Appendix 36

Whale Tail 2024 Groundwater Management Monitoring Report

TECHNICAL MEMORANDUM

DATE March 20, 2025 **Project No.** CA0037376.3015-MBK2024-029-Rev0

TO Marie-Pier Marcil
Agnico Eagle Mines Limited

CC Robin Allard

FROM Dale Holtze; Jennifer Levenick **EMAIL dale.holtze@wsp.com; jennifer.levenick@wsp.com**

WHALE TAIL MINE – 2024 GROUNDWATER MANAGEMENT MONITORING REPORT

Agnico Eagle Mines Limited – Meadowbank Complex (Agnico Eagle) received a Project Certificate No.008 from the Nunavut Impact Review Board for the development of the Whale Tail Mine, a satellite deposit located on the Amaruq Exploration Property. To comply with the Terms and Conditions No.15 and 16 included in the Project Certificate, and as a requirement of the Water Licence no. 2AM-WTP1830 issued by the Nunavut Water Board (NWB), a Groundwater Monitoring Plan (GWMP) was developed and implemented for the Mine.

This memorandum provides a compilation and review of the site-specific groundwater data collection in 2024. The data presented in this memorandum and the relevant sections of the GWMP that are addressed by presented information are as follows:

- Section 1 of the report summarizes the open pit and underground mine operations interacting with groundwater.
- Section 2 of this report provides site-specific data collected in 2024 including thermistor data (Section 2.2 of the GWMP), groundwater quantity data (Section 2.4 of the GWMP), groundwater quality data (Section 2.4 of the GWMP) and hydraulic head monitoring (Section 2.3 of the GWMP).
- Section 3 discusses the mine inflow monitoring data and presents a comparison of these data to model predictions (Section 3.2 of the GWMP), which were last updated in 2022.

1.0 WHALE TAIL SITE

The project consists of mining from the Whale Tail and IVR Pits and underground operations. In 2024, only Whale Tail Pit intercepted groundwater. The IVR pit is in permafrost and is not expected to interact with the deeper groundwater flow system until closure, when the formation of the pit lake will slowly degrade the permafrost underlying the open pit. The Whale Tail underground is still located within permafrost and therefore has not intercepted groundwater.

Development of Whale Tail Mine required the dewatering of the North Basin of Whale Tail Lake (North Basin) and the construction of the Whale Tail Dike (WTD), which was completed by 15 May 2020. Prior to dewatering, mining occurred in the portions of the Whale Tail Mine that are outside of the North Basin within permafrost. The eastern portion was referred to as Quarry 1, and the western area as the Whale Tail (Starter) Pit. During the North Basin dewatering period, Quarry 1, located in permafrost, was the established attenuation pond on site. Starting in the spring of 2020, Quarry 1 and the Whale Tail (Starter) Pit merged to form the Whale Tail Pit. The Quarry 1 attenuation pond was replaced by the Whale Tail Attenuation Pond in June 2020, which is in the dewatered North Basin between the Dike and the South Basin of Whale Tail Pit. In May 2021, the IVR Attenuation Pond was also established to manage contact water. Throughout 2024, the Whale Tail Attenuation Pond continued to receive inflows from Whale Tail Pit as well as WTD seepage from the WTD seepage interception system, Whale Tail Camp, Whale Tail waste rock storage facility pond (June only), the northwestern sump (May to October only) and surface water runoff. During 2024, some water from WT Attenuation Pond was transferred to IVR Attenuation Pond (March to November) and IVR-1 Pit (January to March and October to December).

2.0 MONITORING DATA COLLECTION

2.1 Westbay Well Sampling and Assessment of Groundwater Quality

In accordance with Section 3.1 of the GWMP, hydrostatic pressures were measured in September 2024 at Westbay Well AMQ16-626 to monitor hydraulic heads and changes in groundwater flow conditions. Following the pressure measurements, groundwater samples were collected to monitor the total dissolve solids (TDS) and groundwater quality. A technical memorandum documenting this work, sampling results and historical monitoring from AMQ16-626 is included in Attachment A (WSP 2025), and a summary of the results is presented below. The location of AMQ16-626 is illustrated on Figure 1.

Water samples were collected from Ports 3 and 4 of AMQ16-626 in September 2024 to assess groundwater quality. During drilling and installation of the well, the drilling fluid was tagged with fluorescein. During collection of the water samples, the fluorescein concentration was measured to estimate the proportion of the sample attributed to drilling fluid versus formation groundwater. Groundwater quality at each port sampled was estimated using a mass balance calculation on analytical results and initial drilling brine composition to remove the proportion of residual drill fluid from the collected samples.

Given AMQ16-626 had to be installed through permafrost (Golder 2016), removal of groundwater for well development, purging and sampling must be carried out using a small volume sampler which substantially lengthens the time requirement for these activities for each port (months). The sampling program prioritizes key ports that optimized groundwater quality data collection, though each port is accessed for hydraulic pressure measurements. The rational for ports selected for sampling is provided below.

- Ports 4 and 3 were targeted for sampling based on their port elevation relative to planned underground infrastructure and because these intervals had been substantially developed since 2016 (i.e., drill water had been largely removed from the interval). These ports are used to assess groundwater quality for the Whale Tail Pit.
- Port 6, located within the cryopeg, has not been targeted for sampling since 2021 when it was observed the Formation pressure is taking longer to recover between 1 L sample runs compared to previous years (gradual decrease over time since 2016). This results in a pressure differential at the monitoring port being exceeded, which allows for small amounts of Westbay casing water to enter the Formation and compromise the integrity of the water quality samples being collected.

- Ports 1 and 2 were not sampled in the 2022 through 2024 programs as they have not been sufficiently developed to yield an accurate estimate of groundwater quality. Multiple weeks of 24-hour development would likely be required to remove the residual drill fluid content in these Ports to be below the target of 5% residual drill fluid for a workable estimation of Formation water quality. The baseline TDS profile developed for the Whale Tail Mine only include water quality data from Ports 6, 4 and 3, and not the deeper Ports 1 and 2.
- Port 5 was never intended for groundwater sampling and was installed for pressure measurements only.

Based on 2024 data from Ports 3 and 4, the calculated TDS content of Formation water is estimated to range between 2,163 and 2,621 mg/L near these ports. The TDS in samples from Ports 3 and 4 is similar to measurements in recent years and slightly less saline than historical sampling results in 2016, which may reflect the lower residual drilling fluid content in the collected samples and therefore inferred higher accuracy in the calculated Formation water quality. Overall, although slightly less saline than the Whale Tail TDS profile adopted for the FEIS, the results do not deviate significantly from FEIS assumptions (see Figure 5 in Attachment A).

Arsenic, which is a constituent of interest in the ore and waste rock to be mined, occurs in groundwater at concentrations that are low and consistent with previous reliable data collected from the well. Radium-226 in groundwater measured in 2024 at Ports 3 and 4 were below the Federal Metal and Diamond Mining Effluent Regulations.

The assumptions for the conceptual model for the mine site are considered unchanged by 2024 groundwater quality monitoring at AMQ16-626.

LEGEND

WATER SAMPLING STATIONS 2024

- WESTBAY SYSTEM
- DIKE SEEPAGE
- WALL SEEPAGE
- LAKE
- POND
- SUMP

WATER SAMPLING STATIONS (PRIOR TO 2023)

- WALL SEEPAGE
- SUMP

0 300 600

1:15,000 METRES

REFERENCE(S)

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DATUM: NAD 83 CSRS PROJECTION: UTM ZONE 14

CLIENT

AGNICO EAGLE

AGNICO EAGLE MINES LIMITED: MEADOWBANK DIVISION

PROJECT

2024 GROUNDWATER MONITORING PROGRAM
WHALE TAIL MINE, NUNAVUT

TITLE

WATER SAMPLING STATIONS

CONSULTANT

wsp

YYYY-MM-DD	2025-03-19
DESIGNED	NU
PREPARED	CDB
REVIEWED	DH
APPROVED	JL

PROJECT NO.	DOC.	REV.	FIGURE
CA0037376.3015	MBK2024_029	0	1

2.2 Thermal Monitoring Related to Groundwater Flow Interpretation

Whale Tail Mine thermal monitoring is documented in Attachment B, which includes the 2024 Whale Tail Mine Thermal Monitoring Report (Agnico Eagle 2025a). There are currently ninety-eight (98) active thermistors at the Whale Tail Mine site, and their approximate locations are presented in Appendix A of Attachment B and Figure 2 for thermistor AMQ-PSW3-DDH1_TH (same location as piezometer PSW3-DDH1). Five (5) thermistors were installed in 2024, of which four (4) were installed within the Whale Tail Rock Storage Facility (WRSF) and one (1) within the south wall ramp of the Whale Tail Pit. Data collection from these five monitors is recent and not stabilized for interpretation as part of the current assessment.

Under the GWMP, AMQ17-1233 and AMQ17-1337 were intended to monitor permafrost conditions between Nemo Lake and Whale Tail Mine (verify the presence of permafrost and the restricted horizontal movement of groundwater below the active layer due to permafrost in the upper 450 to 520 m of bedrock). These thermistors, formerly located outside of the pit footprint (refer to Appendix A of Attachment B), are no longer functioning due to mining activity but were showing permafrost conditions until they stopped functioning in 2019. Thermistor IVR long V651A TH was installed to the southeast of IVR Pit in 2019 to continue to monitor permafrost conditions. Many of the shallow beads installed in V651A TH malfunctioned in 2022 and the data is unavailable, however data from the deeper thermistor beads confirm permafrost is present at depth up to approximately 450 to 500 metres below ground surface.

Nine thermistors (PSW-DH2 TH, PSW-DH3 TH, PSW-DH6 TH, PSW-DH7 and PSW-DH-10 through PSW-DH14 TH) were installed in 2020 to monitor the talik zone near the south wall of the Whale Tail Pit. In August 2021 these thermistors were dismantled due to nearby mining activity and data is no longer available. While active, these thermistors were used to evaluate if during open pit mining and with the dewatering of the North Basin, the closed talik zone will progressively freeze back. Through the year 2021 until their dismantling in August 2021, some freeze-back was observed in the upper bedrock in thermistors PSW-DH2 TH, PSW-DH3 TH, PSW-DH7 TH and PSW-DH10 TH (refer to Appendix A of Attachment B), resulting in minor changes to the talik zone extent. The available 2024 data collected from thermistor AMQ-PSW3-DDH1 TH indicate a slow decrease in temperature within the talik zone near the south wall of Whale Tail Pit (refer to Appendix A of Attachment B).

As part of the Whale Tail Dike Operation Maintenance and Surveillance Manual, performance of the Whale Tail Dike (WTD) was monitored with thermistors located downstream and/or upstream (U/S) of the WTD (0+110, US 0+130, WAC 0+130, 0+142, 0+190 U/S, 0+210, 0+240, 0+260, 0+276 U/S, 0+310, 0+336 U/S, 0+340 DS West, 0+360, 0+380, 0+407, 0+425, 0+453, 0+475, 0+500, 0+520, 0+530, 0+550, 0+580, 0+596, 0+607, 0+618 DS East, 0+635, 0+645, 0+665, 0+675, 0+685, 0+695, 0+707.5, 0+710 U/S, 0+720, 0+740, 0+750, 0+772 U/S, EAC 0+781, 0+790). Similar to observations in 2023, Agnico Eagle indicates that the trend of permafrost degradation noted at the abutments in 2021 did not progress laterally based on the 2024 thermistor readings. They did note field observations indicative of further degradation (observed settlement upstream and downstream of the east and west abutments) (Agnico Eagle 2025a). The thermal regime in this area is interpreted to have not yet reached an equilibrium.

LEGEND

HYDRAULIC HEAD MONITORING STATIONS (2024)

- WESTBAY SYSTEM
- PIEZOMETER
- POND

HYDRAULIC HEAD MONITORING STATIONS (PRIOR TO 2023)

- PIEZOMETER

0 300 600

1:15,000 METRES

REFERENCE(S)

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DATUM: NAD 83 CSRS PROJECTION: UTM ZONE 14

CLIENT

AGNICO EAGLE

AGNICO EAGLE MINES LIMITED: MEADOWBANK DIVISION

PROJECT

2024 GROUNDWATER MONITORING PROGRAM
WHALE TAIL MINE, NUNAVUT

TITLE

HYDRAULIC HEAD MONITORING STATIONS

CONSULTANT

wsp

YYYY-MM-DD	2025-03-19
DESIGNED	DH
PREPARED	CDB
REVIEWED	DH
APPROVED	JL

PROJECT NO.	DOC.	REV.	FIGURE
CA0037376.3015	MBK2024_029	0	2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25mm

2.3 Hydraulic Head Monitoring and Definition of Horizontal and Vertical Groundwater Flow

Hydraulic head was estimated from pressure data recorded in 2024 from the Westbay Well AMQ16-626 (Attachment A) and from piezometers (refer to Figure 2) installed to monitor the south wall of the Whale Tail Pit and the performance of the WTD (Attachment C). The Whale Tail Pit is located in the dewatered North Basin of Whale Tail Lake. The talik in the pit area is closed at depth but transitions to open talik towards the South Basin due to the increased width and depth of Whale Tail Lake towards the south. Due to the dewatering activities, some freeze back of the talik in the North Basin is possible as mining progresses, and some alteration in vertical hydraulic gradients will have occurred.

Permafrost underlies the land surrounding the lake, which restricts the lateral flow of groundwater to the talik and restricts the recharge of the sub-permafrost groundwater flow system by precipitation. Regionally groundwater flow is controlled by surface water elevations in lakes with open talik; water moves vertically through the open talik to the underlying sub-permafrost groundwater flow system. Conceptually lakes with open taliks in continuous permafrost regions are equivalent to large monitoring wells.

AMQ16-626 was installed to evaluate groundwater quality and the hydraulic gradient in the unfrozen bedrock as part of baseline characterization. Freshwater hydraulic heads were derived from the formation pressures measured at each monitoring port installed along the well prior to development or sampling. With mining of the Whale Tail Pit, there has been a general decrease in hydraulic heads relative to pre-development. The lower hydraulic heads are attributed to the dewatering of the North Basin and the ongoing excavation of the open pit. In the pre-development years (2018 and 2019) there was a downward hydraulic gradient observed between Ports 4 and 1, which measured 0.008 m/m in 2018 and 0.006 m/m in 2019. The hydraulic gradients are calculated using the freshwater hydraulic heads and the distance between the sampling interval midpoints. Overall TDS is low and correction of this gradient for buoyancy effects would be within 0.001 to 0.002 m/m and would not alter the interpreted groundwater flow direction.

After dewatering of the North Basin of Whale Tail Lake and excavation of the open pit, the gradient is no longer consistently downward. An upward gradient is present at shallow depths (between Port 4 and 6) and a downward gradient is present at depth (between Port 1 and 4). The downward hydraulic gradient observed between Ports 4 and 1 has generally increased between 2020 and 2023 (0.001 to 0.006, respectively), and in 2024 the calculated gradient remained similar to 2023. The shift in gradient is inferred to reflect the influence of dewatering of the Whale Tail Pit and North Basin of Whale Tail Lake.

As part of pit and WTD surveillance monitoring, hydraulic data is collected from a series of vibrating wire piezometers installed upstream and downstream of the WTD. Water levels are also monitored in the Whale Tail Lake South Basin and in the Whale Tail Attenuation Pond, located between the WTD and the Whale Tail Pit. Due to nearby mining activities, piezometers installed near the south wall of the Whale Tail Pit were decommissioned between August 21 and 23, 2021 (PSW-DH01 to PSW-DH14). Multilevel piezometer PSW3-DDH1 was installed in September 2022 to monitor hydraulic head data collected in the south wall of the Whale Tail Pit. The approximate locations of the historical and existing piezometers are illustrated in Figure 2 and the collected 2024 data is presented in Attachment C.

Hydraulic heads measured in the multilevel piezometer PSW3-DDH1 have decreased since it was installed in 2023 in response to the advanced mining operations. Temporal variations are observed in the data in response to multiple influences, including precipitation, blasting and variations in surface water levels in the Whale Tail Attenuation Pond. The correlation of hydraulic heads measured to surface water levels in the pond is strongest in the shallower piezometers installed in PSW3-DDH1 and decreased throughout 2024 in response to mining activities in the Whale Tail Pit south wall area (Figure C-1 in Attachment C).

Relatively stable downward vertical gradients were observed in 2024 in the shallower sensors installed in PSW3-DDH1 (C through E). At PSW3-DDH1 reverts to an upward hydraulic gradient between the two deepest sensors (A and B) located below the base of the pit, which reflects the influence of pit depressurization on the groundwater flow system.

2.4 Whale Tail Mine Inflow Quantity and Quality

2.4.1 Whale Tail Pit Sump Inflow Quantity

In accordance with Section 4.1 of the GWMP, pit inflow quantity during the 2024 Whale Tail Pit operations was monitored by Agnico Eagle. Water that accumulates in the pit sump consists of groundwater inflow, surface water runoff and direct precipitation. Total monthly volumes of water pumped from the sump during the winter months (i.e., October to April) is assumed to predominantly represent groundwater inflow as freezing temperatures restricts surface water runoff and the influence of direct precipitation.

The total and average daily volume of water pumped per month from the Whale Tail Pit sump in 2024 is presented in Table 1. Inflow to Whale Tail Pit is a mixture of surface water inputs (runoff and direct precipitation) and groundwater inflow. The groundwater inflow is a mixture of saline groundwater and subsurface seepage from the Whale Tail Attenuation Pond and South Basin of Whale Tail Lake. For 2024, flow measurements recorded in the winter months are considered the best estimate of groundwater inflows to the pit as surface water inflows should be minimal. The flow observed in the months of January, February, March, April, November, and December ranged between 1,785 m^3/day to 2,362 m^3/day, with an average flow rate of 2,122 m^3/day. These six months are considered to be representative of winter conditions when inflow to the pit from sources other than groundwater would be reduced.

Table 1: 2024 Monthly Total Volumes of Water Pumped from Whale Tail Pit Sump

Operations	Month	Total Volume Pumped (m^3)	Average Daily Volume (m^3/day)
Mining	January	69,333	2,237
	February	65,060	2,243
	March	73,209	2,362
	April	53,540	1,785
	May	107,735	3,475
	June	148,153	4,938
	July	144,214	4,652
	August	85,481	2,757
	September	150,920	5,031
	October	126,452	4,079
	November	61,393	2,046
	December	63,756	2,057

m^3 = cubic metres

2.4.2 Seepage Surveys

The Whale Tail Mine is in its fifth year of operations. Per the GWMP, a seepage survey is only required once per year in August following the first year of operations. The objective of the seepage surveys is to identify preferential groundwater flow pathways in the walls of the open pit, if present, and to determine their relative contribution to the groundwater inflow to the pit with respect to water quantity and quality.

Agnico Eagle notes that seepage has consistently been observed in the southeast wall in 2024 (herein referred to as south wall), and the seepage forms ice in the pit walls during the winter. The seepage is attributed to a highly weathered zone near surface as opposed to faults, which is consistent with the original conceptual model for the Whale Tail Mine and the prediction of a seepage face in the south wall. All of the groundwater seepage observed in the south wall is intercepted by Whale Tail Pit sumps.

The seepage area observed in the south wall continues to increase with the pit operations, where the lateral extent varies per bench. December 2024, Agnico Eagle notes the ice wall extends for a total height of 95 metres (mine grid elevation 5116 metres relative level (mRL) to active mining floor, 5011 mRL), with a lateral extent of about 200 metres. The majority of the south wall seepage reports to the main sump (ST-WT-4, refer to Figures 1 and 3) located at the base of pit wall at 5081 mRL.

Figure 3 shows the location of specific seeps noted by Agnico Eagle in the south wall during 2024. A photograph of the seepage along the Whale Tail Pit south wall is presented in Attachment D. Seepage monitoring was conducted at stations ST-WT-4 and ST-GW-WT-1 and limited by mining operations (drill and blasting, mucking and/or scaling) or accessibility due to safety concerns (loose material requiring safety offset, indication of potential rockfall, etc.).

Seepage water quality analysis is discussed in Section 2.4.3.

2.4.3 Whale Tail Pit Inflow Quality

In accordance with Section 4.2 of the GWMP, Agnico Eagle collected water samples from the following locations in 2024.

- **Whale Tail Pit sump station ST-WT-4.** Water from the pit sump (ST-WT-4) reflects the combined influences of groundwater inflow, surface water runoff and precipitation, and pit development (blasting). Of the sump samples, water quality measurements in the winter months (October to April) will be the most representative of groundwater as surface water inflows will be near their minimum. Some influences of blasting and mine excavation will be present.

- **Whale Tail Pit seepage station ST-GW-WT-1.** Water from pit wall seep ST-GW-WT-1 is a reflection of the groundwater inflow to the pit, which is a mixture of saline groundwater inflow and subsurface seepage from the Whale Tail Attenuation Pond and South Basin of Whale Tail Lake. In comparison to the pit sump, the seeps are a better estimate of groundwater inflow quality as the direct surface water inputs to the pit do not influence the seep water quality.
- Although not required under the GWMP, water quality samples are collected from the Whale Tail Attenuation Pond (ST-WT-1), and from Whale Tail Dike Seepage (ST-WT-17) and are discussed in this section for comparison to pit inflow data.
- Water quality from the Whale Tail pit sump (ST-WT-4) and Whale Tail Attenuation Pond (ST-WT-1) was monitored on a weekly to a monthly basis for Group 1 chemical parameters listed in Table 1 Schedule I of NWB Water Licence Number 2AM-WTP1830 and for additional parameters of interest including electrical conductivity, select major ions (potassium, sodium, magnesium, and calcium are not included), select dissolved metals, ortho-phosphate and total phosphorus. ST-WT-1 was not analyzed for bicarbonate alkalinity, carbonate alkalinity, dissolved organic carbon, reactive silica, total kjeldahl nitrogen, total organic carbon and only arsenic was analysed for dissolved metals. These parameters are useful for assessing water quality and checking laboratory TDS. Field measured parameters including dissolved oxygen, electrical conductivity, pH, temperature, and turbidity were recorded during sampling. A summary of the TDS and chloride measured at the pit sump (ST-WT-4) and Whale Tail Attenuation Pond (ST-WT-1) is presented in Attachment E, along with data from the pit wall seepage samples and WTD seepage (described further below). Full water quality results from the Whale Tail Attenuation Pond (ST-WT-1), the Whale Tail pit sump (ST-WT-4), and the Whale Tail Dike (ST-WT-17) are presented in the 2024 Meadowbank Complex Annual Report (Agnico Eagle 2025b).

LEGEND

- ○ WALL SEEPAGE (2024)
- ▲ SUMP
- (1) PHOTO LOCATION (REFER TO ATTACHMENT D PHOTO 1)

0 150 300

1:7,500 METRES

REFERENCE(S)

1. ST-GW-WT-1 SAME LOCATION AS DRILL HOLE-1 DURING 2021 AND 2022 MONITORING PERIODS. ST-GW-WT-1 RELOCATED IN 2023 DUE TO SAFETY CONCERNS.
2. SEEPAGE LOCATIONS VARY IN TIME AS THE WALL IS FREEZING AND THAWING THROUGHOUT THE COURSE OF THE YEAR.
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DATUM: NAD 83 CSRS PROJECTION: UTM ZONE 14

CLIENT

AGNICO EAGLE

AGNICO EAGLE MINES LIMITED: MEADOWBANK DIVISION

PROJECT

2024 GROUNDWATER MONITORING PROGRAM
WHALE TAIL MINE, NUNAVUT

TITLE

SEEPAGE LOCATIONS NOTED BY AGNICO EAGLE IN 2024

CONSULTANT

wsp

YYYY-MM-DD	2025-03-19
DESIGNED	NU
PREPARED	CDB
REVIEWED	DH
APPROVED	JL

PROJECT NO.	DOC.	REV.	FIGURE
CA0037376.3015	MBK2024_029	0	3

Sixteen (16) pit wall seepage samples were collected from ST-GW-WT-1 in 2024 (Table 2). No samples were collected in January through April, November and December due to accessibility issues related to operations and/or safety concerns. The seepage samples collected at ST-GW-WT-1 were collected from wall runoff directly below the observed discharge. No accessible open fracture could be located that was suitable for the insertion of a piece of low-density polyethylene tubing, which can be used to prevent the sample from contacting the atmosphere or exposed pit wall (which may contain residuals associated with blasting and loading from the exposed rock).

Pit wall seepage samples were submitted to Bureau Veritas Laboratories (BV) for laboratory analysis of parameters including the Group 1 chemical parameters listed in Table 1 Schedule I of the Water Licence, and for additional parameters of interest included in the GWMP (bicarbonate alkalinity, carbonate alkalinity, dissolved organic carbon, electrical conductivity, major ions, select total/dissolved metals, ortho-phosphate, reactive silica, total kjeldahl nitrogen, total phosphorus and total organic carbon). Analytical results for the ST-GW-WT-1 are included in Attachment E.

Table 2: Summary of 2024 Whale Tail Pit Seepage Samples

Station ID	UTM Zone	Easting (m)	Northing (m)	Sampling Date(s)[a]	Analytical Parameters[b,c]
ST-GW-WT-1	14W	606959	7255230	27-May-24 17-Jun-24 23-June-24 2-Jul-24 8-Jul-24 14-Jul-24 21-Jul-24 29-Jul-24 18-Aug-24 26-Aug-24 1-Sep-24 16-Sep-24 22-Sep-24 29-Sep-24 6-Oct-24 13-Oct-24	Group 1 chemical parameters listed in Table 1 Schedule I of NWB Water Licence Number 2AM-WTP1830 and additional parameters listed in GWMP (electrical conductivity, select major ions, select dissolved metals[d], ortho-phosphate, total phosphorus, and Radium-226)

m = metres

a) Pit wall seepage samples could not be collected in January through April, November and December 2024 due to accessibility issues related to operations and/or safety concerns.

b) Fluoride (Group 1 Water Licence parameter) and Radium-226 were not analyzed in the pit wall seepage samples collected on May 27, June 17 and September 29, 2024

c) Salinity (additional parameter listed in GWMP) was not analyzed in any of the pit wall seepage samples collected in 2024. Sodium Adsorption Ratio (SAR) was not analysed in the pit wall seepage samples collected on May 27, June 17 and September 29, 2024

d) Dissolved metals calcium, magnesium, potassium and sodium were not analysed in the pit wall seepage samples collected on May 27, June 17 and September 29, 2024.

Water quality from the WTD seepage (ST-WT-17) was monitored on a monthly basis for the same parameter suite as the pit wall seepage samples (Group 1 chemical parameters). Station ST-WT-17 consists of water that accumulates in the collector ditch located at the toe of the WTD structure and the water can be partly diluted with surface runoff. The approximate location of ST-WT-17 is shown on Figure 1. A channel located downstream of the toe diverts the WTD seepage to the Whale Tail Attenuation Pond by gravity.

Figures E-1 and E-2 of Appendix E show the variation in TDS and chloride in the above monitoring stations throughout 2024. TDS measured in the pit sump was variable and ranged from approximately 135 mg/L to 975 mg/L. The variability reflects the temporal interactions of surface water runoff, pit wall runoff, blasting and groundwater inflow, with the winter months providing the best estimate of the contribution from groundwater. In 2024, concentrations of TDS and chloride in the pit sump were variable where concentrations tend to be lower in the winter, when surface water inputs are low. Maximum concentrations of TDS and chloride in the pit sump were observed in September 2024.

TDS in the Whale Tail Attenuation Pond follows a similar trend to the TDS in the pit sump, although concentrations are slightly lower. Similar to the pit sump, concentrations of TDS in the Whale Tail Attenuation Pond were generally lower during the winter months. Lower still is the seepage water collected from the Whale Tail Dike Seepage, which is inferred to be primarily derived from the surface water in the South Basin. The elevated TDS in the Whale Tail Attenuation Pond reflects the relative contributions of groundwater inflow, surface water inputs, and pit inflow that is pumped back to the Whale Tail Attenuation Pond.

The TDS measured in the pit wall seepage in 2024 ranged from approximately 185 to 700 mg/L and was similar to the TDS measured in the pit sump during the winter months, when surface influences are low and the sump water quality is most representative of shallow groundwater (subsurface) inflow. The seepage water quality is also similar to measurements in the Whale Tail Attenuation Pond at the time the seepage samples were collected. This is consistent with the understanding that seepage loss from the Whale Tail Attenuation Pond makes up a significant portion of the inflow to the Whale Tail Pit (see Section 3).

3.0 MEASURED VERSUS PREDICTED GROUNDWATER INFLOW AND TDS QUALITY

3.1 Predicted Groundwater Inflow and TDS Groundwater Concentrations

Table 3 presents a summary of the predicted average annual groundwater inflow to the Whale Tail Pit during operations, as documented in the updated FEIS Environmental Assessment (EA) Scenario (Golder 2019). Water discharging to the pit is a mixture of saline groundwater and subsurface seepage from the Whale Tail Attenuation Pond South Basin of Whale Tail Lake. Contributions of TDS in the groundwater from Whale Tail Attenuation Pond seepage and seepage from the South Basin are assumed to be zero in the groundwater model and were accounted for in the Site-Wide Surface Water Balance and Water Quality Models, along with the direct influences of surface water additions in the pit (runoff and precipitation). This means that predicted TDS values in Table 3 from the groundwater model will be lower than the TDS measured directly in the sumps and seepage wall samples, as these water quality samples include TDS loading from the Whale Tail Attenuation Pond and South Basin of Whale Tail Lake (which are not zero). The Whale Tail Attenuation Pond is somewhat of a feedback loop as flow from the pit is pumped to the pond, where it mixes with other water and a portion reinfiltrates and seeps back to the pit. The Water Balance and Water Quality Models account for this mixing.

Table 3: FEIS Predicted Groundwater Inflow and Groundwater Quality During Mining of Whale Tail Pit (Golder 2019)

Phase	Simulated Period Time	Whale Tail Modeled Predictions – EA Scenario			
		Groundwater Inflow (m^3/day)	Groundwater Inflow TDS Concentration (mg/L)[(a)]	Portion of Inflow from Attenuation Pond (%)	Portion of Inflow from South Basin of Whale Tail Lake (%)
Lake Dewatering (Q1-Q3)	2019	1,330	80	NA	NA
Mining	August – December 2019[(b)]	970	120	1%	<1%
	2020	1,170	50	64%	<1%
	2021	1,320	30	79%	3%
	2022	1,360	20	81%	9%
	2023	1,360	20	82%	12%
	2024	1,350	10	82%	14%
	2025	1,350	10	82%	15%

NA = not applicable; TDS = total dissolved solids; m3/day = cubic metres per day; mg/L = milligrams per litre; % = percent;

a) TDS concentrations do not account for loading from the South Basin of Whale Tail lake and Whale Tail Attenuation Pond (model assumes a TDS of 0 mg/L for these seepage sources). TDS from these sources to be accounted for in Site-Wide Water Quality analysis.

b) Mining prior to Q4 2019 was anticipated to be within permafrost and groundwater inflow was predicted to be negligible.

In 2021, inflow measurements were trending 50% higher than predicted for based on the groundwater model developed for the FEIS (Golder, 2019), triggering a review and update of the groundwater model. On this basis, Lorax (2023) completed a model update and recalibrated the model to operational data (2021 average winter pumping rates from the Whale Tail Sump and hydraulic heads measured at Westbay AMQ16-626). Documentation of the model update is provided in Attachment F, and a summary of the updated groundwater inflow predictions based on the recalibrated model are provided in Table 4.

Table 4: Updated Groundwater Inflow Predictions (Lorax 2023).

Year	2022 Groundwater Model - Base Case				
	Whale Tail Pit Inflow	Inflow from Whale Tail Attenuation Pond		Inflow From Whale Tail South Basin[1]	
	(m^3/d)[1]	%	m^3/d	%	m^3/d
2022	3,070	33%	1,013	67%	2,057
2023	3,740	35%	1,309	65%	2,431
2024	3,750	35%	1,313	65%	2,438
2025	3,750	35%	1,313	65%	2,438

a) Approximately 10% of the inflow to Whale Tail Pit travels from the Whale Tail South Basin to the Whale Tail Attenuation Pond and then on to the pit. This flow is included in the percentage/flow rate originating from the Whale Tail South Basin.

3.2 Comparison of Model Predicted Values to Measured Values

In accordance with the GWMP, measured groundwater inflow rates are to be compared to model predictions on an annual basis. If significant variations from model predictions are observed, the assumptions behind the data will be reviewed and the analysis updated if required. In addition, updates to the groundwater model should be made if operational changes occur as the open pit advances which could significantly alter groundwater inflow or groundwater quality (TDS).

Variations that would be considered significant and that would trigger a review of the data include:

- Groundwater inflow quantity to the mine, based on rolling monthly average of inflow over six consecutive months, is 20% higher than predicted groundwater inflow. The six-month averaging period of observation is based on observed seasonal variations in inflow quantities in mines situated in continuous permafrost regions, where half the year there is virtually no surface water component of flow to the pit.
- Collected water samples that indicate that the TDS is more than 25% higher than the estimated water quality, based on a 6-month rolling average.
- Temperature profiles observed in the sentinel thermistors (AMQ17-1233 and AMQ17-337) located between Nemo Lake and Whale Tail Lake are showing sign of permafrost degradation below the active layer.
- Observed inflow quantity and quality is lower than expected would not be of concern and/or effect water management plans on-site. Model updates or analysis would therefore not be conducted if predicted inflow quantity and quality is higher than observed conditions.

The flow observed during the winter months (January, February, March, April, November and December) ranged between 1,785 m^3/day to 2,362 m^3/day, with an average flow rate of 2,122 m^3/day. As previously discussed, flow measurements during the winter months are the best estimate of groundwater inflow rates to the Whale Tail Pit since surface water inflows should be minimal. The inflow in the winter will reflect saline groundwater inflow and seepage from the Whale Tail Attenuation Pond and South Basin of Whale Tail Lake, with input from the Whale Tail Attenuation Pond expected to be most significant. Overall, inflow measurements are trending 43% lower than the updated predictions for 2024, and no revision of the model based on the triggers is required.

As part of the updated groundwater modelling (Attachment F), groundwater inflow to the open pit was predicted to be composed of 35% inflow from the Whale Tail Attenuation Pond and 65% inflow from Whale Tail South Basin. Overall, TDS measured in pit wall seepage was similar to the TDS measured in the Whale Tail Attenuation Pond (within 10 mg/L). The TDS in the Whale Tail Pit sump tended to be slightly higher than both the pit wall seepage and the Whale Tail Attenuation Pond, which in turn was generally higher than the Whale Tail Dike Seepage. In the winter months the TDS in the Whale Tail Pit sump was generally similar and within 10 mg/L of the TDS in the Whale Tail Attenuation Pond. These observations suggests that the source water proportions may be overpredicting the contribution of water from the Whale Tail Dike Seepage. Overall, measured groundwater inflow to the open pit in the winter was 43% lower than predicted values using the updated model for 2024, and it's possible that the model is overpredicting inflow from the Whale Tail South Basin.

4.0 SUMMARY

The following presents a summary of the data contained in this document and how the data relate to relevant sections of the GWMP.

- Westbay Well AMQ16-626 was sampled in September 2024. TDS estimated from these samples is similar to measurements in recent years and slightly less saline than historical sampling results in 2016. Overall, the assumptions for the conceptual model for the site are considered unchanged by 2024 groundwater quality monitoring at AMQ16-626.
- Pressure monitoring at AMQ16-626 indicates that hydraulic heads have decreased since pre-mining conditions. An upward gradient is present at shallow depths (between Port 4 and 6) and a downward gradient to near neutral is present at depth (between Port 1 and 4). The downward hydraulic gradient observed between Ports 4 and 1 measured 0.001 m/m in 2020 and 2021, 0.002 m/m in 2022 and 0.006 m/m in 2023 and 2024. The shift in gradient is inferred to reflect the dewatering of the North Basin and the ongoing excavation of the Whale Tail Pit.
- Data from IVR long V651A indicates permafrost is present outside of the lake footprint in at least the upper 450 to 500 metres, which will restrict horizontal groundwater flow. Oscillations in temperature data observed in this thermistor in the deeper beads should be reviewed in 2025.
- Some degradation of permafrost has been observed in the eastern and western abutments of the WTD, as indicated by observed settlement by Agnico Eagle. Thermistor monitoring of the Whale Tail Dike area will continue in 2025.
- The average 2024 inflow to the Whale Tail Pit is estimated to be 2,122 m^3/day, based on the winter sump inflow measurements in January, February, March, April, November, and December. The average inflow rate is approximately 43% lower than predicted value by the updated model for 2024, and no revision of the model is required based on GWMP triggers.
- TDS measured in the pit sump was variable and ranged from approximately 135 to 975 mg/L. The TDS measured in the pit wall seepage in 2024 ranged from approximately 185 to 700 mg/L and were similar to the TDS measured in the pit sump during the winter months, when surface influences are low and the sump water quality is most representative of groundwater inflow. The seepage water quality is also similar to measurements in the Whale Tail Attenuation Pond at the time the seepage samples were collected. Groundwater modelling (Attachment F) predicted groundwater inflow to the open pit in 2024 will be composed of 35% inflow from the Whale Tail Attenuation Pond and 65% inflow from Whale Tail South Basin. The TDS measurements suggests that the source water proportions may be overpredicting the contribution of water from the Whale Tail South Basin via the Whale Tail Dike Seepage. This may be associated with the general over prediction of groundwater inflow to the pit.
- In 2024, sampling parameter requirements of the Water Licence were met for the pit sump and seepage wall samples, with the exception of fluoride, and dissolved metals calcium, magnesium, potassium and sodium were not analyzed in the pit wall seepage samples collected on 27 May, 17 June, and 29 September 2024. As recommended in the 2021 report, additional parameters of interest included in the GWMP (bicarbonate alkalinity, carbonate alkalinity, dissolved organic carbon, electrical conductivity, major ions, select total/dissolved metals, ortho-phosphate, total kjeldahl nitrogen, total phosphorus and total organic carbon) were analyzed for in 2024.

5.0 CLOSURE

We trust the above meets your needs, please contact the undersigned for any questions or concerns.

WSP Canada Inc.

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Attachments: Attachment A – 2024 Westbay Well Sampling Technical Memorandum
Attachment B – 2024 Thermal Monitoring Report
Attachment C – 2024 Piezometric Monitoring Data
Attachment D – 2024 Seepage Survey Photograph
Attachment E – 2024 Supplemental Water Quality Data
Attachment F – 2022 Whale Tail Groundwater Model Update

https://wsponlinecan.sharepoint.com/sites/ca-ca00373763015/shared documents/06. deliverables/02 wt/02 wt gwmp rpt/ca0037376.3015-mbk2024_029-tm-rev0-2024 wt gwmp_20mar2025.docx

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ATTACHMENT A

2024 Westbay Well Sampling Technical Memorandum

TECHNICAL MEMORANDUM

DATE March 3, 2025 **Project No.** CA0037376.3015_MBK2024_028-TM-Rev0

TO Marie-Pier Marcil
Agnico Eagle Mines Limited

CC Robin Allard

FROM Nickie Unonius, Jennifer Levenick **EMAIL** nickie.unonius@wsp.com; jennifer.levenick@wsp.com

WHALE TAIL MINE – 2024 GROUNDWATER MONITORING OF WESTBAY WELL AMQ16-626

1.0 INTRODUCTION

Agnico Eagle Mines Limited – Meadowbank Complex (Agnico Eagle) is operating the Whale Tail Mine that was approved by the Nunavut Impact Review Board (NIRB). The property is a 408 square kilometre (km^2) site located on Inuit Owned Land approximately 150 kilometres (km) north of the hamlet of Baker Lake and approximately 50 km northwest of the Meadowbank Mine in the Kivalliq Region of Nunavut.

This report documents the 2024 groundwater monitoring of Westbay Well AMQ16-626. This well is monitored as a compliance requirement of Water Licence no. 2AM-WTP1830 associated with Whale Tail Project Certificate No. 008.

2.0 BACKGROUND

AMQ16-626 was installed between March and April in 2016 as part of baseline characterization for the Whale Tail mine. The well is located southeast Whale Tail Pit and extends at depth below the Whale Tail Attenuation Pond (Figure 1). The well is used to collect groundwater samples at multiple depths below ground surface and to measure vertical hydraulic gradients.

2.1 Well Installation and Sampling Zones

The well was installed through massive diorite at an inclination of -69 degrees, at an azimuth of 152.6 degrees and to a depth of 499 metres along the borehole (mah). A tagged 9% calcium chloride brine was used to displace the fresh water in the upper portion of the borehole to prevent freezing during the well installation. The well was designed to sample discrete zones of bedrock below the permafrost, as well as potential zones of higher hydraulic conductivity identified during drilling and well testing. Six sampling ports (as summarized in Table 1) were installed and of these six ports two are routinely sampled (Ports 3 and 4 located between 326 m to 357 metres below ground surface). Port 6 has also been monitored in the past; however, the port is suspected to be in cryopeg and therefore is not considered a representative estimate of the unfrozen bedrock groundwater conditions. A schematic of the AMQ16-626 well installation and sampling ports is included in Attachment A. Full installation records and associated hydraulic testing are documented in a separate report (Golder 2016b).

LEGEND

WESTBAY SYSTEM

REFERENCE(S)

1. IMAGERY OBTAINED FROM ESRI WORLD IMAGERY COPYRIGHT © 20240720 ESRI AND ITS LICENSORS. SOURCE: MAXAR. USED UNDER LICENSES, ALL RIGHTS RESERVED.

DATUM: NAD 83 CSRS PROJECTION: UTM ZONE 14

CLIENT

AGNICO EAGLE

AGNICO EAGLE MINES LIMITED: MEADOWBANK DIVISION

PROJECT

2024 WESTBAY SYSTEM MONITORING PROGRAM
WHALE TAIL MINE, NUNAVUT

TITLE

SITE PLAN

CONSULTANT

wsp

YYYY-MM-DD	2025-02-25
DESIGNED	DH
PREPARED	CDB
REVIEWED	DH
APPROVED	JL

PROJECT NO.	DOC.	REV.	FIGURE
CA0037376.3015	MBK2024_028	0	1

Table 1: Borehole AMQ16-626 Westbay System Zones

Sampling Interval	Depth Along Borehole			Depth Below Ground Surface			Elevation		
	From	To	Length	From	To	Thickness	From	To	Thickness
	(mah)	(mah)	(m)	(mbgs)	(mbgs)	(m)	(masl)	(masl)	(m)
Port 6	276.0	287.4	11.4	257.7	268.3	10.6	-103.2	-113.9	10.6
Port 5	298.9	310.3	11.4	279.0	289.7	10.6	-124.6	-135.2	10.6
Port 4	349.3	359.1	9.8	326.1	335.2	9.1	-171.6	-180.8	9.1
Port 3	381.3	392.7	11.4	356.0	366.6	10.6	-201.5	-212.5	10.6
Port 2	440.8	452.2	11.4	411.5	422.2	10.6	-257.1	-267.1	10.6
Port 1	488.1	499.0	10.9	455.7	465.9	10.2	-301.2	-311.4	10.2

Notes:
Depth values were provided by Westbay Instruments Completion Report.
m = metres; mah = metres along the hole, relative to top of hole; mbgs = metres below ground surface; masl = metres above sea level.

2.2 Historical Monitoring Results and Interpretation

Following installation, the total dissolved solids (TDS) content in the Formation water was estimated from 2016 sampling results to range between 3,198 mg/L and 4,042 mg/L (Golder 2016a). Formation water refers to the natural groundwater in the rock formation, as opposed to the water collected from the sampling ports which is a mixture of residual drilling water and Formation water.

The 2016 groundwater quality estimates were used to predict the salinity of groundwater, which is an input to groundwater and thermal models that are used to predict the TDS in the groundwater inflow to the mine developments (Golder 2018a). Groundwater quality estimates were also an input to the Whale Tail pit lake hydrodynamic model (Golder 2018b). These models have been, and continue to be, utilised to assess potential effects of mining during development operations, closure and post closure.

The results of the compendium of modelling studies indicated that chemical mass transfer from the pit to the pit lake at post closure would be very low largely because the volume of groundwater seepage into and out of the pit lake would be negligible, particularly compared to surface water exchanged annually when flows between the flooded pit lake and downstream lakes are re-established. The combination of results suggested that the hydrogeological regime around the pit lake is not critical to pit lake water quality post-closure.

Supplemental pre-mining development sampling was conducted at the well in 2018 and 2019 (Golder 2019a; 2019b). Data collected since 2020 represents monitoring that has been conducted during active mining. For this operational period, Port 3 and Port 4 data have been found to be in the same range as the 2016 baseline characterization when data quality was reliable (WSP 2024). Port 6, located within the cryopeg, has not been targeted for sampling since 2021 when it was observed the Formation pressure is taking longer to recover between 1 L sample runs compared to previous years (gradual decrease over time since 2016). This results in a pressure differential at the monitoring port being exceeded, which allows for small amounts of Westbay casing water to enter the Formation and compromise the integrity of the water quality samples being collected. In general, because Port 6 is located in the cryopeg, data collected from this port is not considered representative of the sub permafrost groundwater flow system.

3.0 2024 GROUNDWATER MONITORING PROGRAM

3.1 Objectives

The objectives of the program are as follows:

- Measure the pressure profile at AMQ16-626 ports to evaluate the vertical hydraulic gradient / groundwater flow direction. These data are used to evaluate changes in groundwater flow conditions during mining compared to pre-mining.
- Collect groundwater samples from Port 3 and 4 of AMQ16-626. Water quality analysis from these samples will add to the database of groundwater quality results used to monitor groundwater quality near Whale Tail Pit and underground.

3.2 Methodology

3.2.1 Hydraulic Head Measurements

Prior to purging and sampling, the pressure was recorded at sampling Ports 1 through 4 and 6 on 11 September 2024 and converted to freshwater hydraulic heads using the density of freshwater. The pressure was also measured at each at the end of the field program on 23 September 2024. The formation pressure was measured using the Mosdax sampler manufactured and supplied by Westbay Instruments (refer to Attachment B for instrument calibration record).

3.2.2 Groundwater Sampling

As the upper part of the Westbay System is installed through permafrost, removal of groundwater for well development, purging and sampling must be carried out using a small volume sampler as opposed to the Westbay purge system. This substantially lengthens the time required to purge and sample at each port (months). Consequently, the sampling program prioritizes key ports that optimize groundwater quality data collection. The ports selection rationale for the 2024 program is provided below.

- Ports 1 and 2 have not been sampled since the 2022 program as they have not been sufficiently developed to yield an accurate estimate of groundwater quality. Multiple weeks of 24-hour development would likely be required to remove the residual drill fluid content in these Ports to be below the target of 5% residual drill fluid for a workable estimation of Formation water quality. The baseline TDS profile developed for the Whale Tail Mine only include water quality data from Ports 6, 4 and 3, and not the deeper Ports 1 and 2.
- Ports 4 and 3 were targeted for sampling based on their port elevation relative to planned underground infrastructure and because these intervals had been substantially developed since 2016 (i.e., drill water had been largely removed from the interval). These ports are used to assess groundwater quality for the Whale Tail Mine.
- Port 5 was never intended for groundwater sampling and was installed for pressure measurements only.
- Port 6, located within the cryopeg, is not considered a representative estimate of the unfrozen bedrock groundwater conditions. Port 6 has not been targeted for sampling since 2021 when it was observed the Formation pressure was taking longer to recover between 1 L sample runs compared to previous years (gradual decrease over time since 2016). This results in a pressure differential at the monitoring port being

exceeded, which allows for small amounts of Westbay casing water to enter the Formation and compromise the integrity of the water quality samples being collected.

Groundwater sampling was performed using the Westbay Mosdax sampler following a similar method as the previous monitoring events. The Mosdax sampler collects 1 Litre of groundwater at a time (per sampling instrument descent into the well, equivalent to one 'run'). Throughout the 2024 monitoring program, field chemical parameters (electrical conductivity, specific conductance, fluorescein content, pH, salinity, temperature and total dissolved solids) were measured during development and sampling of groundwater in order to track the removal of the fluid introduced into the Formation by drilling. It is assumed that drilling water is the only source of fluorescein introduced near borehole AMQ16-626 such that it is a reliable tracer of introduced water into the Formation.

Fluorescein content was measured using the AquaFluor handheld Fluorometer manufactured by Turner Designs. Temperature and pH values were measured with a Hanna Combo tester (HI 98127). Electrical conductivity, specific conductance (temperature corrected electrical conductivity), salinity, temperature and total dissolved solids were measured using a YSI Pro 30 Conductivity Probe. A drilling water content of less than 5 to 10% original drill brine content (estimated using fluorescein content) and removal of one Port interval volume at each sampling event, was targeted to provide a workable estimate of Formation water quality prior to collecting the water sample (i.e., purging at least one port interval volume: 5.43 Litres per metre in the annulus based on the known dimensions of the 38-millimeter diameter Westbay casing and the 96-millimeter diameter HQ outer hole). Water quality data from samples containing a higher residual drilling fluid content can be investigated but provides an imprecise estimation of Formation water quality.

Collected groundwater samples from Ports 3 and 4 were analyzed for the parameters listed in Section 4.2 of the GWMP and in Schedule I Table 2 of the Whale Tail Water Licence, as follows:

- Hardness, pH, conductivity, salinity, total suspended solids (TSS), total dissolved solids (TDS) and turbidity.
- Anions and nutrients, including alkalinity, ammonia, bicarbonate, bromide, carbonate, chloride, dissolved organic carbon (DOC), total kjeldahl nitrogen (TKN), total organic carbon (TOC), fluoride, nitrate, nitrite, ortho-phosphate, total phosphorus, reactive silica and sulphate.
- Metals (dissolved and total), including aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, copper, iron, lead, lithium, magnesium, manganese, mercury, molybdenum, nickel, potassium, selenium, sodium, strontium, thallium, tin, titanium, uranium, vanadium and zinc. Additional metals were also analyzed by the laboratory as part of the metals package, however they are not of interest to the project and will not be discussed herein out: bismuth, cobalt, silicon and sulfur.
- Total and free cyanide as well as Weak Acid Dissociable (WAD) cyanide.
- Radium 226.

Radium 226 is not included in the Whale Tail Water Licence; however, it was analyzed as it previously occurred at concentrations higher than the Canadian effluent guidelines at some sample ports during previous sampling events and is regulated under the Metal and Diamond Mining Effluent Regulations (MDMER). Radium 226 is a naturally occurring element in deep bedrock groundwater.

Groundwater samples were collected from Ports 3 and 4 at the end of purging and submitted for laboratory analysis. To protect against data loss from key wells in event of bottle breakage or loss during shipping to the lab, a triplicate sample set was held on site for Ports 3 and 4 and discarded once the samples submitted to the analytical laboratory were received.

As part of the quality assurance / quality control (QA/QC) protocol, a field blank and trip blank were also collected for analysis of the full suite of parameters. The laboratory chemical and physical analyses were performed by Bureau Veritas Laboratories (BV) located in Mississauga, Ontario and/or at the other various BV locations. Certificates of analysis from BV are included in Attachment C.

An extra bottle was filled and submitted to SGS Canada Inc. (SGS) analytical laboratory located in Lakefield, Ontario for analysis of cyanide species (free, total and WAD) for the samples collected from Ports 3 and 4 for QA/QC purposes.

3.3 Evaluation of Formation Water Quality

The accuracy of the calculation of Formation water quality and salinity is contingent on the quantity of residual drilling fluid present in the sampling interval, identified by fluorescein content (the lowest fluorescein content in the sample). Drilling fluids must be removed as much as possible by purging, and the lower the drill fluid content the more reliable the calculation of Formation water quality. The amount of drilling fluid present in the Formation is estimated from the difference between the concentration of fluorescein in the raw water sample from the port interval, and the fluorescein content of the drilling fluid used. The original amount of fluorescein added to drill water varied, and an average of the remaining fluorescein at the port depth prior to development was used as indicative of the 'initial' fluorescein content for that port interval. In 2016, the sampling intervals were purged to remove as much of the drilling fluid as possible within the task schedule, prior to collecting a sample for chemical analysis. Purging continues to be required each year to further decrease the content of residual drilling fluid.

The fluorescein and electrical conductivity of groundwater were monitored in the field during sampling and were compared to data from the end of purging activities in past years to assess whether there is reasonable confidence in the accuracy of the groundwater salinity evaluated from the collected sample. The following summarizes the calculations made to estimate true Formation water quality and TDS from field measurements of electrical conductivity and laboratory analytical results of raw groundwater samples in 2024 and drilling water fluid in 2016.

1) **Estimation of the chemistry of the drilling fluid introduced in the Formation during the 2016 well borehole drilling and installation activities.** The drilling fluid consisted of very low TDS lake water to which was added a concentrated brine. The range of composition of the drill fluid (the dilute brine) was estimated by comparing the initial and maximum conductivity values measured in samples from the Formation (for each Port 6, 4, 3 and 2 the electrical conductivity of water varied between sampling ports) against the conductivity of the concentrated brine[1]. This Dilute Brine Factor was used to calculate composition of the drilling fluid introduced into the sampling interval during the 2016 drilling and well installation activities as per equation (1) below.

[1] Brine conductivity was estimated from the calculated TDS of the drilling brine fluid using a conversion factor of 0.75 which is appropriate for brine solutions (Rusydi, 2017). Brine TDS was calculated to be 130,500 mg/L based on constituent concentrations (refer to Table D-1). Laboratory-reported TDS (36,946 mg/L) and conductivity (55.42 mS/cm) were not reliable as they exceeded instrument calibration.

$$(1)\quad Dilute\ Brine\ Factor_{Port\ i} = \frac{Field\ Conductivity_{Port\ i}}{Brine\ Conductivity_{calculated}}$$

This calculation assumes an insignificant proportion of Formation water is present immediately after drilling, which is a fair assumption given that a high volume of drilling fluid was lost to the Formation (Golder, 2016a).

2) The drilling brine composition for each parameter was calculated from the product of the dilution brine factors and the chemistry of the drilling brine fluid for each port per equation (2).

$$(2)\quad Dilute\ Brine_{Port\ i} = Laboratory\ Result_{Brine} \times Dilution\ Brine\ Factor_{Port\ i}$$

3) **Calculation of the proportion of drill brine remaining in the Formation upon sampling.** This was calculated based on the amount of residual fluorescein measured upon sample collection at each port in 2024 compared to the initial fluorescein content of the drilling fluid measured in 2016 (i.e., 512.7 ppb).

4) **Removal of the drilling fluid chemistry from the raw groundwater sample analysis.** The concentration of constituents from the drilling fluid are removed from the reported analytical results for each chemical constituent per the below equation (3).

$$(3)\ Groundwater\ Quality_{corrected} = \frac{Laboratory\ Result - Proportion\ of\ Drill\ Brine \times Dilute\ Brine\ Chemistry}{Proportion\ of\ Formation\ Water}$$

The estimated chemistry of the drilling brine, proportion of residual drilling brine and Formation water for each sampling port are summarized in Table D-1 of Attachment D. The calculated Formation water quality for Ports 3 and 4 are summarized in Table D-2. The original drill brine fluid was not analyzed for the complete suite of parameters listed in Schedule I Table 2 of the Water Licence such as ammonia, cyanide species (total, free and WAD), DOC, TKN, orthophosphate, total phosphorus, reactive silica, sodium adsorption ration, TOC and turbidity. The calculated Formation water quality assumed concentrations of these parameters to be negligible (zero).

4.0 RESULTS AND DISCUSSION

4.1 Hydraulic Head Profile and Groundwater Flow Direction Below Whale Tail Lake

The Whale Tail Pit is located within the North Basin of Whale Tail Lake. The talik near the pit is believed to be closed at depth but to transition to an open talik towards the South Basin because of the increased width and depth of the lake towards the south. The initial pre-mining water table below both basins is equivalent to the lake surface elevation. Dewatering of the lake in the North Basin, along with dewatering of the Whale Tail pit, has locally lowered the water table near the pit relative to pre-mining conditions.

Permafrost underlies the land surrounding the lake, which restricts the lateral flow of groundwater to the talik and restricts the recharge of the sub-permafrost groundwater flow system by precipitation. Regionally groundwater flow is controlled by surface water elevations in lakes with open talik; water moves vertically through the open talik to the underlying sub-permafrost groundwater flow system. Conceptually lakes with open taliks in continuous permafrost regions are equivalent to large monitoring wells.

AMQ16-626 was installed to evaluate groundwater quality and the hydraulic gradient in the unfrozen bedrock as part of baseline characterization. The hydraulic gradient, in combination with the bedrock hydraulic conductivity, can be used to estimate the potential groundwater flux to or from Whale Tail Lake, and the flooded Whale Tail Pit post-closure.

Table 2 summarizes the calculated freshwater hydraulic heads based on the measured pressure in each sampling port in 2024 prior to sampling along with historical measurements. Although Port 6 (shallowest interval) is included in Table 2, it is interpreted that this port is within or near the cryopeg. The deeper ports (Ports 1 to 5) are in unfrozen rock and were used to assess the vertical hydraulic gradient over time.

Table 2: AMQ16-626 Estimated Freshwater Hydraulic Heads and Vertical Hydraulic Gradients

Port	Port Position (masl)	Calculated Freshwater Hydraulic Heads at Port (masl)						
		Pre-Development		Operations				
		9-Nov-18	16-Mar-19	9-Oct-20	2-Nov-21	8-Sep-22	9-Sep-23	11-Sep-24
6	-103.4	154.0	153.1	148.3	147.6	145.8	142.1	142.5
5	-124.8	--	--	149.0	148.2	147.7	147.5	--
4	-171.8	153.6	153.1	150.5	150.1	149.6	149.3	150.1
3	-201.7	153.4	153.7	150.5	150.0	149.6	149.3	150.1
2	-257.2	152.9	152.5	150.4	149.8	149.4	148.8	149.6
1	-301.4	152.5	152.3	150.4	150.0	149.3	148.7	149.5

Notes:
mbgs = metres below ground surface (vertical down from surface); masl = metres above sea level (elevation); -- = not measured.

With mining of the Whale Tail Pit, there has been a general decrease in hydraulic heads relative to pre-development conditions. The largest increase occurred in the early years of operations and since then, the hydraulic heads have been relatively similar year after year. The lower hydraulic heads are attributed to the dewatering of the North Basin and the ongoing excavation of the open pit.

In the pre-development years (2018 and 2019) there was a downward hydraulic gradient observed between Ports 4 and 1, which was calculated to be 0.008 m/m in 2018 and 0.006 m/m in 2019. The hydraulic gradients are calculated using the freshwater hydraulic heads and the distance between the sampling interval midpoints. Overall TDS is low and correction of this gradient for buoyancy effects would be within 0.001 – 0.002 m/m and would not alter the interpreted groundwater flow direction.

After dewatering of the North Basin of Whale Tail Lake and excavation of the open pit, the gradient is no longer consistently downward. An upward gradient is present at shallow depths (between Port 4 and 6) and a downward gradient is present at depth (between Port 1 and 4). The downward hydraulic gradient observed between Ports 4 and 1 has generally increased between 2020 and 2023 (0.001 to 0.006 respectively), and in 2024 the calculated gradient remained similar to 2023.

4.2 Groundwater Quality

Table 3 and Table 4 presents information on each of the Ports that were monitored and sampled in 2024. The field measured electrical conductivity and fluorescein concentrations in water collected from Ports 1, 2, 3, 4 and 6 since sampling began in 2016, are illustrated in Figure 2. The sequence of measurements collected during the 2024 field program is shown on Figure 3. Field measurements of electrical conductivity, salinity, pH, fluorescein and TDS concentrations recorded at the time of sampling are summarized in Table 4. The values are averages from the subsamples collected from multiple 'runs' to obtain the required volume of water for analysis.

Table 3: Annual Purging and Field Monitoring Data at AMQ16-626 2016 to 2024

Port	6			4			3			2			1		
Sample Port Interval (mbgs)	257.7 to 268.3			326.1 to 335.2			356.0 to 366.6			411.5 to 422.2			455.7 to 465.9		
Final Field Parameters / Year	F	EC	Vol.	F	EC	Vol.	F	EC	Vol.	F	EC	Vol.	F	EC	Vol.
2016	48 [9%]	4.6	282	93 [18%]	4.9	1,855	114 [22%]	7.5	177.0	120 [23%]	23	423	550 [107%]	4.8	50.0
2018	87 [17%]	9.0	8.25	73 [14%]	14.8	13.25	97 [19%]	7.6	12.5	78 [15%]	17.7	6.25	248 [48%]	9.4	0.25
2019	63 [12%]	9.6	9.0	120 [22%]	22.1	41.0	44 [9%]	5.3	76.0	202 [39%]	32.5	8.0	137 [27%]	10.7	2.0
2020	33 [6%]	6.6	15.0	34 [7%]	4.8	48.0	41 [8%]	3.4	46.0	81 [16%]	17.7	15.0	146 [29%]	3.2	17.0
2021	109 [21%]	3.6	12.0	17 [3%]	2.4	22.0	29 [6%]	4.4	20.0	92 [18%]	15	22.7	155 [30%]	4.1	1.0
2022	84 [16%]	4.2	2.0	30 [6%]	2.6	71.25	15 [3%]	2.9	65.5	32 [6%]	5.4	2.0	93 [18%]	3.7	2.0
2023	-	-	0	20 [4%]	2.5	77.0	7 [1%]	2.5	66.0	-	-	0	-	-	0
2024	45 [8%]	6.7	1.0	20 [4%]	2.4	76.0	2 [0.4%]	2.6	70.0	36 [7%]	7.7	7.25	11 [21%]	3.1	1.0
Cumulative Volume Removed (L)	329.2			2,203.5			533.0			484.2			73.25		

Notes:

mbgs = metres below ground surface, relative to ground surface; F = fluorescein content (ppb); [%] = estimated percent drill fluid remaining; EC = electrical conductivity (mS/cm); Vol. = volume of water removed from Port in a given year measured in Litres (L)

2016 Sampling Targets – 10% drill fluid remaining was not achieved during the allocated development period. Sample collected upon stabilization of field parameters (EC and F)

2018 Sampling Targets – document groundwater chemistry to compare against future monitoring years, with the understanding that it might still contain drilling fluids

2019 Sampling Targets – Port 3 (50 ppb, 10% target of initial F measured in 2016), Port 4 (coupled decreasing trends of F and EC as time permits) and Ports 2 and 6 (document groundwater quality information).

2020 and 2021 Sampling Targets – Ports 3 and 4 (50 ppb, 10% initial F measurement in 2016) and Ports 1, 2 and 6 (document groundwater quality)

2022, 2023 and 2024 Sampling Target – Ports 3 and 4 (50 ppb and removal of at least one interval volume prior to sampling).

(-) indicates no groundwater was retrieved from this sampling port (well) interval.

Table 4: Summary of AMQ16-626 Westbay Well 2024 Monitoring Program Data from Samples of Port 3 and Port 4 Collected for Chemical Analysis

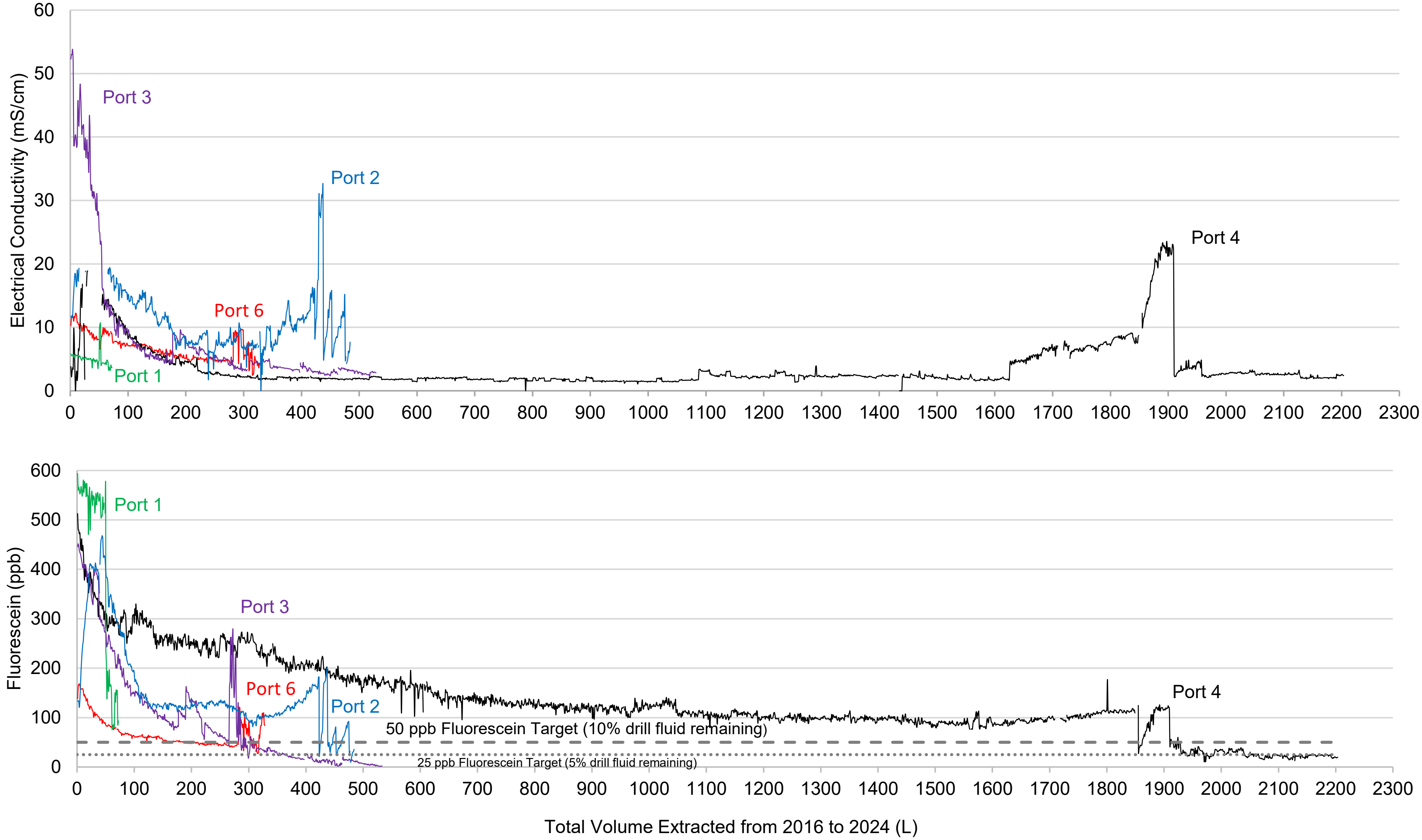
Port	Sample Date	Sample ID	Average Field Measured Parameters at Sampling Period[a]					Analytical Parameters[b]
			F	EC	TDS	Salinity	pH	
4	22-Sep-24	Port 4-A, Port 4-B, Port 4-C	19.3 ± 1.2	2.47	2,094	1.7	7.2	Schedule I Table 2
3	17-Sep-24	Port 3-A, Port 3-B, Port 3-C	2.5 ± 1.0	2.87	2,409	1.9	7.3	Schedule I Table 2

Notes:

F = fluorescein content (ppb) ± standard deviation; EC = electrical conductivity (mS/cm); TDS = total dissolved solids (mg/L); salinity units (ppt)

(a) Average field measurement for all runs for the sample collected (i.e., between 3 and 10 runs per sample ID).

(b) Ports 3 and 4 sampled and analysed for parameters listed in Section 4.2 of the GWMP and in Schedule I Table 2 of the Water Licence.



Notes:
1. Marker denotes sample collected and submitted for laboratory analysis (approximate 1 Litre volume).
2.

Port	Cumulative Volume Removed, 2016 to 2024 (Litres)	Volume Removed in 2024 (Litres)
6	329.2	1
4	2203.5	76
3	533.0	70
2	484.2	7
1	73.2	1

CLIENT
AGNICO EAGLE
AGNICO EAGLE MINES LIMITED: MEADOBANK DIVISION

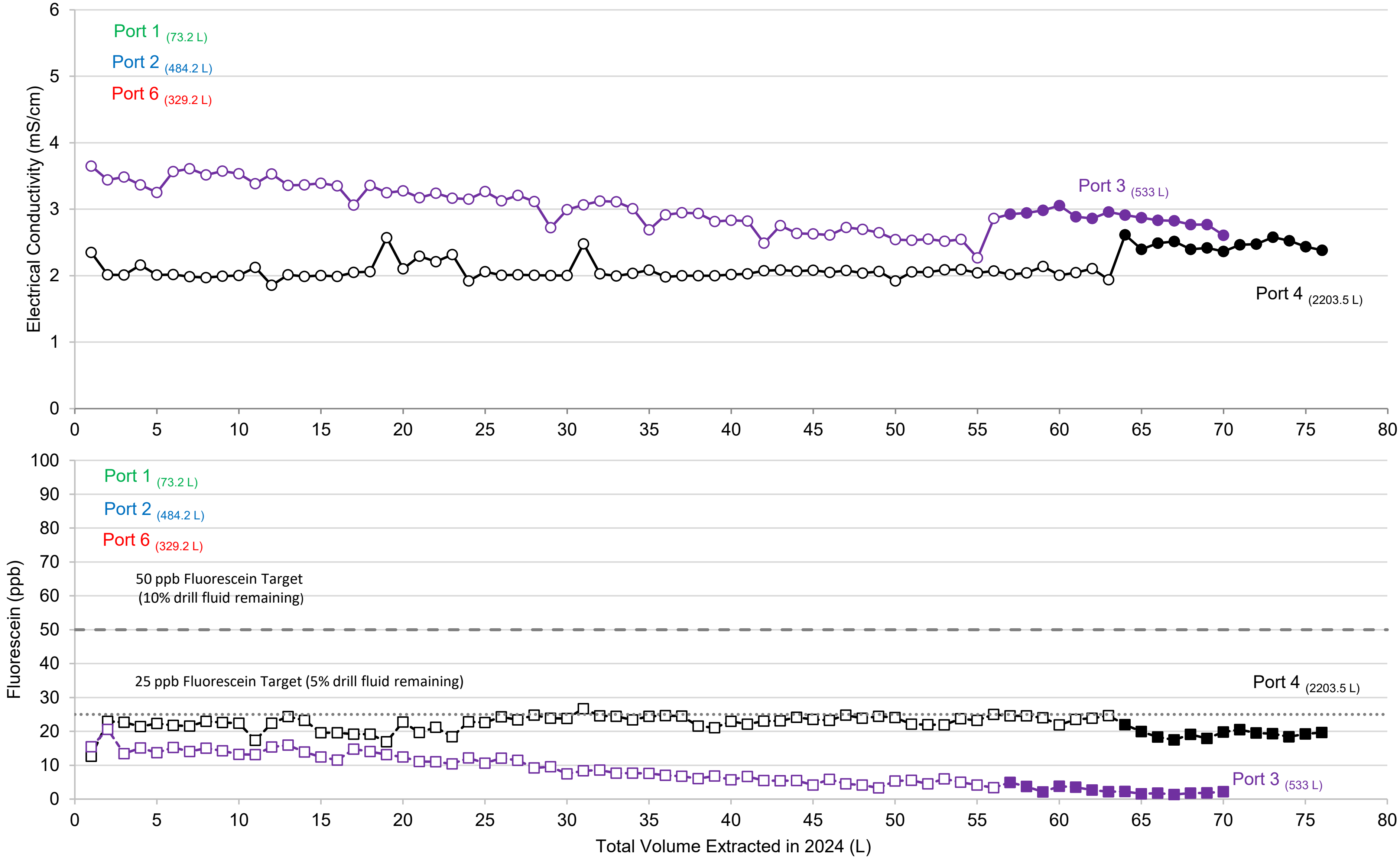
CONSULTANT
wsp

YYYY-MM-DD	2024-11-19
PREPARED	NU
DESIGN	NU
REVIEW	DH
APPROVED	JL

PROJECT
2024 WESTBAY WELL SYSTEM MONITORING PROGRAM
WHALE TAIL MINE, NUNAVUT

TITLE
2016 to 2024 AMQ16-626 DEVELOPMENT RECORD

PROJECT No.	DOC.	Rev.	FIGURE
CA0037376.3015	MBK2024_028	0	2



Notes:

1. Conductivity
2. Fluorescein
3. Open symbol denotes 1 Litre removed during Port purging.
4. Closed symbol denotes sample collected, where 'sample' represents 1 Litre volume extracted from Port for analysis of select parameter suite.
5. (1234) denotes total volume extracted from 2016 to 2024 in Litres (L).

CLIENT	AGNICO EAGLE MINES LIMITED: MEADOWBANK DIVISION	PROJECT	2024 WESTBAY SYSTEM MONITORING PROGRAM WHALE TAIL MINE, NUNAVUT
CONSULTANT	YYYY-MM-DD: 2024-11-19	TITLE	**2024 AMQ16-626 DEVELOPMENT RECORD**
	PREPARED: NU		
	DESIGN: NU		
	REVIEW: DH		
	APPROVED: JL	PROJECT No. CA0037376.3015	DOC. MBK2024_028 · Rev. 0 · FIGURE 3

Stiff diagrams for the 2024 calculated (drill fluid removed) Formation water quality is presented in Figure 4, along with the 2016 brine fluid chemistry. Stiff diagrams are used to illustrate the major ion composition of a water sample to rapidly compare ‘signatures’ from different sources, such as natural groundwater compared to brine fluid water chemistry. Figure 4 also includes stiff diagrams of the laboratory result for raw water samples from Ports 3 and 4 (uncorrected for the contribution of drill brine) for comparison. The stiff diagrams illustrate how the major ion composition of the sample collected from Ports 3 and 4 is dominated by the chloride anion; the dominant cation at Port 4 and Port 3 is calcium. As shown in Figure 4, the Port 4 and Port 3 stiff diagrams are similar for the corrected and uncorrected for drill brine fluid, although the calcium and chloride values are less pronounced as expected with the lower influence of the drill fluid. Groundwater quality at depth in the Canadian Shield, away from the influence of sea water, such as at Meadowbank and Whale Tail, are expected to be dominated by calcium and chloride (Gascoyne, 2000; Frape and Fritz, 1987). In general, the 2024 stiff diagrams are similar to previous years, though there is a decrease in calcium and chloride peaks since initial sampling, likely related to continued purging/natural flushing.

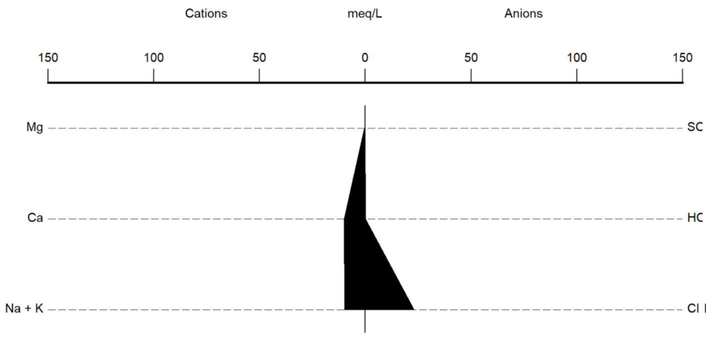
Calculated Formation water quality for Ports 3 and 4 are shown in Table D-2 of Attachment D and include the calculated range of constituent concentrations of Formation water at each Port sampled in 2016, 2018, 2019 (Ports 3 and 6 only), 2020, 2021, 2022, 2023 (Ports 3 and 4 only) and 2024 (Ports 3 and 4 only). The 2024 laboratory results of raw groundwater samples (uncorrected for drill fluid content) are included in Table D-3 and the analytical reports are included in Attachment C.

The 2024 field program did not include purging and sampling of Ports 1, 2 and 6, however field parameters were recorded to monitor the evolution of groundwater quality with natural flushing near these sampling intervals. Natural flushing over time is expected to displace drilling fluids and return the interval area to pre-drilling groundwater quality. Ports 1 and 2 may be sampled in the future if natural flushing indicates the drilling fluid has been sufficiently displaced by natural groundwater flow.

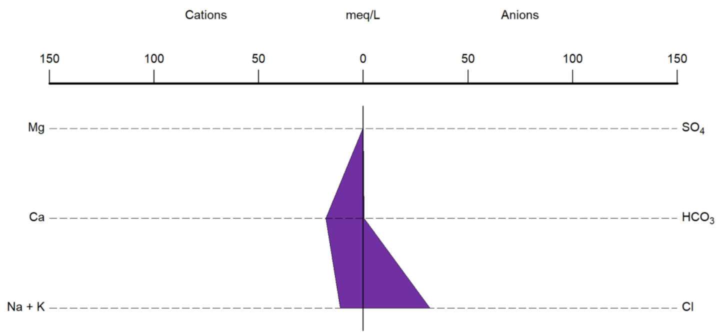
The following provides further information on water quality at Ports 3 and 4 based on the 2024 monitoring program.

Corrected Water Quality (drilling fluid removed)

PORT 4 – 331 m

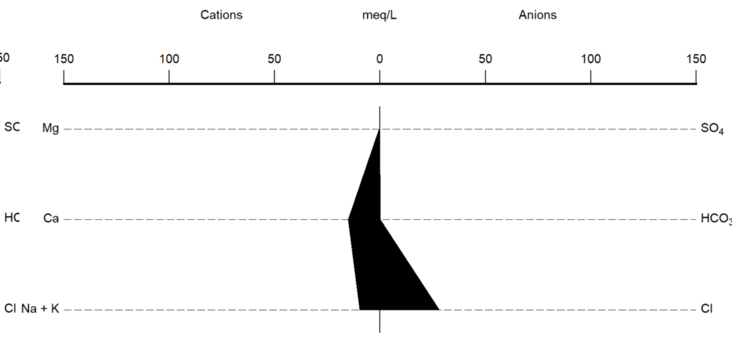


PORT 3 – 361 m

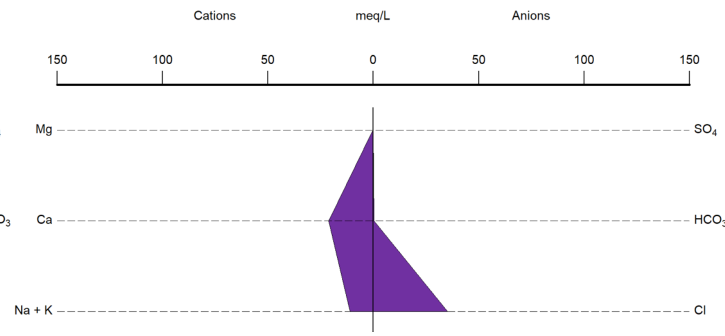


Raw Water Quality (uncorrected laboratory result)

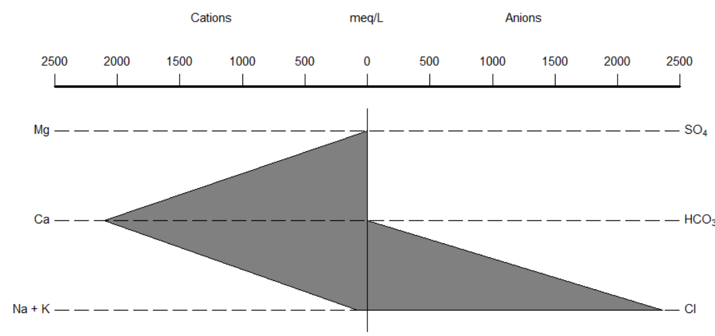
PORT 4 – 331 m



PORT 3 – 361 m



DRILLING FLUID



NOTE(S)

1 Stiff diagrams illustrate calculated 2024 water quality (drill fluid removed) for Ports 3 and 4 (left column) and uncorrected water quality (no drill fluid removed) for Ports 3 and 4 (right column) and the 2016 drill fluid.
2 Average (Minimum and Maximum) result shown for Ports 3 and 4.
3 Average depth in metres (m) shown for Ports 3 and 4.
4 Drill fluid sample collected April 17, 2016.
5 Ports 3 and 4 presented on a scale of 0 to 150 meq/L and drill fluid 0 to 2500 meq/L..

CLIENT
AGNICO EAGLE MINES LIMITED:
MEADOWBANK DIVISION

AGNICO EAGLE

CONSULTANT

wsp

YYYY-MM-DD	2024-11-24
PREPARED	DH
DESIGNED	--
REVIEWED	JL
APPROVED	JL

PROJECT
2024 WESTBAY SYSTEM MONITORING PROGRAM
WHALE TAIL MINE, NUNAVUT

TITLE
2024 WESTBAY SYSTEM AMQ16-626 AND 2016 DRILL FLUID STIFF PLOTS

PROJECT NO.	DOC	REV.	FIGURE
CA0037376.3015	MBK2024_028	0	4

Port 4

The 2024 field-measured groundwater fluorescein content and electrical conductivity at Port 4 at the end of sampling were lower than values recorded at the end of the previous groundwater monitoring programs. An increasing trend was observed in 2018 and 2019, followed by a sharp decline in 2020, where conductivity and fluorescein trended toward stabilization and remained relatively consistent from 2021 and 2024 (refer to Figure 3). In general, the lower proportion of drilling fluid in the Formation and in the samples collected results in an increase reliability of calculated Formation water quality (drill fluid removed) for recent years.

The estimated 2024 water quality results are within the same magnitude of those reported in 2016, albeit slightly lower with the exception of reactive silica and Radium-226. The concentration of cyanide, trace metals and arsenic in groundwater is low. Concentrations of cyanide (WAD) and free cyanide were not detected in the Port 4 sample. The 2024 calculated Radium-226 concentration is estimated to be 0.12 Bq/L, which, for comparative purposes, is below the MDMER limit of 0.37 Bq/L and slightly lower than the 2016 concentration value (of 0.13 Bq/L).

Port 4 2024 data is considered to be reliable in representing Formation water quality. The port had corrected TDS range of 2,163 and 2,621 mg/L and a residual fluorescein content of 19.3 ppb.

Port 3

Concentrations of fluorescein have been decreasing since 2016, with the average field-measured groundwater fluorescein content at the time of the 2024 sampling reduced to 0.5% (from 16% in 2016, Golder 2016a). A similar trend, but less pronounced trend, is observed in electrical conductivity. This suggests that only a small amount of residual drilling water is present in the Formation water near this zone.

The 2024 Formation water quality data are within the same order of magnitude to those reported in 2016, albeit slightly lower except for a few parameters. The concentration of cyanide, trace metals and arsenic in groundwater is low. Concentrations of cyanide (WAD) and free cyanide were not detected in the Port 3 sample. For comparative purposes only, the calculated Radium-226 concentration is estimated to be 0.13 Bq/L and below the MDMER limit of 0.37 Bq/L and slightly lower than the 2016 concentration value (between 0.15 and 0.16 Bq/L).

Port 3 2024 data is considered to be reliable in representing Formation water quality. The port had a corrected TDS range of 2,262 and 2,272 mg/L and a residual fluorescein content of 2.5 ppb.

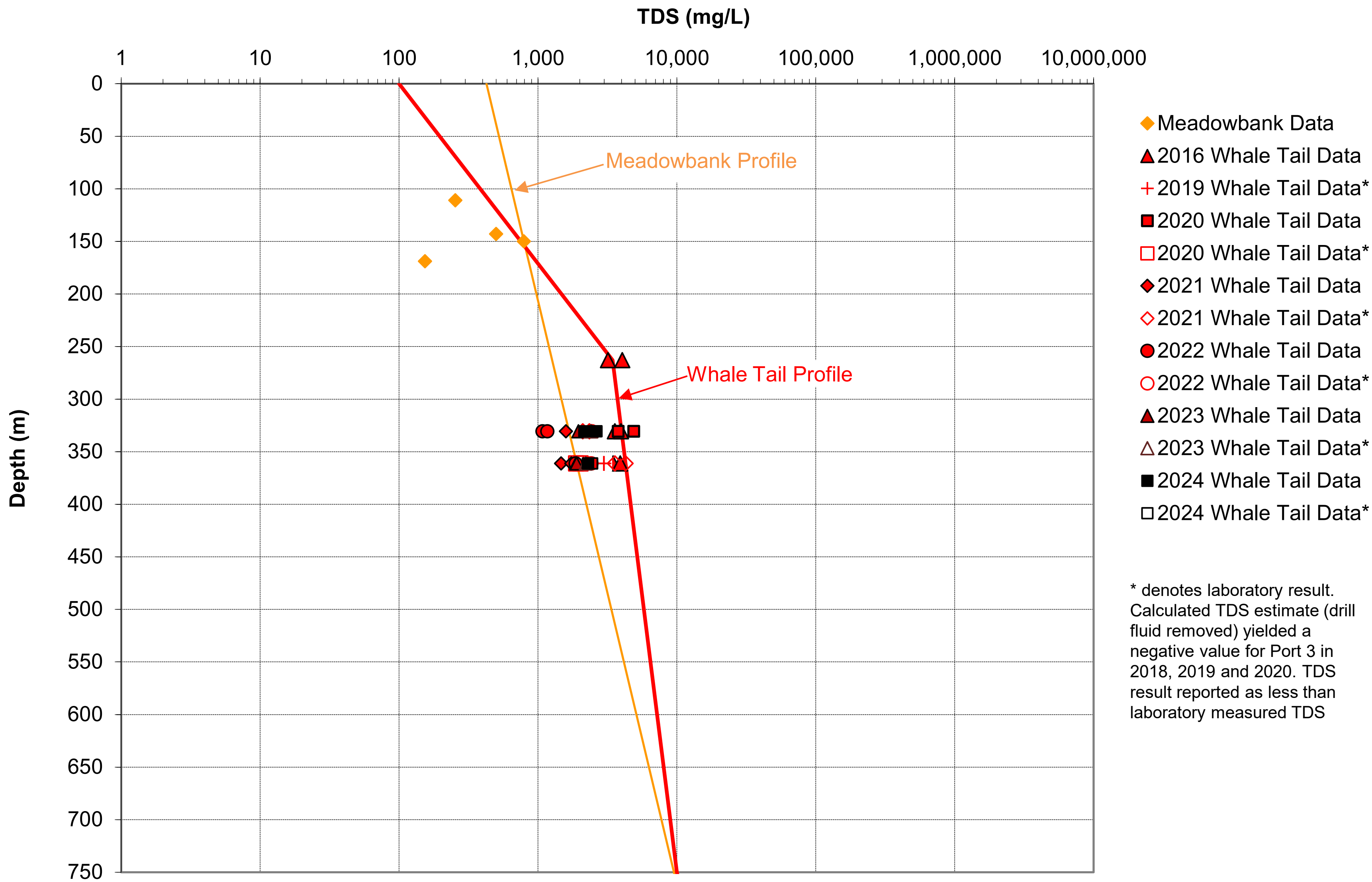
Summary

Based on the 2024 groundwater monitoring program, the 2024 formation water quality calculated from Ports 3 and 4 are considered to be reliable for the purpose of evaluating salinity and general trends in chemical contents and can be used to assess Formation water quality at these depths. The precision of the estimated Formation water quality remains affected by the presence of residual brine in the intervals sampled, although this effect has decreased significantly with purging and sampling activities at Ports 3 and 4. Fluorescein content indicates that the estimated percent of drill fluid remaining is less than 5% for both Port 3 and Port 4.

Based on 2024 data from Ports 3 and 4, the calculated TDS content of Formation water is estimated to range between 2,163 and 2,621 mg/L. The TDS profile that was adopted in the FEIS for the Approved Project is presented in Figure 5, along with the supplemental reliable TDS collected since its submission.

As illustrated on Figure 5, the TDS in samples from Ports 3 and 4 is similar to measurements in recent years and slightly less saline than historical sampling results in 2016, which may reflect the lower residual drilling fluid content in the recent collected samples relative to 2016 and therefore inferred higher accuracy is the calculated Formation water quality. Overall, although slightly less saline than the Whale Tail TDS profile adopted for the FEIS, the results do not deviate significantly from FEIS assumptions.

Arsenic, which is a constituent of interest in the ore and waste rock to be mined, occurs in groundwater at concentrations that are low and consistent with previous reliable data collected from the well. Radium-226 in groundwater measured in 2024 at Ports 3 and 4 were below the Federal MDMER Effluent criteria.



* denotes laboratory result. Calculated TDS estimate (drill fluid removed) yielded a negative value for Port 3 in 2018, 2019 and 2020. TDS result reported as less than laboratory measured TDS

Notes:

1. Closed symbol represents calculated Formation water (drill fluid removed). Open symbol represents laboratory measured result (uncorrected for drill fluid). Removal of drill fluid proportion yielded negative or low TDS estimate.
2. Whale Tail Data from Golder (2016, 2019d, 2021b).
3. Meadowbank Data from Golder (2004).
4. TDS result plotted as midpoint of sample interval depth where applicable: Port 6 (263 m), Port 4 (331 m) and Port 3 (361 m).

CLIENT	AGNICO EAGLE	AGNICO EAGLE MINES LIMITED: MEADOWBANK DIVISION	
CONSULTANT	wsp	YYYY-MM-DD	2024-11-19
		PREPARED	NU
		DESIGN	NU
		REVIEW	DH
		APPROVED	JL

PROJECT
2024 WESTBAY SYSTEM MONITORING PROGRAM
WHALE TAIL MINE, NUNAVUT

TITLE

TDS PROFILE

PROJECT No.	DOC.	Rev.	FIGURE
CA0037376.3015	2024MBK_028	0	5

5.0 QUALITY ASSURANCE/QUALITY CONTROL

Duplicate samples collected from Ports 3 and 4 were submitted to the analytical laboratory as part of the QA/QC protocol. A trip blank and field blank were also submitted for analysis of the full parameter suite, with the exception of unionized ammonia (NH_3 - calculated value based on temperature and pH of sample). The analytical laboratory performs equipment blanks as a method of internal QA/QC verification.

Analytical repeatability was tested by assessing the similarity between duplicate pairs of results. For each duplicate pairs of analysis where both results were higher than 5 times the method detection limit (MDL), the relative percent difference (RPD) was calculated as follows:

$$RPD = \frac{\text{absolute [difference (concentration of a given parameter)]}}{\text{[average (concentration of a given parameter)]}} \times 100$$

Per USEPA recommended methods (USEPA, 1994), an RPD of 20% or less is considered acceptable. Where one or both results of the duplicate pair are less than 5 times the MDL, a margin of +/- MDL is considered acceptable.

Table D-4 of Attachment D presents the RPD or +/- MDL value calculated from the duplicate pair of results. Approximately 46% of duplicate pairs of analyses have one or both results below the method detection limit and consequently cannot be assessed for repeatability. QA/QC results for the duplicate samples are within acceptable tolerance limits (RPD or +/- MDL) except for duplicate concentrations of total ammonia, dissolved lead, total selenium, turbidity and dissolved zinc in Port 3 (sample IDs: Port 3-A and Port 3-B) and duplicate concentrations of dissolved/total aluminum, dissolved iron, dissolved nickel, total lead, turbidity, total uranium and dissolved zinc in Port 4 (sample IDs: Port 4-A and Port 4-B). The reason for the deviations in concentrations of these parameters is unknown but may be attributed to the presence of trace sediments in the sample for total constituents. The concentrations of dissolved constituents are generally similar to or lower than their total counterparts, and the dissolved metals were field filtered.

The trip blank (sample ID: Port 4-A-TB) returned concentrations that are low or below the laboratory detection limits for each parameter analyzed with the exception of dissolved barium (0.00004 mg/L), dissolved zinc (0.00014 mg/L) total aluminum (0.00114 mg/L), total chromium (0.00014 mg/L), total lead (0.0000076 mg/L), total nickel (0.000024 mg/L), and total zinc (0.00057 mg/L), which were 2 to 3 times the laboratory method detection limit. These detected concentrations are overall low in comparison to the reported groundwater concentrations and would not alter the conclusions of this assessment. In the field blank samples (sample ID: Port 4-B-FB), dissolved barium, total aluminum, total lead and total zinc were detected at concentrations that are from one to three orders of magnitude higher than the laboratory detection limit (dissolved barium - 0.000072 mg/L, total aluminum – 0.0023 mg/L, total lead - 0.000023 mg/L, total zinc – 0.00054 mg/L). The field blank comprised of using de-ionized water (issued by the analytical laboratory BV) to fill one set of bottles during the sampling of Port 4. The source of the low concentrations of the constituents mentioned above are unknown, but may have been introduced at the wellhead during sampling or sourced from the de-ionized water used for the sample preparation. Results from total aluminum and total lead parameters may be biased slightly high in the Port 3 and Port 4 samples, however the 2024 results are still within the historical range and are considered valid.

Similar to 2023, free, WAD and total cyanide analysis were sent to two labs in 2024 to help assess if the cyanide concentrations observed in the groundwater samples were representative of groundwater concentrations or laboratory. Extra duplicate samples collected from Ports 3 and 4 and two QA/QC samples (trip and field blanks) were collected during the 2024 field program for analysis of cyanide species for QA/QC purposes. Cyanide results reported by each lab were generally similar (at or below the method detection limit). It is noted, the method detection limit was higher and above the detected concentrations in the sample analysed SGS compared to BV. The 2024 cyanide species reported by BV remain within the acceptability limits for reporting. Since 2021, trace cyanide species have occasionally been detected in the samples collected from Ports 3 and 4, with the exception of the Port 4 sample collected in 2022, where concentrations of total cyanide were more than two times greater than the laboratory detection limit. Future monitoring will continue to evaluate if cyanide concentrations are increasing in groundwater.

Uncertainty in the calculated Formation water quality stems from 1) variability in drill water composition at the time of drilling and 2) possible mixing between aquifer zones having different levels of development (purging of drill water). These have an influence on the accuracy of the calculated Formation water quality, the effect of which is decreased with lower drilling brine proportion. The 2024 data remain adequate to estimate water quality at Ports 3 and 4.

6.0 CONCLUSION

The AMQ16-626 monitoring program was carried out in 2024 to support of the Whale Tail Mine Certificate No. 008, Water Licence no. 2AM-WTP1830 and in accordance with Section 3.1 of the Whale Tail Pit Project Groundwater Monitoring Plan Version 3_NWB dated May 2019. The hydraulic head and groundwater quality data were used to monitor Formation water quality and the hydraulic gradient near the mine development areas throughout the stages of mining.

Hydraulic heads measured at the well ports continue to decrease from the pre-development phase. The continue decrease in most ports is attributed to the dewatering of the North Basin and Whale Tail Pit. An upward gradient is present at shallow depths (between Port 4 and 6) and a downward to near neutral gradient is present at depth (between Port 1 and 4) since dewatering of the Whale Tail pit and north basin of Whale Tail Lake commenced.

Formation water quality was estimated from the samples collected in 2024 by removing the effect of residual drilling water still present in the raw water sample collected. The 2024 program estimated that Formation water quality at Ports 3 and 4 are in the same range, but less saline than the TDS estimated in 2016. The data collected from Ports 3 and 4 in 2024 are considered reliable and the assumptions for the conceptual model related to flow direction and TDS water quality, which were developed based on 2016 pre-mining data, are still considered to be appropriate. Changes to the water quality model or the water management plan are not considered necessary based on the data presented in this report. The slightly lower TDS in Ports 3 and 4 since 2016 likely reflects improved reliability in the sample results are due to reduced drill fluid content. Overall, the results do not deviate significantly from the FEIS assumptions.

The concentrations of metals and arsenic in groundwater at Ports 3 and 4 continue to be low. Given that the arsenic concentrations remain similar to the assumptions adopted in the geochemical models (low arsenic in Formation water), the contention is still valid that the natural content of arsenic in groundwater is not likely to have a significant effect on mine surface water quality nor the pit lake water quality.

7.0 RECOMMENDATIONS

Monitoring should continue at Port 1 and 2 during each planned monitoring program to evaluate if natural flushing is occurring. Additional development and groundwater sampling should be carried out at Port 1 and 2 if time permits and if underground mining intends to progress below the permafrost. Sampling from Ports 1 and 2 would support the evaluation of potential up-welling of deeper saline water into the underground mine openings at depth.

8.0 STUDY LIMITATIONS

This technical memorandum was prepared for the exclusive use of Agnico Eagle Mines Limited. The technical memorandum, which specifically includes all tables and attachments, is based on data and information collected by WSP Canada Inc. (WSP) and is based solely on the conditions at the sampling locations at the time of the work, supplemented by historical information and data as described in this technical memorandum.

WSP has relied in good faith on all information provided by others and does not accept responsibility for any deficiency, misstatements, or inaccuracies contained in the technical memorandum as a result of omissions, misinterpretation, or fraudulent acts of the persons contacted or errors or omissions in the reviewed documentation.

The services performed, as described in this technical memorandum, were conducted in a manner consistent with that level of care and skill normally exercised by other members of the engineering and science professions currently practicing under similar conditions, subject to the time limits and financial and physical constraints applicable to the services.

Any use which a third party makes of this technical memorandum, or any reliance on, or decisions to be made based on it, are the responsibilities of such third parties. WSP accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this technical memorandum.

The findings and conclusions of this technical memorandum are valid only as of the date of this technical memorandum and for the locations investigated. If new information is discovered in future work, including excavations, borings, or other studies, WSP should be requested to re-evaluate the conclusions of this technical memorandum and provide amendments as required.

9.0 CLOSURE

We trust this technical memorandum meets your current requirements. If you have any questions regarding this technical memorandum, please contact the undersigned.

WSP Canada Inc.

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Attachments: Attachment A – AQM16-626 Westbay System Installation Details
Attachment B – Westbay Instruments Mosdax Sampler Calibration Reports
Attachment C – 2024 Laboratory Certificates of Analysis
Attachment D – Water Quality Results

https://wsponlinecan.sharepoint.com/sites/ca-ca00373763015/shared documents/06. deliverables/02 wt/01 westbay tm/rev0/ca0037376.3015_mbk2024_028-tm-rev0-2024 wt westbay_3mar2025.docx

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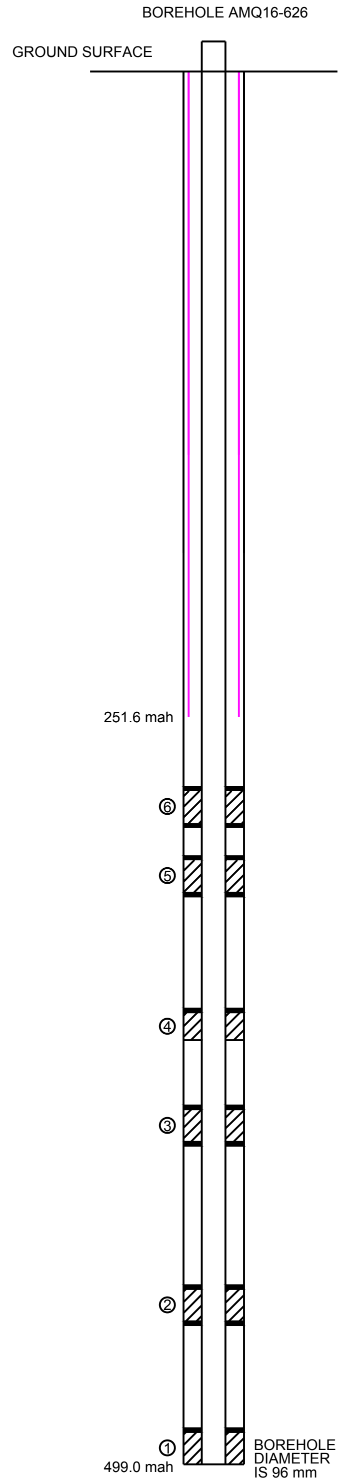
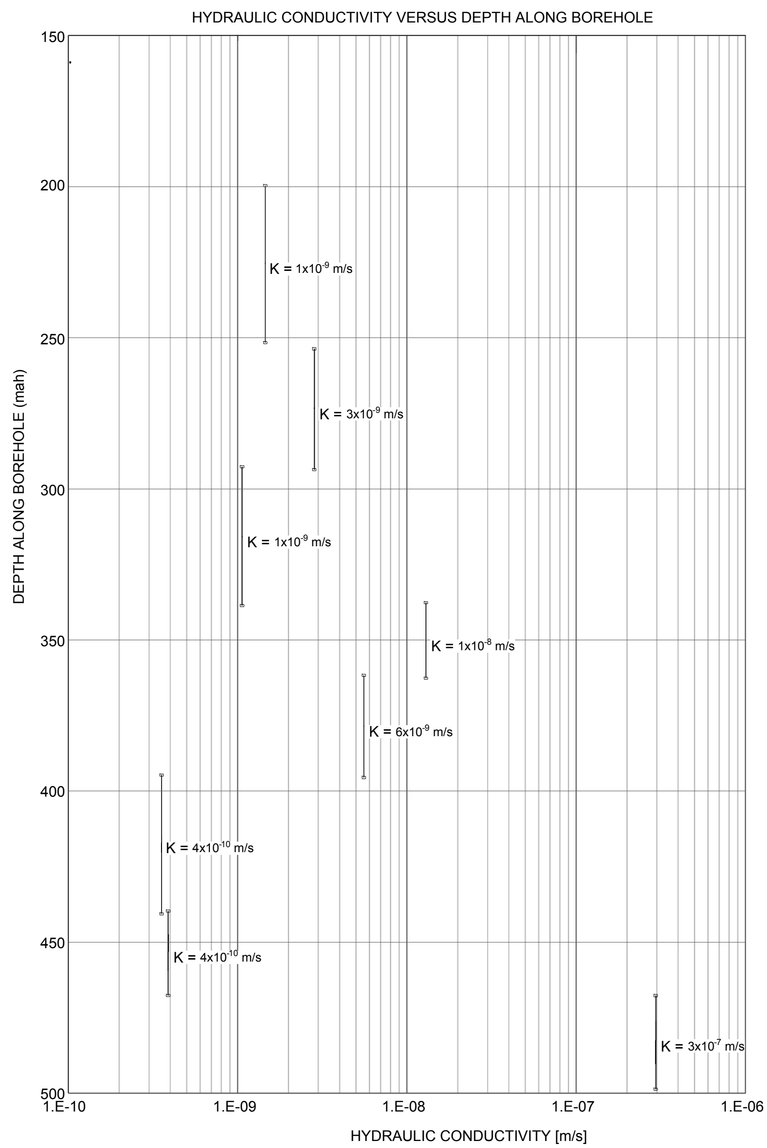
ATTACHMENT A

AQM16-626 Westbay System Installation Details



WESTBAY SYSTEM ZONE DEPTH SUMMARY						
	DEPTH ALONG HOLE			VERTICAL DEPTH		
ZONE	FROM (mah)	TO (mah)	LENGTH (m)	FROM (mbgs)	TO (mbgs)	THICKNESS (m)
6	276.0	287.4	11.4	257.7	268.3	10.6
5	298.9	310.3	11.4	279	289.7	10.6
4	349.3	359.1	9.8	326.1	335.2	9.1
3	381.3	392.7	11.4	356.0	366.6	10.6
2	440.8	452.2	11.4	411.5	422.2	10.6
1	488.1	499.0	10.9	455.7	465.9	10.2



LEGEND

	PACKER	K	HYDRAULIC CONDUCTIVITY
1	WESTBAY MONITORING ZONE	mah	METRES ALONG BOREHOLE, RELATIVE TO GROUND SURFACE
	STEEL CASING	mbgs	METRES BELOW GROUND SURFACE
		m/s	METRES PER SECOND

NOTES

1. ALL UNITS ARE IN METERS UNLESS OTHERWISE NOTED
2. PERMAFROST ASSUMED 200 m ALONG HOLE ALIGNMENT.
3. DRILL RODS TO 251.6 m ALONG HOLE.
4. BOREHOLE LOCATED IN UTM NAD 83 ZONE 14, N =7255363.5 E = 607181.68 ELEVATION = 154.46 m.
5. AVERAGE BOREHOLE INCLINATION IS 69°.

NOT TO SCALE SCHEMATIC ONLY

REV	DATE	REVISION DESCRIPTION	DES	CADD	CHK	RVW
0	2016-07-06	ISSUED FOR FINAL	JJ	PP	DV	DC
A	2016-05-27	ISSUED FOR REVIEW	JJ	PP		

PROJECT

AGNICO EAGLE

AGNICO EAGLE MINES LIMITED
WHALE TAIL PIT PROJECT
NUNAVUT, CANADA

TITLE

AMQ16-626 WESTBAY SYSTEM INSTALLATION DETAILS

Golder Associates

PROJECT No.	1649355.4000.3000		
DESIGN	JJ	2016-07-06	
CADD	PP	2016-07-06	
CHECK	DV	2016-07-06	
REVIEW	DC	2016-07-06	

FILE No.	1649355-4000-3000-03
SCALE	NOT TO SCALE
FIGURE	A-1

ATTACHMENT B

Westbay Instruments Mosdax Sampler Calibration Reports

MOSDAX Calibration Report 1: EMS - 4954 Module 1774

Full Scale: 2000 (psia)

File: E:\DATA\CAL\0-2024\2K\30MAY2~1\04954

Pressure Reference: Paroscientific Model 42K-101 S/N 59937

Range: 2K PSI

Date of last reference to traceable standard: Sept 20 2023

EMS - 4954 May 29 18:07:28 2024 — Range 1 Temp 3.6° C

Ref Pres (psia)	Error (psia)	(% FS)
14.730	-0.176	-0.009
194.437	0.057	0.003
392.709	0.027	0.001
591.446	-0.015	-0.001
790.957	0.031	0.002
989.192	-0.133	-0.007
1192.108	-0.172	-0.009
1389.652	-0.142	-0.007
1589.598	-0.058	-0.003
1786.355	-0.032	-0.002
1994.124	0.051	0.003
1798.691	-0.066	-0.003
1591.803	-0.075	-0.004
1416.118	-0.171	-0.009
1203.506	-0.102	-0.005
1017.133	-0.062	-0.003
806.647	0.006	0.000
606.048	0.115	0.006
406.627	0.034	0.002
206.280	-0.011	-0.001
14.745	-0.161	-0.008

EMS - 4954 May 29 22:55:57 2024 — Range 2 Temp 10.5° C

Ref Pres (psia)	Error (psia)	(% FS)
14.758	-0.135	-0.007
193.757	-0.044	-0.002
392.019	0.078	0.004
591.785	0.034	0.002
790.773	-0.051	-0.003
989.667	-0.034	-0.002
1188.605	0.007	0.000
1389.354	0.005	0.000
1591.243	0.069	0.003
1785.881	0.118	0.006
1994.234	0.212	0.011
1796.560	0.200	0.010
1596.233	0.014	0.001
1394.141	0.030	0.001
1217.891	-0.005	0.000
1007.488	0.060	0.003
806.820	0.060	0.003
605.673	0.036	0.002
406.187	0.053	0.003
205.762	-0.074	-0.004
14.774	-0.174	-0.009

EMS - 4954 May 30 04:00:28 2024 — Range 3 Temp 20.4° C

Ref Pres (psia)	Error (psia)	(% FS)
14.778	-0.166	-0.008
194.211	0.014	0.001
392.854	0.023	0.001
591.493	0.058	0.003
790.809	-0.014	-0.001
989.725	0.097	0.005
1189.155	-0.064	-0.003
1388.282	-0.108	-0.005
1591.165	-0.063	-0.003
1785.957	0.072	0.004
1994.262	0.169	0.008
1804.070	0.099	0.005
1617.990	-0.009	0.000
1402.052	-0.013	-0.001
1217.847	-0.074	-0.004
1007.351	0.104	0.005
806.575	0.079	0.004
605.423	0.108	0.005
406.997	0.027	0.001
206.322	-0.019	-0.001
14.787	-0.164	-0.008

EMS - 4954 May 30 09:06:16 2024 — Range 4 Temp 30.2° C

Ref Pres (psia)	Error (psia)	(% FS)
14.798	-0.133	-0.007
194.154	0.016	0.001
392.584	-0.045	-0.002
591.252	-0.098	-0.005
790.829	-0.079	-0.004
992.736	0.001	0.000
1188.138	-0.142	-0.007
1387.840	-0.192	-0.010
1590.713	-0.121	-0.006
1785.741	-0.088	-0.004
1994.507	-0.038	-0.002
1791.867	-0.015	-0.001
1619.638	-0.131	-0.007
1419.429	-0.161	-0.008
1218.771	-0.146	-0.007
1017.655	-0.159	-0.008
806.774	0.034	0.002
606.394	-0.059	-0.003
406.782	-0.107	-0.005
206.089	-0.039	-0.002
14.796	-0.196	-0.010

EMS - 4954 May 30 14:00:23 2024 — Range 5 Temp 40.1° C

Ref Pres (psia)	Error (psia)	(% FS)
14.780	-0.018	-0.001
192.702	-0.122	-0.006
391.763	0.038	0.002
591.120	0.107	0.005
790.134	0.108	0.005
989.415	0.099	0.005
1188.808	-0.012	-0.001
1387.996	-0.056	-0.003
1589.570	0.021	0.001
1786.559	0.054	0.003
1994.316	0.209	0.010
1815.544	0.084	0.004
1589.521	0.022	0.001
1414.646	0.076	0.004
1217.561	-0.014	-0.001
1009.403	-0.020	-0.001
806.861	0.115	0.006
606.170	0.004	0.000
405.649	0.048	0.002
205.659	0.080	0.004
14.775	-0.018	-0.001

Issued by

Westbay Instruments

MOSDAX Calibration Report 2: EMS - 4954 Module 1774

Full Scale: 2000 (psia)

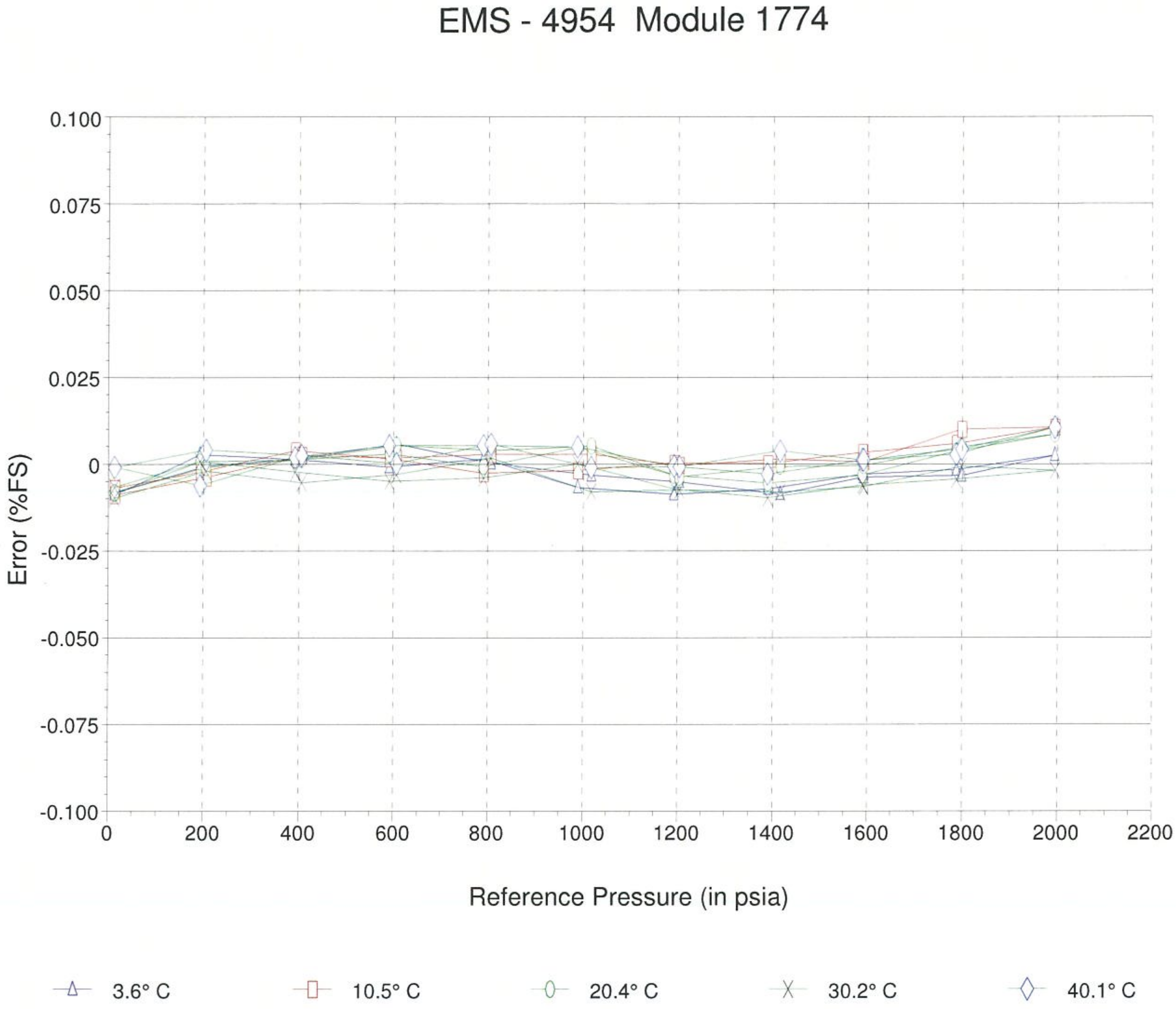
File: E:\DATA\CAL\0-2024\2K\30MAY2~1\04954

Pressure Reference: Paroscientific Model 42K-101 S/N 59937

Range: 2K PSI

Date of last reference to traceable standard: Sept 20 2023

Plot of Error vs. Reference Pressure



Comments

Issued by

Document: 5CAL 9607

MOSDAX Calibration Report 1: EMS - 5161 Module 5490

Full Scale: 2000 (psia)

File: E:\DATA\CAL\0-2024\2K\6JAN20~1\05490

Pressure Reference: Paroscientific Model 42K-101 S/N 59937

Range: 2K PSI

Date of last reference to traceable standard: Sept 20 2023

EMS - 5161 Jan 05 08:28:13 2024 — Range 1 Temp 3.6° C

Ref Pres (psia)	Error (psia)	(% FS)
14.713	0.090	0.005
193.795	0.088	0.004
391.704	0.077	0.004
590.490	0.052	0.003
788.412	0.042	0.002
988.230	-0.022	-0.001
1191.406	0.117	0.006
1390.850	0.084	0.004
1591.008	0.108	0.005
1788.388	0.168	0.008
1985.898	0.260	0.013
1816.087	0.206	0.010
1593.342	0.246	0.012
1417.269	0.339	0.017
1197.289	0.372	0.019
1002.019	0.215	0.011
811.287	0.305	0.015
606.593	0.312	0.016
411.218	0.260	0.013
206.040	0.259	0.013
14.705	0.258	0.013

EMS - 5161 Jan 05 12:55:22 2024 — Range 2 Temp 10.6° C

Ref Pres (psia)	Error (psia)	(% FS)
14.659	0.066	0.003
192.685	0.100	0.005
390.758	0.105	0.005
590.267	0.078	0.004
788.623	0.024	0.001
987.257	0.024	0.001
1191.042	0.203	0.010
1390.946	0.179	0.009
1590.277	0.202	0.010
1790.055	0.268	0.013
1986.098	0.396	0.020
1800.317	0.378	0.019
1602.488	0.366	0.018
1395.865	0.405	0.020
1212.034	0.423	0.021
1016.536	0.344	0.017
818.423	0.341	0.017
614.611	0.313	0.016
405.898	0.306	0.015
205.569	0.310	0.016
14.646	0.228	0.011

EMS - 5161 Jan 05 17:18:06 2024 — Range 3 Temp 20.7° C

Ref Pres (psia)	Error (psia)	(% FS)
14.674	0.116	0.006
193.580	0.130	0.007
393.984	0.138	0.007
593.631	0.052	0.003
793.590	0.002	0.000
984.065	-0.022	-0.001
1192.752	0.166	0.008
1381.398	0.140	0.007
1591.721	0.145	0.007
1784.708	0.157	0.008
1989.999	0.359	0.018
1796.349	0.314	0.016
1599.130	0.332	0.017
1400.482	0.347	0.017
1197.554	0.393	0.020
1005.851	0.297	0.015
804.310	0.366	0.018
589.820	0.369	0.018
404.701	0.370	0.019
204.881	0.324	0.016
14.648	0.266	0.013

EMS - 5161 Jan 05 21:32:39 2024 — Range 4 Temp 30.8° C

Ref Pres (psia)	Error (psia)	(% FS)
14.562	0.134	0.007
200.483	0.127	0.006
392.589	0.086	0.004
591.729	0.000	0.000
788.894	-0.067	-0.003
986.523	-0.091	-0.005
1185.359	0.016	0.001
1385.986	-0.005	0.000
1584.764	-0.031	-0.002
1783.736	0.010	0.000
1990.054	0.141	0.007
1797.332	0.201	0.010
1602.861	0.211	0.011
1400.068	0.318	0.016
1202.500	0.329	0.016
1004.590	0.235	0.012
804.600	0.304	0.015
599.812	0.344	0.017
402.490	0.319	0.016
198.168	0.340	0.017
14.548	0.237	0.012

EMS - 5161 Jan 06 01:48:35 2024 — Range 5 Temp 40.7° C

Ref Pres (psia)	Error (psia)	(% FS)
14.497	0.127	0.006
198.089	0.143	0.007
393.509	0.125	0.006
595.966	0.005	0.000
790.284	0.023	0.001
990.119	-0.064	-0.003
1186.596	0.066	0.003
1386.344	0.083	0.004
1583.767	0.118	0.006
1784.844	0.175	0.009
1990.116	0.352	0.018
1800.801	0.390	0.019
1596.132	0.362	0.018
1401.411	0.430	0.022
1205.572	0.484	0.024
1007.262	0.400	0.020
795.544	0.425	0.021
602.322	0.386	0.019
389.383	0.365	0.018
200.222	0.333	0.017
14.500	0.248	0.012

Issued by

Westbay Instruments

MOSDAX Calibration Report 2: EMS - 5161 Module 5490

Full Scale: 2000 (psia)

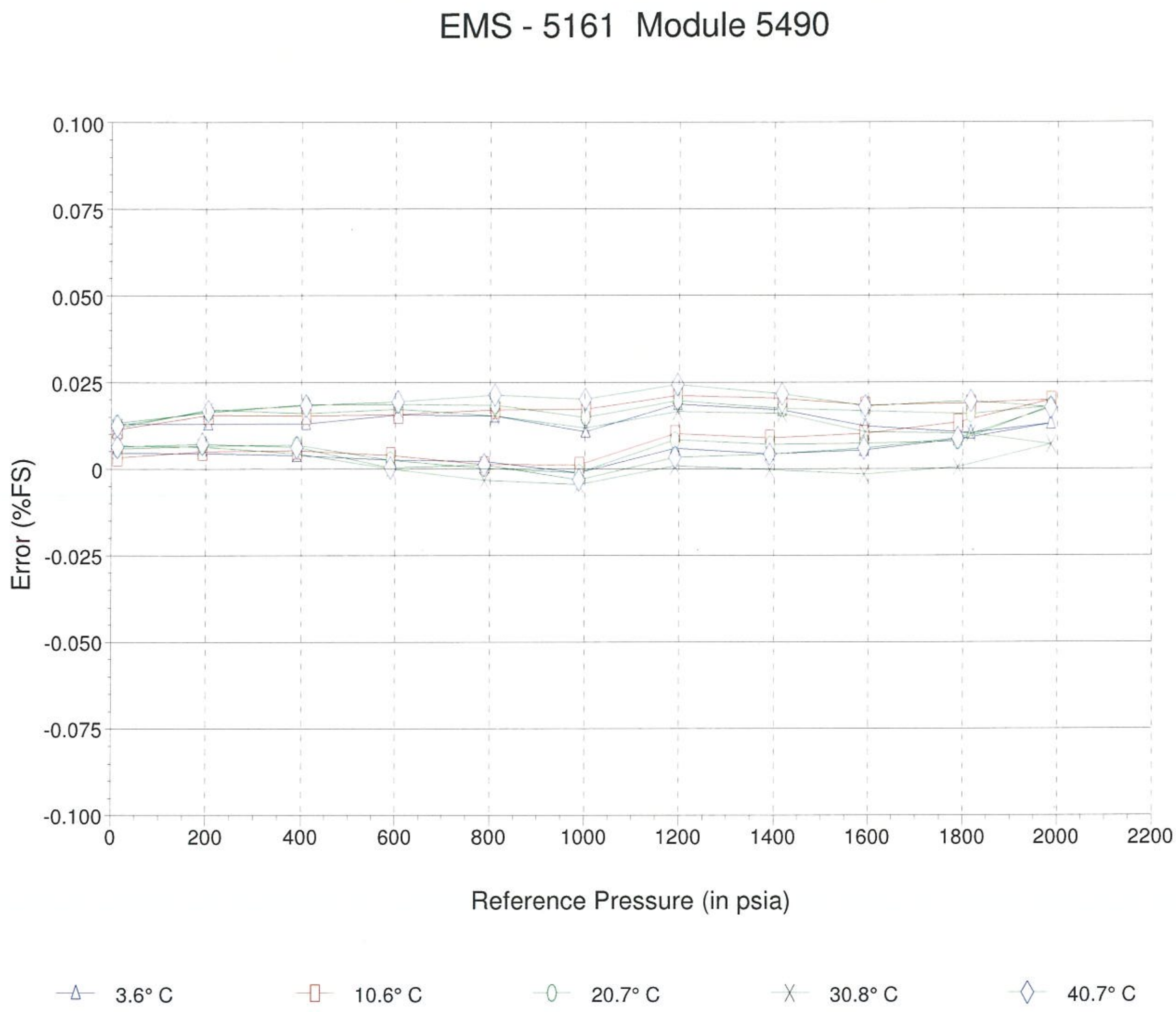
File: E:\DATA\CAL\0-2024\2K\6JAN20~1\05490

Pressure Reference: Paroscientific Model 42K-101 S/N 59937

Range: 2K PSI

Date of last reference to traceable standard: Sept 20 2023

Plot of Error vs. Reference Pressure



Comments

Issued by

ATTACHMENT C

2024 Laboratory Certificates of Analysis

Your P.O. #: 1368140
Site Location: AMQ
Your C.O.C. #: 965624

Attention: Reporting

Agnico Eagle
Amaruq
Amaruq
Keewatin, NU
CANADA P0X 0A1

Report Date: 2024/10/17
Report #: R8364778
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4T6434
Received: 2024/09/20, 09:50

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity (1)	2	N/A	2024/09/25	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide (1)	2	N/A	2024/09/26	CAM SOP-00102	APHA 4500-CO2 D
Conductivity (1)	2	N/A	2024/09/25	CAM SOP-00414	SM 24 2510 m
Dissolved Organic Carbon (DOC) (1, 5)	2	N/A	2024/09/24	CAM SOP-00446	SM 24 5310 B m
Field Measured Conductivity (1, 6)	2	N/A	2024/09/21		Field Meter
Field Measured TDS (1, 6)	2	N/A	2024/09/21		Field TDS Meter
Fluoride (1)	2	2024/09/24	2024/09/25	CAM SOP-00449	SM 24 4500-F C m
Dissolved Mercury (low level) (1)	2	2024/09/23	2024/09/24	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	2	2024/09/24	2024/09/24	CAM SOP-00453	EPA 7470 m
Bromide in water by IC (2)	2	N/A	2024/09/27	AB SOP-00052	SM 24 4110 B m
Low Level Chloride and Sulphate by AC (2)	1	N/A	2024/09/26	AB SOP-00020	SM24-4500-Cl/SO4-E m
Low Level Chloride and Sulphate by AC (2)	1	N/A	2024/09/27	AB SOP-00020	SM24-4500-Cl/SO4-E m
Cyanide (Free) (2)	2	N/A	2024/09/26	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	2	2024/09/30	2024/09/30	CAL SOP-00270	SM 24 4500-CN m
Cyanide WAD (weak acid dissociable) (2)	2	N/A	2024/09/30	CAL SOP-00270	SM 24 4500-CN m
Hardness Total (calculated as CaCO3) (3, 7)	2	N/A	2024/10/01	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3) (3)	2	N/A	2024/10/01	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (diss.) (3)	2	N/A	2024/10/01	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved) (3, 8)	1	N/A	2024/10/08	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Low Level (dissolved) (3, 8)	2	N/A	2024/09/28	BBY7SOP-00002	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total) (3)	2	N/A	2024/10/01	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total) (3)	1	N/A	2024/10/01	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Low Level (total) (3)	1	N/A	2024/09/28	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (2)	2	N/A	2024/10/07	AB SOP-00007	SM 24 4500 NH3 A G m
Orthophosphate LL by Automated Analyzer (2)	1	N/A	2024/09/26	AB SOP-00025	SM 24 4500-P A, F m
Orthophosphate LL by Automated Analyzer (2)	1	N/A	2024/09/27	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive) (2)	1	N/A	2024/10/03	AB SOP-00011	EPA 370.1 R1978 m
Silica (Reactive) (2)	1	N/A	2024/09/26	AB SOP-00011	EPA 370.1 R1978 m
Total Phosphorus Low Level Total (2)	2	2024/09/26	2024/09/26	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia (as NH3) (1)	2	N/A	2024/10/15	Auto Calc.	
Nitrate & Nitrite as Nitrogen in Water (1, 9)	2	N/A	2024/09/25	CAM SOP-00440	SM 24 4500-NO3I/NO2B

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Your P.O. #: 1368140
Site Location: AMQ
Your C.O.C. #: 965624

Attention: Reporting

Agnico Eagle
Amaruq
Amaruq
Keewatin, NU
CANADA P0X 0A1

Report Date: 2024/10/17
Report #: R8364778
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4T6434
Received: 2024/09/20, 09:50

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
pH (1, 10)	2	2024/09/24	2024/09/25	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (1, 6)	2	N/A	2024/09/21		Field pH Meter
Radium-226 Low Level (4, 11)	2	N/A	2024/10/11	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Total Dissolved Solids (1)	2	2024/09/23	2024/09/24	CAM SOP-00428	SM 24 2540C m
Field Temperature (1, 6)	2	N/A	2024/09/21		Field Thermometer
Total Kjeldahl Nitrogen in Water (1)	2	2024/09/25	2024/09/25	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (1, 12)	2	N/A	2024/09/26	CAM SOP-00446	SM 24 5310B m
Low Level Total Suspended Solids (1)	2	2024/09/23	2024/09/24	CAM SOP-00428	SM 24 2540D m
Turbidity (1)	2	N/A	2024/09/24	CAM SOP-00417	SM 24 2130 B
Un-ionized Ammonia (as N) (1, 13)	2	2024/09/21	2024/10/17	Calculation	Calculation

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Your P.O. #: 1368140
Site Location: AMQ
Your C.O.C. #: 965624

Attention: Reporting

Agnico Eagle
Amaruq
Amaruq
Keewatin, NU
CANADA P0X 0A1

Report Date: 2024/10/17
Report #: R8364778
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4T6434

Received: 2024/09/20, 09:50

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) This test was performed by Bureau Veritas Burnaby, 4606 Canada Way , Burnaby, BC, V5G 1K5
(4) This test was performed by Bureau Veritas Kitimat, 6790 Kitimat Road, Unit 4 , Mississauga, ON, L5N 5L9
(5) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
(6) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.
(7) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
(8) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(9) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(10) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(11) Radium-226 results have not been corrected for blanks.
(12) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.
(13) Un-ionized ammonia is calculated using the total ammonia result and field data provided by the client for pH and temperature.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633
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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C4T6434
Report Date: 2024/10/17

Agnico Eagle
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ADON36			ADON36			ADON37		
Sampling Date		2024/09/17 17:06			2024/09/17 17:06			2024/09/17 17:06		
COC Number		965624			965624			965624		
	UNITS	Port 3-A	RDL	QC Batch	Port 3-A Lab-Dup	RDL	QC Batch	Port 3-B	RDL	QC Batch
CONVENTIONALS										
Total Nitrogen (Ammonia Nitrogen)	mg/L	0.042	0.0050	9692789				0.093	0.0050	9692789
Calculated Parameters										
Total Ammonia (as NH3)	mg/L	0.050	0.0061	9654151				0.11	0.0061	9654151
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	21	1.0	9653956				22	1.0	9653956
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9653956				<1.0	1.0	9653956
Dissolved Hardness (CaCO3)	mg/L	1080	0.50	9659737				1060	0.50	9659737
Field Measurements										
Field Measured Conductivity	uS/cm	2608	N/A	ONSITE				2608	N/A	ONSITE
Field Measured Dissolved Solids	mg/L	2309		ONSITE				2309		ONSITE
Field Temperature	Celsius	3.2	N/A	ONSITE				3.2	N/A	ONSITE
Field Measured pH	pH	7.8		ONSITE				7.8		ONSITE
Inorganics										
Dissolved Bromide (Br-)	mg/L	13	0.10	9692785				14	0.10	9692785
Conductivity	mS/cm	3.78	N/A	9659941				3.78	N/A	9659941
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9674216				<2.0 (1)	2.0	9674216
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050 (2)	0.00050	9672456				<0.00050	0.00050	9672456
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00050	0.00050	9685286				<0.00050	0.00050	9685286
Total Dissolved Solids	mg/L	2460	10	9656322	2400	10	9656322	2450	10	9656322
Fluoride (F-)	mg/L	0.92	0.10	9659943				0.93	0.10	9659943
Total Kjeldahl Nitrogen (TKN)	mg/L	0.26	0.10	9661929				0.31	0.10	9661929
Dissolved Organic Carbon	mg/L	330	0.40	9658210				330	0.40	9658210
Total Organic Carbon (TOC)	mg/L	330	0.40	9661938				340	0.40	9661938
Orthophosphate (P)	mg/L	<0.0010	0.0010	9692787				<0.0010	0.0010	9692791
pH	pH	6.84		9659933				6.98		9659933
Total Phosphorus (P)	mg/L	<0.0010	0.0010	9667405				<0.0010	0.0010	9667405

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) SAD Cyanide < WAD Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.

