, and prior to pit entry a member of the Agnico geotechnical team carries out a visual inspection of the pit.

The pit walls continue to perform well. There are no geotechnical concerns relating to the pit wall performance.

There is no active water management for the pit and all pumps and dewatering systems have been removed.

- Continue to maintain the pit as closed and inactive and ensure barrier berms are installed to prevent vehicles and personnel from accessing the area.
- Prior to entering the pit for sampling of the pit lake, visually inspect the area of the ring road where subsidence has been observed, as well as the in-pit dumps, and general condition of the pit walls.
- Since there are no longer any regular in-pit activities, regular inspections can be suspended, with the exception of requirements prior to entering the pit for water sampling. General (informal) visual inspections can be undertaken when the opportunity presents.

SOUTHEAST WALL WATER INFLOWS

High water inflow through the base of the ring road at the southeast crest of the pit that was noted in 2019 was absent during the 2020 inspection. Water continues to flow from the 5109 mRL bench elevation as it has since the bench was originally exposed.

RING ROAD SUBSIDENCE

Significant subsidence was noted in the ring road along the north side of the pit which was not present during the 2019 inspection. The road subsidence on the east (Pond D) side of the road measured approximately 75 m in length and approximately 20 m in width. The area of settlement is located where the ring road crosses the former Vault Lake, and the current elevation of Pond D results in water ponding against the road material.

- Berm off access to the ring road from the north end of the pit; the south end of the ring road is currently bermed to prevent access.
- Prior to entering the pit for collection of water samples, the area of subsidence should be visually inspected by a member of the geotechnical team for any significant changes to the road surface.

VAULT PIT DUMPS

Minor tension cracks were noted during previous inspections on the 5133 mRL dump platform remain dormant. There are no indications of dump instability. As the pit continues to fill naturally with water, and the water begins to infiltrate the dumps, some additional platform subsidence and deformation at the dump toe will likely occur.

- Prior to entering the pit for collection of water samples, the dump crests and dump faces should be visually inspected by a member of the geotechnical team for any indications of increased platform or slope deformation, or any other significant changes.

VAULT PIT INSTRUMENTATION

The ground temperature profile for VPIT-1 has changed significantly since October 2019 and may indicate the instrument is malfunctioning.

- The pit is inactive and bermed to prohibit access; consequently, monitoring of the instrumentation can be suspended and the instruments can be decommissioned as necessary.

PHASER AND BB PHASER PITS

The Phaser Pit and BB Phaser Pit are southward extensions of the existing Vault Pit. Both pits are inactive and are filling with water.

PHASER PIT

Mining of Phaser Pit was completed in Q3 2018 to a final elevation of approximately 5090 mRL. On the day of the site visit the Phaser Pit lake was at an elevation of approximately 5105 mRL. Only one bench remains visible due to the pit lake. The pit walls continue to perform well and there are no signs of rock instability. The long-haul road to Amaruq crosses the pit from crest to crest. The performance of the road is monitored as part of the monthly geotechnical inspections.

- Maintain restricted access to the pit and the ring road at the crest.
- Since there are no longer any regular in-pit activities, regular inspections can be suspended. General (informal) visual inspections can be undertaken when the opportunity presents.

BB PHASER PIT

Mining of BB Phaser Pit was completed in Q2 2019 to a final elevation of approximately 5088 mRL. On the day of the site visit the BB Phaser Pit lake was at an elevation of approximately 5123 mRL. only the top 3 to 5 m of rock benches was visible above water level. The pit walls are generally performing well and there are no signs of rock instability.

- Maintain restricted access to the pit and the ring road at the crest.
- Since there are no longer any regular in-pit activities, regular inspections can be suspended. General (informal) visual inspections can be undertaken when the opportunity presents.

SINKHOLES AND ROAD SETTLEMENT

During the inspection of BB Phaser Pit in 2019, sinkholes were noted to be developing on the access road that separates the two pits. The road is no longer considered active but is still accessible. The sinkholes were absent at the time of the 2020 site visit, and it appeared the road had been regraded.

- Deactivate road and berm off to prevent use.

ROCK FALL DATABASE

Agnico continue to update the Meadowbank site rock fall database as part of their Ground Control Management Plan (GCMP). The rock fall database includes rock fall observations from all the pits at the Meadowbank Project site. The location, time and date and coordinates, rock type, estimated tonnage, whether the event was reported to the Mines Inspector, and whether the event was predicted by the radar system are recorded.

As the Meadowbank Mine transitions from formal mining activities to tailings and water management, and areas of the pits are closed to access, the recording and reporting of rockfall events will be limited to those events occurring where personnel, equipment, or infrastructure might be directly exposed.

- Continue to record and report (as appropriate) rockfall events that are within the pits used for tailing and water management and where there is the potential for worker access.

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APPENDICES

LIMITATIONS OF REPORT

This report and its contents are intended for the sole use of Agnico Eagle Mines Limited and their agents. Tetra Tech Canada Inc. (Tetra Tech) does not accept any responsibility for the accuracy of any of the data, the analysis, or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than Agnico Eagle Mines Limited, or for any Project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Use of this document is subject to the Limitations on the Use of this Document attached in Appendix G or Contractual Terms and Conditions executed by both parties.

1.0 INTRODUCTION

Tetra Tech Canada Inc. (Tetra Tech) completed the 2020 annual site visit to inspect the pit slope performance and in-pit waste dump performance at Agnico Eagle Mines Limited's (Agnico) Meadowbank Mine. Mining of the Meadowbank Mine open pits was completed in October 2019, with Pit E being the final pit mined. Tailings deposition to the inactive Goose Pit began in 2019 with plans to expand tailings deposition to Pit A and Pit E. Tailings deposition to Pit E began in 2020.

The annual site visit was carried out during the period 24 August 2020 to 31 August 2020. The inspection included the following areas:

- Portage Pit A (inactive pit, active water management, future tailings disposal);
- Portage Pit B (inactive pit and inactive in-pit dump);
- Portage Pit C (inactive pit and inactive in-pit dump);
- Portage Pit D (inactive pit and active in-pit dump);
- Portage Pit E (inactive pit, inactive in-pit dump, active tailings disposal);
- Goose Pit (inactive pit, inactive in-pit dump, active water management);
- Vault Pit (inactive pit and inactive in-pit dump);
- Phaser Pit (inactive pit); and
- BB Phaser Pit (inactive pit).

This document summarizes the inspection carried out for the pits and describes the performance of the various pit slopes through observations made during the site visit. Where possible the observations are related to the engineering geological model for the project, and to previous annual inspections.

A review of available geotechnical monitoring instrumentation for the Pit E, Goose Pit, and Vault Pit (piezometers, thermistors, inclinometer, Time Domain Reflectometry (TDR), seepage data), and associated ground control measures and inspection reports since the last annual inspection was completed. These data sets are presented in Appendices A, B, and C, respectively. A detailed analysis and assessment of the data is not part of the scope of work, however where unusual or anomalous findings were noted, these were discussed with AEM and are reported herein.

As the pits transition into various states of closure, the need for monitoring instrumentation regularly can be reduced or in some cases eliminated. In some cases, the instrumentation can be re-purposed; the instrumentation installed behind the South Wall of Pit E and the East Wall of Goose Pit is now included for review as part of the on-going dike instrumentation monitoring plan. Vault Pit, which is now closed, no longer requires monitoring of instrumentation. Future pit inspections will focus more on pit areas that continue to place personnel, equipment, or infrastructure below pit walls as part of the management of the tailings facilities.

1.1 History of Annual Inspections

The history of annual inspections is as follows:

- In 2010, the first annual inspection was completed which included the Portage Pit.
- In 2012, the Goose Pit was added to the annual inspection.
- In 2014 the Vault Pit was added to the annual inspection.
- In 2017, excavation of the Phaser Pit (a southward extension of the Vault Pit) commenced but as there was very little rock exposure at that time of the site visit, the progress was noted for the 2017 inspection.
- In 2018, the Phase Pit and BB Phaser Pit were included with the annual inspection.
- In 2019, only Portage Pit E was active, with mining scheduled to be completed in Q4 of 2019. The Goose Pit was being used for tailings deposition.

Since the last annual inspection (Tetra Tech 2019) mining activities at the Meadowbank mine site is complete. The final pit to be mined was Pit E, which was completed in Q4 2019. The exposed pit walls of inactive pits were reviewed for continuity with previous inspections. The Goose Pit continued be used for tailings deposition, and deposition of tailings to Pit E commenced during August 2020. Pits B, C, and D have been backfilled with waste rock and the crest areas of the dumping platforms were inspected.

Many of the observations and recommendations presented following this year's inspection are considered in the context of the possible effects that tailings deposition might have on pit slope stability. Where possible, these are referenced to studies completed by Tetra Tech (2018a, 2018b) which assessed the potential risks associated with tailings deposition into the mined-out pits.

2.0 CURRENT MINE STATUS

2.1 Life of Mine Schedule

The current Life of Mine schedule for the various pits is summarized in Table 2-1.

Table 2-1: Life of Mine Schedule for Meadowbank Mine (as of August 2020)

Pit	Current Status and Use
Portage Pit A	Complete, inactive pit currently used for water management, future tailings disposal
Portage Pit B	Inactive pit and inactive in-pit dump
Portage Pit C	Inactive pit and inactive in-pit dump
Portage Pit D	Inactive pit and active in-pit dump
Portage Pit E	Inactive pit and active in-pit dump, active tailings disposal
Goose Pit	Inactive pit, inactive in-pit dump, active water management
Vault Pit	Inactive pit and inactive in-pit dump
Phaser Pit	Inactive pit
BB Phaser Pit	Inactive pit

2.2 Portage Pits

The Portage Pit consists of five pits, identified as Pits A through E, from north to south. The general pit plan is shown on Figure 2-1.

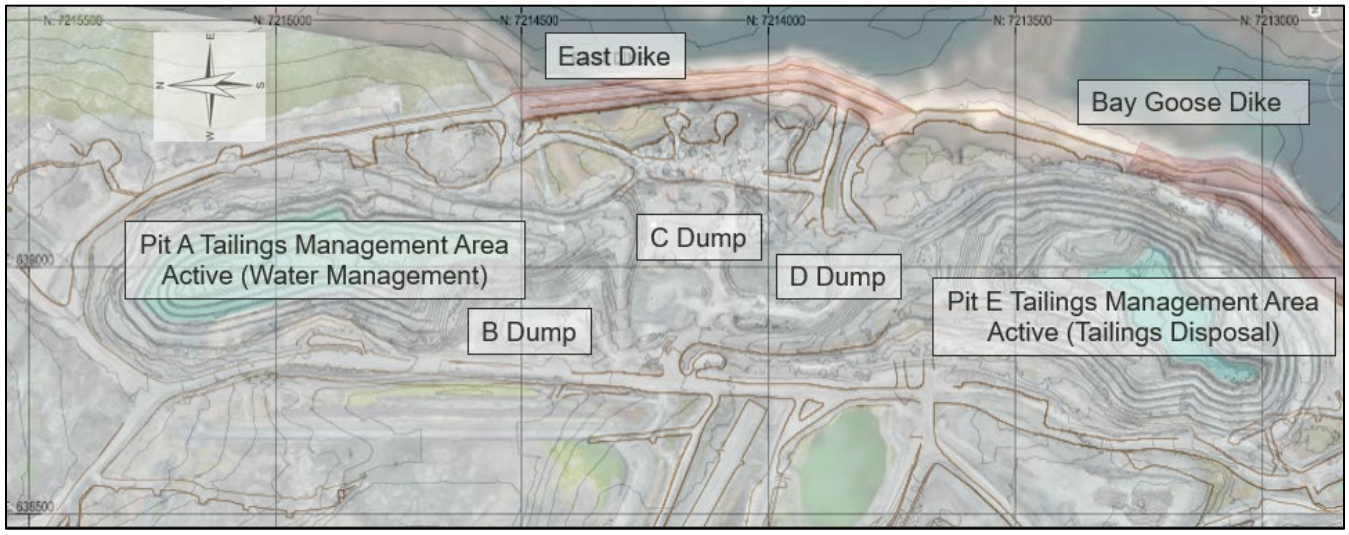


Figure 2-1: Portage Pit (2020)

All active mining was completed in October 2019 with the completion of mining at Pit E.

The current and planned dump crest elevations are shown in Table 2-2.

Table 2-2: Portage in-pit dump platform elevations (approximate)

Pit Dump	Maximum Platform Elevation During Inspection (mRL)	Planned Final Platform Elevation (mRL)
B	5133 (upper platform) 5126 (lower platform)	5129*
C	5126	5129*
D	5126/5080/5030	5129*

*Reflects planned elevation at closure.

2.3 Goose Pit

The extent of the Goose Pit at the time of the 2020 site visit is shown in Figure 2-2.

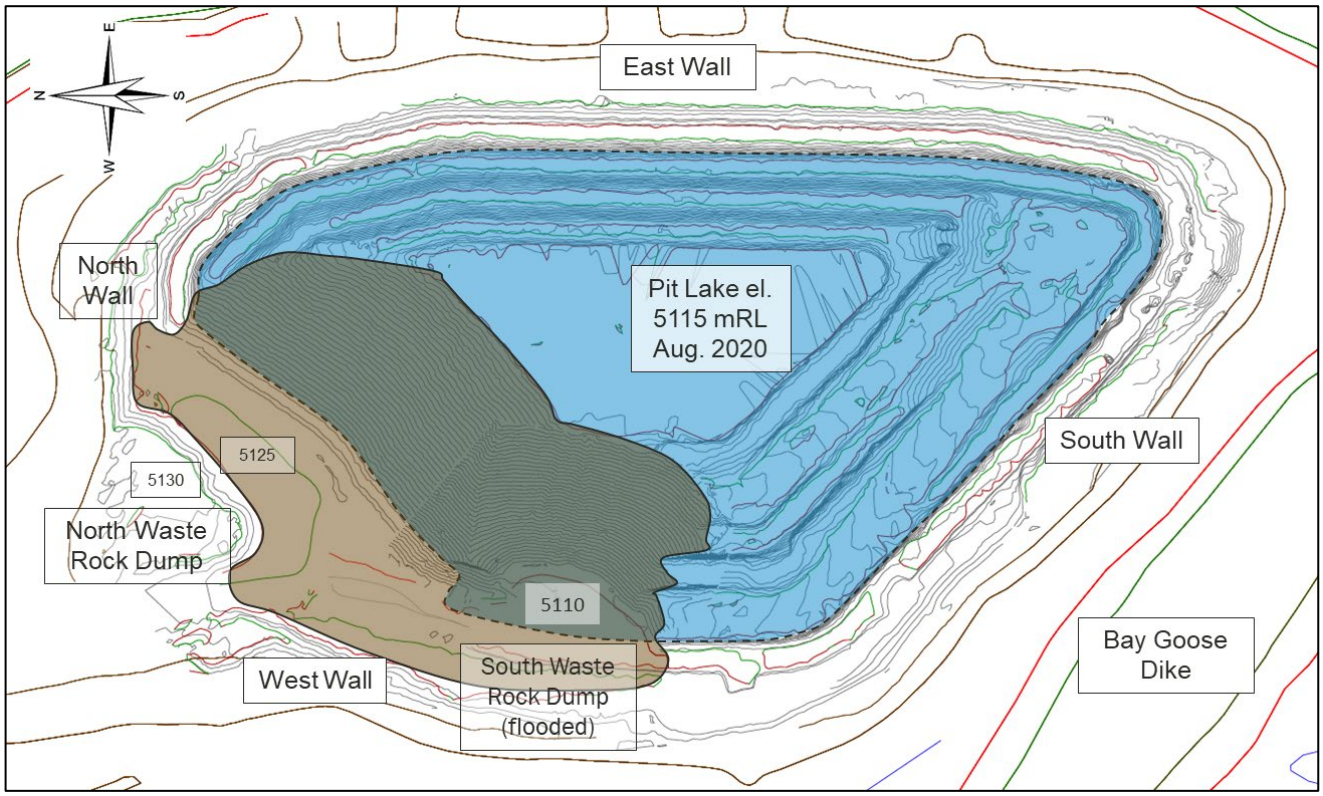


Figure 2-2: Goose Pit (2020)

The Goose Pit dumps remain inactive. Areas of significant crest sag and tension cracks observed during previous inspections do not appear to have developed further. A full review of the dumps is beyond the scope of work for this report.

The Goose Pit dump platform elevations are summarized in Table 2-3.

Table 2-3: Goose Pit dump platform elevations (approximate)

Pit Dump	Approximate Platform Elevation During Inspection (mRL)	Planned Final Platform Elevation (mRL)
North	5125	5129*
South	5110 (submerged)	5129*

*Reflects planned elevation at closure.

2.4 Vault Pit, Phaser Pit, and BB Phaser Pit

The Vault Pit, Phaser Pit, and BB Phaser Pit are complete. The extents of the pits at the time of the 2020 site visit are shown in Figure 2-3.

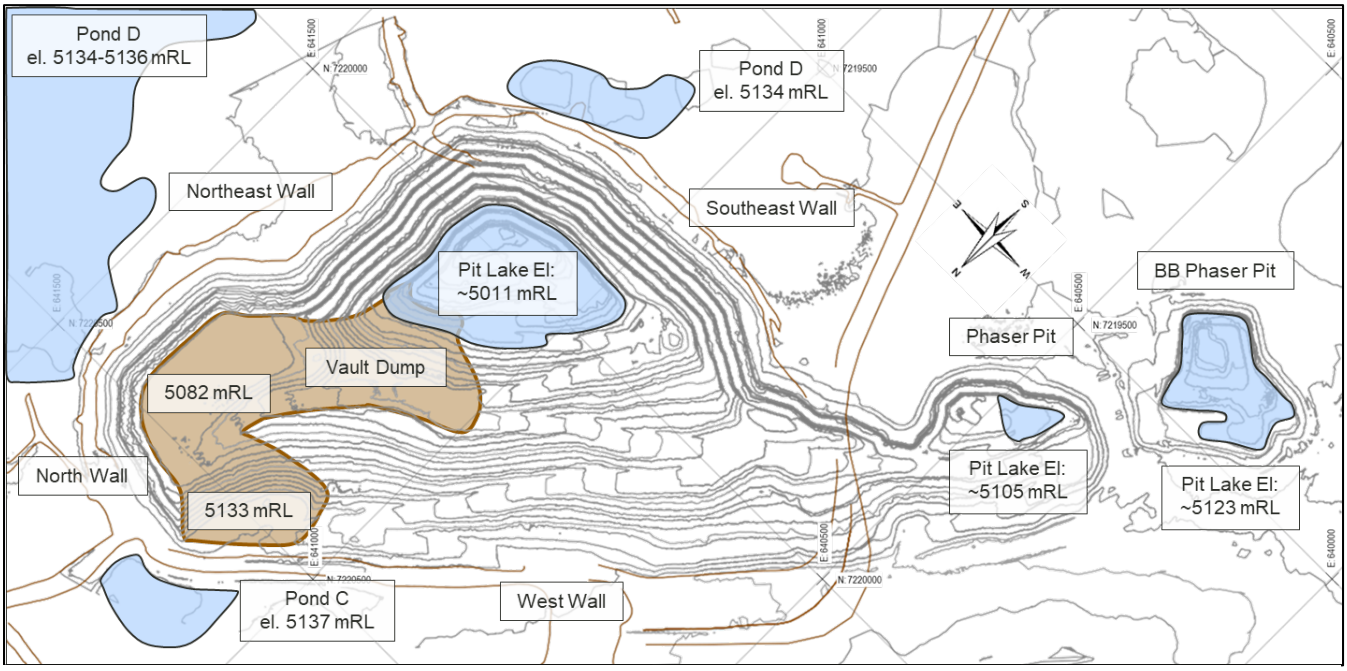


Figure 2-3: Vault Pit, Phaser Pit, BB Phaser Pit general layout (2020)

2.5 Geotechnical Inspections and Reviews

The last quarterly report summarizing instrumentation monitoring and field observations was June 2019. This is presented in Appendix D. Regular bi-weekly pit wall inspections were continued until July 10, 2020, just before final mining at Pit E. These are presented in Appendix E. Rockfall events that are within the pits used for tailing and water management and where there is the potential for worker access will continue to be recorded in the rock fall log and reported to the Mines Inspector as per Sections 16.01 and 16.02 of the Mine Health and Safety Act and Regulations for NWT and NU. Rockfalls in restricted pit areas where there is no worker access will no longer be reported but may be recorded to maintain an updated reference database. The rockfall log is presented in Appendix F.

Tailings and reclaim lines, pump stations, and pump controls are now fixtures within the Goose, Pit E, and Pit A former pit areas. Regular geotechnical inspections of the pit walls and remaining instrumentation during operation of the pits as tailings management facilities was recommended by Tetra Tech (2018a). A modified version of the regular bi-weekly pit wall inspections and formal quarterly reporting of instrumentation monitoring and field observations has been developed. The new inspection system is tailored to reflect the repurposing of the pits as tailings management facilities. Agnico have indicated the new reporting system is now operational.

Following the completion of mining in October 2019, and the transition of the pits to tailings and water management facilities, the bi-weekly inspections and quarterly inspection reviews have been reduced to monthly inspections to reflect the restricted access to the pits and dumps as the operation transitions from open pit mining to tailings and water management. The formal monthly inspections are supplemented by informal but regular general inspections of the site which are focussed more closely on areas where personnel access may still be required for pump maintenance and moving of tailings and reclaim water pipelines.

2.5.1 Geotechnical Risk Priority Classification System

Agnico have developed a geotechnical risk priority classification system as part of their focus on continuous improvement.

- **Priority 1 (P1) -** A high priority or structural safety issue considered immediately dangerous to life, health or the environment. Also includes issues with a significant risk of regulatory enforcement.
- **Priority 2 (P2) -** An issue that, if not corrected, could plausibly result in a structural safety issue leading to injury, environmental impact or significant regulatory enforcement. Also includes repeated deficiencies that demonstrate a systematic breakdown of procedures.
- **Priority 3 (P3) -** Single occurrences of deficiencies or non-conformances that in isolation are unlikely to result in structural safety issues. Also includes recommendations for pro-active measures.
- **Priority 4 (P4) -** Opportunity for improvement, for example to meet industry best practices.

The key recommendations provided as part of this inspection are tabulated and ranked in order of this qualitative scale to allow prioritization of efforts to address areas of risk.

3.0 MINE SITE ENGINEERING GEOLOGY MODELS

The supracrustal stratigraphy of the mine area consists of ultramafic volcanic, felsic to intermediate volcaniclastic, and/or greywacke, interbedded magnetite-chert iron formations and associated pelitic schists, and quartzite. The bulk of the gold mineralization in the deposit is contained within the iron formations except for the Vault Deposit where gold is associated with sericite schist.

3.1 Portage Deposit

The Portage Deposit area has undergone a series of regional deformation events resulting in typical ‘dome and basin’ fold structures. The dominant structural feature of the Portage Deposit is a gently to steeply inclined tightly folded north/south trending anticline which has resulted in the iron formation and interbedded volcaniclastic and metasedimentary rocks being folded around a core of ultramafic volcanic rock.

Bedding-parallel foliation associated with the east-west deformational events is pervasive throughout the deposit area. This structural fabric has formed the basis for much of the pit slope design criteria which avoids undercutting of this fabric. Foliation surfaces tend to be slightly altered with occasional coatings and can be display slickensides and shearing. In general, the foliation and stratigraphy dip to the west at variable inclinations from horizontal to sub-vertical. Locally the foliation orientations can vary considerably particularly adjacent to major fault zones.

AEM geologists report that up to four deformational events have been interpreted in the project area resulting in very complex fold patterns and rock structure. This is particularly evident at the south end of the Portage Pit, in Pit E, where superposition of fold events has imparted a complexity to the rock mass that has led to single and multi-bench scale instability.

3.2 Goose Deposit

The Goose Deposit is a steeply dipping, stratiform gold bearing iron formation that is part of a sequence of Archaean ultramafic and mafic flow sequences, volcaniclastic sediments, felsic to intermediate flows and tuffs, and sediments. The ultramafic rocks are variably altered and contain serpentine, chlorite, actinolite, and talc. Through the central

core of the deposit the stratigraphy trends northward and southward from Goose Island and dips at steep angles, generally greater than about 55 to 60 degrees to the west.

Axial planar and bedding-parallel foliation, which is pervasive throughout the rock mass, occurs commonly as healed fractures rather than open fractures within the rock. Axial plane bedding-parallel ductile shearing are common due to intense regional deformation events. This shearing is most commonly associated with weaker lithologic units, such as the ultramafic rock.

3.3 Vault Deposit Area (including Phaser and BB Phaser Pits)

The Vault Deposit area is underlain by a sequence of intermediate volcanic rock that has been altered by sericite, chlorite, and silica. The stratigraphy is consistently inclined south-southeast between approximately 20 and 30 degrees.

The pit area is generally underlain by permafrost with the exceptions of the east pit wall where it is pushed back into the former Vault Lake. Sections of the north pit wall also intersects an arm of Vault Lake. The Vault Pit footprint area included a smaller lake which was drained. Vault Lake and the smaller lake were underlain by talik (unfrozen ground) and water inflows occur where the pit wall intersects the talik. This has resulted in the formation of ice walls during winter on the east/southeast wall of Vault Pit.

The stratigraphy and foliation are the most significant structural characteristic at the Vault Deposit area. The foliation is continuous and closely spaced whereas joint sets are generally discontinuous and terminate within the rock mass or at other intersecting joint sets.

3.4 Tectonic and Structural Features

3.4.1 Portage Pit

Historically the main tectonic features within the Portage and Goose Pit areas are the Second Portage Lake Fault and the Bay Fault. Wall instability associated with the south wall of Pit E is related to folding and shearing of the weaker foliated ultramafic rock into adverse orientations relative to the wall.

The Second Portage Lake Fault trends northwest-southeast parallel to the axis of Second Portage Lake, dipping at approximately 70 degrees to the southwest. The fault intersects the east and west walls of the Portage Pit.

The Bay Fault trends south through the Portage Pit and is exposed in the west wall. The fault splits into two or more or more faults approximately where the west wall ramp enters the Portage Pit and one splay may trend through the southeast wall of Pit E5. Intense polyphase deformation at the south end of Pit E has resulted in folding and re-folding of sheared ultramafic rock leading to instability of the south-southeast wall.

3.4.2 Goose Pit

The Bay Fault extends south to intersect the Goose Pit and is visible in the north and south walls of the pit. The fault trends south from the pit to intersect the Bay-Goose Dike approximately at Chainage 31+625 along the centreline. Water in-flows to the pit along the Bay Fault in the south wall have been noted during previous site visits.

A shallow west dipping sheared stratigraphic contact intersects the upper west wall of the Goose Pit and was the source of water inflows to the pit during mining. The contact is inclined at a shallow angle between about 20 and 30 degrees to the west, striking in a north-south direction. The contact extends south from the pit passing beneath

the dewatering dike approximately at Chainage 31+925. Water flows along this contact, and the feature is hydraulically connected to Third Portage Lake. At the downstream toe of the dewatering dike, along the projection of the contact trace, seepage has previously been observed. In the pit the contact is intersected by east-west steeply to vertically dipping faults and joints which provide a mechanism for east-west flow of water behind the south and west pit walls and into the pit. During winter an ice curtain forms on the west wall.

3.4.3 Vault Pit, Phaser Pit and BB Phaser Pit

Faulting in the Vault area generally consists of moderate to high angle, east and south dipping discrete fault structures. In general, the east dipping faults are inclined at approximately 70 degrees, while the south dipping faults are inclined at approximately 55 degrees. These faults either intersect the pit walls at high angles or dip into the pit walls. Potential wedges formed by the intersection of these through-going continuous features will plunge into the south and southeast pit wall at angles of about 50 degrees.

Planar failures will be a factor for south and southwest facing walls where the south dipping faults intersect the wall. Major fault structures in the area are considered continuous and may therefore influence pit slope stability at both an overall slope and bench scale. However, these faults are widely spaced, about 30 m to 100 m based on observation.

3.5 Permafrost

The Meadowbank Mine project area is located within the Low Arctic ecoclimatic zone. The topography of the surrounding area is of generally low relief with an elevation range of about 70 m. The ground ice in the region is estimated between 0% and 10% (dry permafrost) based on regional scale compilation data.

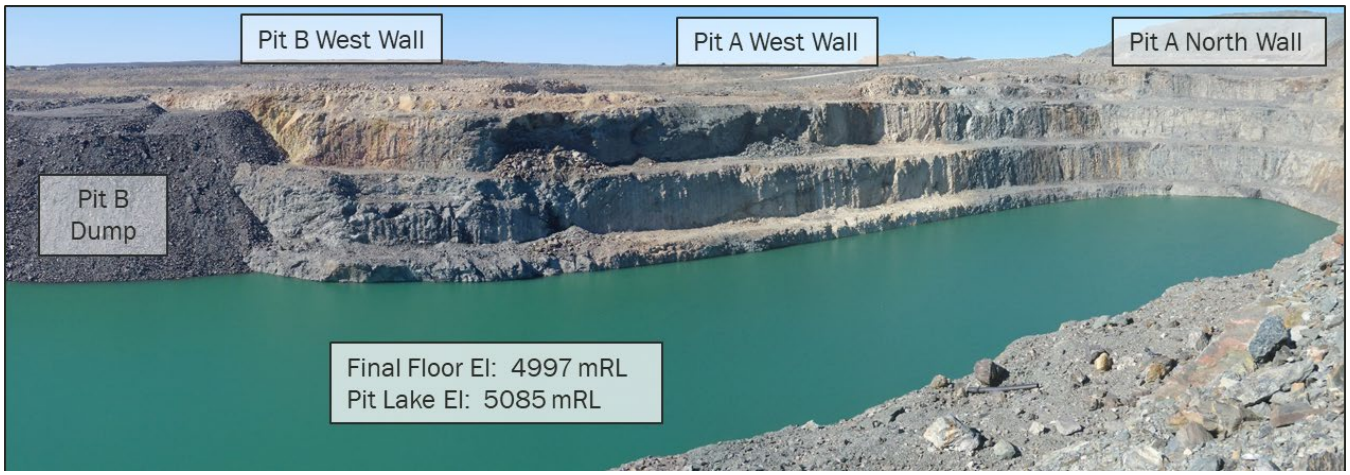
Continuous permafrost to depths between 450 m and 550 m underlies most of the Meadowbank project area. The thickness of the active layer ranges from about 1.3 m in areas of shallow overburden, and up to 4 m adjacent to lakes (Golder 2007). Taliks are present beneath the lakes and water courses; small lakes will have closed taliks beneath them while larger lakes will have taliks extending through the permafrost to the underlying deep groundwater regime. The shallow groundwater flow regime has little to no hydraulic connection with the deep groundwater regime below the permafrost.

4.0 PORTAGE PITS A AND B INSPECTION

4.1 Pits A and B Overview

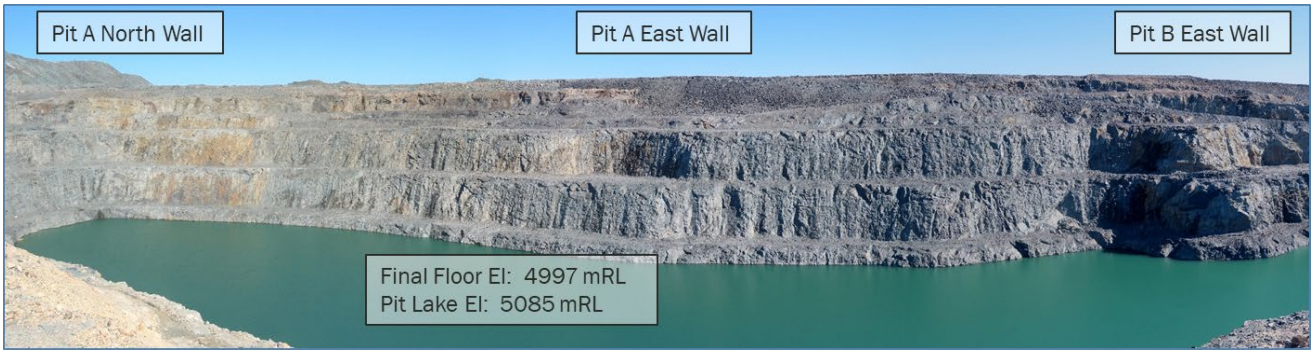
Pit A and Pit B are currently used for water management. At the time of the site visit the lake elevation was approximately 5085 mRL. The pit lake is accessible by the ramp on the east wall and from the south through a slot separating the B Dump and C Dump in-pit waste rock storage facilities. B Dump is inactive and access is restricted. A pump station and controls are located on the south access ramp to the pit, which passes between C Dump and B Dump, and then passes north to the current pit lake at elevation 5085 mRL. Many of the geotechnical hazards associated with the pit walls no longer exist as the lake level has risen and covered these.

During the 2019 site inspection it was recognized that the Meadowbank Mine is entering a transition stage from active mining use to water management and future tailings deposition. As such, the Pit A and Pit B remaining pit areas are now being used for active water management with water reclaim and discharge lines present along the ramp access to the pit lake area at the toe of B Dump.



Photograph 4-1: Pits A and B looking west, from east crest (2020)

The inspection consisted primarily of observations made from the crest areas and from the base of the pit. The observations were made by comparing the current conditions with those previously observed, as well as comparing the current pit usage with risk assessments carried out as part of the assessment of the pits for use as tailings and water management areas (Tetra Tech 2018a and 2018b). Views of Pits A and B at the time of the site visit are shown in Photograph 4-1 and Photograph 4-2. For reference, the bench height in the photographs is 21 m.



Photograph 4-2: Pits A and B looking east from west crest (2020)

4.2 Pit A Inspection

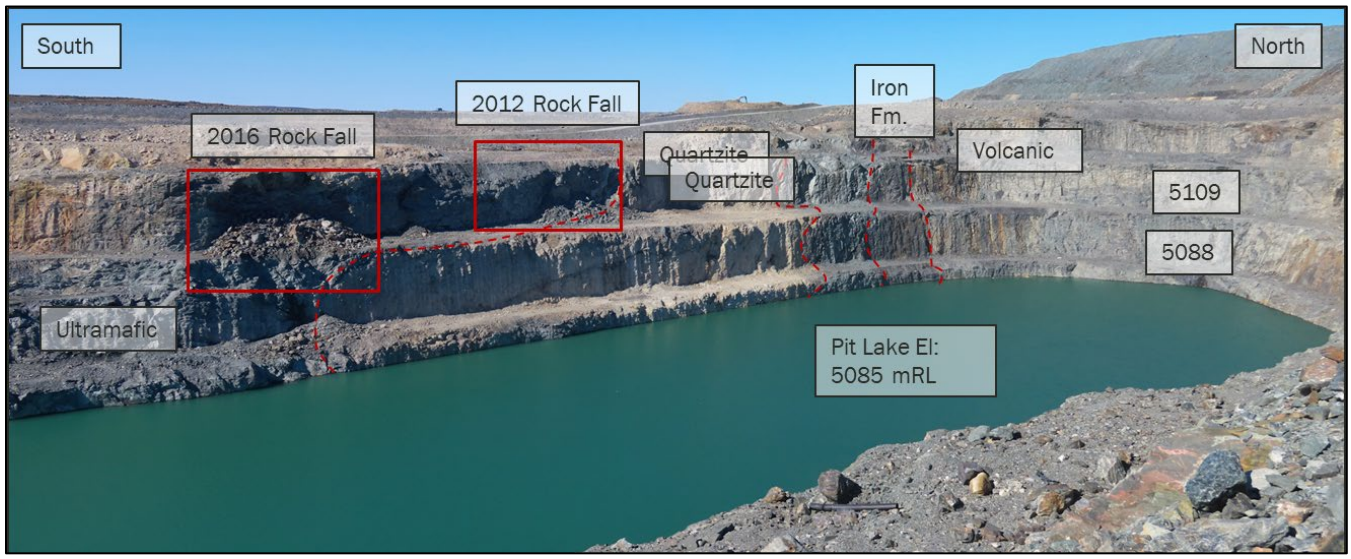
Pit A is at the north end of the Portage Pit and includes the northwest through northeast end walls of the pit.

The pit walls that remain exposed continue to perform well and no additional accumulation of material was noted on the west, north, or east benches that are still exposed. Most of the geotechnical hazards identified previously and associated with the rock slopes are now submerged and no longer present a risk.

Since there is no longer any access to this pit, and most of the geotechnical hazards associated with the pit walls are submerged, the bi-weekly pit wall inspections and quarterly inspection summaries can be suspended. General (informal) visual inspections should be undertaken when the opportunity presents.

4.2.1 Pit A West Wall

The condition of the west and north wall of Pit A at the time of the inspection is shown in Photograph 4-3.



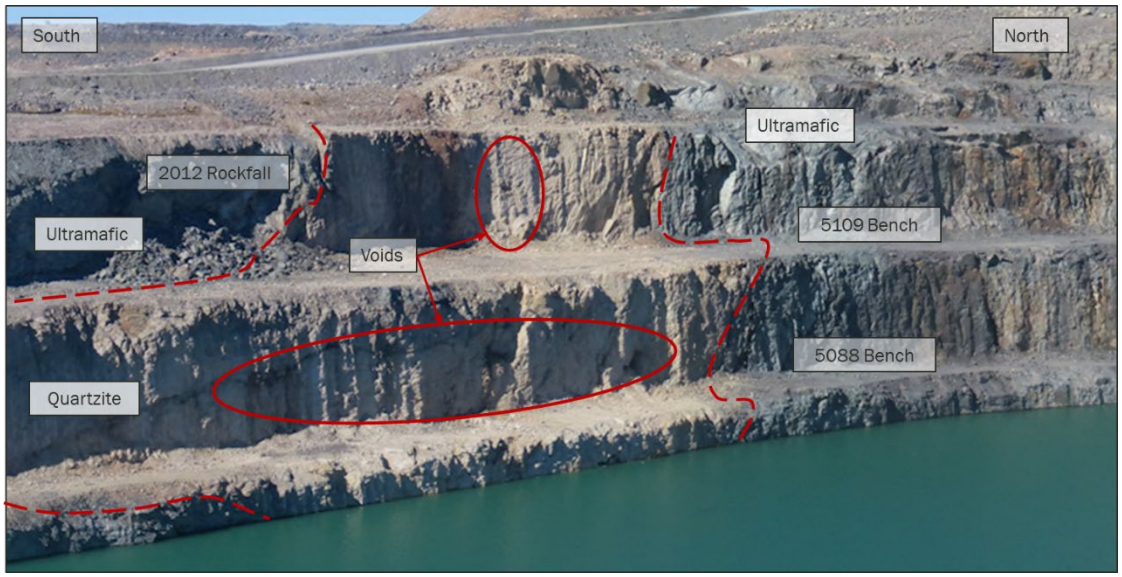
Photograph 4-3: Pit A west wall (2020)

The remaining walls exposed above the current lake elevation show no degradation since the 2019 inspection. The following actions are recommended:

- No specific action required.

4.2.2 Pit A West Wall Voids

The quartzite stratigraphy observed in the Pit A west wall contains several large voids identified during previous inspections. There has been no significant accumulation of material on the benches since the 2019 inspection. The condition of the Pit A West Wall Voids at the time of inspection are shown in Photograph 4-4.



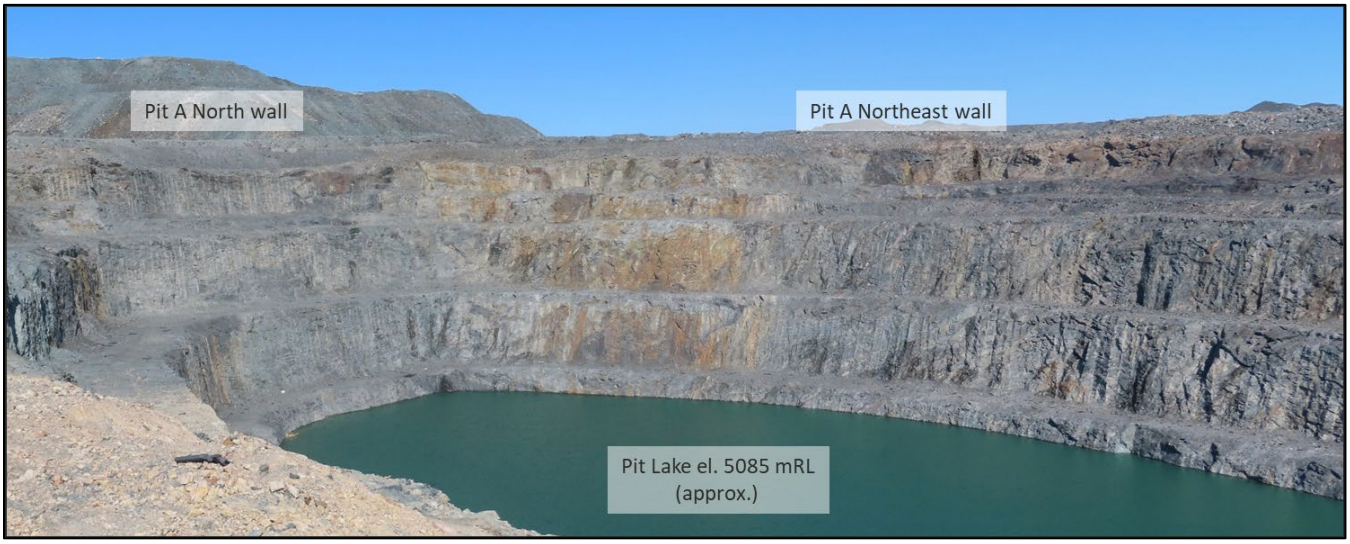
Photograph 4-4: Voids in quartzite above Pit A west ramp (2020)

The following actions are recommended:

- No specific action required.

4.2.3 Pit A North to Northeast Wall

The north through northeast walls of Pit A continue to perform well. There are no noticeable changes from 2019. No additional accumulation of loose or raveling material on the catch benches was noted during the site visit. The condition of the Pit A North to Northeast Wall at the time of inspection is shown in Photograph 4-5.



Photograph 4-5: Pit A north to northeast wall (2020)

The following actions are recommended:

- No specific action required.

4.2.4 Pit A East Wall

The benches of the Pit A East Wall continue to perform well, as shown in Photograph 4-6. There are no noticeable changes from 2019.

Photograph 4-6: Pit A East wall upper benches (2020)

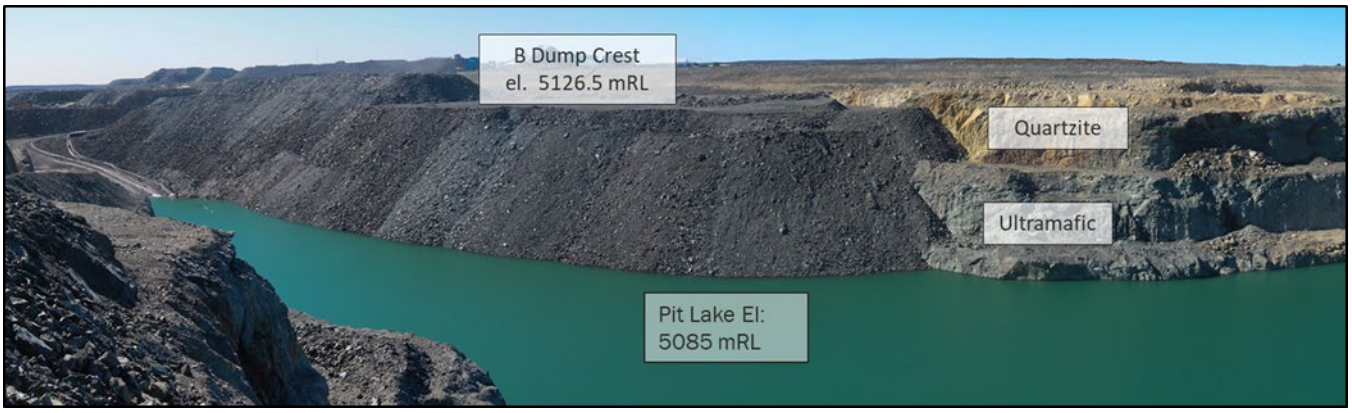
The following actions are recommended:

- No specific action required.

4.2.5 Pit B West Wall

The remaining portion of the west wall of Pit B that has not been backfilled continues to perform adequately. There are no noticeable changes from 2019. Quartzite is exposed in the upper benches overlying ultramafic rock and iron formation. There is no access to the west wall of the pit and access to the base of the pit is gained by the east ramp which also provides access to Pit A. Most of the geotechnical hazards exposed in the walls of Pit B are now submerged by the current lake level.

The general performance of the west pit wall is shown in Photograph 4-7.



Photograph 4-7: Pit B west wall (2020)

The following actions are recommended:

- No specific actions required.

4.2.6 Pit B East Wall

The east wall of Pit B was inspected from several viewpoints as well as from within the pit. The wall continues to perform satisfactorily, and benches are generally clean with little accumulation of material. The condition of the Pit B East Wall at the time of inspection is shown in Photograph 4-8.

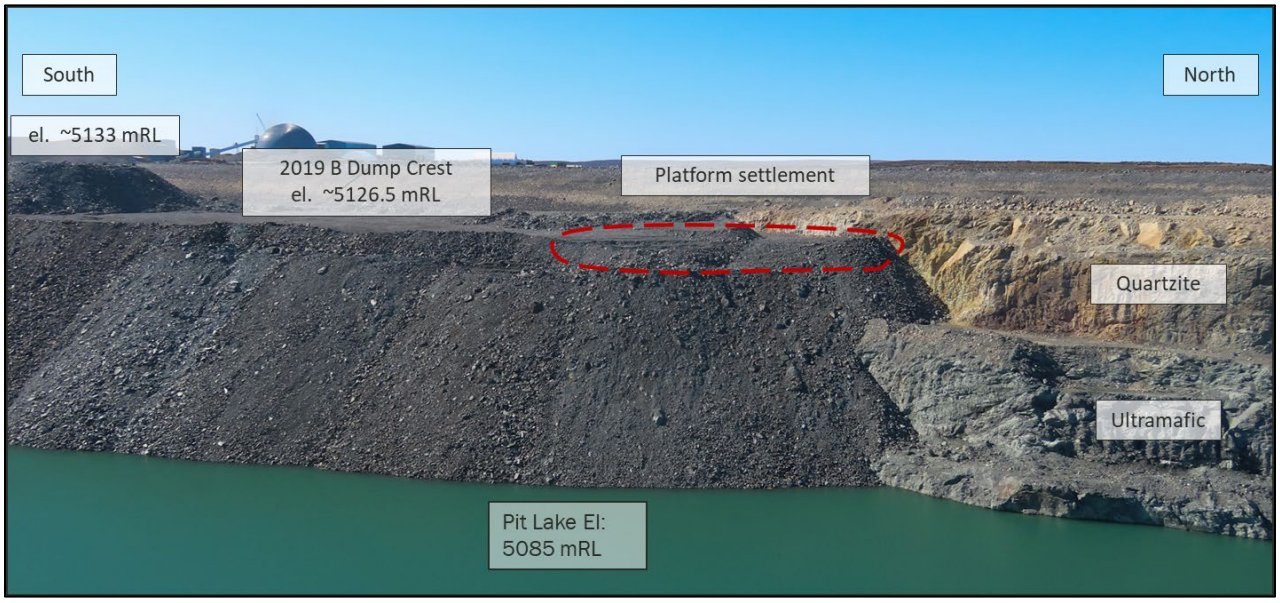
Photograph 4-8: Pit B east wall, looking south (2020)

The following actions are recommended:

- No specific actions required.

4.2.7 Portage Pit B Inspection (B Dump)

Portage Pit B has been used for in-pit waste rock storage in B Dump. The crest elevation of B Dump is currently approximately 5127mRL with an upper platform at the south end currently at 5133 mRL.

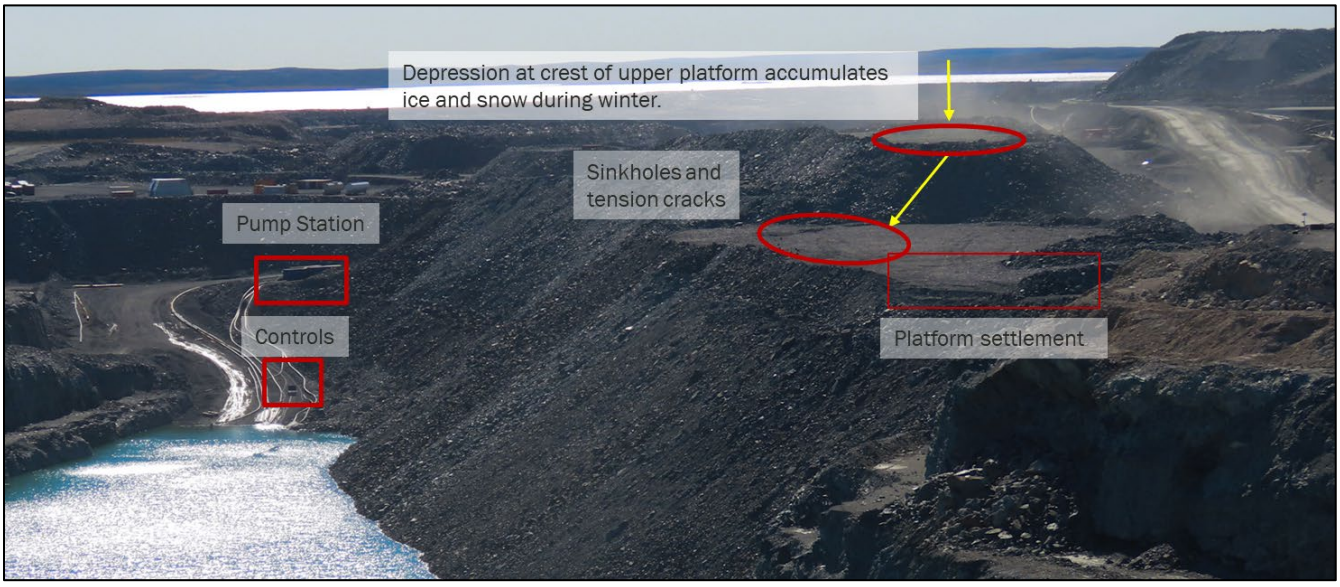


Photograph 4-9: B Dump looking southwest showing northward advance of dump face (2020)

The dump remains inactive and closed. No evidence of dump instability was noted on the dump face, such as bulging or shallow failures. However, as the pit water rises it is expected that shallow surface failures will occur.

Since personnel will continue to access the pumps at the base of the ramp below the south end of the dump, the dump performance should continue to be monitored as part of monthly geotechnical inspections.

The performance of the dump platform and dump face at the time of inspection is shown in Photograph 4-10.



Photograph 4-10: B Dump showing settlement at north end of dump platform (2020)

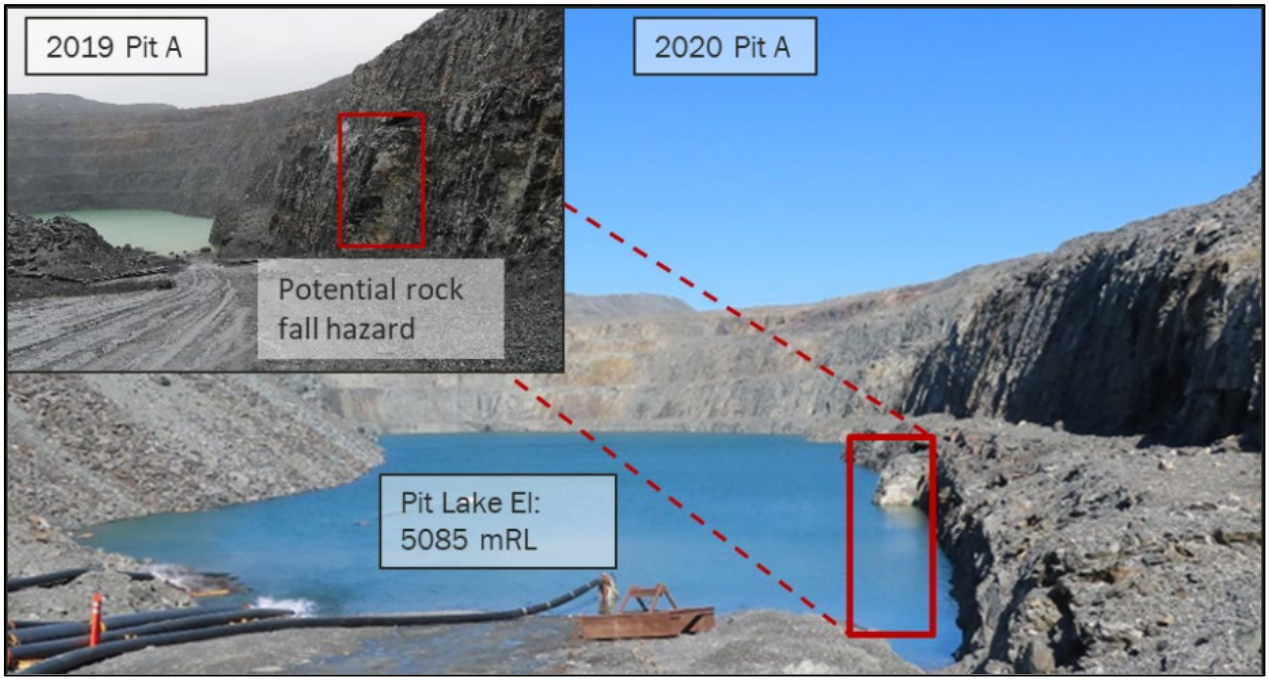
The B Dump platform has experienced significant settlement in the past. As the lake level continues to rise, ongoing settlement should be expected, and the dump platform should remain closed. During the inspection of the dump platform it was noted substantial sinkholes had developed. On further inspection, it was determined that a depression on the upper dump platform allowed ice and snow to accumulate during winter leading to outflow of large water volumes to the lower platform during freshet. It is recommended the depression be backfilled and graded to prevent this.

The following actions are recommended:

- Maintain the B Dump crests as closed and inactive and ensure barrier berms are installed to prevent vehicles from accessing the crest area.
- Since personnel will be accessing the pit lake at the bottom of the Pit B ramp to maintain the pit water management system in place, visual inspections of the dump platforms and dump faces should be included in the monthly inspections.
- It is suggested the depression at the north end of the upper dump be backfilled and graded to prevent the release of water to the lower dump platform and the ongoing development of sinkholes.

4.2.8 Pit B Lower Ramp Inspection

A previously identified geotechnical hazard on the lower ramp area of Pit B was visited. The lower ramp will continue to be used for water lines, pump controls and pump stations, and require access by personnel. The hazard was characterized by a potentially unstable portion of the bench face. The area is now below the pit lake, and no longer presents a risk to personnel or equipment. The area is shown in Photograph 4-11.



Photograph 4-11: Pit B ramp rockfall hazard (2020)

The following actions are recommended:

- No specific actions required.

4.3 Pit C In-Pit Waste Rock Dump

The Pit C in-pit waste rock dump is inactive. The west and east pit walls of Pit C are buttressed by waste rock and no longer present any geotechnical hazard. At the time of the site visit the Pit C main platform was at the same elevation as the 2019 inspection, approximately 5127 mRL. The main dump platform for Pit C is used primarily for storing stockpiles of stemming material. The Pit C Dump is shown in Photograph 4-12.

Photograph 4-12: Pit C Dump with Pit B Dump in foreground and D Dump in background (2020)

4.3.1 ABF Garage

Agnico have constructed a garage structure at the north end of C Dump at elevation 5127 mRL adjacent to the Pit A/B tailings and water management area. The site was selected based on the electrical capacity to be supplied, proximity to other maintenance operations, and available space.

The building and slab are prefabricated. The structure has an expected life span of 20 years, will have an overhead crane, vertically operating garage doors, and will be heated. A review of the geotechnical design criteria and analyses was not part of the site visit scope. The slab is supported by 88 driven steel piles that were driven into the C-Dump material to a depth of 9 m. The pile driving refusal criteria was not reviewed but Agnico report that at the time the piles were being driven it was assumed that bedrock had been reached. However, true bedrock depth ranges from between approximately 35 m depth on the east end of the pad to 46 m depth on the west end of the pad, and so there is a high likelihood that the piles did not reach firm ground and/or bedrock. The setback of the pad from the C Dump crest ranges from approximately 45 m at the east end to approximately 37 m at the west end.

There will be a hydraulic connection between the Pit A/B tailings and water management area, and the Pit E tailings and water management area. This hydraulic connection will be through C Dump and D Dump once these are inundated with water and the water elevation in Pit A rises above approximately 5085 mRL, which is approximately the minimum bedrock elevation which would then allow inundation of the dump. This hydraulic connection could develop as early as Spring or Summer of 2021. Eventually, it is planned for the final water elevation to be at 5134 mRL, which will cover C Dump and the building foundation.

The general location of the building footprint is shown in Figure 4-1.

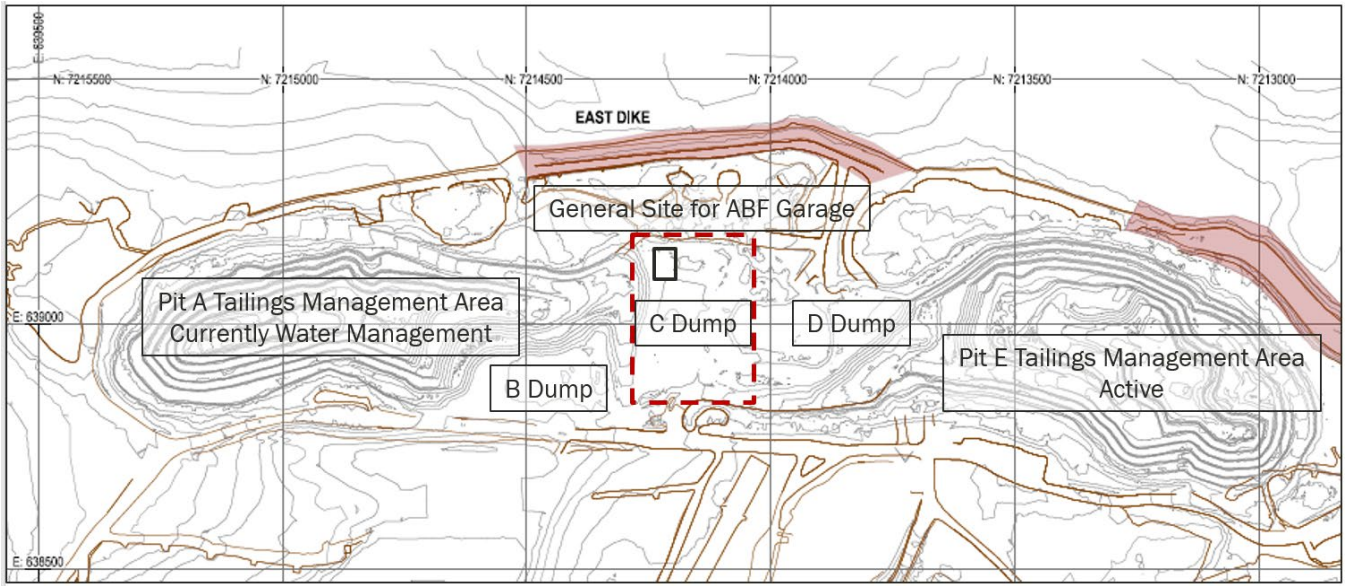
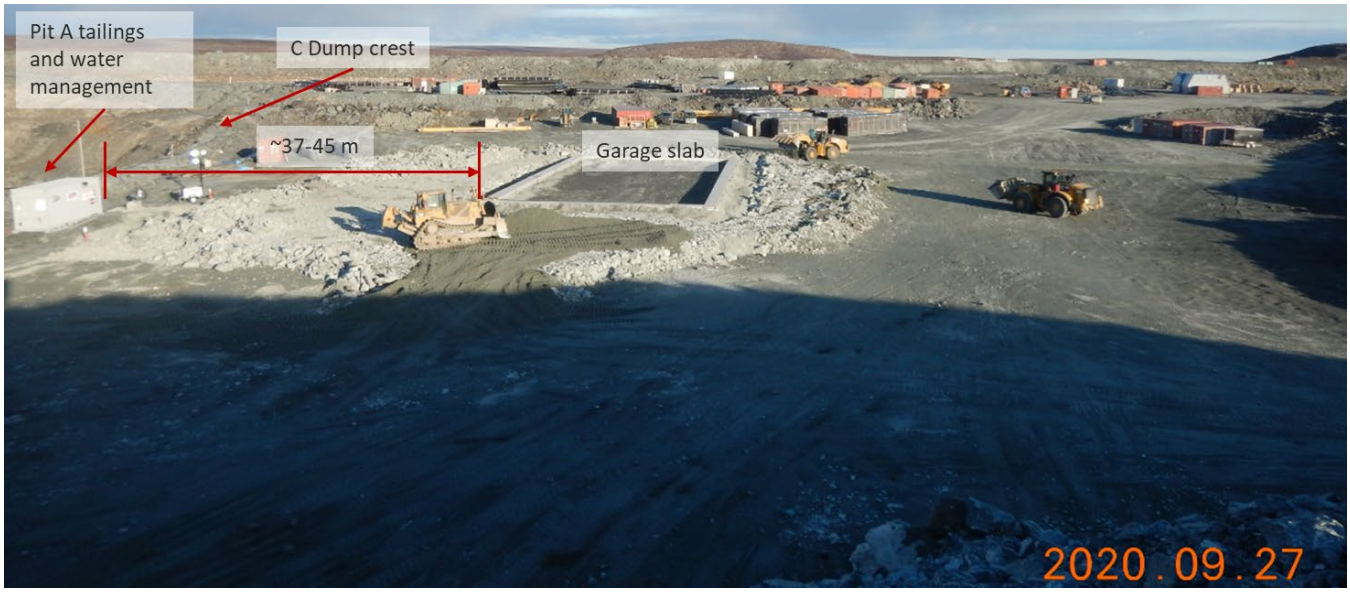


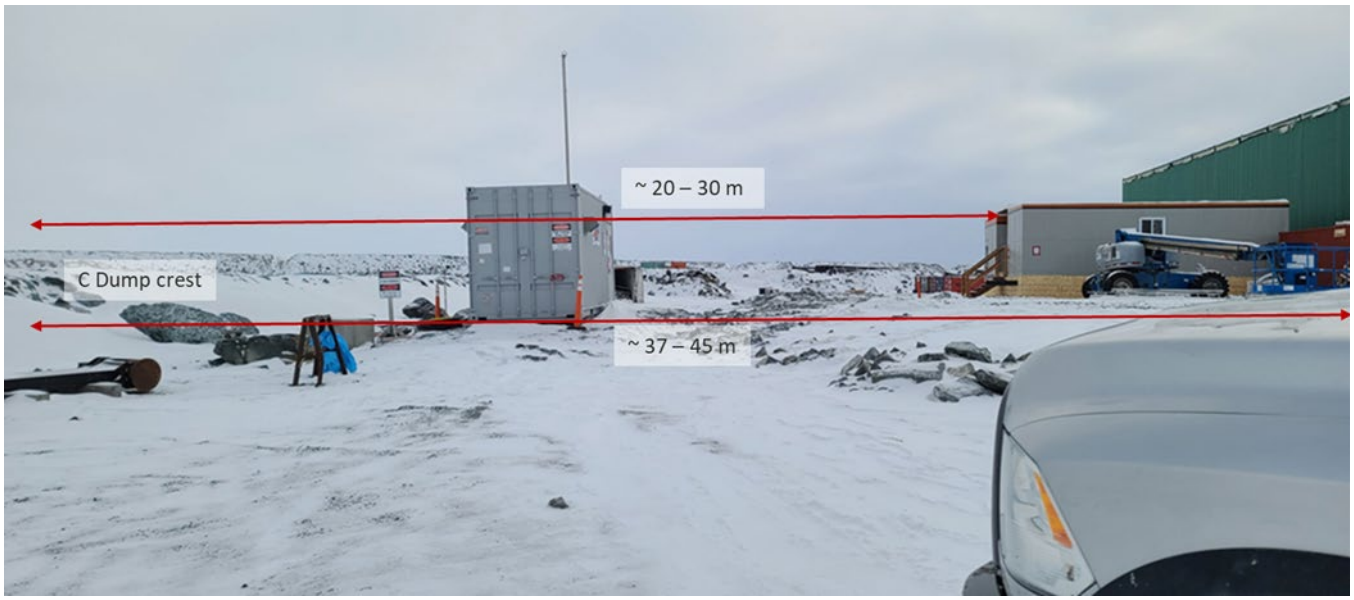
Figure 4-1: General location of the ABF Garage

Photograph 4-13 shows the location of the garage slab during construction and the approximate setback distance of the slab from the C Dump crest. Photograph 4-14 shows the completed structure, with the addition of the entryway and dry area, which extend towards to the C Dump crest. A sea container is located directly adjacent to the crest.

Cross sections through C Dump showing the building location and setback distances in relation to the Pit A/B and inferred bedrock depth are presented in Figure 4-2, Figure 4-3, and Figure 4-4.



Photograph 4-13: Garage footing and slab during construction, supported by 88 piles (2020)



Photograph 4-14: Completed ABF garage with entryway extending toward the C Dump crest (2020)

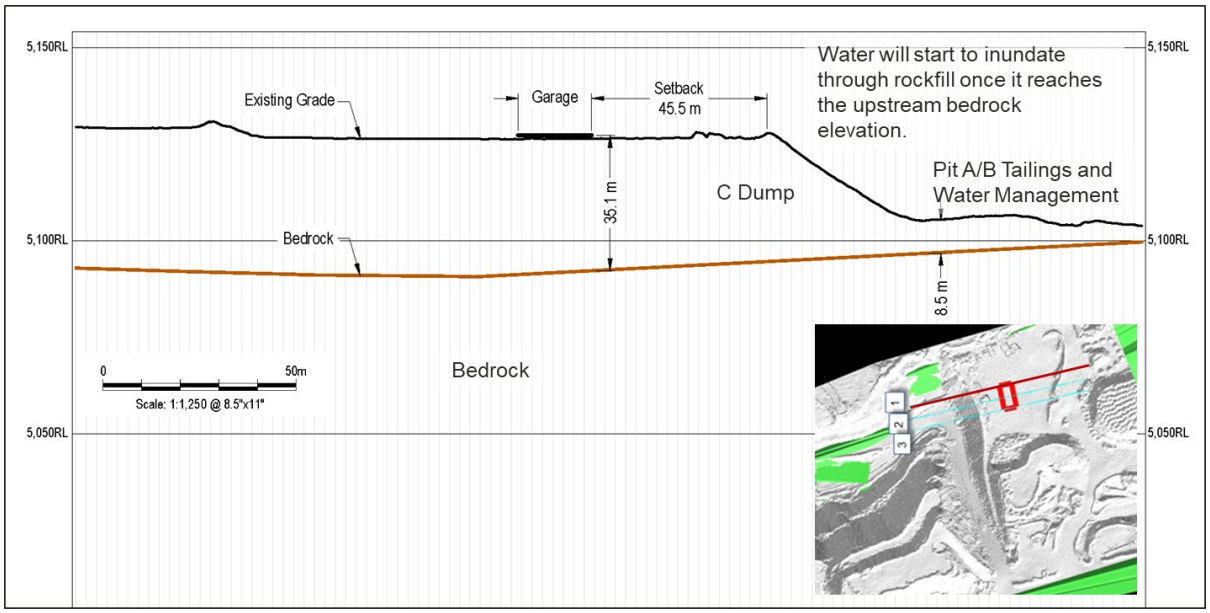


Figure 4-2: Cross Section through C Dump at garage east end

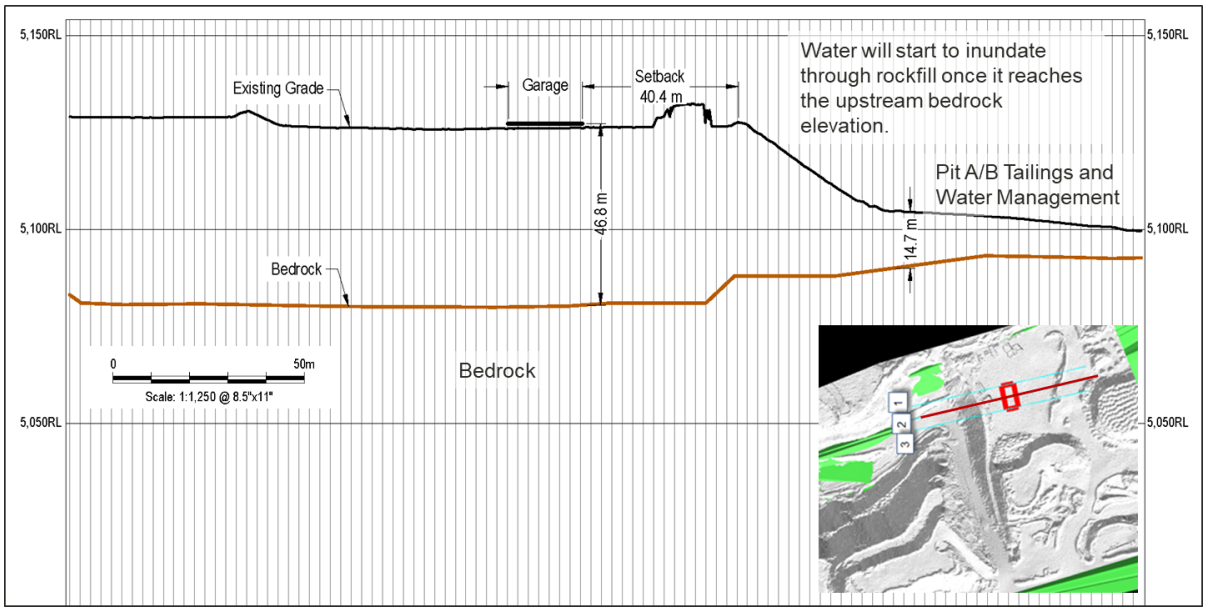


Figure 4-3: Cross Section through C Dump at garage middle

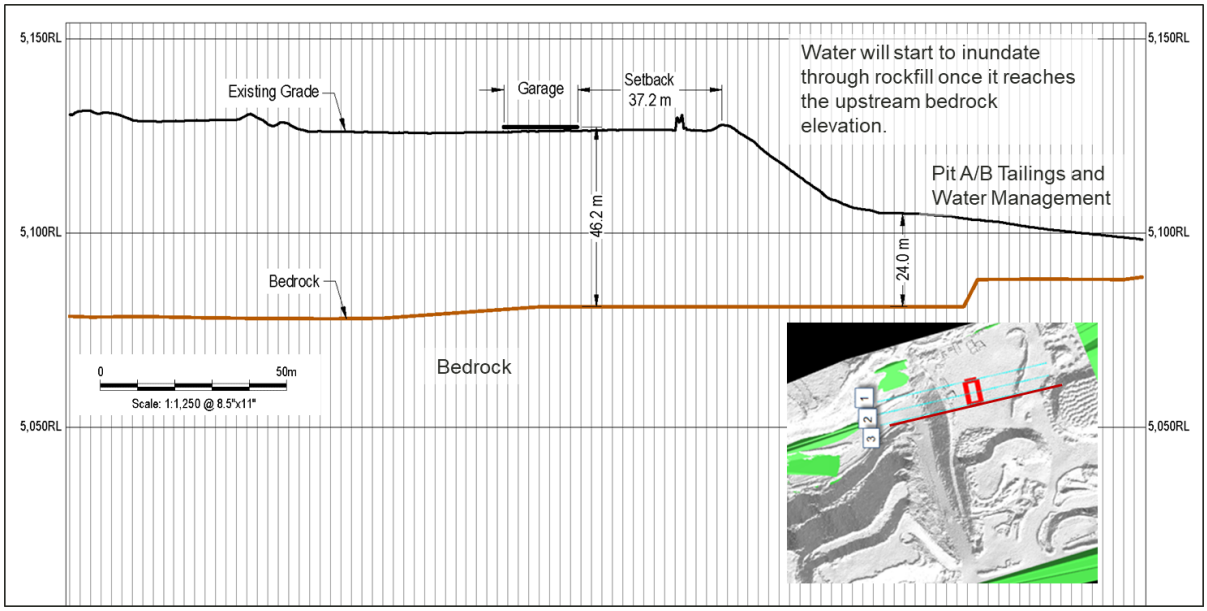


Figure 4-4: Cross Section through C Dump at garage west end

4.3.1.1 Thermal Regime at C Dump

There are a limited number of ground temperature cables (GTC) installed in the C Dump area. The data were reviewed to provide insight to the existing thermal conditions of the dump, prior to inundation with water. The locations of the GTC's are shown in Figure 4-5 along with the general thermal profiles at each location.

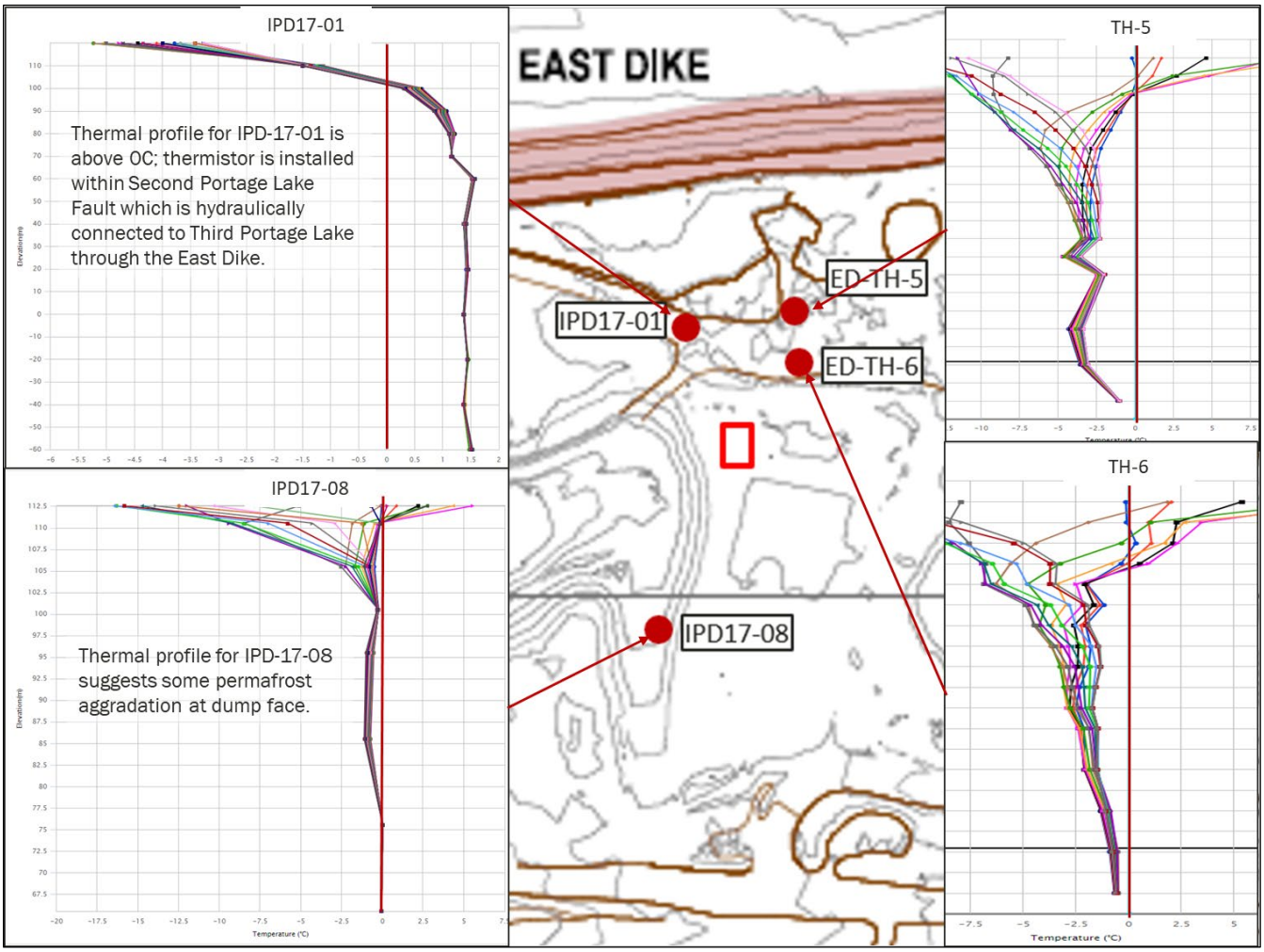


Figure 4-5: Ground thermal profiles near ABF garage

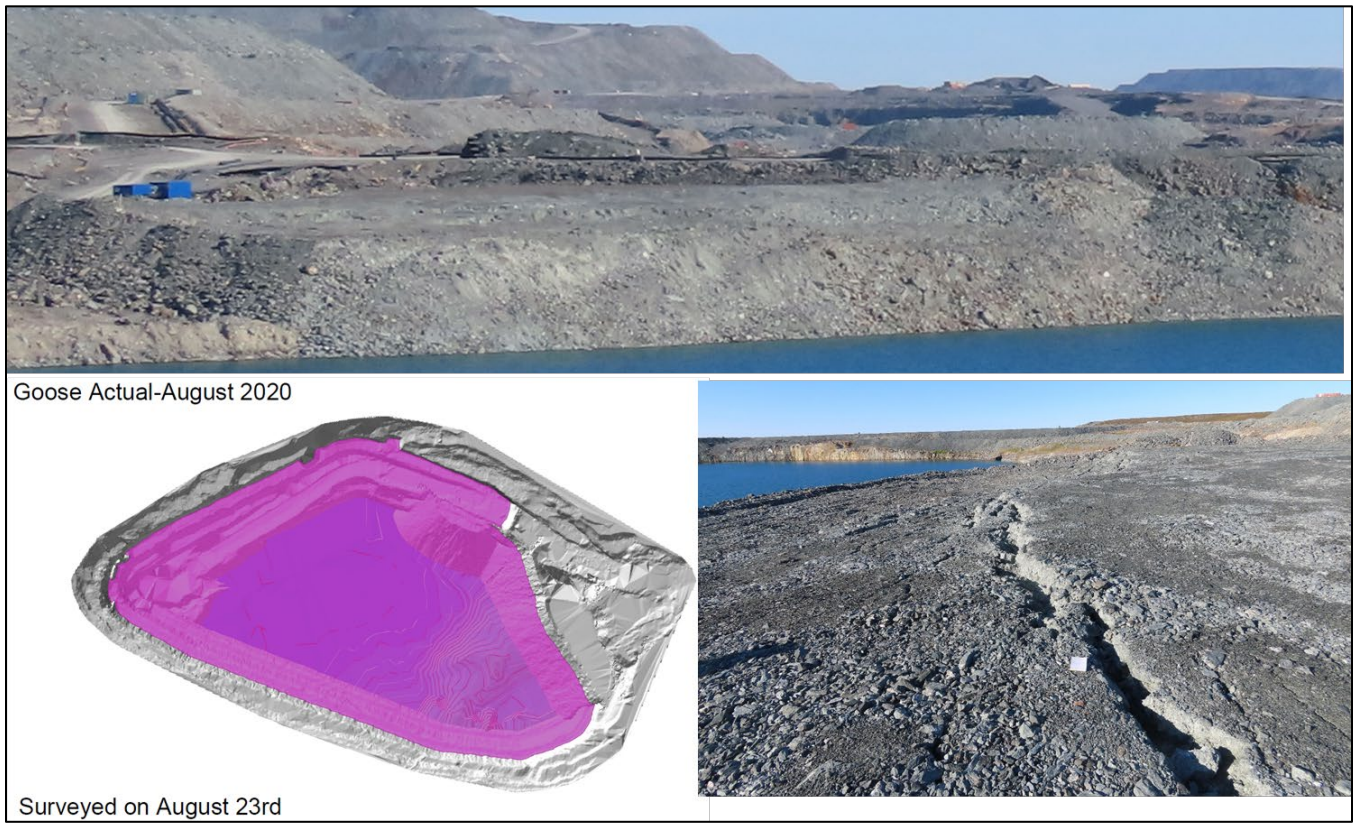
4.3.1.2 Risk Identification

Since the new garage area falls within the in-pit tailings disposal area, a review of potential risks associated with the location of the structure has been completed. The key risks are associated with the following physical setting and processes. As the water level in the Pit A tailings and water management facility rises it will inundate the C Dump rockfill materials, infiltrating the void spaces. The bedrock surface is below the current ramp accessing the pit. Inundation of the waste rock will begin once the water reaches the elevation of the bedrock surface.

The inundation of water will introduce heat to the dump materials and will thaw contact boundaries between coarse waste rock material. The dump was operated year-round and consequently significant quantities of snow and ice were likely entrained with the waste rock material during winter month dumping. Water inundation will lead to melting of the entrained ice and snow.

The Goose Pit Dump best reflects the ABF Garage geometry relative to the C Dump crest, and the potential effects on dump face and platform performance as the tailings pit lake elevation rises (see Photograph 4-15). At the Goose Pit Dump, the water elevation is 5 to 10 metres below the dump platform. Substantial settlement of the dump platform at the crest has occurred and in association with tension crack formation. The total vertical settlement across the tension cracks is estimated at a metre or more. The distance behind the Goose Pit Dump crest that

visible deformation can be seen is up to about 40 m. The performance of the Goose Pit Dump and platform is described in Section 6.5.1 of this report.



Photograph 4-15: Platform settlement and tension crack formation at the Goose Pit Dump (2020)

The above described physical processes may have the following effects on the dump and the garage long term stability and performance:

- Ground deformation and differential settlements should be expected. Indications of ground movements and instabilities will likely be evident through the development of a series of obsequent scarps defined by surface cracks with significant vertical offset behind the dump crest area the dump platform. This is supported by evidence from the inactive and closed Goose Pit Dump and Pit B Dump.
- The combination of added heat and increased pore pressures will lead to instability in the dump face followed by the development of shallow sliver-type failures, similar to those observed at the Goose Pit Dump.
- Large scale deep-seated dump failure is not expected given the depth of bedrock which would truncate the development of a deep-seated circular failure surface that could conceivable extend back to the garage structure.
  - No stability assessment has been completed to support this conclusion, and this is a qualitative conclusion based on a review of the slope geometry and depth to bedrock.
- The piles that were driven to 9 m may not be effective in supporting the slab as they do not extend to bedrock. Ground deformation and instability could extend as far back as the pile foundations.

- Ground deformation and deferential settlements could lead to damage to the garage concrete slab and footings. Damage to the slab and footings could affect the building performance, including the alignment of crane rail tracks, garage door tracks, and other linear structures.

4.3.1.3 Recommendations and Alternatives

The location of the ABF Garage structure is currently in an area of high geotechnical risk in terms of potential and significant amounts of settlement of the C Dump platform once water infiltration begins. Despite the use of piles intended to support the prefabricated concrete slab, the platform settlement could result in significant differential settlement that could affect the building structure and overall building performance. Based on the performance of the existing Goose Pit Dump, there is a high likelihood of significant settlement of the dump platform that could influence building performance.

Based on this review, it is recommended that an alternative location for the building be identified that is outside the footprint of the Portage Pits, Dumps, and Tailings Management areas, and that the building be relocated. Prior to construction at a new location, a risk assessment and geotechnical assessment of the new location should be completed.

The following actions are recommended:

- An alternate location for the ABF Garage be identified outside of the tailings management areas, and that an appropriate geotechnical evaluation of the new site be undertaken prior to proceeding with construction.
- Dump platforms should be bermed off, and the platform closed to all access. Place berms to restrict access to the dump platform following relocation of the ABF Garage.

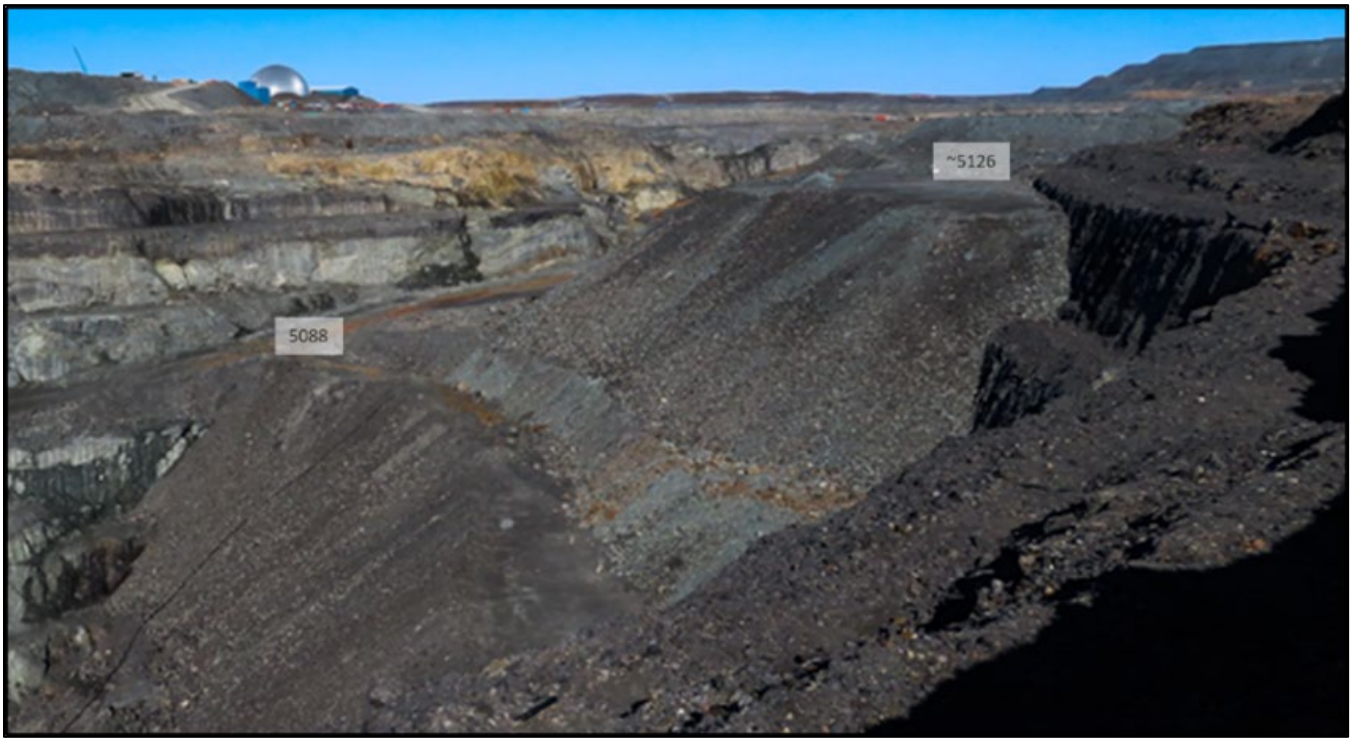
4.4 Pit D In-Pit Waste Rock Dump

The Pit D Dump is inactive. The highest platform remains at approximately 5126 mRL and has not been advanced further to the south along the east wall since 2019. An in-pit waste dump in Pit E was advanced southward in the base of the pit from the south end of Pit D Dump during 2018 and 2019 at an elevation of or approximately 5030 mRL. The condition of Pit D Dump at the time of inspection is shown in Photograph 4-16.

Photograph 4-16: Pit D Dump facing north with in-pit lower dump platform in foreground (2020)

Pit E, adjacent to Pit D, is currently being used as a tailings management facility and tailings are actively deposited from a single point of discharge along the southwest highwall of the pit. A pit lake is currently at an elevation of approximately 5015 mRL and is inundating the Lower Dump and will eventually inundate D Dump. As water infiltrates the dump additional settlement and development of tension cracks should be expected.

Areas of tension cracks that were observed on the Pit D Dump 5088 mRL and 5126 mRL platforms during the 2016 and 2017 inspections have not opened further. No additional tension cracks were observed suggesting that settlement of the platform crests in these areas has stopped. Photograph 4-17 shows the dump profile in 2020, and the 5088 mRL bench where tension cracks were previously noted.