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Sampling Date		2024/09/17 17:06			2024/09/17 17:06			2024/09/17 17:06		
COC Number		965624			965624			965624		
	UNITS	**Port 3-A**	**RDL**	**QC Batch**	**Port 3-A Lab-Dup**	**RDL**	**QC Batch**	**Port 3-B**	**RDL**	**QC Batch**
Reactive Silica (SiO2)	mg/L	7.1	0.050	9667648				7.4	0.050	9686374
Total Suspended Solids	mg/L	4	1	9655999				4	1	9655999
Turbidity	NTU	0.4	0.1	9659869				0.6	0.1	9659869
Alkalinity (Total as CaCO3)	mg/L	21	1.0	9659937				22	1.0	9659937
Dissolved Chloride (Cl-)	mg/L	1300	13	9692786				1200	13	9692790
Nitrite (N)	mg/L	<0.010	0.010	9658891				<0.010	0.010	9658891
Nitrate (N)	mg/L	<0.10	0.10	9658891				<0.10	0.10	9658891
Dissolved Sulphate (SO4)	mg/L	<0.50	0.50	9692786				<0.50	0.50	9692790
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9658891				<0.10	0.10	9658891
Un-ionized Ammonia (as N)	mg/L	<0.0004	0.0004	9655377				0.0006	0.0004	9655377
Metals										
Dissolved Aluminum (Al)	ug/L	11.4	1.0	9694474				11.5	1.0	9694474
Total Aluminum (Al)	ug/L	12.1	1.0	9679076				10.3	1.0	9679076
Dissolved Antimony (Sb)	ug/L	0.324	0.040	9694474				0.336	0.040	9694474
Total Antimony (Sb)	ug/L	0.286	0.040	9679076				0.289	0.040	9679076
Dissolved Arsenic (As)	ug/L	0.947	0.040	9694474				0.871	0.040	9694474
Total Arsenic (As)	ug/L	0.888	0.040	9679076				0.903	0.040	9679076
Dissolved Barium (Ba)	ug/L	45.9	0.040	9694474				44.9	0.040	9694474
Total Barium (Ba)	ug/L	45.7	0.040	9679076				45.5	0.040	9679076
Dissolved Beryllium (Be)	ug/L	<0.020	0.020	9694474				<0.020	0.020	9694474
Total Beryllium (Be)	ug/L	<0.020	0.020	9679076				<0.020	0.020	9679076
Dissolved Bismuth (Bi)	ug/L	0.010	0.010	9694474				<0.010	0.010	9694474
Total Bismuth (Bi)	ug/L	<0.010	0.010	9679076				<0.010	0.010	9679076
Dissolved Boron (B)	ug/L	720	20	9694474				722	20	9694474
Total Boron (B)	ug/L	654	20	9679076				684	20	9679076
Dissolved Cadmium (Cd)	ug/L	<0.010	0.010	9694474				<0.010	0.010	9694474
Total Cadmium (Cd)	ug/L	<0.010	0.010	9679076				<0.010	0.010	9679076
Dissolved Chromium (Cr)	ug/L	<0.20	0.20	9694474				0.21	0.20	9694474
Total Chromium (Cr)	ug/L	0.31	0.20	9679076				0.33	0.20	9679076
Dissolved Cobalt (Co)	ug/L	<0.010	0.010	9694474				<0.010	0.010	9694474

RDL = Reportable Detection Limit
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Lab-Dup = Laboratory Initiated Duplicate

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Sampler Initials: GB

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Sampling Date		2024/09/17 17:06			2024/09/17 17:06			2024/09/17 17:06		
COC Number		965624			965624			965624		
	UNITS	Port 3-A	RDL	QC Batch	Port 3-A Lab-Dup	RDL	QC Batch	Port 3-B	RDL	QC Batch
Total Cobalt (Co)	ug/L	0.014	0.010	9679076				0.017	0.010	9679076
Dissolved Copper (Cu)	ug/L	<0.10	0.10	9694474				<0.10	0.10	9694474
Total Copper (Cu)	ug/L	<0.10	0.10	9679076				<0.10	0.10	9679076
Dissolved Iron (Fe)	ug/L	6.1	2.0	9694474				6.5	2.0	9694474
Total Iron (Fe)	ug/L	20.5	2.0	9679076				24.8	2.0	9679076
Dissolved Lead (Pb)	ug/L	0.031	0.010	9694474				0.017	0.010	9694474
Total Lead (Pb)	ug/L	0.023	0.010	9679076				0.026	0.010	9679076
Dissolved Lithium (Li)	ug/L	136	1.0	9694474				135	1.0	9694474
Total Lithium (Li)	ug/L	123	1.0	9679076				123	1.0	9679076
Dissolved Manganese (Mn)	ug/L	5.66	0.10	9694474				5.65	0.10	9694474
Total Manganese (Mn)	ug/L	5.54	0.10	9679076				5.40	0.10	9679076
Dissolved Molybdenum (Mo)	ug/L	0.99	0.10	9694474				0.92	0.10	9694474
Total Molybdenum (Mo)	ug/L	0.90	0.10	9679076				0.97	0.10	9679076
Dissolved Nickel (Ni)	ug/L	0.205	0.040	9694474				0.234	0.040	9694474
Total Nickel (Ni)	ug/L	0.360	0.040	9679076				0.679	0.040	9679076
Dissolved Selenium (Se)	ug/L	<0.080	0.080	9694474				<0.080	0.080	9694474
Total Silicon (Si)	ug/L	2900	100	9679076				2870	100	9679076
Total Selenium (Se)	ug/L	0.117	0.080	9679076				0.182	0.080	9679076
Dissolved Silicon (Si)	ug/L	3020	100	9694474				2980	100	9694474
Dissolved Silver (Ag)	ug/L	<0.010	0.010	9694474				<0.010	0.010	9694474
Total Silver (Ag)	ug/L	<0.010	0.010	9679076				<0.010	0.010	9679076
Dissolved Strontium (Sr)	ug/L	6550	0.10	9694474				6470	0.10	9694474
Total Strontium (Sr)	ug/L	6280	0.10	9679076				6490	0.10	9679076
Dissolved Thallium (Tl)	ug/L	<0.0040	0.0040	9694474				<0.0040	0.0040	9694474
Total Thallium (Tl)	ug/L	0.0170	0.0040	9679076				0.0140	0.0040	9679076
Dissolved Tin (Sn)	ug/L	<0.40	0.40	9694474				<0.40	0.40	9694474
Total Tin (Sn)	ug/L	<0.40	0.40	9679076				<0.40	0.40	9679076
Dissolved Titanium (Ti)	ug/L	<1.0	1.0	9694474				<1.0	1.0	9694474
Total Titanium (Ti)	ug/L	<1.0	1.0	9679076				<1.0	1.0	9679076
Dissolved Uranium (U)	ug/L	<0.0040	0.0040	9694475				0.0120	0.0040	9694474

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RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ADON36			ADON36			ADON37		
Sampling Date		2024/09/17 17:06			2024/09/17 17:06			2024/09/17 17:06		
COC Number		965624			965624			965624		
	UNITS	Port 3-A	RDL	QC Batch	Port 3-A Lab-Dup	RDL	QC Batch	Port 3-B	RDL	QC Batch
Total Uranium (U)	ug/L	<0.0040	0.0040	9679076				<0.0040	0.0040	9679076
Dissolved Vanadium (V)	ug/L	<0.40	0.40	9694474				<0.40	0.40	9694474
Total Vanadium (V)	ug/L	<0.40	0.40	9679076				<0.40	0.40	9679076
Dissolved Zinc (Zn)	ug/L	4.13	0.20	9694474				34.3	0.20	9694474
Total Zinc (Zn)	ug/L	196	0.20	9679076				197	0.20	9679076
Total Zirconium (Zr)	ug/L	<0.20	0.20	9679076				<0.20	0.20	9679076
Dissolved Calcium (Ca)	mg/L	426	0.10	9694473				421	0.10	9694473
Total Calcium (Ca)	mg/L	423	0.10	9694472				419	0.10	9694472
Dissolved Magnesium (Mg)	mg/L	3.06	0.10	9694473				3.03	0.10	9694473
Total Magnesium (Mg)	mg/L	3.06	0.10	9694472				3.04	0.10	9694472
Dissolved Potassium (K)	mg/L	8.42	0.10	9694473				8.50	0.10	9694473
Total Potassium (K)	mg/L	8.70	0.10	9694472				8.73	0.10	9694472
Dissolved Sodium (Na)	mg/L	249	0.10	9694473				247	0.10	9694473
Total Sodium (Na)	mg/L	251	0.10	9694472				249	0.10	9694472
Dissolved Sulphur (S)	mg/L	<6.0	6.0	9694473				<6.0	6.0	9694473
Total Sulphur (S)	mg/L	<6.0	6.0	9694472				<6.0	6.0	9694472
Dissolved Tellurium (Te)	ug/L	<0.040	0.040	9694474				0.082	0.040	9694474
Total Tellurium (Te)	ug/L	0.090	0.040	9679076				<0.040 (1)	0.040	9679076
RADIONUCLIDE										
Radium-226	Bq/L	0.13	0.0050	9687761				0.13	0.0050	9687761

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) Matrix spike exceeds acceptance limits due to matrix interference.

Bureau Veritas Job #: C4T6434
Report Date: 2024/10/17

Agnico Eagle
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ADON37		
Sampling Date		2024/09/17 17:06		
COC Number		965624		
	UNITS	**Port 3-B Lab-Dup**	**RDL**	**QC Batch**
Inorganics				
Orthophosphate (P)	mg/L	<0.0010	0.0010	9692791
Turbidity	NTU	0.5	0.1	9659869
Dissolved Chloride (Cl-)	mg/L	1200	13	9692790
Dissolved Sulphate (SO4)	mg/L	<0.50	0.50	9692790
Metals				
Total Aluminum (Al)	ug/L	10.5	1.0	9679076
Total Antimony (Sb)	ug/L	0.326	0.040	9679076
Total Arsenic (As)	ug/L	0.921	0.040	9679076
Total Barium (Ba)	ug/L	46.6	0.040	9679076
Total Beryllium (Be)	ug/L	<0.020	0.020	9679076
Total Bismuth (Bi)	ug/L	<0.010	0.010	9679076
Total Boron (B)	ug/L	681	20	9679076
Total Cadmium (Cd)	ug/L	<0.010	0.010	9679076
Total Chromium (Cr)	ug/L	0.36	0.20	9679076
Total Cobalt (Co)	ug/L	0.016	0.010	9679076
Total Copper (Cu)	ug/L	0.16	0.10	9679076
Total Iron (Fe)	ug/L	25.0	2.0	9679076
Total Lead (Pb)	ug/L	0.023	0.010	9679076
Total Lithium (Li)	ug/L	124	1.0	9679076
Total Manganese (Mn)	ug/L	5.53	0.10	9679076
Total Molybdenum (Mo)	ug/L	0.99	0.10	9679076
Total Nickel (Ni)	ug/L	0.580	0.040	9679076
Total Silicon (Si)	ug/L	2910	100	9679076
Total Selenium (Se)	ug/L	0.119	0.080	9679076
Total Silver (Ag)	ug/L	<0.010	0.010	9679076
Total Strontium (Sr)	ug/L	6400	0.10	9679076

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

BUREAU VERITAS

Bureau Veritas Job #: C4T6434
Report Date: 2024/10/17

Agnico Eagle
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ADON37		
Sampling Date		2024/09/17 17:06		
COC Number		965624		
	UNITS	**Port 3-B Lab-Dup**	**RDL**	**QC Batch**
Total Thallium (Tl)	ug/L	0.0100	0.0040	9679076
Total Tin (Sn)	ug/L	<0.40	0.40	9679076
Total Titanium (Ti)	ug/L	<1.0	1.0	9679076
Total Uranium (U)	ug/L	<0.0040	0.0040	9679076
Total Vanadium (V)	ug/L	<0.40	0.40	9679076
Total Zinc (Zn)	ug/L	196	0.20	9679076
Total Zirconium (Zr)	ug/L	<0.20	0.20	9679076
Total Tellurium (Te)	ug/L	<0.040	0.040	9679076

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ADON36	ADON37		
Sampling Date		2024/09/17 17:06	2024/09/17 17:06		
COC Number		965624	965624		
	UNITS	**Port 3-A**	**Port 3-B**	**RDL**	**QC Batch**
Calculated Parameters					
Total Hardness (CaCO3)	mg/L	1070	1060	0.50	9675060
Metals					
Mercury (Hg)	mg/L	<0.00001	<0.00001	0.00001	9658808
Dissolved Mercury (Hg)	mg/L	<0.00001	<0.00001	0.00001	9655873

RDL = Reportable Detection Limit
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Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Bureau Veritas Job #: C4T6434
Report Date: 2024/10/17

Agnico Eagle
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

TEST SUMMARY

Bureau Veritas ID: ADON36
Sample ID: Port 3-A
Matrix: Water

Collected: 2024/09/17
Shipped:
Received: 2024/09/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9659937	N/A	2024/09/25	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9653956	N/A	2024/09/26	Automated Statchk
Conductivity	AT	9659941	N/A	2024/09/25	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9658210	N/A	2024/09/24	Gyulshen Idriz
Field Measured Conductivity	PH	ONSITE	N/A	2024/09/21	Andrii Kharkov
Field Measured Conductivity		ONSITE	N/A	2024/09/21	Andrii Kharkov
Fluoride	ISE	9659943	2024/09/24	2024/09/25	Nachiketa Gohil
Dissolved Mercury (low level)	CV/AA	9655873	2024/09/23	2024/09/24	Aswathy Neduveli Suresh
Mercury (low level)	CV/AA	9658808	2024/09/24	2024/09/24	Aswathy Neduveli Suresh
Bromide in water by IC	IC/UV	9692785	N/A	2024/09/27	Joshua BEAVIS
Low Level Chloride and Sulphate by AC	KONE	9692786	N/A	2024/09/26	Tyler Orr
Cyanide (Free)	SPEC	9674216	N/A	2024/09/26	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9672456	2024/09/30	2024/09/30	Ye Hyun KIM
Cyanide WAD (weak acid dissociable)	TECH	9685286	N/A	2024/09/30	Ye Hyun KIM
Hardness Total (calculated as CaCO3)	CALC	9675060	N/A	2024/10/01	Automated Statchk
Hardness (calculated as CaCO3)	CALC	9659737	N/A	2024/10/01	Automated Statchk
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	9694473	N/A	2024/10/01	Automated Statchk
Elements by ICPMS Low Level (dissolved)	ICP/MS	9694475	N/A	2024/10/08	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	9694472	N/A	2024/10/01	Automated Statchk
Elements by ICPMS Low Level (total)	ICP/MS	9679076	N/A	2024/09/28	Megan Mak
Ammonia-N Low Level	KONE/UVVS	9692789	N/A	2024/10/07	Adam Fishleigh
Orthophosphate LL by Automated Analyzer	KONE	9692787	N/A	2024/09/26	Yan Lin
Silica (Reactive)	KONE	9667648	N/A	2024/09/26	Tyler Orr
Total Phosphorus Low Level Total	KONE	9667405	2024/09/26	2024/09/26	Mary Anne Dela Cruz
Total Ammonia (as NH3)	CALC	9654151	N/A	2024/10/15	Automated Statchk
Nitrate & Nitrite as Nitrogen in Water	LACH	9658891	N/A	2024/09/25	Chandra Nandlal
pH	AT	9659933	2024/09/24	2024/09/25	Nachiketa Gohil
Field Measured Conductivity	PH	ONSITE	N/A	2024/09/21	Andrii Kharkov
Radium-226 Low Level	AS	9687761	N/A	2024/10/11	Sarah Simpson
Total Dissolved Solids	BAL	9656322	2024/09/23	2024/09/24	Razieh Tabesh
Field Measured Conductivity	PH	ONSITE	N/A	2024/09/21	Andrii Kharkov
Total Kjeldahl Nitrogen in Water	SKAL	9661929	2024/09/25	2024/09/25	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	9661938	N/A	2024/09/26	Gyulshen Idriz
Low Level Total Suspended Solids	BAL	9655999	2024/09/23	2024/09/24	Razieh Tabesh
Turbidity	AT	9659869	N/A	2024/09/24	Kien Tran
Un-ionized Ammonia (as N)	CALC	9655377	2024/10/17	2024/10/17	Automated Statchk

Bureau Veritas ID: ADON36 Dup
Sample ID: Port 3-A
Matrix: Water

Collected: 2024/09/17
Shipped:
Received: 2024/09/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	9656322	2024/09/23	2024/09/24	Razieh Tabesh

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Bureau Veritas Job #: C4T6434
Report Date: 2024/10/17

Agnico Eagle
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

TEST SUMMARY

Bureau Veritas ID: ADON37
Sample ID: Port 3-B
Matrix: Water

Collected: 2024/09/17
Shipped:
Received: 2024/09/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9659937	N/A	2024/09/25	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9653956	N/A	2024/09/26	Automated Statchk
Conductivity	AT	9659941	N/A	2024/09/25	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9658210	N/A	2024/09/24	Gyulshen Idriz
Field Measured Conductivity	PH	ONSITE	N/A	2024/09/21	Andrii Kharkov
Field Measured Conductivity		ONSITE	N/A	2024/09/21	Andrii Kharkov
Fluoride	ISE	9659943	2024/09/24	2024/09/25	Nachiketa Gohil
Dissolved Mercury (low level)	CV/AA	9655873	2024/09/23	2024/09/24	Aswathy Neduveli Suresh
Mercury (low level)	CV/AA	9658808	2024/09/24	2024/09/24	Aswathy Neduveli Suresh
Bromide in water by IC	IC/UV	9692785	N/A	2024/09/27	Joshua BEAVIS
Low Level Chloride and Sulphate by AC	KONE	9692790	N/A	2024/09/27	Hirushi Kanewala-Appuhamilage
Cyanide (Free)	SPEC	9674216	N/A	2024/09/26	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9672456	2024/09/30	2024/09/30	Ye Hyun KIM
Cyanide WAD (weak acid dissociable)	TECH	9685286	N/A	2024/09/30	Ye Hyun KIM
Hardness Total (calculated as CaCO3)	CALC	9675060	N/A	2024/10/01	Automated Statchk
Hardness (calculated as CaCO3)	CALC	9659737	N/A	2024/10/01	Automated Statchk
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	9694473	N/A	2024/10/01	Automated Statchk
Elements by ICPMS Low Level (dissolved)	ICP/MS	9694474	N/A	2024/09/28	Megan Mak
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	9694472	N/A	2024/10/01	Automated Statchk
Elements by ICPMS Low Level (total)	ICP/MS	9679076	N/A	2024/10/01	Megan Mak
Ammonia-N Low Level	KONE/UVVS	9692789	N/A	2024/10/07	Adam Fishleigh
Orthophosphate LL by Automated Analyzer	KONE	9692791	N/A	2024/09/27	Yan Lin
Silica (Reactive)	KONE	9686374	N/A	2024/10/03	Tyler Orr
Total Phosphorus Low Level Total	KONE	9667405	2024/09/26	2024/09/26	Mary Anne Dela Cruz
Total Ammonia (as NH3)	CALC	9654151	N/A	2024/10/15	Automated Statchk
Nitrate & Nitrite as Nitrogen in Water	LACH	9658891	N/A	2024/09/25	Chandra Nandlal
pH	AT	9659933	2024/09/24	2024/09/25	Nachiketa Gohil
Field Measured Conductivity	PH	ONSITE	N/A	2024/09/21	Andrii Kharkov
Radium-226 Low Level	AS	9687761	N/A	2024/10/11	Sarah Simpson
Total Dissolved Solids	BAL	9656322	2024/09/23	2024/09/24	Razieh Tabesh
Field Measured Conductivity	PH	ONSITE	N/A	2024/09/21	Andrii Kharkov
Total Kjeldahl Nitrogen in Water	SKAL	9661929	2024/09/25	2024/09/25	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	9661938	N/A	2024/09/26	Gyulshen Idriz
Low Level Total Suspended Solids	BAL	9655999	2024/09/23	2024/09/24	Razieh Tabesh
Turbidity	AT	9659869	N/A	2024/09/24	Kien Tran
Un-ionized Ammonia (as N)	CALC	9655377	2024/10/17	2024/10/17	Automated Statchk

Bureau Veritas ID: ADON37 Dup
Sample ID: Port 3-B
Matrix: Water

Collected: 2024/09/17
Shipped:
Received: 2024/09/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Chloride and Sulphate by AC	KONE	9692790	N/A	2024/09/27	Hirushi Kanewala-Appuhamilage
Elements by ICPMS Low Level (total)	ICP/MS	9679076	N/A	2024/10/01	Megan Mak
Orthophosphate LL by Automated Analyzer	KONE	9692791	N/A	2024/09/27	Yan Lin

Bureau Veritas Job #: C4T6434
Report Date: 2024/10/17

Agnico Eagle
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

TEST SUMMARY

Bureau Veritas ID: ADON37 Dup
Sample ID: Port 3-B
Matrix: Water

Collected: 2024/09/17
Shipped:
Received: 2024/09/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Turbidity	AT	9659869	N/A	2024/09/24	Kien Tran

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	17.7°C

Sample ADON36 [Port 3-A] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample ADON37 [Port 3-B] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

RESULTS OF ANALYSES OF WATER

Sample ADON36 [Port 3-A] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.

Sample ADON37 [Port 3-B] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.

Sample ADON36, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.

Bureau Veritas Job #: C4T6434
Report Date: 2024/10/17

QUALITY ASSURANCE REPORT

Agnico Eagle
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9655873	Dissolved Mercury (Hg)	2024/09/24	94	75 - 125	89	80 - 120	<0.00001	mg/L	NC	20		
9655999	Total Suspended Solids	2024/09/24			101	80 - 120	<1	mg/L	2.7	20		
9656322	Total Dissolved Solids	2024/09/24			95	80 - 120	<10	mg/L	2.3	20		
9658210	Dissolved Organic Carbon	2024/09/24	92	80 - 120	96	80 - 120	<0.40	mg/L	NC	20		
9658808	Mercury (Hg)	2024/09/24	93	75 - 125	92	80 - 120	<0.00001	mg/L	NC	20		
9658891	Nitrate (N)	2024/09/25	99	80 - 120	107	80 - 120	<0.10	mg/L	NC	20		
9658891	Nitrite (N)	2024/09/25	106	80 - 120	110	80 - 120	<0.010	mg/L	NC	20		
9659869	Turbidity	2024/09/24			101	80 - 120	<0.1	NTU	7.7	20		
9659933	pH	2024/09/25			102	98 - 103			1.2	N/A		
9659937	Alkalinity (Total as CaCO3)	2024/09/25			93	85 - 115	<1.0	mg/L	0.48	20		
9659941	Conductivity	2024/09/25			99	85 - 115	0.000700	mS/cm	0.67	10		
9659943	Fluoride (F-)	2024/09/25	31 (1)	80 - 120	102	80 - 120	<0.10	mg/L	8.4	20		
9661929	Total Kjeldahl Nitrogen (TKN)	2024/09/25	96	80 - 120	100	80 - 120	<0.10	mg/L	6.3	20	95	80 - 120
9661938	Total Organic Carbon (TOC)	2024/09/25	92	80 - 120	97	80 - 120	<0.40	mg/L	1.0	20		
9667405	Total Phosphorus (P)	2024/09/26	94	80 - 120	101	80 - 120	<0.0010	mg/L			89	80 - 120
9667648	Reactive Silica (SiO2)	2024/09/26	96	80 - 120	106	80 - 120	<0.050	mg/L				
9672456	Strong Acid Dissoc. Cyanide (CN)	2024/09/30	90	80 - 120	95	80 - 120	<0.00050	mg/L				
9674216	Free Cyanide (CN)	2024/09/26	95	80 - 120	92	80 - 120	<2.0	ug/L				
9679076	Total Aluminum (Al)	2024/10/01	96	80 - 120	97	80 - 120	<0.50	ug/L	39 (1)	20		
9679076	Total Antimony (Sb)	2024/10/01	100	80 - 120	100	80 - 120	<0.020	ug/L	12	20		
9679076	Total Arsenic (As)	2024/10/01	102	80 - 120	98	80 - 120	<0.020	ug/L	NC	20		
9679076	Total Barium (Ba)	2024/10/01	94	80 - 120	96	80 - 120	<0.020	ug/L	2.4	20		
9679076	Total Beryllium (Be)	2024/10/01	94	80 - 120	94	80 - 120	<0.010	ug/L	NC	20		
9679076	Total Bismuth (Bi)	2024/10/01	89	80 - 120	95	80 - 120	<0.0050	ug/L	NC	20		
9679076	Total Boron (B)	2024/10/01	NC	80 - 120	96	80 - 120	<10	ug/L	0.35	20		
9679076	Total Cadmium (Cd)	2024/10/01	97	80 - 120	97	80 - 120	<0.0050	ug/L	NC	20		
9679076	Total Chromium (Cr)	2024/10/01	95	80 - 120	99	80 - 120	<0.10	ug/L	NC	20		
9679076	Total Cobalt (Co)	2024/10/01	90	80 - 120	96	80 - 120	<0.0050	ug/L	NC	20		
9679076	Total Copper (Cu)	2024/10/01	88	80 - 120	97	80 - 120	<0.050	ug/L	13	20		
9679076	Total Iron (Fe)	2024/10/01	96	80 - 120	97	80 - 120	<1.0	ug/L	NC	20		
9679076	Total Lead (Pb)	2024/10/01	93	80 - 120	97	80 - 120	<0.0050	ug/L	14	20		
9679076	Total Lithium (Li)	2024/10/01	NC	80 - 120	90	80 - 120	<0.50	ug/L	1.3	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9679076	Total Manganese (Mn)	2024/10/01	93	80 - 120	98	80 - 120	<0.050	ug/L	18	20		
9679076	Total Molybdenum (Mo)	2024/10/01	107	80 - 120	100	80 - 120	<0.050	ug/L	9.4	20		
9679076	Total Nickel (Ni)	2024/10/01	90	80 - 120	98	80 - 120	<0.020	ug/L	7.2	20		
9679076	Total Selenium (Se)	2024/10/01	89	80 - 120	100	80 - 120	<0.040	ug/L	NC	20		
9679076	Total Silicon (Si)	2024/10/01	109	80 - 120	111	80 - 120	<50	ug/L	1.3	20		
9679076	Total Silver (Ag)	2024/10/01	94	80 - 120	96	80 - 120	<0.0050	ug/L	NC	20		
9679076	Total Strontium (Sr)	2024/10/01	NC	80 - 120	95	80 - 120	<0.050	ug/L	1.5	20		
9679076	Total Tellurium (Te)	2024/10/01	77 (1)	80 - 120	97	80 - 120	<0.020	ug/L	NC	20		
9679076	Total Thallium (Tl)	2024/10/01	94	80 - 120	95	80 - 120	<0.0020	ug/L	NC	20		
9679076	Total Tin (Sn)	2024/10/01	96	80 - 120	101	80 - 120	<0.20	ug/L	NC	20		
9679076	Total Titanium (Ti)	2024/10/01	97	80 - 120	98	80 - 120	<0.50	ug/L	NC	20		
9679076	Total Uranium (U)	2024/10/01	106	80 - 120	100	80 - 120	<0.0020	ug/L	NC	20		
9679076	Total Vanadium (V)	2024/10/01	97	80 - 120	99	80 - 120	<0.20	ug/L	NC	20		
9679076	Total Zinc (Zn)	2024/10/01	NC	80 - 120	103	80 - 120	<0.10	ug/L	9.4	20		
9679076	Total Zirconium (Zr)	2024/10/01	99	80 - 120	92	80 - 120	<0.10	ug/L	NC	20		
9685286	Weak Acid Dissoc. Cyanide (CN)	2024/09/30	98	80 - 120	99	80 - 120	<0.00050	mg/L				
9686374	Reactive Silica (SiO2)	2024/10/03	NC	80 - 120	105	80 - 120	<0.050	mg/L	2.0	20		
9687761	Radium-226	2024/10/11			103	85 - 115	<0.0050	Bq/L	NC	N/A		
9692785	Dissolved Bromide (Br-)	2024/09/27	NC	80 - 120	105	80 - 120	<0.010	mg/L				
9692786	Dissolved Chloride (Cl-)	2024/09/26	108	80 - 120	102	80 - 120	<0.50	mg/L				
9692786	Dissolved Sulphate (SO4)	2024/09/26	95	80 - 120	99	80 - 120	<0.50	mg/L				
9692787	Orthophosphate (P)	2024/09/26	101	80 - 120	100	80 - 120	<0.0010	mg/L				
9692789	Total Nitrogen (Ammonia Nitrogen)	2024/10/07	103	N/A	107	N/A	<0.0050	mg/L				
9692790	Dissolved Chloride (Cl-)	2024/09/27	NC	80 - 120	98	80 - 120	<0.50	mg/L	0.41	20		
9692790	Dissolved Sulphate (SO4)	2024/09/27	108	80 - 120	102	80 - 120	<0.50	mg/L	NC	20		
9692791	Orthophosphate (P)	2024/09/27	99	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
9694474	Dissolved Aluminum (Al)	2024/09/28	99	80 - 120	101	80 - 120	<0.50	ug/L				
9694474	Dissolved Antimony (Sb)	2024/09/28	103	80 - 120	99	80 - 120	<0.020	ug/L				
9694474	Dissolved Arsenic (As)	2024/09/28	NC	80 - 120	100	80 - 120	<0.020	ug/L				
9694474	Dissolved Barium (Ba)	2024/09/28	NC	80 - 120	97	80 - 120	<0.020	ug/L				
9694474	Dissolved Beryllium (Be)	2024/09/28	99	80 - 120	102	80 - 120	<0.010	ug/L				
9694474	Dissolved Bismuth (Bi)	2024/09/28	97	80 - 120	99	80 - 120	<0.0050	ug/L				

Bureau Veritas Job #: C4T6434
Report Date: 2024/10/17

QUALITY ASSURANCE REPORT(CONT'D)

Agnico Eagle
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9694474	Dissolved Boron (B)	2024/09/28	105	80 - 120	105	80 - 120	<10	ug/L				
9694474	Dissolved Cadmium (Cd)	2024/09/28	101	80 - 120	100	80 - 120	<0.0050	ug/L				
9694474	Dissolved Chromium (Cr)	2024/09/28	99	80 - 120	99	80 - 120	<0.10	ug/L				
9694474	Dissolved Cobalt (Co)	2024/09/28	94	80 - 120	97	80 - 120	<0.0050	ug/L				
9694474	Dissolved Copper (Cu)	2024/09/28	92	80 - 120	97	80 - 120	<0.050	ug/L				
9694474	Dissolved Iron (Fe)	2024/09/28	NC	80 - 120	100	80 - 120	<1.0	ug/L				
9694474	Dissolved Lead (Pb)	2024/09/28	100	80 - 120	99	80 - 120	<0.0050	ug/L				
9694474	Dissolved Lithium (Li)	2024/09/28	99	80 - 120	105	80 - 120	<0.50	ug/L				
9694474	Dissolved Manganese (Mn)	2024/09/28	NC	80 - 120	100	80 - 120	<0.050	ug/L				
9694474	Dissolved Molybdenum (Mo)	2024/09/28	107	80 - 120	101	80 - 120	<0.050	ug/L				
9694474	Dissolved Nickel (Ni)	2024/09/28	94	80 - 120	98	80 - 120	<0.020	ug/L				
9694474	Dissolved Selenium (Se)	2024/09/28	101	80 - 120	100	80 - 120	<0.040	ug/L				
9694474	Dissolved Silicon (Si)	2024/09/28	NC	80 - 120	118	80 - 120	<50	ug/L				
9694474	Dissolved Silver (Ag)	2024/09/28	101	80 - 120	99	80 - 120	<0.0050	ug/L				
9694474	Dissolved Strontium (Sr)	2024/09/28	NC	80 - 120	98	80 - 120	<0.050	ug/L				
9694474	Dissolved Tellurium (Te)	2024/09/28	106	80 - 120	97	80 - 120	<0.020	ug/L				
9694474	Dissolved Thallium (Tl)	2024/09/28	99	80 - 120	98	80 - 120	<0.0020	ug/L				
9694474	Dissolved Tin (Sn)	2024/09/28	101	80 - 120	102	80 - 120	<0.20	ug/L				
9694474	Dissolved Titanium (Ti)	2024/09/28	100	80 - 120	98	80 - 120	<0.50	ug/L				
9694474	Dissolved Uranium (U)	2024/09/28	103	80 - 120	100	80 - 120	0.0020, RDL=0.0020 (2)	ug/L				
9694474	Dissolved Vanadium (V)	2024/09/28	102	80 - 120	99	80 - 120	<0.20	ug/L				
9694474	Dissolved Zinc (Zn)	2024/09/28	96	80 - 120	103	80 - 120	<0.10	ug/L				

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9694475	Dissolved Uranium (U)	2024/10/07	118	80 - 120	113	80 - 120	<0.0020	ug/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(2) Method blank exceeds acceptance limits- 2X RDL acceptable for low level metals determination.

Bureau Veritas Job #: C4T6434
Report Date: 2024/10/17

Agnico Eagle
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere, Senior Scientific Specialist

David Huang, BBY Scientific Specialist

Steven Simpson, BSc.,MBA,C.Chem,Miss.-Kitimat, Lab Director

Sandy Yuan, M.Sc., QP, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Your P.O. #: 1368140
Your Project #: Westbay GW
Site Location: AMQ
Your C.O.C. #: 967960

Attention: Reporting

Agnico Eagle
Amaruq
Amaruq
Keewatin, NU
CANADA P0X 0A1

Report Date: 2024/10/24
Report #: R8374975
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4U3744
Received: 2024/09/26, 10:40

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity (1)	4	N/A	2024/10/01	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide (1)	4	N/A	2024/10/02	CAM SOP-00102	APHA 4500-CO2 D
Conductivity (1)	4	N/A	2024/10/01	CAM SOP-00414	SM 24 2510 m
Dissolved Organic Carbon (DOC) (1, 5)	4	N/A	2024/09/30	CAM SOP-00446	SM 24 5310 B m
Fluoride (1)	4	2024/09/28	2024/10/01	CAM SOP-00449	SM 24 4500-F C m
Dissolved Mercury (low level) (1)	4	2024/09/30	2024/09/30	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	4	2024/09/30	2024/09/30	CAM SOP-00453	EPA 7470 m
Bromide in water by IC (2)	4	N/A	2024/10/05	AB SOP-00052	SM 24 4110 B m
Low Level Chloride and Sulphate by AC (2)	4	N/A	2024/10/03	AB SOP-00020	SM24-4500-Cl/SO4-E m
Cyanide (Free) (2)	4	N/A	2024/10/03	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	4	2024/10/04	2024/10/04	CAL SOP-00270	SM 24 4500-CN m
Cyanide WAD (weak acid dissociable) (2)	4	N/A	2024/10/04	CAL SOP-00270	SM 24 4500-CN m
Hardness Total (calculated as CaCO3) (3, 6)	3	N/A	2024/10/10	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (3, 6)	1	N/A	2024/10/11	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3) (3)	4	N/A	2024/10/04	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (diss.) (3)	4	N/A	2024/10/04	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved) (3, 7)	4	N/A	2024/10/04	BBY7SOP-00002	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total) (3)	3	N/A	2024/10/10	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total) (3)	1	N/A	2024/10/11	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total) (3)	4	N/A	2024/10/09	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (2)	4	N/A	2024/10/04	AB SOP-00007	SM 24 4500 NH3 A G m
Orthophosphate LL by Automated Analyzer (2)	4	N/A	2024/10/04	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive) (2)	4	N/A	2024/10/03	AB SOP-00011	EPA 370.1 R1978 m
Total Phosphorus Low Level Total (2)	4	2024/10/07	2024/10/07	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia (as NH3) (1)	4	N/A	2024/10/10	Auto Calc.	
Nitrate & Nitrite as Nitrogen in Water (1, 8)	1	N/A	2024/10/01	CAM SOP-00440	SM 24 4500-NO3I/NO2B
Nitrate & Nitrite as Nitrogen in Water (1, 8)	3	N/A	2024/09/30	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (1, 9)	4	2024/09/28	2024/10/01	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (1, 10)	2	N/A	2024/09/27		Field pH Meter

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Your P.O. #: 1368140
Your Project #: Westbay GW
Site Location: AMQ
Your C.O.C. #: 967960

Attention: Reporting

Agnico Eagle
Amaruq
Amaruq
Keewatin, NU
CANADA P0X 0A1

Report Date: 2024/10/24
Report #: R8374975
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4U3744
Received: 2024/09/26, 10:40

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Radium-226 Low Level (4, 11)	4	N/A	2024/10/09	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Total Dissolved Solids (1)	4	2024/09/28	2024/10/01	CAM SOP-00428	SM 24 2540C m
Field Temperature (1, 10)	2	N/A	2024/09/27		Field Thermometer
Total Kjeldahl Nitrogen in Water (1)	4	2024/10/03	2024/10/03	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (1, 12)	4	N/A	2024/10/03	CAM SOP-00446	SM 24 5310B m
Low Level Total Suspended Solids (1)	4	2024/09/28	2024/09/30	CAM SOP-00428	SM 24 2540D m
Turbidity (1)	4	N/A	2024/09/28	CAM SOP-00417	SM 24 2130 B
Un-ionized Ammonia (as N) (1, 13)	2	2024/09/27	2024/10/24	Calculation	Calculation

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8

Your P.O. #: 1368140
Your Project #: Westbay GW
Site Location: AMQ
Your C.O.C. #: 967960

Attention: Reporting

Agnico Eagle
Amaruq
Amaruq
Keewatin, NU
CANADA P0X 0A1

Report Date: 2024/10/24
Report #: R8374975
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4U3744

Received: 2024/09/26, 10:40

(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) This test was performed by Bureau Veritas Burnaby, 4606 Canada Way , Burnaby, BC, V5G 1K5
(4) This test was performed by Bureau Veritas Kitimat, 6790 Kitimat Road, Unit 4 , Mississauga, ON, L5N 5L9
(5) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
(6) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
(7) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(8) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(9) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(10) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.
(11) Radium-226 results have not been corrected for blanks.
(12) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.
(13) Un-ionized ammonia is calculated using the total ammonia result and field data provided by the client for pH and temperature.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633
==
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

BUREAU VERITAS

Bureau Veritas Job #: C4U3744
Report Date: 2024/10/24

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		AEEW02			AEEW02			AEEW03		
Sampling Date		2024/09/22 06:44			2024/09/22 06:44			2024/09/22 06:44		
COC Number		967960			967960			967960		
	UNITS	**PORT 4-A**	**RDL**	**QC Batch**	**PORT 4-A Lab-Dup**	**RDL**	**QC Batch**	**PORT 4-B**	**RDL**	**QC Batch**
CONVENTIONALS										
Total Nitrogen (Ammonia Nitrogen)	mg/L	0.044	0.0050	9691982				0.042	0.0050	9691982
Calculated Parameters										
Total Ammonia (as NH3)	mg/L	0.053	0.0061	9668698				0.051	0.0061	9668698
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	6.5	1.0	9668770				6.4	1.0	9668770
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9668770				<1.0	1.0	9668770
Dissolved Hardness (CaCO3)	mg/L	777	0.50	9688423				777	0.50	9688423
Field Measurements										
Field Temperature	Celsius	2.5	N/A	ONSITE				2.5	N/A	ONSITE
Field Measured pH	pH	7.2		ONSITE				7.2		ONSITE
Inorganics										
Dissolved Bromide (Br-)	mg/L	11	0.10	9687130				11	0.10	9687130
Conductivity	mS/cm	3.17	N/A	9670238				3.17	N/A	9670238
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9683383				<2.0 (1)	2.0	9683383
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9683381				<0.00050	0.00050	9683381
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9683382				<0.00050	0.00050	9683382
Total Dissolved Solids	mg/L	2640	10	9669580				2630	10	9669580
Fluoride (F-)	mg/L	0.42	0.10	9670237				0.45	0.10	9670237
Total Kjeldahl Nitrogen (TKN)	mg/L	0.15	0.10	9678828				0.20	0.10	9678828
Dissolved Organic Carbon	mg/L	220	0.40	9669001				220	0.40	9669001
Total Organic Carbon (TOC)	mg/L	240	0.40	9677793				240	0.40	9677793
Orthophosphate (P)	mg/L	<0.0010	0.0010	9691981	<0.0010	0.0010	9691981	<0.0010	0.0010	9691981
pH	pH	6.58		9670236				6.59		9670236
Total Phosphorus (P)	mg/L	<0.0010	0.0010	9691960				<0.0010	0.0010	9691960
Reactive Silica (SiO2)	mg/L	6.2	0.050	9691963	6.1	0.050	9691963	6.2	0.050	9691963
Total Suspended Solids	mg/L	1	1	9669788				2	1	9669788

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

Bureau Veritas Job #: C4U3744
Report Date: 2024/10/24

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		AEEW02			AEEW02			AEEW03		
Sampling Date		2024/09/22 06:44			2024/09/22 06:44			2024/09/22 06:44		
COC Number		967960			967960			967960		
	UNITS	**PORT 4-A**	**RDL**	**QC Batch**	**PORT 4-A Lab-Dup**	**RDL**	**QC Batch**	**PORT 4-B**	**RDL**	**QC Batch**
Turbidity	NTU	1.0	0.1	9670016				0.8	0.1	9670016
Alkalinity (Total as CaCO3)	mg/L	6.5	1.0	9670235				6.4	1.0	9670235
Dissolved Chloride (Cl-)	mg/L	1000	13	9691962				1000	13	9691962
Nitrite (N)	mg/L	<0.010	0.010	9670033				<0.010	0.010	9670033
Nitrate (N)	mg/L	<0.10	0.10	9670033				<0.10	0.10	9670033
Dissolved Sulphate (SO4)	mg/L	<0.50	0.50	9691962				<0.50	0.50	9691962
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9670033				<0.10	0.10	9670033
Un-ionized Ammonia (as N)	mg/L	<0.0004	0.0004	9668700				<0.0004	0.0004	9668700
Metals										
Dissolved Aluminum (Al)	ug/L	15.7	1.0	9698604				8.7	1.0	9698604
Total Aluminum (Al)	ug/L	16.6	0.50	9698602				21.7	1.0	9698602
Dissolved Antimony (Sb)	ug/L	0.503	0.040	9698604				0.440	0.040	9698604
Total Antimony (Sb)	ug/L	0.492	0.020	9698602				0.489	0.040	9698602
Dissolved Arsenic (As)	ug/L	1.24	0.040	9698604				1.18	0.040	9698604
Total Arsenic (As)	ug/L	1.54	0.020	9698602				1.49	0.040	9698602
Dissolved Barium (Ba)	ug/L	62.7	0.040	9698604				60.7	0.040	9698604
Total Barium (Ba)	ug/L	61.5	0.020	9698602				61.6	0.040	9698602
Dissolved Beryllium (Be)	ug/L	<0.020	0.020	9698604				<0.020	0.020	9698604
Total Beryllium (Be)	ug/L	0.013	0.010	9698602				<0.020	0.020	9698602
Dissolved Bismuth (Bi)	ug/L	<0.010	0.010	9698604				<0.010	0.010	9698604
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	9698602				<0.010	0.010	9698602
Dissolved Boron (B)	ug/L	413	20	9698604				420	20	9698604
Total Boron (B)	ug/L	431	10	9698602				444	20	9698602
Dissolved Cadmium (Cd)	ug/L	<0.010	0.010	9698604				<0.010	0.010	9698604
Total Cadmium (Cd)	ug/L	0.0136	0.0050	9698602				<0.010	0.010	9698602
Dissolved Chromium (Cr)	ug/L	<0.20	0.20	9698604				<0.20	0.20	9698604
Total Chromium (Cr)	ug/L	0.40	0.10	9698602				0.41	0.20	9698602
Dissolved Cobalt (Co)	ug/L	0.019	0.010	9698604				<0.010	0.010	9698604
Total Cobalt (Co)	ug/L	0.0333	0.0050	9698602				0.028	0.010	9698602

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

BUREAU VERITAS

Bureau Veritas Job #: C4U3744
Report Date: 2024/10/24

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		AEEW02			AEEW02			AEEW03		
Sampling Date		2024/09/22 06:44			2024/09/22 06:44			2024/09/22 06:44		
COC Number		967960			967960			967960		
	UNITS	**PORT 4-A**	**RDL**	**QC Batch**	**PORT 4-A Lab-Dup**	**RDL**	**QC Batch**	**PORT 4-B**	**RDL**	**QC Batch**
Dissolved Copper (Cu)	ug/L	0.18	0.10	9698604				<0.10	0.10	9698604
Total Copper (Cu)	ug/L	0.204	0.050	9698602				0.16	0.10	9698602
Dissolved Iron (Fe)	ug/L	10.5	2.0	9698604				6.4	2.0	9698604
Total Iron (Fe)	ug/L	52.8	1.0	9698602				51.6	2.0	9698602
Dissolved Lead (Pb)	ug/L	0.023	0.010	9698604				<0.010	0.010	9698604
Total Lead (Pb)	ug/L	0.153	0.0050	9698602				0.079	0.010	9698602
Dissolved Lithium (Li)	ug/L	35.3	1.0	9698604				37.4	1.0	9698604
Total Lithium (Li)	ug/L	36.6	0.50	9698602				37.0	1.0	9698602
Dissolved Manganese (Mn)	ug/L	17.3	0.10	9698604				16.3	0.10	9698604
Total Manganese (Mn)	ug/L	17.8	0.050	9698602				17.5	0.10	9698602
Dissolved Molybdenum (Mo)	ug/L	0.65	0.10	9698604				0.63	0.10	9698604
Total Molybdenum (Mo)	ug/L	0.679	0.050	9698602				0.65	0.10	9698602
Dissolved Nickel (Ni)	ug/L	0.409	0.040	9698604				0.245	0.040	9698604
Total Nickel (Ni)	ug/L	0.439	0.020	9698602				0.482	0.040	9698602
Dissolved Selenium (Se)	ug/L	<0.080	0.080	9698604				<0.080	0.080	9698604
Total Silicon (Si)	ug/L	2810	50	9698602				2740	100	9698602
Total Selenium (Se)	ug/L	0.041	0.040	9698602				<0.080	0.080	9698602
Dissolved Silicon (Si)	ug/L	2710	100	9698604				2760	100	9698604
Dissolved Silver (Ag)	ug/L	<0.010	0.010	9698604				<0.010	0.010	9698604
Total Silver (Ag)	ug/L	<0.0050	0.0050	9698602				<0.010	0.010	9698602
Dissolved Strontium (Sr)	ug/L	4630	0.10	9698604				4500	0.10	9698604
Total Strontium (Sr)	ug/L	4820	0.050	9698602				4800	0.10	9698602
Dissolved Thallium (Tl)	ug/L	<0.0040	0.0040	9698604				<0.0040	0.0040	9698604
Total Thallium (Tl)	ug/L	0.0030	0.0020	9698602				<0.0040	0.0040	9698602
Dissolved Tin (Sn)	ug/L	<0.40	0.40	9698604				<0.40	0.40	9698604
Total Tin (Sn)	ug/L	<0.20	0.20	9698602				<0.40	0.40	9698602
Dissolved Titanium (Ti)	ug/L	<1.0	1.0	9698604				<1.0	1.0	9698604
Total Titanium (Ti)	ug/L	<0.50	0.50	9698602				<1.0	1.0	9698602
Dissolved Uranium (U)	ug/L	0.0041	0.0040	9698604				<0.0040	0.0040	9698604

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Job #: C4U3744
Report Date: 2024/10/24

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		AEEW02			AEEW02			AEEW03		
Sampling Date		2024/09/22 06:44			2024/09/22 06:44			2024/09/22 06:44		
COC Number		967960			967960			967960		
	UNITS	**PORT 4-A**	**RDL**	**QC Batch**	**PORT 4-A Lab-Dup**	**RDL**	**QC Batch**	**PORT 4-B**	**RDL**	**QC Batch**
Total Uranium (U)	ug/L	0.0231	0.0020	9698602				0.0171	0.0040	9698602
Dissolved Vanadium (V)	ug/L	<0.40	0.40	9698604				<0.40	0.40	9698604
Total Vanadium (V)	ug/L	<0.20	0.20	9698602				<0.40	0.40	9698602
Dissolved Zinc (Zn)	ug/L	47.3	0.20	9698604				1.51	0.20	9698604
Total Zinc (Zn)	ug/L	258	0.10	9698602				263	0.20	9698602
Total Zirconium (Zr)	ug/L	<0.10	0.10	9698602				<0.20	0.20	9698602
Dissolved Calcium (Ca)	mg/L	300	0.10	9698603				301	0.10	9698603
Total Calcium (Ca)	mg/L	311	0.050	9698601				307	0.10	9698601
Dissolved Magnesium (Mg)	mg/L	6.60	0.10	9698603				6.39	0.10	9698603
Total Magnesium (Mg)	mg/L	6.43	0.050	9698601				6.34	0.10	9698601
Dissolved Potassium (K)	mg/L	5.16	0.10	9698603				5.05	0.10	9698603
Total Potassium (K)	mg/L	5.34	0.050	9698601				5.31	0.10	9698601
Dissolved Sodium (Na)	mg/L	221	0.10	9698603				217	0.10	9698603
Total Sodium (Na)	mg/L	227	0.050	9698601				227	0.10	9698601
Dissolved Sulphur (S)	mg/L	<6.0	6.0	9698603				<6.0	6.0	9698603
Total Sulphur (S)	mg/L	<3.0	3.0	9698601				<6.0	6.0	9698601
Dissolved Tellurium (Te)	ug/L	<0.040	0.040	9698604				<0.040	0.040	9698604
Total Tellurium (Te)	ug/L	<0.020	0.020	9698602				<0.040	0.040	9698602
RADIONUCLIDE										
Radium-226	Bq/L	0.12	0.0050	9675831				0.12	0.0050	9675831

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		AEEW03			AEEW04			AEEW05		
Sampling Date		2024/09/22 06:44			2024/09/22 06:44			2024/09/22 06:44		
COC Number		967960			967960			967960		
	UNITS	**PORT 4-B Lab-Dup**	**RDL**	**QC Batch**	**PORT 4-B-FB**	**RDL**	**QC Batch**	**PORT 4-A-TB**	**RDL**	**QC Batch**
CONVENTIONALS										
Total Nitrogen (Ammonia Nitrogen)	mg/L				<0.0050	0.0050	9691982	<0.0050	0.0050	9691982
Calculated Parameters										
Total Ammonia (as NH3)	mg/L				<0.0061	0.0061	9668698	<0.0061	0.0061	9668698
Bicarb. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	9668770	<1.0	1.0	9668770
Carb. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	9668770	<1.0	1.0	9668770
Dissolved Hardness (CaCO3)	mg/L				<0.50	0.50	9688423	<0.50	0.50	9688423
Inorganics										
Dissolved Bromide (Br-)	mg/L				<0.010	0.010	9687130	<0.010	0.010	9687130
Conductivity	mS/cm	3.17	N/A	9670238	0.00130	N/A	9670238	0.00130	N/A	9670238
Free Cyanide (CN)	ug/L				<2.0 (1)	2.0	9683383	<2.0 (1)	2.0	9683383
Strong Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	0.00050	9683381	<0.00050	0.00050	9683381
Weak Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	0.00050	9683382	<0.00050	0.00050	9683382
Total Dissolved Solids	mg/L				<10	10	9669580	<10	10	9669580
Fluoride (F-)	mg/L	0.44	0.10	9670237	<0.10	0.10	9670237	<0.10	0.10	9670237
Total Kjeldahl Nitrogen (TKN)	mg/L				<0.10	0.10	9678828	<0.10	0.10	9678828
Dissolved Organic Carbon	mg/L				<0.40	0.40	9669001	<0.40	0.40	9669001
Total Organic Carbon (TOC)	mg/L				<0.40	0.40	9677793	<0.40	0.40	9677793
Orthophosphate (P)	mg/L				<0.0010	0.0010	9691981	<0.0010	0.0010	9691981
pH	pH	6.71		9670236	5.61		9670236	5.72		9670236
Total Phosphorus (P)	mg/L				<0.0010	0.0010	9691960	<0.0010	0.0010	9691960
Reactive Silica (SiO2)	mg/L				<0.050	0.050	9691963	<0.050	0.050	9691963
Total Suspended Solids	mg/L				<1	1	9669788	<1	1	9669788
Turbidity	NTU				<0.1	0.1	9670016	<0.1	0.1	9670016
Alkalinity (Total as CaCO3)	mg/L	7.2	1.0	9670235	<1.0	1.0	9670235	<1.0	1.0	9670235

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

Bureau Veritas Job #: C4U3744
Report Date: 2024/10/24

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		AEEW03			AEEW04			AEEW05		
Sampling Date		2024/09/22 06:44			2024/09/22 06:44			2024/09/22 06:44		
COC Number		967960			967960			967960		
	UNITS	PORT 4-B Lab-Dup	RDL	QC Batch	PORT 4-B-FB	RDL	QC Batch	PORT 4-A-TB	RDL	QC Batch
Dissolved Chloride (Cl-)	mg/L				<0.50	0.50	9691962	<0.50	0.50	9691962
Nitrite (N)	mg/L				<0.010	0.010	9670033	<0.010	0.010	9670034
Nitrate (N)	mg/L				<0.10	0.10	9670033	<0.10	0.10	9670034
Dissolved Sulphate (SO4)	mg/L				<0.50	0.50	9691962	<0.50	0.50	9691962
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	9670033	<0.10	0.10	9670034
Metals										
Dissolved Aluminum (Al)	ug/L				<0.50	0.50	9698604	<0.50	0.50	9698604
Total Aluminum (Al)	ug/L	22.5	1.0	9698602	2.3	1.0	9698602	1.14	0.50	9698602
Dissolved Antimony (Sb)	ug/L				<0.020	0.020	9698604	<0.020	0.020	9698604
Total Antimony (Sb)	ug/L	0.480	0.040	9698602	<0.040	0.040	9698602	<0.020	0.020	9698602
Dissolved Arsenic (As)	ug/L				<0.020	0.020	9698604	<0.020	0.020	9698604
Total Arsenic (As)	ug/L	1.49	0.040	9698602	<0.040	0.040	9698602	<0.020	0.020	9698602
Dissolved Barium (Ba)	ug/L				0.072	0.020	9698604	0.040	0.020	9698604
Total Barium (Ba)	ug/L	61.5	0.040	9698602	<0.040	0.040	9698602	<0.020	0.020	9698602
Dissolved Beryllium (Be)	ug/L				<0.010	0.010	9698604	<0.010	0.010	9698604
Total Beryllium (Be)	ug/L	<0.020	0.020	9698602	<0.020	0.020	9698602	<0.010	0.010	9698602
Dissolved Bismuth (Bi)	ug/L				<0.0050	0.0050	9698604	<0.0050	0.0050	9698604
Total Bismuth (Bi)	ug/L	<0.010	0.010	9698602	<0.010	0.010	9698602	<0.0050	0.0050	9698602
Dissolved Boron (B)	ug/L				<10	10	9698604	<10	10	9698604
Total Boron (B)	ug/L	445	20	9698602	<20	20	9698602	<10	10	9698602
Dissolved Cadmium (Cd)	ug/L				<0.0050	0.0050	9698604	<0.0050	0.0050	9698604
Total Cadmium (Cd)	ug/L	<0.010	0.010	9698602	<0.010	0.010	9698602	<0.0050	0.0050	9698602
Dissolved Chromium (Cr)	ug/L				<0.10	0.10	9698604	<0.10	0.10	9698604
Total Chromium (Cr)	ug/L	0.38	0.20	9698602	<0.20	0.20	9698602	0.14	0.10	9698602
Dissolved Cobalt (Co)	ug/L				<0.0050	0.0050	9698604	<0.0050	0.0050	9698604
Total Cobalt (Co)	ug/L	0.027	0.010	9698602	<0.010	0.010	9698602	<0.0050	0.0050	9698602
Dissolved Copper (Cu)	ug/L				<0.050	0.050	9698604	<0.050	0.050	9698604
Total Copper (Cu)	ug/L	0.15	0.10	9698602	<0.10	0.10	9698602	<0.050	0.050	9698602
Dissolved Iron (Fe)	ug/L				<1.0	1.0	9698604	<1.0	1.0	9698604

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Bureau Veritas Job #: C4U3744
Report Date: 2024/10/24

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		AEEW03			AEEW04			AEEW05		
Sampling Date		2024/09/22 06:44			2024/09/22 06:44			2024/09/22 06:44		
COC Number		967960			967960			967960		
	UNITS	**PORT 4-B Lab-Dup**	**RDL**	**QC Batch**	**PORT 4-B-FB**	**RDL**	**QC Batch**	**PORT 4-A-TB**	**RDL**	**QC Batch**
Total Iron (Fe)	ug/L	50.5	2.0	9698602	<2.0	2.0	9698602	<1.0	1.0	9698602
Dissolved Lead (Pb)	ug/L				<0.0050	0.0050	9698604	<0.0050	0.0050	9698604
Total Lead (Pb)	ug/L	0.079	0.010	9698602	0.023	0.010	9698602	0.0076	0.0050	9698602
Dissolved Lithium (Li)	ug/L				<0.50	0.50	9698604	<0.50	0.50	9698604
Total Lithium (Li)	ug/L	37.3	1.0	9698602	<1.0	1.0	9698602	<0.50	0.50	9698602
Dissolved Manganese (Mn)	ug/L				<0.050	0.050	9698604	<0.050	0.050	9698604
Total Manganese (Mn)	ug/L	17.1	0.10	9698602	<0.10	0.10	9698602	<0.050	0.050	9698602
Dissolved Molybdenum (Mo)	ug/L				<0.050	0.050	9698604	<0.050	0.050	9698604
Total Molybdenum (Mo)	ug/L	0.66	0.10	9698602	<0.10	0.10	9698602	<0.050	0.050	9698602
Dissolved Nickel (Ni)	ug/L				<0.020	0.020	9698604	<0.020	0.020	9698604
Total Nickel (Ni)	ug/L	0.545	0.040	9698602	<0.040	0.040	9698602	0.024	0.020	9698602
Dissolved Selenium (Se)	ug/L				<0.040	0.040	9698604	<0.040	0.040	9698604
Total Silicon (Si)	ug/L	2810	100	9698602	<100	100	9698602	<50	50	9698602
Total Selenium (Se)	ug/L	<0.080	0.080	9698602	<0.080	0.080	9698602	<0.040	0.040	9698602
Dissolved Silicon (Si)	ug/L				<50	50	9698604	<50	50	9698604
Dissolved Silver (Ag)	ug/L				<0.0050	0.0050	9698604	<0.0050	0.0050	9698604
Total Silver (Ag)	ug/L	<0.010	0.010	9698602	<0.010	0.010	9698602	<0.0050	0.0050	9698602
Dissolved Strontium (Sr)	ug/L				<0.050	0.050	9698604	<0.050	0.050	9698604
Total Strontium (Sr)	ug/L	4860	0.10	9698602	<0.10	0.10	9698602	<0.050	0.050	9698602
Dissolved Thallium (Tl)	ug/L				<0.0020	0.0020	9698604	<0.0020	0.0020	9698604
Total Thallium (Tl)	ug/L	<0.0040	0.0040	9698602	<0.0040	0.0040	9698602	<0.0020	0.0020	9698602
Dissolved Tin (Sn)	ug/L				<0.20	0.20	9698604	<0.20	0.20	9698604
Total Tin (Sn)	ug/L	<0.40	0.40	9698602	<0.40	0.40	9698602	<0.20	0.20	9698602
Dissolved Titanium (Ti)	ug/L				<0.50	0.50	9698604	<0.50	0.50	9698604
Total Titanium (Ti)	ug/L	<1.0	1.0	9698602	<1.0	1.0	9698602	<0.50	0.50	9698602
Dissolved Uranium (U)	ug/L				<0.0020	0.0020	9698604	<0.0020	0.0020	9698604
Total Uranium (U)	ug/L	0.0172	0.0040	9698602	<0.0040	0.0040	9698602	<0.0020	0.0020	9698602
Dissolved Vanadium (V)	ug/L				<0.20	0.20	9698604	<0.20	0.20	9698604
Total Vanadium (V)	ug/L	<0.40	0.40	9698602	<0.40	0.40	9698602	<0.20	0.20	9698602

RDL = Reportable Detection Limit
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Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Bureau Veritas Job #: C4U3744
Report Date: 2024/10/24

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		AEEW03			AEEW04			AEEW05		
Sampling Date		2024/09/22 06:44			2024/09/22 06:44			2024/09/22 06:44		
COC Number		967960			967960			967960		
	UNITS	**PORT 4-B Lab-Dup**	**RDL**	**QC Batch**	**PORT 4-B-FB**	**RDL**	**QC Batch**	**PORT 4-A-TB**	**RDL**	**QC Batch**
Dissolved Zinc (Zn)	ug/L				<0.10	0.10	9698604	0.14	0.10	9698604
Total Zinc (Zn)	ug/L	260	0.20	9698602	0.54	0.20	9698602	0.57	0.10	9698602
Total Zirconium (Zr)	ug/L	<0.20	0.20	9698602	<0.20	0.20	9698602	<0.10	0.10	9698602
Dissolved Calcium (Ca)	mg/L				<0.050	0.050	9698603	<0.050	0.050	9698603
Total Calcium (Ca)	mg/L				<0.10	0.10	9698601	<0.050	0.050	9698601
Dissolved Magnesium (Mg)	mg/L				<0.050	0.050	9698603	<0.050	0.050	9698603
Total Magnesium (Mg)	mg/L				<0.10	0.10	9698601	<0.050	0.050	9698601
Dissolved Potassium (K)	mg/L				<0.050	0.050	9698603	<0.050	0.050	9698603
Total Potassium (K)	mg/L				<0.10	0.10	9698601	<0.050	0.050	9698601
Dissolved Sodium (Na)	mg/L				<0.050	0.050	9698603	<0.050	0.050	9698603
Total Sodium (Na)	mg/L				<0.10	0.10	9698601	<0.050	0.050	9698601
Dissolved Sulphur (S)	mg/L				<3.0	3.0	9698603	<3.0	3.0	9698603
Total Sulphur (S)	mg/L				<6.0	6.0	9698601	<3.0	3.0	9698601
Dissolved Tellurium (Te)	ug/L				<0.020	0.020	9698604	<0.020	0.020	9698604
Total Tellurium (Te)	ug/L	<0.040	0.040	9698602	<0.040	0.040	9698602	<0.020	0.020	9698602
RADIONUCLIDE										
Radium-226	Bq/L				<0.0050	0.0050	9675831	<0.0050	0.0050	9675831

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Job #: C4U3744
Report Date: 2024/10/24

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		AEEW02	AEEW03	AEEW04	AEEW05		
Sampling Date		2024/09/22 06:44	2024/09/22 06:44	2024/09/22 06:44	2024/09/22 06:44		
COC Number		967960	967960	967960	967960		
	UNITS	**PORT 4-A**	**PORT 4-B**	**PORT 4-B-FB**	**PORT 4-A-TB**	**RDL**	**QC Batch**
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	803	793	<0.50	<0.50	0.50	9692840
Metals							
Mercury (Hg)	mg/L	<0.00001	<0.00001	<0.00001	<0.00001	0.00001	9671155
Dissolved Mercury (Hg)	mg/L	<0.00001	<0.00001	<0.00001	<0.00001	0.00001	9671148

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Job #: C4U3744
Report Date: 2024/10/24

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

TEST SUMMARY

Bureau Veritas ID: AEEW02
Sample ID: PORT 4-A
Matrix: Water

Collected: 2024/09/22
Shipped:
Received: 2024/09/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9670235	N/A	2024/10/01	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9668770	N/A	2024/10/02	Automated Statchk
Conductivity	AT	9670238	N/A	2024/10/01	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9669001	N/A	2024/09/30	Gyulshen Idriz
Fluoride	ISE	9670237	2024/09/28	2024/10/01	Nachiketa Gohil
Dissolved Mercury (low level)	CV/AA	9671148	2024/09/30	2024/09/30	Maitri PATIL
Mercury (low level)	CV/AA	9671155	2024/09/30	2024/09/30	Maitri PATIL
Bromide in water by IC	IC/UV	9687130	N/A	2024/10/05	Joshua BEAVIS
Low Level Chloride and Sulphate by AC	KONE	9691962	N/A	2024/10/03	Tyler Orr
Cyanide (Free)	SPEC	9683383	N/A	2024/10/03	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9683381	2024/10/04	2024/10/04	Ming Dong
Cyanide WAD (weak acid dissociable)	TECH	9683382	N/A	2024/10/04	Ming Dong
Hardness Total (calculated as CaCO3)	CALC	9692840	N/A	2024/10/10	Automated Statchk
Hardness (calculated as CaCO3)	CALC	9688423	N/A	2024/10/04	Automated Statchk
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	9698603	N/A	2024/10/04	Automated Statchk
Elements by ICPMS Low Level (dissolved)	ICP/MS	9698604	N/A	2024/10/04	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	9698601	N/A	2024/10/10	Automated Statchk
Elements by ICPMS Low Level (total)	ICP/MS	9698602	N/A	2024/10/09	Andrew An
Ammonia-N Low Level	KONE/UVVS	9691982	N/A	2024/10/04	Isabelle White
Orthophosphate LL by Automated Analyzer	KONE	9691981	N/A	2024/10/04	Yan Lin
Silica (Reactive)	KONE	9691963	N/A	2024/10/03	Tyler Orr
Total Phosphorus Low Level Total	KONE	9691960	2024/10/07	2024/10/07	Mary Anne Dela Cruz
Total Ammonia (as NH3)	CALC	9668698	N/A	2024/10/10	Automated Statchk
Nitrate & Nitrite as Nitrogen in Water	LACH	9670033	N/A	2024/09/30	Chandra Nandlal
pH	AT	9670236	2024/09/28	2024/10/01	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/09/27	Alam Joseph
Radium-226 Low Level	AS	9675831	N/A	2024/10/09	Chloe Westlake
Total Dissolved Solids	BAL	9669580	2024/09/28	2024/10/01	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/09/27	Alam Joseph
Total Kjeldahl Nitrogen in Water	SKAL	9678828	2024/10/03	2024/10/03	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	9677793	N/A	2024/10/03	Gyulshen Idriz
Low Level Total Suspended Solids	BAL	9669788	2024/09/28	2024/09/30	Razieh Tabesh
Turbidity	AT	9670016	N/A	2024/09/28	Kien Tran
Un-ionized Ammonia (as N)	CALC	9668700	2024/10/24	2024/10/24	Automated Statchk

Bureau Veritas ID: AEEW02 Dup
Sample ID: PORT 4-A
Matrix: Water

Collected: 2024/09/22
Shipped:
Received: 2024/09/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Orthophosphate LL by Automated Analyzer	KONE	9691981	N/A	2024/10/04	Yan Lin
Silica (Reactive)	KONE	9691963	N/A	2024/10/03	Tyler Orr

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Bureau Veritas Job #: C4U3744
Report Date: 2024/10/24

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

TEST SUMMARY

Bureau Veritas ID: AEEW03
Sample ID: PORT 4-B
Matrix: Water

Collected: 2024/09/22
Shipped:
Received: 2024/09/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9670235	N/A	2024/10/01	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9668770	N/A	2024/10/02	Automated Statchk
Conductivity	AT	9670238	N/A	2024/10/01	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9669001	N/A	2024/09/30	Gyulshen Idriz
Fluoride	ISE	9670237	2024/09/28	2024/10/01	Nachiketa Gohil
Dissolved Mercury (low level)	CV/AA	9671148	2024/09/30	2024/09/30	Maitri PATIL
Mercury (low level)	CV/AA	9671155	2024/09/30	2024/09/30	Maitri PATIL
Bromide in water by IC	IC/UV	9687130	N/A	2024/10/05	Joshua BEAVIS
Low Level Chloride and Sulphate by AC	KONE	9691962	N/A	2024/10/03	Tyler Orr
Cyanide (Free)	SPEC	9683383	N/A	2024/10/03	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9683381	2024/10/04	2024/10/04	Ming Dong
Cyanide WAD (weak acid dissociable)	TECH	9683382	N/A	2024/10/04	Ming Dong
Hardness Total (calculated as CaCO3)	CALC	9692840	N/A	2024/10/11	Automated Statchk
Hardness (calculated as CaCO3)	CALC	9688423	N/A	2024/10/04	Automated Statchk
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	9698603	N/A	2024/10/04	Automated Statchk
Elements by ICPMS Low Level (dissolved)	ICP/MS	9698604	N/A	2024/10/04	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	9698601	N/A	2024/10/11	Automated Statchk
Elements by ICPMS Low Level (total)	ICP/MS	9698602	N/A	2024/10/09	Andrew An
Ammonia-N Low Level	KONE/UVVS	9691982	N/A	2024/10/04	Isabelle White
Orthophosphate LL by Automated Analyzer	KONE	9691981	N/A	2024/10/04	Yan Lin
Silica (Reactive)	KONE	9691963	N/A	2024/10/03	Tyler Orr
Total Phosphorus Low Level Total	KONE	9691960	2024/10/07	2024/10/07	Mary Anne Dela Cruz
Total Ammonia (as NH3)	CALC	9668698	N/A	2024/10/10	Automated Statchk
Nitrate & Nitrite as Nitrogen in Water	LACH	9670033	N/A	2024/09/30	Chandra Nandlal
pH	AT	9670236	2024/09/28	2024/10/01	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/09/27	Alam Joseph
Radium-226 Low Level	AS	9675831	N/A	2024/10/09	Chloe Westlake
Total Dissolved Solids	BAL	9669580	2024/09/28	2024/10/01	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/09/27	Alam Joseph
Total Kjeldahl Nitrogen in Water	SKAL	9678828	2024/10/03	2024/10/03	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	9677793	N/A	2024/10/03	Gyulshen Idriz
Low Level Total Suspended Solids	BAL	9669788	2024/09/28	2024/09/30	Razieh Tabesh
Turbidity	AT	9670016	N/A	2024/09/28	Kien Tran
Un-ionized Ammonia (as N)	CALC	9668700	2024/10/24	2024/10/24	Automated Statchk

Bureau Veritas ID: AEEW03 Dup
Sample ID: PORT 4-B
Matrix: Water

Collected: 2024/09/22
Shipped:
Received: 2024/09/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9670235	N/A	2024/10/01	Nachiketa Gohil
Conductivity	AT	9670238	N/A	2024/10/01	Nachiketa Gohil
Fluoride	ISE	9670237	2024/09/28	2024/10/01	Nachiketa Gohil
Elements by ICPMS Low Level (total)	ICP/MS	9698602	N/A	2024/10/09	Andrew An

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Bureau Veritas Job #: C4U3744
Report Date: 2024/10/24

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

TEST SUMMARY

Bureau Veritas ID: AEEW03 Dup
Sample ID: PORT 4-B
Matrix: Water

Collected: 2024/09/22
Shipped:
Received: 2024/09/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH	AT	9670236	2024/09/28	2024/10/01	Nachiketa Gohil

Bureau Veritas ID: AEEW04
Sample ID: PORT 4-B-FB
Matrix: Water

Collected: 2024/09/22
Shipped:
Received: 2024/09/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9670235	N/A	2024/10/01	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9668770	N/A	2024/10/02	Automated Statchk
Conductivity	AT	9670238	N/A	2024/10/01	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9669001	N/A	2024/09/30	Gyulshen Idriz
Fluoride	ISE	9670237	2024/09/28	2024/10/01	Nachiketa Gohil
Dissolved Mercury (low level)	CV/AA	9671148	2024/09/30	2024/09/30	Maitri PATIL
Mercury (low level)	CV/AA	9671155	2024/09/30	2024/09/30	Maitri PATIL
Bromide in water by IC	IC/UV	9687130	N/A	2024/10/05	Joshua BEAVIS
Low Level Chloride and Sulphate by AC	KONE	9691962	N/A	2024/10/03	Tyler Orr
Cyanide (Free)	SPEC	9683383	N/A	2024/10/03	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9683381	2024/10/04	2024/10/04	Ming Dong
Cyanide WAD (weak acid dissociable)	TECH	9683382	N/A	2024/10/04	Ming Dong
Hardness Total (calculated as CaCO3)	CALC	9692840	N/A	2024/10/10	Automated Statchk
Hardness (calculated as CaCO3)	CALC	9688423	N/A	2024/10/04	Automated Statchk
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	9698603	N/A	2024/10/04	Automated Statchk
Elements by ICPMS Low Level (dissolved)	ICP/MS	9698604	N/A	2024/10/04	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	9698601	N/A	2024/10/10	Automated Statchk
Elements by ICPMS Low Level (total)	ICP/MS	9698602	N/A	2024/10/09	Andrew An
Ammonia-N Low Level	KONE/UVVS	9691982	N/A	2024/10/04	Isabelle White
Orthophosphate LL by Automated Analyzer	KONE	9691981	N/A	2024/10/04	Yan Lin
Silica (Reactive)	KONE	9691963	N/A	2024/10/03	Tyler Orr
Total Phosphorus Low Level Total	KONE	9691960	2024/10/07	2024/10/07	Mary Anne Dela Cruz
Total Ammonia (as NH3)	CALC	9668698	N/A	2024/10/10	Automated Statchk
Nitrate & Nitrite as Nitrogen in Water	LACH	9670033	N/A	2024/09/30	Chandra Nandlal
pH	AT	9670236	2024/09/28	2024/10/01	Nachiketa Gohil
Radium-226 Low Level	AS	9675831	N/A	2024/10/09	Chloe Westlake
Total Dissolved Solids	BAL	9669580	2024/09/28	2024/10/01	Razieh Tabesh
Total Kjeldahl Nitrogen in Water	SKAL	9678828	2024/10/03	2024/10/03	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	9677793	N/A	2024/10/03	Gyulshen Idriz
Low Level Total Suspended Solids	BAL	9669788	2024/09/28	2024/09/30	Razieh Tabesh
Turbidity	AT	9670016	N/A	2024/09/28	Kien Tran

Bureau Veritas Job #: C4U3744
Report Date: 2024/10/24

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

TEST SUMMARY

Bureau Veritas ID: AEEW05
Sample ID: PORT 4-A-TB
Matrix: Water

Collected: 2024/09/22
Shipped:
Received: 2024/09/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9670235	N/A	2024/10/01	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9668770	N/A	2024/10/02	Automated Statchk
Conductivity	AT	9670238	N/A	2024/10/01	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9669001	N/A	2024/09/30	Gyulshen Idriz
Fluoride	ISE	9670237	2024/09/28	2024/10/01	Nachiketa Gohil
Dissolved Mercury (low level)	CV/AA	9671148	2024/09/30	2024/09/30	Maitri PATIL
Mercury (low level)	CV/AA	9671155	2024/09/30	2024/09/30	Maitri PATIL
Bromide in water by IC	IC/UV	9687130	N/A	2024/10/05	Joshua BEAVIS
Low Level Chloride and Sulphate by AC	KONE	9691962	N/A	2024/10/03	Tyler Orr
Cyanide (Free)	SPEC	9683383	N/A	2024/10/03	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9683381	2024/10/04	2024/10/04	Ming Dong
Cyanide WAD (weak acid dissociable)	TECH	9683382	N/A	2024/10/04	Ming Dong
Hardness Total (calculated as CaCO3)	CALC	9692840	N/A	2024/10/10	Automated Statchk
Hardness (calculated as CaCO3)	CALC	9688423	N/A	2024/10/04	Automated Statchk
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	9698603	N/A	2024/10/04	Automated Statchk
Elements by ICPMS Low Level (dissolved)	ICP/MS	9698604	N/A	2024/10/04	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	9698601	N/A	2024/10/10	Automated Statchk
Elements by ICPMS Low Level (total)	ICP/MS	9698602	N/A	2024/10/09	Andrew An
Ammonia-N Low Level	KONE/UVVS	9691982	N/A	2024/10/04	Isabelle White
Orthophosphate LL by Automated Analyzer	KONE	9691981	N/A	2024/10/04	Yan Lin
Silica (Reactive)	KONE	9691963	N/A	2024/10/03	Tyler Orr
Total Phosphorus Low Level Total	KONE	9691960	2024/10/07	2024/10/07	Mary Anne Dela Cruz
Total Ammonia (as NH3)	CALC	9668698	N/A	2024/10/10	Automated Statchk
Nitrate & Nitrite as Nitrogen in Water	LACH	9670034	N/A	2024/10/01	Chandra Nandlal
pH	AT	9670236	2024/09/28	2024/10/01	Nachiketa Gohil
Radium-226 Low Level	AS	9675831	N/A	2024/10/09	Chloe Westlake
Total Dissolved Solids	BAL	9669580	2024/09/28	2024/10/01	Razieh Tabesh
Total Kjeldahl Nitrogen in Water	SKAL	9678828	2024/10/03	2024/10/03	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	9677793	N/A	2024/10/03	Gyulshen Idriz
Low Level Total Suspended Solids	BAL	9669788	2024/09/28	2024/09/30	Razieh Tabesh
Turbidity	AT	9670016	N/A	2024/09/28	Kien Tran

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	15.3°C
Package 2	13.0°C

Sample AEEW02 [PORT 4-A] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample AEEW03 [PORT 4-B] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample AEEW04 [PORT 4-B-FB] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample AEEW05 [PORT 4-A-TB] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

RESULTS OF ANALYSES OF WATER

Sample AEEW02 [PORT 4-A] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.
Sample AEEW03 [PORT 4-B] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.
Sample AEEW04 [PORT 4-B-FB] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.
Sample AEEW05 [PORT 4-A-TB] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.

Results relate only to the items tested.

Bureau Veritas Job #: C4U3744
Report Date: 2024/10/24

QUALITY ASSURANCE REPORT

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9669001	Dissolved Organic Carbon	2024/09/30	88	80 - 120	95	80 - 120	<0.40	mg/L	0.17	20		
9669580	Total Dissolved Solids	2024/10/01			100	80 - 120	<10	mg/L	0.87	20		
9669788	Total Suspended Solids	2024/09/30			99	80 - 120	<1	mg/L	NC	20		
9670016	Turbidity	2024/09/28			100	80 - 120	<0.1	NTU	0	20		
9670033	Nitrate (N)	2024/09/30	99	80 - 120	100	80 - 120	<0.10	mg/L	0.21	20		
9670033	Nitrite (N)	2024/09/30	106	80 - 120	106	80 - 120	<0.010	mg/L	NC	20		
9670034	Nitrate (N)	2024/10/01	99	80 - 120	94	80 - 120	<0.10	mg/L	1.5	20		
9670034	Nitrite (N)	2024/10/01	105	80 - 120	105	80 - 120	<0.010	mg/L	NC	20		
9670235	Alkalinity (Total as CaCO3)	2024/10/01			98	85 - 115	<1.0	mg/L	12	20		
9670236	pH	2024/10/01			102	98 - 103			1.8	N/A		
9670237	Fluoride (F-)	2024/10/01	97	80 - 120	103	80 - 120	<0.10	mg/L	1.4	20		
9670238	Conductivity	2024/10/01			100	85 - 115	0.000700	mS/cm	0	10		
9671148	Dissolved Mercury (Hg)	2024/09/30	96	75 - 125	96	80 - 120	<0.00001	mg/L	NC	20		
9671155	Mercury (Hg)	2024/09/30	97	75 - 125	96	80 - 120	<0.00001	mg/L	NC	20		
9675831	Radium-226	2024/10/09			90	85 - 115	<0.0050	Bq/L	NC	N/A		
9677793	Total Organic Carbon (TOC)	2024/10/03	94	80 - 120	95	80 - 120	<0.40	mg/L				
9678828	Total Kjeldahl Nitrogen (TKN)	2024/10/03	105	80 - 120	102	80 - 120	<0.10	mg/L	0	20	104	80 - 120
9683381	Strong Acid Dissoc. Cyanide (CN)	2024/10/04	83	80 - 120	98	80 - 120	<0.00050	mg/L				
9683382	Weak Acid Dissoc. Cyanide (CN)	2024/10/04	92	80 - 120	101	80 - 120	<0.00050	mg/L				
9683383	Free Cyanide (CN)	2024/10/03	103	80 - 120	97	80 - 120	<2.0	ug/L				
9687130	Dissolved Bromide (Br-)	2024/10/05	107	80 - 120	105	80 - 120	<0.010	mg/L	11	20		
9691960	Total Phosphorus (P)	2024/10/07	91	80 - 120	102	80 - 120	<0.0010	mg/L			94	80 - 120
9691962	Dissolved Chloride (Cl-)	2024/10/03	94	80 - 120	99	80 - 120	<0.50	mg/L				
9691962	Dissolved Sulphate (SO4)	2024/10/03	NC	80 - 120	113	80 - 120	<0.50	mg/L				
9691963	Reactive Silica (SiO2)	2024/10/03	NC	80 - 120	106	80 - 120	<0.050	mg/L	1.8	20		
9691981	Orthophosphate (P)	2024/10/04	101	80 - 120	104	80 - 120	<0.0010	mg/L	NC	20		
9691982	Total Nitrogen (Ammonia Nitrogen)	2024/10/04	104	N/A	107	N/A	<0.0050	mg/L				
9698602	Total Aluminum (Al)	2024/10/09	90	80 - 120	98	80 - 120	<0.50	ug/L	3.4	20		
9698602	Total Antimony (Sb)	2024/10/09	96	80 - 120	101	80 - 120	<0.020	ug/L	1.9	20		
9698602	Total Arsenic (As)	2024/10/09	100	80 - 120	100	80 - 120	<0.020	ug/L	0.19	20		
9698602	Total Barium (Ba)	2024/10/09	NC	80 - 120	100	80 - 120	<0.020	ug/L	0.15	20		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9698602	Total Beryllium (Be)	2024/10/09	86	80 - 120	94	80 - 120	<0.010	ug/L	NC	20		
9698602	Total Bismuth (Bi)	2024/10/09	89	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20		
9698602	Total Boron (B)	2024/10/09	81	80 - 120	100	80 - 120	<10	ug/L	0.26	20		
9698602	Total Cadmium (Cd)	2024/10/09	91	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20		
9698602	Total Chromium (Cr)	2024/10/09	90	80 - 120	101	80 - 120	<0.10	ug/L	7.0	20		
9698602	Total Cobalt (Co)	2024/10/09	86	80 - 120	96	80 - 120	<0.0050	ug/L	0.36	20		
9698602	Total Copper (Cu)	2024/10/09	83	80 - 120	98	80 - 120	<0.050	ug/L	6.9	20		
9698602	Total Iron (Fe)	2024/10/09	95	80 - 120	103	80 - 120	<1.0	ug/L	2.1	20		
9698602	Total Lead (Pb)	2024/10/09	90	80 - 120	99	80 - 120	<0.0050	ug/L	0.13	20		
9698602	Total Lithium (Li)	2024/10/09	83	80 - 120	97	80 - 120	<0.50	ug/L	0.84	20		
9698602	Total Manganese (Mn)	2024/10/09	88	80 - 120	101	80 - 120	<0.050	ug/L	2.1	20		
9698602	Total Molybdenum (Mo)	2024/10/09	104	80 - 120	106	80 - 120	<0.050	ug/L	1.6	20		
9698602	Total Nickel (Ni)	2024/10/09	85	80 - 120	99	80 - 120	<0.020	ug/L	12	20		
9698602	Total Selenium (Se)	2024/10/09	92	80 - 120	100	80 - 120	<0.040	ug/L	NC	20		
9698602	Total Silicon (Si)	2024/10/09	95	80 - 120	104	80 - 120	<50	ug/L	2.3	20		
9698602	Total Silver (Ag)	2024/10/09	93	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20		
9698602	Total Strontium (Sr)	2024/10/09	NC	80 - 120	102	80 - 120	<0.050	ug/L	1.3	20		
9698602	Total Tellurium (Te)	2024/10/09	99	80 - 120	104	80 - 120	<0.020	ug/L	NC	20		
9698602	Total Thallium (Tl)	2024/10/09	96	80 - 120	101	80 - 120	<0.0020	ug/L	NC	20		
9698602	Total Tin (Sn)	2024/10/09	94	80 - 120	102	80 - 120	<0.20	ug/L	NC	20		
9698602	Total Titanium (Ti)	2024/10/09	94	80 - 120	102	80 - 120	<0.50	ug/L	NC	20		
9698602	Total Uranium (U)	2024/10/09	95	80 - 120	112	80 - 120	<0.0020	ug/L	0.58	20		
9698602	Total Vanadium (V)	2024/10/09	95	80 - 120	101	80 - 120	<0.20	ug/L	NC	20		
9698602	Total Zinc (Zn)	2024/10/09	NC	80 - 120	100	80 - 120	<0.10	ug/L	1.4	20		
9698602	Total Zirconium (Zr)	2024/10/09	104	80 - 120	103	80 - 120	<0.10	ug/L	NC	20		
9698604	Dissolved Aluminum (Al)	2024/10/04	97	80 - 120	102	80 - 120	<0.50	ug/L				
9698604	Dissolved Antimony (Sb)	2024/10/04	100	80 - 120	102	80 - 120	<0.020	ug/L				
9698604	Dissolved Arsenic (As)	2024/10/04	104	80 - 120	101	80 - 120	<0.020	ug/L				
9698604	Dissolved Barium (Ba)	2024/10/04	98	80 - 120	101	80 - 120	<0.020	ug/L				
9698604	Dissolved Beryllium (Be)	2024/10/04	85	80 - 120	99	80 - 120	<0.010	ug/L				
9698604	Dissolved Bismuth (Bi)	2024/10/04	96	80 - 120	101	80 - 120	<0.0050	ug/L				

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9698604	Dissolved Boron (B)	2024/10/04	79 (1)	80 - 120	99	80 - 120	<10	ug/L				
9698604	Dissolved Cadmium (Cd)	2024/10/04	96	80 - 120	100	80 - 120	<0.0050	ug/L				
9698604	Dissolved Chromium (Cr)	2024/10/04	90	80 - 120	97	80 - 120	<0.10	ug/L				
9698604	Dissolved Cobalt (Co)	2024/10/04	88	80 - 120	98	80 - 120	<0.0050	ug/L				
9698604	Dissolved Copper (Cu)	2024/10/04	85	80 - 120	96	80 - 120	<0.050	ug/L				
9698604	Dissolved Iron (Fe)	2024/10/04	99	80 - 120	100	80 - 120	<1.0	ug/L				
9698604	Dissolved Lead (Pb)	2024/10/04	97	80 - 120	102	80 - 120	<0.0050	ug/L				
9698604	Dissolved Lithium (Li)	2024/10/04	78 (1)	80 - 120	97	80 - 120	<0.50	ug/L				
9698604	Dissolved Manganese (Mn)	2024/10/04	95	80 - 120	103	80 - 120	<0.050	ug/L				
9698604	Dissolved Molybdenum (Mo)	2024/10/04	106	80 - 120	103	80 - 120	<0.050	ug/L				
9698604	Dissolved Nickel (Ni)	2024/10/04	84	80 - 120	101	80 - 120	<0.020	ug/L				
9698604	Dissolved Selenium (Se)	2024/10/04	102	80 - 120	96	80 - 120	<0.040	ug/L				
9698604	Dissolved Silicon (Si)	2024/10/04	NC	80 - 120	103	80 - 120	<50	ug/L				
9698604	Dissolved Silver (Ag)	2024/10/04	96	80 - 120	99	80 - 120	<0.0050	ug/L				
9698604	Dissolved Strontium (Sr)	2024/10/04	NC	80 - 120	97	80 - 120	<0.050	ug/L				
9698604	Dissolved Tellurium (Te)	2024/10/04	98	80 - 120	106	80 - 120	<0.020	ug/L				
9698604	Dissolved Thallium (Tl)	2024/10/04	100	80 - 120	103	80 - 120	<0.0020	ug/L				
9698604	Dissolved Tin (Sn)	2024/10/04	100	80 - 120	103	80 - 120	<0.20	ug/L				
9698604	Dissolved Titanium (Ti)	2024/10/04	101	80 - 120	105	80 - 120	<0.50	ug/L				
9698604	Dissolved Uranium (U)	2024/10/04	107	80 - 120	106	80 - 120	<0.0020	ug/L				
9698604	Dissolved Vanadium (V)	2024/10/04	95	80 - 120	98	80 - 120	<0.20	ug/L				

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9698604	Dissolved Zinc (Zn)	2024/10/04	87	80 - 120	101	80 - 120	<0.10	ug/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Bureau Veritas Job #: C4U3744
Report Date: 2024/10/24

Agnico Eagle
Client Project #: Westbay GW
Site Location: AMQ
Your P.O. #: 1368140
Sampler Initials: GB

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere, Senior Scientific Specialist

David Huang, BBY Scientific Specialist

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
DANISH SAMAD
CHEMIST

Danish Samad, MSc., C.Chem, Miss.-Kitimat, Laboratory Supervisor

Sandy Yuan, M.Sc., QP, Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

ATTACHMENT D

Water Quality Results

Table D-1
Drilling Brine Composition Westbay System AMQ16-626
Agnico Eagle Mines Limited, Whale Tail Mine, Nunavut

Sample	Units	Brine Fluid	Calculated Dilute Brine Port 6		Calculated Dilute Brine Port 4		Calculated Dilute Brine Port 3	
			Initial Brine	Maximum Brine	Initial Brine	Maximum Brine	Initial Brine	Maximum Brine
Date		17-Apr-16	21-Jul-16	21-Jul-16	24-Apr-16	27-Apr-16	02-Sep-16	02-Sep-16
Field measured parameters								
Fluorescein Concentration	mg/L	512.7	138.0	158.1	512.7	341.9	445.9	437.2
Drilling Fluid Proportion		1.00	0.27	0.31	1.00	0.67	0.87	0.85
Formation Water Proportion		0.00	0.73	0.69	0.00	0.33	0.13	0.15
Initial Conductivity Reading	uS/cm	0	10240	12210	3810	19400	52280	53800
Dilution of Brine Factor in Port		0.00	0.06	0.07	0.02	0.11	0.30	0.31
Conventional Parameters								
Alkalinity (Total as CaCO3)	mg $CaCO_3$/L	145.0	8.5	38.0	3.2	16.2	43.6	44.8
Alkalinity, bicarbonate (as CaCO3)	mg $CaCO_3$/L	27.0	1.6	1.9	0.6	3.0	8.1	8.3
Alkalinity, carbonate (as CaCO3)	mg CaCO3/L	--	--	--	--	--	--	--
Alkalinity, hydroxide (as CaCO3)	mg CaCO3/L	--	--	--	--	--	--	--
Chemical oxygen demand [COD]	mg/L	--	--	--	--	--	--	--
Conductivity (calculated)	uS/cm	174000	10240	12210	3810	19400	52280	53800
Conductivity (lab)	uS/cm	55420	--	--	--	--	--	--
Hardness (as CaCO3), from dissolved Ca/Mg	mg $CaCO_3$/L	105554	6212	7407	2311	11769	31715	32637
pH	S.U.	10	11.25	7.40	11.68	10.97	10.54	10.53
Total Dissolved Solids (calculated)	mg/L	130500	7680	9158	2858	14550	39210	40350
Total Dissolved Solids (lab)	mg/L	36946	--	--	--	--	--	--
Total Suspended Solids (TSS)	mg/L	--	--	--	--	--	--	--
Turbidity	NTU	--	--	--	--	--	--	--
Anions and Nutrients								
Ammonia, total (as N)	mg/L	--	--	--	--	--	--	--
Bromide (Br)	mg/L	1066	63	75	23	119	320	330
Chloride (Cl)	mg/L	83700	4926	5873	1833	9332	25149	25880
Dissolved Organic Carbon (DOC)	mg/L	--	--	--	--	--	--	--
Fluoride (F)	mg/L	0.06	0.004	0.004	0.001	0.01	0.02	0.02
Kjeldahl nitrogen, total [TKN]	mg/L	--	--	--	--	--	--	--
Nitrate + nitrite (as N)	mg/L	--	--	--	--	--	--	--
Nitrates (NO3)	mg/L	0.54	0.03	0.04	0.01	0.06	0.2	0.2
Nitrites (NO2)	mg/L	0.06	0.004	0.004	0.001	0.007	0.02	0.02
Phosphate, ortho-, dissolved (as P)	mg/L	--	--	--	--	--	--	--
Phosphorus, total	mg/L	--	--	--	--	--	--	--
Silicate (as SiO2)	mg/L	--	--	--	--	--	--	--
Sulphate (SO4)	mg/L	<0.6	0	0	0	0	0	0
Total Organic Carbon (TOC)	mg/L	--	--	--	--	--	--	--
Metals (dissolved)								
Aluminium (Al)	mg/L	0.5	0.03	0.03	0.01	0.06	0.1	0.2
Antimony (Sb)	mg/L	0.035	0.002	0.002	0.001	0.004	0.011	0.011
Arsenic (As)	mg/L	0.8	0.05	0.05	0.02	0.09	0.2	0.2
Barium (Ba)	mg/L	0.1	0.007	0.008	0.002	0.01	0.03	0.03
Beryllium (Be)	mg/L	<0.0005	0	0	0	0	0	0
Boron (B)	mg/L	13.2	0.8	0.9	0.3	1.5	4.0	4.1
Cadmium (Cd)	mg/L	<0.00002	0	0	0	0	0	0
Calcium (Ca)	mg/L	42266	2487	2966	925	4712	12699	13068
Chromium (Cr)	mg/L	<0.0006	0	0	0	0	0	0
Cobalt (Co)	mg/L	0.0406	0.002	0.003	0.001	0.005	0.012	0.013
Copper (Cu)	mg/L	0.0039	0.0002	0.0003	0.0001	0.0004	0.0012	0.0012
Iron (Fe)	mg/L	2.6	0.2	0.2	0.1	0.3	0.8	0.8
Lead (Pb)	mg/L	<0.0003	0	0	0	0	0	0
Lithium (Li)	mg/L	34.52	2.0	2.4	0.8	3.8	10.4	10.7
Magnesium (Mg)	mg/L	3.9	0.2	0.3	0.1	0.4	1.2	1.2
Manganese (Mn)	mg/L	<0.0005	0	0	0	0	0	0
Dissolved Mercury (Hg)	mg/L	--	0.00002	0.00003	0.00001	0.00004	0.00012	0.00012
Molybdenum (Mo)	mg/L	<0.0005	0	0	0	0	0	0
Nickel (Ni)	mg/L	1.35	0.08	0.09	0.03	0.15	0.41	0.42
Potassium (K)	mg/L	1717	101	120	38	191	516	531
Selenium (Se)	mg/L	3.83	0.23	0.27	0.08	0.43	1.15	1.18
Silicon (Si)	mg/L	2.93	0.17	0.21	0.06	0.33	0.88	0.91
Silver (Ag)	mg/L	<0.0001	0	0	0	0	0	0
Sodium (Na)	mg/L	838	49	59	18	93	252	259
Strontium (Sr)	mg/L	656.0	38.61	46.03	14.36	73.14	197.1	202.83
Tellurium (Te)	mg/L	<0.0005	0	0	0	0	0	0
Thallium (Tl)	mg/L	<0.002	0	0	0	0	0	0
Tin (Sn)	mg/L	<0.001	0	0	0	0	0	0
Titanium (Ti)	mg/L	45.2	2.66	3.17	0.99	5.04	13.58	13.98
Uranium (U)	mg/L	-	0	0	0	0	0	0
Vanadium (V)	mg/L	<0.001	0	0	0	0	0	0
Zinc (Zn)	mg/L	<0.0005	0	0	0	0	0	0
Radioactive Ions								
Radium (Ra 226)	Bq/L	<0.066	0	0	0	0	0	0
Hydrocarbons								
Hydrocarbons (C10-C50)	mg/L	0	0	0	0	0	0	0
QA/QC								
Calculated TDS (lab)	-	130500	--	--	--	--	--	--
Lab measured vs Calculated TDS	-	28%	--	--	--	--	--	--
Lab measured TDS vs Conductivity	-	0.7	--	--	--	--	--	--
Calculated TDS vs Calculated Conductivity	-	0.8	--	--	--	--	--	--

Notes:
-- denotes parameter was not analyzed

Table D-2
Westbay System AMQ16-626 Rock Formation Groundwater Quality Corrected to Remove Residual Drilling Water Whale Tail Lake Talik
Agnico Eagle Mines Limited, Whale Tail Mine, Nunavut

Sample		Port 6									
Date		2-Aug-2016		13-Nov-2018		3-Apr-2019		18-Oct-2020		10-Nov-2021	
Drilling Fluid Proportion		0.04	0.24	0.16		0.14		0.08		0.19	
Formation Water Proportion		0.96	0.76	0.84		0.86		0.92		0.81	
Sampling interval depth (metres along borehole)		276.0 m - 287.4 m									
Sampling interval vertical depth (metres)		257.7 m - 268.3 m									
Estimated concentration range (calculated)		minimum	maximum	minimum	maximum	minimum	maximum	minimum	maximum	minimum	maximum
Conventional parameters											
Alkalinity	mg $CaCO_3$/L	40	51	30	31	34	34	24	28	41	41
Alkalinity, bicarbonate (as CaCO3)	mg/L	40	51	31	32	35	35	27.3	28.4	42.5	42.6
Alkalinity, carbonate (as CaCO3)	mg/L	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chemical oxygen demand [COD]	mg/L	-	-	-	-	-	-	3100	3200	-	-
Conductivity (lab)	uS/cm	4797	6042	8041	8496	8388	8720	9084	9390	6197	6644
Hardness (as CaCO3)	mg $CaCO_3$/L	2397	3030	2883	3127	3167	3369	3498	3391	2379	2651
pH	S.U.	7.41	7.27	6.50	6.57	6.29	6.29	6.16	6.53	6.60	6.62
Salinity	ppt	-	-	-	-	-	-	-	-	3.1	4.5
Total dissolved Solids (TDS)	mg/L	3198	4042	4681	5171	5712	5962	5066	4934	5349	6827
Total Suspended Solids (TSS)	mg/L	-	-	8.3	9.5	5.1	5.1	<3.0	<3.0	10	10
Turbidity	mg/L	-	-	-	-	-	-	2.6	2.7	3.4	3.4
Anions and Nutrients											
Ammonia, total (as N)	mg/L	-	-	<0.437	<0.443	<0.466	<0.466	0.510	0.517	0.121	0.121
Bromide (Br)	mg/L	25	32	34	37	40	42	40	41	24	26
Chloride (Cl)	mg/L	2089	2641	2453	2697	2959	3119	3027	3111	1856	2072
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-	<14000	<14000
Fluoride (F)	mg/L	0.21	0.27	<1.0	<1.0	<1.0	<1.0	<1.00	<1.00	0.21	0.21
Kjeldahl nitrogen, total [TKN]	mg/L	-	-	-	-	-	-	0.892	0.900	<10	<10
Nitrates (NO3)	mg/L	0.063	0.079	<0.25	<0.25	<0.25	<0.25	<0.250	<0.250	<0.10	<0.10
Nitrites (NO2)	mg/L	0.010	0.013	<0.050	<0.050	<0.050	<0.050	<0.0500	<0.0500	0.02	0.02
phosphate, ortho-, dissolved (as P)	mg/L	-	-	-	-	-	-	<0.0010	<0.0010	<0.0010	<0.0010
phosphorus, total	mg/L	0.021	0.026	<0.0043	<0.0043	<0.0020	<0.0020	<0.0020	<0.0020	0.01	0.01
Reactive Silica	mg/L	-	-	-	-	<50	<50	7.0	7.3	10.2	10.2
Sulphate (SO4)	mg/L	-	-	<15	<15	<15	<15	<15.0	<15.0	2.1	2.1
Total Organic Carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	<14000	<14000
Metals (dissolved)											
Aluminium (Al)	mg/L	<0.006	<0.006	<0.0050	<0.0050	<0.0050	<0.0050	<0.0100	0.003	0.001	0.002
Antimony (Sb)	mg/L	0.0002	0.0003	0.001	0.001	<0.0010	<0.0010	<0.00100	0.00045	<0.00042	0.00004
Arsenic (As)	mg/L	0.0050	0.0063	<0.0021	<0.0024	<0.0025	<0.0025	<0.00272	<0.00278	<0.00413	<0.00413
Barium (Ba)	mg/L	0.528	0.667	0.947	0.976	0.999	0.999	0.880	0.978	0.823	0.823
Beryllium (Be)	mg/L	<0.0005	<0.0005	<0.00050	<0.00050	<0.0005	<0.0005	<0.00100	<0.00100	<0.00010	<0.00010
Boron (B)	mg/L	0.3	0.4	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.2
Cadmium (Cd)	mg/L	-	0.00003	<0.000050	<0.000050	0.00002	0.00002	<0.0000500	<0.0000500	<0.000050	<0.000050
Calcium (Ca)	mg/L	960	1213	1071	1164	1194	1275	1293	1368	885	993
Chromium (Cr)	mg/L	0.007	0.009	<0.00050	<0.00050	<0.00050	<0.00050	<0.00100	<0.00100	<0.0010	<0.0010
Cobalt (Co)	mg/L	0.002	0.002	<0.000050	<0.000050	<0.000050	<0.000050	<0.00100	<0.00100	<0.000349	<0.000349
Copper (Cu)	mg/L	0.005	0.007	<0.00050	<0.00050	<0.00020	<0.00020	<0.00200	<0.00200	<0.00050	<0.00050
Iron (Fe)	mg/L	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.8	0.8
Lead (Pb)	mg/L	<0.0003	<0.0003	<0.00030	<0.00030	<0.000050	<0.000050	<0.000500	<0.000500	0.000171	0.000171
Lithium (Li)	mg/L	0.3	0.4	0.1	0.2	0.1	0.2	0.2	0.3	0.1	<0.4
Magnesium (Mg)	mg/L	22	27	51	51	44	44	41	42	37	37
Manganese (Mn)	mg/L	0.04	0.05	0.11	0.12	0.11	0.11	0.10	0.10	0.12	0.12
Dissolved Mercury (Hg)	mg/L	0.0005	0.0006	<0.000010	<0.000010	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.00001	<0.00001
Molybdenum (Mo)	mg/L	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.01	0.01
Nickel (Ni)	mg/L	0.05	0.06	<0.00050	<0.00050	<0.00050	<0.00050	<0.00500	<0.00500	<0.00128	<0.00128
Phosphorus (P)	mg/L	<0.0003	<0.0003	<0.00030	<0.00030	<0.000050	<0.000050	<0.500	<0.500	<0.02	<0.02
Potassium (K)	mg/L	8	10	<20	<20	11	11	1	3	<13.5	<13.5
Selenium (Se)	mg/L	0.1	0.1	<0.0020	<0.0020	<0.00050	<0.00050	<0.0025	<0.000658	<0.00177	<0.00177
Silicon (Si)	mg/L	4.0	5.1	3.2	3.3	3.2	3.2	3.4	3.5	3.1	3.1
Silver (Ag)	mg/L	<0.0001	<0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.000100	<0.000100	<0.000050	<0.000050
Sodium (Na)	mg/L	232	293	287	293	308	310	304	306	262	264
Strontium (Sr)	mg/L	13.2	16.7	14.3	16.0	16.0	17.2	20.1	21.8	14.1	15.8
Tellurium (Te)	mg/L	<0.0005	<0.0005	<0.00050	<0.00050	0.001	0.001	<0.00200	0.001	<0.00020	<0.00020
Thallium (Tl)	mg/L	<0.0008	<0.0008	<0.000050	<0.000050	<0.000050	<0.000050	<0.000100	<0.000100	<0.000020	<0.000020
Tin (Sn)	mg/L	0.0010	<0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.00100	<0.0020	<0.0020
Titanium (Ti)	mg/L	0.3	0.4	<0.0050	<0.0050	<0.0050	<0.0050	<0.00150	<0.00300	<0.0050	<0.0050
Uranium (U)	mg/L	<0.001	<0.001	0.02	0.03	0.03	0.03	<0.000050	<0.000100	<0.000020	<0.000020
Vanadium (V)	mg/L	0.002	0.002	<0.000050	<0.000050	<0.000050	<0.000050	<0.00250	<0.00500	<0.0020	<0.0020
Zinc (Zn)	mg/L	1.3	1.7	<0.00050	<0.00050	<0.00050	<0.00050	0.026	0.026	2.2	2.2
Radioactive Ions											
Radium (Ra226)	Bq/L	0.43	0.52	-	-	0.99	0.99	0.72	1.20	0.28	0.28
Hydrocarbons											
Hydrocarbons (C10-C50)	mg/L	0.2	0.2	-	-	<0.52	<0.52	-	-	-	-
Cyanide											
Total Cyanide - BV Lab	mg/l	-	-	-	-	-	-	-	-	<0.0050	<0.0050
Total Cyanide - SGS Lab	mg/l	-	-	-	-	-	-	-	-	-	-
Cyanide (free) - BV Lab	mg/l	-	-	-	-	-	-	-	-	<0.0022	<0.0022
Cyanide (free) - SGS Lab	mg/l	-	-	-	-	-	-	-	-	-	-
Cyanide (WAD) - BV Lab	mg/l	-	-	-	-	-	-	-	-	-	-
Cyanide (WAD) - SGS Lab	mg/l	-	-	-	-	-	-	-	-	-	-

Sample		Port 4													
Date		20-Jul-2016		11-Nov-2018		19-Oct-2020		5/6-Nov-21		19-Sep-2022		21-Sep-2023		22-Sep-2024	
Drilling Fluid Proportion		0.09	0.18	0.13		0.06		0.04		0.04		0.04		0.04	
Formation Water Proportion		0.91	0.82	0.87		0.94		0.96		0.96		0.96		0.96	
Sampling interval depth (metres along borehole) / Sampling interval vertical depth (metres)		349.3 m - 359.1 m													
Estimated concentration range (calculated)		minimum	maximum	minimum	maximum	minimum	maximum	minimum	maximum	minimum	maximum	minimum	maximum	minimum	maximum
Conventional parameters															
Alkalinity	mg $CaCO_3$/L	18	20	9	11	24	25	23	27	12	13	9	10	6	7
Alkalinity, bicarbonate (as CaCO3)	mg/L	18	20	11	12	24.9	25.5	24	24	12	13	9	10	7	7
Alkalinity, carbonate (as CaCO3)	mg/L			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	<1.0	<1.0
Chemical oxygen demand [COD]	mg/L	-	-	-	-	580	633	-	-	-	-	-	-	-	-
Conductivity (lab)	uS/cm	5366	5938	13084	15511	6394	7695	3326	4071	3547	4291	3035	3644	2534	3145
Hardness (as CaCO3)	mg $CaCO_3$/L	2627	2910	4169	5582	2148	2789	800	1277	748	1181	712	1056	363	734
pH	S.U.	7.87	7.82	6.88	6.91	6.32	6.50	6.51	6.81	6.43	6.52	6.16	6.25	6.39	6.42
Salinity	ppt	-	-	-	-	-	-	1.5	2.3	-	-	-	-	-	-
Total dissolved Solids (TDS)	mg/L	3581	3966	7970	9945	3779	4904	1593	2069	1866	2431	1958	2414	2163	2621
Total Suspended Solids (TSS)	mg/L	-	-	20.3	24.3	<3.0	<3.0	2.1	2.1	2.0	3.0	2.0	2.0	1.0	2.0
Turbidity	mg/L	-	-	-	-	2.0	2.1	1	1	1	1	0.7	1.0	0.8	1.0
Anions and Nutrients															
Ammonia, total (as N)	mg/L	-	-	<0.157	<0.158	0.129	0.129	0.076	0.078	<0.050	<0.050	0.058	0.063	0.042	0.044
Bromide (Br)	mg/L	32	35	51	77	22	29	6	10	9	15	9	13	7	11
Chloride (Cl)	mg/L	2582	2860	3818	5722	1879	2405	844	1278	933	1276	904	1281	674	967
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	334	344	272	282	269	269	229	229
Fluoride (F)	mg/L	0.5	0.5	<1.0	<1.0	<1.00	<1.00	0.5	0.5	0.4	0.5	0.4	0.4	0.4	0.5
Kjeldahl nitrogen, total [TKN]	mg/L	-	-	-	-	0.325	0.349	0.324	0.449	0.250	0.290	0.400	0.490	0.150	0.200
Nitrates (NO3)	mg/L	0.06	0.06	<0.25	<0.25	<0.250	<0.250	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrites (NO2)	mg/L	0.011	0.012	<0.050	<0.050	<0.0500	<0.0500	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
phosphate, ortho-, dissolved (as P)	mg/L	-	-	-	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.010	<0.010	< 0.0010	< 0.0010	<0.0010	<0.0010
phosphorus, total	mg/L	0.011	0.012	0.01	0.01	0.008	0.010	0.004	0.008	<0.0010	<0.0010	< 0.0010	0.003	<0.0010	<0.0010
Reactive Silica	mg/L	<0.1	<0.1	-	-	6.1	6.2	8.3	8.6	6.6	9.9	6.1	9.7	6.2	6.2
Sulphate (SO4)	mg/L	-	-	<15	<15	<15.0	<15.0	0.85	<1.0	0.59	1.36	< 0.50	0.60	<0.50	<0.50
Total Organic Carbon (TOC)	mg/L	-	-	-	-	-	-	324	334	293	293	249	259	249	249
Metals (dissolved)															
Aluminium (Al)	mg/L	-	-	0.0005	0.008	0.005	0.008	0.004	0.007	0.004	0.007	0.005	0.006	0.007	0.014
Antimony (Sb)	mg/L	0.003	0.004	0.001	0.002	0.001	0.002	0.001	0.001	<0.0010	<0.0010	0.0005	0.001	0.0003	0.0004
Arsenic (As)	mg/L	0.0031	0.0035	<0.0020	<0.0020	0.002	<0.00311	0.0026	<0.0032	0.00000	0.0016	0.0010	<0.00166	0.0006	0.0006
Barium (Ba)	mg/L	0.134	0.148	0.533	0.561	0.187	0.191	0.094	0.096	0.109	0.111	0.098	0.099	0.063	0.065
Beryllium (Be)	mg/L	<0.0005	<0.0005	<0.00050	<0.00050	<0.000100	<0.000100	<0.000050	<0.000050	<0.00020	<0.00020	< 0.00002	< 0.00002	<0.000020	<0.000020
Boron (B)	mg/L	0.6	0.6	0.8	1.0	0.5	0.6	0.5	0.5	0.4	0.5	0.4	0.5	0.4	0.4
Cadmium (Cd)	mg/L	<0.00002	<0.00002	<0.000050	<0.000050	<0.0000250	<0.0000250	<0.000025	<0.000025	<0.000020	<0.000020	< 0.000010	< 0.000010	<0.00001	<0.00001
Calcium (Ca)	mg/L	1032	1143	1563	2125	846	1101	304	501	290	475	273	411	127	277
Chromium (Cr)	mg/L	0.005	0.006	<0.00050	<0.00050	<0.00250	<0.00250	<0.00050	<0.00050	<0.0020	<0.0020	< 0.0002	< 0.0002	<0.00020	<0.00020
Cobalt (Co)	mg/L	0.002	0.002	<0.000050	<0.000050	<0.00050	<0.00050	<0.000097	<0.000102	<0.00040	<0.00040	<0.000026	<0.000028	<0.000010	<0.000019
Copper (Cu)	mg/L	0.0020	0.0023	<0.00050	<0.00050	<0.00100	<0.00100	<0.00025	<0.00025	<0.00040	<0.00040	< 0.00010	< 0.00010	<0.00010	<000017
Iron (Fe)	mg/L	0.1	0.2	0.1	0.1	<0.050	<0.050	0.014	0.026	0.001	0.015	0.006	0.018	0.004	<0.01
Lead (Pb)	mg/L	0.0027	0.003	<0.00030	<0.00030	<0.000250	<0.000250	<0.000025	<0.000025	<0.00040	<0.00040	0.000025	0.000077	<0.00001	0.000240
Lithium (Li)	mg/L	0.6	0.7	1.1	1.6	0.4	0.7	<0.124	<0.133	0.1	<0.113	0.1	<0.077	0.009	<0.0037
Magnesium (Mg)	mg/L	12	14	62	66	8	9	5	5	6	6	7	7	7	7
Manganese (Mn)	mg/L	0.02	0.02	0.09	0.10	0.03	0.03	<0.0147	<0.015	0.02	0.02	0.02	0.02	0.02	0.02
Dissolved Mercury (Hg)	mg/L	0.0031	0.0034	<0.000010	<0.000010	<0.0000050	<0.0000050	<0.00001	<0.00001	<0.00001	<0.00001	< 0.00001	< 0.00001	<0.00001	<0.00001
Molybdenum (Mo)	mg/L	0.01	0.01	0.01	0.01	0.00	0.01	<0.00086	<0.00089	<0.0020	<0.0020	0.000705	0.000736	0.000655	0.000675
Nickel (Ni)	mg/L	0.05	0.05	<0.00050	<0.00050	<0.00250	<0.00250	<0.00135	<0.00136	<0.0020	<0.0020	0.001	<0.00187	<0.00041	<0.00025
Phosphorus (P)	mg/L	0.0027	0.0030	<0.00030	<0.00030	<0.250	<0.250	<0.01	<0.01	-	-	< 0.0010	0.0026	<0.0010	<0.0010
Potassium (K)	mg/L	38	42	67	67	22	35	3	10	1	8	0.7	6.3	3.8	<5.2
Selenium (Se)	mg/L	0.12	0.13	<0.0020	<0.0020	<0.000250	0	<0.00020	<0.00020	<0.00027	<0.00032	< 0.00008	< 0.00008	<0.000080	<0.000080
Silicon (Si)	mg/L	4.2	4.6	2.5	2.6	3.0	3.1	3.5	3.7	2.8	2.9	3.1	3.2	2.8	2.9
Silver (Ag)	mg/L	<0.0001	<0.0001	<0.00010	<0.00010	<0.000050	<0.000050	<0.000025	<0.000025	<0.000040	<0.000040	< 0.00001	< 0.00001	<0.000010	<0.000010
Sodium (Na)	mg/L	267	296	341	365	279	290	263	277	266	272	256	261	222	226
Strontium (Sr)	mg/L	18.9	20.9	27.7	36.5	13.0	18.8	4.7	7.6	4.6	7.3	3.9	6.0	1.8	4.1
Tellurium (Te)	mg/L	<0.0005	<0.0005	<0.00050	<0.00050	0.002	0.002	<0.00010	<0.00010	<0.0020	<0.0020	< 0.00004	< 0.00004	<0.000040	<0.000040
Thallium (Tl)	mg/L	<0.0008	<0.0008	<0.000050	<0.000050	<0.000050	<0.000050	<0.000010	<0.000010	<0.000020	<0.000020	< 0.000004	< 0.000004	<0.0000040	<0.0000040
Tin (Sn)	mg/L	0.0011	0.0012	<0.0010	<0.0010	<0.00050	<0.00050	<0.0010	<0.0010	<0.010	<0.010	< 0.0004	< 0.0004	<0.00040	<0.00040
Titanium (Ti)	mg/L	0.3	0.4	<0.0050	<0.0050	<0.00150	<0.00150	<0.0025	<0.0025	<0.010	<0.010	< 0.001	< 0.001	<0.001	<0.001
Uranium (U)	mg/L	<0.001	<0.001	0.05	0.05	0.000	0.000	<0.000010	<0.000010	<0.00020	<0.00020	< 0.000004	< 0.000004	<0.000040	<0.000043
Vanadium (V)	mg/L	<0.0005	<0.0005	<0.000050	<0.000050	<0.00250	<0.00250	<0.0010	<0.0010	<0.010	<0.010	< 0.0004	< 0.0004	<0.00040	<0.00040
Zinc (Zn)	mg/L	0.63	0.70	<0.00050	<0.00050	0.010	0.014	0.018	0.018	<0.010	0.026	0.008	0.033	0.002	0.049
Radioactive Ions															
Radium (Ra226)	Bq/L	0.13	0.13	-	-	0.31	0.38	0.19	0.21	0.19	0.22	0.19	0.20	0.12	0.12
Hydrocarbons															
Hydrocarbons (C10-C50)	mg/L	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide															
Total Cyanide - BV Lab	mg/l	-	-	-	-	-	-	<0.00050	<0.00050	0.00111	0.00191	<0.0005	<0.0005	<0.00050	<0.00050
Total Cyanide - SGS Lab	mg/l	-	-	-	-	-	-	-	-	-	-	<0.01	<0.01	<0.0020	<0.0020
Cyanide (free) - BV Lab	mg/l	-	-	-	-	-	-	<0.0013	<0.0013	<0.0020	<0.0020	<0.0020	0.0023	<0.0020	<0.0020
Cyanide (free) - SGS Lab	mg/l	-	-	-	-	-	-	-	-	-	-	<0.0050	<0.0050	<0.0020	<0.0020
Cyanide (WAD) - BV Lab	mg/l	-	-	-	-	-	-	<0.001	<0.001	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cyanide (WAD) - SGS Lab	mg/l	-	-	-	-	-	-	-	-	-	-	<0.01	<0.01	<0.0040	<0.0040

Sample		Port 3															
Date		14-Sep-2016		12-Nov-2018		29-Mar-2019		13-Oct-2020		8/9-Nov-2021		13-Sep-2022		15-Sep-2023		17-Sep-2024	
Drilling Fluid Proportion		0.08	0.18	0.20		0.11		0.09		0.07	0.06	0.03		0.01		0.005	
Formation Water Proportion		0.92	0.82	0.80		0.89		0.91		0.93	0.94	0.97		0.99		0.99	
Sampling interval depth (metres along borehole) / Sampling interval vertical depth (metres)		381.3 m - 392.7 m															
Estimated concentration range (calculated)		mininum	maximum	minimum	maximum	minimum	maximum	minimum	maximum	minimum	maximum	minimum	maximum	minimum	maximum	minimum	maximum
Conventional parameters																	
Alkalinity	mg $CaCO_3$/L	52	58	51	52	54	54	56	58	52	55	40	40	22	22	21	22
Alkalinity, bicarbonate (as CaCO3)	mg/L	52	58	60	61	58	59	59	61	55	57	41	41	22	22	21	22
Alkalinity, carbonate (as CaCO3)	mg/L	-	-	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chemical oxygen demand [COD]	mg/L	-	-	-	-	-	-	1100	1120	-	-	-	-	-	-	-	-
Conductivity (lab)	uS/cm	5220	5866	<7350	<7530	<4660	<4730	1275	1527	3419	3590	2783	2835	3527	3638	3532	3539
Hardness (as CaCO3)	mg $CaCO_3$/L	1680	1891	<2600	<2740	<1300	<1320	<1890	<1950	382	484	152	225	812	833	903	923
pH	S.U.	7.96	7.91	7.31	7.41	6.73	6.84	6.77	6.79	6.58	6.61	6.67	6.69	6.64	6.83	6.82	6.96
Salinity	ppt	-	-	-	-	-	-	-	-	3.9	4	-	-	-	-	-	-
Total dissolved Solids (TDS)	mg/L	3483	3918	<4980	<5100	<2980	<2990	<3770	<4040	1417*	1741	1079	1170	1887	1896	2262	2272
Total Suspended Solids (TSS)	mg/L	-	-	7.5	7.9	<3.0	<3.0	<3.0	<3.0	2.1	3.2	2.0	2.0	2.0	3.0	4.0	4.0
Turbidity	mg/L	-	-	-	-	-	-	0.96	0.99	0.5	0.5	0.7	1.2	0.5	0.5	0.4	0.6
Anions and Nutrients																	
Ammonia, total (as N)	mg/L	-	-	0.169	0.173	0.103	0.106	0.0854	0.086	0.08	0.082	<0.050	<0.050	0.05	0.05	0.042	0.093
Bromide (Br)	mg/L	22	25	<32.5	<32.7	<17	<18.2	<17.7	<17.8	4	5	3	4	10	11	11	12
Chloride (Cl)	mg/L	1714	1929	<2700	<2700	<1580	<1580	<1900	<1910	700	968	465	490	1092	1098	1078	1178
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-	234	255	393	393	292	303	332	332
Fluoride (F)	mg/L	1.1	1.2	<1.0	<1.0	<0.80	<0.80	<1.00	<1.00	1.0	1.1	1.1	1.1	0.9	0.9	0.9	0.9
Kjeldahl nitrogen, total [TKN]	mg/L	-	-	-	-	-	-	0.294	0.295	0.660	0.750	0.320	0.360	0.290	0.390	0.260	0.310
Nitrates (NO3)	mg/L	0.016	0.018	<0.25	<0.25	<0.10	<0.10	<0.250	<0.250	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrites (NO2)	mg/L	0.038	0.043	<0.050	<0.050	<0.020	<0.020	<0.0500	<0.0500	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
phosphate, ortho-, dissolved (as P)	mg/L	-	-	-	-	-	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.010	<0.010	<0.0010	0.0012	<0.0010	<0.0010
phosphorus, total	mg/L	0.049	0.055	0.01	0.01	0.003	0.005	0.0064	0.0067	0.005	0.011	0.002	0.003	0.0012	0.0013	<0.0010	<0.0010
Reactive Silica	mg/L	-	-	-	-	7.5	7.6	6.31	6.33	8.8	10.1	8.9	9.5	7.7	8.2	7.1	7.4
Sulphate (SO4)	mg/L	-	-	<15	<15	<6.0	<6.0	<15.0	<15.0	1.0	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Total Organic Carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	397	408	383	393	282	282	332	342
Metals (dissolved)																	
Aluminium (Al)	mg/L	-	-	<0.0115	<0.0126	<0.0067	<0.0069	<0.0084	<0.0092	0.0036	<0.0083	<0.015	<0.015	0.0089	0.0120	0.0107	0.0108
Antimony (Sb)	mg/L	0.0026	0.0029	0.001	0.001	0.00001	0.0002	0.0001	0.0002	0.0005	0.0006	<0.0025	<0.0025	0.00029	0.00029	0.00027	0.00028
Arsenic (As)	mg/L	<0.0005	<0.0005	<0.0034	<0.0034	<0.002	<0.002	<0.00174	<0.00177	<0.00195	<0.00259	<0.00113	<0.00121	<0.00109	<0.00116	<0.0009	<0.0009
Barium (Ba)	mg/L	0.057	0.065	0.098	0.104	0.064	0.065	0.075	0.075	0.078	0.084	0.049	0.054	0.048	0.049	0.045	0.046
Beryllium (Be)	mg/L	<0.0005	<0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.000200	<0.000200	<0.000050	<0.000050	<0.00050	<0.00050	<0.000050	<0.000050	<0.00002	<0.00002
Boron (B)	mg/L	0.5	0.6	0.3	0.3	0.3	0.4	0.460	0.508	0.672	0.724	0.688	0.744	0.614	0.656	0.703	0.706
Cadmium (Cd)	mg/L	<0.00002	<0.00002	<0.000050	<0.000050	<0.000010	<0.000010	<0.0000100	<0.0000100	<0.000025	<0.000025	<0.000050	<0.000050	<0.000025	<0.000025	<0.00001	<0.00001
Calcium (Ca)	mg/L	671	756	<1040	<1090	<521	<528	<755	<779	151	194	47	121	320	329	358	363
Chromium (Cr)	mg/L	0.005	0.005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00020	0.00026	<0.00050	<0.00050	<0.0050	<0.0050	<0.00050	<0.00050	<0.0002	0.00021
Cobalt (Co)	mg/L	0.001	0.001	<0.000050	<0.000050	<0.000050	<0.000050	<0.00020	<0.00020	<0.000188	<0.000255	<0.0010	<0.0010	<0.000025	<0.000025	<0.00001	<0.00001
Copper (Cu)	mg/L	0.0046	0.0052	<0.00050	<0.00050	<0.00020	<0.00020	<0.00040	<0.00040	<0.00025	<0.00025	<0.0010	<0.0010	<0.00025	<0.00025	<0.0001	<0.0001
Iron (Fe)	mg/L	0.1	0.1	<0.018	<0.019	<0.010	<0.010	<0.020	<0.020	<0.0071	<0.0217	<0.025	<0.025	<0.0005	0.015	0.002	0.003
Lead (Pb)	mg/L	<0.0003	<0.0003	<0.00030	<0.00030	<0.000050	<0.000050	<0.000100	<0.000100	<0.000025	<0.000025	<0.0010	<0.0010	<0.00025	0.000097	<0.000017	0.000031
Lithium (Li)	mg/L	0.3	0.3	<0.749	<0.779	<0.156	<0.163	<0.334	<0.35	<0.43	<0.449	<0.153	<0.166	0.043	0.047	0.083	0.084
Magnesium (Mg)	mg/L	1	1	1	1	<1.0	<1.0	1	1	1	1	1	1	3.5	3.7	3.0	3.1
Manganese (Mn)	mg/L	0.01	0.01	0.02	0.02	0.005	0.01	0.008	0.010	0.012	0.014	<0.0050	<0.0050	0.005	0.005	0.006	0.006
Dissolved Mercury (Hg)	mg/L	0.00217	0.00244	<0.000010	<0.000010	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Molybdenum (Mo)	mg/L	0.02	0.02	0.02	0.02	0.005	0.005	0.002	0.002	0.003	0.004	<0.0050	<0.0050	0.001	0.001	0.001	0.001
Nickel (Ni)	mg/L	0.04	0.05	<0.00050	<0.00050	<0.00050	<0.00050	<0.00100	<0.00100	<0.00073	<0.00124	<0.0050	<0.0050	<0.00053	<0.00064	<0.00021	<0.00023
Phosphorus (P)	mg/L	<0.0003	<0.0003	<0.00030	<0.00030	<0.000050	<0.000050	<0.100	<0.100	<0.01	0.018	-	-	0.0012	0.0013	<0.0010	<0.0010
Potassium (K)	mg/L	16	18	<38	<40	<11.5	<11.8	<15.8	<17	<22.1	<23	<8.8	<9.9	4.1	4.2	5.8	6.0
Selenium (Se)	mg/L	0.08	0.09	<0.0020	<0.0020	<0.00074	<0.00081	<0.000275	<0.000364	<0.00020	<0.00020	<0.00137	<0.00266	<0.00020	<0.00020	<0.00008	<0.00008
Silicon (Si)	mg/L	4.3	4.8	3.5	3.5	3.5	3.6	3.2	3.3	3.0	3.3	3.2	3.3	2.66	2.71	2.99	3.03
Silver (Ag)	mg/L	<0.0001	<0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000020	<0.000025	0.0000000	<0.00010	<0.00010	<0.000025	<0.000025	<0.00001	<0.00001
Sodium (Na)	mg/L	306	344	285	313	323	332	293	316	309	310	264	293	258	263	247	249
Strontium (Sr)	mg/L	12.7	14.2	<16.9	<17.2	<8.7	<8.8	<12.8	<13.2	1.7	3.0	0.5	1.6	5.0	5.2	5.5	5.6
Tellurium (Te)	mg/L	<0.0005	<0.0005	<0.00050	<0.00050	<0.00050	<0.00050	0.001	0.001	0.00011	0.00014	<0.0050	<0.0050	<0.00010	<0.00010	<0.000040	<0.000040
Thallium (Tl)	mg/L	<0.0008	<0.0008	<0.000050	<0.000050	<0.000050	<0.000050	<0.000020	<0.000020	<0.000010	<0.000010	<0.000050	<0.000050	<0.000010	<0.000010	<0.0000040	<0.0000040
Tin (Sn)	mg/L	<0.001	<0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.00020	<0.00020	<0.0010	<0.0010	<0.025	<0.025	<0.00010	<0.00010	<0.00040	<0.00040
Titanium (Ti)	mg/L	0.2	0.3	<0.0050	<0.0050	<0.0050	<0.0050	<0.00150	<0.00150	<0.0025	<0.0025	<0.025	<0.025	<0.0025	<0.0025	<0.001	<0.001
Uranium (U)	mg/L	0.06	0.07	0.09	0.09	<0.000050	<0.000050	<0.000020	0.000024	0.000	0.000023	<0.00050	<0.00050	0.000019	0.000027	<0.000004	0.000012
Vanadium (V)	mg/L	<0.001	<0.001	0.00020	0.00020	<0.00050	<0.00050	<0.00100	<0.00100	<0.0010	<0.0010	<0.025	<0.025	<0.0010	<0.0010	<0.00040	<0.00040
Zinc (Zn)	mg/L	<0.0005	<0.0005	<0.00050	<0.00050	0.004	0.005	<0.0020	<0.0020	0.002	0.058	<0.025	<0.025	0.001	0.103	0.004	0.034
Radioactive Ions																	
Radium (Ra226)	Bq/L	0.15	0.16	-	-	0.21	0.22	0.30	0.36	0.32	0.40	0.20	0.22	0.17	0.18	0.13	0.13
Hydrocarbons																	
Hydrocarbons (C10-C50)	mg/L	0.27	0.31	-	-	<0.52	<0.52	-	-	-	-	-	-	-	-	-	-
Cyanide																	
Total Cyanide - BV Lab	mg/l	-	-	-	-	-	-	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Total Cyanide - SGS Lab	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<0.01	<0.0020	<0.0020
Cyanide (free) - BV Lab	mg/l	-	-	-	-	-	-	-	-	<0.0022	<0.0022	<0.0020	<0.0020	<0.0020	0.0021	<0.0020	<0.0020
Cyanide (free) - SGS Lab	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	<0.005	<0.0020	<0.0020
Cyanide (WAD) - BV Lab	mg/l	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.00050	<0.00050	<0.00050	<0.00050	0.0005	<0.00050
Cyanide (WAD) - SGS Lab	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<0.01	<0.0040	<0.0040

Notes:
Underline denotes estimated formation water quality (Golder 2016a)
- denotes parameter was not analyzed
* denotes calculated TDS using calculated Formation water dissolved constituents (mg/L). Corrected laboratory measured TDS result biased low. Calculated reported result below detection limit assumed to be neglible (zero) in the calculated TDS value.
Less than laboratory result is report for calculated formation water that yields negative values.
2019 Port 4 corrected sample was not representative of Formation groundwater quality due to elevated electrical conductivity and fluorescein content in sample (120 ppb, 23% drill fluid remaining)
2021 Port 6 water samples contain mixture of Formation water and Westbay well casing fluid. Higher degree of uncertainty in calculated Formation water due to presence of casing water and higher fluorecein content in sample (95 ppb, 19% drill fluid remaining)

Table D-3
Westbay System AMQ16-626 Raw Groundwater Sample Whale Tail Lake Talik
Agnico Eagle Mines Limited, Whale Tail Mine, Nunavut

Location		AMQ16-626 PORT 3		AMQ16-626 PORT 4	
Date		17-Sep-24	17-Sep-24	22-Sep-2024	22-Sep-2024
WSP Sample ID		PORT-3A	PORT-3B	PORT-4A	PORT-4B
Sampling interval vertical depth (metres)		381.3 - 392.7		349.3 - 359.1	
Average Field measured parameters	**Units**				
Fluorescein Concentration	ppb	2.53		19.32	
Drilling Fluid Proportion	-	0.004		0.04	
Formation Water Proportion	-	0.996		0.96	
Electrical Conductivty	uS/cm	2.87		2.47	
Specific Conductance	uS/cm	3.70		3.22	
Total Dissolved Solids (TDS)	mg/L	2,409		2,094	
pH	S.U.	7.4		7.2	
Salinity	ppt	1.96		1.70	
Conventional Parameters					
Alkalinity	mg $CaCO_3$/L	21	22	6.5	6.4
Alkalinity, bicarbonate (as CaCO3)	mg $CaCO_3$/L	21	22	6.5	6.4
Alkalinity, carbonate (as CaCO3)	mg CaCO3/L	<1.0	<1.0	<1.0	<1.0
Electrical Conductivty	uS/cm	3.78	3.78	3.17	3.17
Hardness, Calcium Carbonate	mg/L	1070	1060	803	793
pH	-	6.84	6.98	6.58	6.59
Sodium Adsorption Ratio	-	-	-	-	-
Total dissolved solids (lab)	mg/L	2460	2450	2640	2630
Total Suspended Solids (TSS)	mg/L	4	4	1	2
Turbidity	NTU	0.4	0.6	1	0.8
Anions and Nutrients					
Ammonia, total (as N)	mg/L	0.042	0.093	0.044	0.042
Bromide (Br)	mg/L	13	14	11	11
Chloride (Cl)	mg/L	1300	1200	1000	1000
Dissolved Organic Carbon	mg/L	330	330	220	220
Fluoride (F)	mg/L	0.92	0.93	0.42	0.45
Kjeldahl nitrogen, total [TKN]	mg/L	0.26	0.31	0.15	0.2
Nitrate + nitrite (as N)	mg/L	<0.10	<0.10		
Nitrates (NO3)	mg/L	<0.10	<0.10	<0.10	<0.10
Nitrites (NO2)	mg/L	<0.010	<0.010	<0.010	<0.010
Phosphate, ortho-, dissolved (as P)	mg/L	<0.0010	<0.0010	<0.10	<0.10
Phosphorus, total	mg/L	<0.0010	<0.0010	<0.0010	<0.0010
Silicate (as SiO2)	mg/L	7.1	7.4	6.2	6.2
Sulphate (SO4)	mg/L	<0.50	<0.50	<0.50	<0.50
Total Organic Carbon	mg/L	330	340	240	240
Metals (dissolved)					
Aluminium (Al)	mg/L	0.0114	0.0115	0.0157	0.0087
Antimony (Sb)	mg/L	0.000324	0.000336	0.000503	0.00044
Arsenic (As)	mg/L	0.000947	0.000871	0.00124	0.00118
Barium (Ba)	mg/L	0.0459	0.0449	0.0627	0.0607
Beryllium (Be)	mg/L	<0.00002	<0.00002	<0.000020	<0.000020
Boron (B)	mg/L	0.72	0.722	0.413	0.42
Cadmium (Cd)	mg/L	<0.00001	<0.00001	<0.00001	<0.00001
Calcium (Ca)	mg/L	426	421	300	301
Chromium (Cr)	mg/L	<0.0002	0.00021	<0.00020	<0.00020
Cobalt (Co)	mg/L	<0.00001	<0.00001	0.000019	<0.000010
Copper (Cu)	mg/L	<0.0001	<0.0001	0.00018	<0.00010
Iron (Fe)	mg/L	0.0061	0.0065	0.0105	0.0064
Lead (Pb)	mg/L	0.000031	0.000017	0.000023	<0.00001
Lithium (Li)	mg/L	0.136	0.135	0.0353	0.0374
Magnesium (Mg)	mg/L	3.06	3.03	6.6	6.39
Manganese (Mn)	mg/L	0.00566	0.00565	0.0173	0.0163
Dissolved Mercury (Hg)	mg/L	<0.00001	<0.00001	<0.00001	<0.00001
Molybdenum (Mo)	mg/L	0.00099	0.00092	0.00065	0.00063
Nickel (Ni)	mg/L	0.000205	0.000234	0.000409	0.000245
Potassium (K)	mg/L	8.42	8.5	5.16	5.05
Selenium (Se)	mg/L	<0.00008	<0.00008	<0.000080	<0.000080
Silicon (Si)	mg/L	3.02	2.98	2.71	2.76
Silver (Ag)	mg/L	<0.00001	<0.00001	<0.000010	<0.000010
Sodium (Na)	mg/L	249	247	221	217
Strontium (Sr)	mg/L	6.55	6.47	4.63	4.5
Tellurium (Te)	mg/L	<0.000040	<0.000040	<0.000040	<0.000040
Thallium (Tl)	mg/L	<0.0000040	<0.0000040	<0.0000040	<0.0000040
Tin (Sn)	mg/L	<0.00040	<0.00040	<0.00040	<0.00040
Titanium (Ti)	mg/L	<0.001	<0.001	<0.001	<0.001
Uranium (U)	mg/L	<0.000004	0.000012	0.0000041	<0.0000040
Vanadium (V)	mg/L	<0.00040	<0.00040	<0.00040	<0.00040
Zinc (Zn)	mg/L	0.00413	0.0343	0.0473	0.00151
Metals (total)					
Aluminum	mg/l	0.0121	0.0103	0.0166	0.0217
Antimony	mg/l	0.000286	0.000289	0.000492	0.000489
Arsenic	mg/l	0.000888	0.000903	0.00154	0.00149
Barium	mg/l	0.0457	0.0455	0.0615	0.0616
Beryllium	mg/l	<0.000020	<0.000020	0.000013	<0.000020
Boron	mg/l	0.654	0.684	0.431	0.444
Cadmium	mg/l	<0.000010	<0.000010	0.0000136	<0.000010
Calcium	mg/l	423	419	311	307
Chromium	mg/l	0.00031	0.00033	0.0004	0.00041
Cobalt	mg/l	0.000014	0.000017	0.0000333	0.000028
Copper	mg/l	<0.00010	<0.00010	0.000204	0.00016
Iron	mg/l	0.0205	0.0248	0.0528	0.0516
Lead	mg/l	0.000023	0.000026	0.000153	0.000079
Lithium	mg/l	0.123	0.123	0.0366	0.037
Magnesium	mg/l	3.06	3.04	6.43	6.34
Manganese	mg/l	0.00554	0.0054	0.0178	0.0175
Mercury	mg/l	<0.00001	<0.00001	<0.00001	<0.00001
Molybdenum	mg/l	0.0009	0.00097	0.000679	0.00065
Nickel	mg/l	0.00036	0.000679	0.000439	0.000482
Potassium	mg/l	8.7	8.73	5.34	5.31
Selenium	mg/l	0.000117	0.000182	0.000041	<0.000080
Silicon	mg/l	2.9	2.87	2.81	2.74
Silver	mg/l	<0.000010	<0.000010	<0.0000050	<0.000010
Sodium	mg/l	251	249	227	227
Strontium	mg/l	6.28	6.49	4.82	4.8
Tellurium	mg/l	0.00009	<0.00004	<0.000020	<0.000040
Thallium	mg/l	0.000017	0.000014	0.000003	<0.0000040

Table D-3
Westbay System AMQ16-626 Raw Groundwater Sample Whale Tail Lake Talik
Agnico Eagle Mines Limited, Whale Tail Mine, Nunavut

Location		AMQ16-626 PORT 3		AMQ16-626 PORT 4	
Date		17-Sep-24	17-Sep-24	22-Sep-2024	22-Sep-2024
WSP Sample ID		PORT-3A	PORT-3B	PORT-4A	PORT-4B
Sampling interval vertical depth (metres)		381.3 - 392.7		349.3 - 359.1	
Tin	mg/l	<0.00040	<0.00040	<0.00020	<0.00040
Titanium	mg/l	<0.001	<0.001	<0.00050	<0.001
Uranium	mg/l	<0.0000040	<0.0000040	0.0000231	0.0000171
Vanadium	mg/l	<0.00040	<0.00040	<0.00020	<0.00040
Zinc	mg/l	0.196	0.197	0.258	0.263
Radioactive Ions					
Radium (Ra 226)	Bq/L	0.13	0.13	0.12	0.12
Cyanide					
Total Cyanide - BV Lab	mg/l	<0.00050	<0.00050	<0.00050	<0.00050
Total Cyanide - SGS Lab	mg/l	<0.0020	<0.0020	<0.0020	<0.0020
Cyanide (free) - BV Lab	mg/l	<0.0020	<0.0020	<0.0020	<0.0020
Cyanide (free) - SGS Lab	mg/l	<0.0020	<0.0020	<0.0020	<0.0020
Cyanide (WAD) - BV Lab	mg/l	0.0005	<0.00050	<0.00050	<0.00050
Cyanide (WAD) - SGS Lab	mg/l	<0.0040	<0.0040	<0.0040	<0.0040
QA/QC					
Calculated TDS	mg/L	1887	1896	1958	2414
Calculated TDS VS Lab Measured TDS	%	77%	77%	74%	92%

Table D-4
QA/QC of Westbay System AMQ16-626 Raw Groundater Sample Whale Tail Lake Talik
Agnico Eagle Mines Limited, Whale Tail Mine, Nunavut

Bureau Veritas ID			ADON36	ADON37			AEEW02	AEEW03			AEEW04		AEEW05
Sampling Date			2024-09-17	2024-09-17			2024-09-22	2024-9-22			2024-09-22		2024-09-22
Sample ID	UNITS	MDL	Port 3-A	Port 3-B	RPD	MDL	Port 4-A	Port 4-B	RPD	MDL	Port-4-B-FB	MDL	Port-4-A-TB
Calculated Parameters													
Total Ammonia (as NH3)	mg/L	*0.0061*	0.05	0.11	75%	*0.0061*	0.053	0.051	4%	*0.0061*	<0.0061	*0.0061*	<0.0061
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	*1*	21	22	5%	*1*	6.5	6.4	2%	*1*	<1.0	*1*	<1.0
Carb. Alkalinity (calc. as CaCO3)	mg/L	*1*	<1.0	<1.0	--	*1*	<1.0	<1.0	--	*1*	<1.0	*1*	<1.0
Total Hardness (CaCO3)	mg/L	*0.5*	1070	1060	1%	*0.5*	803	793	1%	*0.5*	<0.50	*0.5*	<0.50
Inorganics													
Total Ammonia-N	mg/L	*0.0050*	0.042	0.093	76%	*0.0050*	0.044	0.042	5%	*0.0050*	<0.0050	*0.0050*	<0.0050
Alkalinity (Total as CaCO3)	mg/L	*1*	21	22	5%	*1*	6.5	6.4	2%	*1*	<1.0	*1*	<1.0
Dissolved Bromide (Br-)	mg/L	*0.1*	13	14	7%	*0.1*	11	11	0%	*0.1*	<0.010	*0.1*	<0.010
Conductivity	mS/cm	*N/A*	3.78	3.78	--	*N/A*	3.17	3.17	--	*N/A*	0.0013	*N/A*	0.0013
Dissolved Chloride (Cl-)	mg/L	*13*	1300	1200	8%	*13*	1000	1000	0%	*0.5*	<0.50	*0.5*	<0.50
Dissolved Organic Carbon	mg/L	*0.4*	330	330	0%	*0.4*	220	220	0%	*0.4*	<0.40	*0.4*	<0.40
Dissolved Sulphate (SO4)	mg/L	*0.50*	<0.50	<0.50	--	*0.50*	<0.50	<0.50	--	*0.50*	<0.50	*0.50*	<0.50
Fluoride (F-)	mg/L	*0.10*	0.92	0.93	1%	*0.10*	0.42	0.45	<MDL	*0.10*	<0.10	*0.10*	<0.10
Free Cyanide (CN)	mg/L	*0.002*	<0.002	<0.002	--	*2*	<2.0	<2.0	--	*0.002*	<0.002	*0.002*	<2.0
Free Cyanide (CN) - SGS Lab (1)	mg/L	*0.002*	<0.002	<0.002	--	*0.002*	<0.002	<0.002	--	*0.002*	<0.002	*0.002*	<0.002
Nitrate (N)	mg/L	*0.10*	<0.10	<0.10	--	*0.1*	<0.10	<0.10	--	*0.10*	<0.10	*0.10*	<0.10
Nitrate + Nitrite (N)	mg/L	*0.10*	<0.10	<0.10	--	*0.1*	<0.10	<0.10	--	*0.10*	<0.10	*0.10*	<0.10
Nitrite (N)	mg/L	*0.010*	<0.010	<0.010	--	*0.010*	<0.010	<0.010	--	*0.010*	<0.010	*0.010*	<0.010
Orthophosphate (P)	mg/L	*0.0010*	<0.0010	<0.0010	--	*0.0010*	<0.0010	<0.0010	--	*0.0010*	<0.0010	*0.0010*	<0.0010
pH	pH	*N/A*	6.84	6.98	--	*N/A*	6.58	6.59	--	*N/A*	5.61	*N/A*	5.72
Reactive Silica (SiO2)	mg/L	*0.05*	7.1	7.4	4%	*0.001*	6.2	6.1	2%	*0.001*	<0.0010	*0.001*	<0.0010
Total Cyanide (CN)	mg/L	*0.00050*	<0.00050	<0.00050	--	*0.00050*	<0.00050	<0.00050	--	*0.00050*	<0.00050	*0.00050*	<0.00050
Total Cyanide (CN) - SGS Lab (1)	mg/L	*0.002*	<0.002	<0.002	--	*0.002*	<0.002	<0.002	--	*0.002*	<0.002	*0.002*	<0.002
Total Dissolved Solids	mg/L	*10*	2460	2450	0%	*10*	2640	2630	0%	*10*	<10	*10*	<10
Total Kjeldahl Nitrogen (TKN)	mg/L	*0.10*	0.26	0.31	<MDL	*0.10*	0.15	0.2	<MDL	*0.10*	<0.10	*0.10*	<0.10
Total Organic Carbon (TOC)	mg/L	*0.4*	330	340	3%	*0.4*	240	240	0%	*0.4*	<0.4	*0.4*	<0.4
Total Phosphorus (P)	mg/L	*0.0010*	<0.0010	<0.0010	--	*0.0010*	<0.0010	<0.0010	--	*0.0010*	<0.0010	*0.0010*	<0.0010
Total Suspended Solids	mg/L	*1*	4	4	<MDL	*1*	1	2	<MDL	*1*	<1.0	*1*	<1.0
Turbidity	NTU	*0.1*	0.4	0.6	>MDL	*0.1*	1	0.8	22%	*0.1*	<0.1	*0.1*	<0.1
WAB Cyanide (CN)	mg/L	*0.00050*	0.00050	<0.00050	--	*0.00050*	<0.00050	<0.00050	--	*0.00050*	<0.0005	*0.00050*	<0.00050
WAB Cyanide (CN) - SGS Lab (3)	mg/L	*0.002*	<0.004	<0.004	--	*0.002*	<0.004	<0.004	--	*0.002*	<0.004	*0.002*	<0.004
Dissolved Metals													
Dissolved Aluminum (Al)	mg/L	*0.001*	0.0114	0.0115	1%	*0.001*	0.0157	0.0087	57%	*0.0005*	<0.0005	*0.0005*	<0.0005
Dissolved Antimony (Sb)	mg/L	*0.00004*	0.000324	0.000336	4%	*0.00004*	0.000503	0.00044	13%	*0.00002*	<0.00002	*0.00002*	<0.00002
Dissolved Arsenic (As)	mg/L	*0.00004*	0.000947	0.000871	8%	*0.00004*	0.00124	0.00118	5%	*0.00002*	<0.00002	*0.00002*	<0.00002
Dissolved Barium (Ba)	mg/L	*0.00004*	0.0459	0.0449	2%	*0.00004*	0.0627	0.0607	3%	*0.00002*	0.000072	*0.00002*	0.00004
Dissolved Beryllium (Be)	mg/L	*0.00002*	<0.00002	<0.00002	--	*0.00002*	<0.000020	<0.000020	--	*0.00001*	<0.000010	*0.00001*	<0.000010
Dissolved Bismuth (Bi)	mg/L	*0.00001*	0.00001	<0.00001	--	*0.00001*	<0.000010	<0.000010	--	*0.000005*	<0.000005	*0.000005*	<0.000005
Dissolved Boron (B)	mg/L	*0.02*	0.72	0.722	0%	*0.02*	0.413	0.42	2%	*0.01*	<0.010	*0.01*	<0.010
Dissolved Cadmium (Cd)	mg/L	*0.00001*	<0.00001	<0.00001	--	*0.00001*	<0.00001	<0.00001	--	*0.000005*	<0.000005	*0.000005*	<0.000005
Dissolved Calcium (Ca)	mg/L	*0.1*	426	421	1%	*0.05*	300	301	0%	*0.05*	<0.050	*0.05*	<0.050
Dissolved Chromium (Cr)	mg/L	*0.0002*	<0.0002	0.00021	--	*0.0002*	<0.00020	<0.00020	--	*0.0001*	<0.00010	*0.0001*	<0.00010
Dissolved Cobalt (Co)	mg/L	*0.00001*	<0.00001	<0.00001	--	*0.00001*	0.000019	<0.000010	--	*0.000005*	<0.0050	*0.000005*	<0.0050
Dissolved Copper (Cu)	mg/L	*0.0001*	<0.0001	<0.0001	--	*0.0001*	0.00018	<0.00010	--	*0.00005*	<0.050	*0.00005*	<0.050
Dissolved Iron (Fe)	mg/L	*0.002*	0.0061	0.0065	<MDL	*0.002*	0.0105	0.0064	>MDL	*0.001*	<0.001	*0.001*	<0.001
Dissolved Lead (Pb)	mg/L	*0.00001*	0.000031	0.000017	>MDL	*0.00001*	0.000023	<0.00001	--	*0.000005*	<0.0000050	*0.000005*	<0.0000050
Dissolved Lithium (Li)	mg/L	*0.001*	0.136	0.135	1%	*0.001*	0.0353	0.0374	6%	*0.00050*	<0.00050	*0.00050*	<0.00050
Dissolved Magnesium (Mg)	mg/L	*0.1*	3.06	3.03	1%	*0.0001*	6.6	6.39	3%	*0.000050*	<0.000050	*0.000050*	<0.000050
Dissolved Manganese (Mn)	mg/L	*0.0001*	0.00566	0.00565	0%	*0.0001*	0.0173	0.0163	6%	*0.000050*	<0.000050	*0.000050*	<0.000050
Dissolved Mercury (Hg)	mg/L	*0.00001*	<0.00001	<0.00001	--	*0.00001*	<0.00001	<0.00001	--	*0.00001*	<0.00001	*0.00001*	<0.00001
Dissolved Molybdenum (Mo)	mg/L	*0.0001*	0.00099	0.00092	<MDL	*0.0001*	0.00065	0.00063	3%	*0.00005*	<0.000050	*0.00005*	<0.000050
Dissolved Nickel (Ni)	mg/L	*0.00004*	0.000205	0.000234	13%	*0.00004*	0.000409	0.000245	50%	*0.00002*	<0.000020	*0.00002*	<0.000020
Dissolved Potassium (K)	mg/L	*0.1*	8.42	8.5	1%	*0.1*	5.16	5.05	2%	*0.00005*	<0.000050	*0.00005*	<0.000050
Dissolved Selenium (Se)	mg/L	*0.00008*	<0.00008	<0.00008	--	*0.00008*	<0.000080	<0.000080	--	*0.00004*	<0.000040	*0.00004*	<0.000040
Dissolved Silicon (Si)	mg/L	*0.1*	3.02	2.98	1%	*0.1*	2.71	2.76	2%	*0.05*	<0.05	*0.05*	<0.05
Dissolved Silver (Ag)	mg/L	*0.00001*	<0.00001	<0.00001	--	*0.00001*	<0.000010	<0.000010	--	*0.000005*	<0.0000050	*0.000005*	<0.0000050
Dissolved Sodium (Na)	mg/L	*0.1*	249	247	1%	*0.05*	221	217	2%	*0.00005*	<0.000050	*0.00005*	<0.000050
Dissolved Strontium (Sr)	mg/L	*0.0001*	6.55	6.47	1%	*0.0001*	4.63	4.5	3%	*0.00005*	<0.000050	*0.00005*	<0.000050
Dissolved Sulphur (S)	mg/L	*6*	<6.0	<6.0	--	*6*	<6.0	<6.0	--	*3*	<3.0	*3*	<3.0
Dissolved Tellurium (Te)	mg/L	*0.00004*	<0.000040	<0.000040	--	*0.00004*	<0.000040	<0.000040	--	*0.00002*	<0.000020	*0.00002*	<0.000020
Dissolved Thallium (Tl)	mg/L	*0.000004*	<0.0000040	<0.0000040	--	*0.000004*	<0.0000040	<0.0000040	--	*0.000002*	<0.0000020	*0.000002*	<0.0000020
Dissolved Tin (Sn)	mg/L	*0.0004*	<0.00040	<0.00040	--	*0.0004*	<0.00040	<0.00040	--	*0.0002*	<0.00020	*0.0002*	<0.00020
Dissolved Titanium (Ti)	mg/L	*0.001*	<0.001	<0.001	--	*0.001*	<0.001	<0.001	--	*0.0005*	<0.00050	*0.0005*	<0.00050
Dissolved Uranium (U)	mg/L	*0.000004*	<0.000004	0.000012	--	*0.000004*	0.0000041	<0.0000040	--	*0.000002*	<0.0000020	*0.000002*	<0.0000020
Dissolved Vanadium (V)	mg/L	*0.0004*	<0.00040	<0.00040	--	*0.0004*	<0.00040	<0.00040	--	*0.0002*	<0.00020	*0.0002*	<0.00020
Dissolved Zinc (Zn)	mg/L	*0.0002*	0.00413	0.0343	157%	*0.0002*	0.0473	0.00151	188%	*0.0001*	<0.00010	*0.0001*	0.00014
Total Metals													
Total Aluminum (Al)	mg/L	*0.0005*	0.0121	0.0103	16%	*0.0005*	0.0166	0.0217	27%	*0.001*	0.0023	*0.0005*	0.00114
Total Antimony (Sb)	mg/L	*0.00002*	0.000286	0.000289	<MDL	*0.00002*	0.000492	0.000489	1%	*0.00004*	<0.000040	*0.000020*	<0.000020
Total Arsenic (As)	mg/L	*0.00002*	0.000888	0.000903	2%	*0.00002*	0.00154	0.00149	3%	*0.00004*	<0.000040	*0.000020*	<0.000020
Total Barium (Ba)	mg/L	*0.00002*	0.0457	0.0455	0%	*0.00002*	0.0615	0.0616	0%	*0.00004*	<0.000040	*0.000020*	<0.000020
Total Beryllium (Be)	mg/L	*0.00001*	<0.000020	<0.000020	--	*0.00001*	0.000013	<0.000020	--	*0.00002*	<0.000020	*0.000010*	<0.000010
Total Bismuth (Bi)	mg/L	*0.000005*	<0.000010	<0.000010	--	*0.000005*	<0.0000050	<0.000010	--	*0.00001*	<0.000010	*0.0000050*	<0.0000050
Total Boron (B)	mg/L	*0.01*	0.654	0.684	4%	*0.01*	0.431	0.444	3%	*0.02*	<0.02	*0.01*	<0.01
Total Cadmium (Cd)	mg/L	*0.000005*	<0.000010	<0.000010	--	*0.000005*	0.0000136	<0.000010	--	*0.00001*	<0.000010	*0.0000050*	<0.0000050
Total Calcium (Ca)	mg/L	*0.05*	423	419	1%	*0.05*	311	307	1%	*0.1*	<0.10	*0.050*	<0.050
Total Chromium (Cr)	mg/L	*0.0001*	0.00031	0.00033	6%	*0.0001*	0.0004	0.00041	<MDL	*0.0002*	<0.00020	*0.00010*	0.00014
Total Cobalt (Co)	mg/L	*0.000005*	0.000014	0.000017	<MDL	*0.000005*	0.0000333	0.000028	17%	*0.00001*	<0.000010	*0.0000050*	<0.0000050
Total Copper (Cu)	mg/L	*0.00005*	<0.00010	<0.00010	--	*0.00005*	0.000204	0.00016	<MDL	*0.0001*	<0.00010	*0.000050*	<0.000050
Total Iron (Fe)	mg/L	*0.001*	0.0205	0.0248	19%	*0.001*	0.0528	0.0516	2%	*0.002*	<0.002	*0.001*	<0.001
Total Lead (Pb)	mg/L	*0.000005*	0.000023	0.000026	<MDL	*0.000005*	0.000153	0.000079	64%	*0.00001*	0.000023	*0.00001*	0.0000076
Total Lithium (Li)	mg/L	*0.0005*	0.123	0.123	0%	*0.0005*	0.0366	0.037	1%	*0.001*	<0.001	*0.00050*	<0.00050
Total Magnesium (Mg)	mg/L	*0.05*	3.06	3.04	1%	*0.05*	6.43	6.34	1%	*0.1*	<0.10	*0.050*	<0.050
Total Manganese (Mn)	mg/L	*0.00005*	0.00554	0.0054	3%	*0.00005*	0.0178	0.0175	2%	*0.0001*	<0.00010	*0.000050*	<0.000050
Total Mercury (Hg)	mg/L	*0.00001*	<0.00001	<0.00001	--	*0.00001*	<0.00001	<0.00001	--	*0.00001*	<0.00001	*0.000010*	<0.00001
Total Molybdenum (Mo)	mg/L	*0.00005*	0.0009	0.00097	7%	*0.00005*	0.000679	0.00065	4%	*0.0001*	<0.00010	*0.000050*	<0.000050
Total Nickel (Ni)	mg/L	*0.00002*	0.00036	0.000679	<MDL	*0.00002*	0.000439	0.000482	9%	*0.00004*	<0.000040	*0.000020*	0.000024
Total Potassium (K)	mg/L	*0.05*	8.7	8.73	0%	*0.05*	5.34	5.31	1%	*0.1*	<0.10	*0.050*	<0.050
Total Selenium (Se)	mg/L	*0.00004*	0.000117	0.000182	43%	*0.00004*	0.000041	<0.000080	--	*0.00008*	<0.000080	*0.000040*	<0.000040
Total Silicon (Si)	mg/L	*0.05*	2.9	2.87	1%	*0.05*	2.81	2.74	3%	*0.1*	<0.1	*0.05*	<0.05
Total Silver (Ag)	mg/L	*0.000005*	<0.000010	<0.000010	--	*0.000005*	<0.0000050	<0.000010	--	*0.00001*	<0.000010	*0.0000050*	<0.0000050
Total Sodium (Na)	mg/L	*0.05*	251	249	1%	*0.05*	227	227	0%	*0.1*	<0.10	*0.050*	<0.050
Total Strontium (Sr)	mg/L	*0.00005*	6.28	6.49	3%	*0.00005*	4.82	4.8	0%	*0.0001*	<0.00010	*0.00050*	<0.000050
Total Sulphur (S)	mg/L	*3*	<6.0	<6.0	--	*3*	<3.0	<6.0	--	*6*	<6.0	*6*	<3.0
Total Tellurium (Te)	mg/L	*0.00002*	0.00009	<0.00004	--	*0.00002*	<0.000020	<0.000040	--	*0.00004*	<0.000040	*0.000020*	<0.000020
Total Thallium (Tl)	mg/L	*0.000002*	0.000017	0.000014	<MDL	*0.000002*	0.000003	<0.0000040	--	*0.000004*	<0.0000040	*0.0000020*	<0.0000020

Table D-4
QA/QC of Westbay System AMQ16-626 Raw Groundater Sample Whale Tail Lake Talik
Agnico Eagle Mines Limited, Whale Tail Mine, Nunavut

Bureau Veritas ID			ADON36	ADON37			AEEW02	AEEW03			AEEW04		AEEW05
Sampling Date			2024-09-17	2024-09-17			2024-09-22	2024-09-22			2024-09-22		2024-09-22
Sample ID	UNITS	*MDL*	Port 3-A	Port 3-B	RPD	*MDL*	Port 4-A	Port 4-B	RPD	*MDL*	Port-4-B-FB	*MDL*	Port-4-A-TB
Calculated Parameters													
Total Tin (Sn)	mg/L	*0.0002*	<0.00040	<0.00040	--	*0.0002*	<0.00020	<0.00040	--	*0.0004*	<0.00040	*0.00020*	<0.00020
Total Titanium (Ti)	mg/L	*0.0005*	<0.001	<0.001	--	*0.0005*	<0.00050	<0.001	--	*0.001*	<0.001	*0.00050*	<0.00050
Total Uranium (U)	mg/L	*0.000002*	<0.0000040	<0.0000040	--	*0.000002*	0.0000231	0.0000171	30%	*0.000004*	<0.0000040	*0.0000020*	<0.0000020
Total Vanadium (V)	mg/L	*0.0002*	<0.00040	<0.00040	--	*0.0002*	<0.00020	<0.00040	--	*0.0004*	<0.00040	*0.00020*	<0.00020
Total Zinc (Zn)	mg/L	*0.0001*	0.196	0.197	1%	*0.0001*	0.258	0.263	2%	*0.0002*	0.00054	*0.00010*	0.00057
Radionuclide													
Radium-226	Bq/L	*0.005*	0.13	0.13	--	*0.005*	0.12	0.12	0%	*0.005*	<0.0050	*0.0050*	<0.0050

Notes:
MDL = method detection limit (value in *italics*)
RPD = relative percent difference
N/A = Not applicable
Shaded denotes RPD value exceeds 20% or duplicate outside of MDL tolerance (both samples are between the MDL and 5 times the MDL)
-- denotes not calculated (one or both result below MDL)
(1) In addition to the field and trip blank analyses, an additional sample of Port 3 and Port 4 waters was collected for analysis of free, WAD and total cyanide at SGS laboratory.

ATTACHMENT B

2024 Thermal Monitoring Report (prepared by Agnico Eagle)

WHALE TAIL MINE

Thermal Monitoring Report 2024

In Accordance with
Project Certificate No. 008, T&C 14

Prepared by:
Agnico Eagle Mines Limited – Meadowbank Division

February 2025

TABLE OF CONTENTS

1 INTRODUCTION

Agnico Eagle Mines Limited – Meadowbank Division (Agnico Eagle) is developing the Whale Tail Mine (Piquganiq), a satellite deposit located on the Amaruq Property (geological property), to continue mine operations and milling at Meadowbank Mine.

This document presents the Thermal Monitoring Report including the following mine facilities and natural locations as described in the Thermal Monitoring Plan:

- Whale Tail Waste Rock Storage Facility (WRSF) and IVR WRSF
- Water management facilities including Whale Tail Dike, Mammoth Dike, IVR Dike, WRSF Dike, and the Whale Tail and IVR Attenuation Ponds
- Whale Tail Pit and IVR Pit

The Thermal Monitoring Report provides the instrumentation data and their interpretation. Refer to the Thermal Monitoring Plan for a general description of the different facilities, the anticipated impact of operation of the facilities on the permafrost, and the general guidelines that are used to define instrumentation needs for each facility.

2 AVAILABLE DATA

There are currently 98 active thermistors at the Whale Tail Mine (Piquganiq) site.

The location, installation summary, and status of all the thermistors installed within the Whale Tail Mine (Piquganiq) site are presented in the table in Appendix A. Figure 1 shows locations of active thermistors. Data are collected from the thermistors by data loggers every three hours or by using manual readout units.

Results of active thermistors are presented in Appendix A.

3 THERMAL MONITORING RESULTS

This section presents a summary of the expected thermal effects as well as interpretation of the instrumentation data gathered for the reporting period.

3.1 WASTE ROCK STORAGE FACILITIES

3.1.1 Expected Thermal Effects on Permafrost

Construction of the WRSFs on permafrost is expected to result in aggradation of permafrost into the pile. The permafrost under the piles would remain, but temperatures in the upper permafrost zone are expected to evolve towards a thermal equilibrium established with the active layer and zero-amplitude zone moving upwards within the waste rock pile. Convective cooling is common in waste rock material and is expected to promote freeze-back within the pile.

The waste rock pile itself is expected to freeze back with time and have an active layer formed in the upper portion (O'Kane, 2021). Climate change in the long term is expected to extend the depth of the active layer in the pile, but the thick waste rock pile will constitute a protection to the underlying permafrost. If heat generation occurs from the oxidation of sulphide-bearing minerals within the pile, the freeze-back process would be delayed. Depending on the location of the heat generation source, the upper portion of the permafrost foundation could be impacted.

3.1.2 Thermal Monitoring Results

For the thermistors installed in the foundation of the Whale Tail WRSF, the instrumentation data is showing thermal behaviour along the expected trend (permafrost aggradation).

The instruments installed at mid-elevation in the PAG of the first bench are covered in waste rock and lots of beads have been lost especially in the NPAG. The available data indicate that the active layer did not reach the PAG waste rock.

For the instruments located in the second instrumented cross section installed at 40 m above the ground elevation on top of the second bench, the available data indicates that for most instruments the active layer did not reach the PAG waste rock and year over year is experiencing a cooler trend.

In summer 2024, five new thermistors were installed in two new instrumented cross sections installed at 60 m above the ground elevation on top of the third bench of the Whale Tail WRSF. Data collection has only been ongoing since installation, so it is too early to assess the extent of the active layer. The 2026 Thermal Monitoring Report will re-assess this as two years of data will have been collected, allowing more time for the instruments to stabilize and show trends.

In late 2022 and early 2023, ten new thermistors were installed in the foundation of the IVR WRSF. Two years of data have now been collected. The available data indicates thermal behaviour along the expected trend (permafrost aggradation).

3.2 WATER MANAGEMENT FACILITIES

3.2.1 Expected Thermal Effects on Permafrost

The Whale Tail Dike is constructed within a lake, overlaying an open talik. The construction of the Whale Tail Dike is expected to have a cooling effect on the underlying ground due to exposure to lower temperature than lake water. Minimal effects to the permafrost at the abutment areas are expected.

Following lake dewatering and the beginning of operations, natural ground in the downstream of the Whale Tail Dike is expected to freeze back progressively. Upstream of the dike, the lakebed and underlying talik is expected to remain unfrozen.

After the dike is breached in the final stages of closure, the Whale Tail Lake will be restored, causing frozen zones located downstream of the dike to thaw, progressively restoring the original lake talik.

The other dewatering dike areas are expected to have similar thermal impacts on the permafrost associated with construction, operation, and closure of the dikes.

The WRSF Dike will periodically contain a pond formed from runoff water flowing at the toe of the Whale Tail WRSF facility. Depending on pond conditions (volume, temperature, duration before pumping) there would be possible thawing of a shallow upper permafrost zone underlying the pond. However, due to the small pond size and the low operational level, this issue is unlikely.

The talik zone under the Whale Tail Attenuation Pond would remain. The areas surrounding the pond are expected to freeze back progressively after dewatering but would restore to talik conditions after breaching of the dewatering dikes and flooding of the area.

As for the IVR Attenuation Pond, with the maximum water elevation of the pond above the former lake elevation, some minor localized thawing of the permafrost is expected to occur outside of the original lake footprint.

3.2.2 Thermal Monitoring Results

Mammoth Dike

The instrumentation data are showing thermal behaviour along the expected trend at Mammoth Dike. The active layer is contained in the rockfill shell. The foundation and key trench are in permafrost condition.

WRSF Dike

A degradation of the thermal conditions in the key trench of WRSF Dike was observed in the summer of 2019 leading to seepage. In 2024, the instrument data show that the foundation and key trench remained frozen all year long with signs of permafrost aggradation. This indicates that the mitigation measures implemented in 2020 continue to be successful. The active layer is contained within the rockfill and upstream thermal capping.

Whale Tail Dike

Similar to 2023, in 2024 the thermistors at Whale Tail Dike are showing cyclical trends associated with seasonal lake water temperature. The West abutment at 0+110 is frozen, and the East abutment is frozen at 0+790. The remaining thermistors remain primarily unfrozen below the active layer. On the East abutment the active layer warming trend persists and potentially connects to the seepage flow at depth (> 0°C). New thermistors at both the East and West abutment capping indicate that the overburden and bedrock have remained frozen.

IVR Dike D-1

The thermistors installed in IVR Dike D-1 show that there is a 2m active layer contained within the rockfill portion or in the overburden, while the key trench, filters system, and bedrock remained in permafrost for the entire 2024 period.

3.3 OPEN PIT

3.3.1 Expected Effects on Permafrost

Whale Tail Pit will be excavated through an upper closed talik zone and underlying permafrost. During operations of the pit, the talik zone is expected to freeze back progressively. The permafrost surrounding the pit shell is expected to undergo cooling from air temperature exposure, apart from seasonal thawing of a shallow active zone adjacent to the walls.

Upon closure and subsequent flooding of the Whale Tail Pit, permafrost areas underneath the pit lake are expected to gradually thaw. Thermal assessments have indicated this process would take hundreds of years. The pit lake would eventually reduce the permafrost depth in the pit surrounding ground, but this process could take significantly longer time (in the order of 10,000 years) to complete.

IVR Pit is excavated through permafrost. Mining activities will cause a similar effect than for Whale Tail Pit: seasonal warming against the pit walls during operation and warming after operations due to the closure pit lake.

3.3.2 Thermal Monitoring Results

Thermistors were installed in 2020 in the closed talik zone near the south wall of the Whale Tail Pit. Through the year 2021 until their dismantling in August 2021 it was possible to observe a freeze back of the upper bedrock area.

Three thermistors are currently active in the Whale Tail Pit. The thermistors are showing expected trends of seasonal variation close to surface and close to pit walls, with a thermal response in the south wall driven by the talik conditions. The previous thermistors installed in the IVR area are no longer functioning due to mining activity in the sector but were showing permafrost conditions until the instrument was decommissioned. A deep thermistor has been installed in 2020 in that area (IVR long TH) and shows permafrost conditions down to 500 m below ground surface, to El. 9600 m (mining datum).

4 REFERENCES

1. O’Kane Consultants Inc. (O’Kane), 2021. Whale Tail Project - Thermal Modelling of the Whale Tail and IVR WRSFs. January 8, 2021.

APPENDIX A – WHALE TAIL THERMAL MONITORING DATA

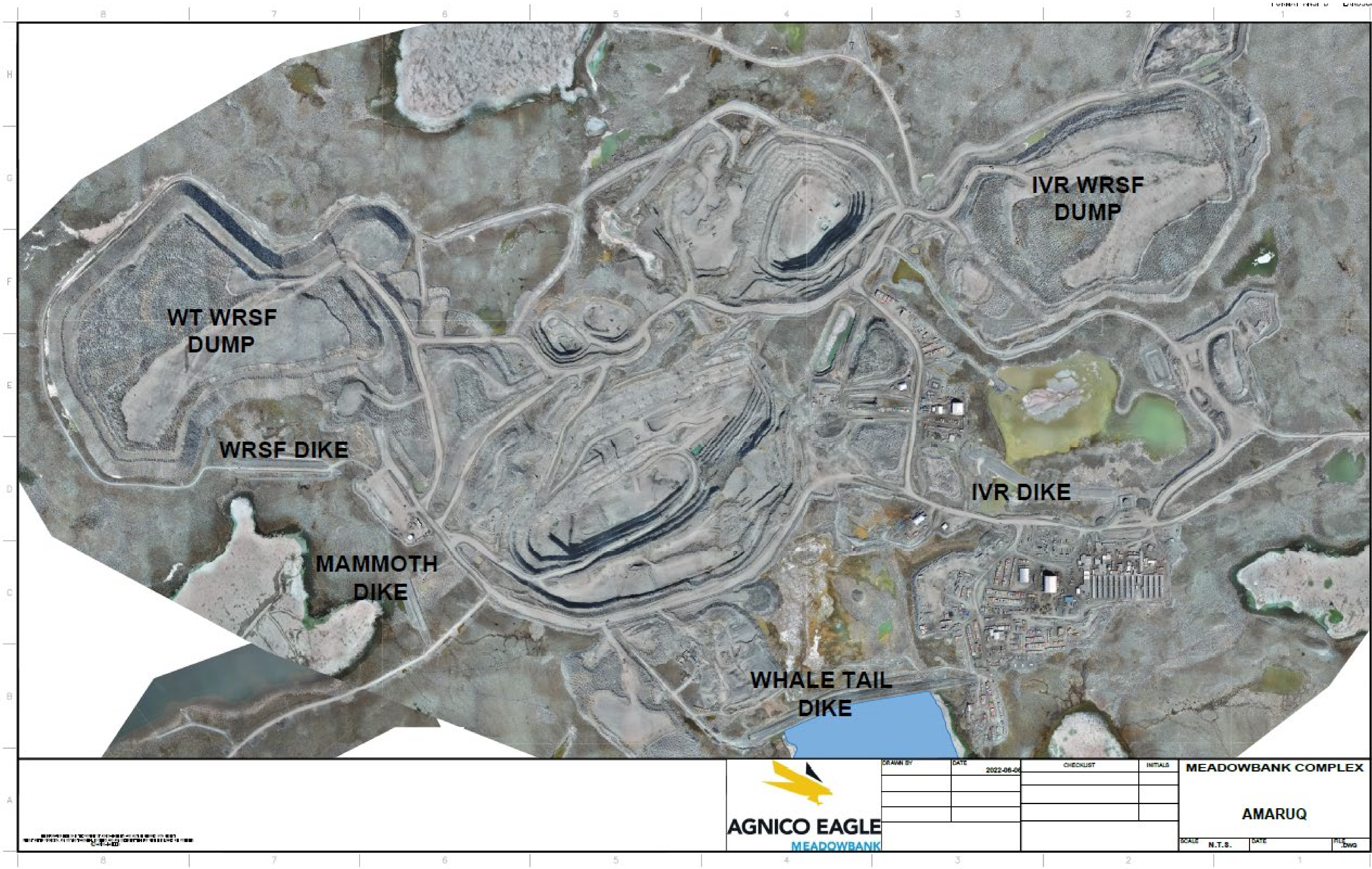

IVR WRSF DUMP
WT WRSF DUMP
WRSF DIKE
IVR DIKE
MAMMOTH DIKE
WHALE TAIL DIKE
AGNICO EAGLE
MEADOWBANK
DRAWN BY
DATE
2022-06-06
CHECKLIST
INITIALS
MEADOWBANK COMPLEX
AMARUQ
SCALE
N.T.S.
DATE
FILE
.DWG

TABLE 1: Instruments Coordinates

Line #	Name	Area	Easting (X)	Northing (Y)	Elevation (Z)	Azimuth	Dip	Installed	Active (Y) or (N)
1	*WTD 0+110*	WTD	**607090.5**	**7254625**	**156.4**	--	-90	2020	Y (13/16) beads)
2	*WTD 0+142*	WTD	**607119.94**	**7254637.98**	**156.75**	--	-90	2018	Y (10/13) beads
3	*WTD 0+190 U/S*	WTD	**607165.34**	**7254653.83**	**157.42**	--	-90	2018	Y (10/13) beads)
4	*WTD 0+210*	WTD	**607182.85**	**7254666.19**	**157**	--	-90	2018	Y
5	*WTD 0+240*	WTD	**607209.4**	**7254676.8**	**158.1**	--	-90	2020	Y
6	*WTD 0+260*	WTD	**607227.51**	**7254686.28**	**157**	--	-90	2018	Y (11/13) beads
7	*WTD 0+276 U/S*	WTD	**607237.2**	**7254677.3**	**157**	--	-90	2018	Y
8	*WTD 0+310*	WTD	**607237.98**	**7254707.09**	**157**	--	-90	2018	Y
9	*WTD 0+336 U/S*	WTD	**607298.44**	**7254713.45**	**157**	--	-90	2018	Y
10	*WTD 0+340 DS West*	WTD	**607246.597**	**7254841.993**	**149.6**	--	-90	2020	Y
11	*WTD 0+360*	WTD	**607318.81**	**7254727.15**	**157**	--	-90	2018	Y (10/13) beads
12	*WTD-0+380*	WTD	**607338**	**7254734.4**	**157.1**	--	-90	2020	Y
13	*WTD 0+407*	WTD	**607363.08**	**7254744.86**	**157**	--	-90	2018	Y (11/13) beads
14	*WTD-0+425*	WTD	**607380.8**	**7254380.8**	**158.5**	--	-90	2020	Y
15	*WTD 0+453*	WTD	**607408.6**	**7254753.72**	**157**	--	-90	2018	Y (12/13) beads
16	*WTD 0+475*	WTD	**607429.5**	**7254758.2**	**161**	--	-90	2020	Y
17	*WTD 0+500*	WTD	**607454.9**	**7254759.9**	**157.1**	--	-90	2020	Y
18	*WTD 0+520*	WTD	**607473.78**	**7254764.22**	**157**	--	-90	2018	Y (12/13) beads
19	*WTD 0+530*	WTD	**607483.77**	**7254766**	**159**	--	-90	2020	Y
20	*WTD 0+550*	WTD	**607505.2**	**7254768**	**157.9**	--	-90	2020	Y
21	*WTD 0+580*	WTD	**607533.163**	**7254773.95**	**158**	--	-90	2020	Y
22	*WTD 0+596*	WTD	**607549.6**	**7254775.2**	**157.8**	--	-90	2020	Y
23	*WTD 0+607*	WTD	**607561.24**	**7254778.35**	**157**	--	-90	2018	Y (9/13) beads
24	*WTD 0+618 DS East*	WTD	**607548.9**	**7254905.6**	**152.1**	--	-90	2020	Y (9/16) beads
25	*WTD 0+635*	WTD	**607587.7**	**7254782.9**	**158.3**	--	-90	2020	Y
26	*WTD 0+645*	WTD	**607597.3**	**7254782.8**	**158.6**	--	-90	2020	Y
27	*WTD 0+665*	WTD	**607617**	**7254788**	**158.3**	--	-90	2020	Y
28	*WTD 0+675*	WTD	**607262.31**	**7254788.86**	**157**	--	-90	2018	Y
29	*WTD 0+685*	WTD	**607636.9**	**7254791.2**	**160.5**	--	-90	2020	Y
30	*WTD 0+695*	WTD	**607646.7**	**7254792.9**	**157.5**	--	-90	2020	Y
31	*WTD 0+707.5*	WTD	**607659**	**7254795.1**	**158**	--	-90	2020	Y
32	*WTD 0+710 U/S*	WTD	**607662.32**	**7254790.63**	**157**	--	-90	2018	Y (15/16) beads
33	*WTD 0+720*	WTD	**607671.5**	**7254797.1**	**160**	--	-90	2020	Y
34	*WTD 0+740*	WTD	**607691**	**7254800**	**160**	--	-90	2020	Y
35	*WTD 0+750*	WTD	**607701.81**	**7254797.04**	**157**	--	-90	2018	Y (15/16) beads
36	*WTD 0+772 U/S*	WTD	**607724.15**	**7254804.63**	**157**	--	-90	2018	Y (3/13) beads
37	*WTD 0+790*	WTD	**607740**	**7254807.3**	**157.2**	--	-90	2020	Y (14/16) beads
38	*WTD US 0+130*	WTD	**607110.799**	**7254629.029**	**159.116**	--	-90	2023	Y
39	*WTD WAC 0+130*	WTD	**607118.539**	**7254611.482**	**159.25**	--	-90	2023	Y
40	*WTD EAC 0+781*	WTD	**607736.64**	**7254776.596**	**158.955**	--	-90	2023	Y

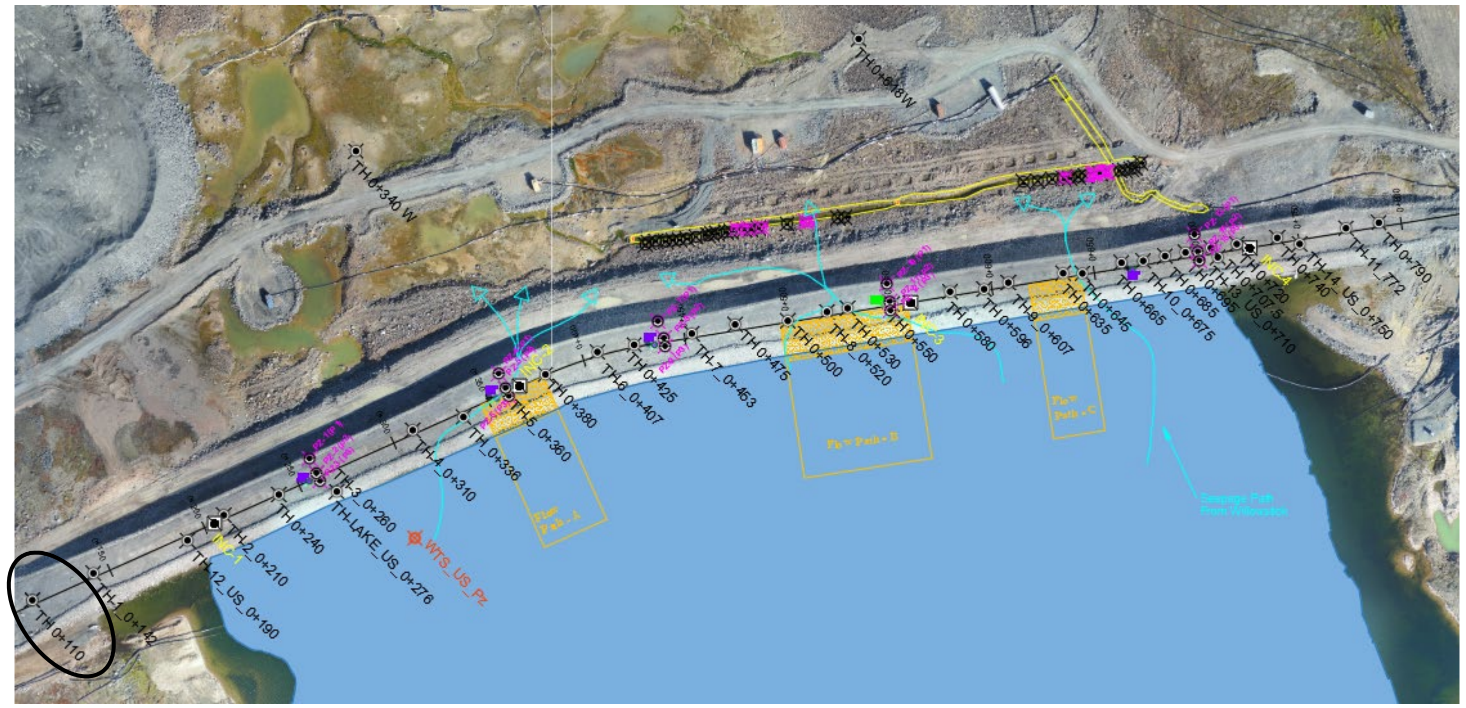
Line #	*Name*	*Area*	*Easting (X)*	*Northing (Y)*	*Elevation (Z)*	*Azimuth*	*Dip*	*Installed*	*Active (Y) or (N)*
41	*WT WRSF TH01*	WT-WRSF-1S	**615797.25**	**7238129.77**	**161.546**	--	-90	2019	Y
42	*WT WRSF TH02*	WT-WRSF-1S	**615861.49**	**7238133.24**	**162.053**	--	-90	2019	N (since 2020)
43	*WT WRSF TH03*	WT-WRSF-1S	**615814.31 to 615799.6**	**7238118.6 to 7238117**	**162.744 to 162.042**	9	0	2019	Y (9/16) beads)
44	*WT WRSF TH04*	WT-WRSF-1S	**615813.38 to 615797.7**	**7238134.1to 7238132.8**	**162.138 to 161.619**	9	0	2019	Y (8/16) beads)
45	*WT WRSF TH05*	WT-WRSF-1S	**615860.9 to 615800.3**	**71238133.3 to 7238126**	**162.202**	9	0	2019	Y (9/16) beads)
46	*WT WRSF TH06*	WT-WRSF-2S	**-**	**-**	**-**	-	-	2021	NOT INSTALLED
47	*WT WRSF TH07*	WT-WRSF-2S	**14041.823/822.075(AMQ)**	**14051.510/8232.486(AMQ)**	**199.6**	1	0	2021	Y
48	*WT WRSF TH08*	WT-WRSF-2S	**14029.392/14039.081(AMQ)**	**8227.543/8238.974(AMQ)**	**199.7**	1	0	2021	Y
49	*WT WRSF TH09*	WT-WRSF-2S	**14035.675/14189.86(AMQ)**	**8224.663/8407.910 (AMQ)**	**200.2**	1	0	2021	Y
50	*WT WRSF TH10*	WT-WRSF-2S	**14259.183 (AMQ)**	**8479.248 (AMQ)**	**199.484-195.386**	1	-37	2021	Y
51	*WT WRSF TH11*	WT-WRSF-1N	**14259.183**	**8479.249**	**198.637-168.637**	--	-90	2021	Y
52	*WT WRSF TH12*	WT-WRSF-1N	**14241.323/14231.698 (AMQ)**	**8481.427/8469.988 (AMQ)**	**200.2**	181	0	2021	Y
53	*WT WRSF TH13*	WT-WRSF-1N	**14521.240/14241.576 (AMQ)**	**8471.614/8460.159 (AMQ)**	**200.1**	181	0	2021	Y
54	*WT WRSF TH14*	WT-WRSF-1N	**14245.84/14101.278**	**8476.032/8304.453**	**200.2**	181	0	2021	Y
55	*WT WRSF TH15*	WT-WRSF-1N	**14254.017/14248.950**	**8481.414/8477.225**	**200.2**	181	-37	2021	Y
56	*WT WRSF TH16*	WT-WRSF-1N	**14259.183**	**8479.248**	**167.637-152.637**	--	-90	2021	Y
57	*WT WRSF TH17*	WT-WRSF-3S	**605484.55 / 605484.022**	**7255898.343 / 7255913.32**	**220**	358	0	2024	Y
58	*WT WRSF TH18*	WT-WRSF-3S	**-**	**-**	**-**		-	2024	NOT INSTALLED
59	*WT WRSF TH19*	WT-WRSF-2N	**605491.669 / 605491.175**	**7256118.973 / 7256103.959**	**220.4**	183	0	2024	Y
60	*WT WRSF TH20*	WT-WRSF-2N	**605492.629 / 605489.486**	**7256118.957 / 7256014.102**	**219.7**	183	0	2024	Y
61	*WT WRSF TH21*	WT-WRSF-2N	**605491.973 / 605490.441**	**7256134.912 / 7256128.586**	**219.56**	183	-37	2024	Y
62	*IVR WRSF TH01*	IVR-WRSF-1S	**608314.124**	**7256135.152**	**203.547**	--	-90	2023	Y
63	*IVR WRSF TH02*	IVR-WRSF-1S	**594598.883/594599.565**	**7257568.182/7257583.178**	**204.064**	9	0	2022	Y
64	*IVR WRSF TH03*	IVR-WRSF-1S	**594612.906/594613.468**	**7257567.520/7257582.555**	**204.061**	9	0	2022	Y
65	*IVR WRSF TH04*	IVR-WRSF-1S	**594605.898/594612.305**	**7257567.947/7257718.148**	**203.972**	9	0	2022	Y
66	*IVR WRSF TH05*	IVR-WRSF-1S	**608314.201**	**7256135.534**	**203.489**	--	-90	2023	y
67	*IVR WRSF TH06*	IVR-WRSF-1N	**608391.937**	**7256721.531**	**204.298**	--	-90	2023	Y
68	*IVR WRSF TH07*	IVR-WRSF-1N	**608395.025/608399.173**	**7256707.151/7256692.531**	**204.924**	164	0	2022	Y
69	*IVR WRSF TH08*	IVR-WRSF-1N	**608408.682/608412.721**	**7256710.367/7256695.844**	**204.936**	164	0	2022	Y

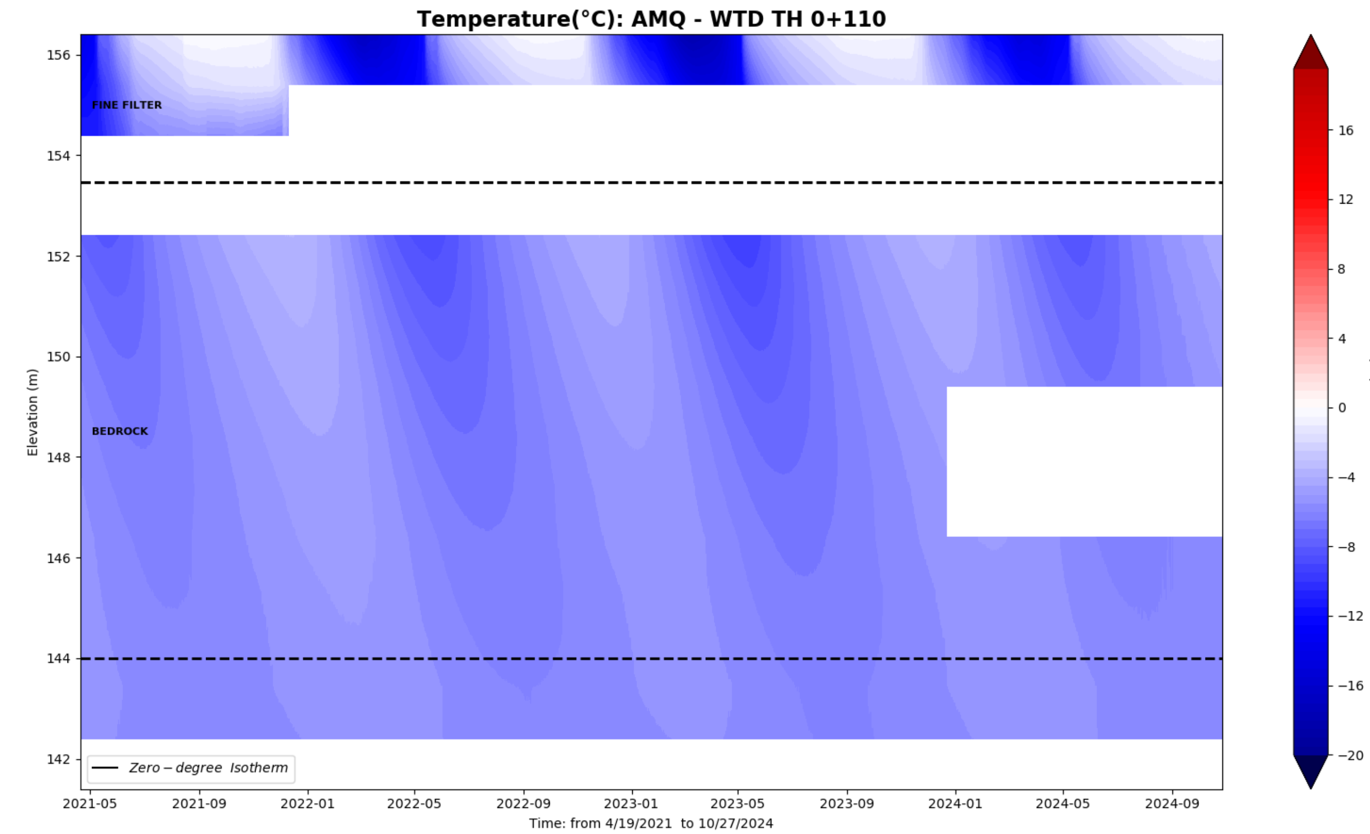
Line #	Name	Area	Easting (X)	Northing (Y)	Elevation (Z)	Azimuth	Dip	Installed	Active (Y) or (N)
70	IVR WRSF TH09	IVR-WRSF-1N	**608401.559/608440.755**	**7256708.91/7256564.158**	**204.761**	164	0	2022	Y
71	IVR WRSF TH10	IVR-WRSF-1N	**7256721.531**	**726721.531**	**204.298**	--	-90	2023	Y
72	MD-TH01	MD	**605924.66 / 605914.18**	**7255102.638 / 7255097.264**	**149.9 / 153.5**	243	**Slope**	2019	Y
73	MD-TH02	MD	**605926.19**	**7255102.52**	**154.9**	--	-90	2019	Y
74	MD-TH03	MD	**605926.74**	**7255102.6**	**154.9**	--	-90	2019	Y
75	WRSFD TH01	WRSF Dike	**605414.509 / 605415.086**	**7255528.273 / 7255545.692**	**157.9 / 151.6**	346	**Slope**	2019	Y
76	WRSFD TH02	WRSF Dike	**605416.44**	**7255526.7**	**159.07**	--	-90	2019	Y
77	WRSFD TH03	WRSF Dike	**605414.98**	**7255545.01**	**155.29**	--	-90	2019	Y
78	WRSFD TH04	WRSF Dike	**605387.14**	**7255524.47**	**158.15**	--	-90	2019	Y
79	WRSFD TH05	WRSF Dike	**605428.59**	**7255566.21**	**153.63**	--	-90	2019	Y
80	WRSFD TH06	WRSF Dike	**605435.56**	**7255544.29**	**155.35**	--	-90	2019	Y
81	WRSFD TH07	WRSF Dike	**605466.94**	**7255541.78**	**155.13**	--	-90	2019	Y
82	WRSFD TH08	WRSF Dike	**605384.991**	**7255544.818**	**159.886**	--	-90	2019	Y (11/16) beads
83	WRSFD TH09	WRSF Dike	**605425.1**	**7255546.038**	**160.037**	--	-90	2019	Y
84	PSW DH2 TH	Pit South Wall	**606998.837**	**7255127.783**	**149.02**	--	-90	2020	N
85	PSW DH3 TH	Pit South Wall	**607016.336**	**7255140.383**	**148.041**	--	-90	2020	N
86	PSW DH6 TH	Pit South Wall	**607058.391**	**7255184.293**	**148.181**	--	-90	2020	N
87	PSW DH7 TH	Pit South Wall	**607070.111**	**7255198.772**	**148.734**	--	-90	2020	N
88	PSW DH10 TH	Pit South Wall	**607142.218**	**7255272.101**	**150.109**	--	-90	2020	N
89	PSW DH11 TH	Pit South Wall	**607155.955**	**7255287.46**	**151.241**	250	-50	2020	N
90	PSW DH12 TH	Pit South Wall	**607168.065**	**7255293.87**	**151.934**	250	-50	2020	N
91	PSW DH13 TH	Pit South Wall	**606980.7**	**7255276.8**	**145.398**	--	-90	2020	N
92	PSW DH14 Th	Pit South Wall	**606937.5**	**7255411.5**	**130.761**	--	-90	2020	N
93	AMQ15-324	WT PIT	**606496.8**	**7254995.2**	**161.79**	323.41	-55.46	2015	N
94	AMQ – WT2_NW_TH	WT PIT	**14373.989**	**7324.655**	**109.248**	350	-10	2023	Y
95	PSW_Ramp_TH	WT PIT	**14837.534**	**6898.047**	**31.3**	--	-90	2024	Y
96	AMQ – PSW3 – DDH1_TH	WT PIT	**607078.57**	**7255209.62**	**149.8**	318.22	-47.7	2022	Y
97	AMQ17-1233	IVR	**606778**	**7256254**	**162**	252.71	-59.06	2017	N
98	AMQ17-1337	IVR	**607078**	**7256522**	**155**	260.37	-59.62	2017	N
99	V651A	IVR	**607624.208**	**7256122.348**	**10163.28**	333	-69	2019	Y
100	BH-T2	IVR D1	**607850.8**	**7255563.9**	**164.303**	--	-90	2019	N
101	BH-4	IVR D1	**608048**	**7255442**	**163.982**	--	-90	2019	N

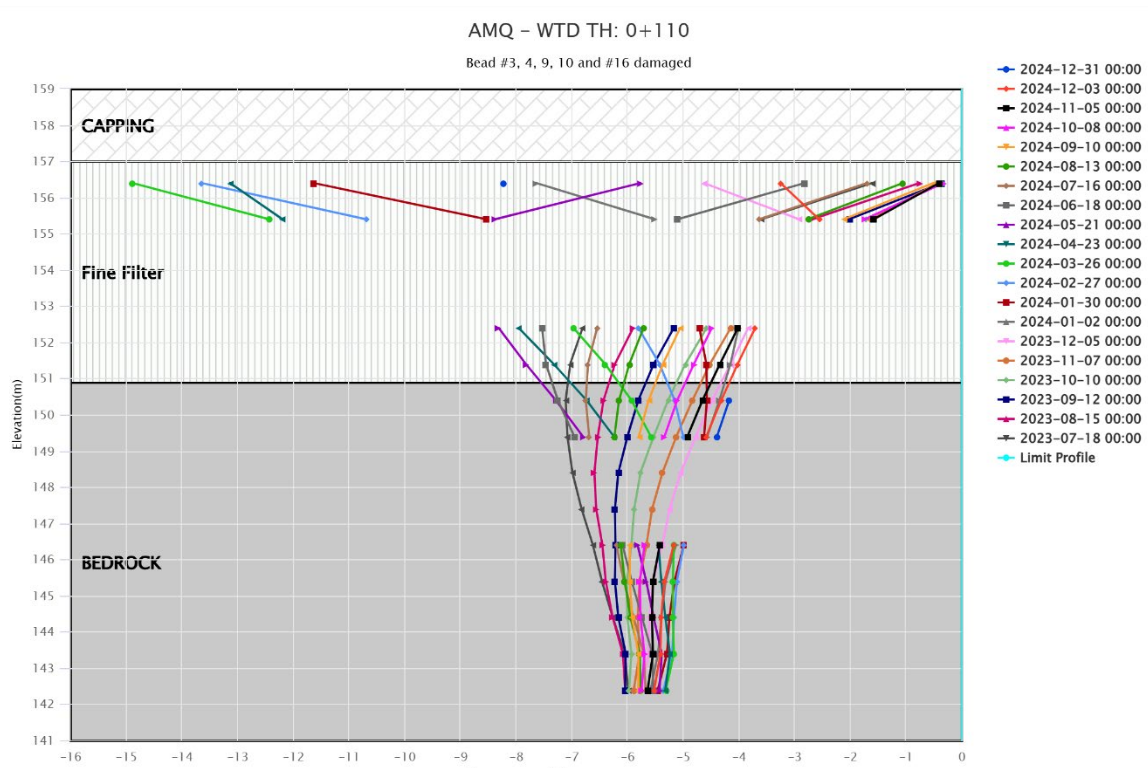
Line #	*Name*	*Area*	*Easting (X)*	*Northing (Y)*	*Elevation (Z)*	*Azimuth*	*Dip*	*Installed*	*Active (Y) or (N)*
102	*IVR D1 TH1*	IVR D1	**607909.036**	**7255508.205**	**164.486**	30 / 210	Liner	2021	Y
103	*IVR D1 TH2*	IVR D1	**607908.144**	**7255506.309**	**164.895**	--	-90	2021	Y
104	*IVR D1 TH3*	IVR D1	**607912.603**	**7255515.354**	**165.1**	--	-90	2021	Y
105	*IVR D1 TH4*	IVR D1	**607906.637**	**7255503.624**	**165.76**	--	-90	2021	Y
106	*IVR D1 TH5*	IVR D1	**607899.06**	**7255512.94**	**159.666**	120	Key Trench	2021	Y
107	*IVR D1 TH6*	IVR D1	**607923.8**	**7255480.4**	**162.08**	--	-90	2021	Y
108	*IVR D1 TH7*	IVR D1	**607930.032**	**7255525.355**	**162.12**	--	-90	2021	Y
109	*AMQ21-2577A (M003)*	Mammoth	**605586.328**	**7254641.908**	**10156.648**	336.1	-53.9	2021	Y
110	*AMQ22-2762 (Long TH)*	Mammoth	**605363.6**	**7254674.8**	**5153.826**	336	-65	2022	Y
111	*AMQ22-2761 (Long TH)*	Whale Tail	**606073.6**	**7255502**	**5160.646**	131.7	-61.8	2022	Y
112	*AMQ22-2760 (Long TH)*	IVR	**607679.3**	**7256022.9**	**5164.106**	193	-74	2022	Y
113	*BH23-01 (MD-2_TH-01)*	Mammoth	**604737.917**	**7254814.747**	**153.835**	--	-90	2023	Y
114	*BH23-03 (MD-2_TH-02)*	Mammoth	**604788.98**	**7254682.294**	**152.661**	--	-90	2023	Y
115	*BH23-06 (MD-2_TH-03)*	Mammoth	**604867.121**	**7254511.269**	**153.441**	--	-90	2023	Y
116	*THERM01_243*	Underground	**607003.969**	**7255410.001**	**9926.9**	339	-65	2020	N
117	*THERM02_275*	Underground	**606861.274**	**7255309.315**	**9911.05**	38	-50	2020	N
118	*THERM03_380*	Underground	**607209.94**	**7255592.8**	**9968.536**	352	-59	2020	N
119	*THERM04_310*	Underground	**607009.0001**	**7255407.6**	**9926.9**	35	-50	2020	N
120	*AMQ15-294*	WT Pit	**607073.2**	**7255676.1**	**155.93**	322.67	-45.18	2015	N
121	*AMQ15-349 A*	WT Pit	**607064.9**	**7255627.5**	**155.3**	204.41	-45.32	2015	N
122	*AMQ15-421*	WT Pit	**607098.3**	**7255490.8**	**155.09**	273.93	-51.31	2015	N
123	*AMQ15-306*	WT Pit	**606714.8**	**7255363.8**	**154.92**	96.3	-45.41	2015	N
124	*AMQ15-452*	WT Pit	**606627.2**	**7255687.9**	**156.16**	159.5	-49.98	2015	N
125	*AMQ17-1159*	WTD	**607580.2**	**7254827.6**	**152.56**	--	-90	2017	N
126	*AMQ17-1188*	WTD	**607209.9**	**7254681.3**	**151.76**	--	-90	2017	N
127	*AMQ17-1265 A (2 TH,Lake)*	WT Pit	**606950**	**7255414**	**140**	196.03	-79.99	2017	N
128	*AMQ17-1277 A*	WT Pit	**606911**	**7255964**	**153**	193.06	-60.17	2017	N
129	*AMQ17-1164A*	WTD	**607415.60**	**7254779.33**	**151.57**	--	-90	2017	N
130	*MD-02-2015*	MD	**605906.1**	**7255094.5**	**152.269**	--	-90	2015	N
131	*WTD-2015-03*	WTD	**607311.61**	**7254712.18**	**151.81**	--	-90	2015	N
132	*Stkd100 (West Shore)*	WTD	**607138.63**	**7254644.04**	**156.52**	--	-90	2017	N
133	*Stkd101*	WTD	**607157.76**	**7254651.69**	**156.84**	--	-90	2017	N
134	*Stkd102*	WTD	**607173.06**	**7254659.34**	**154.12**	--	-90	2017	N
135	*Stkd311*	WTD	**607497.51**	**7254774.35**	**153.41**	--	-90	2017	N
136	*310*	WTD	**607520.46**	**7254789.65**	**154.51**	--	-90	2017	N
137	*309A*	WTD	**607547.20**	**7254811.60**	**154.72**	--	-90	2017	N
138	*TMRCK1*	WTD	**607576.28**	**7254869.75**	**153.87**	--	-90	2017	N
139	*TMRCK2*	WTD	**607606.88**	**7254888.11**	**153.92**	--	-90	2017	N
140	*TMRCK3 (East Shore)*	WTD	**607638.25**	**7254906.47**	**154.73**	--	-90	2017	N
141	*Stkd298*	WTD	**607705.24**	**7254760.58**	**154.42**	--	-90	2017	N
142	*Stkd299 (East Shore)*	WTD	**607689.94**	**7254751.01**	**153.74**	--	-90	2017	N

Line #	***Name***	***Area***	***Easting (X)***	***Northing (Y)***	***Elevation (Z)***	***Azimuth***	***Dip***	***Installed***	***Active (Y) or (N)***
143	*Stkd301*	WTD	**607683.05**	**7254741.83**	**153.39**	--	-90	2017	N

WTD-TH 0+110




Temperature(°C): AMQ - WTD TH 0+110
FINE FILTER
BEDROCK
Elevation (m)
Zero – degree Isotherm
Temperature(°C)
Time: from 4/19/2021 to 10/27/2024


AMQ – WTD TH: 0+110
Bead #3, 4, 9, 10 and #16 damaged
CAPPING
Fine Filter
BEDROCK
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
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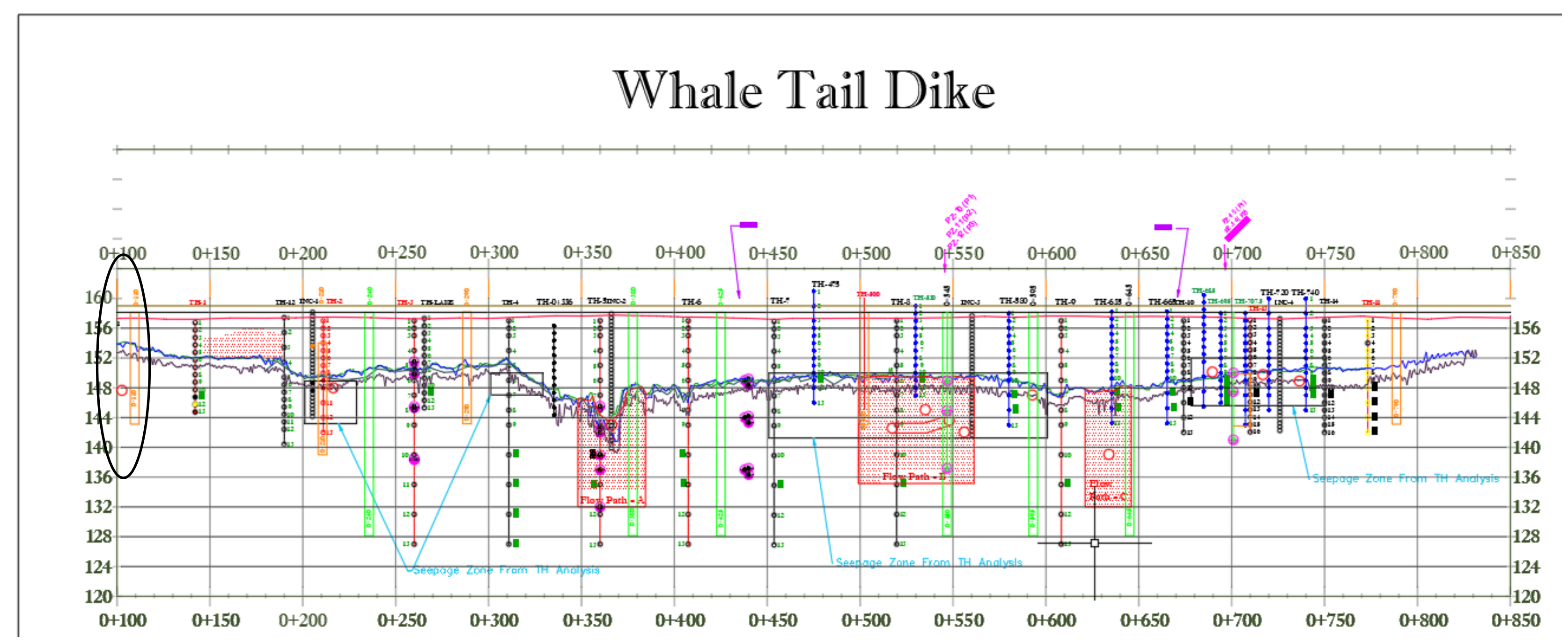
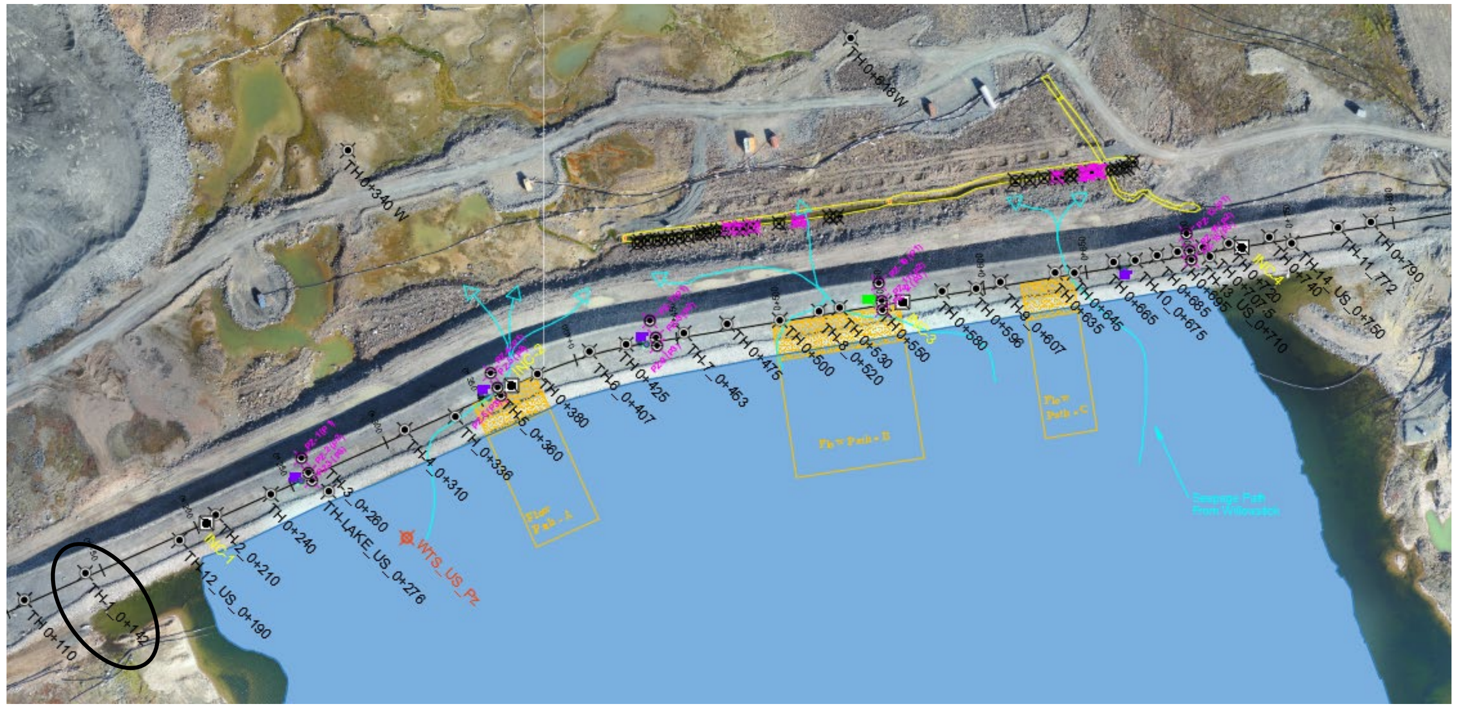
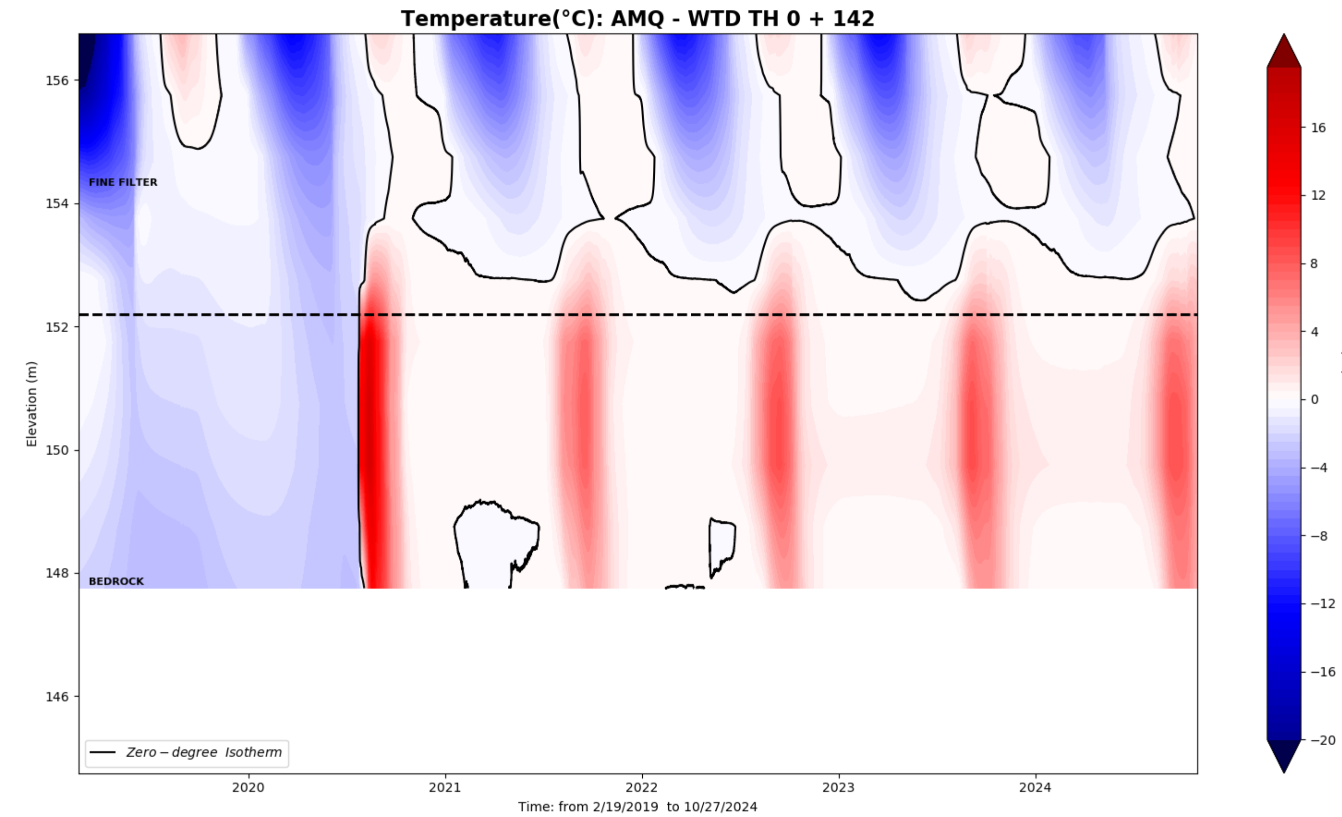
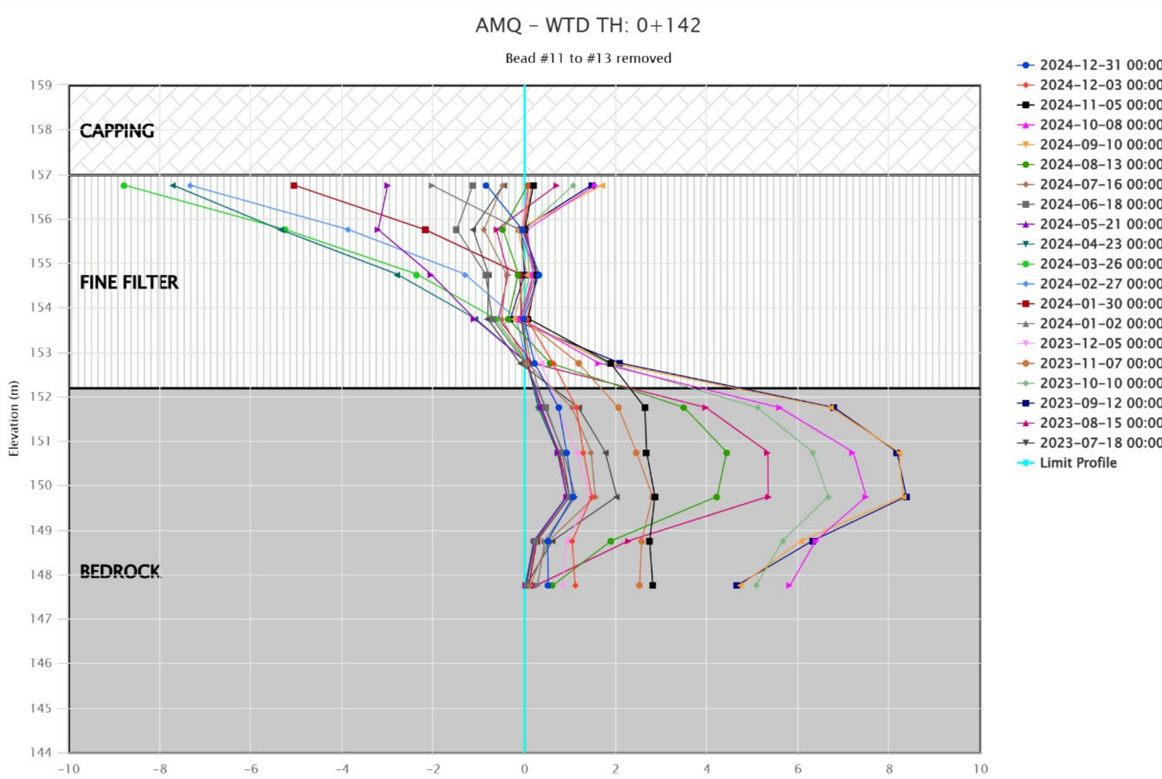
2023-07-18 00:00
Limit Profile


Whale Tail Dike
Seepage Zone From TH Analysis
Flow Path - A
Flow Path - B

WTD-TH 0+142


TH_0+142
TH_0+110
TH-12_US_0+190
TH_0+210
TH_0+240
TH-LAKE_US_0+276
WTS_US_P
TH-4_0+310
TH_0+336
TH-5_0+360
TH_0+380
TH-6_0+407
TH_0+425
TH-7_0+453
TH_0+475
TH_0+500
TH_0+520
TH_0+530
TH_0+550
TH_0+580
TH_0+596
TH_0+607
TH_0+635
TH_0+646
TH_0+665
TH_0+675
TH_0+790
TH+340 W


Temperature(°C): AMQ - WTD TH 0 + 142
FINE FILTER
BEDROCK
Elevation (m)
Zero – degree Isotherm
2020
2021
2022
2023
2024
Time: from 2/19/2019 to 10/27/2024
Temperature(°C)


AMQ – WTD TH: 0+142
Bead #11 to #13 removed
CAPPING
FINE FILTER
BEDROCK
Elevation (m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
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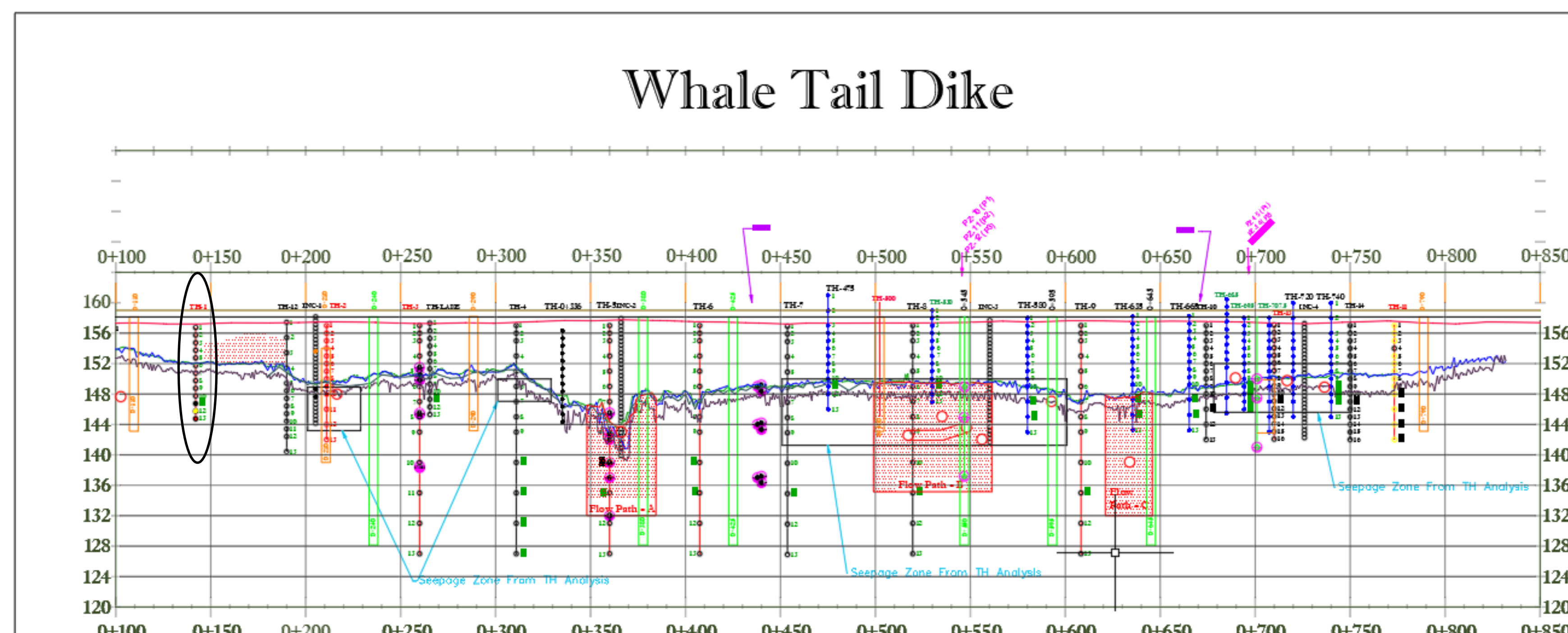
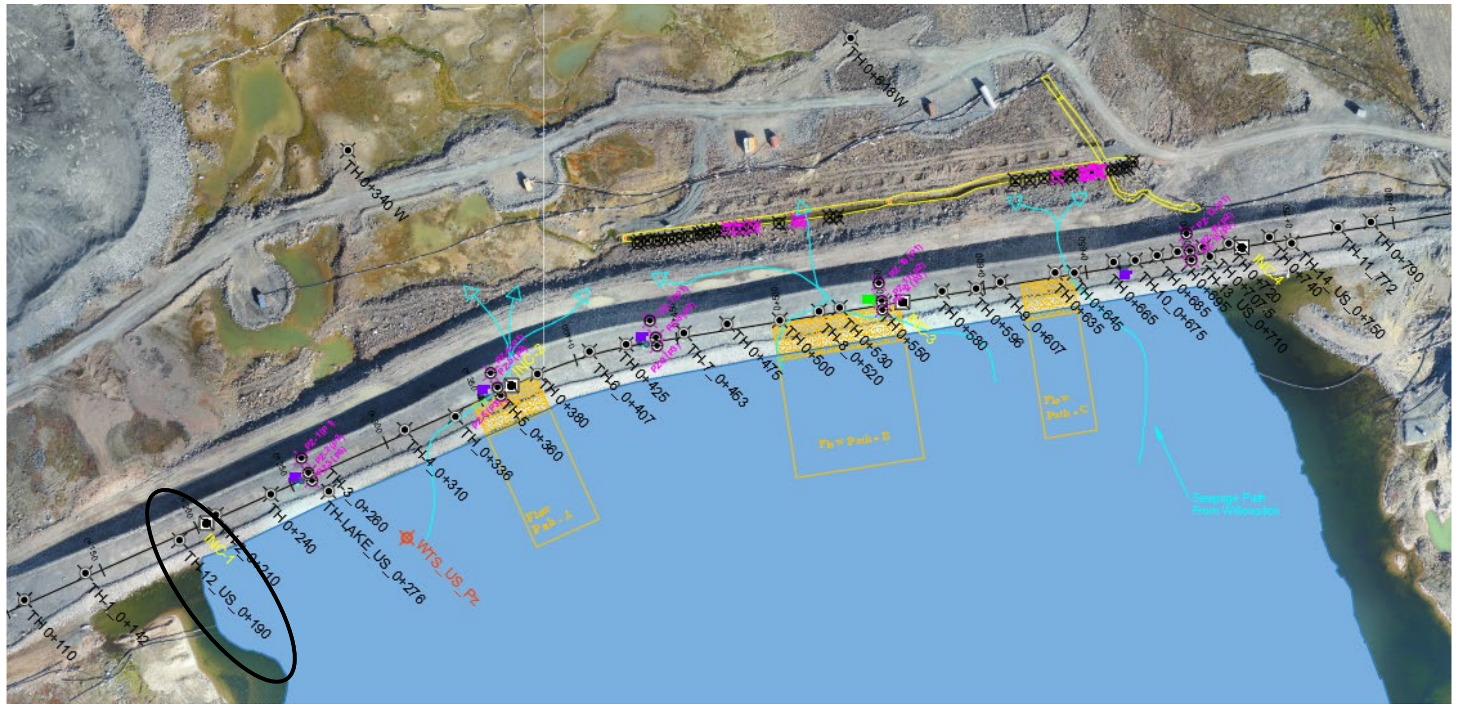
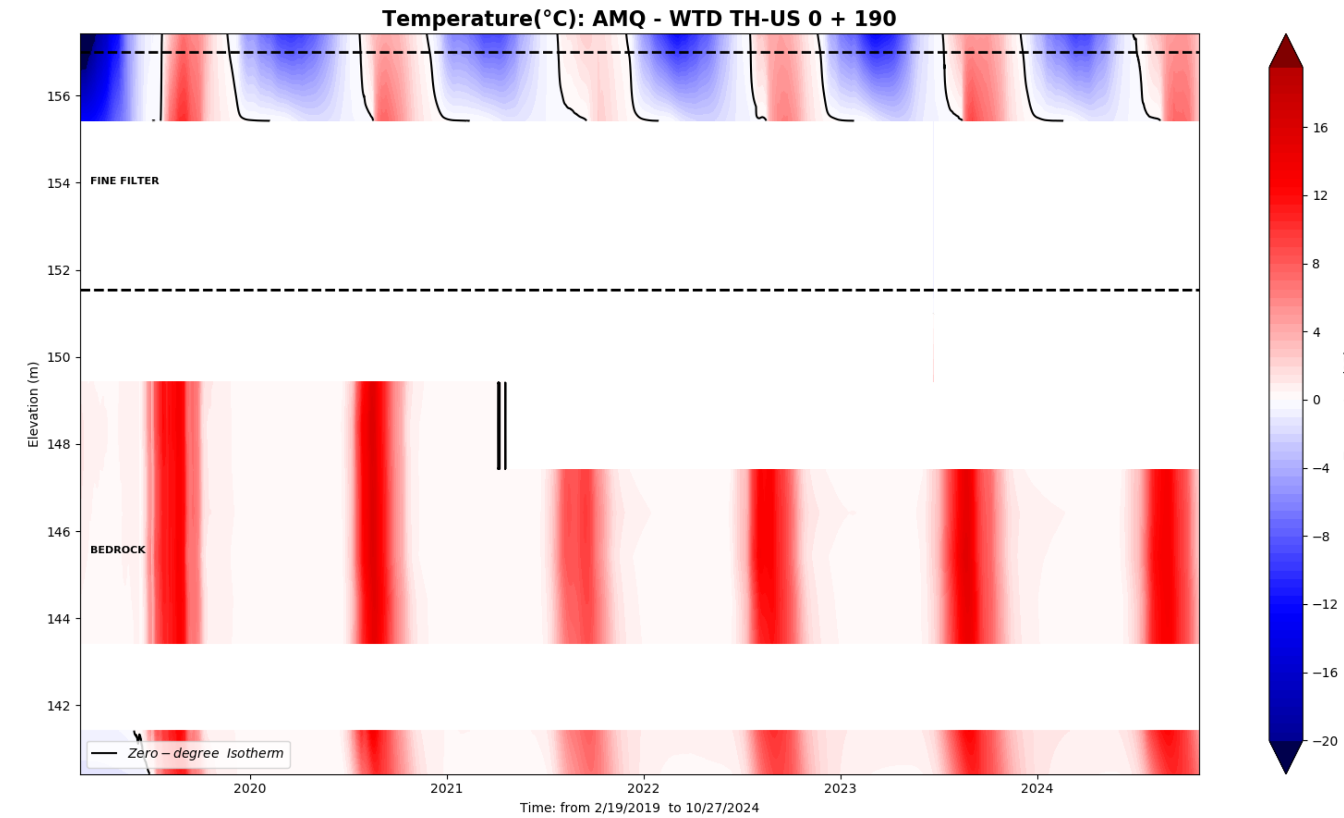
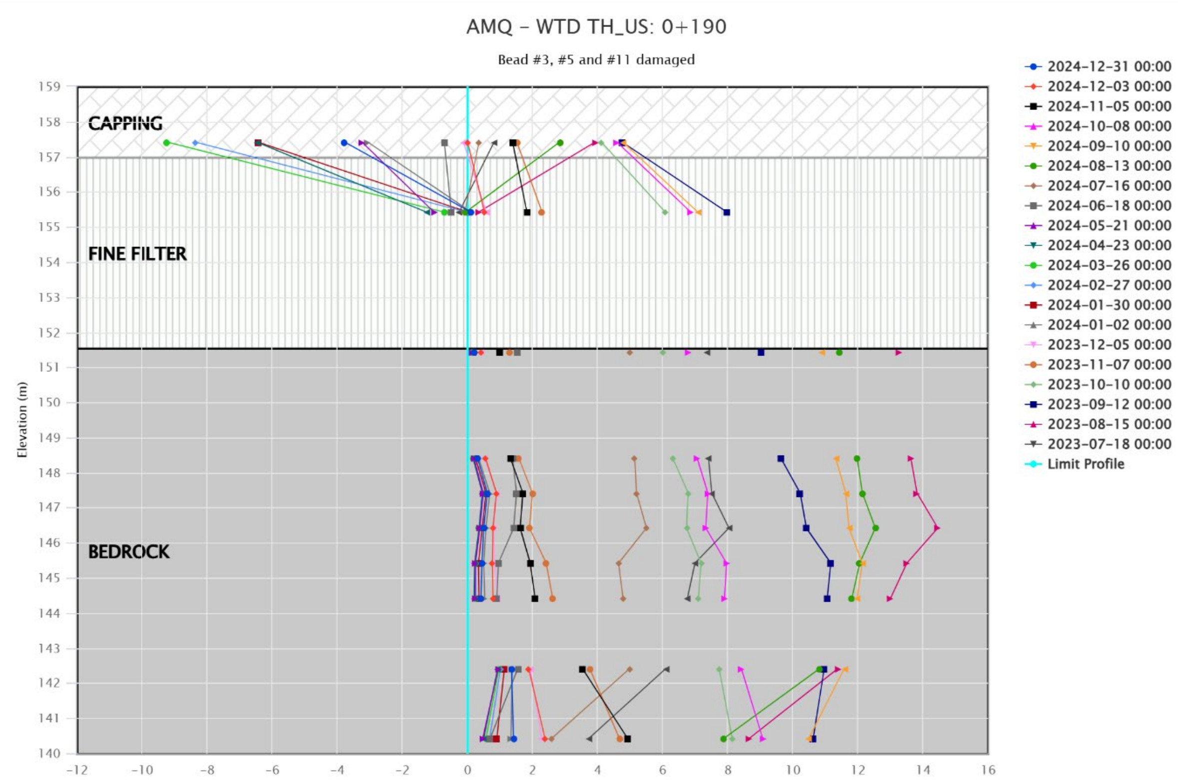
2023-07-18 00:00
Limit Profile