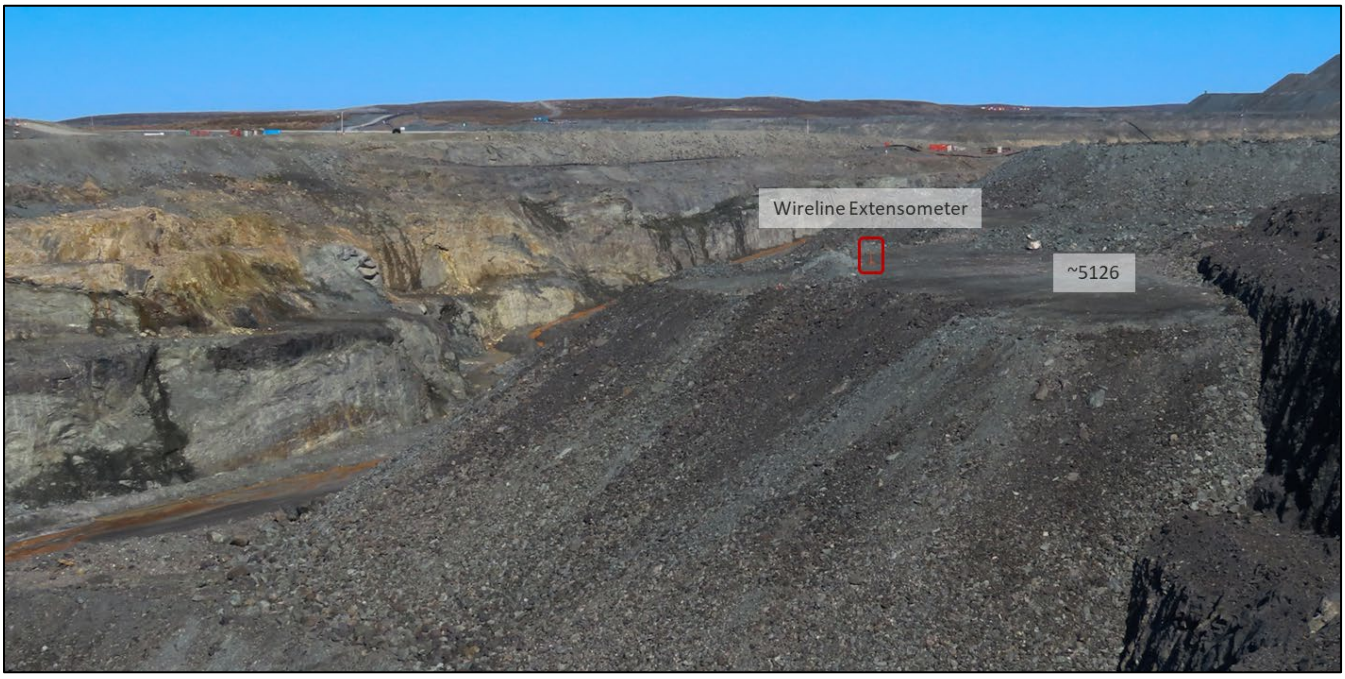
Photograph 4-17: Pit D Dump profile and 5088 mRL platform (2020)

Photograph 4-18 is looking down the dump face at the 5088 mRL bench from the 5126 mRL platform. The tension cracks that are visible are the same as originally observed in 2016 and are dormant.

Photograph 4-18: Pit D Dump 5088 mRL platform and tension cracks (2020)

4.4.1 Pit D In-Pit Waste Rock Dump 5126 West Crest Area

During the 2019 inspection an area of note is along the west crest of the 5126 mRL platform. This area is above the active haul road from Pit E which will continue to be maintained as access for tailings and water reclaim purposes. Several tension cracks were noted parallel to the crest of the dump above the road. The condition of the platform is shown in Photograph 4-19.



Photograph 4-19: Pit D Dump 5126 platform above haul road (2020)

It was recommended during the 2019 site visit that a simple wireline extensometer be installed during final mining of Pit E, after which this area should continue to be monitored as part of regular geotechnical inspections. Agnico installed two wireline extensometers to monitor dump crest movement above the ramp while mining was being completed. A review of the extensometers as part of the site visit was completed, and although the date range was limited in duration there did not appear to be any significant settlement.

Since the ramp will continue to be used for access to water reclaim lines, pump stations, and controls as the tailings and pit lake continue to rise, it is recommended the extensometers remain in place until activities directly below the ramp stop as water elevation rises. It should be noted that as the pit lake level rises, the D Dump will become inundated with water which will likely lead to additional settlement of the dump platforms including the development of tension cracks and shallow sliver-type failures similar to what has been observed at the Goose Dump. The lower dump and platform at 5080 mRL will be inundated first; as such, any settlement of the lower dump platform will likely affect the upper dump platform. Consequently, the D Dump platform should remain closed and inactive except for reading the extensometer instruments.

The following actions are recommended:

- Maintain the D Dump crests as closed and inactive and ensure barrier berms are installed to prevent vehicles from accessing the crest area.
- The development of any infrastructure on the closed in-pit dumps (B Dump, C Dump and D Dump) should be prohibited.
- Maintain and monitor the existing wireline extensometer to confirm dump stability in the area above the access ramp which will continue to be used to access pump controls and the pump station during filling of the Pit E tailings area.
- Continue visual monitoring as part of monthly inspections the D Dump platforms, crests, and dump faces, s and recording of observations such as tension cracks, crest settlement, or dump profile changes.

5.0 PORTAGE PIT E INSPECTION

Mining of the Portage Pit E was completed in Q4 2019 to a final floor elevation of 4976 mRL and no further mining will be carried out within the pit. The pit is now being used as a management facility for tailings storage and water management. The instrumentation that was installed in the south crest area to monitor during mining activities continues to be maintained and monitored.

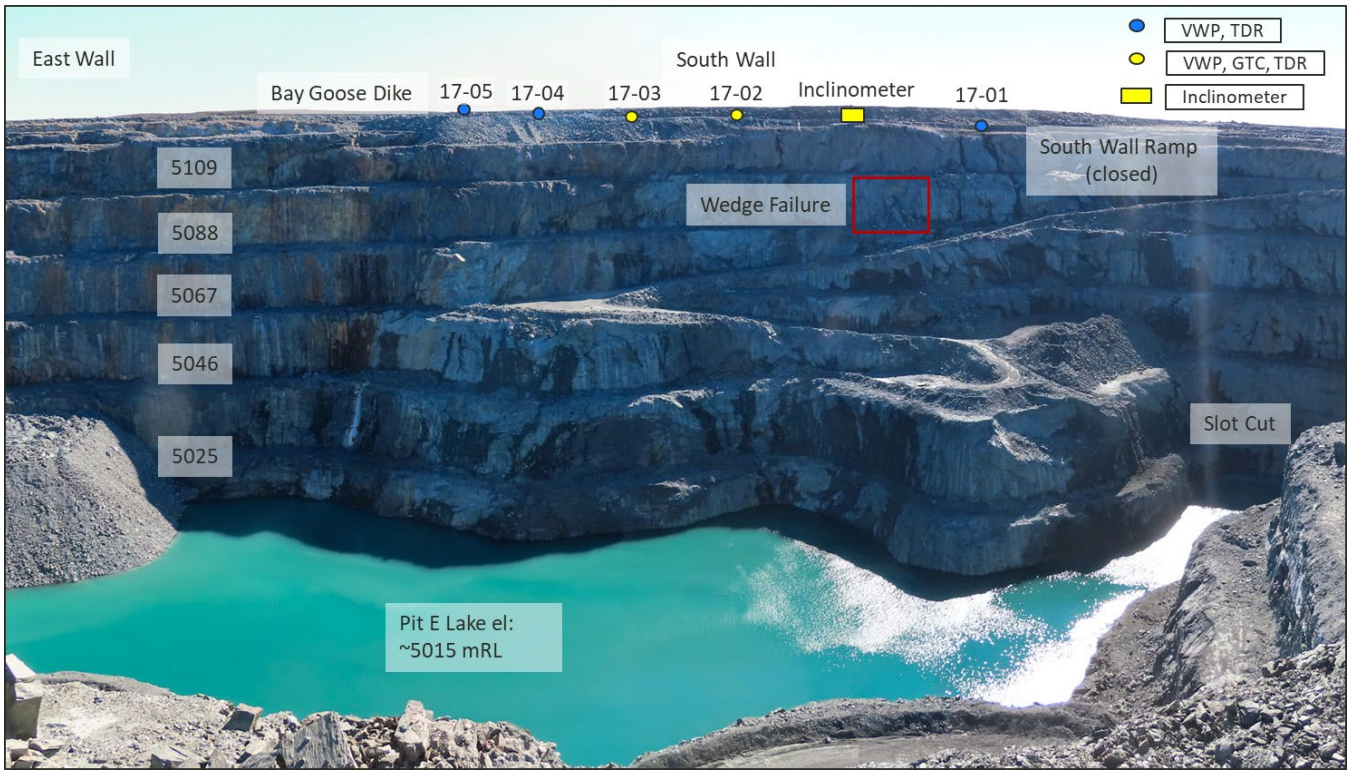
Following the completion of mining the GroundProbe radar monitoring system was removed from the pit. The piezometers, thermistor cables, TDR cables, and slope inclinometer are still installed behind the South Wall of the pit, between the pit crest and the Bay Goose Dike. The instrumentation is not regularly monitored now that mining has been completed and there is no access permitted to the South Ramp or the South Wall area. It is proposed that the instrumentation be included with the dike instrumentation review. This would include piezometer and thermistors, but TDR cables and the slope inclinometer could be excluded.

The site visit included a review of the main pit walls from the pit crest as well as a review of the wall directly above the West Ramp which is still accessible but is not maintained.

The pit lake water elevation was approximately 5015 mRL. Tailings are now being discharged from a single point at the crest of the pit at the south end of the west wall, above the slot cut that was completed later in the mining life of the pit. The Pit E east wall continues to perform well and there are no on-going stability issues of significance with the east wall. The condition of Pit E at the time of inspection is shown in Photograph 5-1 and Photograph 5-2.

Photograph 5-1: Pit E viewing north (2020)

The west wall has localized bench-scale instability associated with the weaker ultramafic rock exposed at the base of the wall and adverse structure (shearing in the ultramafic rock) inclined into the walls and resulting in overhangs.



Photograph 5-2: Pit E viewing southeast showing current instrumentation (2020)

During the period between the 2019 and 2020 site visits, only three significant rockfall events were recorded. These were all associated with the weak ultramafic rock in the south wall and above the ramp. Of these, the largest was identified by radar monitoring and a second event was identified in advance by regular geotechnical inspections. All events were managed and reported accordingly, and there was no lost time, equipment loss or damage, or personnel effects. The South Ramp has been bermed off at the entry point to the pit in response to the failures. The closure of the ramp necessitated a relocation of the tailings discharge to the pit area to the south end of the west wall.

5.1 Pit E East Wall

The main structural control for the east wall is the steeply west dipping stratigraphy and sub-parallel foliation which bench face angles either break to or are excavated to. The bench and overall wall performance continue to be satisfactory within the good quality intermediate volcanic rock. There has been no noticeable deterioration of the final benches or accumulation of material since mining of this wall was completed. The condition of the Pit E East Wall at the time of inspection is shown in Photograph 5-3.

Photograph 5-3: Pit E east wall performance (2020)

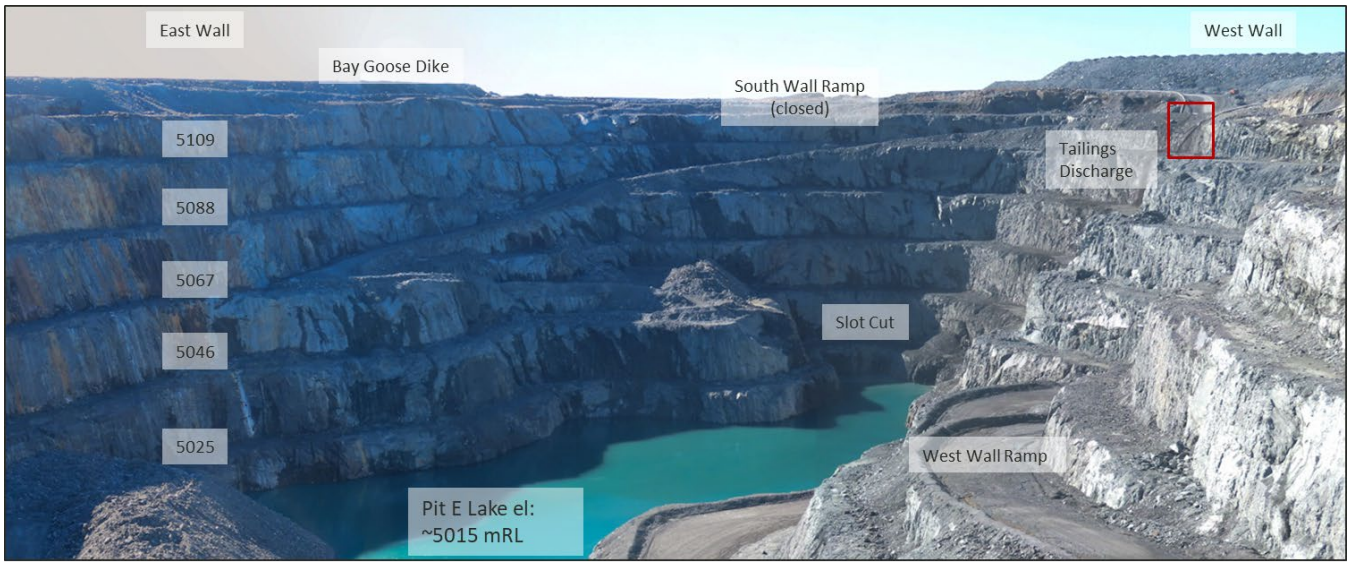
The following actions are recommended:

- Since there are no longer any regular in-pit activities, regular inspections can be suspended. General (informal) visual inspections can be undertaken when the opportunity presents.

5.2 Pit E South Wall

Pit E south wall exposes primarily ultramafic rock with iron formation and volcanic rock on its eastern edge. The ultramafic rock is poor quality, and the south wall has had a history of poor bench and overall slope performance since 2015, as documented in previous site visit reports and referenced documents. Rockfalls are more common in the ultramafic rock and specifically in areas of the pit that were in talik. Where the ultramafic rock is frozen, wall performance is significantly improved, and in the iron formation and intermediate volcanic rock is enhanced. Significant faulting and folding have affected the south wall leading to the development of a strong shear fabric within the ultramafic rock which contributes to its poor performance, and to its ability to conduct groundwater flow.

The South Ramp is inactive and closed, and there are no plans to re-establish access from this area. Pit E was mined to completion with radar coverage of the south wall to monitor potential rock fall events. Now that mining has been completed, the radar has been removed. The instrumentation remains installed in the South Wall includes TDR cables, thermistors and vibrating wire piezometers, and a slope inclinometer. These data have been reviewed as part of this site inspection and are summarized later in this document. The condition of the Pit E South Wall at the time of inspection is shown in Photograph 5-4.



Photograph 5-4: Pit E south wall (2020)

The following actions are recommended:

- Maintain the South Ramp as closed and inactive and ensure barrier berms are installed to prevent vehicles and personnel from accessing the area.
- Continue visual monitoring and recording of observations of rock fall and other potential instability as part of monthly site geotechnical inspections.
- Incorporate monitoring of the thermistor and piezometer instrumentation installed behind the South Wall of the pit into the dike instrumentation monitoring program. The monitoring can be scaled back to exclude TDR and inclinometer readings; however, the ongoing collection of the thermistor and piezometer data is important to develop a record of the response of the thermal and hydrogeological regime to the introduction of tailings and water. This may become important information for modelling other aspects of the management areas in the future, such as for closure purposes.

5.3 Pit E Rock Fall Events

A total of three rockfall events occurred between August of the 2019 inspection and August of the 2020 inspection. These were recorded in the rock fall log and reported to the Mines Inspector as per Sections 16.01 and 16.02 of the Mine Health and Safety Act and Regulations for NWT and NU. No personnel were injured, and no equipment was damaged. Many of the events were predicted by radar, or by direct observation made by pit personnel and the geotechnical team.

The rockfall events since the 2019 site visit are summarized in Table 5-1.

Table 5-1: Rock fall event log for Pit E remainder of 2019 and to August 2020

Date of Rock fall	Location	Rock type	Estimated or calculated tonnage	Predicted by radar	Reported to Mines Inspector	Comment
9/15/2019	West Wall	Ultramafic	60	No	Yes	The area was flagged 2 days earlier. Berms were in place. We expect it.
10/2/2019	South Wall	Ultramafic	55	No	Yes	More to come
10/5/2019	South Wall	Ultramafic	600	Yes	Yes	Clear signature on the radar but area was mask and discovered 2 days after (area of the old ramp).

Reference: Agnico Eagle Rock Fall Log 2020

The dominant failure mechanism is generally planar sliding along outward dipping foliation surfaces or a combination of planar and wedge mechanisms. Agnico manage local bench scale instability adjacent to working areas and high-traffic areas by regular geotechnical inspections, appropriate scaling of instabilities when noted, and access restrictions in areas when required. The multiple bench instability above the South Ramp from wedge failure along foliation planes within weak ultramafic rock is shown in Photograph 5-5.

Photograph 5-5: Bench scale slab failure along foliation above South Ramp (2020)

The following actions are recommended:

- Continue visual monitoring and recording of observations of rock falls and other potential instability as part of regular monthly site geotechnical inspections in areas where personnel, equipment, or infrastructure could be affected. This will predominantly be the West Wall Ramp that access the pit for the placement of a water reclaim line, pump station and pump controls.

5.3.1 Water Management at Crest and Sinkholes in Ring Road

The sump at the crest of south pit wall continues to collect water as shown in Photograph 5-6. There was no pump at the sump at the time of the inspection. During the 2020 site visit it was observed that sinkholes and settlement of the ring road at the crest of the south wall of Pit E had developed. The area of subsidence is directly adjacent to the sump and is shown in Photograph 5-6.

Photograph 5-6: Sump at crest of Pit E south wall and area of ring road subsidence (2020)

The settlement and sinkholes are shown in Photograph 5-7. The road is used to access the instrumentation that is installed between the pit crest and the Bay Goose Dike on the southeast side of the pit. Following the site visit and discussion with Agnico, the road has been closed and an alternative access to the instrumentation has been constructed on the east side.

Photograph 5-7: Subsidence and sinkhole formation in ring road at south wall crest and downstream of sump (2020)

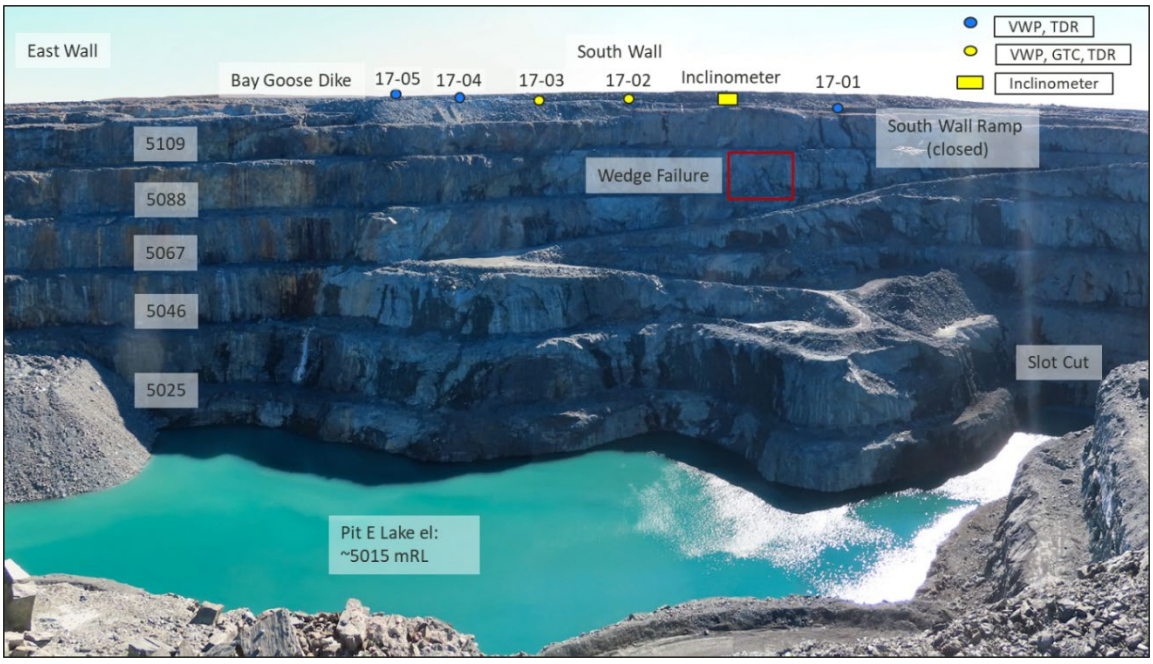
The following actions are recommended:

- Maintain the road as closed.

5.3.2 Pit E5 Instrumentation

The Pit E5 instrumentation consists of vibrating wire piezometers, TDR cables, thermistors, and an In Place (IP) inclinometer. There is no access the pit.

The instrumentation data are contained in Appendix A and some observations are summarized below. approximate locations of the Pit E5 instrumentation is shown in Photograph 5-8.



Photograph 5-8: Pit E south wall showing instrumentation (2020)

The instrumentation installed in the south wall of Pit E5 is summarized in Table 5-2.

Table 5-2: Pit E5 list of instrumentation

Borehole	Inclination	Comments	Vibrating Wire Piezometer depth (in hole)	Thermistor	TDR Cable
E4-01 (PE5-17-01)	-60	From pit crest, toward pit, sub-parallel to wall dip	150m (A)/75m (B)/37.5m (C)	No	Yes
E4-02 (PE5-17-02)	-90	From in-field between crest and dike, vertical.	100m (A)/32.5m (B)	Yes	Yes
E4-03 (PE5-17-03)	-60	From pit crest, toward pit, sub-parallel to wall dip	150m (A)/75m (B)/37.5m (C)	Yes	Yes
E4-04 (PE5-17-04)	-90	From in-field between crest and dike, vertical.	100m (A)/32.5m (B)	No	Yes
E4-05 (PE5-17-05)	-60	From pit crest, toward pit, sub-parallel to wall dip	150m (A)/75m (B)/37.5m (C)	No	Yes
Inclinometer (E5-17-06)	-90	Vertical	No	No	No

5.3.2.1 TDR Cables

Five TDR cables were installed in boreholes drilled behind the south wall of the Pit E in 2017 to monitor slope movement. The TDR instrumentation has been connected to the site ADAS. Data were collected until December 2019 from cables TDR PE4-03 and TDR PE4-04. No data were collected from TDR PE4-01, TDR PE4-02, and TDR PE4-05 in 2019. There are no new data collected in 2020 for the TDR cables. A review of the data from TDR PE4-01 to December indicates no changes in the data trends.

The following is recommended:

- Monitoring of the TDR cables can be discontinued.

5.3.2.2 Thermistors

The data from the two thermistors installed in PE5-17-02 (vertical) and PE5-17-03 (inclined) continue to show relatively steady-state conditions have been reached, although a cooling trend is indicated as ground temperatures beneath the former lakes continue to cool. The data are consistent with the permafrost and hydrogeological conceptual models that the area of the wall beneath the former lake is not frozen.

Thermistor PE5-17-02 is a vertical thermistor in the infield between the pit crest and the Bay-Goose Dike. The general trend is consistent, although a slow decrease in ground temperatures is noted. The data continue to indicate frozen ground conditions from 5125 mRL down to approximately 510 mRL. Below this depth the ground is not frozen, with temperatures reaching almost 2.5° C.

Thermistor PE5-17-03 is inclined towards the pit. The data indicate the near surface ground to be frozen to approximately 5119 mRL, after which ground temperatures increase to between 1° C and 2° C, to an elevation of approximately 5085 mRL. The depth at which the ground temperature becomes negative has decreased by about 20 m since the thermistor was installed, suggesting some freeze-back of the south wall. Below the elevation 5045 mRL, the ground temperatures increase to positive values.

The following is recommended:

- Continue collecting data during operation of Pit E as a tailings management facility for possible future use.

5.3.2.3 Piezometers

Nested piezometers were installed in PE5-17-01 (3 VW), 17-02 (2 VW), 17-03 (3 VW), 17-04 (2 VW), and 17-05 (3 VW). The piezometers are connected to the automated data acquisition monitoring as part of the ground control management plan. A detailed review of the piezometer data is not part of the current scope.

The review of the 2020 data indicate that the shallow piezometers installed in 17-01, 17-02, 17-03, and 17-04 are at or below freezing, while the deeper piezometers remain within non-frozen ground. Instrument 17-05 continues to show all piezometers installed are at negative ground temperatures. The data from the frozen piezometers are unreliable.

The data from the piezometers installed within the non-frozen ground indicate piezometric elevations between about 5120 mRL and 5131 mRL (lake level).

The following is recommended:

- Continue collecting data during operation of Pit E as a tailings management facility for possible future use.

5.3.2.4 Inclinometer

One inclinometer was installed in a dedicated borehole behind the wall. The installation details are summarized in Table 5-3.

Table 5-3: Inclinometer installation details

Instrument	Baseline Reading	Top of Casing Elevation (metres above sea level)	Easting, m (Mine Grid)	Northing, m (Mine Grid)	Elevation, m (mRL)	A-Axis orientation (+'ve direction)	B-Axis orientation (+'ve direction)
In-Place Inclinometer (IPI)	2018-06-14 9h30am	130.660	2080.803	5516.495	5130.113	West-northwest, towards Portage Pit	North-northeast, parallel to pit wall

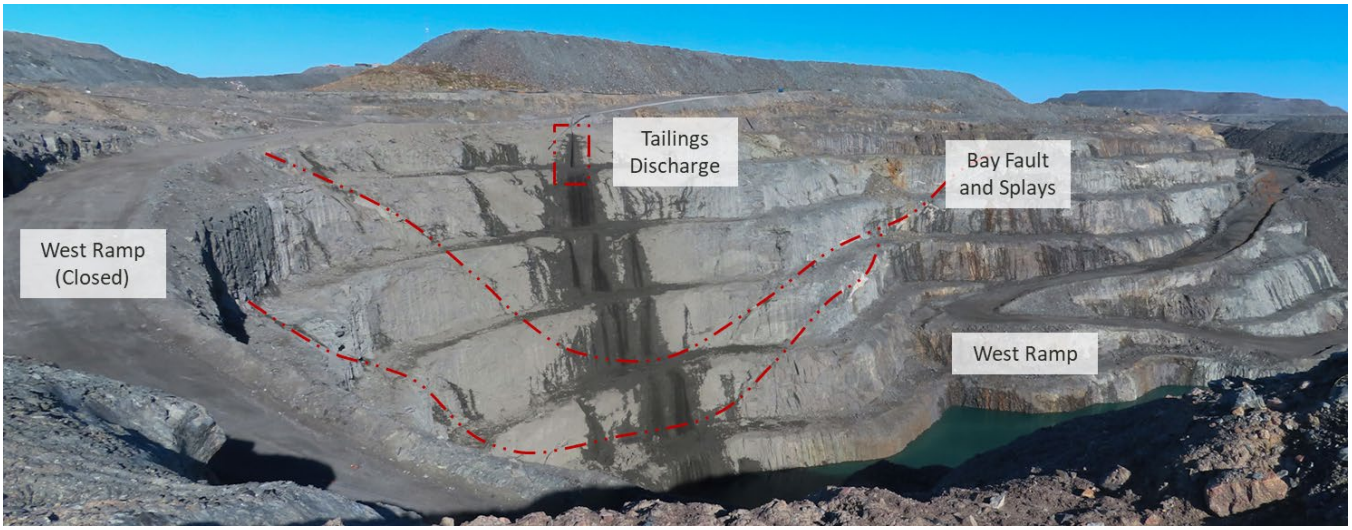
Based on the thermal profile provided by the instrument, the upper segment of the instrument was installed in permafrost, with the base of permafrost in the hole at elevation of approximately 92 m above sea level (5092 mRL). Below this elevation the inclinometer is within non-frozen ground. The cumulative displacements shown by the inclinometer A and B axes are millimeter-scale. There does not appear to be a discernible trend in the inclinometer data.

The following is recommended:

- Monitoring of the inclinometer can be discontinued.

5.4 Pit E West Wall

The Pit E west wall exposes predominantly quartzite, iron formation and intermediate volcanic rock in the upper benches of the wall, overlying ultramafic rock in the lower benches. Ultramafic rock is exposed along a substantial portion of the West Wall Ramp as it descends into the pit. The Bay Fault parallels the crest through the middle portion of the pit wall, and then is exposed in the lower benches through the southern portion of the wall. The condition of the Pit E West Wall, along with the tailings discharge point near the south end of the wall, is shown in Photograph 5-9.



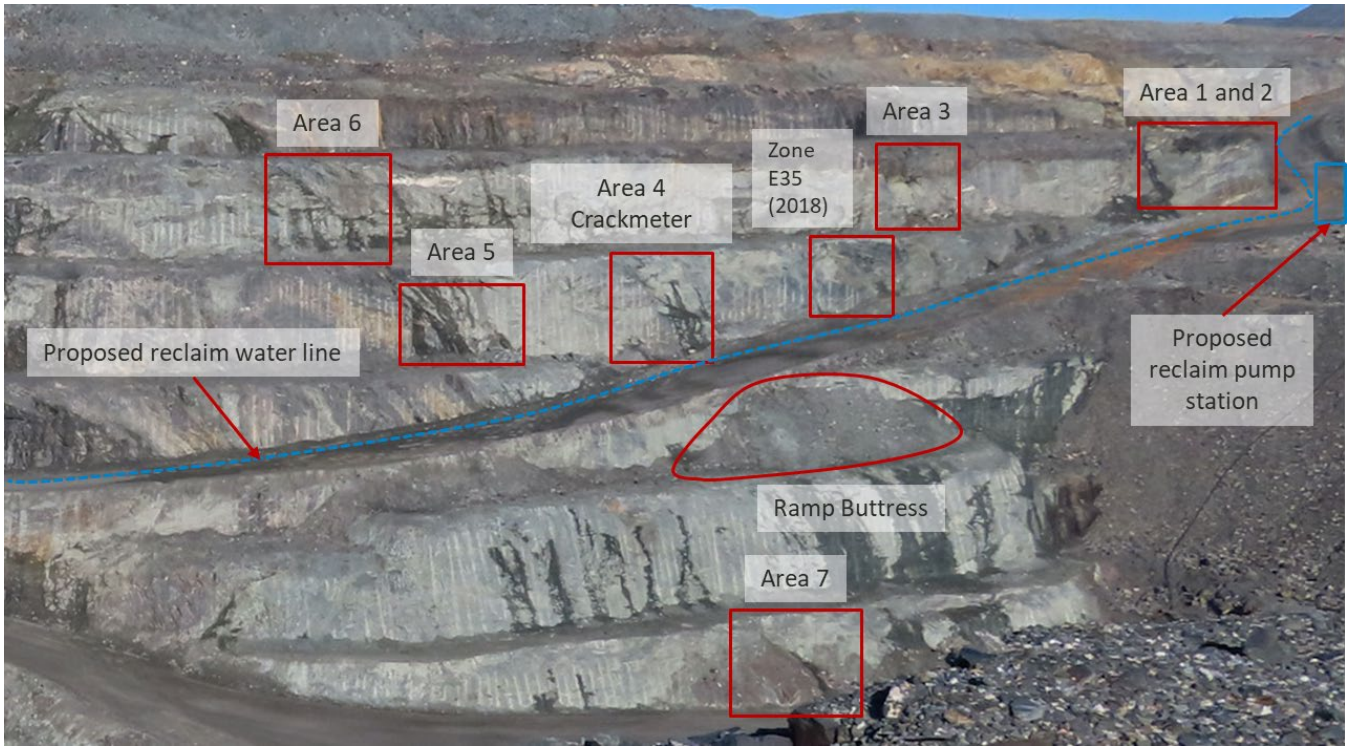
Photograph 5-9: Pit E west wall showing Bay Fault and tailings discharge (2020)

At the south end of the west wall, the contact of the ultramafic rock and overlying intermediate volcanic rock is inclined into the wall, which is generally beneficial for overall slope stability, but can lead to bench-scale instability within the weaker underlying ultramafic rock. The presence of the Bay Fault and associated parallel structures within the ultramafic rock also lead to the potential for toppling, as seen in the transition from the west wall of the pit to the south wall of the pit.

5.5 Pit E3 West Wall Ramp

The Pit E ramp descends southward into the pit along the west wall. The ramp is currently inactive but is still accessible by light vehicle traffic although access is restricted. The ramp is not maintained, and water has formed erosive rills. As Pit E is transitioned to tailings and water management, Agnico plan to install a water reclaim line down the West Wall Ramp to the lower switchback where a submersible pump will be placed. The reclaim line is currently planned along the inside edge of the ramp, against the rockfall containment berm. Plans also show a reclaim pump station is to be located adjacent to a bullnose corner on the ramp, below D Dump.

Nine key areas of geotechnical hazards identified during previous inspections continue to be monitored and are discussed below. The condition of the Pit E3 West Wall Ramp at the time of inspection is shown in Photograph 5-10 and Photograph 5-11.



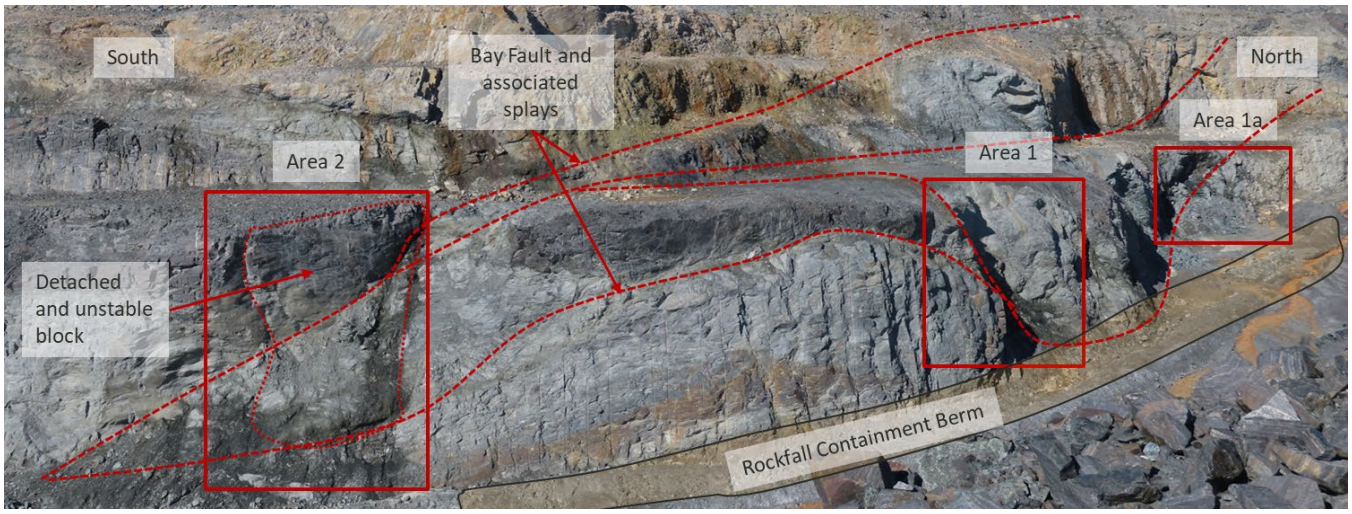
Photograph 5-10: Pit E west wall ramp summary hazard identification (2020)

5.5.1 Ramp Areas 1 and 2

The West Wall Ramp enters the Portage Pit along the west side of the pit, and ramps down to the south towards Pit E3 and Pit E5. The ramp passes around a bullnose corner in the pit wall that that experienced several rockfall events since 2014 and that continues to ravel. The Bay Fault and associated fault splays intersect the bullnose

corner leading to the local and on-going instability. The exposed fault varies in width from metre scale to several metres. The rock mass quality continues to degrade in response to exposure.

The rockfall containment berm along the inside shoulder of the ramp has been effective retaining local failures. A new, detached and potentially unstable block was noted during the 2020 site visit within Area 2 and shown in Photograph 5-11. It should be expected that this block will eventually fail but is expected to be retained by the rockfall berm. It is possible that the failed material might overtop the berm. If this occurs the berm should be cleaned, re-established, and reshaped.



Photograph 5-11: Pit E west wall ramp Area 1 and Area 2 (2020)

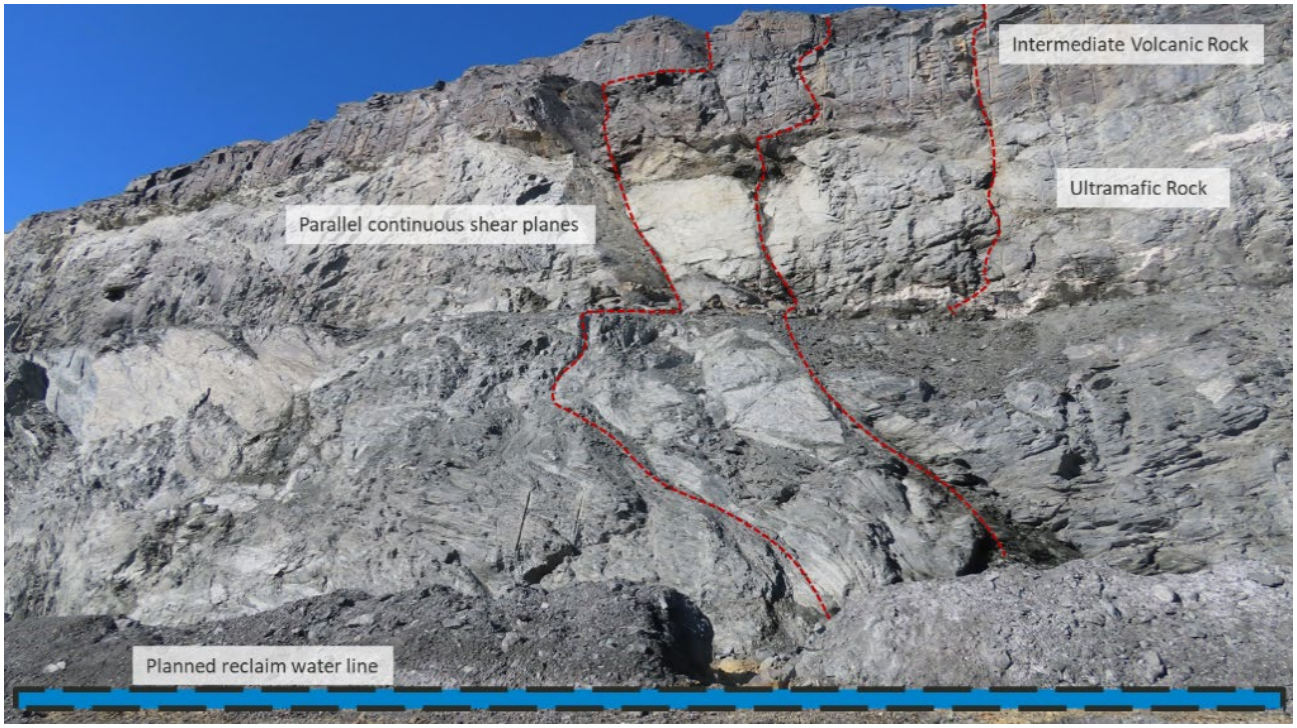
The planned location of the pump station adjacent to this area should be reconsidered. The risk to personnel, equipment, and infrastructure of on-going instability is high, and the potential to over-top the containment berm exists. It is recommended the pump station be moved further up the ramp, clear of this area.

The following actions are recommended:

- Relocate the planned pump station to an area further up the ramp, clear of this area of potential on-going instability, if practical to do so.
- Maintain the rockfall containment berm along inside edge of ramp while Pit E is used for tailings and water management.
- Continue visual monitoring and recording of observations as part of monthly site geotechnical inspections and during informal day-to-day inspections.

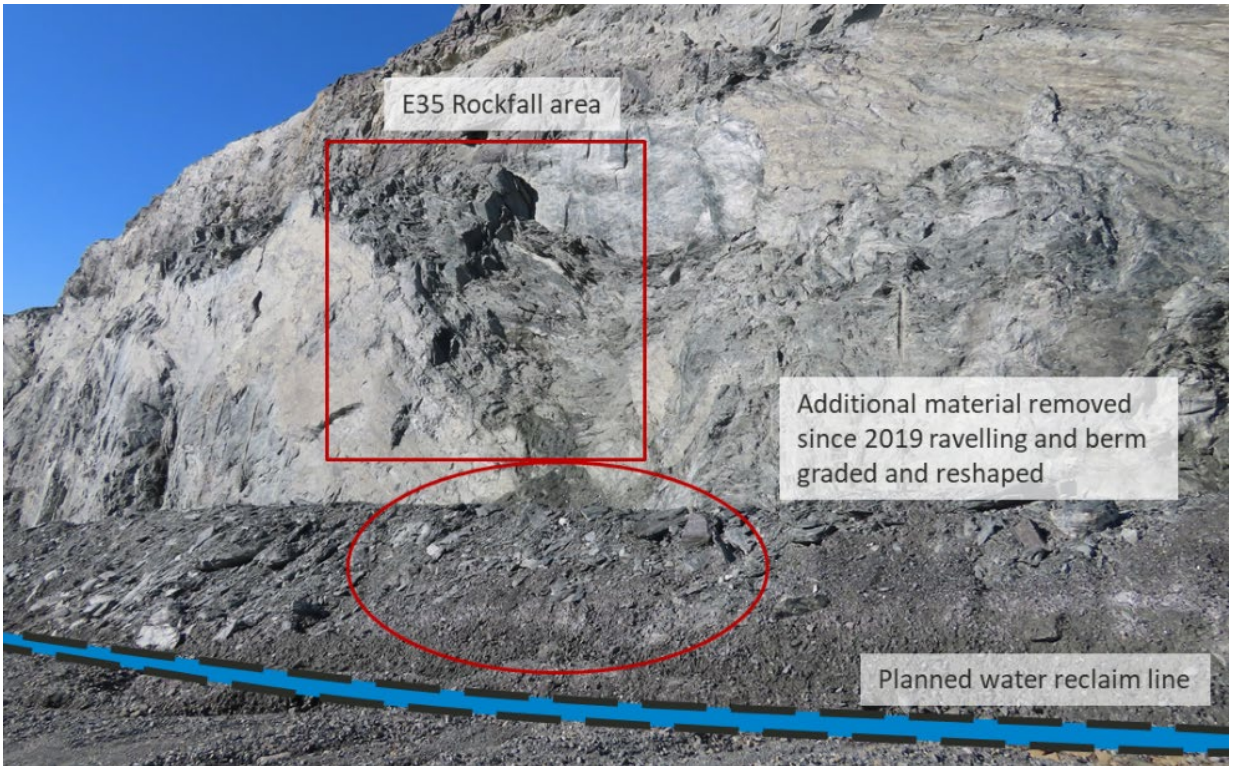
5.5.2 Ramp Area 3 and E35

The Ramp Area 3 is defined by a moderately to steeply north dipping continuous shear plane that strikes into the west wall of the pit above the ramp, and cross cuts the contact between the ultramafic rock and the overlying intermediate volcanic rock. At the contact, the combination of the continuous plane and associated open features, the west dipping contact, and vertically oriented jointing has resulted in historical rockfalls. A review of this area during the 2020 site visit shows no increase in accumulated material on the bench below. The condition of the Ramp Area 3 at the time of inspection is shown in Photograph 5-12.



Photograph 5-12: Pit E Ramp Area 3 (2020)

During the 2019 site visit additional material was noted to have failed in Zone E35, filling behind the berm. No additional material was noted to have accumulated during the 2020 site visit. The current condition of the Zone E35 rock fall is shown in Photograph 5-13.



Photograph 5-13: Zone E35 rockfall (2020)

The planned reclaim water line will pass directly beneath this area of the wall. There is an on-going risk to personnel, equipment and infrastructure of rockfall instability. Agnico should consider relocating the planned reclaim water line to the outside edge of the ramp, rather than the inside edge.

The following recommendations were made:

- Consider relocating the reclaim water line to the outside edge of the ramp, away from potential rockfall risk areas, if practical to do so.
- Maintain the rockfall containment berm along inside edge of ramp while Pit E is used for tailings and water management.
- Continue visual monitoring and recording of observations as part of monthly site geotechnical inspections and during informal day-to-day inspections.

5.5.3 Ramp Areas 4, 5 and 6

Ramp Area 4 is characterized by the presence of a steeply east dipping continuous plane that is undercut by the bench face and exposes a rock block which could conceivably slide. A portion of the rock block was scaled down during mining. AEM installed a crack extensometer into the rock to continuously monitor this block. The monitoring has shown no movement of the block. Upon completion of mining in Pit E, and deactivation of the ramp, the crackmeter has been removed.

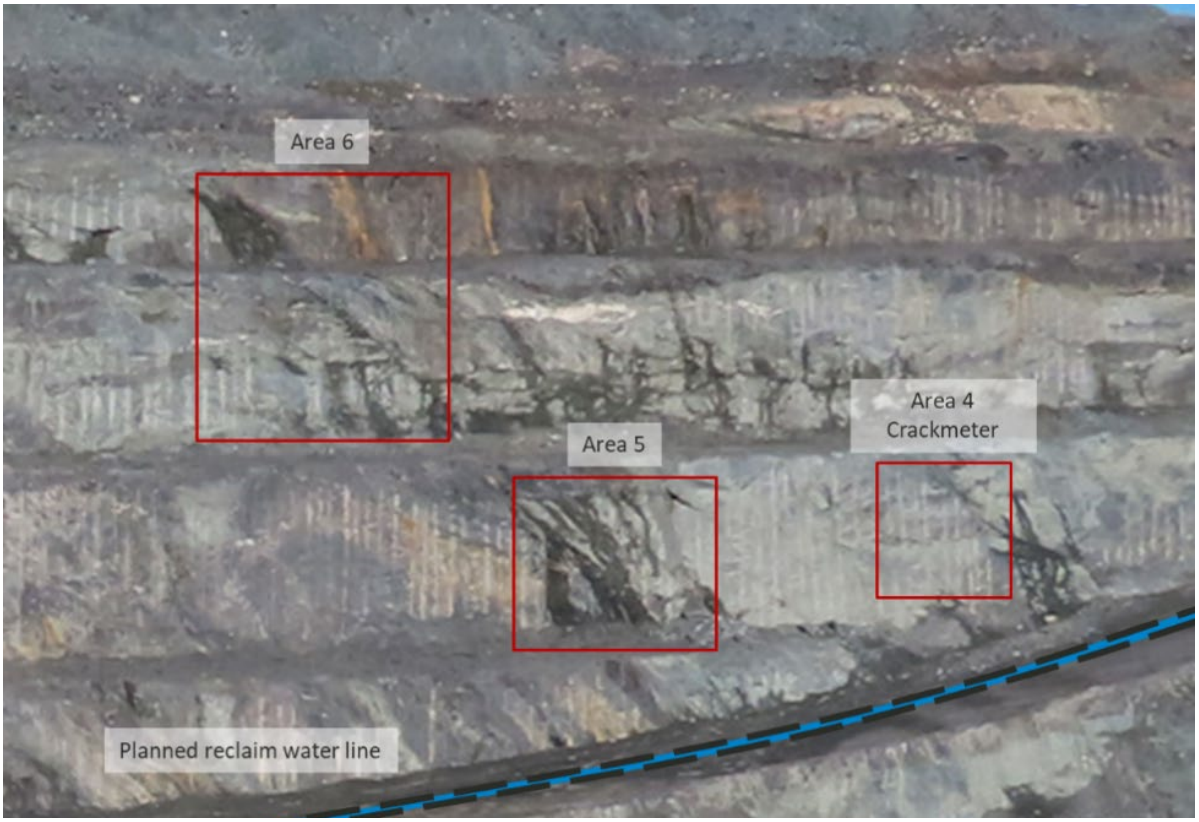
Ramp Area 5 is defined by a series of closely spaced bench-scale joints trending into the wall and forming steeply plunging wedges.

Ramp Area 6 is located above the 5088 mRL bench and is a vertical extension of the closely spaced jointing of Area 5. These are steeply north dipping shear joints, which intersect the volcanic rock. The close spacing and continuous nature of these joints may result in increased raveling of material particularly during freshet and spring thaw.

The planned reclaim water line will pass directly beneath this area of the wall. There is an on-going risk to personnel, equipment and infrastructure of rockfall instability. Agnico should consider relocating the planned reclaim water line to the outside edge of the ramp, rather than the inside edge. The current condition of Pit E Ramp Areas 4, 5, and 6 are shown in Photograph 5-14.

The following actions are recommended:

- Consider relocating the reclaim water line to the outside edge of the ramp, away from potential rockfall risk areas, if practical to do so.
- Maintain the rockfall containment berm along inside edge of ramp while Pit E is used for tailings and water management.
- Continue visual monitoring and recording of observations as part of monthly site geotechnical inspections.



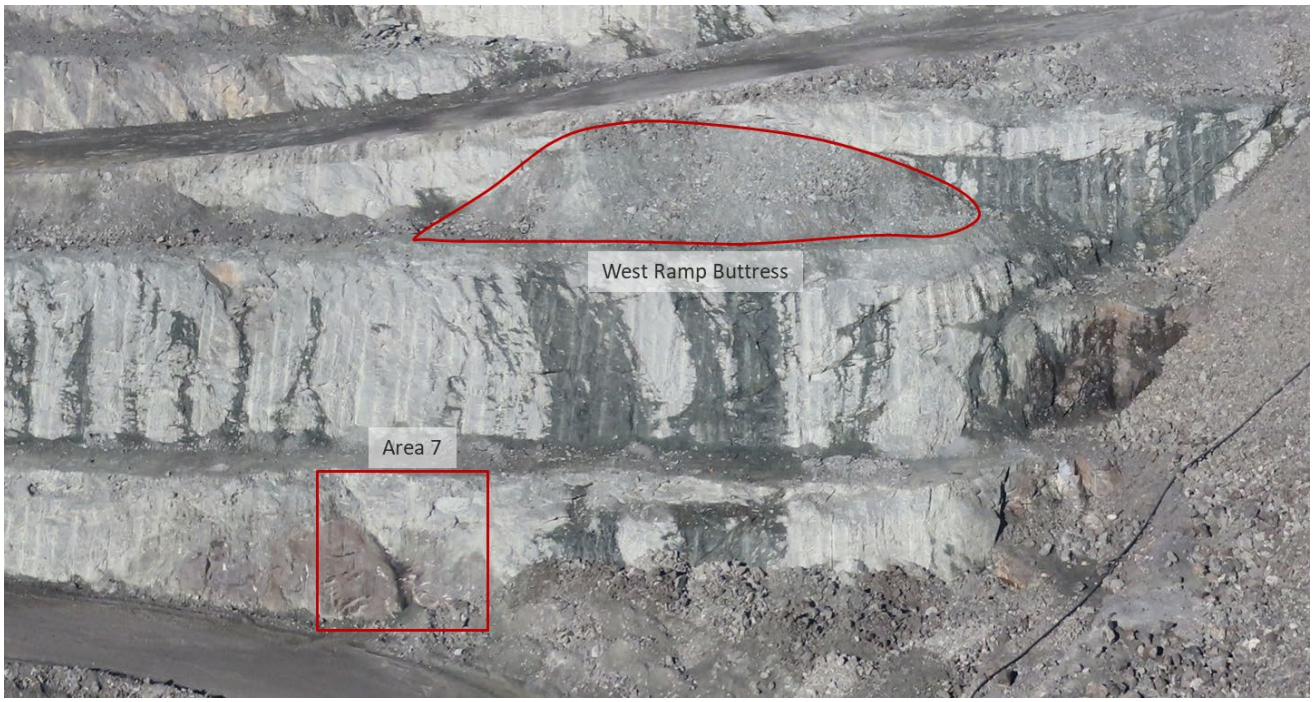
Photograph 5-14: Pit E Ramp Areas 4,5, and 6 (2020)

5.5.4 Ramp Area 7 and West Ramp Buttress

Ramp Area 7 is at the base of the ramp, at the north end of the pit, and near the contact between iron formation and ultramafic rock. The potential instability is characterized by strongly sheared ultramafic rock in contact with iron formation, with associated shear planes dipping out of the bench face. Some of the sheared planes are open and appear to form potential wedge and planar mechanisms. It was noted during the 2019 site visit that this area is now partly buttressed with backfilled waste rock, and no longer presents a hazard. The planned water reclaim will not extend to this area of the pit, and access is restricted.

The West Ramp Buttress was constructed in 2015 to stabilize the ramp, and has been effective at this since then. The berm continues to effectively stabilize the ramp. There is no indication of instability of the buttress or the ramp surface. No tension cracks were noted.

The condition of the West Wall Ramp Buttress and Ramp Area 7 at the time of inspection is shown in Photograph 5-15.



Photograph 5-15: Pit E Ramp Area 7 and West Ramp Buttress (2020)

The following actions are recommended:

- Since this area of the pit is no longer accessible it should be considered out of service and bi-weekly pit wall inspections and quarterly inspection summaries can be suspended.

5.5.5 Pit E Slot South and East Wall

The slot at the south end of Pit E is defined by the transition of the south wall to the west wall of the pit and is intersected by the east-west trending shear planes which strike obliquely into the south and east walls. Mining of the slot area was completed in 2018 and the area is now filled by the pit lake and tailings.

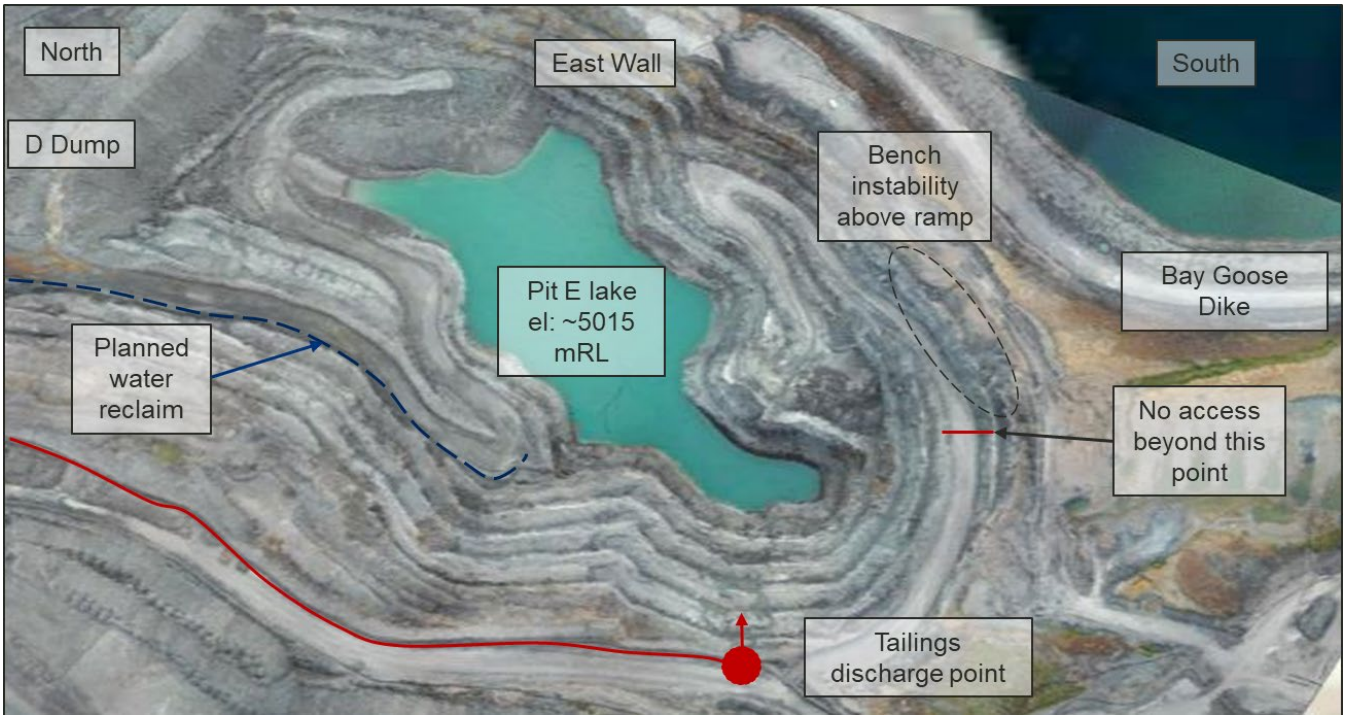
The following actions are recommended:

- Since this area of the pit is no longer accessible it should be considered out of service and bi-weekly pit wall inspections and quarterly inspection summaries can be suspended.

5.6 Pit E Tailings Discharge

The original planned location for initial discharge of tailings was located along the South Wall Ramp of Pit E, near the switch back, discharging at a lower elevation in the pit. However, several bench-scale, large wedge failures occurred spilling on to the ramp near the switch back. Agnico appropriately decided to move the tailings discharge point to an alternate location near the crest of the west wall of the pit at the south end to avoid the potential risk to personnel, equipment, and infrastructure associated with further wedge failures. The area was reviewed during the site inspection, and the following comments and observations were reviewed with Agnico personnel during a close-out meeting on site.

The current discharge point is at the south end of the west wall which is approximately 110 to 120 m in height. The upper benches are ultramafic rock while the lower benches are intermediate volcanic rock. The slope is no longer being monitored by radar which would be viable due to the discharge of tailings in this area. There are no prisms installed on the wall. The location of the discharge point is shown in plan on Photograph 5-16.



Photograph 5-16: Location of Pit E tailings discharge (2020)

5.6.1 General Observations and Comments

The South Ramp is bermed off at the pit crest to prevent access; however, there is width for light vehicle entry. A row of 'candles' was placed on the ramp to indicate no entry. A previous stability assessment at this location showed a Factor of Safety (FS) of 1.5 which exceeded the design acceptance criteria of 1.3 (Tetra Tech 2018a). The location of the stability cross section is shown in Figure 5-1.

The slope is generally comprised of poor quality ultramafic rock, with structure that is parallel to wall, and a recommendation in the 2018 study was to avoid where possible discharging tailings over ultramafic volcanics given their susceptibility to rock mass degradation when exposed to water, and especially in areas of adverse structure and poor rock mass quality. There are no piezometers behind the current wall to confirm the groundwater pressures that were used. At the time of the site visit, the wall was observed to be performing well and without any obvious indications of distress or instability.

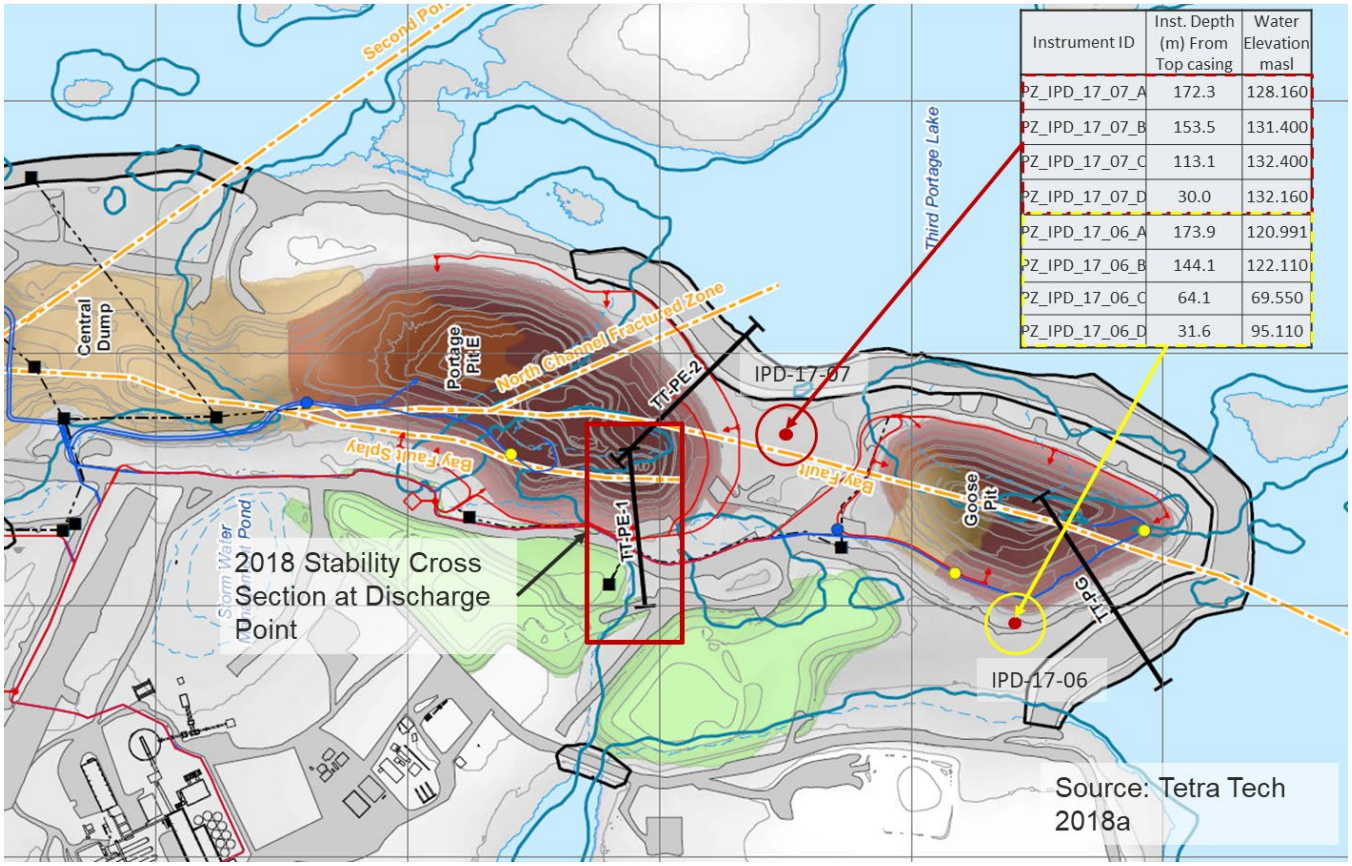
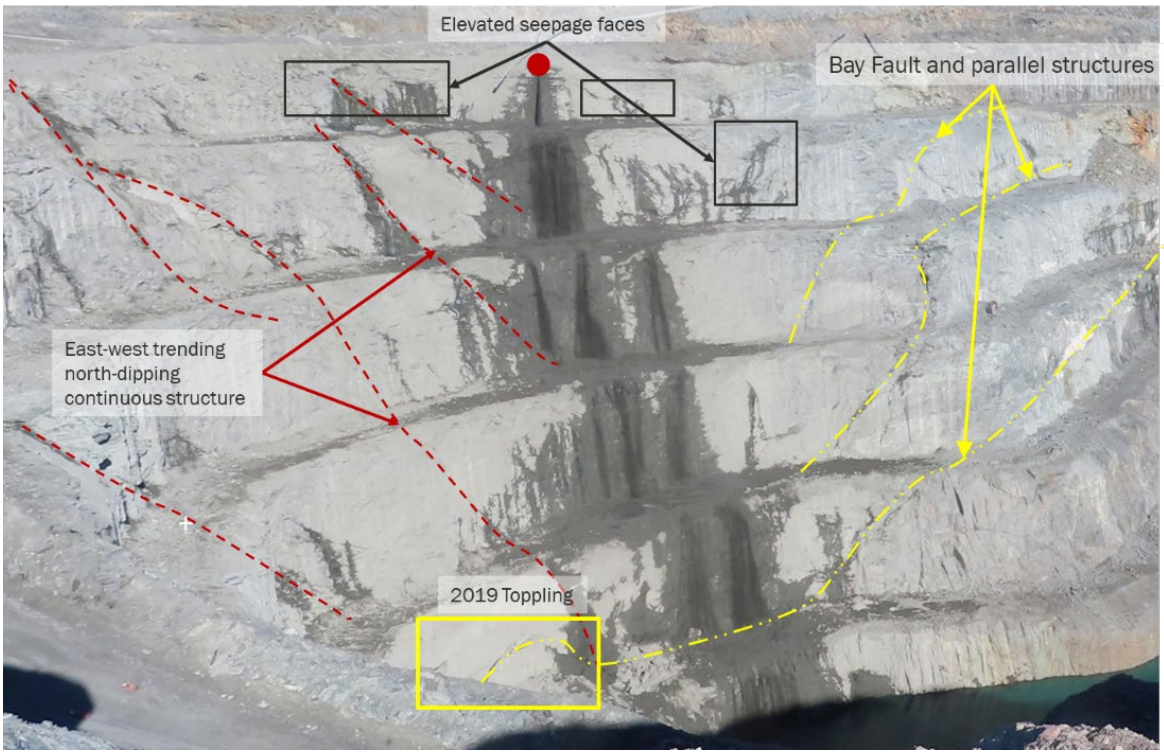


Figure 5-1: Location of stability cross section from 2018 study (Tetra Tech 2018a)

The tailings are being discharged directly on to the ultramafic rock in the upper benches, accumulating and spilling on to lower benches. Field observations suggest that tailings water is infiltrating along foliation and continuous fault structures, and that elevated water levels in the wall might be developing. This is suggested by the observation of seepage faces above the discharge elevation and emanating from the continuous and discontinuous east-west trending structures.

Several wall-height east-west trending and north dipping structures intersect the wall. These have led to bench scale wedge failures previously on the upper benches. The (approximately) north-south trending west dipping Bay Fault intersects the wall and led to a toppling failure on one of the lower benches in 2019 which was buttressed with rockfill before full toppling failure was mobilized. The pit wall at the location of the discharge is tightly curved (convex), which is inherently better for stability than a linear wall due to the development of confining stresses.

The intersection of the steep northeast dipping structure and the west dipping fault and parallel structures form a wedge(s); however, the plunge is to the northwest and is favourably oriented with respect to wall stability. These are shown in Photograph 5-17.



Photograph 5-177: Key observations of east-west trending structure and Bay Fault at Pit E discharge point (2020)

From field observation and the current geological model foliation and stratigraphy is rolling but generally flat lying or inclined slightly to the west. This is consistent with interpretations for the previous stability analysis (Tetra Tech 2018a).

Agnico have indicated the tailings discharge point will continue to be operated from its current location. This is primarily due to operational challenges with extending the tailings pipeline to other possible locations.

The following actions are therefore recommended for on-going discharge from the current location.

- The crest area of the pit at the tailings discharge point, and especially the road surface should be inspected on a bi-weekly basis (once every two weeks) and as part of other informal site inspections for the development of tension cracks or any indicators of slope instability such as settlement or sinkholes. If indications of instability are noted, the area should be closed and a geotechnical risk assessment undertaken to evaluate the risk of continuing from this location.
- If necessary, the road could be re-aligned further from the pit crest.

6.0 GOOSE PIT INSPECTION

The Goose Pit general configuration is shown in Figure 6-1. On the day of the Goose Pit site inspection, the elevation of the pit lake was approximately 5115 mRL and the elevation of the tailings surface was approximately 5094 mRL. Slope monitoring instrumentation is installed along the east crest of the pit, in the in-field between the pit crest and the Bay Goose Dike toe. In addition to the observations made during the site visit, the data from thermistors, TDR cables, and piezometers were reviewed.

Mining of the Goose Pit to a final floor elevation of 4997 mRL was completed in 2015. End dumping of waste rock to the northwest corner of the pit near the access ramp entry point (North Dump) was carried out in 2016, finishing in June of that year. Dumping recommenced in 2017 creating a second and contiguous dump south of the first (South Dump). Dumping from the South Dump stopped in September 2017, and both dump areas are currently inactive with restricted access. In 2019 tailings deposition commenced into the former open pit and continued to 2020. The former pit is no longer actively used for tailings deposition.

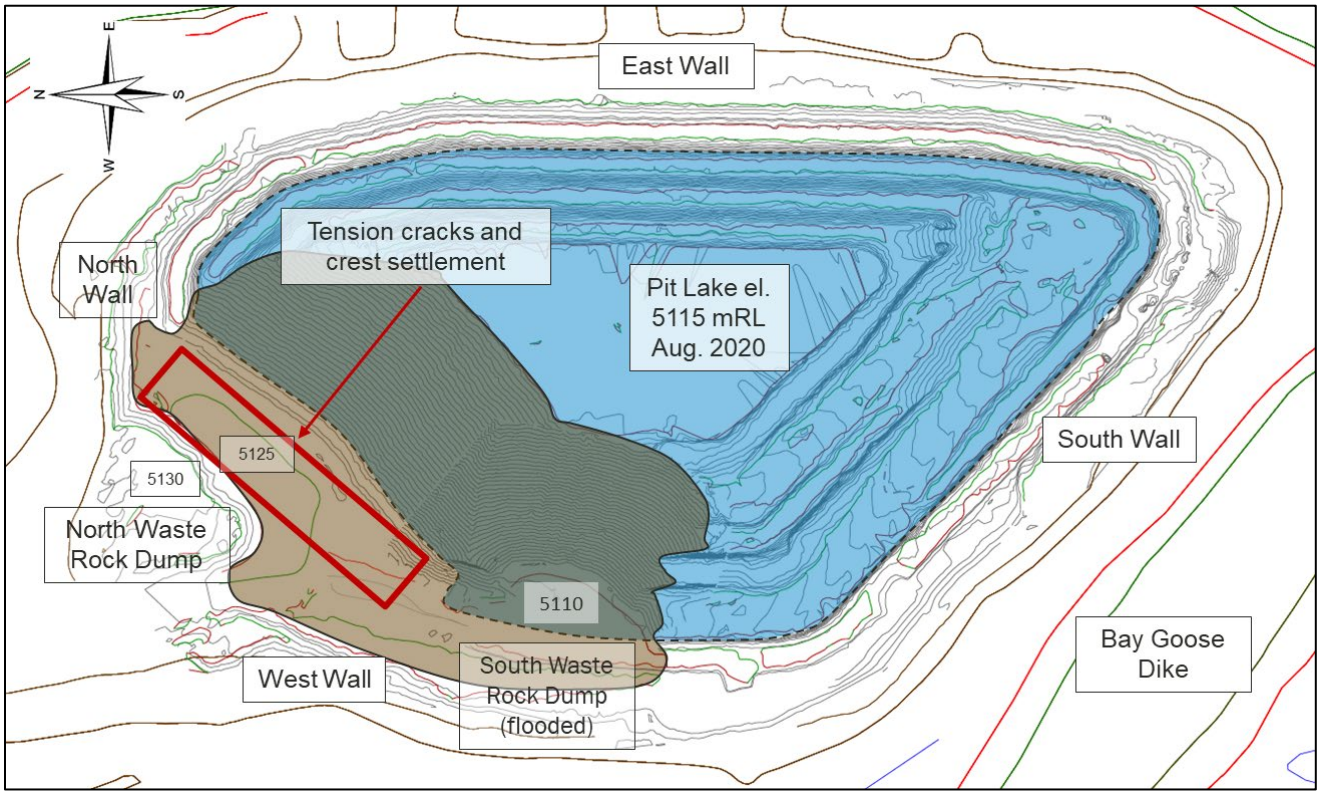


Figure 6-1: Goose Pit general configuration, August 2019

The inspection of the Goose Pit comprised a series of stops around the crest of the pit for an overview of the current conditions. The South Dump platform is below the surface of the pit lake, and a water reclaim line runs beside the ramp, on its outside edge. A pump station is located on the ramp, adjacent to the entryway to the North Dump platform, effectively acting as a barrier to vehicle entry to the platform. Significant on-going settlement of the dump platform is noted and is in response to the filling of the former pit with tailings and water. Light vehicle traffic access can be gained by the ramp which allows access to water reclaim pumps for maintenance and for relocation. At the

time of the site visit the pit walls that remained exposed above the pit lake were dry, and no water inflows were observed.

6.1 Goose Pit Tailings Management Facility Bathymetry

A bathymetric survey was completed on August 23rd 2020 to compare the actual tailings surface to the in-pit deposition plan. This is shown in Figure 6-2. A cross section through the Goose Pit tailings and water management facility is shown in Figure 6-3 and shows the planned and actual pit lake water elevation and tailings elevation.

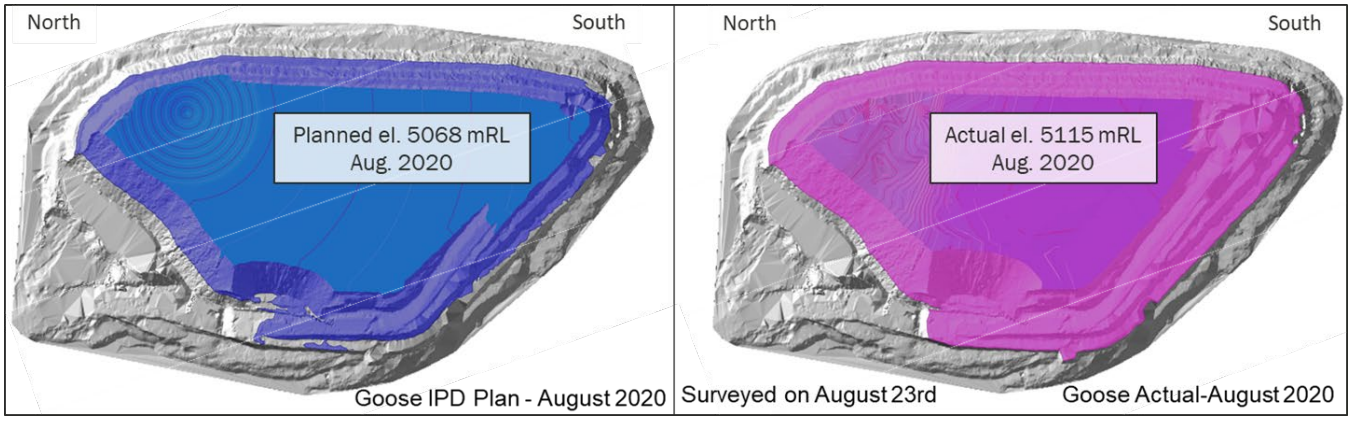


Figure 6-2: Goose Pit tailings management area planned versus actual deposition (2020)

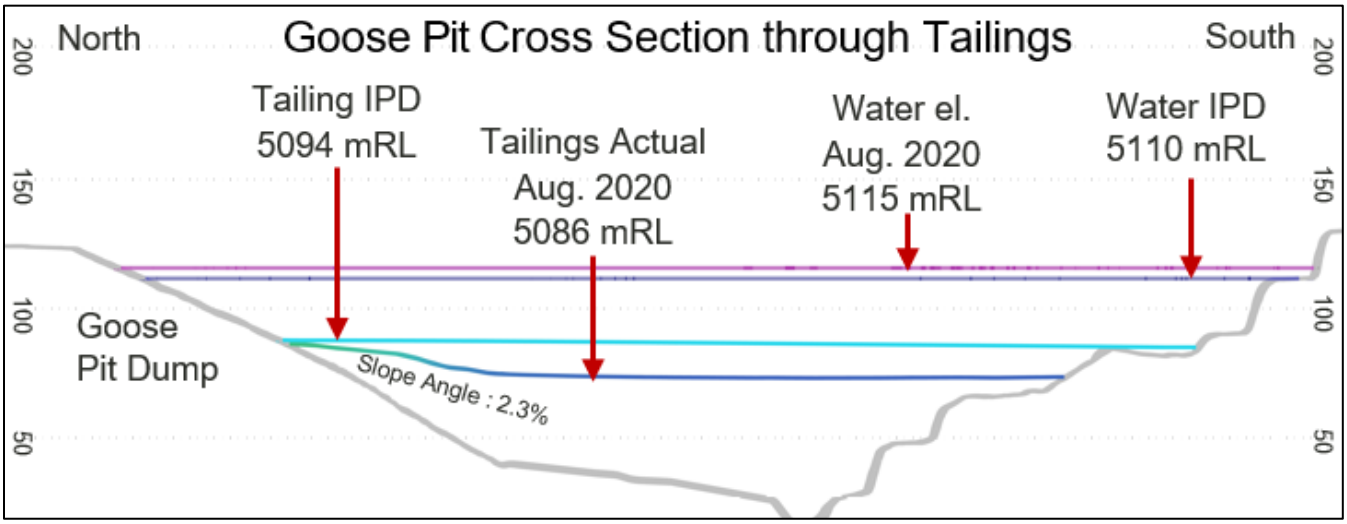


Figure 6-3: Cross section through Goose Pit tailings management area showing planned and actual water elevation and tailings elevation

6.2 Goose Pit East Wall

The east wall of the Goose Pit is predominantly intermediate volcanic rock and iron formation. The stratigraphy is inclined steeply at a consistent angle to the west. Steep bench faces were achieved with the use of careful pre-shear blasting, and there was little catchment loss due to overbreak.

The wall continues to perform well and there are currently no geotechnical concerns. The Goose Pit East Wall at the time of inspection is shown in Photograph 6-1.

Photograph 6-1: Goose Pit east wall looking north (2020)

From 2018 to 2019 tailings were discharged from a spigot point at the north end of the east wall of the pit. The tailings were discharged on to competent and strong intermediate volcanic rock in permafrost. The discharge area was reviewed as part of the 2020 site visit for indications of scour or degradation of the rock mass quality, and none were observed. A photograph of the inactive discharge point and the wall beneath is shown in Photograph 6-2.

Photograph 6-2: Former tailings discharge point on east wall of Goose Pit (2020)

The following actions are recommended:

- Continue visual monitoring and recording of observations as part of regular monthly site geotechnical inspections.

6.2.1 Goose Pit Instrumentation

As part of the site inspection, the instrumentation data from Time Domain Reflectometry (TDR) cables, thermistors, and piezometers installed in the east pit wall were reviewed. The instrumentation is connected to the ADAS at the site. The instrumentation data have remained stable since monitoring began in 2013.

The Goose Pit instrumentation monitoring program could be incorporated with the dike instrumentation monitoring program. The monitoring could be scaled back to exclude the TDR readings.

A location plan for the instrumentation is shown in Figure 6-4 and the data are presented in Appendix B.

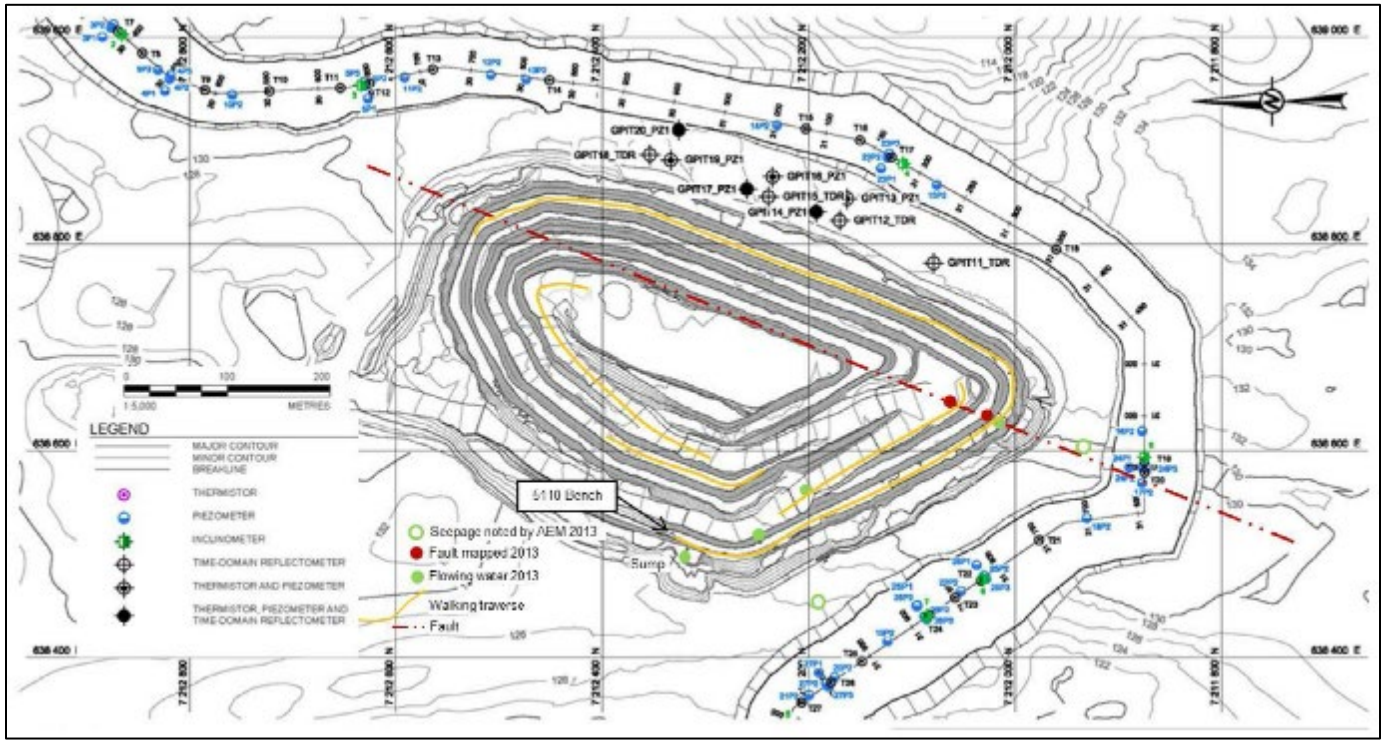


Figure 6-4: Goose Pit instrumentation plan

6.2.1.1 TDR Cables

Seven TDR cables were installed in geotechnical boreholes drilled behind the east wall of the Goose pit in 2013 to monitor slope movement. A review of the data indicates data were only collected to December 2019, and since then no new data have been recorded. The data that were reviewed show no shear displacements. The TDR profiles are consistent with previous year's data.

The following is recommended:

- Monitoring of the TDR cables can be discontinued.

6.2.1.2 Thermistors

Thermistors were installed in six geotechnical boreholes drilled behind the east wall in 2013. A review of the data indicates no significant change from the 2019 site visit, despite the introduction of tailings and water to the pit.

The thermistor data were reviewed to observe if any significant warming trends could be noted resulting from the increase in the pit lake elevation, as well as the deposition of tailings into the pit bottom. Despite the current pit lake elevation of 5115 mRL and the introduction of tailings, there does not appear to be any change in the ground thermal regime in the east wall as a result of this, based on the thermistor data.

The following is recommended:

- Continue collecting data during operation of Pit E as a tailings management facility for possible future use.

6.2.1.3 Piezometers

Piezometers were installed in six geotechnical boreholes drilled behind the east wall in 2013. While there are some fluctuations in pressure head for certain piezometer tips from year-to-year, many of the tips are at 0 degrees C or slightly below. Consequently, the reliability of these pressure readings is questionable.

No significantly anomalous pressure or temperature changes are present. GPIT-14-PZ4-C continues to record erratic pressure heads and is unreliable.

The following is recommended:

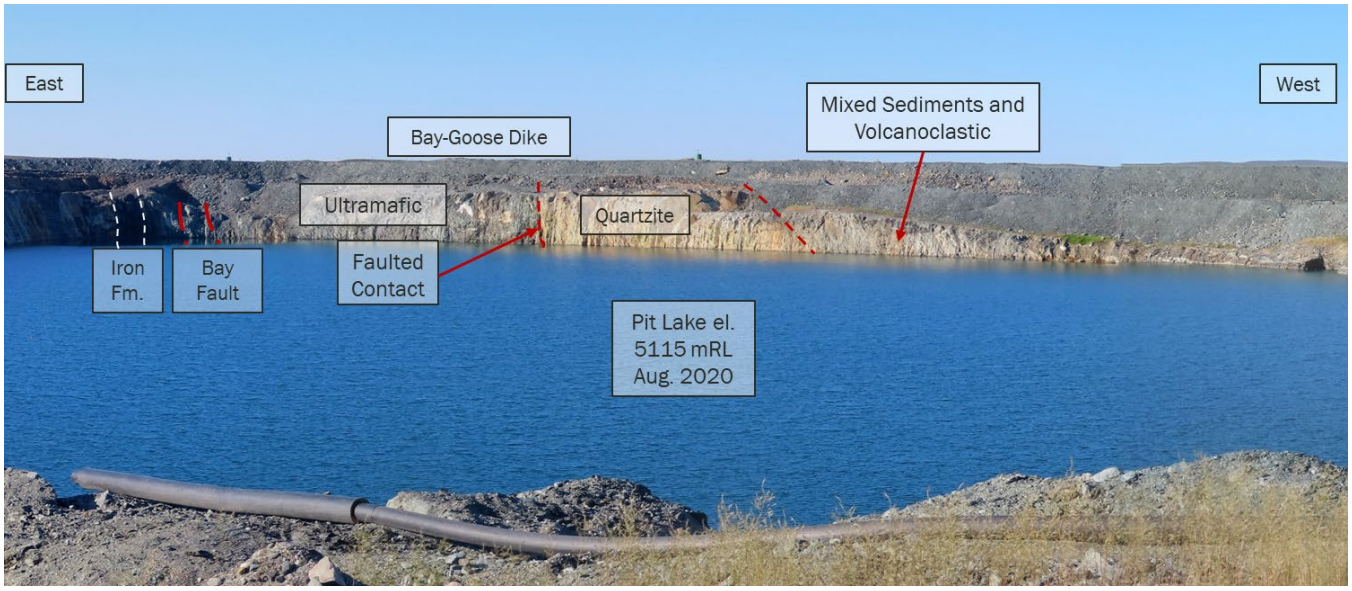
- Continue collecting data during operation of Pit E as a tailings management facility for possible future use.

6.3 Goose Pit South Wall

Access to all areas of the South Pit Wall that were visited during previous site visits was not possible in 2020 due to the water level in the pit lake. The performance of the remaining benches exposed in the south wall continues to be satisfactory.

The south wall of the Goose pit comprises iron formation and intermediate volcanic rock in the east, transitioning through a sequence of iron formation, ultramafic rock, quartzite, and mixed volcaniclastic sediments in the west. The most prominent structural feature is the Bay Fault which intersects the south wall of the pit, within the ultramafic rock.

The various lithological units are shown in Photograph 6-3.