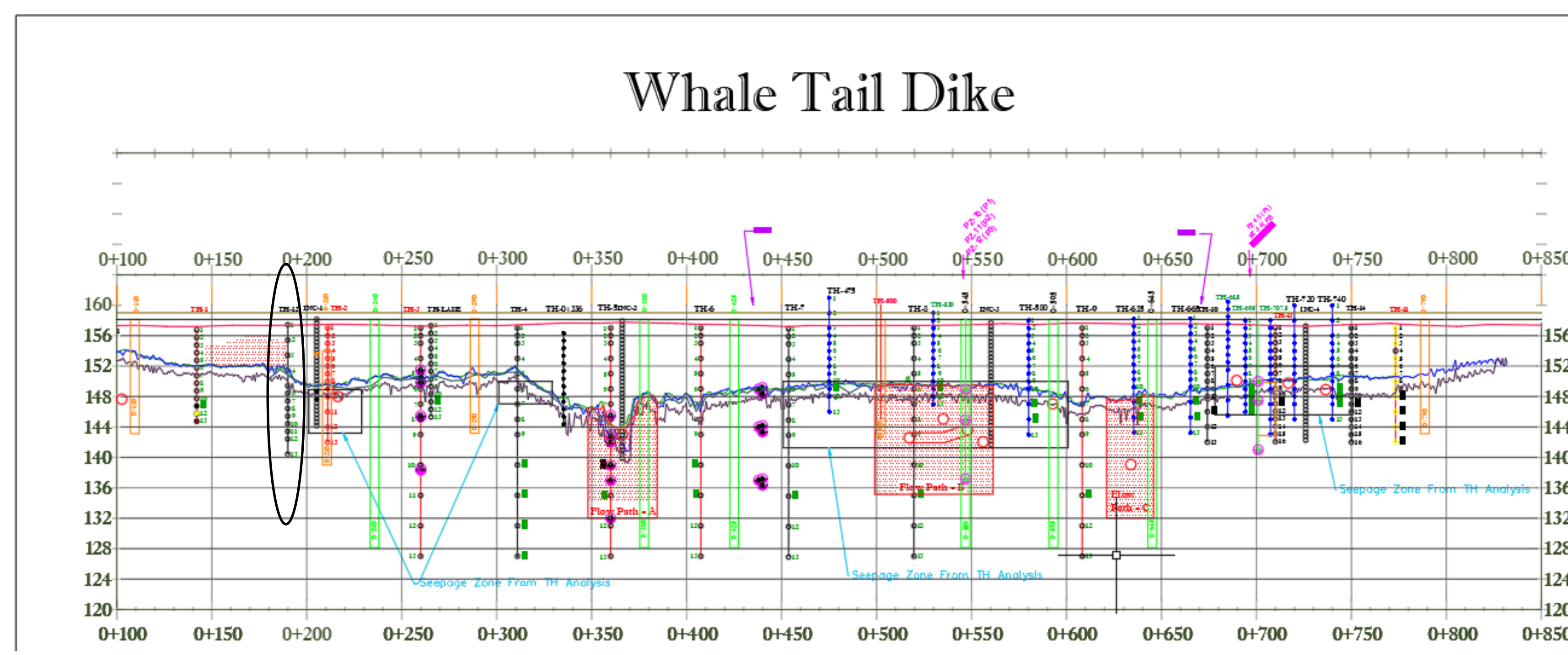

Whale Tail Dike
Flow Path - A
Flow Path - B
Seepage Zone From TH Analysis

WTD-TH 0+190 U/S

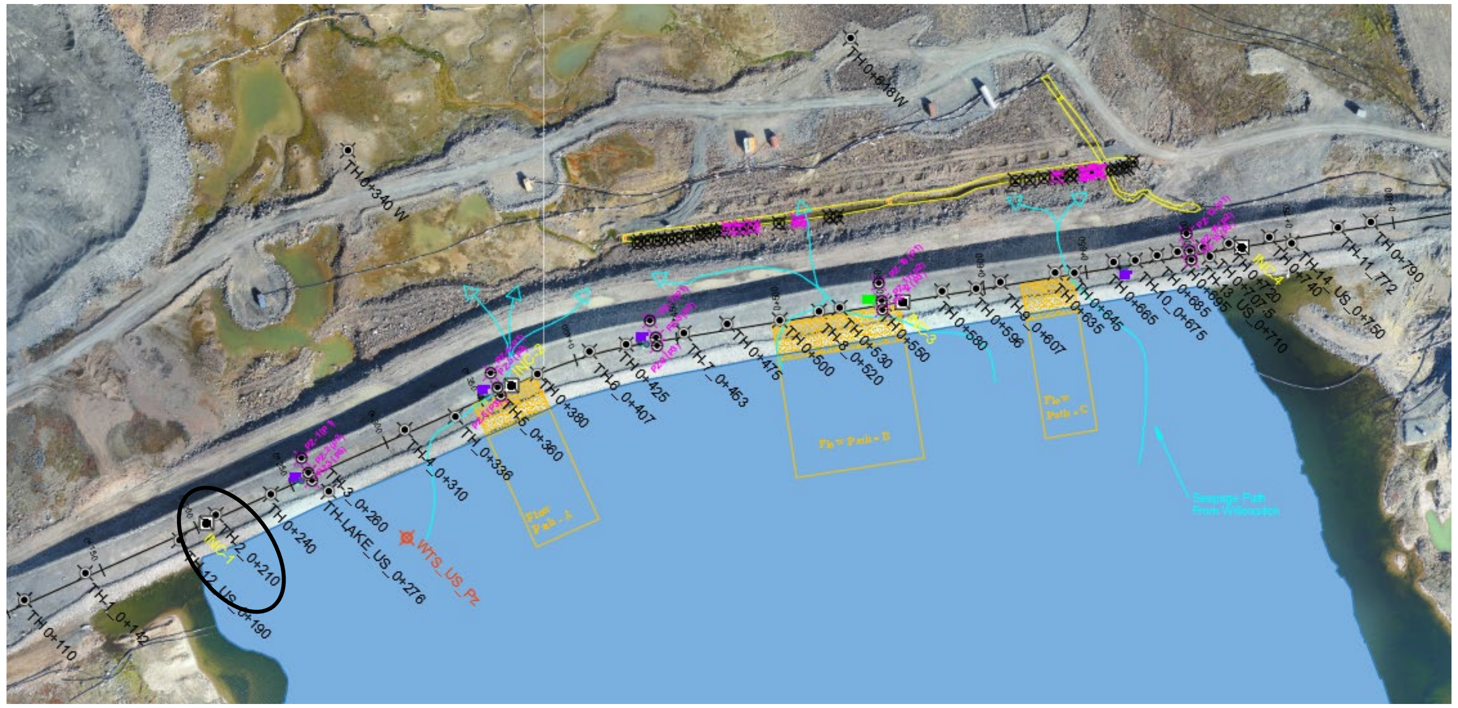


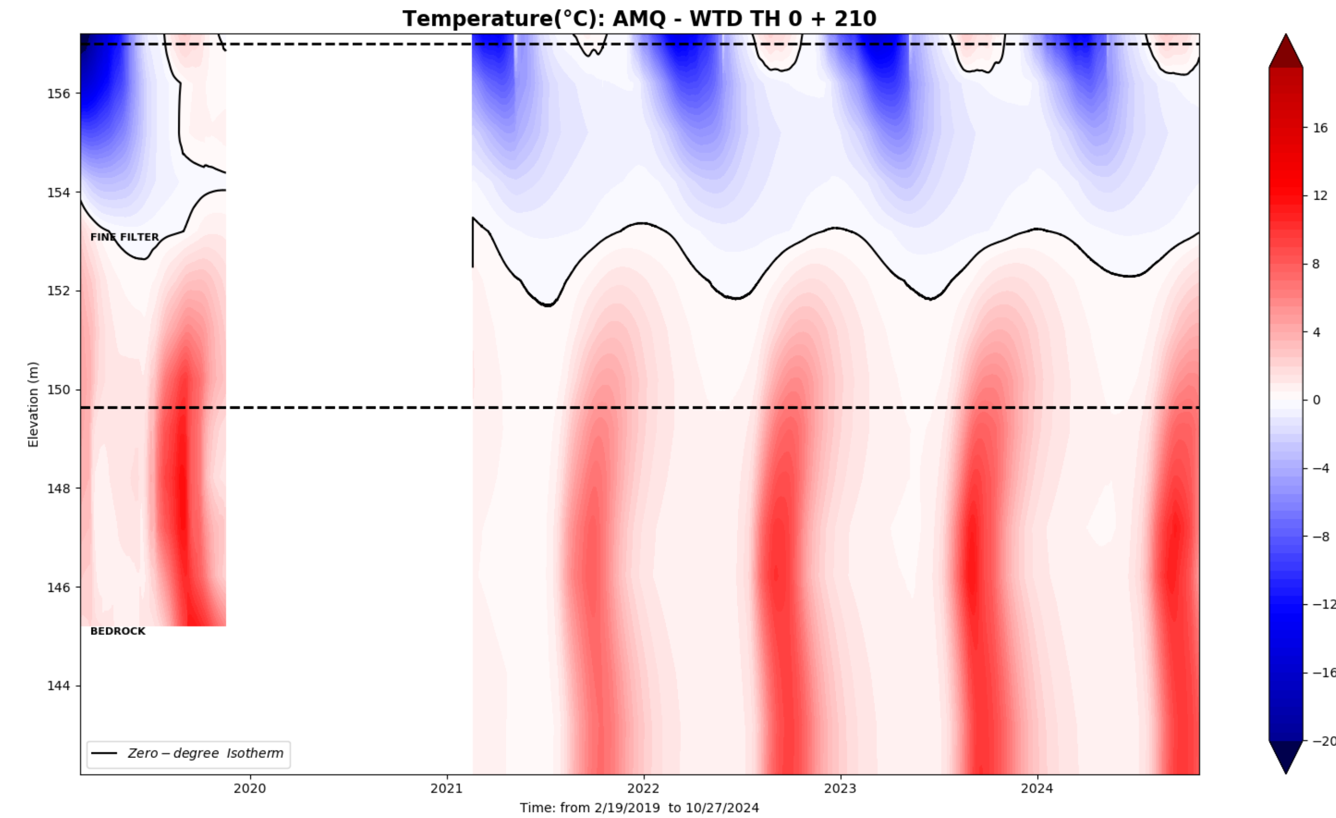


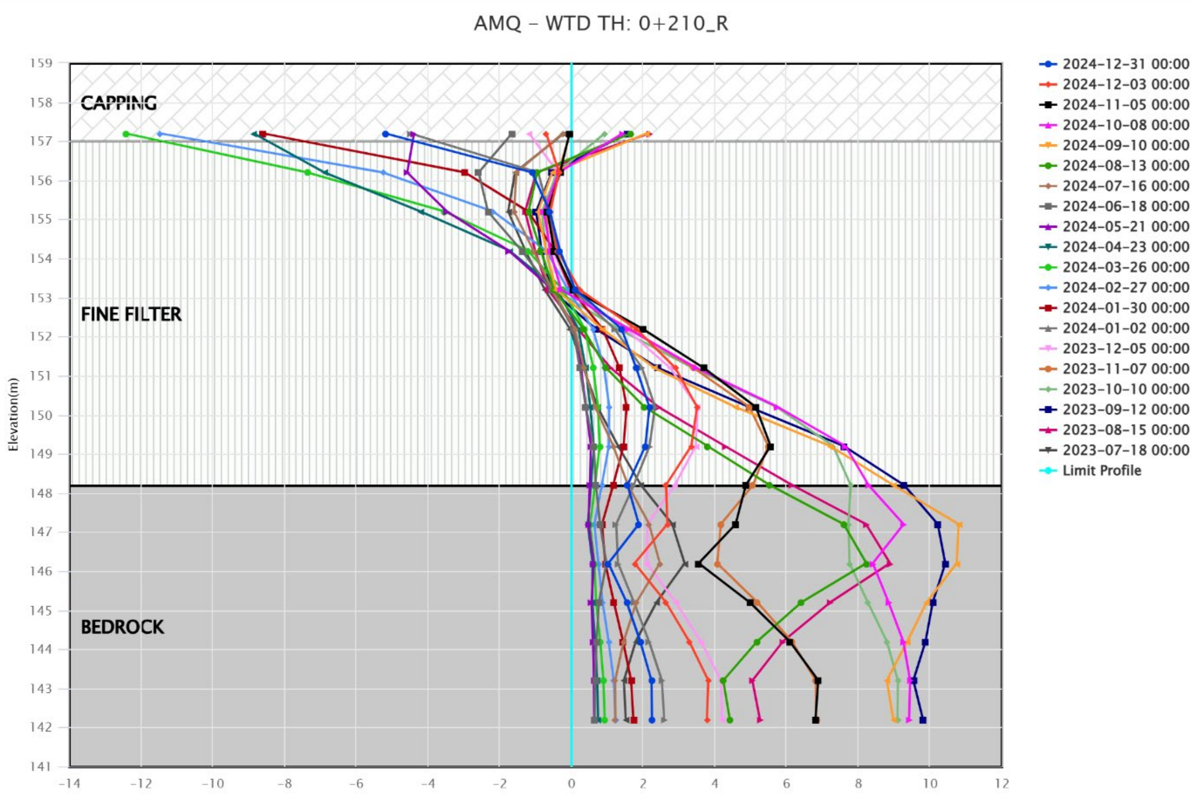




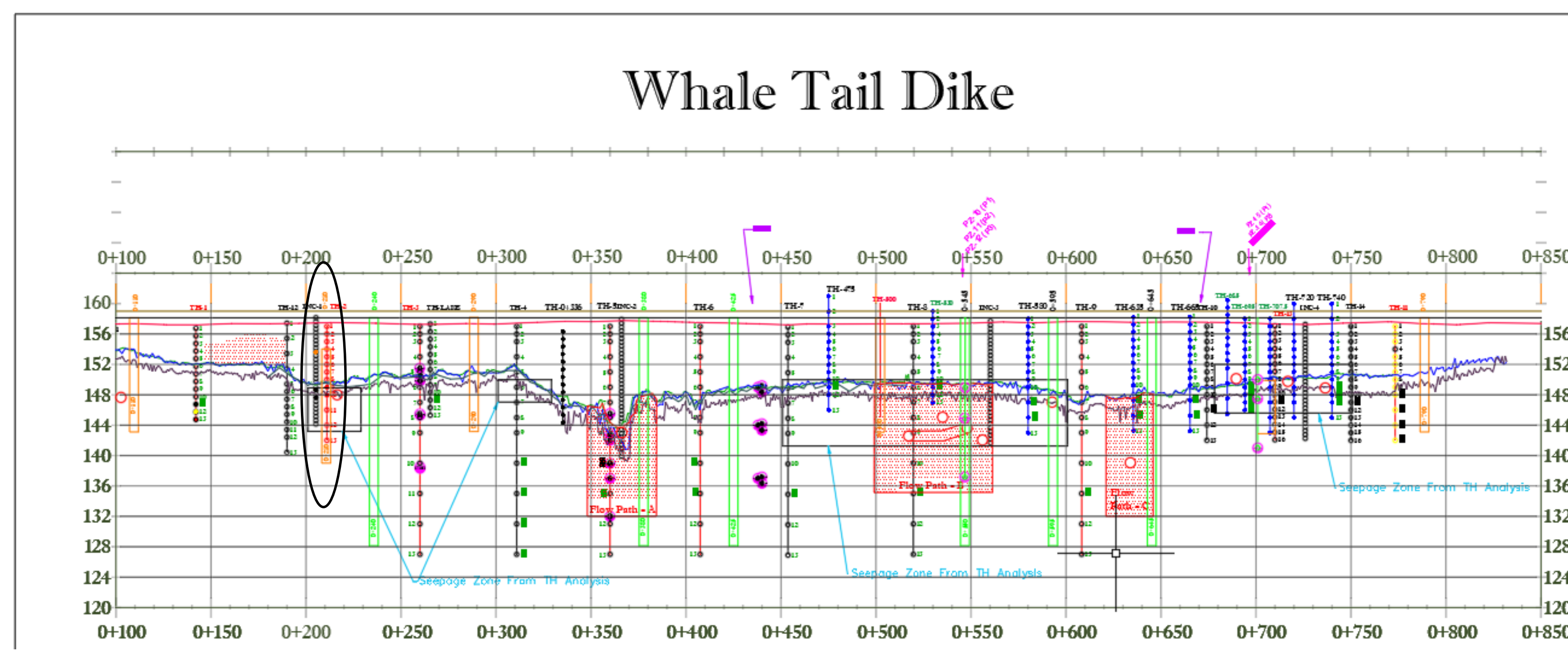
WTD-TH 0+210



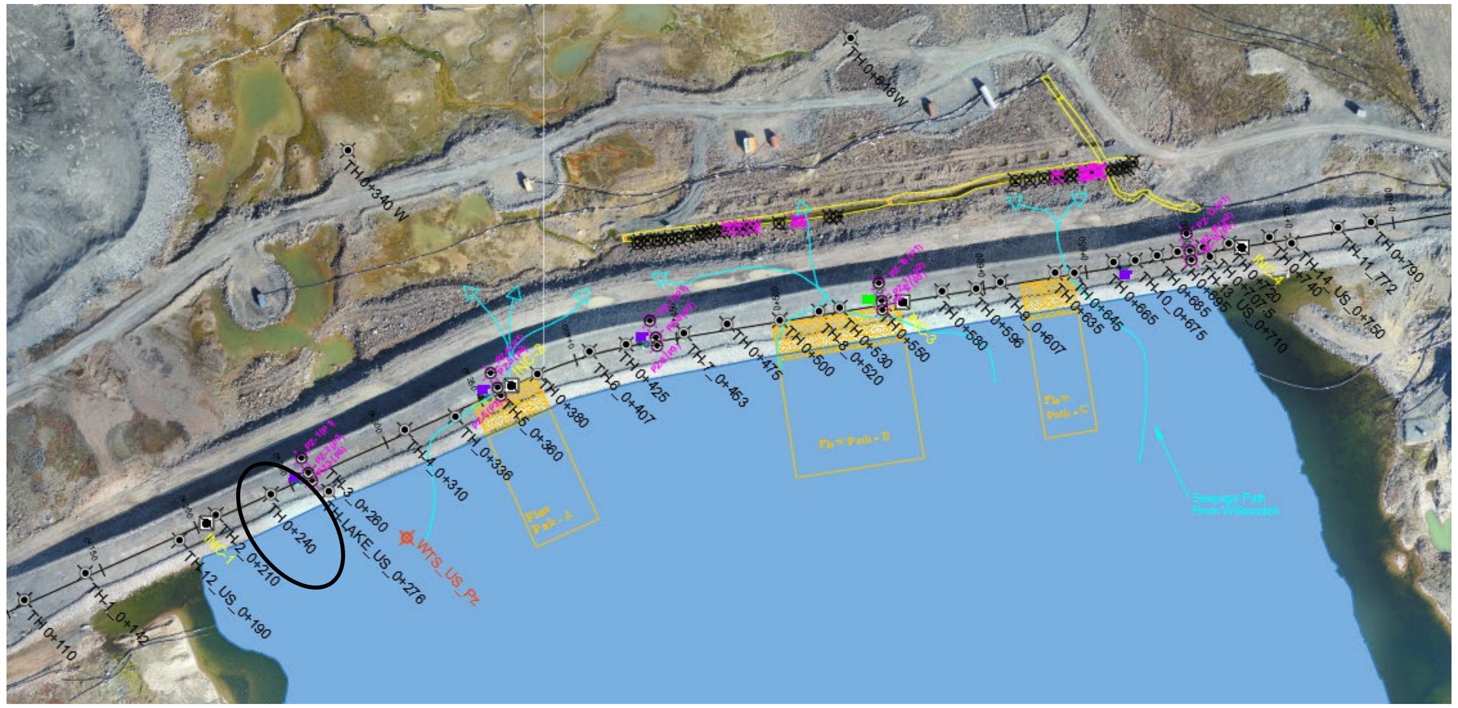


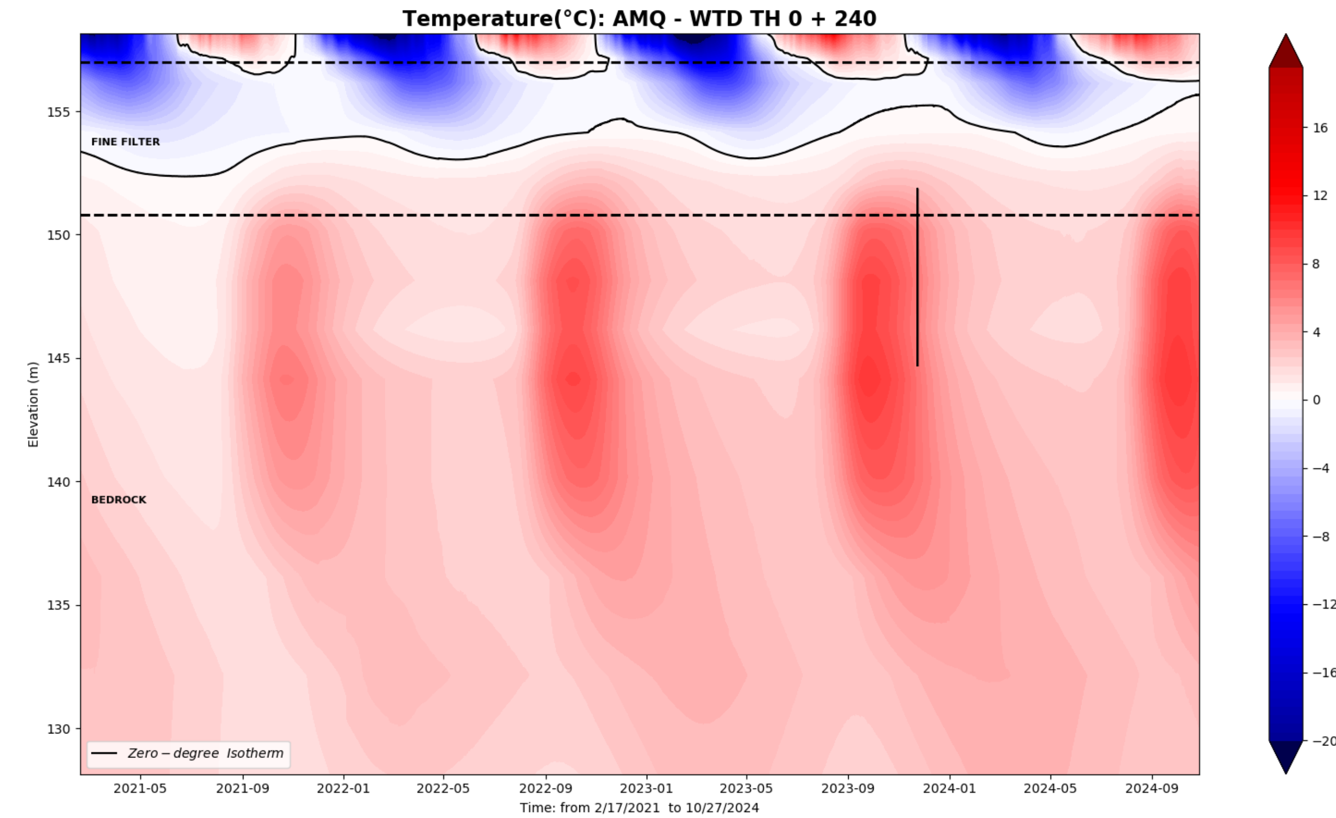


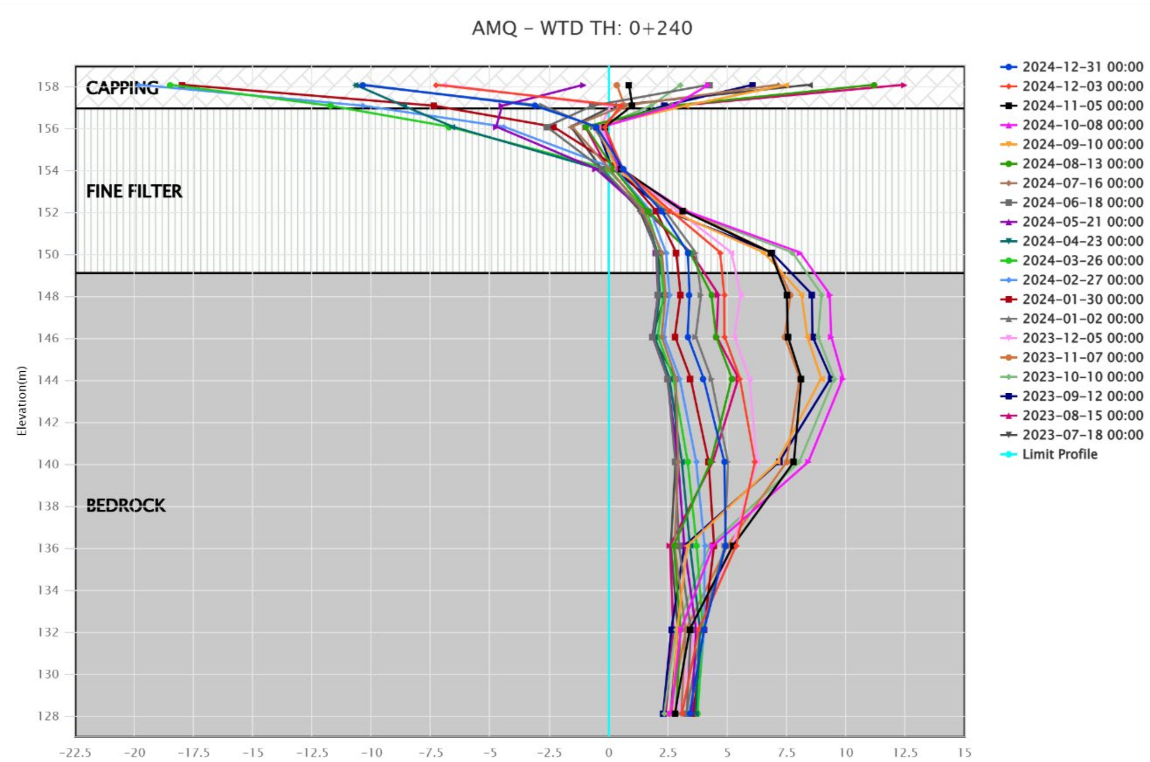
Thermistor string damaged by drilling. No dataset between Oct 2019 and February 2021. TH replaced

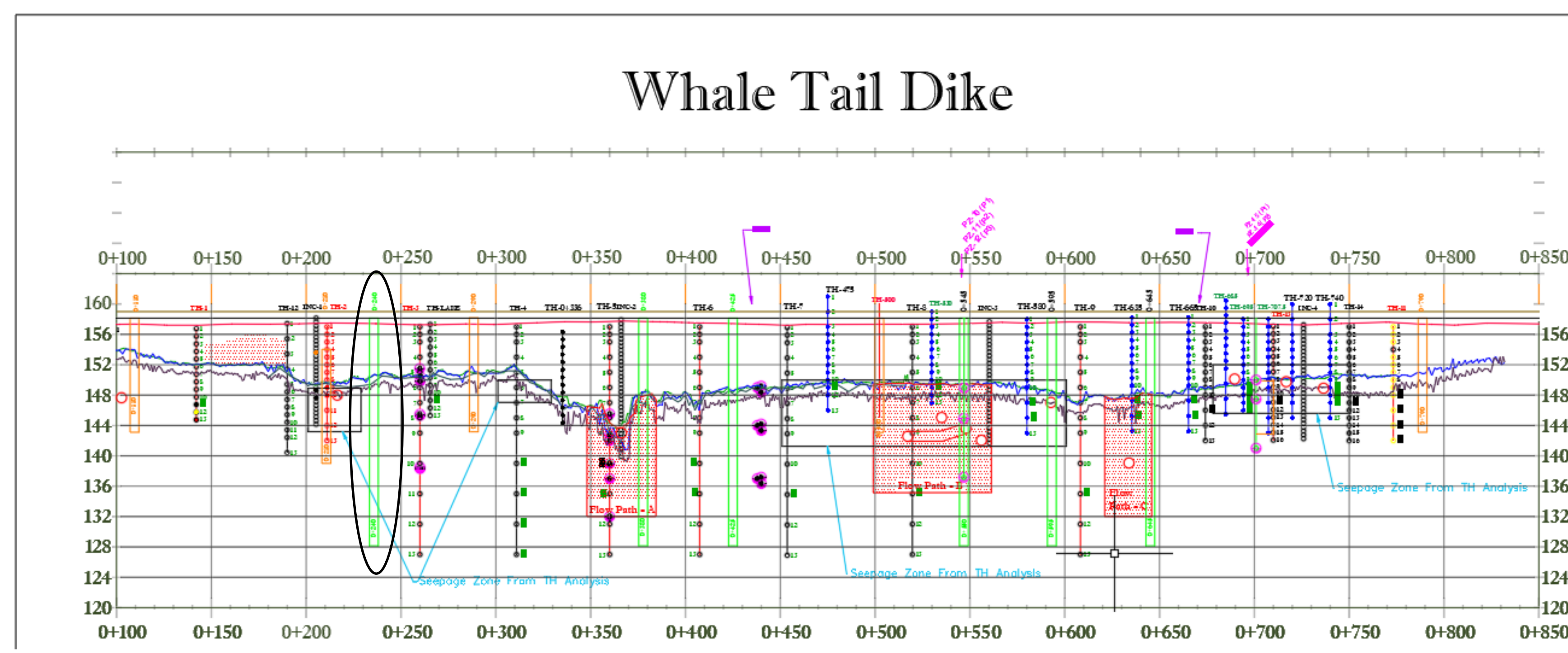


WTD-TH 0+240

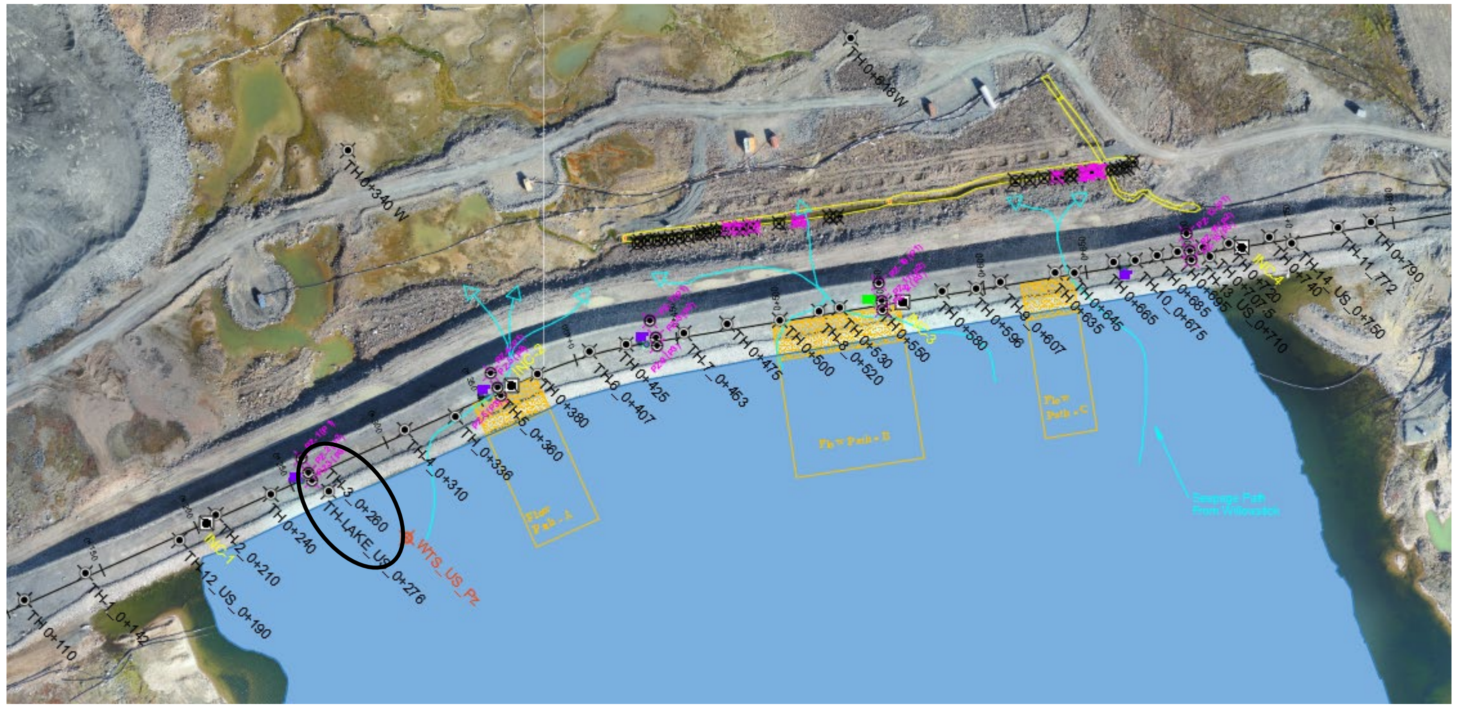


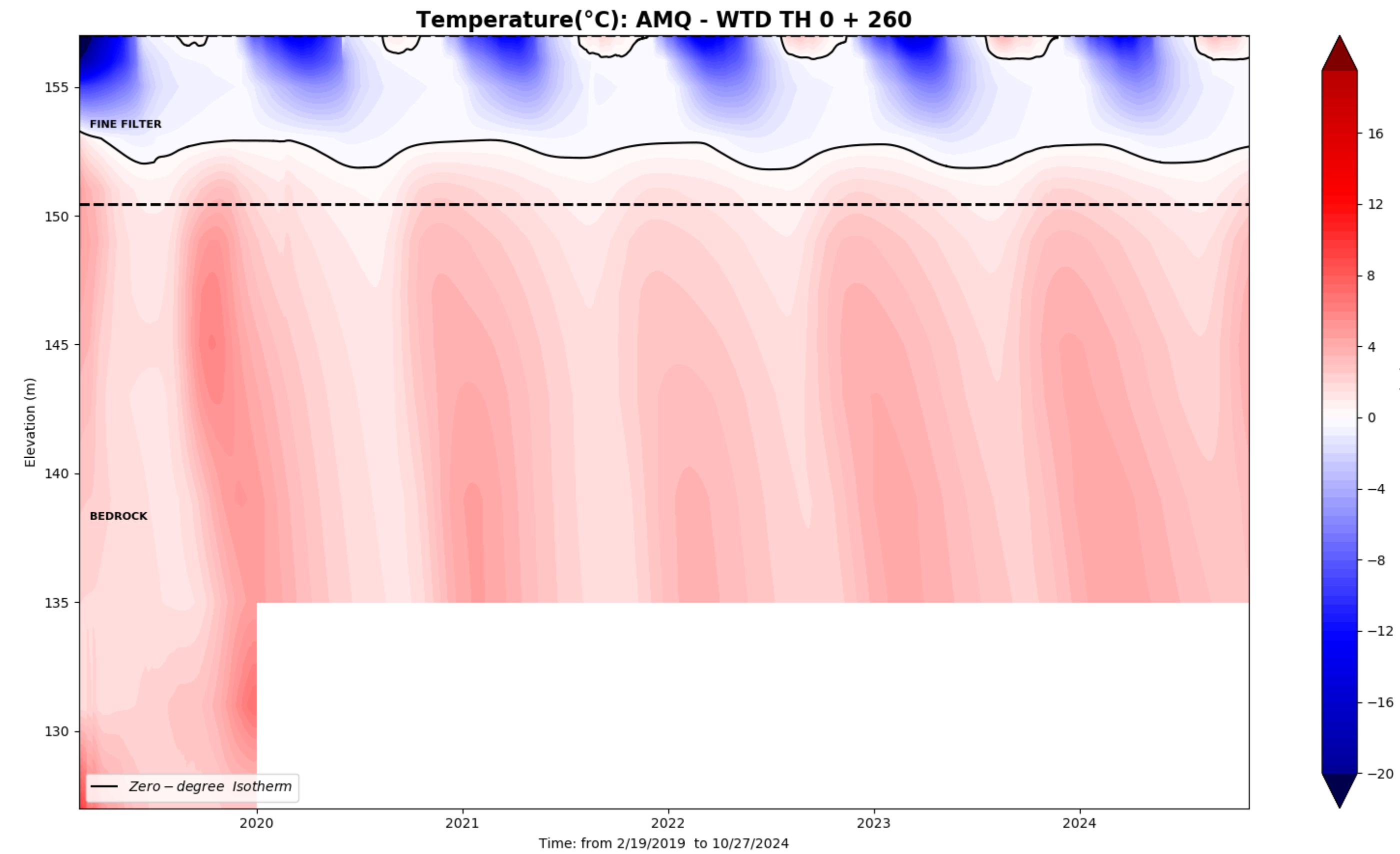

Temperature(°C): AMQ - WTD TH 0 + 240
FINE FILTER
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 2/17/2021 to 10/27/2024
Temperature(°C)

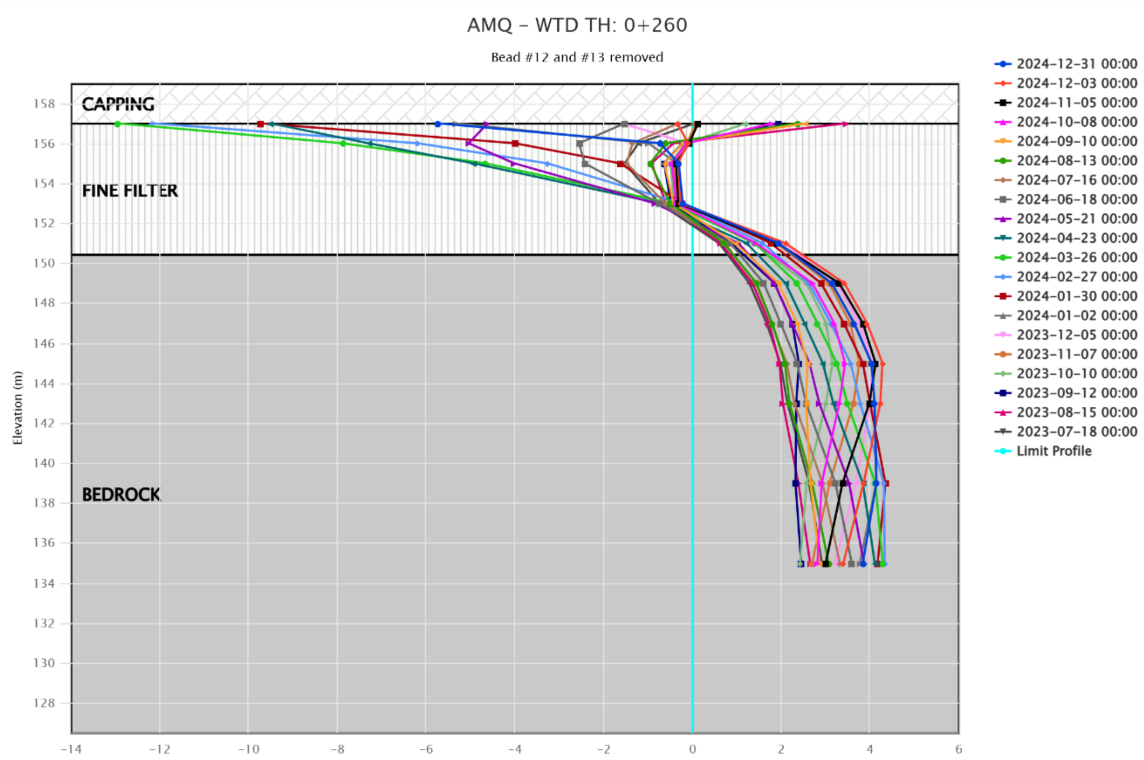

AMQ – WTD TH: 0+240
CAPPING
FINE FILTER
BEDROCK
Elevation(m)
Temperature (°C)
Limit Profile


Whale Tail Dike

WTD-TH 0+260




Temperature(°C): AMQ - WTD TH 0 + 260
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Time: from 2/19/2019 to 10/27/2024
Temperature(°C)


AMQ – WTD TH: 0+260
Bead #12 and #13 removed
CAPPING
FINE FILTER
BEDROCK
Elevation (m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
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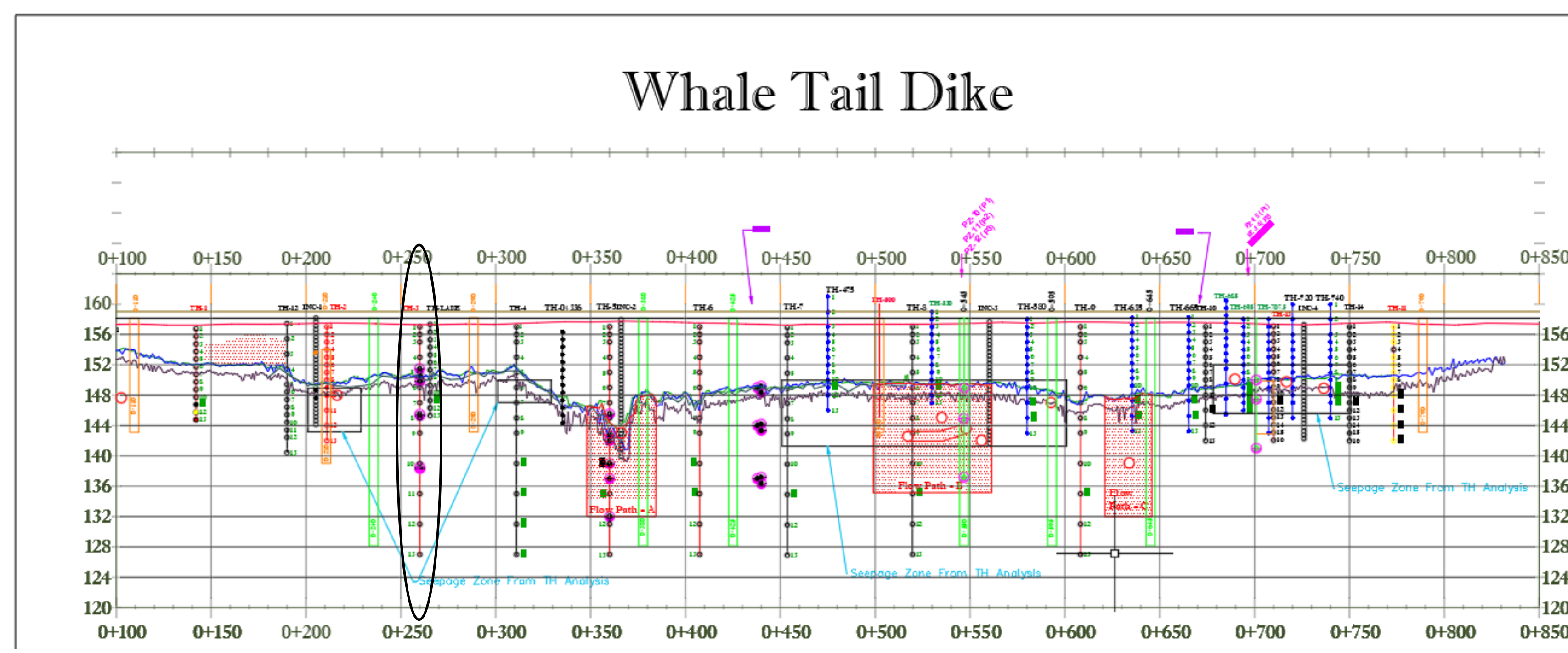
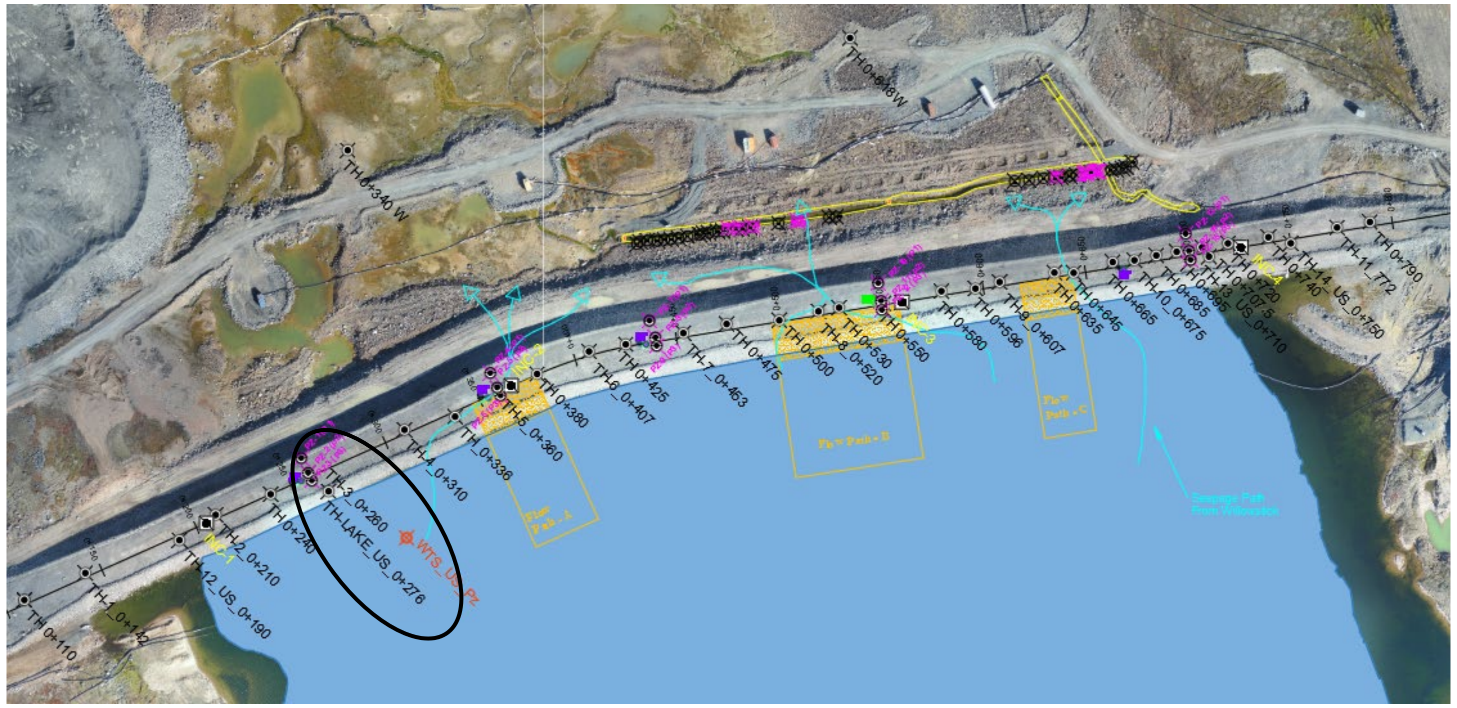
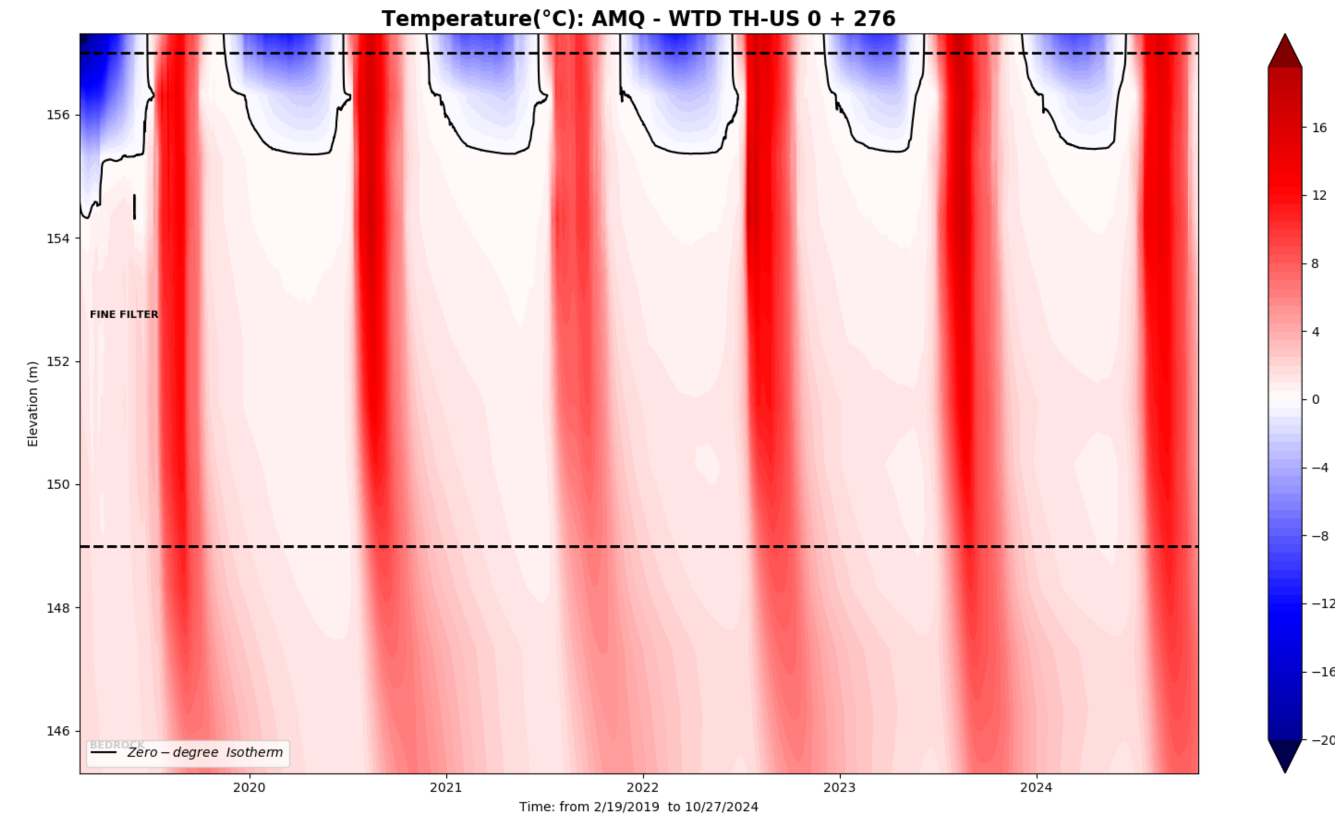
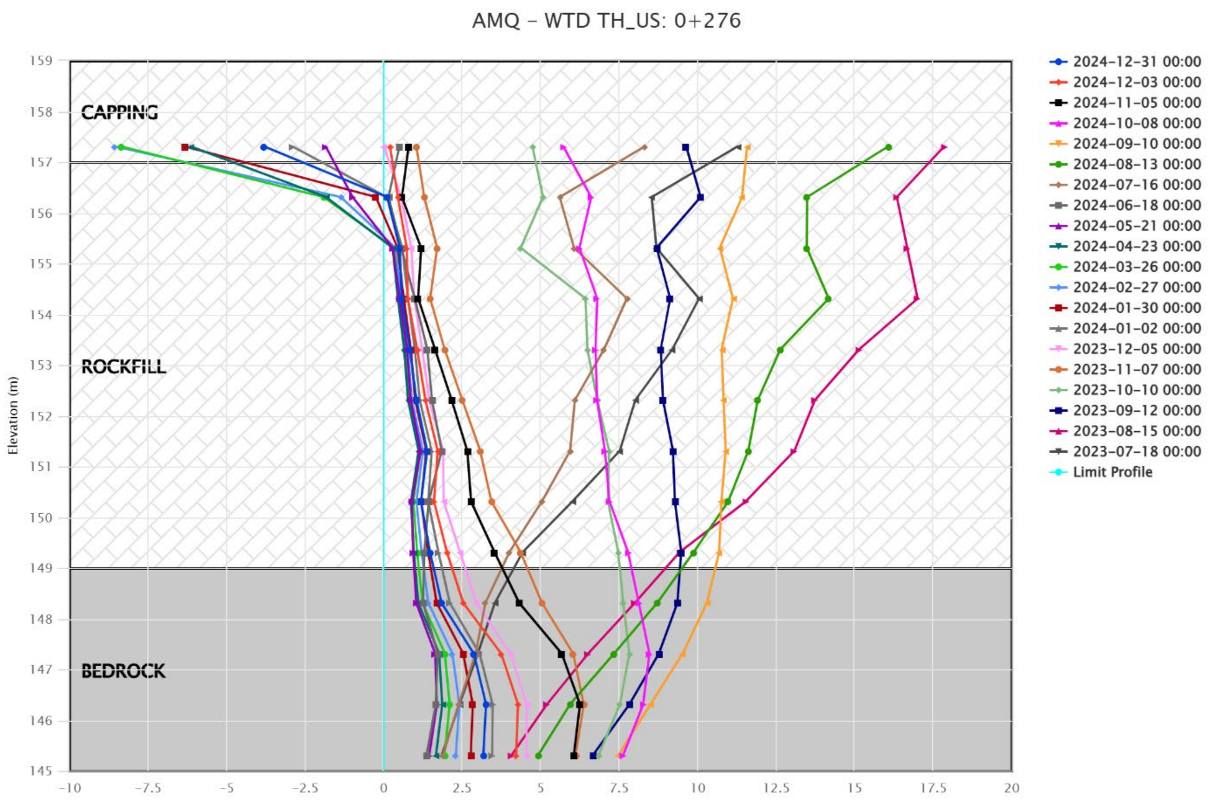
2023-07-18 00:00
Limit Profile

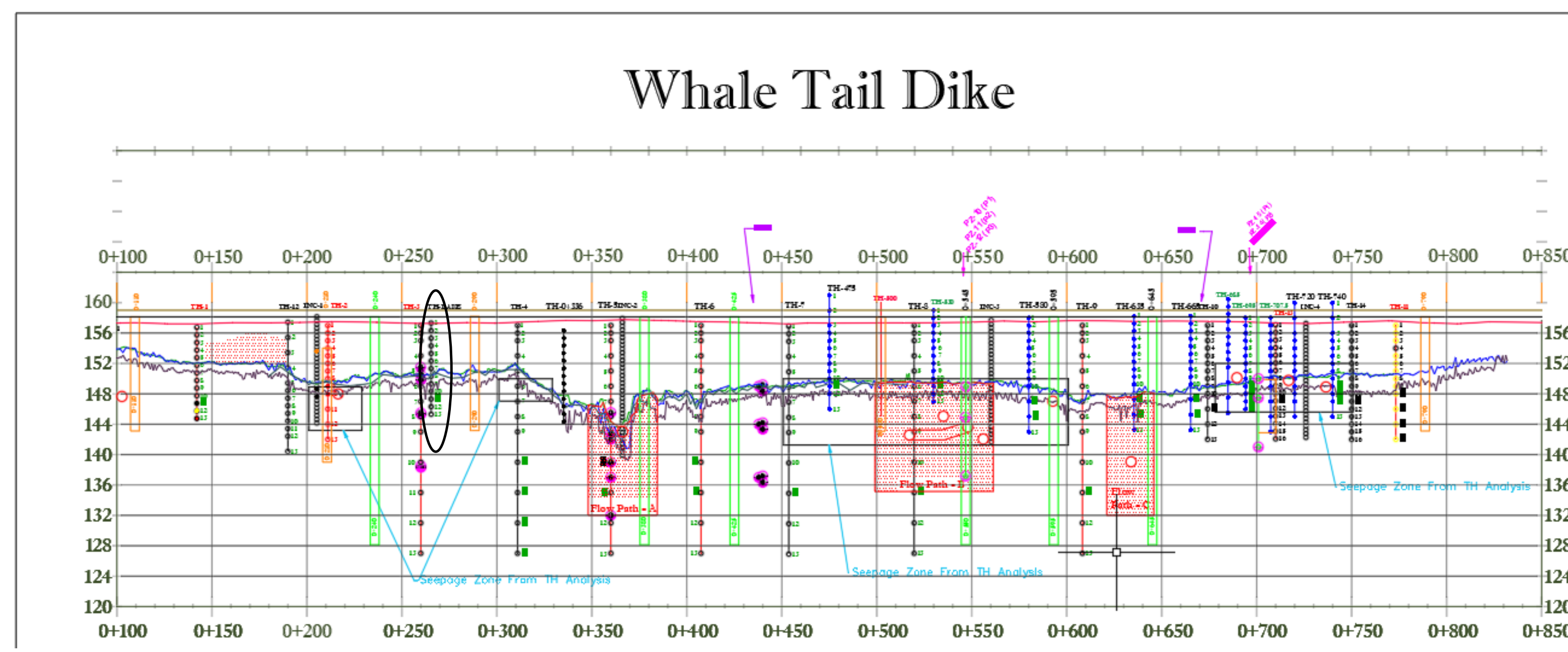

Whale Tail Dike
Seepage Zone From TH Analysis

WTD-TH 0+276 U/S

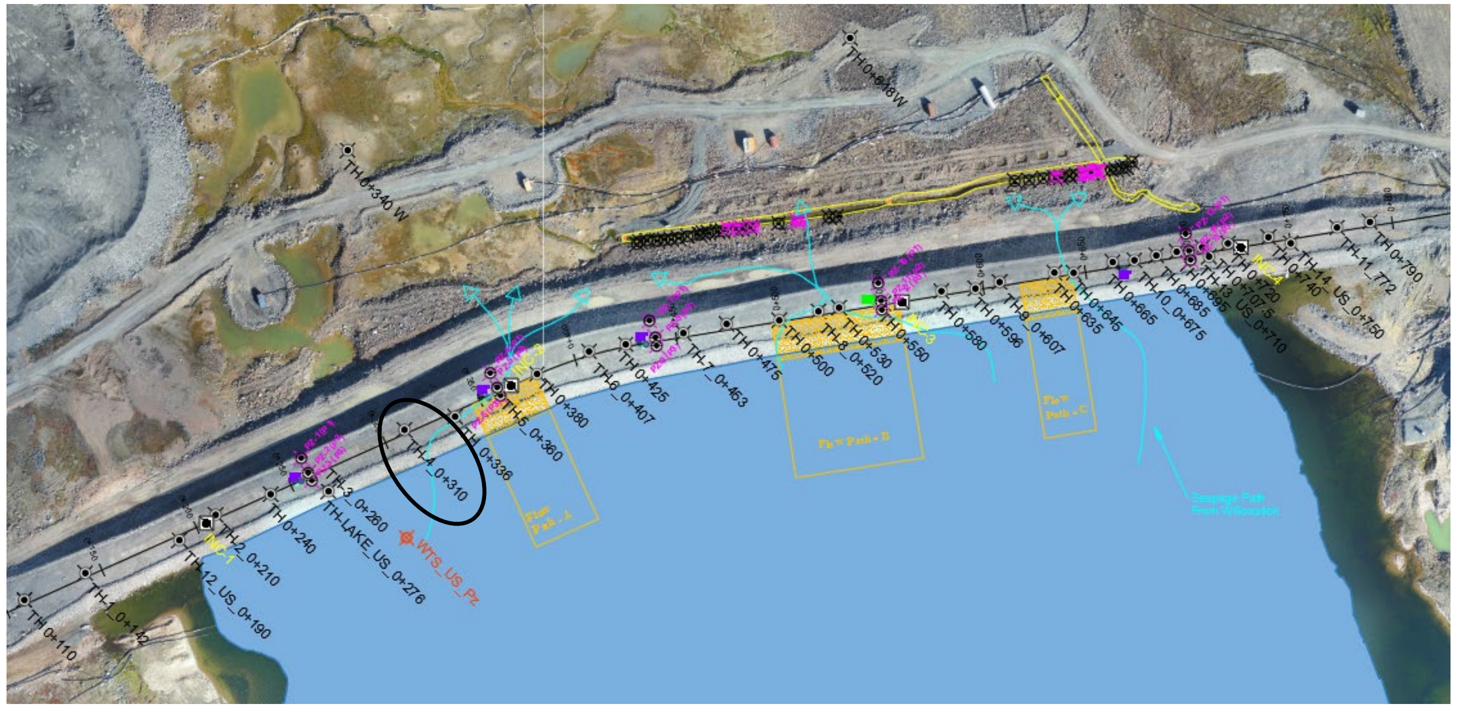


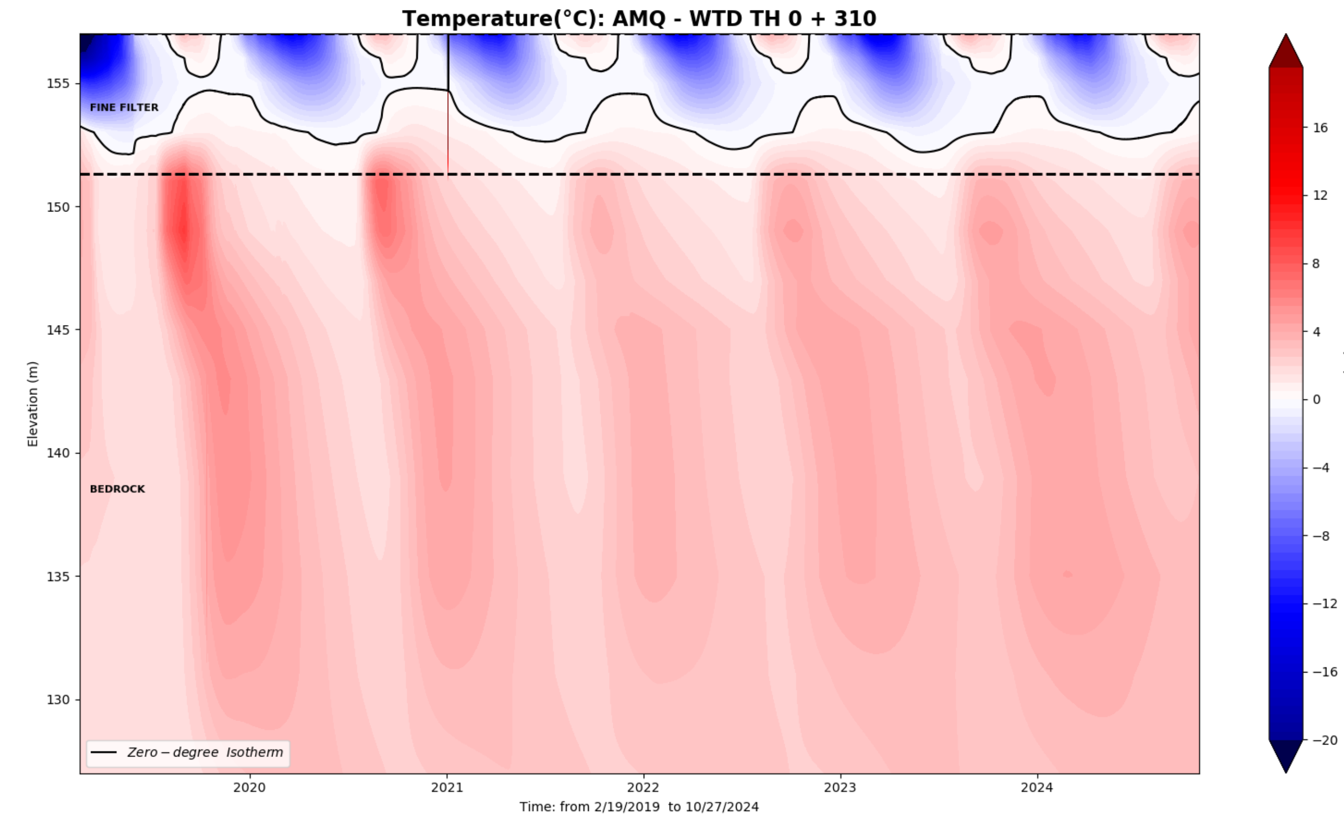


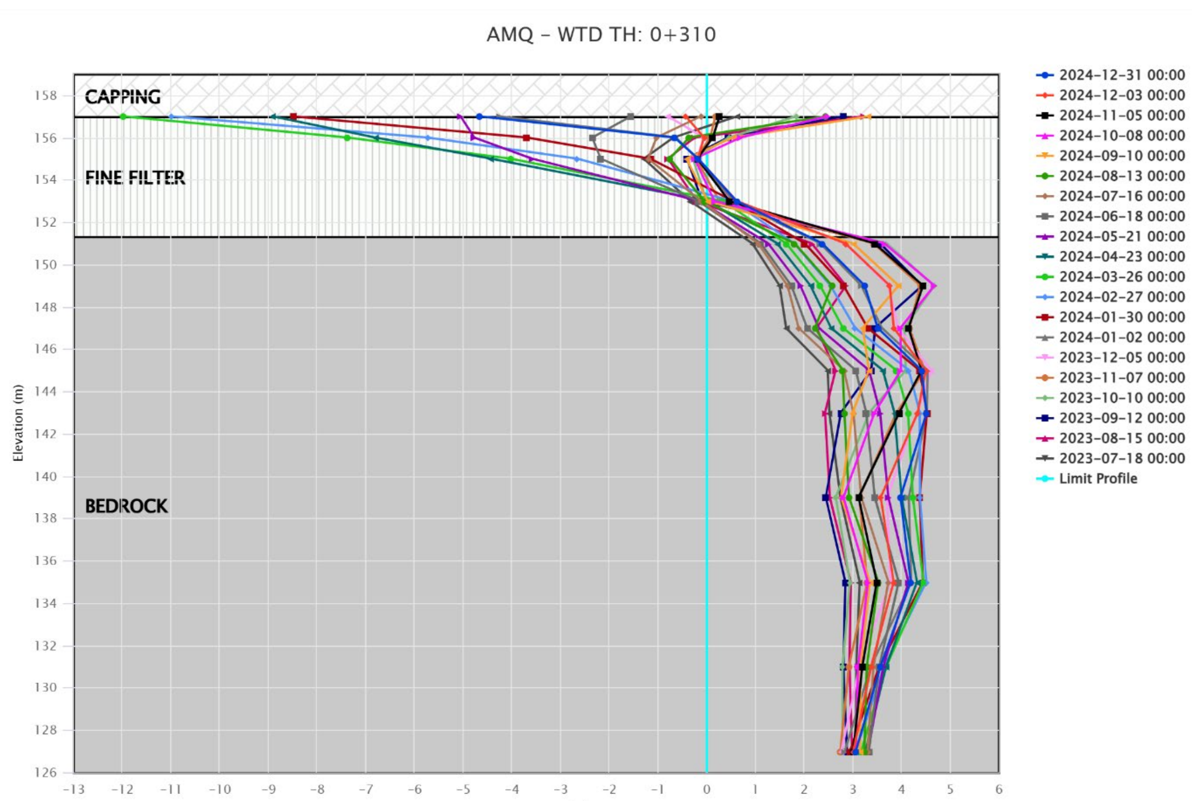




WTD-TH 0+310




Temperature(°C): AMQ - WTD TH 0 + 310
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Temperature(°C)
2020
2021
2022
2023
2024
Time: from 2/19/2019 to 10/27/2024


AMQ - WTD TH: 0+310
CAPPING
FINE FILTER
BEDROCK
Elevation (m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
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2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
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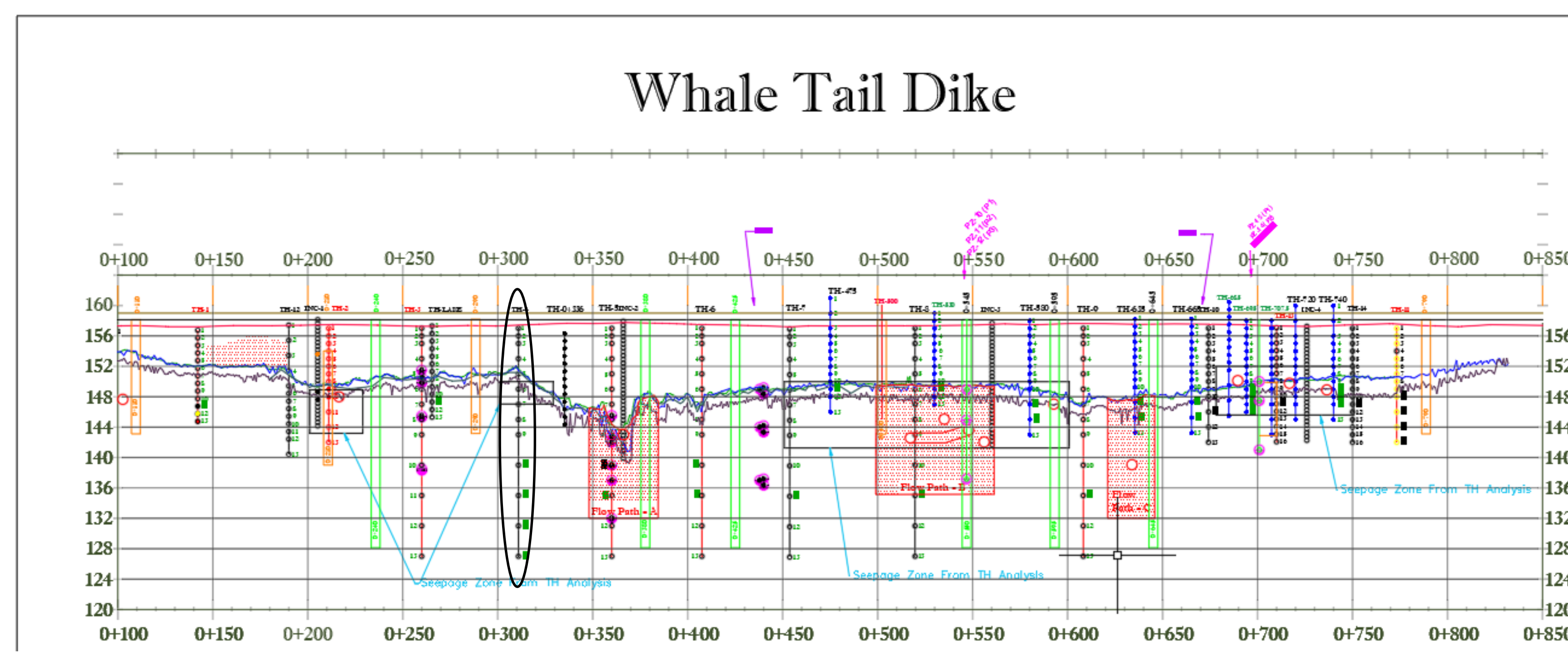
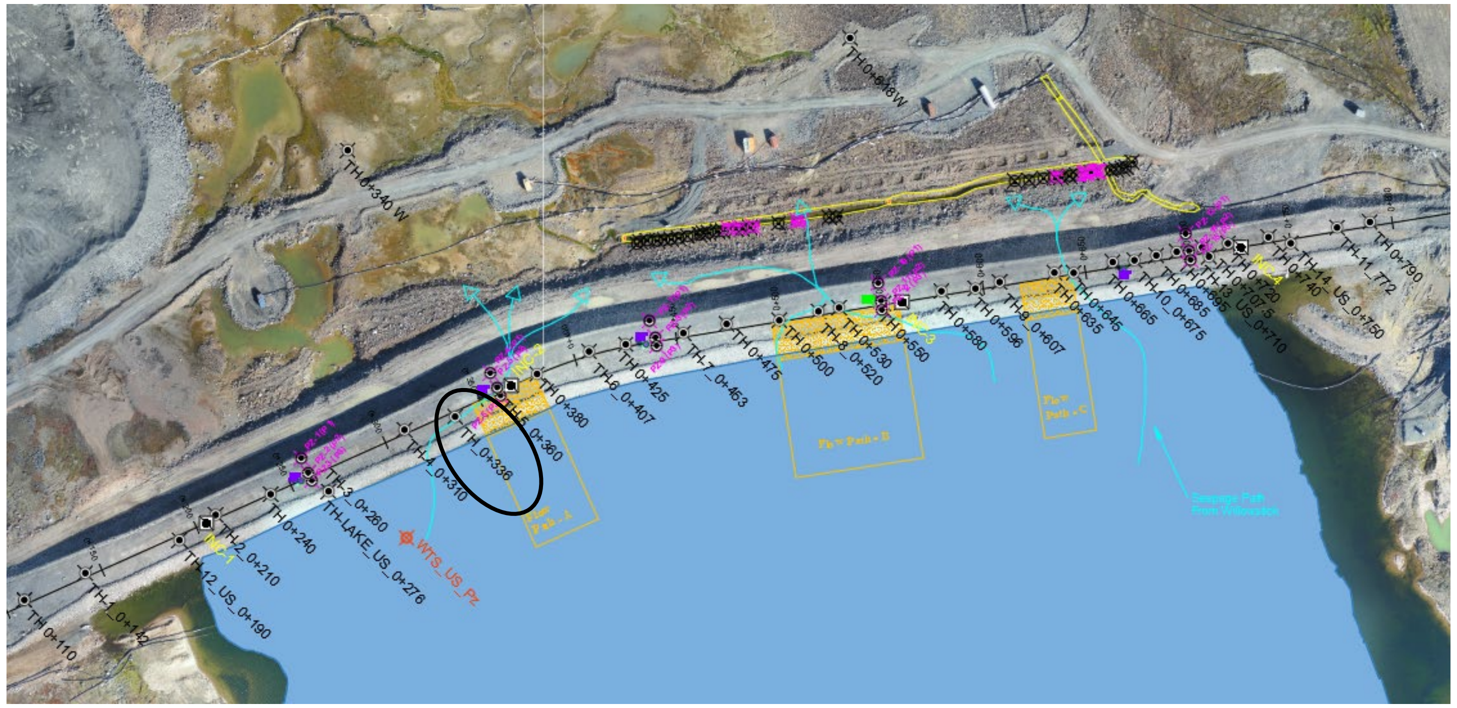
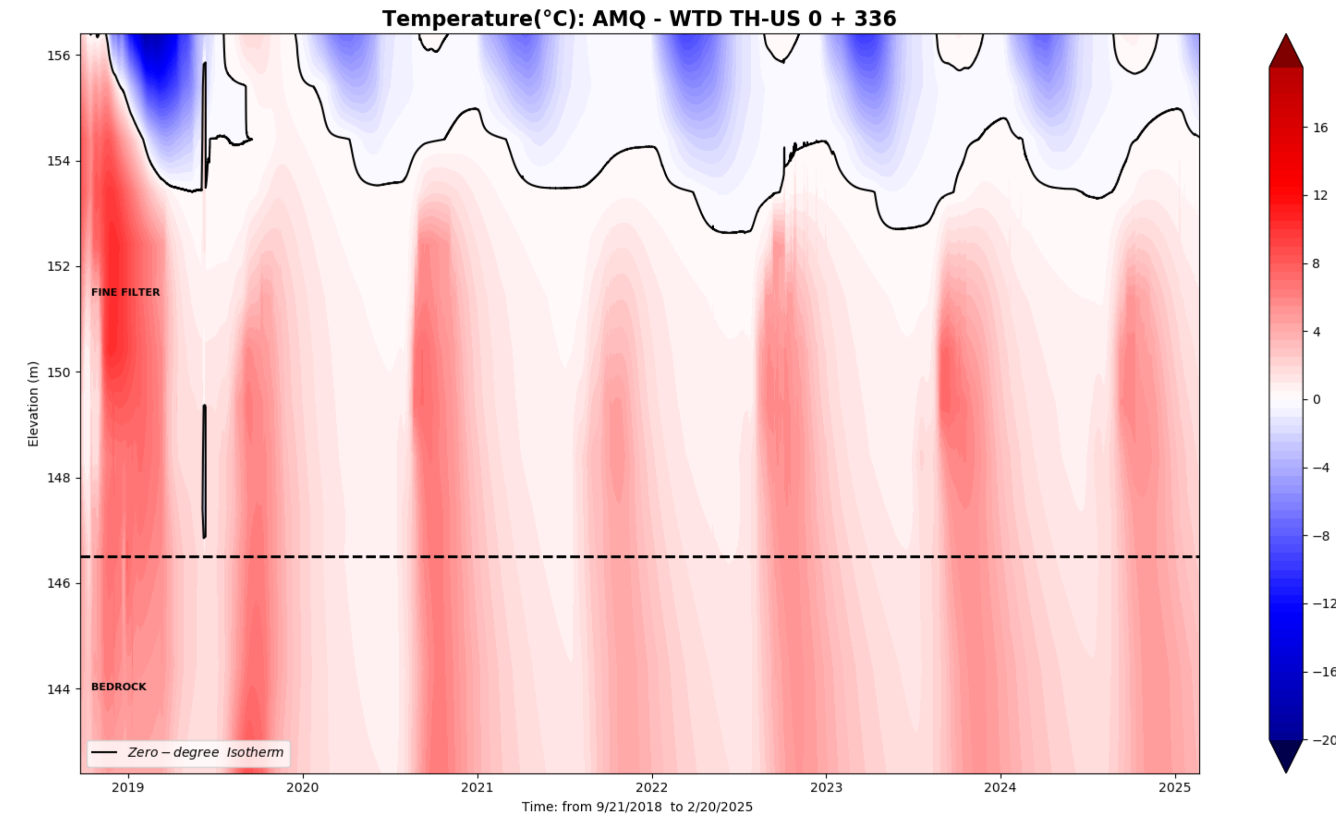
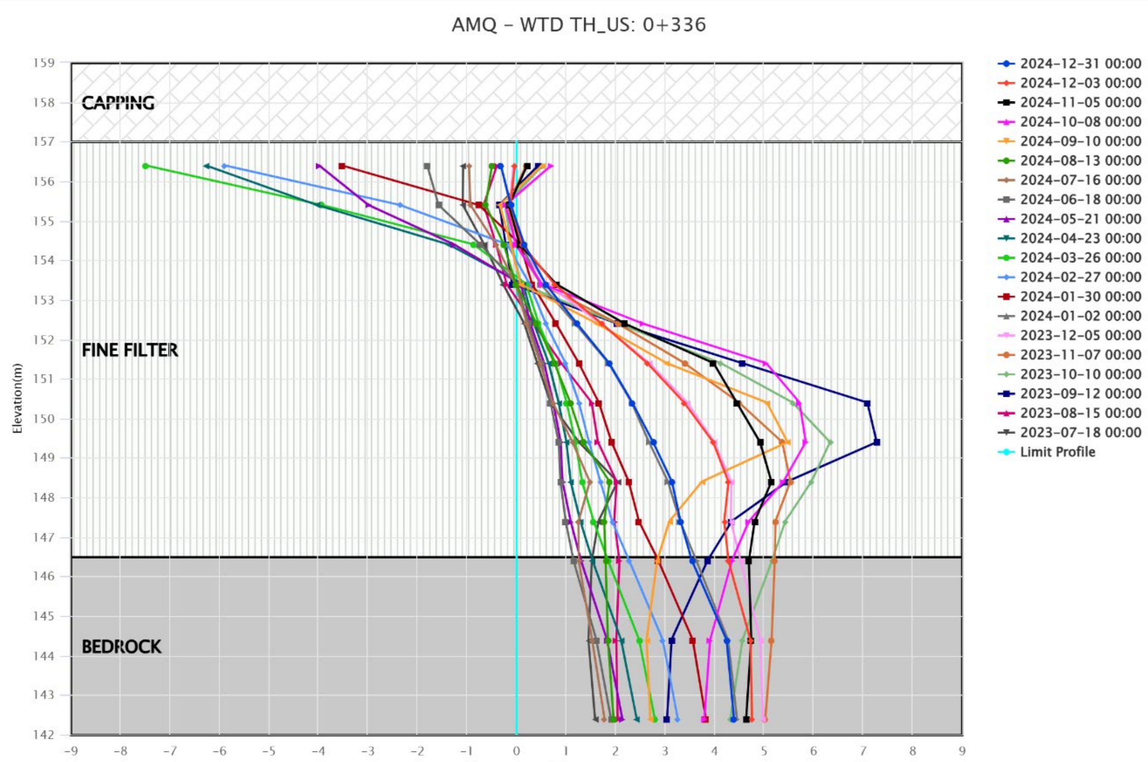
2023-07-18 00:00
Limit Profile

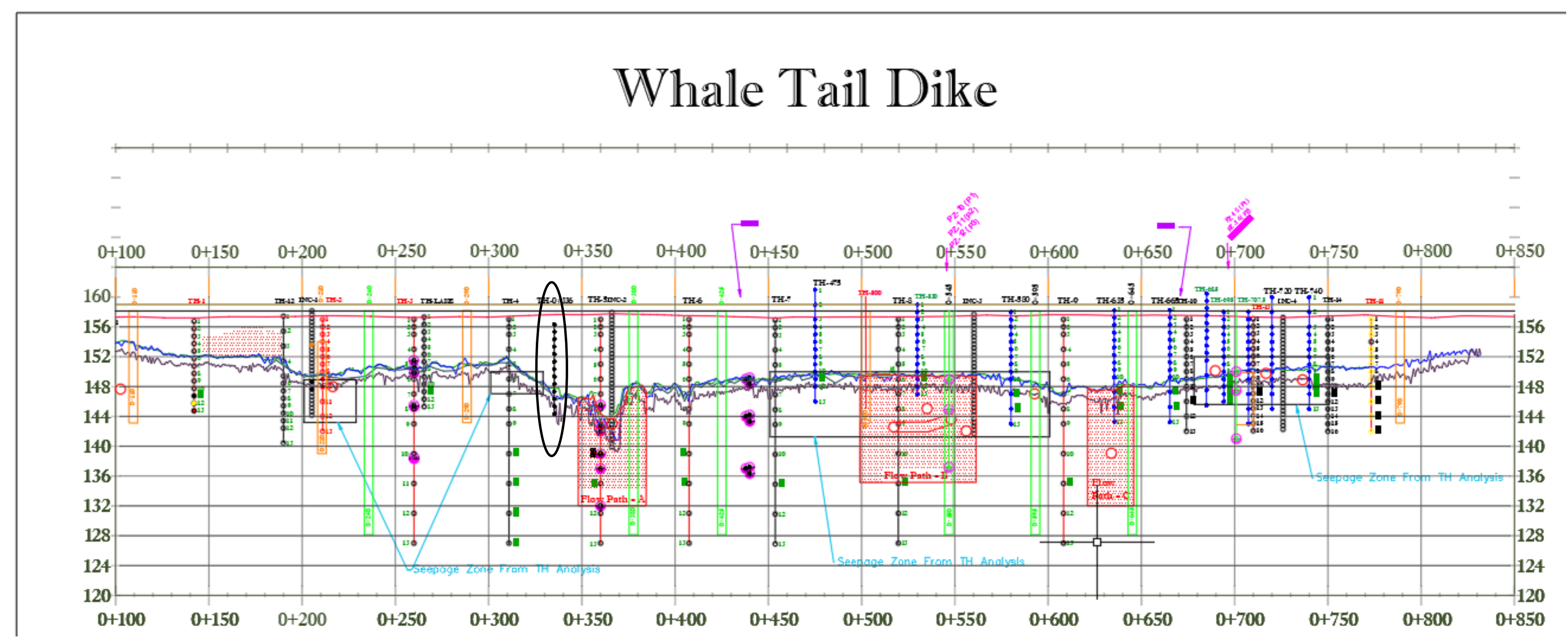

Whale Tail Dike
Flow Path - A
Flow Path - B
Seepage Zone From TH Analysis

WTD-TH 0+336 U/S

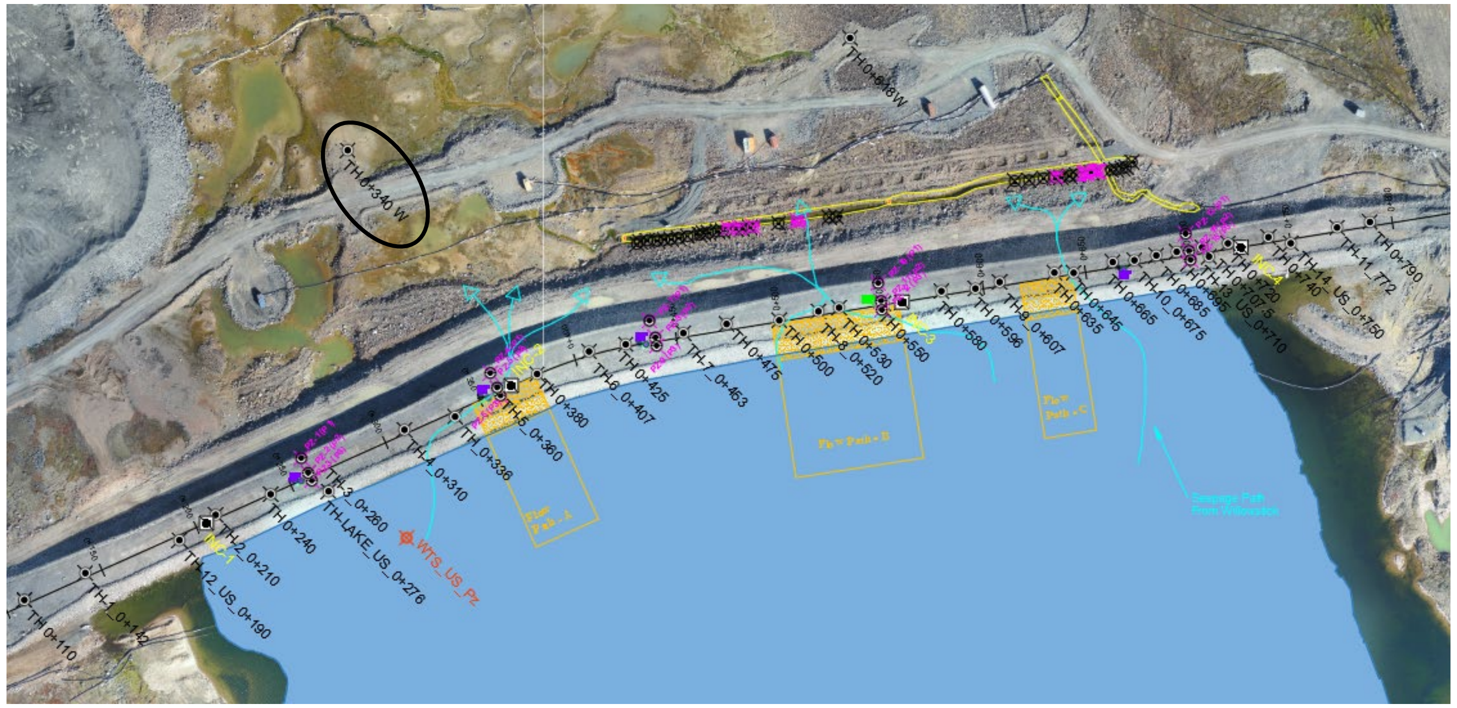


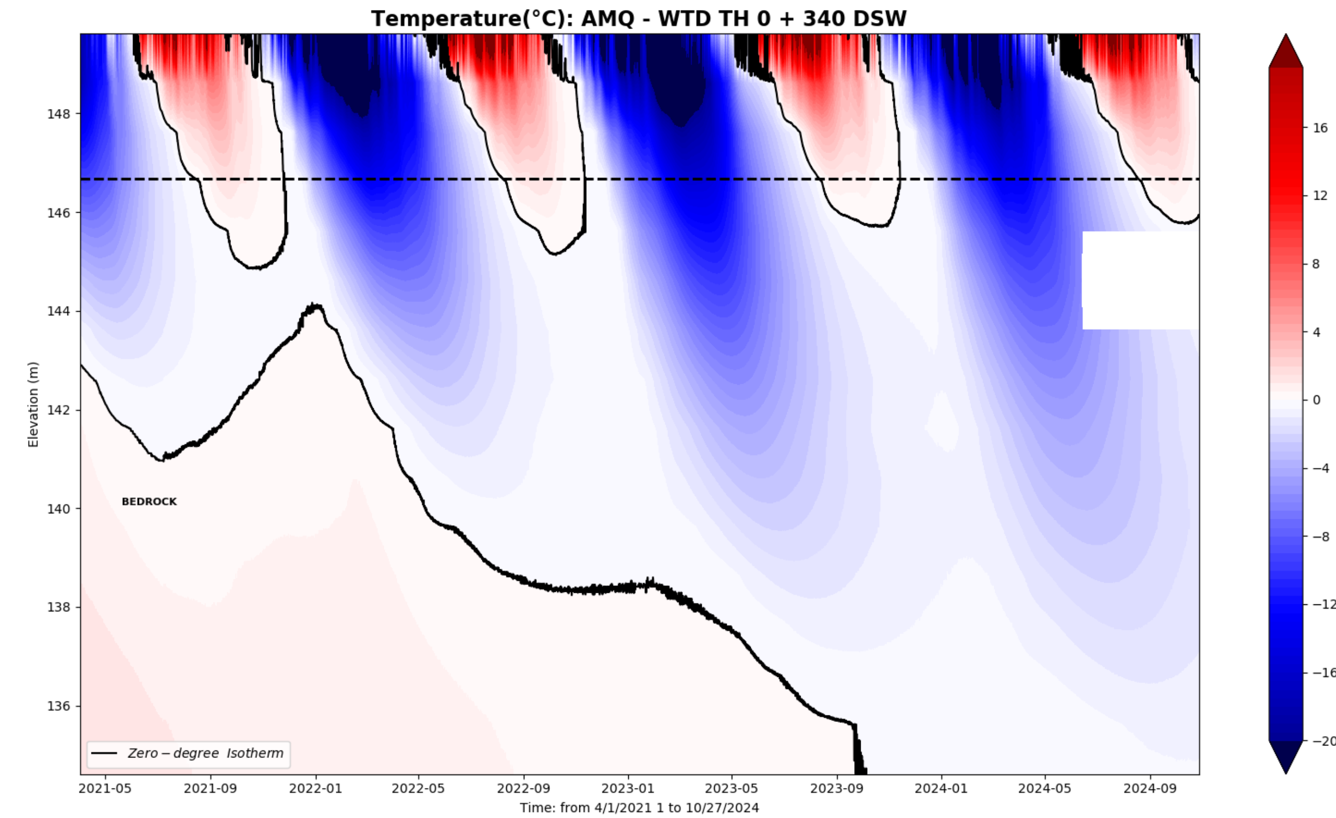


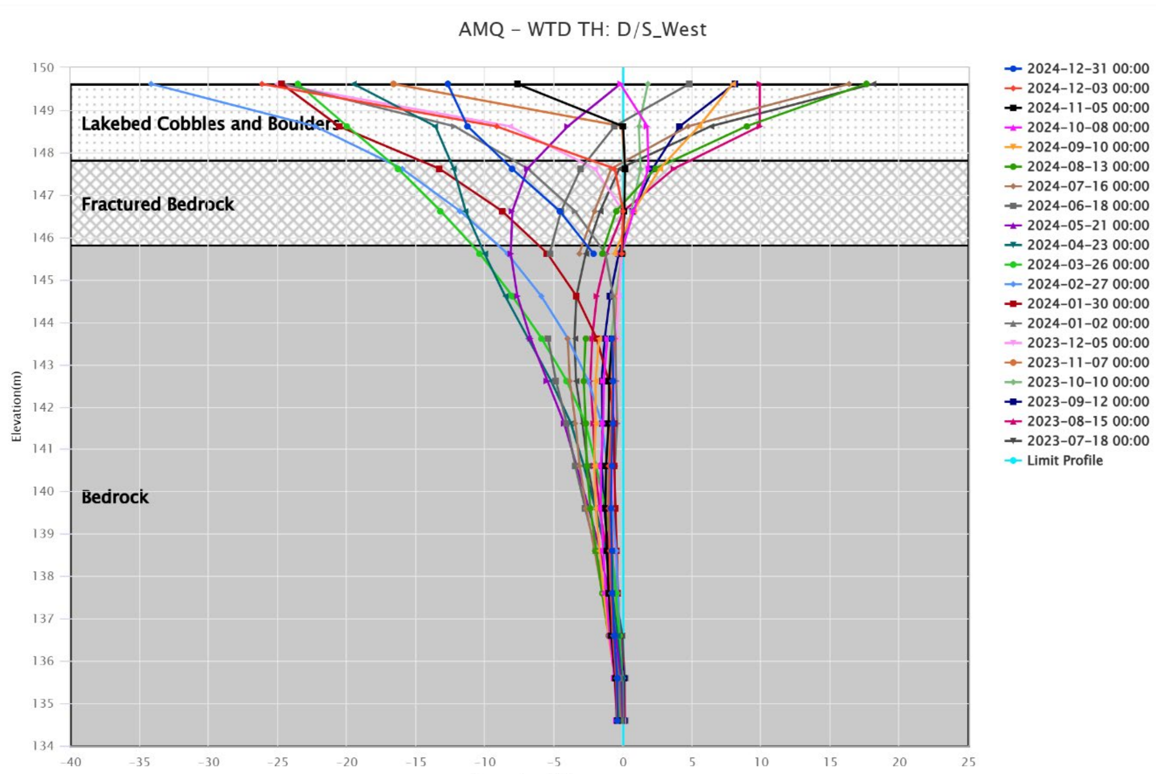




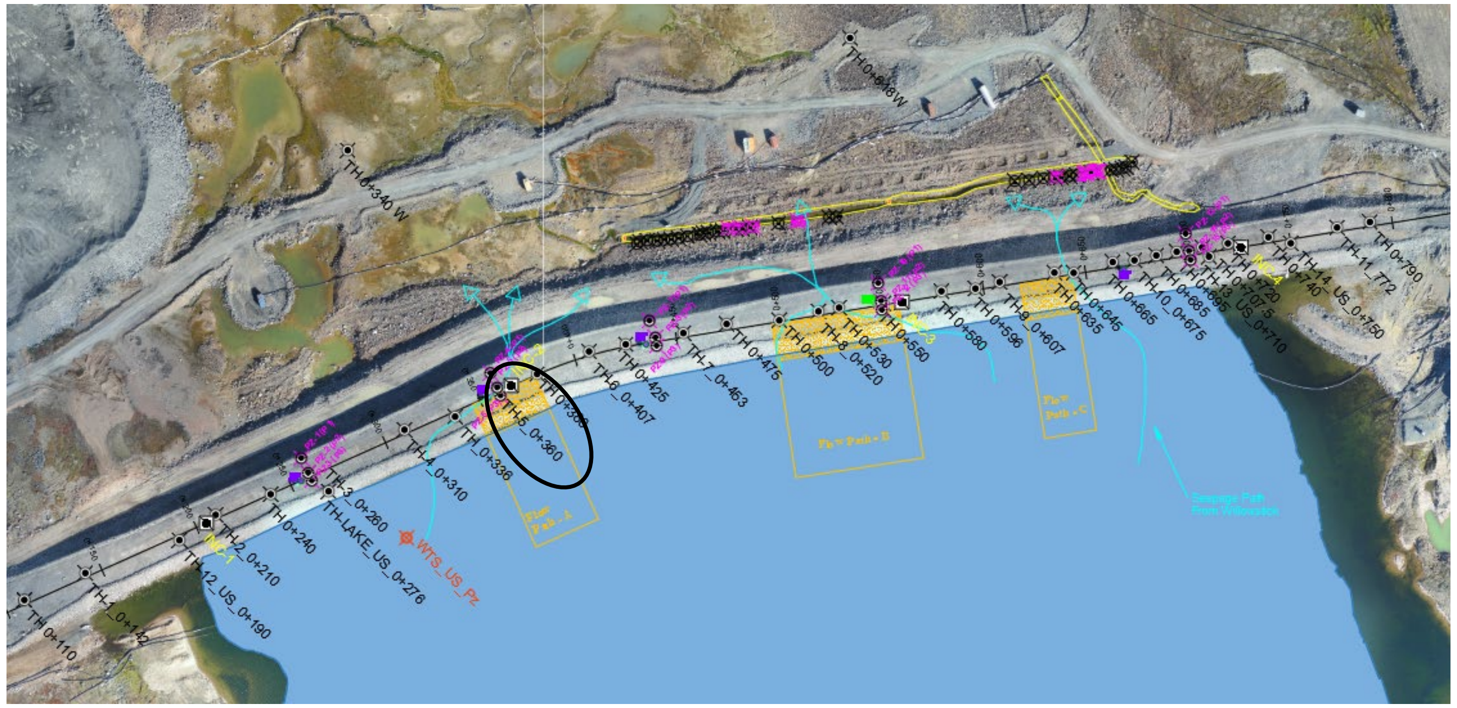
WTD-TH 0+340 DSW

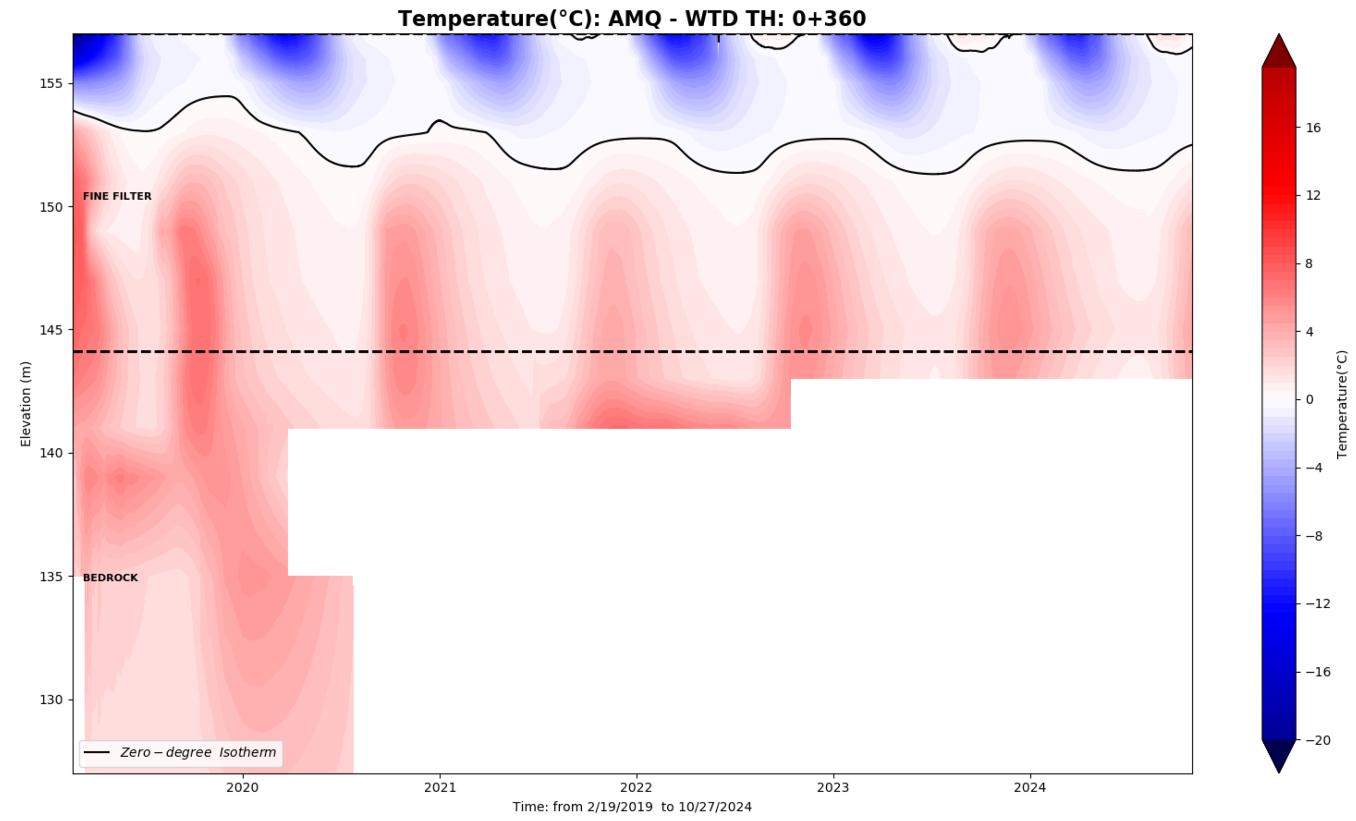


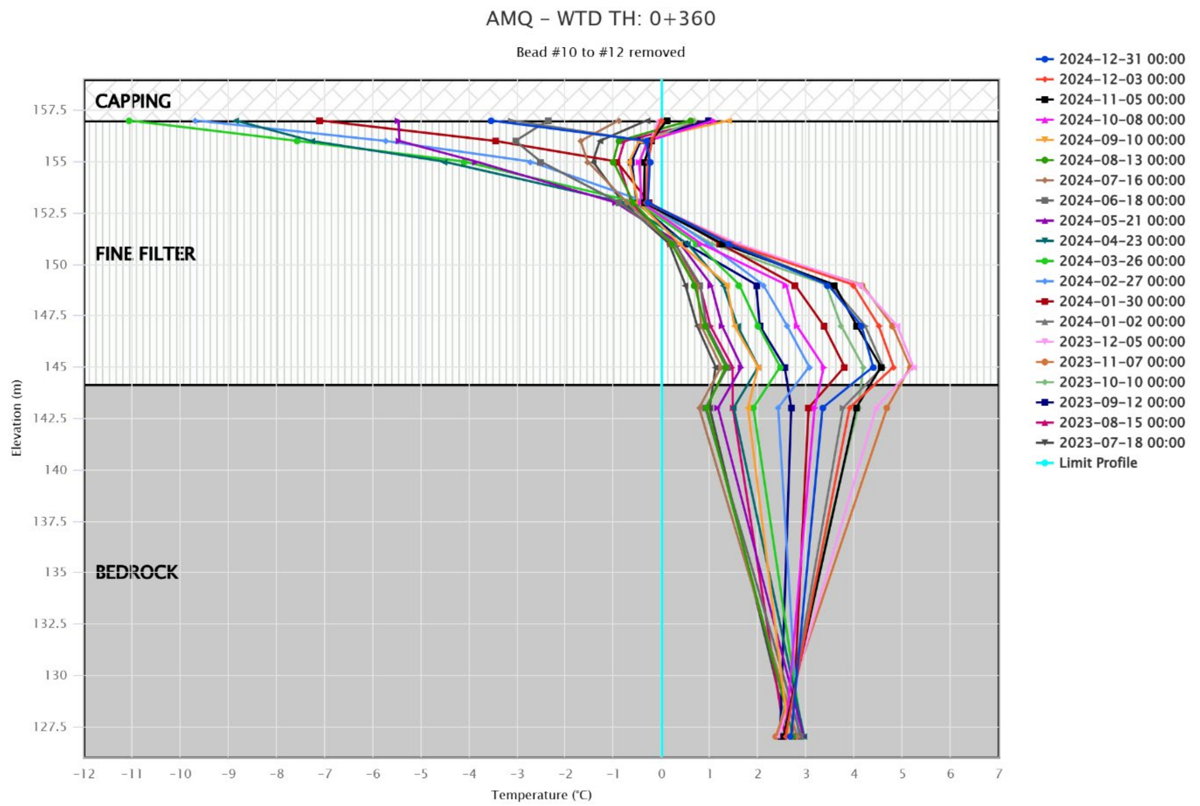




WTD-TH 0+360




Temperature(°C): AMQ - WTD TH: 0+360
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Temperature(°C)
Time: from 2/19/2019 to 10/27/2024


AMQ – WTD TH: 0+360
Bead #10 to #12 removed
CAPPING
FINE FILTER
BEDROCK
Elevation (m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
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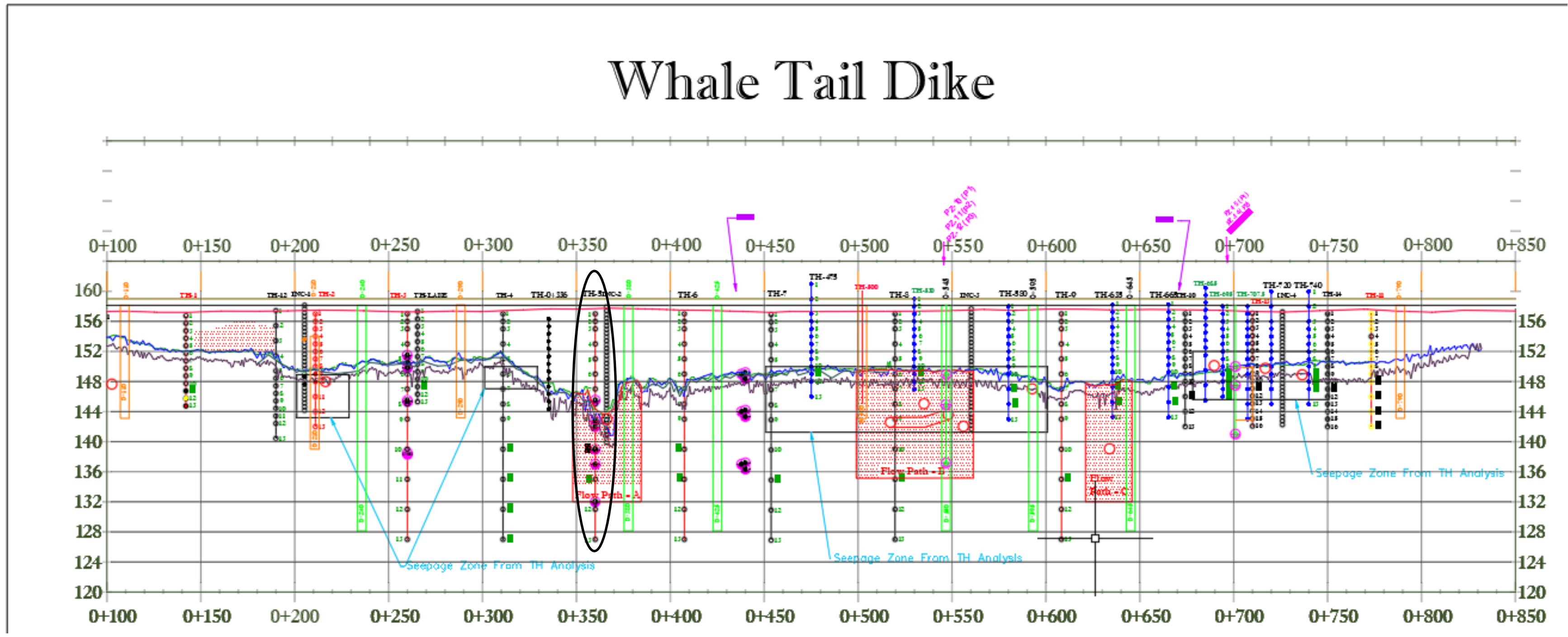
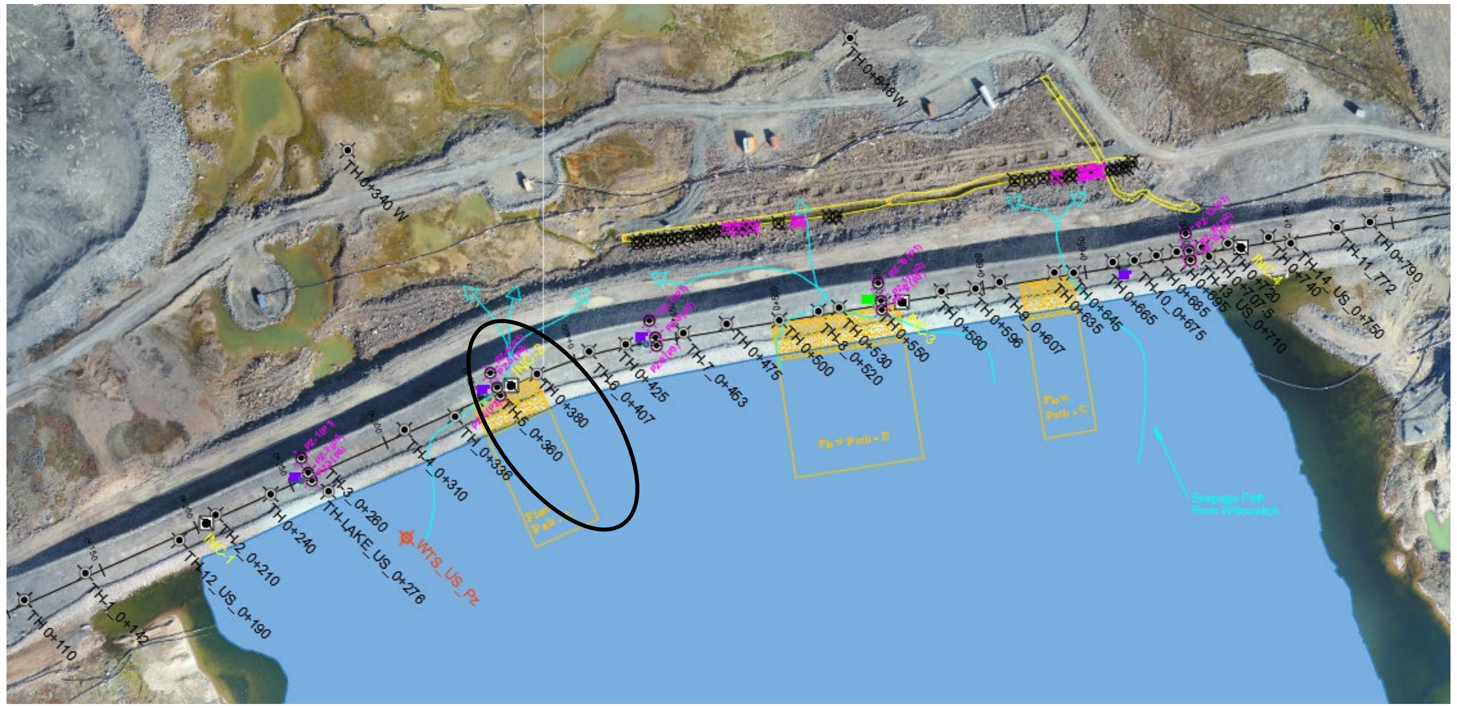
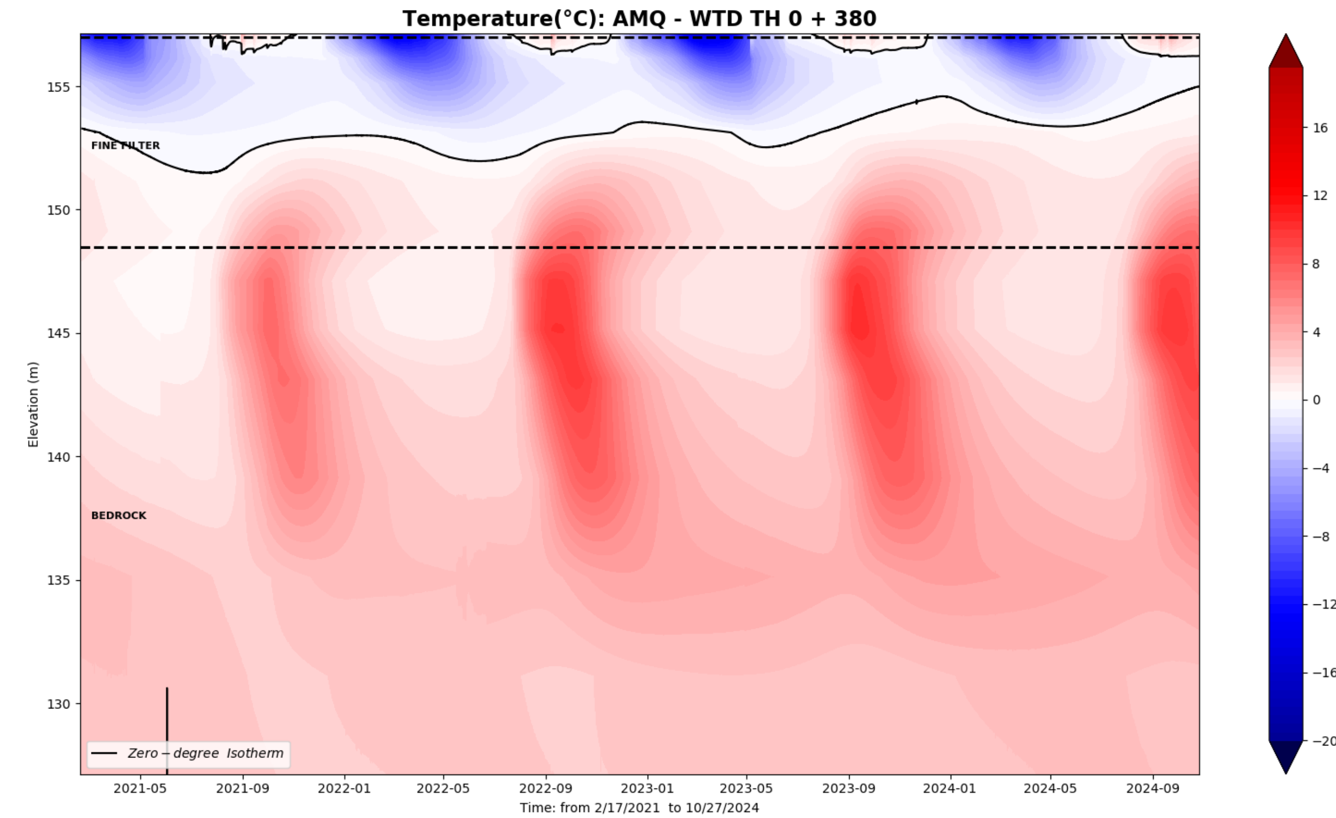
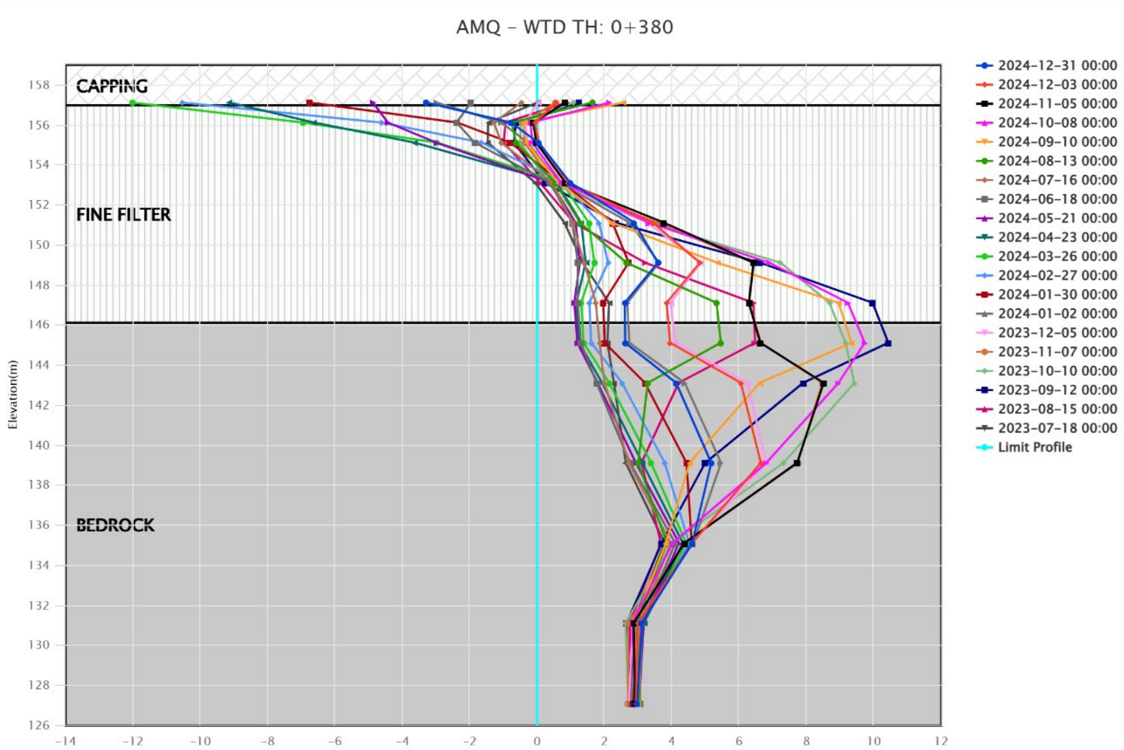
2023-07-18 00:00
Limit Profile


Whale Tail Dike
Seepage Zone From TH Analysis

WTD-TH 0+380




Temperature(°C): AMQ - WTD TH 0 + 380
FINE FILTER
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 2/17/2021 to 10/27/2024
Temperature(°C)


AMQ – WTD TH: 0+380
CAPPING
FINE FILTER
BEDROCK
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
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2024-04-23 00:00
2024-03-26 00:00
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2024-01-30 00:00
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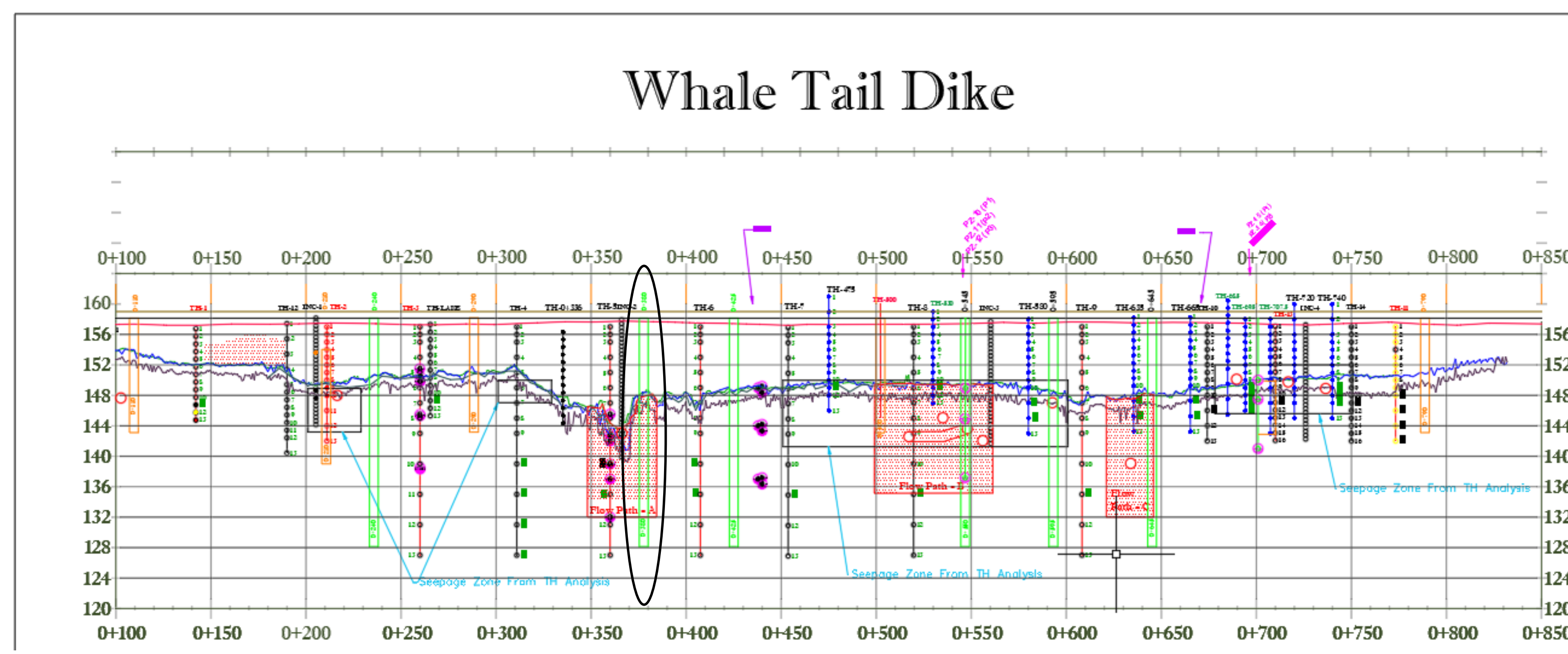
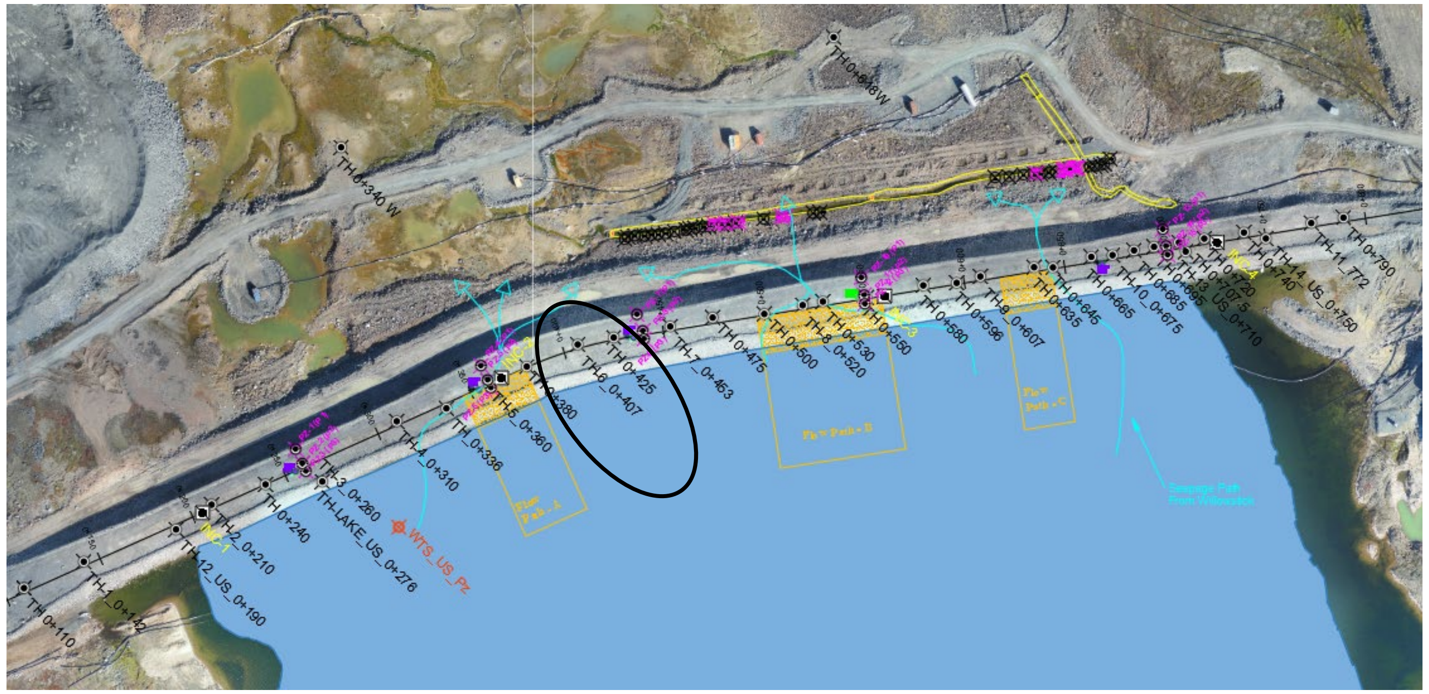
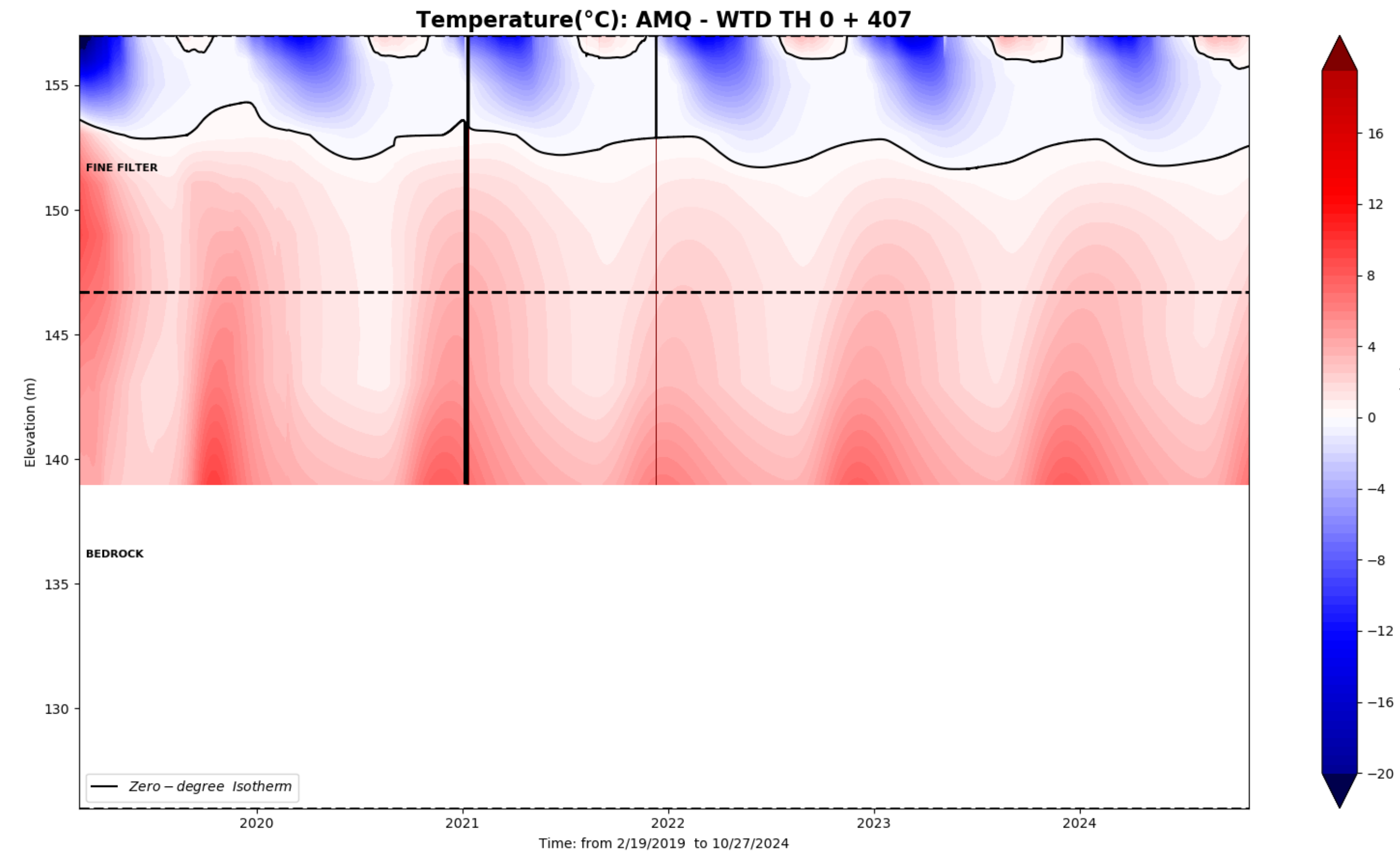
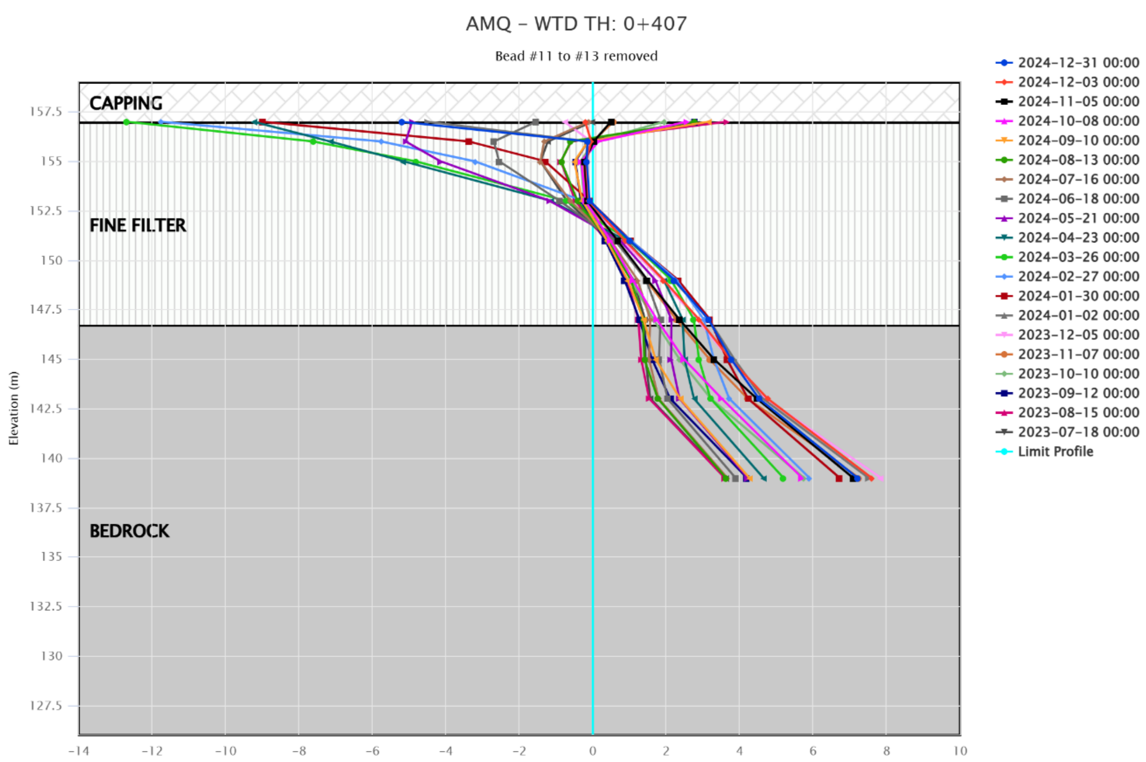
2023-07-18 00:00
Limit Profile


Whale Tail Dike
Seepage Zone From TH Analysis

WTD-TH 0+407




Temperature(°C): AMQ - WTD TH 0 + 407
FINE FILTER
BEDROCK
Elevation (m)
Temperature(°C)
Zero – degree Isotherm
Time: from 2/19/2019 to 10/27/2024


AMQ – WTD TH: 0+407
Bead #11 to #13 removed
CAPPING
FINE FILTER
BEDROCK
Elevation (m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
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2024-03-26 00:00
2024-02-27 00:00
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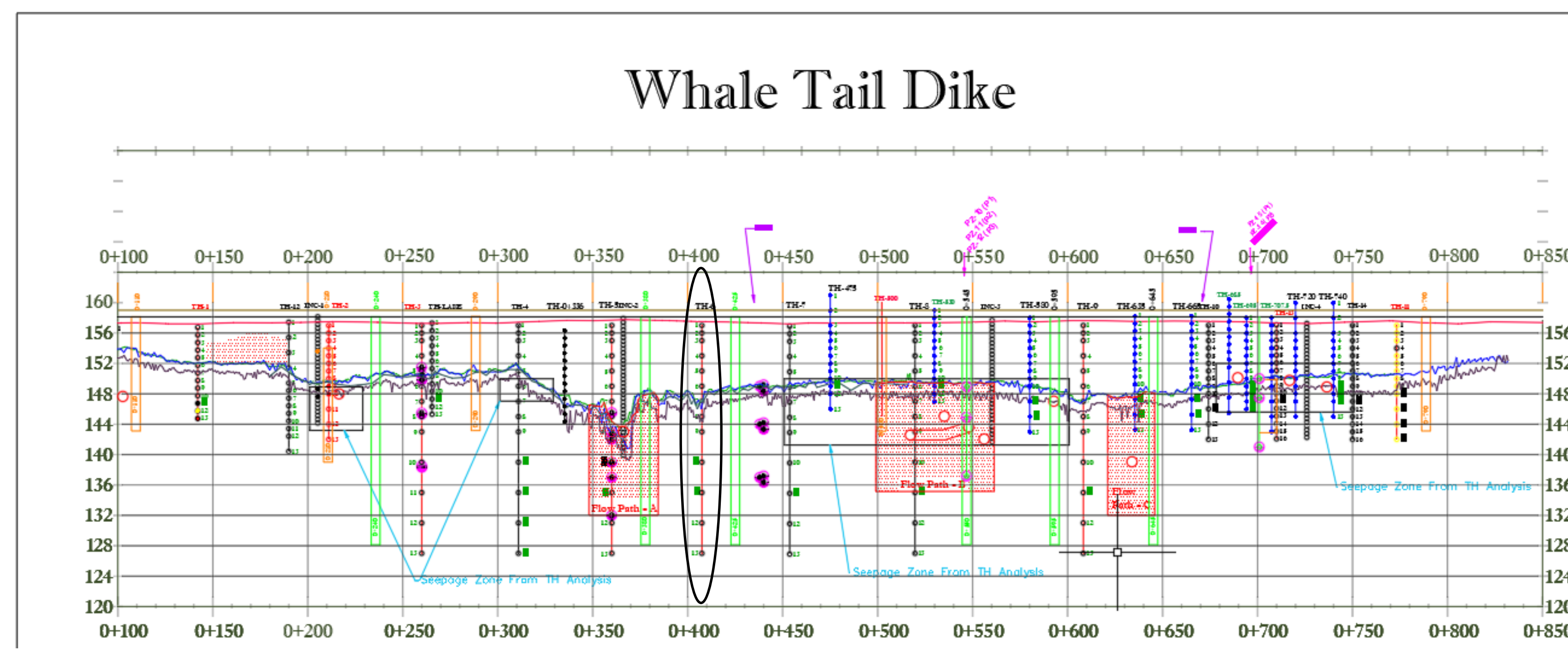
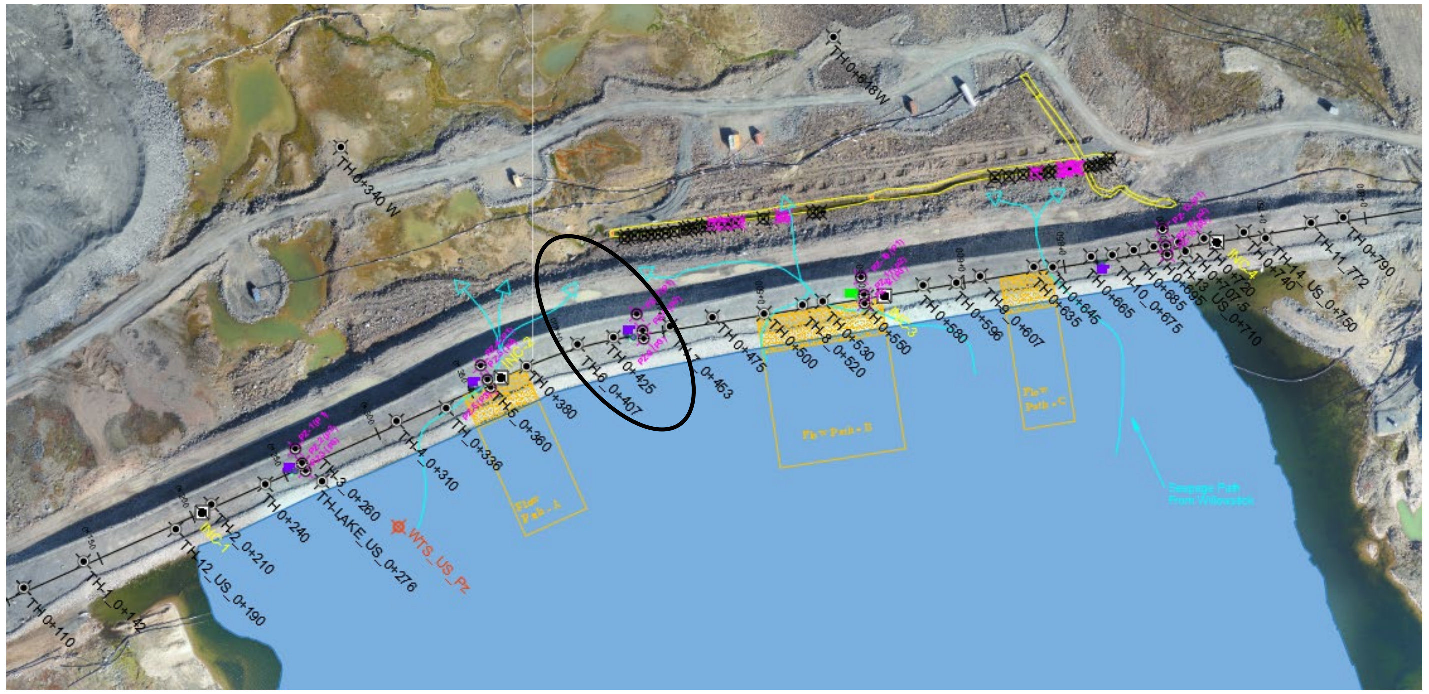
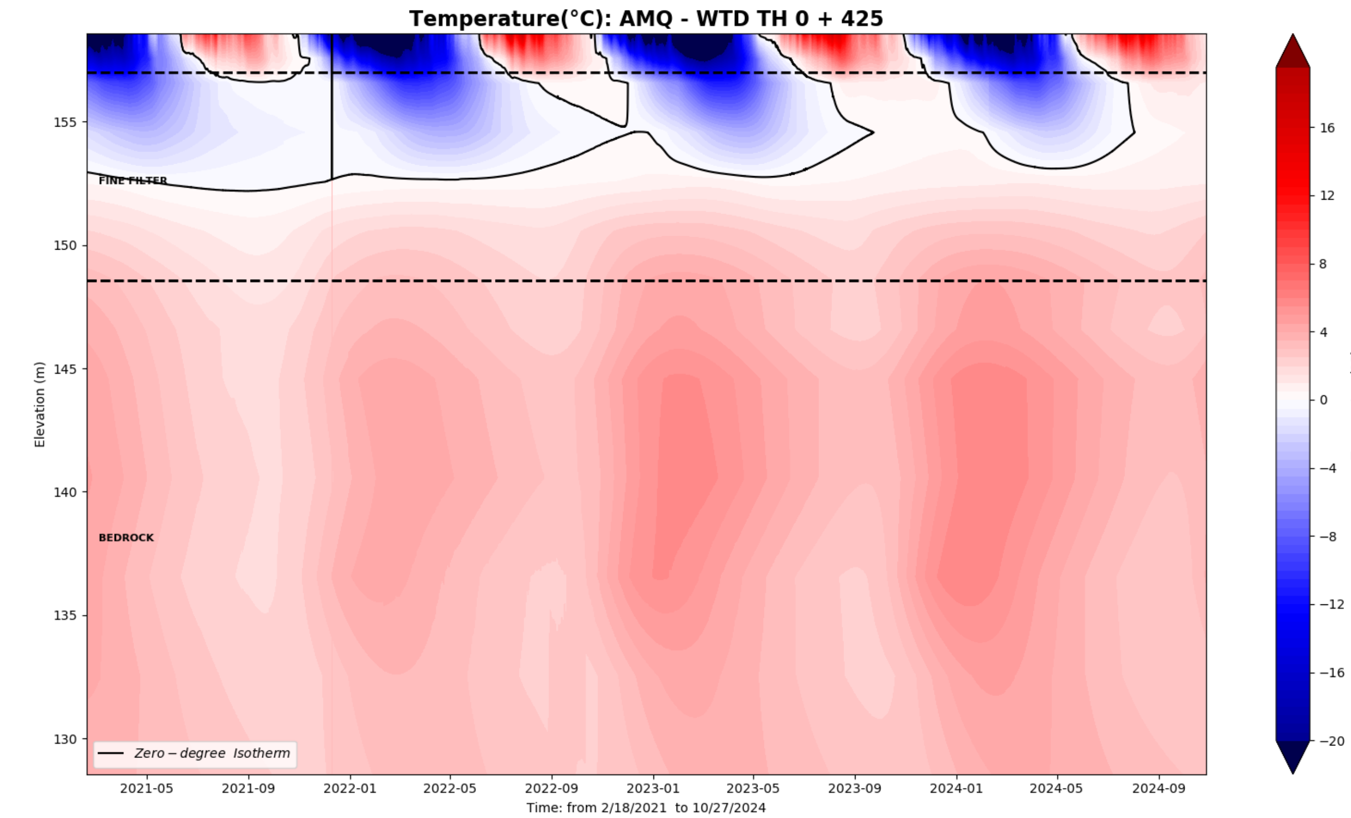
2023-07-18 00:00
Limit Profile

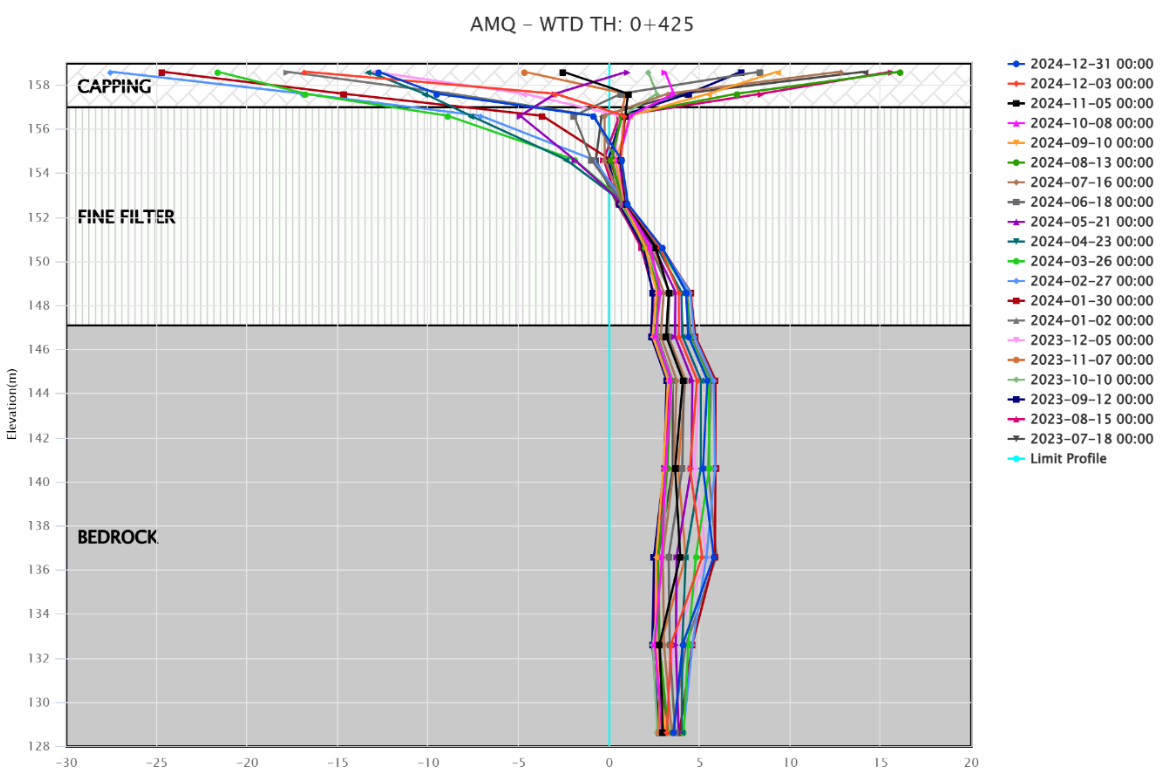

Whale Tail Dike
Seepage Zone From TH Analysis

WTD-TH 0+425





Temperature(°C): AMQ - WTD TH 0 + 425
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Temperature(°C)
2021-05
2021-09
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
Time: from 2/18/2021 to 10/27/2024



AMQ – WTD TH: 0+425
CAPPING
FINE FILTER
BEDROCK
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
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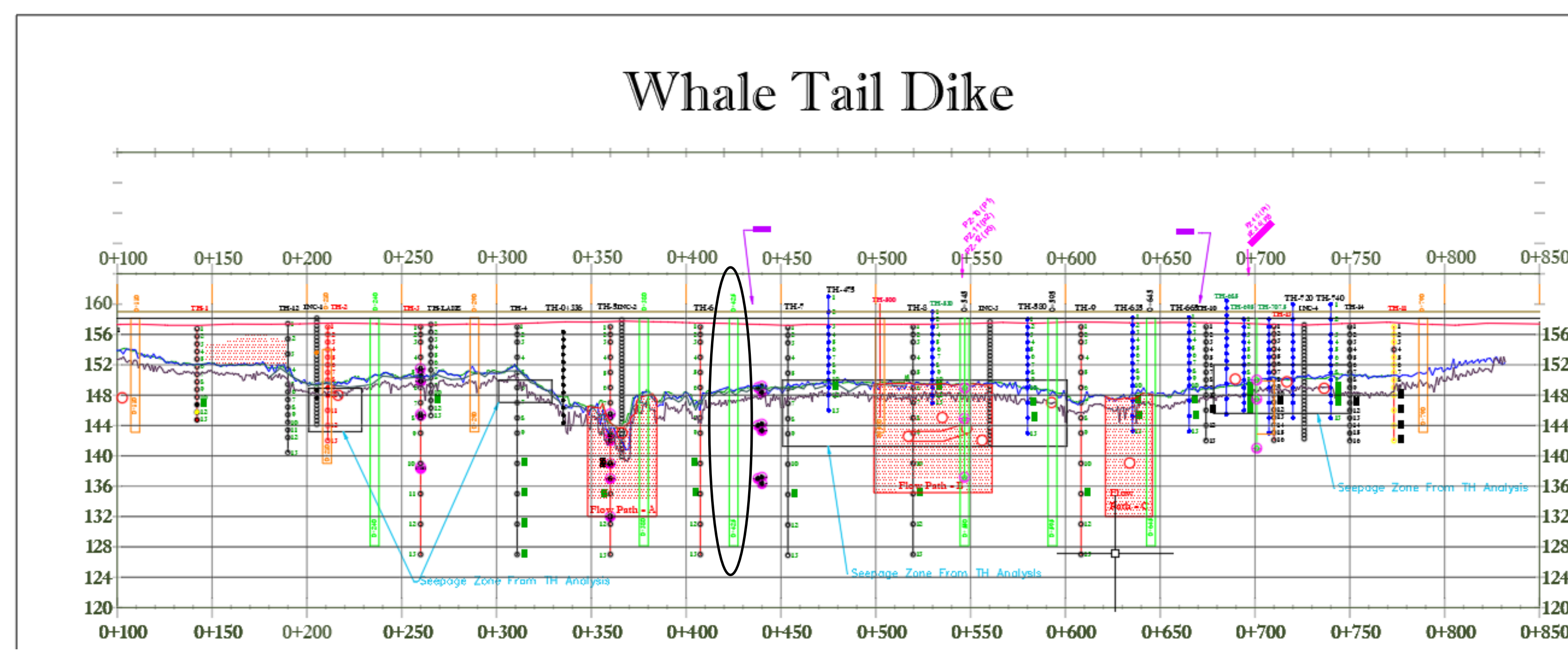
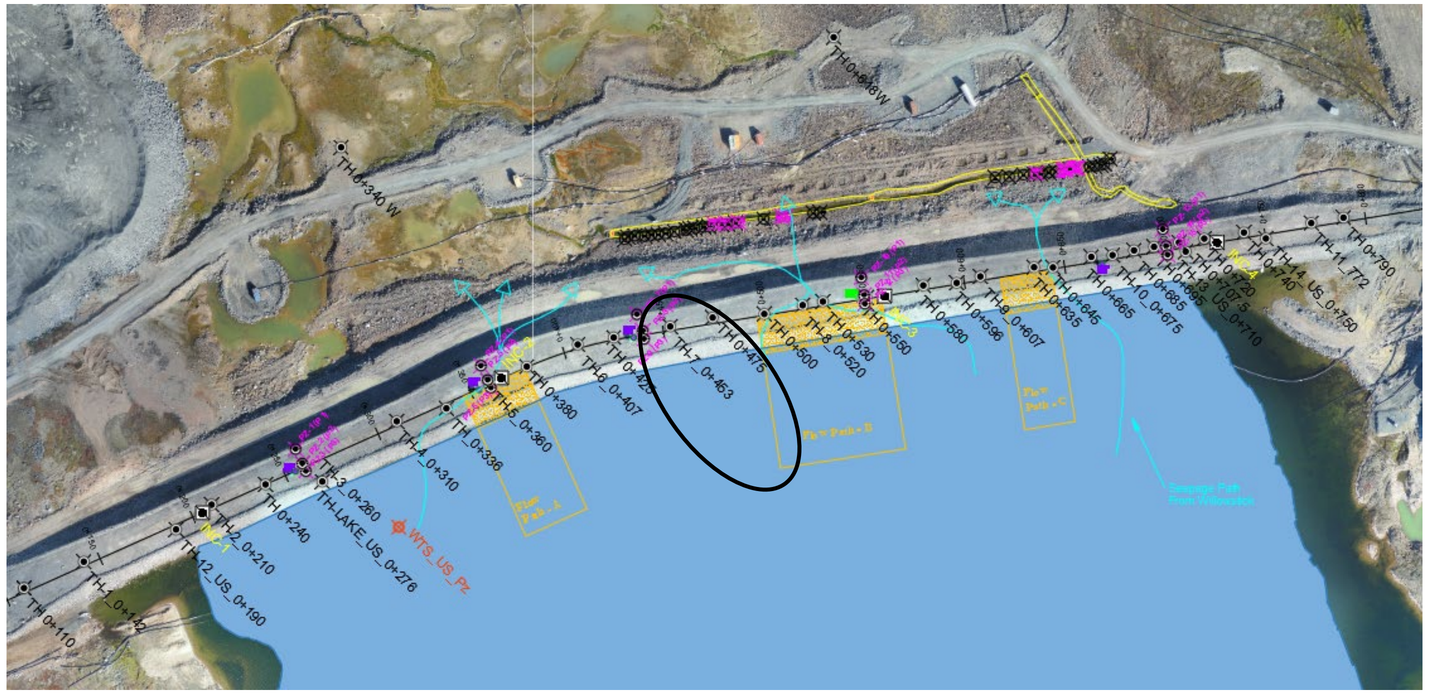
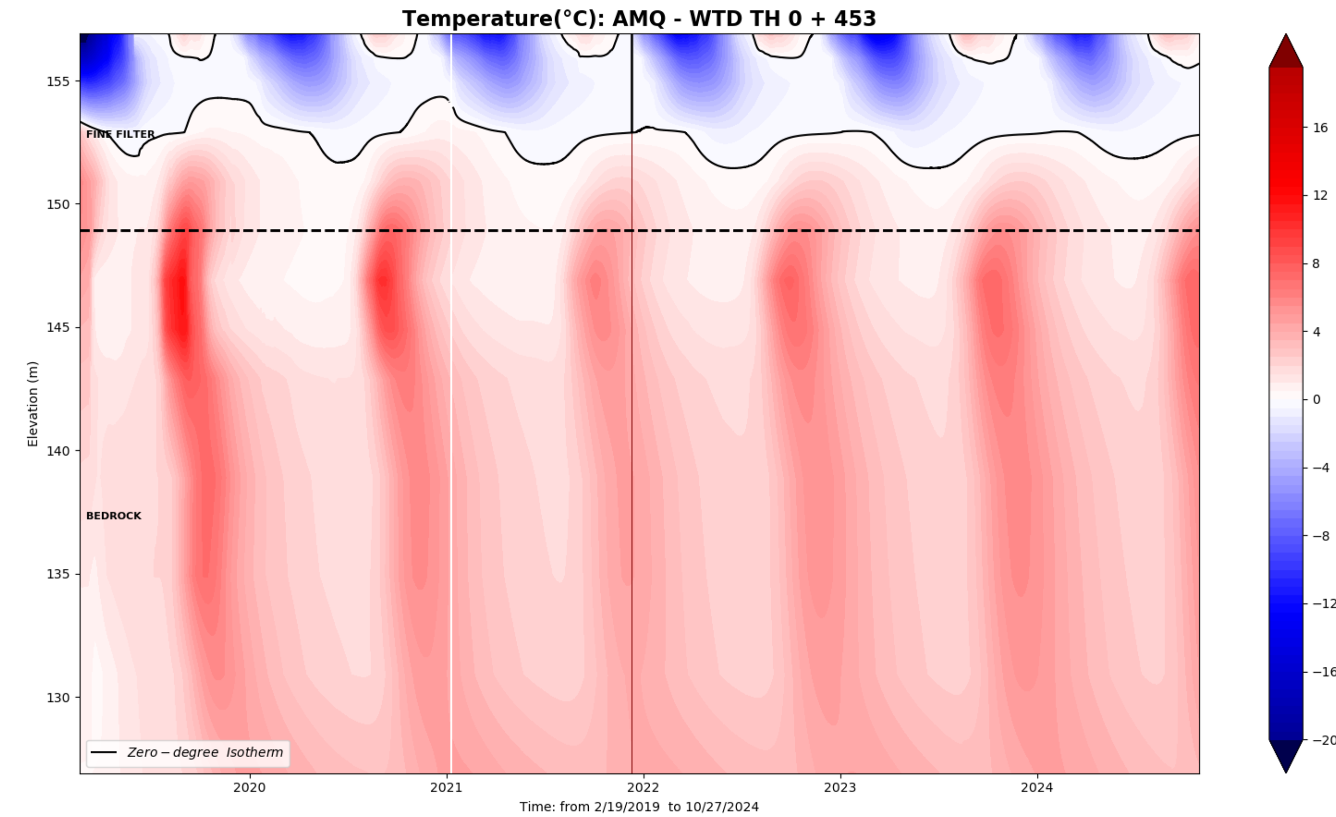
2023-07-18 00:00
Limit Profile

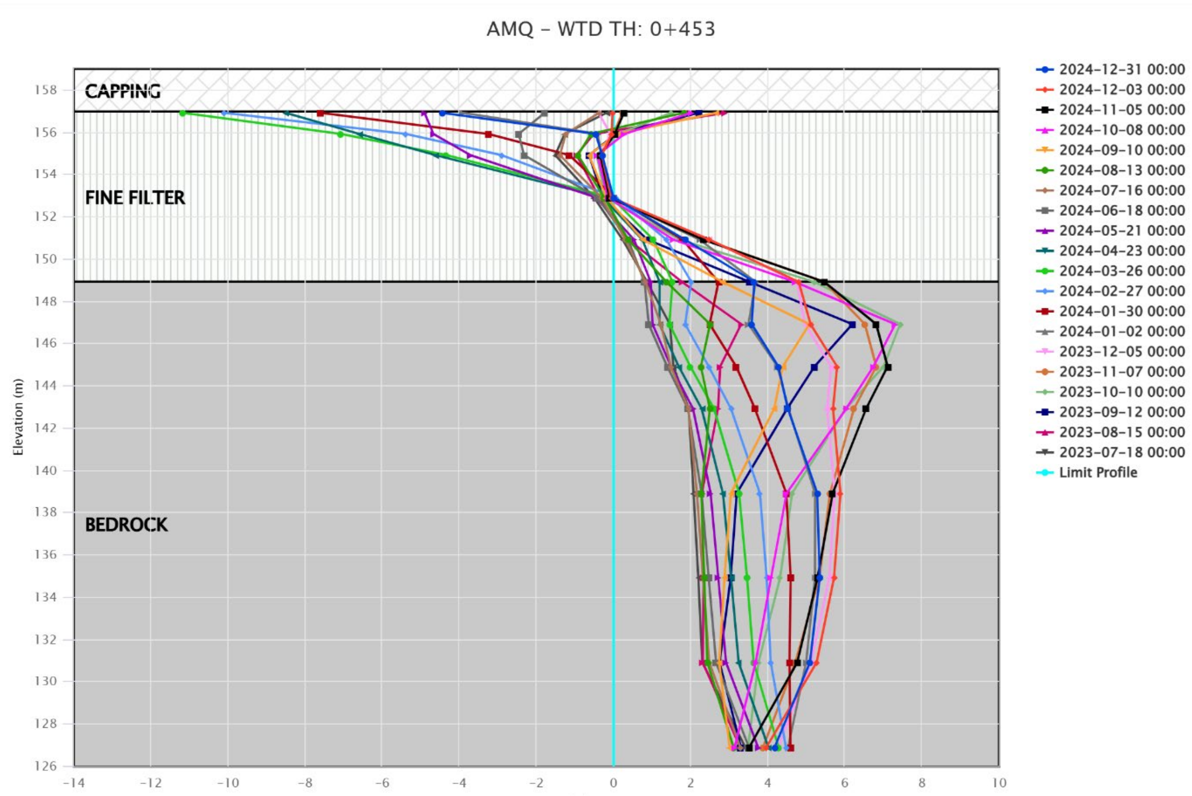


Whale Tail Dike
Flow Path - A
Seepage Zone From TH Analysis

WTD-TH 0+453




Temperature(°C): AMQ - WTD TH 0 + 453
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Time: from 2/19/2019 to 10/27/2024
Temperature(°C)


AMQ – WTD TH: 0+453
CAPPING
FINE FILTER
BEDROCK
Elevation (m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
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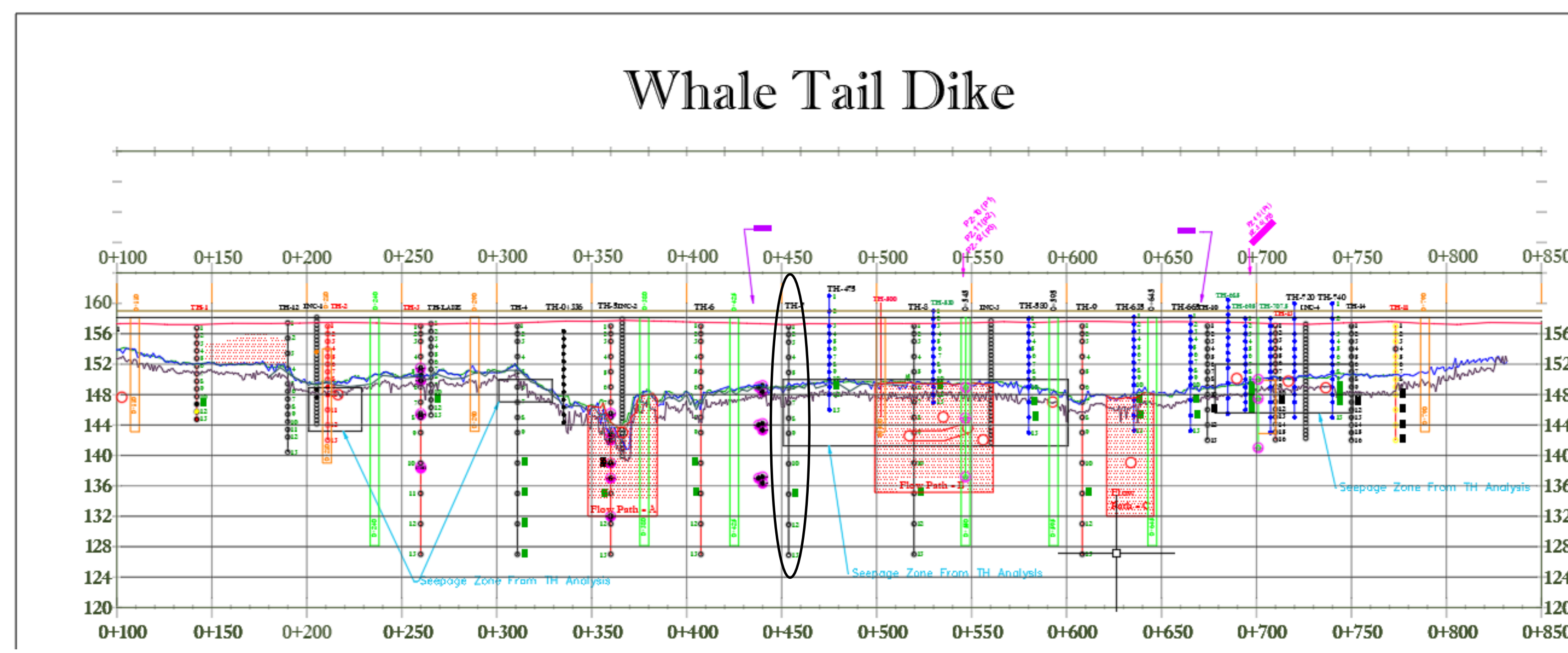
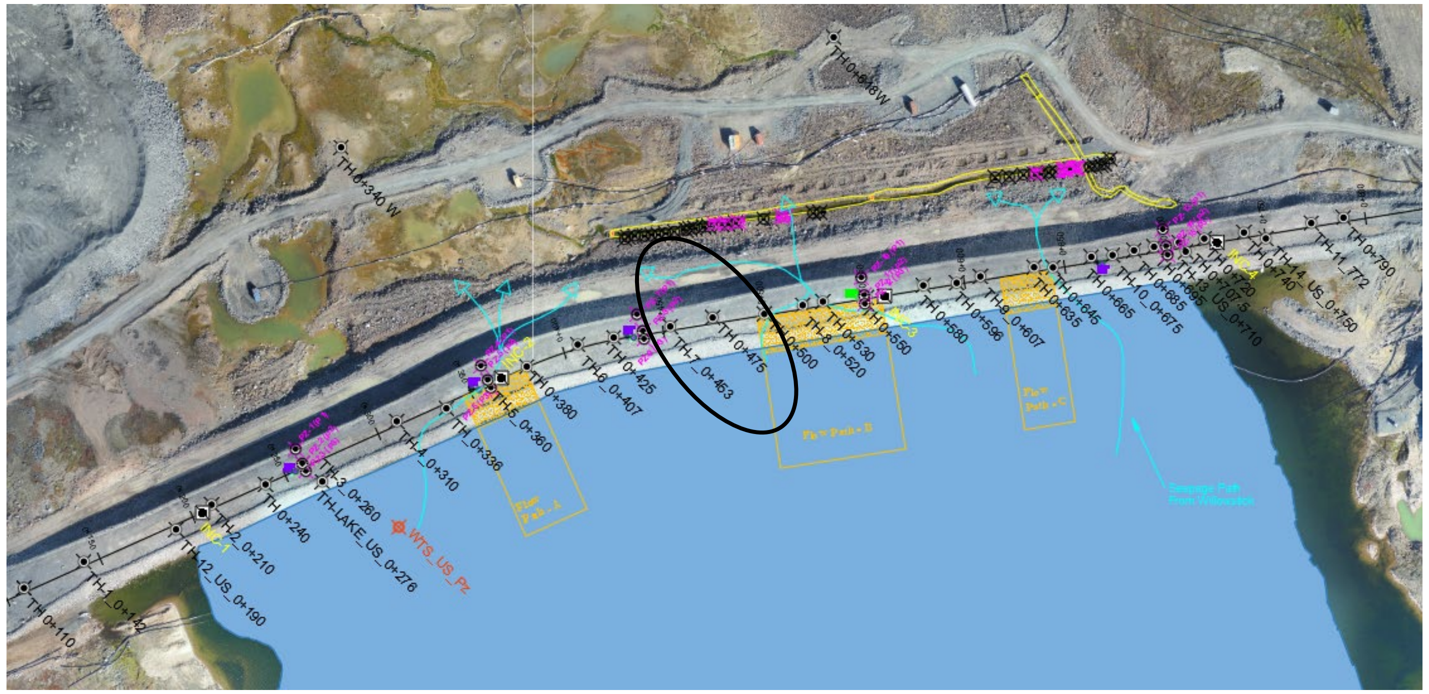
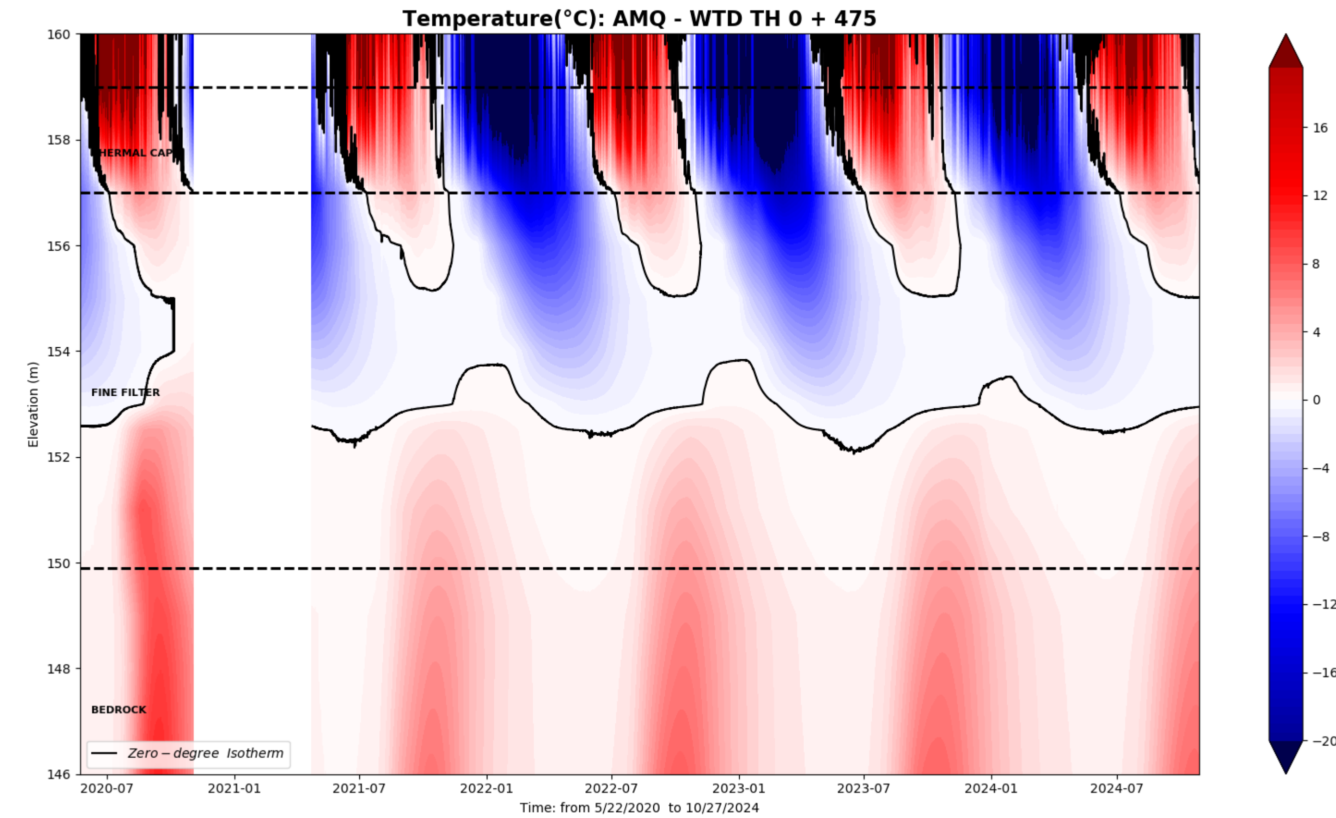
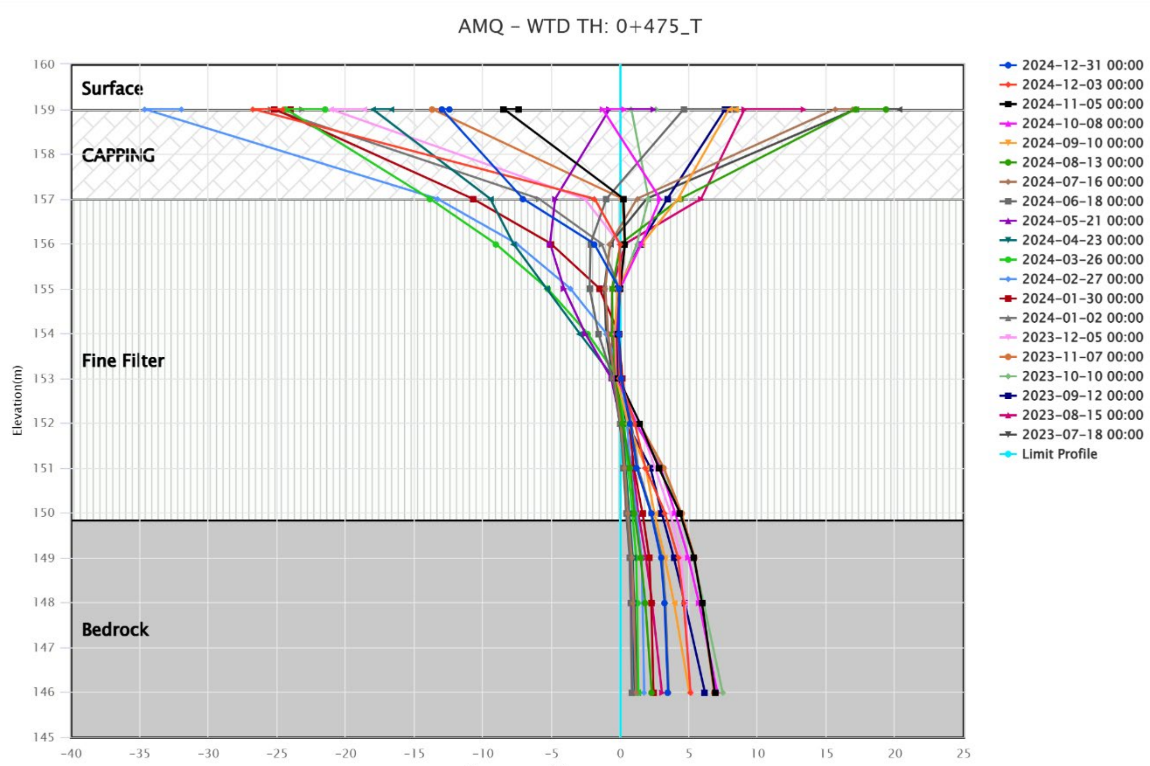
2023-07-18 00:00
Limit Profile


Whale Tail Dike
Seepage Zone From TH Analysis
Flow Path - A
Flow Path - B

WTD-TH 0+475




Temperature(°C): AMQ - WTD TH 0 + 475
THERMAL CAP
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Time: from 5/22/2020 to 10/27/2024
Temperature(°C)
2020-07
2021-01
2021-07
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07


AMQ - WTD TH: 0+475_T
Surface
CAPPING
Fine Filter
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
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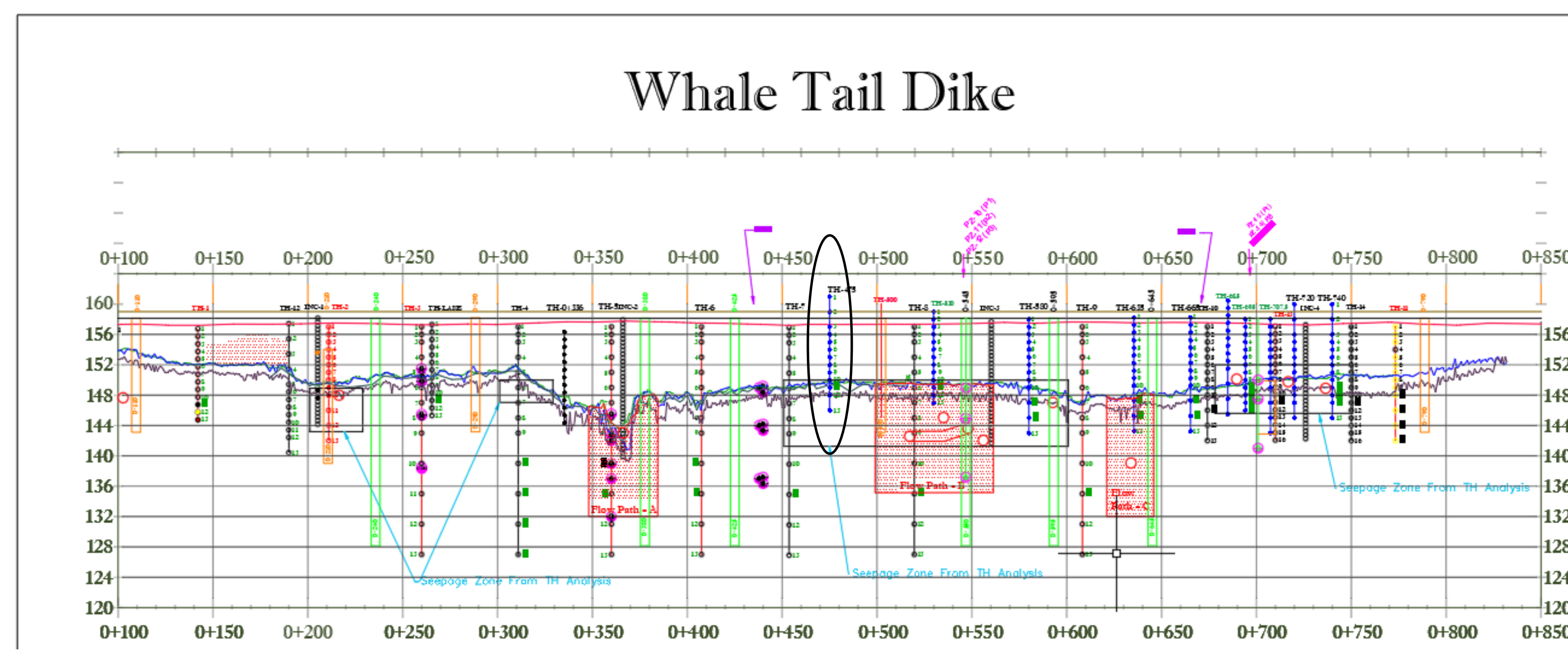
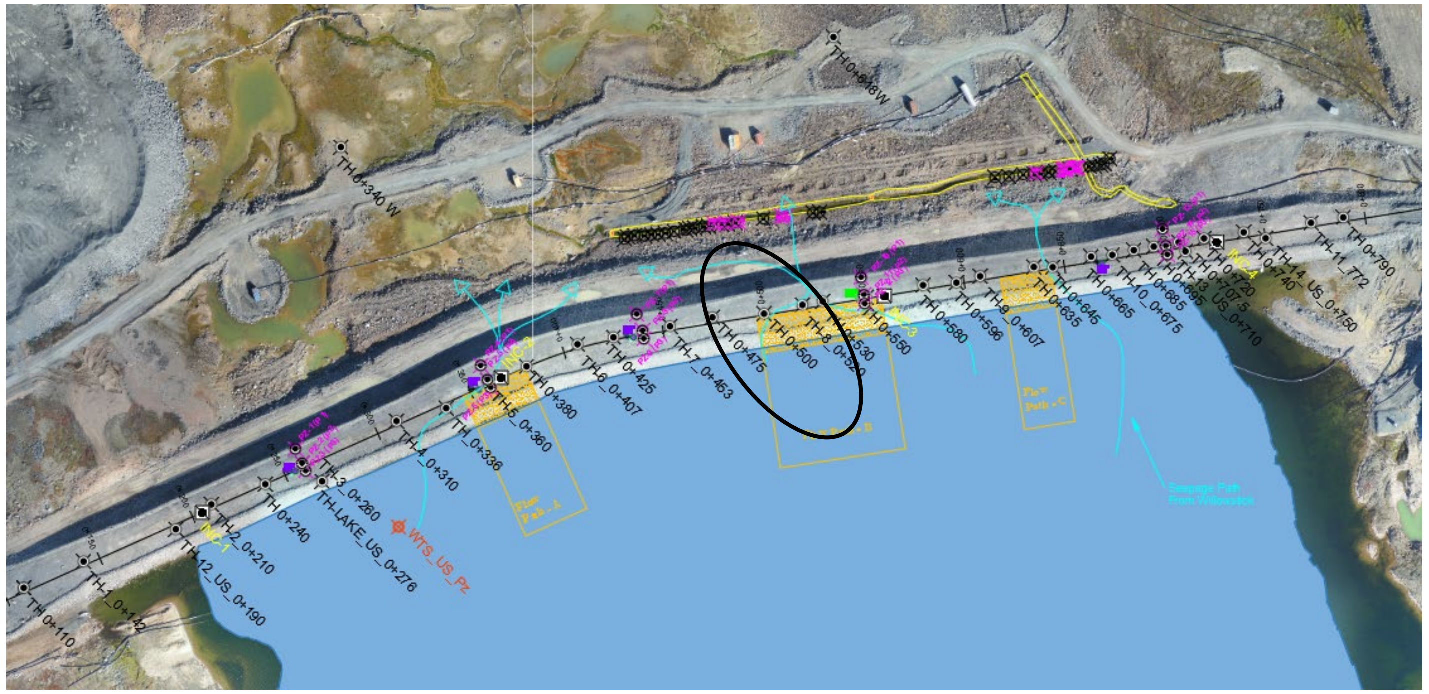
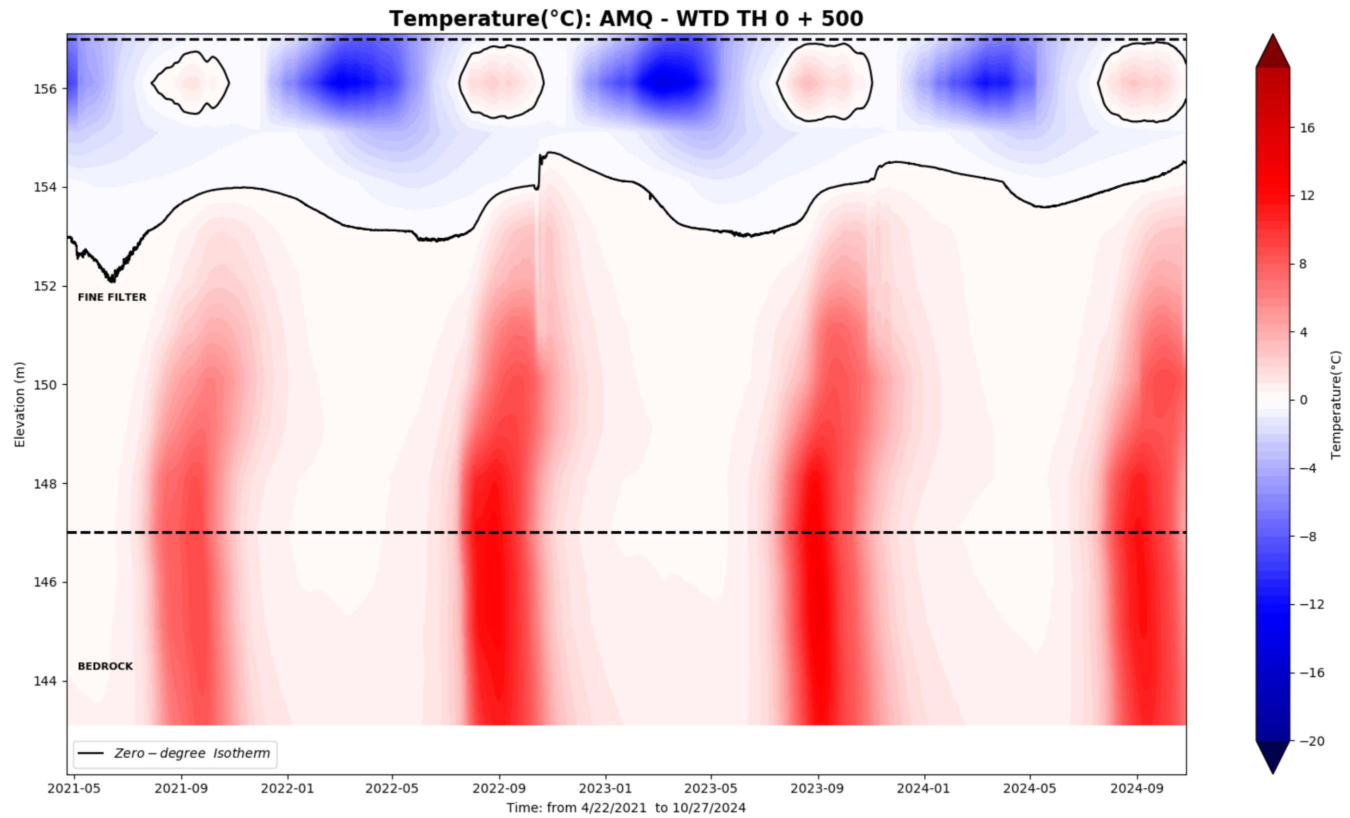
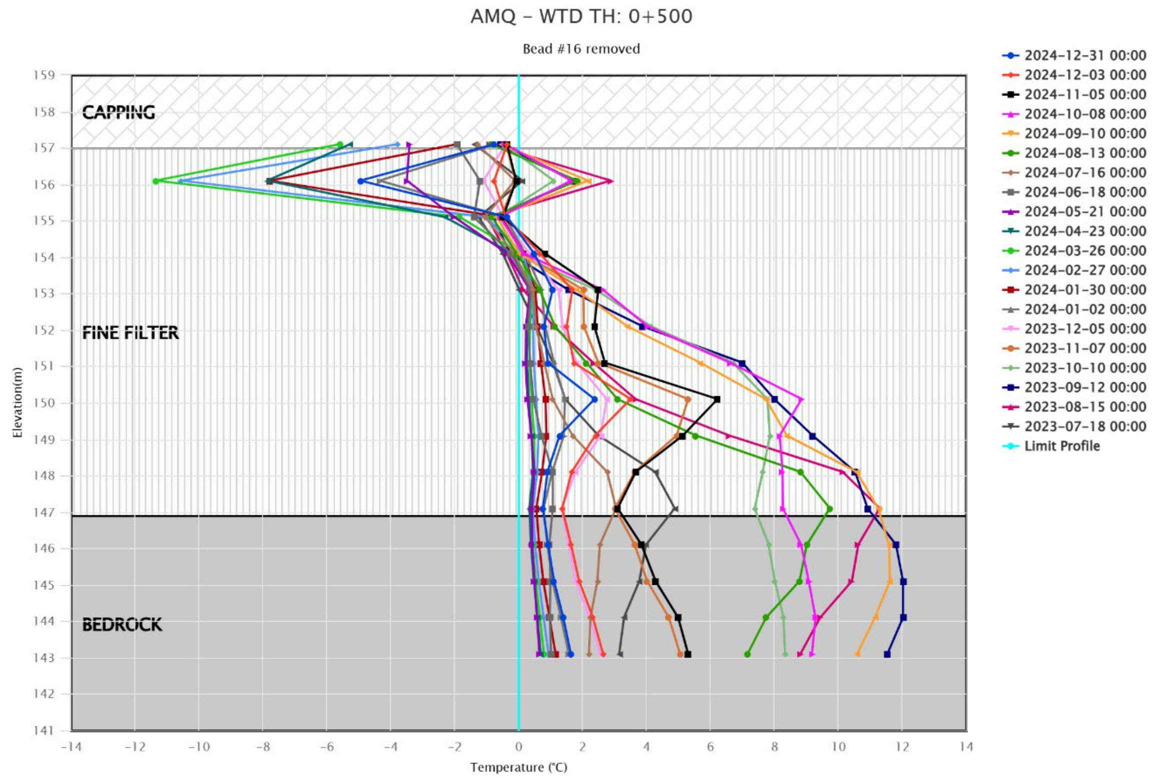
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile


Whale Tail Dike
0+100
0+150
0+200
0+250
0+300
0+350
0+400
0+450
0+500
0+550
0+600
0+650
0+700
0+750
0+800
0+850
Seepage Zone From TH Analysis
Flow Path - A
Flow Path - B

WTD-TH 0+500




Temperature(°C): AMQ - WTD TH 0 + 500
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Temperature(°C)
Time: from 4/22/2021 to 10/27/2024


AMQ – WTD TH: 0+500
Bead #16 removed
CAPPING
FINE FILTER
BEDROCK
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
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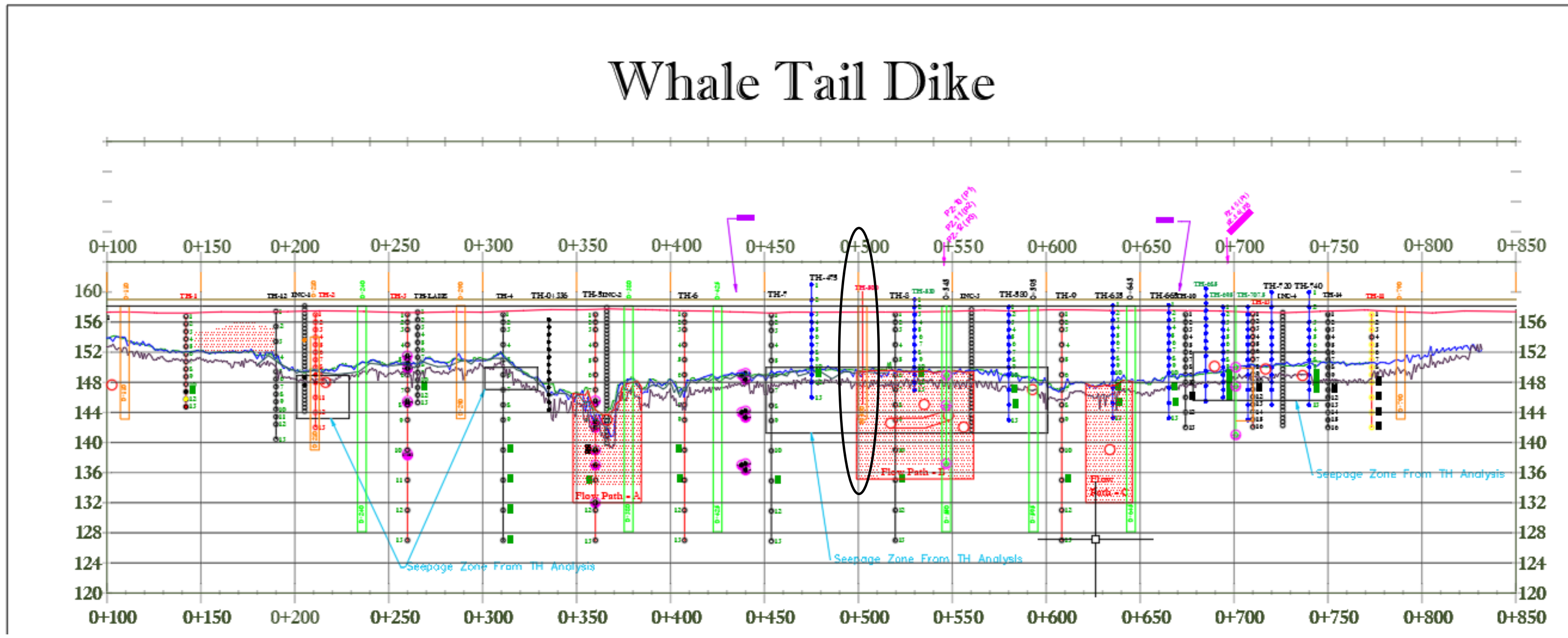
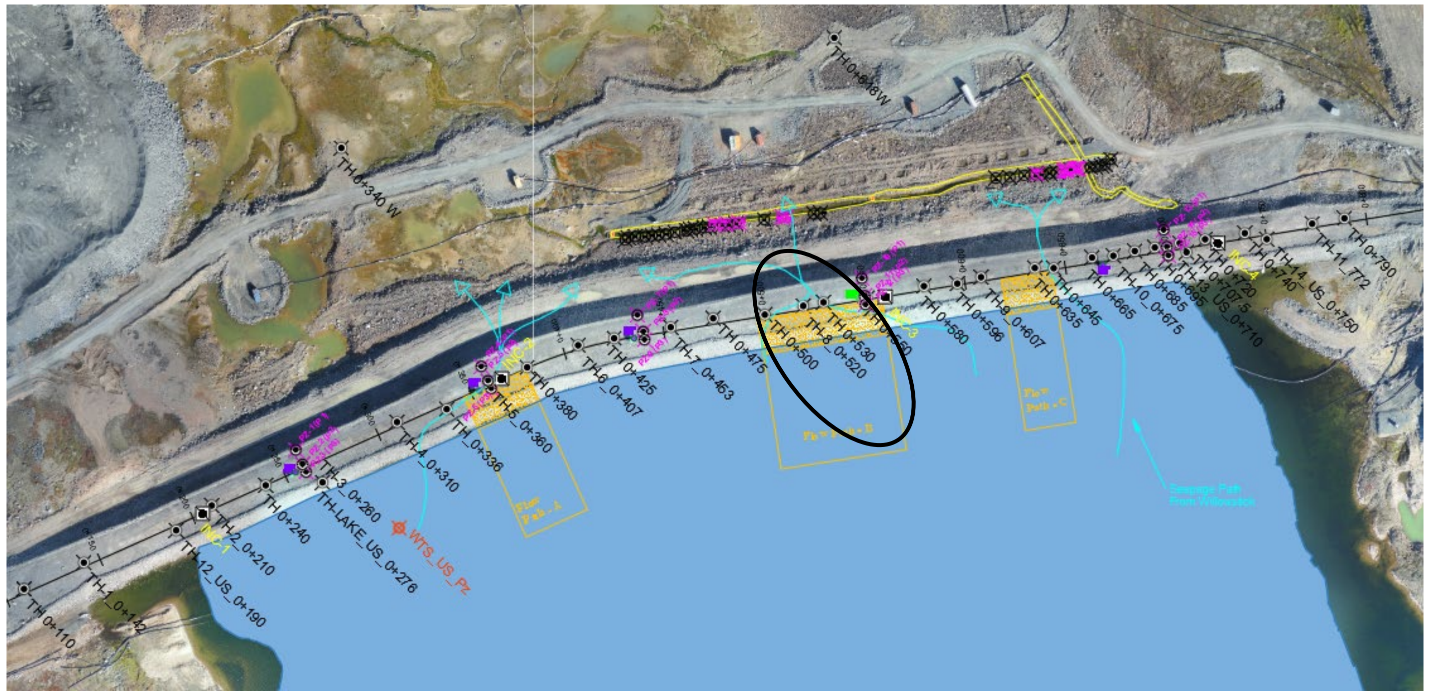
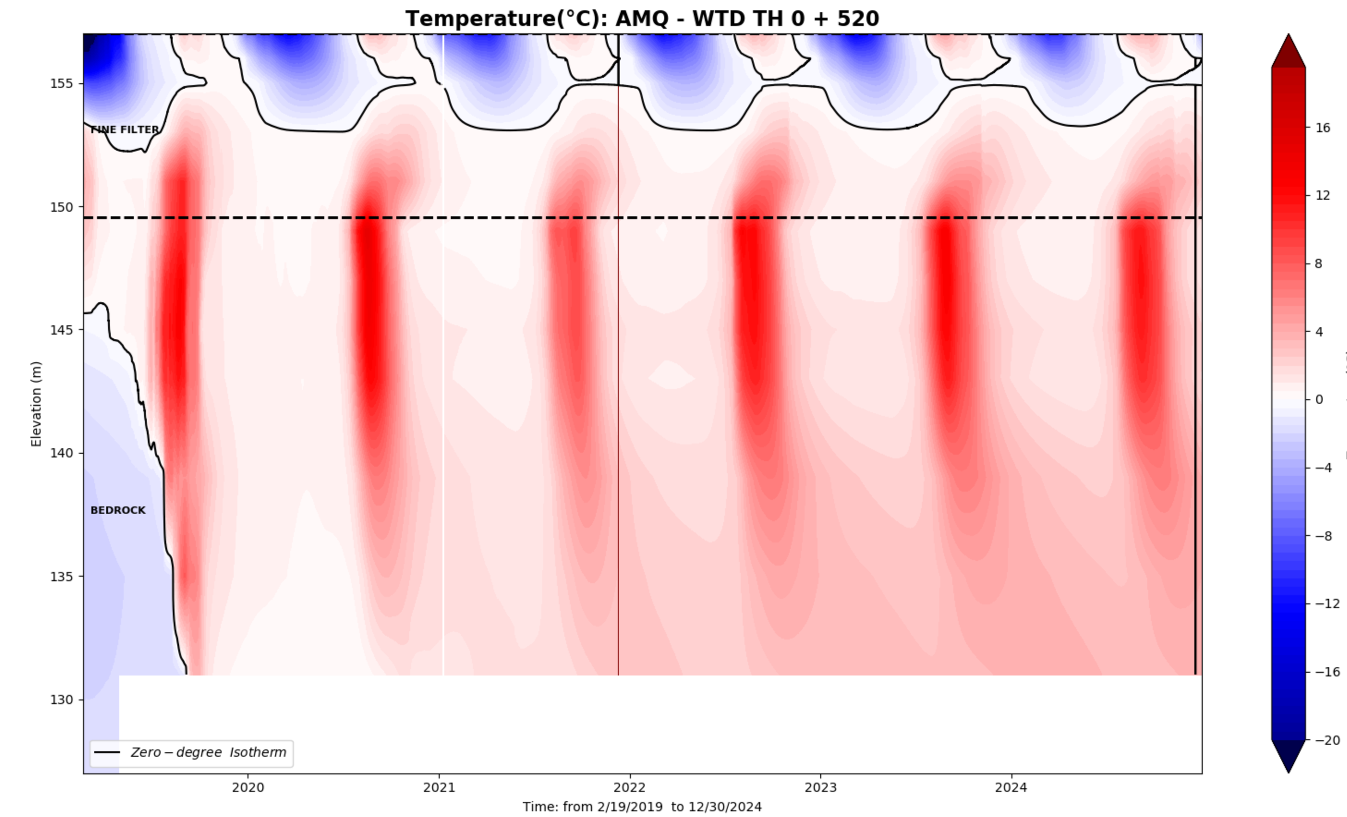
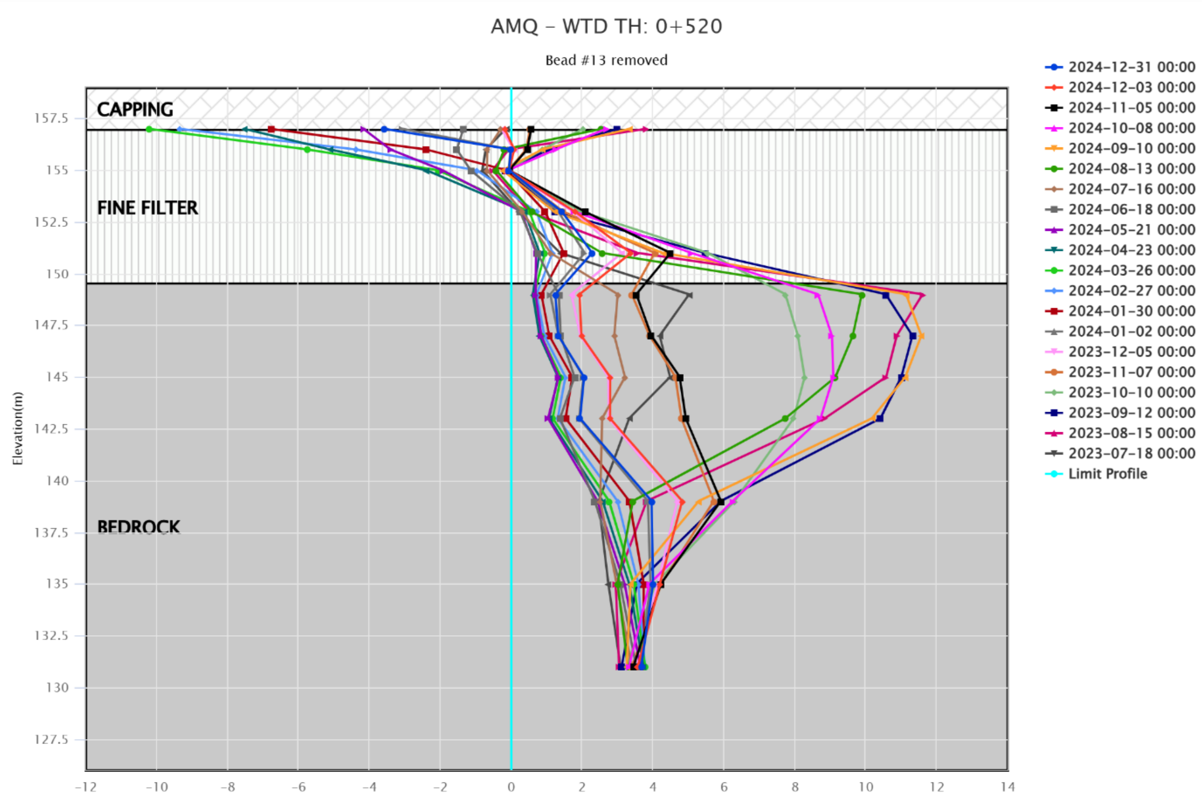
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile


Whale Tail Dike

WTD-TH 0+520




Temperature(°C): AMQ - WTD TH 0 + 520
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Temperature(°C)
Time: from 2/19/2019 to 12/30/2024


AMQ – WTD TH: 0+520
Bead #13 removed
CAPPING
FINE FILTER
BEDROCK
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
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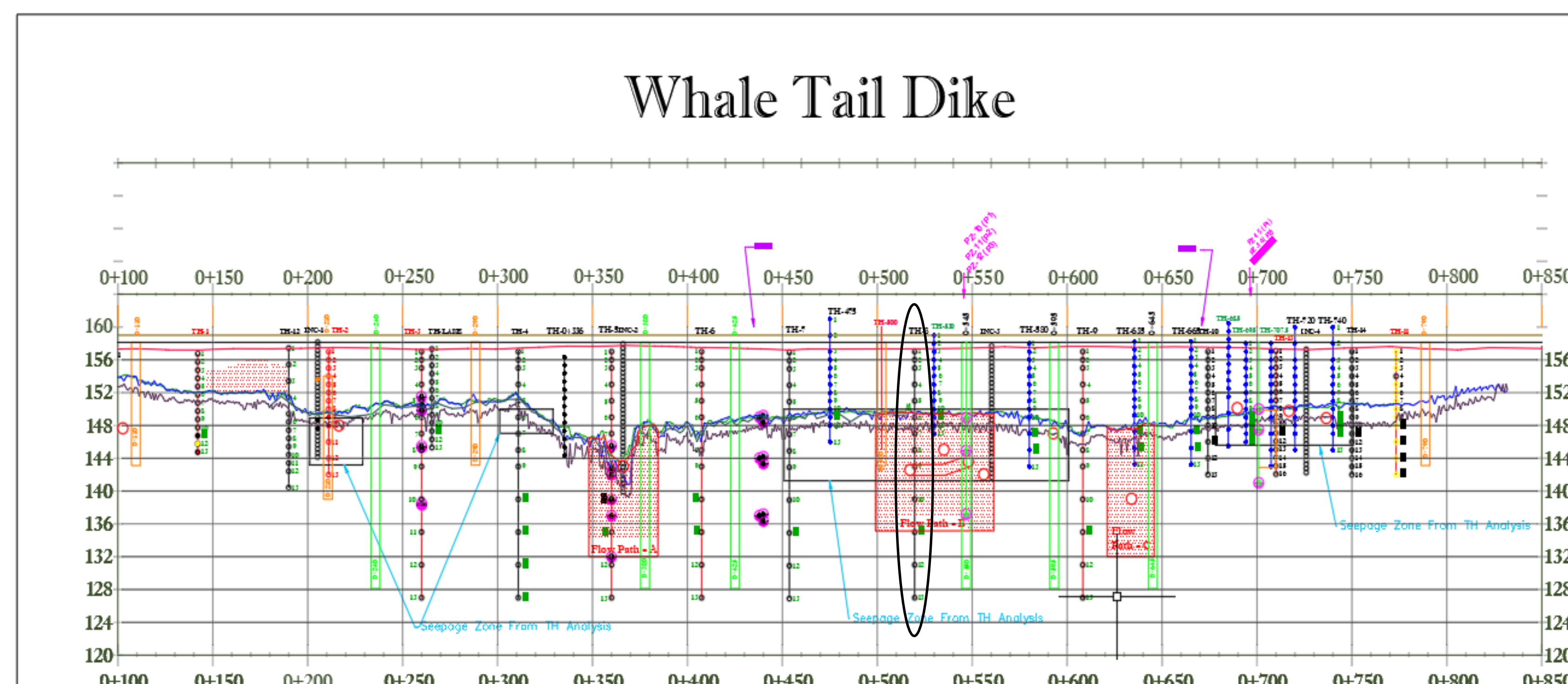
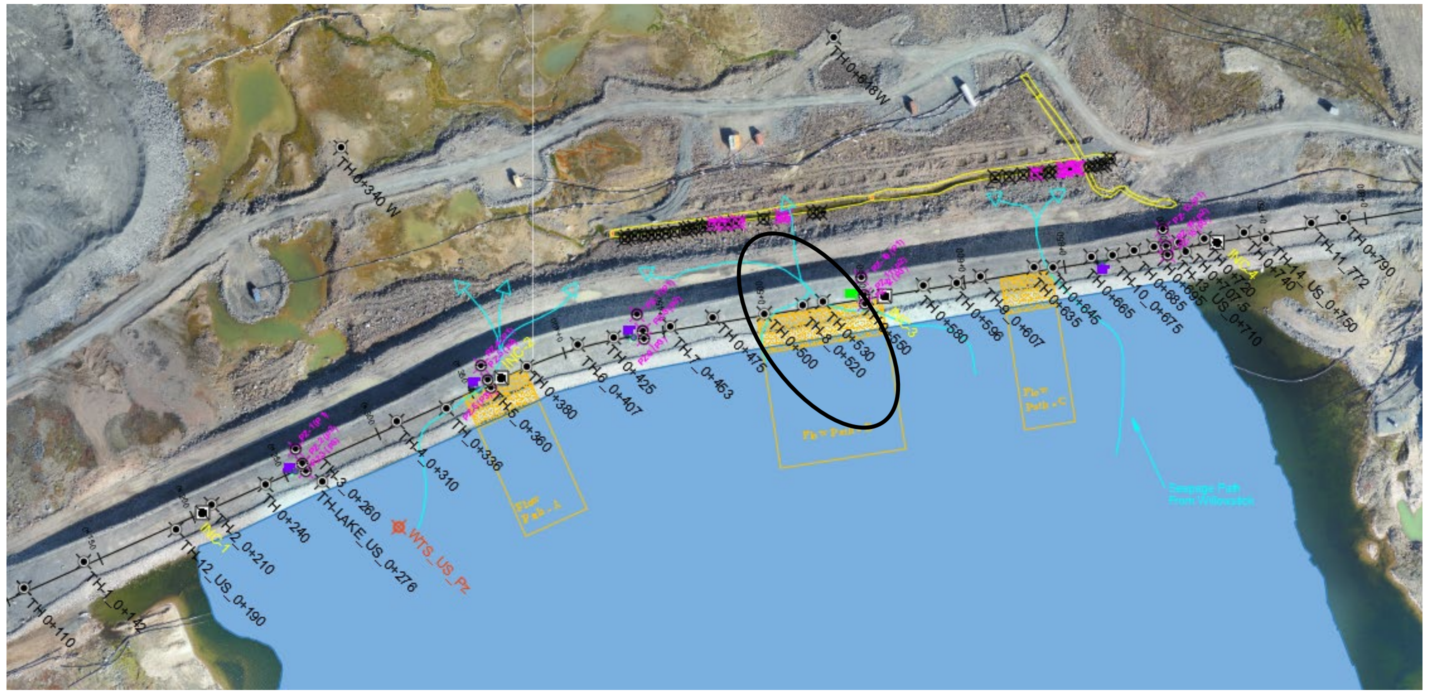
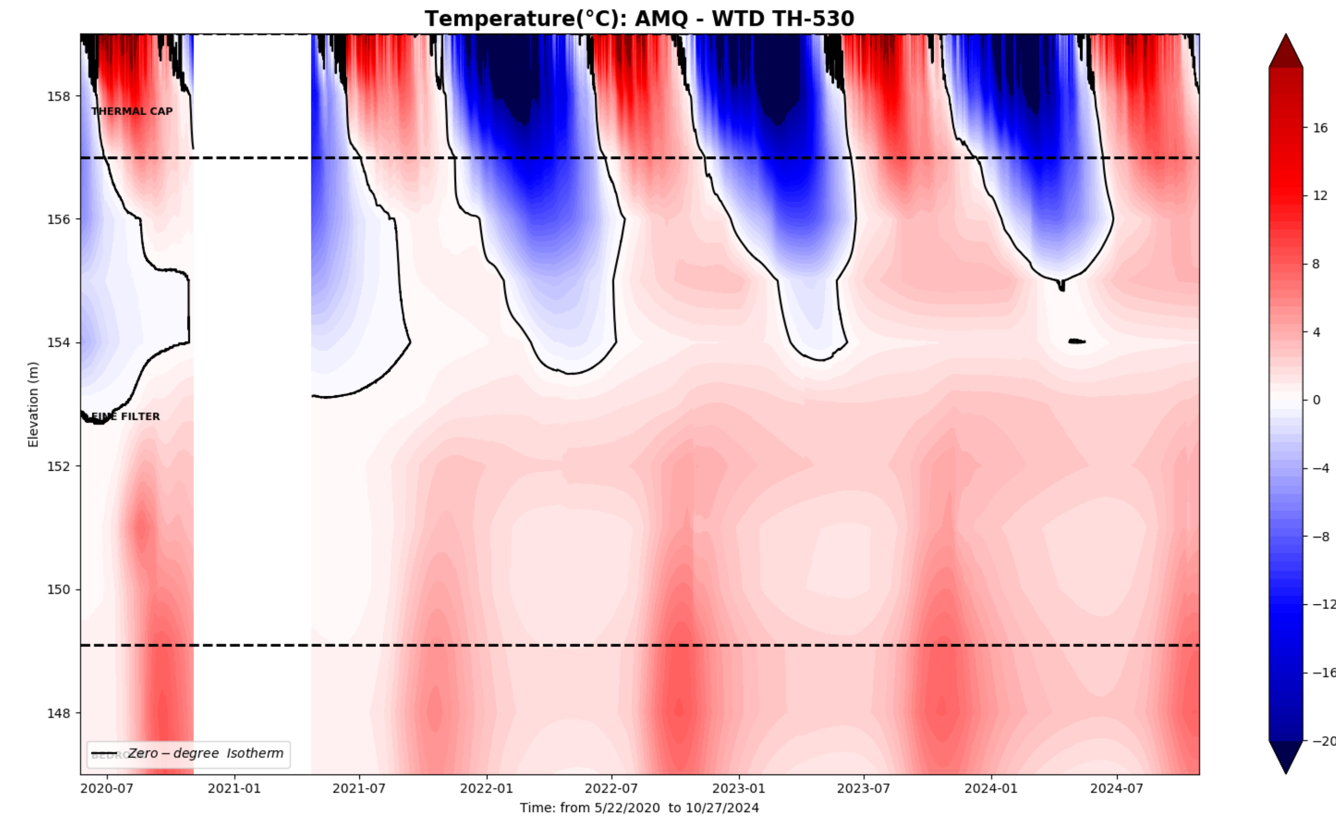
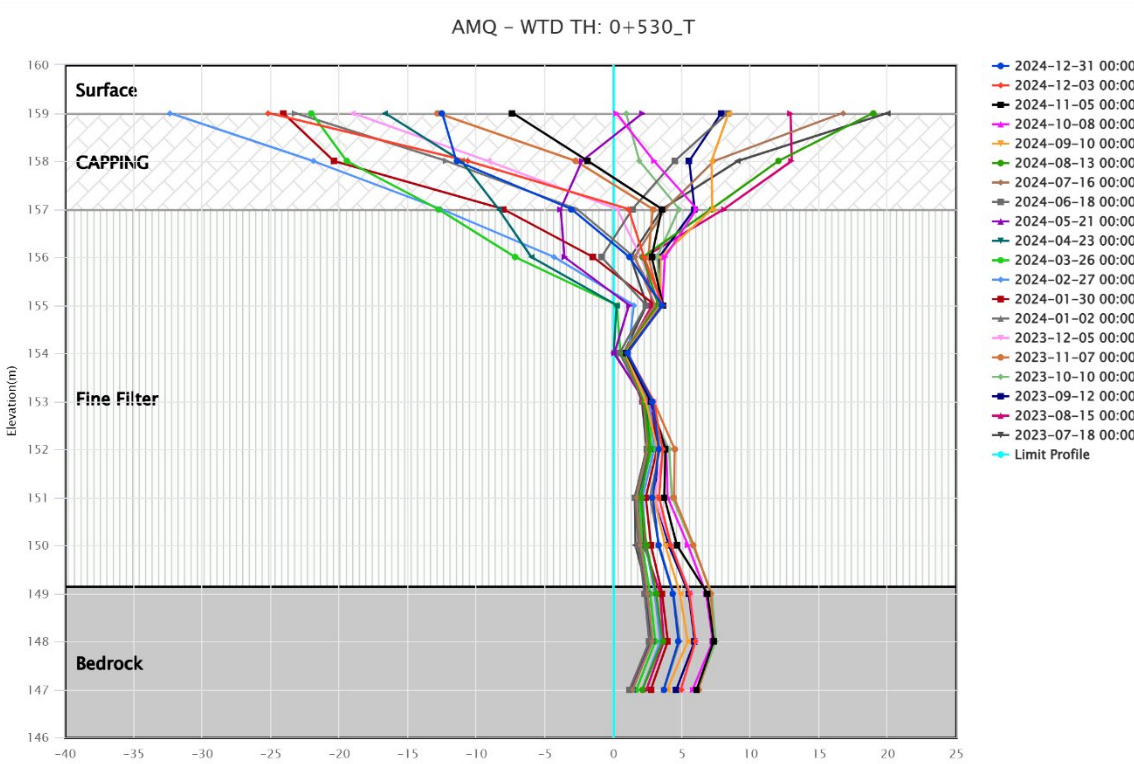
2023-08-15 00:00
2023-07-18 00:00
Limit Profile


Whale Tail Dike
Flow Path - A
Flow Path - B
Seepage Zone From TH Analysis

WTD-TH 0+530




Temperature(°C): AMQ - WTD TH-530
THERMAL CAP
FINE FILTER
Elevation (m)
Zero – degree Isotherm
Temperature(°C)
Time: from 5/22/2020 to 10/27/2024


AMQ – WTD TH: 0+530_T
Surface
CAPPING
Fine Filter
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
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2023-10-10 00:00
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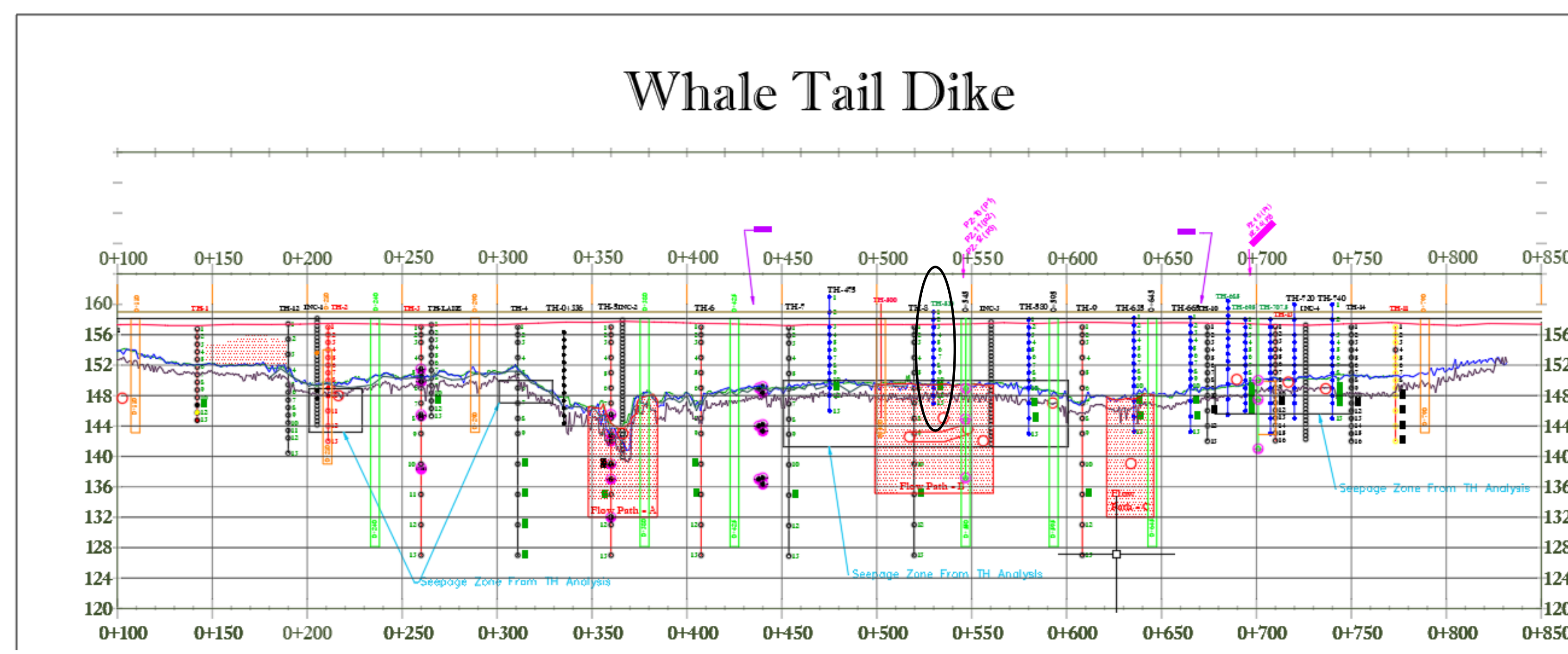
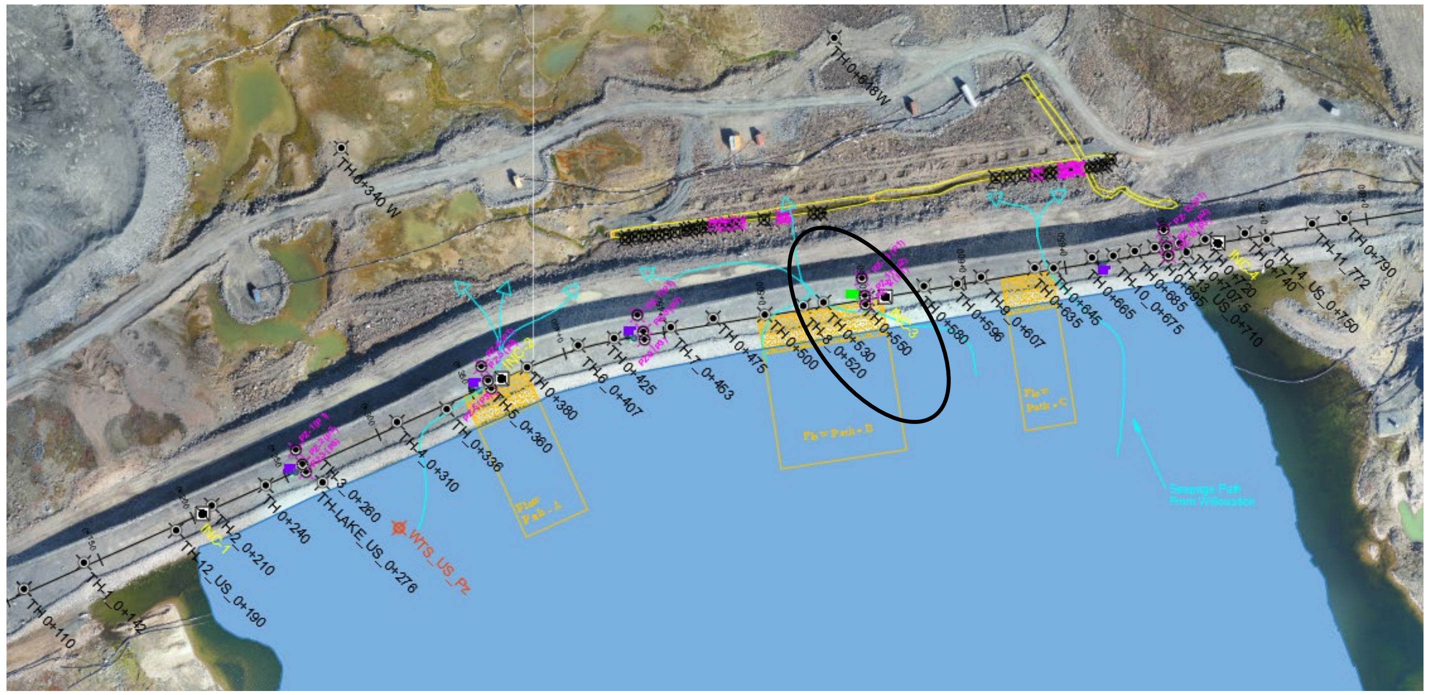
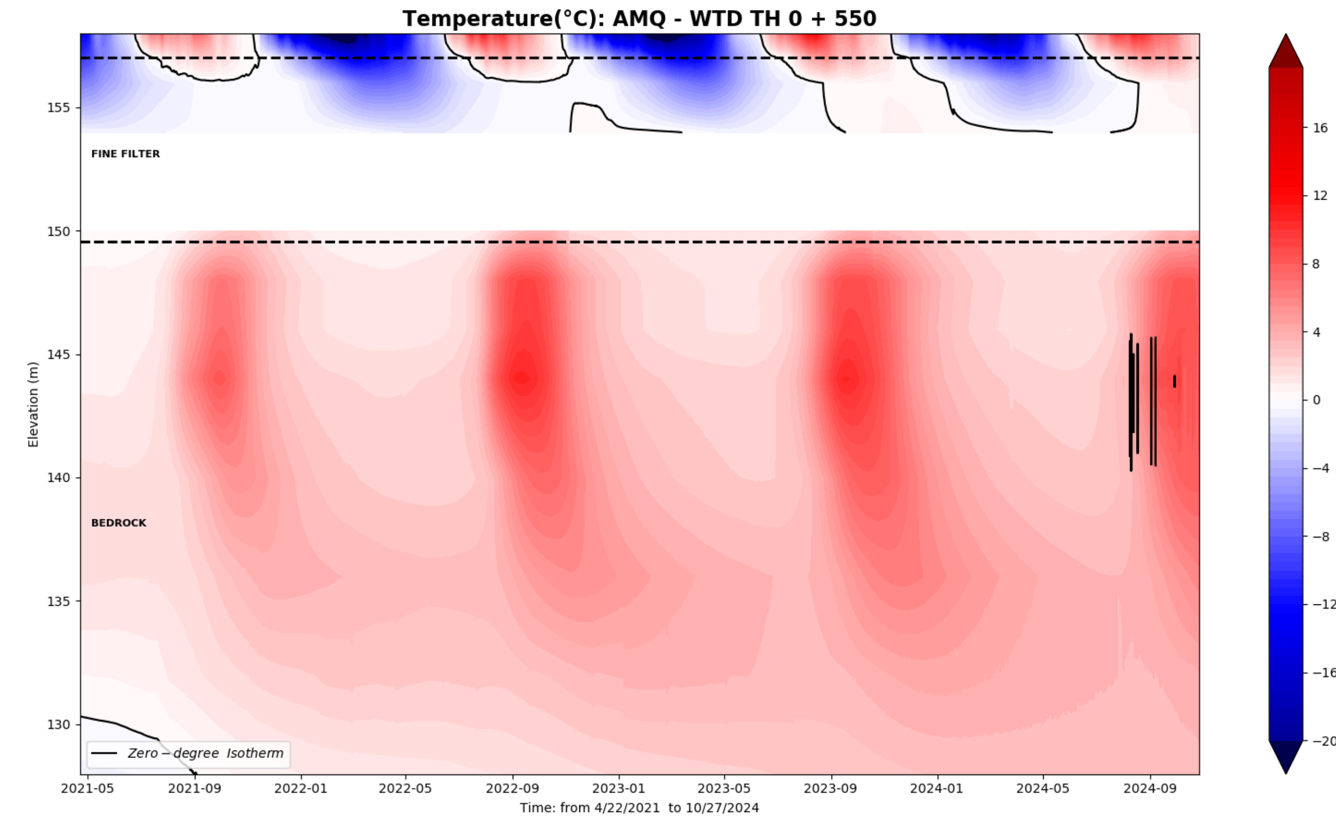
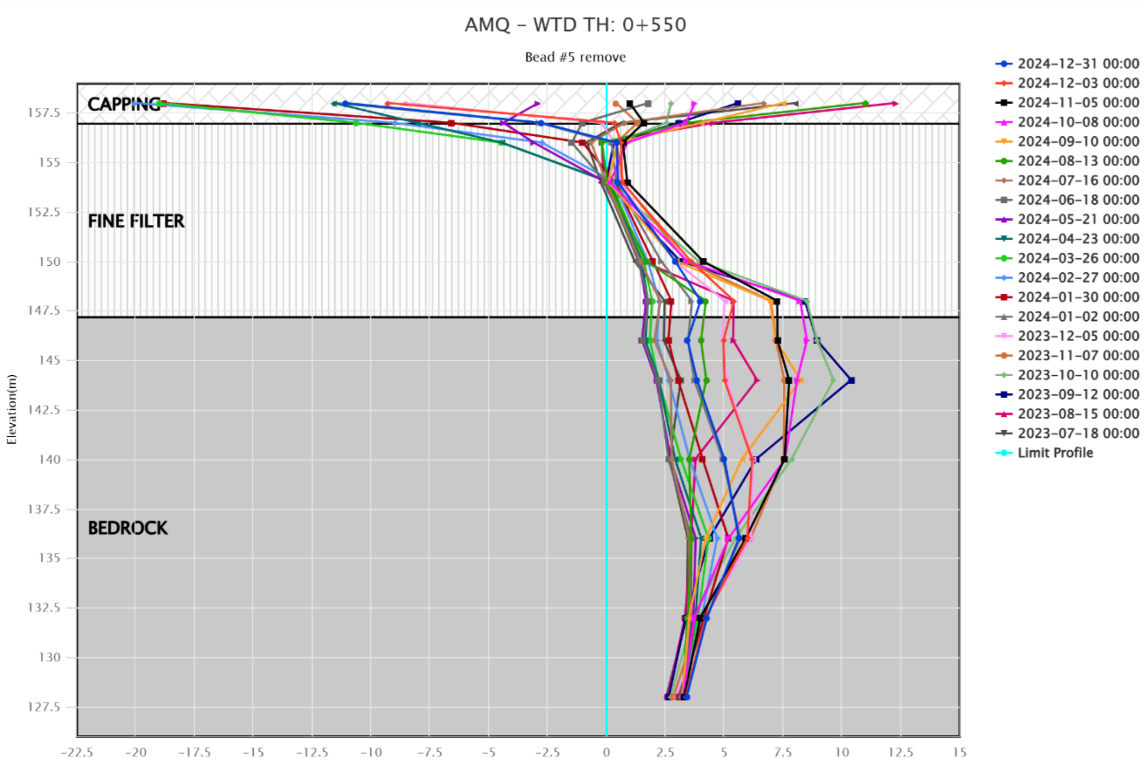
2023-08-15 00:00
2023-07-18 00:00
Limit Profile


Whale Tail Dike
Seepage Zone From TH Analysis

WTD-TH 0+550




Temperature(°C): AMQ - WTD TH 0 + 550
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Temperature(°C)
2021-05
2021-09
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
Time: from 4/22/2021 to 10/27/2024


AMQ - WTD TH: 0+550
Bead #5 remove
CAPPING
FINE FILTER
BEDROCK
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
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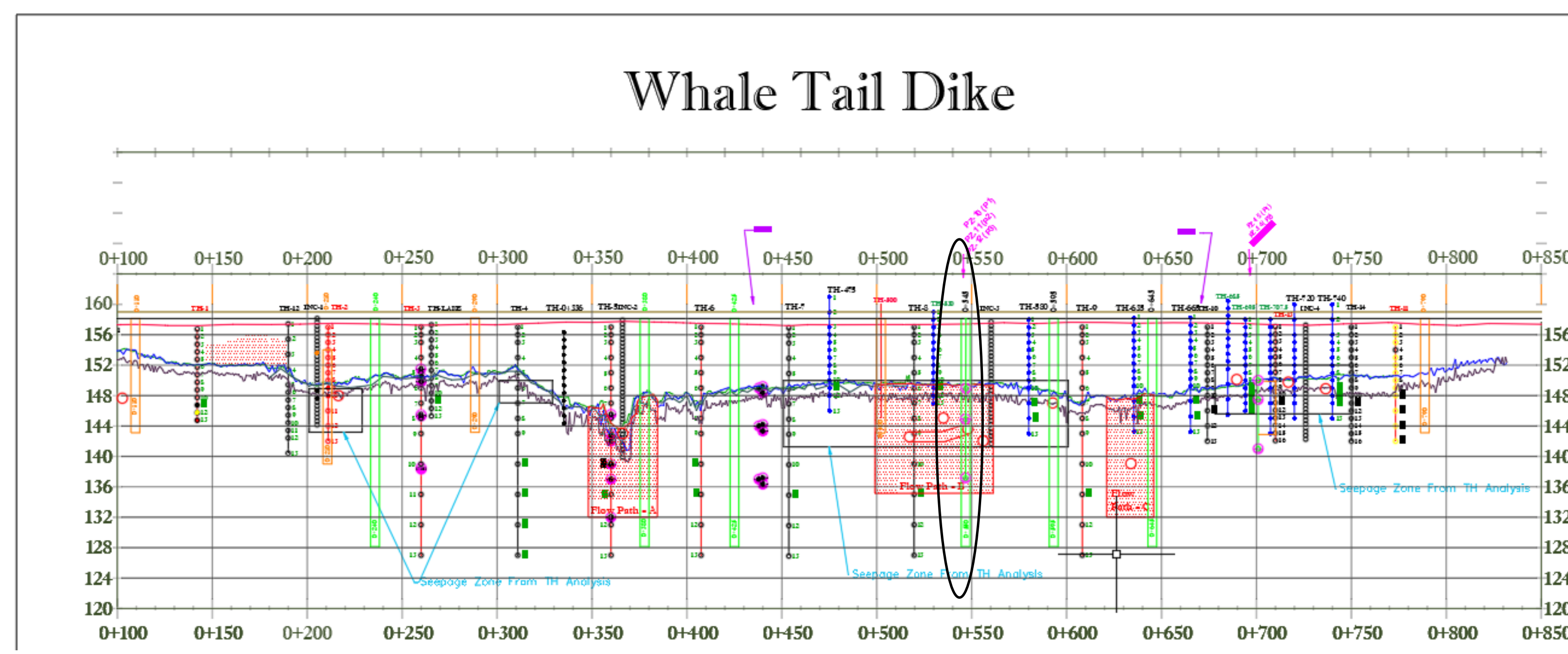
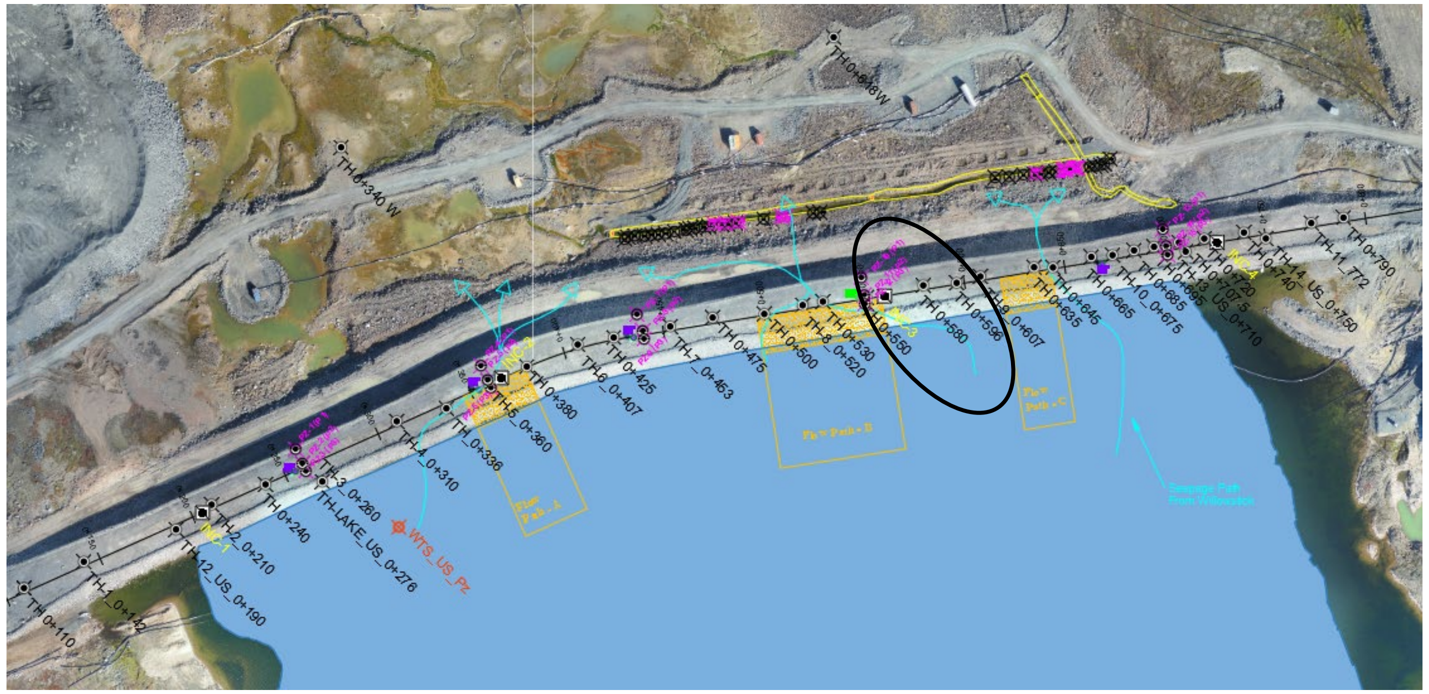
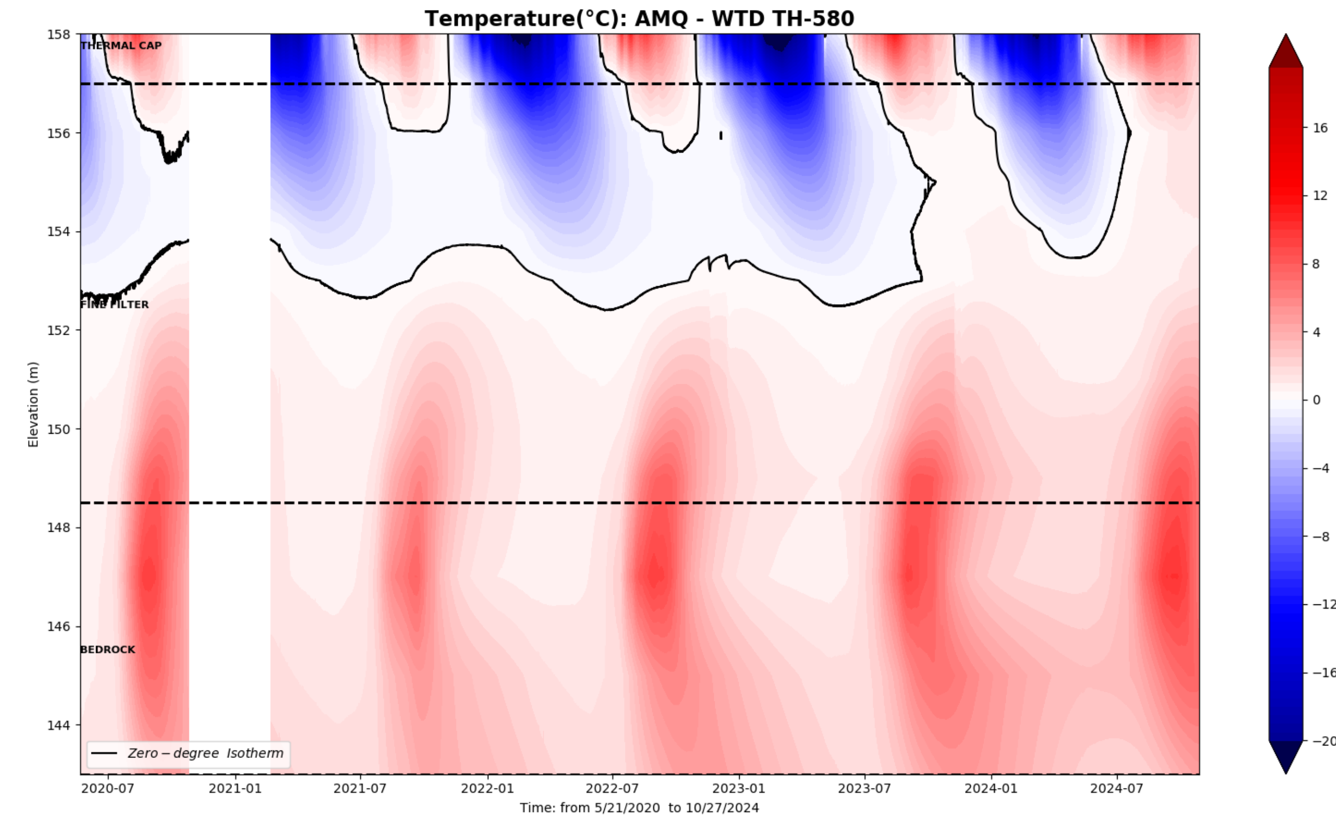
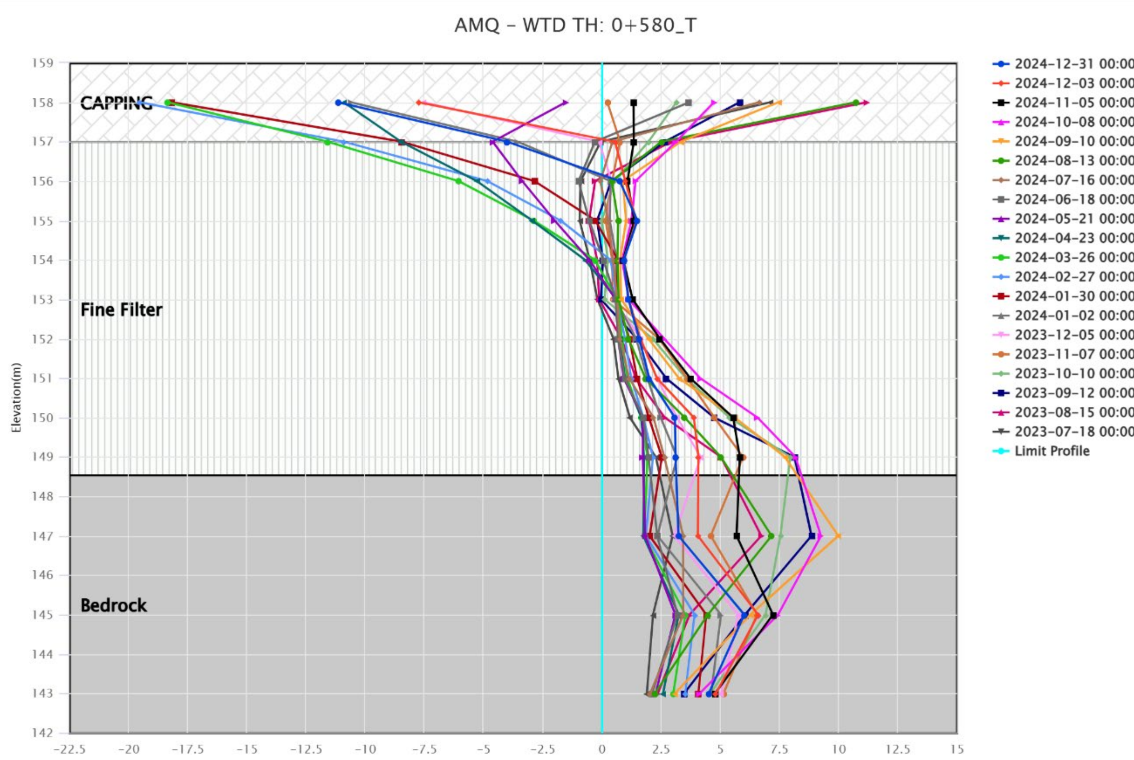
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile


Whale Tail Dike
0+100
0+150
0+200
0+250
0+300
0+350
0+400
0+450
0+500
0+550
0+600
0+650
0+700
0+750
0+800
0+850
Seepage Zone From TH Analysis

WTD-TH 0+580




Temperature(°C): AMQ - WTD TH-580
THERMAL CAP
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Temperature(°C)
Time: from 5/21/2020 to 10/27/2024


AMQ – WTD TH: 0+580_T
CAPPING
Fine Filter
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
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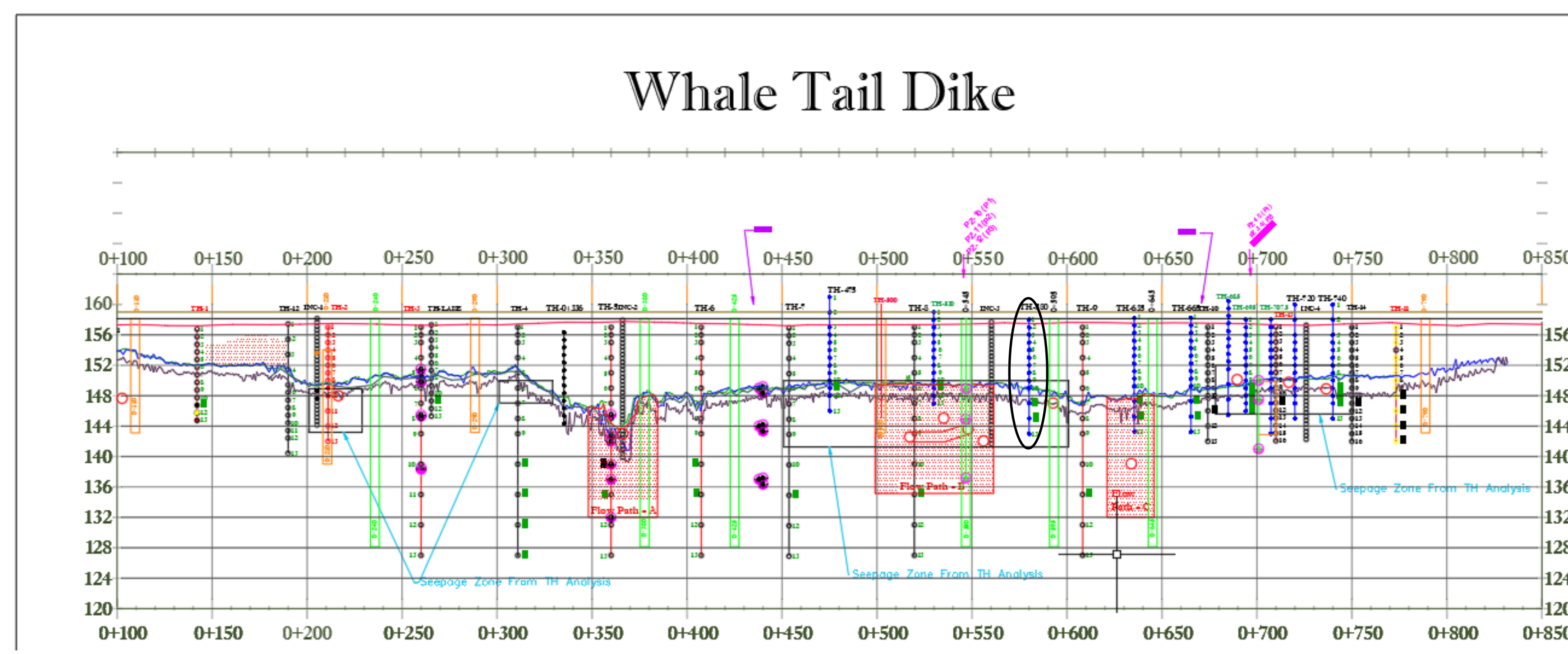
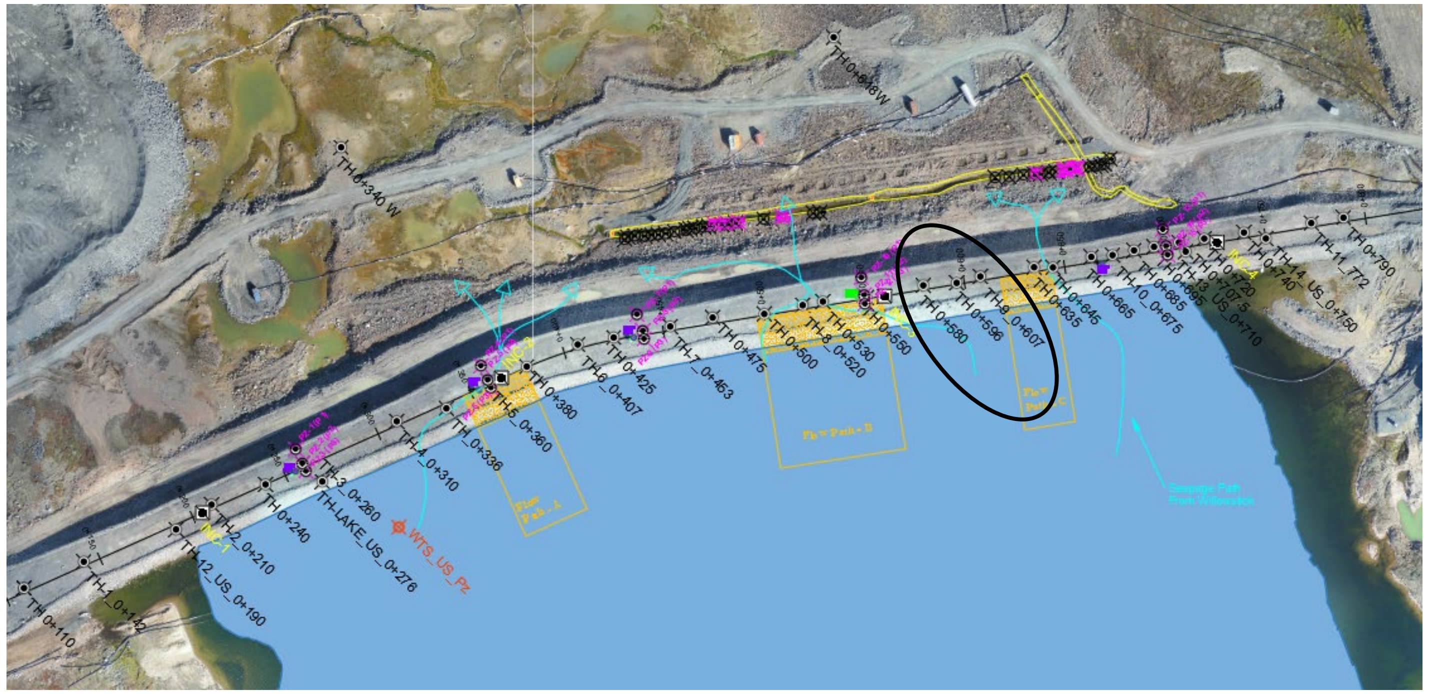
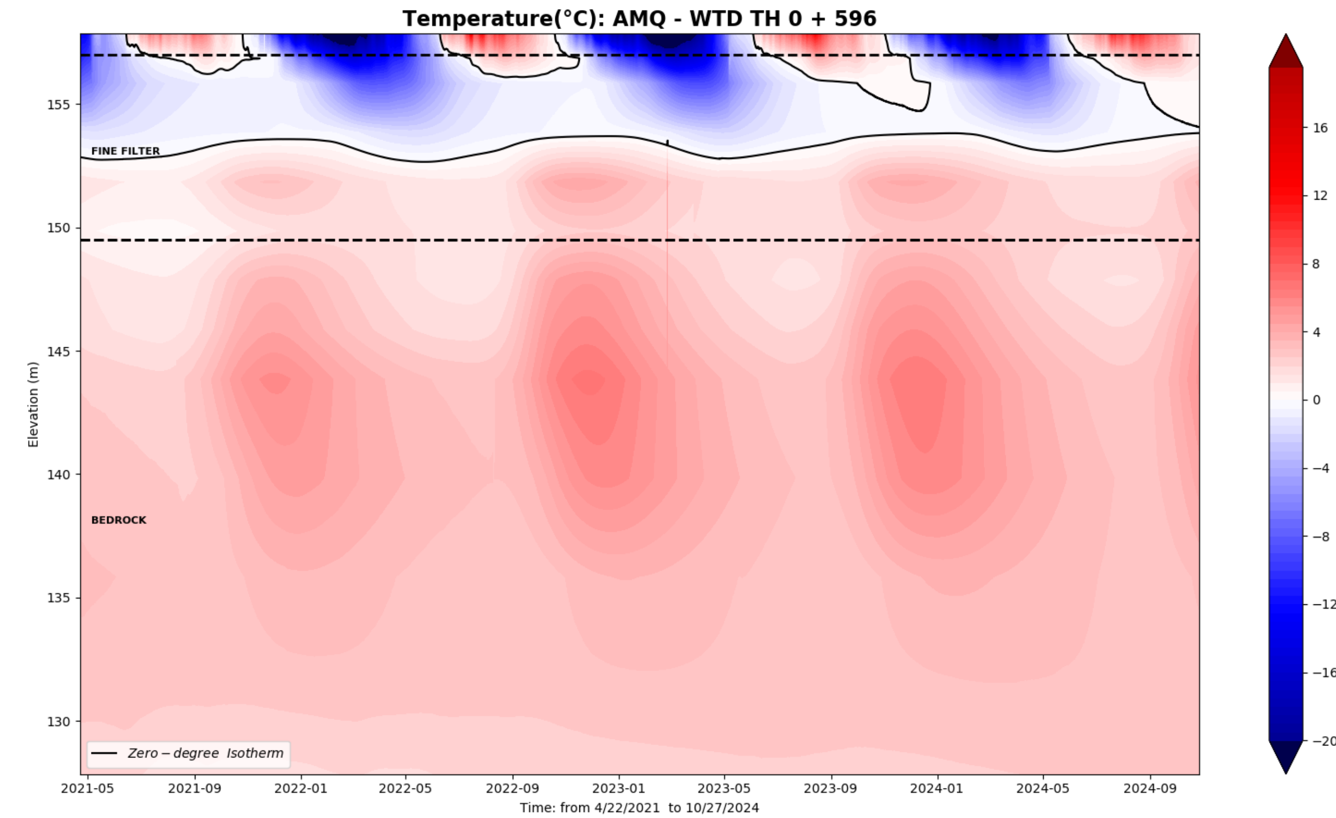
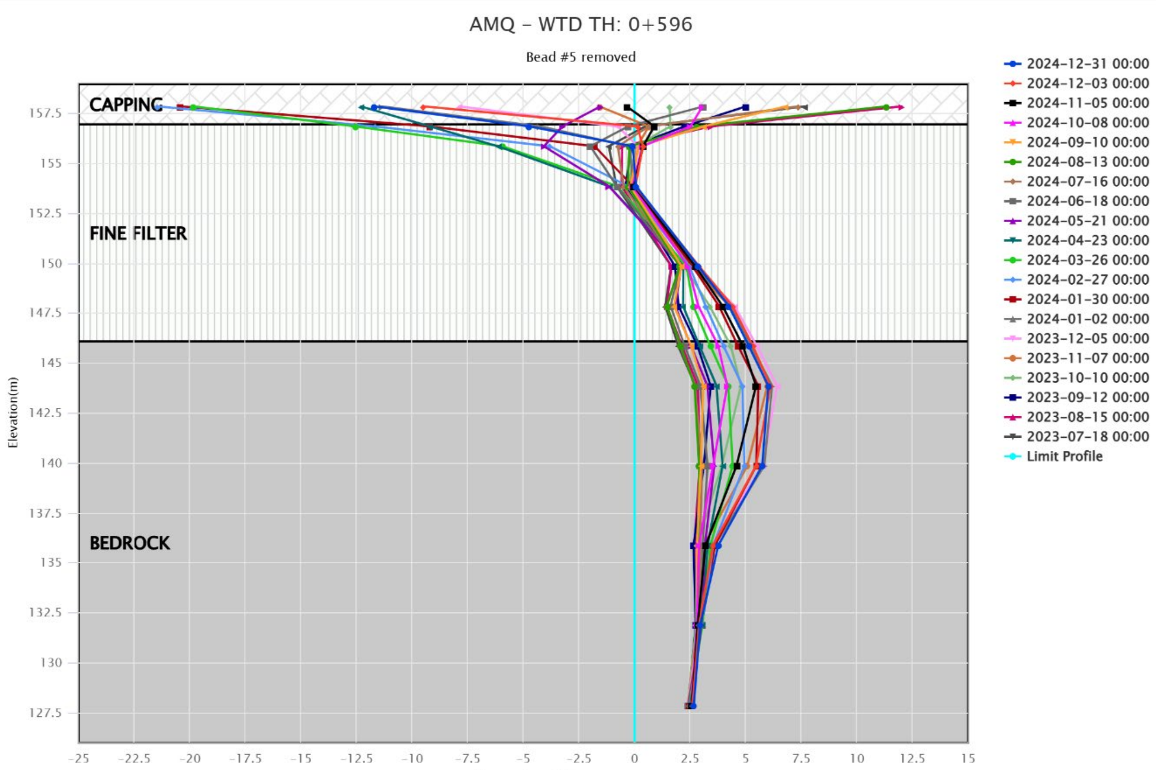
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