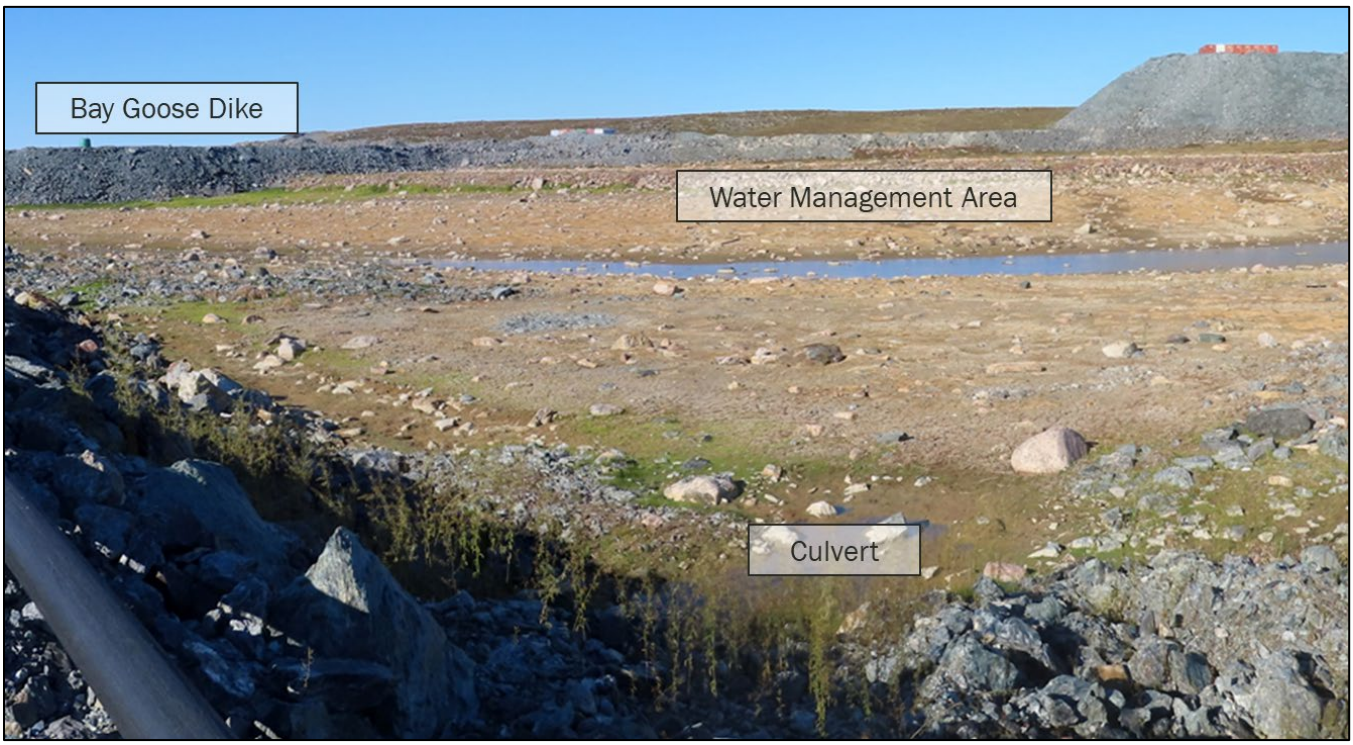


Photograph 6-3: Goose Pit south wall (2020)

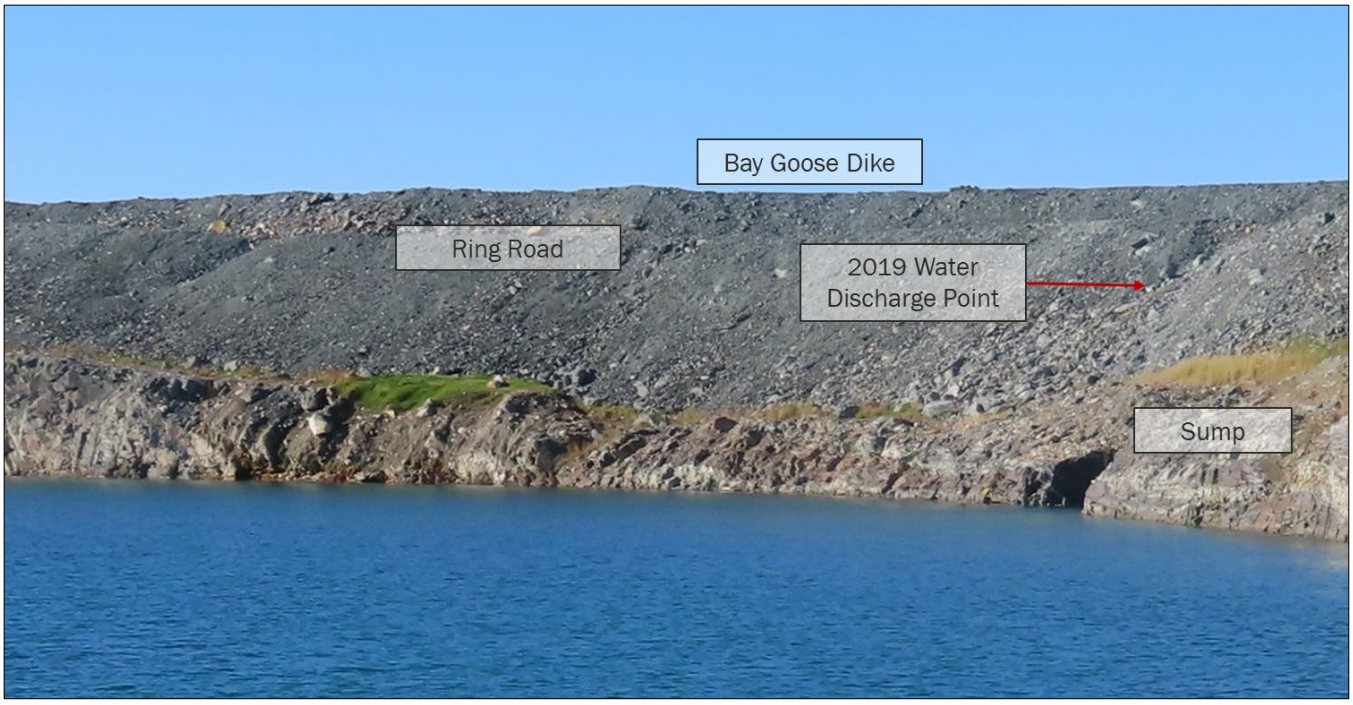
During the 2019 inspection water was being discharged from the southwest corner of the wall. The water management pond was filled in response to heavy rainfall events preceding the site visit. During 2020, the same water management pond was effectively dry as shown in Photograph 6-4. No water was being discharged to the pit as shown in Photograph 6-5.

The following actions are recommended:

- Continue visual monitoring as part of regular monthly site geotechnical inspections.



Photograph 6-4: Water management area between ring road at south crest of Goose Pit (2020)



Photograph 6-5: Former water discharge point now dry (2020)

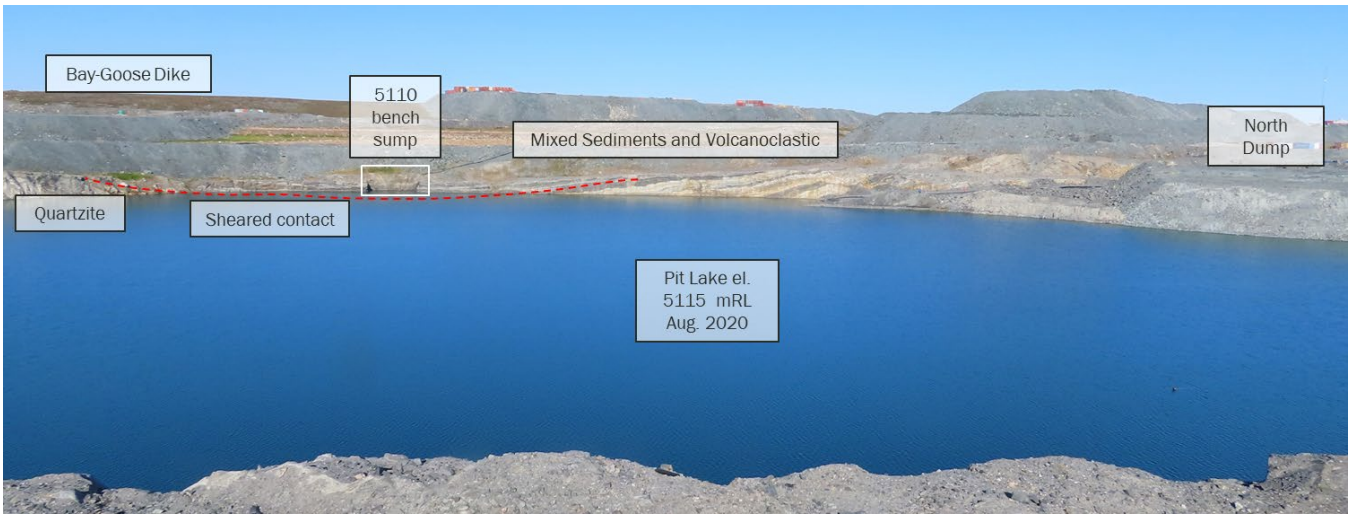
6.4 Goose Pit West Wall

The west wall of the pit is no longer accessible due to the water level in the pit lake. The South Dump platform which was previously accessed from the west wall is below the water surface and no longer visible. Only the upper bench of the west wall remains exposed. The condition of the Goose Pit West Wall at the time of inspection is shown in Photograph 6-6.

There are no significant geotechnical concerns observed with the performance of the west pit wall of the Goose Pit.

The following actions are recommended:

- Continue visual monitoring as part of regular monthly site geotechnical inspections.



Photograph 6-6: Goose Pit west wall (2020)

6.5 Goose Pit Northwest through Northeast Walls (North End-Wall)

The northwest through northeast (north end-wall) walls of the Goose Pit exposed the stratigraphic sequence of the deposit, from ultramafic rock in the west, through iron formation, and then intermediate volcanic in the east. Only the upper bench remains exposed. The Bay Fault still is visible, and the large Northeast Wedge is still visible in the upper bench and remains stable. The condition of the Goose Pit Northwest through Northeast Walls at the time of inspection is shown in Photograph 6-7.

There are currently no concerns with the performance of the northwest through northeast end wall of the Goose Pit.

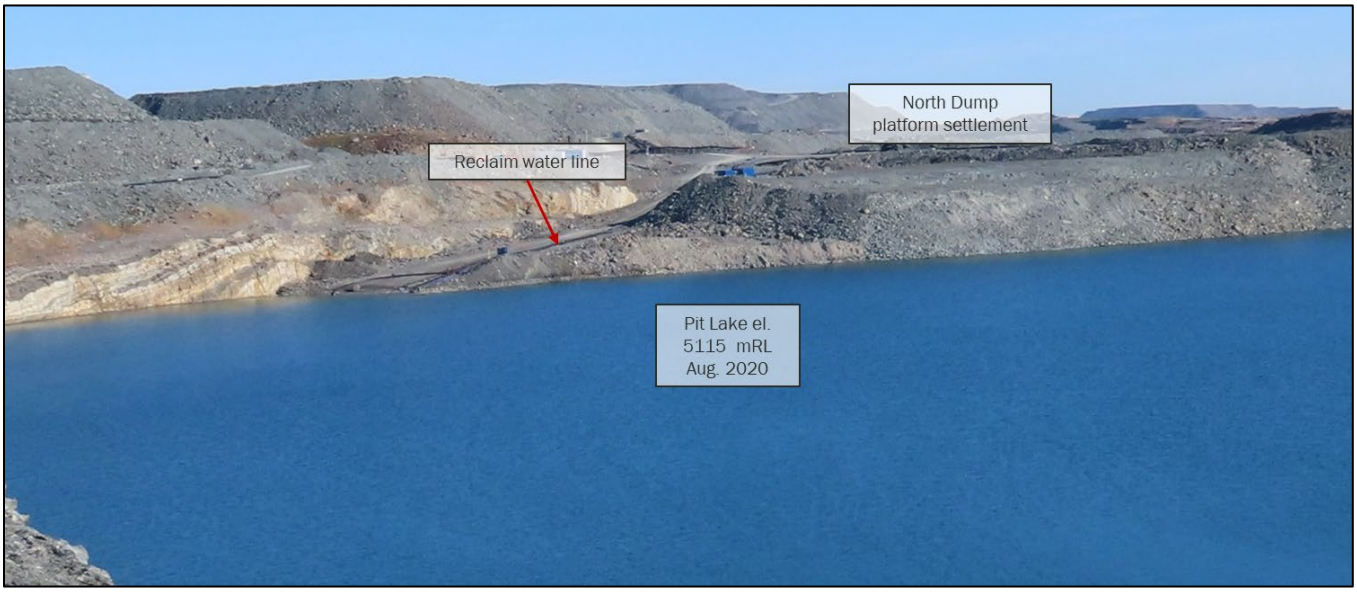
The following actions are recommended:

- Continue visual monitoring as part of regular monthly site geotechnical inspections.

Photograph 6-7: Goose Pit northwest through northeast wall (north end wall 2020)

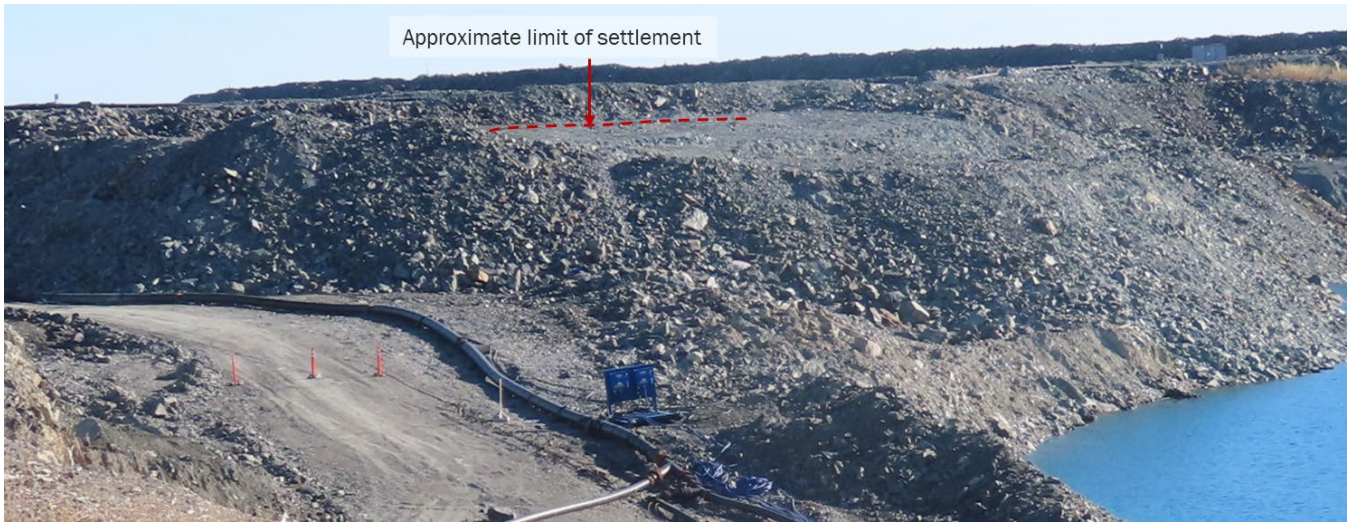
6.5.1 Goose Pit Waste Rock Dumps

The in-pit waste rock dumps at the Goose Pit have been inactive since 2017. The toe of the dumps extends out into the Goose Pit Lake. The South Dump platform that was accessible during the 2019 inspection is no longer visible as it is beneath the lake surface. The condition of the Goose Pit Waste Rock Dumps at the time of inspection are shown in Photograph 6-8.



Photograph 6-8: Goose Pit waste rock dumps (2020)

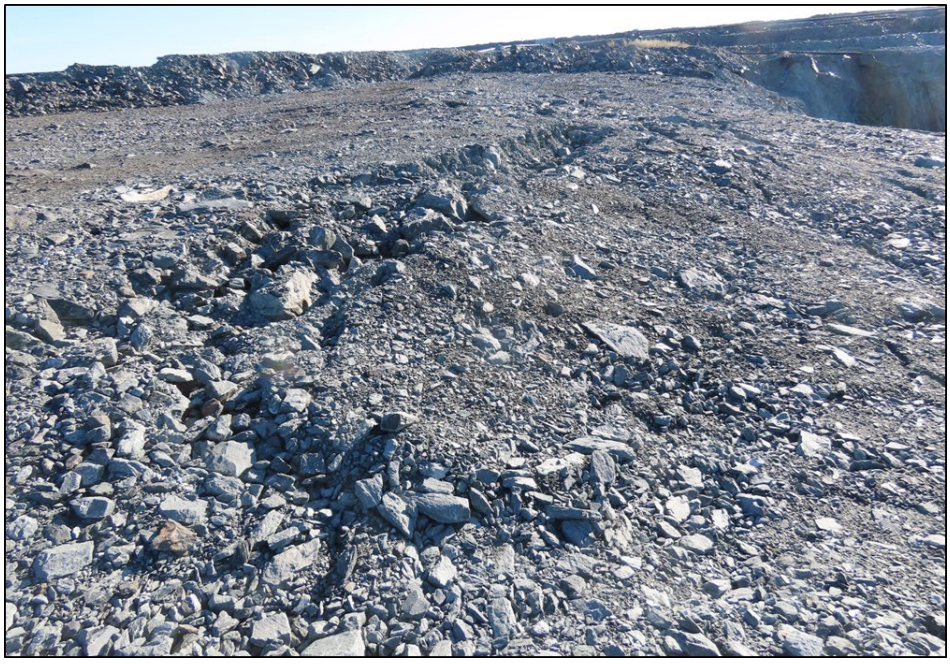
Tension cracks on the North Dump platform were first noted during the 2015 inspection. During the 2018 inspection additional shallow slumping of the South Dump face was noted, along with significant crest sag. Although no quantitative measurements of platform and crest settlement have been made, visual observations in 2020 suggest that additional settlement of the dump platform has occurred as shown in Photograph 6-9. This is most likely due



Photograph 6-9: Goose Pit North Dump platform (2020)

to the inundation of the dump material by water as the tailings management facility has been filled. The water infiltrated the void space within the dump, and any snow or ice that had accumulated within the dump during winter construction would have thawed. Furthermore, the introduction of water would also have thawed any frozen rock block contacts and combined with the increase in pore pressures within the dump these have likely led to on-going settlement. The extent of the affected area extends some 40 m behind the crest of the dump.

Tension cracks and crest sag continue to be evident on the North Dump crest (shown in Photograph 6-10). Currently, there is no active monitoring of the dump crest because the dumps are inactive. A pump station is located at the entry point to the North Dump platform and combined with a rockfill berm this effectively prevents entry by any vehicle traffic (see Photograph 6-11).



Photograph 6-10: Tension cracks and crest sag at Goose Pit North Dump (2020)

Photograph 6-11: Berm and pump station blocking vehicle entry to dump platform (2020)

The following actions are recommended:

- Continue to restrict access to the in-pit dump platform.
- Continue visual monitoring as part of regular monthly site geotechnical inspections.

7.0 VAULT PIT INSPECTION

7.1 General Observations

Mining of the Vault Pit was completed in March 2019 to a final depth of approximately 4955 m. The pit and in-pit dumps are inactive, and access to these areas is restricted by barrier berms. Access to the base of the pit for water quality sampling is undertaken by the environmental group, and prior to pit entry a member of the Agnico geotechnical team carries out a visual inspection of the pit to identify any geotechnical concerns. The pit walls continue to perform well.

On the day of the site visit the Vault Pit lake was at an elevation of approximately 5011 mRL. There is no active water management for the pit, and all pumps and dewatering systems have been removed.

There are two in-pit waste rock dumps constructed in the north part of the pit, with crest platform elevations of approximately 5082 mRL and 5133 mRL.

The extents of the Vault Pit, Phaser Pit, and BB Phaser Pit are presented in Figure 7-1.

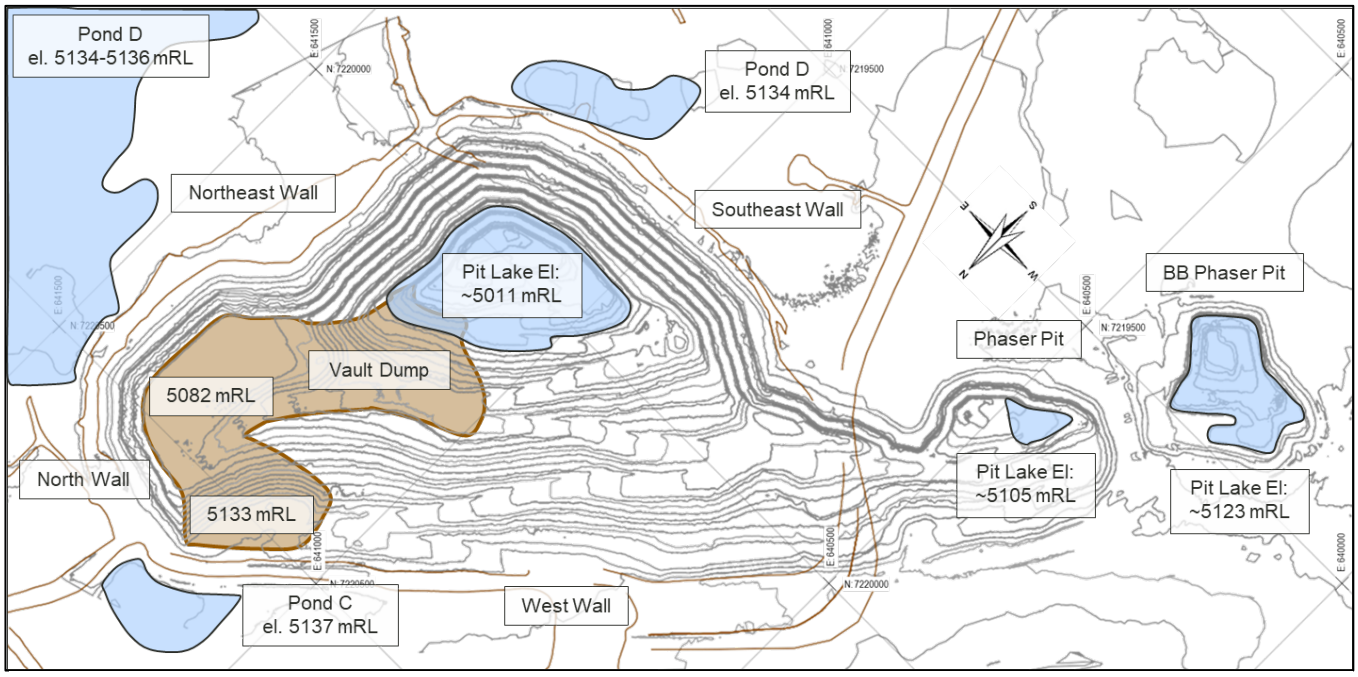


Figure 7-1: Vault Pit, Phaser Pit, and BB Phaser Pit (2020)

7.1.1 Water Inflows and Seepage

During the 2020 site visit, minor water seepage on the footwall (formerly called west wall seepage) continues to be noted in an area above the ramp which has been seeping at a very low rate since mining of the pit began (as shown in Photograph 7-1).

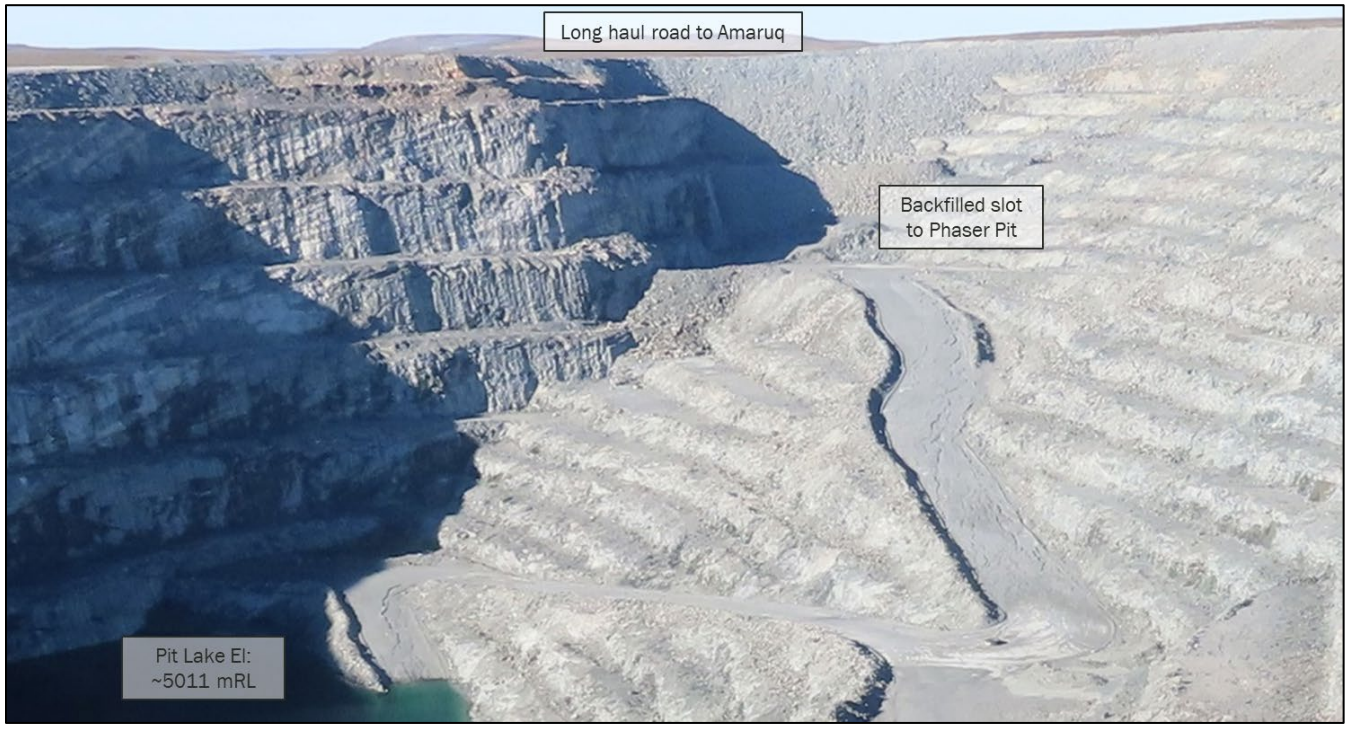
Photograph 7-1: Minor wall seepage noted on west footwall of Vault Pit (2020)

During the 2019 inspection it was noted that water from Pond D (the former Vault Lake) located behind the southeast pit wall crest was flowing at a high rate through the ring road at the crest and spilling over the pit crest. The 2019 site visit followed a period of heavy rainfall. During the 2020 inspection this flow had stopped, and seepage from the southeast wall of the pit was restricted again to seepage emanating from the 5109 mRL bench which has been the main source of water inflow to the pit since it was exposed (see Photograph 7-2). During operation of the pit, the water elevation in Pond D was pumped down to control the development of the ice wall from the 5109 mRL but is currently maintained at an elevation of about 5134 mRL (see Photograph 7-3).

Photograph 7-2: Vault Pit water inflow from Pond D (2020)

Photograph 7-3: Pond D attenuation storage (2020)

During the 2019 inspection, a significant inflow volume was noted to discharge from the backfilled slot separating Vault Pit from Phaser Pit. This was attributed to discharge from Phaser Pit. As previously discussed, the 2019 site inspection followed a period of heavy rain, which contributed to the observations of increased seepage and flows to the pit. During the 2020 inspection this area was noted to be dry. This is shown in Photograph 7-4.



Photograph 7-4: Inflow to Vault Pit from Phaser Pit (2020)

7.2 Ring Road Settlement

The ring road around the pit crest separating Pond D from its inflow to Vault Pit was inspected during the site visit for signs of settlement or distress. The ring road is constructed with coarse rockfill and water flows relatively freely through the road when water levels in Pond D rise. The road is not intended as a water retaining structure, and water flow is not through an engineered structure such as a culvert. It was discussed that indications of impact to the ring road related to water flow through the road fill material might include settlement of the road surface, the development of tension cracks at the road edge, and potentially sinkholes depending on the materials used to construct the road.

No additional indicators of settlement were noted in the south to southeast pit crest area above the annually forming ice wall which builds from flow from the 5109 mRL. However, significant settlement was noted in the ring road along the north side of the pit which was not present during the 2019 inspection. This included the development of road subsidence on the east (Pond D) side of the road, measured by pacing to be approximately 75 m in length

(parallel to the road axis) and approximately 20 m in width or more than half the road width. The location is shown on Figure 7-2.

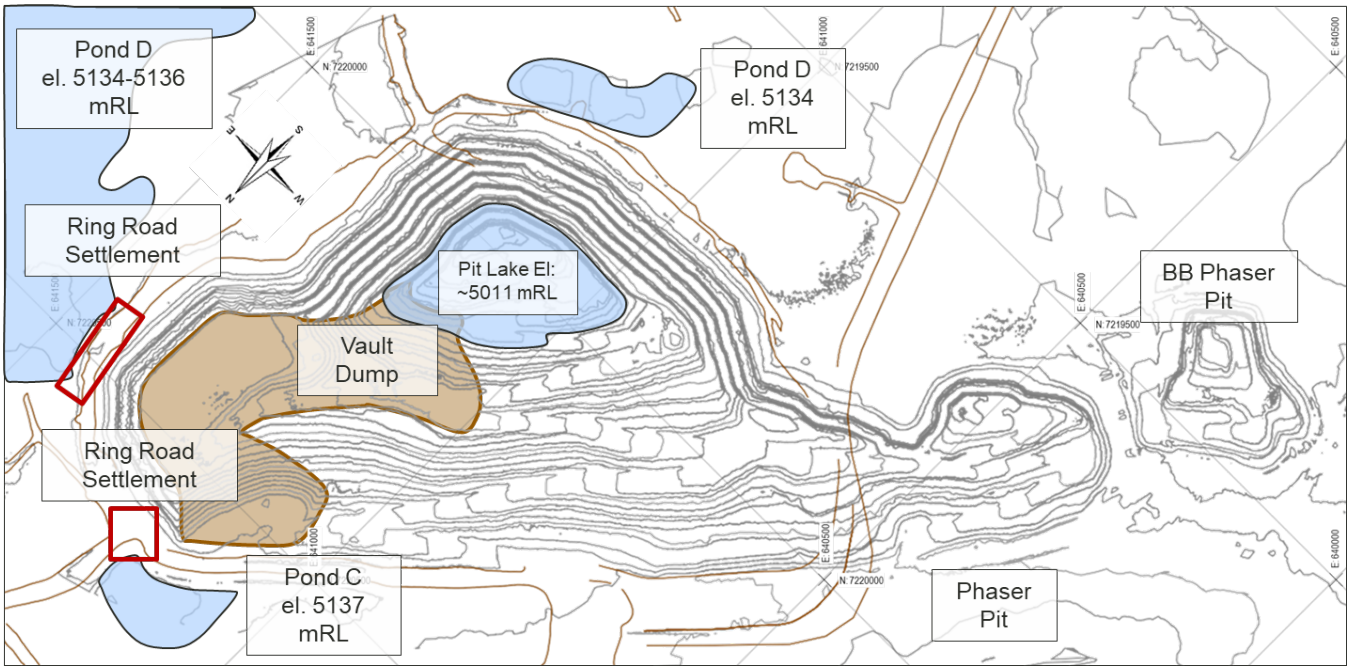
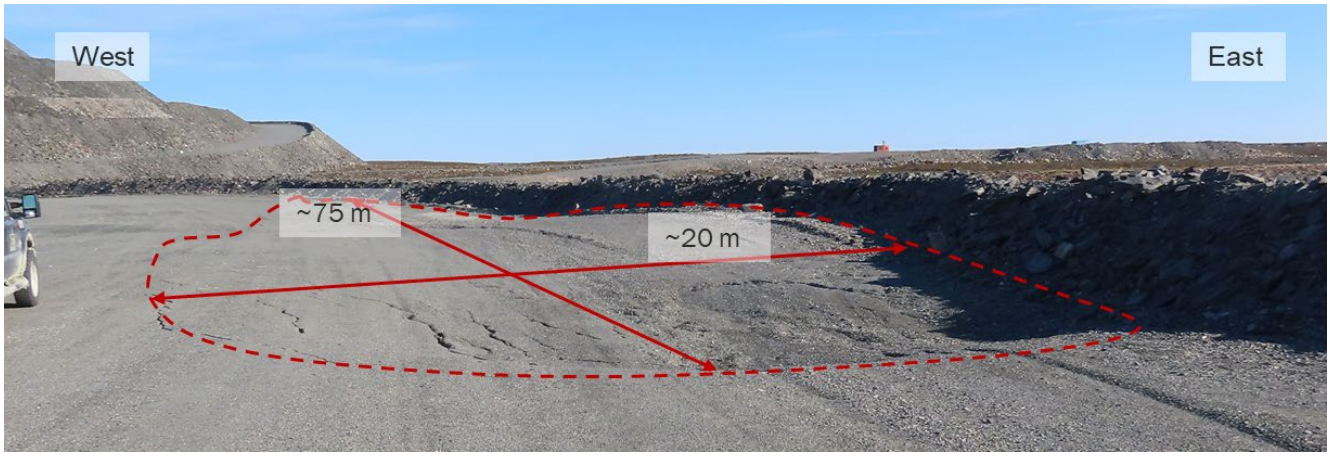


Figure 7-2: Locations of ring road subsidence (2020)

A photograph viewing north along the east side of the ring road is shown in Photograph 7-5 showing the estimated geometry of the impacted area.



Photograph 7-5: Ring road at north end of pit showing area impacted by road surface settlement

Photograph 7-6: Ring road at north end of pit showing area impacted by road surface settlement

The area of settlement is located where the ring road crosses the former Vault Lake, and the current elevation of Pond D results in water ponding against the road material (see Photograph 7-6). The settlement is in the lake side of the road and does not extend fully across the road surface. The rock wall below the pit-side shoulder of the road was reviewed for sings of seepage or underflow through the road base, similar to what has been observed at the south end of the pit in the area of the annual ice wall; however no signs of seepage were observed.

A similar indication of settlement was also observed in the road surface adjacent to Pond C, also associated with ponding of water against the road fill material (see Photograph 7-7).

It is understood that the current plan is to allow the pit to flood naturally. Since mining of the pit is complete, and the access ramp to the pit bottom is bermed off preventing access, erosion of the road and inflow to the pit is not anticipated to have significant impact. However, the berm that blocks the ramp access to the pit needs to be maintained and it must be clear that there is no entry allowed to the pit. Furthermore, both the north and south ends of the ring road should be bermed to prevent access of all vehicle traffic. If entry is required for example for water sampling purposes, a safe work procedure needs to be developed. It is understood that Agnico provides a geotechnical team member with the environmental team when sampling the pit lake to carry out a visual inspection of the pit walls prior to entry into the pit.

Photograph 7-7: Ring road adjacent to Pond C where settlement cracks have developed which were not present in 2019

The following is recommended:

- Berm off access to the ring road from the north end of the pit; the south end of the ring road is currently bermed to prevent access.
- Continue to monitor as part of monthly geotechnical inspections.
- Prior to any in-pit water sampling, it is recommended that in addition to the visual inspection of the pit by a geotechnical team member, a visual inspection of the ring road settlement area should also be undertaken to confirm no additional erosion has occurred.
- If in-pit sampling is required during freshet when Pond D will be at its highest elevation against the ring road, the visual inspection should identify if any under-flow (seepage) through the road base is occurring on the pit-side of the road. If there is significant seepage noted through the road base on the pit-side then in-pit sampling should be deferred until following freshet when Pond D is lower.

7.3 Footwall Slope (Vault Grid West Wall)

The west wall (grid west) of the Vault was mined as a series of single benches (7m high) to create a footwall slope (as shown in Photograph 7-8). The deposit dips at relatively shallow angles to the east (grid east), parallel to the foliation and stratigraphy. The average inclination is 22 degrees but ranges from as shallow as 10 degrees to as steep as 40 degrees.

Bench faces were not pre-sheared but were bulk blasted at steep angles, and generally broke back, or were scaled back, to the orientation of the foliation. Consequently, there are some benches with considerable loss of catchment which was anticipated during the design process. To account for the expected performance, the bench design heights were restricted to single-height to minimize failure volumes. The footwall slope has performed as expected through the life cycle of the pit and into its current inactive period, and no significant single or multiple bench instabilities were encountered.

Photograph 7-8: Vault Pit west wall looking north (2020)

There are no significant geotechnical concerns for the footwall slope.

- Since this area of the pit is no longer accessible it should be considered out of service and bi-weekly pit wall inspections and quarterly inspection summaries can be suspended.
- Visually inspect when opportunity presents.
- Complete a specific visual inspection prior to entry for water sampling.

7.4 Southwest Wall (Vault Grid South Wall)

The southwest wall (grid south) intersects the stratigraphy and foliation perpendicular to their trend (as shown in Photograph 7-9). The gently east dipping structure is visible in this end wall. The overall wall continues to perform well, with little accumulation of material noted on the benches.

At the west end of the wall, the slot cut joining Vault Pit with Phaser Pit has been backfilled as part of the long-haul road extending north to the Amaruq Project area. Water that was noted to be flowing from the southwest corner of the pit towards the pit sump on the ramp at approximately elevation 5018 mRL in 2019 is no longer noted (as shown in Photograph 7-9).

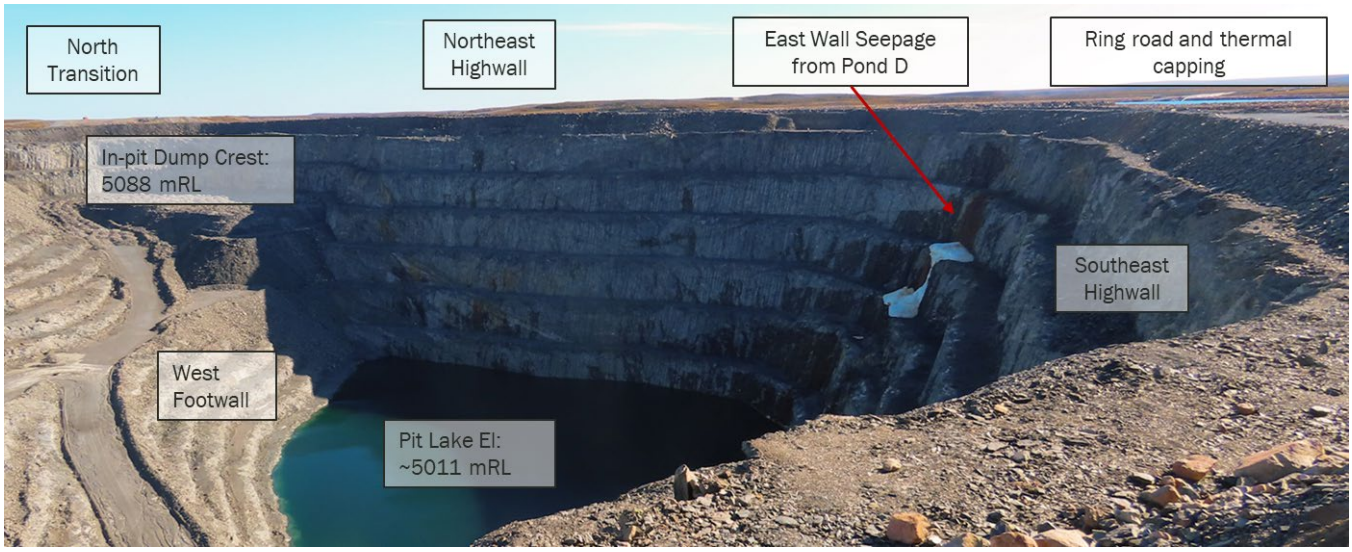
Photograph 7-9: Vault Pit grid south wall and backfilled slot cut to Phaser Pit (2020)

The following actions are recommended:

- Since this area of the pit is no longer accessible it should be considered out of service and bi-weekly pit wall inspections and quarterly inspection summaries can be suspended.
- Visually inspect when opportunity presents.
- Complete a specific visual inspection prior to entry for water sampling.

7.5 Southeast to Northeast Highwall (Vault Grid East Wall)

The southeast to northeast highwall is shown in Photograph 7-10. The catch benches developed for the highwall continue to perform well.



Photograph 7-10: Vault Pit southeast and northeast highwall (2020)

The benches are cleaned well, and there is no indication of significant raveling and no significant accumulation of material on the benches (as shown in Photograph 7-11 and Photograph 7-12). In general, the toe of the thermal capping material is greater than 2 m back from the pit crest.

Photograph 7-11: Vault Pit east-northeast highwall bench performance (2020)

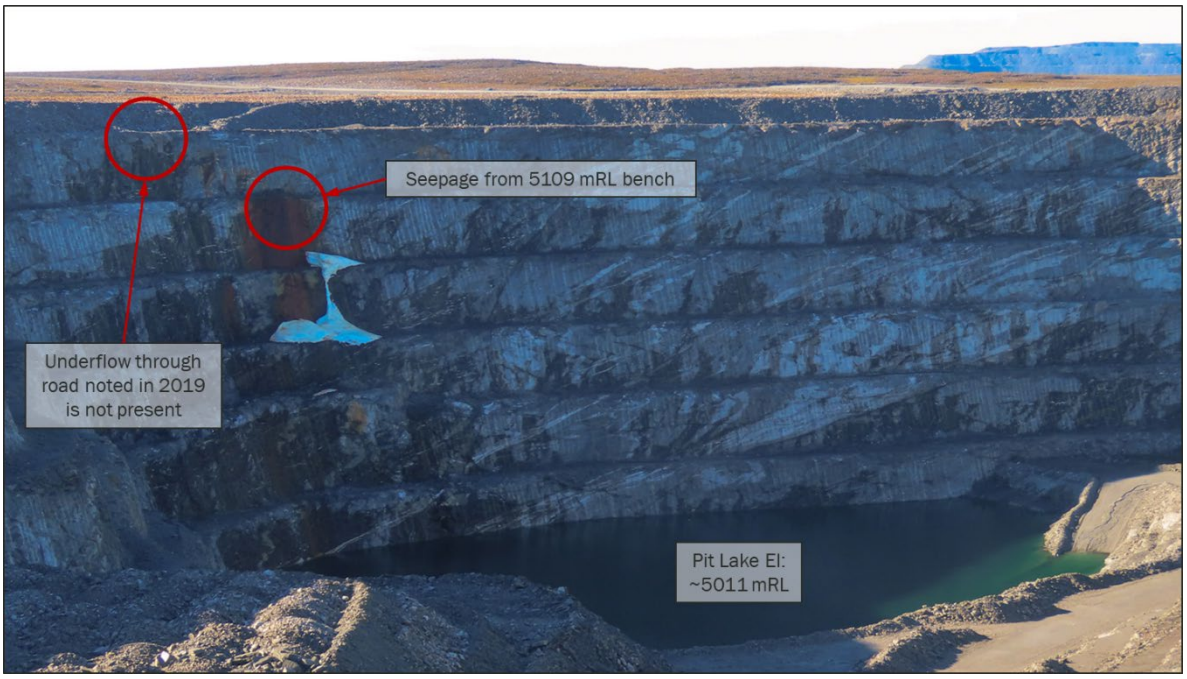
Photograph 7-12: Vault Pit southeast wall (2020)

The following actions are recommended:

- Since this area of the pit is no longer accessible it should be considered out of service and bi-weekly pit wall inspections and quarterly inspection summaries can be suspended.
- Visually inspect when opportunity presents.
- Complete a specific visual inspection prior to entry for water sampling.

7.5.1 Southeast Wall Seepage and Inflows from Pond D

On the day of the site visit, very little ice remained on the southeast wall below the seepage source above the 5109 mRL bench. This seepage leads to the annual formation of the Vault ice wall (as shown in Photograph 7-13). Seepage still discharges from a fracture in the rock just above the 5109 mRL bench. The bench is heavily stained by iron oxidation. An area of high water inflows that was noted during the 2019 inspection and associated with underflow through road material from high water levels in Pond D was absent in 2020.



Photograph 7-13: Vault Pit seepage from southeast pit wall 5109 bench (2020)

Photograph 7-14: Pond D water elevation 5134 mRL (2020)

It was recommended during the close out site visit meeting that the road be completely closed to use.

The following are recommended:

- Deactivate and close road.
- Since this area of the pit is no longer accessible it should be considered out of service and bi-weekly pit wall inspections and quarterly inspection summaries can be suspended.
- Visually inspect when opportunity presents.
- Complete a specific visual inspection prior to entry for water sampling.

7.5.2 Northeast and North Transition Walls – Vault Dumps

The north end of the Vault Pit has been used for in-pit disposal of waste rock (shown in Photograph 7-15). There are three main in-pit dumps with dump crests at three different elevations. The westernmost dump platform is at approximately 5130 mRL; the north through northeast platform is at approximately 5088 mRL; and, the southernmost platform is at approximately 5046 mRL.

Photograph 7-15: Vault In-Pit dumps (2020)

The dump crest areas were reviewed during the site inspection, along with the dump faces, for any indicators of potential instability such as tension cracks, subsidence, or over-steepening of the dump face. While some minor settlement and tension cracks were noted at the very north end of the westernmost dump platform, these are not considered significant to warrant monitoring other than observation during regular geotechnical inspections. The tension cracks have not grown since first observed in 2019 (see Photograph 7-16). Since the dumps are no longer active, access to the dump crest areas should be bermed off.

Photograph 7-16: Minor settlement of dump crest at north end (2020)

There do not appear to be any significant stability concerns with the Vault in-it dumps. Many of the geotechnical hazards identified during previous inspections no longer exist.

The following are recommended:

- Since the dumps are inactive and this area of the pit is no longer accessible it should be considered out of service and bi-weekly pit wall inspections and quarterly inspection can be suspended.
- Visually inspect when opportunity presents.
- Complete a visual inspection prior to entry for water sampling.

7.6 Vault Instrumentation

Following the 2016 field thermal exploration study, AEM installed piezometer and thermistor instrumentation to monitor the thermal and hydrogeological conditions in specific areas of the Vault Pit. The areas selected were areas where the thermal exploration study indicated talik conditions. The piezometers and thermistors are attached to data loggers, and the loggers are downloaded and reviewed. Since completion of mining the regularity of downloading of the data loggers has been reduced. Since the pit is inactive, the Vault instrumentation can be deactivated and decommissioned.

The approximate locations for the instrumentation at the Vault Pit are shown in Figure 7-3. The available instrumentation data are presented in Appendix C. Prism data are not collected.

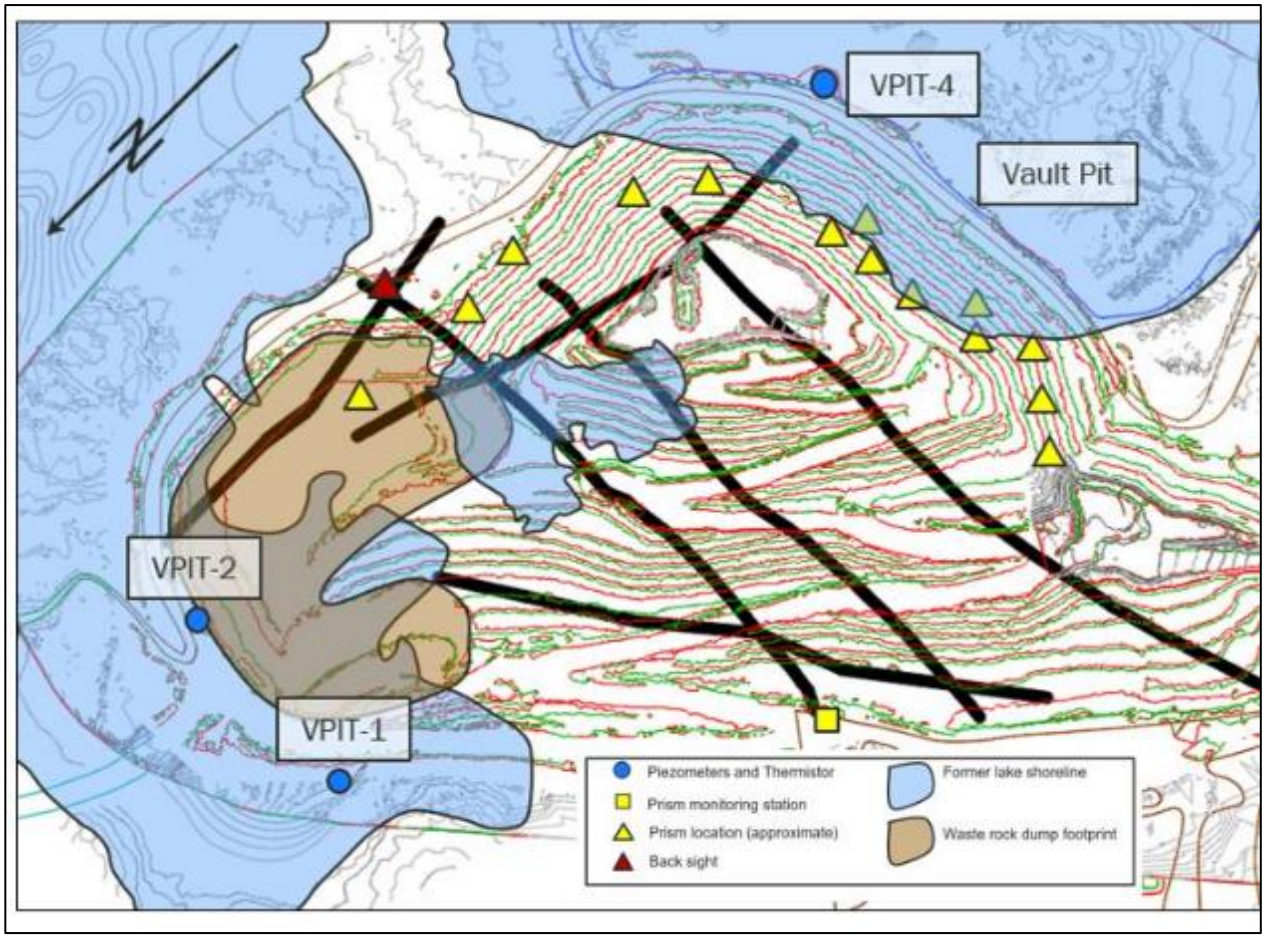


Figure 7-3: Vault Pit general instrumentation plan

7.6.1 Thermistors

Thermistors installed at VPIT-1 and VPIT-2 are installed in what formerly was a shallow drained bay of Vault Lake. VPIT-1 is currently located adjacent to water management Pond C and VP2 is adjacent to the north end of the pit. Since the former lake in this bay was shallow, the talik was not well developed and this is seen in the thermal profile of the thermistors which show frozen conditions.

The ground temperature profile for VPIT-1 has changed substantially since October 2019, showing a significant fluctuation in the thermal profile ranging from -8° C at elevation 5112 mRL to -2° C at 5102, back to -9° C at 5096, and finally returning to -1 C at the base of the string. It is quite possible the thermistor sensors are no malfunctioning and are no longer reliable. The trend should be reviewed during the next annual inspection.

The frequency of data downloads can be reduced since the pit is no longer active. However, it is suggested that data could be collected quarterly as a record of any changes in the thermal or hydrogeological regimes as the pit naturally fills with water.

VPIT-2 continues to show a cooling trend and all thermistor beads show sub-zero temperatures.

VPIT-4 is installed from the ring road behind the southeast pit crest. No new data were recorded by Agnico from VPIT-4.

7.6.2 Piezometers

The piezometer data from the three installations was reviewed. Since VPIT-1 and VPIT-2 are installed in ground with temperatures below 0° C, the data continue to be unreliable.

The deepest piezometer installed at VP-4 (VP-4A, 5068.7 mRL) is installed in frozen ground, with a ground temperature of -2° C. The data are unreliable.

VP-4B (5094.7 mRL) was installed in non-frozen ground. Annual fluctuations in pressure head were noted in 2017 and 2018, increasing in spring and then decreasing from October onward. In 2017 the pressure heads stabilized but beginning in 2018 pressure heads have continued to drop at a steady rate from October to August of 2019 by about 12 m. No data have been collected since August 2019.

VP-4C (5116.4 mRL) is the shallowest installation, and as been below 0° C since April 2017, resulting in unreliable piezometer data. No data have been collected since August 2019. The ground temperature at the depth of the piezometer tip has continued to fall and is currently at approximately -4.2°C.

7.6.3 Prisms

There are no prism data to review for the Vault Pit. The performance of the wall has precluded the need for prism monitoring.

7.7 Phaser Pit

The Phaser Pit is a southward extension of the Vault Pit. Mining was completed in 2018 and the pit is inactive. The final depth of the Phaser Pit is 40 to 50 m (2 to 3 benches), not including the overburden at the crest of the pit. The west wall (footwall) of the pit was excavated in permafrost; a portion of the east wall of the pit may be within talik beneath the former Phaser Lake, which reached a maximum depth of about 3 m. The pit was mined over a period of approximately 1 year, from Q3 2017 to Q3 2018.

On the day of the site visit the Phaser Pit lake was at an elevation of approximately 5105 mRL (Photograph 7-17). Only one bench remains visible due to the pit lake. The pit walls continue to perform well and there are no signs of instability.

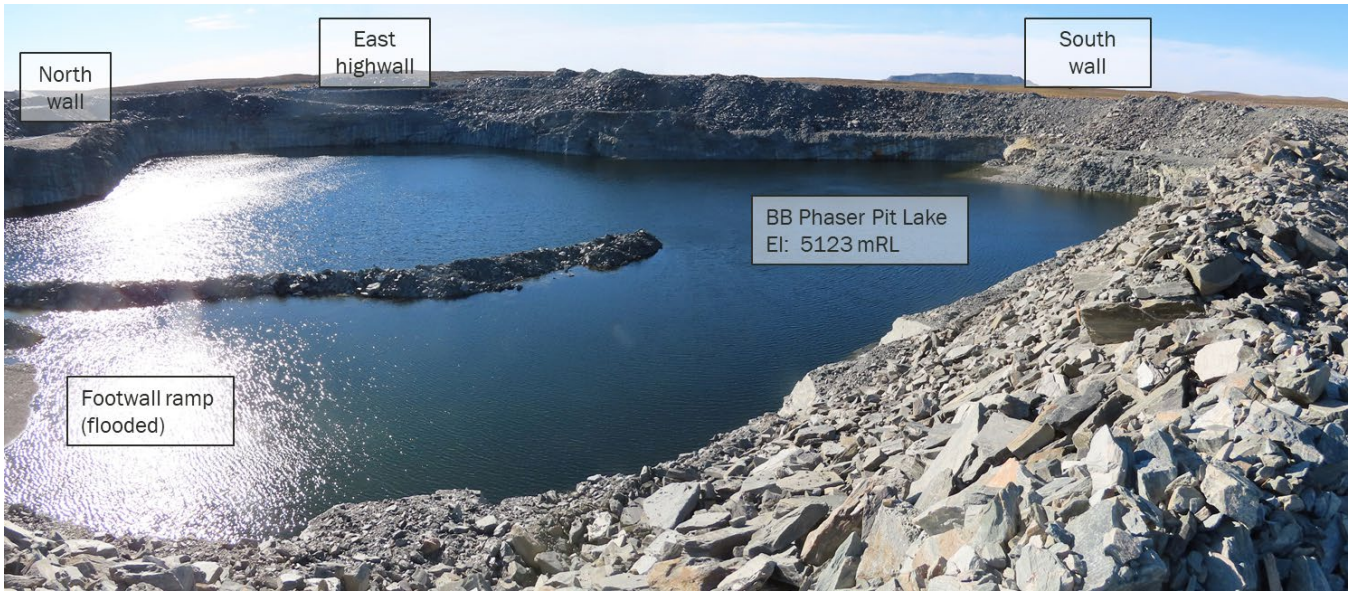
Photograph 7-17: Phaser Pit highwall (east wall) and footwall (west wall) performance (2020)

The following actions are recommended:

- Continue to restrict access to the inactive Phaser Pit and to the ring road around the crest.
- Monitor the performance of the long-haul road, specifically for the development of tension cracks and sinkholes which could be indicative of erosion of finer grained material from the rockfill, and particularly during spring freshet when high flows through the rockfill can be expected.
- Since this area of the pit is no longer accessible it should be considered out of service and bi-weekly pit wall inspections and quarterly inspection summaries can be suspended.
- Visually inspect when opportunity presents.
- Complete a specific visual inspection prior to entry for water sampling.

7.8 BB Phaser Pit

BB Phaser Pit is approximately 40 to 50 m south of the Phaser Pit. Mining was completed in Q3 of 2019 and the pit is inactive. The BB Phaser Pit stratigraphy is an extension of the Vault Pit/Phaser Pit stratigraphy and is inclined to the east to southeast at relatively shallow angles. The condition of the BB Phaser Pit at the time of inspection is shown in Photograph 7-18.



Photograph 7-18: BB Phaser Pit east highwall, endwalls and pit lake (2020)

Mining of BB Phaser Pit was completed in Q3 2019 to a final elevation of approximately 5088 mRL. On the day of the site visit the BB Phaser Pit lake was at an elevation of approximately 5123 mRL, and only the top 3 to 5 m of rock benches was visible above water level.

The BB Phaser Pit is relatively small, measuring about 250 m along each wall. The pit shape is generally square, consisting of an east-southeast highwall, a south-southwest endwall, a west-northwest footwall and a north-northeast endwall. The pit walls continue to perform well and there are no signs of instability.

The following actions are recommended:

- Maintain restricted access to the inactive BB Phaser Pit and to the ring road around the crest.
- Since this area of the pit is no longer accessible it should be considered out of service and bi-weekly pit wall inspections and quarterly inspection summaries can be suspended.
- Visually inspect when opportunity presents.
- Complete a specific visual inspection prior to entry for water sampling.

7.8.1 Sinkholes and Road Erosion

During the 2019 inspection of BB Phaser Pit, sinkholes were noted on the access road that separates BB Phaser from Phaser pit. The general location of the sinkholes is shown in Figure 7-4. The area was inspected during the 2020 site visit, and the sinkholes and road settlement observed in 2019 was largely absent (see Photograph 7-19).

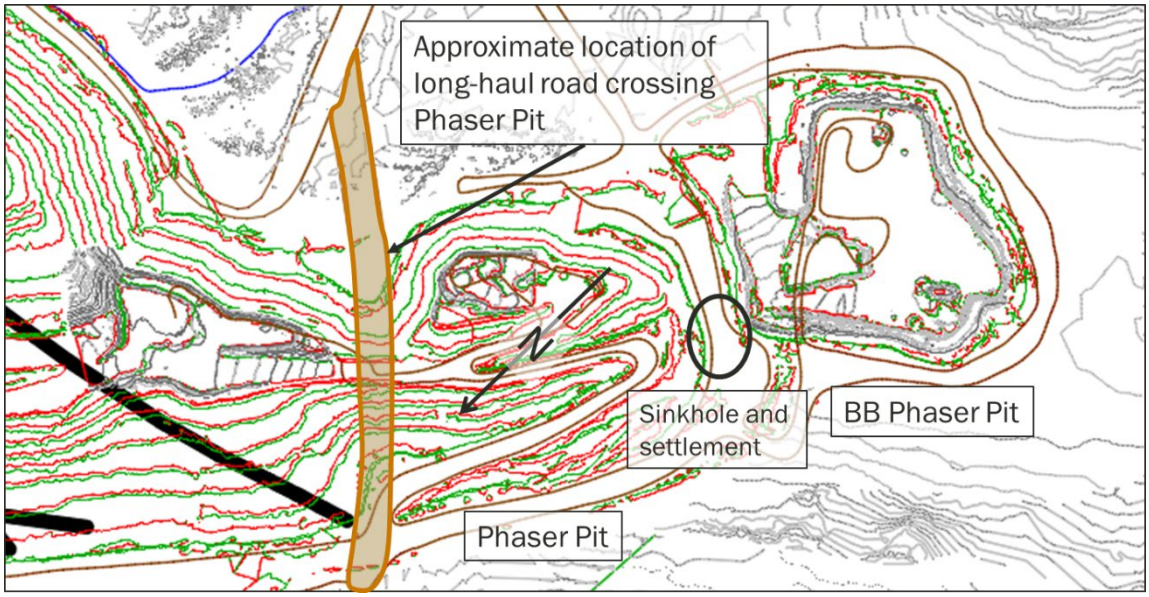


Figure 7-4: Location of sinkholes noted during 2019 inspection

Photograph 7-19: Sinkholes and road settlement that was noted in 2019 are absent in 2020

The following actions are recommended:

- Deactivate road and berm off to prevent use.

8.0 SUMMARY OF KEY OBSERVATIONS AND RECOMMENDATIONS

A summary of the key observations described in this document, recommendations to address deficiencies, and a prioritization of the recommendations based on Agnico's geotechnical risk priority classification system is presented in Table 8-1.

Table 8-1: Summary of Key Observations, Recommendations, and Priority

Component	Summary of Key Observations	Recommendations	Priority
Geotechnical Inspections and Reporting, and Rockfall Log	As the pits transition into various states of closure or use for water management and tailings, the need for bi-weekly instrumentation monitoring and quarterly inspection summaries can be reduced or in some cases eliminated. In some other cases, the instrumentation has been re-purposed.	Complete transition to formal monthly geotechnical inspections supported by regular informal day-to-day observations.	P2
	Rockfalls in restricted pit areas where there is no worker access no longer recorded but may be recorded to maintain an updated reference database.	Continue to record and report (as appropriate) rockfall events that are within the pits used for tailing and water management and where there is the potential for worker access.	P3

Table 8-1: Summary of Key Observations, Recommendations, and Priority

Component	Summary of Key Observations	Recommendations	Priority
Review of Instrumentation	Instruments relating the open pits and hence tailings management facilities are located at Goose Pit, Pit E (south crest), and Vault Pit. There are additional in-field instrumentation between Goose Pit and Pit E, and additional instrumentation along the dikes. A review of the instrumentation showed no significant changes from the previous inspection.	Some monitoring of instrumentation, such as TDR cables and inclinometers, can be suspended.	P3
		Monitoring of piezometers and thermistors installed behind the South Wall of Pit E and the East Wall of Goose Pit should continue to build a record of ground thermal and piezometric response to the addition of tailings.	P4
		The Vault instrumentation can be decommissioned.	P4
Portage Pit A and Water Management Facility	There are no significant geotechnical concerns for the Pit A walls.	Specific bi-weekly pit wall inspections and quarterly inspection summaries can be suspended. Informal observations as part of regular monthly inspections should continue to be made when the opportunity presents.	P4
	Most of the geotechnical hazards associated with the pit walls are submerged by the current pit lake level and no longer present a risk.		
Portage Pit B and B Dump	There are no significant geotechnical concerns for the Pit B walls.	Specific bi-weekly pit wall inspections and quarterly inspection summaries can be suspended. Informal observations as part of regular monthly inspections should continue to be made when the opportunity presents.	P4
	Most of the geotechnical hazards associated with the pit walls are submerged by the current pit lake level and no longer present a risk.		
	The pit is being used for water management facility and requires access to the pit lake for maintenance and moving of water lines. This requires working near the toe of B Dump. No deformation of the dump face was noted	Maintain the B Dump crests as closed and inactive and ensure barrier berms are installed to prevent vehicles from accessing the crest area.	P2
		Visual inspections of the dump platforms and dump faces should be included in the monthly inspections.	P2
	The B Dump platform has experienced settlement and the formation of sinkholes and tension cracks. The sinkholes are on the main platform at approximately 5126 mRL; a depression was noted on the platform directly above. It is thought that ice and snow accumulate in the depression and contribute to sinkhole formation on the lower bench during freshet.	If practical the depression at the north end of the upper dump should be backfilled and graded to prevent the release of water to the lower dump platform and the ongoing development of sinkholes.	P4

Table 8-1: Summary of Key Observations, Recommendations, and Priority

Component	Summary of Key Observations	Recommendations	Priority
C Dump	No deformation of the dump face was noted. No settlement of the dump platform was noted at the time of the site visit. No tension cracks noted.	Visual inspections of the dump platforms and dump faces should be included in the monthly inspections as water levels rise.	P3
		Once the ABF structure has been relocated maintain the C Dump crest as closed and inactive with appropriate barrier berms.	P4
	The ABF garage structure has been constructed within 35 to 47 m from the dump crest. As the water in Pit A/B rises it will infiltrate the dump material. Settlement could occur that will affect the garage foundation and building structural integrity.	An alternate location should be identified for the garage structure that is outside the tailings management areas.	P2
		No permanent facilities to be constructed on dump platform.	P2
D Dump	No deformation of the dump face was noted.No new settlement of the dump platforms. Extensometers that were set at the crest during final mining of the pit show negligible movement. Tension cracks observed previously on 5088 mRL are dormant.	Maintain the D Dump crests as closed and inactive and ensure barrier berms are installed to prevent vehicles from accessing the crest area.	P4
	As the lake level in Pit E rises, additional platform settlement should be expected, and shallow sliver failures may occur on the dump face. Deformation of the platform may extend further behind the face. The lower dump (5088 mRL platform) will be inundated first. The lower dump supports the upper dump (5126 mRL platform). Instability in the lower dump will affect upper dump stability.	No permanent facilities to be constructed on dump platform.	P2
		Maintain and monitor the existing wireline extensometer to monitor dump stability in the area above the access ramp which will be used to access pump controls and the pump station during filling of the Pit E tailings area.	P3
		Continue visual monitoring as part of monthly inspections of the D Dump platforms, crests, and dump faces, waste rock dumps and recording of observations such as tension cracks, crest settlement, or dump profile changes as part of regular monthly site geotechnical inspections	P3
Portage Pit E and Tailings	The pit is currently being used for tailings deposition. Radar is no longer in use.	Continue regular monthly inspections and informal day-to-day inspections.	P3

Table 8-1: Summary of Key Observations, Recommendations, and Priority

Component	Summary of Key Observations	Recommendations	Priority
Management Facility	East Wall continues to perform well and there are no geotechnical concerns.	Incorporate monitoring of the thermistor and piezometer instrumentation installed behind the South Wall of the pit into the dike instrumentation monitoring program. The monitoring can be scaled back to exclude TDR and inclinometer readings;	
	South Wall experienced three rockfall events above the South Ramp, and the ramp was closed.	Maintain the South Wall Ramp as closed.	P4
	A review of the instrumentation installed in the South Wall showed no variability from the 2019 inspection.	Incorporate monitoring of the thermistor and piezometer instrumentation installed behind the South Wall of the pit into the dike instrumentation monitoring program. The monitoring can be scaled back to exclude TDR and inclinometer readings.	P3
	The West Wall continues to perform well, and while known hazards have been identified, no change in these areas was noted since the previous inspection.	The rockfall protection berm on the west edge of the west wall ramp should continue to be maintained as long as personnel access the pit for pump maintenance or moving of water reclaim line.	P2
		Continue visual monitoring and recording of observations of rock falls and other potential instability as part of regular monthly site geotechnical inspections in areas where personnel, equipment, or infrastructure could be affected.	P4
	A tailings water reclaim line is planned along the west ramp adjacent to a rockfall protection berm, and beneath known rockfall hazards.	Consider relocating the reclaim water line on the West Wall Ramp to the outside edge of the ramp, away from potential rockfall risk areas, if practical to do so. If not practical, ensure rockfall containment berm along inside of ramp is well maintained and sufficient to control rockfall hazards.	P2
	A pump station is planned to be located at a bullnose corner on the ramp adjacent to known rockfall hazards.	Consider relocating the planned pump station location on the West Wall Ramp to an area further up the ramp, clear of potential rockfall risk areas, if practical to do so. If not practical, ensure appropriate rockfall containment berms in place to protect pump station and personnel.	P2
	Subsidence and sinkholes were noted in the ring road access to the south wall instrumentation. Access to the road has since been closed.	Maintain closure of the ring road near the South Wall sump.	P4

Table 8-1: Summary of Key Observations, Recommendations, and Priority

Component	Summary of Key Observations	Recommendations	Priority
Pit E Tailings Discharge Point	Tailings are being discharged from the south end of the West Wall of the pit. Tailings are discharged over weak ultramafic rock which are susceptible to erosion and degradation of rock mass quality.	Implement bi-weekly inspections (once every two weeks) of the ultramafic wall performance at the tailings discharge point to identify indicators of potential instability such as formation of tension cracks, erosion and degradation of the rock mass, bench scale instability.	P2
		Continue visual monitoring and recording of observations as part of regular site geotechnical inspections as the Pit E tailings and water management facility is filled.	P4
Goose Pit, Pit Dumps, and Tailings Management Facility	The Goose Pit walls continue to perform satisfactorily and there are no geotechnical concerns. Only the upper single bench remains visible above the current pit lake.	Continue visual monitoring and recording of observations as part of monthly site geotechnical inspections.	P3
	The pit is currently being used for tailings and water management.	Incorporate monitoring of the instrumentation with the dike instrumentation monitoring program. The monitoring can be scaled back to exclude the TDR readings.	P3
	There are two in-pit waste dumps, the North Dump and the South Dump. The South Dump platform is below the pit lake surface. The North Dump platform continues to display significant subsidence characterized by differential settlement and the development to of tension cracks. This is most likely in response to increasing water levels. The dump platform is inaccessible to vehicle traffic.	Maintain closure of the dump platforms to all vehicle and pedestrian traffic. Continue visual monitoring and recording of observations as part of monthly site geotechnical inspections.	P4
	The east wall of the pit is instrumented with piezometers, ground temperature cables, and time domain reflectometry cables.	Incorporate monitoring of the instrumentation with the dike instrumentation monitoring program. The instrumentation to be monitored can be scaled back to exclude the TDR readings.	P3

Table 8-1: Summary of Key Observations, Recommendations, and Priority

Component	Summary of Key Observations	Recommendations	Priority
Vault Pit	The pit walls of the Vault Pit continue to perform well and there are no significant geotechnical concerns. Access to the pit is restricted by berms across the ramp.	Maintain restricted access to the pit and dumps. Since there are no longer any regular in-pit activities, regular inspections can be suspended, except for requirements prior to entering the pit for water sampling. General (informal) visual inspections can be undertaken when the opportunity presents.	P4
	A review of available instrumentation showed no significant changes from previous years.	The pit is inactive and bermed to prohibit access; consequently, monitoring of the instrumentation can be suspended and the instruments can be decommissioned as necessary.	P4
	An area of significant subsidence was observed on the ring road, at the north end on the east side of the pit. The area is approximately 75 m long by 20 m wide and is in an area that was previously underlain by the Vault Lake. Water ponds against the east side of the road.	Berm off access to the ring road from the north end of the pit; the south end of the ring road is currently bermed to prevent access.	P2
	The Vault Pit lake is being allowed to fill naturally. Prior to entering the pit for sampling of the pit lake, Agnico have a procedure in place for a geotechnical team member to inspect the pit slopes and waste dumps.	In addition to having a member of the geotechnical team inspect the pit walls and waste dumps, the ring road settlement area should also be inspected before entry to the pit.	P2
	There are two in-pit dumps. These were inspected and are performing well. Minor tension cracks were noted previously in the highest dump platform and these have not increased.	Since there are no longer any regular in-pit activities, regular inspections of pit walls and dumps can be suspended, except for requirements prior to entering the pit for water sampling. General (informal) visual inspections can be undertaken when the opportunity presents.	P4

Table 8-1: Summary of Key Observations, Recommendations, and Priority

Component	Summary of Key Observations	Recommendations	Priority
Phaser Pit	The pit walls of Phaser Pit continue to perform well and there are no significant geotechnical concerns.	Maintain restricted access to the pit and ring road.Since there are no longer any regular in-pit activities, regular inspections can be suspended, with the exception of requirements prior to entering the pit for water sampling. General (informal) visual inspections can be undertaken when the opportunity presents.	P4
BB Phaser Pit	The pit walls of BB Phaser Pit continue to perform well and there are no significant geotechnical concerns. Only the top 3 to 5 m of the upper rock bench remains visible above the pit lake surface.	Maintain restricted access to the pit and ring road. Since there are no longer any regular in-pit activities, regular inspections can be suspended, with the exception of requirements prior to entering the pit for water sampling. General (informal) visual inspections can be undertaken when the opportunity presents.	P4
	The access road separating BB Phaser Pit from Phaser Pit is still accessible. Sinkholes noted in 2019 are absent in 2020.	Deactivate road and berm off to prevent use.	P2

Priority 1 (P1) - A high priority or structural safety issue considered immediately dangerous to life, health or the environment. Also includes issues with a significant risk of regulatory enforcement.

Priority 2 (P2) - An issue that, if not corrected, could plausibly result in a structural safety issue leading to injury, environmental impact or significant regulatory enforcement. Also includes repeated deficiencies that demonstrate a systematic breakdown of procedures.

Priority 3 (P3) - Single occurrences of deficiencies or non-conformances that in isolation are unlikely to result in structural safety issues. Also includes recommendations for pro-active measures.

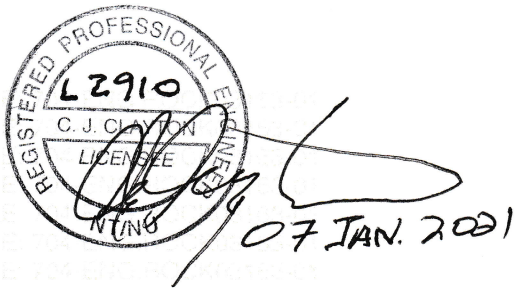
Priority 4 (P4) - Opportunity for improvement, for example to meet industry best practices.

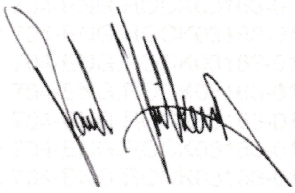
9.0 CLOSURE

The reader is referred to the Study Limitations which precede the text and forms an integral part of this report.

We trust this report meets your requirements. Should you have any questions or concerns, please do not hesitate to contact the undersigned.

Respectfully submitted,
Tetra Tech Canada Inc.





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TETRA TECH CANADA INC.
Signature
Date January 7, 2021
PERMIT NUMBER: P 018
NT/NU Association of Professional Engineers and Geoscientists

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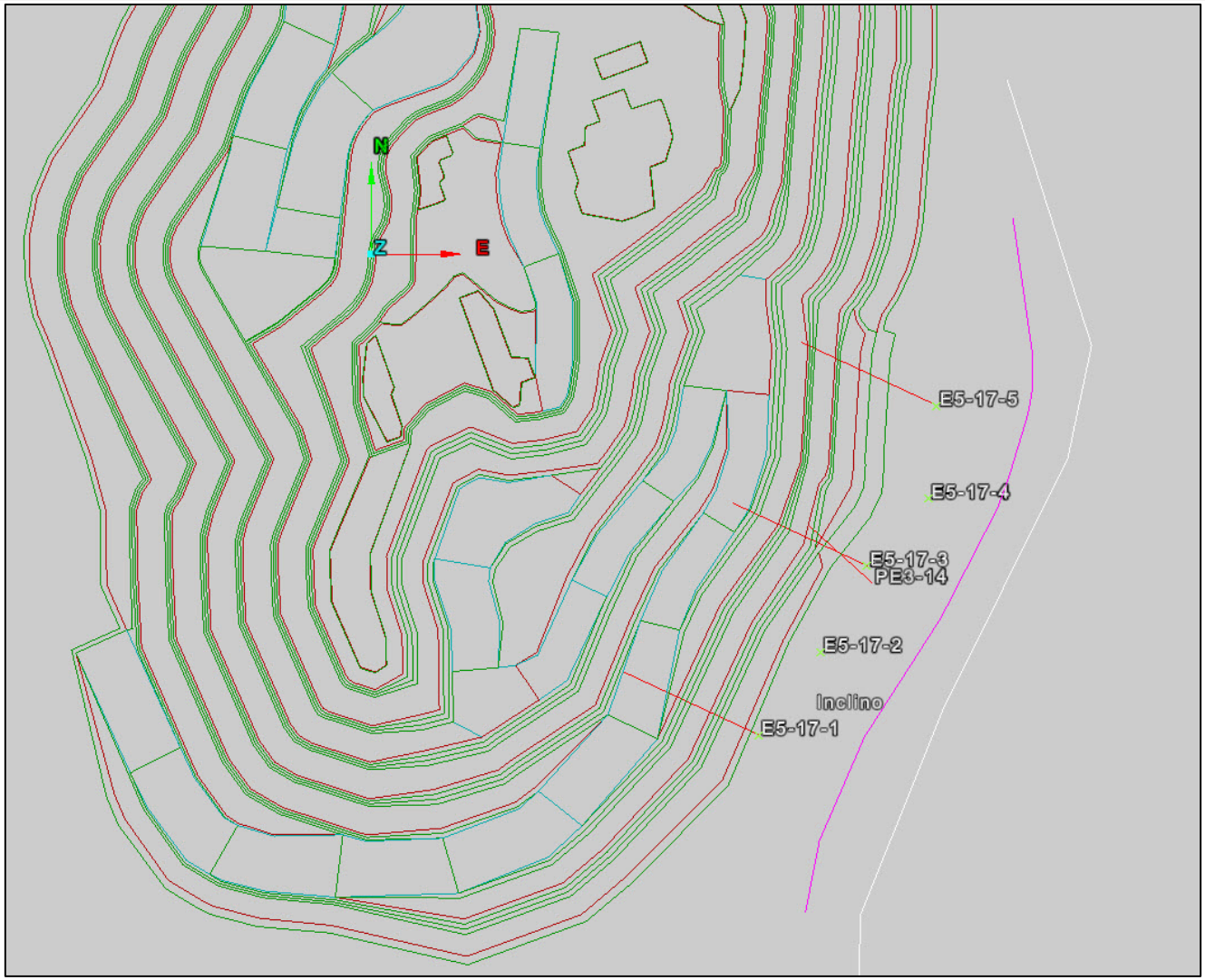
APPENDIX A

PORTAGE PIT INSTRUMENTATION DATA



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT

AGNICO EAGLE
MEADOWBANK

TETRA TECH

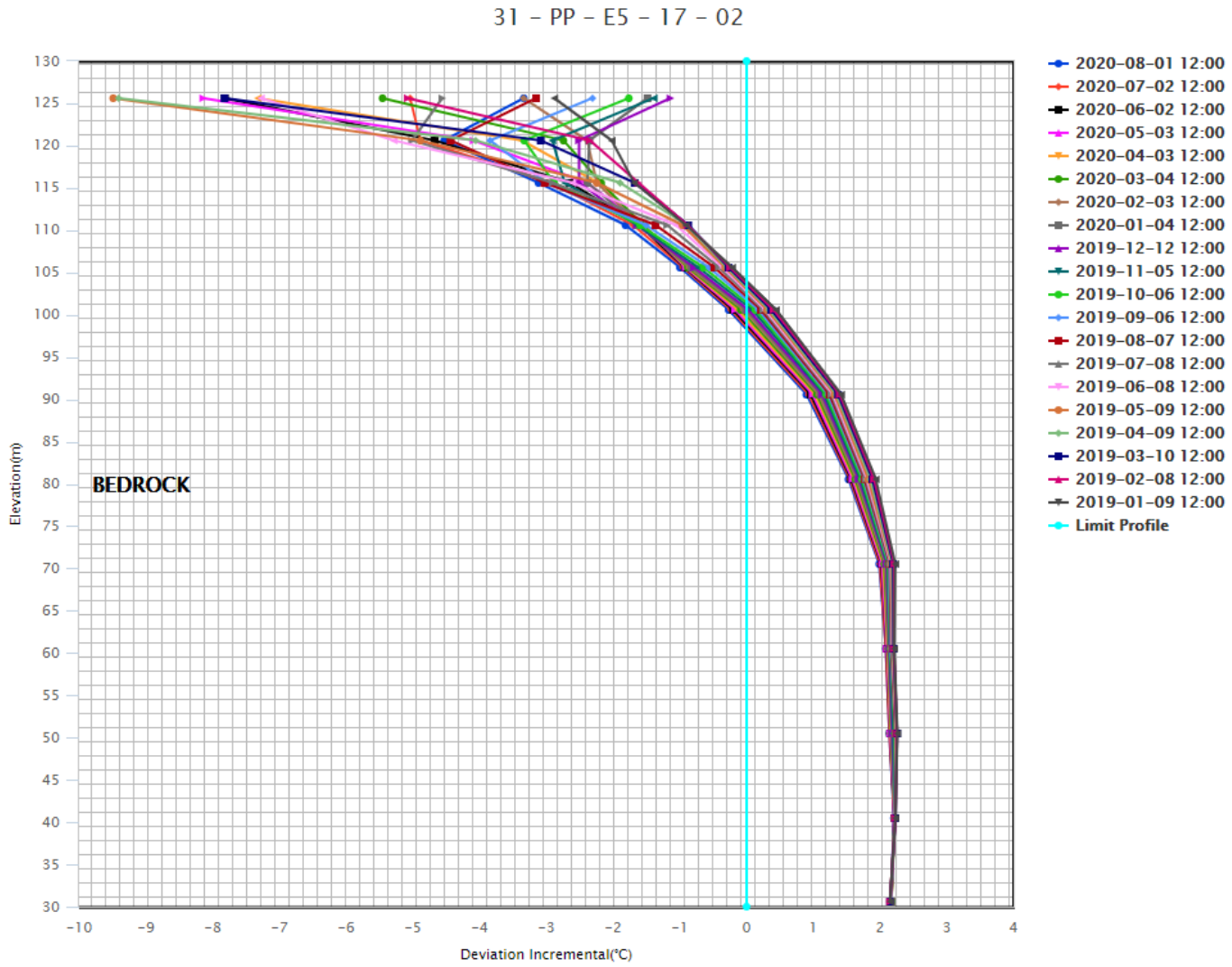
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit E5
Instrumentation Location

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-1



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE MEADOWBANK

TETRA TECH

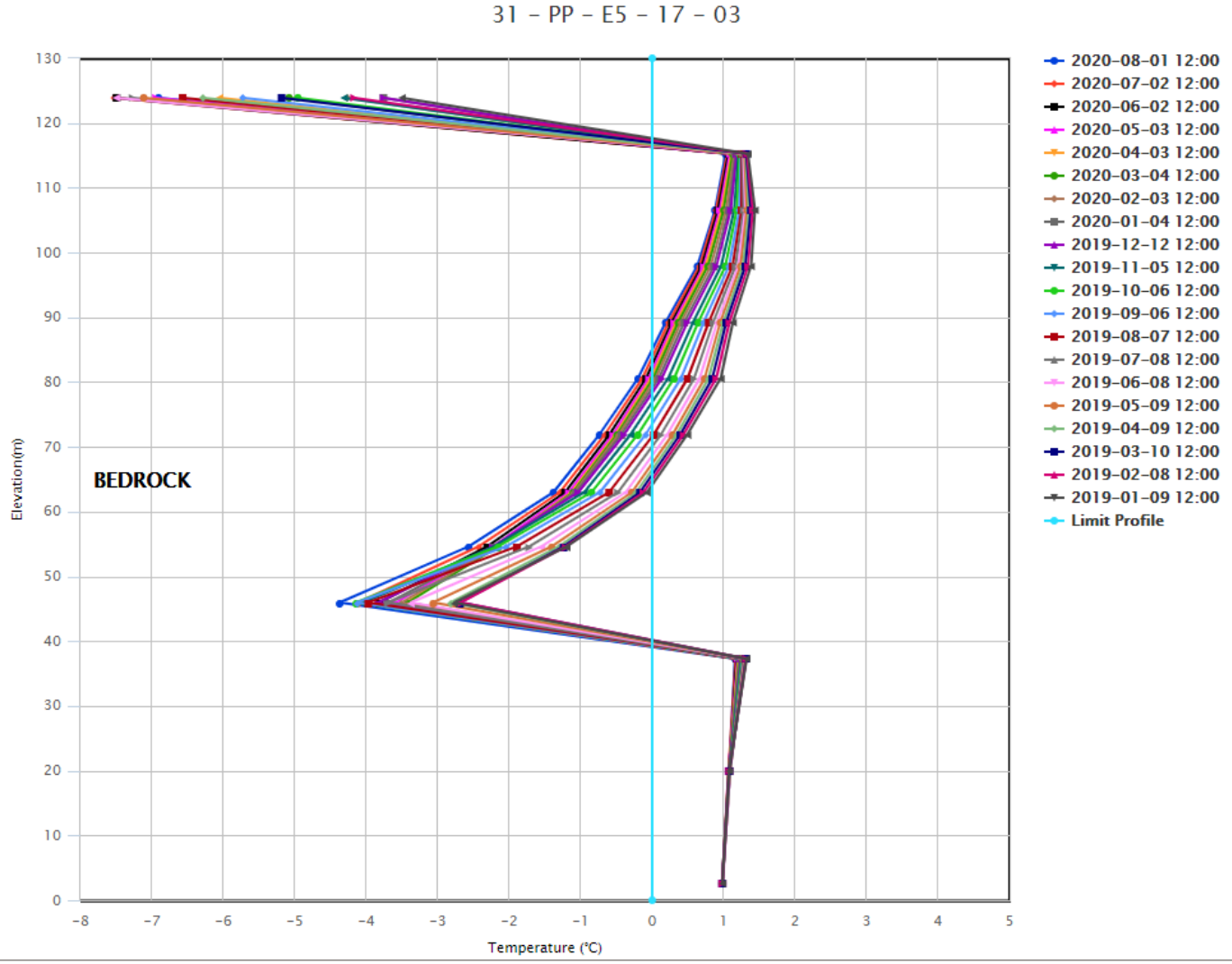
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit E5
Thermistor Cable PE5-17-02 TH
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-2



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE MEADOWBANK

TETRA TECH

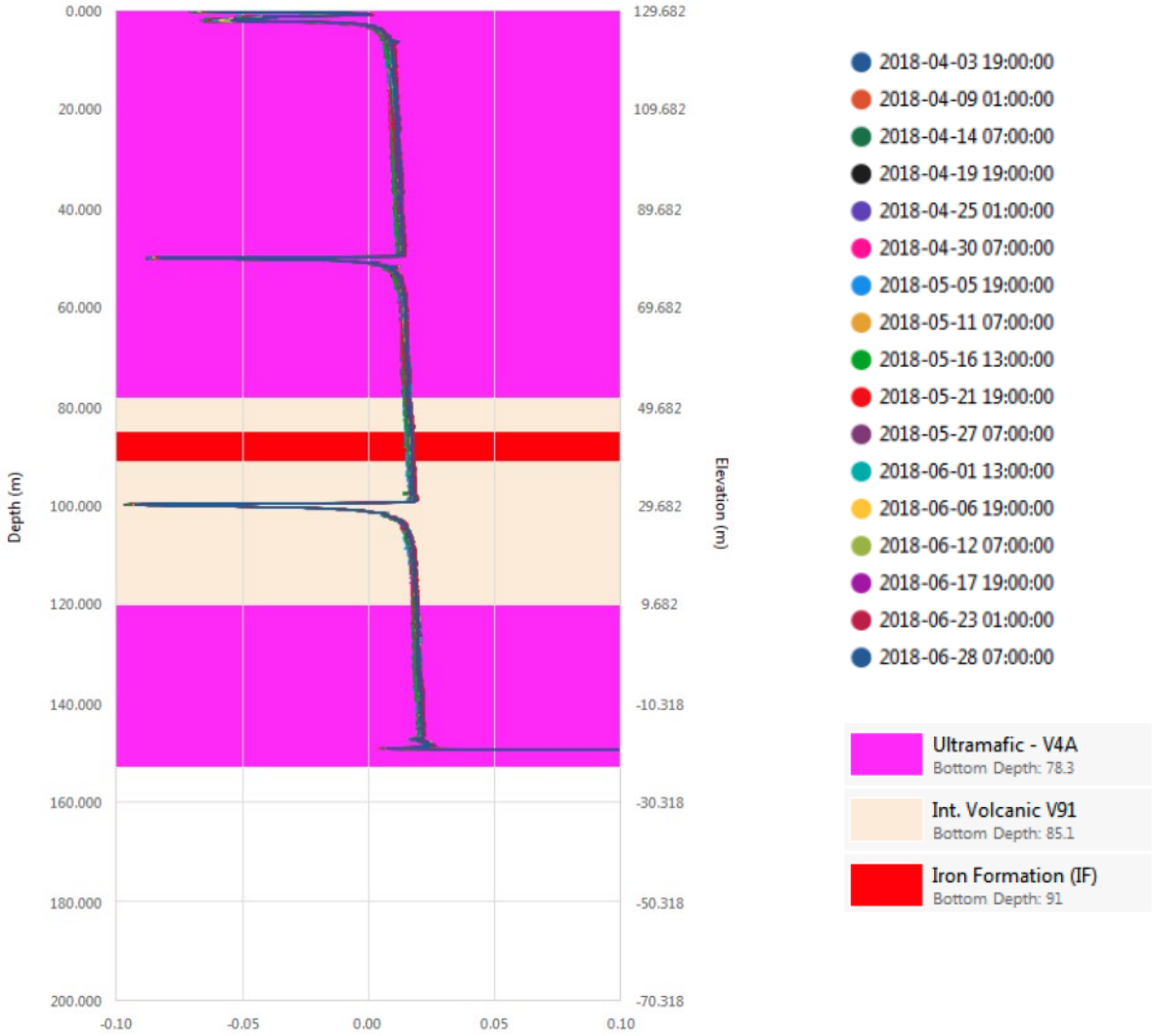
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit E5
Thermistor Cable PE5-17-03 TH
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-3



LEGEND

No 2020 update

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE
MEADOWBANK

TETRA TECH

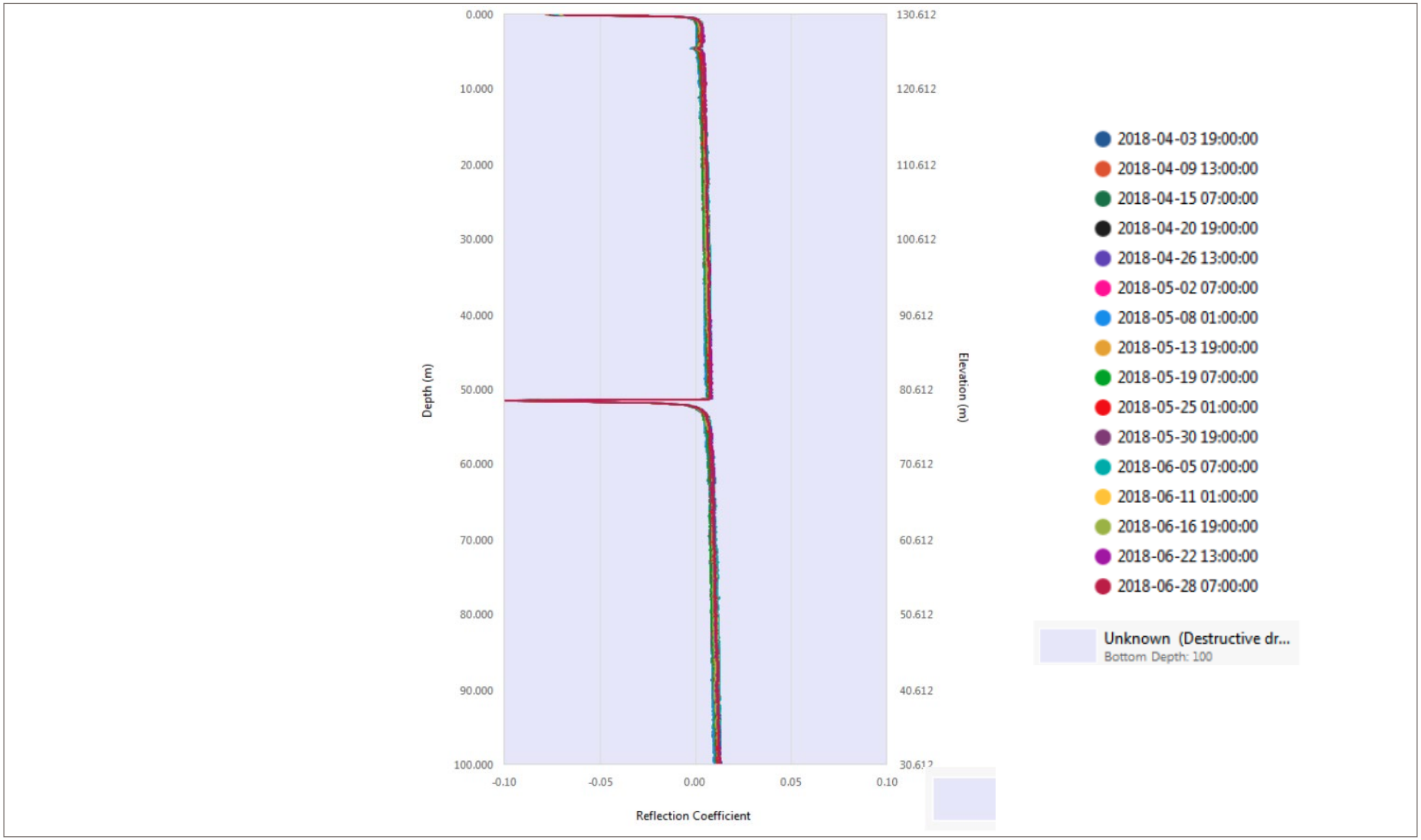
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit E5
TDR Data TDR-01

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-4



LEGEND

No 2020 update

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

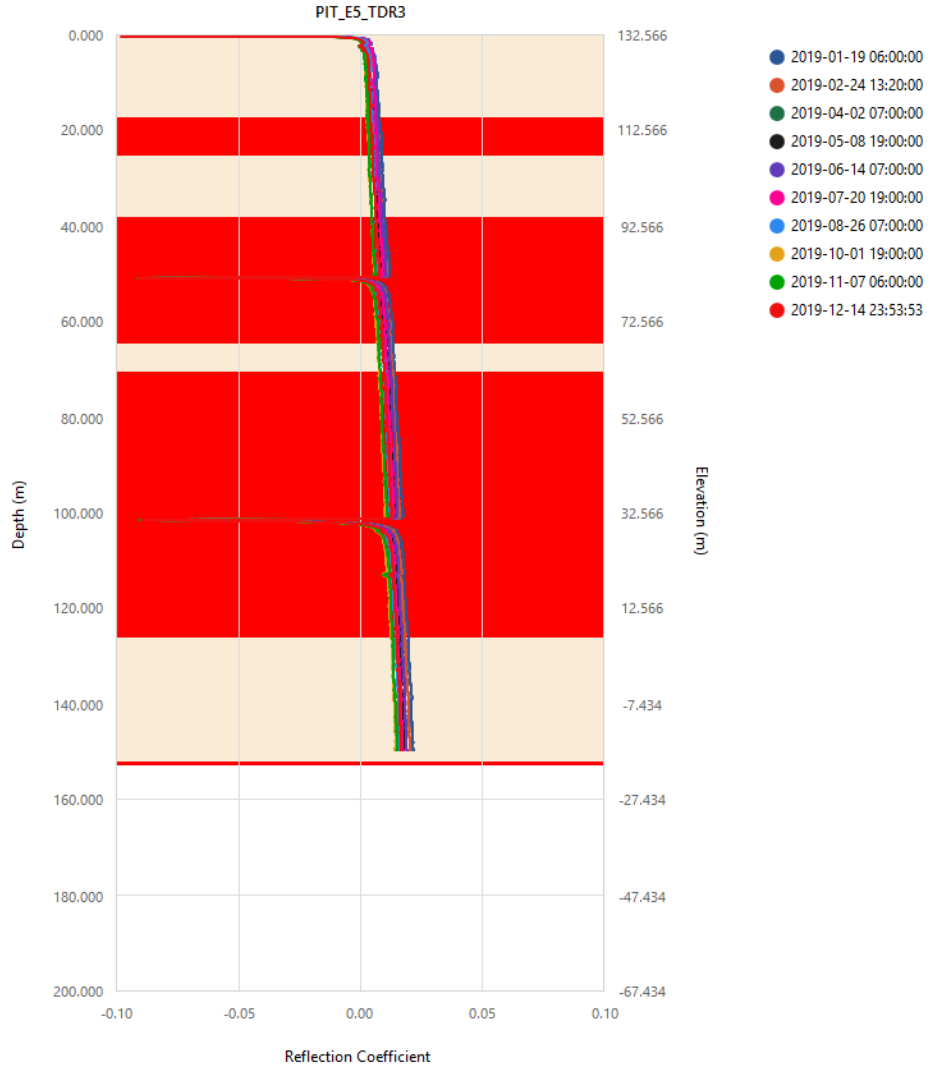
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit Hole E5-17-2
TDR Data TDR-02

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-5



LEGEND

- Ultramafic - V4A
  Bottom Depth: 78.3
- Int. Volcanic V91
  Bottom Depth: 85.1
- Iron Formation (IF)
  Bottom Depth: 91

No 2020 update

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE
MEADOWBANK

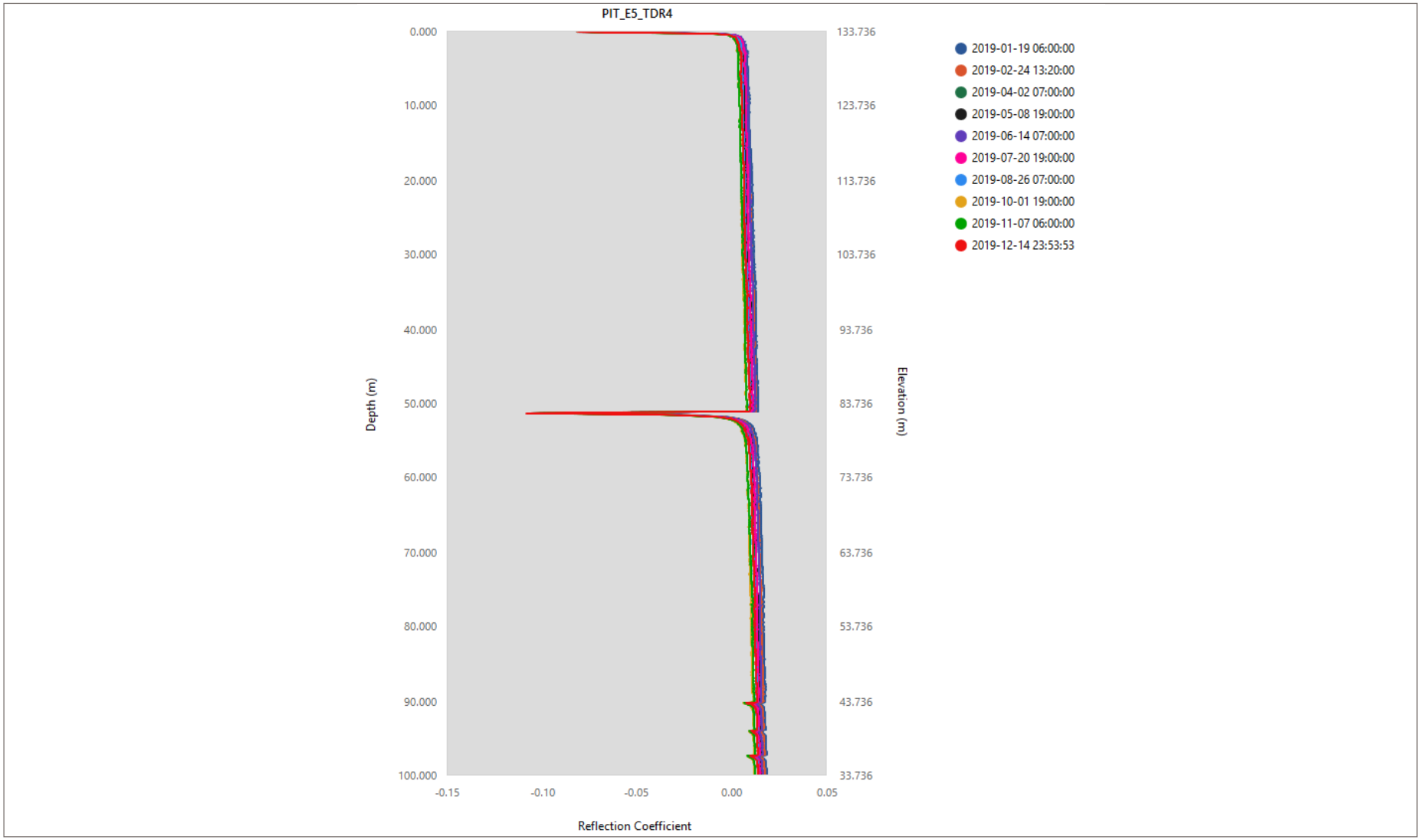
TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION
Portage Pit E5
TDR Data TDR-03
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-6



LEGEND

No 2020 update

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

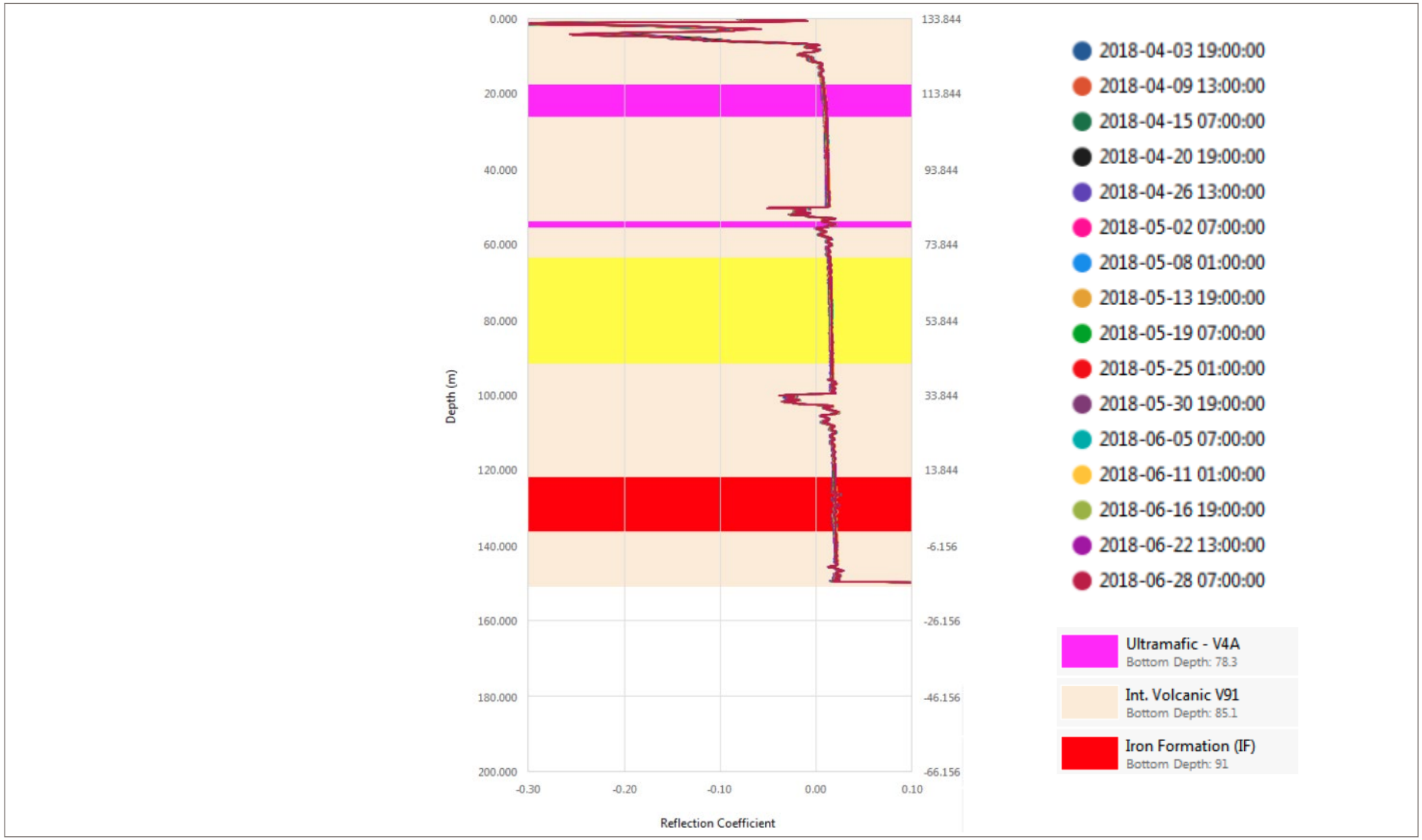
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit E5
TDR Data TDR-04
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-7



LEGEND

No 2020 update

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE
MEADOWBANK

TETRA TECH

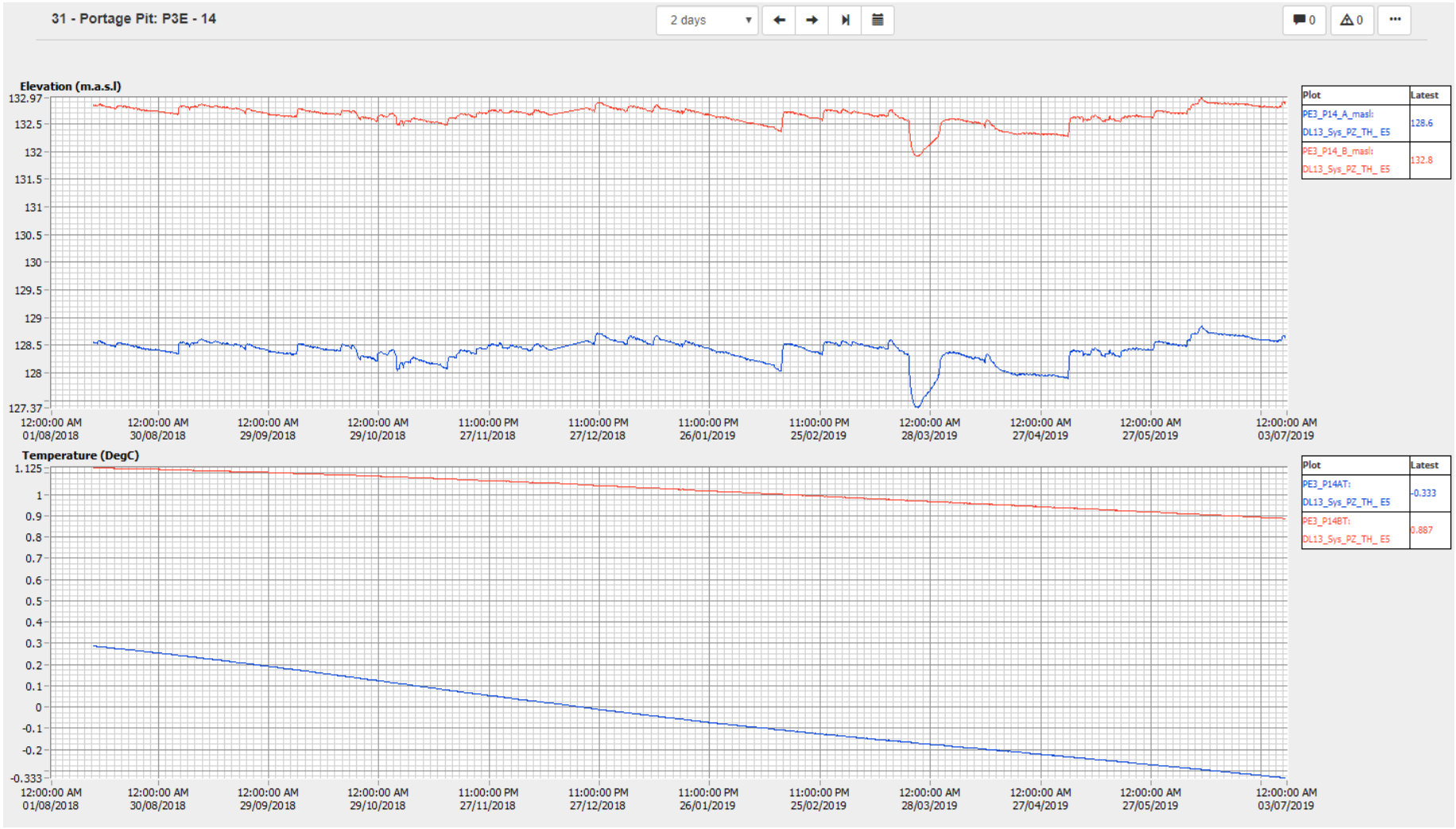
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit
TDR Data TDR-05

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-8



LEGEND

No 2020 update

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit E5
Piezometer Data P3E-14

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-9

LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE MEADOWBANK

TETRA TECH

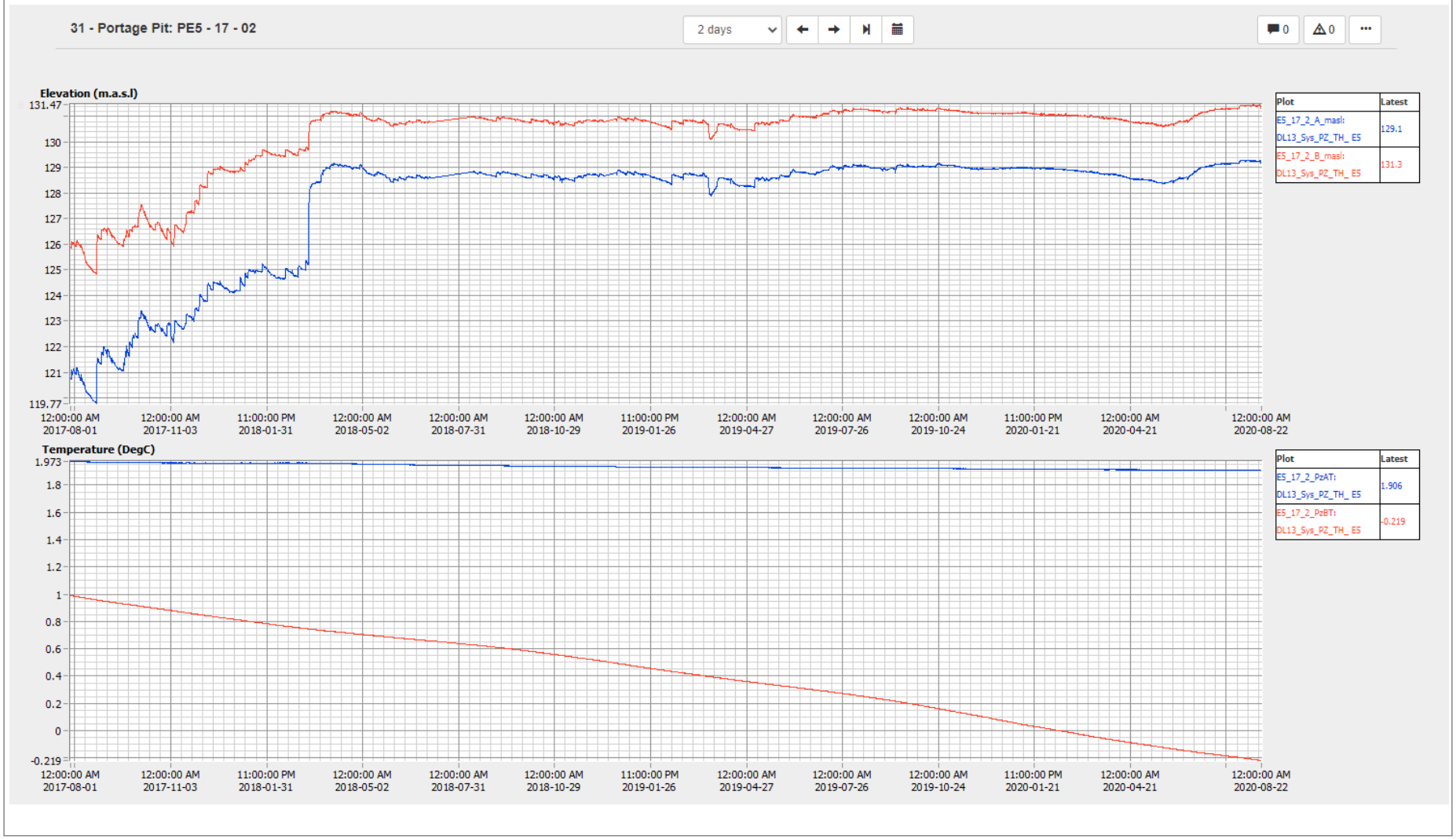
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit E 5
Piezometer Data PE5-17-01
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-10



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

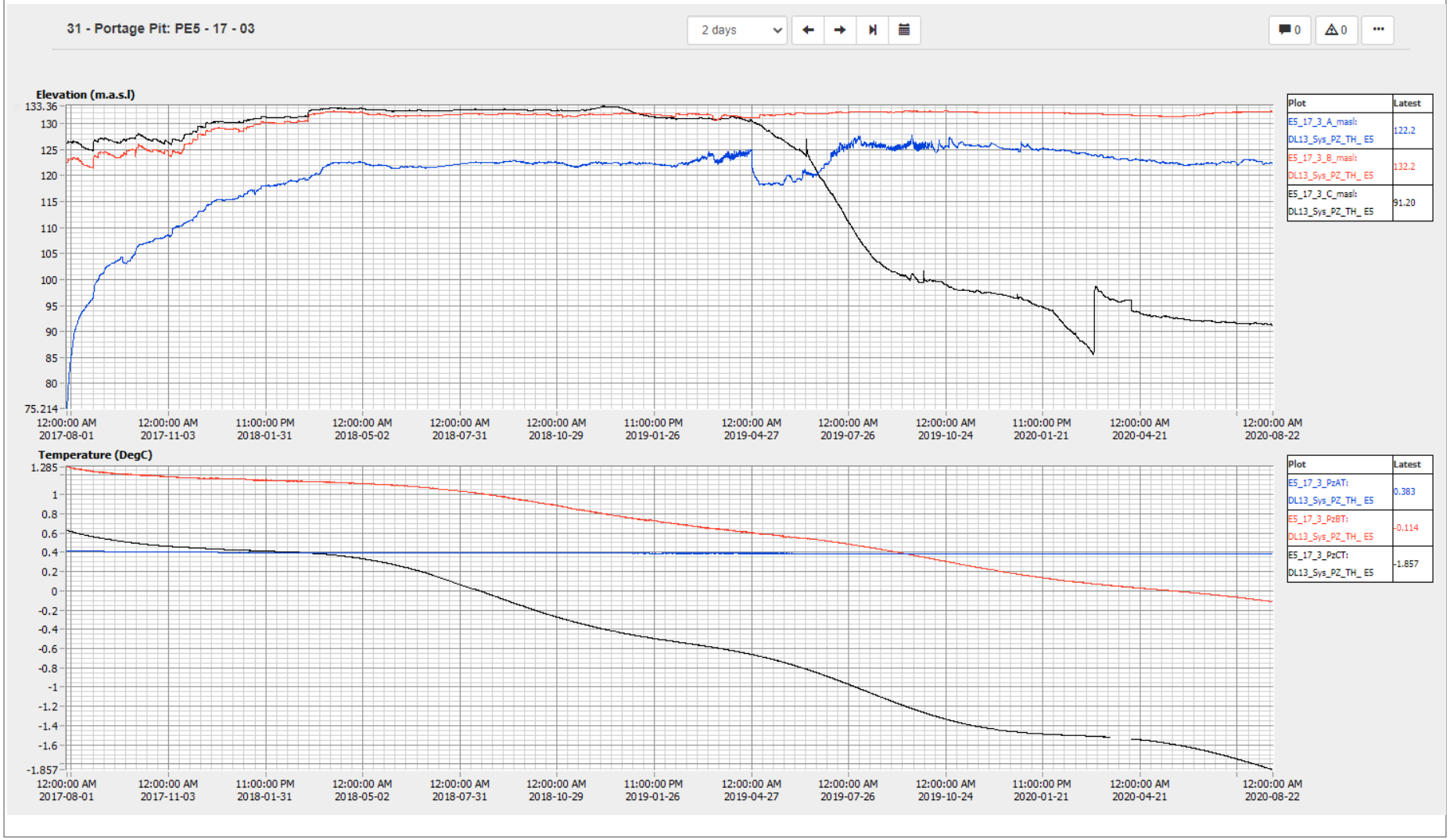
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit E 5
Piezometer Data PE5-17-02
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-11



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE MEADOWBANK

TETRA TECH

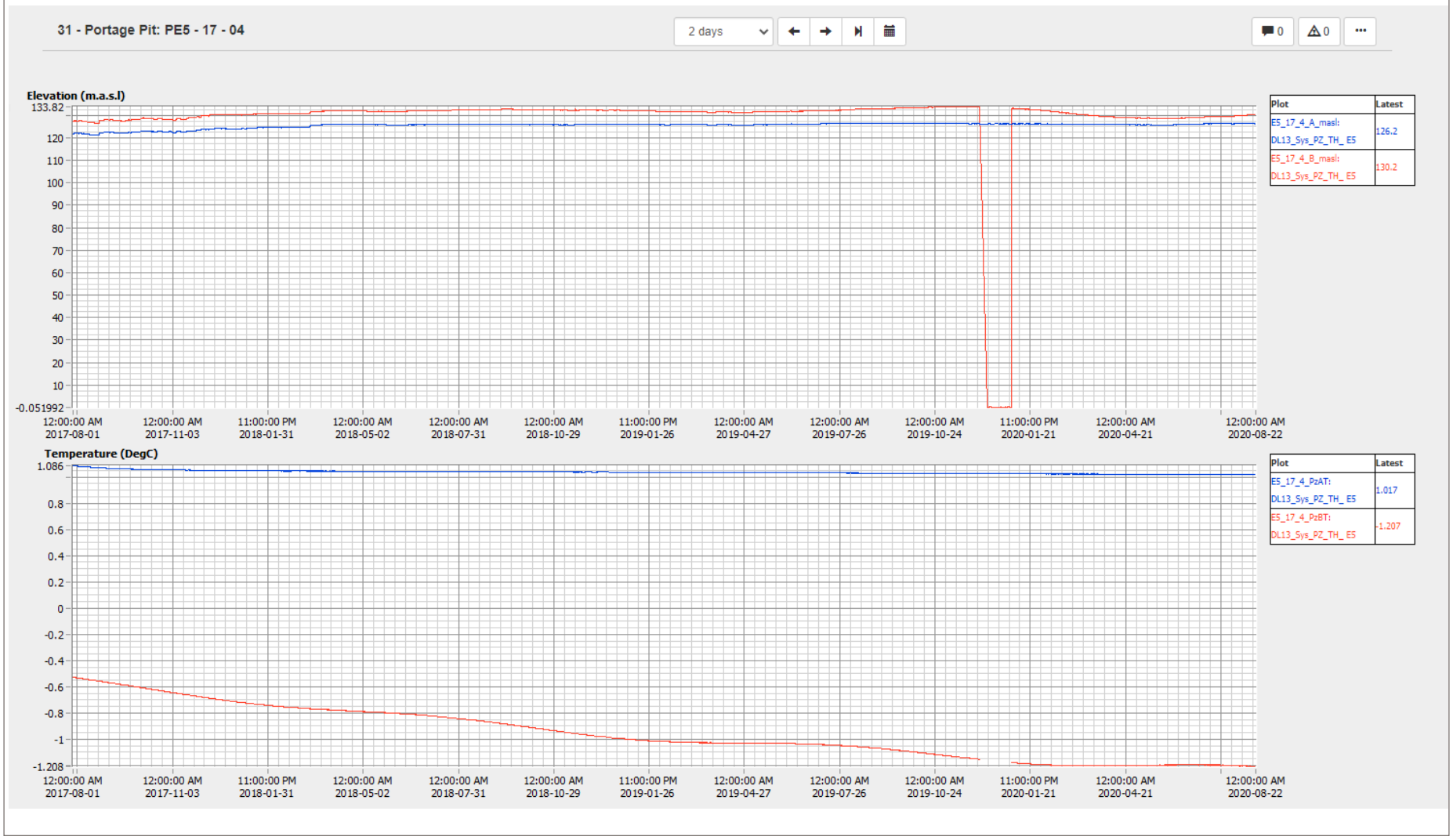
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit E 5
Piezometer Data PE5-17-03
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-12



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE MEADOWBANK

TETRA TECH

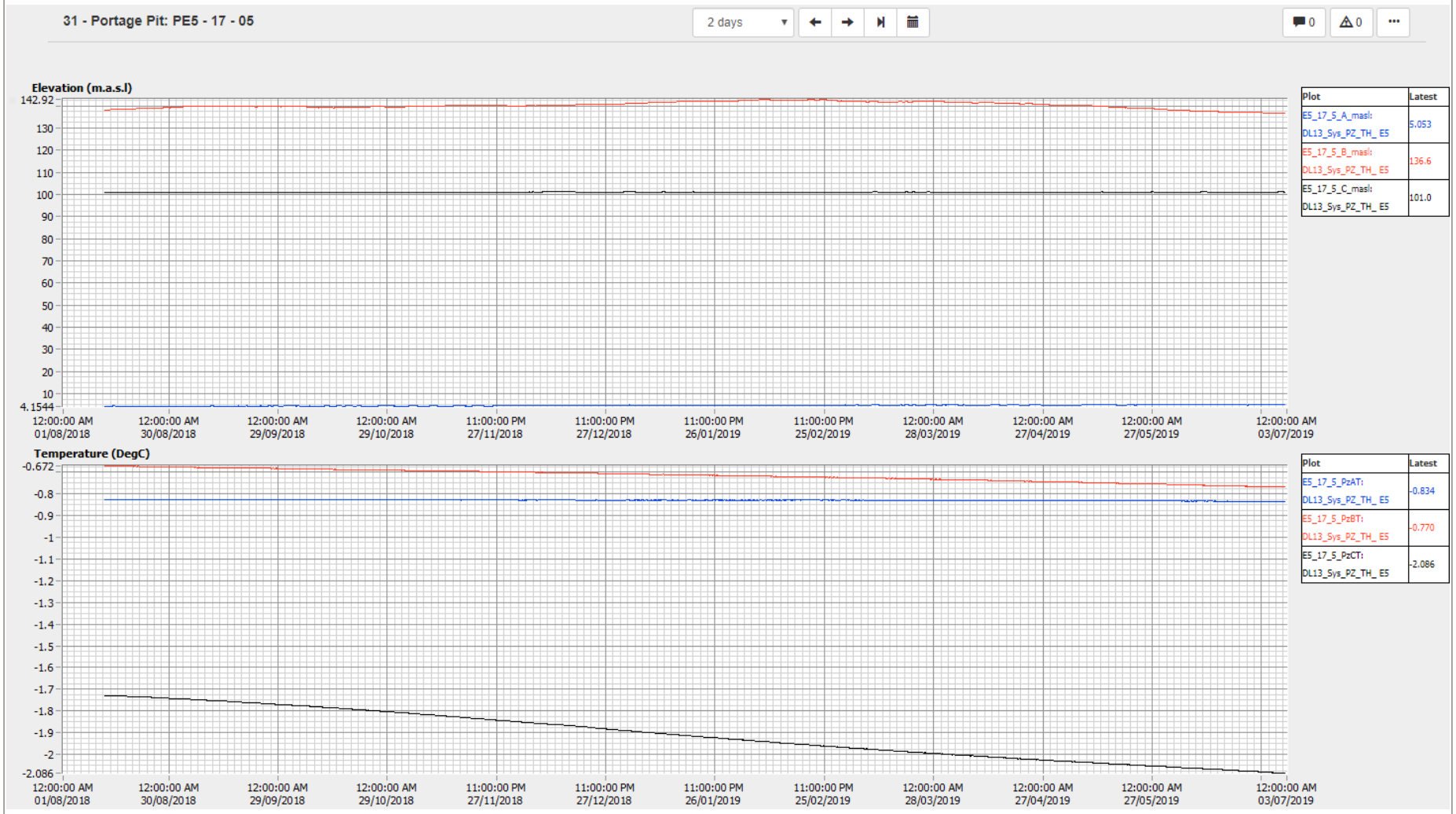
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit E 5
Piezometer Data PE5-17-04
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-13



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE
MEADOWBANK

TETRA TECH

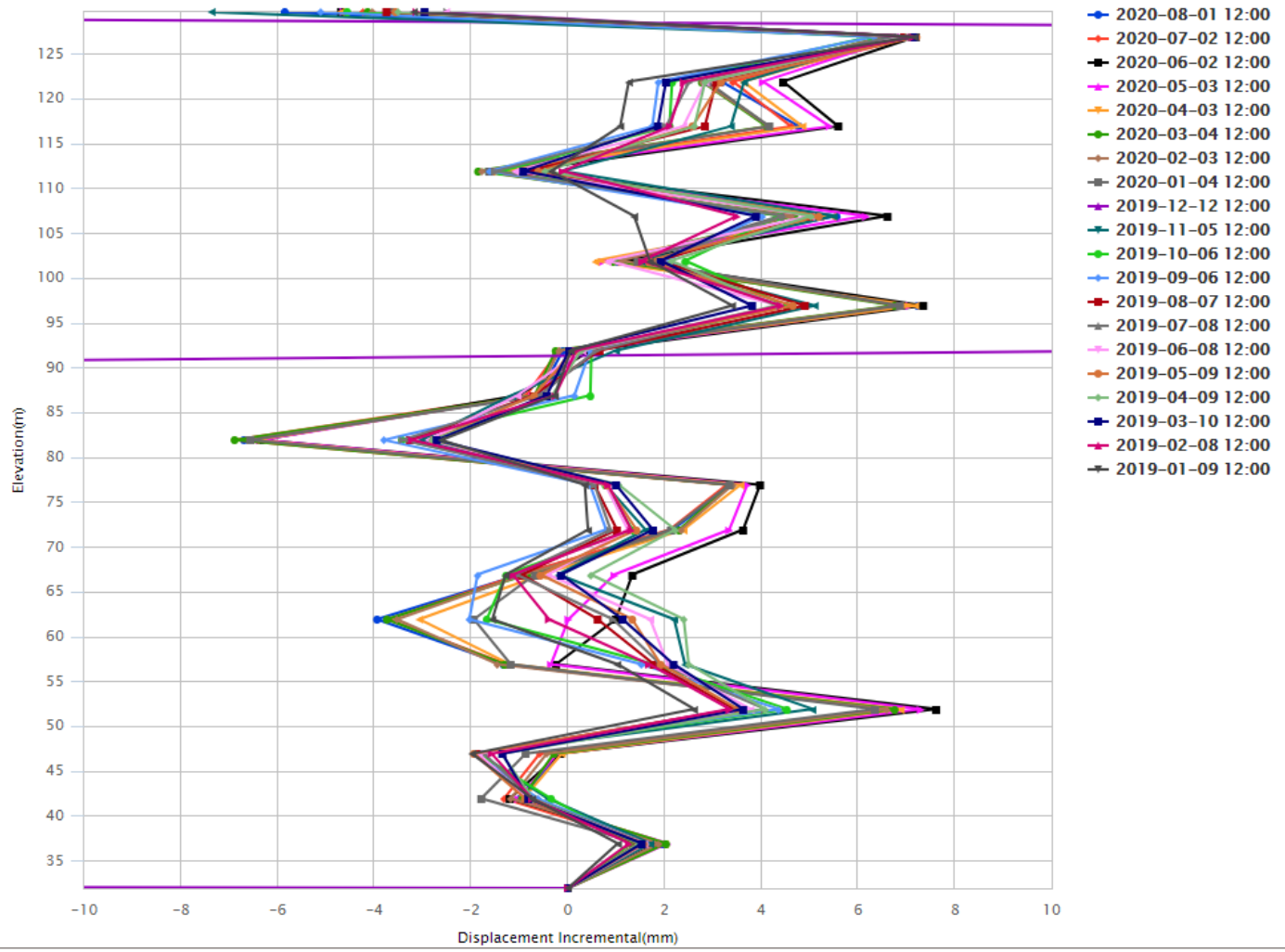
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit E 5
Piezometer Data PE5-17-05
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-14



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE
MEADOWBANK

TETRA TECH

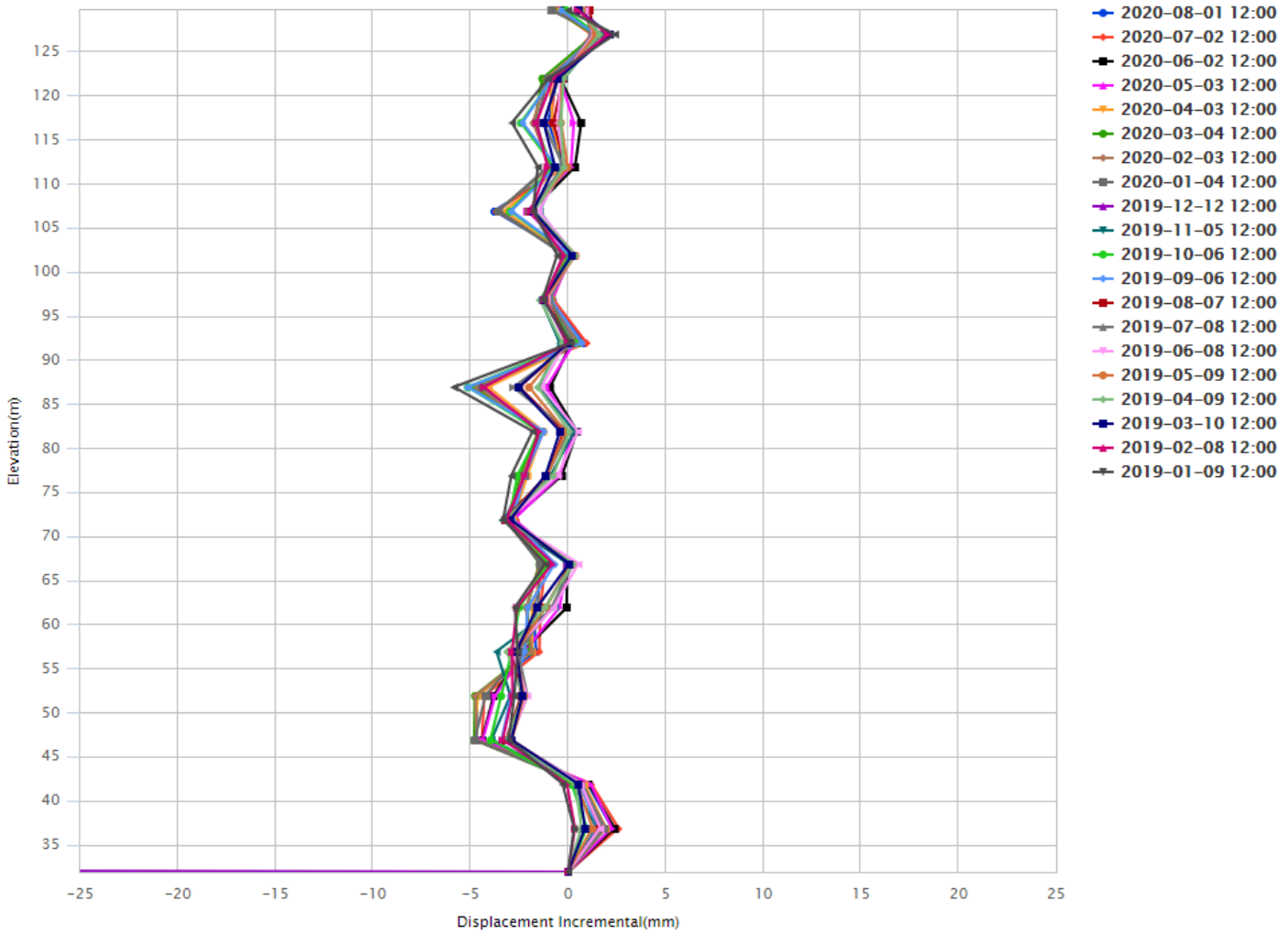
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit E5
Inclinometer Data PE5 A-Axis
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-15



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT

AGNICO EAGLE
MEADOWBANK

TETRA TECH

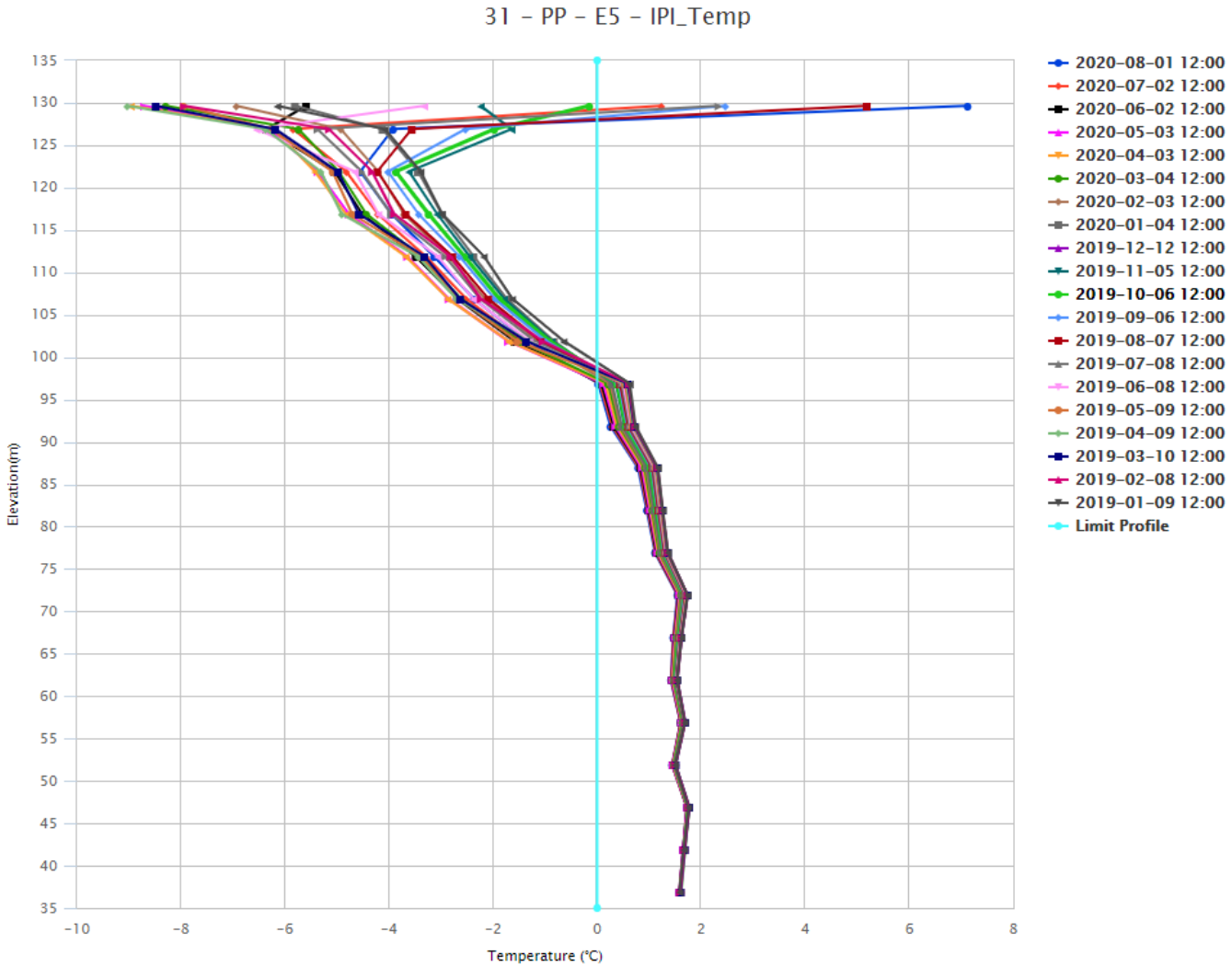
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit E 5
Inclinometer Data PE5 B-Axis
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure A-16



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE MEADOWBANK

TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Portage Pit E 5
Inclinometer Temperature
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

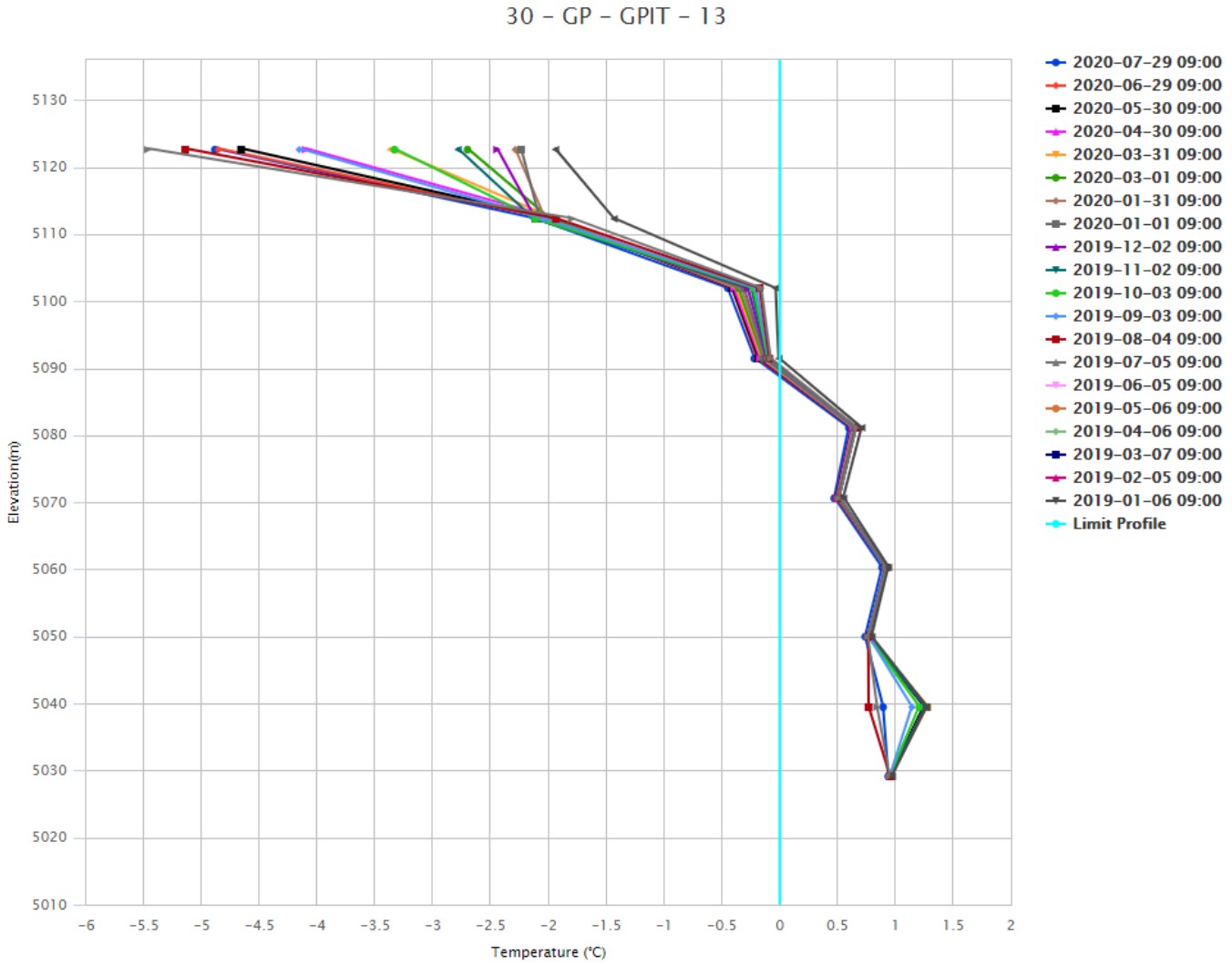
OFFICE	DATE
VANCOUVER	December 2020

Figure A-17

APPENDIX B

GOOSE PIT INSTRUMENTATION DATA

- Figure B-1 Goose Pit Thermistor Cable GPIT-13 2020 Data
- Figure B-2 Goose Pit Thermistor Cable GPIT-14 2020 Data
- Figure B-3 Goose Pit Thermistor Cable GPIT-16 2020 Data
- Figure B-4 Goose Pit Thermistor Cable GPIT-17 2020 Data
- Figure B-5 Goose Pit Thermistor Cable GPIT-19 2020 Data
- Figure B-6 Goose Pit Thermistor Cable GPIT-20 2020 Data
- Figure B-7 Goose Pit TDR Data TDR-11
- Figure B-8 Goose Pit TDR Data TDR-12 2020 Data
- Figure B-9 Goose Pit TDR Data TDR-14 2020 Data
- Figure B-10 Goose Pit TDR Data TDR-15 2020 Data
- Figure B-11 Goose Pit TDR Data TDR-17 2020 Data
- Figure B-12 Goose Pit TDR Data TDR-18 2020 Data
- Figure B-13 Goose Pit TDR Data TDR-20 2020 Data
- Figure B-14 Goose Pit Piezometer Data GPIT-13 2020 Data
- Figure B-15 Goose Pit Piezometer Data GPIT-14 2020 Data
- Figure B-16 Goose Pit Piezometer Data GPIT-16 2020 Data
- Figure B-17 Goose Pit Piezometer Data GPIT-17 2020 Data
- Figure B-18 Goose Pit Piezometer Data GPIT-19 2020 Data
- Figure B-19 Goose Pit Piezometer Data GPIT-20 2020 Data



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE
MEADOWBANK

TETRA TECH

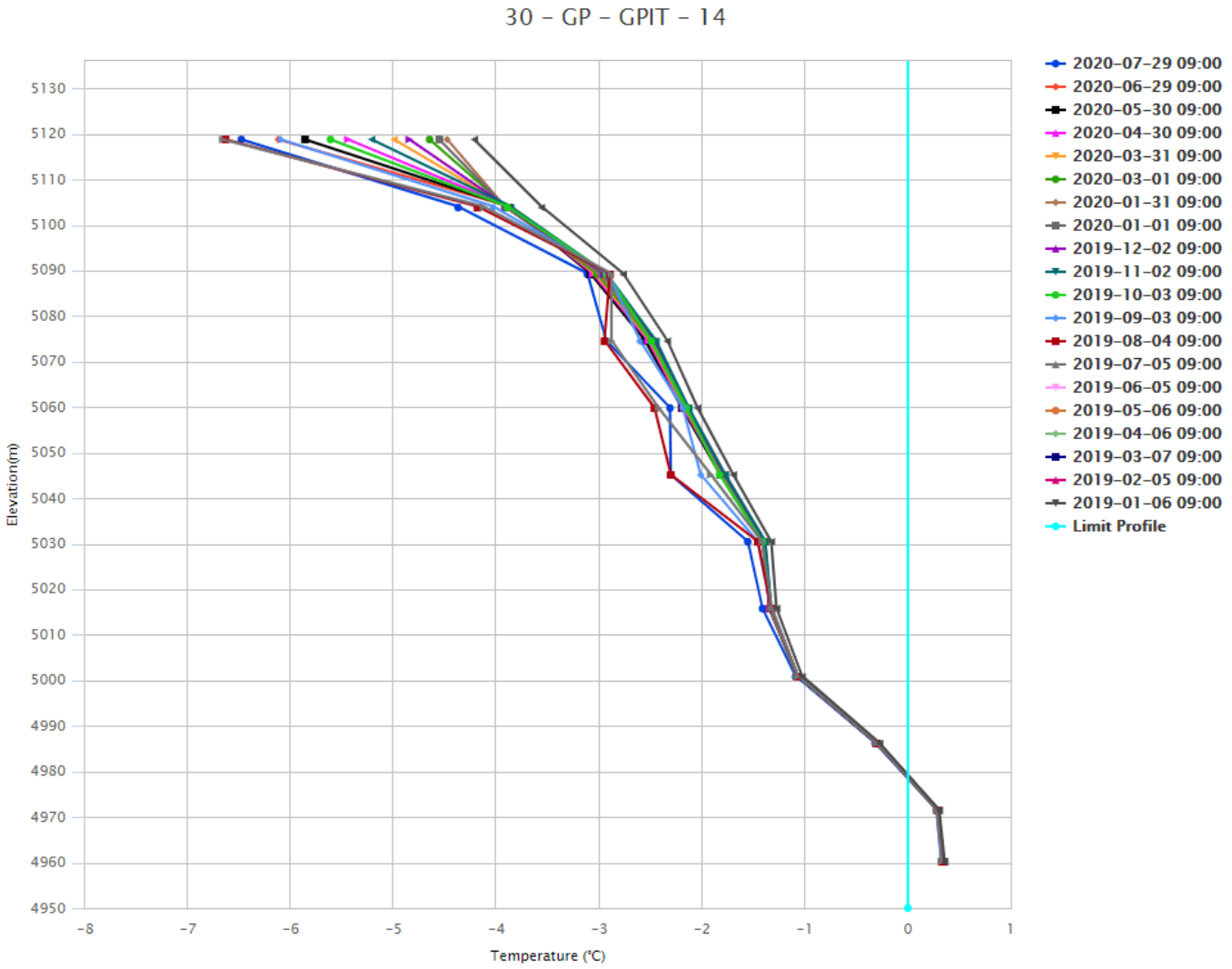
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Goose Pit
Thermistor Cable GPIT-13
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-1



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE
MEADOWBANK

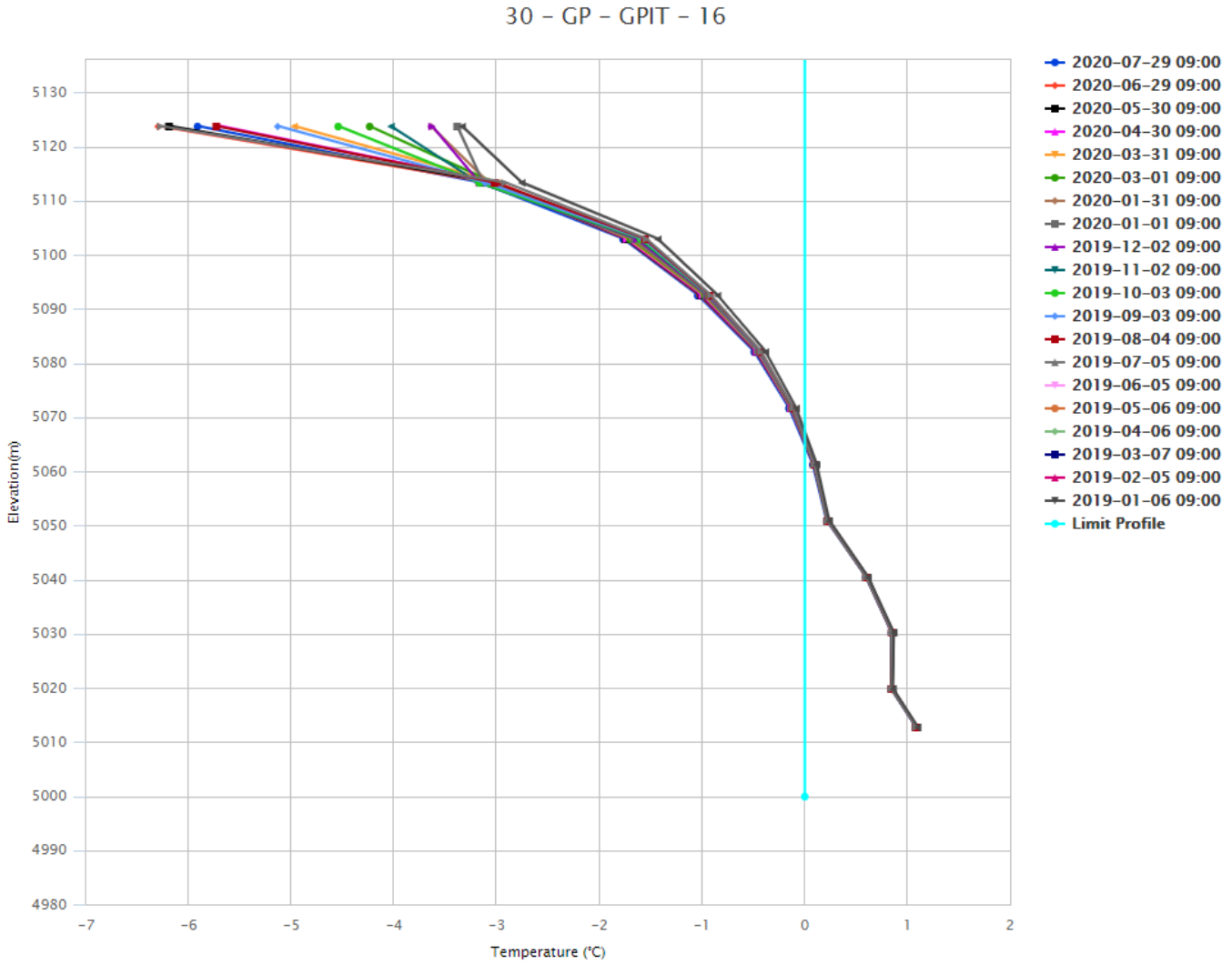
TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION
Goose Pit
Thermistor Cable GPIT-14
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-2



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE
MEADOWBANK

TETRA TECH

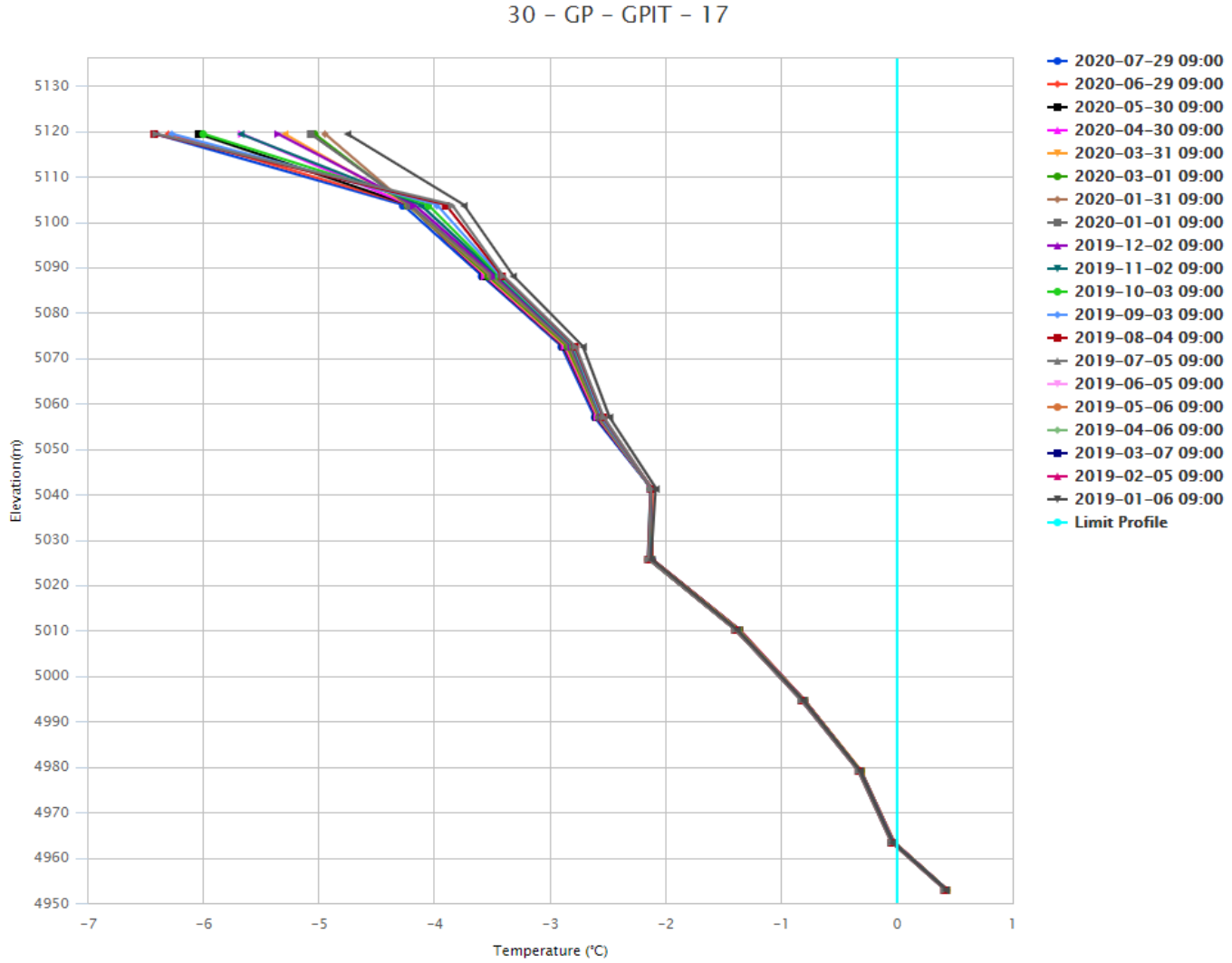
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Goose Pit
Thermistor Cable GPIT-16
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-3



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE
MEADOWBANK

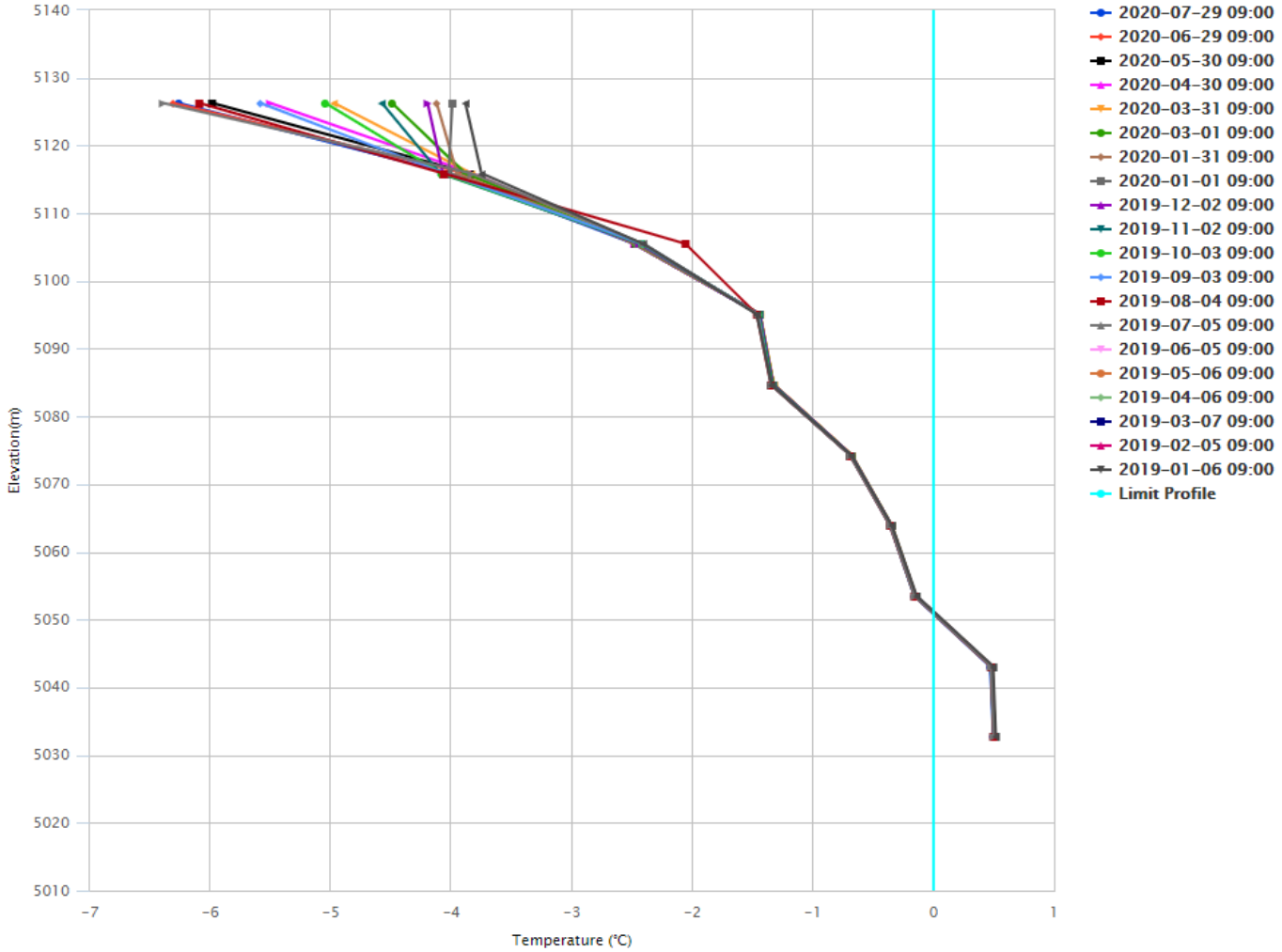
TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION
Goose Pit
Thermistor Cable GPIT-17
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-4



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE
MEADOWBANK

TETRA TECH

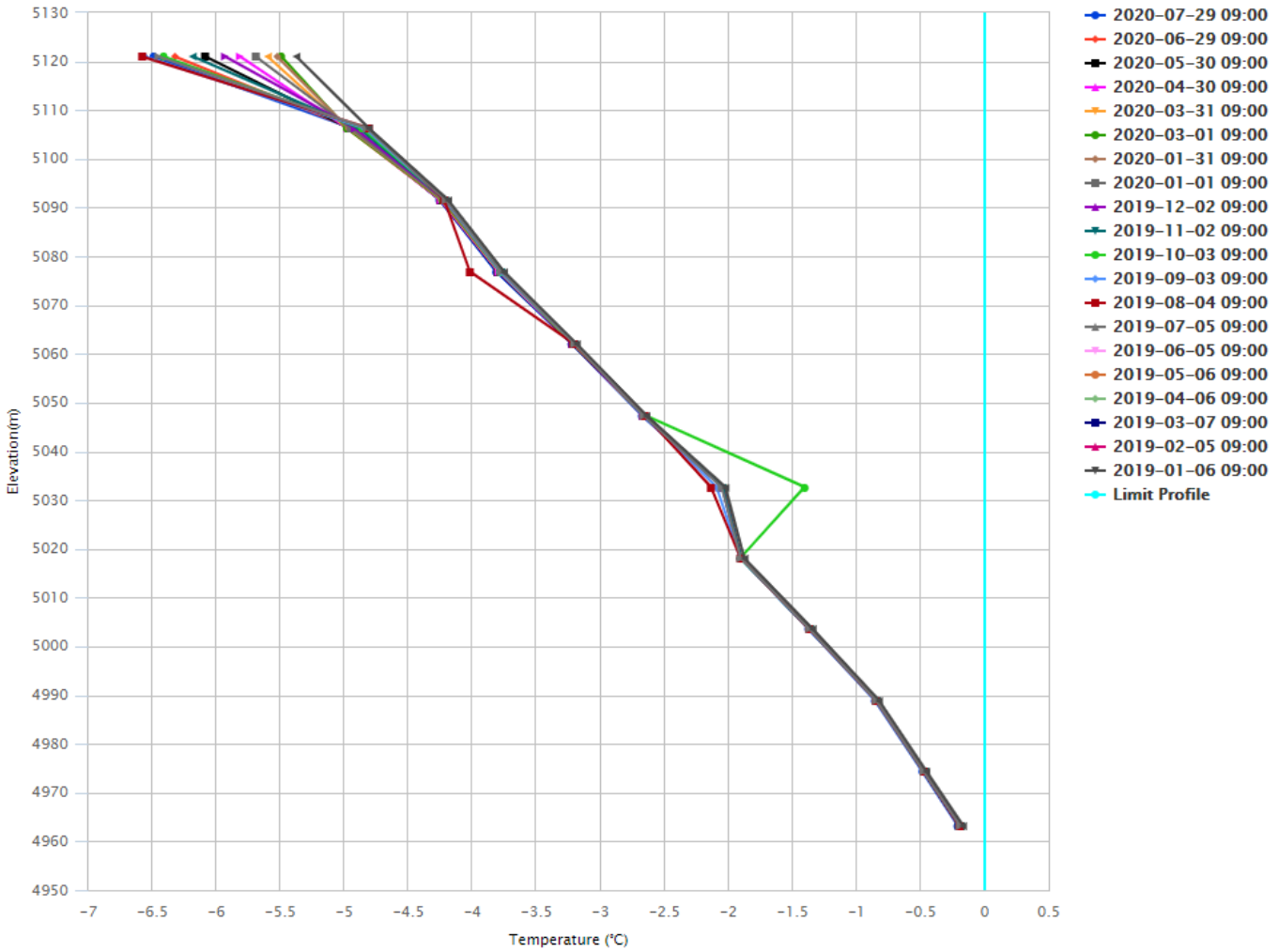
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Goose Pit
Thermistor Cable GPIT-19
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-5



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE
MEADOWBANK

TETRA TECH

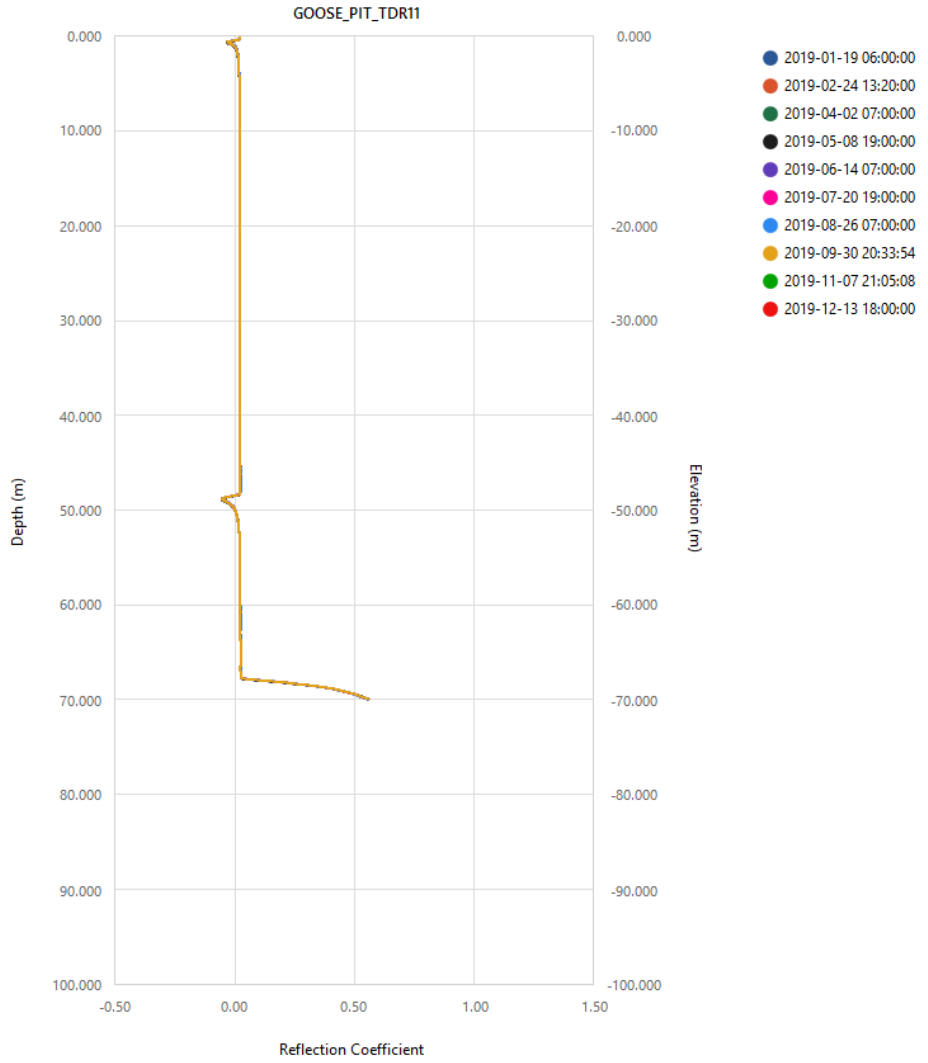
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Goose Pit
Thermistor Cable GPIT-20
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-6



LEGEND

No 2020 data

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

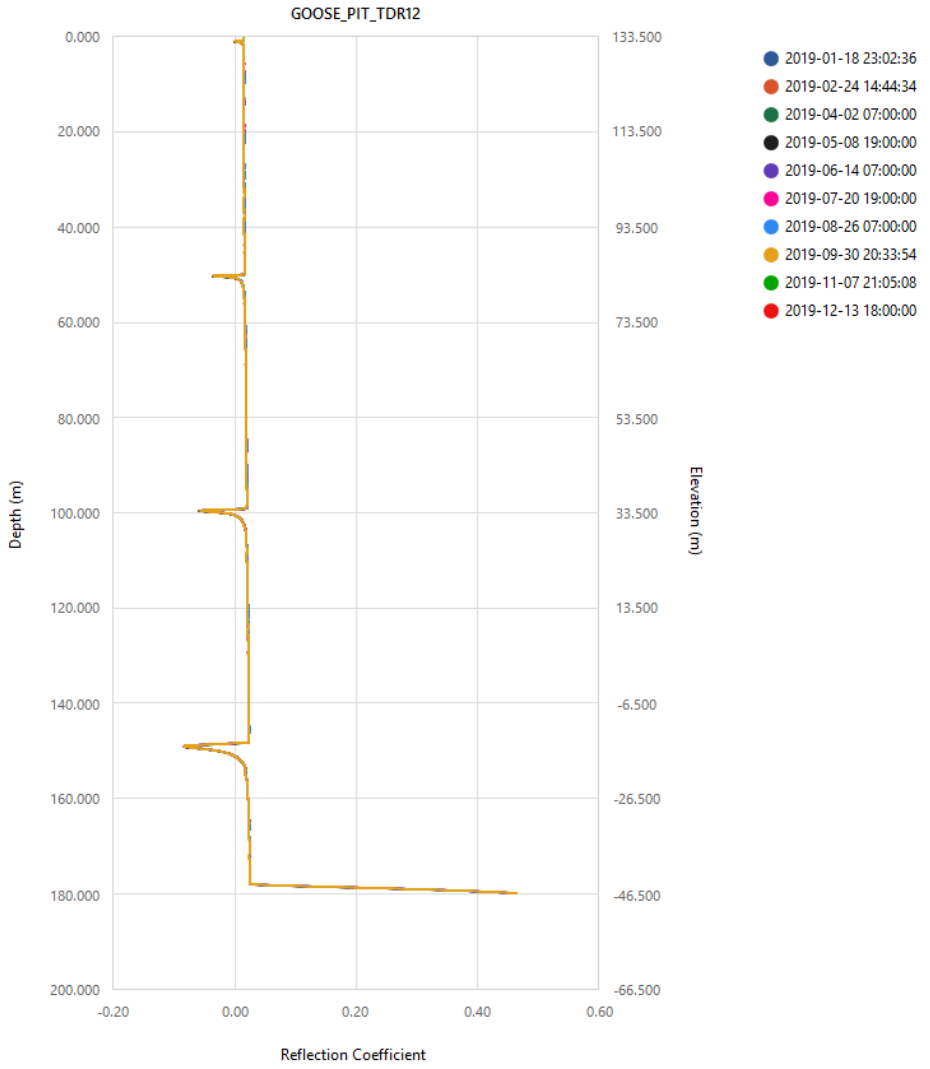
TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION
Goose Pit
TDR Data TDR-11

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-7



LEGEND

No 2020 data

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

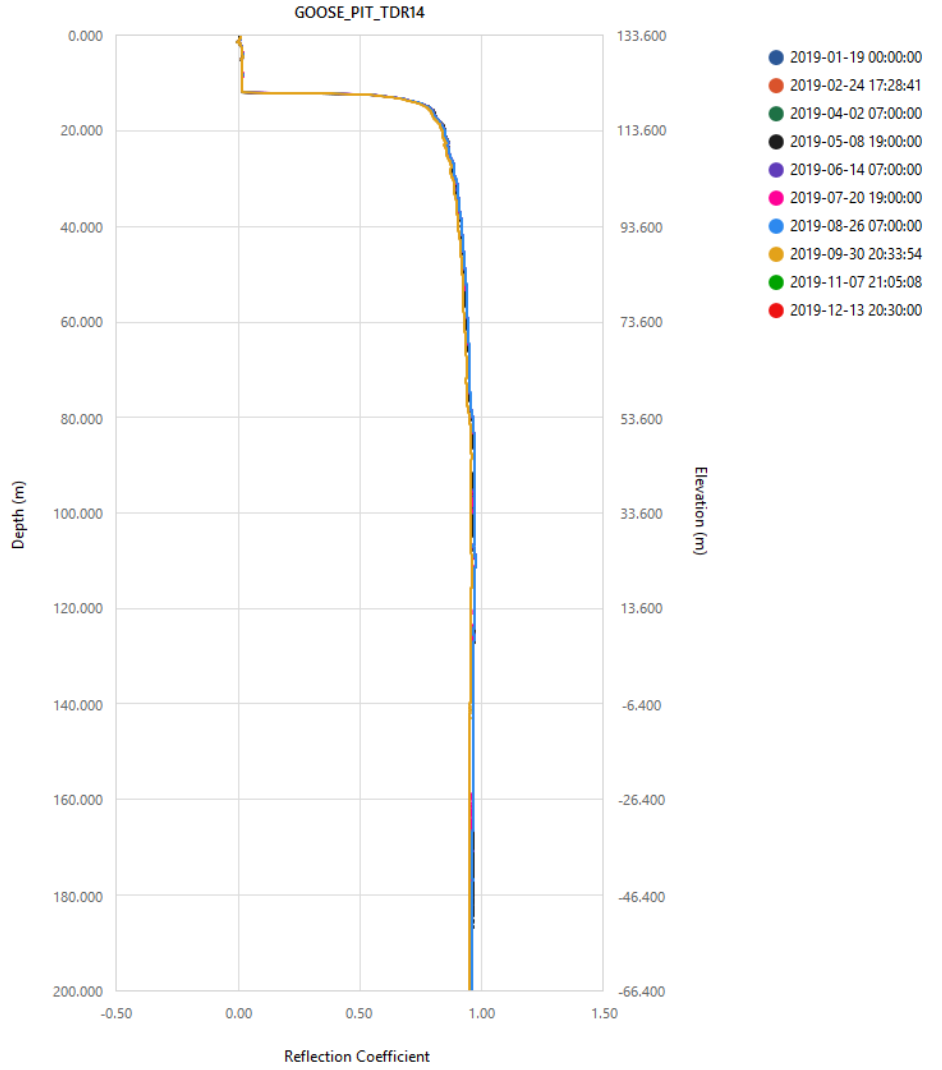
TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION
Goose Pit
TDR Data TDR-12

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-8



LEGEND

No 2020 data

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

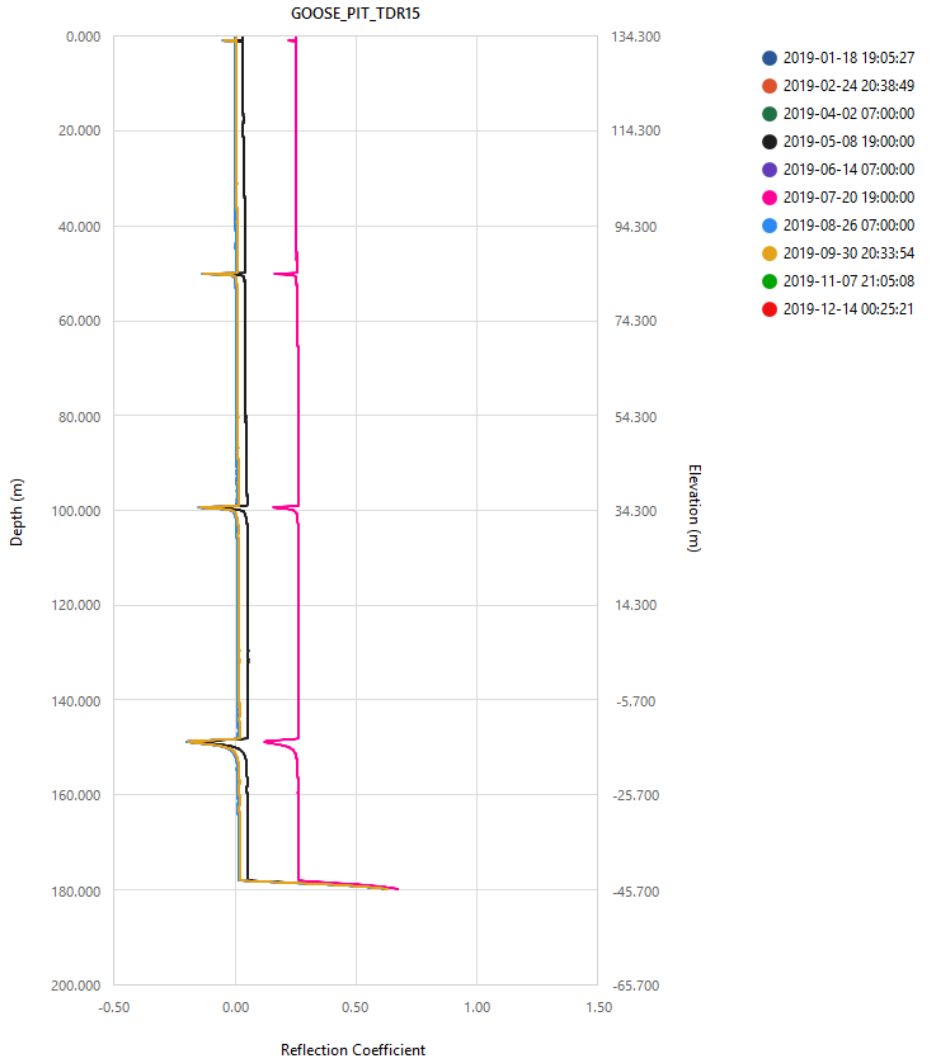
TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION
Goose Pit
TDR Data TDR-14

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-9



LEGEND

No 2020 data

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

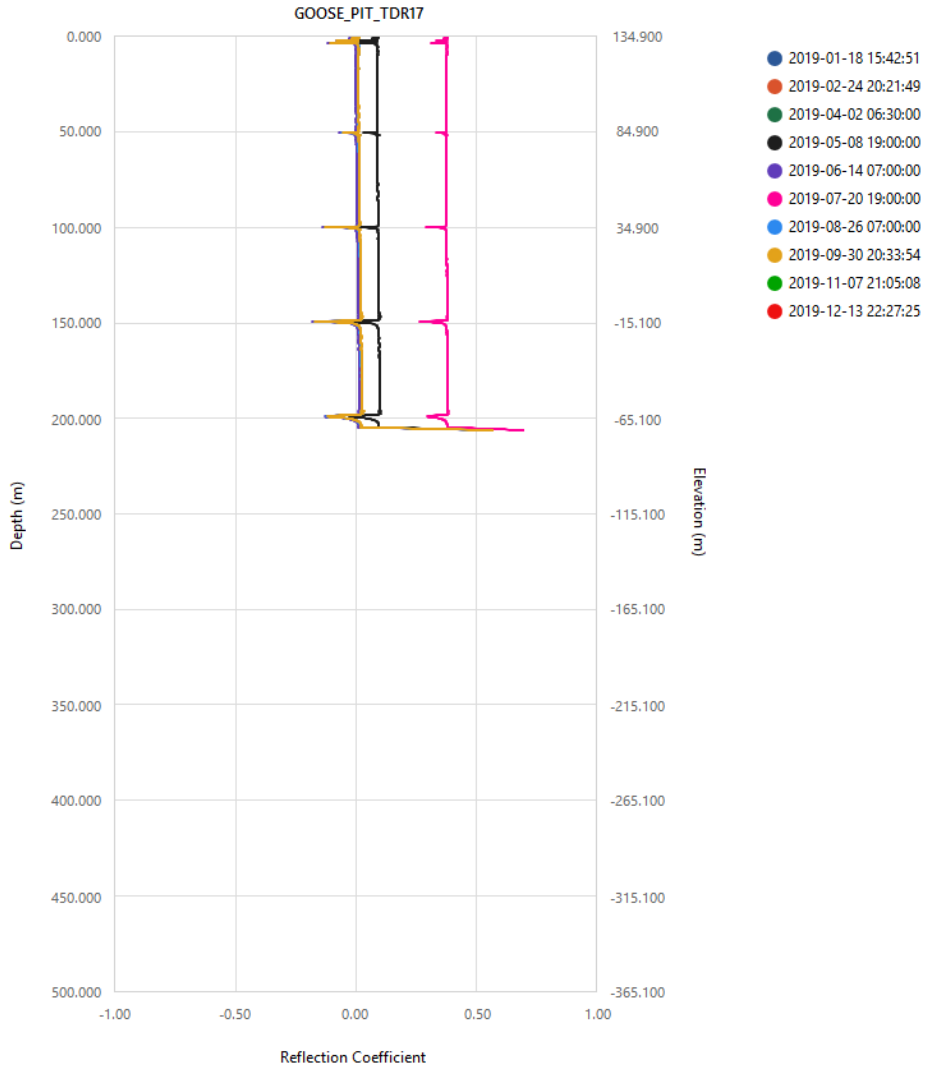
TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION
Goose Pit
TDR Data TDR-15

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-10



LEGEND

No 2020 data

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

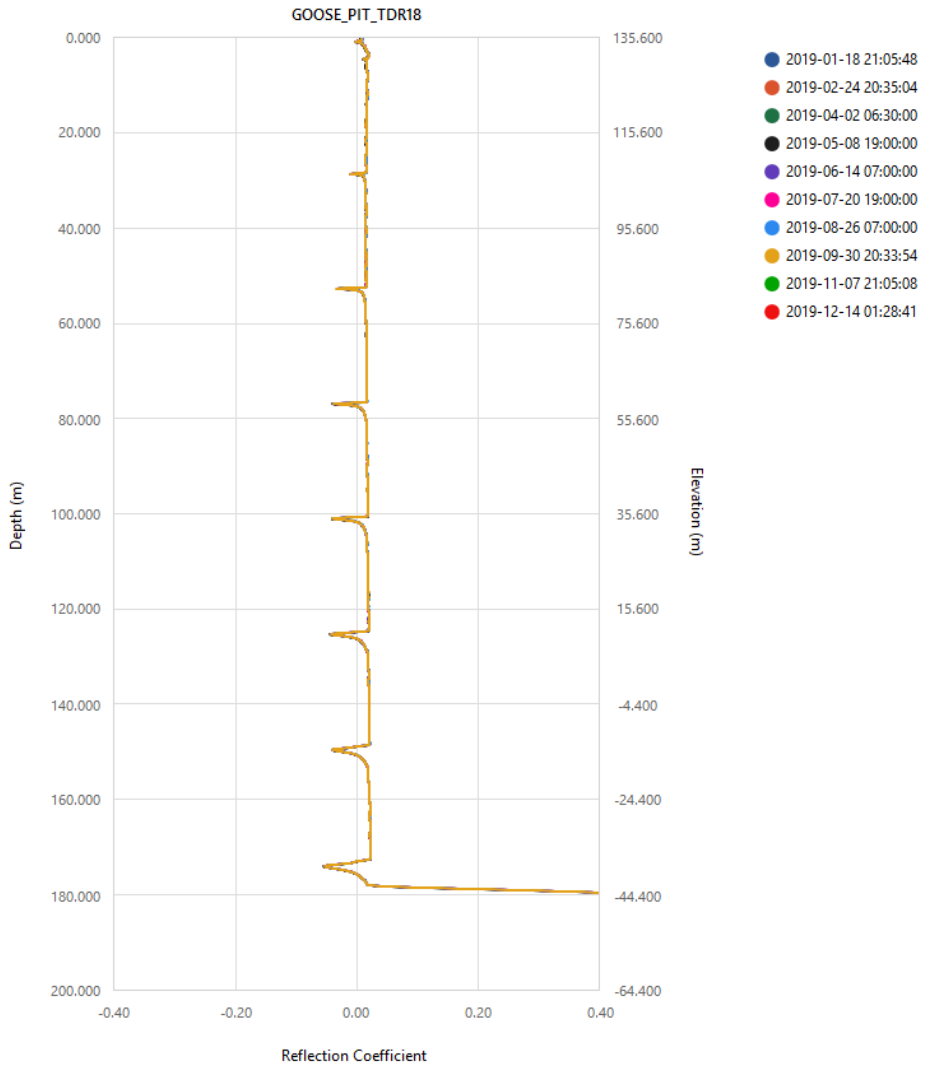
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Goose Pit
TDR Data TDR-17