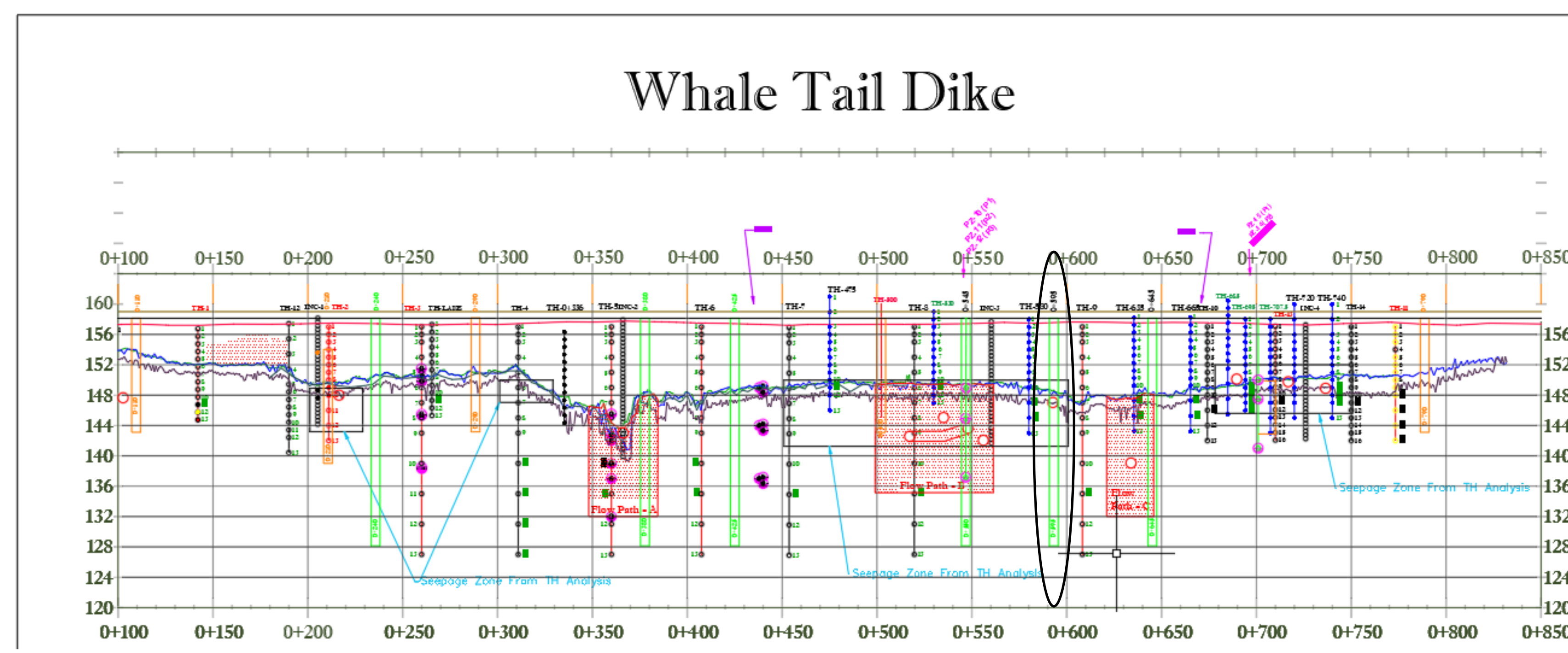

Whale Tail Dike
Seepage Zone From TH Analysis

WTD-TH 0+596

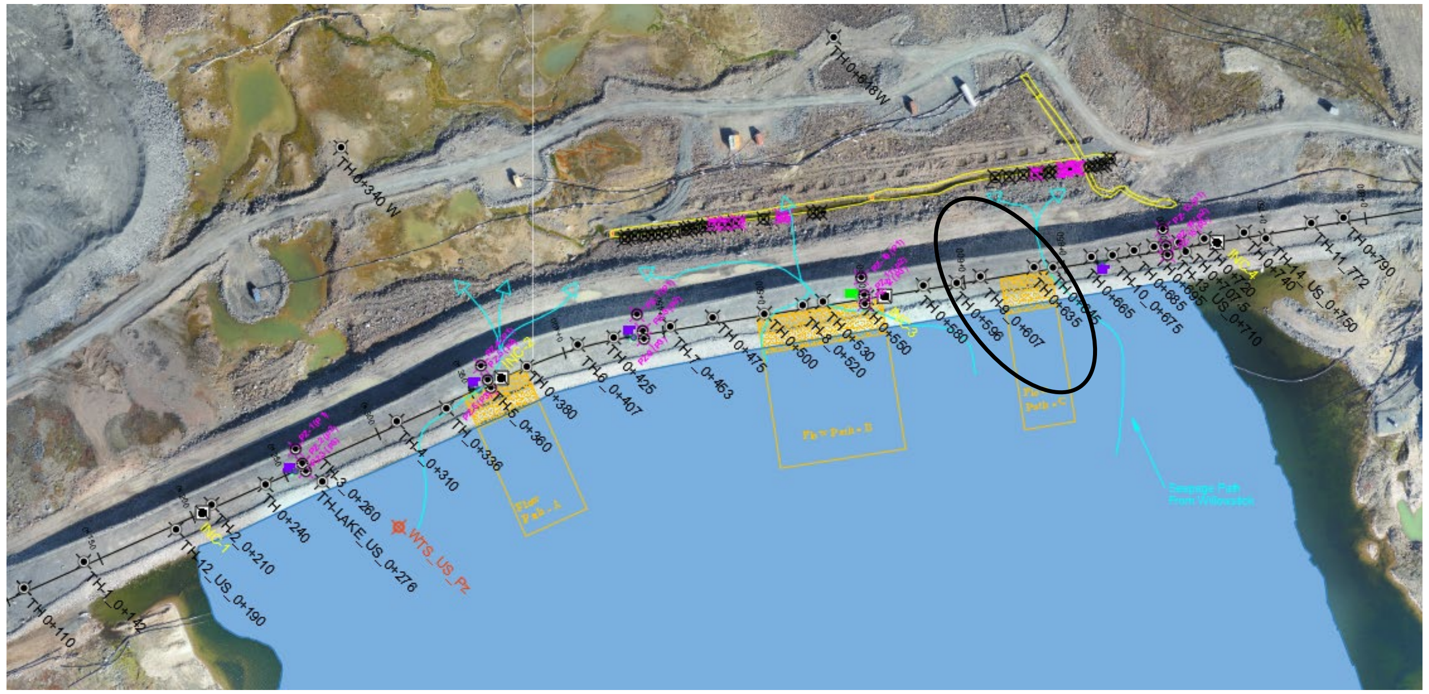


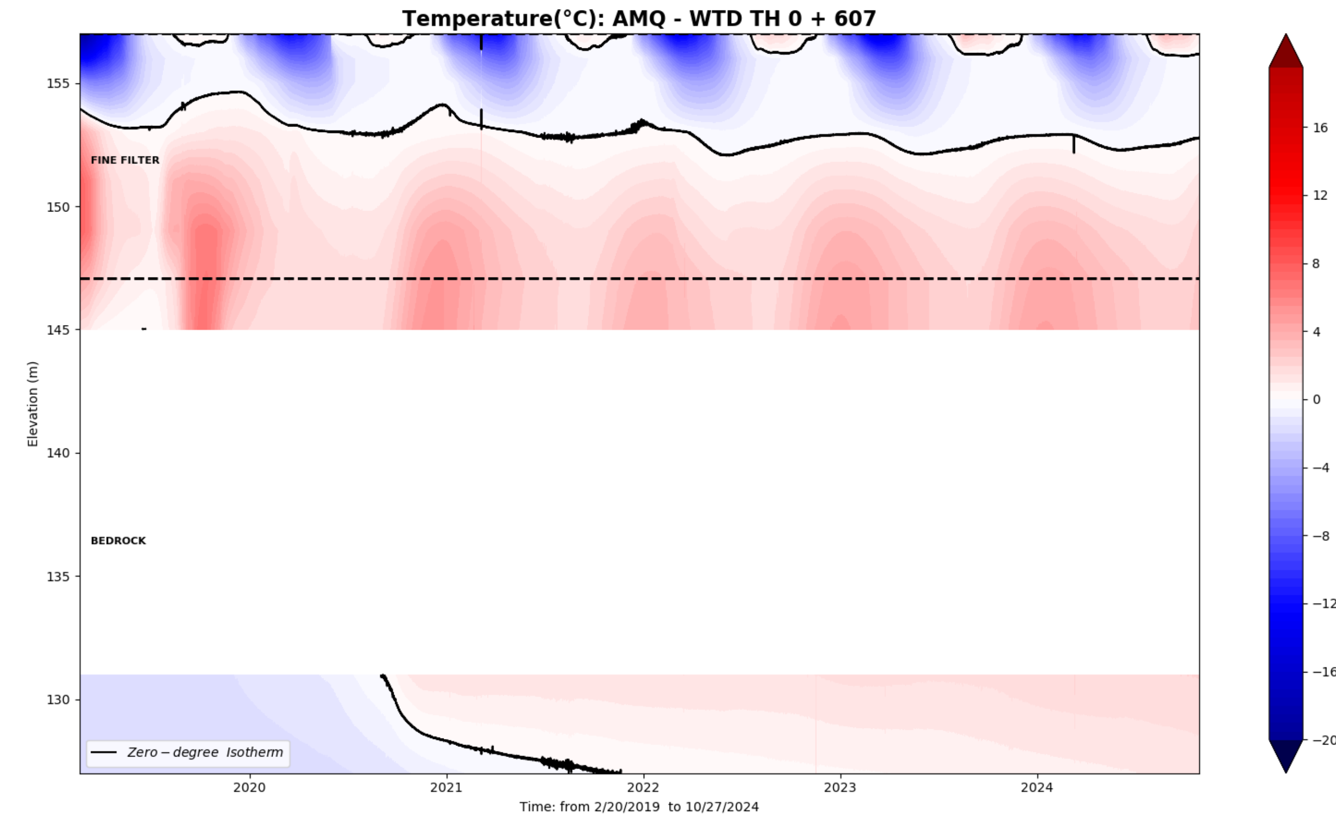

Temperature(°C): AMQ - WTD TH 0 + 596
FINE FILTER
BEDROCK
Elevation (m)
Temperature(°C)
Zero – degree Isotherm
2021-05
2021-09
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
Time: from 4/22/2021 to 10/27/2024

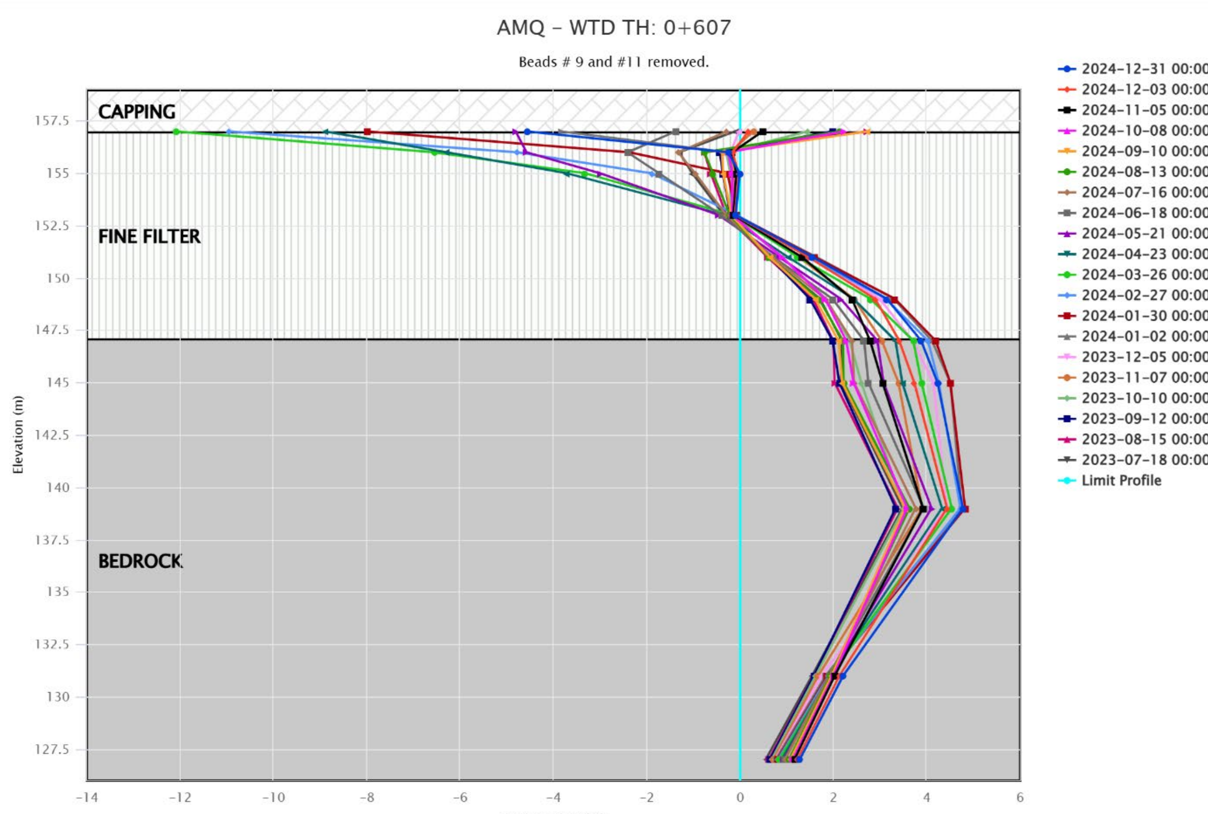

AMQ – WTD TH: 0+596
Bead #5 removed
CAPPING
FINE FILTER
BEDROCK
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

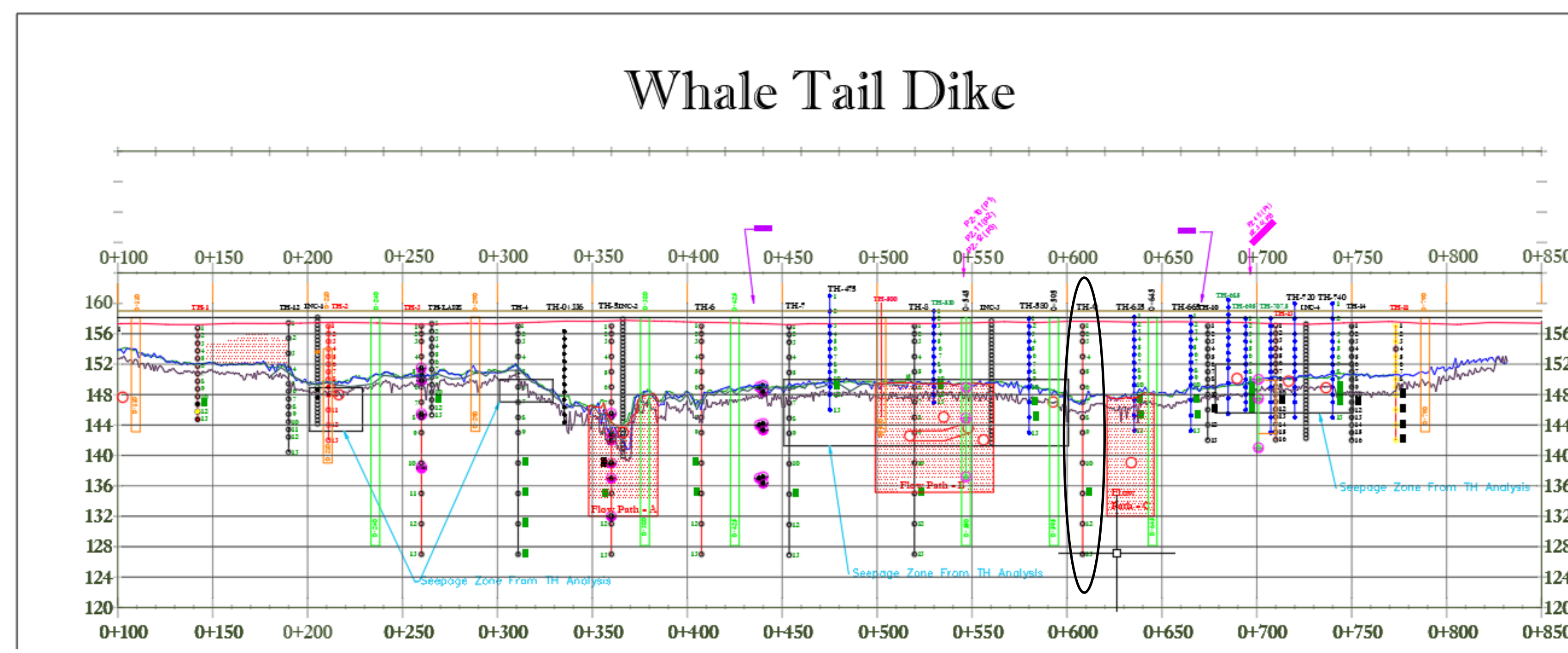

Whale Tail Dike
Seepage Zone From TH Analysis

WTD-TH 0+607

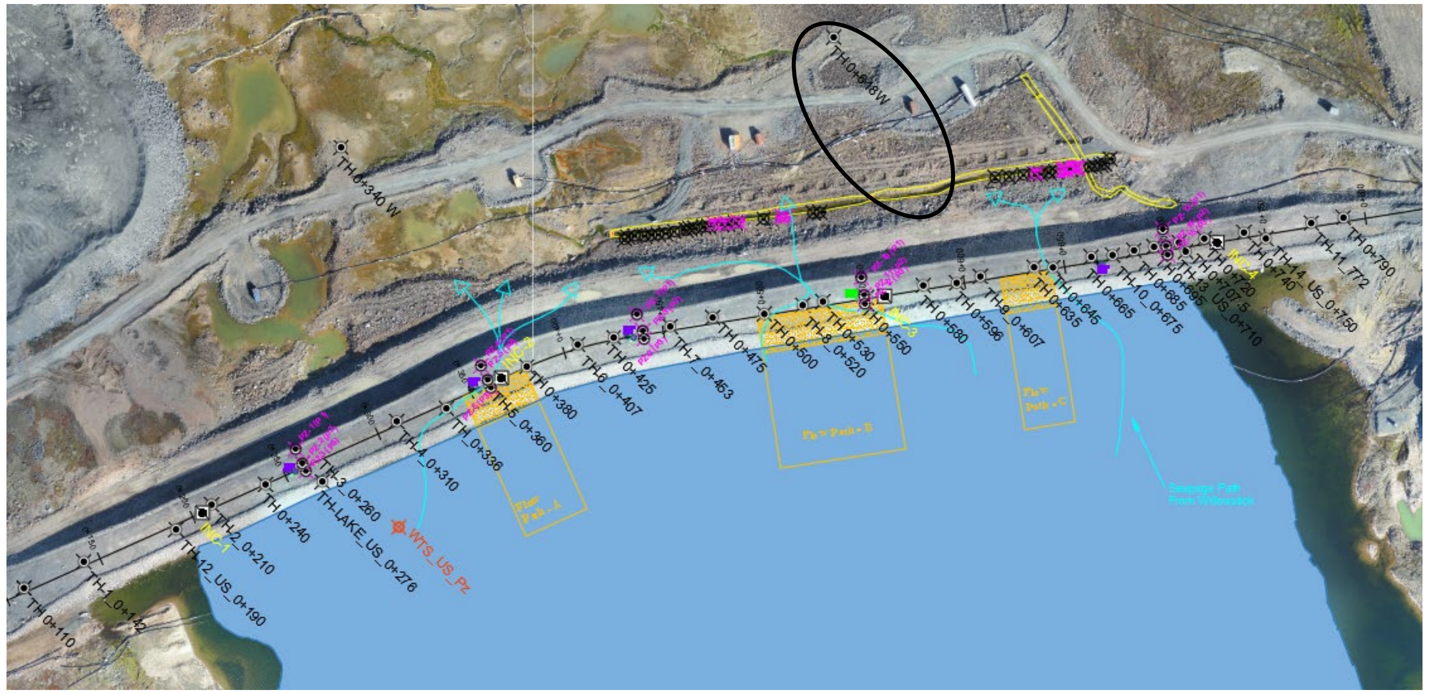


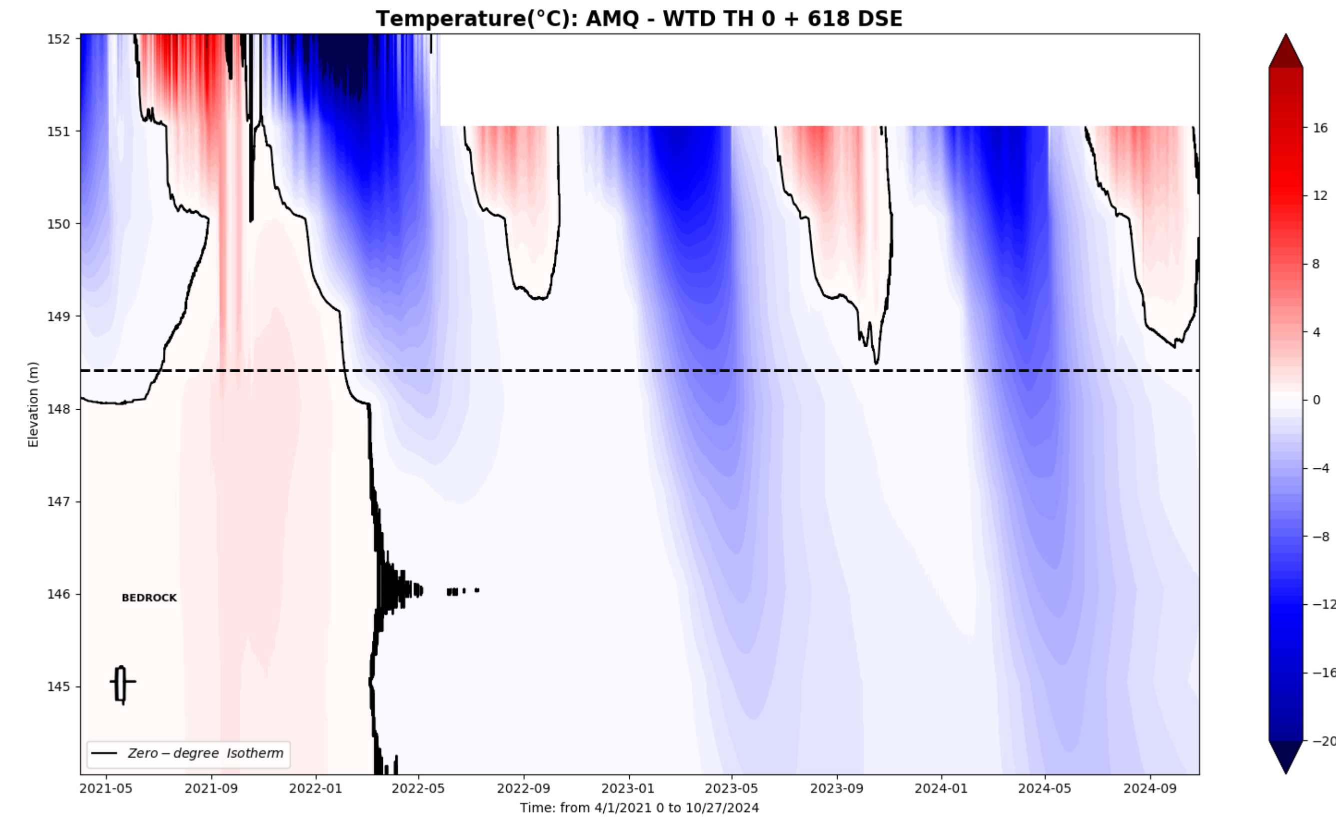

Temperature(°C): AMQ - WTD TH 0 + 607
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Temperature(°C)
Time: from 2/20/2019 to 10/27/2024

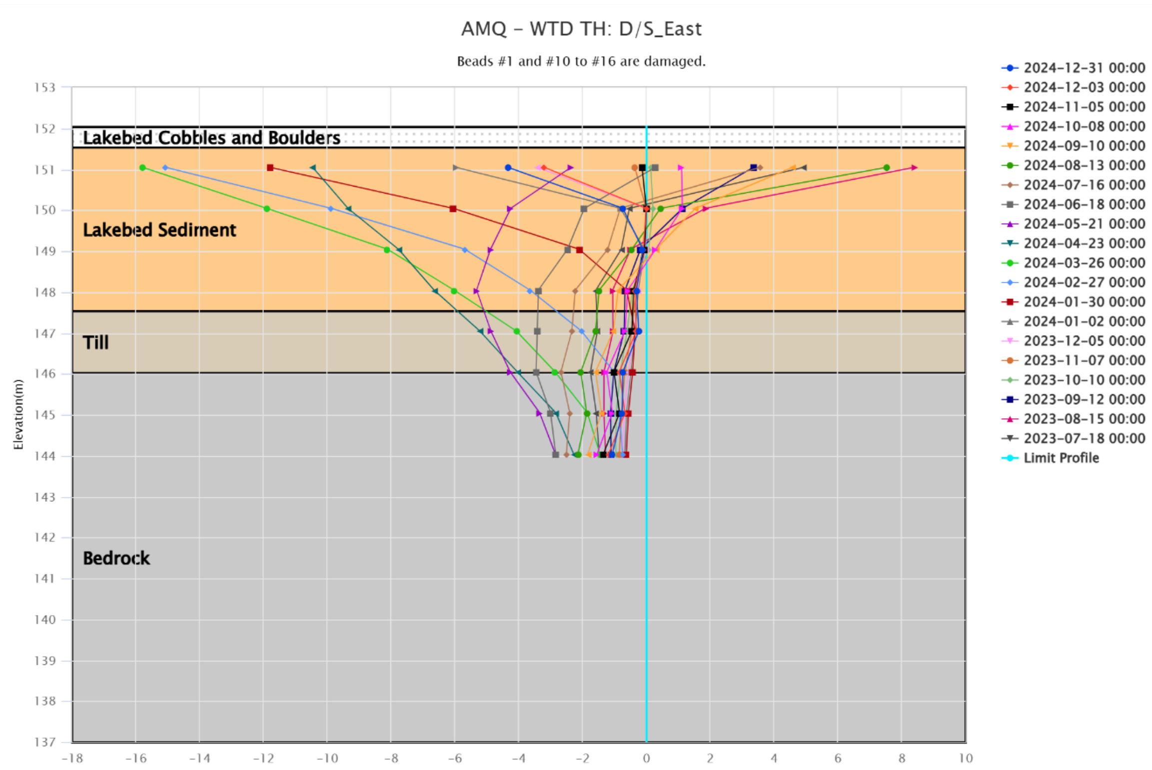

AMQ – WTD TH: 0+607
Beads # 9 and #11 removed.
CAPPING
FINE FILTER
BEDROCK
Elevation (m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile


Whale Tail Dike
Seepage Zone From TH Analysis
Flow Path - A
Flow Path - B
Flow Path - C

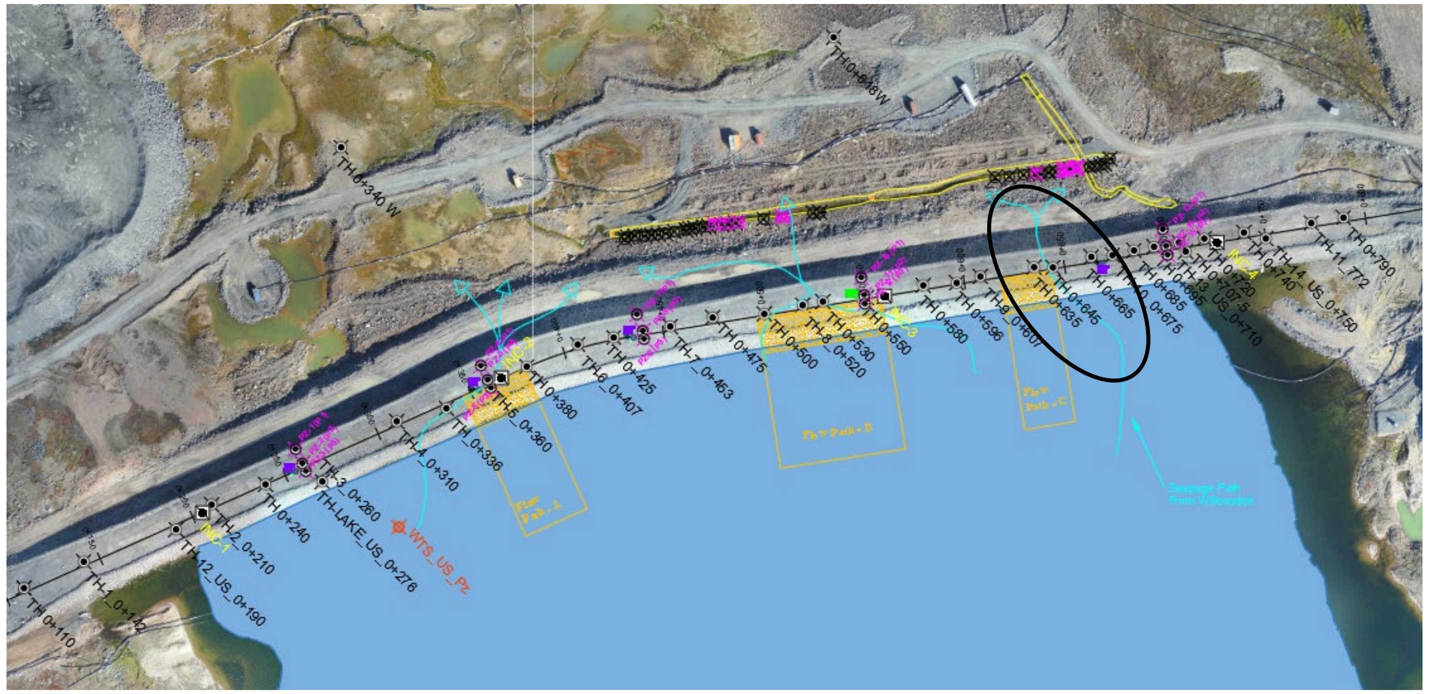
WTD-TH 0+618 DSE

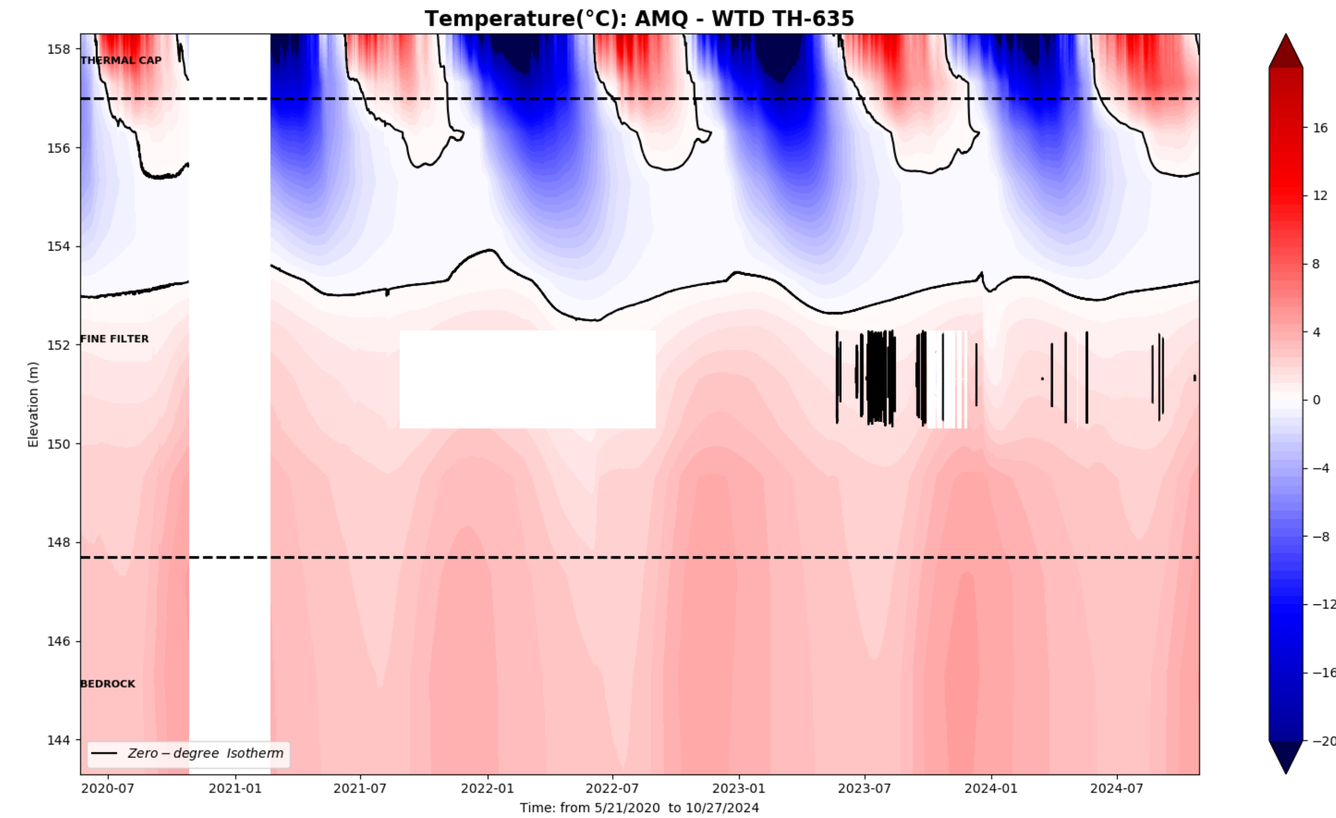




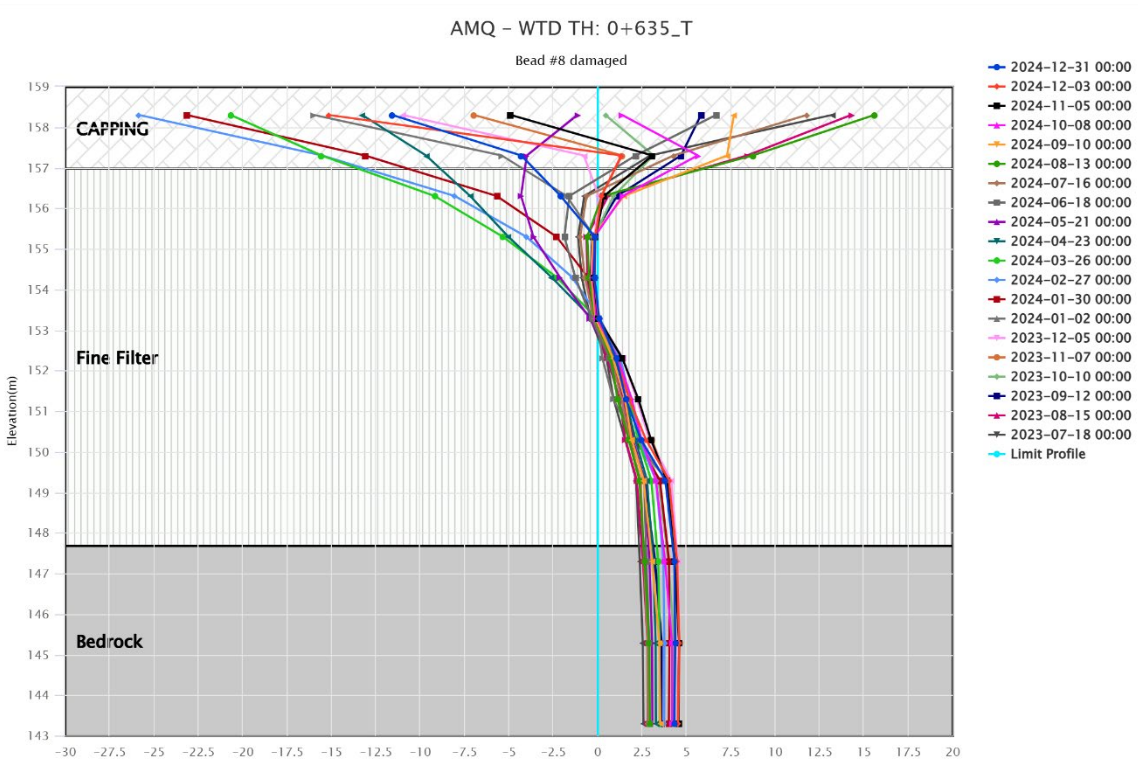


WTD-TH 0+635

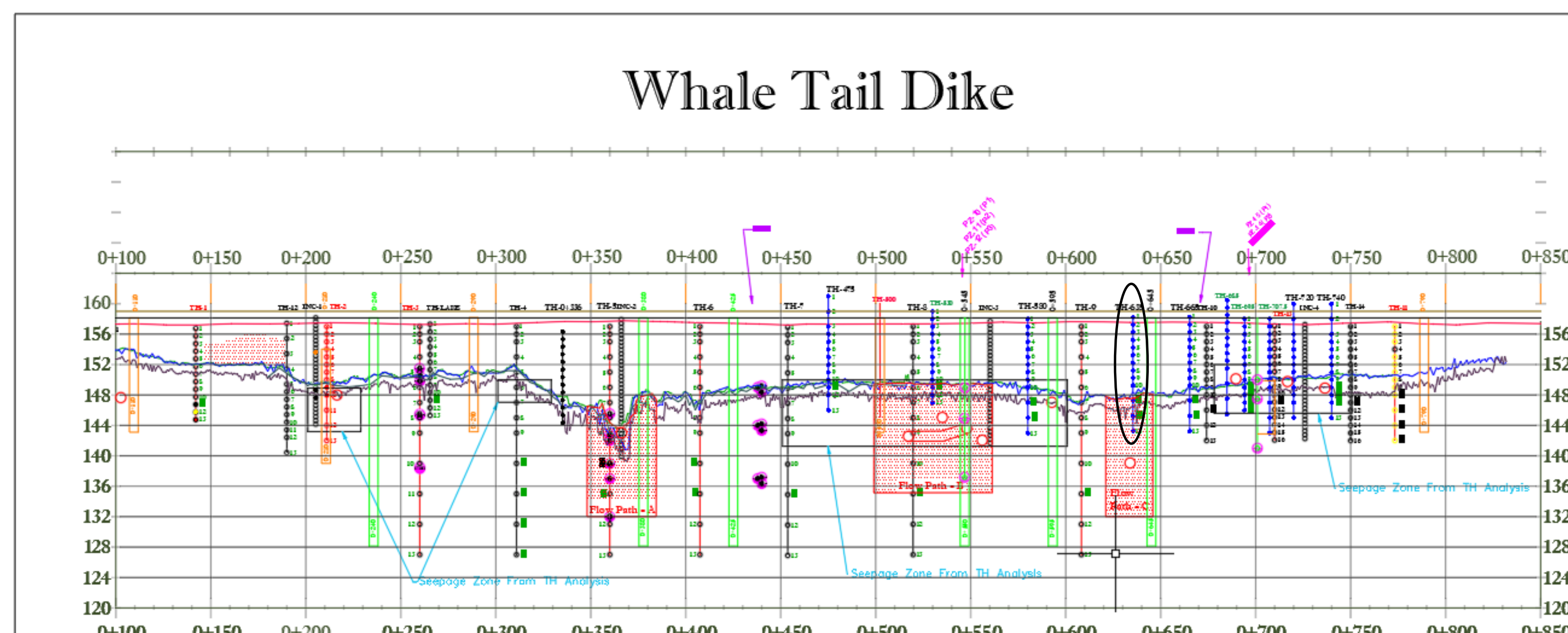




Temperature(°C): AMQ - WTD TH-635
THERMAL CAP
FINE FILTER
BEDROCK
Elevation (m)
Zero – degree Isotherm
2020-07
2021-01
2021-07
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
Time: from 5/21/2020 to 10/27/2024
Temperature(°C)

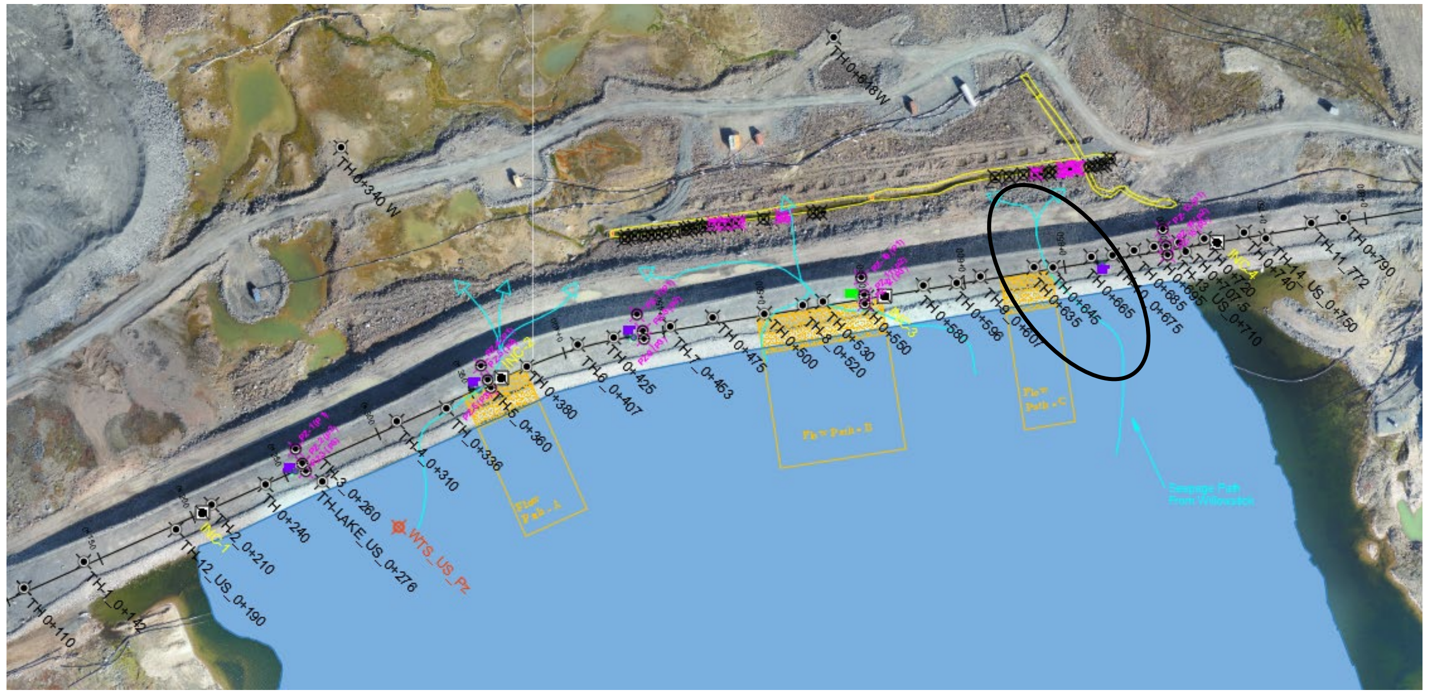


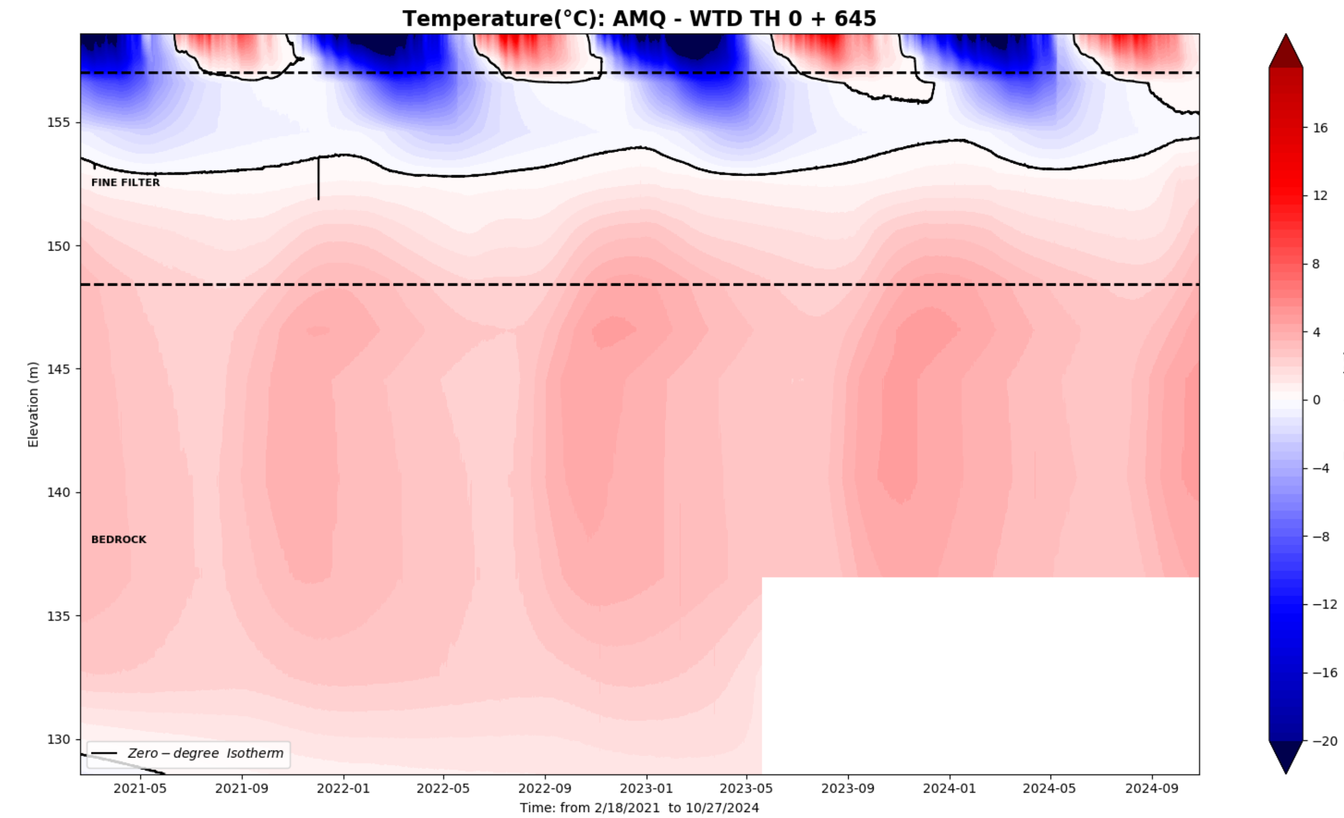
AMQ – WTD TH: 0+635_T
Bead #8 damaged
CAPPING
Fine Filter
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

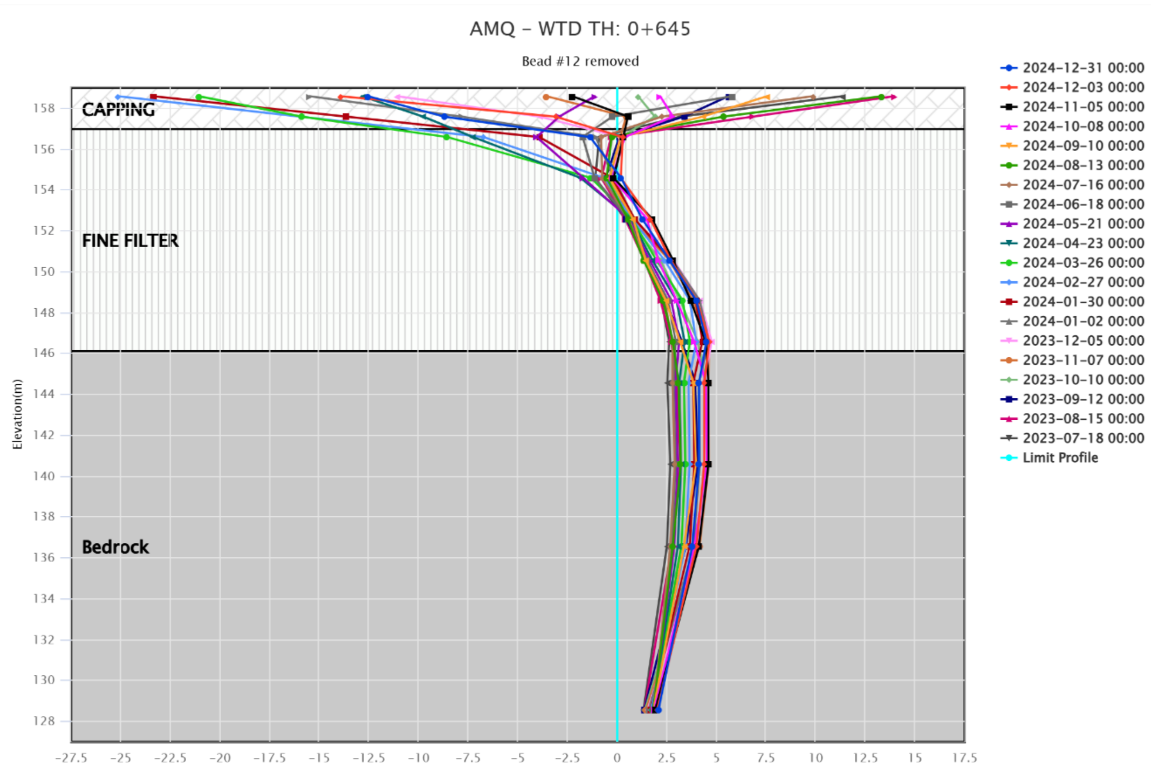


Whale Tail Dike
0+100
0+150
0+200
0+250
0+300
0+350
0+400
0+450
0+500
0+550
0+600
0+650
0+700
0+750
0+800
0+850
Seepage Zone From TH Analysis

WTD-TH 0+645




Temperature(°C): AMQ - WTD TH 0 + 645
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Temperature(°C)
2021-05
2021-09
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
Time: from 2/18/2021 to 10/27/2024


AMQ - WTD TH: 0+645
Bead #12 removed
CAPPING
FINE FILTER
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
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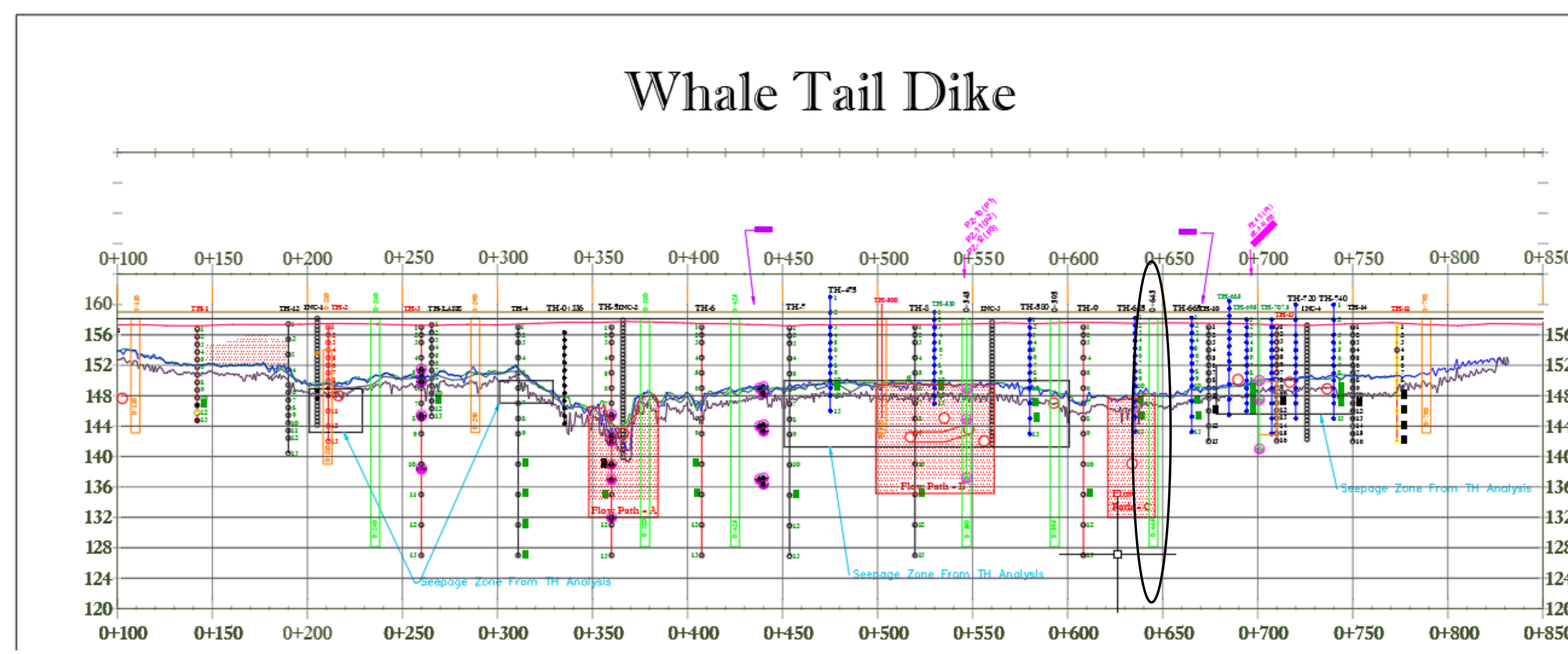
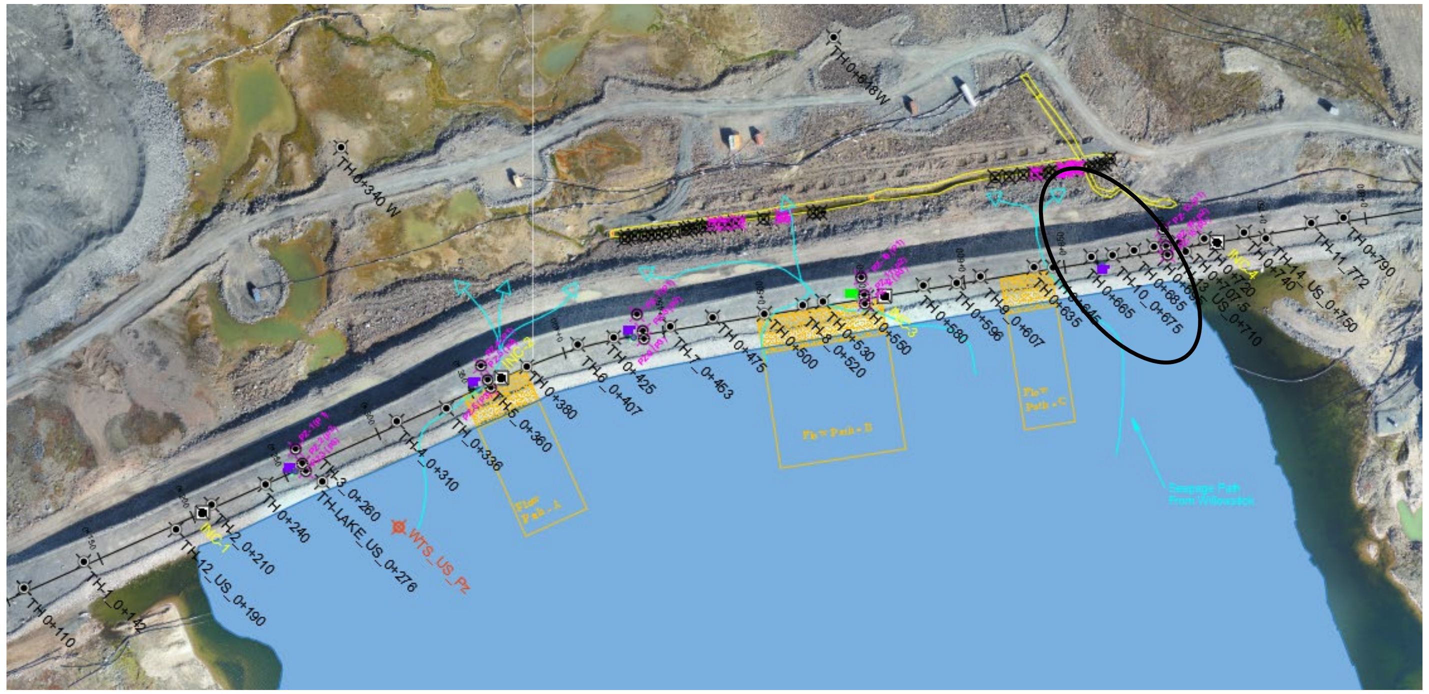
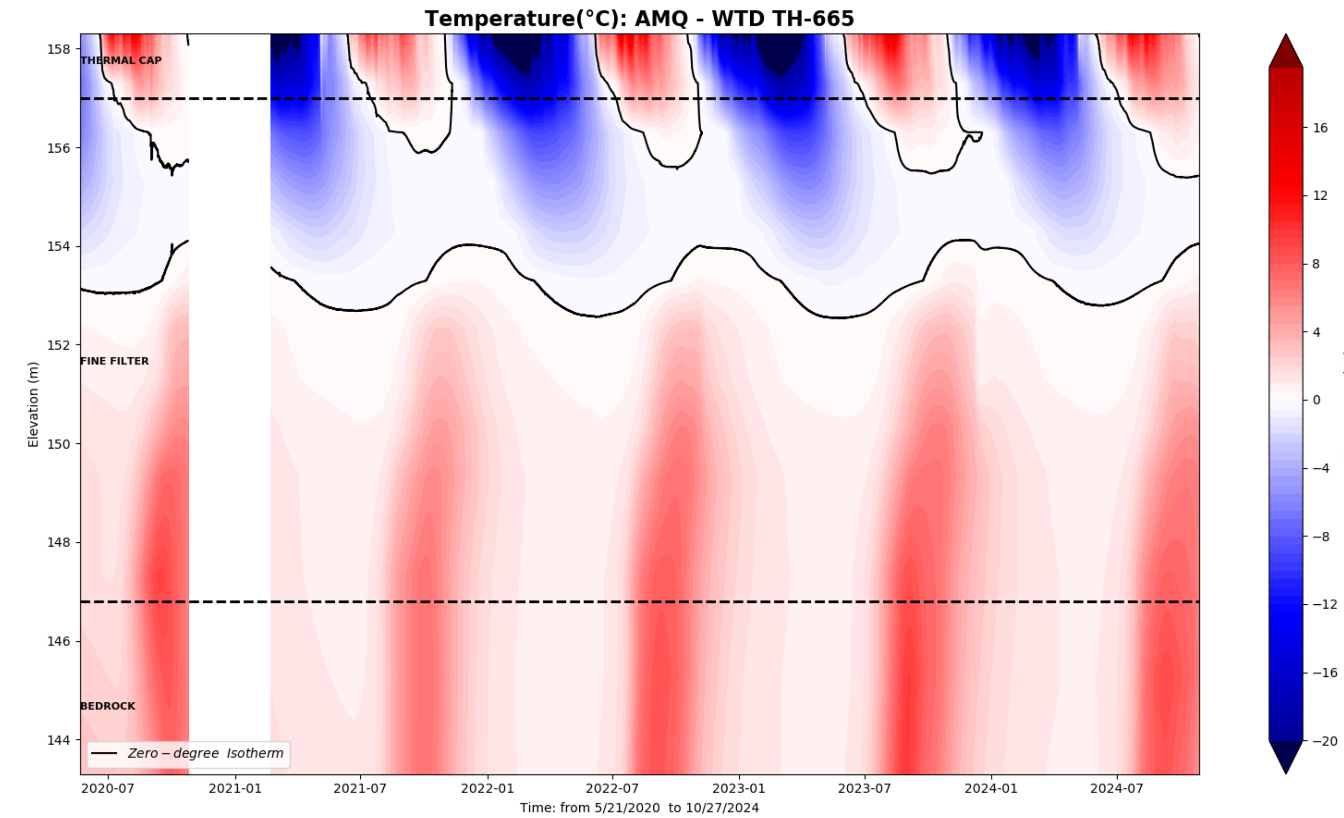
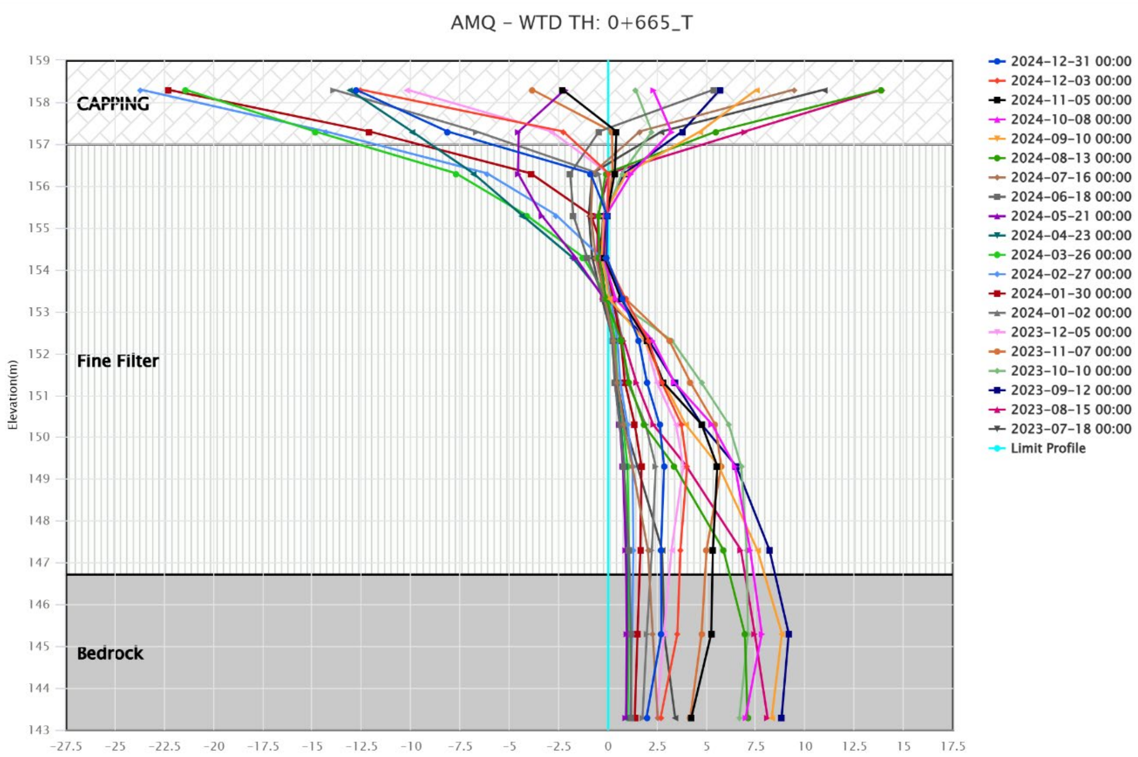
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

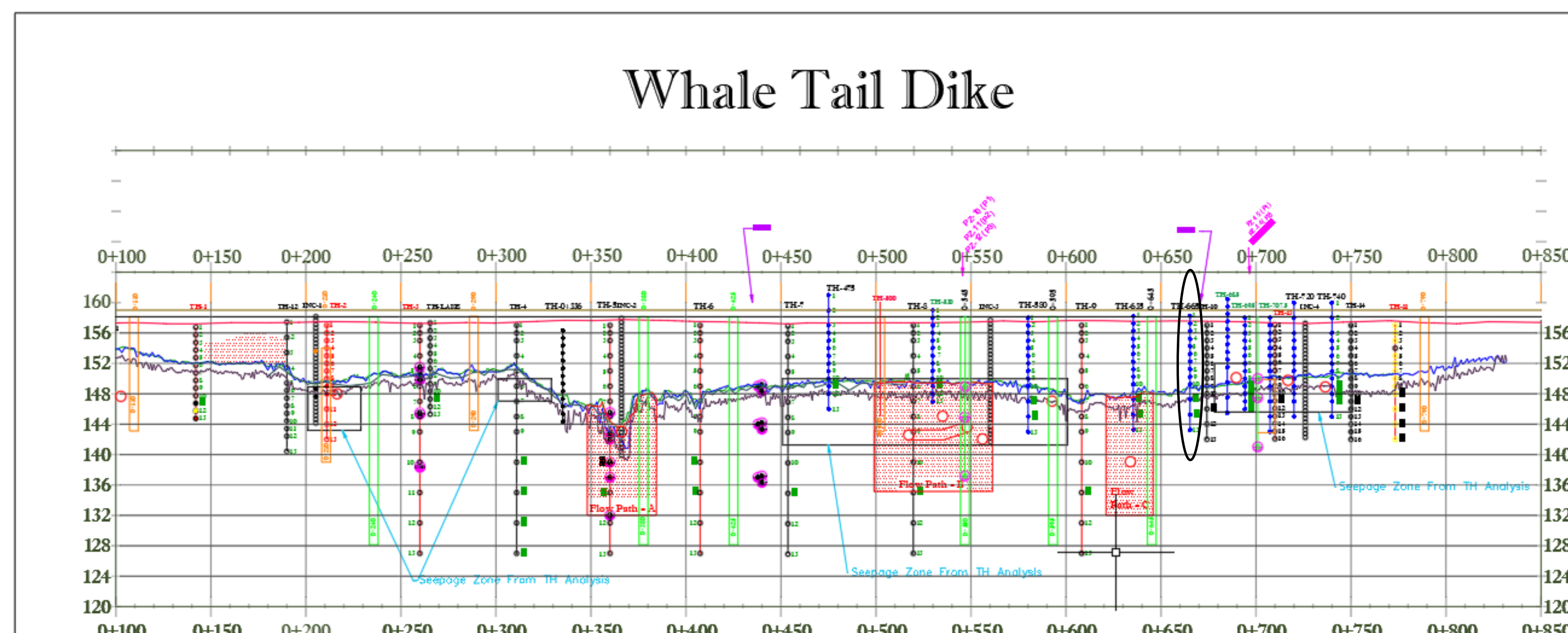

Whale Tail Dike
Seepage Zone From TH Analysis
Flow Path - A
Flow Path - B

WTD-TH 0+665

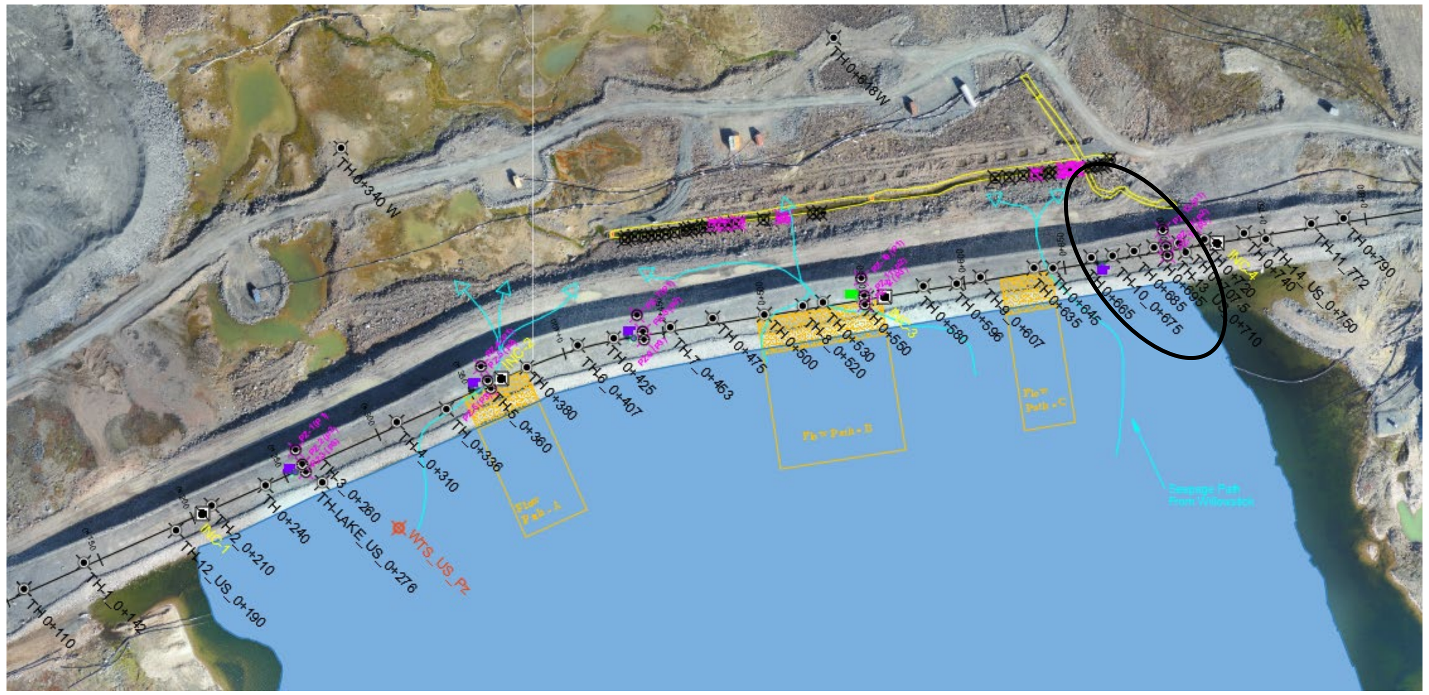


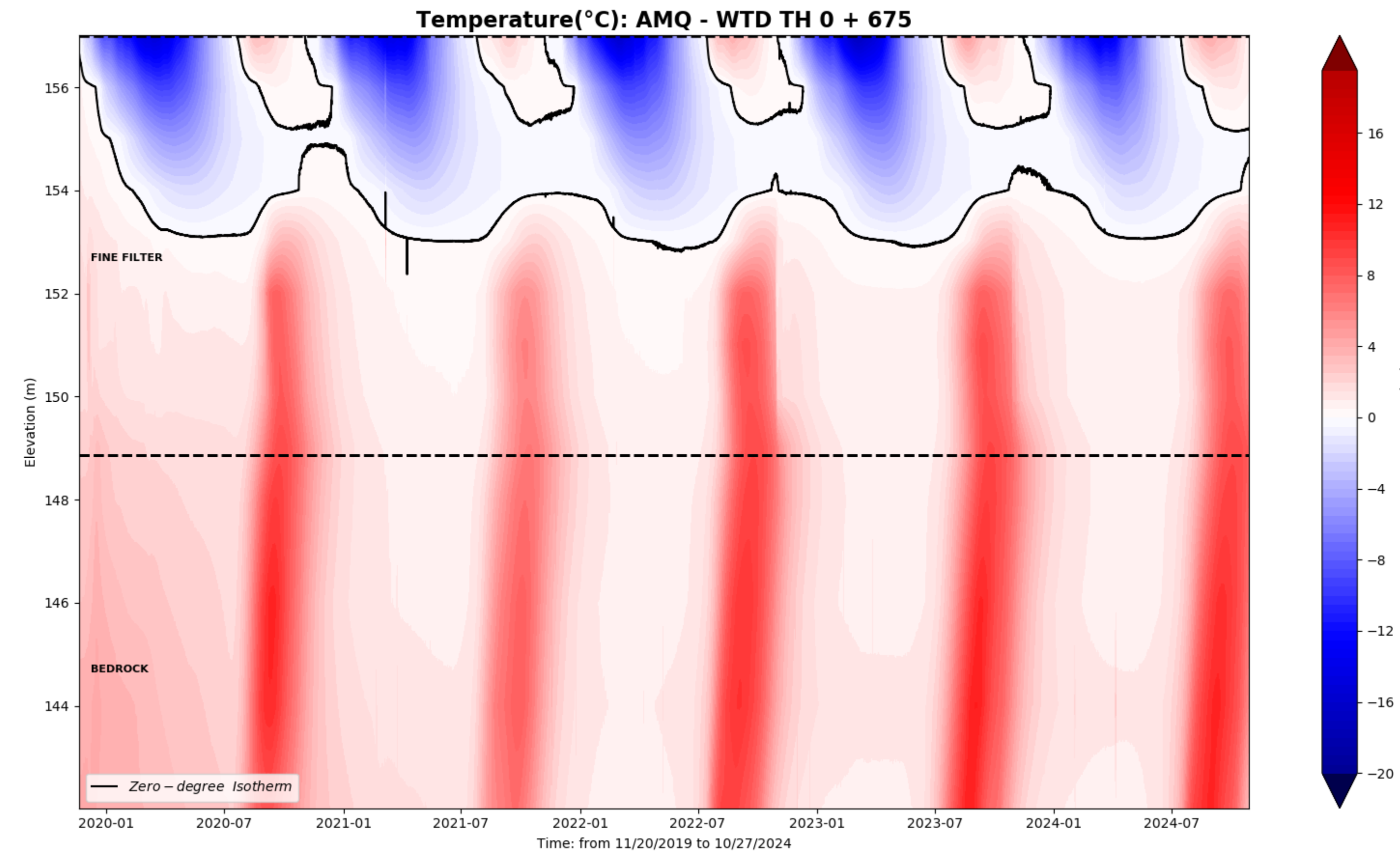

Temperature(°C): AMQ - WTD TH-665
THERMAL CAP
FINE FILTER
BEDROCK
Elevation (m)
Zero – degree Isotherm
2020-07
2021-01
2021-07
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
Time: from 5/21/2020 to 10/27/2024
Temperature(°C)

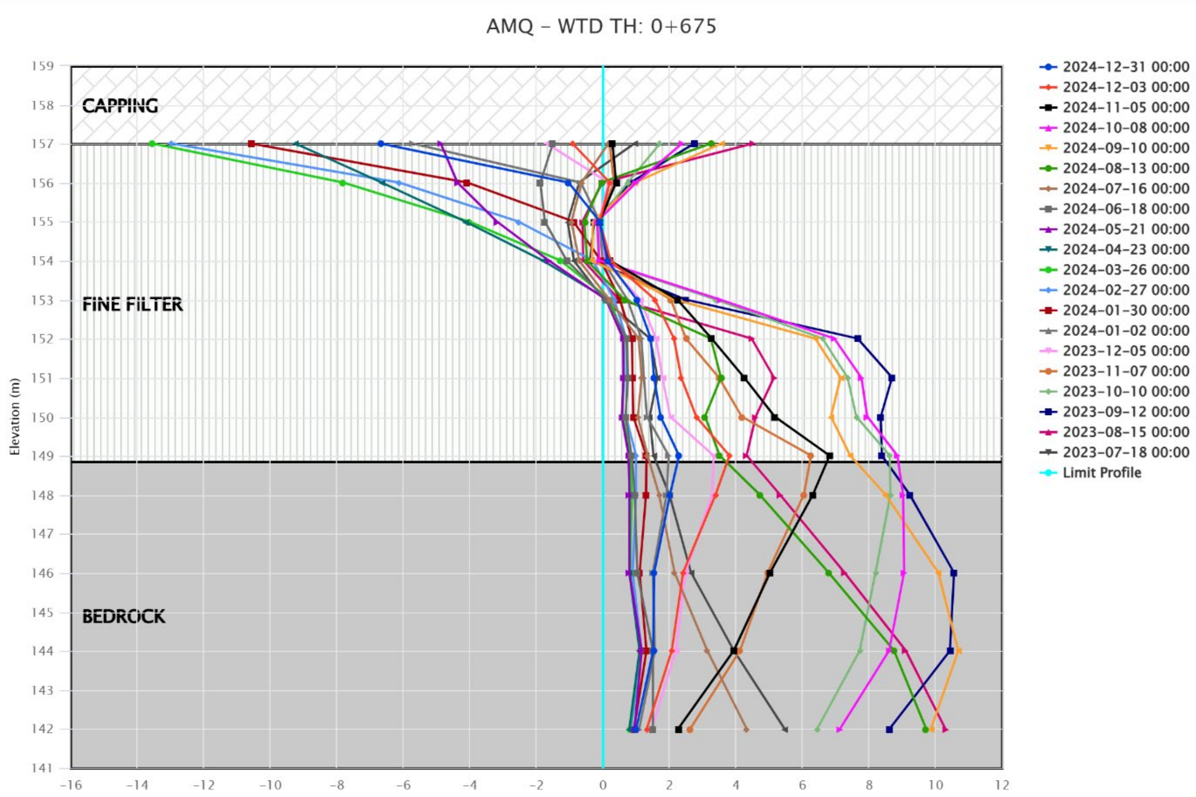

AMQ - WTD TH: 0+665_T
CAPPING
Fine Filter
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile


Whale Tail Dike
Seepage Zone From TH Analysis
Flow Path - A
Flow Path - B

WTD-TH 0+675




Temperature(°C): AMQ - WTD TH 0 + 675
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Temperature(°C)
Time: from 11/20/2019 to 10/27/2024
2020-01 2020-07 2021-01 2021-07 2022-01 2022-07 2023-01 2023-07 2024-01 2024-07


AMQ - WTD TH: 0+675
CAPPING
FINE FILTER
BEDROCK
Elevation (m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
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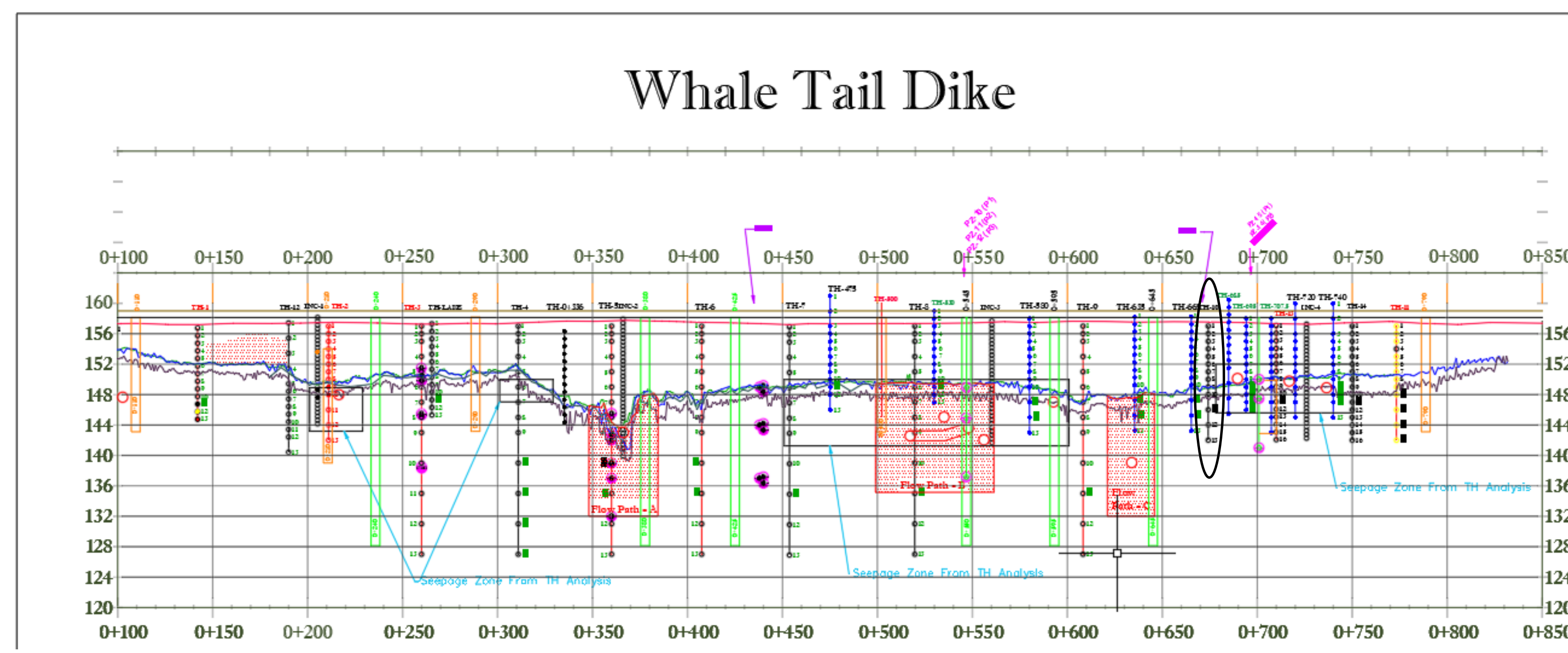
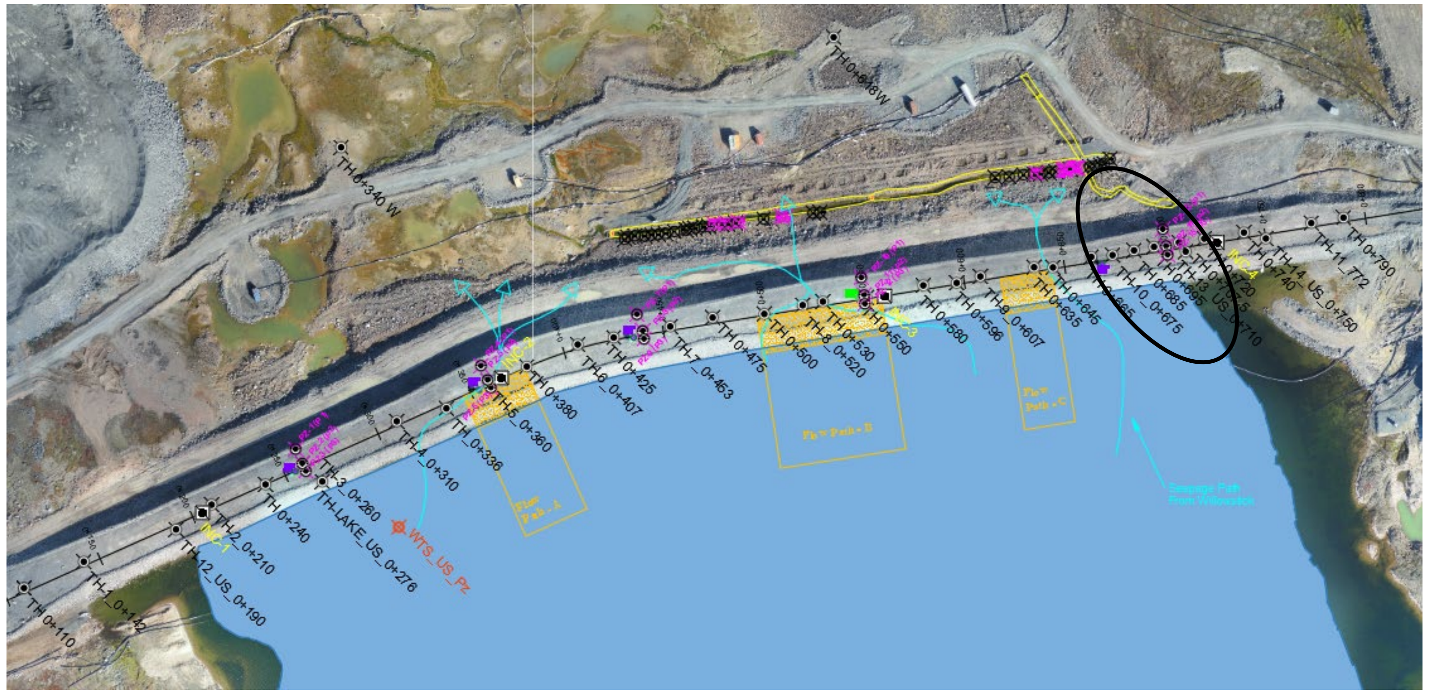
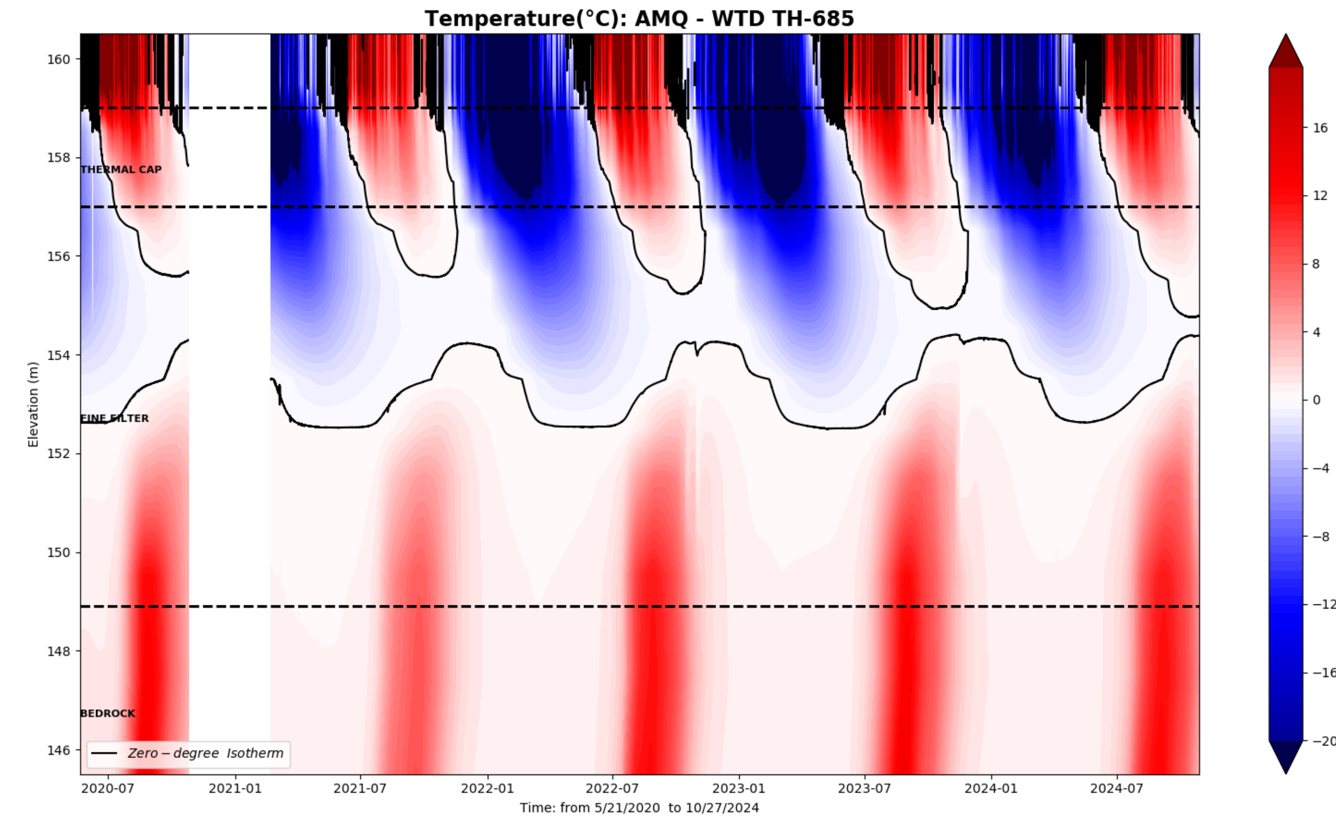
2023-07-18 00:00
Limit Profile

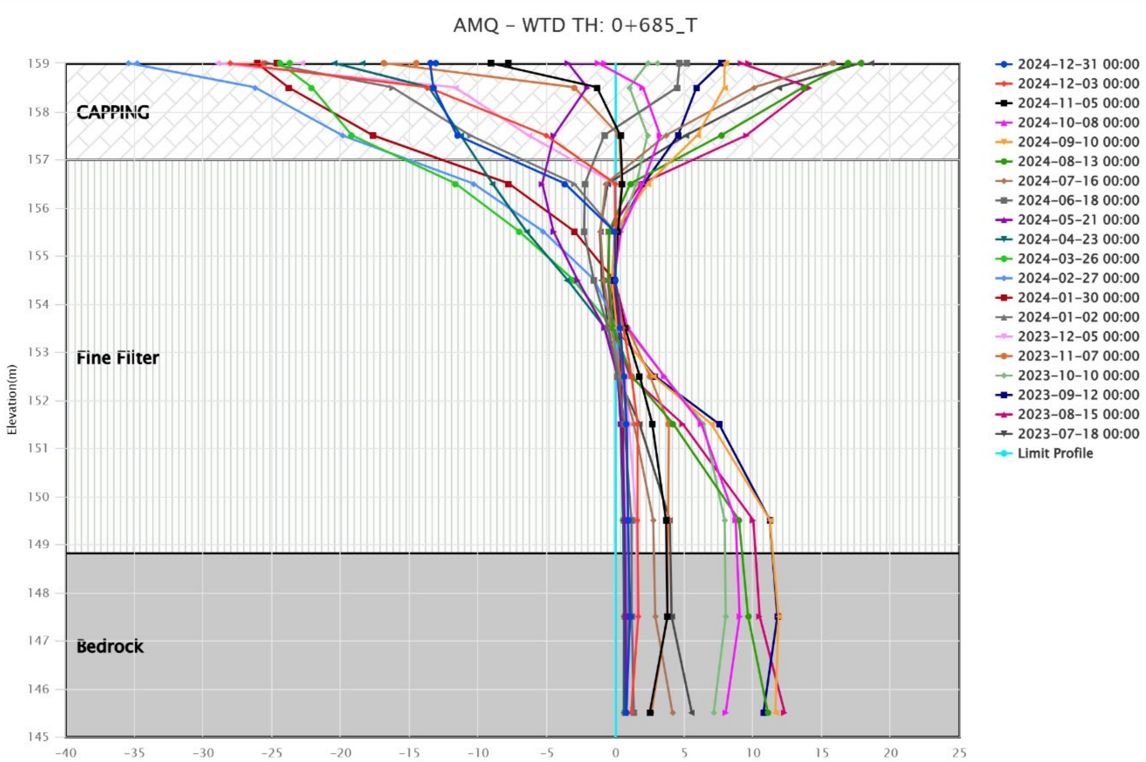

Whale Tail Dike
0+100 0+150 0+200 0+250 0+300 0+350 0+400 0+450 0+500 0+550 0+600 0+650 0+700 0+750 0+800 0+850
Seepage Zone From TH Analysis

WTD-TH 0+685





Temperature(°C): AMQ - WTD TH-685
THERMAL CAP
FINE FILTER
BEDROCK
Elevation (m)
Zero – degree Isotherm
2020-07
2021-01
2021-07
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
Time: from 5/21/2020 to 10/27/2024
Temperature(°C)



AMQ – WTD TH: 0+685_T
CAPPING
Fine Filter
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
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2024-02-27 00:00
2024-01-30 00:00
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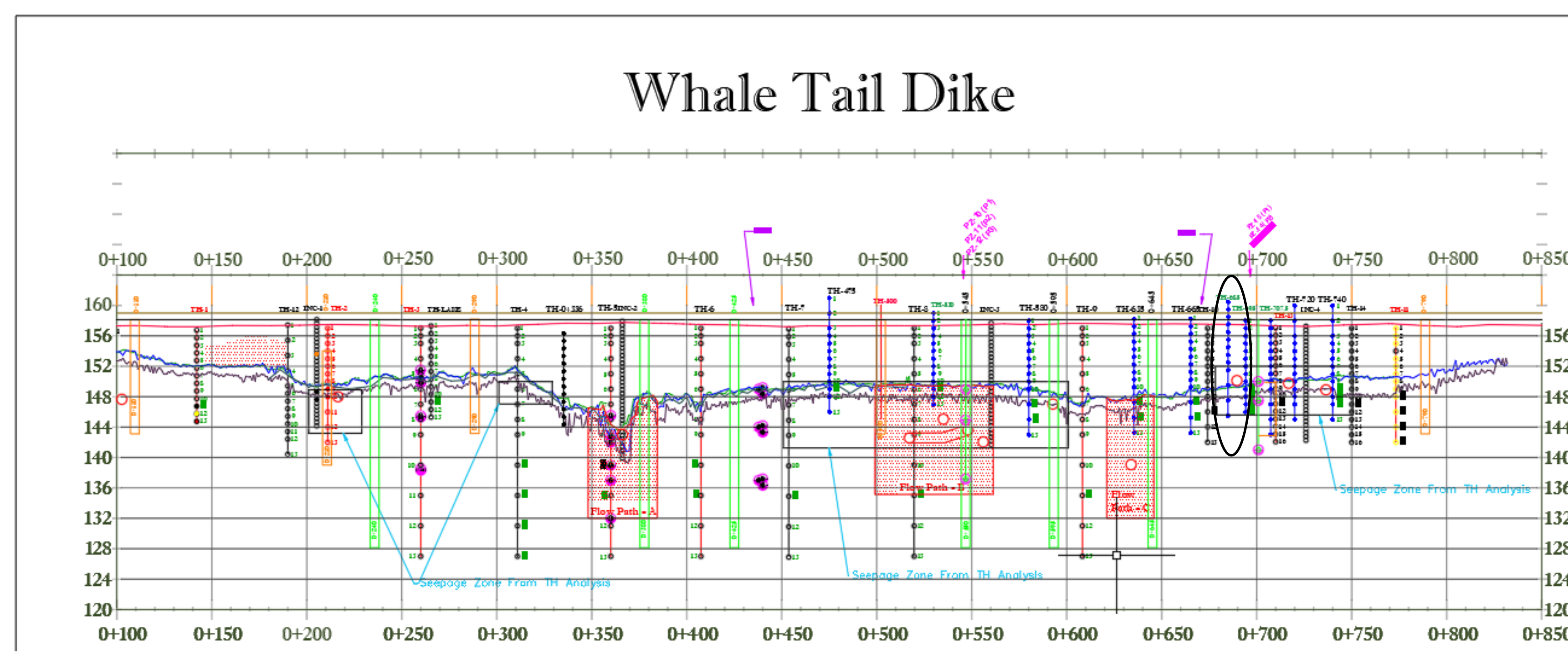
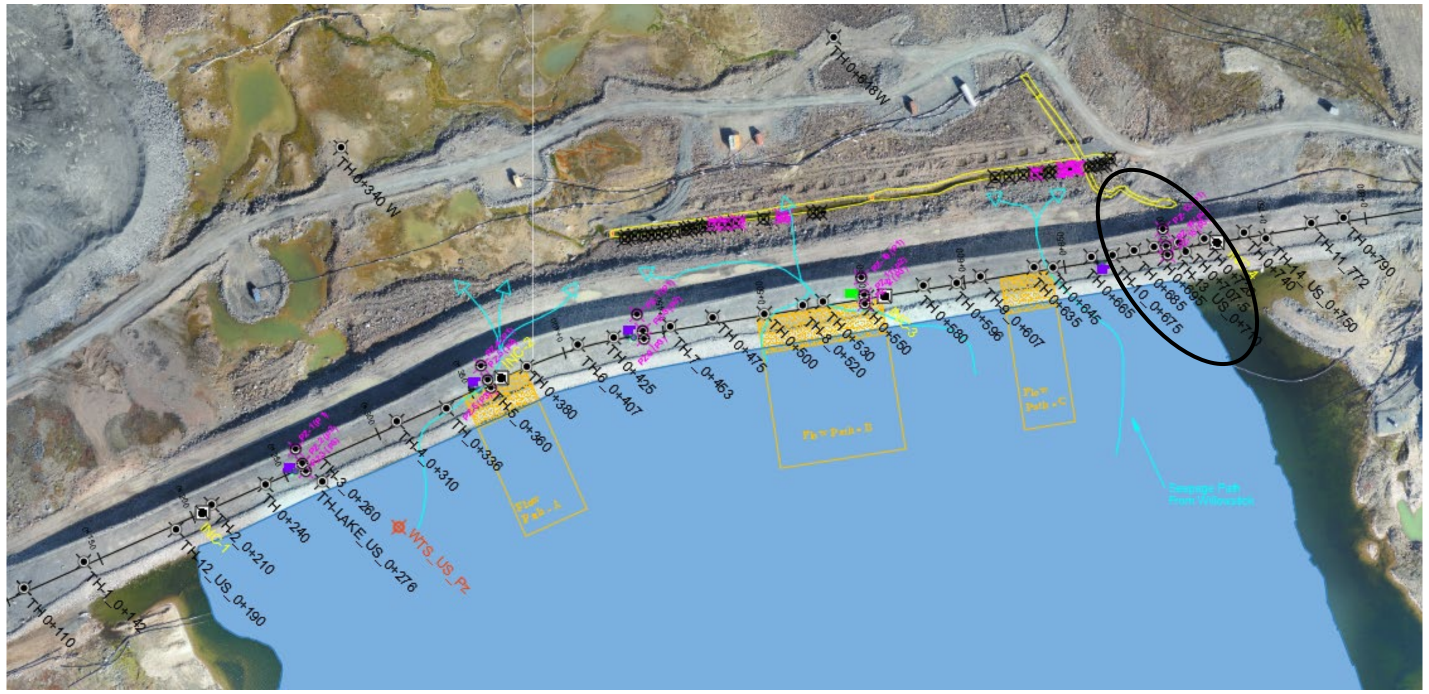
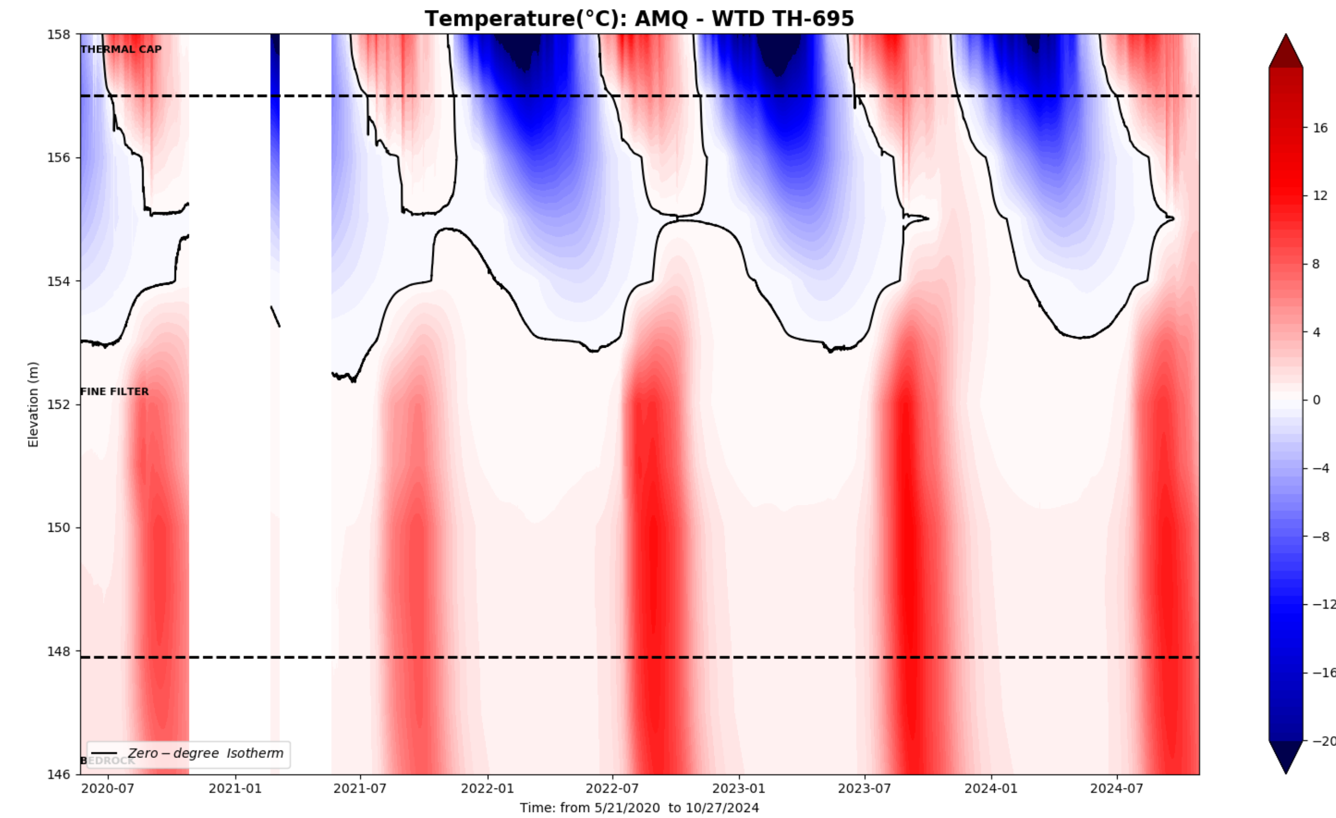
2023-07-18 00:00
Limit Profile



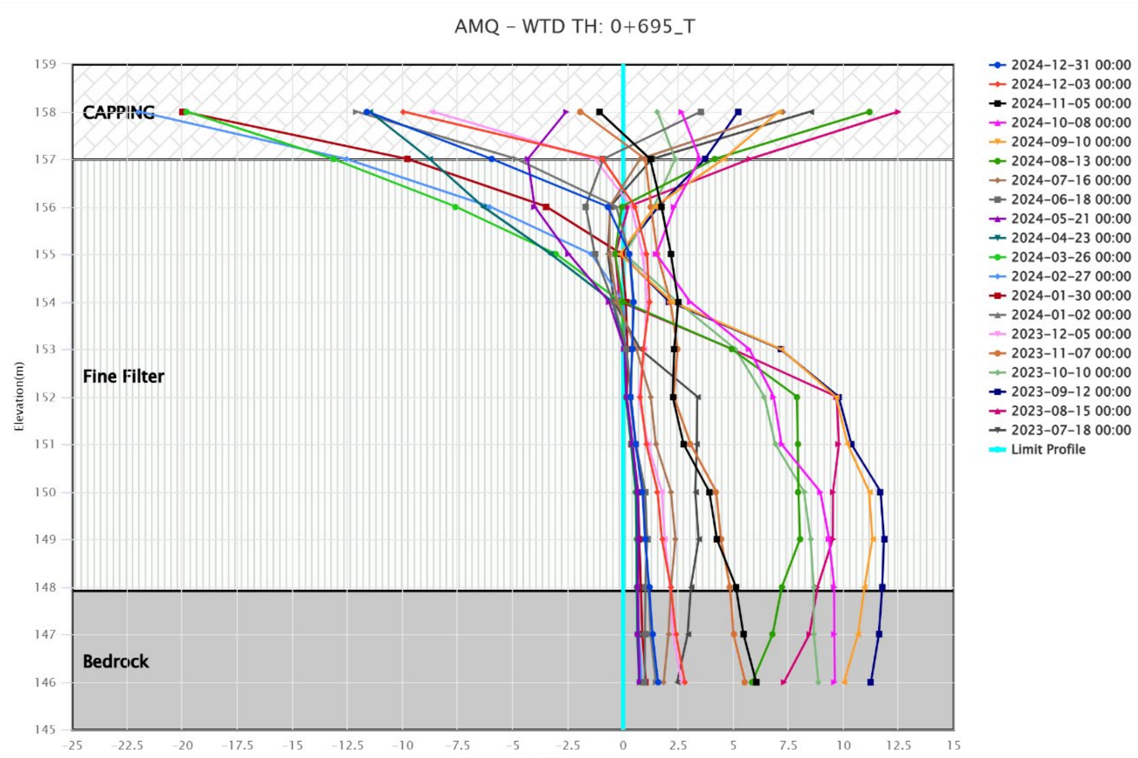
Whale Tail Dike
Seepage Zone From TH Analysis

WTD-TH 0+695





Temperature(°C): AMQ - WTD TH-695
THERMAL CAP
FINE FILTER
Zero – degree Isotherm
Elevation (m)
Temperature(°C)
Time: from 5/21/2020 to 10/27/2024



AMQ - WTD TH: 0+695_T
CAPPING
Fine Filter
Bedrock
Elevation(m)
Temperature (C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
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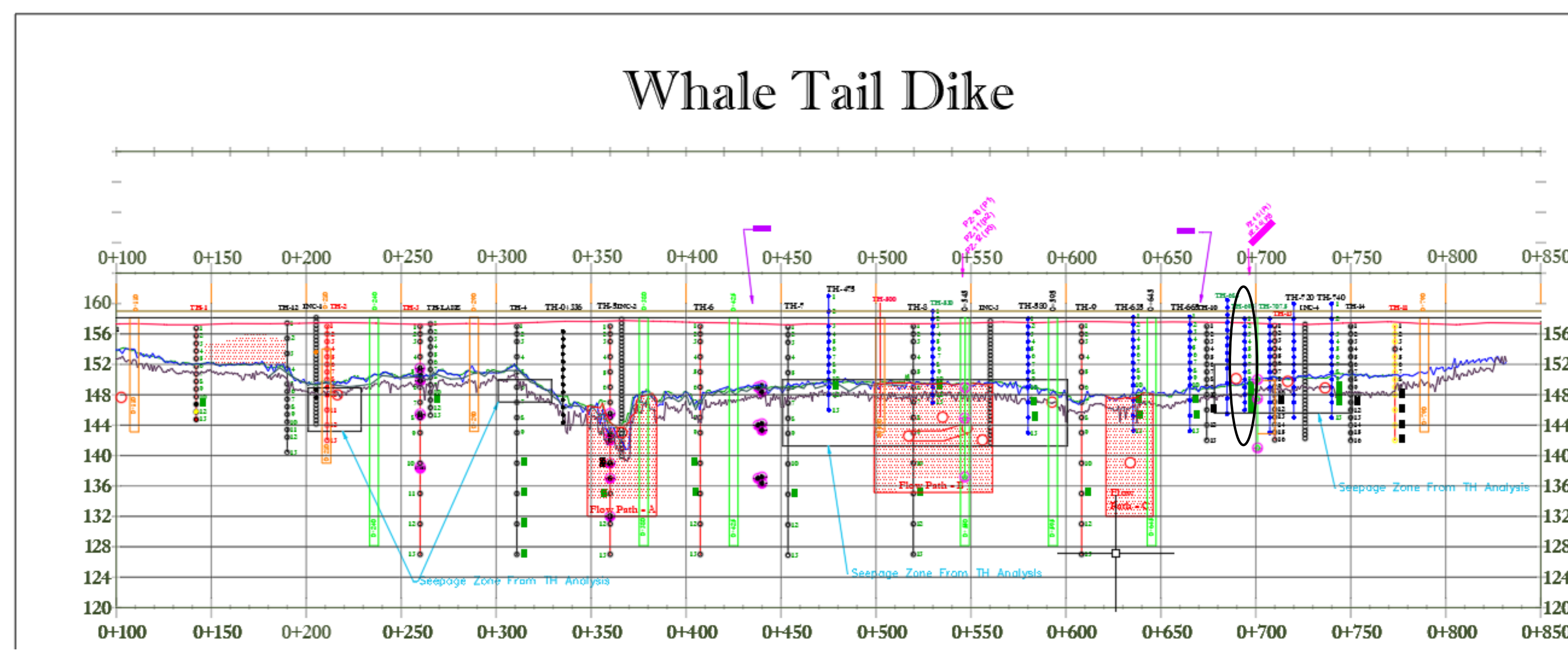
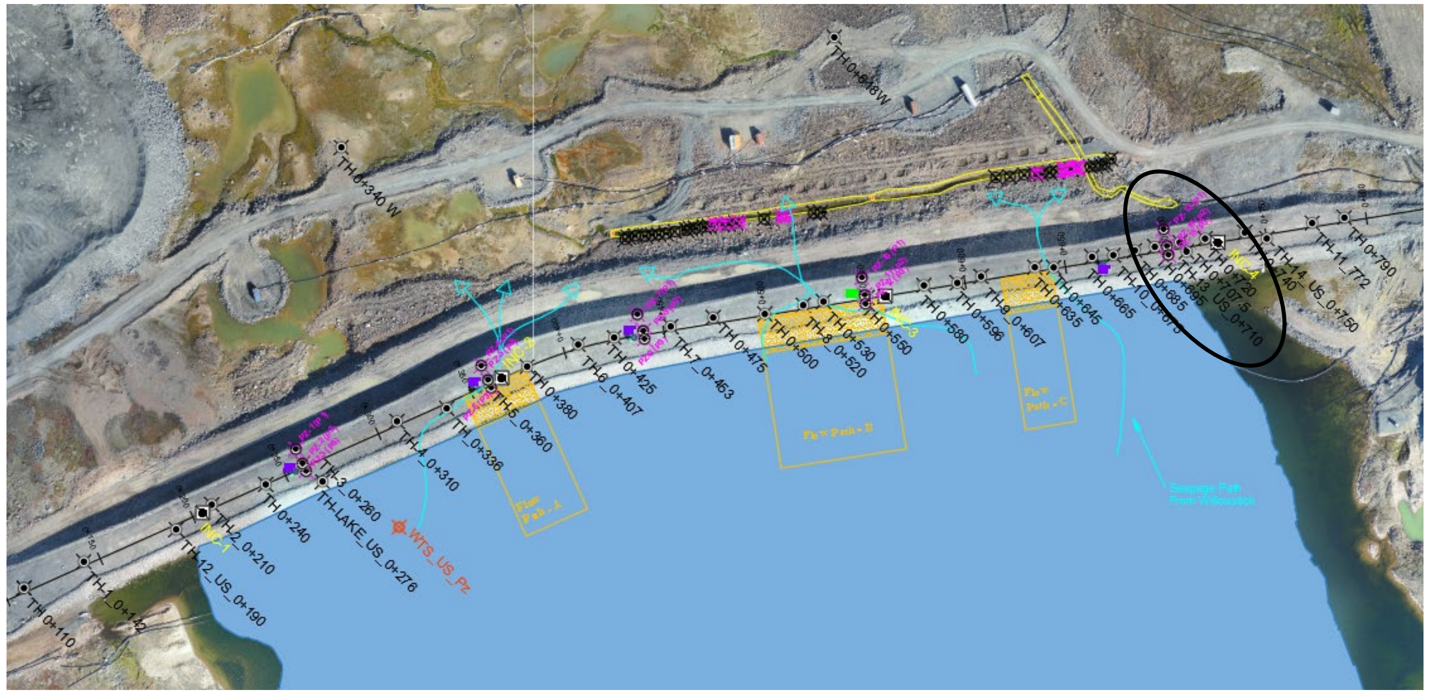
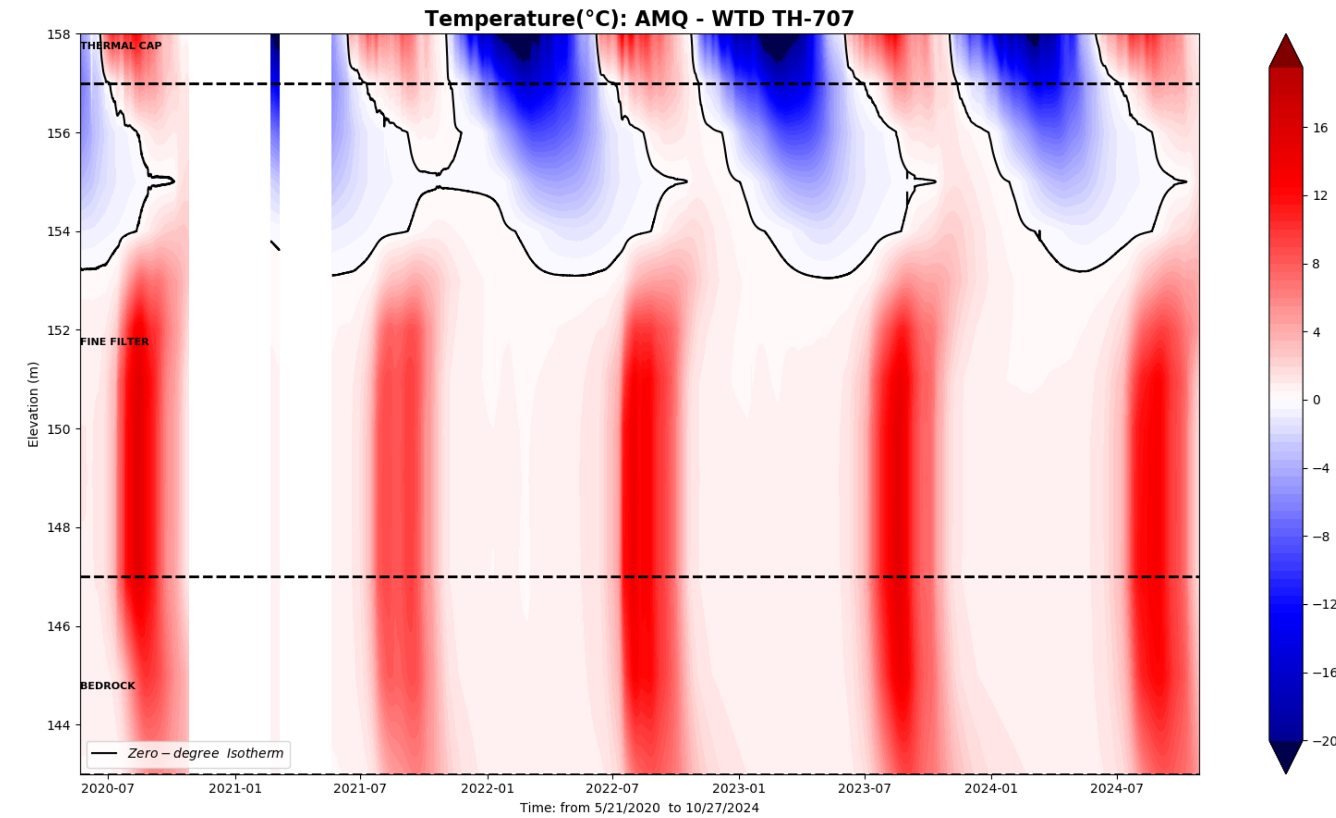
2023-08-15 00:00
2023-07-18 00:00
Limit Profile



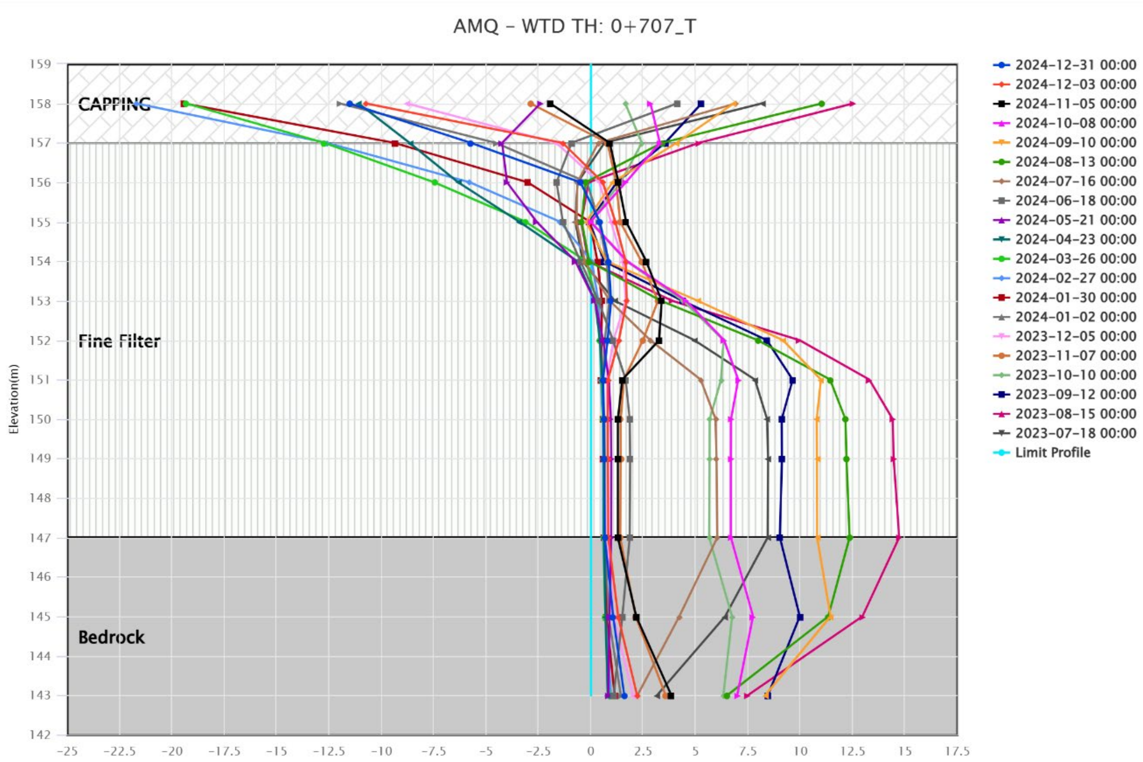
Whale Tail Dike
Seepage Zone From TH Analysis
Flow Path - A

WTD-TH 0+707





Temperature(°C): AMQ - WTD TH-707
THERMAL CAP
FINE FILTER
BEDROCK
Elevation (m)
Zero – degree Isotherm
Temperature(°C)
Time: from 5/21/2020 to 10/27/2024



AMQ - WTD TH: 0+707_T
CAPPING
Fine Filter
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
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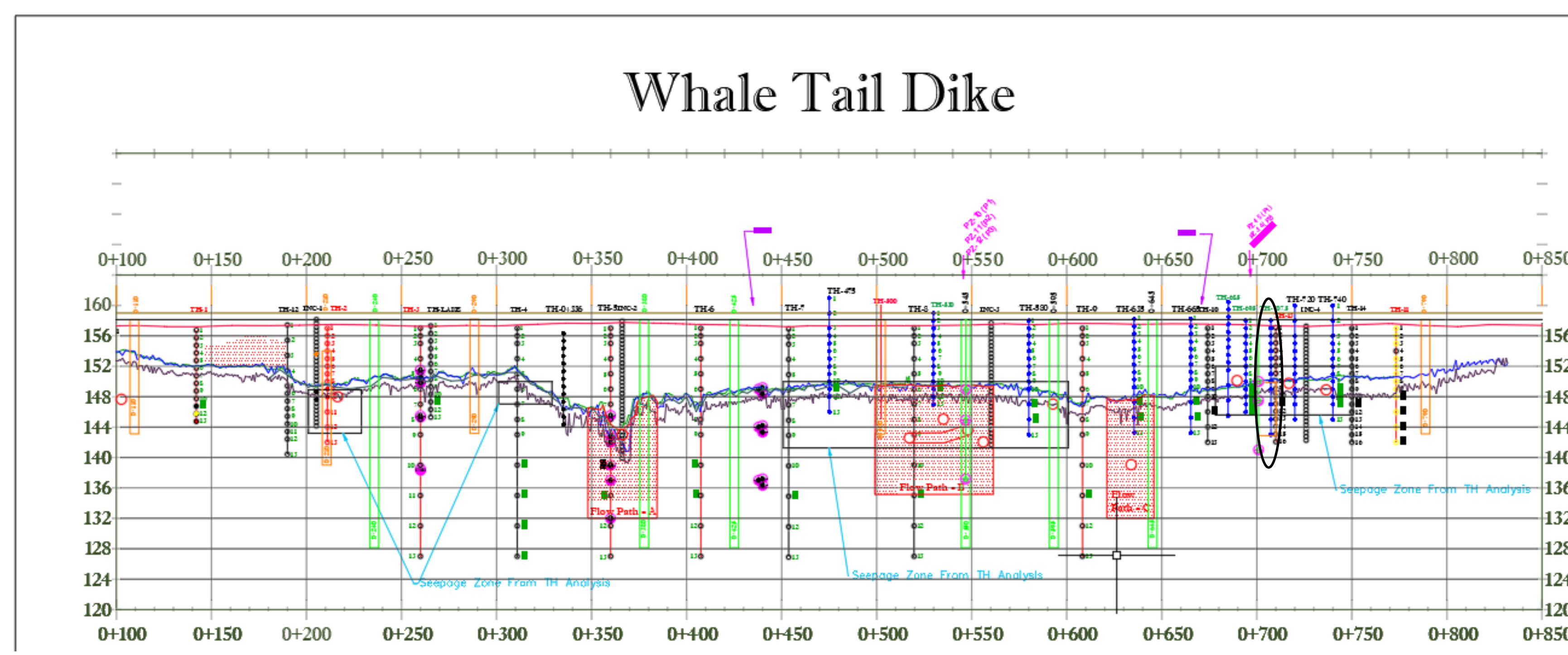
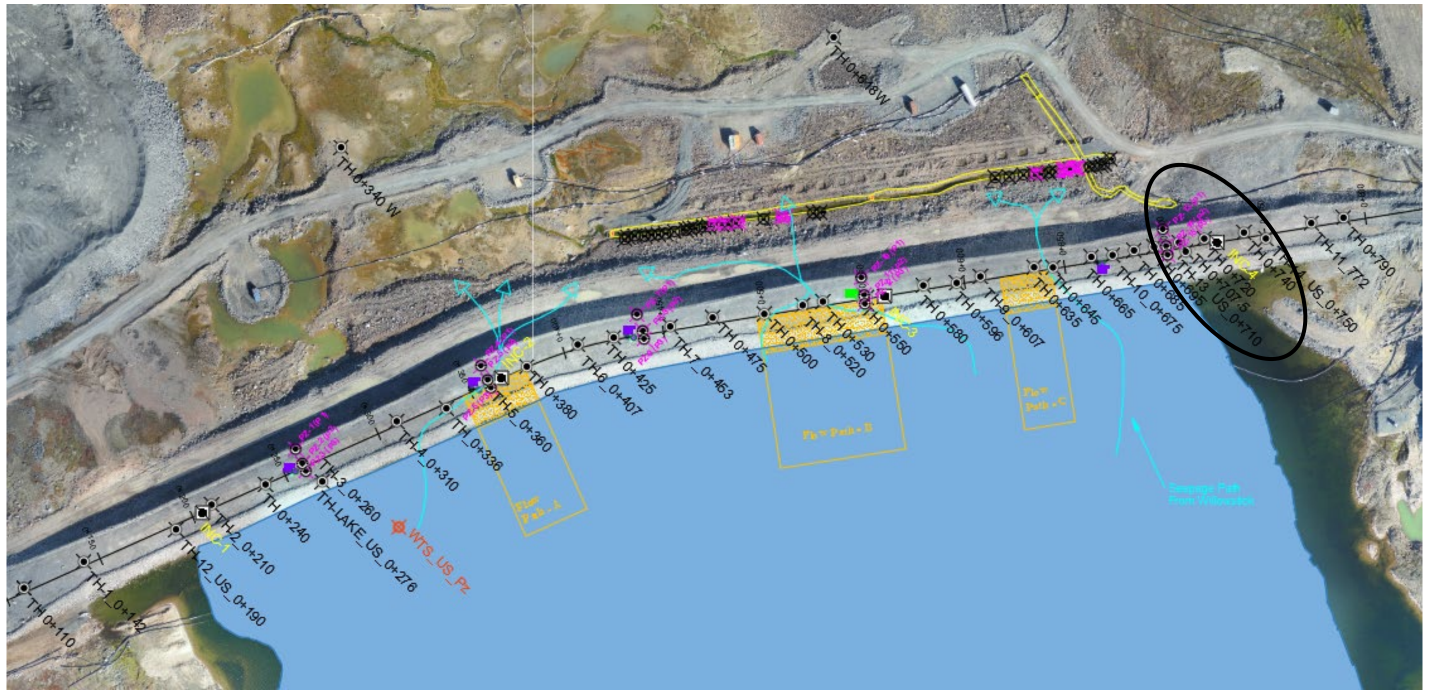
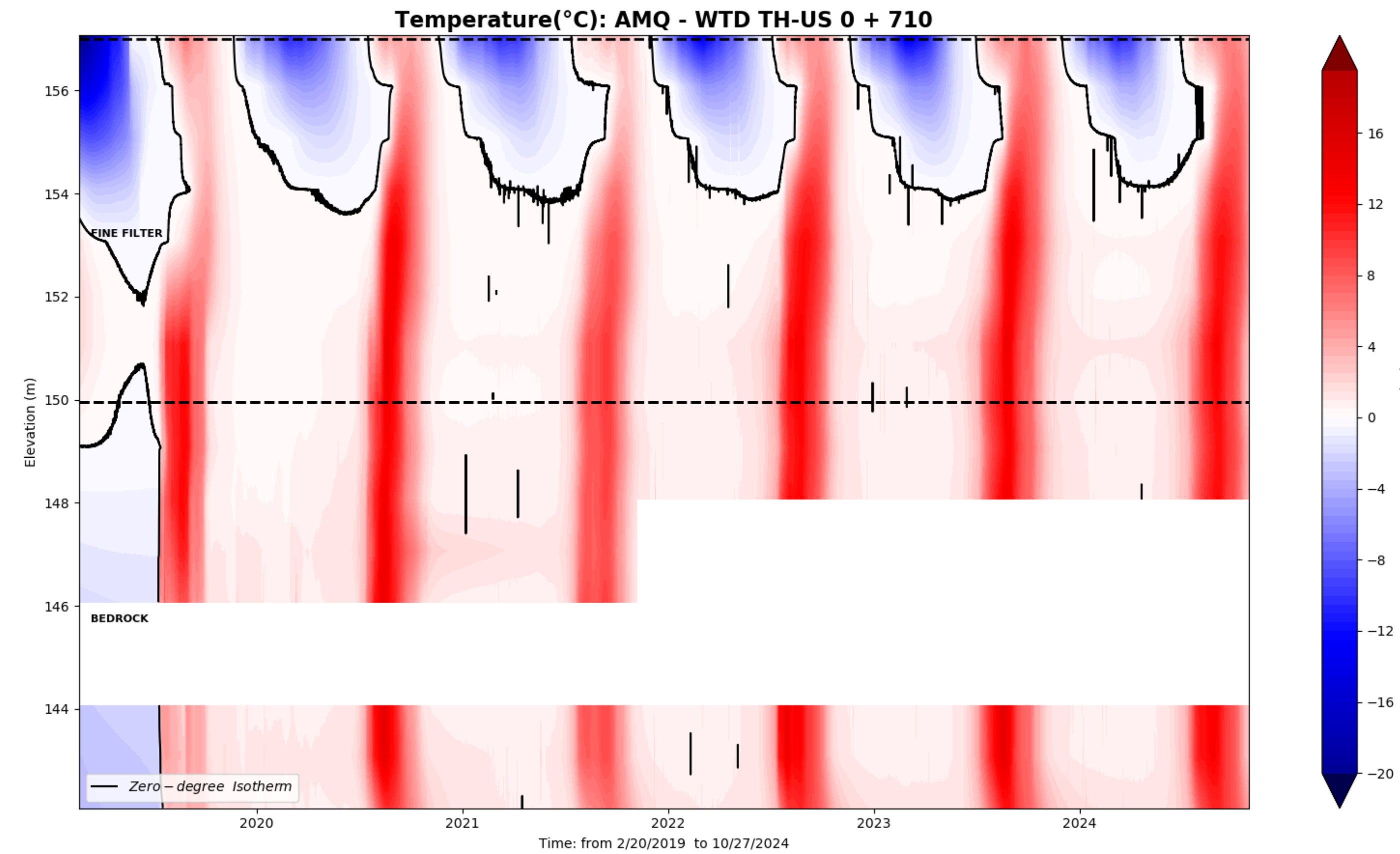
2023-07-18 00:00
Limit Profile

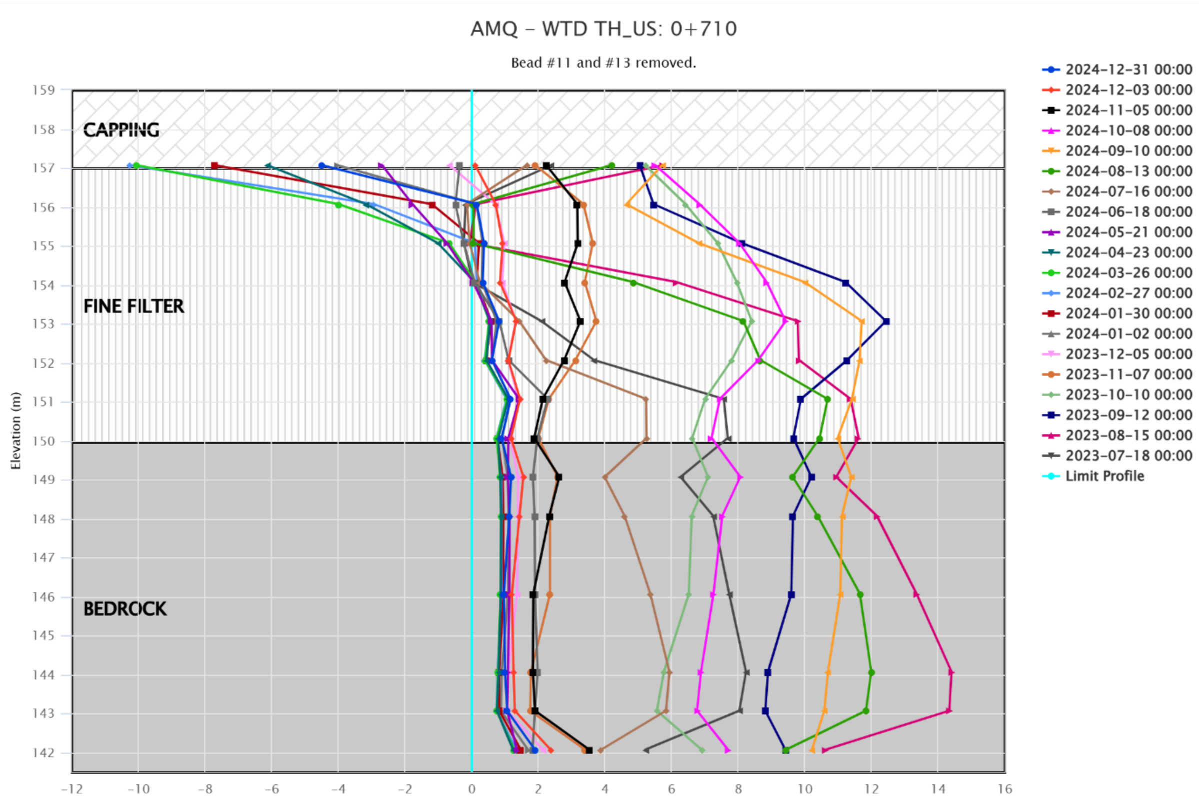


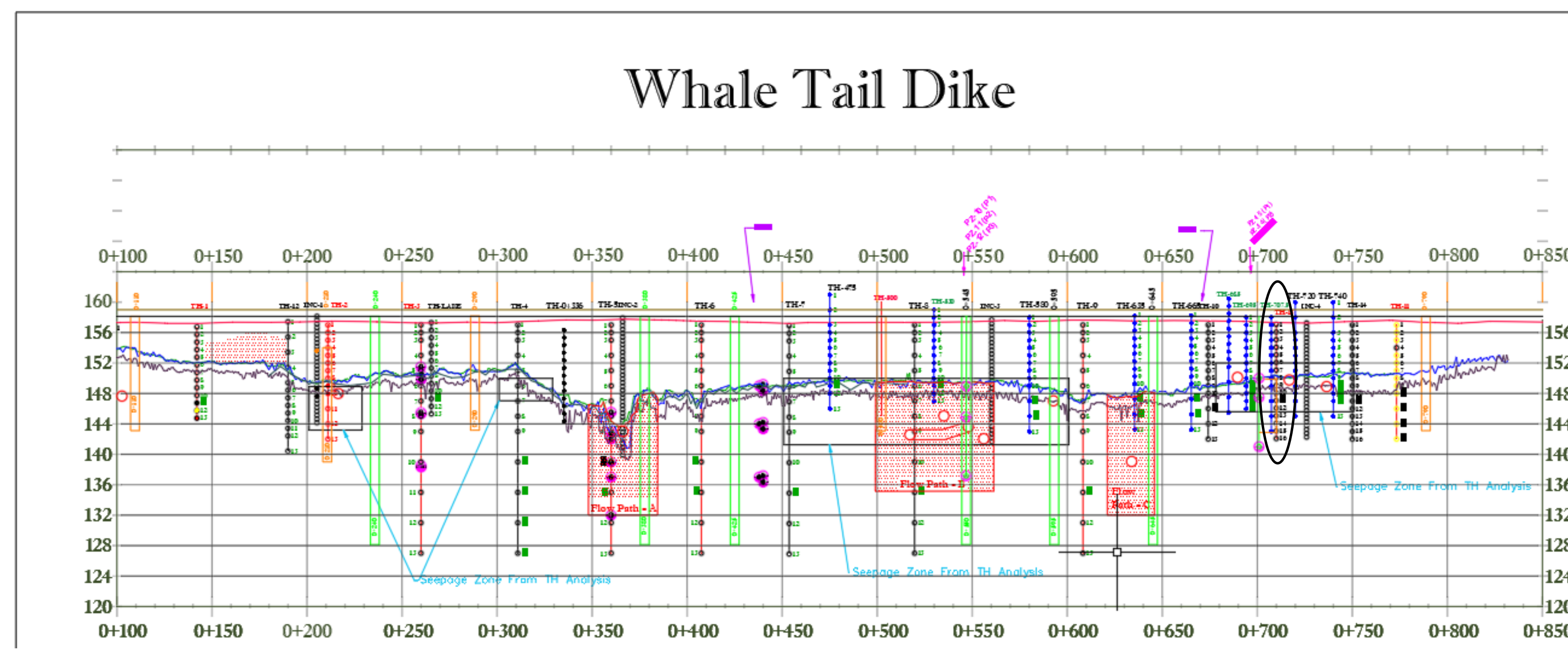
Whale Tail Dike
Seepage Zone From TH Analysis

WTD-TH 0+710 U/S

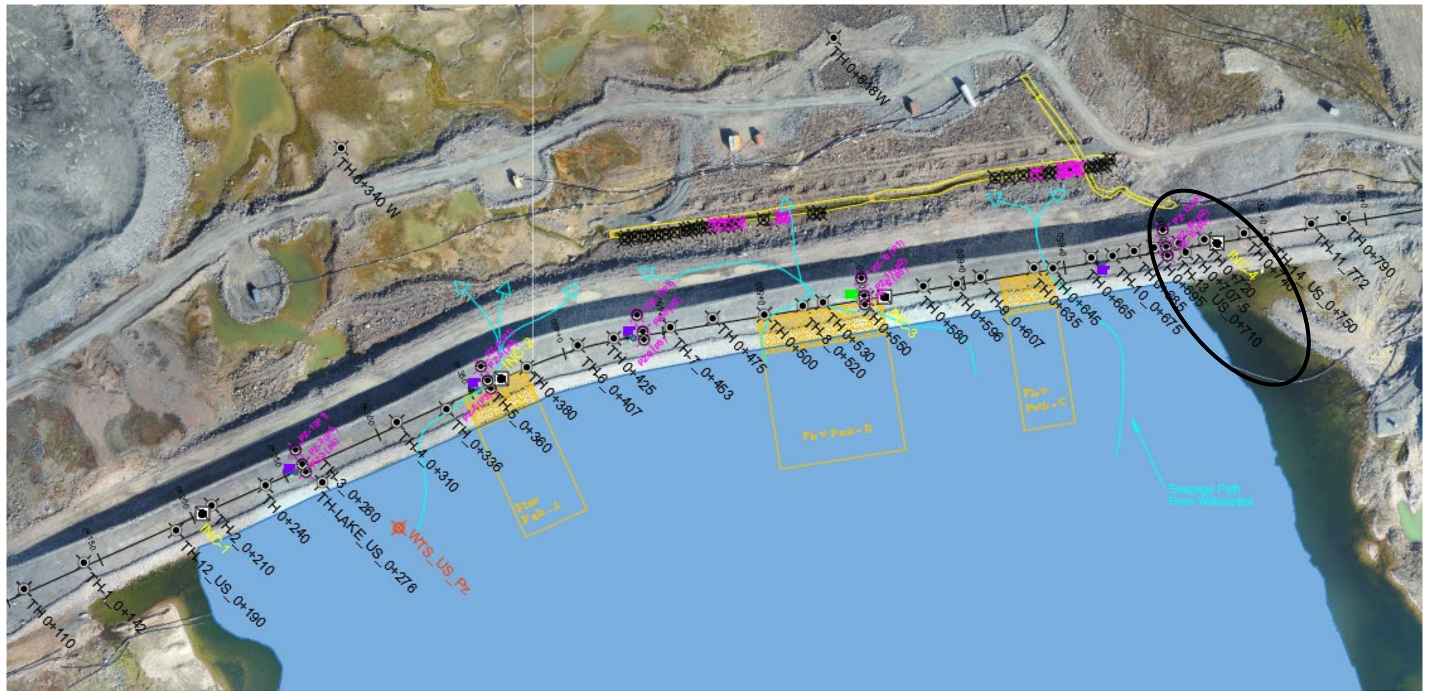


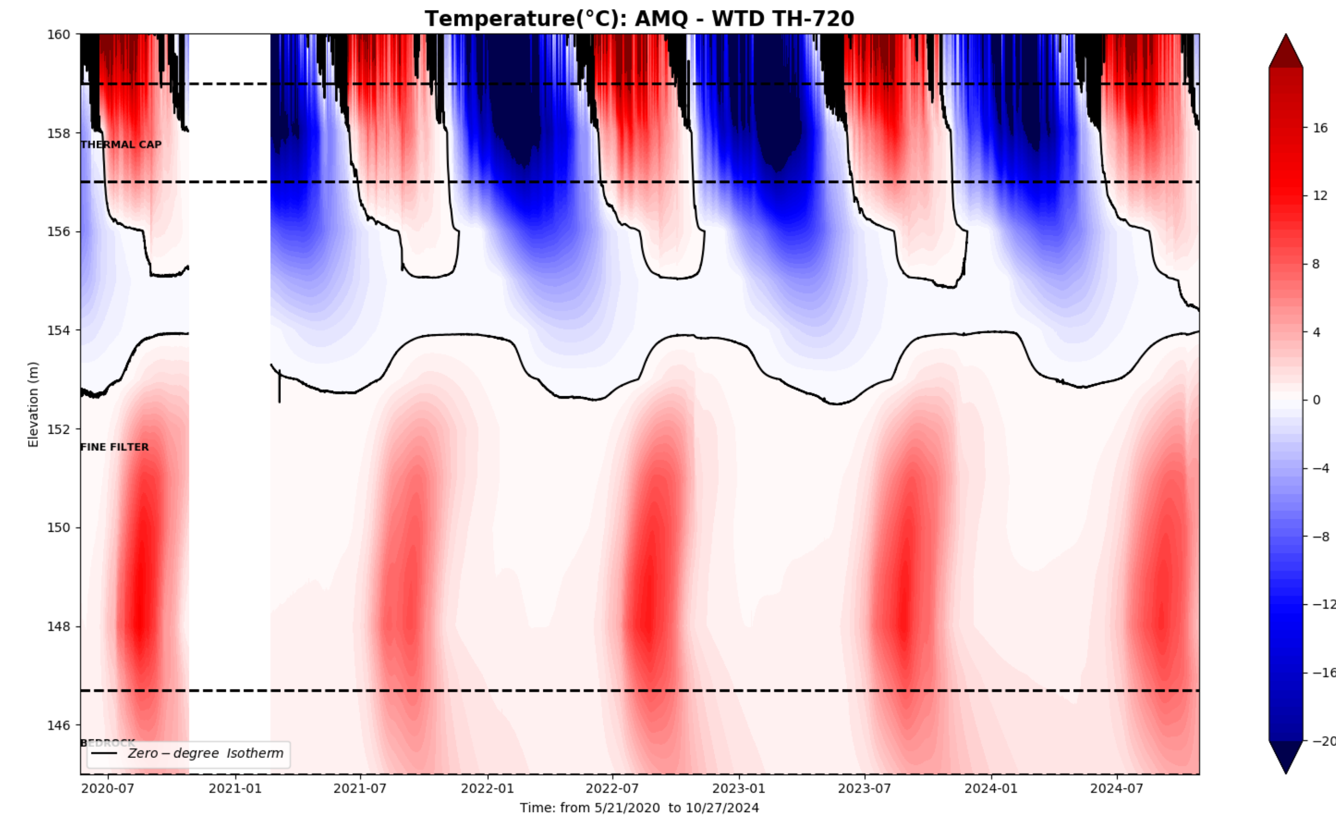


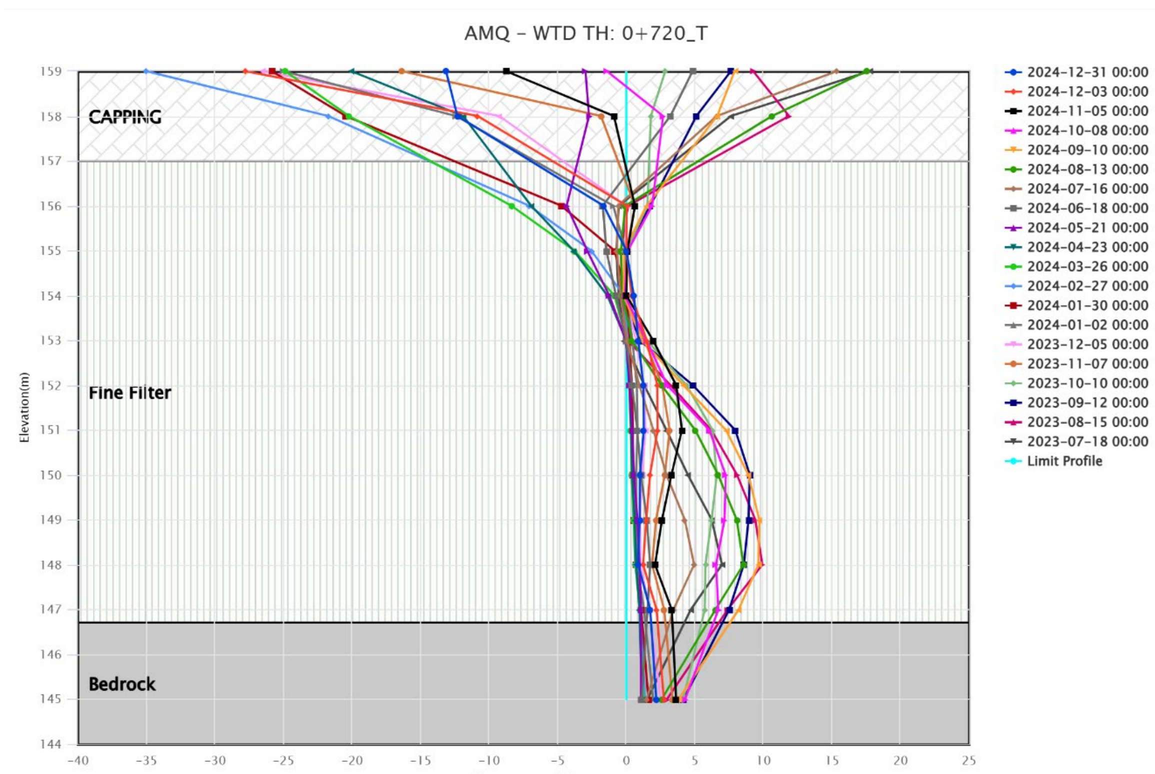


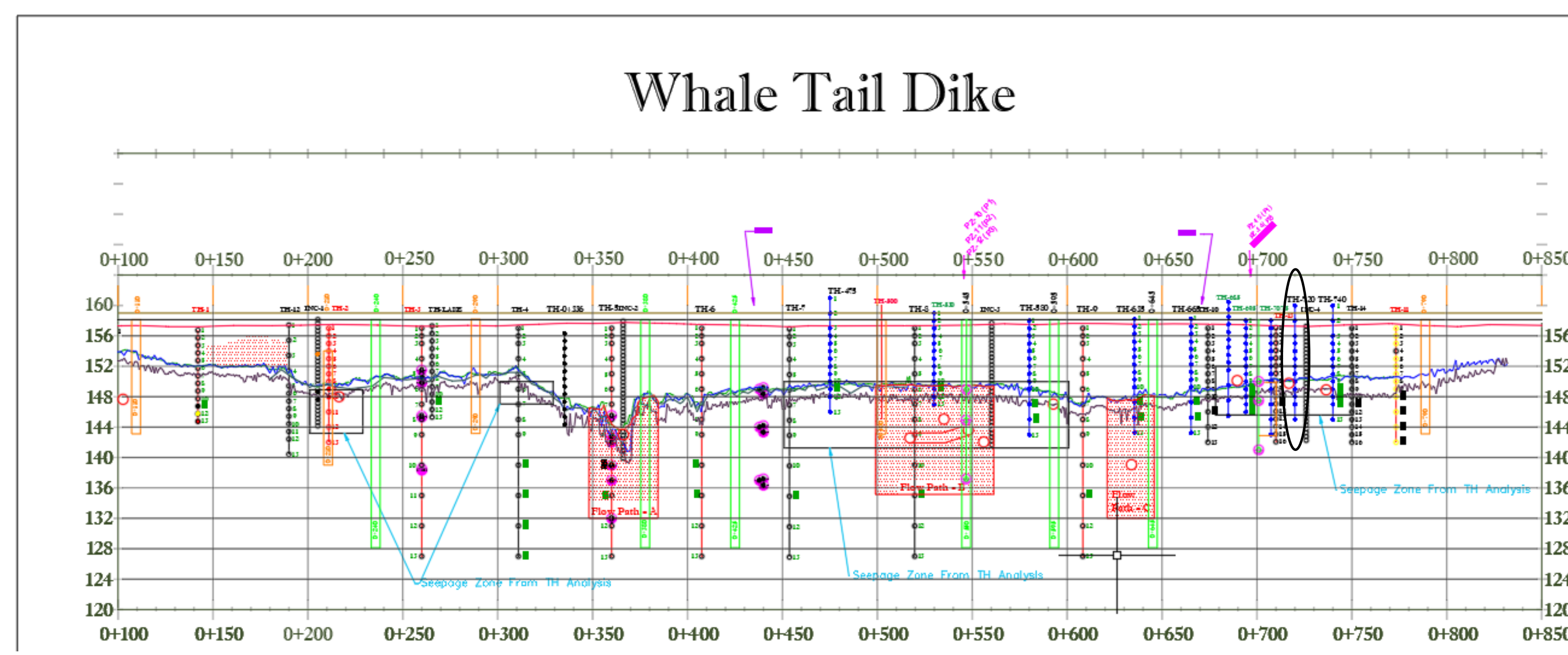


WTD-TH 0+720

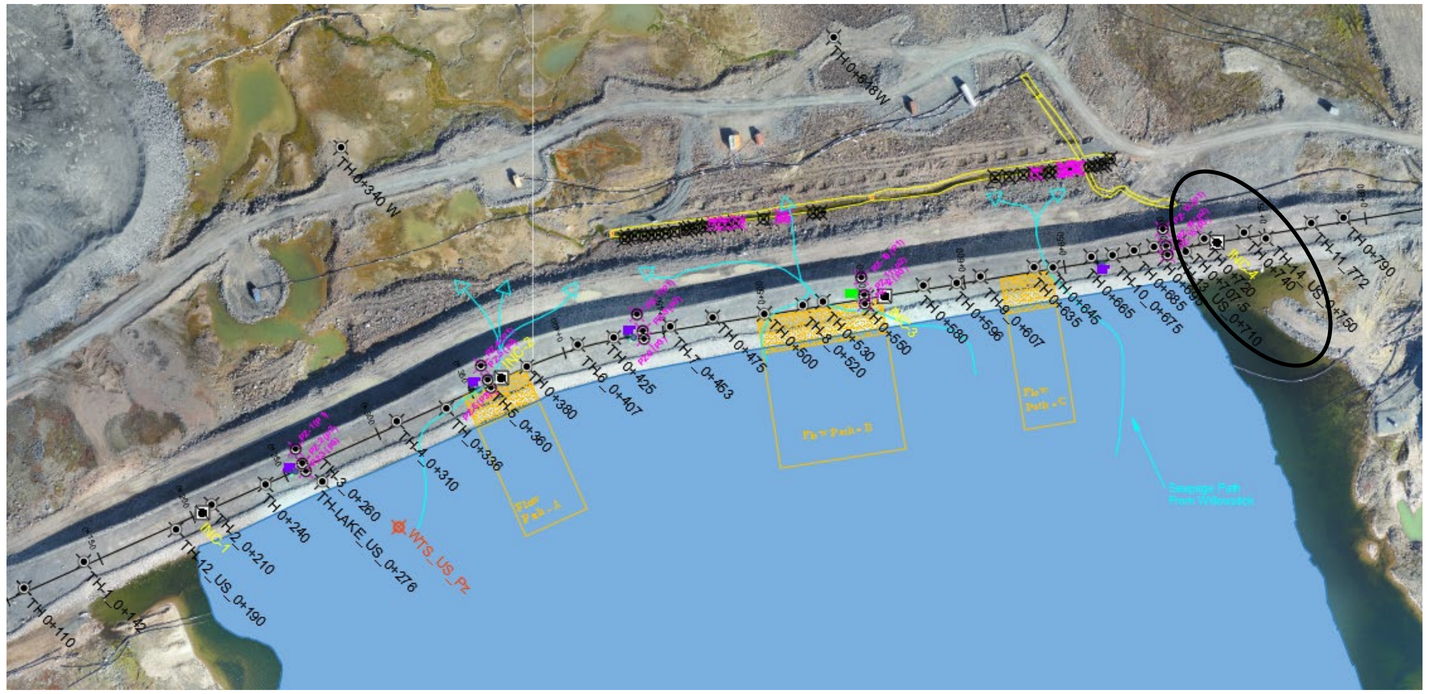


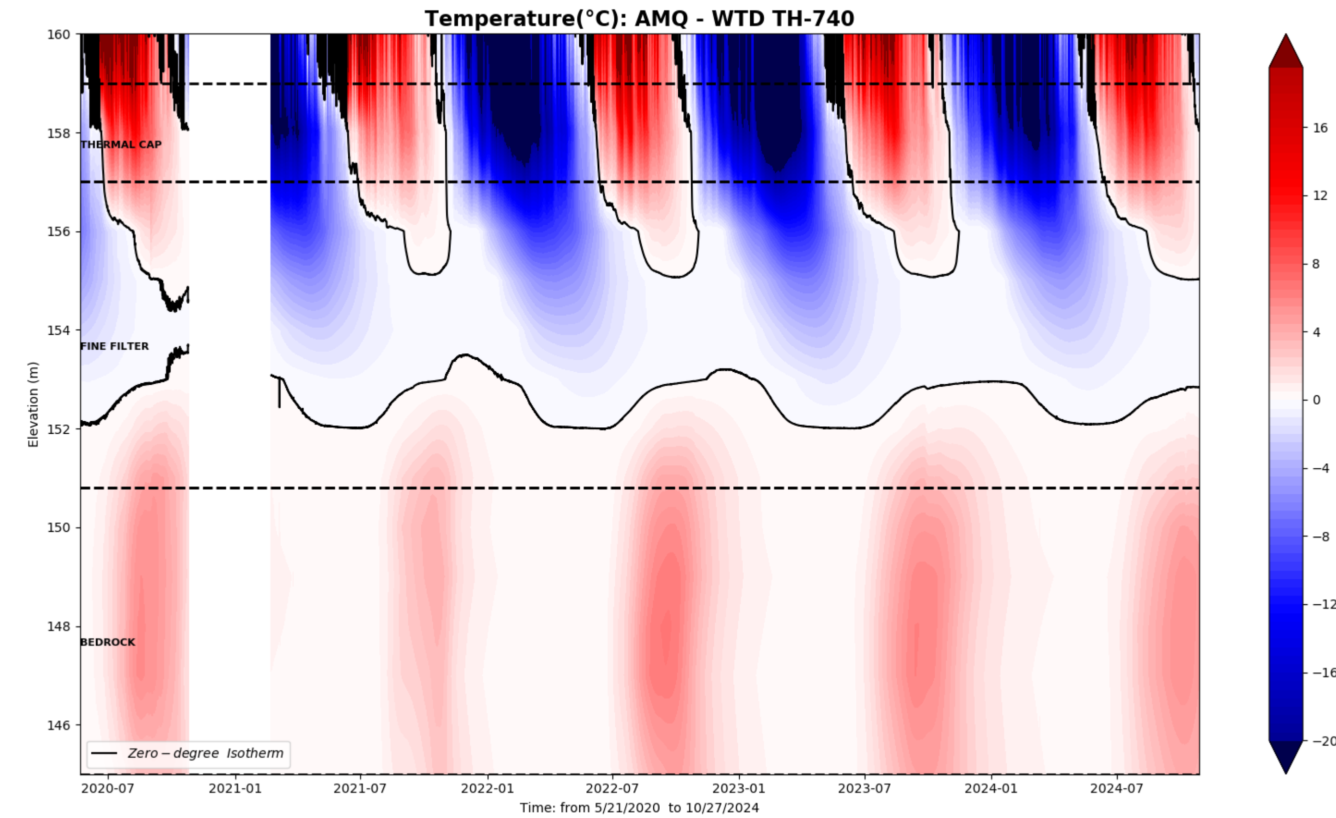

Temperature(°C): AMQ - WTD TH-720
THERMAL CAP
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Temperature(°C)
2020-07
2021-01
2021-07
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
Time: from 5/21/2020 to 10/27/2024

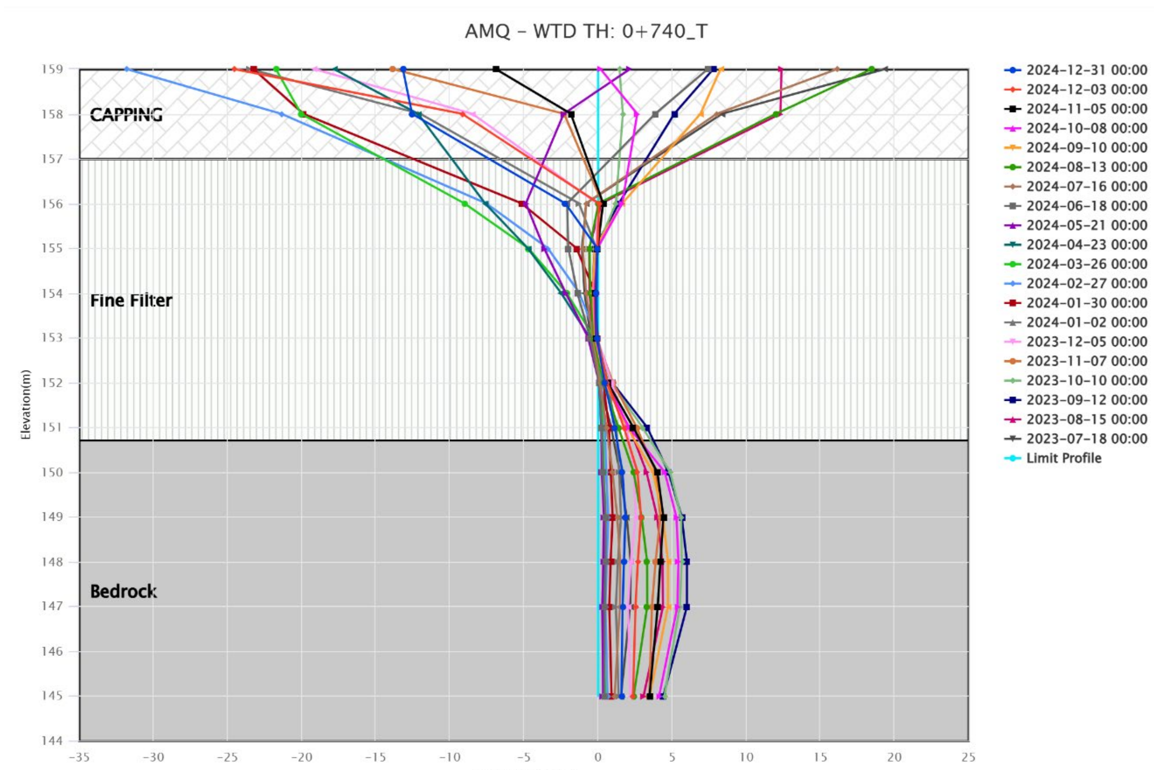

AMQ – WTD TH: 0+720_T
CAPPING
Fine Filter
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile


Whale Tail Dike
Seepage Zone From TH Analysis
Flow Path - A
Flow Path - B
Flow Path - C

WTD-TH 0+740




Temperature(°C): AMQ - WTD TH-740
THERMAL CAP
FINE FILTER
BEDROCK
Elevation (m)
Zero – degree Isotherm
Temperature(°C)
2020-07
2021-01
2021-07
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
Time: from 5/21/2020 to 10/27/2024


AMQ - WTD TH: 0+740_T
CAPPING
Fine Filter
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
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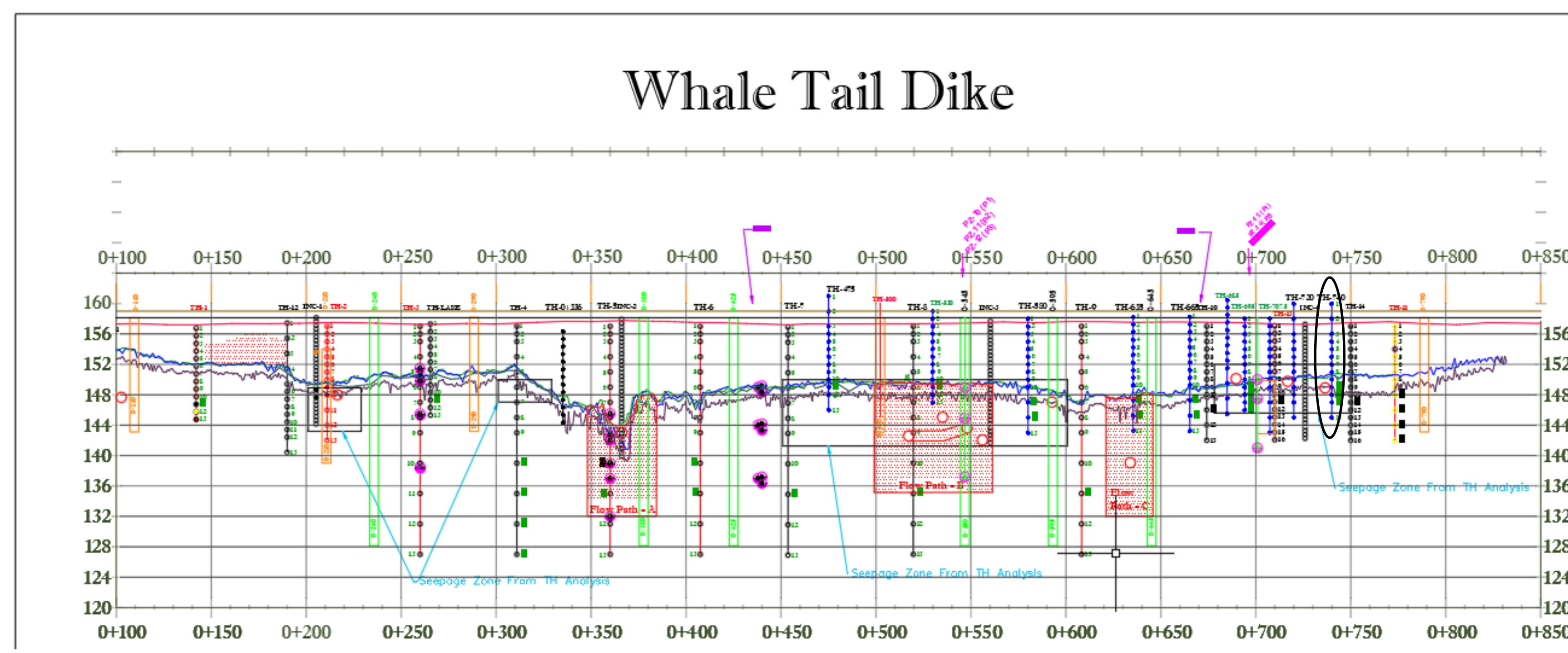
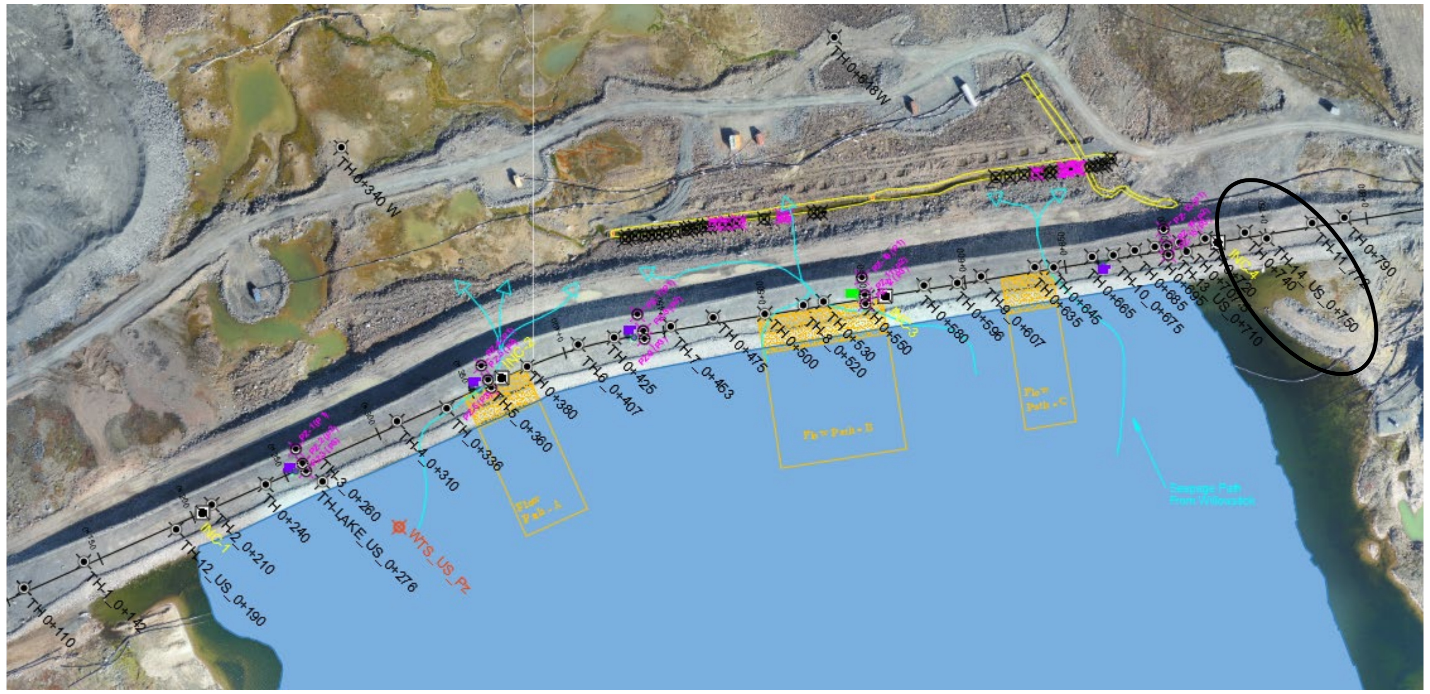
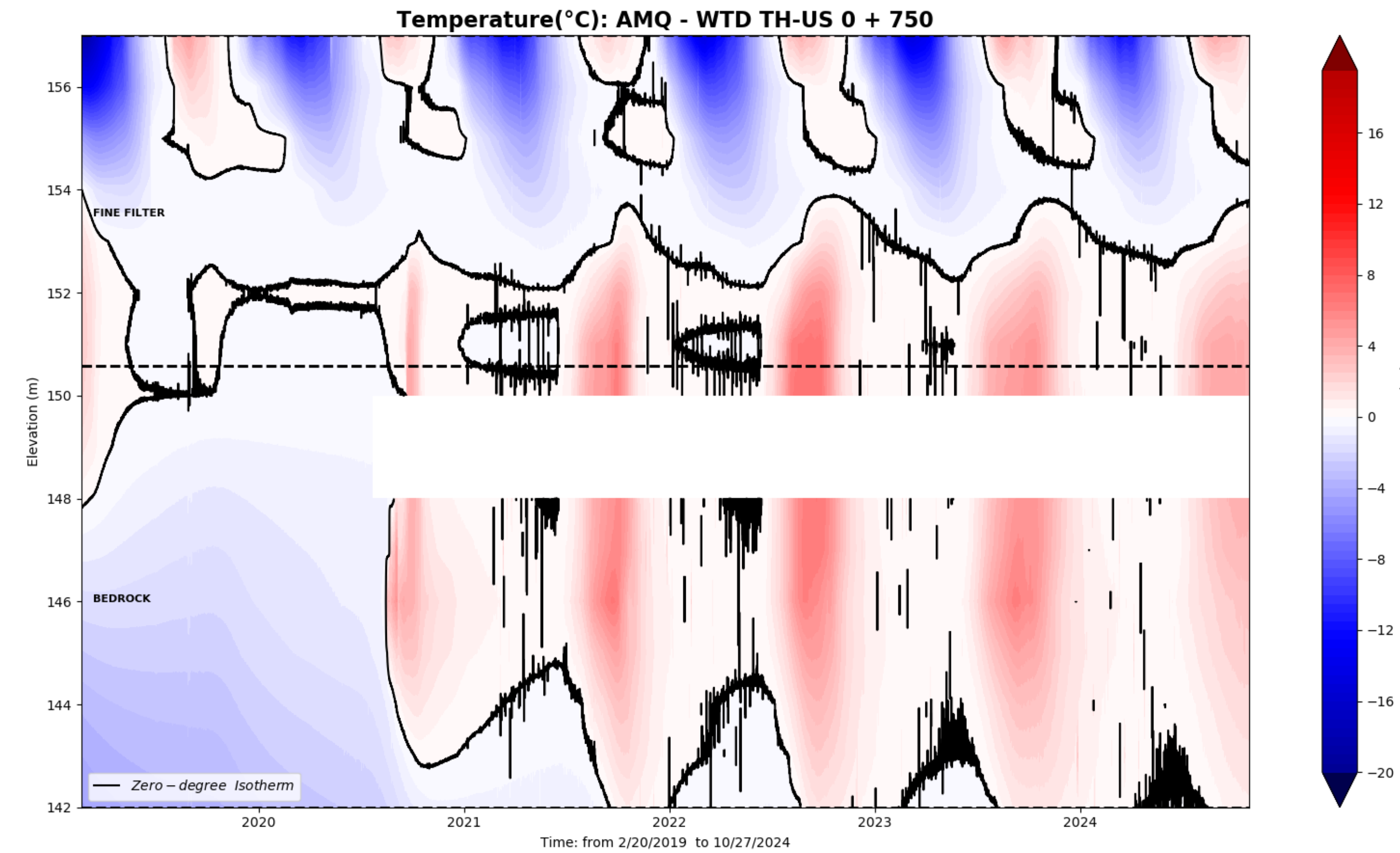
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

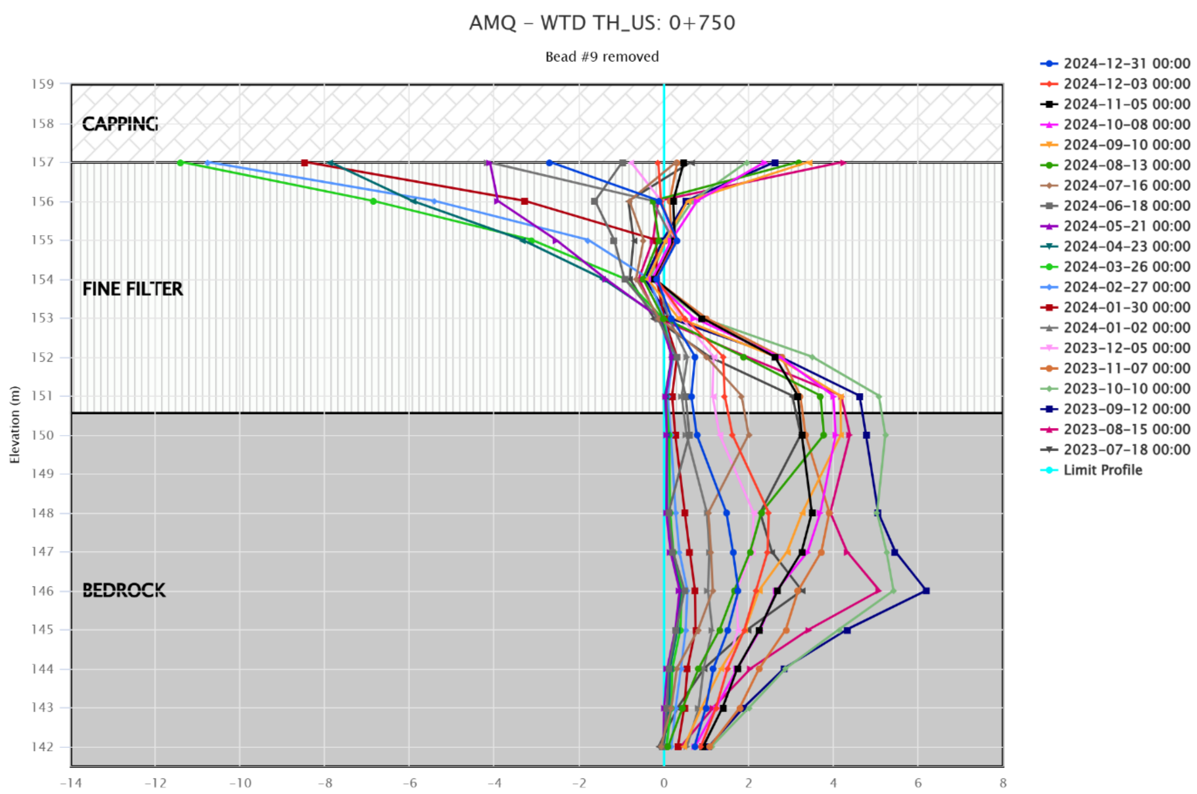

Whale Tail Dike
0+100
0+150
0+200
0+250
0+300
0+350
0+400
0+450
0+500
0+550
0+600
0+650
0+700
0+750
0+800
0+850
Seepage Zone From TH Analysis

WTD-TH 0+750

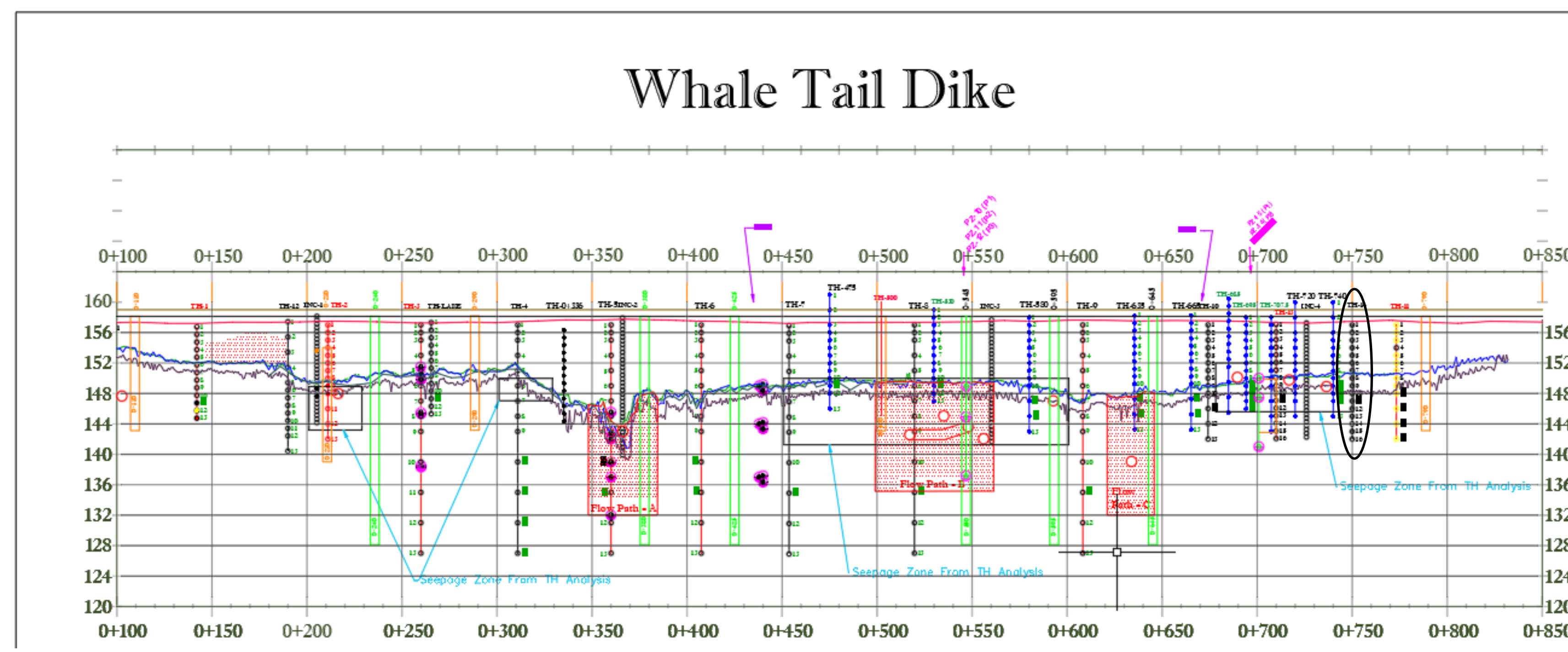




Temperature(°C): AMQ - WTD TH-US 0 + 750
FINE FILTER
BEDROCK
Zero – degree Isotherm
Elevation (m)
Time: from 2/20/2019 to 10/27/2024
Temperature(°C)
2020
2021
2022
2023
2024

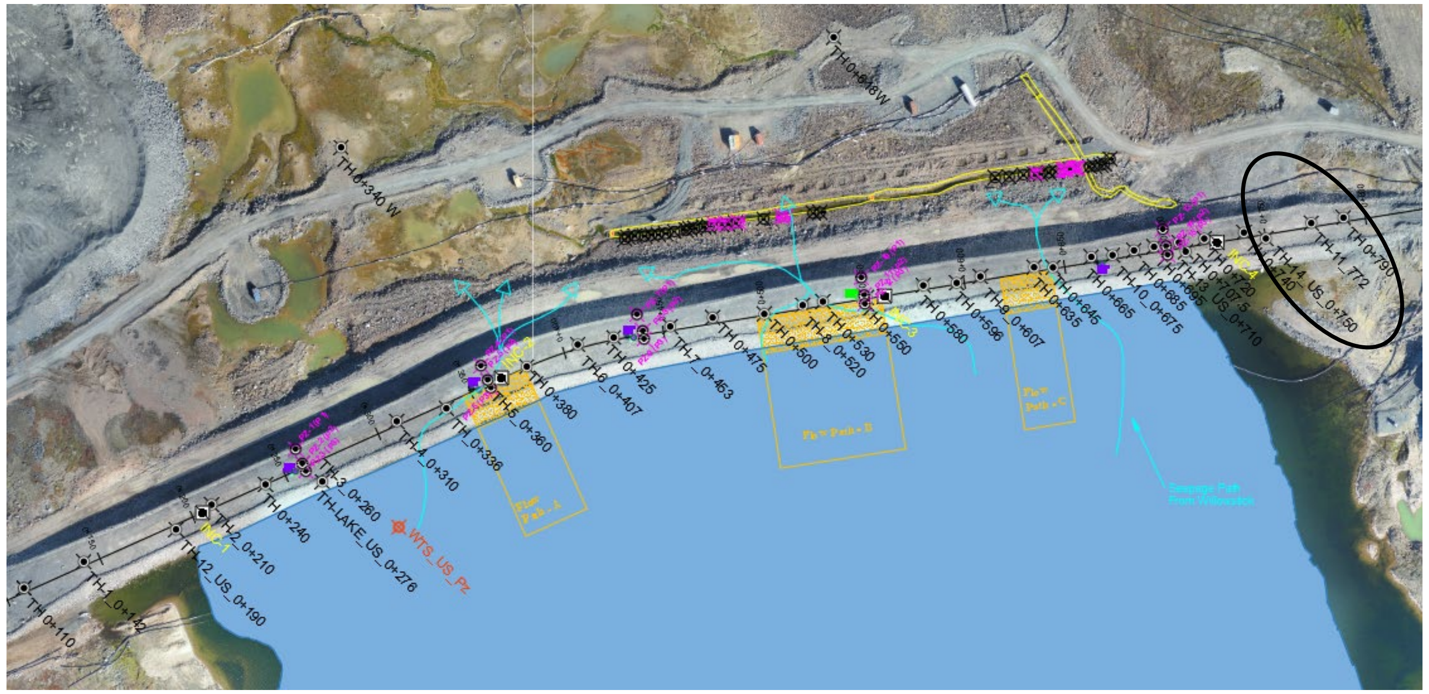


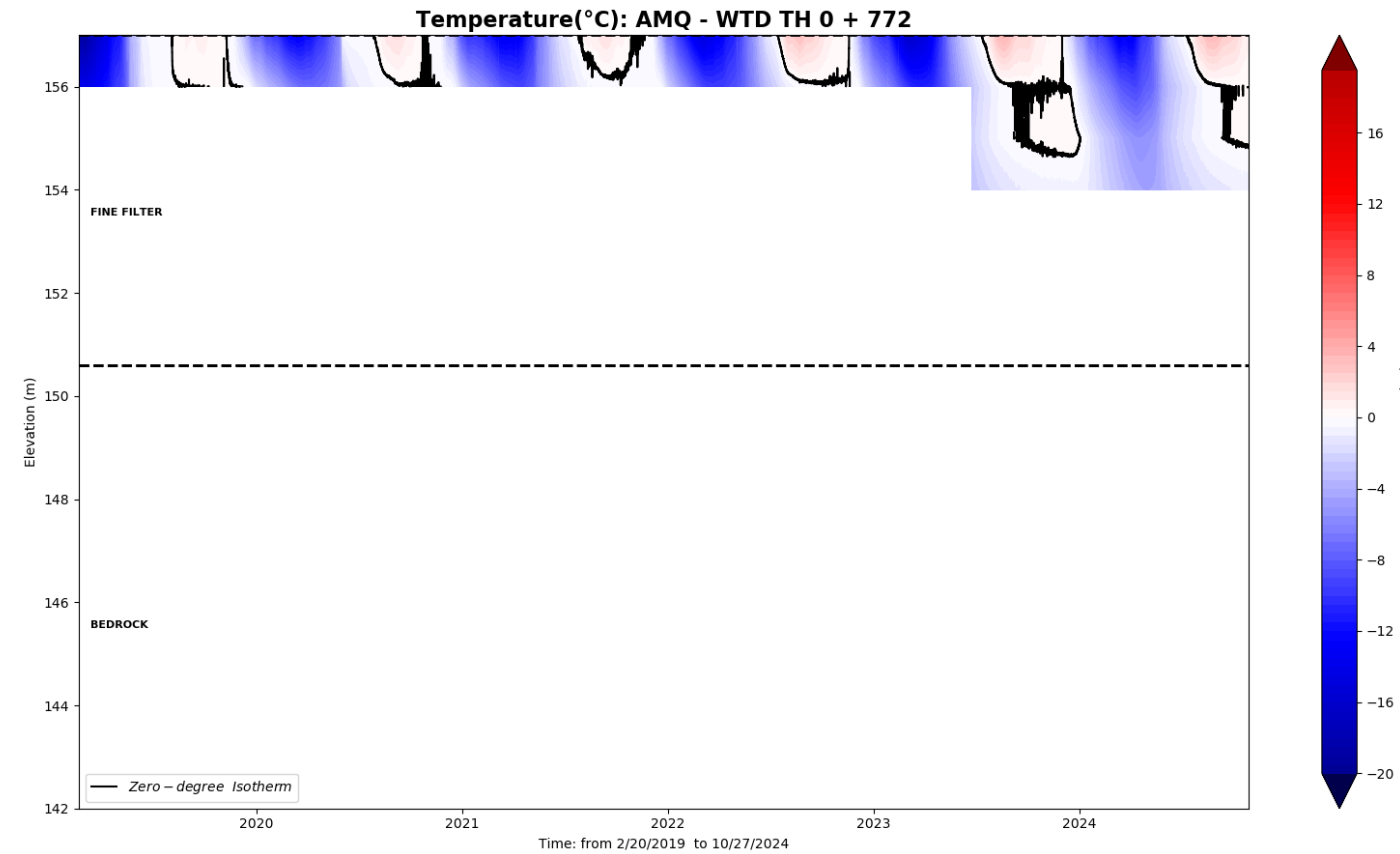
AMQ – WTD TH_US: 0+750
Bead #9 removed
CAPPING
FINE FILTER
BEDROCK
Elevation (m)
Temperature (°C)
2024–12–31 00:00
2024–12–03 00:00
2024–11–05 00:00
2024–10–08 00:00
2024–09–10 00:00
2024–08–13 00:00
2024–07–16 00:00
2024–06–18 00:00
2024–05–21 00:00
2024–04–23 00:00
2024–03–26 00:00
2024–02–27 00:00
2024–01–30 00:00
2024–01–02 00:00
2023–12–05 00:00
2023–11–07 00:00
2023–10–10 00:00
2023–09–12 00:00
2023–08–15 00:00
2023–07–18 00:00
Limit Profile

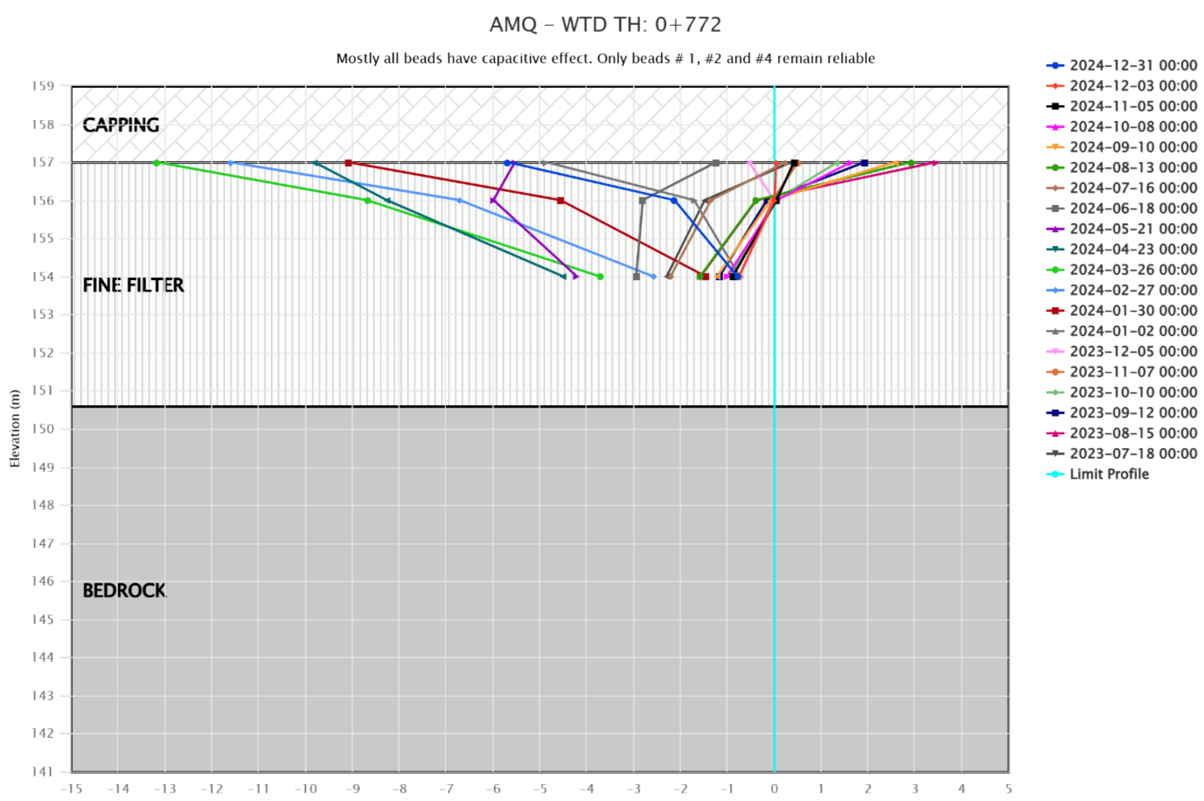


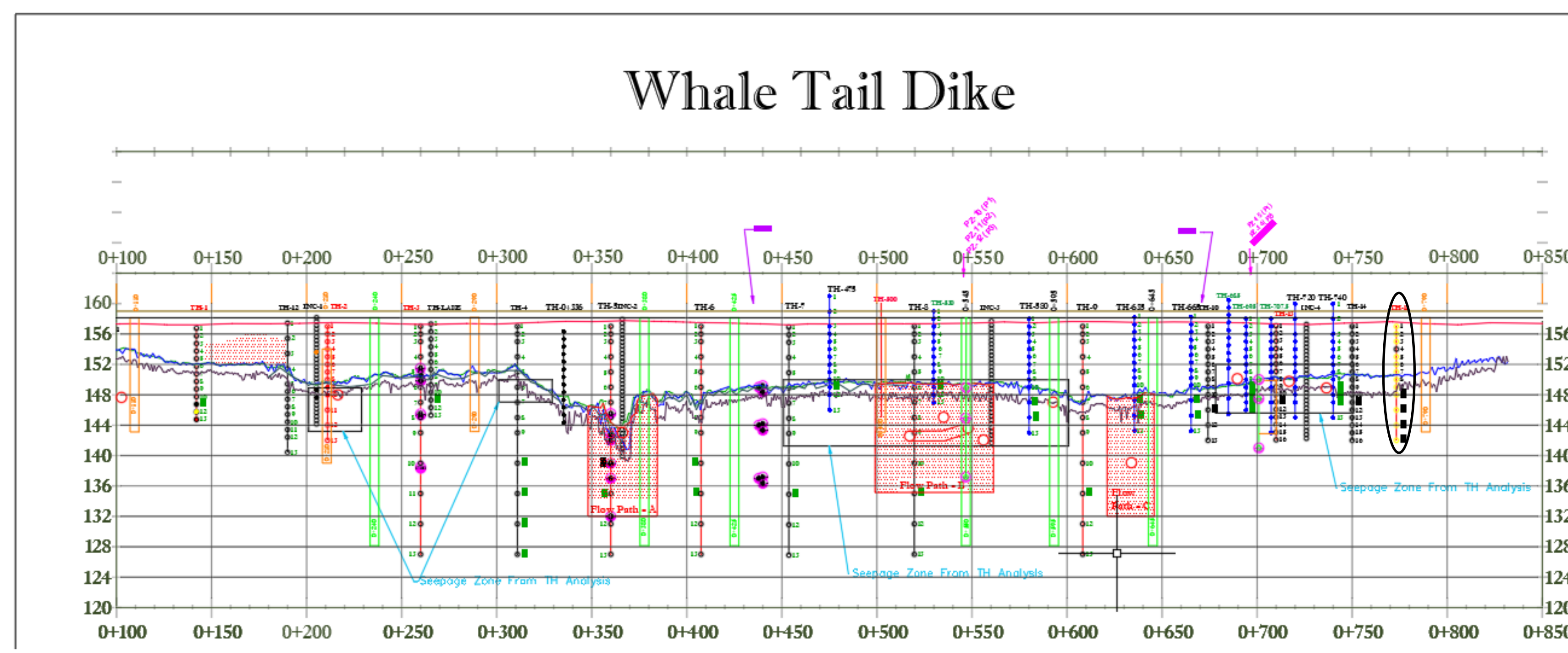
Whale Tail Dike
Seepage Zone From TH Analysis

WTD-TH 0+772 U/S

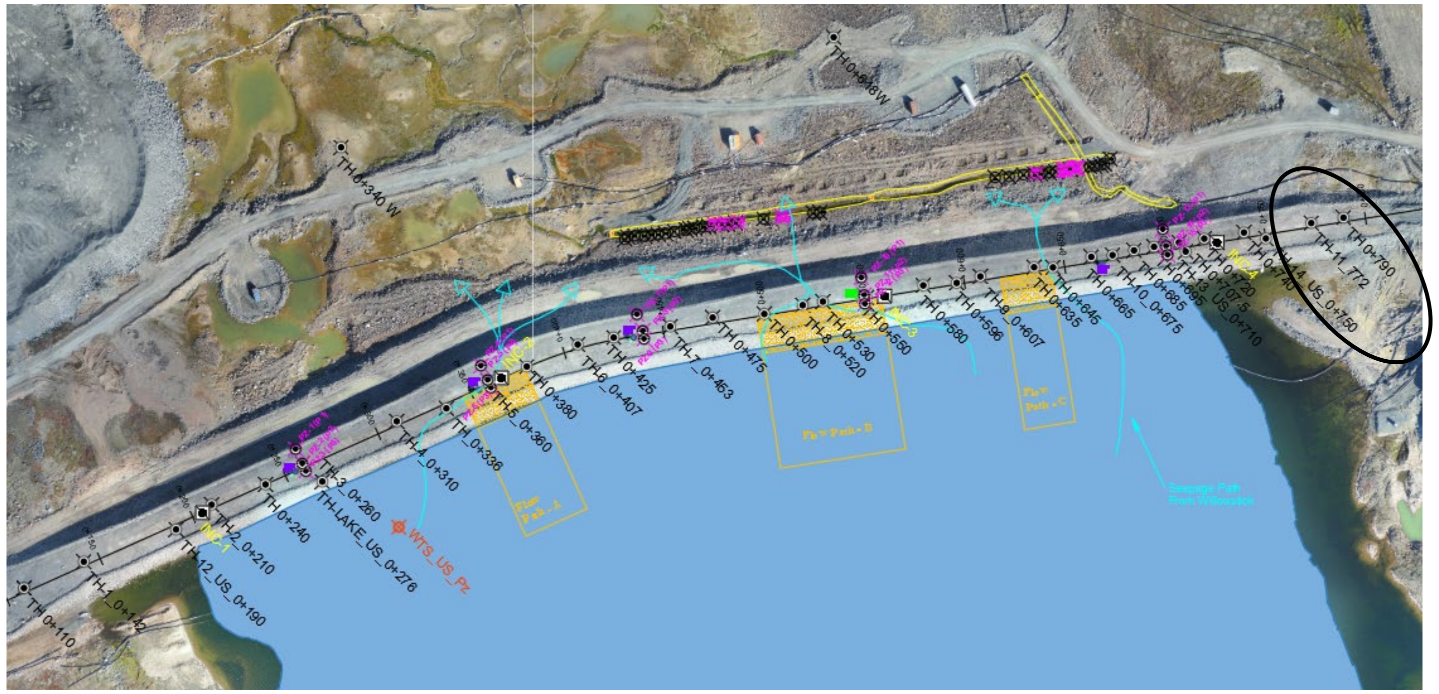


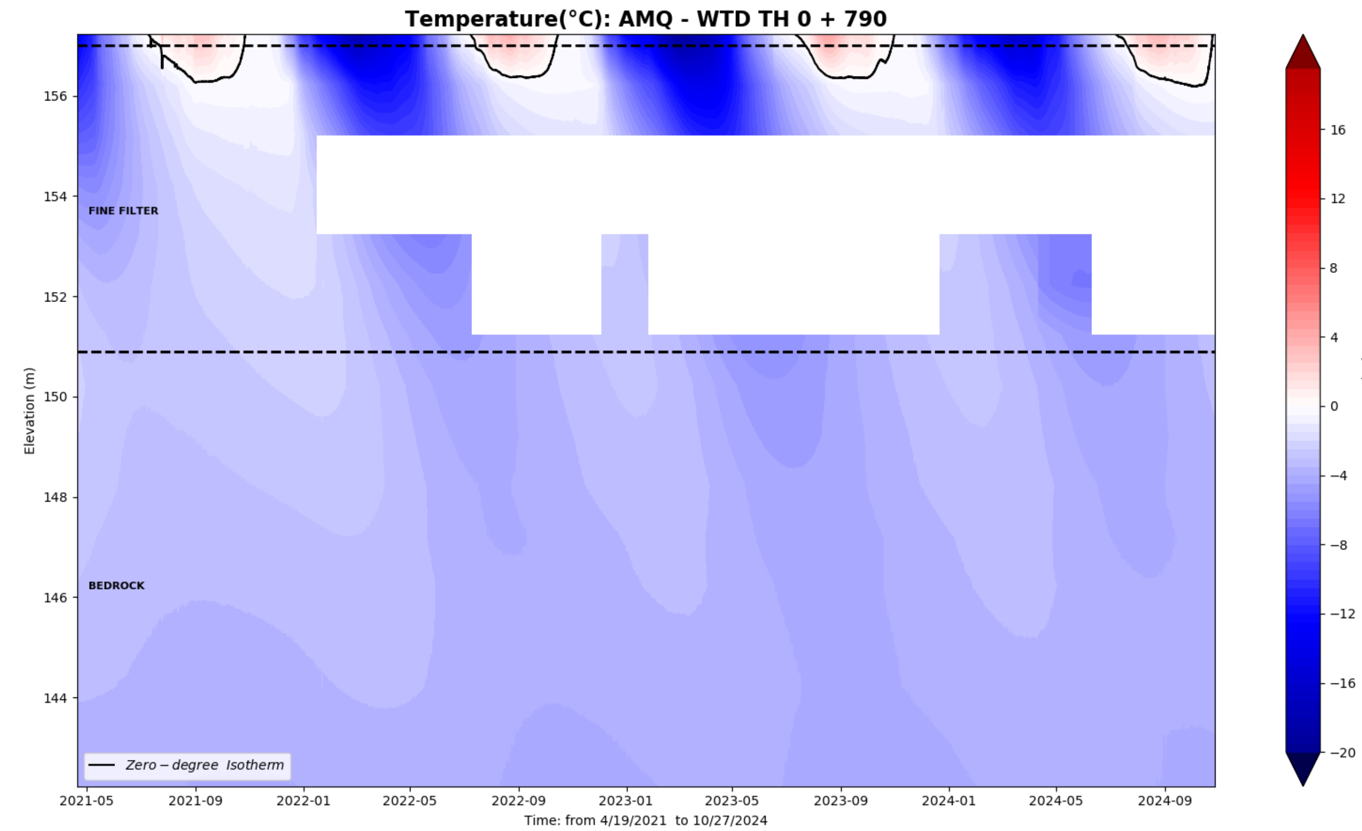


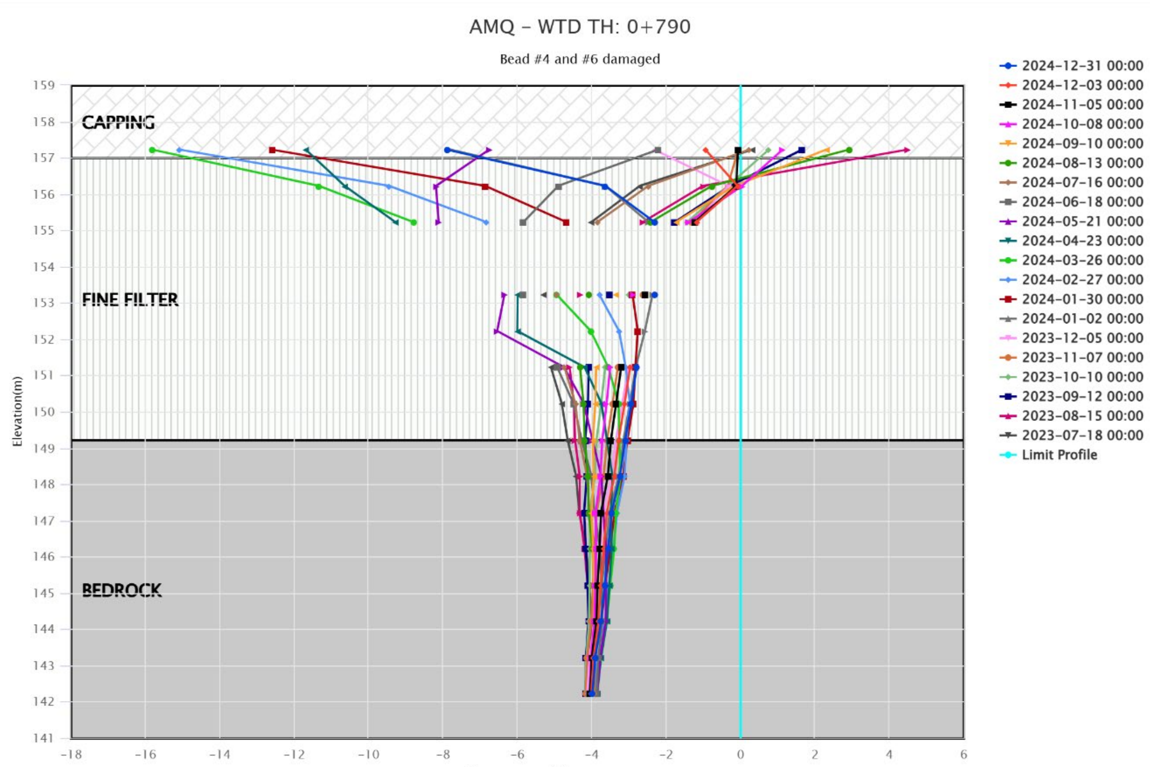




WTD-TH 0+790




Temperature(°C): AMQ - WTD TH 0 + 790
FINE FILTER
BEDROCK
Elevation (m)
Temperature(°C)
Zero – degree Isotherm
2021-05
2021-09
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
Time: from 4/19/2021 to 10/27/2024


AMQ – WTD TH: 0+790
Bead #4 and #6 damaged
CAPPING
FINE FILTER
BEDROCK
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
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2024-01-30 00:00
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2023-12-05 00:00
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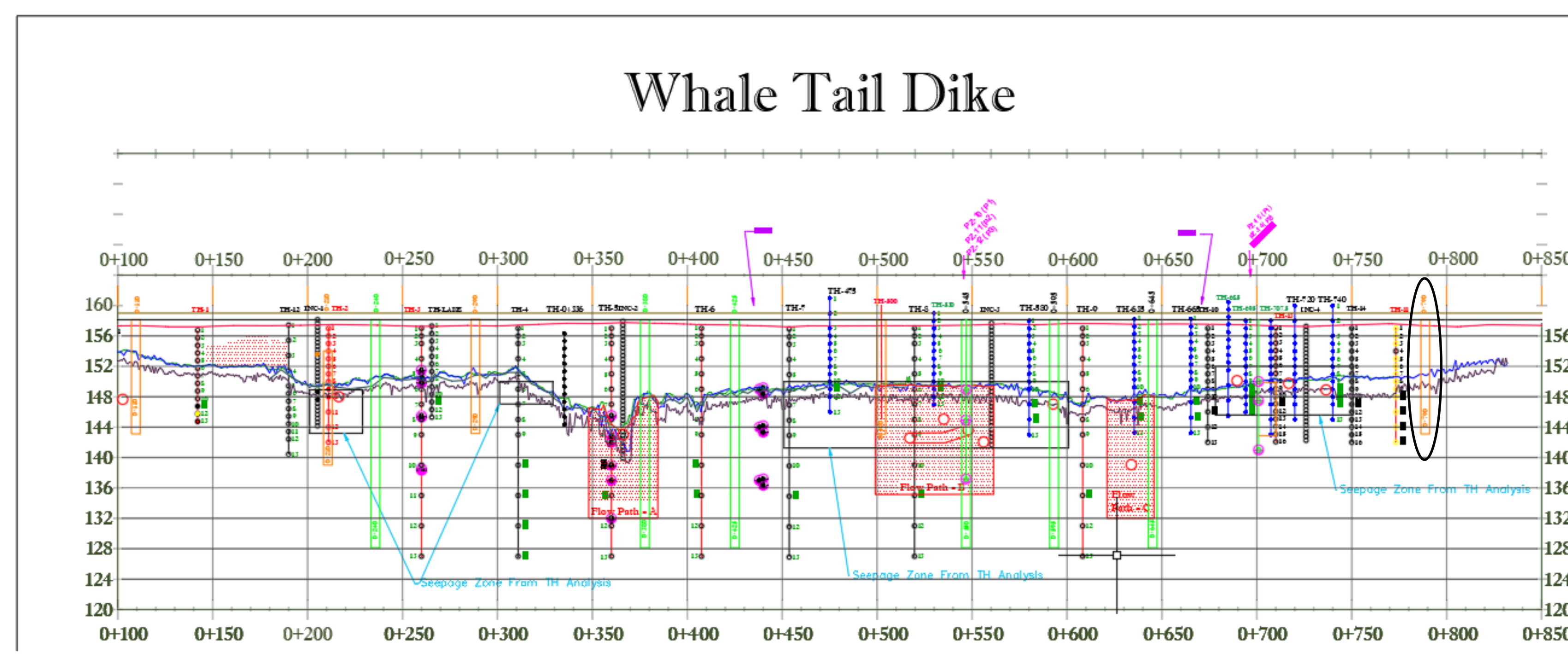
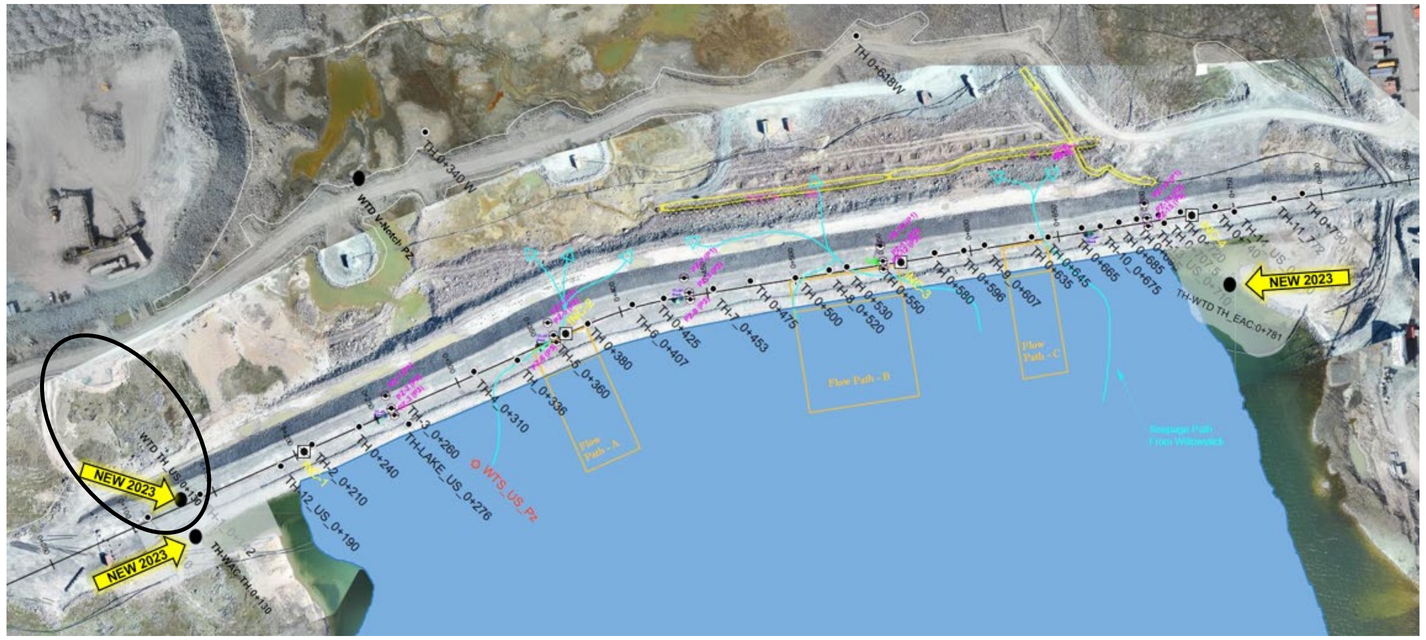
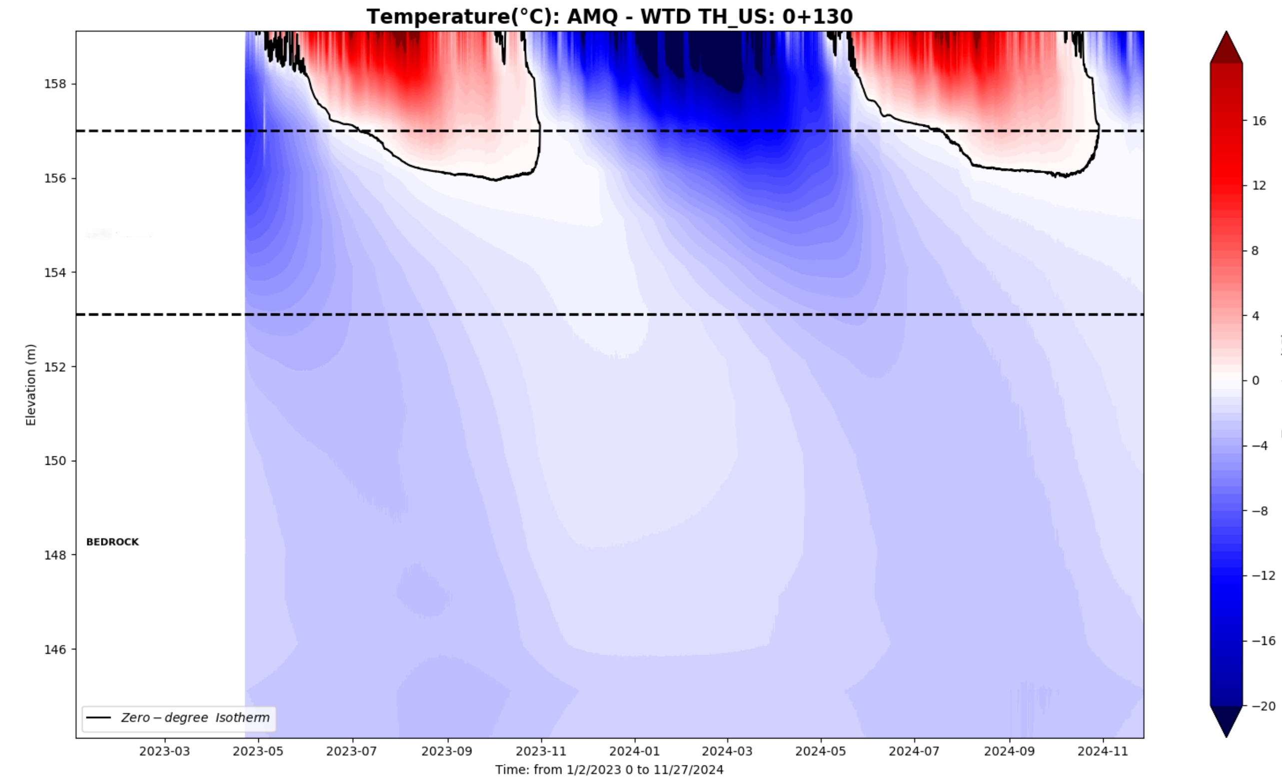
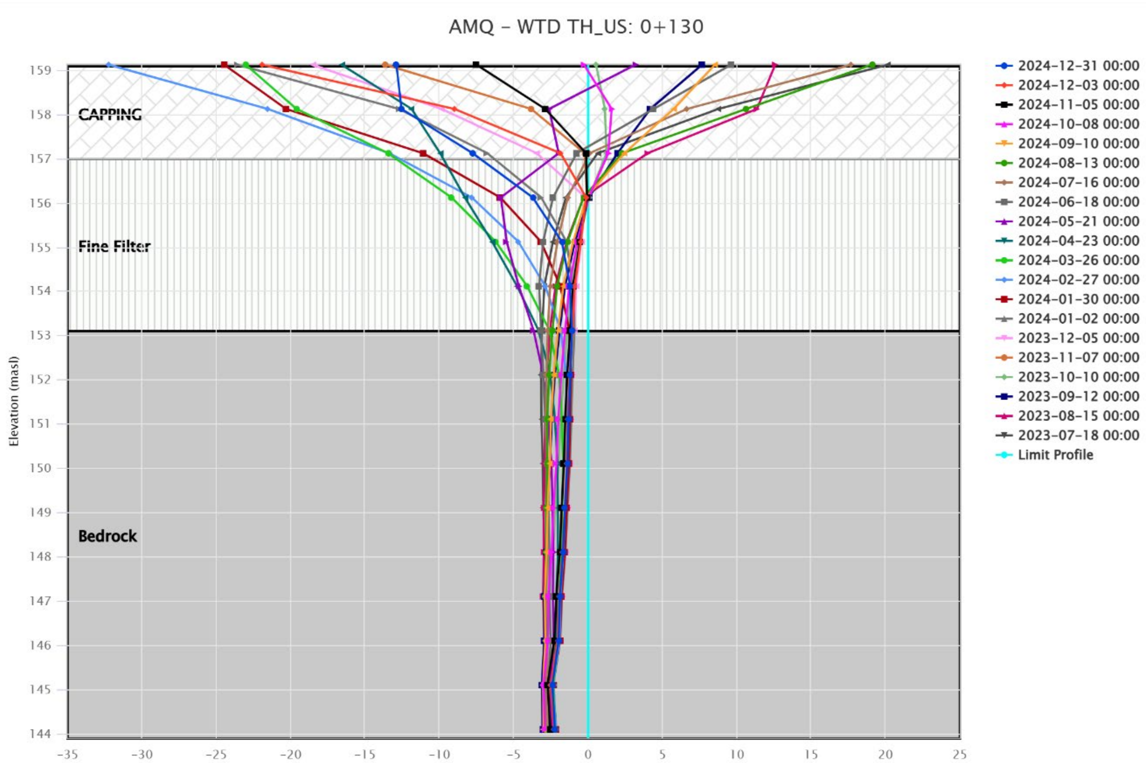
2023-07-18 00:00
Limit Profile


Whale Tail Dike
0+100
0+150
0+200
0+250
0+300
0+350
0+400
0+450
0+500
0+550
0+600
0+650
0+700
0+750
0+800
0+850
Flow Path - A
Flow Path - B
Flow Path - C
Seepage Zone From TH Analysis

WTD US 0+130

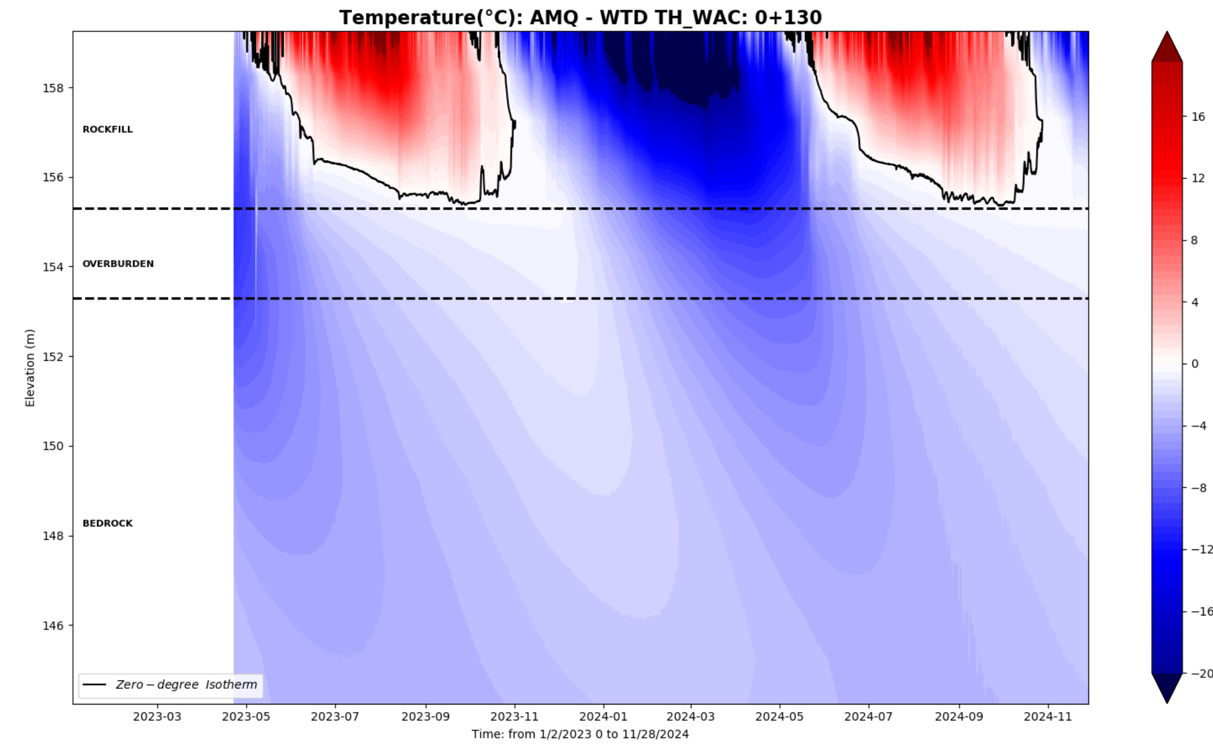

NEW 2023
NEW 2023
NEW 2023

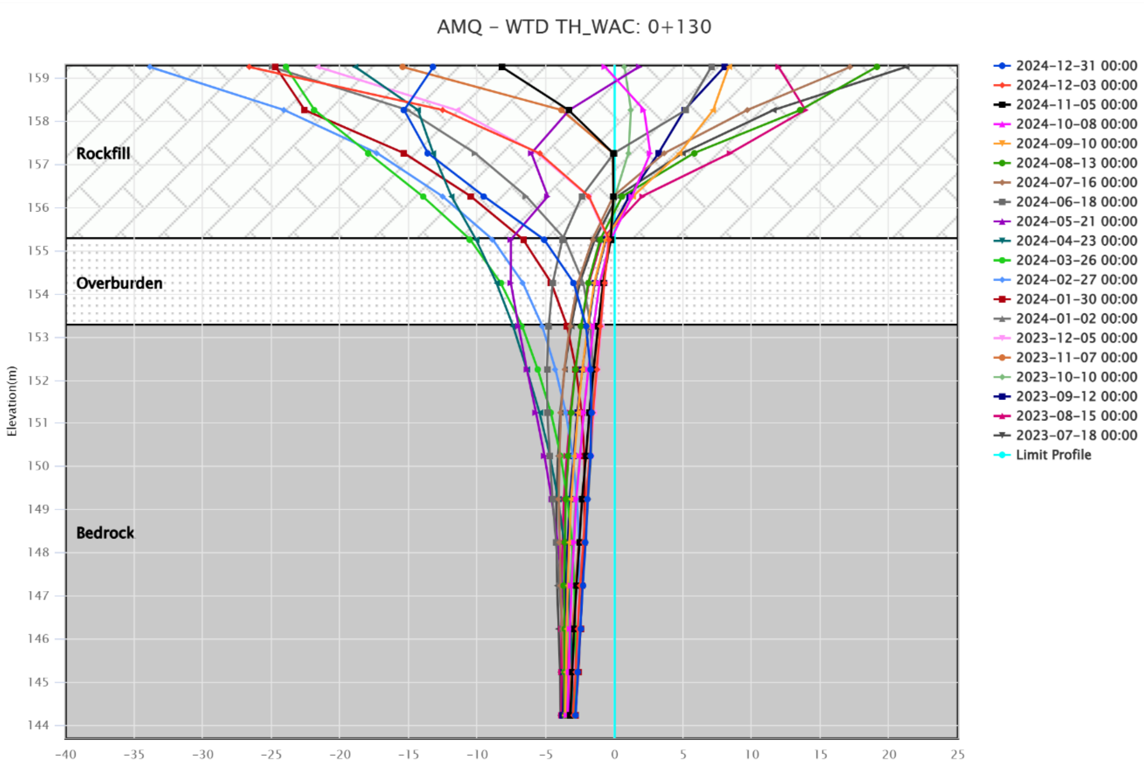

Temperature(°C): AMQ - WTD TH_US: 0+130
Elevation (m)
BEDROCK
Zero – degree Isotherm
Time: from 1/2/2023 0 to 11/27/2024
Temperature(°C)


AMQ – WTD TH_US: 0+130
CAPPING
Fine Filter
Bedrock
Elevation (masl)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

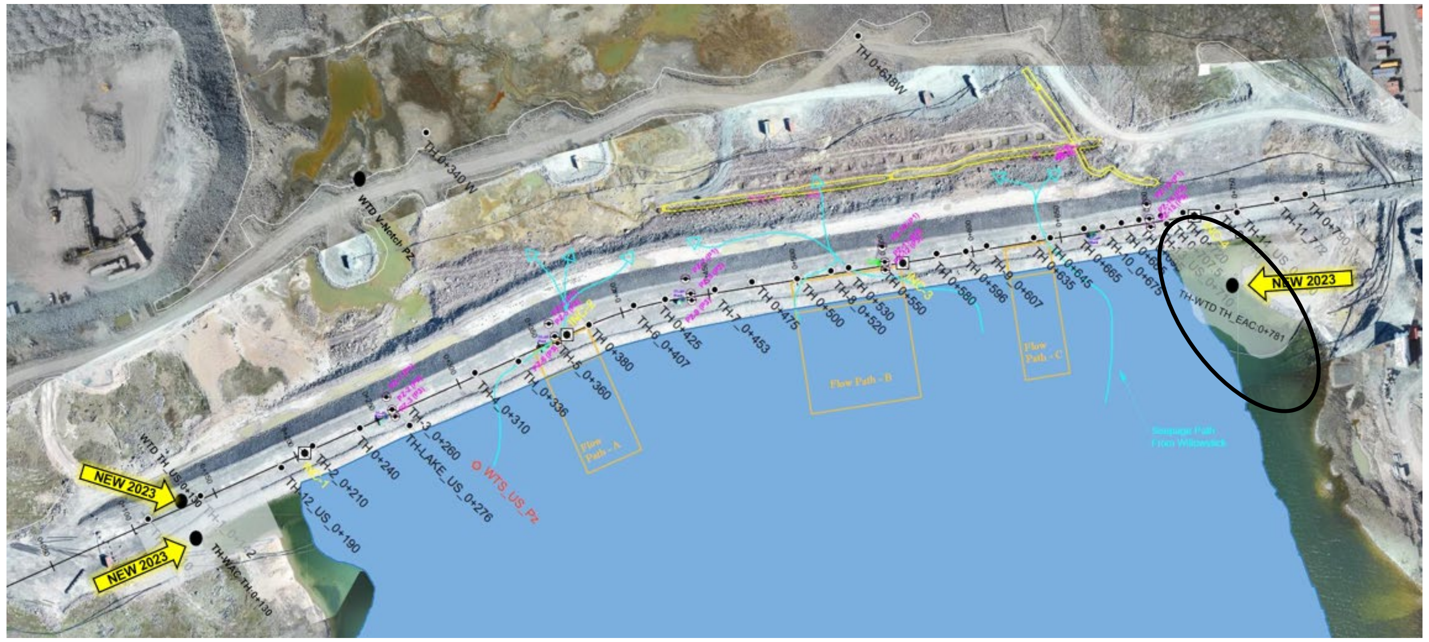
WTD WAC 0+130

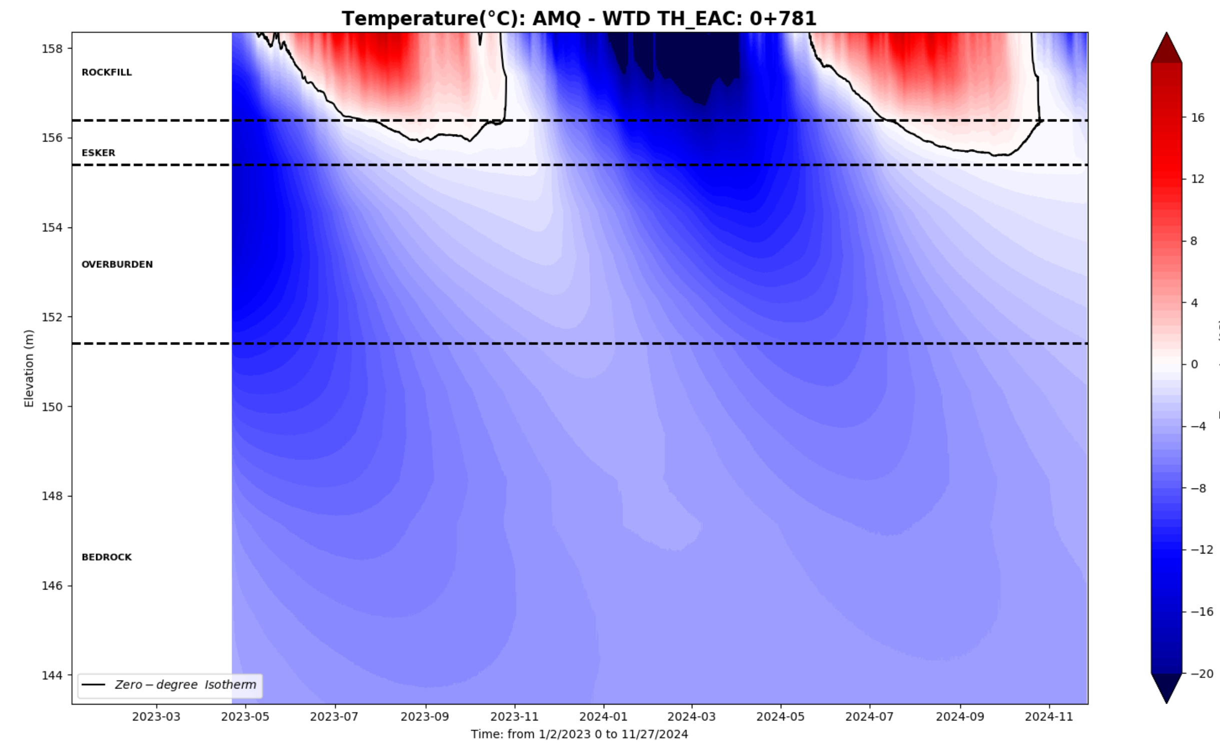

NEW 2023
NEW 2023
NEW 2023

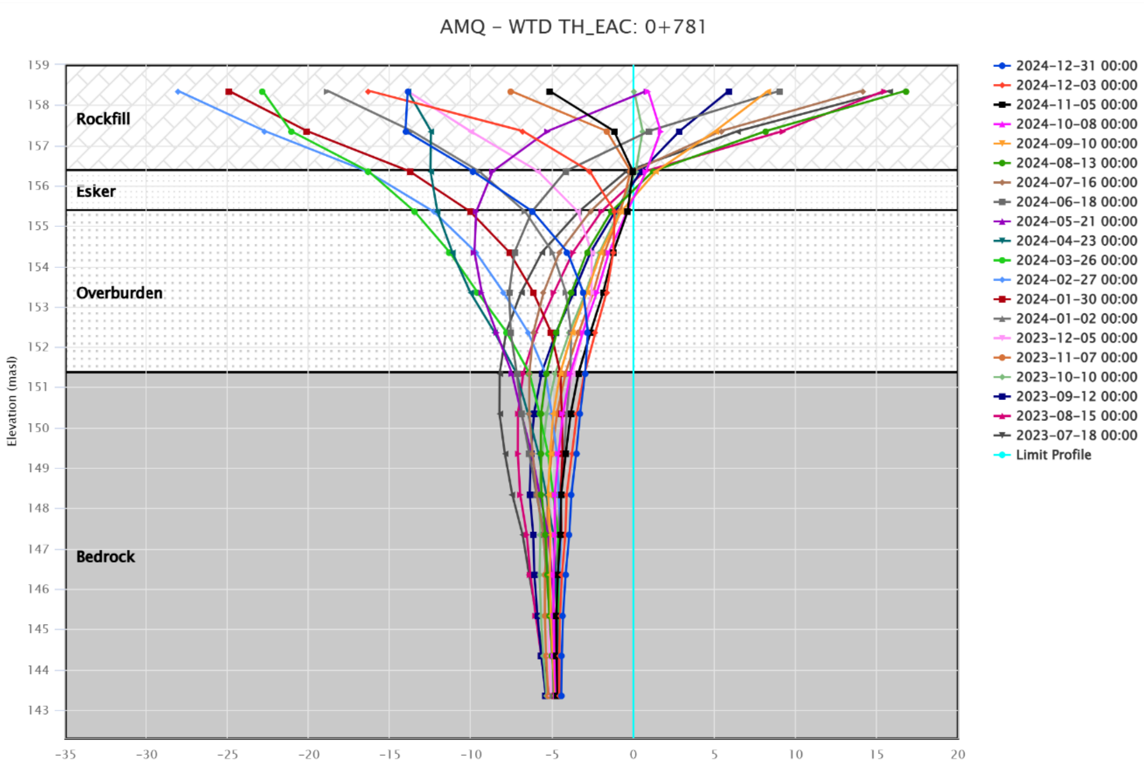

Temperature(°C): AMQ - WTD TH_WAC: 0+130
ROCKFILL
OVERBURDEN
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 1/2/2023 0 to 11/28/2024
Temperature(°C)


AMQ – WTD TH_WAC: 0+130
Rockfill
Overburden
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

WTD EAC 0+781

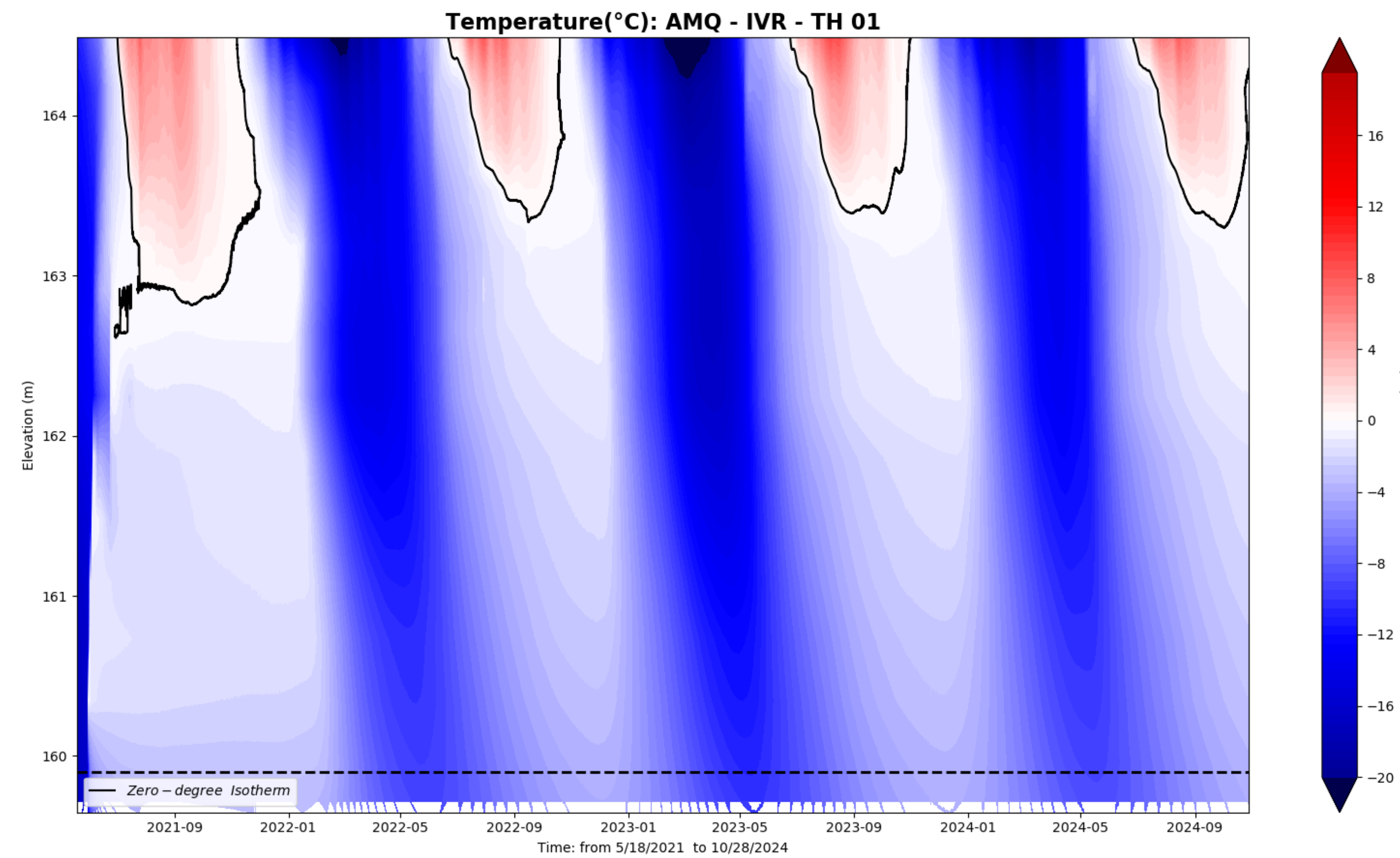

NEW 2023
NEW 2023
NEW 2023

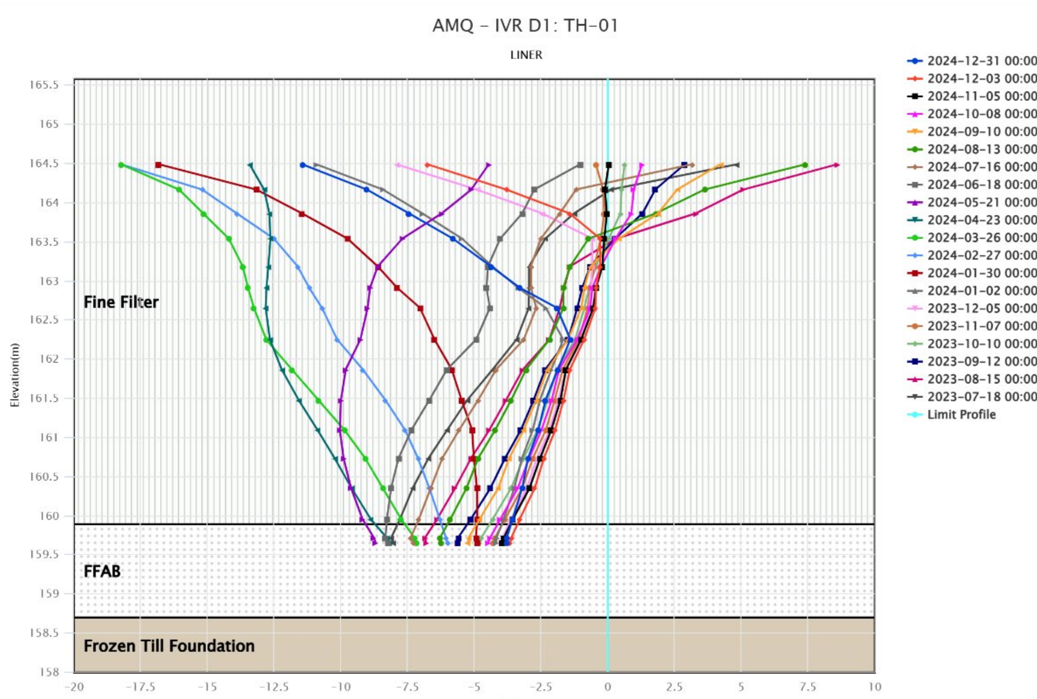

Temperature(°C): AMQ - WTD TH_EAC: 0+781
ROCKFILL
ESKER
OVERBURDEN
BEDROCK
Elevation (m)
158
156
154
152
150
148
146
144
Zero – degree Isotherm
2023-03
2023-05
2023-07
2023-09
2023-11
2024-01
2024-03
2024-05
2024-07
2024-09
2024-11
Time: from 1/2/2023 0 to 11/27/2024
Temperature(°C)
16
12
8
4
0
−4
−8
−12
−16
−20

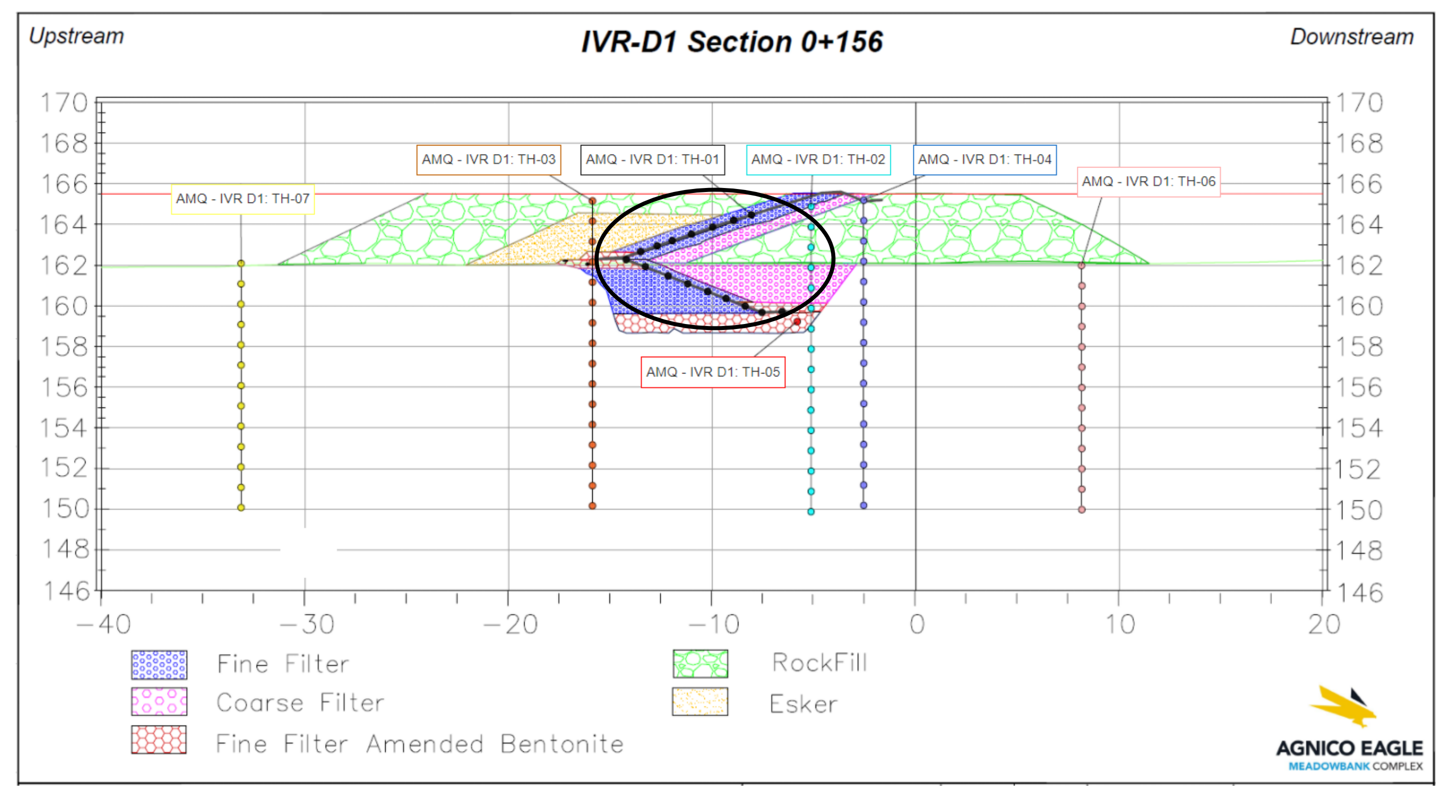

AMQ – WTD TH_EAC: 0+781
Rockfill
Esker
Overburden
Bedrock
Elevation (masl)
159
158
157
156
155
154
153
152
151
150
149
148
147
146
145
144
143
−35
−30
−25
−20
−15
−10
−5
0
5
10
15
20
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

IVR-D1-TH1


IVRD-TH-07
IVRD-TH-03
IVRD-TH-01 (liner)
IVRD-TH-02
IVRD-TH-04
IVRD-TH-05
(horizontal)
IVRD-TH-06
0+100
0+200
0+300
0+000
0+020
0+040
0+054
-0+020
-0+030

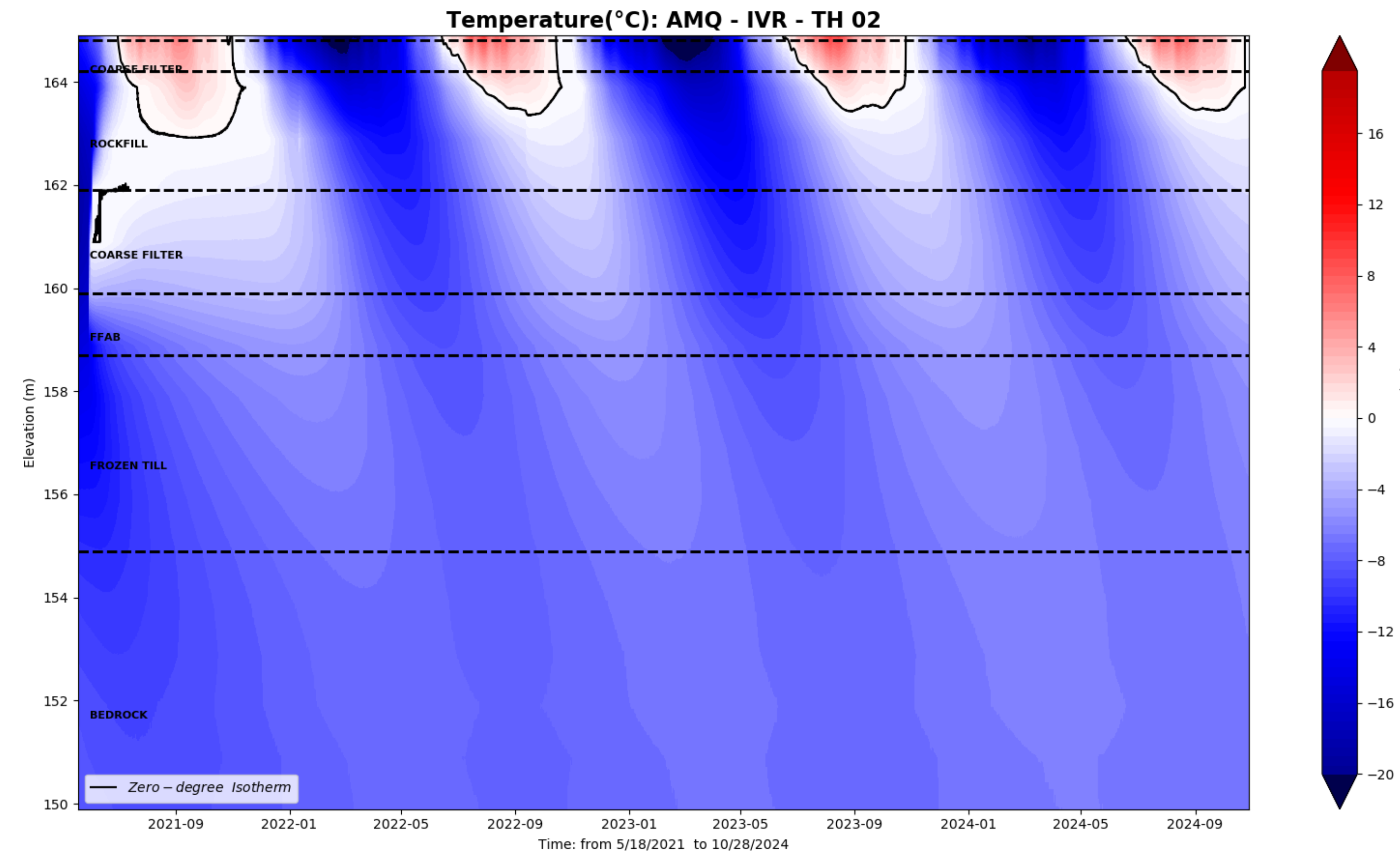

Temperature(°C): AMQ - IVR - TH 01
Elevation (m)
Zero – degree Isotherm
2021-09
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
Time: from 5/18/2021 to 10/28/2024
Temperature(°C)

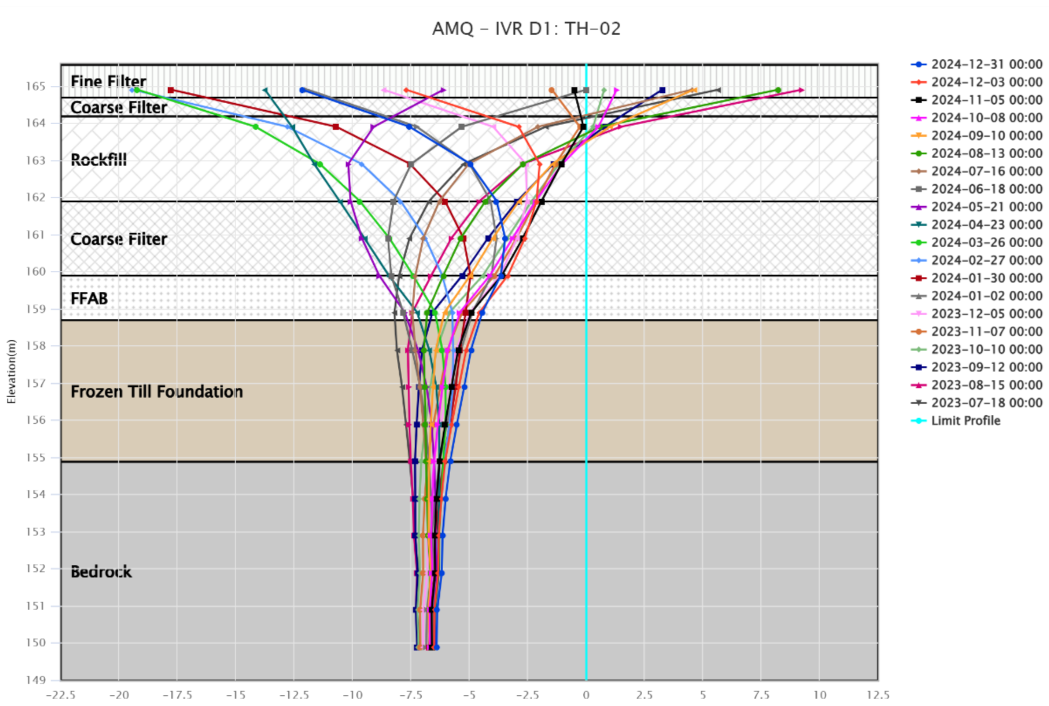

AMQ – IVR D1: TH-01
LINER
Fine Filter
FFAB
Frozen Till Foundation
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

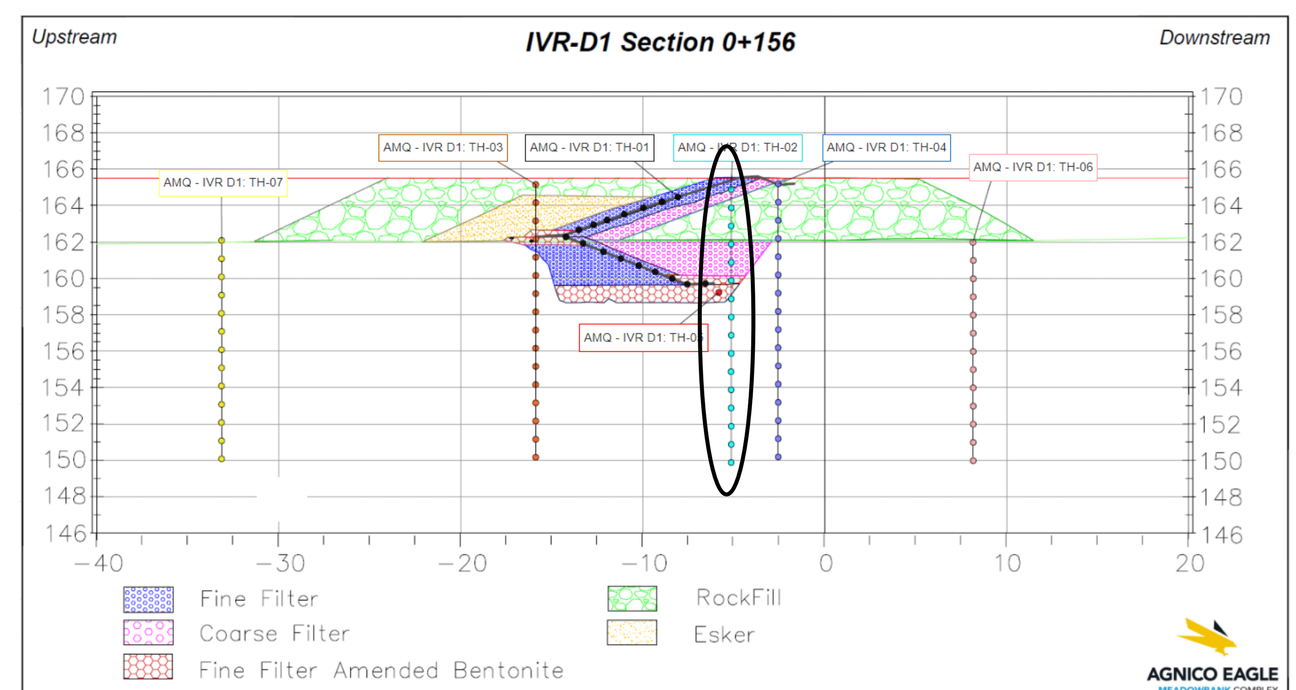

Upstream
IVR-D1 Section 0+156
Downstream
AMQ - IVR D1: TH-07
AMQ - IVR D1: TH-03
AMQ - IVR D1: TH-01
AMQ - IVR D1: TH-02
AMQ - IVR D1: TH-04
AMQ - IVR D1: TH-06
AMQ - IVR D1: TH-05
Fine Filter
Coarse Filter
Fine Filter Amended Bentonite
RockFill
Esker
AGNICO EAGLE
MEADOWBANK COMPLEX