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-11



LEGEND

No 2020 data

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

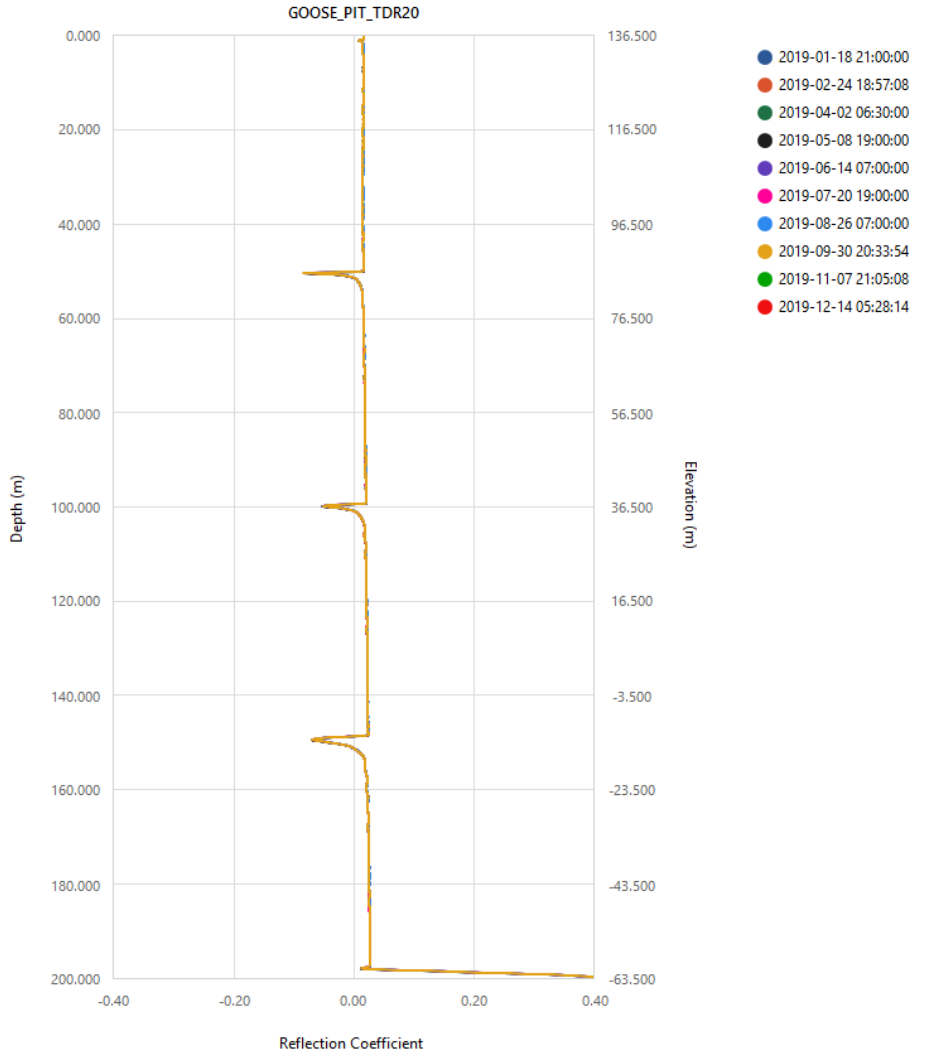
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Goose Pit
TDR Data TDR-18

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-12



LEGEND

No 2020 data

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Goose Pit
TDR Data TDR-20

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-13

LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

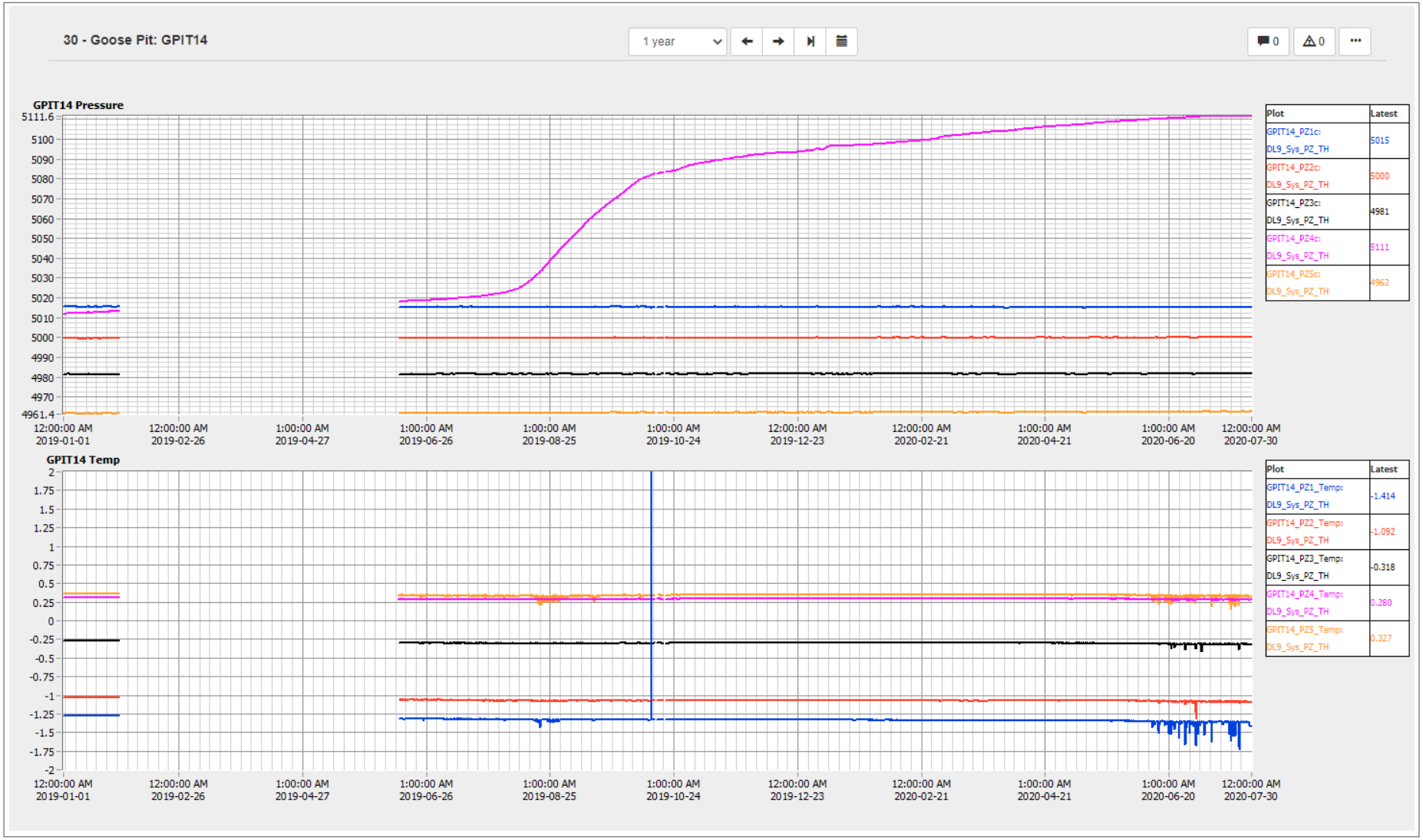
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Goose Pit
Piezometer Data GPIT-13
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-14



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

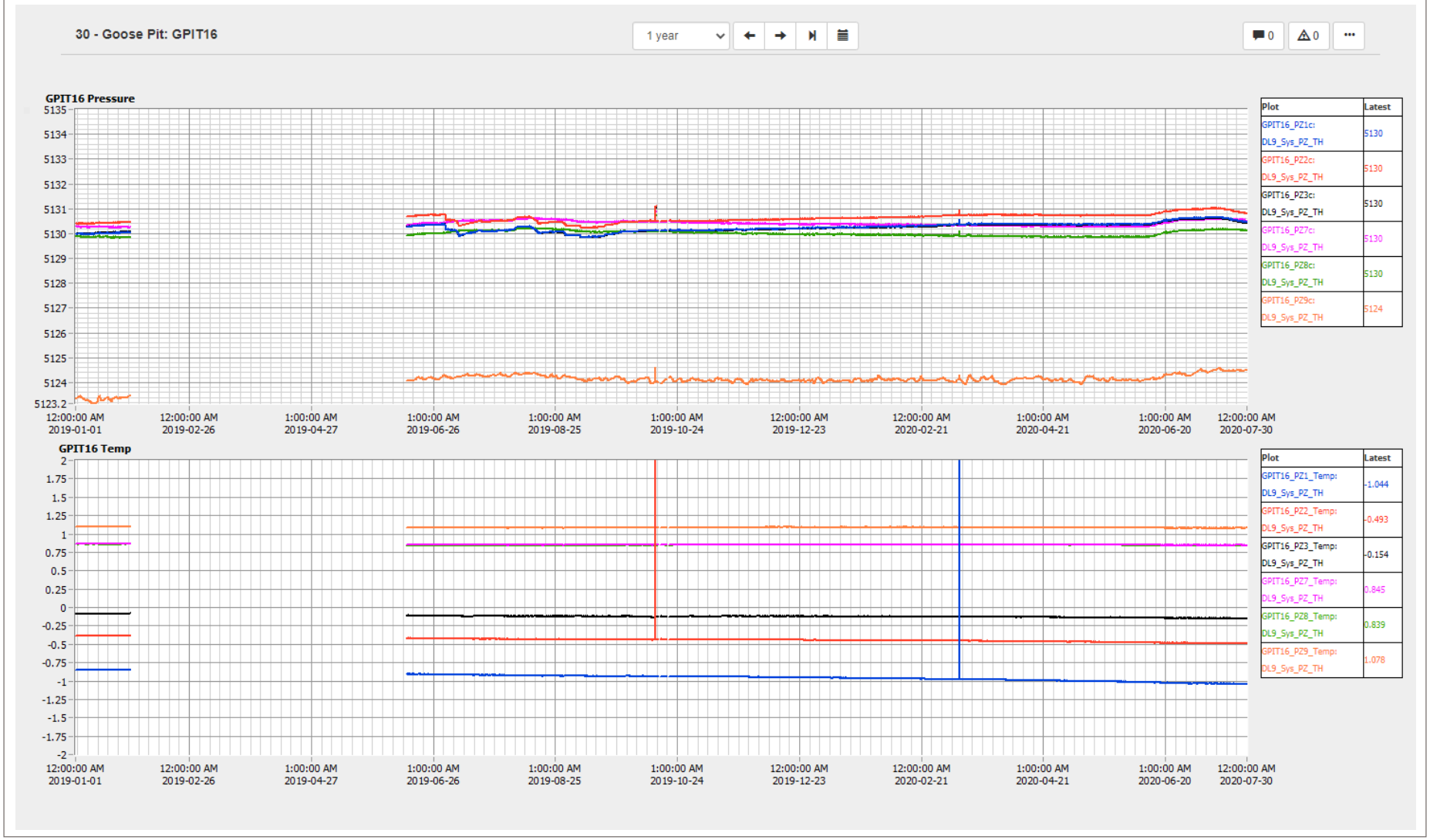
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Goose Pit
Piezometer Data GPIT-14
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-15



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Goose Pit
Piezometer Data GPIT-16
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-16

LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Goose Pit
Piezometer Data GPIT-17
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-17

LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE MEADOWBANK

TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Goose Pit
Piezometer Data GPIT-19
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure B-18

LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Goose Pit
Piezometer Data GPIT-20
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

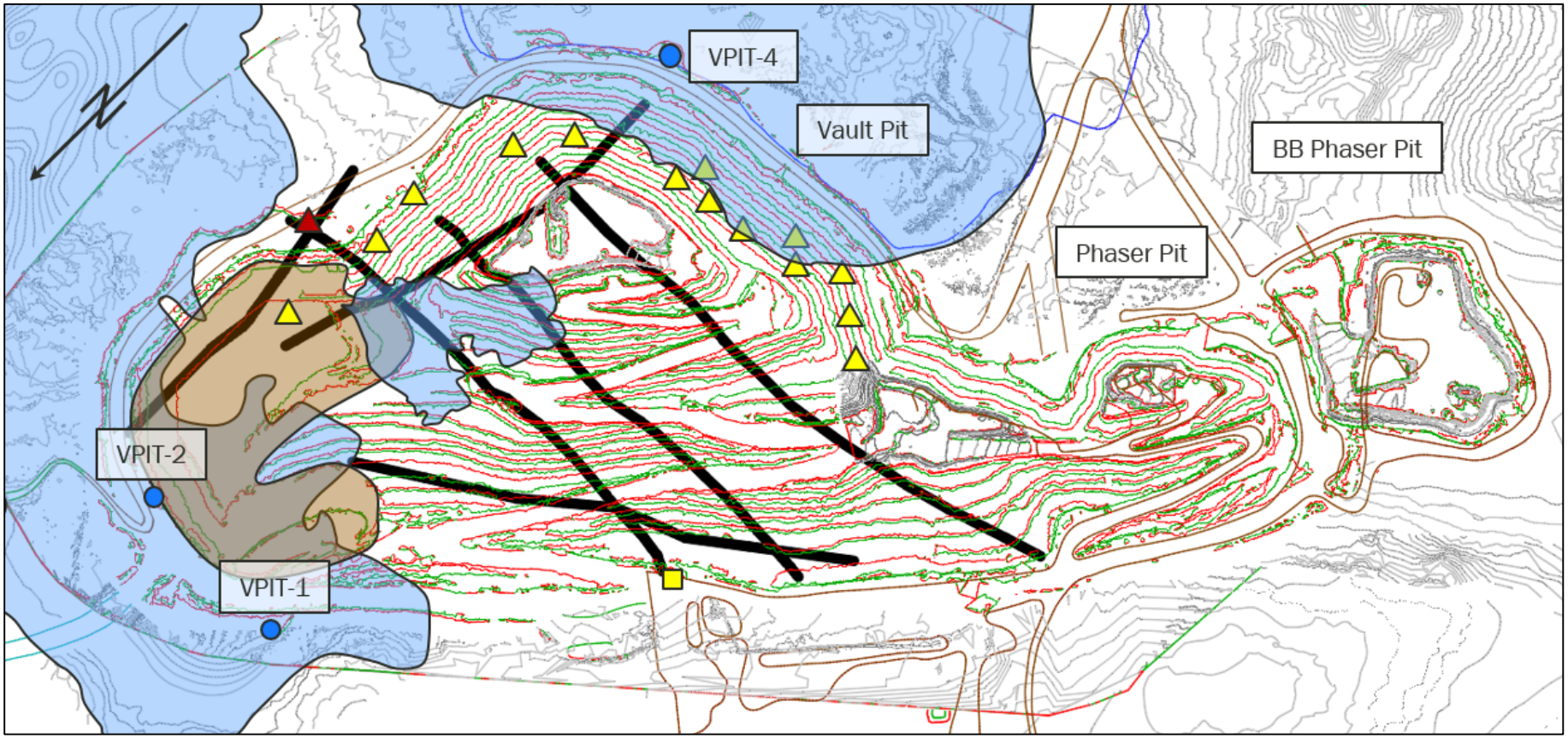
OFFICE	DATE
VANCOUVER	December 2020

Figure B-19

APPENDIX C

VAULT PIT INSTRUMENTATION DATA

- Figure C-1 Vault Pit Prism and Instrumentation Plan
- Figure C-2 Vault Pit Thermistor Cable VP1 – TH1 2020 Data
- Figure C-3 Vault Pit Thermistor Cable VP2 – TH1 2020 Data
- Figure C-4 Vault Pit Thermistor Cable VP4 – TH1 2019 Data
- Figure C-5 Vault Pit Piezometer Data VP1-A 2020 Data
- Figure C-6 Vault Pit Piezometer Data VP1-B 2020 Data
- Figure C-7 Vault Pit Piezometer Data VP2-A 2020 Data
- Figure C-8 Vault Pit Piezometer Data VP2-B 2020 Data
- Figure C-9 Vault Pit Piezometer Data VP4-A 2019 Data
- Figure C-10 Vault Pit Piezometer Data VP4-B 2019 Data
- Figure C-11 Vault Pit Piezometer Data VP4-C 2020 Data



LEGEND

- Piezometers and Thermistor
- Prism monitoring station
- Prism location (approximate)
- Back sight
- Former lake shoreline
- Waste rock dump footprint

NOTES

Data provided by Agnico Eagle Mines Ltd. Locations are approximate.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE
MEADOWBANK

TETRA TECH

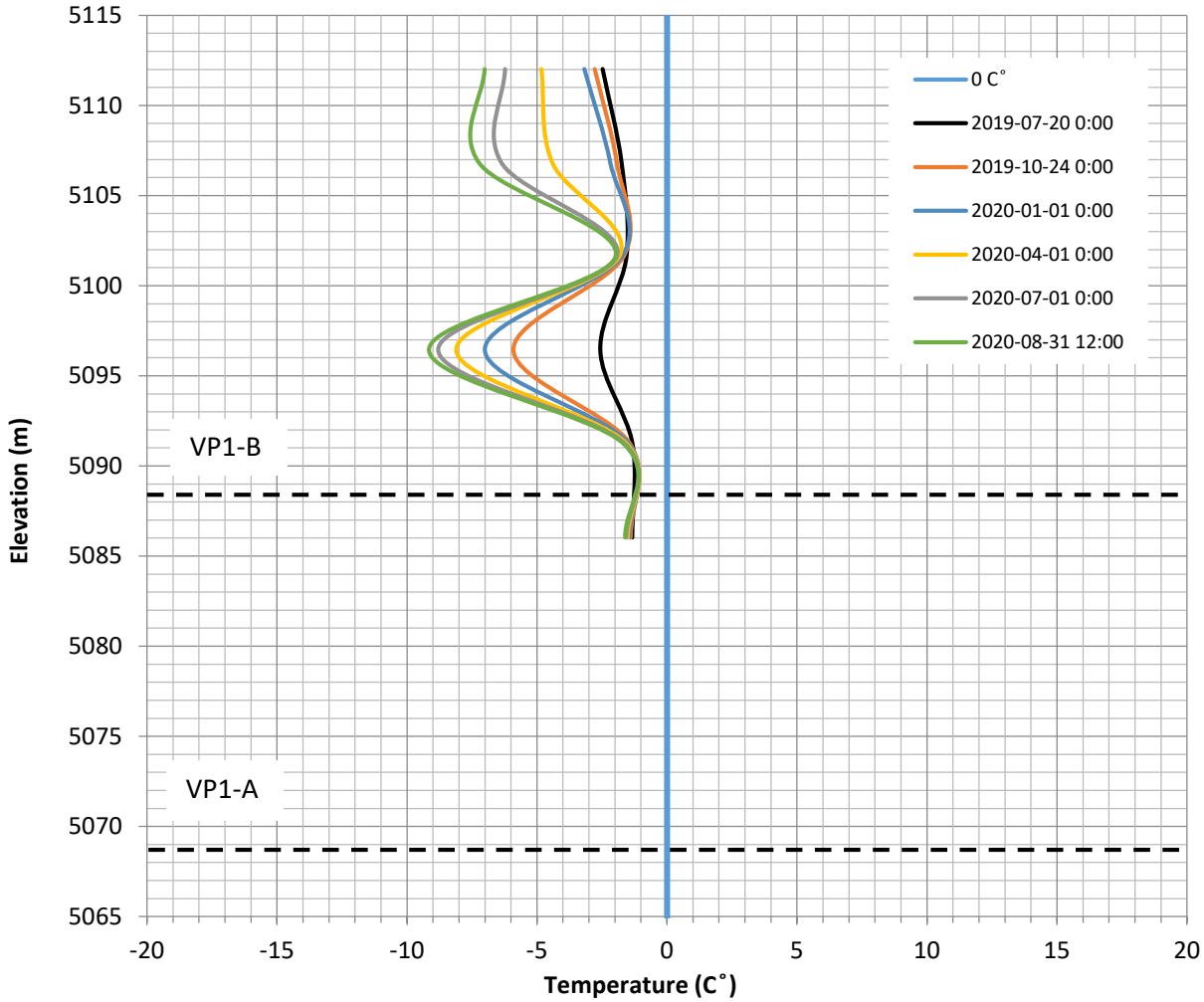
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Vault Pit
Prism and Instrumentation Plan

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	CJC	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure C-1



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS
ISSUED FOR USE

CLIENT
AGNICO EAGLE
MEADOWBANK

TETRA TECH

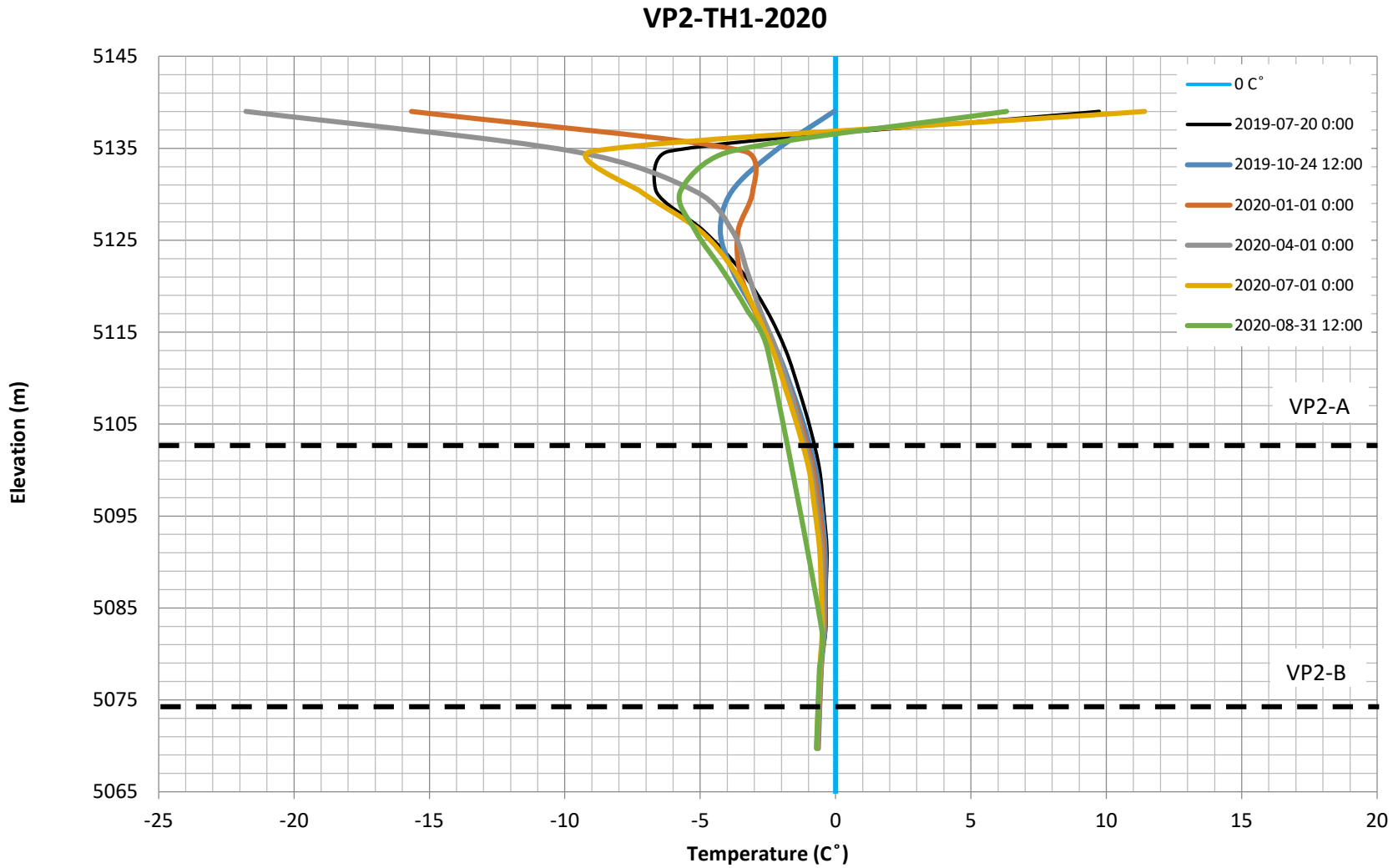
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Vault Pit
Thermistor Cable VP1 – TH1
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure C-2



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

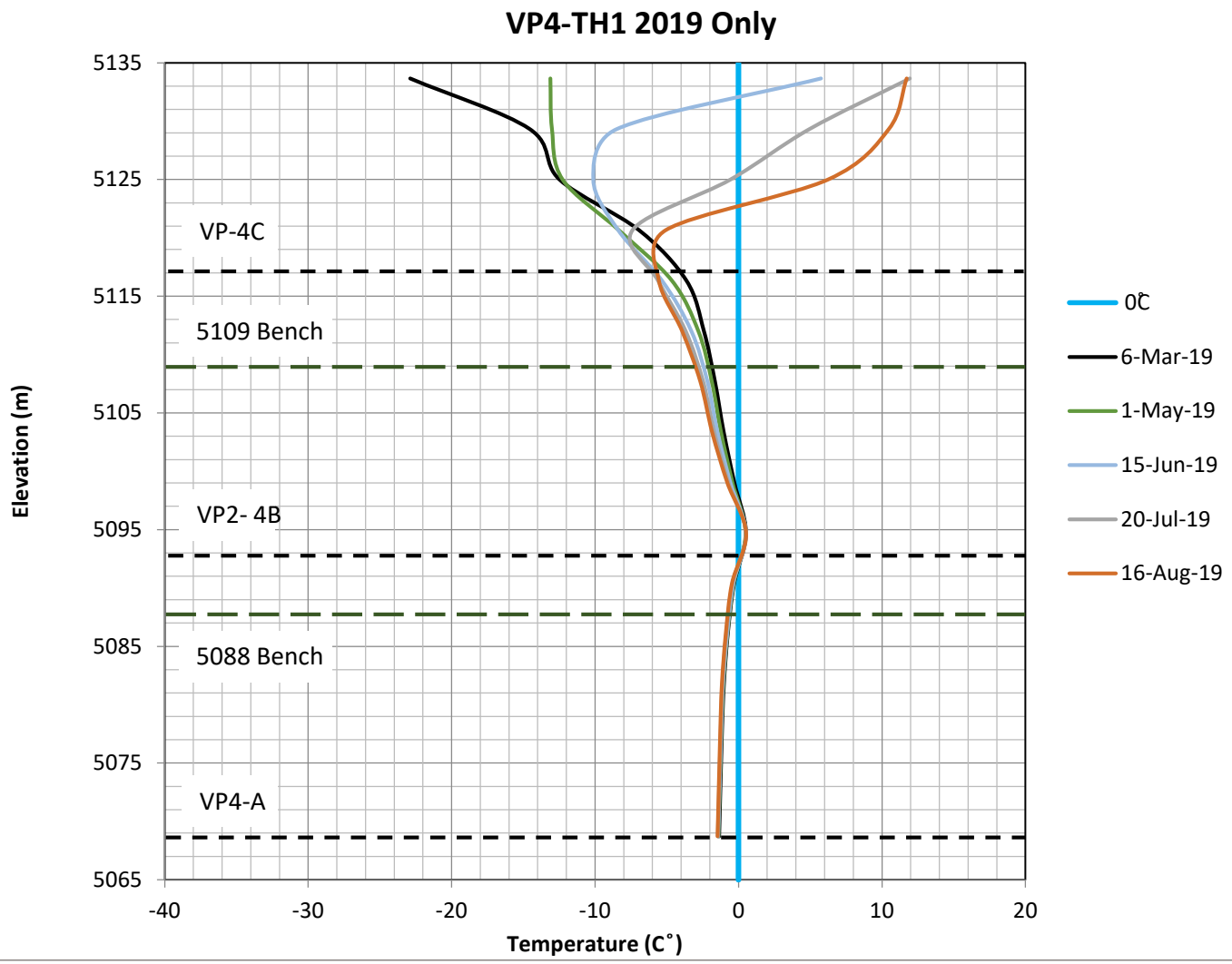
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Vault Pit
Thermistor Cable VP2 – TH1
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure C-3



LEGEND

No 2020 data

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

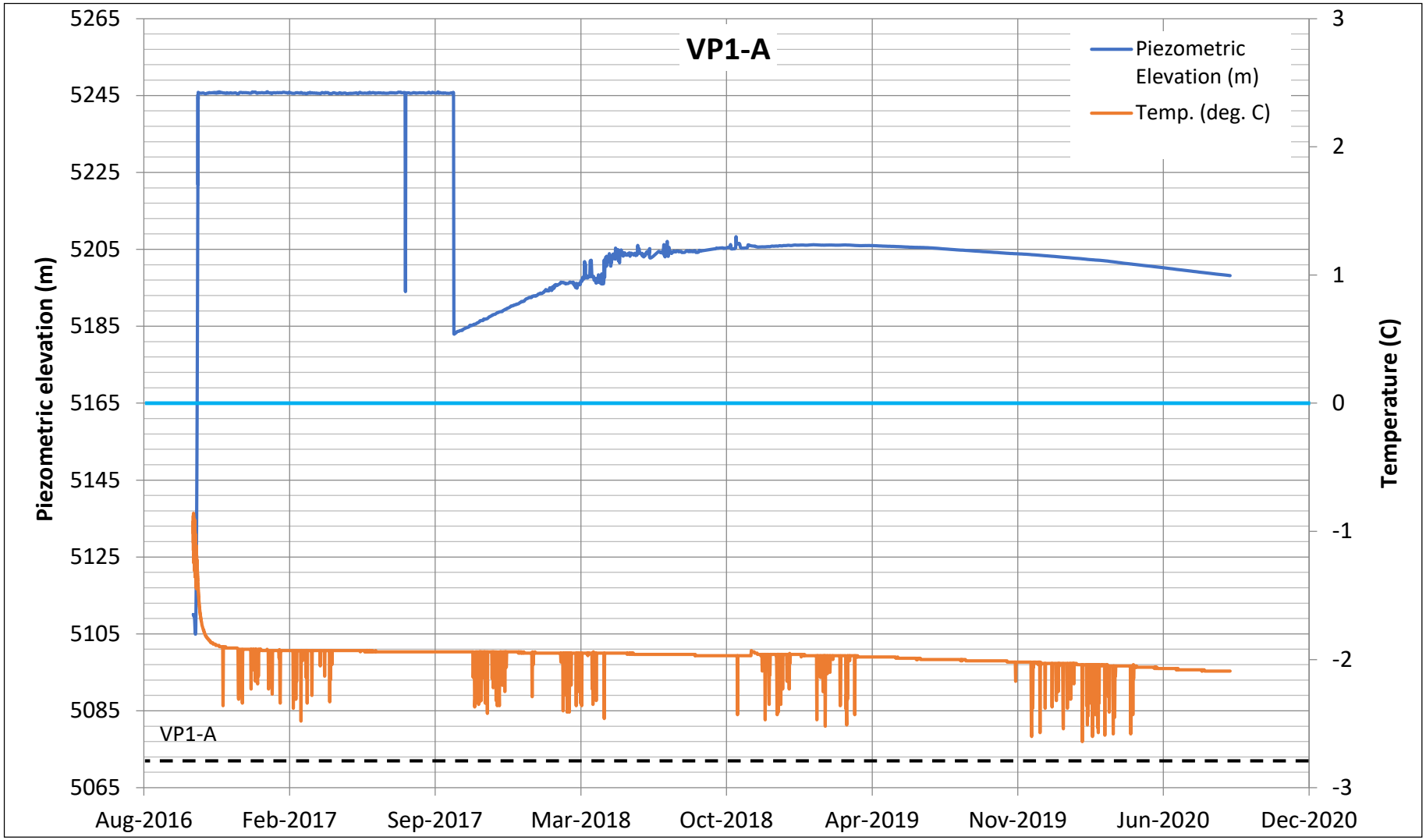
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Vault Pit
Thermistor Cable VP4 – TH1

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure C-4



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

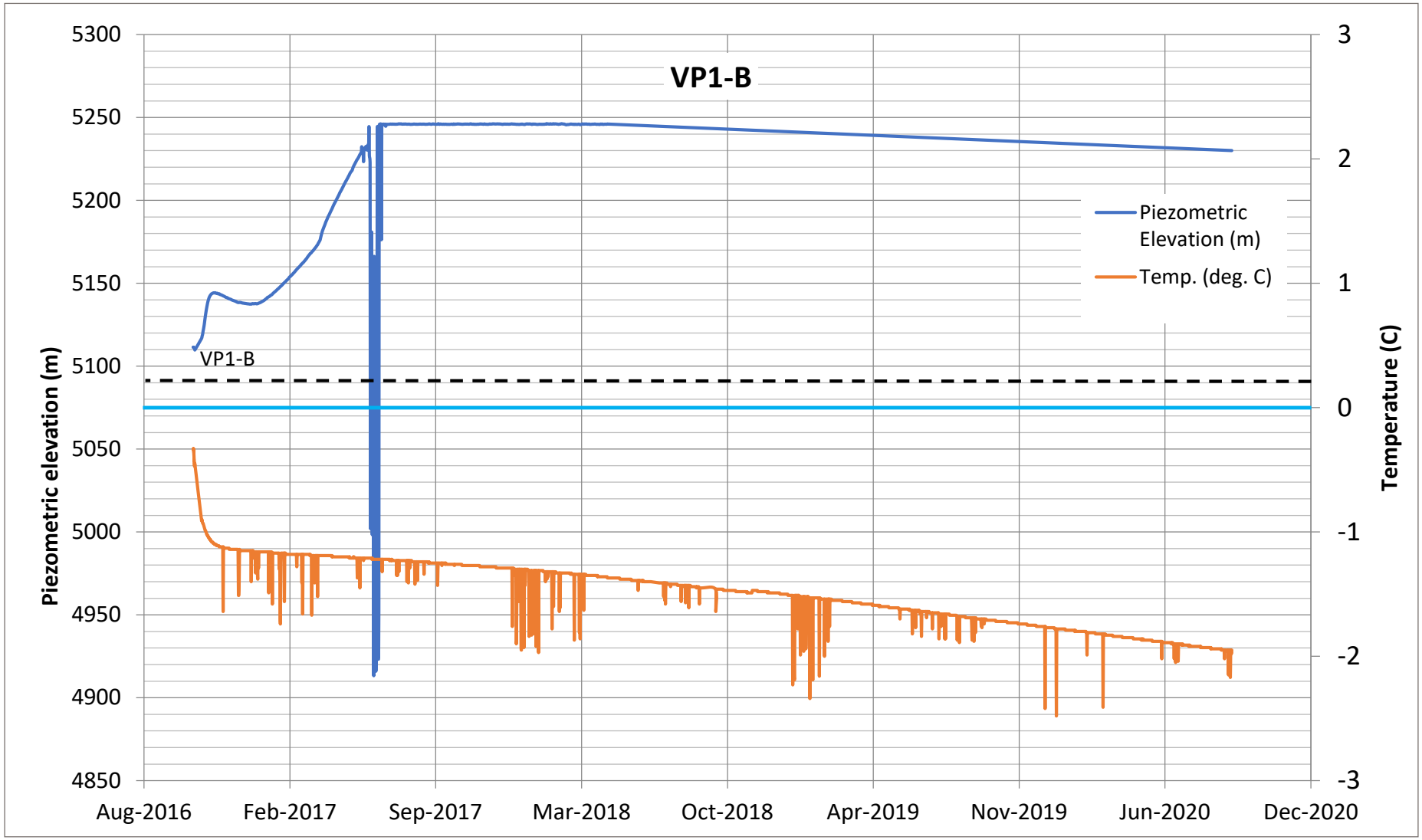
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Vault Pit
Piezometer Data VP1-A
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure C-5



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

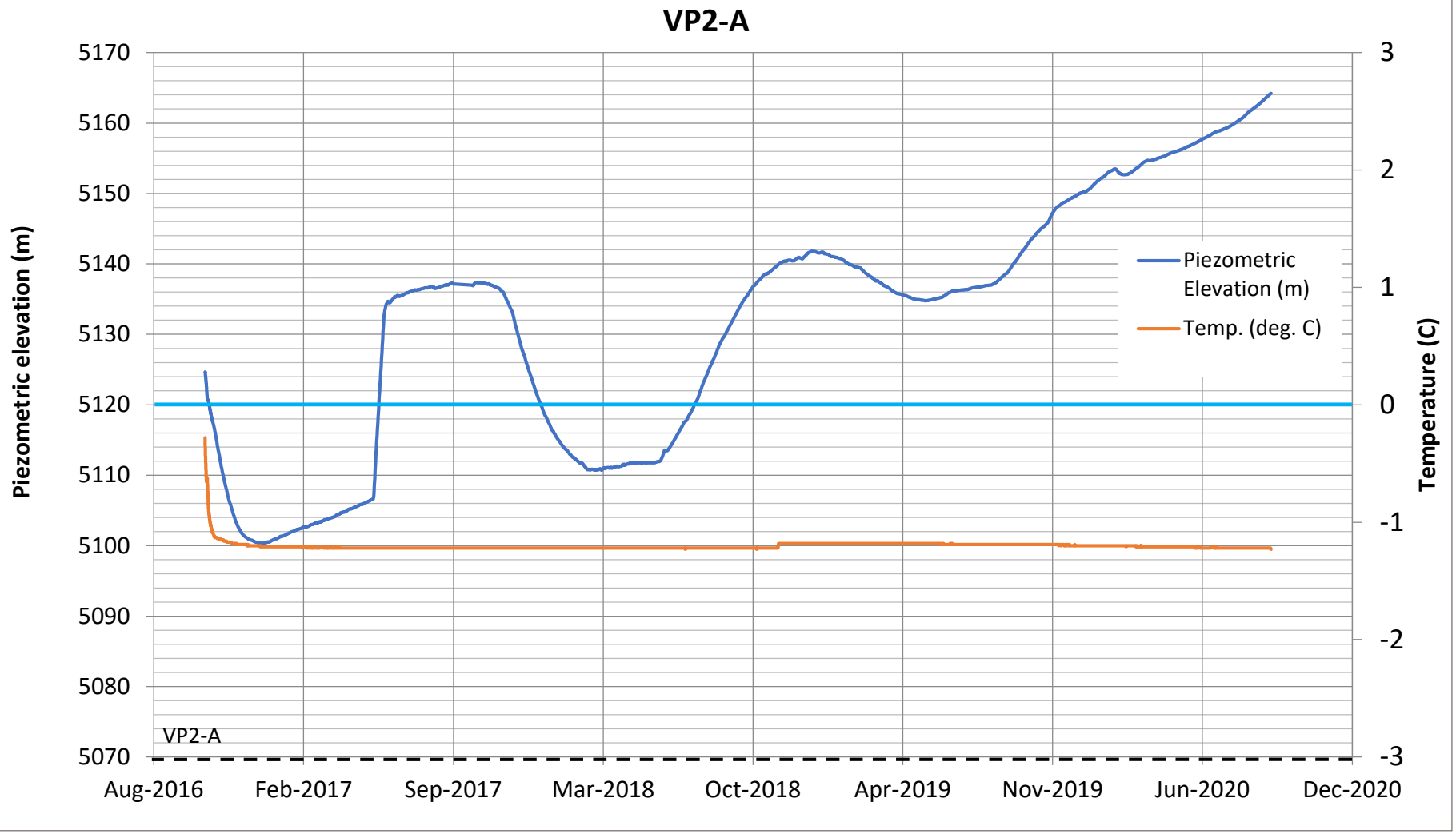
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Vault Pit
Piezometer Data VP1-B
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure C-6



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

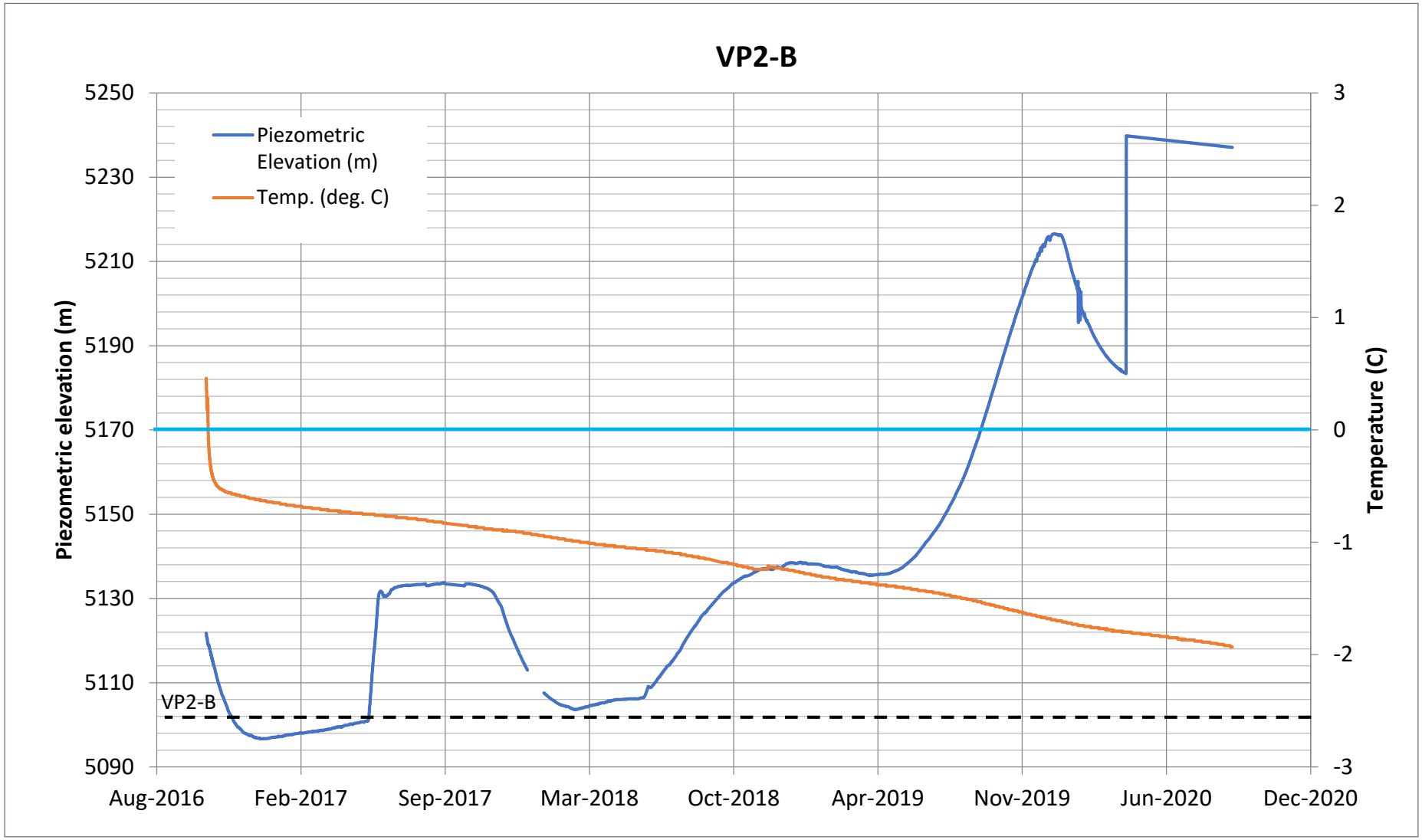
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Vault Pit
Piezometer Data VP2-A
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure C-7



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

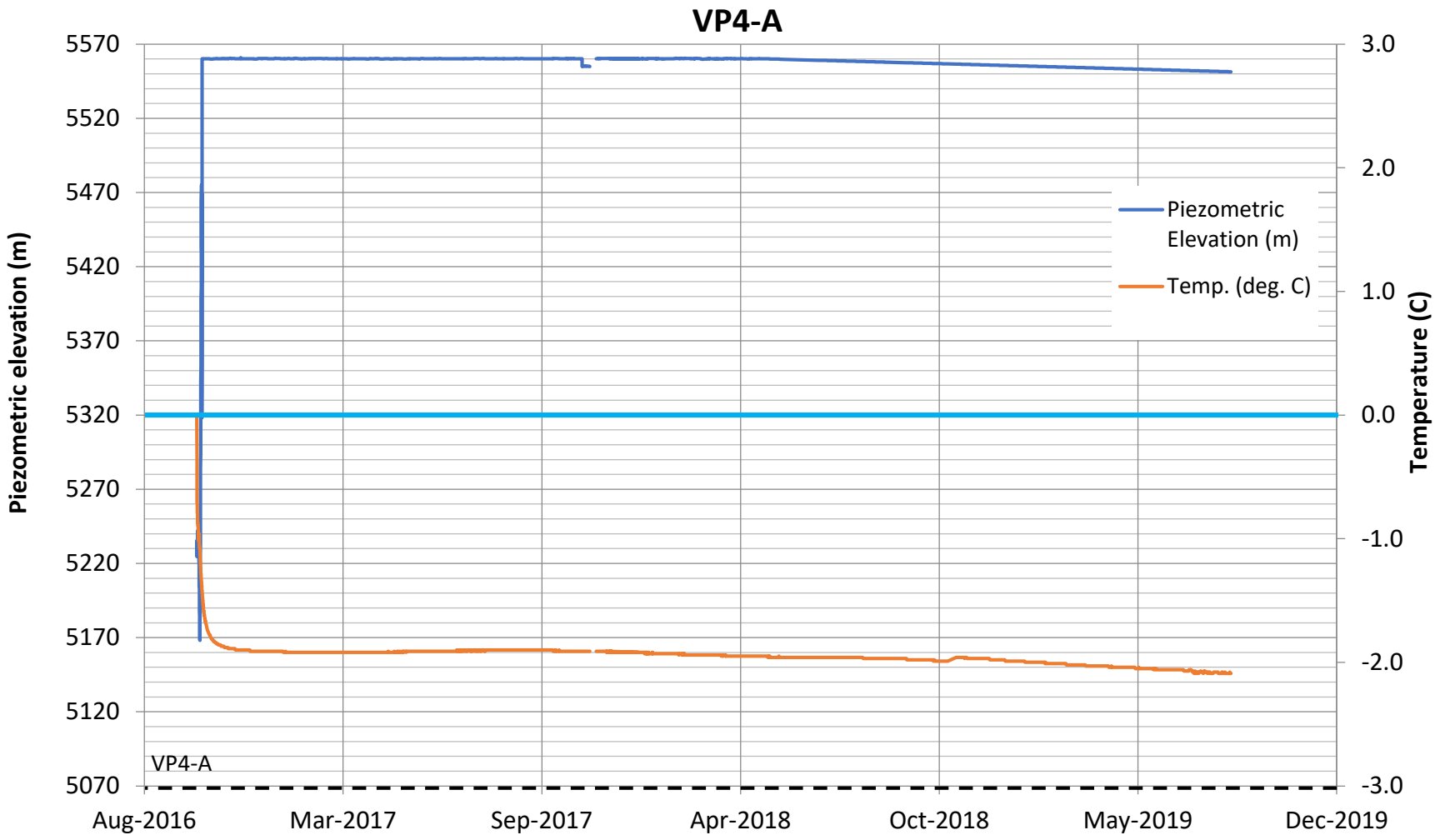
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Vault Pit
Piezometer Data VP2-B
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure C-8



LEGEND

No 2020 data

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

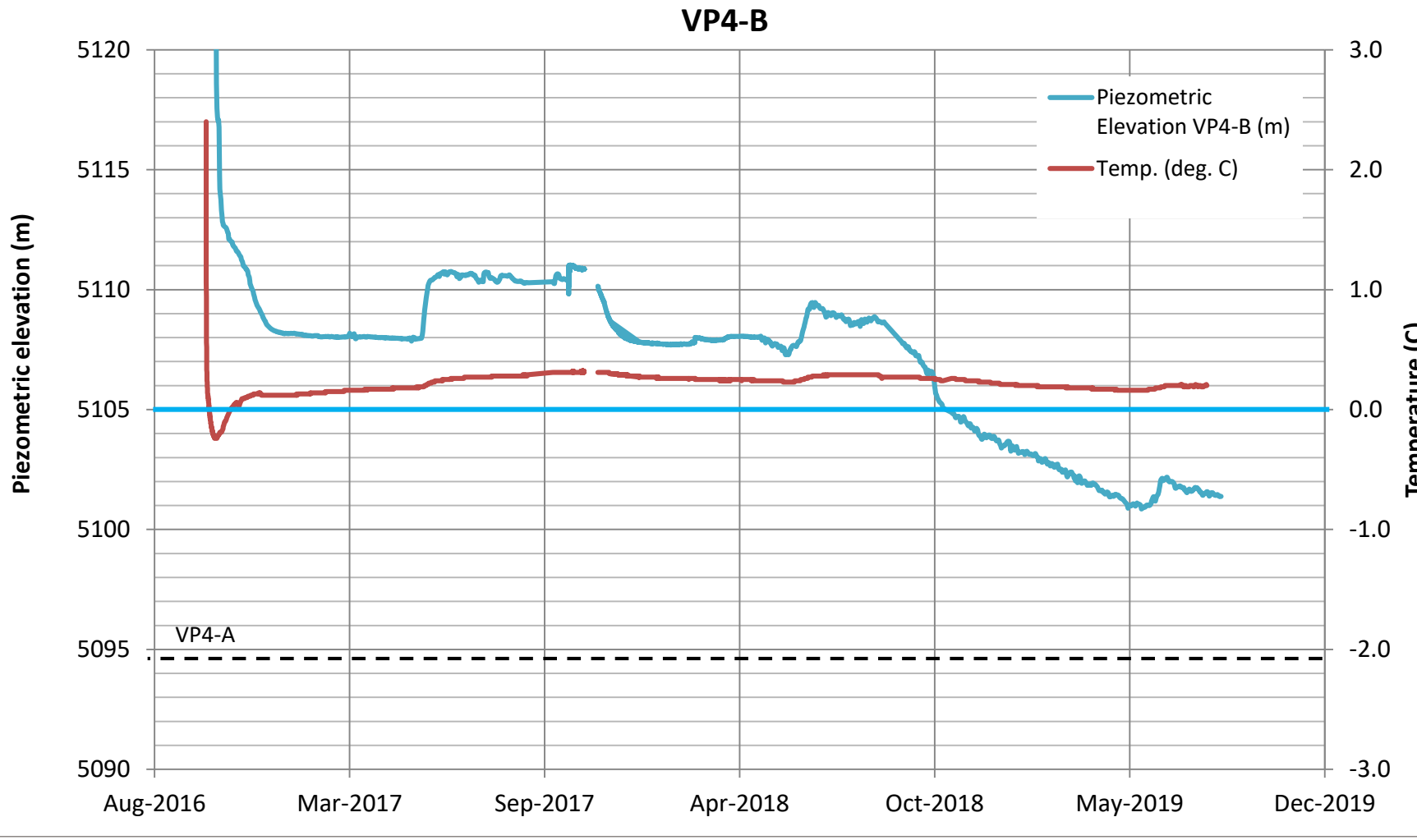
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Vault Pit
Piezometer Data VP4-A

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure C-9



LEGEND

No 2020 data

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

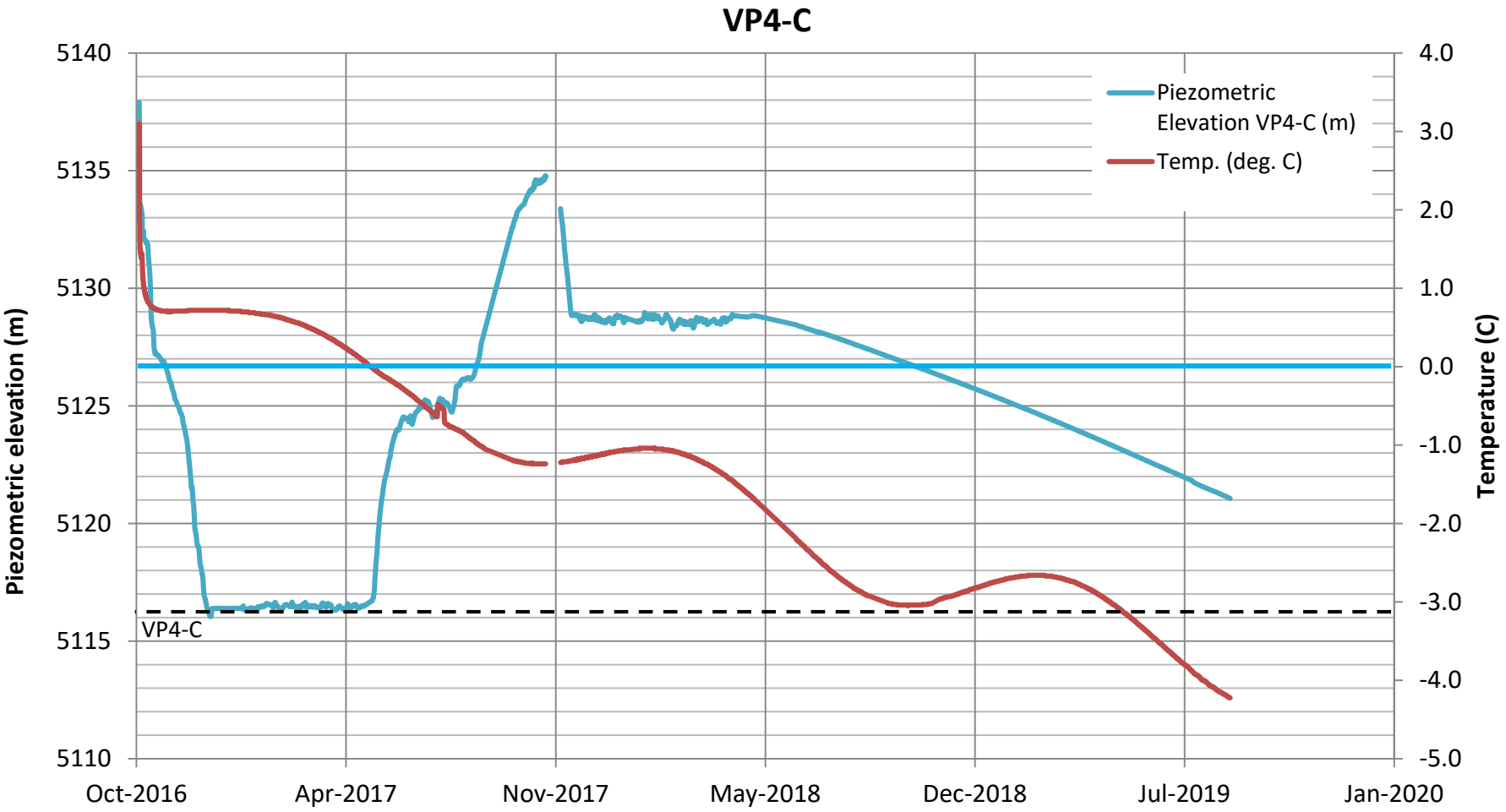
MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Vault Pit
Piezometer Data VP4-B

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure C-10



LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

MEADOWBANK MINE
ANNUAL PIT WALL INSPECTION

Vault Pit
Piezometer Data VP4-C
2020 Data

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	December 2020

Figure C-11

APPENDIX D

QUARTERLY GEOTECHNICAL INSPECTION REPORTS

- Period: Q2 – April 1st to June 30th, 2019

PERIOD: Q2 – APRIL 1ST TO JUNE 30TH, 2019

Open Pits - Quarterly Report
Instrumentation Monitoring and Field Observation Summary
Agnico Eagle Mines Limited
Meadowbank Project

Written: Thomas Dahm
Reviewed: Christian Tremblay

Period: Q2– April 1st to June 30th, 2019

TABLE OF CONTENTS

INTRODUCTION

This quarterly report present and provide interpretation on all instrumentation data associated to ground control of active and inactive open pits at Meadowbank. Key observations made during the previous biweekly pit wall inspections are also integrated in the data analyses.

The frequencies of the inspection and instrumentation data acquisition/review is provided in the latest Ground Control Management Plan (GCMP).

MEADOWBANK OPEN PITS

Open pits from the Meadowbank mine are presented in the map below. The mine consists of one (1) active and eight (8) inactive open pits as presented below.

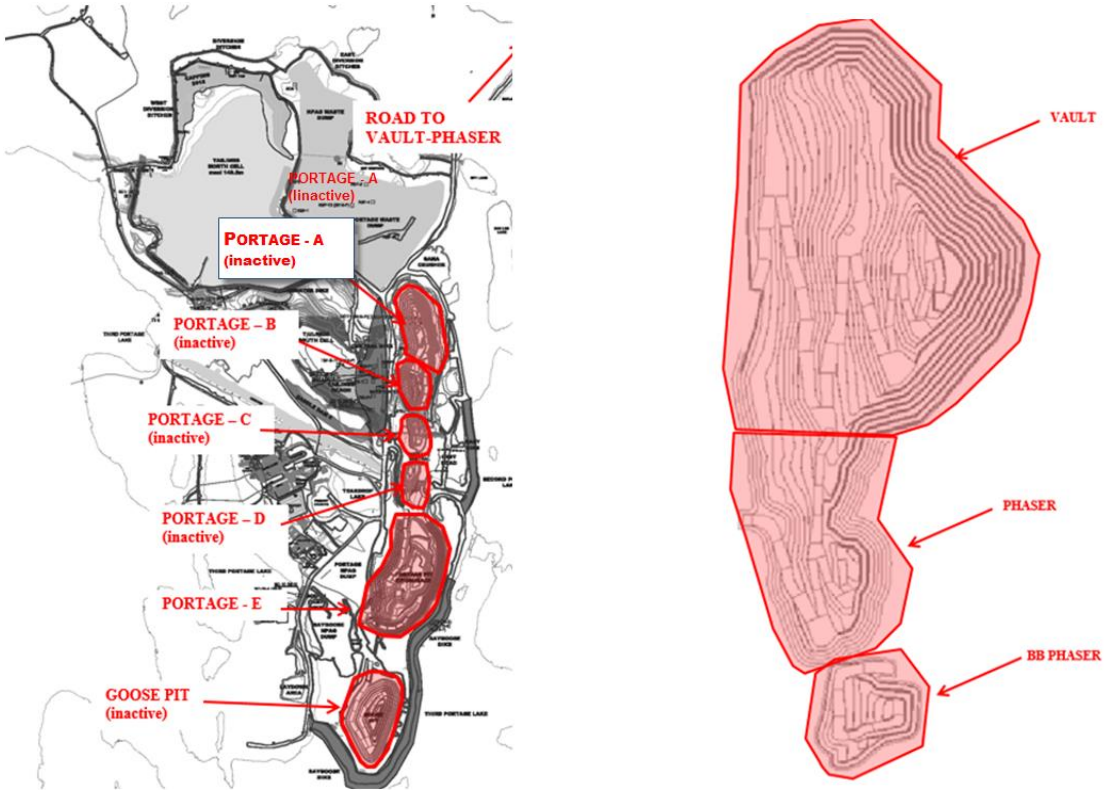


Figure 1 : Meadowbank open pits location

INSTRUMENTATION AND INSPECTION HIGHLIGHTS

ACTIVE OPEN PITS

Portage Pit E

- The radar was in regular scheduled MTM maintenance during July 8th to July 11th. The South portion of the mining was restricted during the MTM. During the Q2 2019 there was no significant movement recorded on the radar. There were some false alarms that were triggered during rain events. There were 2 instances where it appeared that there was movement on the radar itself and not the wall.
- On June 9th there was what appears to be a movement in the radar itself. In all the cells there is a vertical movement recorded that indicates this. During this time there was a 26.1mm of rainfall and this could have led to a settling of the area.
- There was only one (1) rock fall event during Q2. This event occurred on May 8th, with a weight of 110 tonnes. This occurred in the ultramafic section of the south wall.
- During Q2 2019, all blast vibrations, the PVS was lower than 11.6 mm/s. No actions required.
- A crack meter installed on the Pit E3 South Ramp wall showed minor movements (app. 3.5 mm) in the first 2 months of Q2 2019. Since May 20th, 2019 the minor movement has been <0.2mm. Ice or snow accumulation is believed to cause this movement during April and May. This is the time of year of freshet and this may have contributed to the difference in the readings. Since then the instrument has stabilized. Visual inspections show no other signs of instability in the area.
- No movement recorded on all of the TDRs. TDR15 and TDR17 are showing some glitch in the data related to electrical problem or cable damage.
- The readings of the IPI were in the normal range of readings.
- Piezometers within the setback distance from the dike are showing normal response to mining activities (PE3-14, PE5-17-01, and PE5-17-02), gradual increase and decrease in pressure are displayed and consistent throughout the year.

Vault Pit

- The mining sequence was completed in the Q2 period and no further inspections were done.
- The ice on the wall in Vault is currently attached to the wall with no free standing pillars.
- There was no prism monitoring.

- Thermistor in VP4 hole suggests a layer of talik at 5095. This layer is considered the cause of the ice wall. The thermistor is on cooling trend above elevation 5115.

INACTIVE OPEN PITS

Goose Pit

- Data collection was restored June 13th and no movement recorded on the TDRs, Piezometer or Thermistors

Portage Pits B, C, D

- These pits are now almost fully back filled with waste rock.
- There were some cracks forming on near the edge of the waste dump pile in Pit B. Since these have been observed the mine has placed a berm across the entrance and no more access to the Pit B Dump. There are some cracks near the edge of Pit D dump which were observed in 2018. A scan was done on the area on July 26th, 2019

Portage Pit A

- No instrumentation installed in this pit at the moment.
- The mining was completed around mid-March 2018.

BB PhaserPit

- No instrumentation installed in this pit at the moment. Multiple benches have been overmucked in the pit.

Phaser Pit

- No instrumentation installed in this pit at the moment.

INSTRUMENTATION LIST AND LOCATION

PORTAGE PIT A

No instrument installed in this pit.

PORTAGE PIT E

Radar

Table 1: Radar location and status

Unit	Radar location	Monitoring	Status	Reliability
			Operational (✓)/Not operational (✗)	Operational Days
GP SSR253XT	West wall (crest) of Pit E	Southern and eastern portion of pit E	✓	90/92

- The Radar was off line a total of 2 days during the Q2, 2019. Two consecutive days for MTM maintenance. During this time there was a restricted area in Pit E5 established.

Figure 2: Radar location and coverage

Downhole instruments

Table 2: List of downhole instruments

Hole	Instrument ID	Type	Status	Readings
			Operational (✓)/Not operational (×)	Manual/ Automatic
PE3-14	PE3-P14A	Piezo	✓ (close to 0)	Automatic
	PE3-P14B	Piezo	✓	Automatic
PE5-17-01	PE5-17-01-A	Piezo	✓	Automatic
	PE5-17-01-B	Piezo	✓	Automatic
	PE5-17-01-C	Piezo	× (frozen)	Automatic
	PE5-17-01-TH	Thermistor	✓	Automatic
	PE5-TDR1	TDR	✓	Automatic
PE5-17-02	PE5-17-02-A	Piezo	✓	Automatic
	PE5-17-02-B	Piezo	✓	Automatic
	PE5-TDR2	TDR	✓	Automatic
PE5-17-03	PE5-17-03-A	Piezo	✓	Automatic
	PE5-17-03-B	Piezo	✓	Automatic
	PE5-17-03-C	Piezo	× (frozen)	Automatic
	PE5-17-03-TH	Thermistor	✓	Automatic
	PE5-TDR3	TDR	✓	Automatic
PE5-17-04	PE5-17-04-A	Piezo	✓	Automatic
	PE5-17-04-B	Piezo	× (frozen)	Automatic
	PE5-TDR4	TDR	✓	Automatic
PE5-17-05	PE5-17-05-A	Piezo	× (frozen)	Automatic
	PE5-17-05-B	Piezo	× (frozen)	Automatic
	PE5-17-05-C	Piezo	× (frozen)	Automatic
	PE5-TDR5	TDR	✓	Automatic
PE5-17-06	PE5-IPI	In-Place Inclinometer	✓	Automatic

Figure 3: Pit E instrumented hole location

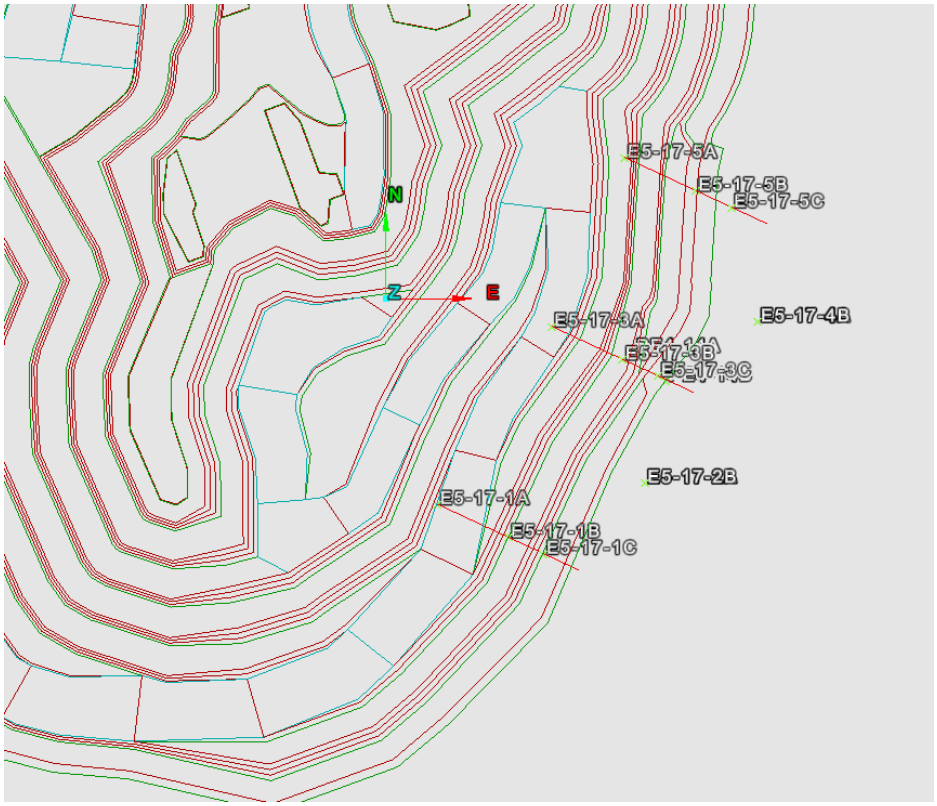


Figure 4: Pit E piezometers location

VAULT PIT

Downhole instruments

Table 3: List of downhole instruments

Hole	Instrument ID	Type	Status	Readings
			Operational (✓)/Not operational (×)	Manual/ Automatic
VP1	VP1-A	Piezo	× (frozen)	Semi – Manual
	VP1-B	Piezo	× (frozen)	Semi – Manual
	VP1-TH1	Thermistor	✓	Semi – Manual
VP2	VP2-A	Piezo	× (frozen)	Semi – Manual
	VP2-B	Piezo	× (frozen)	Semi – Manual
	VP2-TH1	Thermistor	✓	Semi – Manual
VP4	VP4-A	Piezo	× (frozen)	Semi – Manual
	VP4-B	Piezo	✓	Semi – Manual
	VP4-C	Piezo	✓	Semi – Manual
	VP4-TH1	Thermistor	✓	Semi – Manual

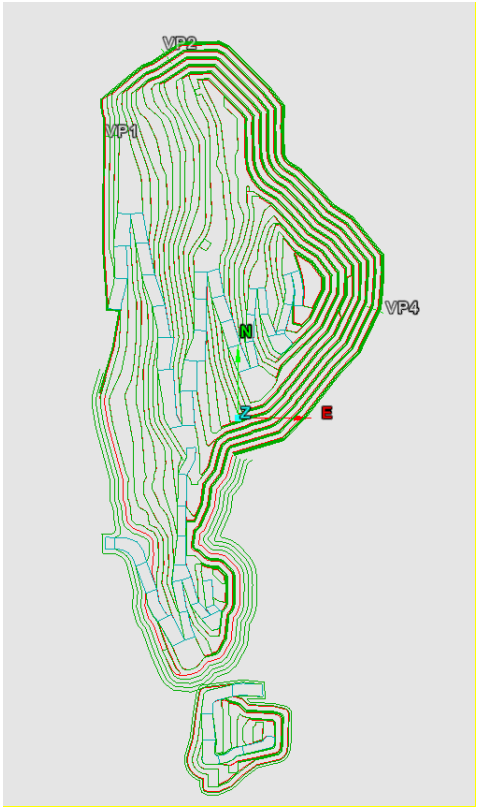


Figure 5: Vault instrumentation location

Prims monitoring

- No data taken for this period

PHASER PIT

No permanent instrument installed in this pit.

GOOSE PIT

Downhole instruments

Hole	Instrument ID	Type	Status	Readings
			Operational (✓)/Not operational (×)	Manual/ Automatic
GPIT-11	GPIT-TDR11	TDR	✓	Automatic
GPIT-12	GPIT-TDR12	TDR	✓	Automatic
GPIT-13	GPIT13-PZ1	Piezo	× (frozen)	Automatic
	GPIT13-PZ2	Piezo	✓	Automatic
	GPIT13-PZ3	Piezo	✓	Automatic
	GPIT13-PZ4	Piezo	✓	Automatic
	GPIT13-PZ5	Piezo	✓	Automatic
	GPIT-TH13	Thermistor	✓	Automatic
GPIT-14	GPIT14-PZ1	Piezo	× (frozen)	Automatic
	GPIT14-PZ2	Piezo	× (frozen)	Automatic
	GPIT14-PZ3	Piezo	× (frozen)	Automatic
	GPIT14-PZ4	Piezo	✓	Automatic
	GPIT14-PZ5	Piezo	✓	Automatic
	GPIT-TH14	Thermistor	✓	Automatic
	GPIT-TDR14	TDR	✓	Automatic
GPIT-15	GPIT-TDR15	TDR	✓	Automatic
GPIT-16	GPIT16-PZ1	Piezo	× (frozen)	Automatic
	GPIT16-PZ2	Piezo	× (frozen)	Automatic
	GPIT16-PZ3	Piezo	× (frozen)	Automatic
	GPIT16-PZ4	Piezo	✓	Automatic
	GPIT16-PZ5	Piezo	✓	Automatic
	GPIT16-PZ6	Piezo	✓	Automatic
	GPIT16-PZ7	Piezo	✓	Automatic
	GPIT16-PZ8	Piezo	✓	Automatic
	GPIT16-PZ9	Piezo	✓	Automatic
	GPIT-TH16	Thermistor	✓	Automatic
GPIT-17	GPIT17-PZ1	Piezo	× (frozen)	Automatic
	GPIT17-PZ2	Piezo	× (frozen)	Automatic
	GPIT17-PZ3	Piezo	× (frozen)	Automatic
	GPIT17-PZ4	Piezo	× (frozen)	Automatic
	GPIT17-PZ5	Piezo	× (frozen)	Automatic
	GPIT17-PZ6	Piezo	✓	Automatic
	GPIT-TH17	Thermistor	✓	Automatic
	GPIT-TDR17	TDR	✓	Automatic
GPIT-18	GPIT-TDR18	TDR	✓	Automatic
GPIT-19	GPIT19-PZ1	Piezo	× (frozen)	Automatic
	GPIT19-PZ2	Piezo	× (frozen)	Automatic
	GPIT19-PZ3	Piezo	× (frozen)	Automatic
	GPIT19-PZ4	Piezo	× (frozen)	Automatic
	GPIT19-PZ5	Piezo	✓	Automatic
	GPIT19-PZ6	Piezo	✓	Automatic
	GPIT-TH19	Thermistor	✓	Automatic
GPIT-20	GPIT20-PZ1	Piezo	× (frozen)	Automatic

	GPIT20-PZ2	Piezo	× (frozen)	Automatic
	GPIT20-PZ3	Piezo	× (frozen)	Automatic
	GPIT20-PZ4	Piezo	× (frozen)	Automatic
	GPIT20-PZ5	Piezo	× (frozen)	Automatic
	GPIT-TH20	Thermistor	✓	Automatic
	GPIT-TDR20	TDR	✓	Automatic

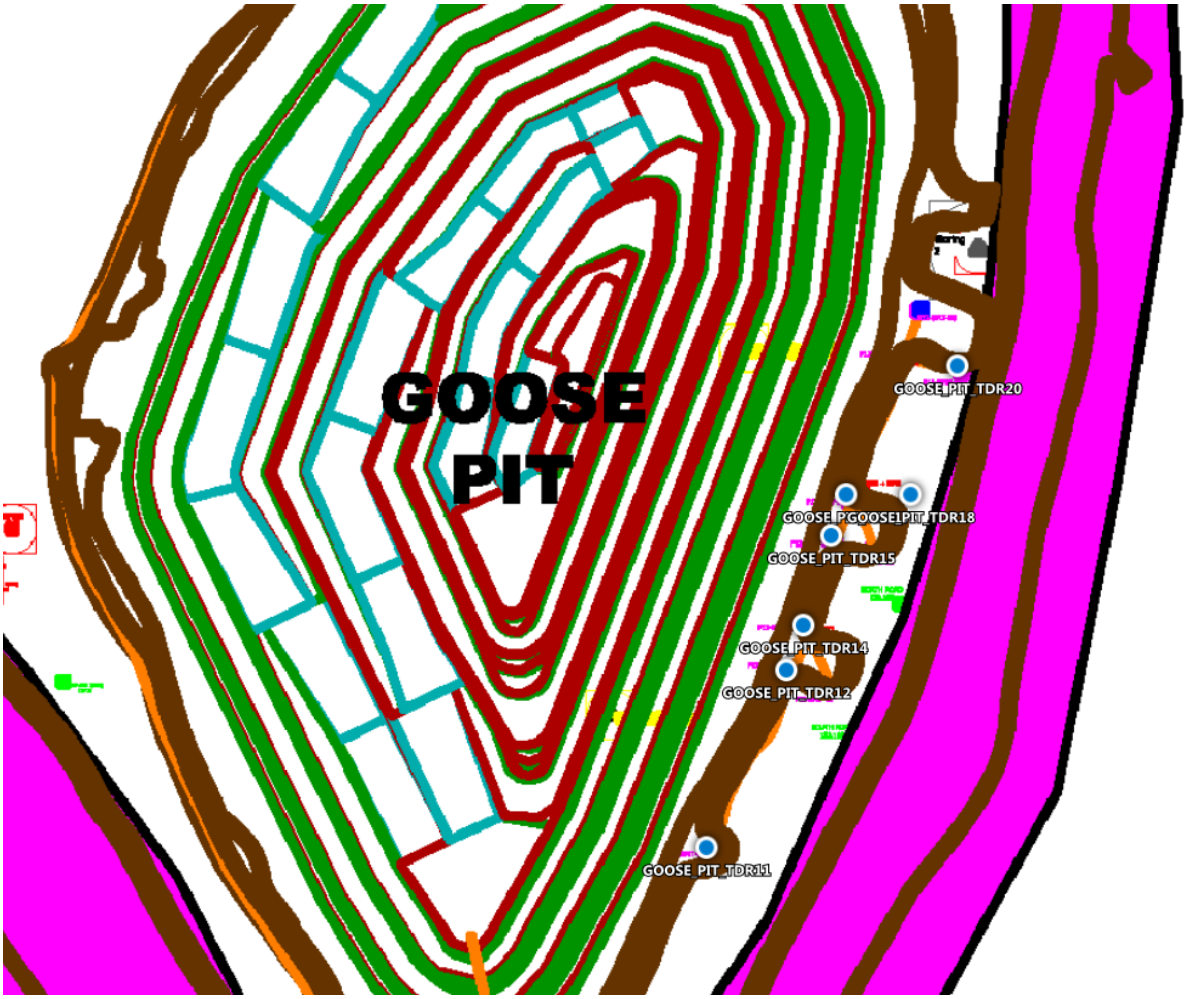


Figure 6: Location of downhole instruments at Goose pit

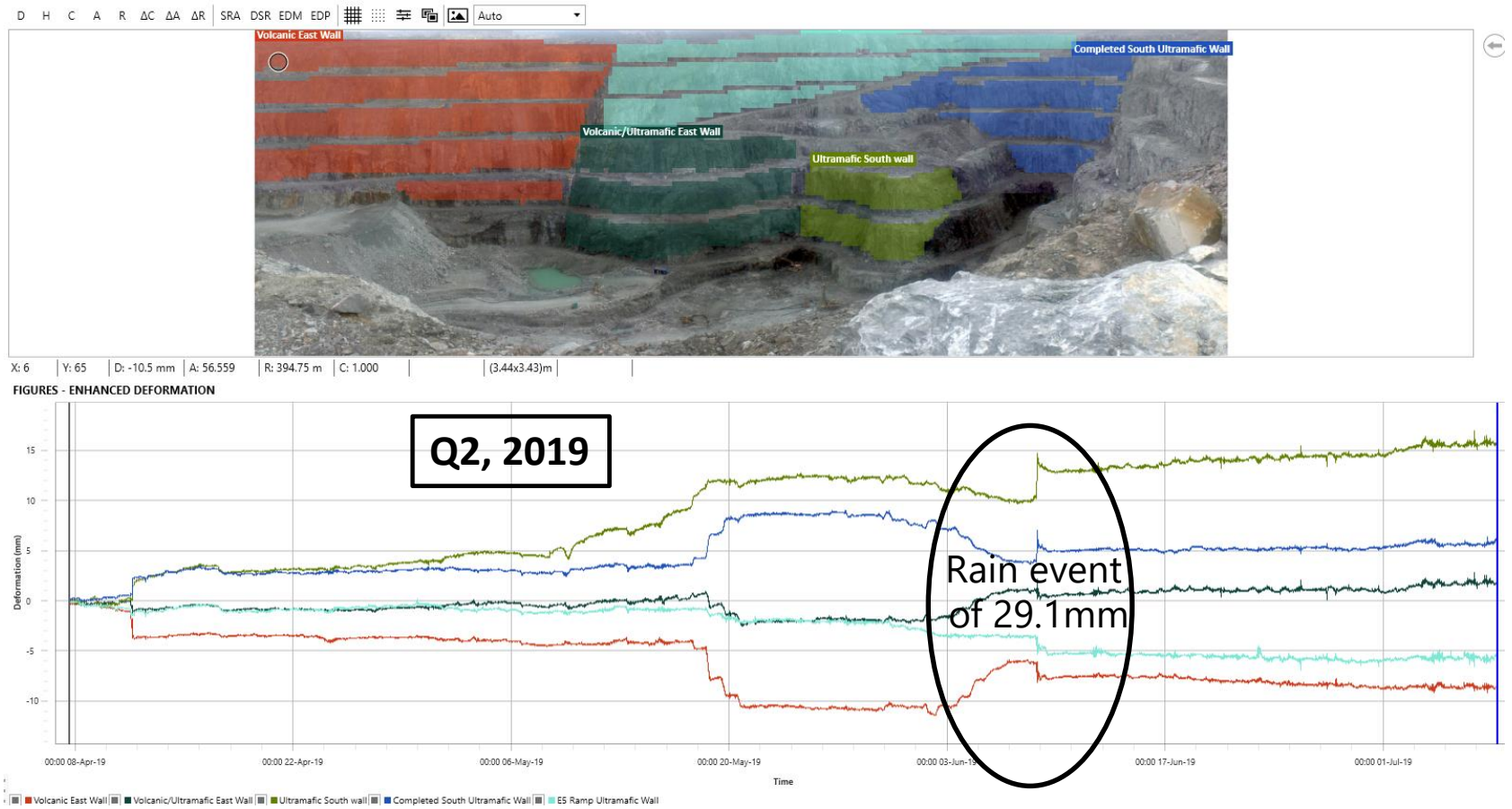
PORTAGE PIT B, C & D

- No instrument installed in these pits.

INSTRUMENTATION RESULTS

PORTAGE PIT E

RADAR



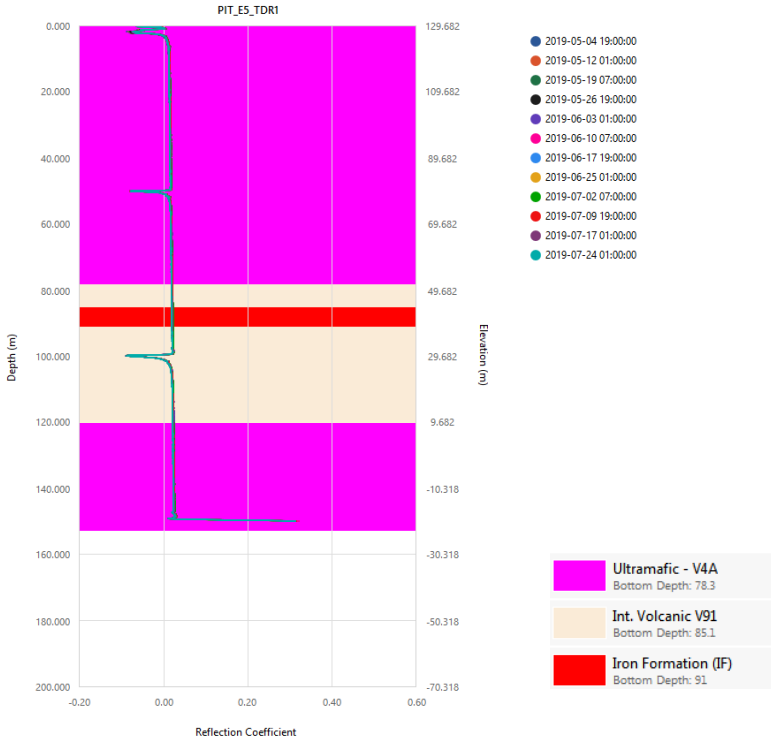
Enhanced deformation per sector (April 1st to June 30th) – Wall folder: SSR253_190407_Meadowbank_E5_South_Wall**.**

Comments: During the Q2 period, the deformation was relatively stable with some minor movement thru all the sections which is more indicative radar movement and not wall movement. There was a 100 tonne rock fall in the Ultramafic South Wall on May 8th . The trend started approximately 1 hour prior to the rock fall.

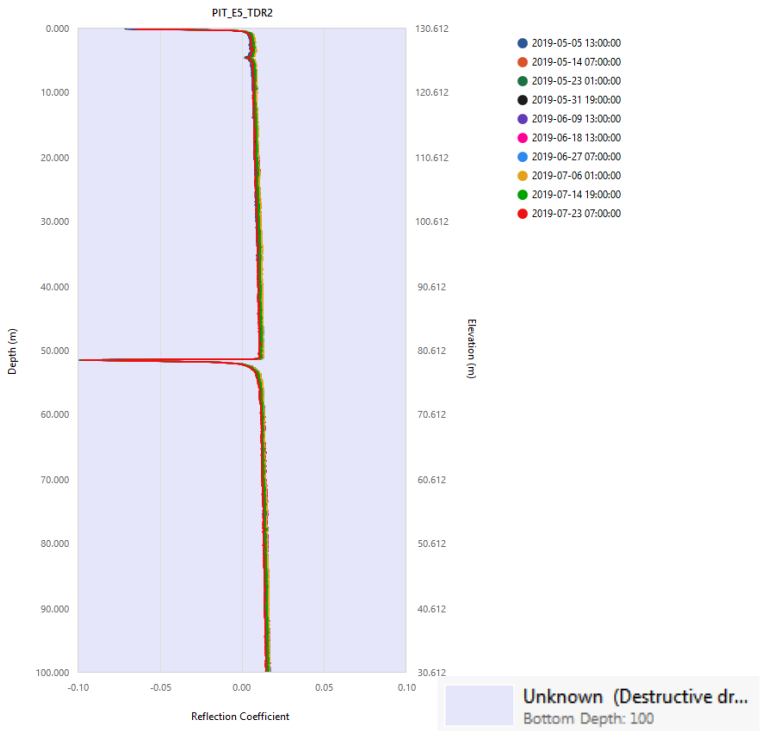
PORTAGE PIT E

TDR

TDR1



TDR2



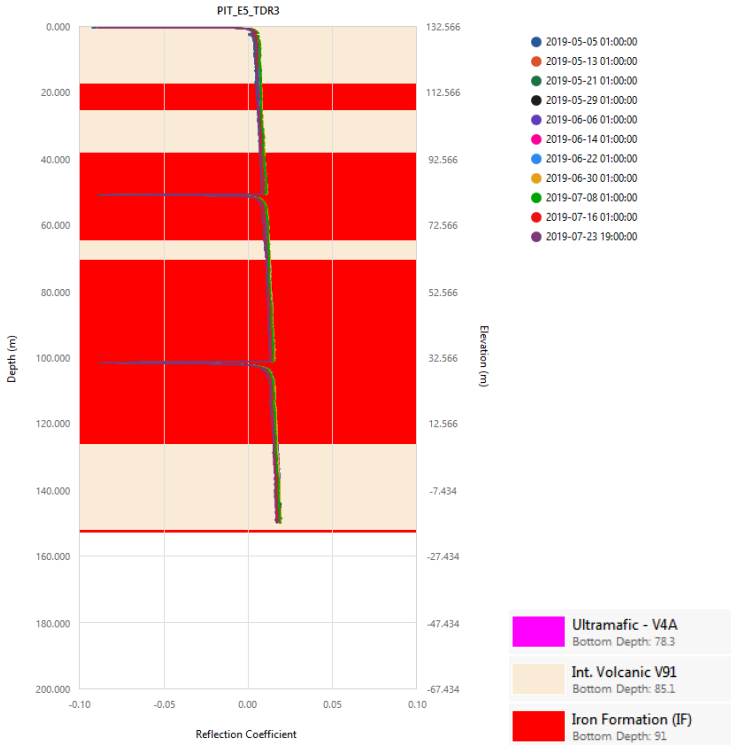
Comments:

- No sign of deformation observed in TDR1 & TDR2.
- No anomalies from the TDR logger were found in the graphs in Q2.

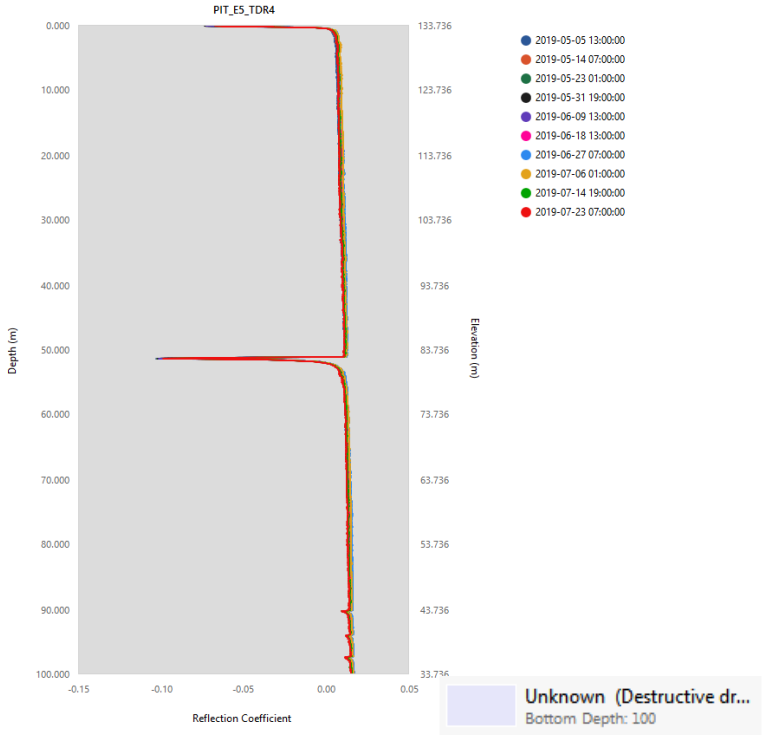
PORTAGE PIT E

TDR

TDR3



TDR4



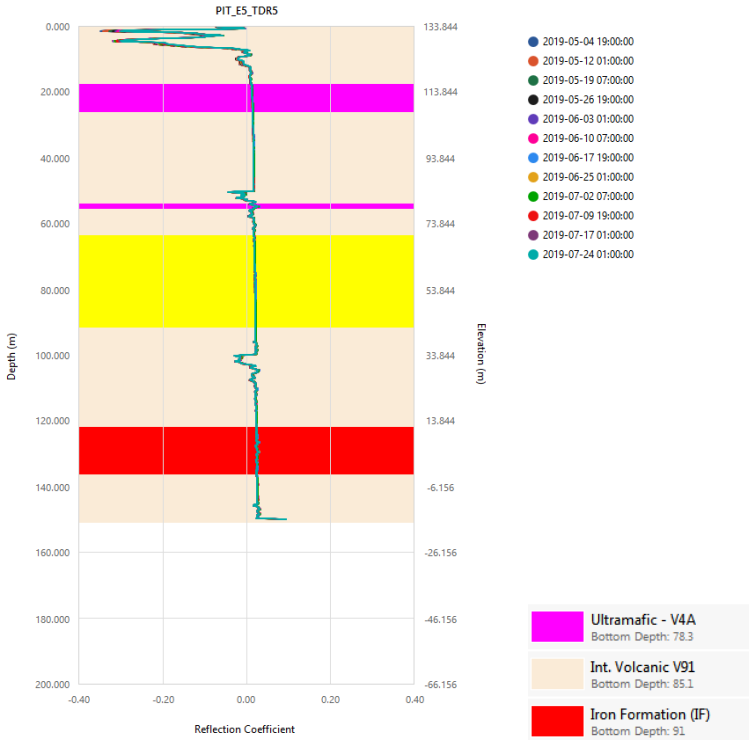
Comments:

- No sign of deformation observed in TDR3 and TDR4.
- No anomalies from the TDR logger were found in the graphs in Q2.

PORTAGE PIT E

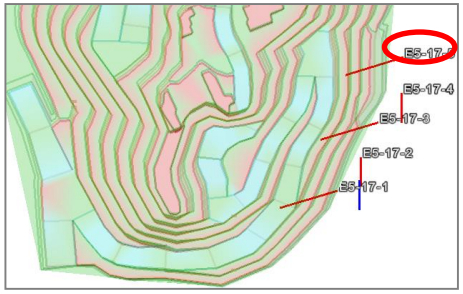
TDR

TDR5



Comments:

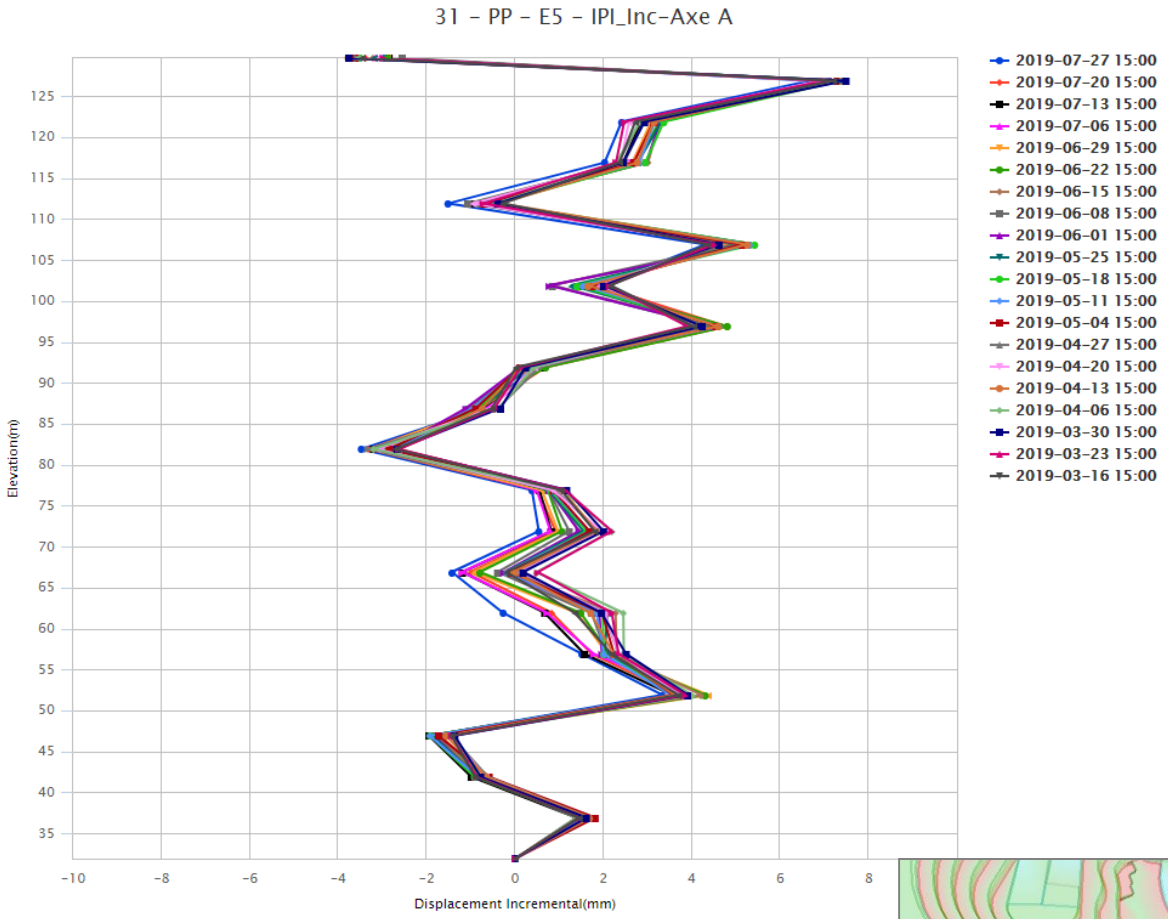
- No sign of deformation observed in TDR5.
- No anomalies from the TDR logger were found in the graphs in Q2.

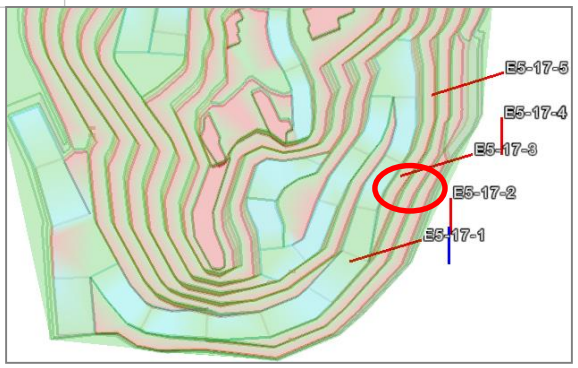


PORTAGE PIT E

INCLINOMETER

PP-E5-IPI





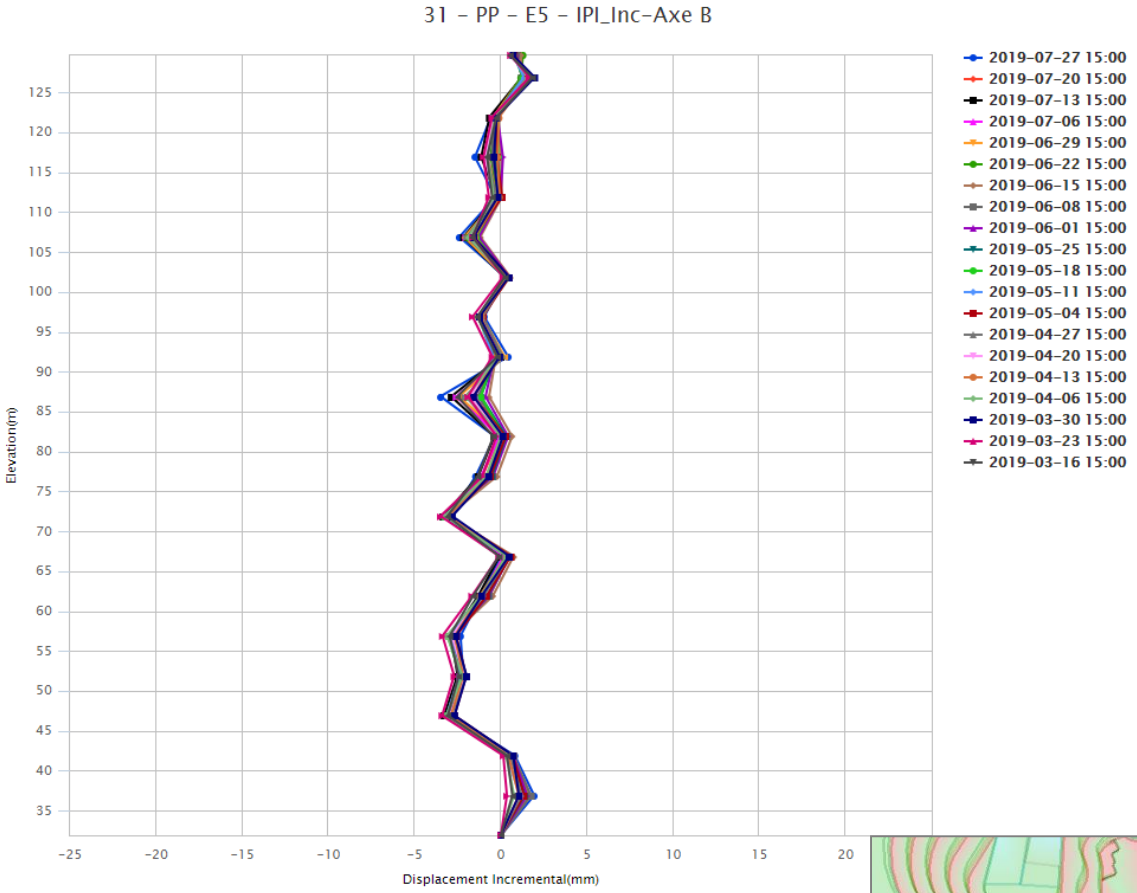
Comments:

- Deformation are within the green level for the TARP for Pit E Pushback.

PORTAGE PIT E

INCLINOMETER

PP-E5-IPI



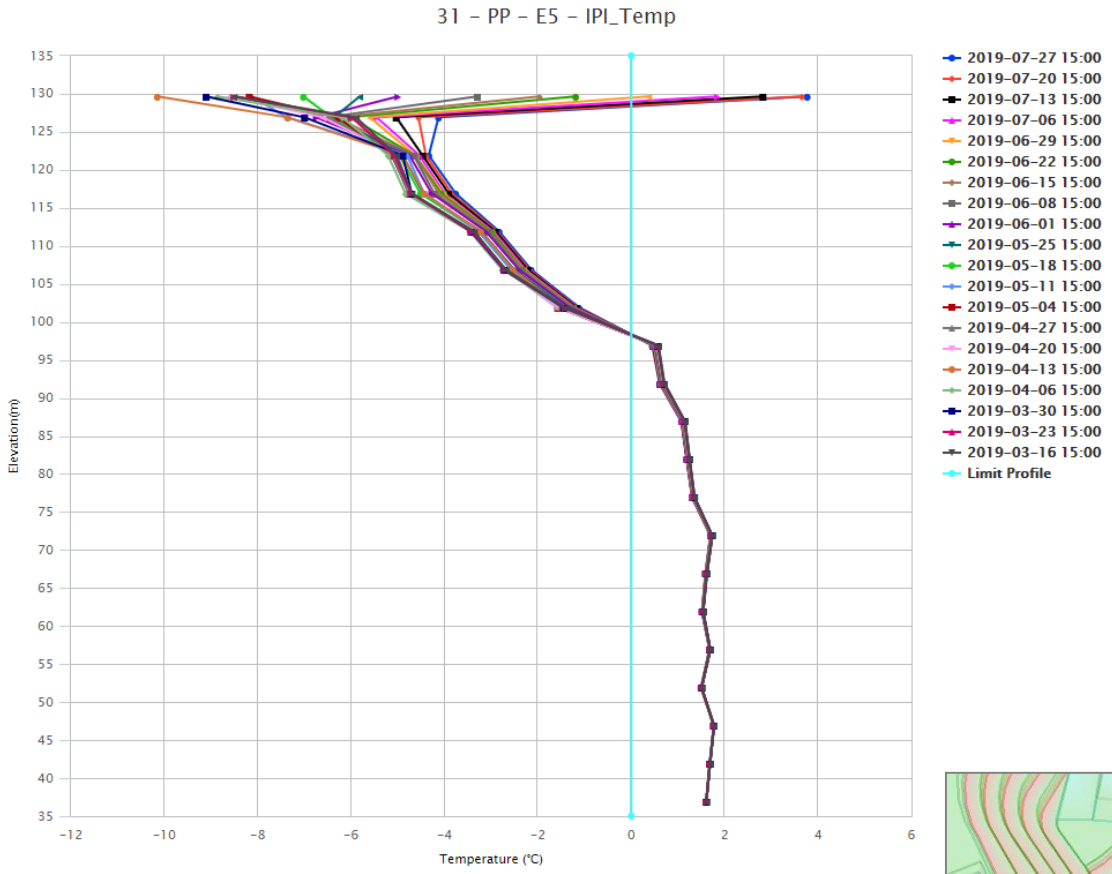
Comments:

- The results fall within the Acceptable range for the TARP for Pit E Pushback.

PORTAGE PIT E

INCLINOMETER

PP-E5-IPI



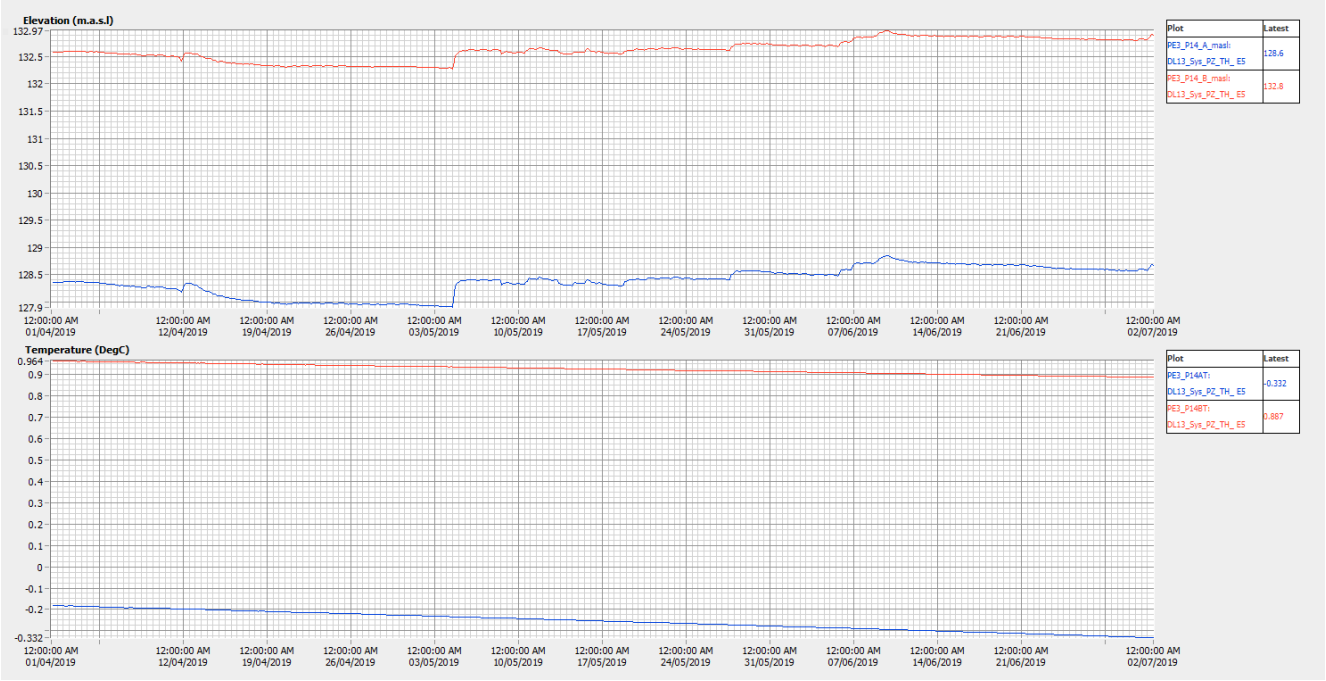
Comments:

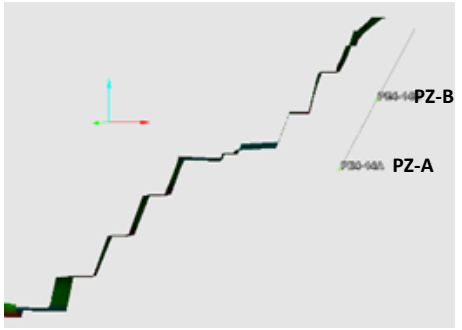
- Unfrozen (Talik) condition under elevation 100 MASL.
- There is a gradual warming trend in the active layer.

PORTAGE PIT E

PIEZOMETERS

PE3-14 PZ-A,B





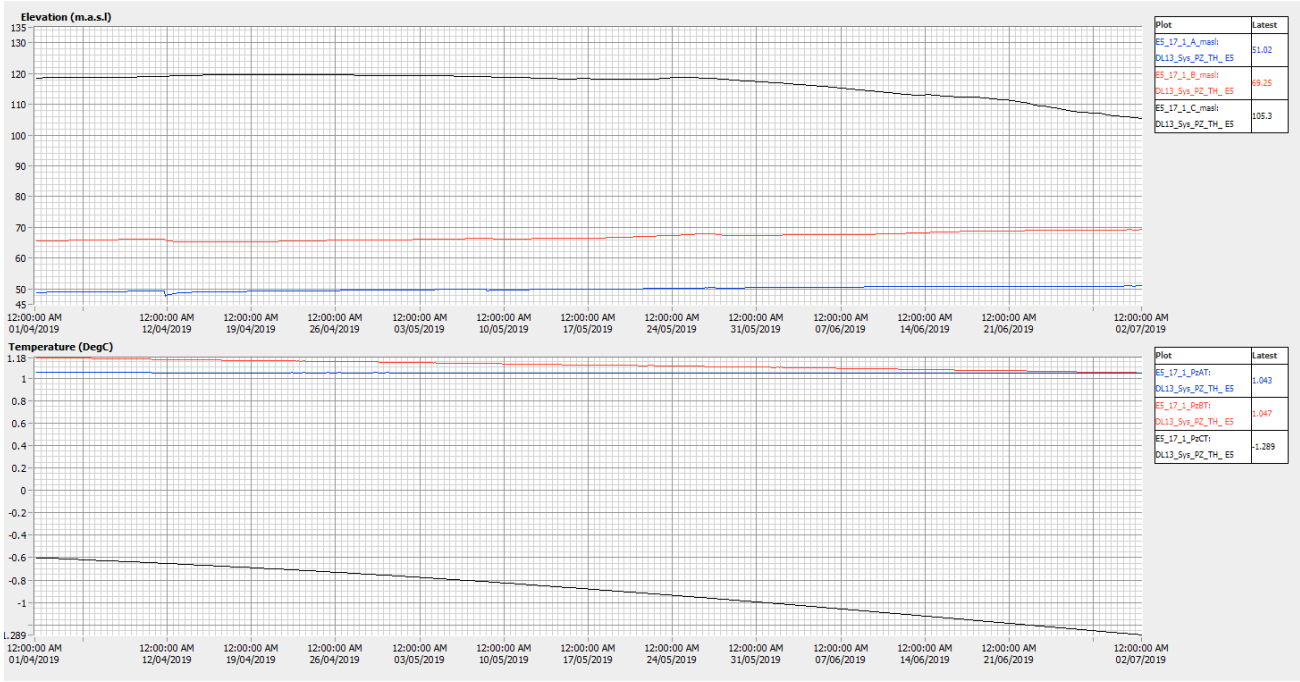
Comments:

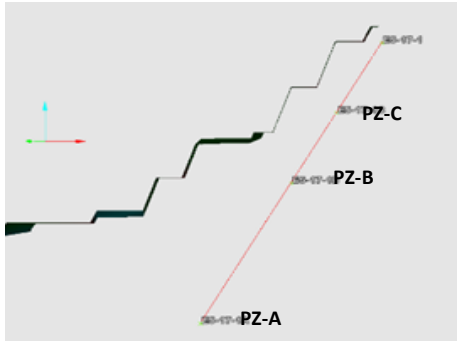
- Minor variations in pore water pressure are related to mining activities (drilling/blasting) in Pit E5.
- Overall downward trend for piezometer's temperature.
- PE3-14 PzA is close to be frozen. Latest temperature is -0.38 ^{o}C.

PORTAGE PIT E

PIEZOMETERS

PE5-17-01 PZ-A,B,C





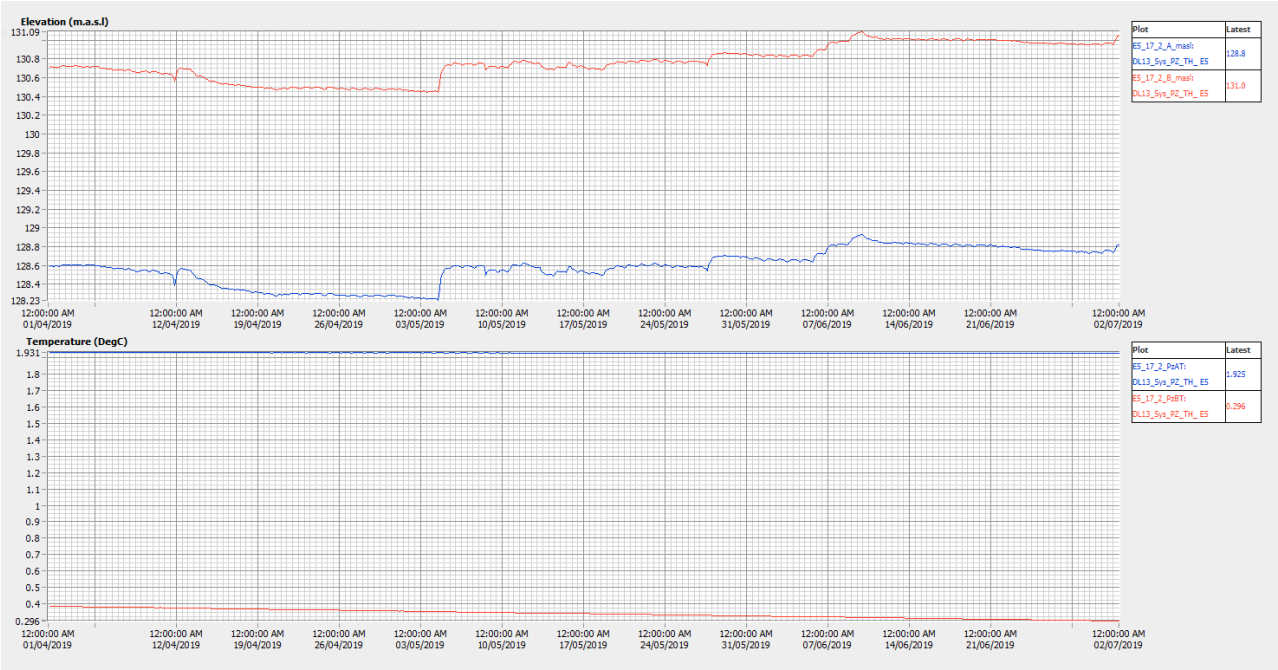
Comments:

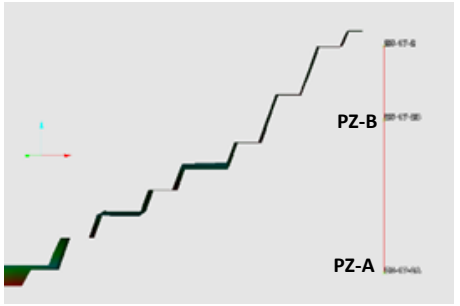
- Minor variations in pressure are related to mining activities (drilling/blasting) in Pit E5.
- PzB has a low PWP and is to be considered to be in a dry area in the wall.
- E5_17_1 PzC is considered to be frozen (-1.532°C).

PORTAGE PIT E

PIEZOMETERS

PE5-17-02 PZ-A,B





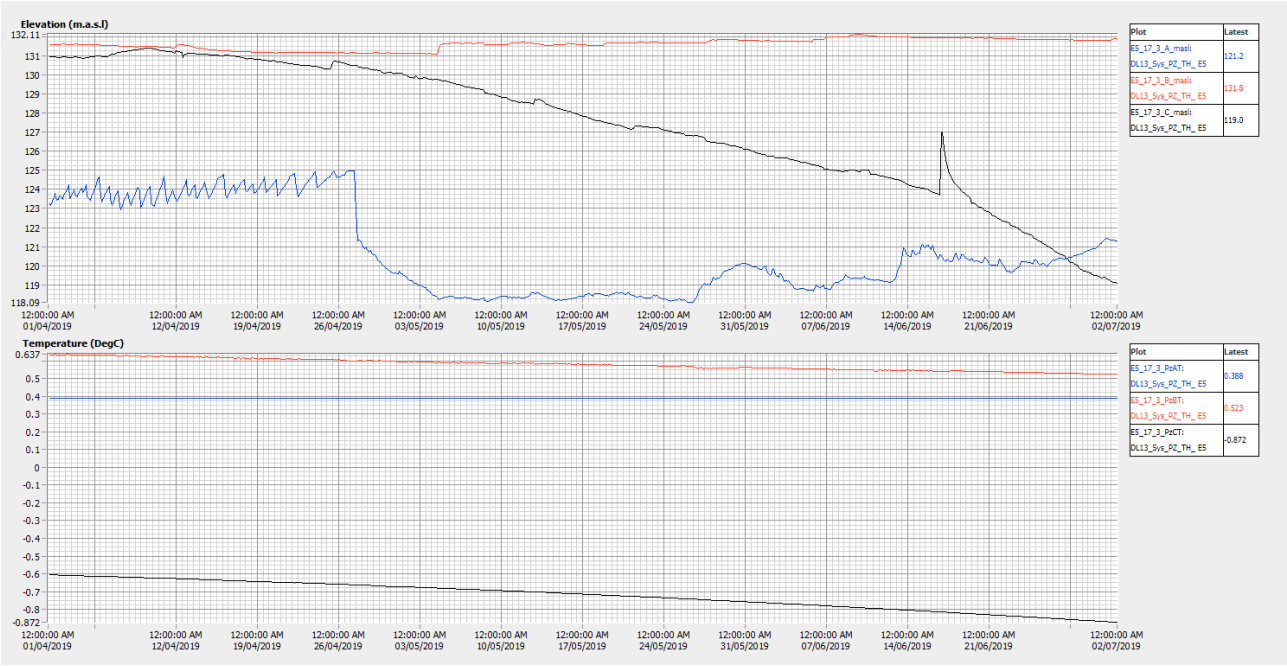
Comments:

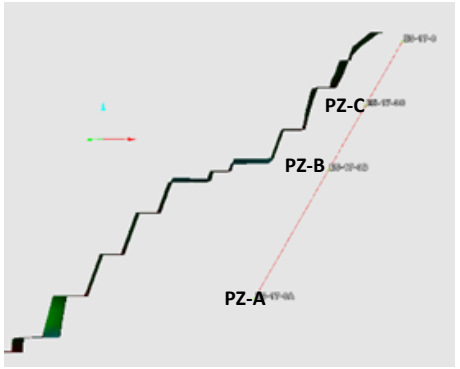
- Minor variations in pressure are related to mining activities (drilling/blasting) in Pit E5.

PORTAGE PIT E

PIEZOMETERS

PE5-17-03 PZ-A,B,C





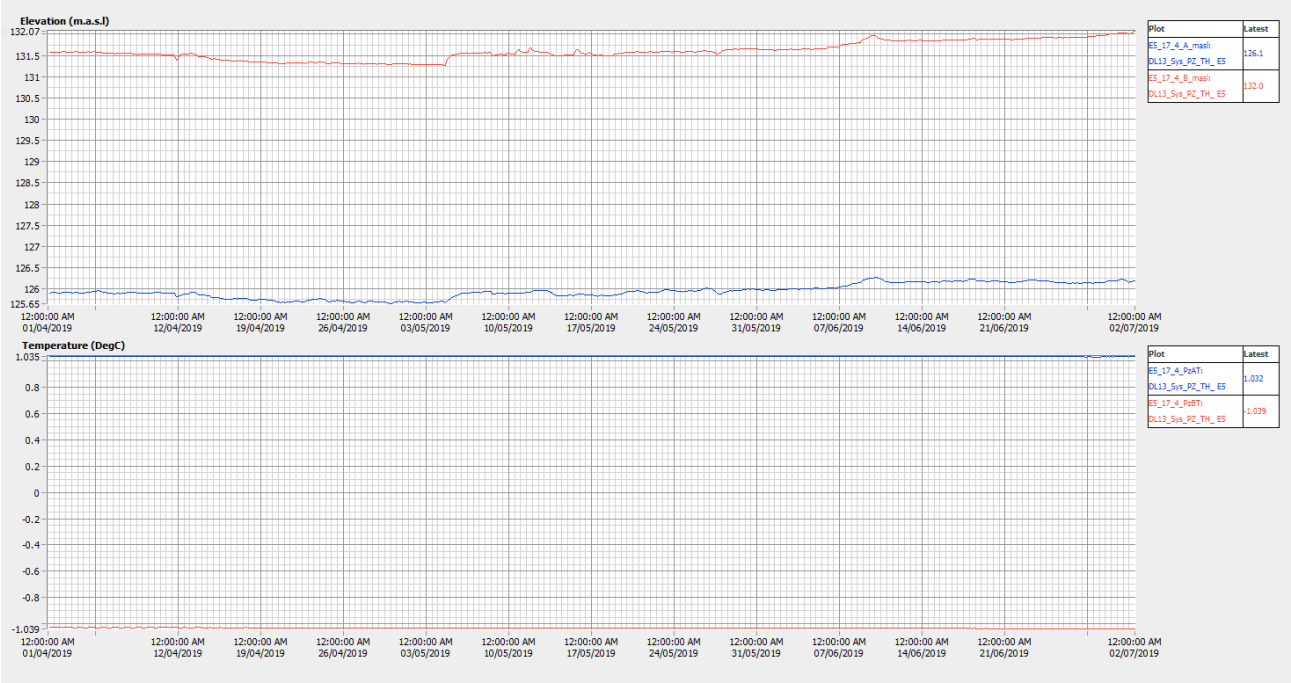
Comments:

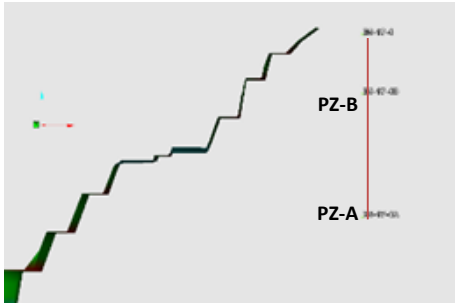
- Minor variations in pressure are related to mining activities (drilling/blasting) in Pit E5
- The temperature for PzA is holding at a steady trend, meanwhile PzB and PzC are showing a cooling trend .
- PzC is considered to frozen (-0.984˚C) . Important diminution of the pressure level is attributed to that.

PORTAGE PIT E

PIEZOMETERS

PE5-17-04 PZ-A,B





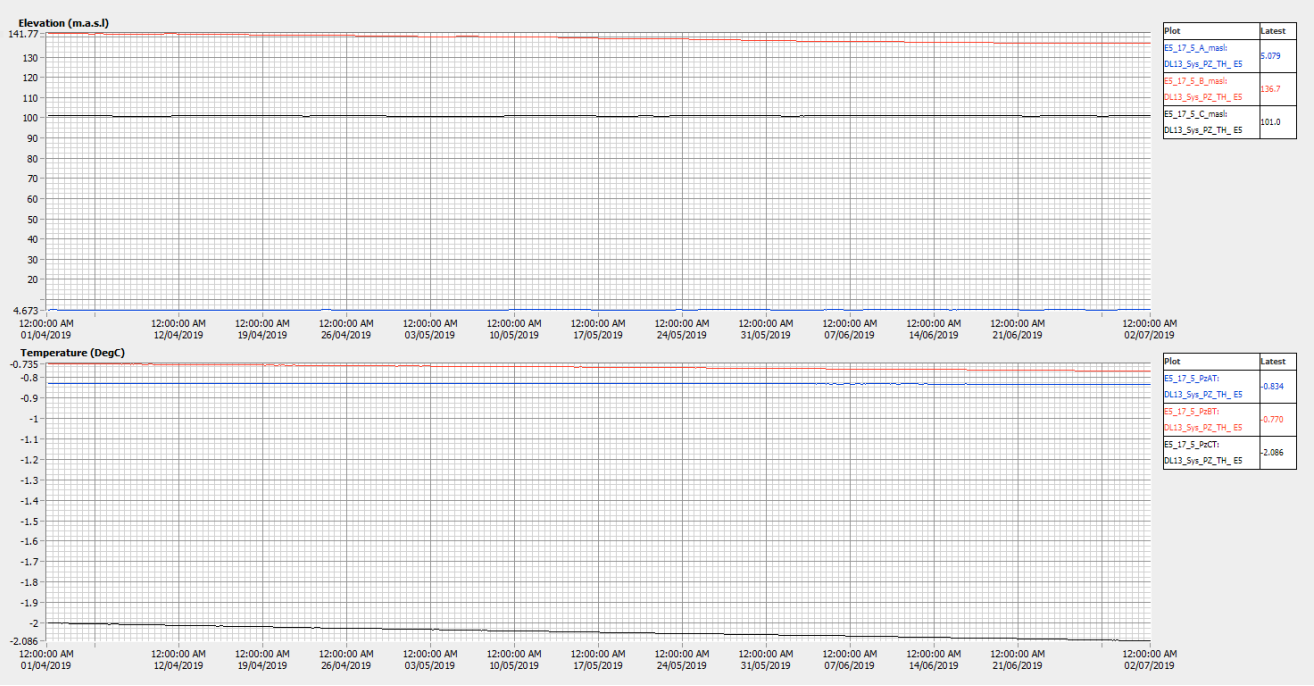
Comments:

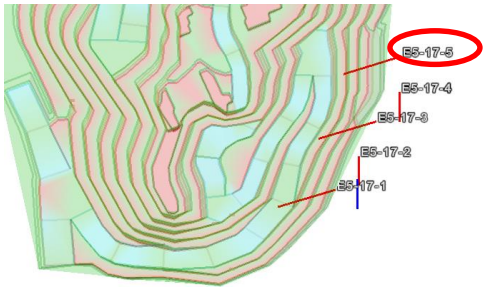
- Minor variations in pressure are related to mining activities (drilling/blasting) in Pit E5.
- Temperatures in PzA is on a constant trend, whilst temperature in PzB is showing a cooling trend.
- PzB is considered to be frozen (-1.049˚C) and diminution of the pressure level is attributed to that.

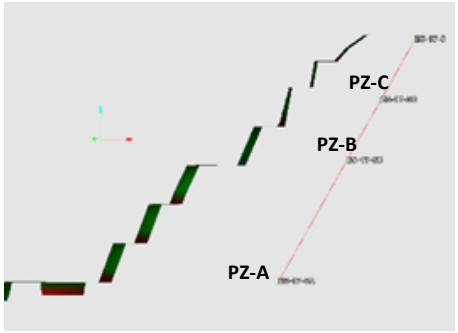
PORTAGE PIT E

PIEZOMETERS

PE5-17-05 PZ-A,B,C







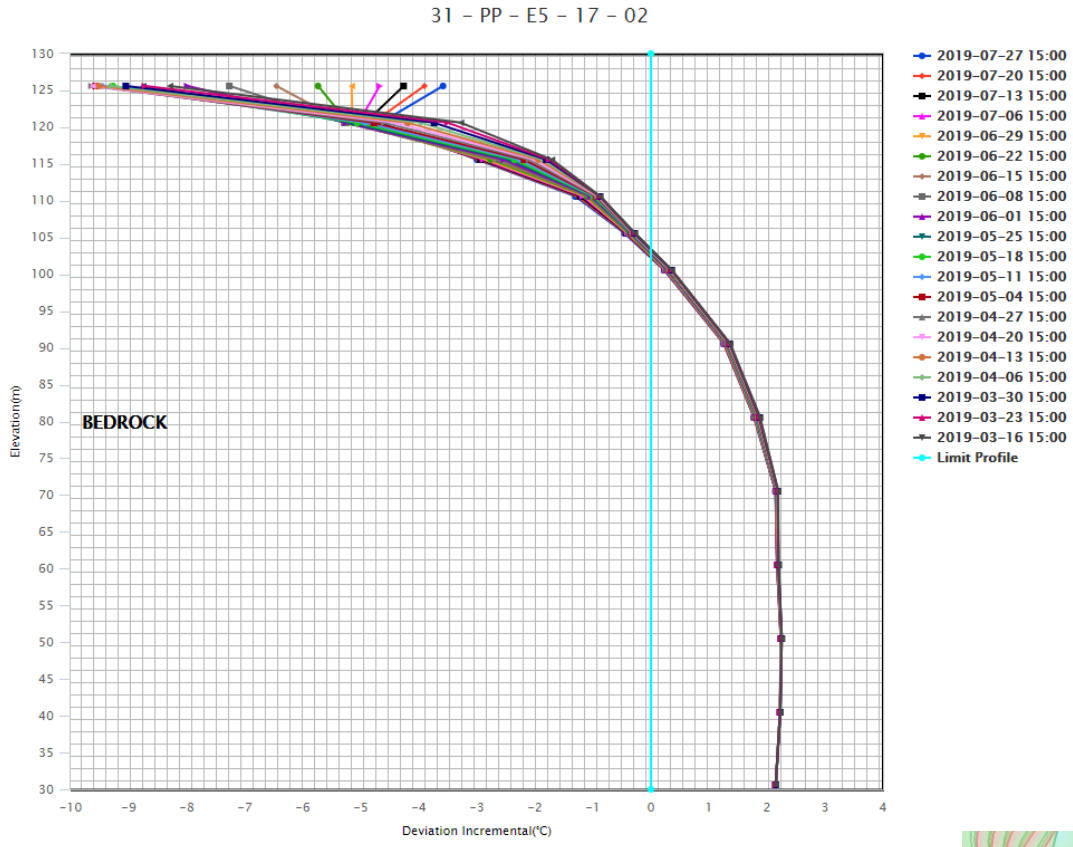
Comments:

- PZ-A,B and C are considered to be frozen. The pressure measurements are considered unreliable.

PORTAGE PIT E

THERMISTORS

PP-E5-17-02



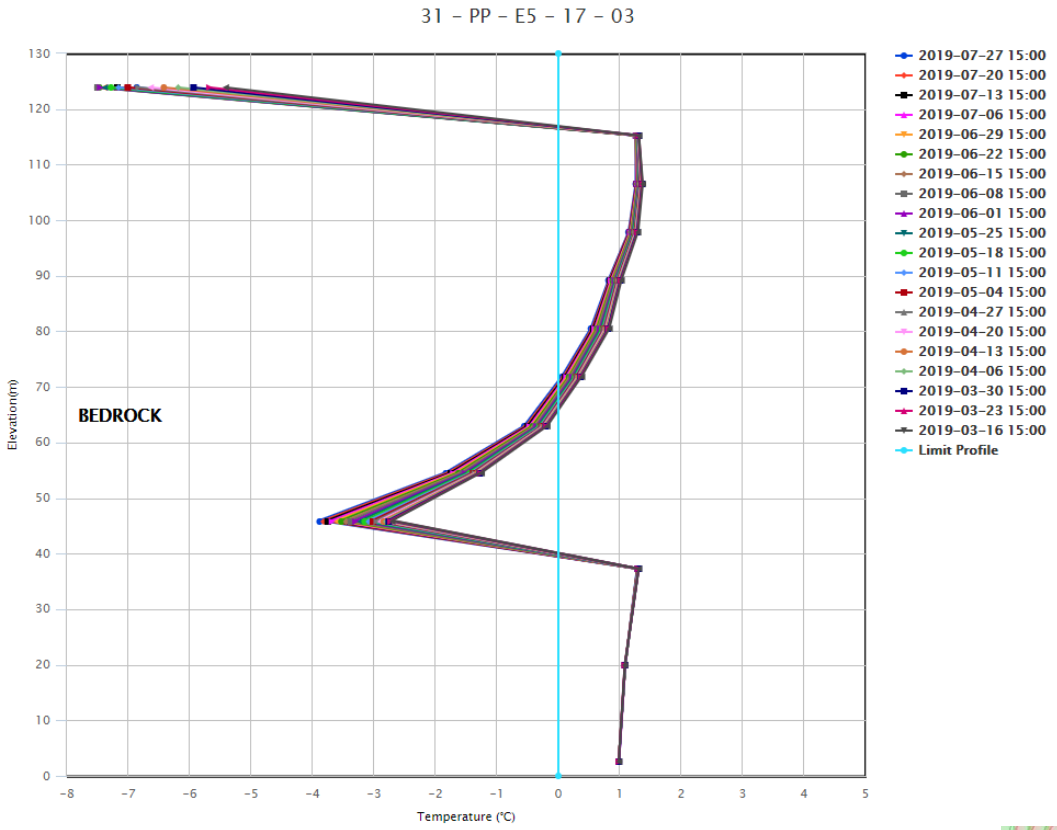
Comments:

- There is a permafrost layer from the top of the hole at elev. 125 to the elev. 105 MASL. It suggests an aggradation of the permafrost from the surface since the dewatering of the lake in 2011.
- Apart form the 2 upper beads in the active layer (which are showing a slight variation in the first 5 meters), only minimal variations were recorded during the period.

PORTAGE PIT E

THERMISTORS

PP-E5-17-03



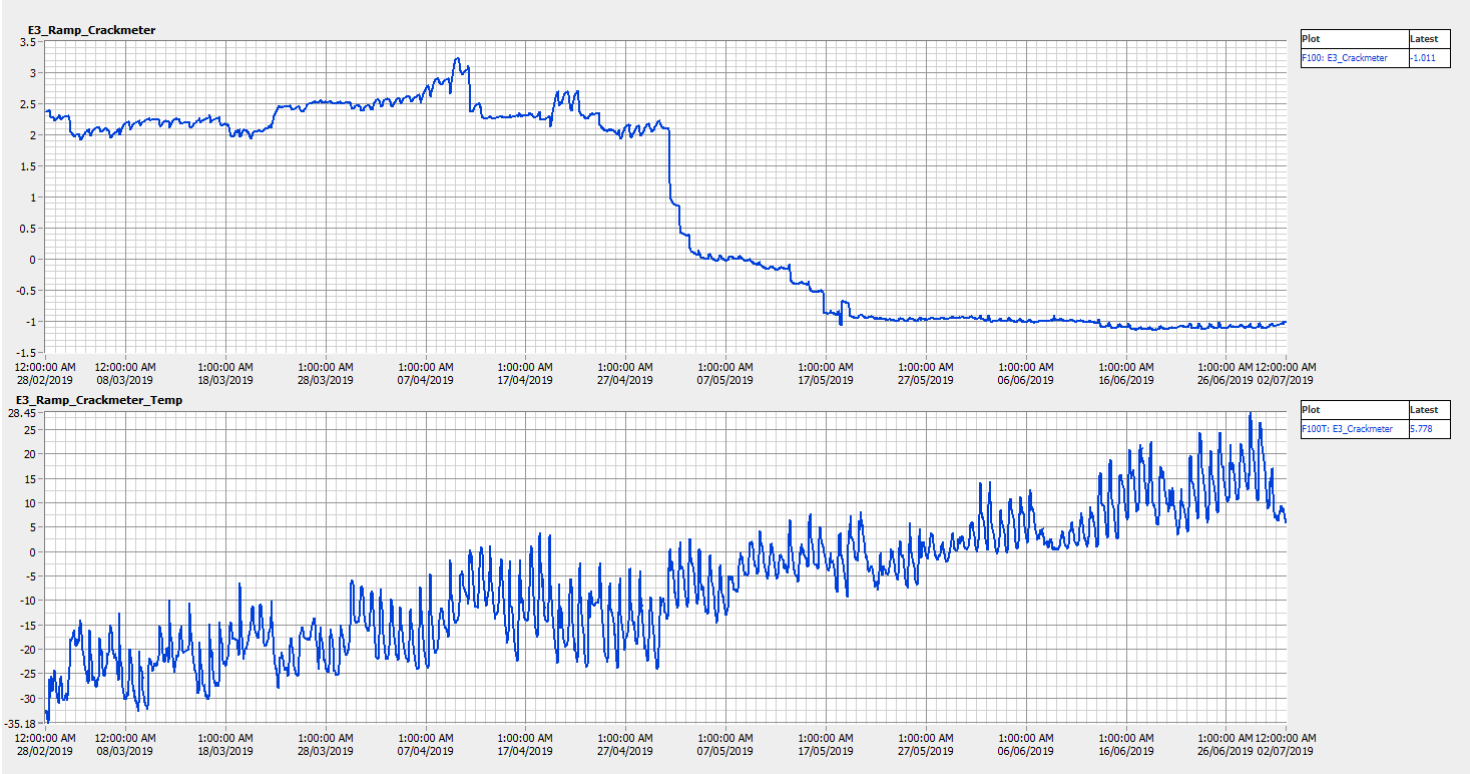
Comments:

- Only small variations of the thermistor occurred during Q2.
- There is a unexplained permafrost layer between elevation 40 and 55 m.a.s.l.

PORTAGE PIT E

CRACK METER

PE3_Crackmeter



Comments:

- Ice and snow melt during freshet is a contributing factor in the variations of the deformation. Situation is monitored closely. No observations noted in the field.

VAULT PIT

PRISMS

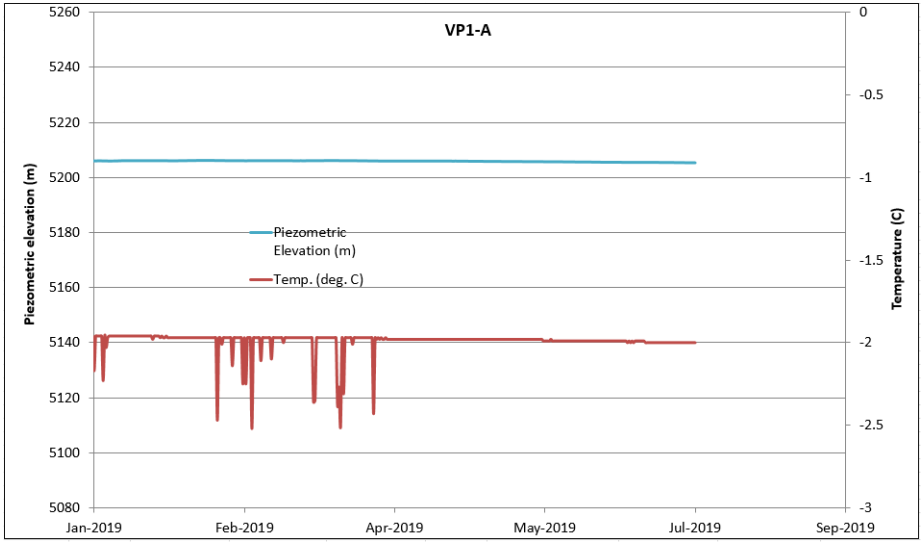
Comments:

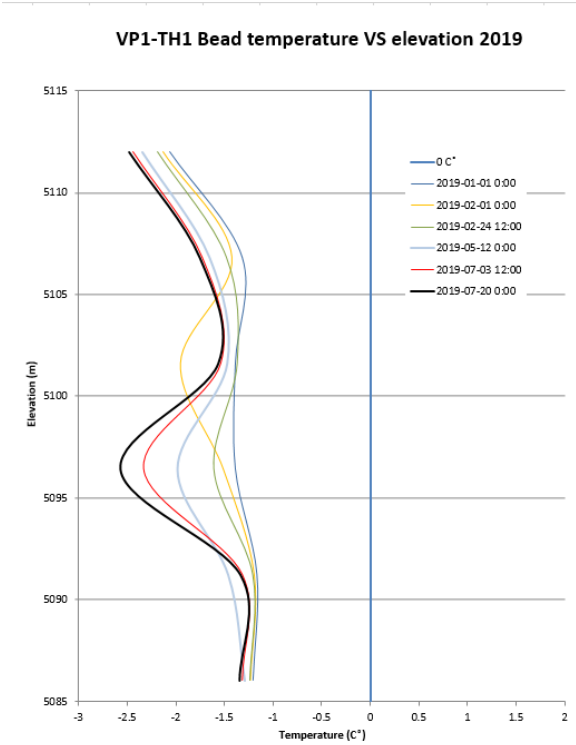
- No data taken for this period, due to the total station being sent off for repairs.

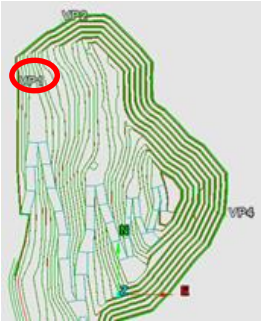
VAULT PIT

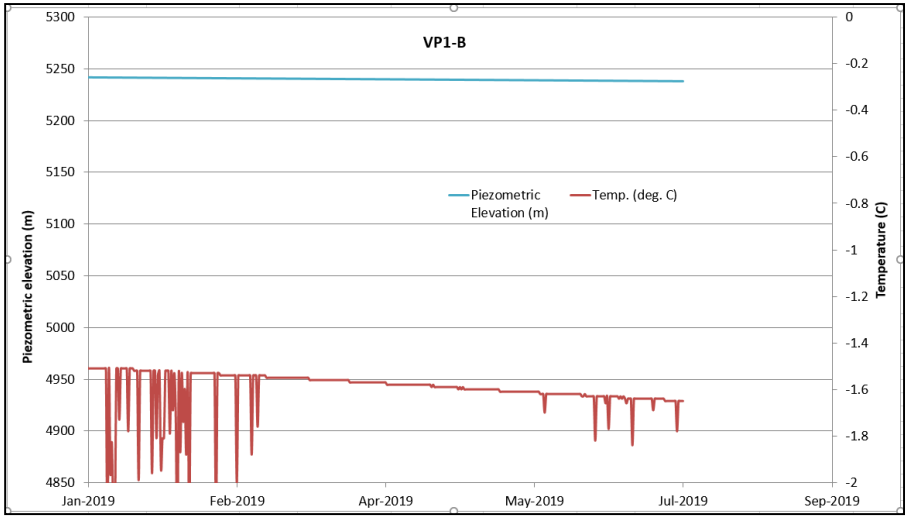
PIEZOMETERS & THERMISTORS

VP1-A, VP1-B, VP1-TH1









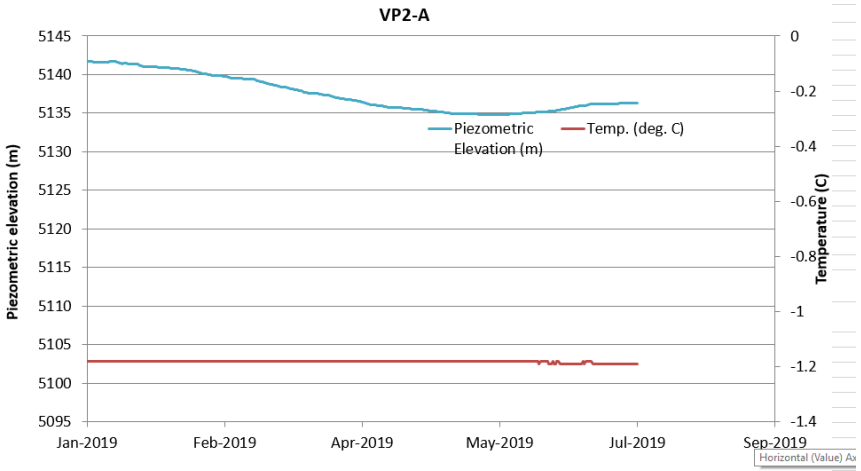
Comments:

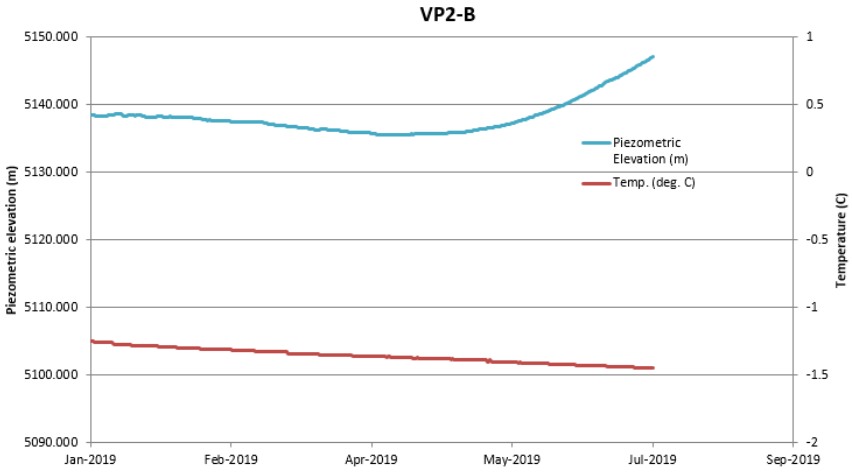
- PZ-A&B are below the freezing point. Pressure measurements are therefore considered unreliable.
- The thermistor remained frozen during Q2, 2019.

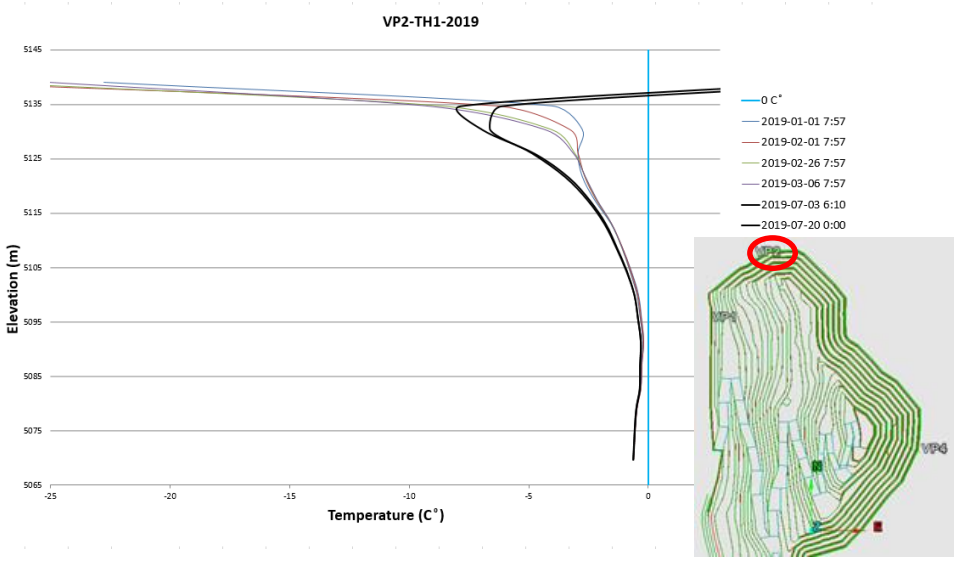
VAULT PIT

PIEZOMETERS & THERMISTORS

VP2-A, VP2-B, VP2-TH1







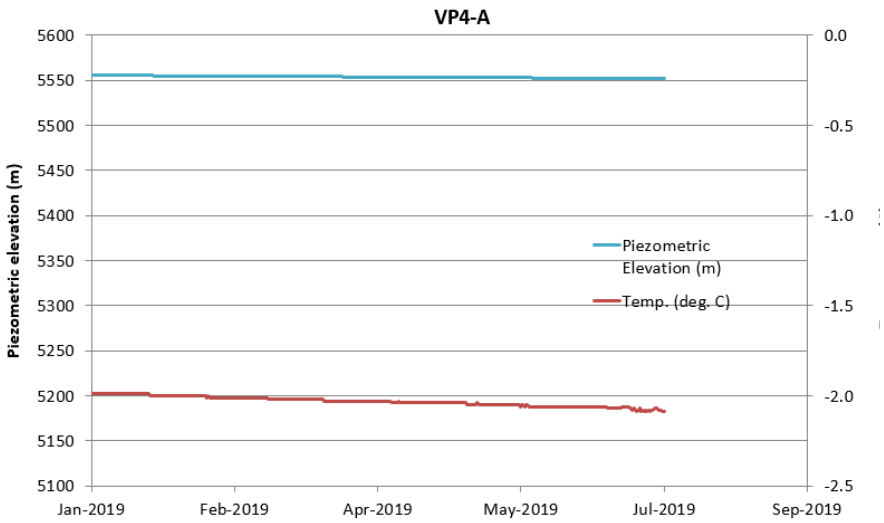
Comments:

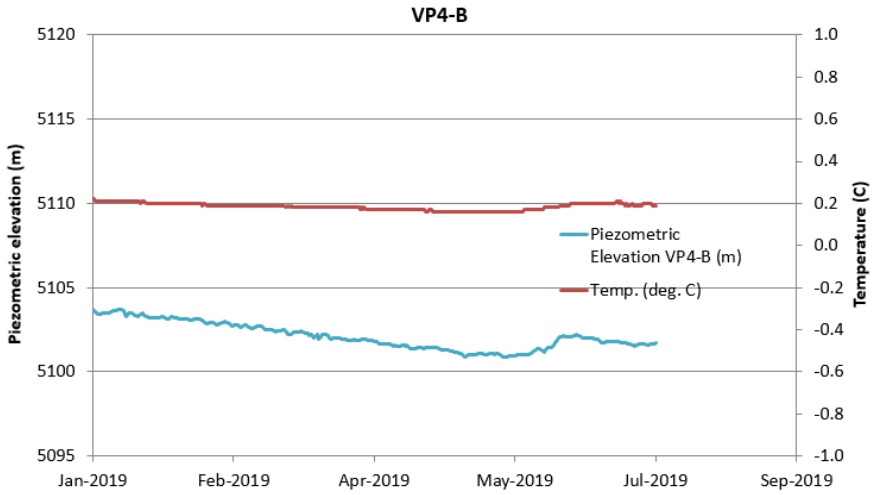
- PZ-A&B are below the freezing point since their installation and their data are considered unreliable.
- The section between 5105 and 5085 is close to the freezing but still below. Apart the top beads, minimal variations were recorded for the rest of the hole.

VAULT PIT

PIEZOMETERS & THERMISTORS

VP4-A, VP4-B





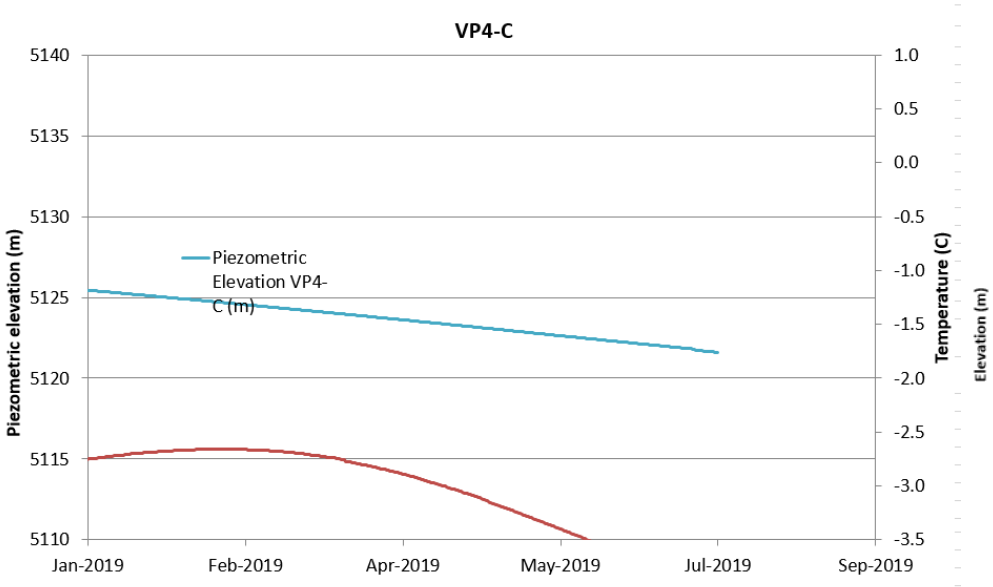
Comments:

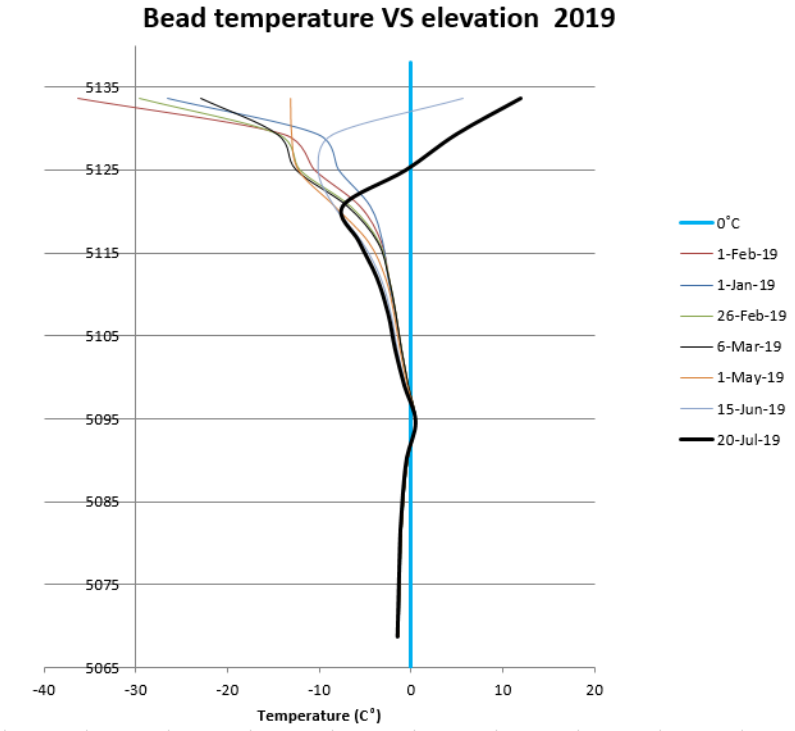
- PZ-A is under the freezing point and considered unreliable.
- PZ-B shows minor variations. The instrument is installed in the confined layer of talik between 5105 and 5095 at the source of the seepage causing the major ice wall in the area.
- The temperature of PZ-B is on a downward trend suggesting a freeze back of the slope and aggradation of permafrost. It might now be frozen so data are not reliable.

VAULT PIT

PIEZOMETERS & THERMISTORS

VP4-C, VP4-TH1



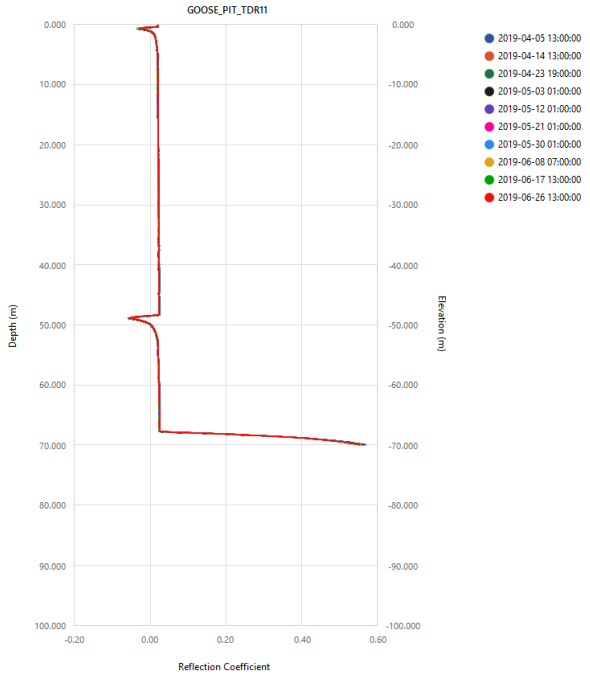


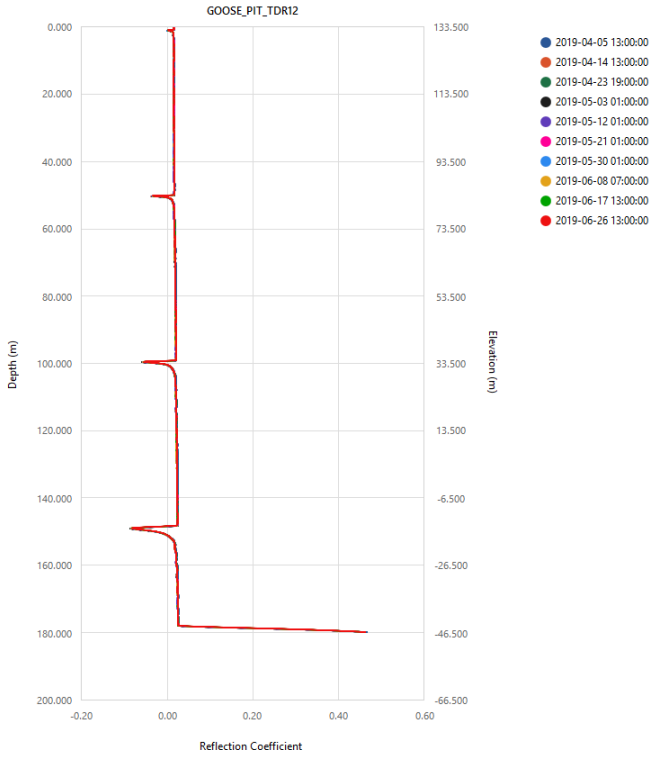
Comments:

- PZ-C is frozen and data is considered unreliable.
- The thermistor show that the hole is mainly in the permafrost at the exception of the section in between 5100 and 5090 (0.51˚C). This zone causes the seepage and therefore the ice wall.

GOOSE PIT

TDR



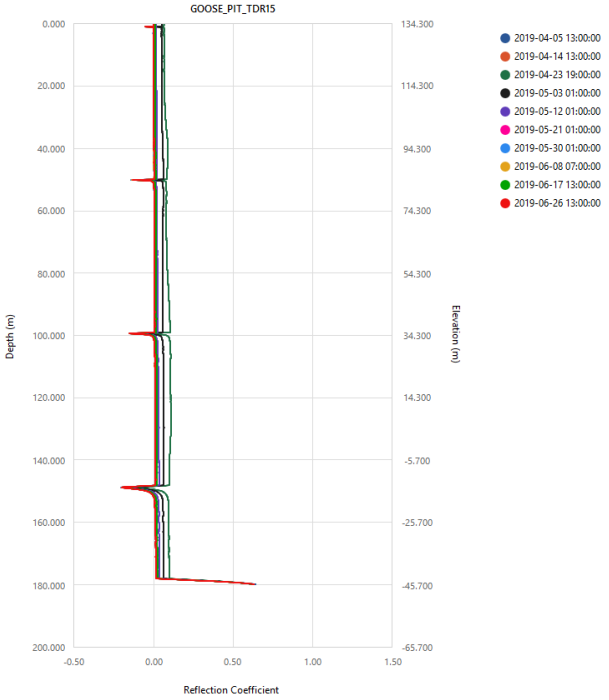


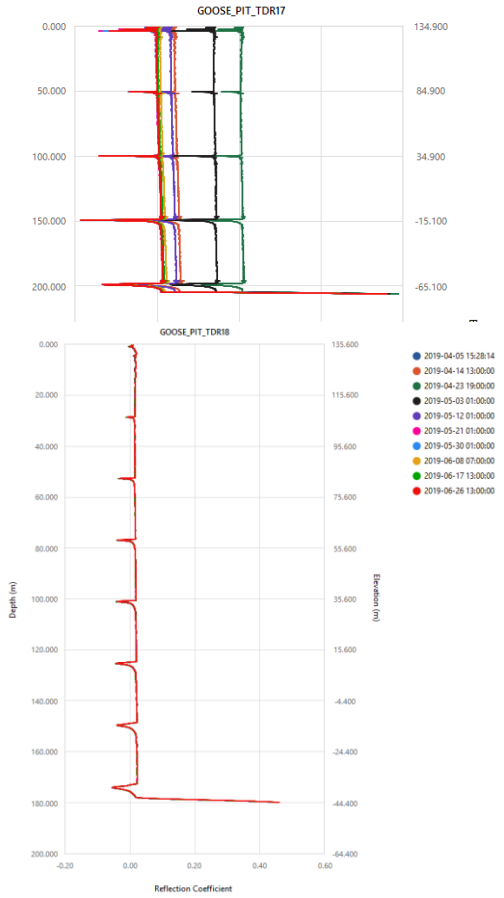
Comments:

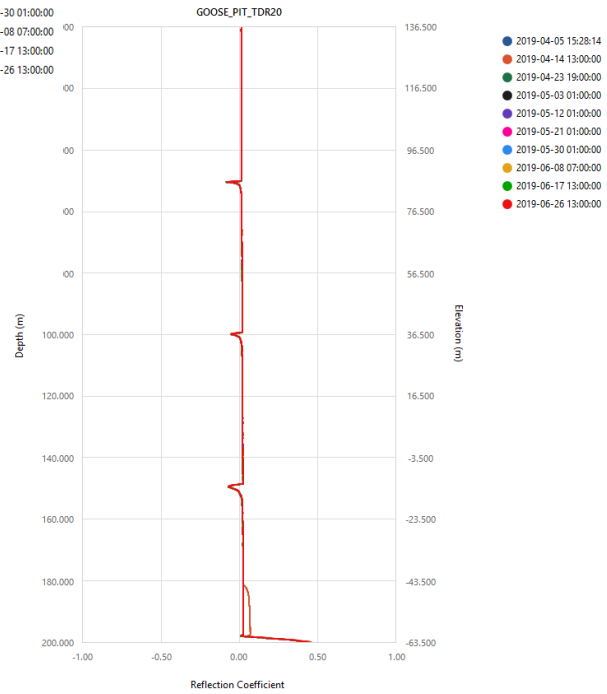
- No sign of deformation was observed in these TDRs. Anomalies from the TDR logger are still presents and were disregarded in the presented graphs. We are currently still trying to find a solution for this problem but it does not compromise the data integrity.
- TDR 14 was pinched at installation and therefore result might be compromise in the case of an event raising the reflection coefficient. This is why we are not showing it on the report anymore.

GOOSE PIT

TDR





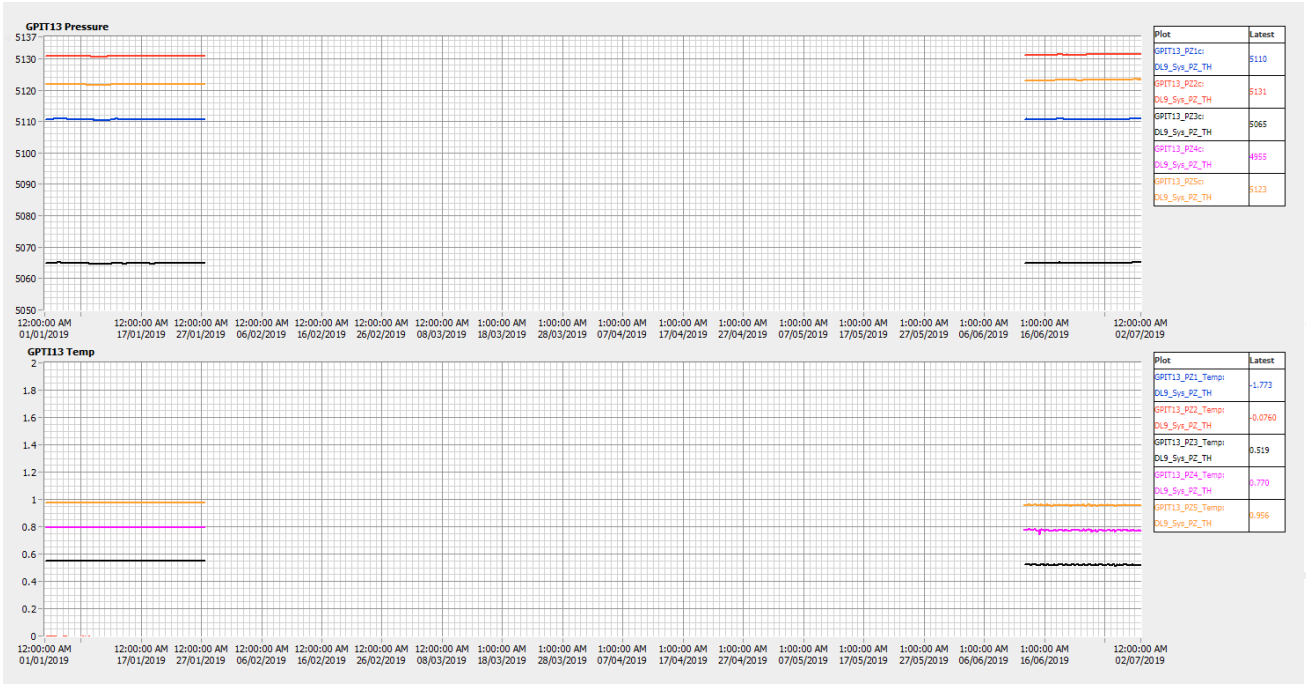


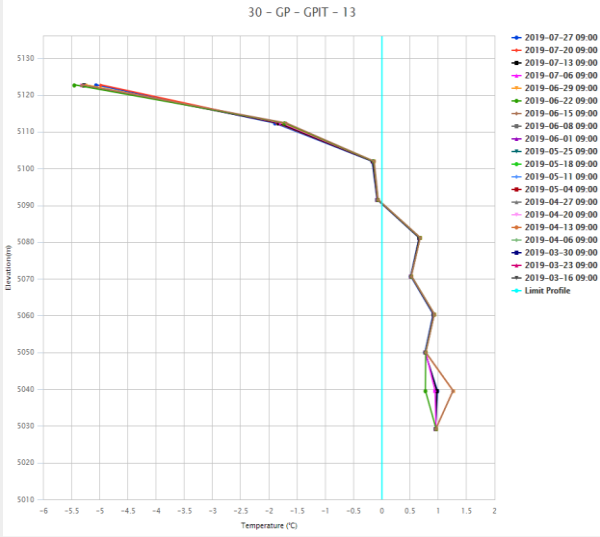
- No sign of deformation was observed in these TDRs. No sign of deformation was observed in these TDRs. Anomalies from the TDR logger are still presents and were disregarded in the presented graphs. We are currently still trying to find a solution for this problem but it does not compromise the data integrity.

GOOSE PIT

PIEZOMETERS & THERMISTORS

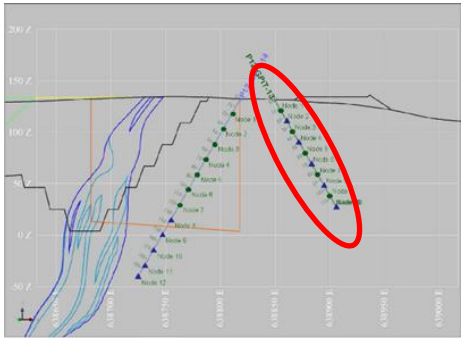
GPIT-13-PZ-1-2-3-4-5, GPIT-13-TH





Comments:

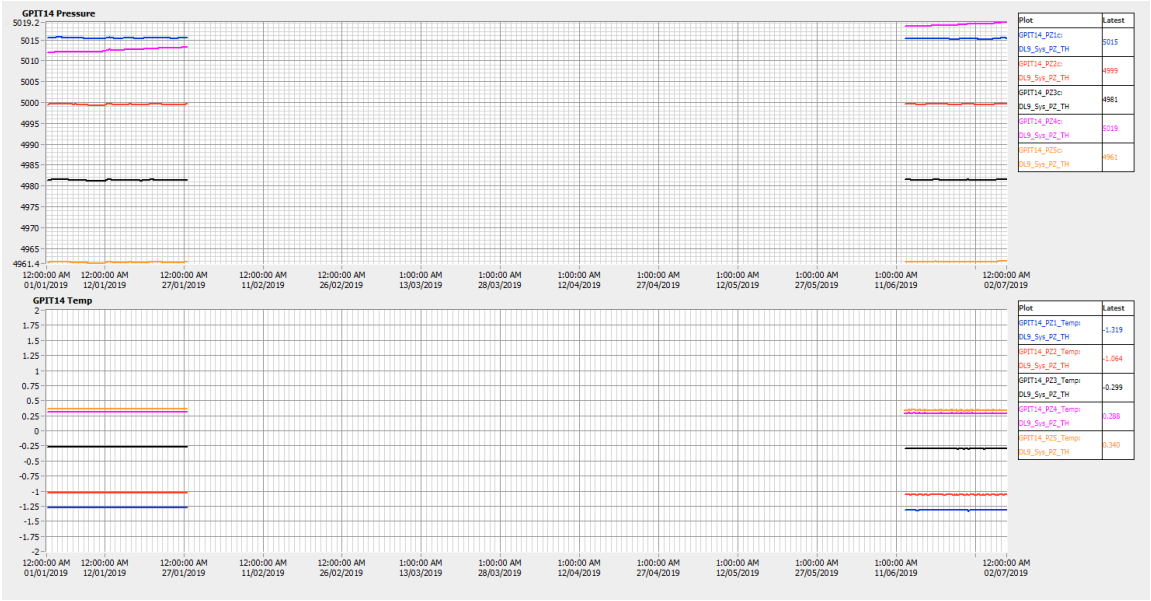
- Piezometers stopped recording data on January 27th but were fixed on June 14th. No anomalies in data observed.
- The beads of thermistor GPIT-13 are stable. The first bead temperature change is consistent with the cooling trend at this time of year. This is consistent with the previous years and with the thermal dynamics of the area.

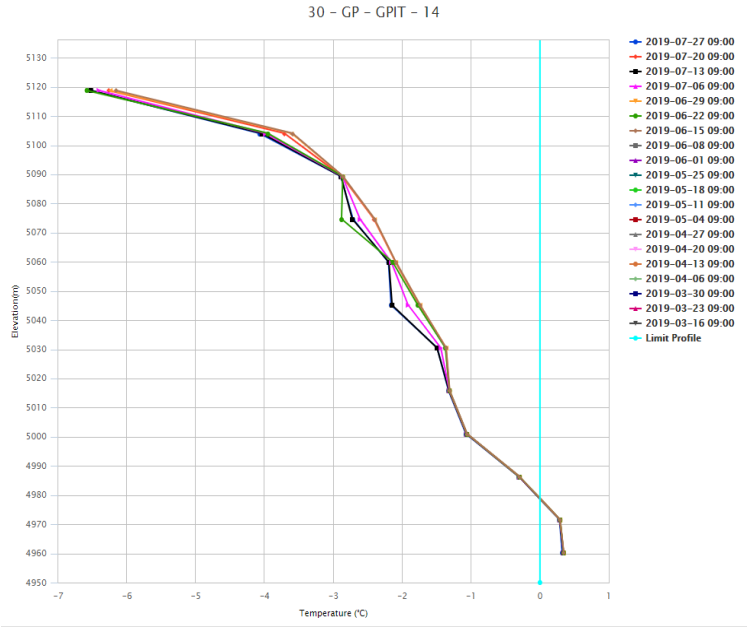


GOOSE PIT

PIEZOMETERS & THERMISTORS

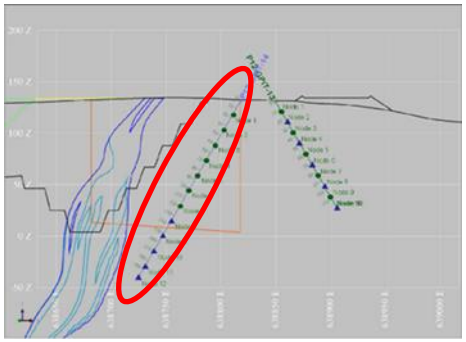
GPIT-14-PZ-1-2-3-4-5, GPIT-14-TH





Comments:

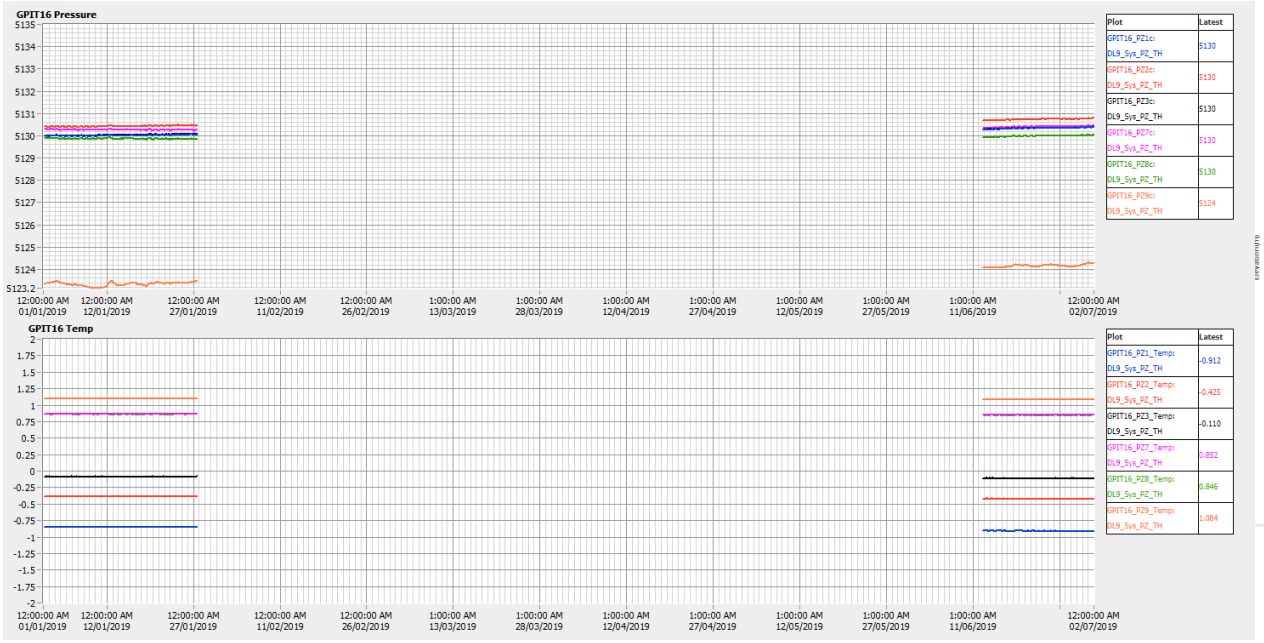
- Piezometers stopped recording data on January 27th but were fixed on June 14th. No anomalies in data observed.
- TH-GPIT-14 is in the permafrost from top at elevation 5120 to 4980. The last 20m of the hole is above the freezing line. The first bead temperature change is consistent with the cooling trend at this time of year. This is consistent with the previous years and with the thermal dynamics of the area.

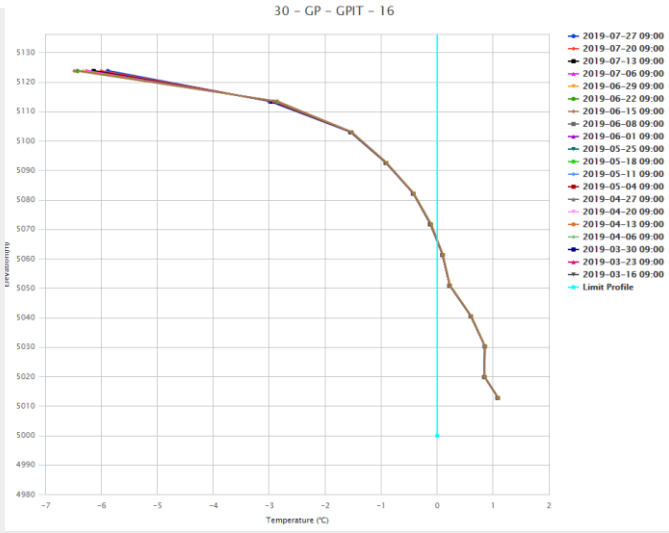


GOOSE PIT

PIEZOMETERS & THERMISTORS

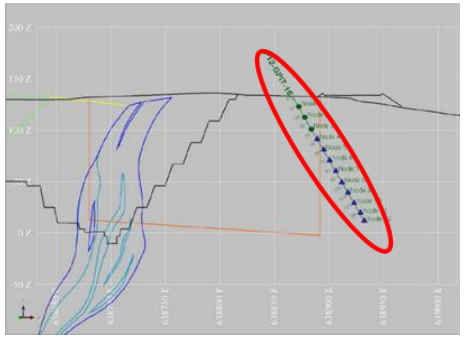
GPIT-16-PZ-1-2-3-7-8-9, GPIT-16-TH





Comments:

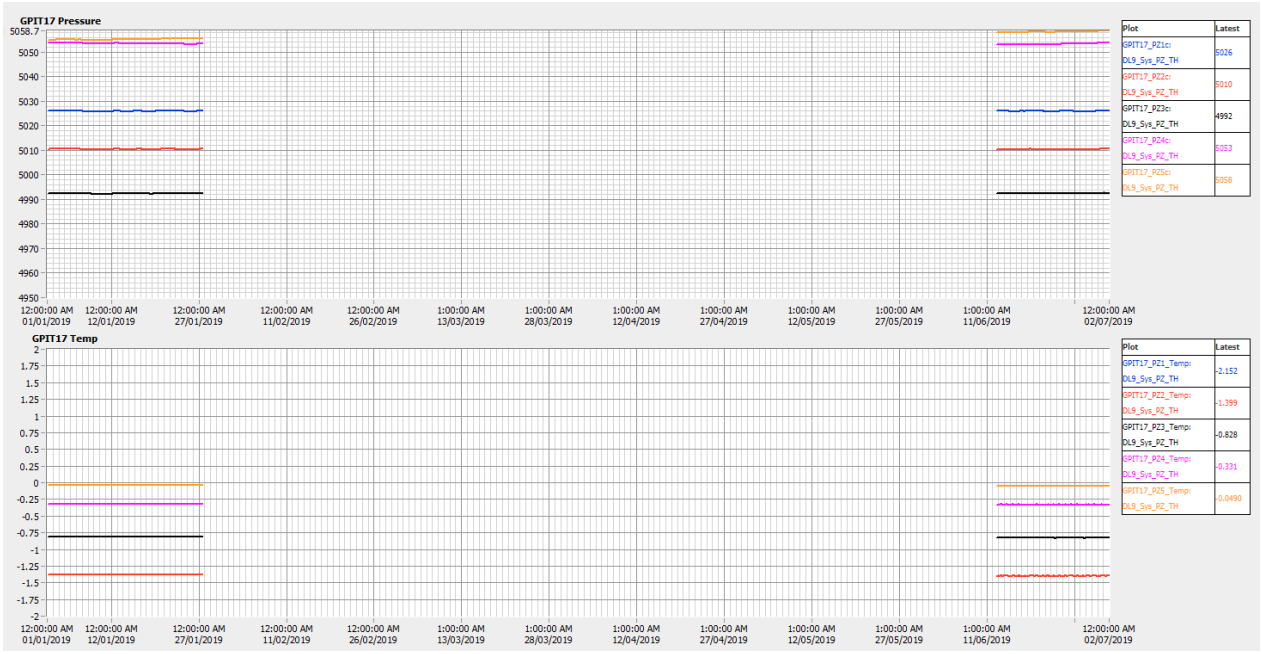
- Piezometers stopped recording data on January 27th but were fixed on June 14th. No anomalies in data observed.
- TH-GPIT-16 is in the permafrost from top at elevation 5124 to 5068. The first bead temperature change is consistent with the cooling trend at this time of year. This is consistent with the previous years and with the thermal dynamics of the area.

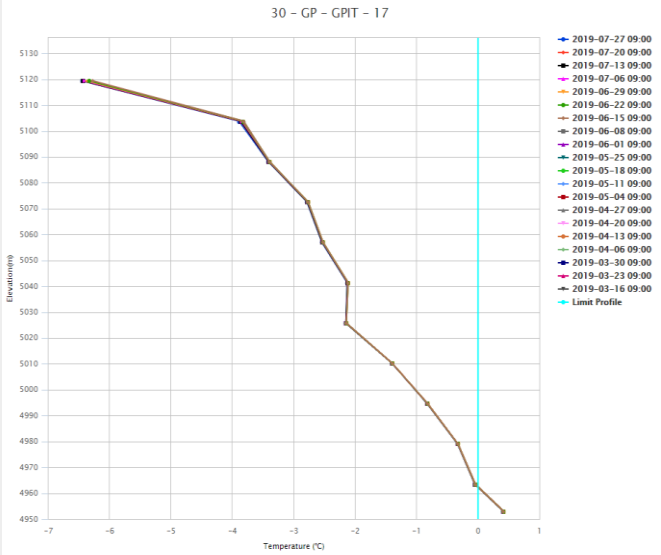


GOOSE PIT

PIEZOMETERS & THERMISTORS

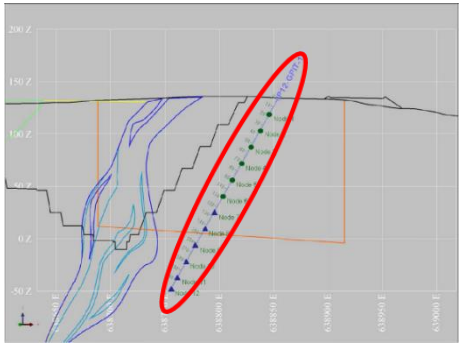
GPIT-17-PZ-1-2-3-4-5, GPIT-17-TH





Comments:

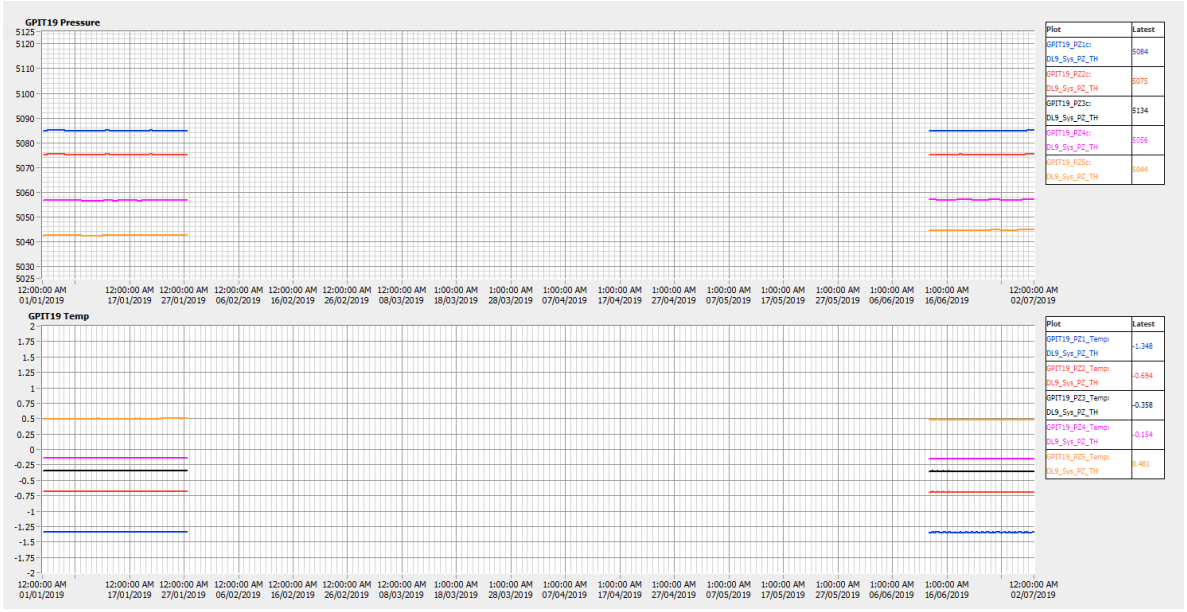
- Piezometers stopped recording data on January 27th but were fixed on June 14th. No anomalies in data observed.
- TH-GPIT-17 is in the permafrost from top at elevation 5119 to 4962. The first bead temperature change is consistent with the cooling trend at this time of year. This is consistent with the previous years and with the thermal dynamics of the area.

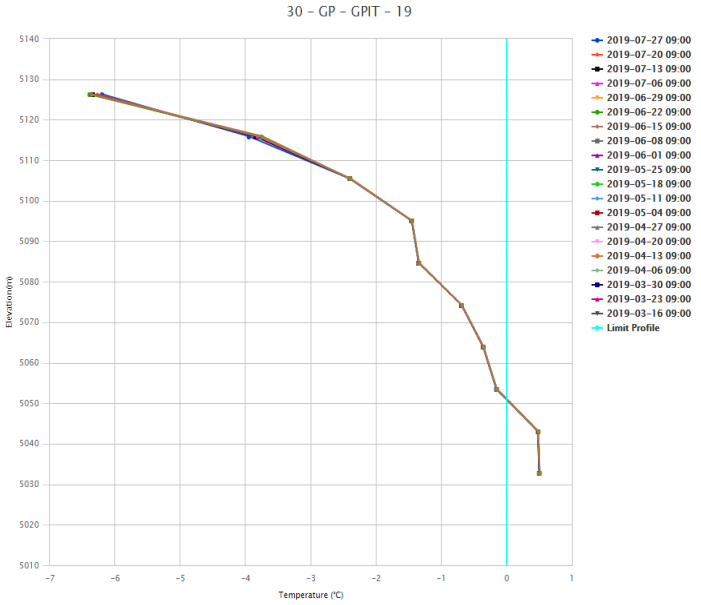


GOOSE PIT

PIEZOMETERS & THERMISTORS

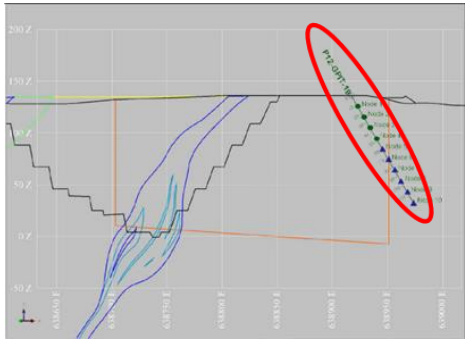
GPIT-19-PZ-1-2-3-4-5, GPIT-19-TH





Comments:

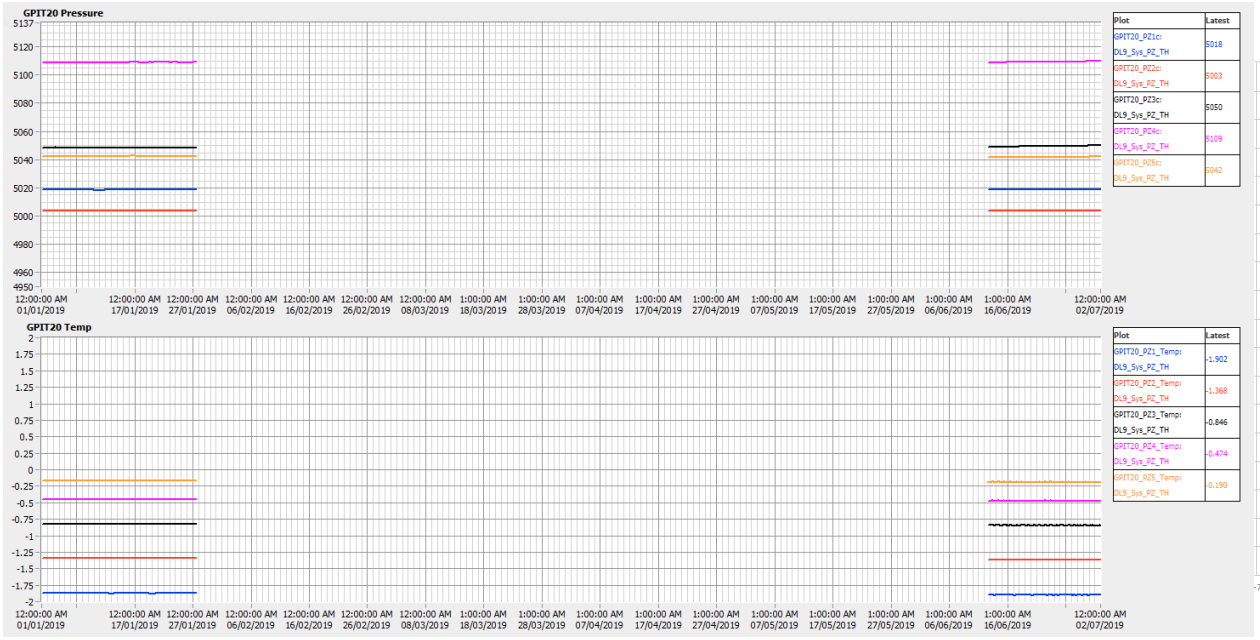
- Piezometers stopped recording data on January 27th but were fixed on June 14th. No anomalies in data observed.
- TH-GPIT-19 is in the permafrost from top at elevation 5126 to 5051. The first bead temperature change is consistent with the cooling trend at this time of year. This is consistent with the previous years and with the thermal dynamics of the area.

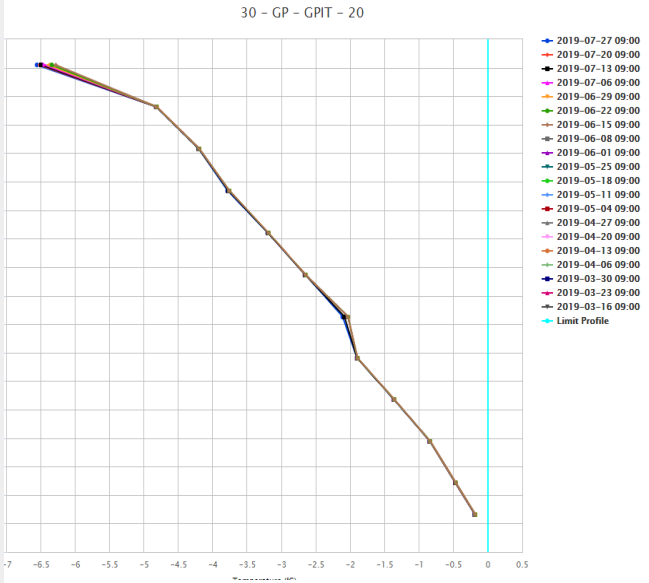


GOOSE PIT

PIEZOMETERS & THERMISTORS

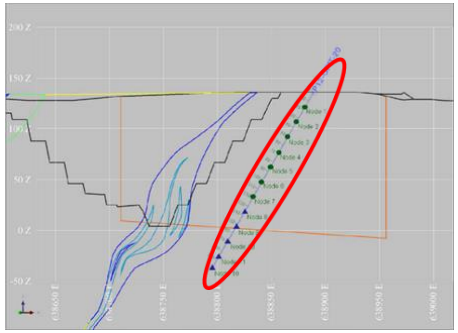
GPIT-20-PZ-1-2-3-4-5, GPIT-20-TH





Comments:

- Piezometers stopped recording data on January 27th but were fixed on June 14th. No anomalies in data observed.
- TH-GPIT-20 is in the permafrost on its entire length from is top at elevation 5121 to the bottom at 4963. The first bead temperature change is consistent with the cooling trend at this time of year. This is consistent with the previous years and with the thermal dynamics of the area.



APPENDIX E

EXAMPLE WALL INSPECTION REPORTS

- 2019 Pit Wall Inspection Reports
- 2020 Pit Wall Inspection Reports

2019 PIT WALL INSPECTION REPORTS

Wall Inspection

July 14th, 2019

Very High Risk, NO ENTRY

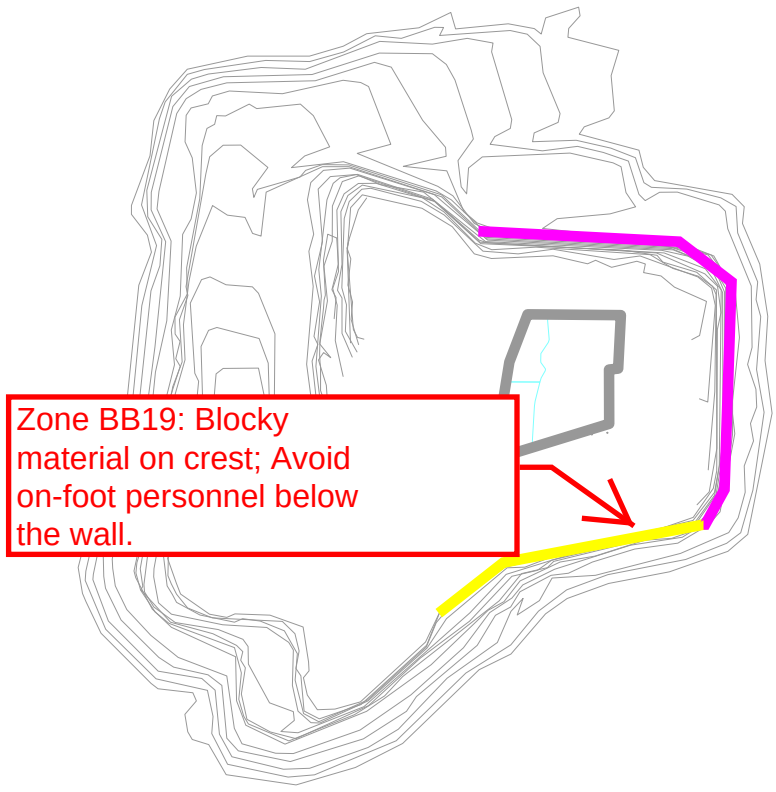
High Risk
Requires Remedial Measures

Medium Risk
Precautionnary or Remedial Measures

Low Risk
Perform assessment before entering

Wall not exposed
during inspection

MISHOLE OR POTENTIAL MISHOLE



BBPhaser

Zone E86: Catchment berm has filled up along the ramp. Clean up behind catchment berm.

Zone E85: Light scaling required prior to going down to the 4990 bench.

Zone E82: Potential unstable area; Berm off area so genset is not re-installed under this block

4990610

4990RA606

4990606

4983SU601

Zone E80: Potential unstable area; A rock fall occurred in this zone last year. Maintain the berm at the switchback, look for unusual debris in the area, frequent visual monitoring.

Zone E84: Rock fall hazard exists in this area. Maintain berm at 4997 elevation. Contact Geotechnical if work is desired beyond the berm.

E5 Ramp: Restricted access for inspection

Zone E71: Berm and step-out at 5004 was remedial action for area. Monitored by radar and visual monitoring. Use caution when working below area at 4997 elevation.

Pit E

AGNICO EAGLE
MEADOWBANK

DRAWN BY	DATE	MODIFIED BY	DATE
SURVEY CHECK	DATE		
GEOLOGY CHECK	DATE		
ENGINEERING CHECK	DATE		

MEADOWBANK DIVISION
ENGINEERING
WALL INSPECTION
July 14th 2019

SCALE NTS | DATE | FILE .DWG

P:\Engineering\05–Geotechnic\07–RockMechanic\10 – FIELD INSPECTION\WALL INSPECTION\2019\2019–07–13\Pit Wall Inspection Map July 13th, 2019.dwg, 14 Jul 2019

Pit Wall Inspection

Agnico Eagle Meadowbank Division

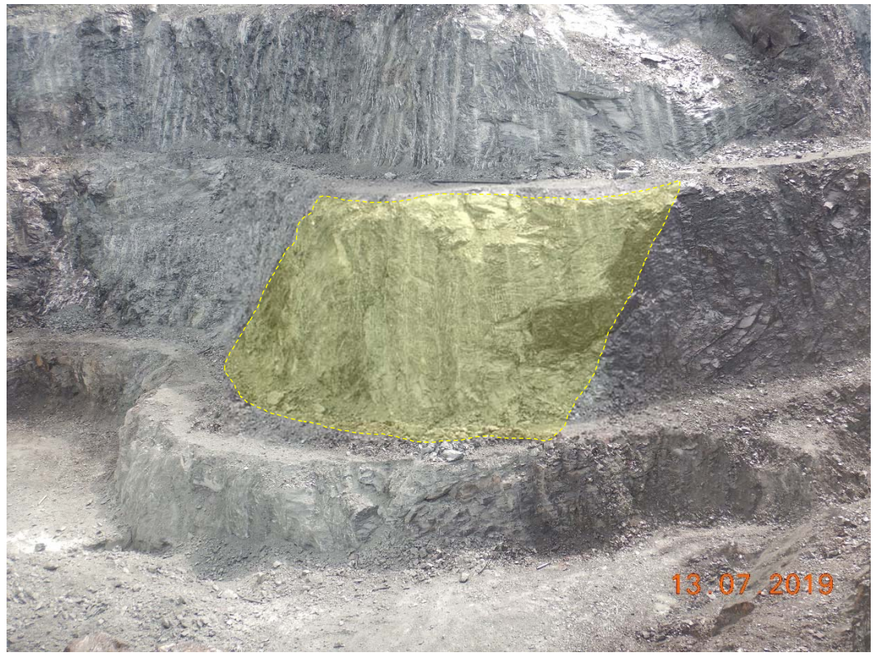
July 14, 2019

Attendees: J.Clark, M. Aubin, V. Brault (JOSC)

Distributed to: Meadowbank Wall Inspection Group.

Location	Observations	Recommendations	Due date	Date completed
Zone: **E71** Pit: E5 Wall: South Bench: 5004 Status:	PREVIOUSLY: Ravelling was observed following the blast of the 4997663 pattern. This corner is made of ultramafic rocks slips dipping toward the east. However, the linear progression previously observed on the radar is not suggesting a trend anymore UPDATE: Linear progression previously observed on the radar is not suggesting a trend anymore. Added rain fall could increase movement to this area, but nothing has been observed.	PREVIOUSLY: Keep focusing on monitoring the zone. UPDATE: Keep focusing on monitoring the zone and use caution when working below this area on the 4997 bench.	Ongoing	
Zone: **E80** Pit: E5 Wall: West Bench: 5067 Status:	PREVIOUSLY: There is no indication that additional rocks has fallen. UPDATE: Same as previous.	PREVIOUSLY: Maintain the bumper in place. Look for unusual debris in the area; continue frequent monitoring of the zone. UPDATE: Same as previous.	Ongoing	
Zone: **E82** Pit: E5 Wall: South East Bench: 5067 Status:	PREVIOUSLY: Wedging and back breaking is causing an undercut of the berm above. However, radar monitoring of the zone does not indicates an imminent threat. UPDATE: Same as previous, except added rain could loosen up the wedge of concern in the corner.	PREVIOUSLY: Continue to monitor the zone with the radar and by visual inspection of the wall and crest. UPDATE: Keep genset away from high wall and close off area so it is not re-installed below the highwall.	Ongoing	Genset moved out July 13, 2019
Zone: **E84** Pit: E5 Wall: South East Bench: 5004 Status:	New: the 5025-5046 is nearly benched allowing minor ravelling and increasing the risk of minor ravelling to clear the 5004 catch bench. With the recent rain there is some loose blocks in that area.	New: Maintain berm on the 4997 bench and contact geotechnical for approval of any work desired beyond the berm.	Ongoing	Berm installed July 13, 2019
Zone: **E85** Pit: E5 Wall: East Bench: 5004 Status:	New: Loose rocks exist at the crest of the 5004 bench. This could present a rock fall hazard for future work at the 4990 bench.	UPDATE: Light scaling prior to working at the 4990 bench.	Prior to beginning work in this area on the 4990 bench	Completed July 14, 2019

Zone: **E86** Pit: E5 Wall: East Bench: 5004 Status:	New: Catchment berm along the haulage ramp is filling up with loose rock.	New: Clean behind catchment berm	July 28, 2019	
Zone: **BB19** Pit: BB Phaser Wall: South Bench: 5110 Status:	PREVIOUSLY: The pit is now currently inactive. Continue with previous recommendations if active again. UPDATE: Same as previous if reactivated.	PREVIOUSLY: Personnel on foot should not be venturing close to the wall in the zone. A berm could be build in the eventuality of drilling another pattern close by the wall. Update: Same as previous if reactivated.	TBD	



Zone E71: E5 South Wall: Potential wedge and cracks forming. Bumper in place.

Zone E80: E5 West Wall: Potential unstable area.

Zone E82: E5, East Wall: Potential unstable area.

Zone E84: E5, South East Wall: Double benched 5025 area presenting rock fall hazard to 4997

Zone E85: E5, 5004 Bench: Minor scaling prior to any work below these walls at 4990

Zone E86: E5, West Wall: Need to clean up catchment berm along the ramp

Zone BB19: BB Phaser, South Wall: BB Phaser bermed off at entrance. If re-opened bottom of the pit should be re-assessed.

Wall Inspection

July 26th, 2019

Very High Risk, NO ENTRY

High Risk
Requires Remedial Measures

Medium Risk
Precautionnary or Remedial Measures

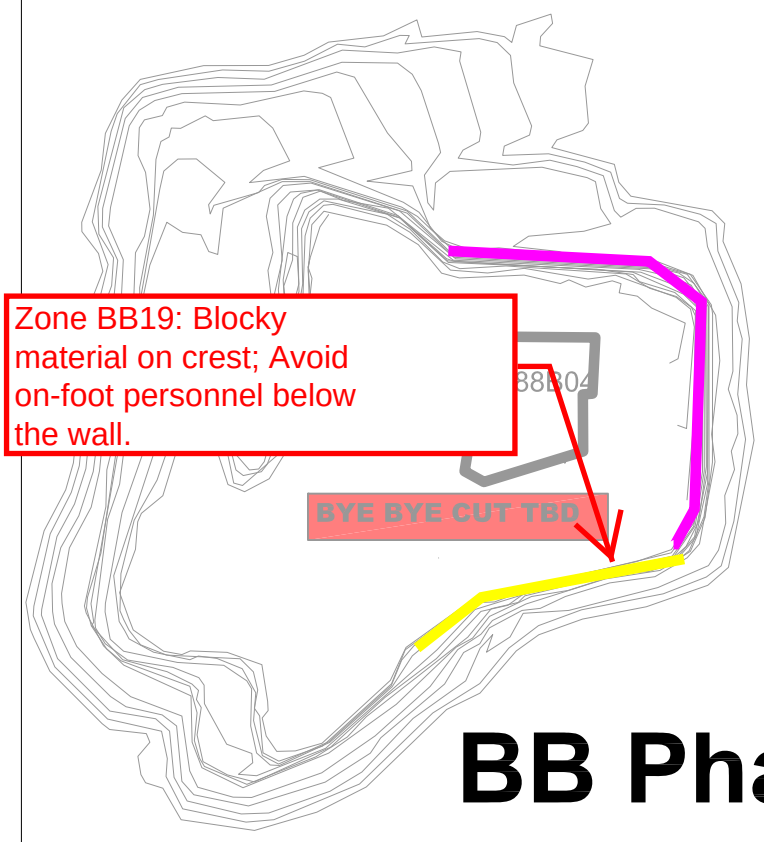
Low Risk
Perform assessment before entering

Wall not exposed
during inspection

MISHOLE OR POTENTIAL MISHOLE

BB Phaser

Zone BB19: Blocky material on crest; Avoid on-foot personnel below the wall.



Bay Goose

Pit E

Zone E88: Extend berm and keep danger tape to restrict access behind berm where previous rock fall occurred.

Zone E86: Catchment berm has filled up along the ramp. Clean up behind catchment berm.

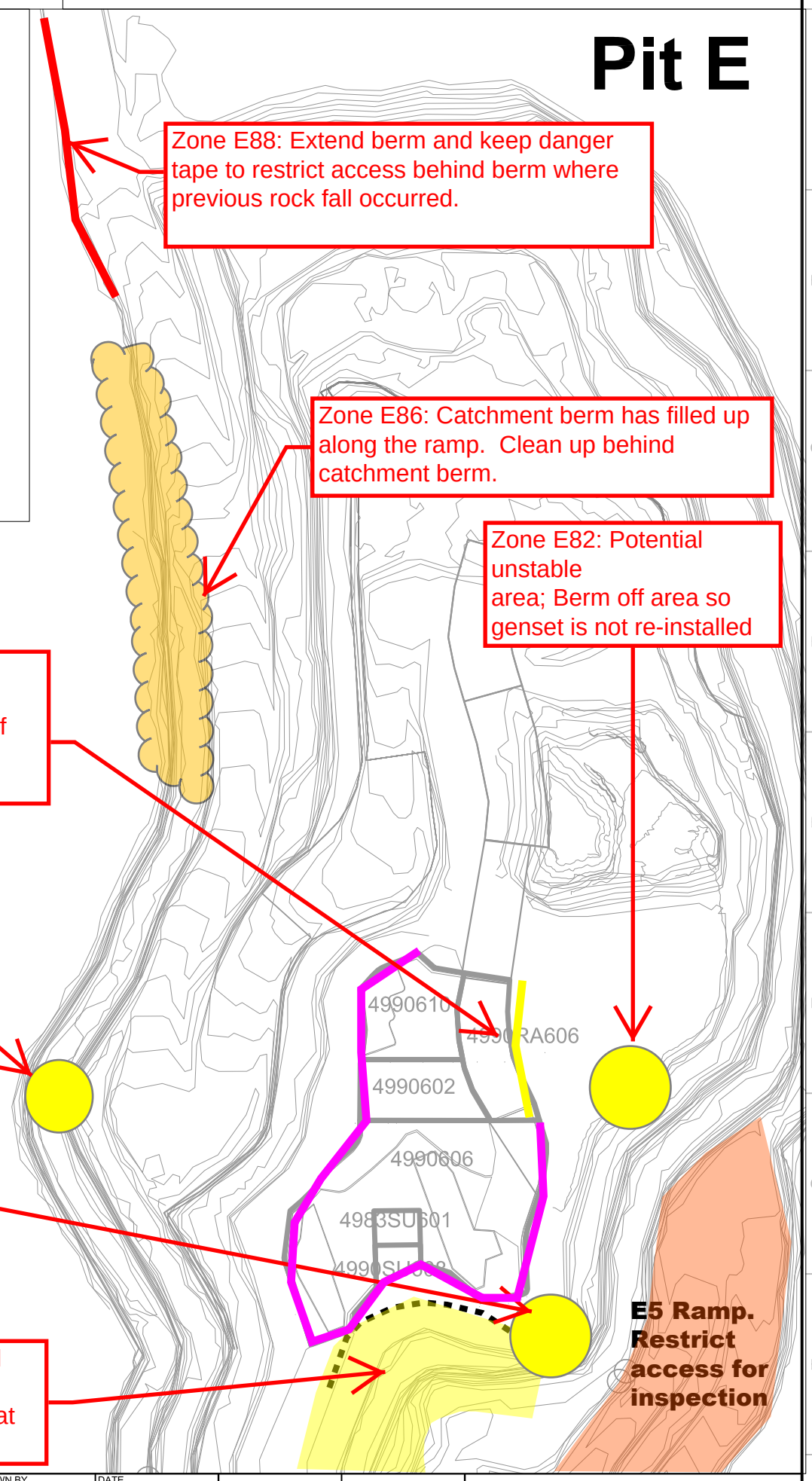
Zone E82: Potential unstable
area; Berm off area so genset is not re-installed

Zone E87: After the blast, loose material came off slip plane. Place buttress to avoid rock from falling off slip plane.

Zone E80: Potential unstable area; A rock fall occurred in this zone last year. Maintain the berm at the switchback, look for unusual debris in the area, frequent visual monitoring.

Zone E84: Rock fall hazard exists in this area. Maintain berm at 4997 elevation. Contact Geotechnical if work is desired beyond the berm.

Zone E71: Berm and step-out at 5004 was remedial action for area. Monitored by radar and visual monitoring. Use caution when working below area at 4997 elevation.



AGNICO EAGLE
MEADOWBANK

DRAWN BY	DATE	MODIFIED BY	DATE	MEADOWBANK DIVISION	
SURVEY CHECK	DATE			ENGINEERING	
GEOLOGY CHECK	DATE			WALL INSPECTION	
ENGINEERING CHECK	DATE			July 26th, 2019	
				SCALE NTS	DATE / FILE .DWG

P:\Engineering\05–Geotechnic\07–RockMechanic\10 – FIELD INSPECTION\WALL INSPECTION\2019\2019–07–26\Pit Wall Inspection Map July 26th, 2019.dwg, 27 Jul 2019

Pit Wall Inspection

Agnico Eagle Meadowbank Division

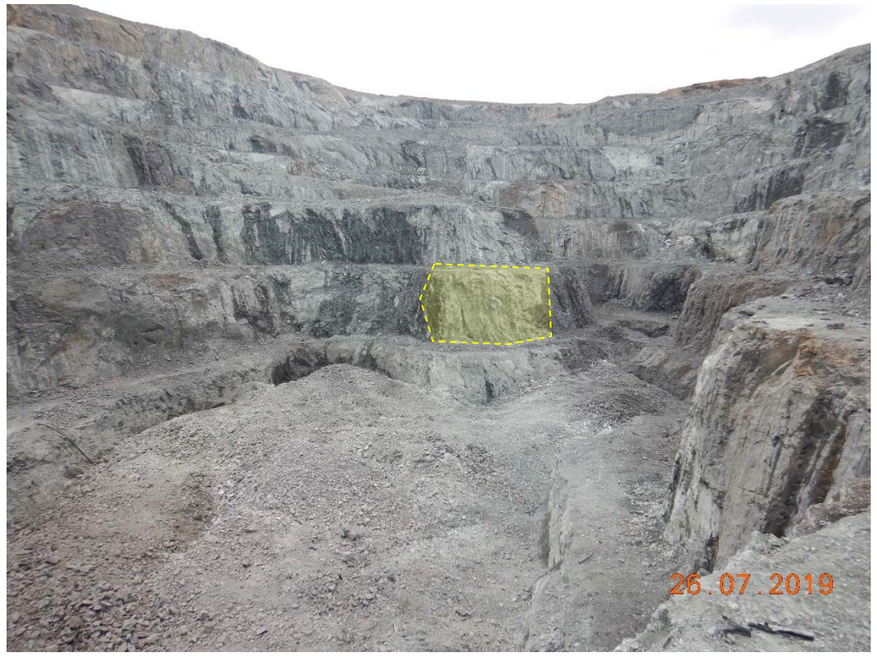
July 26th, 2019

Attendees: T. Dahm, J.H. Falconi, J.F. Cyr (JOSC), J. Kancir

Distributed to: Meadowbank Wall Inspection Group.

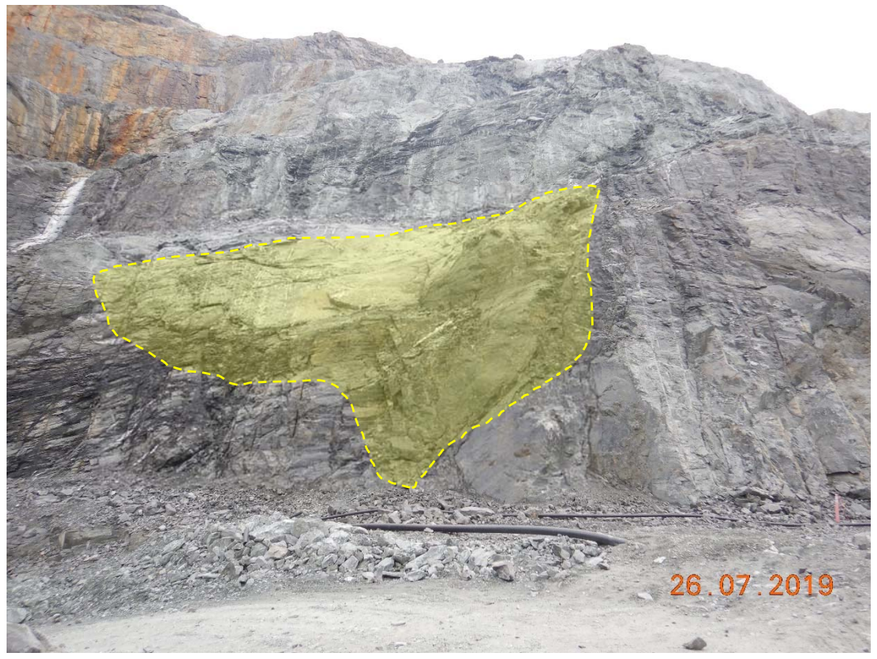
Location	*Observations*	*Recommendations*	*Due date*	*Date completed*
Zone: **E71** Pit: E5 Wall: South Bench: 5004 Status:	PREVIOUSLY: Ravelling was observed following the blast of the 4997663 pattern. This corner is made of ultramafic rocks slips dipping toward the east. However, the linear progression previously observed on the radar is not suggesting a trend anymore UPDATE: Linear progression previously observed on the radar is not suggesting a trend anymore. Added rain fall could increase movement to this area, but nothing has been observed.	PREVIOUSLY Keep focusing on monitoring the zone and use caution when working below this area on the 4997 bench. UPDATE: Same as previous.	Ongoing	
Zone: **E80** Pit: E5 Wall: West Bench: 5067 Status:	PREVIOUSLY: There is no indication that additional rocks has fallen. UPDATE: Same as previous.	PREVIOUSLY: Maintain the bumper in place. Look for unusual debris in the area; continue frequent monitoring of the zone. UPDATE: Same as previous.	Ongoing	
Zone: **E82** Pit: E5 Wall: South East Bench: 5067 Status:	PREVIOUSLY: Wedging and back breaking is causing an undercut of the berm above. However, radar monitoring of the zone does not indicates an imminent threat. UPDATE: Same as previous, except added rain could loosen up the wedge of concern in the corner.	PREVIOUSLY: Continue to monitor the zone with the radar and by visual inspection of the wall and crest. Keep genset away from high wall and close off area so it is not re-installed below the highwall. UPDATE: Same as previous	Ongoing	Genset moved out July 13th , 2019
Zone: **E84** Pit: E5 Wall: South East Bench: 5004 Status:	PREVIOUSLY: The 5025-5046 is nearly benched allowing minor ravelling and increasing the risk of minor ravelling to clear the 5004 catch bench. With the recent rain there is some loose blocks in that area. UPDATE: Same as previous	PREVIOUSLY: Maintain berm on the 4997 bench and contact geotechnical for approval of any work desired beyond the berm. UPDATE: Same as previous	Ongoing	Berm installed July 13th , 2019
Zone: **E86** Pit: E5 Wall: East Bench: 5004 Status:	New: Catchment berm along the haulage ramp is filling up with loose rock.	New: Clean behind catchment berm	July 28, 2019	

Zone: **E87** Pit: E5 Wall: East Bench: 4990 Status:	New: After blast, rock has become unstable and loose, along the slip plane that was now exposed.	New: Prior to going lower, create a buttress to help keep all material along the wall.	July 29th, 2019	July 29th, 2019
Zone: **E88** Pit: E5 Wall: West Bench: Ramp Status:	New: Rock fall occurred in ramp, near old sump.	New: Extend berm to restrict access and keep danger tape in place. No personnel to be in this area.	ASAP	July 28th, 2019
Zone: **BB19** Pit: BB Phaser Wall: South Bench: 5110 Status:	PREVIOUSLY: The pit is now currently inactive. Continue with previous recommendations if active again. UPDATE: Same as previous if reactivated.	PREVIOUSLY: Personnel on foot should not be venturing close to the wall in the zone. A berm could be build in the eventuality of drilling another pattern close by the wall. Update: Same as previous if reactivated.	TBD	
Zone: **Bay Goose** Pit: Bay Goose Wall: West Bench: Ramp Status:	New: Water flowing on the wall. Wall is stable and no visible signs of instability.	New: Keep 10m away from wall and visual inspection by dewatering crew when working in the area.	Ongoing	



Zone E71: E5 South Wall: Potential wedge and cracks forming. Bumper in place.

Zone E80: E5 West Wall: Potential unstable area.



Zone E82: E5, East Wall: Potential unstable area. Pump was moved to a safe distance away.

Zone E84: E5, South East Wall: Double benched 5025 area presenting rock fall hazard to 4997

<u>Zone E86:</u> E5, West Wall: Need to clean up catchment berm along the ramp

<u>Zone E87:</u> E5, East Wall: Once access, clean up all material on slip plane that has potential to fall. Put in place a buttress to prevent any falls.

<u>Zone E88:</u> E5, West Wall Ramp: Need to extend safety berm to other berm.

<u>Zone E88:</u> E5, West Wall Ramp: Keep danger tape to restrict access to wall.

<u>Zone BB19:</u> BB Phaser, South Wall: BB Phaser bermed off at entrance. If re-opened bottom of the pit should be re-assessed

<u>Zone BG:</u> Bay Goose Pit, West Wall: Wall is stable with water flowing. Keep at least 10m away from wall when work required by dewatering crew.

Wall Inspection

August 9, 2019

Very High Risk, NO ENTRY

High Risk
Requires Remedial Measures

Medium Risk
Precautionnary or Remedial Measures

Low Risk
Perform assessment before entering

Wall not exposed
during inspection

MISHOLE OR POTENTIAL MISHOLE

Goose Pit

Zone BG: The Bay Goose Ramp area is stable but do present risk of raveling due to the important water inflow; Keep 10m away from the wall at ll time.

Zone E88: Completed; Berm was extended all around the old sump. Further rock fall may occurred in the area but will be contained within berms.

Pit E5

Zone E86: Completed; Catchment berm was cleaned up and extended. A small section will be retrieved further away from the wall.

Zone E89: Do not push the next dump lift further away on the west; keep the berm below free of muck and useful to catch unstable rocks from the slope.

Pit A

Zone E90: Scale the loose rocks on the final wall.

Zone E80: Potential unstable area; A rock fall occurred in this zone last year. Maintain the berm at the switchback, look for unusual debris in the area, frequent visual monitoring.

Zone E82: Potential unstable at the area on the 5067 switchback; Berm off the area at the bottom to protect the dewatering ramp access. Close radar monitoring is required.

4990610

4990RA606

4990602

4990SU608

Zone E91: Hammer the slabs left on the wall.

Zone E92: The corner of the south and west wall present important amount of rocks still attached to wall with pre-shear behind; Hammer the zone prior to drill the next pattern

E5 Ramp. Restrict access for inspection

Zone A01 Ramp: Completed; 2 potential unstable area were identified nearby each-other; berms was installed around the two zones.

Zone E71: Weak rock area; Monitored by radar and visual monitoring. Use caution when working below area at 4990 elevation.

AGNICO EAGLE
MEADOWBANK

DRAWN BY	DATE
SURVEY CHECK	DATE
GEOLOGY CHECK	DATE
ENGINEERING CHECK	DATE

MODIFIED BY	DATE

MEADOWBANK DIVISION
ENGINEERING
WALL INSPECTION
AUGUST 9, 2019

SCALE NTS | DATE | FILE .DWG

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Pit Wall Inspection

Agnico Eagle Meadowbank Division

August 9th, 2019

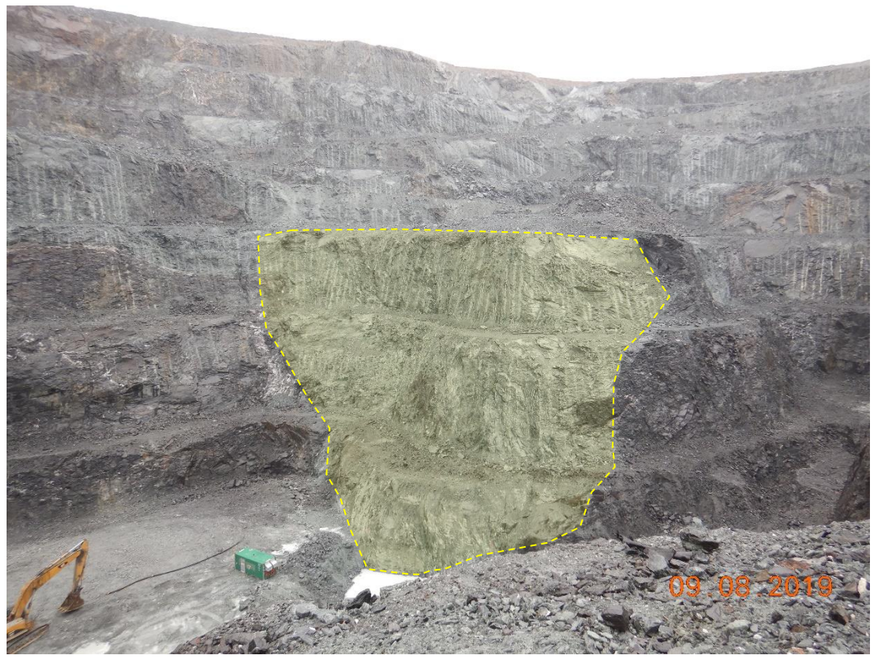
Attendees: D. Danjou, V. Brault (JOSC), V. Duranleau

Distributed to: Meadowbank Wall Inspection Group.

Location	*Observations*	*Recommendations*	*Due date*	*Date completed*
Zone: **E71** Pit: E5 Wall: South Bench: 5004 Status:	PREVIOUSLY: Ravelling was observed following the blast of the 4997663 pattern. This corner is made of ultramafic rocks slips dipping toward the east. However, the linear progression previously observed on the radar is not suggesting a trend anymore UPDATE: Linear progression previously observed on the radar is not suggesting a trend anymore. Added rain fall and rock morphology increase the potential for wedges and rock fall.	PREVIOUSLY: Keep focusing on monitoring the zone and use caution when working below this area on the 4997 bench. UPDATE: The same recommendations applies for the 4990 bench.	Ongoing	NA
Zone: **E80** Pit: E5 Wall: West Bench: 5067 Status:	PREVIOUSLY: This zone constitutes a potential unstable area. A major rock fall did occurred last year and now with the freshet season, water is visible on the right side of the structure when facing it. Cracks are also visible on the crest of the potential hazard. In addition to that, the radar does not cover the zone. However, there is 3 catchments and a bumper to contain a possible rock fall. The bumper was built last year and is still in place and effective. UPDATE: There is no indications that rocks has fallen nor tension cracks have widened.	PREVIOUSLY: Maintain the bumper in place. Look for unusual debris in the area; continue frequent monitoring of the zone. UPDATE: Same as previous.	Ongoing	NA
Zone: **E82** Pit: E5 Wall: South East Bench: 5067 Status:	PREVIOUSLY: This zone constitutes a potential unstable area. A wedge could be forming into this ultramafic rock structure as cracks and crumbles berms can be observed. Historically, rock falls did occurred in the same kind of structures. However, radar monitoring of the zone does not indicates an imminent threat. UPDATE: A portion of the berm above the structure progressively crumbled and has ended up on the catchment meaning that there is possible movement of the structure itself. There is a slight positive trend on the radar but it does not indicate an imminent threat so far. A specific target was input into the Radar for this area.	PREVIOUSLY: Continue to monitor the zone with the radar and by visual inspection of the wall and crest. Keep genset away from high wall and close off area so it is not re-installed below the high wall. UPDATE: Build a berm on the dewatering ramp below protecting personnel and equipment from potential falling debris.	August 11, 2019	NA
Zone: **E86** Pit: E5 Ramp Wall: West Bench: Ramp Status:	PREVIOUSLY: Catchment berm along the haulage ramp is filling up with loose rock. COMPLETED: The berm was cleaned up where a small rock fall did occurred.	PREVIOUSLY: Clean behind catchment berm UPDATE: Continue to clean the berm whenever it is required.	July 28, 2019	August 8, 2019

Zone: **E88** Pit: E5 Wall: West Bench: Ramp Status:	PREVIOUSLY: A rock fall occurred in the ramp, near the old sump. UPDATE: The area is still unstable and is likely to collapse some more. However the area is well protected and berm was in place prior to the first rock fall event.	PREVIOUSLY: Extend berm to restrict access and keep danger tape in place. No personnel to be in this area. UPDATE: No further recommendation is required	NA	July 20th, 2019
Zone: **E89** Pit: E5 Wall: Dump Bench: 5032 Status:	NEW: The dump has reached it's western and southern limits.	NEW: When building another lift on the dump, do not push further on the west. Keep the berm free of muck at the bottom as the haul road is passing beside.	August 9, 2019	NA
Zone: **E90** Pit: E5 Wall: North Bench: 4990 (mid) Status:	NEW: As the mid-bench was mucked, a new section of final wall was exposed. Loose volcanic and ultramafic rocks a present on the wall in front of the pre-shear barrels.	NEW: Scale and clean up debris after the bottom bench is mucked out.	TBD	NA
Zone: **E91** Pit: E5 Wall: West Bench: 4990 (mid) Status:	NEW: Iron formation slips are covering the mid section the high wall.	NEW: Hammer the slips to prevent creating overhangs on the next bench below.	August 23, 2019	NA
Zone: **E92** Pit: E5 Wall: S/E Corner Bench: 4990 (mid) Status:	NEW: The junction in between the south and east wall is made of iron formation that was left in place because of the confinement of the blast in the area. A considerable amount of rock is being stuck in front of the pre-shear.	NEW: Hammer the zone preventing overhangs and missing row of holes on the next pattern below.	August 23, 2019	NA
Zone: **A01** Pit: A Wall: East Bench: Ramp Status:	NEW: Two potential zone were identified within close distance from each other consisting mainly on undercut wedges and open cracks.	NEW: Build berm around the structure preventing rock fall debris to over spill into the Pit A ramp which is now a dewatering ramp.	NA	August 7, 2019

Zone: **Bay Goose** Pit: Bay Goose Wall: West Bench: Ramp Status:	PREVIOUSLY: Water flowing on the wall. Wall is stable and no visible signs of instability. UPDATE: There is no visible changes into the wall. However, with the recent abnormal amount of rain the risk of raveling the area is enhance.	PREVIOUSLY: Keep 10m away from wall and visual inspection by dewatering crew when working in the area. UPDATE: Same as previously.	Ongoing	NA



Zone E71: E5 South Wall: Potential wedge and cracks forming. Continuous Monitoring.

Zone E80: E5 West Wall: Potential unstable area.

Zone E82: **E5, South East Wall:** Potential ultramafic wedge. Build berms nest to the dewatering ramp.

Zone E86: **E5, West Wall Ramp:** Catchment berm was cleaned up and extended.

Zone E88: **E5, West Wall Ramp:** Berm was extended all around the old sump containing further rock falls.

Zone E89: **E5, Dump:** Do not push further on the West.

Zone E90: E5, North Wall: Scale the loose rocks on the final wall.

Zone E91: E5, West Wall: Hammer the slabs left on the wall.

Zone E92: E5 South East Corner: Hammer the corner prior to drill next pattern.

Zone BG: Bay Goose Pit, West Wall: Wall is stable with water flowing. Keep at least 10m away from wall when work required by dewatering crew.

<u>Zone A01:</u> Pit A Ramp: Potential unstable area #1 and berm.

<u>Zone A01:</u> Pit A Ramp: Potential unstable area #2 and berm.

Pit E Overview

Wall Inspection

Aug. 26th, 2019

Very High Risk, NO ENTRY

High Risk
Requires Remedial Measures

Medium Risk
Precautionnary or Remedial Measures

Low Risk
Perform assessment before entering

Wall not exposed
during inspection

MISHOLE OR POTENTIAL MISHOLE

Gooose Pit

Zone BG: The Bay Goose Ramp area is stable but do present risk of raveling due to the important water inflow; Keep 10m away from the wall at all time.

Pit E

Zone E89: Do not push the next dump lift further away on the west; keep the berm below free of muck and useful to catch unstable rocks from the slope.

Zone E80: Potential unstable area; A rock fall occurred in this zone last year. Maintain the berm at the switchback, look for unusual debris in the area, frequent visual monitoring.

Zone E93: Loose material exposed on wall after hammer and slight overhang. Hammer all loose material.

4983607

4983603

4983SU601

4983605

Pit A

EAST ROAD

WEST ROAD

WEST ROAD

Zone E82: Potential unstable at the area on the 5067 switchback; Berm off the area at the bottom to protect the dewatering ramp access. Close radar monitoring is required.

E5 Ramp
Restrict Access
for Inspection

Zone E71: Weak rock area; Monitored by radar and visual monitoring. Use caution when working below area at 4990 elevation.

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DRAWN BY	DATE	MODIFIED BY	DATE
SURVEY CHECK	DATE		
GEOLOGY CHECK	DATE		
ENGINEERING CHECK	DATE		

MEADOWBANK DIVISION
ENGINEERING
WALL INSPECTION
Aug. 26th, 2019

SCALE NTS | DATE | FILE .DWG

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Pit Wall Inspection

Agnico Eagle Meadowbank Division

August 26th, 2019

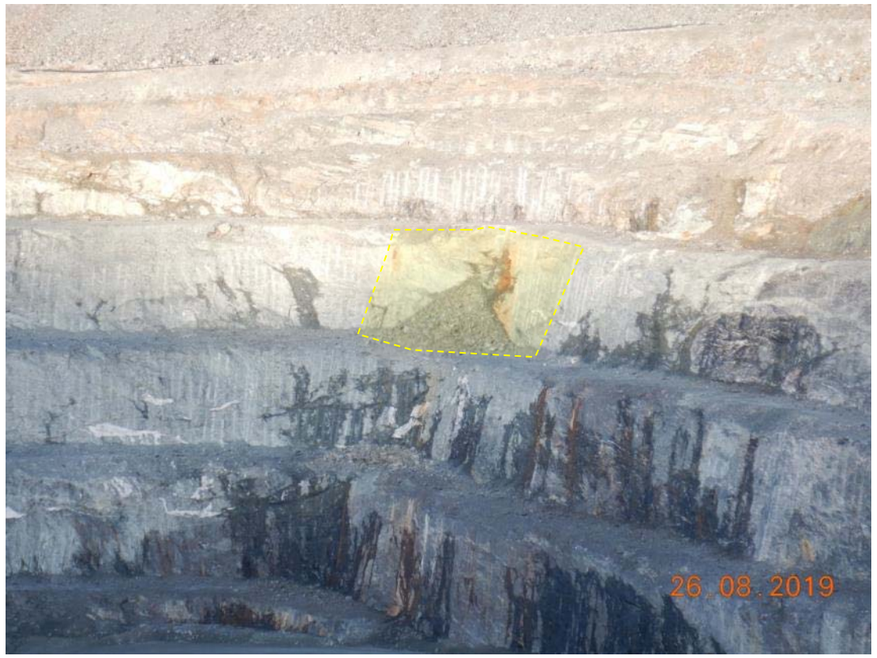
Attendees: T. Dahm, L. Boutin (JOSC), J. Gaves

Distributed to: Meadowbank Wall Inspection Group.

Location	*Observations*	*Recommendations*	*Due date*	*Date completed*
Zone: **E71** Pit: E5 Wall: South Bench: 5004 Status:	PREVIOUSLY: Ravelling has been observed during this year. This corner is made of ultramafic rocks slips dipping toward the east. However, the linear progression previously observed on the radar is not suggesting a trend anymore UPDATE: Same as previous	PREVIOUSLY: Keep focusing on monitoring the zone and use caution when working below this area on the 4997 bench. UPDATE: The same recommendations apply for the 4990 bench.	Ongoing	NA
Zone: **E80** Pit: E5 Wall: West Bench: 5067 Status:	PREVIOUSLY: This zone constitutes a potential unstable area. A major rock fall occurred last year. Cracks are also visible on the crest of the potential hazard. In addition to that, the radar does not cover the zone. However, there are 3 catchments and a bumper to contain a possible rock fall. The bumper was built last year and is still in place and effective. UPDATE: There are no indications that more rocks have fallen nor tension cracks have widened.	PREVIOUSLY: Maintain the bumper in place. Look for unusual debris in the area; continue frequent monitoring of the zone. UPDATE: Same as previous.	Ongoing	NA
Zone: **E82** Pit: E5 Wall: South East Bench: 5067 Status:	PREVIOUSLY: This zone constitutes a potential unstable area. A wedge could be forming into this ultramafic rock structure as cracks and crumbles berms can be observed. Historically, rock falls did occurred in the same kind of structures. However, radar monitoring of the zone does not indicates an imminent threat. UPDATE: A portion of the berm above the structure progressively crumbled and has ended up on the catchment meaning that there is possible movement of the structure itself. There is a slight positive trend on the radar but it does not indicate an imminent threat so far. A specific target was input into the Radar for this area.	PREVIOUSLY: Continue to monitor the zone with the radar and by visual inspection of the wall and crest. Keep generator away from high wall and close off area so it is not re-installed below the high wall. UPDATE: Build a berm on the dewatering ramp below protecting personnel and equipment from potential falling debris.	August 11, 2019	NA
Zone: **E89** Pit: E5 Wall: Dump Bench: 5032 Status:	NEW: The dump has reached its western and southern limits.	NEW: When building another lift on the dump, do not push further on the west. Keep the berm free of muck at the bottom as the haul road is passing beside.	Sept 9th, 2019	NA
Zone: **E93** Pit: E5 Wall: North Bench: 4990 Status:	NEW: As the bottom bench was mucked, a new section of final wall was exposed. Loose ultramafic rocks a present on the wall in front while hammering and created an overhang.	NEW: Scale and clean up debris after the bottom bench is mucked out. Hammer all loose sections prior to drilling	Sept 9th, 2019	NA

Zone: **Bay Goose** Pit: Bay Goose Wall: West Bench: Ramp Status:	PREVIOUSLY: Water flowing on the wall. Wall is stable and no visible signs of instability. UPDATE: Same as previously.	PREVIOUSLY: Keep 10m away from wall and visual inspection by dewatering crew when working in the area. UPDATE: Same as previously.	Ongoing	NA

Zone E71: E5 South Wall: Potential wedge and cracks forming. Continuous Monitoring.



Zone E80: E5 West Wall: Potential unstable area.

<u>Zone E82:</u> E5, South East Wall: Potential ultramafic wedge. Keep berms in place next to dewatering ramp.

<u>Zone E89:</u> E5, Dump: Do not push further on the West.

<u>Zone E93:</u> E5, South Wall Ramp: Loose material was exposed while hammering. Remove all loose material prior to any drilling

<u>Zone BG:</u> Bay Goose Pit, West Wall: Wall is stable with water flowing. Keep at least 10m away from wall when work required by dewatering crew.

Zone A01: Pit A Ramp: Potential unstable area #1 and berm.

Zone A01: Pit A Ramp: Potential unstable area #2 and berm.

Pit E Overview

FORMAT ANSI B–PORTRAIT

Wall Inspection

September 12, 2019

Very High Risk, NO ENTRY

High Risk
Requires Remedial Measures

Medium Risk
Precautionnary or Remedial Measures

Low Risk
Perform assessment before entering

Wall not exposed
during inspection

MISHOLE OR POTENTIAL MISHOLE

Pit A

Zone E94: Broken and unstable rock area. Berm off the zone on the east side of the 4983607 pattern.

Zone E95: Potential unstable area; Presence of raveling and undercut blocks: Berm off the zone

WEST ROAD

WEST ROAD

PIT B

Zone E71: Weak rock area; Monitored by radar and visual monitoring. Use caution when working below area at 4990 elevation.

Pit E5

Zone E96: Blocks forming with open joint sets, risk of toppling; Reassess the zone after the 4983603 blast. rehabilitation may be necessary.

4983607

4983603

4983605

E5 Ramp. Restrict access for inspection

Vault

Zone V01: Install a berm at the switchback as water is rising up constantly; protecting personal from involuntary accessing water.

Goose Pit

Zone BG: The Bay Goose Ramp area is stable but do present risk of raveling due to the important water inflow; Keep 10m away from the wall at ll time.

BAY GOO

AGNICO EAGLE
MEADOWBANK

DRAWN BY	DATE	MODIFIED BY	DATE	MEADOWBANK DIVISION	
SURVEY CHECK	DATE			ENGINEERING	
GEOLOGY CHECK	DATE			WALL INSPECTION	
ENGINEERING CHECK	DATE			SEPTEMBER 12, 2019	
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Pit Wall Inspection

Agnico Eagle Meadowbank Division

September 12th, 2019

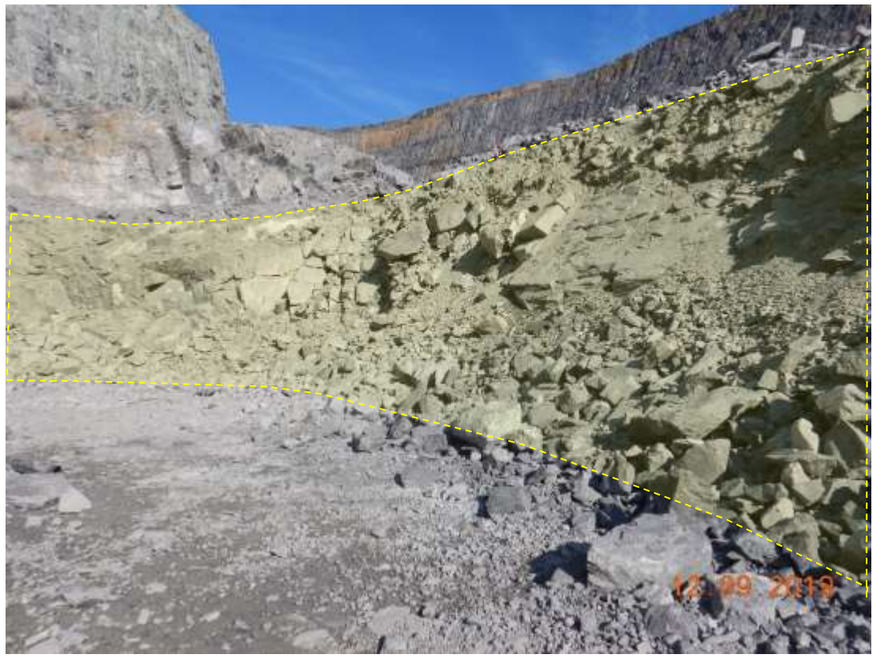
Attendees: K. Millette (JOSC), J-F. Desmeules, V. Duranleau

Distributed to: Meadowbank Wall Inspection Group.

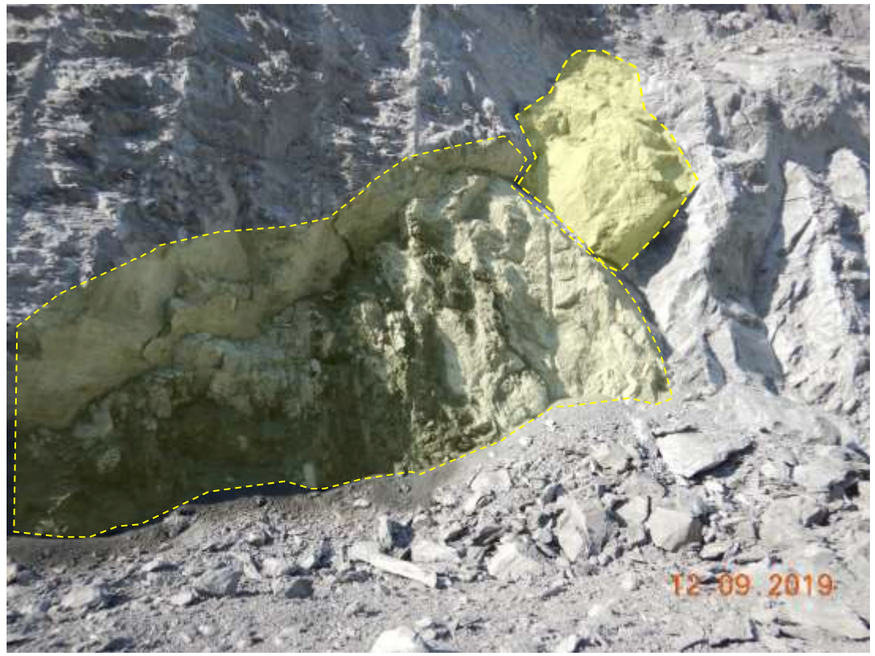
Location	*Observations*	*Recommendations*	*Due date*	*Date completed*
Zone: **E71** Pit: E5 Wall: South Bench: 5004 Status:	PREVIOUSLY: Ravelling has been observed during this year. This corner is made of ultramafic rocks slips dipping toward the east. However, the linear progression previously observed on the radar is not suggesting a trend anymore UPDATE: This section of wall has behaved better than expected so far with minimal raveling and small wedge failures. The step-out and the radar de-risk this area.	PREVIOUSLY: Keep focusing on monitoring the zone and use caution when working below this area on the 4997 bench. UPDATE: Notify geotechnical of changing conditions in this area.	Ongoing	NA
Zone: **E94** Pit: E5 Wall: East corner Bench: 4990 Status:	NEW: The section is comprised of heavily broken blocks dipping toward the opening.	NEW: Install a berm blocking the entrance of the zone on its southern section on the east side of the 498360 pattern.	Sept 14, 2019	
Zone: **E95** Pit: E5 Wall: West Bench: 4990 Status:	NEW: A small section of this wall is comprised of planes undercutting the ultramafic rock and creating wedges. Ravelling and material already fallen on the toe could be seen at the moment of the inspection.	NEW: Build a thick berm around the unstable section high enough to catch any falling material.	Sept 14, 2019	
Zone: **E96** Pit: E5 Wall: South Bench: 4990 Status:	NEW: Two potential unstable structures have been identified within this this small sector. Both have open joints sets creating blocks.	NEW: At the moment of the inspection, the floor below those structures were all ready loaded for blasting. Reassess and proceed to rehabilitation after the blast 4983603 if required.	Sept 26, 2019	
Zone: **V01** Pit: Vault Wall: Ramp Bench: 4990 Status:	NEW: Vault pit is slowly being filled with water coming from the talik upper portion of the pit. The rolling surface of the ramp and the walls surrounding it are in general good condition.	NEW: A berm need to be installed at the bottom switchback as the water is filling up quickly and preventing involuntary access to the water with vehicles. However, the ramp should be kept open for water sampling purpose.	Sept 14th, 2019	

Zone: **Bay Goose** Pit: Bay Goose Wall: West Bench: Ramp Status:	PREVIOUSLY: Water flowing on the wall. Wall is stable and no visible signs of instability. UPDATE: Same as previously.	PREVIOUSLY: Keep 10m away from wall and visual inspection by dewatering crew when working in the area. UPDATE: Same as previously.	Ongoing	NA
Zone: **A01** Pit: Pit A Wall: East Bench: Ramp Status:	PREVIOUSLY: Two potential zones were identified within close distance from each other consisting mainly on undercut wedges and open cracks. COMPLETED: The zones remained untouched but berms have been built around the potential problematic zones.	PREVIOUSLY: Build berm around the structure preventing rock fall debris to over spill into the Pit A ramp which is now a dewatering ramp. COMPLETED: Berms have been built around the potential problematic zones.	Completed	Mid August, 2019

Zone E71: E5 South Wall: Potential wedge and cracks forming. Continuous Monitoring.



Zone E94 E5 North east Corner: Unstable rocks, berm off the area.



Zone E95: E5 West Wall: Presences of ravelling and undercut blocks. Berm is required.

Zone E96 E5 South Wall: Blocks forming with open joint sets. Reassess after the blast.

Zone V01: Vault Ramp switchback: Build a berm at the switchback preventing vehicles from reaching the water.

Zone BG: BG West Wall: The wall being permanently dripping water and subject to minor ravelling. Keep 10m away from the wall at all time

<u>Zone A01:</u> E5 West Wall: Berms was built and ramp is safe to travel by.

<u>Pit E Overview</u>

FORMAT ANSI B–PORTRAIT

Wall Inspection

September 22nd, 2019

Very High Risk, NO ENTRY

High Risk
Requires Remedial Measures

Medium Risk
Precautionnary or Remedial Measures

Low Risk
Perform assessment before entering

Wall not exposed
during inspection

MISHOLE OR POTENTIAL MISHOLE

Pit A

WEST ROAD

WEST ROAD

Pit E5

Zone E96: After scaling use hammer to remove big overhaning block prior to working below

4983607

4983SU601

4983603

4983605

Zone E71: Weak rock area; Monitored by radar and visual monitoring. Use caution when working below area at 4990 elevation.

E5 Ramp: Restrict access for inspection

Vault

Zone V01: Install a berm at the switchback as water is rising up constantly; protecting personal from involuntary accessing water.

Goose Pit

Zone BG: The Bay Goose Ramp area is stable but do present risk of raveling due to the important water inflow; Keep 10m away from the wall at ll time.

AGNICO EAGLE
MEADOWBANK

DRAWN BY	DATE		MODIFIED BY	DATE	MEADOWBANK DIVISION
SURVEY CHECK	DATE				ENGINEERING
GEOLOGY CHECK	DATE				WALL INSPECTION
ENGINEERING CHECK	DATE				September 22nd, 2019
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Pit Wall Inspection

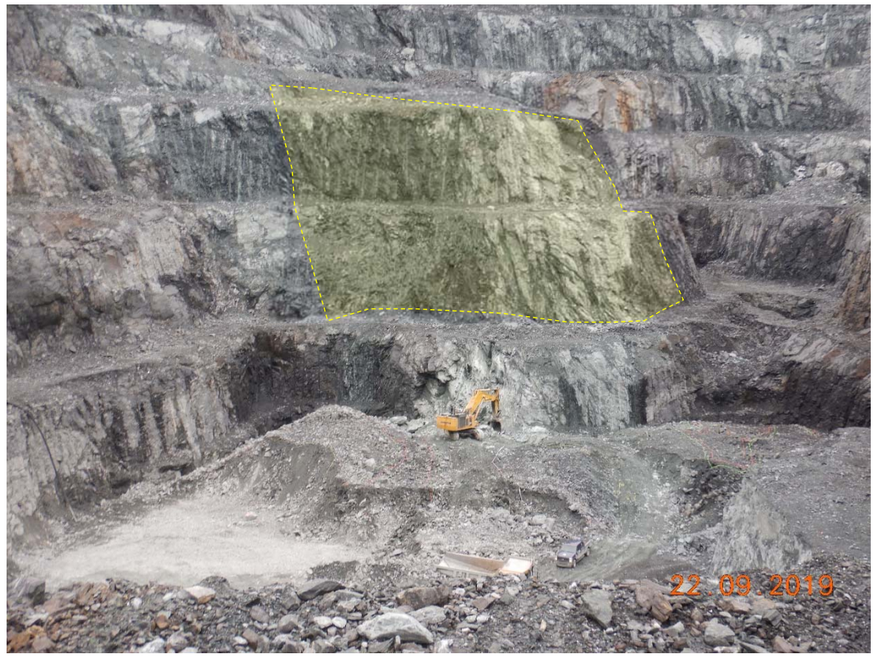
Agnico Eagle Meadowbank Division

September 22nd , 2019

Attendees: T. Dahm, J. Gaves. D. Cluett

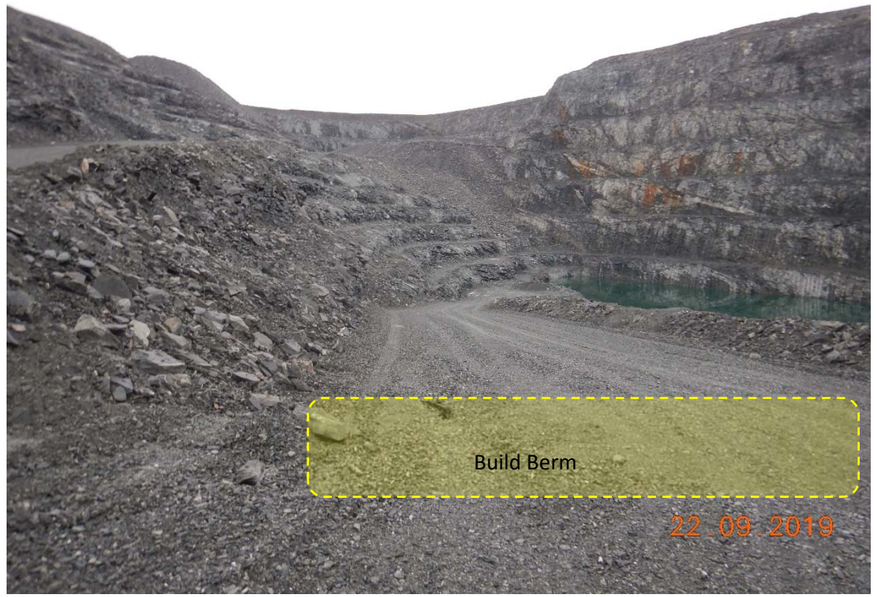
Distributed to: Meadowbank Wall Inspection Group.

Location	Observations	Recommendations	Due date	Date completed
Zone: **E71** Pit: E5 Wall: South Bench: 5004 Status:	PREVIOUSLY: Ravelling has been observed during this year. This corner is made of ultramafic rocks slips dipping toward the east. However, the linear progression previously observed on the radar is not suggesting a trend anymore UPDATE: This section of wall has behaved better than expected so far with minimal raveling and small wedge failures. The step-out and the radar de-risk this area.	PREVIOUSLY: Keep focusing on monitoring the zone and use caution when working below this area on the 4997 bench. UPDATE: Notify geotechnical of changing conditions in this area.	Ongoing	NA
Zone: **E96** Pit: E5 Wall: South Bench: 4990 Status:	NEW: Two potential unstable structures have been identified within this this small sector. Both have open joints sets creating blocks. After the blast some loose material was visible on the wall.	NEW: Scaling with excavator was partially successful. Use hammer to remove rest of overhanging material.	Sept 26, 2019	
Zone: **V01** Pit: Vault Wall: Ramp Bench: 4990 Status:	NEW: Vault pit is slowly being filled with water coming from the talik upper portion of the pit. The rolling surface of the ramp and the walls surrounding it are in general good condition.	NEW: A berm need to be installed at the bottom switchback as the water is filling up quickly and preventing involuntary access to the water with vehicles. However, the ramp should be kept open for water sampling purpose.	Sept 14th, 2019	
Zone: **Bay Goose** Pit: Bay Goose Wall: West Bench: Ramp Status:	Water flowing on the wall. Wall is stable and no visible signs of instability.	Keep 10m away from wall and visual inspection by dewatering crew when working in the area.	Ongoing	NA
Zone: **A01** Pit: Pit A Wall: East Bench: Ramp Status:	PREVIOUSLY: Two potential zones were identified within close distance from each other consisting mainly on undercut wedges and open cracks. COMPLETED: The zones remained untouched but berms have been built around the potential problematic zones.	PREVIOUSLY: Build berm around the structure preventing rock fall debris to over spill into the Pit A ramp which is now a dewatering ramp. COMPLETED: Berms have been built around the potential problematic zones.	Completed	Mid August, 2019



<u>Zone E71:</u> E5 South Wall: Potential wedge and cracks forming. Continuous Monitoring.

<u>Zone E96:</u> E5 South Corner: Hammer rest of overhanging blocks.



Zone V01: Vault Ramp switchback: Build a berm at the switchback preventing vehicles from reaching the water.

Zone BG: BG West Wall: The wall being permanently dripping water and subject to minor ravelling. Keep 10m away from the wall at all time

Zone A01: E5 West Wall: Berms were built and ramp is safe to travel by.

Pit E Overview

Wall Inspection

October 4, 2019

Very High Risk, NO ENTRY

High Risk
Requires Remedial Measures

Medium Risk
Precautionnary or Remedial Measures

Low Risk
Perform assessment before entering

Wall not exposed
during inspection

MISHOLE OR POTENTIAL MISHOLE

Pit E5

Zone E96: Very High Risk Zone; NO ENTRY, the area was bermed off and the last drill pattern canceled.

Dump

E5 Ramp.
Restrict access
for inspection

Pit A

PIT A

WEST ROAD

WEST ROAD

PIT B

Zone E97: Install a berm below the unpresheared wall and dump.

Vault

Berm is in place

Goose Pit

Zone BG: Ice is building up on the wall and ramp. Proceed with caution when using the road to the pump.

AGNICO EAGLE
MEADOWBANK

DRAWN BY	DATE		MODIFIED BY	DATE	MEADOWBANK DIVISION
SURVEY CHECK	DATE				ENGINEERING
GEOLOGY CHECK	DATE				WALL INSPECTION
ENGINEERING CHECK	DATE				OCTOBER 4, 2019
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Pit Wall Inspection

Agnico Eagle Meadowbank Division

October 4, 2019

Attendees: E. Boily, K. Millette, E. Cote, V. Duranleau

Distributed to: Meadowbank Wall Inspection Group.

Location	*Hazard*	*Corrective Actions*	*Due date*	*Date completed*
Zone: **E96** Pit: E5 Wall: South Bench: 4983 Status:	Potential unstable structure at the contact of iron/ultramafic formation. Minor rock fall has already happened at the bottom of the structure. The remaining of the block is created by open joints sets and undercutting ultramafic plane and has a potential of releasing around 600t.	Keep the area bermed off and cancel the last drill pattern in the area.	NA	Oct 4, 2019
Zone: **E97** Pit: E5 Wall: North Bench: 4983 Status:	This section of the wall was not pre-sheared and blocky rock formations are dipping toward the pit opening. In addition to that, the area directly above the wall has been used as a dump and the slope of the dump is on the crest of the wall.	Build a berm at the toe of the wall preventing direct access to personnel and debris from falling into the haul road. Adjust the berm in accordance with the last dill pattern planed in the area.	Oct 8, 2019	NA
Zone: **Bay Goose** Pit: Bay Goose Wall: West Bench: Ramp Status:	Ice is building on the wall and ramp near the pump.	Proceed with caution with light vehicles on the icy surface and stay clear from the wall.	Ongoing	NA

Zone E96: E5 South Wall: NO ENTRY zone, berm is in place.

Zone E96: E5 South Corner: Side View of the unstable block.

Zone E97:E5 North Wall: Build a berm at the toe of the north wall prior to drill the last pattern.

Zone BG: BG West Wall: Ice starts forming on the walls and road. Proceed with caution when accessing the pump.

FORMAT ANSI B–PORTRAIT

Wall Inspection
November 23rd, 2019

Very High Risk, NO ENTRY

High Risk
Requires Remedial Measures

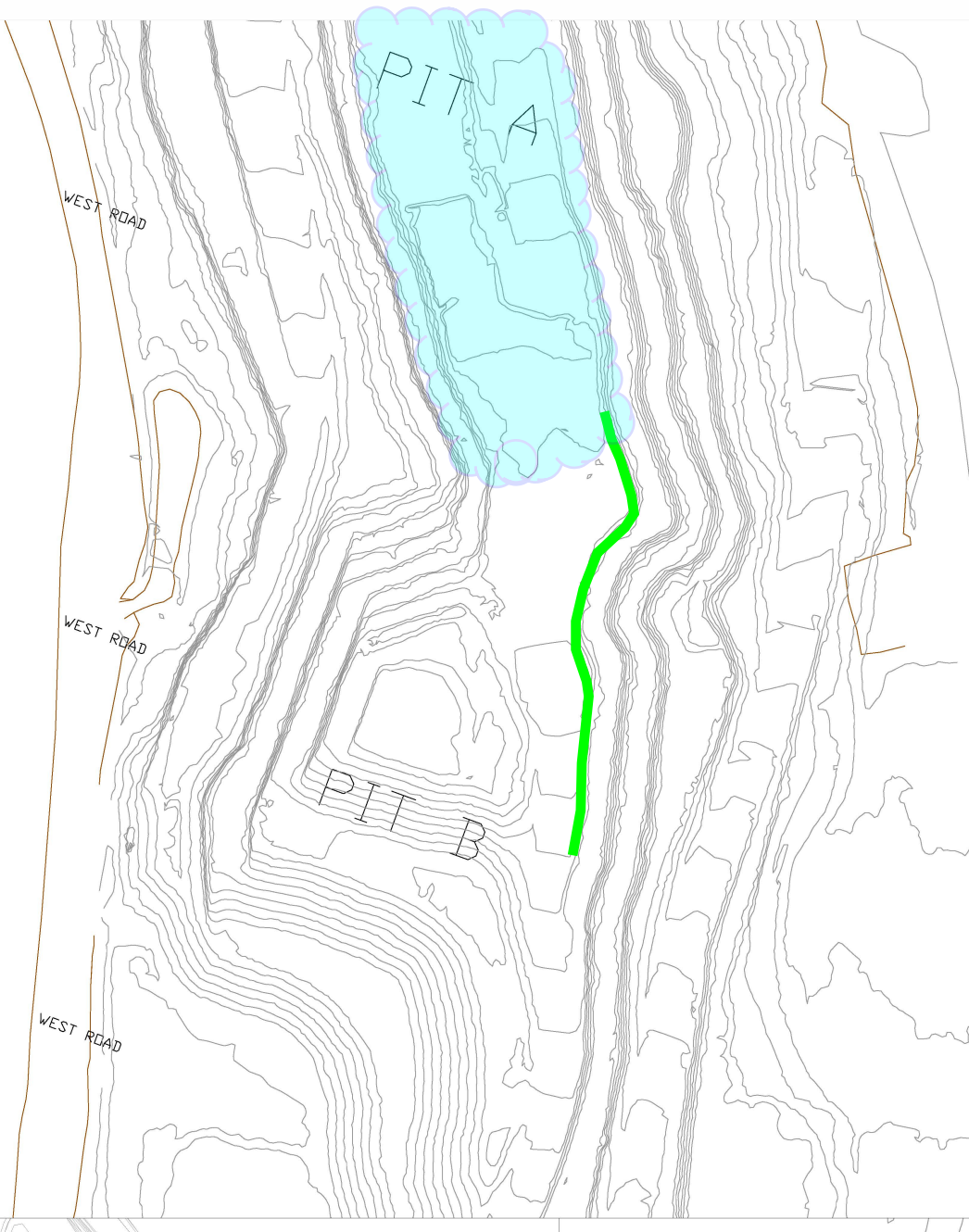
Medium Risk
Precautionnary or Remedial Measures

Low Risk
Perform assessment before entering

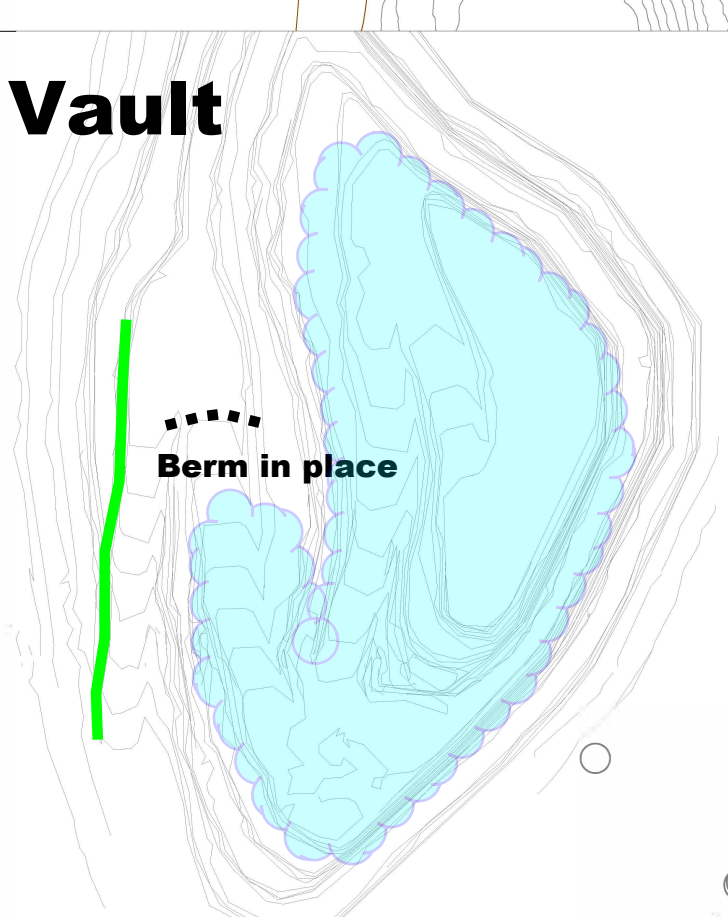
Wall not exposed
during inspection

MISHOLE OR POTENTIAL MISHOLE

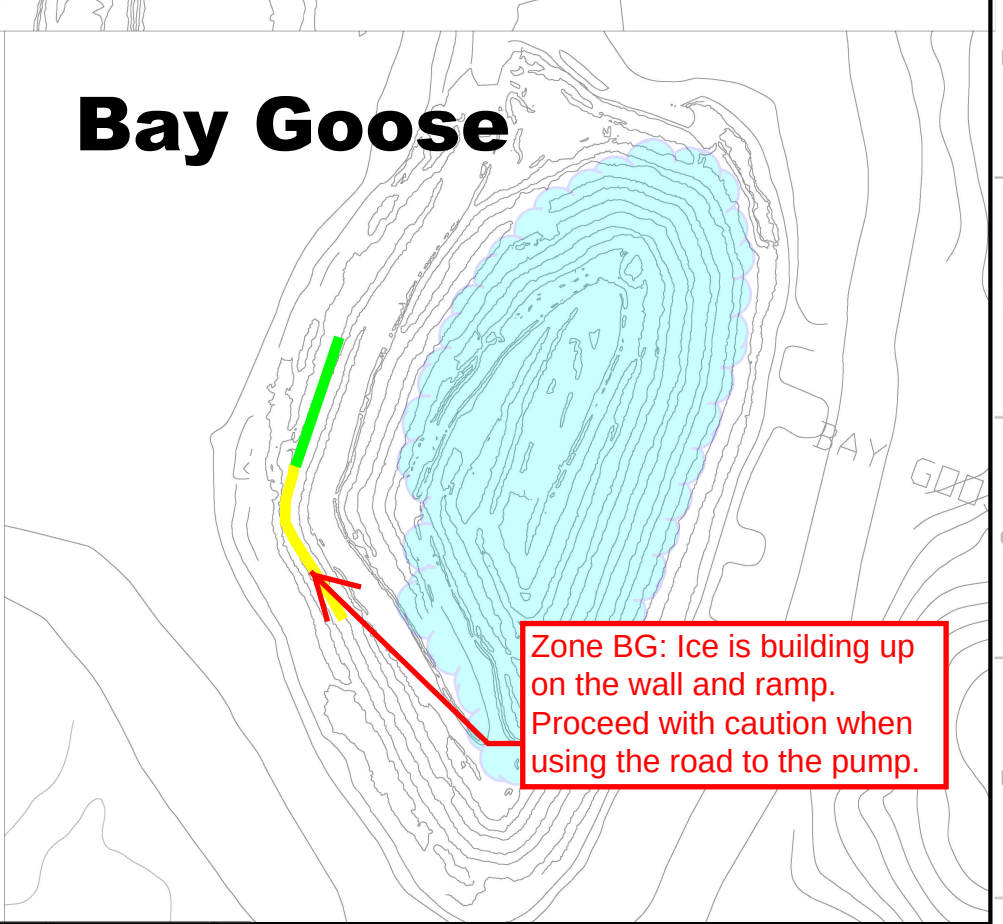
Pit A



Vault



Bay Goose



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GEOLOGY CHECK	DATE		
ENGINEERING CHECK	DATE		

MEADOWBANK DIVISION
ENGINEERING
WALL INSPECTION
NOVEMBER 23rd, 2019

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Wall Inspection
December 15th, 2019

Very High Risk, NO ENTRY

High Risk
Requires Remedial Measures

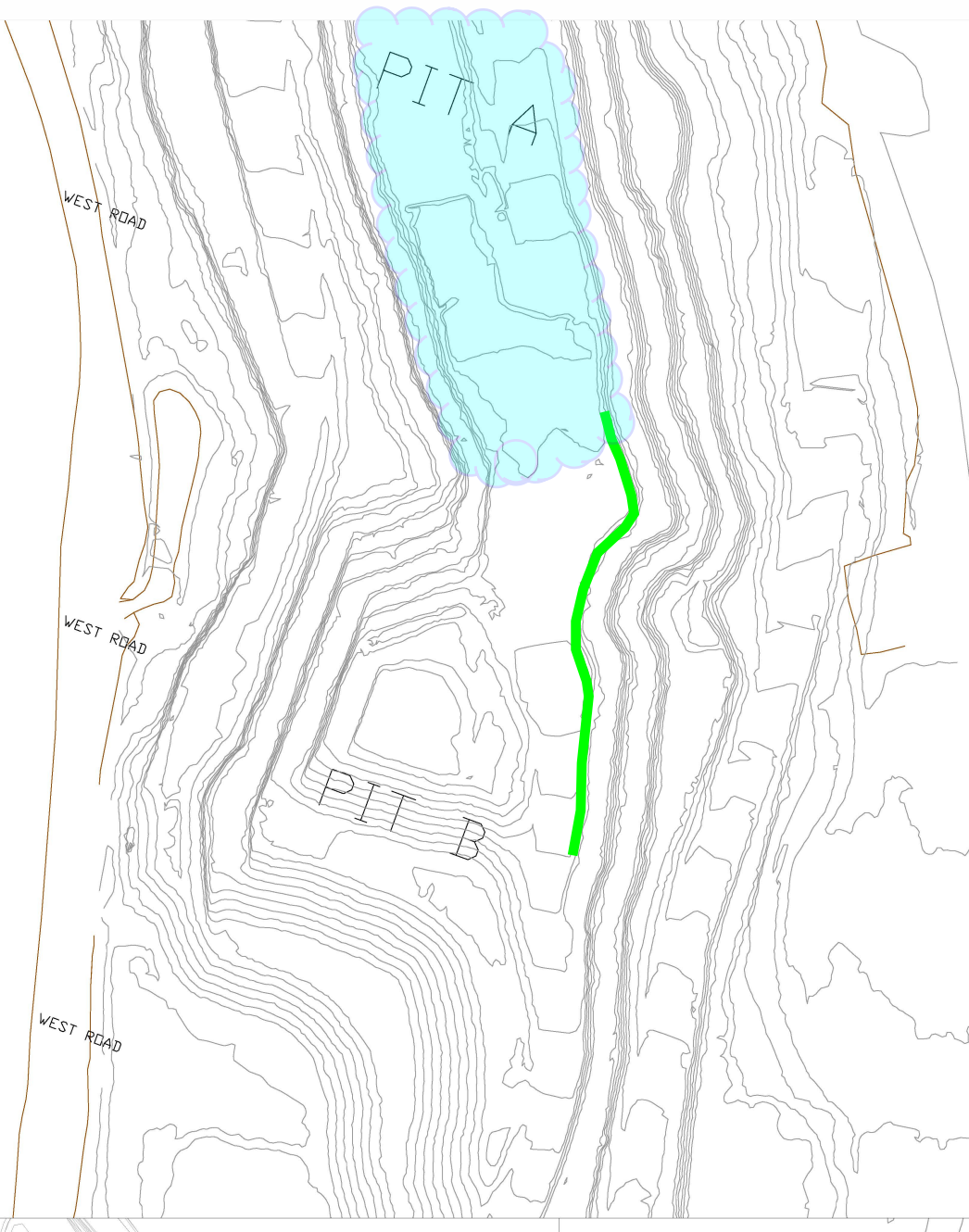
Medium Risk
Precautionnary or Remedial Measures

Low Risk
Perform assessment before entering

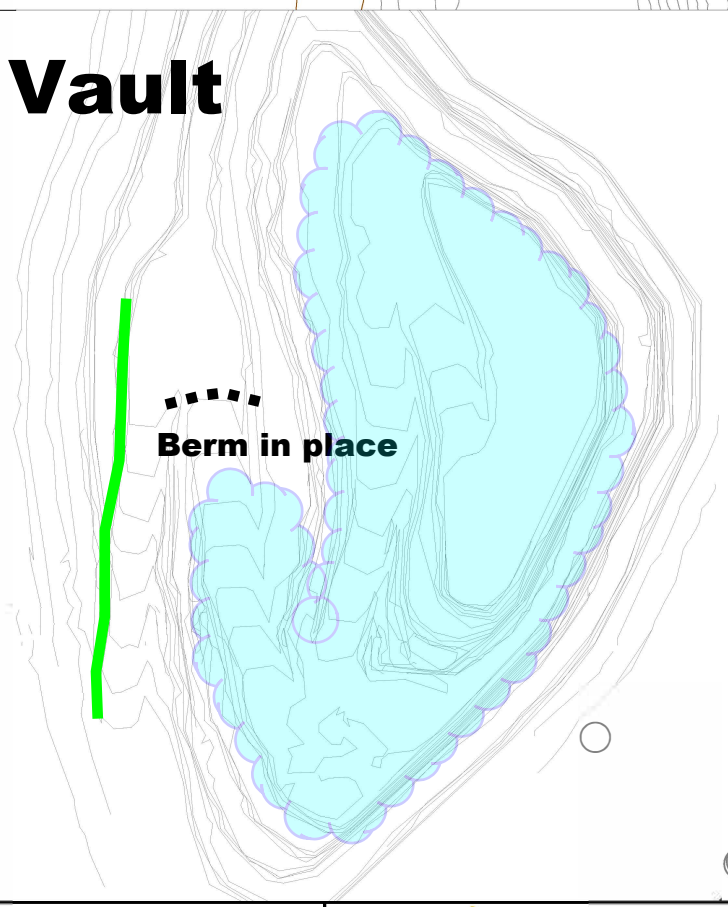
Wall not exposed
during inspection

MISHOLE OR POTENTIAL MISHOLE

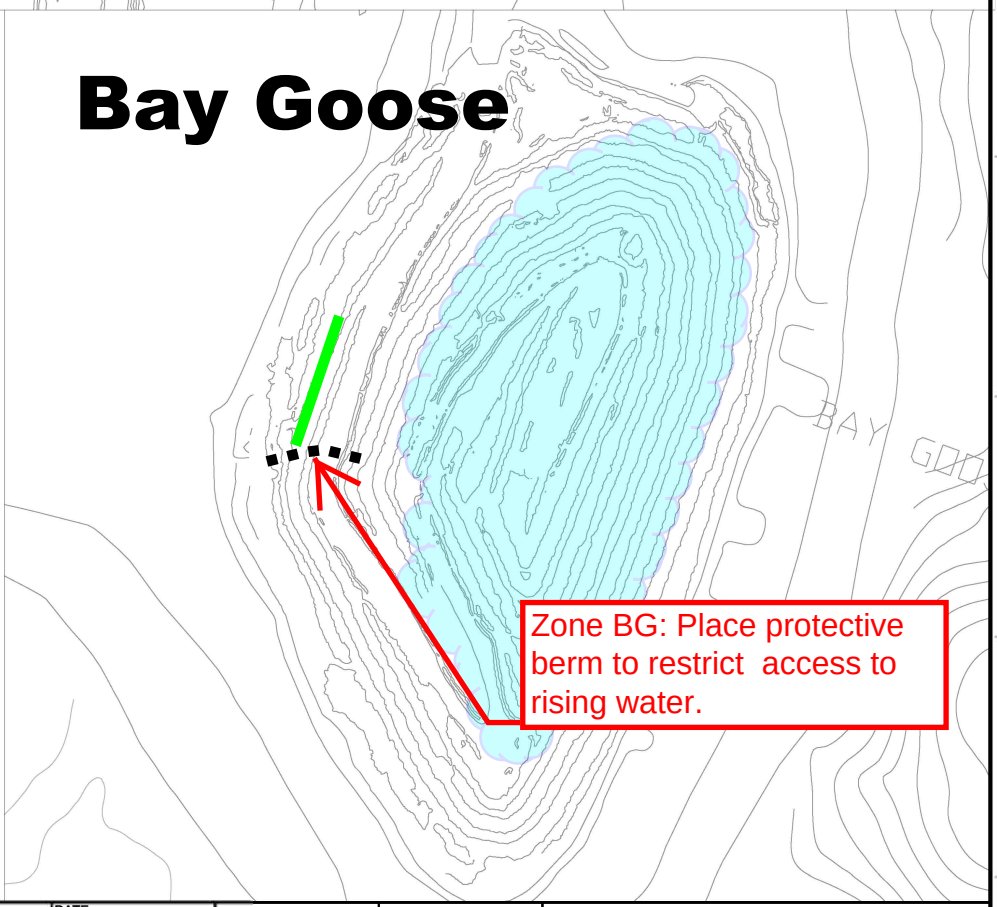
Pit A



Vault



Bay Goose



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WALL INSPECTION
December 15th, 2019

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Pit Wall Inspection

Agnico Eagle Meadowbank Division

December 15th, 2019

Attendees: T. Dahm, R. Denis (JOSC), J. Pedro

Distributed to: Meadowbank Wall Inspection Group.

Location	*Hazard*	*Corrective Actions*	*Due date*	*Date completed*
Zone: **Bay Goose** Pit: Bay Goose Wall: West Bench: Ramp Status:	Water level is rising.	Place berm at top of road to limit any accidental access into the water.	Ongoing	NA

Zone BG: BG West Wall: As the water has begun to rise higher, place a protective berm.

2020 PIT WALL INSPECTION REPORTS

Wall Inspection

January 15th, 2020

Very High Risk, NO ENTRY

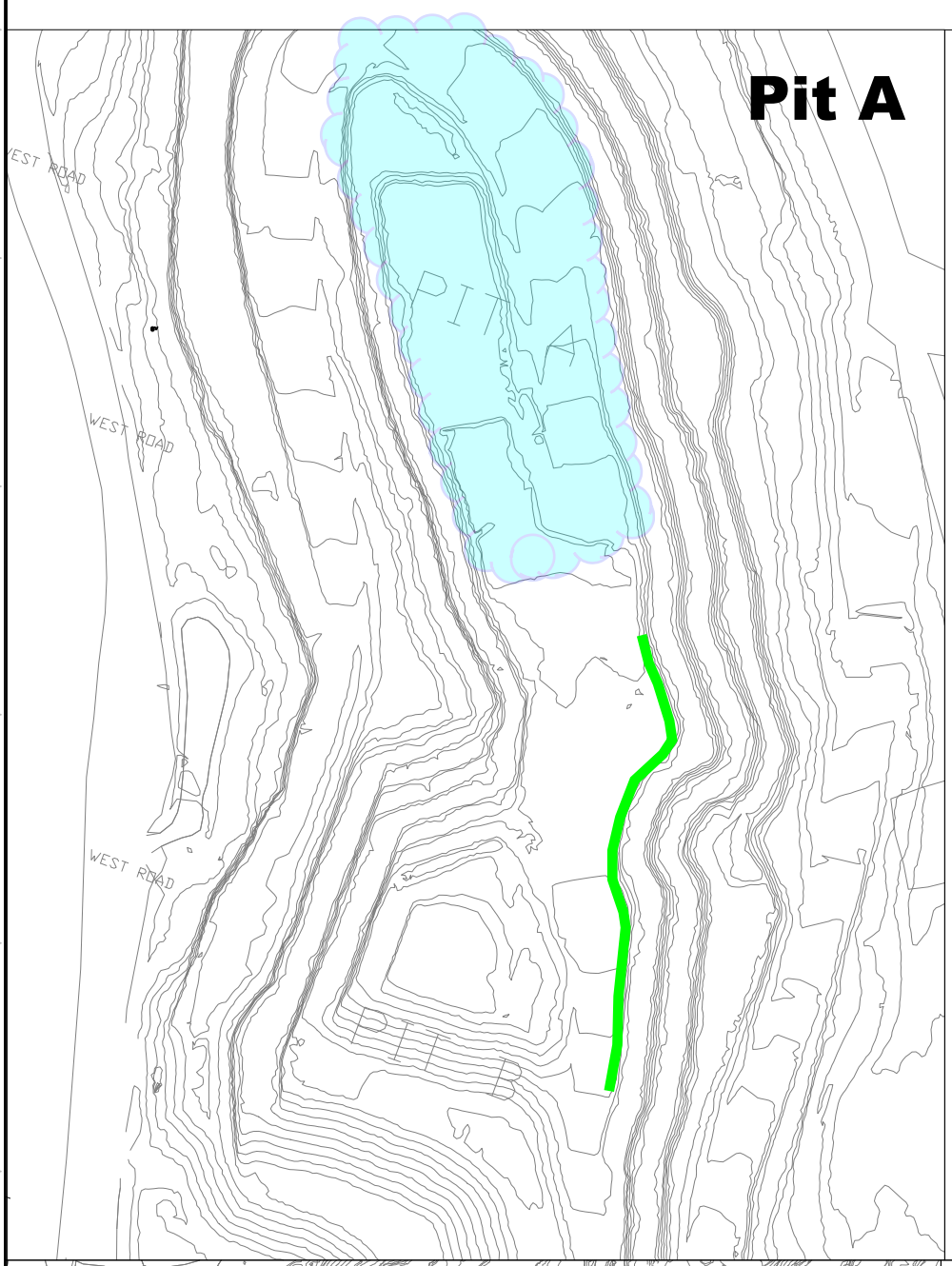
High Risk
Requires Remedial Measures

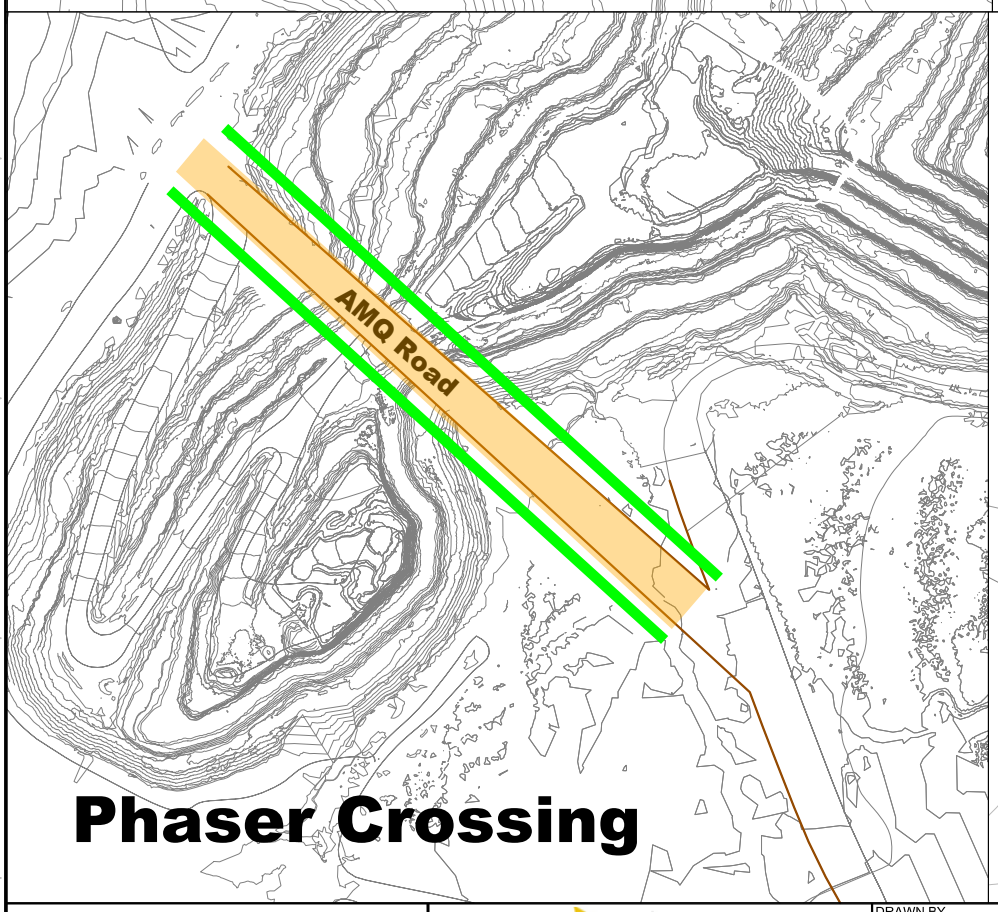
Medium Risk
Precautionnary or Remedial Measures

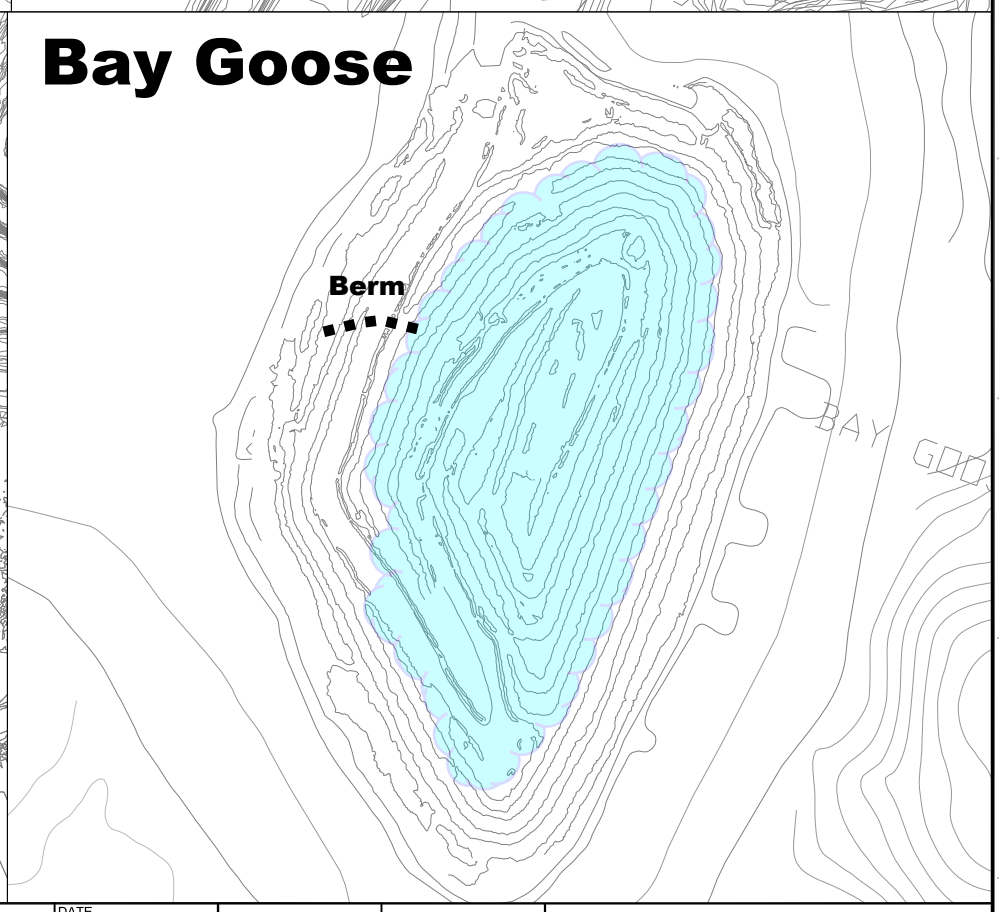
Low Risk
Perform assessment before entering

Wall not exposed
during inspection

MISHOLE OR POTENTIAL MISHOLE







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SURVEY CHECK	DATE
GEOLOGY CHECK	DATE
ENGINEERING CHECK	DATE

MODIFIED BY	DATE

MEADOWBANK DIVISION
ENGINEERING
WALL INSPECTION
January 15th, 2020

SCALE	DATE	FILE
NTS		.DWG

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Pit Wall Inspection

Agnico Eagle Meadowbank Division

January 15th, 2019

Attendees: T. Dahm, R. Denis (JOSC), J. Pedro

Distributed to: Meadowbank Wall Inspection Group.

Location	*Hazard*	*Corrective Actions*	*Due date*	*Date completed*
Zone: **Bay Goose** Pit: Bay Goose Wall: West Bench: Ramp Status:	Water level is rising.	Barrier placed to prevent any non required access	Completed	NA
Zone: **Phaser Crossing** Pit: Phaser Wall: Status:	Any instabilities arising from any water reaching the toe of the road slope.	None Required	Completed	NA
Zone: **Pit E Ramp** Pit: Pit E Wall: North Bench: Ramp Status:	Stabilities that may occur from Pit D dump that may affect personnel.	Barrier berm to be placed at entrance of ramp to prevent any non required access to ramp below Pit D dump.	Completed	Jan 15th, 2020

Zone BG: **BG West Wall:** Protective barrier placed..

Zone Pit E: **Pit E Ramp:** Berm place to prevent access to below Pit D Dump.

Wall Inspection

February 17th, 2020

Very High Risk, NO ENTRY

High Risk
Requires Remedial Measures

Medium Risk
Precautionnary or Remedial Measures

Low Risk
Perform assessment before entering

Wall not exposed
during inspection

MISHOLE OR POTENTIAL MISHOLE

AGNICO EAGLE
MEADOWBANK

DRAWN BY	DATE
SURVEY CHECK	DATE
GEOLOGY CHECK	DATE
ENGINEERING CHECK	DATE

MODIFIED BY	DATE

MEADOWBANK DIVISION
ENGINEERING
WALL INSPECTION
February 17th, 2020

SCALE	DATE	FILE
NTS		.DWG

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Pit Wall Inspection

Agnico Eagle Meadowbank Division

February 17th, 2020

Attendees: T. Dahm, V. Brault (JOSC), J. Pedro

Distributed to: Meadowbank Wall Inspection Group.

Location	*Hazard*	*Corrective Actions*	*Due date*	*Date completed*
Zone: **Bay Goose** Pit: Bay Goose Wall: West Bench: Ramp Status:	Water level is rising.	Barrier placed to prevent any non-required access	Completed	NA
Zone: **Phaser Crossing** Pit: Phaser Wall: Status:	Any instabilities arising from any water reaching the toe of the road slope.	None Required	Completed	NA
Zone: **Pit E Ramp** Pit: Pit E Wall: North Bench: Ramp Status:	Stabilities that may occur from Pit D dump that may affect personnel.	Barrier berm to be placed at entrance of ramp to prevent any non-required access to ramp below Pit D dump. Berm currently open for dewatering crew access, but once job is complete they will close the berm.	Completed	Jan 15th, 2020

Zone BG: BG West Wall: Protective barrier placed.

Zone Pit E: Pit E Ramp: Berm place to prevent access to below Pit D Dump. Once dewatering crew is done they will replace the berm.

Wall Inspection

March 9th, 2020

Very High Risk, NO ENTRY

High Risk
Requires Remedial Measures

Medium Risk
Precautionnary or Remedial Measures

Low Risk
Perform assessment before entering

Wall not exposed
during inspection

MISHOLE OR POTENTIAL MISHOLE

Pit A

WEST ROAD

PIT A

WEST ROAD

PIT B

Berm

Pit E

Goose Pit

Barrier

BAY

AMQ Road

Phaser
Crossing

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MEADOWBANK DIVISION
ENGINEERING
WALL INSPECTION
March 9th, 2020

SCALE NTS | DATE | FILE .DWG

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Pit Wall Inspection

Agnico Eagle Meadowbank Division

March 9th, 2020

Attendees: T. Dahm, R. Denis (JOHSC), J. Pedro

Distributed to: Meadowbank Wall Inspection Group.

Location	*Hazard*	*Corrective Actions*	*Due date*	*Date completed*
Zone: **Bay Goose** Pit: Bay Goose Wall: West Bench: Ramp Status:	Water level is rising.	Barrier placed to prevent any non-required access	Completed	NA
Zone: **Phaser Crossing** Pit: Phaser Wall: Status:	Any instabilities arising from any water reaching the toe of the road slope.	None Required	Completed	NA
Zone: **Pit E Ramp** Pit: Pit E Wall: North Bench: Ramp Status:	Stabilities that may occur from Pit D dump that may affect personnel.	Barrier berm to be placed at entrance of ramp to prevent any non-required access to ramp below Pit D dump. Berm currently open for dewatering crew access, candles in place to restrict unauthorized access.	Completed	Jan 15th, 2020

<u>Zone BG:</u> BG West Wall: Protective barrier placed.

<u>Zone Pit E:</u> Pit E Ramp: Candle barrier at top and also barrier where pipe comes out. Required access for Dewatering crew only.

<u>Zone Pit E:</u> Pit E Ramp: Candle barrier where pipe outlet is.

<u>Zone Phaser Crossing</u>: No signs of instabilities.

Wall Inspection

May 9th, 2020

- Very High Risk, NO ENTRY
- High Risk
  Requires Remedial Measures
- Medium Risk
  Precautionnary or Remedial Measures
- Low Risk
  Perform assessment before entering
- Wall not exposed
  during inspection
- MISHOLE OR POTENTIAL MISHOLE

c'est de l'eau ?

Pit A

Berm

Pit E

WEST ROAD

PIT A

WEST ROAD

PIT B

Goose Pit

me semble que ton tailing est pâle pas mal...

Berm

Candles

AMQ Road

Phaser Crossing

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GEOLOGY CHECK	DATE		
ENGINEERING CHECK	DATE		

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MEADOWBANK DIVISION
ENGINEERING
WALL INSPECTION
May 9th, 2020

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Pit Wall Inspection

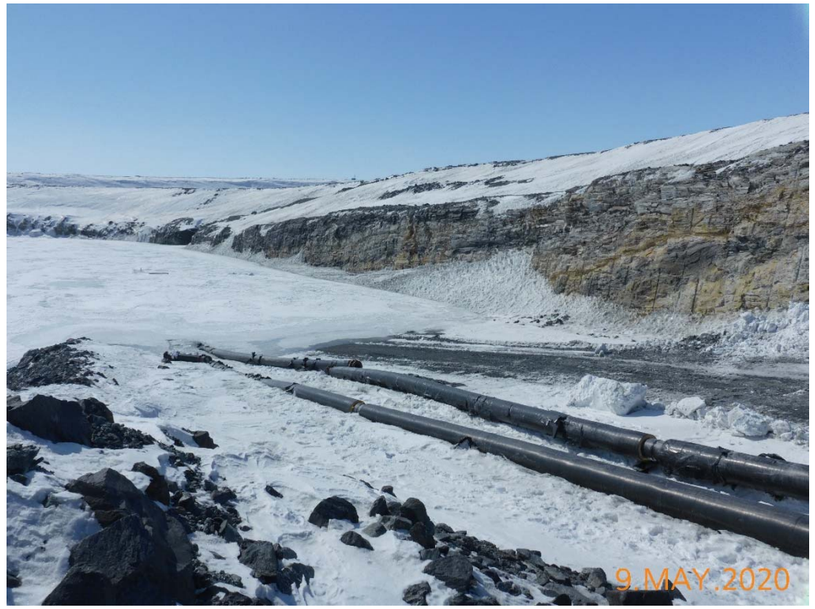
Agnico Eagle Meadowbank Division

May 9th, 2020

Attendees: S. Beaudoin, E. Laplante (JOHSC), G. Barril, V. Duranleau

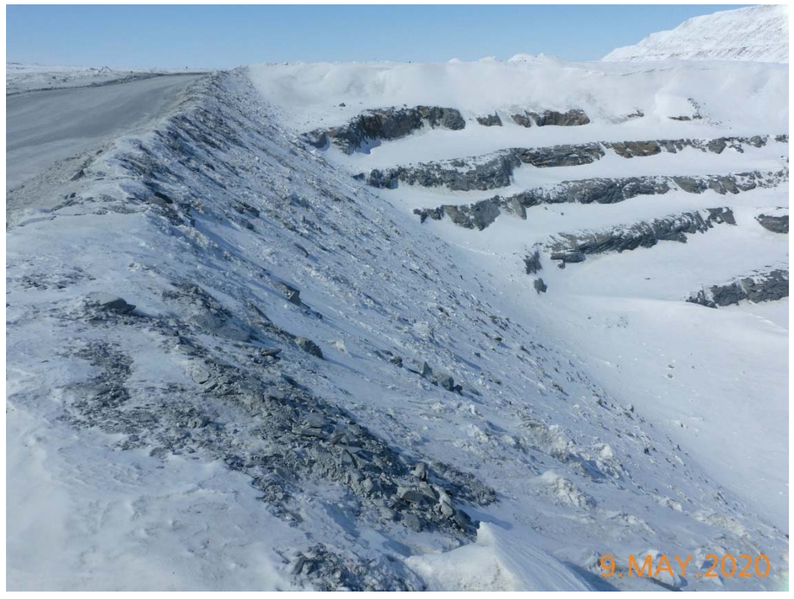
Distributed to: Meadowbank Wall Inspection Group.

Location	*Hazard*	*Corrective Actions*	*Due date*	*Date completed*
Zone: **Bay Goose** Pit: Bay Goose Wall: West Bench: Ramp Status:	1- Risk of berm settlement. 2- Candles were removed and berms was open to allow the installation of submersible pumps at the time of the inspection.	1- Move the (PTO) on the other side of the piping, away from the berm. 2- Put back the candles blocking the single lane entrance on top of the ramp and at the bottom, indicating water.	May 13, 2020	NA
Zone: **Phaser Crossing** Pit: Phaser Wall: Status:	Any instabilities arising from any water reaching the toe of the road slope.	None Required	Completed	NA
Zone: **Pit E Ramp** Pit: Pit E Wall: North Bench: Ramp Status:	Instabilities that may occur from Pit D dump and south wall, that may affect personnel.	Berm currently open for dewatering crew, candles to be replaced to restrict unauthorized access.	May 11, 2020	NA
Zone: **Pit A Ramp** Pit: Pit A Wall: North Bench: Ramp Status:	Instabilities that may occur from Pit B dump and north wall, that may affect personnel.	None Required	Completed	NA



Zone BG: BG West Wall: Candles to be placed.

Zone BG: BG West Wall: Move the PTO on the other side of the ramp.



Zone Phaser Crossing: No signs of instabilities.

Zone Pit E: Pit E Ramp: Berm currently open for dewatering crew, candles to be replaced to restrict unauthorized access.

 **Zone Pit A: Pit A Ramp:** Walls and dump does not present signs of instabilities.	

Wall Inspection

June 9th, 2020

Very High Risk, NO ENTRY

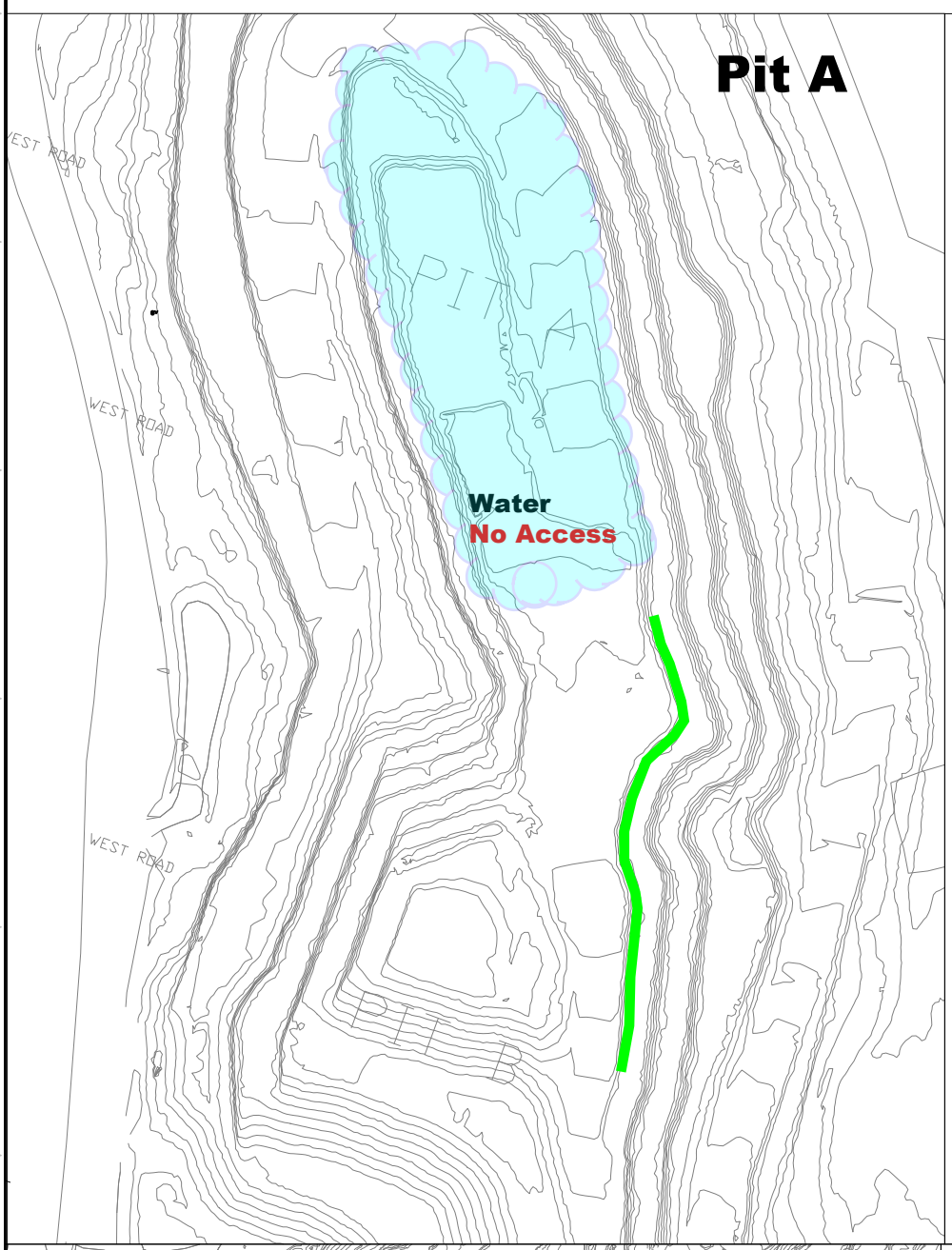
High Risk
Requires Remedial Measures

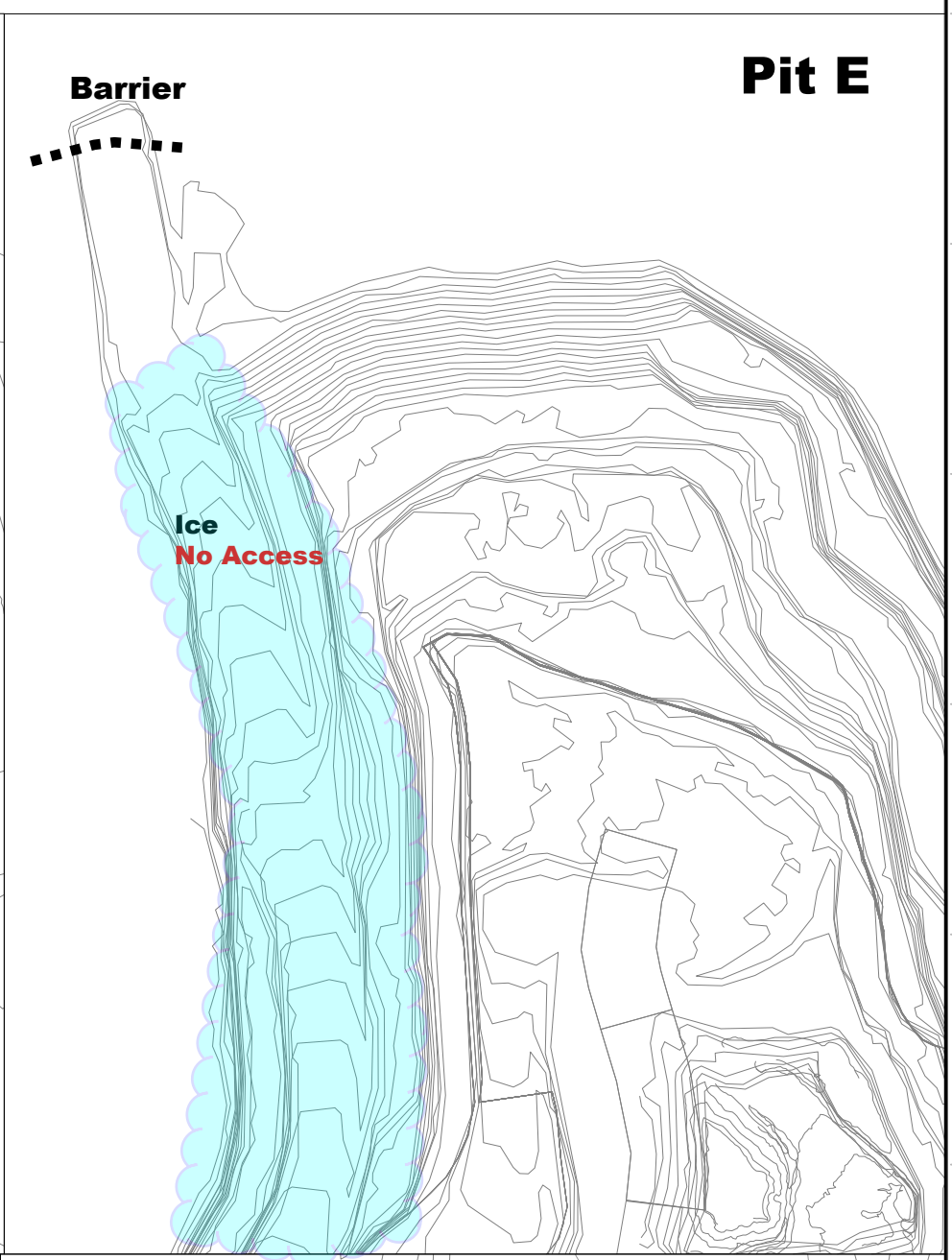
Medium Risk
Precautionnary or Remedial Measures

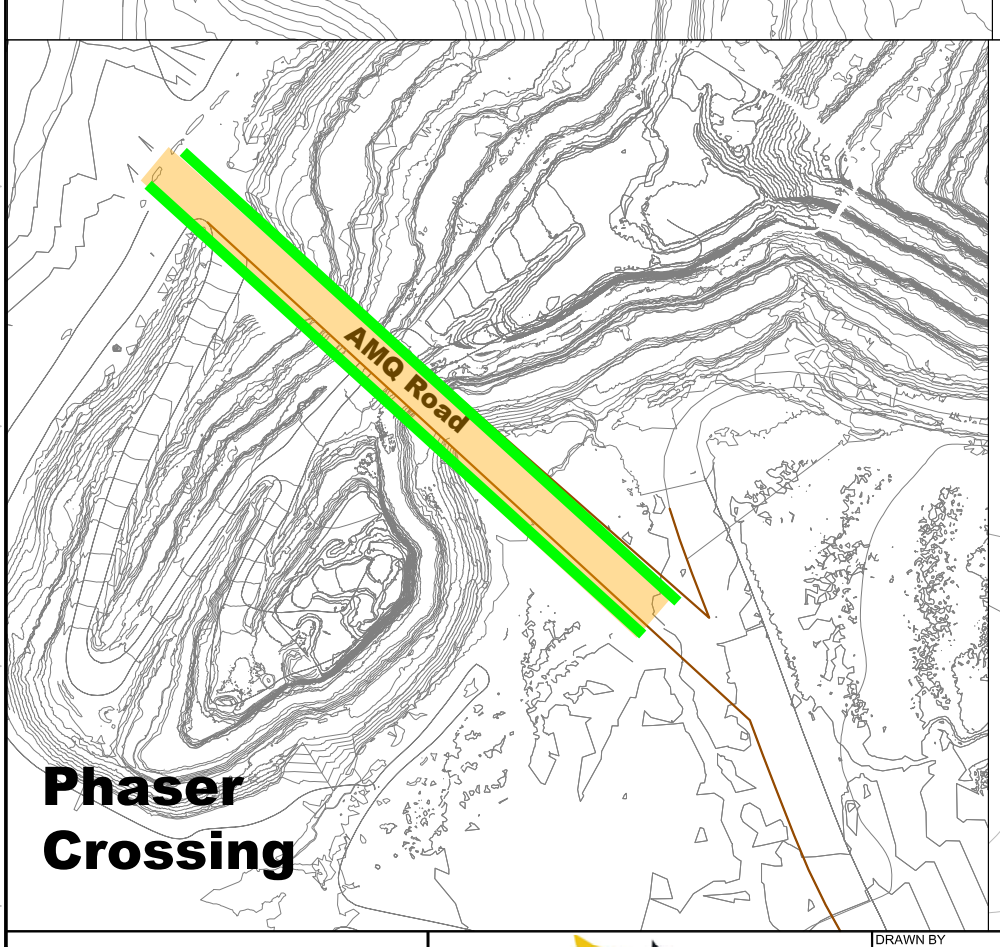
Low Risk
Perform assessment before entering

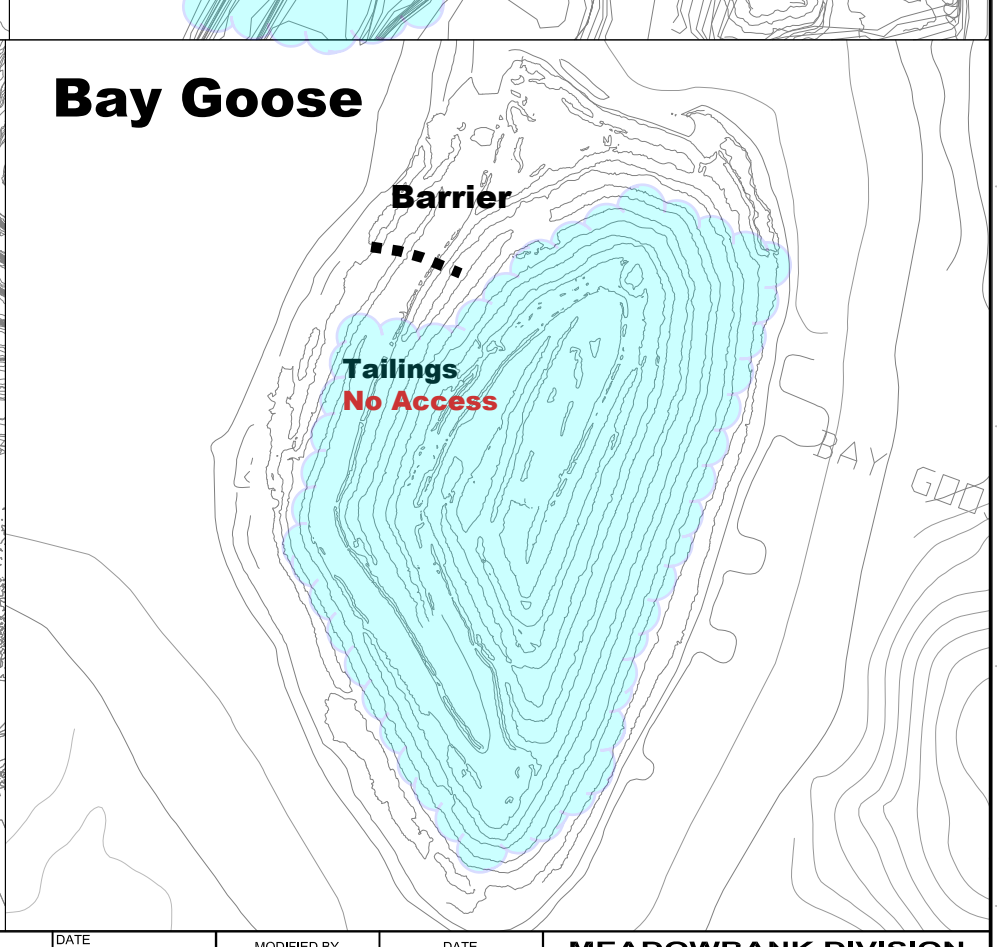
Wall not exposed
during inspection

MISHOLE OR POTENTIAL MISHOLE









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MEADOWBANK DIVISION
ENGINEERING
WALL INSPECTION
June 9th, 2020

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Pit Wall Inspection

Agnico Eagle Meadowbank Division

June 9th, 2020

Attendees: T. Dahm, Mario Cote (JOHSC),

Distributed to: Meadowbank Wall Inspection Group.

Location	*Hazard*	*Corrective Actions*	*Due date*	*Date completed*
Zone: **Bay Goose** Pit: Bay Goose Wall: West Bench: Ramp Status:	1- Risk of berm settlement. 2- Candles were removed and berms was open to allow the installation of submersible pumps at the time of the inspection.	1- Put back the candles blocking the single lane entrance on top of the ramp and at the bottom, indicating water. This was completed on June 9th. There was also danger tape added for better visualization.	June 9th	June 9th
Zone: **Phaser Crossing** Pit: Phaser Wall: Status:	Any instabilities arising from any water reaching the toe of the road slope.	None Required	Completed	NA
Zone: **Pit E Ramp** Pit: Pit E Wall: North Bench: Ramp Status:	Instabilities that may occur from Pit D dump and south wall, that may affect personnel.	Berm currently open for dewatering crew, candles to be replaced to restrict unauthorized access. New candles placed at berm to restrict access to dewatering personnel only.	June 9th	June 9th
Zone: **Pit A Ramp** Pit: Pit A Wall: North Bench: Ramp Status:	Instabilities that may occur from Pit B dump and north wall, that may affect personnel.	None Required	Completed	NA

Zone BG: BG West Wall: Candles were replaced and danger tape added.

Zone Phaser Crossing: No signs of instabilities.

Zone Phaser Crossing: No signs of instabilities.

Zone Pit E: Pit E Ramp: Berm currently open for dewatering crew, candles were replaced to restrict unauthorized access.

 **<u>Zone Pit A:</u> Pit A Ramp:** Walls and dump does not present signs of instabilities.	

PIT E (E5 AREA - SOUTH RAMP)

BLOCKED
ACCESS to all
equipment and
personnel

E5-S5
Potential large
scale wedge failure

E5-S4
High Risk zone
Wedges and potentially unstable
blocks. Wet conditions

E5-S2
Foliation and wet
conditions

E5-S3
Overhang

GOOSE PIT

WATER

East Wall:
Active Tailings discharge
Action:
Extra caution, spotter

South West Wall:
Wedges and blocks
potentially unstable in the
quartzite unit
Action:
Extra caution, stay 15m
away from the wall, spotter

Very High Risk, NO ENTRY

High Risk
Requires Remedial Measures

Medium Risk
Precautionnary or Remedial Measures

Low Risk
Perform assessment before entering

Wall not exposed
during inspection

MISHOLE OR POTENTIAL MISHOLE

AGNICO EAGLE
MEADOWBANK

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GEOLOGY CHECK	DATE
ENGINEERING CHECK	DATE

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MEADOWBANK DIVISION
ENGINEERING
WALL INSPECTION
July 10th, 2020

SCALE NTS | DATE | FILE .DWG

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Pit Wall Inspection

Agnico Eagle Meadowbank Division

July 10th, 2020

Attendees: Laurier Collette, Chad Robert (Goose Pit)

Distributed to: Meadowbank Wall Inspection Group.

Location	*Hazard*	*Corrective Actions*	*Due date*
Zone: **Ramp** Pit: Bay Goose Wall: West Bench: Ramp/Pond Status:	Open water at the bottom of the ramp. No berm in place to allow for pump install, maintenance and moving. Candles blocking the single lane entrance on top of the ramp and at the bottom, indicating water. There was is also danger tape added for better visualization.	None	Completed
Zone: **SW wall** Pit: Bay Goose Wall: South-West Bench: Pond Status:	Wedges and blocks potentially unstable in the quartzite unit	Keep minimum 15m distance from the wall Perform assessment before approaching and use a spotter when in this area, looking for instabilities and ravelling	NA
Zone: **East wall** Pit: Bay Goose Wall: East Bench: Pond Status:	Active tailings discharge	Extra caution required Perform assessment before approaching and use a spotter. Mind the wind conditions that could affect tailings discharge direction.	NA
Zone: **E5-S1** Pit: Pit E Wall: South Bench: Ramp Status:	Blocky unit (1-3m blocks), detaching blocks may affect personnel	None required	NA
Zone: **E5-S2** Pit: Pit E Wall: South Bench: Ramp Status:	Instabilities that may occur from foliated unit and wet conditions, that may affect personnel	Extra caution required Perform assessment before approaching	NA

Zone: **E5-S3** Pit: Pit E Wall: South Bench: 5109 Status:	Overhang	Do not access Catch bench on level 5109 Pit E5 ramp closed to all personnel at this location Candles put in place	July 10th
Zone: **E5-S4** Pit: Pit E Wall: South Bench: Ramp Status:	Rock fall that may occur from various sizes of wedges and potentially unstable blocks with wet conditions at some locations. Many large wedge failure and rock fall already occurred in this zone.	Do not access Pit E5 ramp closed to all personnel at this location, Candles put in place at this location	July 10th
Zone: **E5-S5** Pit: Pit E Wall: South Bench: 5188 Status:	Potential large scale wedge failure that could take away a part of the actual ramp	Proper berm to be put in place at entrance of Pit E5 ramp to block off access to all vehicles. Candles are already put in place, as temporary block off	July 15th

GOOSE PIT SW Wall: Wedges in Quartzite unit

GOOSE PIT East Wall: Active Tailings Deposition

Pit E zone E5-S2: foliated unit, wet conditions

ZPit E zone E5-S3: Overhang on upper bench

Pit E zone E5-S4: Wedges and potentially unstable blocks

Pit E zone E5-S4: Wedges and potentially unstable blocks

Pit E zone E5-S5: Potential large scale wedge failure below where the ramp is sitting

Pit E, E5 south access ramp: Berm required to block off traffic at ramp entrance

APPENDIX F

ROCKFALL RECORDS

- Figure F-1: Rockfall Log – Table 1
- Figure F-2: Rockfall Log – Table 2
- Figure F-3: Rockfall Log – Table 3
- Rock Fall Report to Mines Inspector – July 22, 2019
- Rock Fall Report to Mines Inspector – September 15, 2019
- Rock Fall Report to Mines Inspector – October 2, 2019
- Rock Fall Report to Mines Inspector – October 5, 2019

ROCKFALL LOG – F-1: TABLE 1, F-2: TABLE 2, F-3: TABLE 3

TETRA TECH

ROCKFALL LOG - Table 1

Date of Rock fall	Time	Exact Time ?	Pit	Location	Rock type	Easting	Northing	Elevation	Reported by	Estimated tonnage	Calculated tonnage (MAPTEK)	Reported to mine Inspector	Predicted by radar	Comment
2015-01-29	9:00		E3	West wall - South Ramp		1802	5984	5077	Engineering personnel		410	Yes	No radar yet	
2015-05-22	Between May 21 - 20h17 & May 22- 02h05		E3	West wall - South Ramp (below)		1843	5990	5059	Pit personnel	10		No	No radar yet	Large amount of material scaled after rock fell.
2015-06-07	Day		E3	West wall - South Ramp		1812	5961	5066	Pit personnel	<10		No	No radar yet	
2015-06-13	14:30		E3	West wall - South Ramp		1812	5961	5066	Pit personnel		120	Yes	No	
2015-06-14	21:00		E3	South Wall		2024	5690	5084	Pit personnel	40		No	No	
2015-06-21	23:50		E3	West wall - South Ramp		1760	6131	5090	Pit personnel		95	Yes	No	
2015-06-24	7:05		E3	South Wall		2024	5690	5084	Pit personnel		275	Yes	No	
2015-06-25	12:05		E3	West Wall - South Ramp		1820	5941	5065	Pit personnel	30		No	No	Large amount of material scaled after rock fell.
2015-06-25	Night		E3	South Wall		2024	5690	5084	Pit personnel		177	Yes	No	
2015-06-27	7:55		E3	South Wall		2024	5690	5084	Pit personnel		30	No	No	
2015-06-28	1:10		E3	South Wall		2024	5690	5084	Night shift Operator		<10	No	No	
2015-06-29	13:30		E3	South Wall		1991	5652	5087	Rock Mechanic Eng (witness)		39	No	No	
2015-06-29	Night		Vault	West Wall		3018 (estimated)	4739 (estimated)	5116 (estimated)	Pit personnel	<10		No	No	
2015-06-30	7:00		E3	South Wall		1984	5655	5080	Pit personnel		76	Yes	No	
2015-07-06	7:00	Yes	E3	South Wall		2007	5673	5084	Pit personnel		1770	Yes	No	
2015-07-07	10:44	Yes	E3	East Wall					Pit personnel		350	Yes	Blind Spot	
2015-07-09	0:45		E3	South Wall					Pit personnel		550	Yes	No	
2015-07-15	2:00		E3	South Wall					Pit personnel		650	Yes	Yes	
2015-07-21	21:30	No	E3	South Wall					Pit personnel		1440	Yes	Yes	

LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

MEADOWBANK MINE ANNUAL PIT WALL INSPECTION

Rockfall Log – Table 1

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	DECEMBER 2020

Figure F-1

TETRA TECH

ROCKFALL LOG - Table 2

Date of Rock fall	Time	Exact Time ?	Pit	Location	Rock type	Easting	Northing	Elevation	Reported by	Estimated tonnage	Calculated tonnage (MAPTEK)	Reported to mine Inspector	Predicted by radar	Comment
2015-07-27	22:05	No	E3	South Wall					Engineering personnel		499	Yes	Yes	
2015-08-03	10:03	Yes	E3	South Wall					Pit personnel		7500	Yes	Yes	
2015-08-07	15:36	Yes	E3	South Wall					Pit personnel		2500	Yes	Yes	
2015-08-09	11:07	Yes	E3	South Wall					Pit personnel		1650	Yes	Yes	
2015-08-22	10:50	Yes	E3	South Wall					No Pit Personnel. Radar alarms showed us		115	Yes	Yes	
2015-08-30	0:45	No	E3	South Wall					No Pit personnel. Radar alarms showed us		5	No	Yes	
2015-08-31	2:30	No	E3	South Wall					No Pit personnel. Radar alarms showed us		950	Yes	Yes	
2015-09-21	16:31	Yes	E3	South Wall					Pit personnel		9200	Yes	Yes	On video.
2016-06-01	12:00	No	Vault	North					Pit personnel		30	No	Not monitored	
2016-06-19	12:00	No	A	East Wall - ramp	Intermediate Volcanic				Pit personnel		29	No	Not monitored	Contained within safety berm; At the junction of 2 pit designs.
2016-07-01	21:00	No	A	West Wall	Ultramafic				Pit personnel		134	Yes	Not monitored	Rain in the evening.
2016-07-03	7:30	No	A	West	Ultramafic				Pit personnel - Witnessed		393	Yes	Not monitored	
2016-07-04	8h30	No	A	West Wall	Ultramafic				Pit personnel		722	Yes	Not monitored	
2016-07-08	06h00	No	A	West Wall	Ultramafic				Pit personnel		25	No	Not monitored	
2016-07-27	8h30	No	A	East - Ramp	Intermediate Volcanic				Pit personnel - Witnessed		337	Yes	Not monitored	Just beside backhoe doing hammer.
2016-09-24	20h00	No	A	West Wall	Ultramafic				Pit personnel	100		Yes	Not monitored	On working platform (mucking bench).
2016-09-25	14h00	No	A	West Wall	Ultramafic				Pit personnel		4265	Yes	Not monitored	Upper bench.
2017-06-16	1h00	No	E5	South Wall	Intermediate Volcanic				Pit personnel	350	350	Yes	Not monitored	
2017-06-17	12h00	no	E5	South Wall	Ultramafic				Pit personnel	300		yes	No	
2017-06-17	4h00	No	A	North East	Intermediate Volcanic				Pit Personnel	179		yes		
2017-06-19	10h25	No	E5	South East Wall	Ultramafic				Pit Personnel		337	Yes	Yes	
2017-06-19	21h30	No	E5	South East Wall	Ultramafic				Pit Personnel		172	Yes	Yes	
2017-07-07	8h40	Yes	Vault	East Wall	Ice				Pit Personnel		385	yes	Not monitored	Ice fall, not rock.
2017-07-17	Unknown	No	E5	South East Wall	Ultramafic				Visual inspection	60		yes	no	New material observed on catchbench. Fell between July 15th and 17th.

LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

MEADOWBANK MINE ANNUAL PIT WALL INSPECTION

Rockfall Log – Table 2

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	DECEMBER 2020

Figure F-2

TETRA TECH

ROCKFALL LOG - Table 3

Date of Rock fall	Time	Exact Time ?	Pit	Location	Rock type	Easting	Northing	Elevation	Reported by	Estimated tonnage	Calculated tonnage (MAPTEK)	Reported to mine Inspector	Predicted by radar	Comment
6/10/2018	unknown	No	E5	South Wall	Ultramafic				Pit Personnel		215	Yes		
6/10/2018	unknown	No	E5	South Wall	Ultramafic				Pit Personnel		75	Yes		
6/10/2018	unknown	No	E5	South Wall	Ultramafic				Pit Personnel		160	Yes		
6/11/2018	unknown	No	E5	South Wall	Ultramafic				Pit Personnel		250	Yes		
6/20/2018	15:22	Yes	E5	South Wall	Ultramafic				Alarm + pit personnel+ geotech		79	Yes	Yes	Other rock falls is predicted in the area (the rest of the wedge).
6/25/2018	17:27	No	E5	South Wall	Ultramafic				Visual inspection + radar investigation	250		no	no	First high wall of the pit (5123) investigated 3 weeks later when visual inspection. Rock fall took 3 days to completely stop (radar signature).
6/29/2018	unknown	No	E3	Ramp	Ultramafic				Geotech		110	Yes		
6/30/2018	14:12	Yes	E5	South Wall	Ultramafic				Geotech		350	Yes		
7/5/2018	05h10	Yes	E5	South Wall (west)	Ultramafic				Driller and Geotech		2700	Yes	Yes	
7/4/2018	20h15	Yes	E5	South Wall (east)	Ultramafic				Driller and Geotech		310	Yes	Yes	
7/8/2018	17h32	Yes	E5	South Wall (west)	Ultramafic				Driller and Geotech		100	Yes	Yes	Was a continuation of the July 5th large fall.
7/9/2018	8h38	Yes	E5	South Wall (east)	Ultramafic				Worker and camera		226	Yes	Yes	Continuation of June 20th Rock fall and mine was cleared prior as it was anticipated.
7/11/2018	12h18	Yes	E5	South Wall (west)	Ultramafic				Worker		314	Yes	Yes	
7/26/2018	unknown	No	Vault	East Wall	Ice				Pit Personnel		150	Yes	Not monitored	Vault ice wall. Spraying water on it.
7/30/2018	unknown	No	E3	West Wall	Ultramafic				Pit Personnel		258	Yes	Not monitored	
8/12/2018	2:30	NO	E5	South Wall	Ultramafic				Dispatch	150		Yes	by alarm only, during the fact	
8/15/2018	14:00	NO	E3	West Wall	Intermediate Volcanic				Mine Inspector Visit!!		2900	Yes	Not monitored	Not in the line sight.
9/27/2018	11h00	Yes	E5	Bench 5033	Ultramafic				Pit personnel	10,000	10,100	Yes	Yes	Crack was observed in wall, then looked at radar and signature was observed that rock fall was going to occur. And it did.
1/14/2019	16:00	No	E5	5011651 - East Wall					Pit personnel		127	Yes	no	Post fall radar analysis show a small visible trend but it was not detected prior to the event.
5/8/2019	17:30	No	E5	5004	Ultramafic				Pit personnel	110	110	Yes	No	The signature of the rockfall with back analysis only allowed for less than one hour of notice. In a highly fractured corner.
7/22/2019	9:00	No	E3	E3 Ramp Top Behind Sump	Ultramafic/ QZ/FAULT				Pit supervisor	80		Yes	No	The area was flagged 2 days earlier. Berms and candles were in place. We expect it.
9/15/2019	6:00	No	E5	West Wall	Ultramafic			4990	Pit supervisor	60		Yes	NO	The area was flagged 2 days earlier. Berms were in place. We expect it.
10/2/2019	20:19	Yes	E5	South Wall	Ultramafic			4990	Pit supervisor	55		Yes	NO	More to come.
10/5/2019	8:46	Yes	E5	South Wall	Ultramafic			5110	Geotech	600		Yes	Yes	Clear signature on the radar but area was mask and discovered 2 days after (area of the old ramp).

LEGEND

NOTES

Data provided by Agnico Eagle Mines Ltd.

STATUS

ISSUED FOR USE

CLIENT

AGNICO EAGLE MEADOWBANK

TETRA TECH

MEADOWBANK MINE ANNUAL PIT WALL INSPECTION

Rockfall Log – Table 3

PROJECT NO.	DWN	CKD	APVD	REV
704-ENG.ROCK03163-01	MW	CJC	CJC	0

OFFICE	DATE
VANCOUVER	DECEMBER 2020

Figure F-3

ROCK FALL REPORT TO MINES INSPECTOR – JULY 22, 2019

AGNICO EAGLE
MEADOWBANK

REPORT TO MINES INSPECTOR

Date: July 22, 2019

From: AGNICO-EAGLE Mines Limited
Meadowbank Division

To: Nunavut Mines Inspector

Issued pursuant to (Sections 16.01 & 16.02) of the Mine Health and Safety Act and Regulations for NWT & NU.

Event Description:

In the morning (between 7:00 & 9:00) of July 22, 2019 a rock fall of approximately 80 tonnes occurred. Pit Supervisor driving down the Portage E3 Ramp observed that a rock fall had occurred. Rocks coming off the wall fell inside an old inactive sump. Note that the area was already closed-off following a field visit conducted by geotechnical personal and pit supervisor on July 20, 2019. Berms and candles were already in place prior to the event. Note that this section of the pit is not covered by our radar.

No personnel were injured and no equipment damaged by the rock fall.

Geological context:

The rock fall occurred within the fault along the ramp at the intersection in between the ultramafic unit and altered quartzite. This area is likely to have more small rock falls happening in a near future.

Remediation plan:

- Keep the area bermed off and candles around.
- Keep the old sump empty, as it is a good catchment for upcoming rock fall event.
- Re-inforce, to all employee working in the pits, the importance of respecting the procedure “MBK-MINE-OPM-PRO Work close to pit walls”.

Prepared by:
Vincent Duranleau, Geotechnical Technician

Fig.1: Photos taken before and after the rock fall was reported.

Before

After

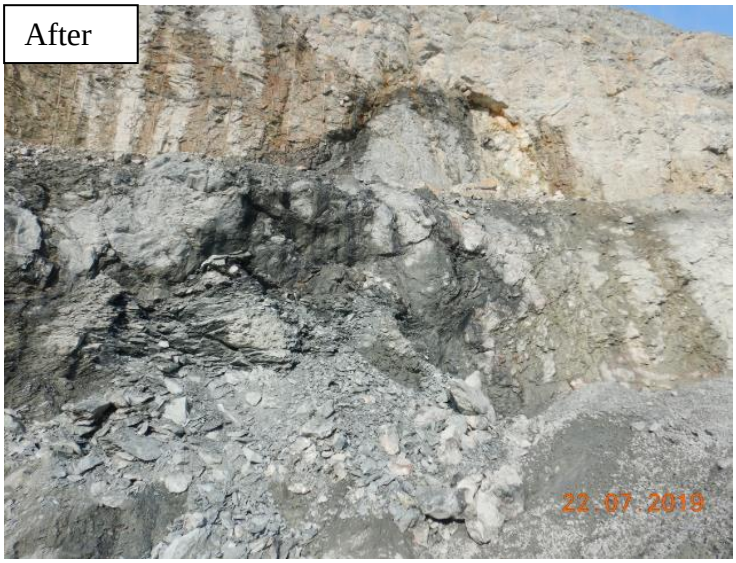
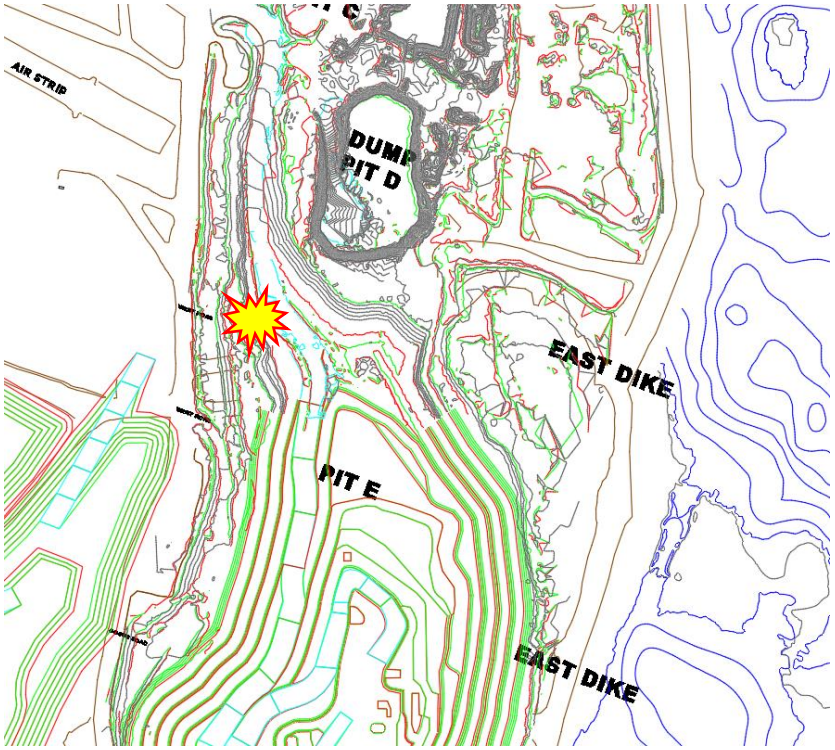


Fig.2: Keep berm and candles in place, as there is potential of further Rockfall.

Fig.3: Location of the rockfall.



ROCK FALL REPORT TO MINES INSPECTOR – SEPTEMBER 15, 2019

REPORT TO MINES INSPECTOR

Date: September 15, 2019

From: **AGNICO-EAGLE Mines Limited**
Meadowbank Division

To: Nunavut Mines Inspector

Issued pursuant to (Sections 16.01 & 16.02) of the Mine Health and Safety Act and Regulations for NWT & NU.

Event Description:

In the early morning hours of 09-15-2019, a rock fall of approximately 60 tonnes occurred on the west wall of the Pit E5 at elevation 4990 (mine grid). While performing his morning round at around 7:00AM, the Pit Supervisor noticed that a rock fall occurred. Rocks coming off the wall fell inside a preventive berm installed 2 days earlier. Note that the area was already closed-off following a field visit conducted by geotechnical personnel and pit supervisor on September 12, 2019. The radar does not cover this section of the pit.

No personnel were injured and no equipment was damaged by the rock fall.

Geological context:

The rockfall occurred within the ultramafic unit. The block was already cut and open by two joint sets, creating a fair size wedge. The event happened following a period of heavy rain. This area is likely to have more upcoming instabilities.

Remediation plan:

- Keep the area bermed off.
- Re-inforce, to all employee working in the pits, the importance of respecting the procedure “MBK-MINE-OPM-PRO Work close to pit walls”.
- In the event we do need to go back drilling in the area, further remediation plan would be determine in time. That may include the possibility of a step-in.

Prepared by:
Vincent Duranleau, Geotechnical Technician

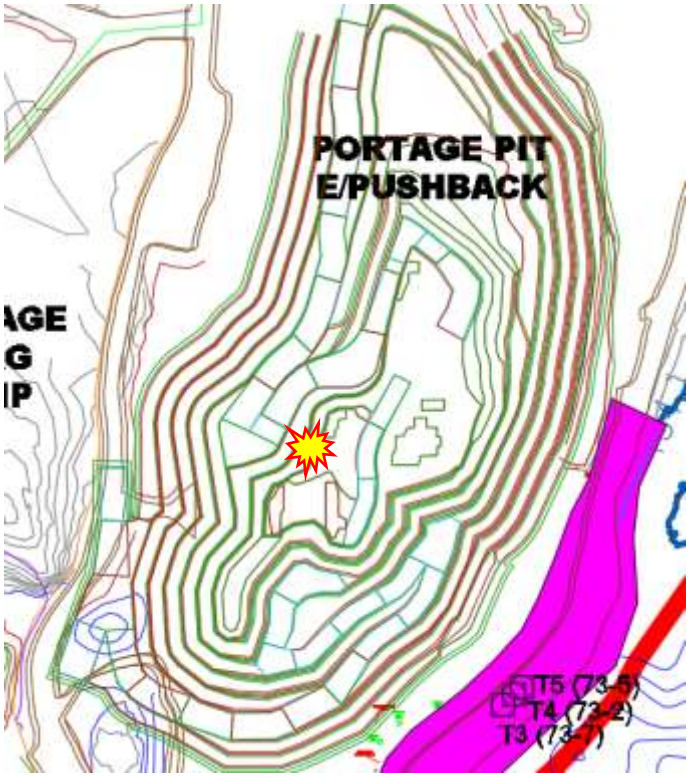
Fig.1: Photos taken before and after the rock fall was reported.

Before

After

Fig.2: Keep the berm in place; reassess the area prior to undertake new drilling activities.

Fig.3: Location of the rockfall.



ROCK FALL REPORT TO MINES INSPECTOR – OCTOBER 2, 2019

REPORT TO MINES INSPECTOR

Date: October 03, 2019

From: AGNICO-EAGLE Mines Limited
Meadowbank Division

To: Nunavut Mines Inspector

Issued pursuant to (Sections 16.01 & 16.02) of the Mine Health and Safety Act and Regulations for NWT & NU.

Event Description:

At 20:19 on 10-02-2019 (as per radar signature), a rock fall of approximately 55 tonnes occurred on the South wall of the Pit E5 at elevation 4990 (mine grid). While performing his morning pit tour, the Pit Supervisor noticed the evidence of the rock fall at around 7:00am. That section of the wall was mined out during the previous shift contributing to the instability. During the previous week, remediation work also has been done to the area. The radar did not gave an alarm, as the block itself was not enough to create an event. Additionally, the height of the rock fall was low enough to the working bench that the movement would mix in with the movement of the equipment in the area.

No personnel was injured and no equipment was damaged by the rock fall as nobody was working in the immediate area.

Geological context:

The rockfall occurred within the ultramafic unit at the contact of the ultramafic and iron formation. That constitutes of the lower section of a bigger potential rock fall as an iron formation block is undercut by ultramafic slips.

Remediation plan:

- Berms was put in place when the Pit supervisor discovered the rock fall.
- Bigger berms were also built after the visit of the geotechnical personnel to contain any debris coming from the potential unstable area above.
- Re-inforce, to all employee working in the pits, the importance of respecting the procedure “MBK-MINE-OPM-PRO Work close to pit walls”.
- Change the mine planning or consider larger remedial measures (build ramp etc.)

Prepared by:
Vincent Duranleau, Geotechnical Technician

Fig.1: Photos of the Rock Fall.

Rock fall

Rock fall and potential upcoming.

Fig.2: Radar signature

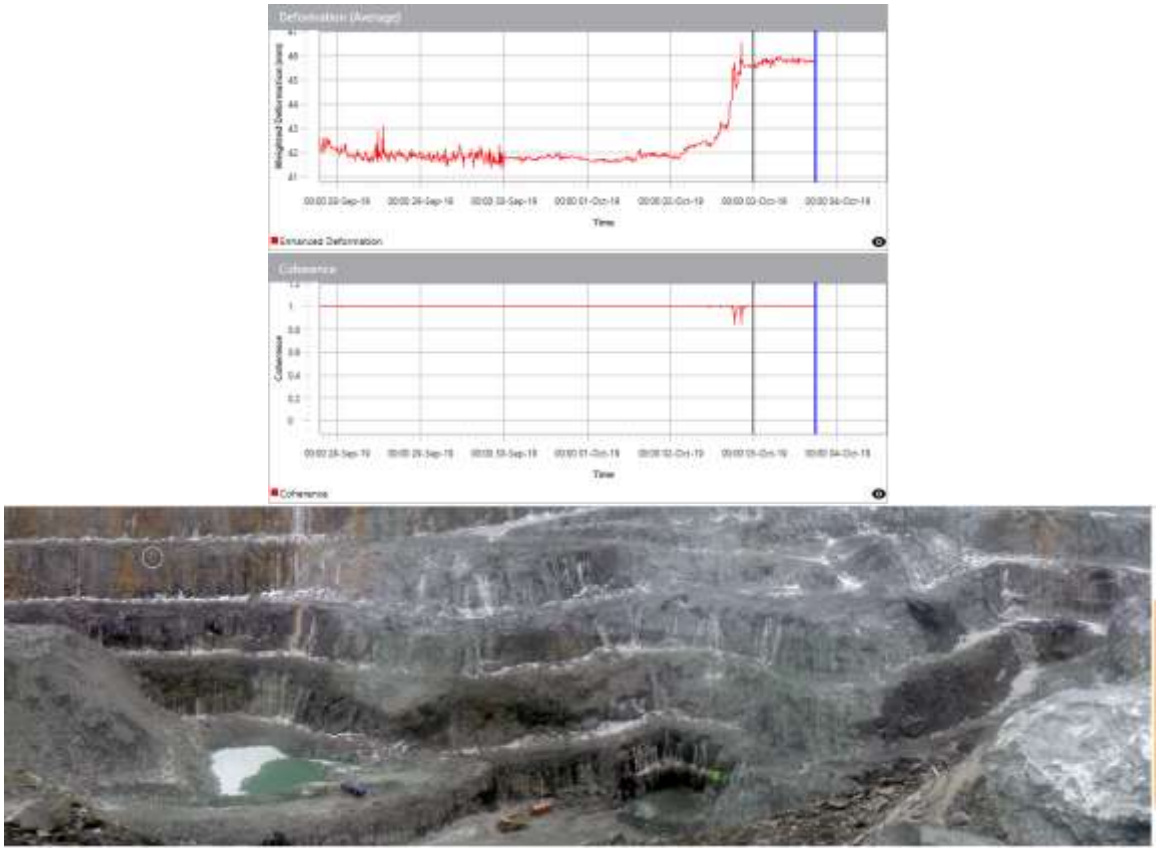
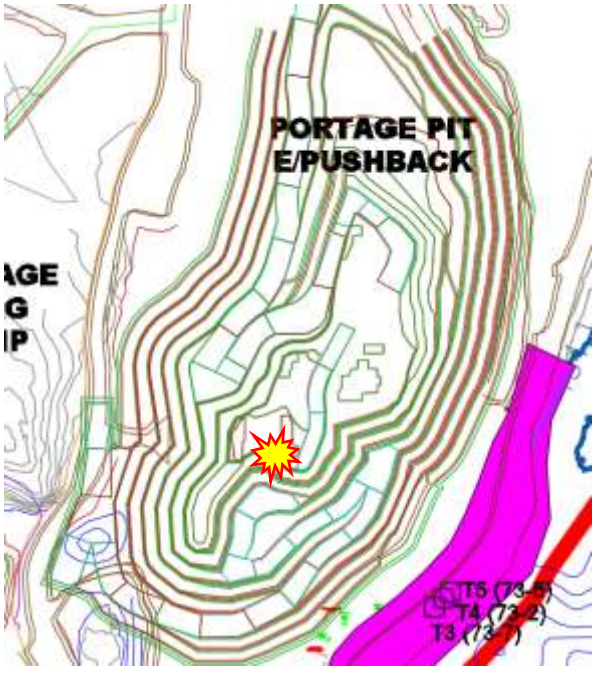


Fig.3: Location of the rockfall.



ROCK FALL REPORT TO MINES INSPECTOR - OCTOBER 5, 2019

REPORT TO MINES INSPECTOR

Date: October 08, 2019

From: AGNICO-EAGLE Mines Limited
Meadowbank Division

To: Nunavut Mines Inspector

Issued pursuant to (Sections 16.01 & 16.02) of the Mine Health and Safety Act and Regulations for NWT & NU.

Event Description:

At 8:46 AM on 10-05-2019 (as per radar signature), a rock fall of approximately 600 tonnes occurred on the South wall of the Pit E5 at elevation 5110 (mine grid).The event was noticed by the geotechnical personnel while performing a radar routine inspection and pictures comparison. There was no alarm associated with the event as the area has been closed for a year and does not represent any risk for the operation down below. As such, the area had been masked from the radar to help focus the radar on more critical areas to human health. Upon routine review of radar data the geotechnical technician noticed the rock fall and the strong signature it emitted. Additionally, the wedge had been previously recognized by the geotechnical group and recorded as an historical rock fall hazard. The rock fall is reported late due to the fact that it was in an area that has been closed off.

No personnel was injured and no equipment was damaged by the rock fall as the area was mined out and the zone has been closed for a year.

Geological context:

The rockfall occurred within the ultramafic unit. Two converging sets of joint creating a big size wedge and the recent snow accumulation has contributed to the rock fall.

Remediation plan:

- Keep the ramp access close at the top.
- No additional measures is required.

Fig.1: Photos of the Rock Fall.

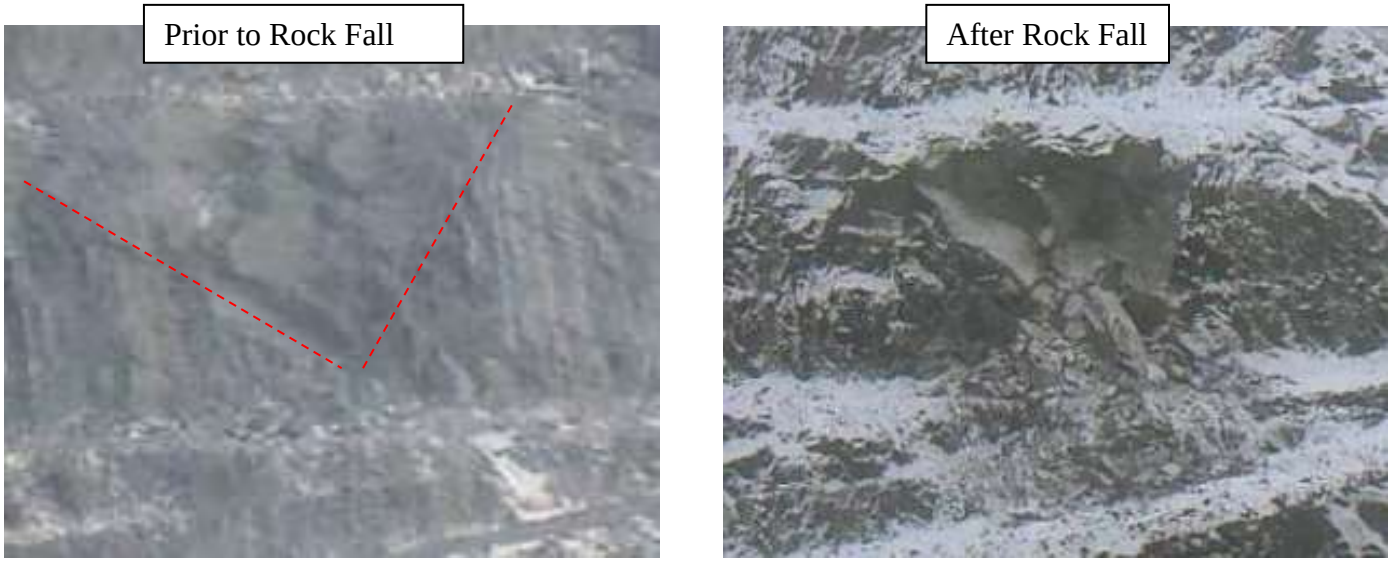


Fig.2: Radar signature

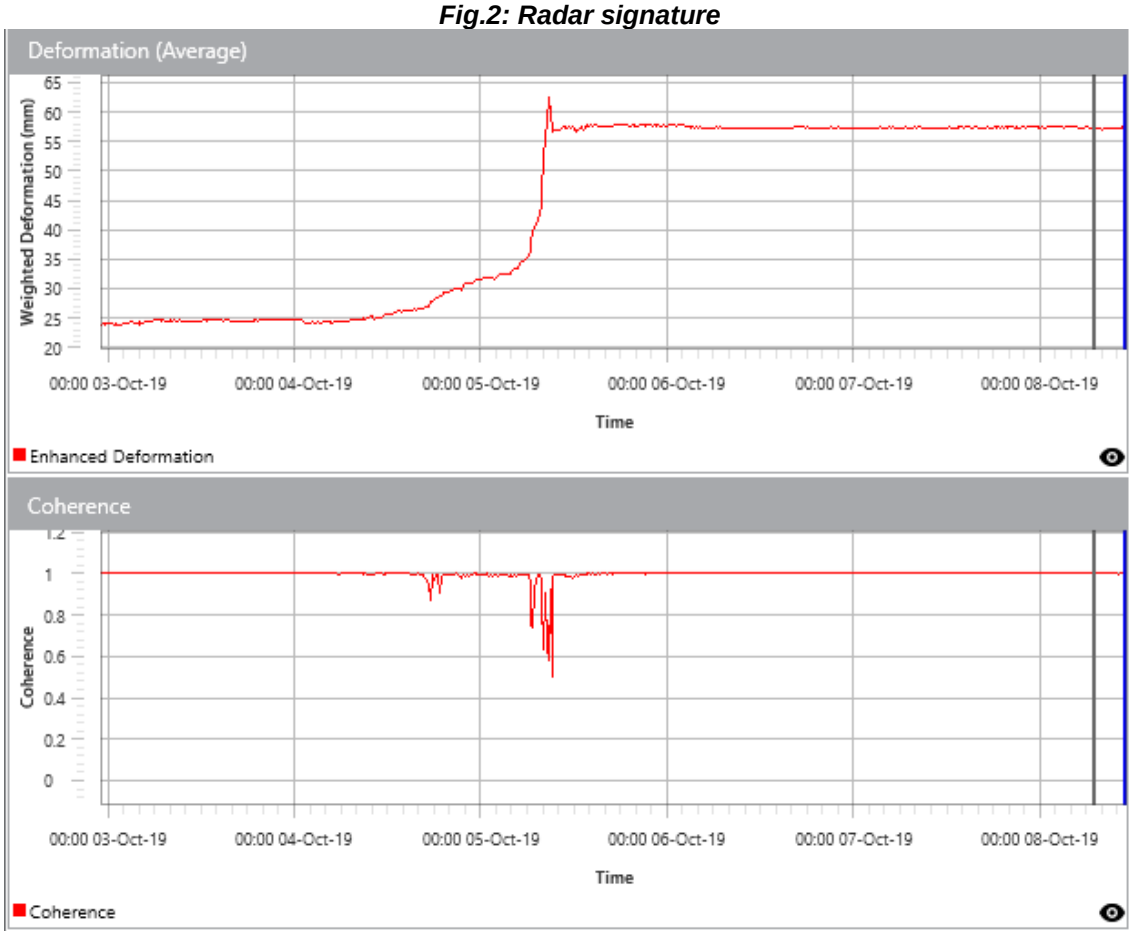
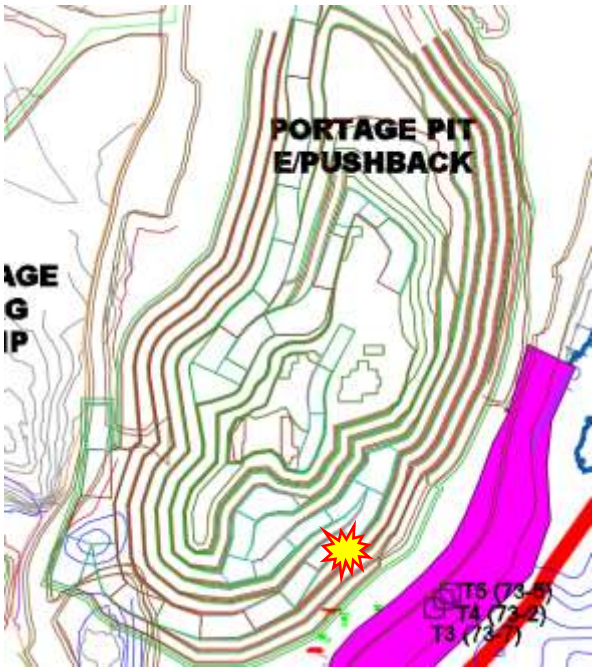


Fig.3: Location of the rockfall and historical hazard map.



Prepared by:
Vincent Duranleau, Geotechnical Technician

APPENDIX G

PIT D DUMP MONITORING

Pit D Dump Monitoring Database
Extensometer 1 - 2019

Fill this section					Automatic		
Date (dd/mm/yyyy)	Time(hh:mm)	Reading (m)	Cumulative Difference (m)	Wireline was relocated/moved (YES/NO)	Daily rate (mm/day)	Status	Action required
15-08-19	17:15	2.280		YES	Not Applicable	Not Applicable	Not Applicable
16-08-19	9:15	2.280	0.000	NO	0	1	Normal
18-08-19	16:15	2.590	0.310	YES	Not Applicable	Not Applicable	Not Applicable

Pit D Dump Monitoring Database
Extensometer 2 - 2019

Fill this section					Automatic		
Date (dd/mm/yyyy)	Time(hh:mm)	Reading (m)	Cumulative Difference (m)	Wireline was relocated/moved (YES/NO)	Daily rate (mm/day)	Status	Action required
16-08-19	9:15	5.194		YES	Not Applicable	Not Applicable	Not Applicable
18-08-19	16:15	5.191	-0.003	NO	0	1	Normal
12-09-19	15:15	5.180	-0.011	NO	0	1	Normal

APPENDIX H

TETRA TECH'S LIMITATIONS ON THE USE OF THIS DOCUMENT

LIMITATIONS ON USE OF THIS DOCUMENT

GEOTECHNICAL

1.1 USE OF DOCUMENT AND OWNERSHIP

This document pertains to a specific site, a specific development, and a specific scope of work. The document may include plans, drawings, profiles and other supporting documents that collectively constitute the document (the "Professional Document").

The Professional Document is intended for the sole use of TETRA TECH's Client (the "Client") as specifically identified in the TETRA TECH Services Agreement or other Contractual Agreement entered into with the Client (either of which is termed the "Contract" herein). TETRA TECH does not accept any responsibility for the accuracy of any of the data, analyses, recommendations or other contents of the Professional Document when it is used or relied upon by any party other than the Client, unless authorized in writing by TETRA TECH.

Any unauthorized use of the Professional Document is at the sole risk of the user. TETRA TECH accepts no responsibility whatsoever for any loss or damage where such loss or damage is alleged to be or, is in fact, caused by the unauthorized use of the Professional Document.

Where TETRA TECH has expressly authorized the use of the Professional Document by a third party (an "Authorized Party"), consideration for such authorization is the Authorized Party's acceptance of these Limitations on Use of this Document as well as any limitations on liability contained in the Contract with the Client (all of which is collectively termed the "Limitations on Liability"). The Authorized Party should carefully review both these Limitations on Use of this Document and the Contract prior to making any use of the Professional Document. Any use made of the Professional Document by an Authorized Party constitutes the Authorized Party's express acceptance of, and agreement to, the Limitations on Liability.

The Professional Document and any other form or type of data or documents generated by TETRA TECH during the performance of the work are TETRA TECH's professional work product and shall remain the copyright property of TETRA TECH.

The Professional Document is subject to copyright and shall not be reproduced either wholly or in part without the prior, written permission of TETRA TECH. Additional copies of the Document, if required, may be obtained upon request.

1.2 ALTERNATIVE DOCUMENT FORMAT

Where TETRA TECH submits electronic file and/or hard copy versions of the Professional Document or any drawings or other project-related documents and deliverables (collectively termed TETRA TECH's "Instruments of Professional Service"), only the signed and/or sealed versions shall be considered final. The original signed and/or sealed electronic file and/or hard copy version archived by TETRA TECH shall be deemed to be the original. TETRA TECH will archive a protected digital copy of the original signed and/or sealed version for a period of 10 years.

Both electronic file and/or hard copy versions of TETRA TECH's Instruments of Professional Service shall not, under any circumstances, be altered by any party except TETRA TECH. TETRA TECH's Instruments of Professional Service will be used only and exactly as submitted by TETRA TECH.

Electronic files submitted by TETRA TECH have been prepared and submitted using specific software and hardware systems. TETRA TECH makes no representation about the compatibility of these files with the Client's current or future software and hardware systems.

1.3 STANDARD OF CARE

Services performed by TETRA TECH for the Professional Document have been conducted in accordance with the Contract, in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions in the jurisdiction in which the services are provided. Professional judgment has been applied in developing the conclusions and/or recommendations provided in this Professional Document. No warranty or guarantee, express or implied, is made concerning the test results, comments, recommendations, or any other portion of the Professional Document.

If any error or omission is detected by the Client or an Authorized Party, the error or omission must be immediately brought to the attention of TETRA TECH.

1.4 DISCLOSURE OF INFORMATION BY CLIENT

The Client acknowledges that it has fully cooperated with TETRA TECH with respect to the provision of all available information on the past, present, and proposed conditions on the site, including historical information respecting the use of the site. The Client further acknowledges that in order for TETRA TECH to properly provide the services contracted for in the Contract, TETRA TECH has relied upon the Client with respect to both the full disclosure and accuracy of any such information.

1.5 INFORMATION PROVIDED TO TETRA TECH BY OTHERS

During the performance of the work and the preparation of this Professional Document, TETRA TECH may have relied on information provided by third parties other than the Client.

While TETRA TECH endeavours to verify the accuracy of such information, TETRA TECH accepts no responsibility for the accuracy or the reliability of such information even where inaccurate or unreliable information impacts any recommendations, design or other deliverables and causes the Client or an Authorized Party loss or damage.

1.6 GENERAL LIMITATIONS OF DOCUMENT

This Professional Document is based solely on the conditions presented and the data available to TETRA TECH at the time the data were collected in the field or gathered from available databases.

The Client, and any Authorized Party, acknowledges that the Professional Document is based on limited data and that the conclusions, opinions, and recommendations contained in the Professional Document are the result of the application of professional judgment to such limited data.

The Professional Document is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site conditions present, or variation in assumed conditions which might form the basis of design or recommendations as outlined in this document, at or on the development proposed as of the date of the Professional Document requires a supplementary exploration, investigation, and assessment.

TETRA TECH is neither qualified to, nor is it making, any recommendations with respect to the purchase, sale, investment or development of the property, the decisions on which are the sole responsibility of the Client.

1.7 ENVIRONMENTAL AND REGULATORY ISSUES

Unless stipulated in the report, TETRA TECH has not been retained to explore, address or consider and has not explored, addressed or considered any environmental or regulatory issues associated with development on the subject site.

1.8 NATURE AND EXACTNESS OF SOIL AND ROCK DESCRIPTIONS

Classification and identification of soils and rocks are based upon commonly accepted systems, methods and standards employed in professional geotechnical practice. This report contains descriptions of the systems and methods used. Where deviations from the system or method prevail, they are specifically mentioned.

Classification and identification of geological units are judgmental in nature as to both type and condition. TETRA TECH does not warrant conditions represented herein as exact, but infers accuracy only to the extent that is common in practice.

Where subsurface conditions encountered during development are different from those described in this report, qualified geotechnical personnel should revisit the site and review recommendations in light of the actual conditions encountered.

1.9 LOGS OF TESTHOLES

The testhole logs are a compilation of conditions and classification of soils and rocks as obtained from field observations and laboratory testing of selected samples. Soil and rock zones have been interpreted. Change from one geological zone to the other, indicated on the logs as a distinct line, can be, in fact, transitional. The extent of transition is interpretive. Any circumstance which requires precise definition of soil or rock zone transition elevations may require further investigation and review.

1.10 STRATIGRAPHIC AND GEOLOGICAL INFORMATION

The stratigraphic and geological information indicated on drawings contained in this report are inferred from logs of test holes and/or soil/rock exposures. Stratigraphy is known only at the locations of the test hole or exposure. Actual geology and stratigraphy between test holes and/or exposures may vary from that shown on these drawings. Natural variations in geological conditions are inherent and are a function of the historical environment. TETRA TECH does not represent the conditions illustrated as exact but recognizes that variations will exist. Where knowledge of more precise locations of geological units is necessary, additional exploration and review may be necessary.

1.11 PROTECTION OF EXPOSED GROUND

Excavation and construction operations expose geological materials to climatic elements (freeze/thaw, wet/dry) and/or mechanical disturbance which can cause severe deterioration. Unless otherwise specifically indicated in this report, the walls and floors of excavations must be protected from the elements, particularly moisture, desiccation, frost action and construction traffic.

1.12 SUPPORT OF ADJACENT GROUND AND STRUCTURES

Unless otherwise specifically advised, support of ground and structures adjacent to the anticipated construction and preservation of adjacent ground and structures from the adverse impact of construction activity is required.

1.13 INFLUENCE OF CONSTRUCTION ACTIVITY

Construction activity can impact structural performance of adjacent buildings and other installations. The influence of all anticipated construction activities should be considered by the contractor, owner, architect and prime engineer in consultation with a geotechnical engineer when the final design and construction techniques, and construction sequence are known.

1.14 OBSERVATIONS DURING CONSTRUCTION

Because of the nature of geological deposits, the judgmental nature of geotechnical engineering, and the potential of adverse circumstances arising from construction activity, observations during site preparation, excavation and construction should be carried out by a geotechnical engineer. These observations may then serve as the basis for confirmation and/or alteration of geotechnical recommendations or design guidelines presented herein.

1.15 DRAINAGE SYSTEMS

Unless otherwise specified, it is a condition of this report that effective temporary and permanent drainage systems are required and that they must be considered in relation to project purpose and function. Where temporary or permanent drainage systems are installed within or around a structure, these systems must protect the structure from loss of ground due to mechanisms such as internal erosion and must be designed so as to assure continued satisfactory performance of the drains. Specific design details regarding the geotechnical aspects of such systems (e.g. bedding material, surrounding soil, soil cover, geotextile type) should be reviewed by the geotechnical engineer to confirm the performance of the system is consistent with the conditions used in the geotechnical design.

1.16 DESIGN PARAMETERS

Bearing capacities for Limit States or Allowable Stress Design, strength/stiffness properties and similar geotechnical design parameters quoted in this report relate to a specific soil or rock type and condition. Construction activity and environmental circumstances can materially change the condition of soil or rock. The elevation at which a soil or rock type occurs is variable. It is a requirement of this report that structural elements be founded in and/or upon geological materials of the type and in the condition used in this report. Sufficient observations should be made by qualified geotechnical personnel during construction to assure that the soil and/or rock conditions considered in this report in fact exist at the site.

1.17 SAMPLES

TETRA TECH will retain all soil and rock samples for 30 days after this report is issued. Further storage or transfer of samples can be made at the Client's expense upon written request, otherwise samples will be discarded.

1.18 APPLICABLE CODES, STANDARDS, GUIDELINES & BEST PRACTICE

This document has been prepared based on the applicable codes, standards, guidelines or best practice as identified in the report. Some mandated codes, standards and guidelines (such as ASTM, AASHTO Bridge Design/Construction Codes, Canadian Highway Bridge Design Code, National/Provincial Building Codes) are routinely updated and corrections made. TETRA TECH cannot predict nor be held liable for any such future changes, amendments, errors or omissions in these documents that may have a bearing on the assessment, design or analyses included in this report.

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