IVR-D1-TH2


IVRD-TH-07
IVRD-TH-03
IVRD-TH-02
IVRD-TH-01 (liner)
IVRD-TH-05
(horizontal)
IVRD-TH-06
0+100
0+200
0+300

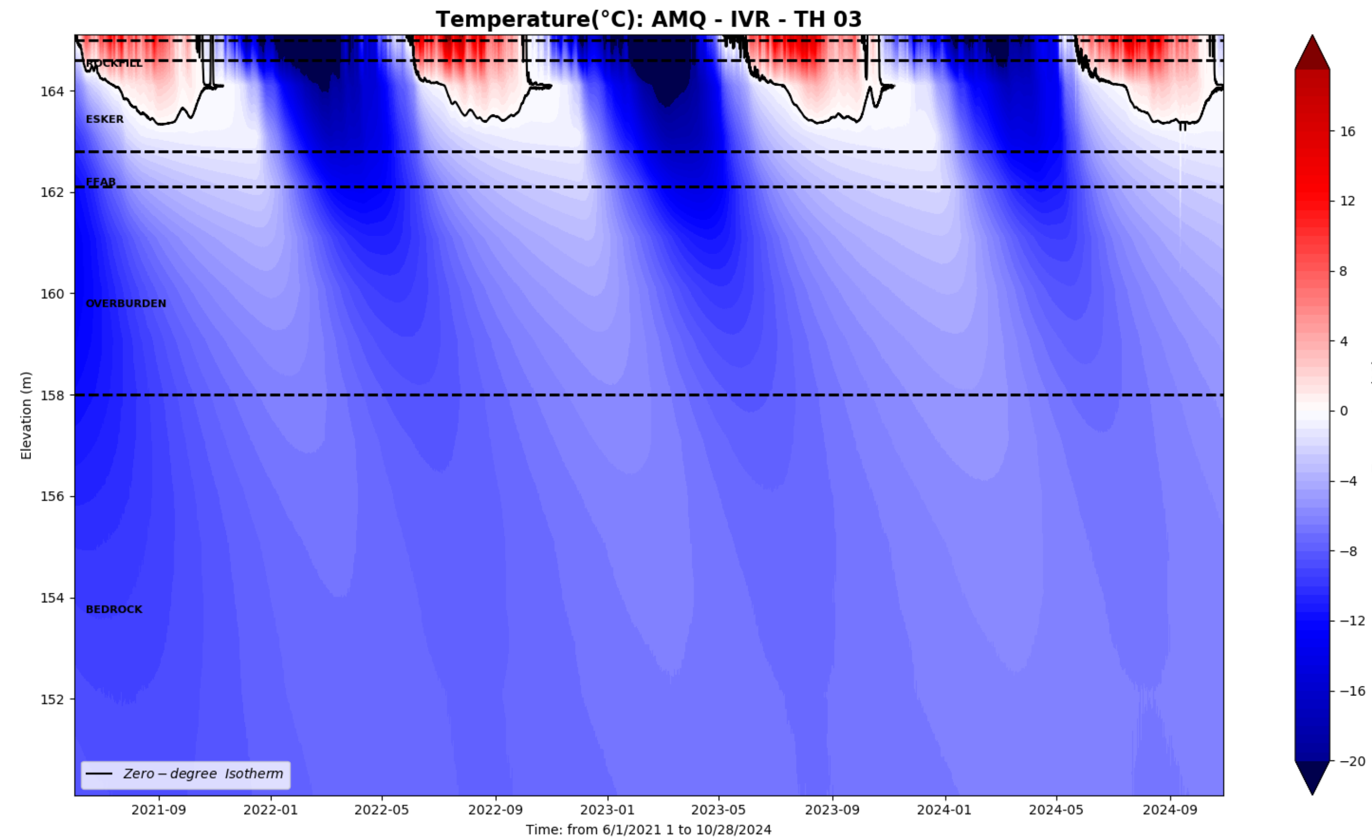

Temperature(°C): AMQ - IVR - TH 02
COARSE FILTER
ROCKFILL
COARSE FILTER
FFAB
FROZEN TILL
BEDROCK
Zero – degree Isotherm
Elevation (m)
Temperature(°C)
Time: from 5/18/2021 to 10/28/2024

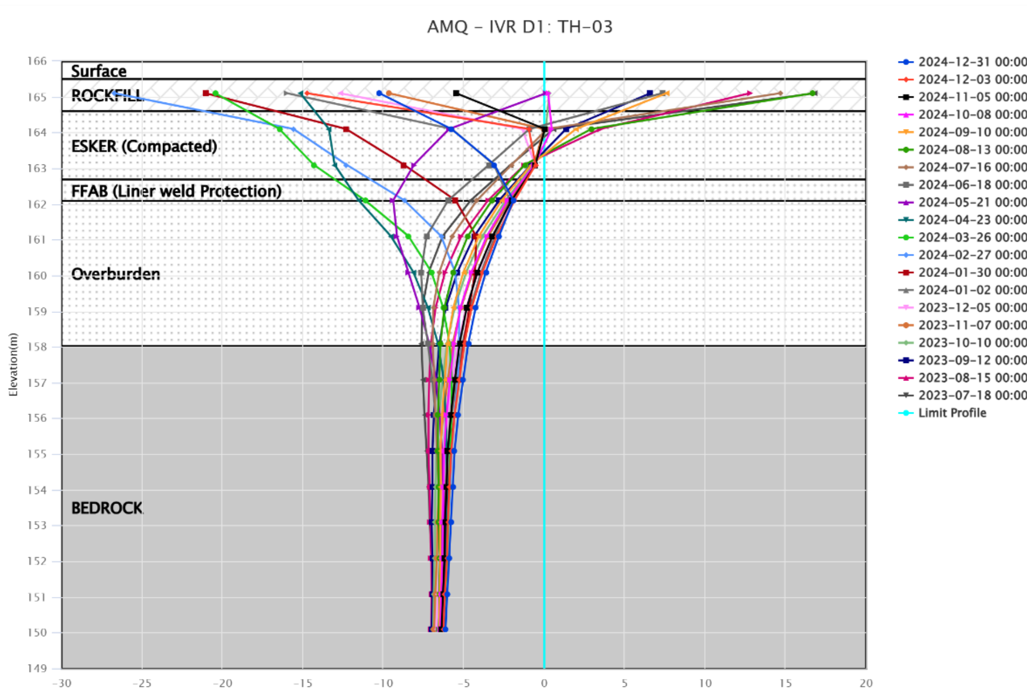

AMQ – IVR D1: TH-02
Fine Filter
Coarse Filter
Rockfill
Coarse Filter
FFAB
Frozen Till Foundation
Bedrock
Elevation (m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

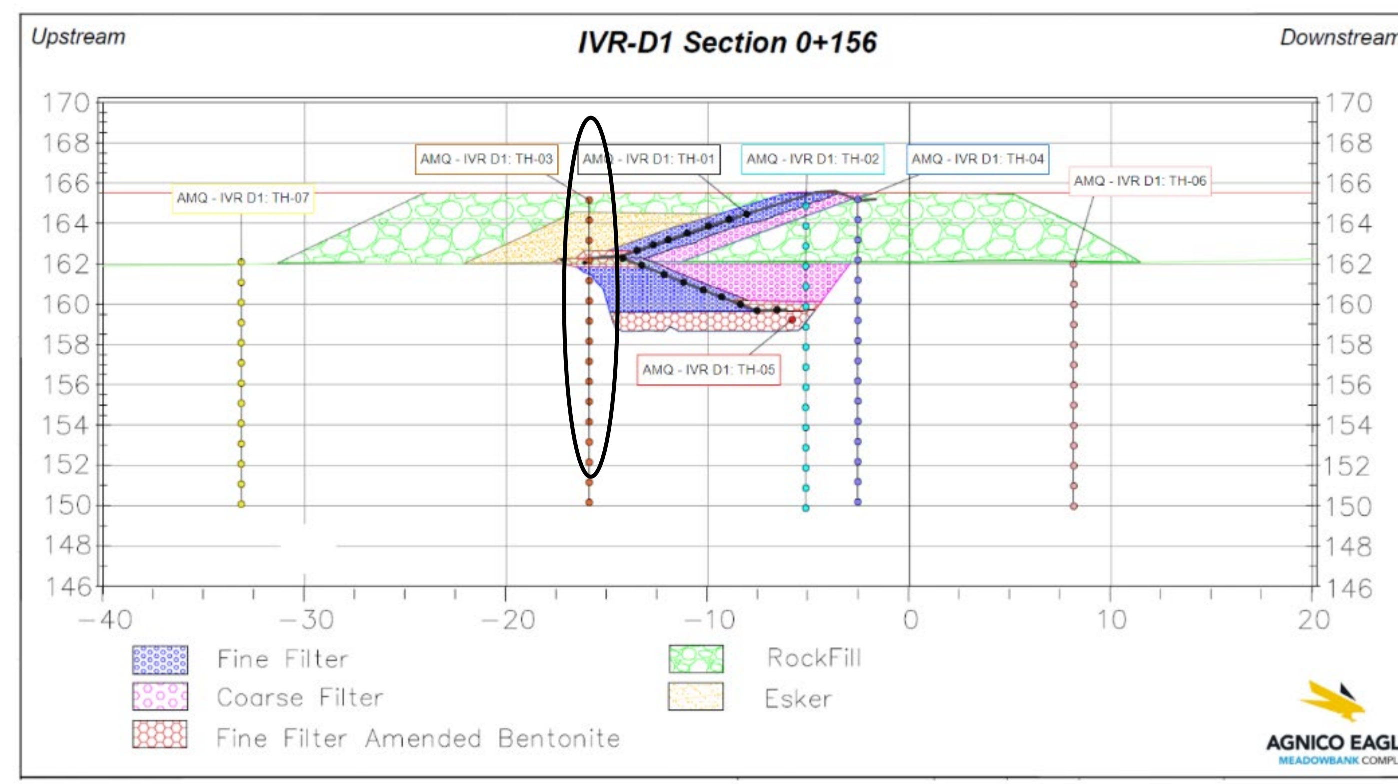

Upstream
IVR-D1 Section 0+156
Downstream
AMQ - IVR D1: TH-07
AMQ - IVR D1: TH-03
AMQ - IVR D1: TH-01
AMQ - IVR D1: TH-02
AMQ - IVR D1: TH-04
AMQ - IVR D1: TH-06
Fine Filter
Coarse Filter
Fine Filter Amended Bentonite
RockFill
Esker
AGNICO EAGLE
MEADOWBANK COMPLEX

IVR-D1-TH3


IVRD-TH-07
IVRD-TH-03
IVRD-TH-01 (liner)
IVRD-TH-02
IVRD-TH-04
IVRD-TH-05
(horizontal)
IVRD-TH-06
0+100
0+200
0+300
0+000
0+020
0+040
0+054

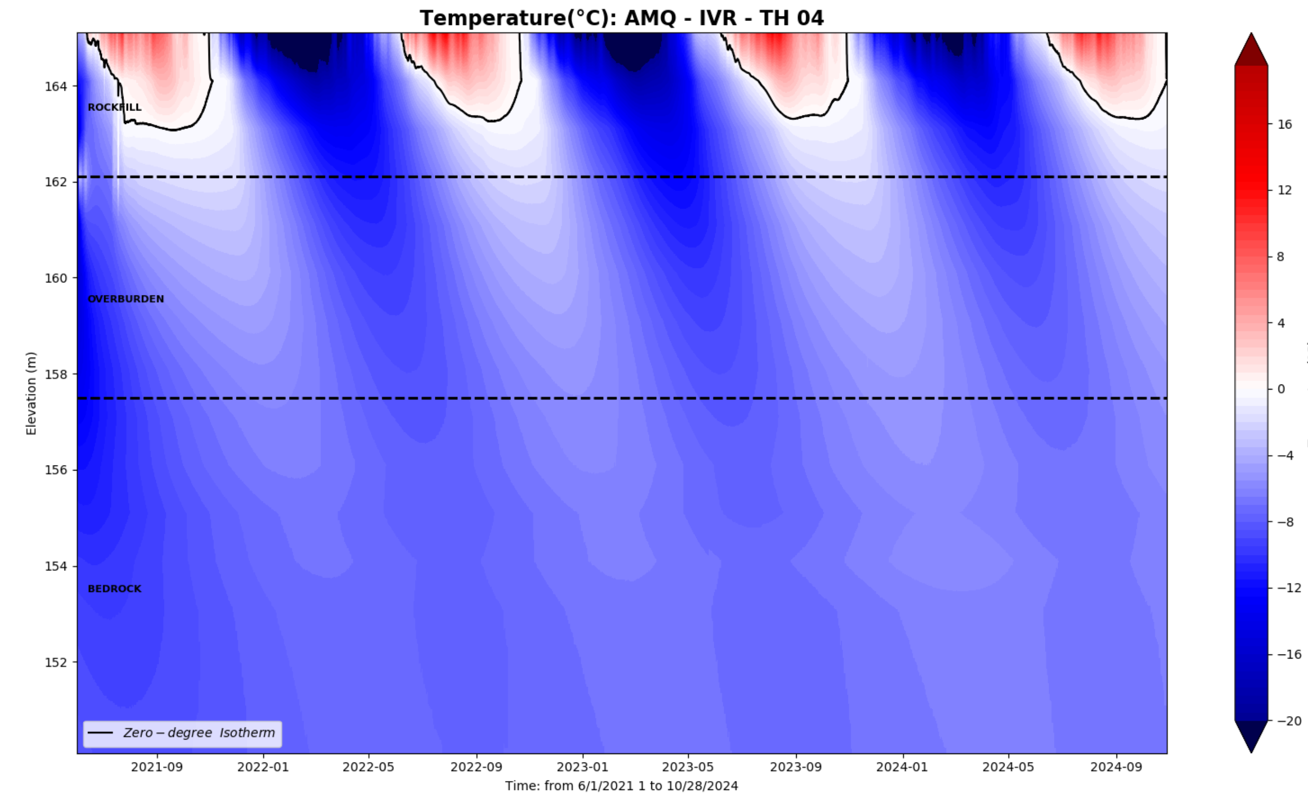

Temperature(°C): AMQ - IVR - TH 03
ROCKFILL
ESKER
FFAB
OVERBURDEN
BEDROCK
Elevation (m)
Zero – degree Isotherm
Temperature(°C)
Time: from 6/1/2021 1 to 10/28/2024

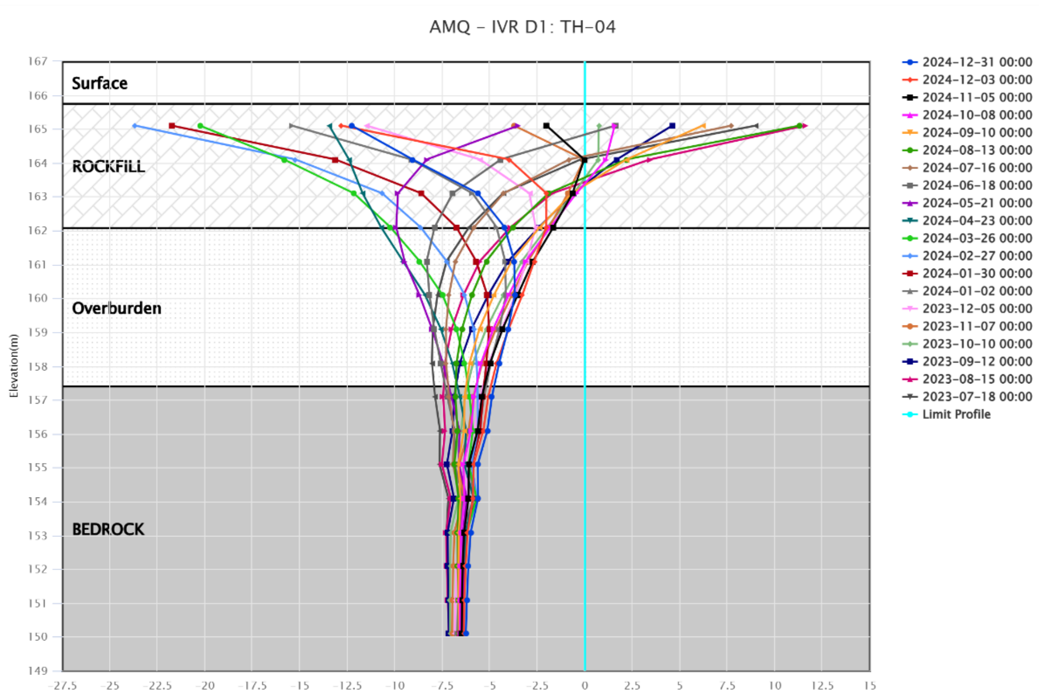

AMQ – IVR D1: TH-03
Surface
ROCKFILL
ESKER (Compacted)
FFAB (Liner weld Protection)
Overburden
BEDROCK
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

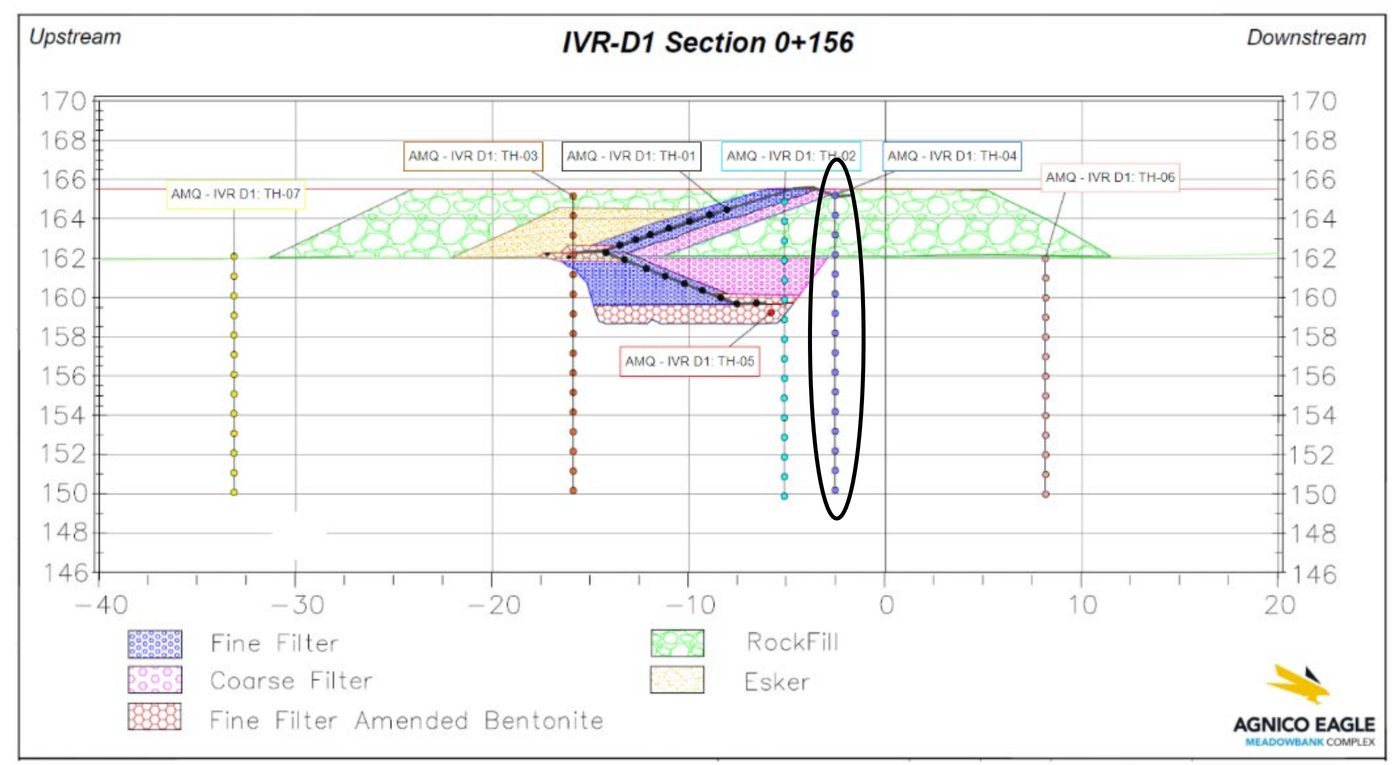

Upstream
IVR-D1 Section 0+156
Downstream
AMQ - IVR D1: TH-03
AMQ - IVR D1: TH-01
AMQ - IVR D1: TH-02
AMQ - IVR D1: TH-04
AMQ - IVR D1: TH-06
AMQ - IVR D1: TH-07
AMQ - IVR D1: TH-05
Fine Filter
Coarse Filter
Fine Filter Amended Bentonite
RockFill
Esker
AGNICO EAGLE
MEADOWBANK COMPLEX

IVR-D1-TH4

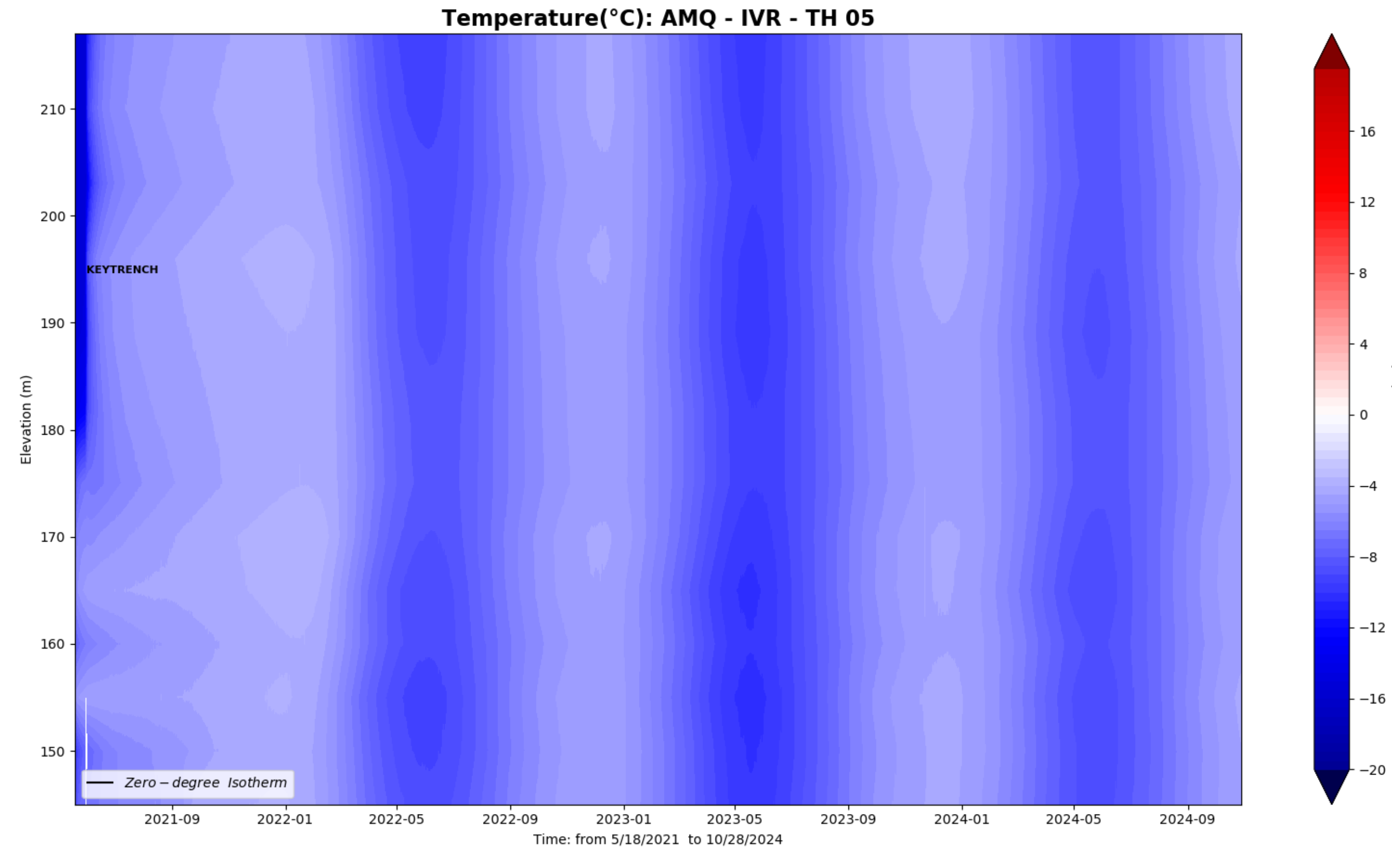

IVRD-TH-07
IVRD-TH-03
IVRD-TH-01 (liner)
IVRD-TH-02
IVRD-TH-04
IVRD-TH-05
(horizontal)
IVRD-TH-06
0+100
0+200
0+300

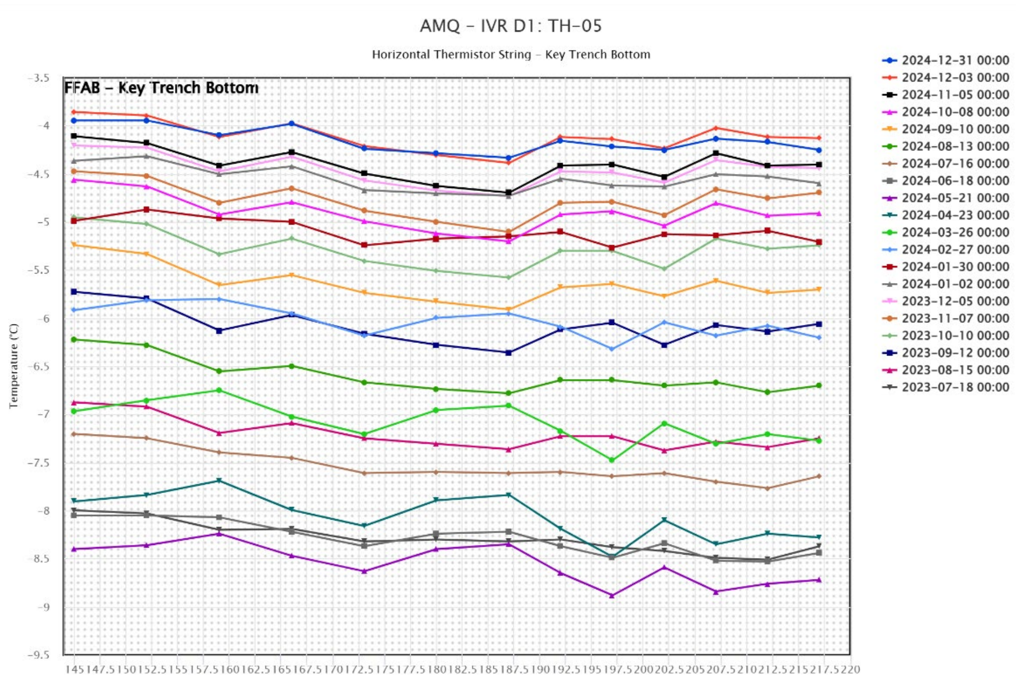

Temperature(°C): AMQ - IVR - TH 04
ROCKFILL
OVERBURDEN
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 6/1/2021 1 to 10/28/2024
Temperature(°C)


AMQ – IVR D1: TH–04
Surface
ROCKFILL
Overburden
BEDROCK
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

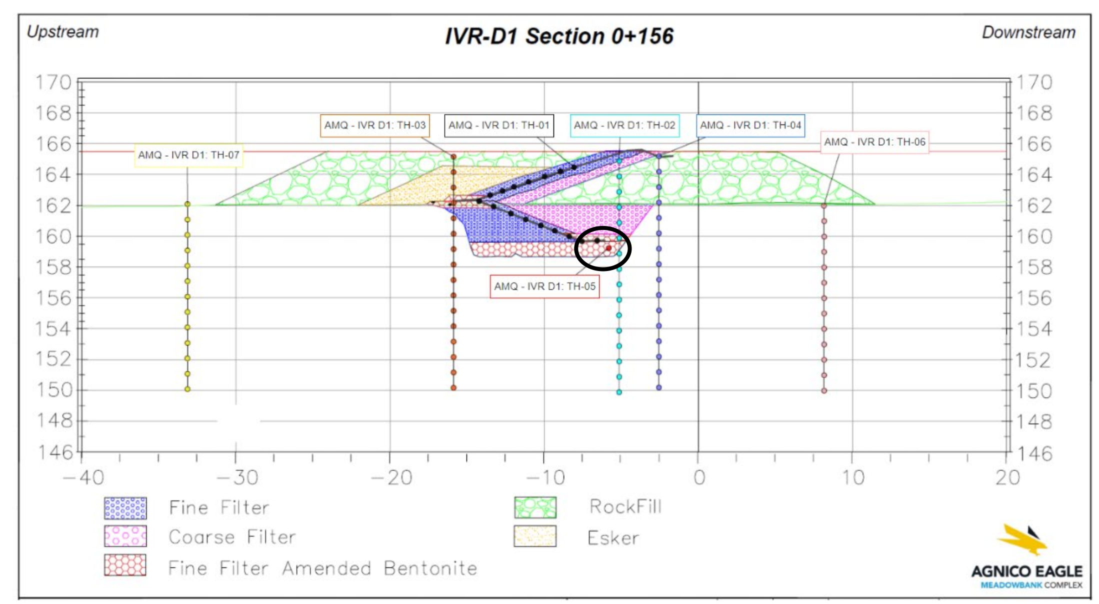

Upstream
IVR-D1 Section 0+156
Downstream
AMQ - IVR D1: TH-03
AMQ - IVR D1: TH-01
AMQ - IVR D1: TH-02
AMQ - IVR D1: TH-04
AMQ - IVR D1: TH-07
AMQ - IVR D1: TH-06
AMQ - IVR D1: TH-05
Fine Filter
Coarse Filter
Fine Filter Amended Bentonite
RockFill
Esker
AGNICO EAGLE
MEADOWBANK COMPLEX

IVR-D1-TH5



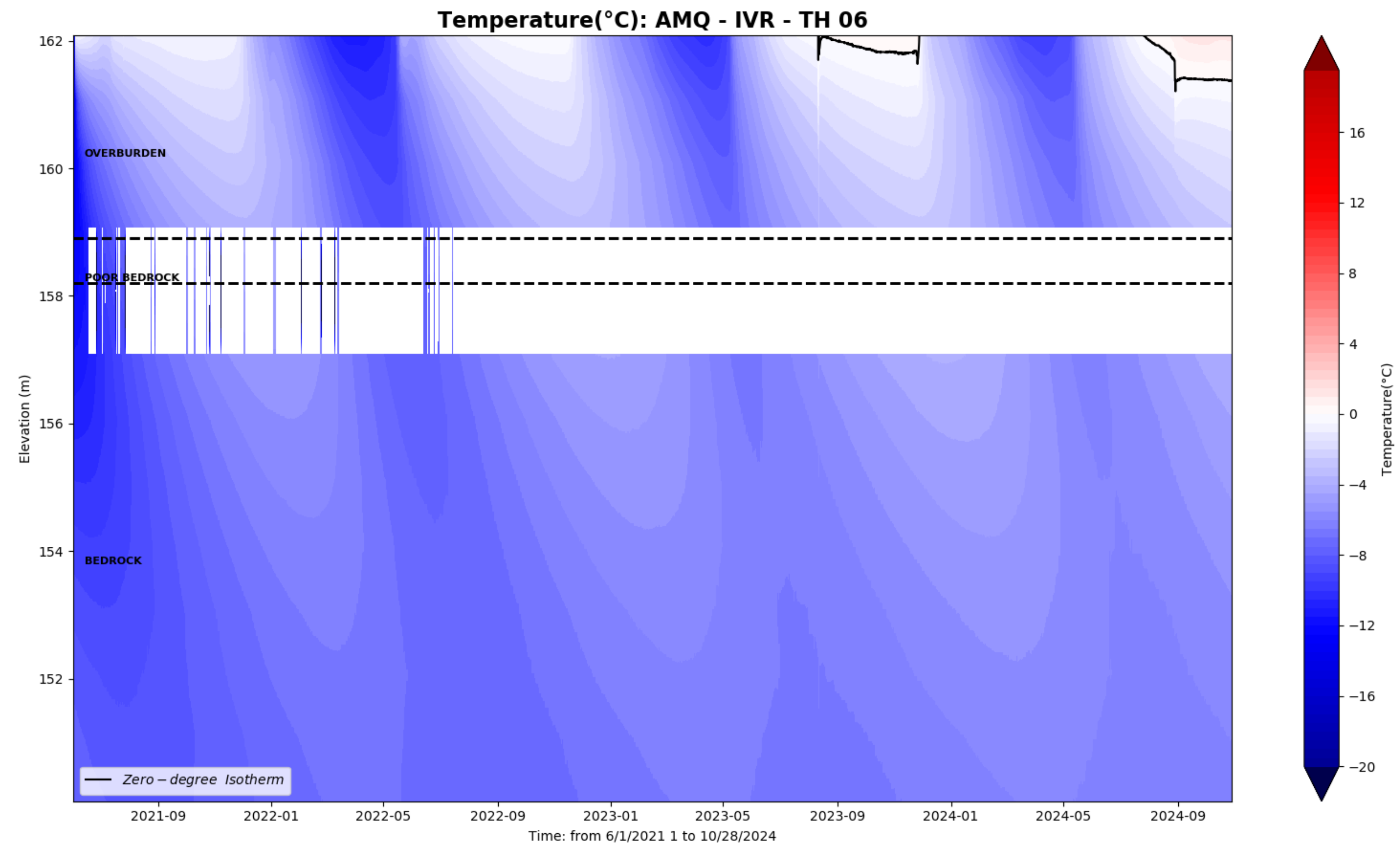


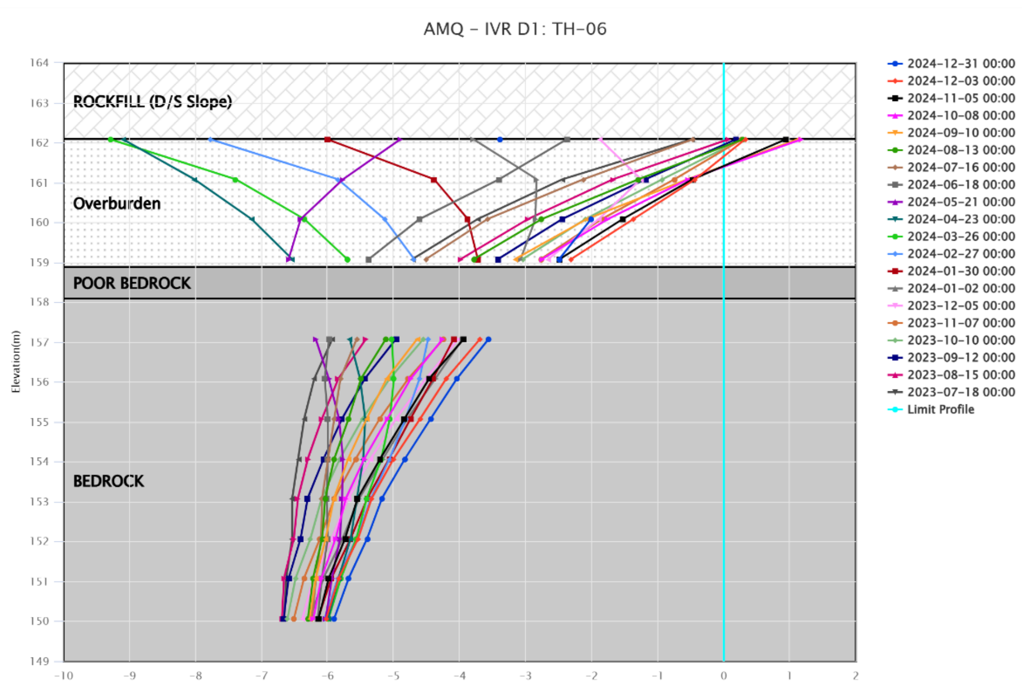
NOTE: This TH is horizontal and in Keytrench and must be reflected this way when reading the thermal graph

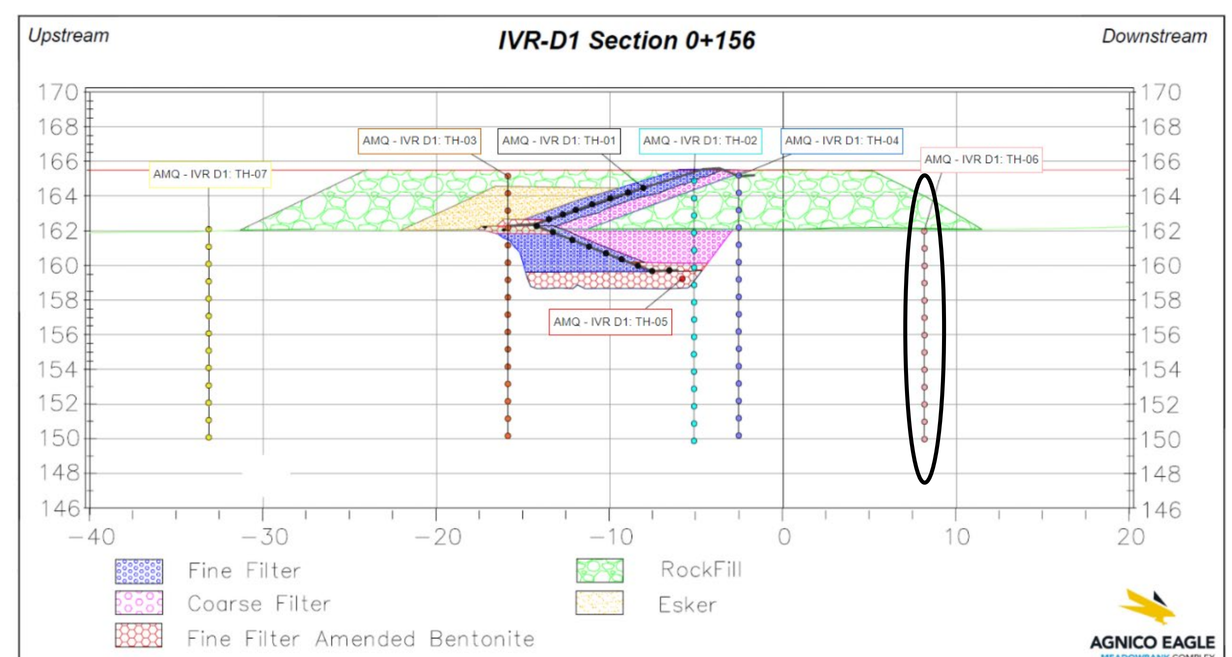


IVR-D1-TH6


IVRD-TH-07
IVRD-TH-03
IVRD-TH-01 (liner)
IVRD-TH-02
IVRD-TH-04
IVRD-TH-05
(horizontal)
IVRD-TH-06
0+100
0+200
0+300

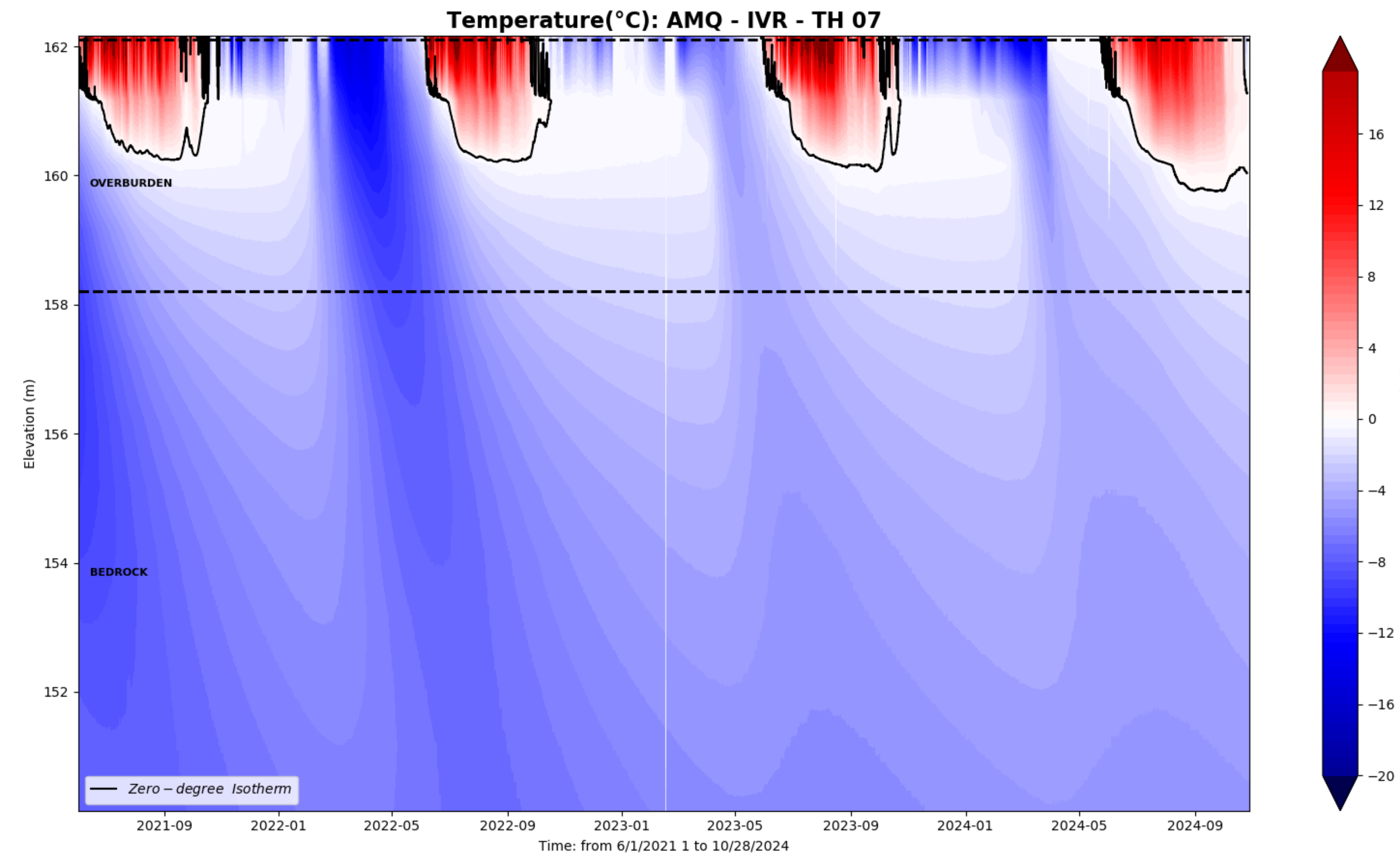

Temperature(°C): AMQ - IVR - TH 06
OVERBURDEN
POOR BEDROCK
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 6/1/2021 1 to 10/28/2024
Temperature(°C)


AMQ - IVR D1: TH-06
ROCKFILL (D/S Slope)
Overburden
POOR BEDROCK
BEDROCK
Elevation(m)
Temperature (C)
Limit Profile

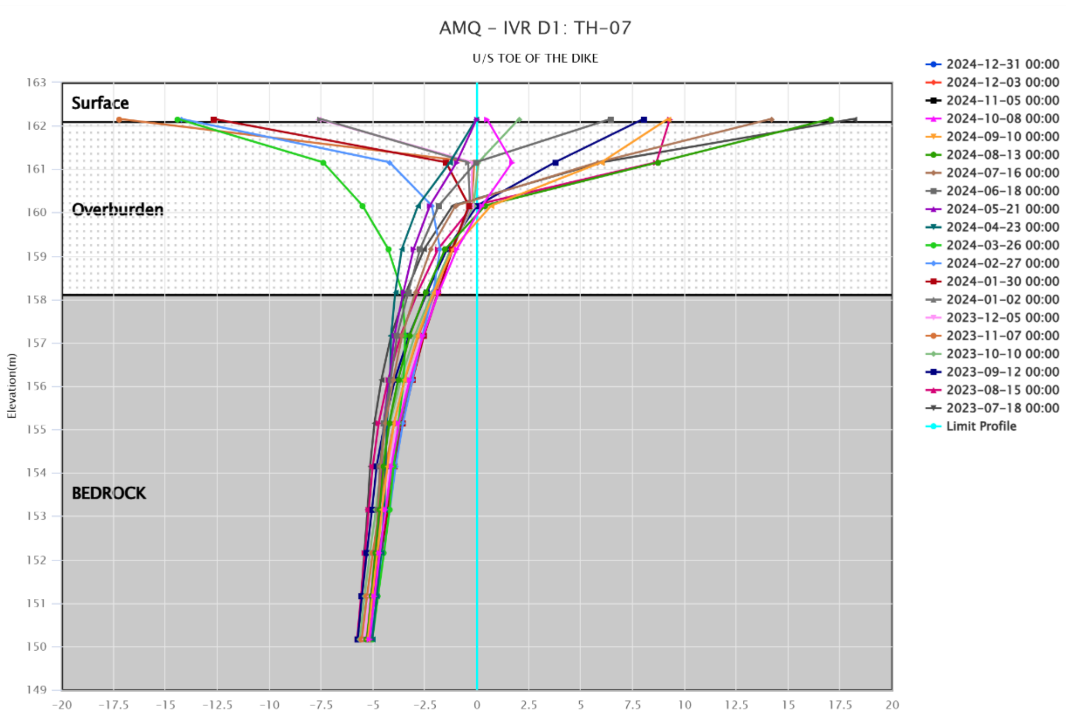

Upstream
IVR-D1 Section 0+156
Downstream
AMQ - IVR D1: TH-07
AMQ - IVR D1: TH-03
AMQ - IVR D1: TH-01
AMQ - IVR D1: TH-02
AMQ - IVR D1: TH-04
AMQ - IVR D1: TH-06
AMQ - IVR D1: TH-05
Fine Filter
Coarse Filter
Fine Filter Amended Bentonite
RockFill
Esker
AGNICO EAGLE
MEADOWBANK COMPLEX

IVR-D1-TH7

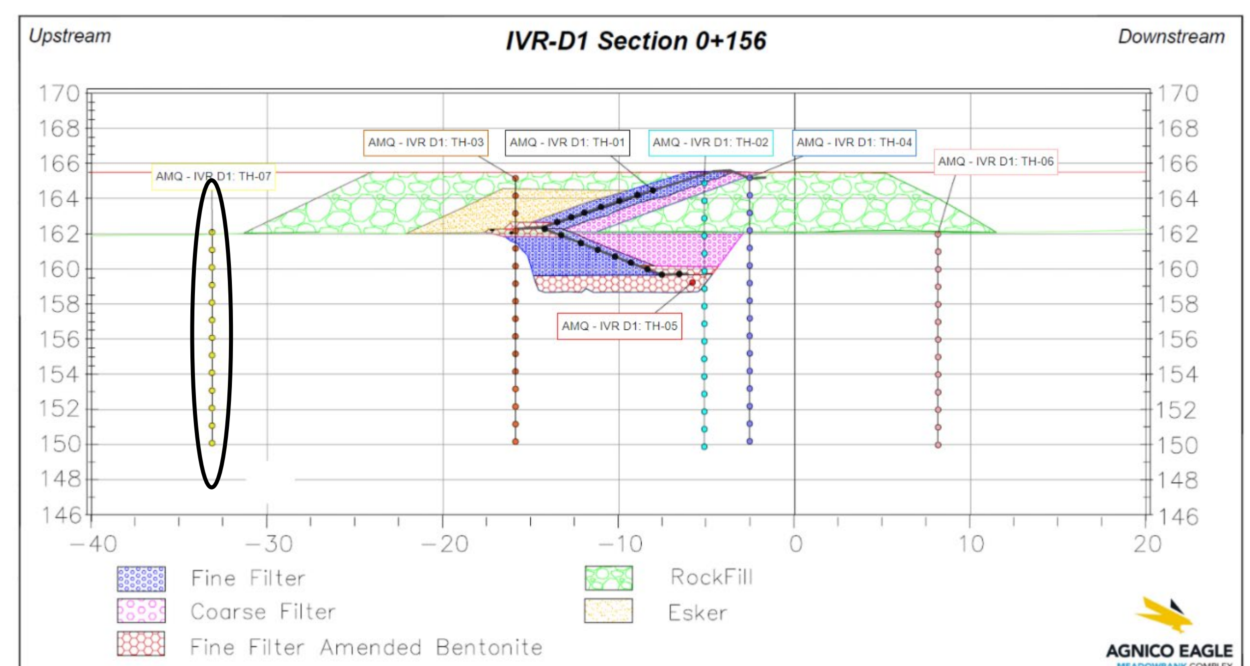
IVRD-TH-07
IVRD-TH-03
IVRD-TH-01 (liner)
IVRD-TH-02
IVRD-TH-04
IVRD-TH-05
(horizontal)
IVRD-TH-06
0+100
0+200
0+300
0+000
0+020
0+040
0+054
-0+020
-0+030



Temperature(°C): AMQ - IVR - TH 07
OVERBURDEN
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 6/1/2021 1 to 10/28/2024
Temperature(°C)

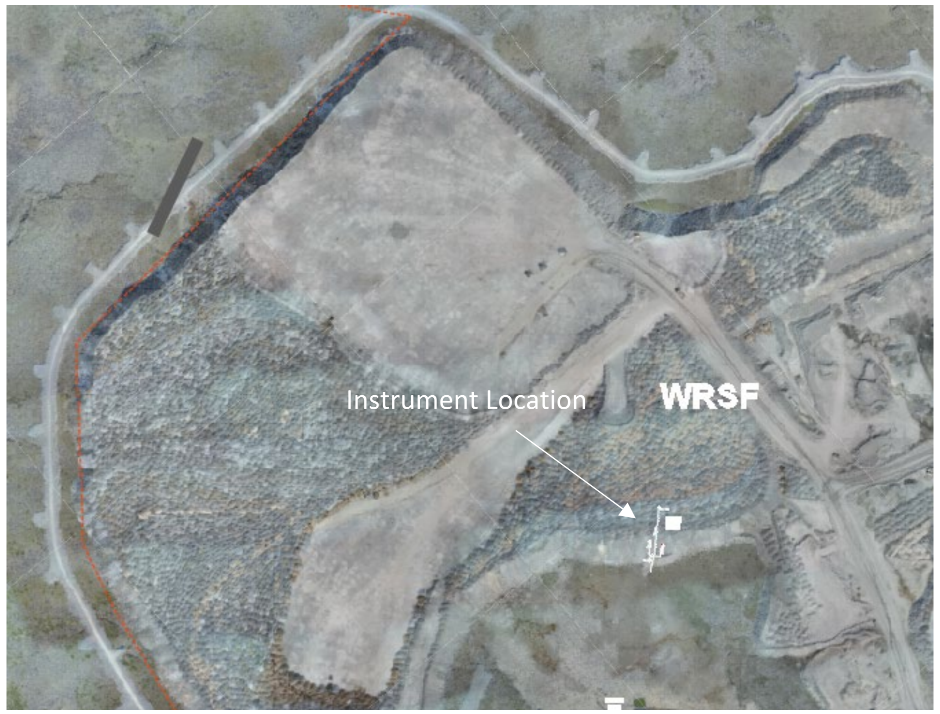


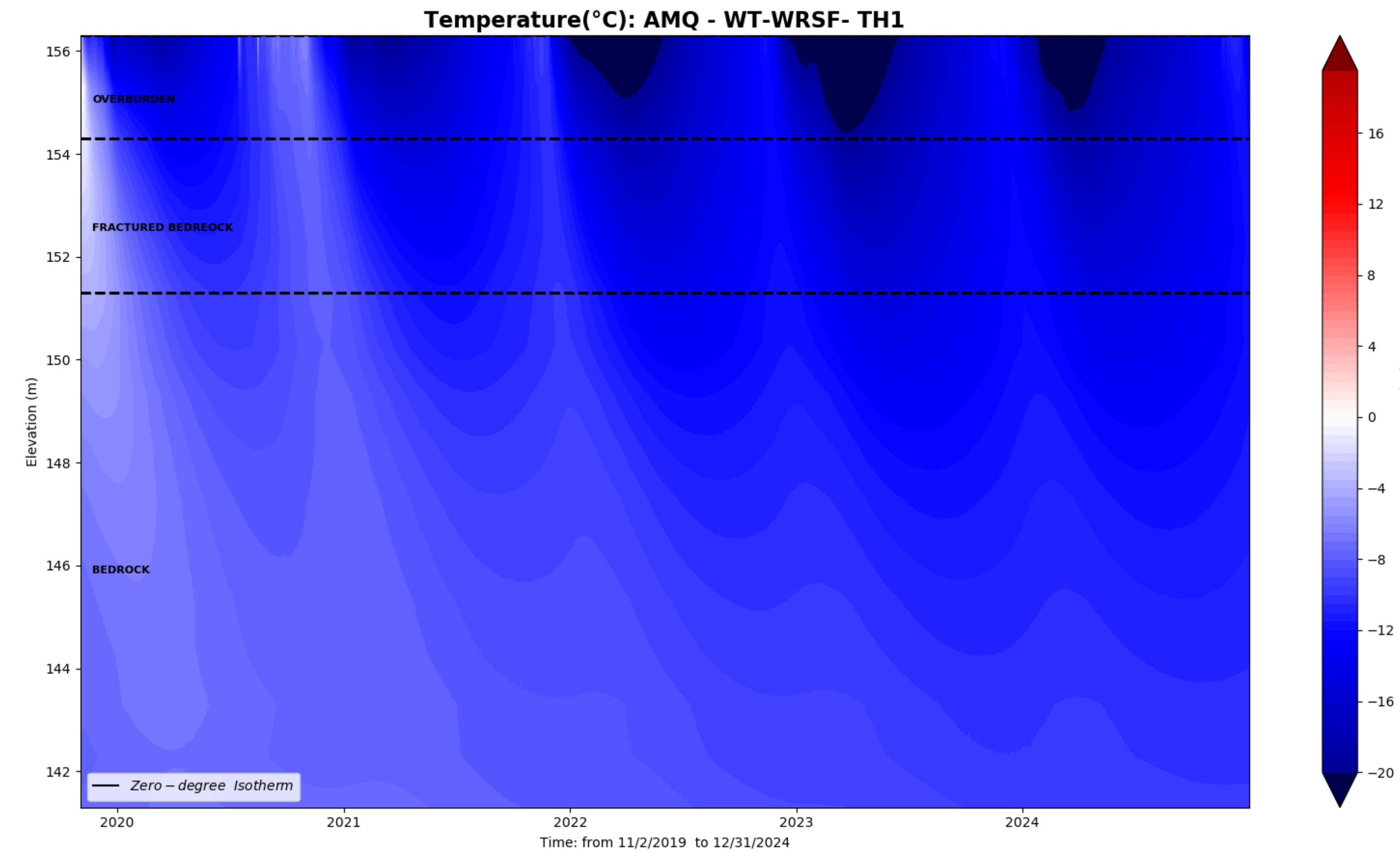
AMQ – IVR D1: TH–07
U/S TOE OF THE DIKE
Surface
Overburden
BEDROCK
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

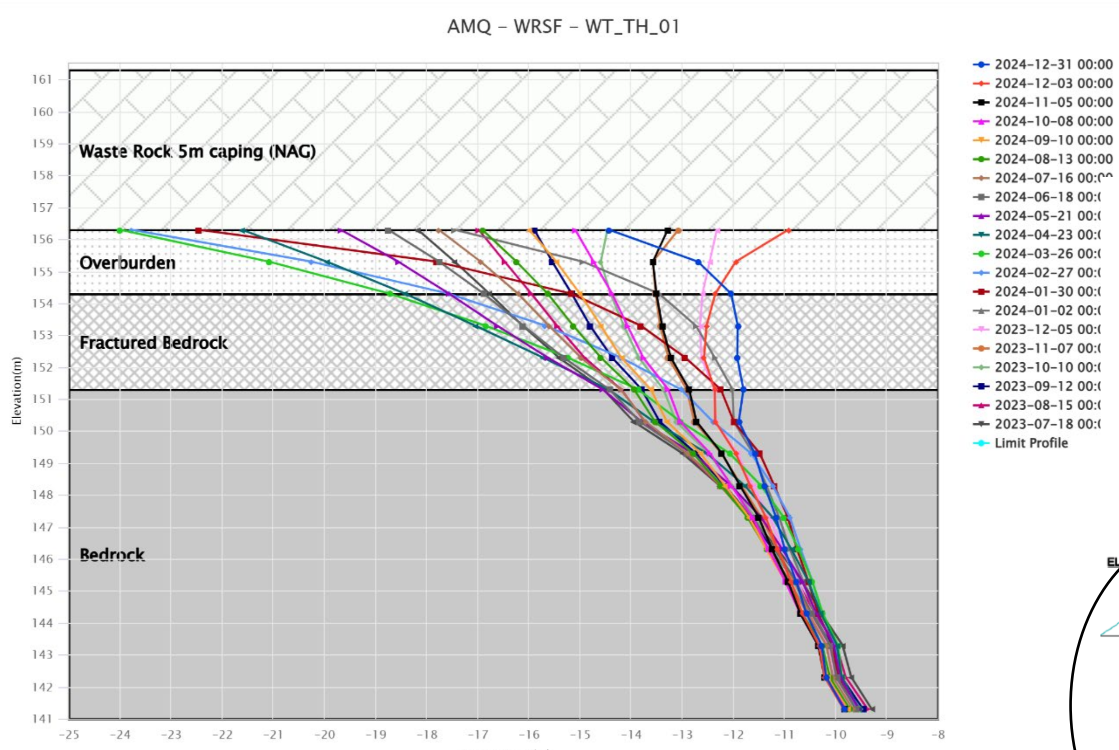


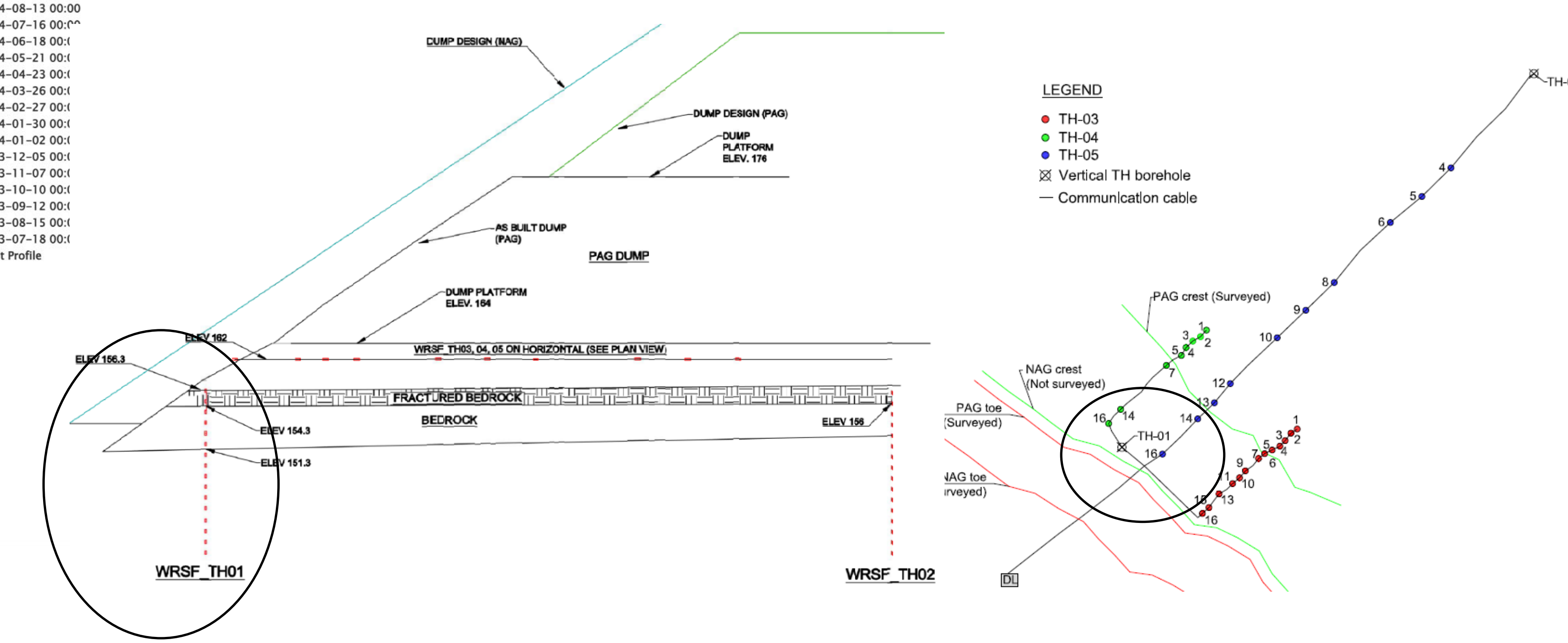
Upstream
IVR-D1 Section 0+156
Downstream
AMQ - IVR D1: TH-07
AMQ - IVR D1: TH-03
AMQ - IVR D1: TH-01
AMQ - IVR D1: TH-02
AMQ - IVR D1: TH-04
AMQ - IVR D1: TH-06
AMQ - IVR D1: TH-05
Fine Filter
Coarse Filter
Fine Filter Amended Bentonite
RockFill
Esker
AGNICO EAGLE
MEADOWBANK COMPLEX

WT WRSF TH1

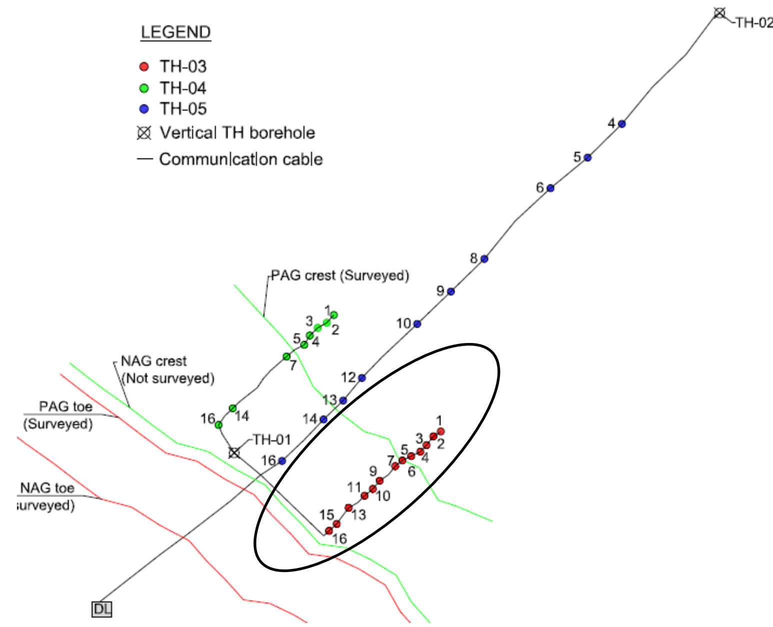

Instrument Location
WRSF

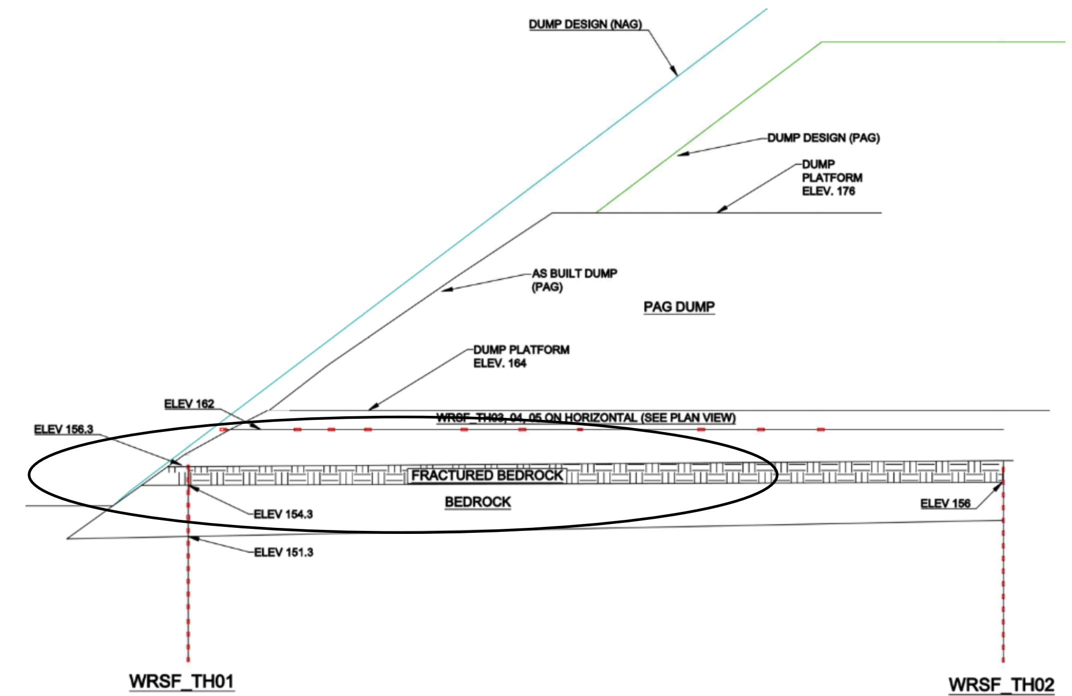

Temperature(°C): AMQ - WT-WRSF- TH1
OVERBURDEN
FRACTURED BEDROCK
BEDROCK
Zero – degree Isotherm
Elevation (m)
156
154
152
150
148
146
144
142
2020
2021
2022
2023
2024
Time: from 11/2/2019 to 12/31/2024
Temperature(°C)
16
12
8
4
0
−4
−8
−12
−16
−20


AMQ – WRSF – WT_TH_01
Waste Rock 5m caping (NAG)
Overburden
Fractured Bedrock
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:0
2024-06-18 00:
2024-05-21 00:
2024-04-23 00:
2024-03-26 00:
2024-02-27 00:
2024-01-30 00:
2024-01-02 00:
2023-12-05 00:
2023-11-07 00:
2023-10-10 00:
2023-09-12 00:
2023-08-15 00:
2023-07-18 00:
Limit Profile


DUMP DESIGN (NAG)
DUMP DESIGN (PAG)
DUMP PLATFORM ELEV. 176
AS BUILT DUMP (PAG)
PAG DUMP
DUMP PLATFORM ELEV. 164
WRSF_TH03, 04, 05 ON HORIZONTAL (SEE PLAN VIEW)
ELEV 162
ELEV 156.3
FRACTURED BEDROCK
BEDROCK
ELEV 154.3
ELEV 151.3
ELEV 156
WRSF_TH01
WRSF_TH02
LEGEND
TH-03
TH-04
TH-05
Vertical TH borehole
Communication cable
TH-02
PAG crest (Surveyed)
NAG crest (Not surveyed)
PAG toe (Surveyed)
TH-01

WT WRSF TH3

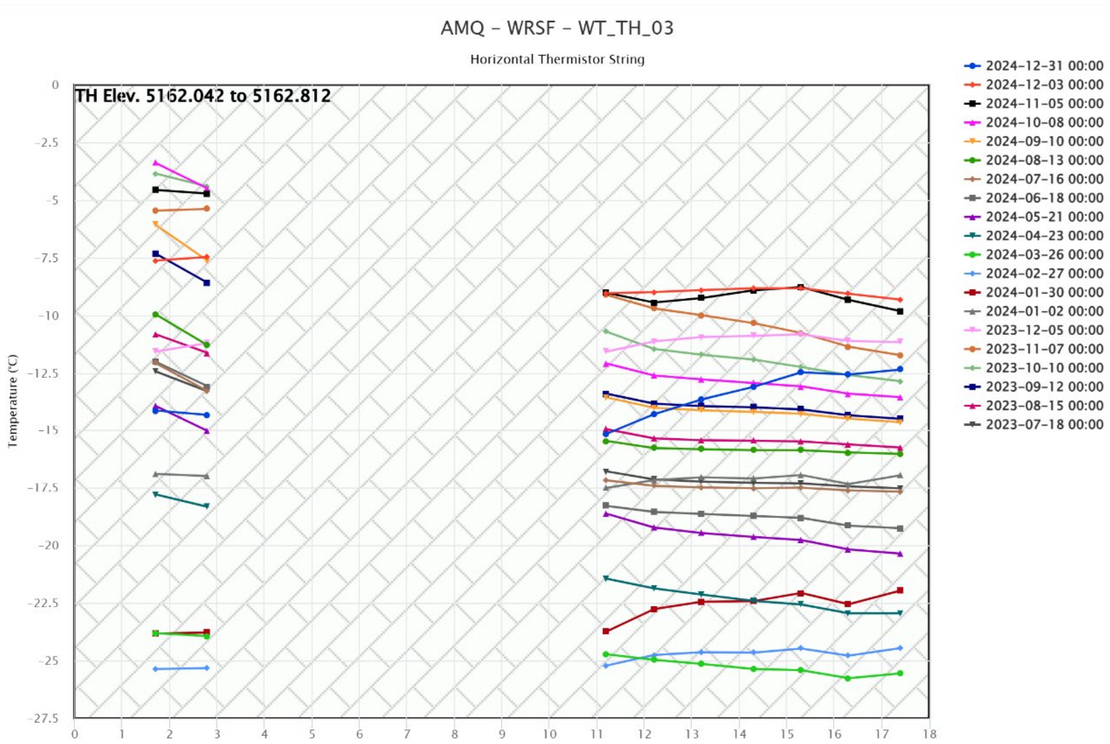




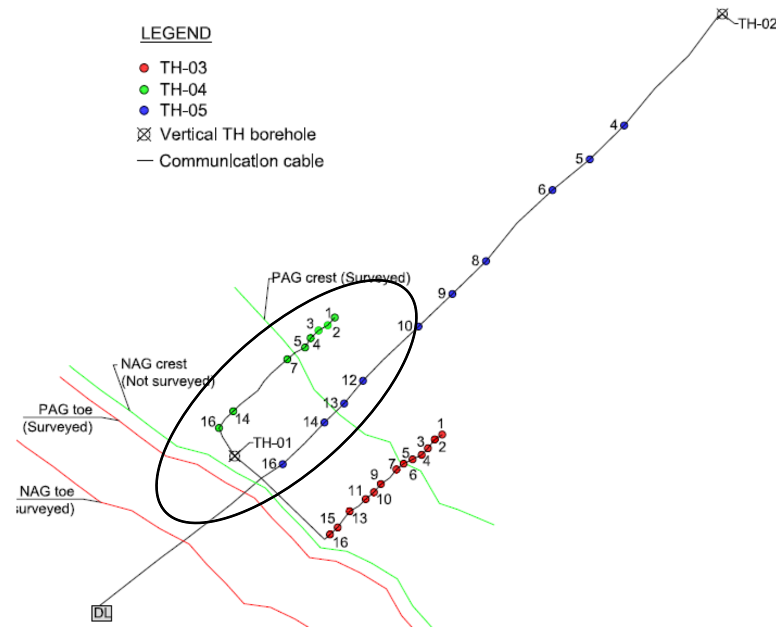
Thermistor in Waste Rock Elevation 162.042 to 162.812.

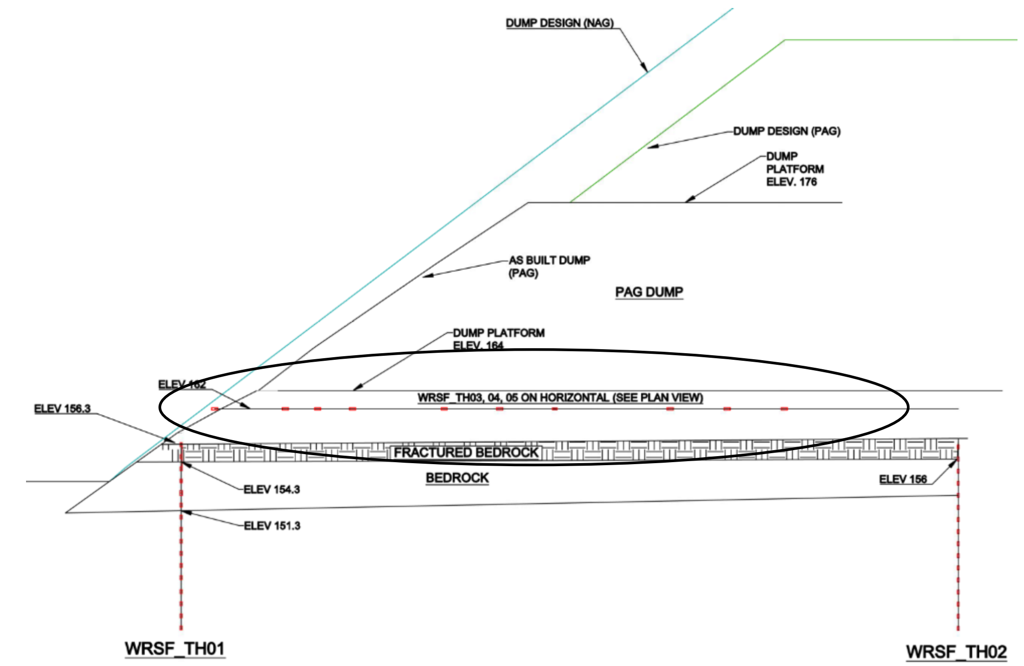
This instrument is installed horizontally and chart needs to be read accordingly

Beads 3 to 10 are not working



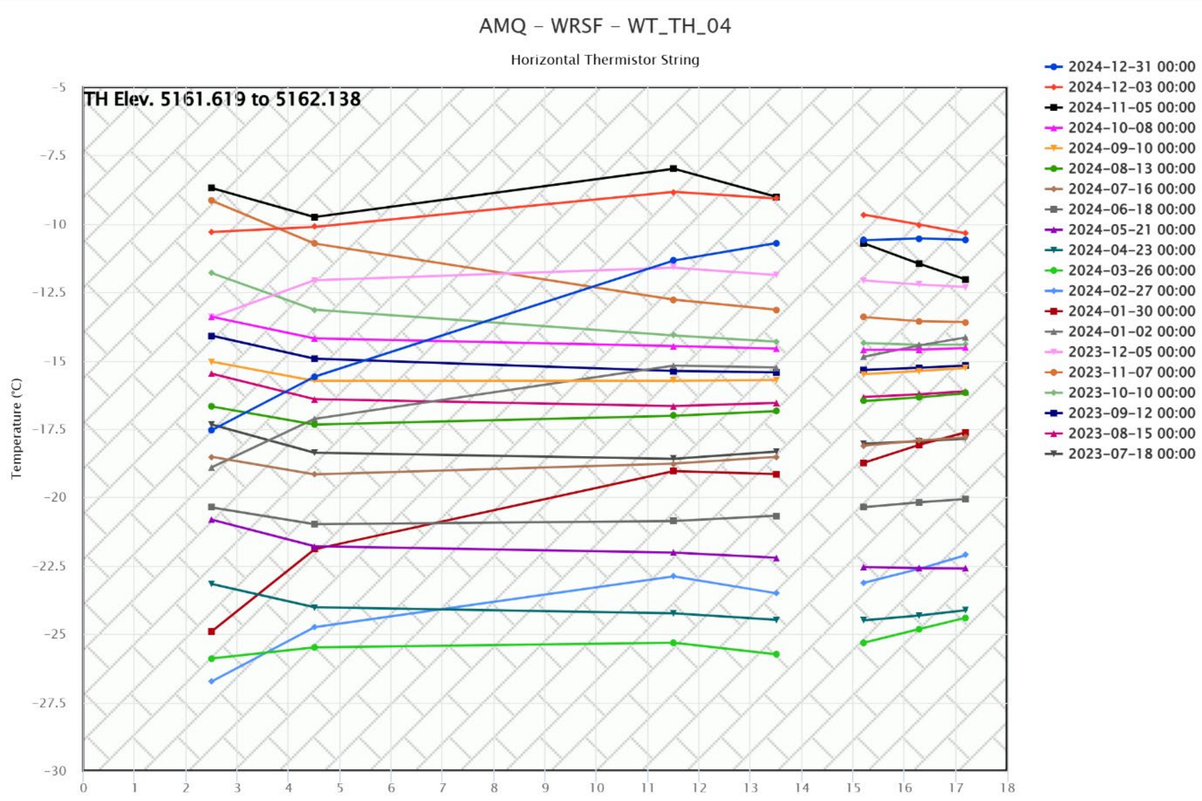
WT WRSF TH4



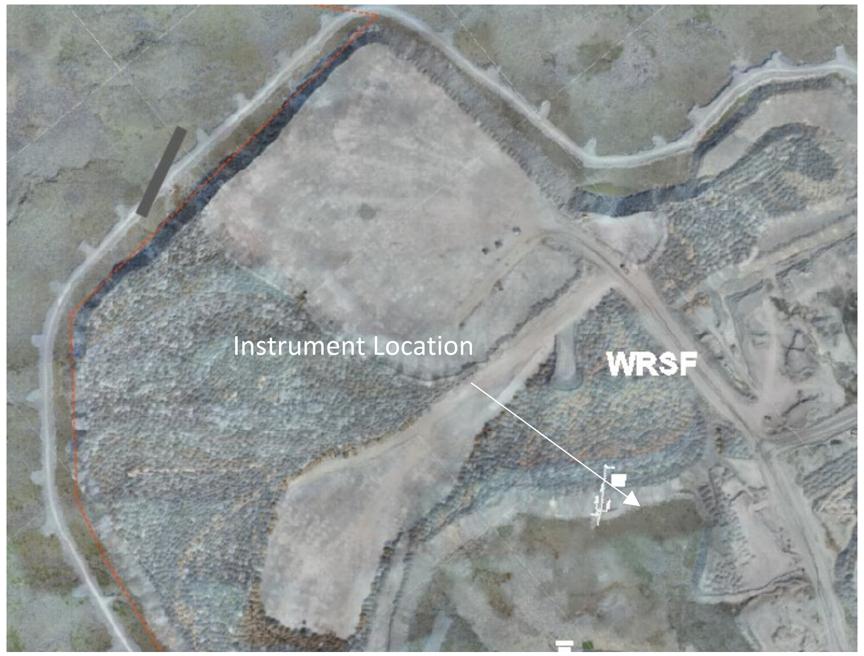


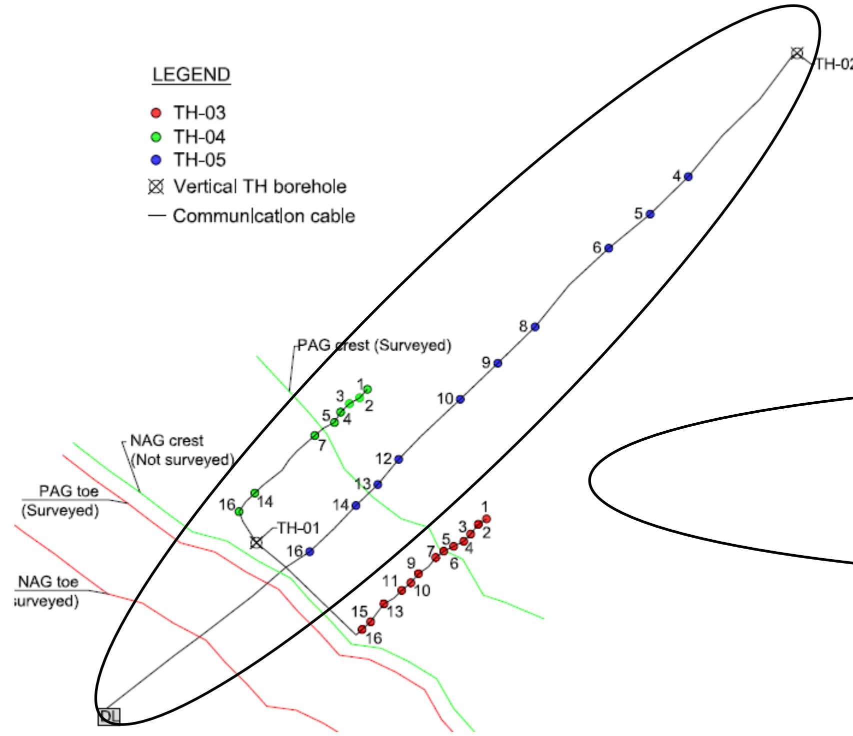
This instrument is installed horizontally and chart needs to be read accordingly

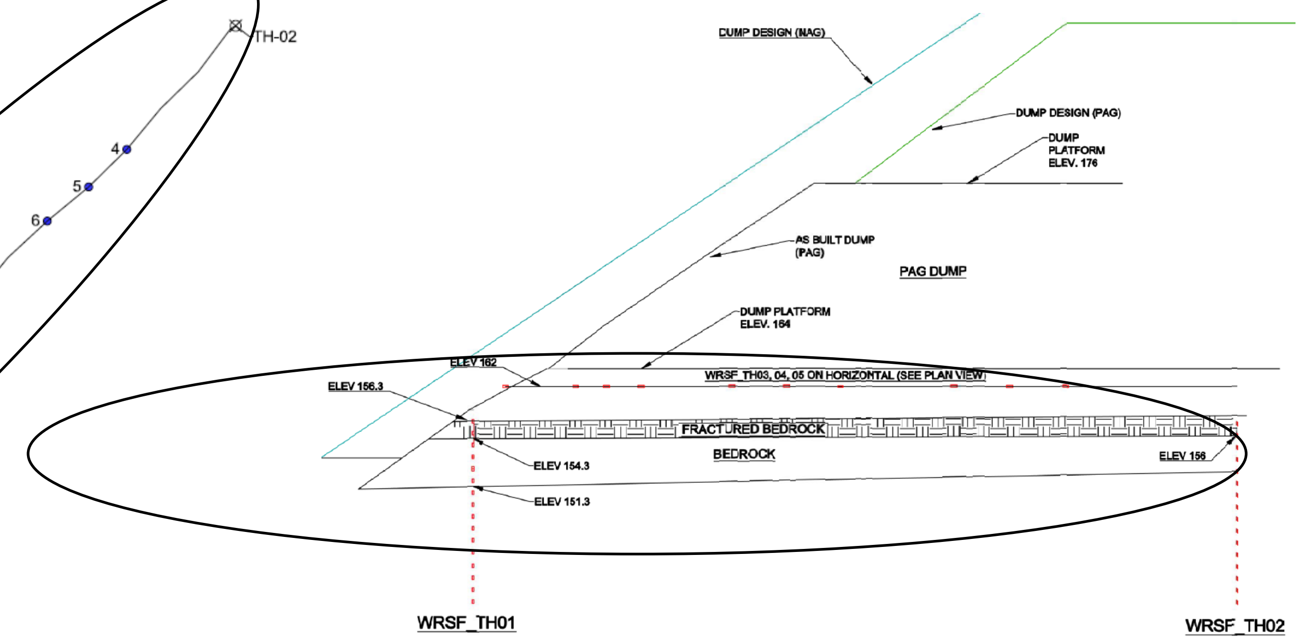
Beads 3 to 10 are not working



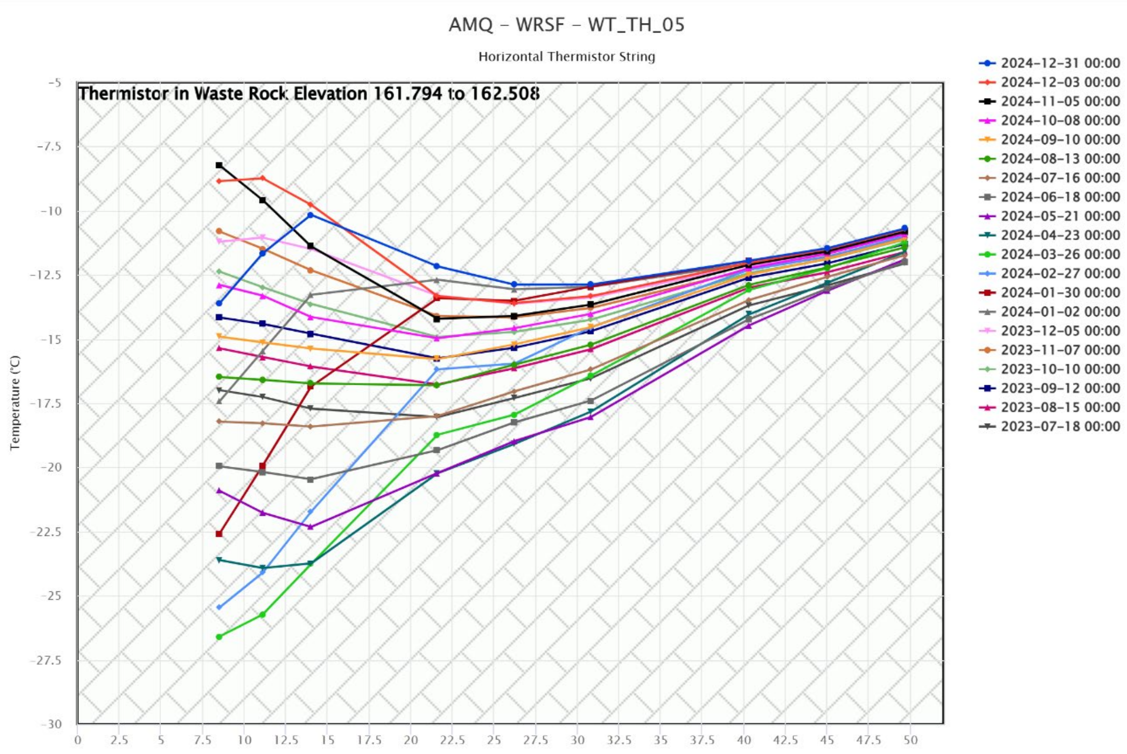
WT WRSF TH5



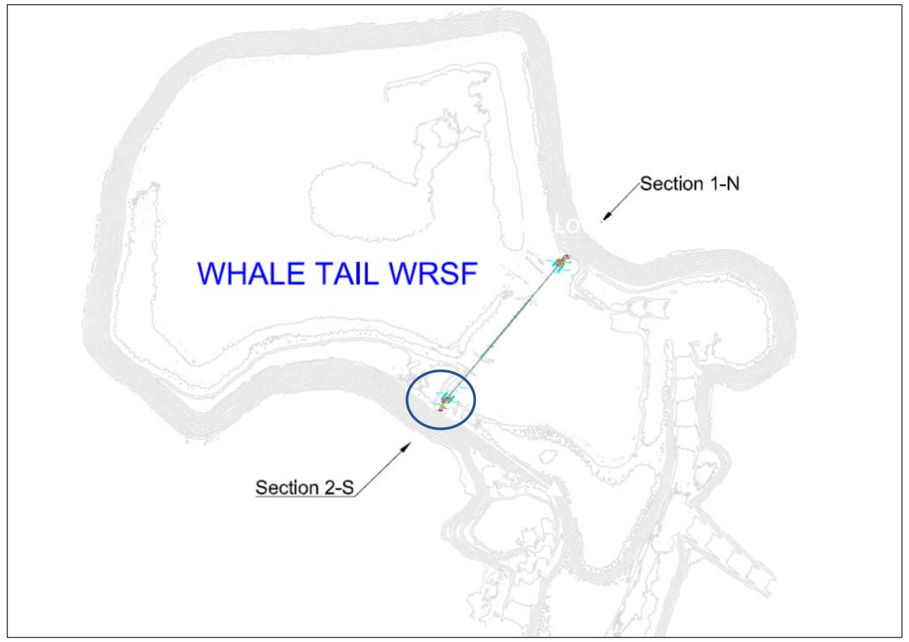


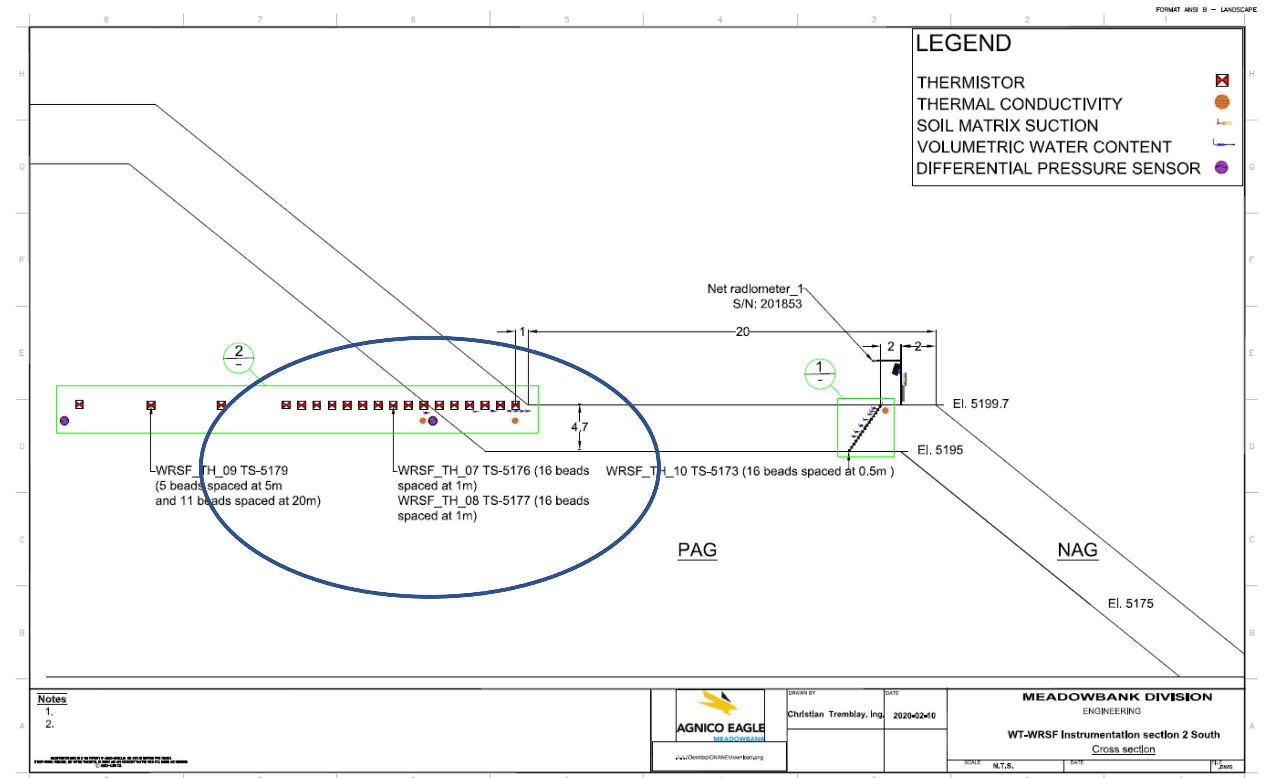


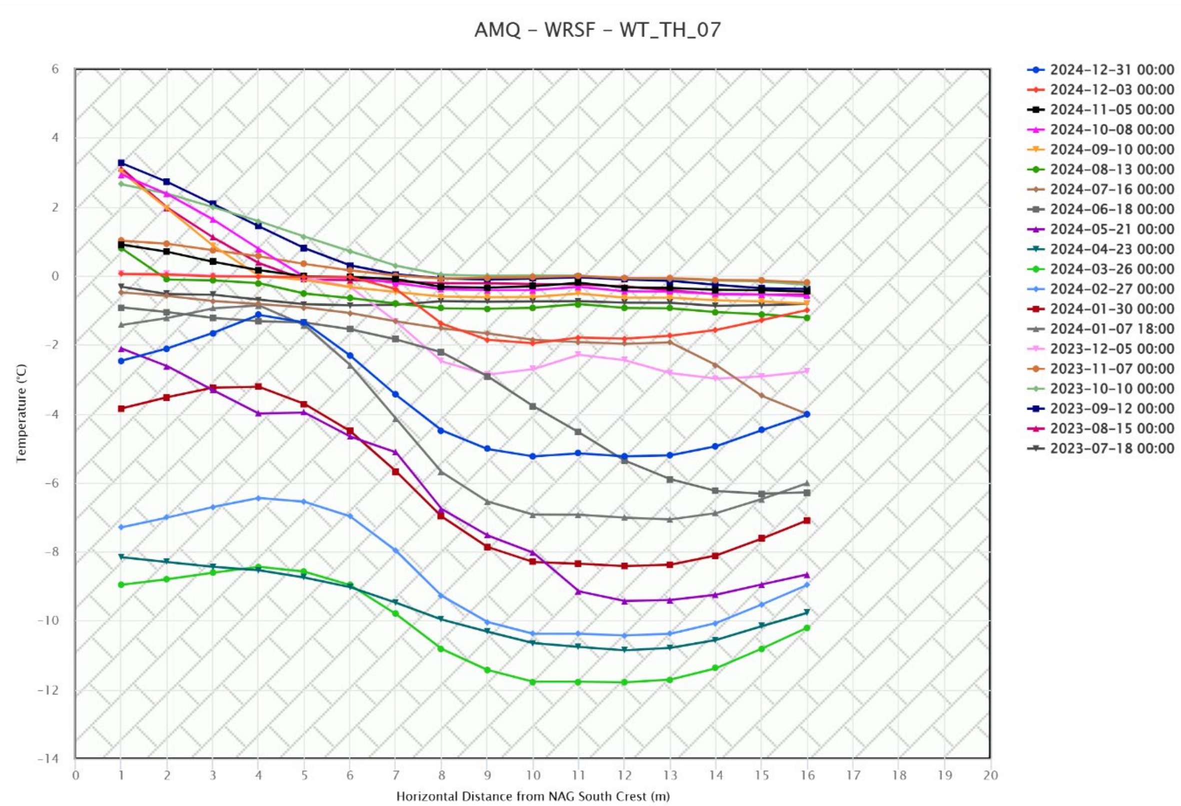
This instrument is installed horizontally and chart needs to be read accordingly

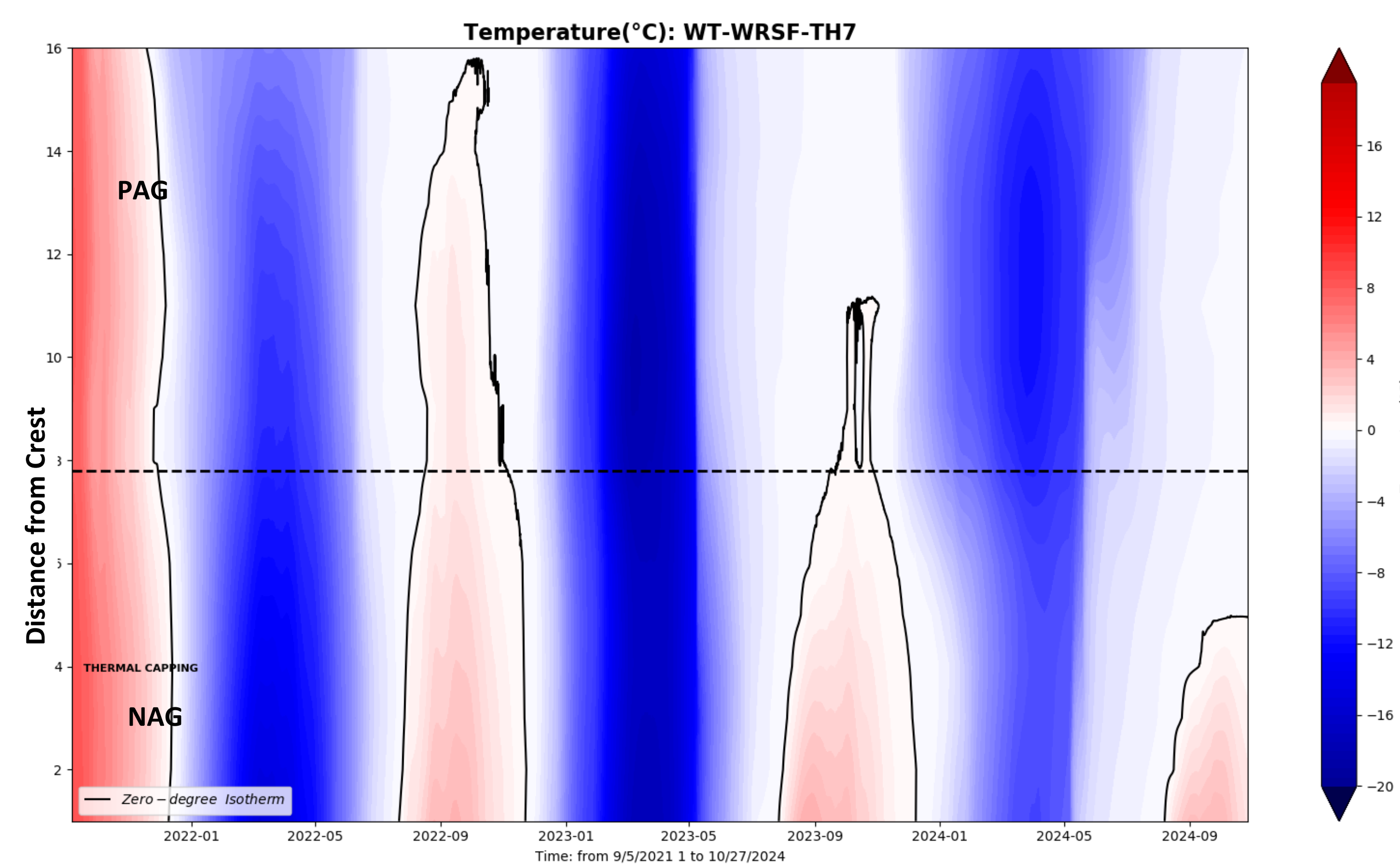


WT WRSF TH07



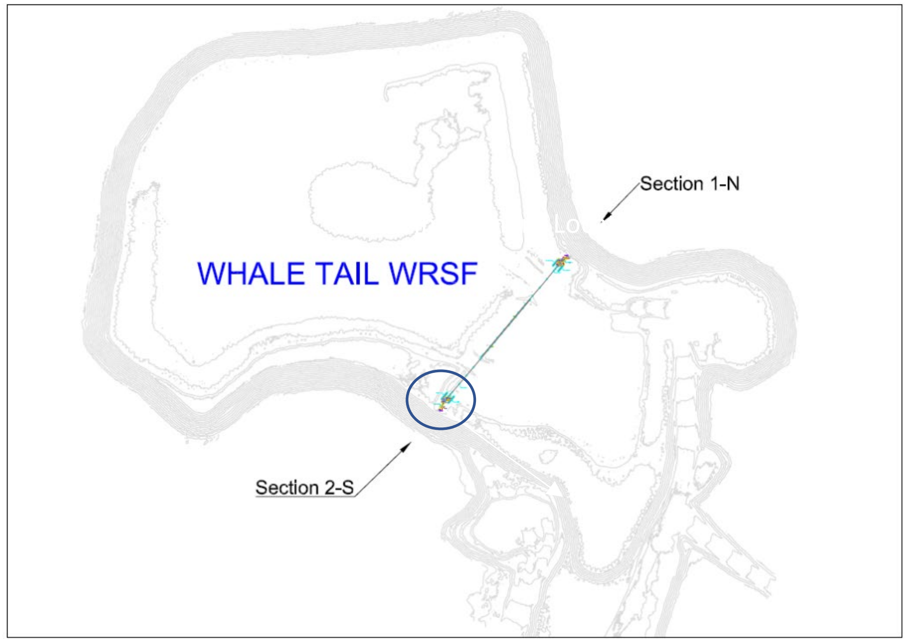


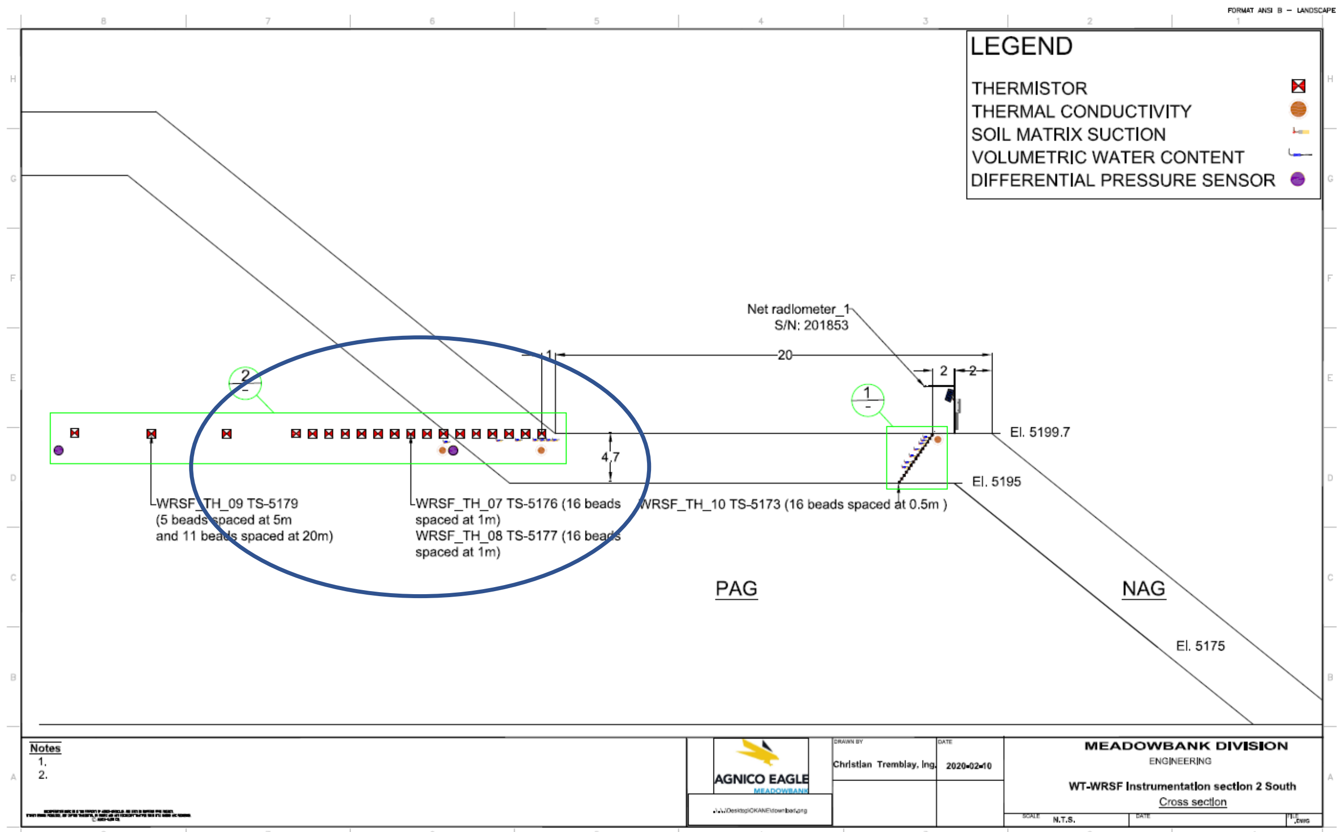


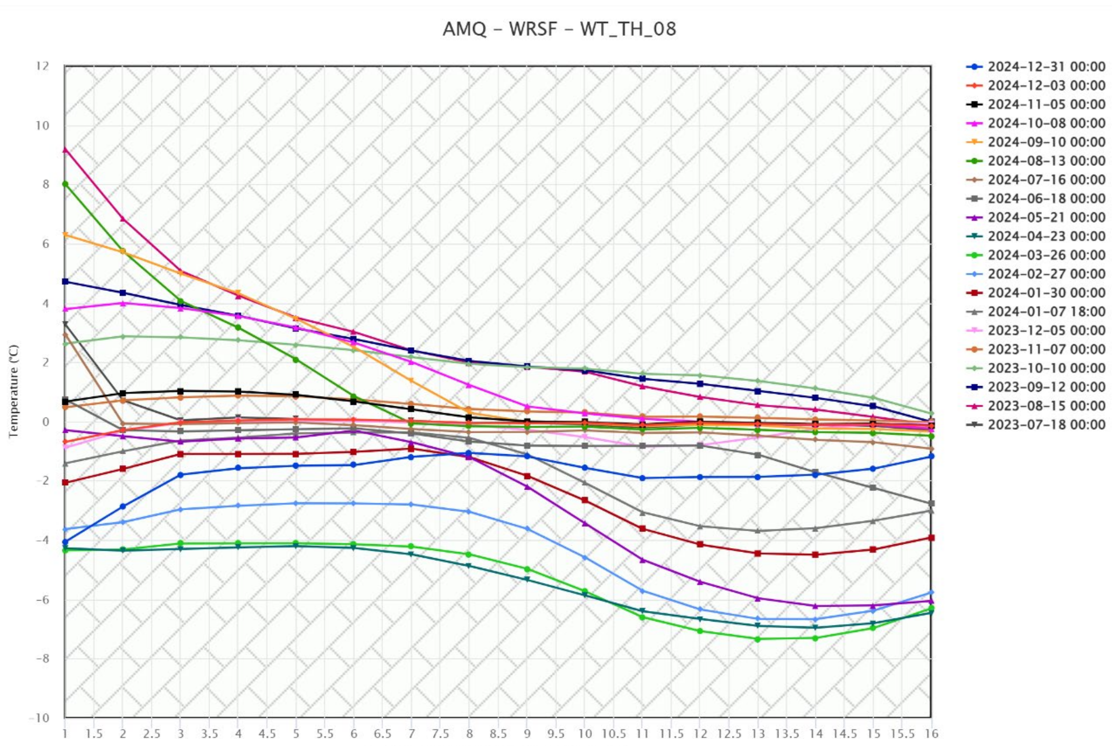


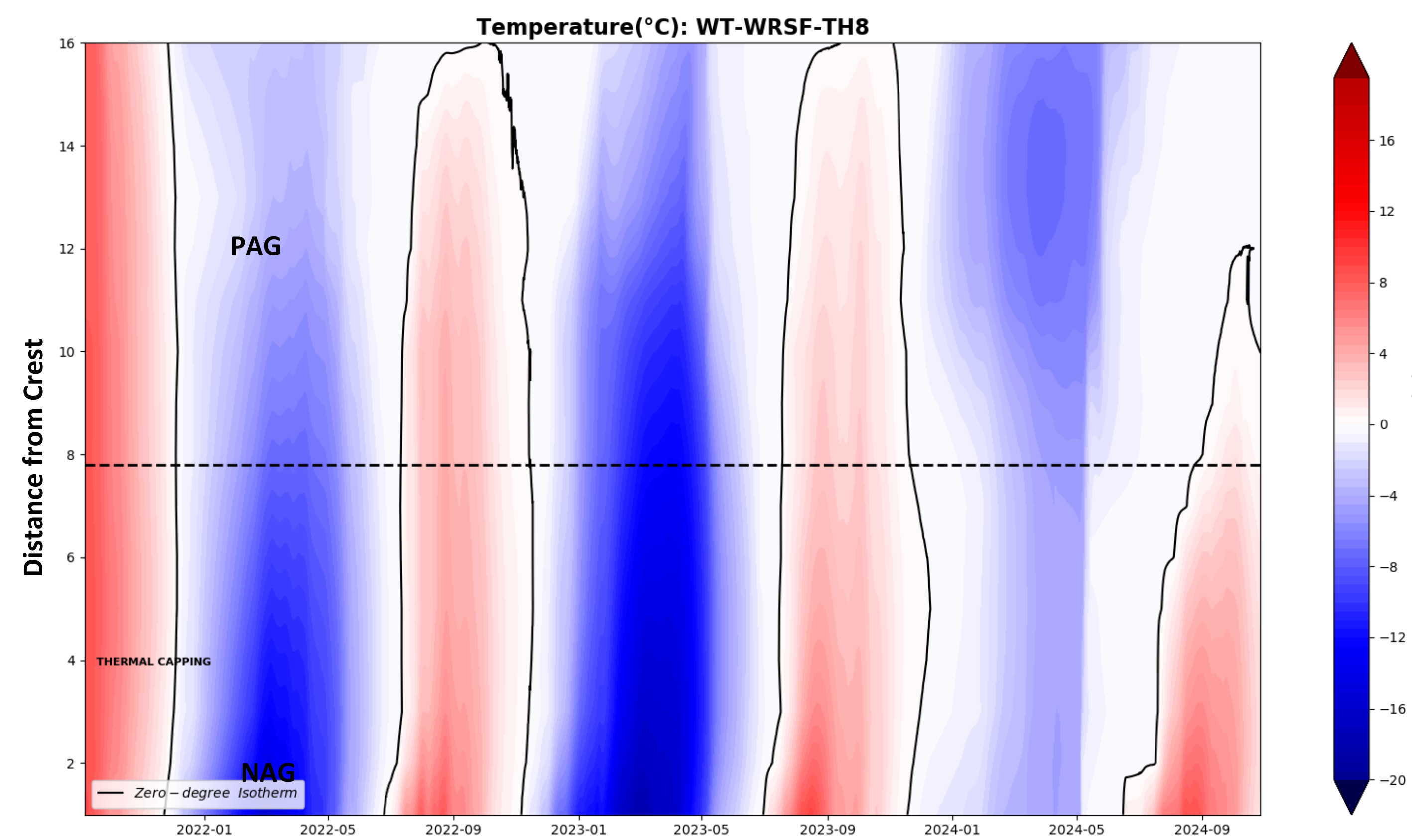
This instrument is installed horizontally and chart needs to be read accordingly

WT WRSF TH08



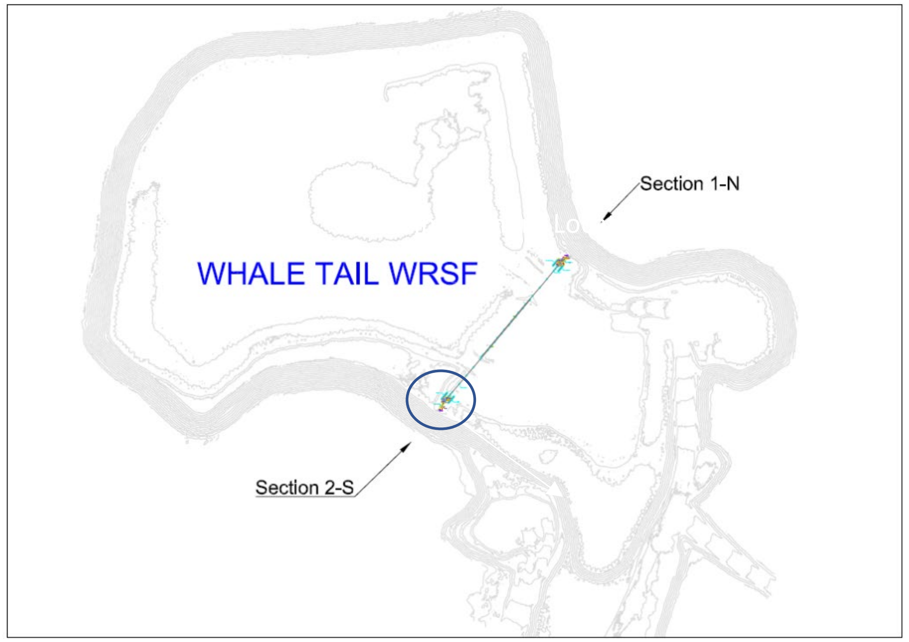


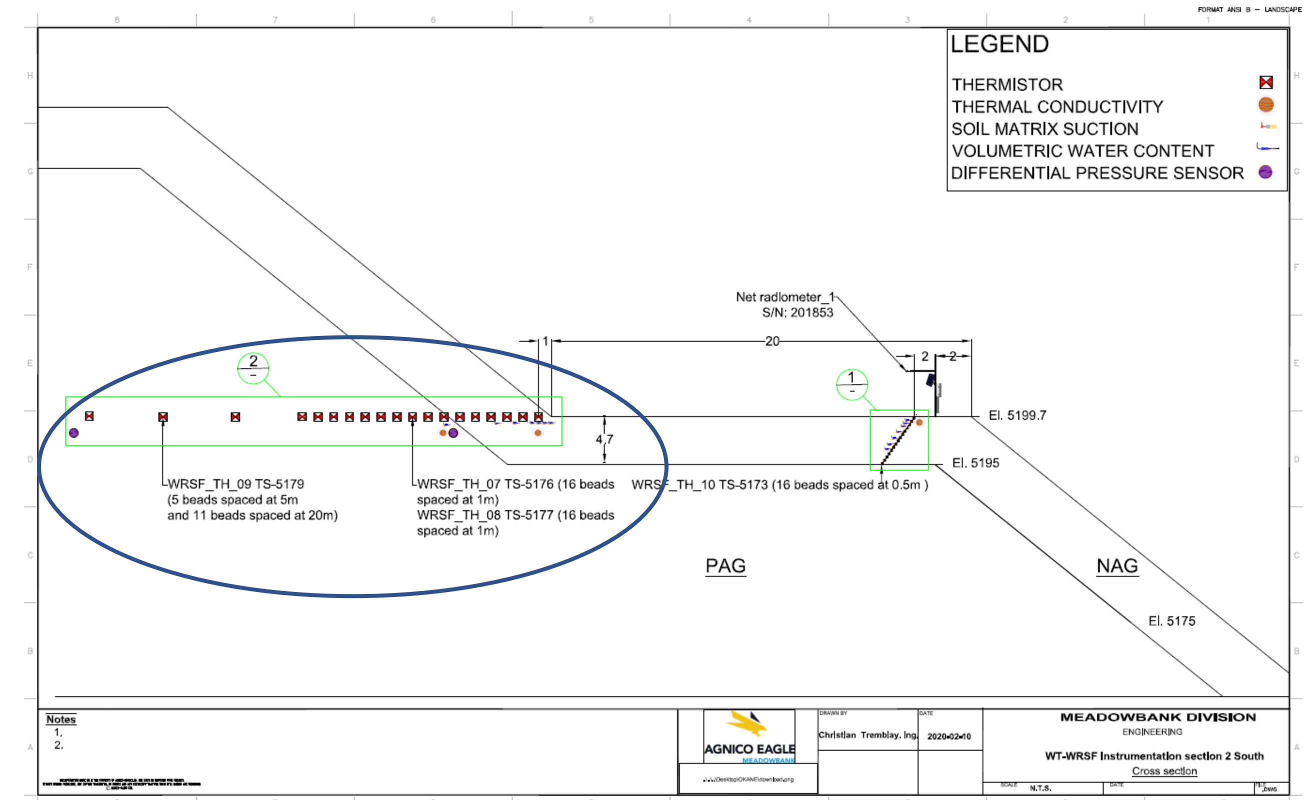


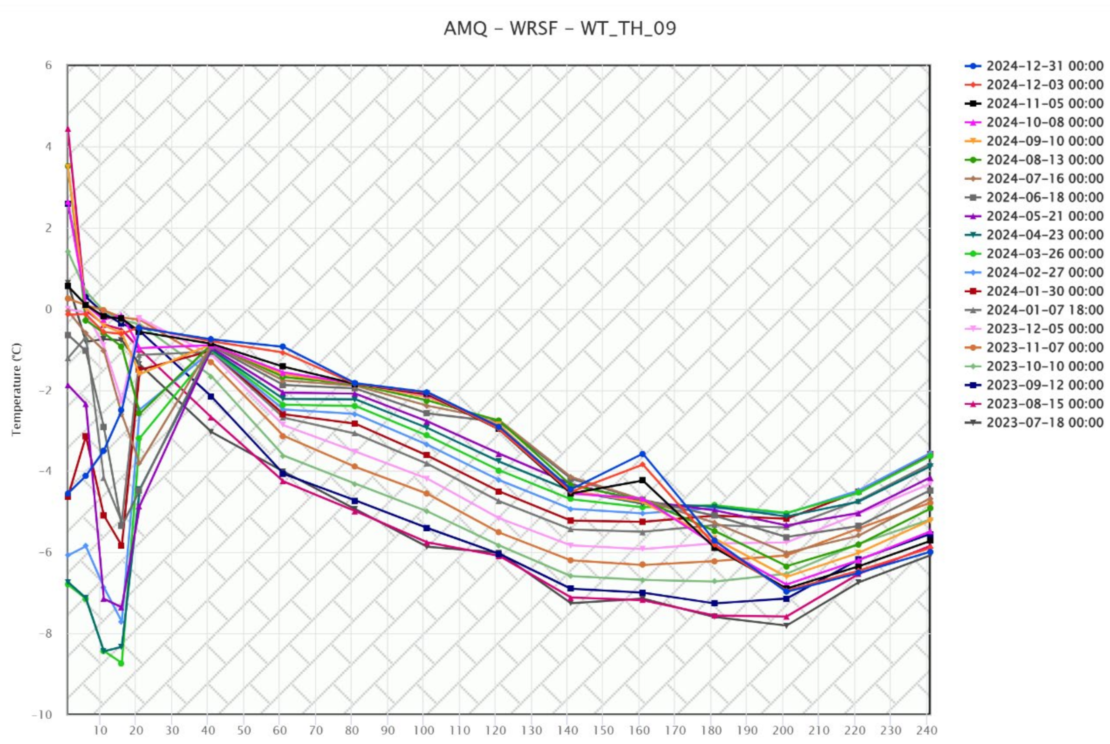


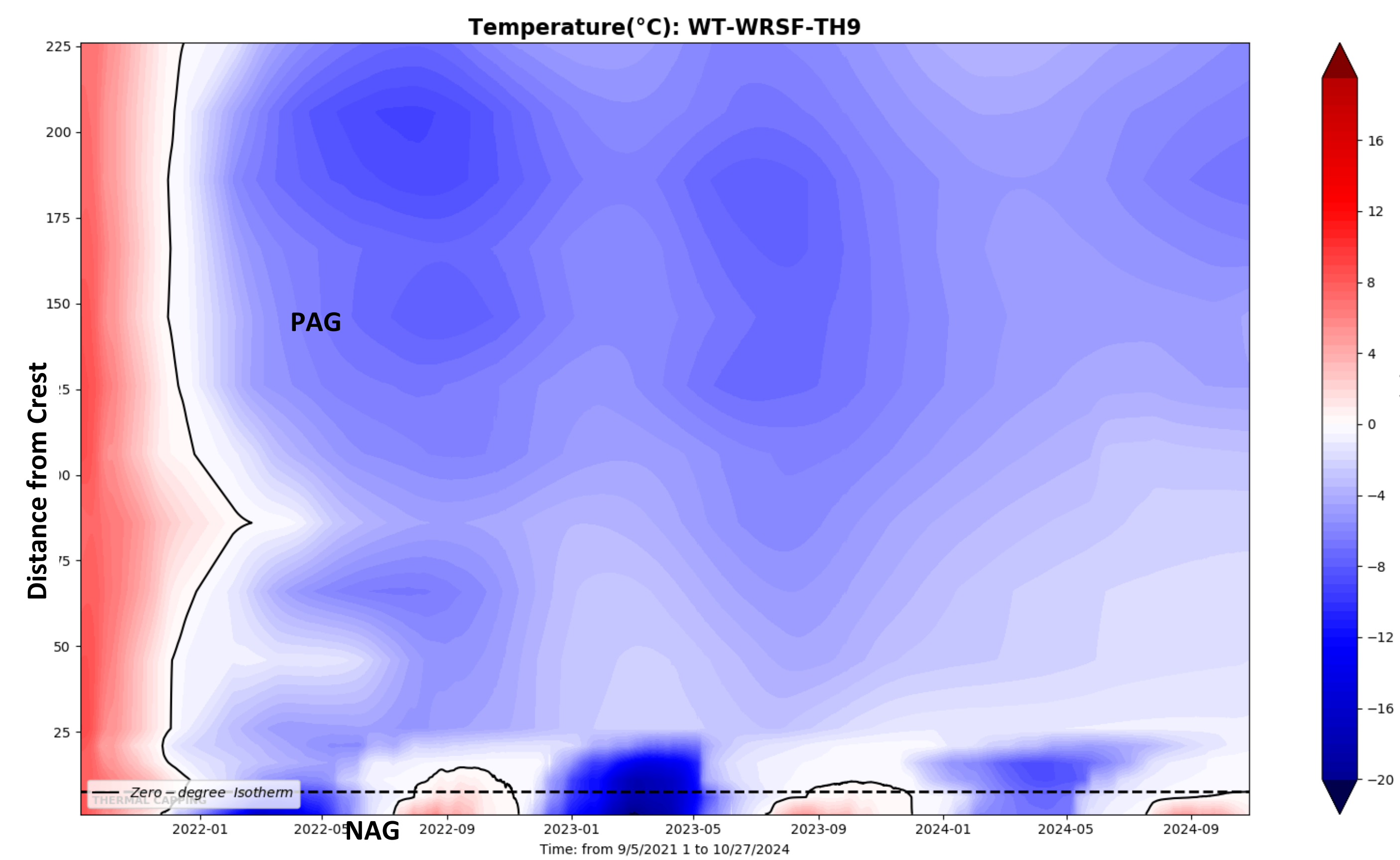
This instrument is installed horizontally and chart needs to be read accordingly

WT WRSF TH09



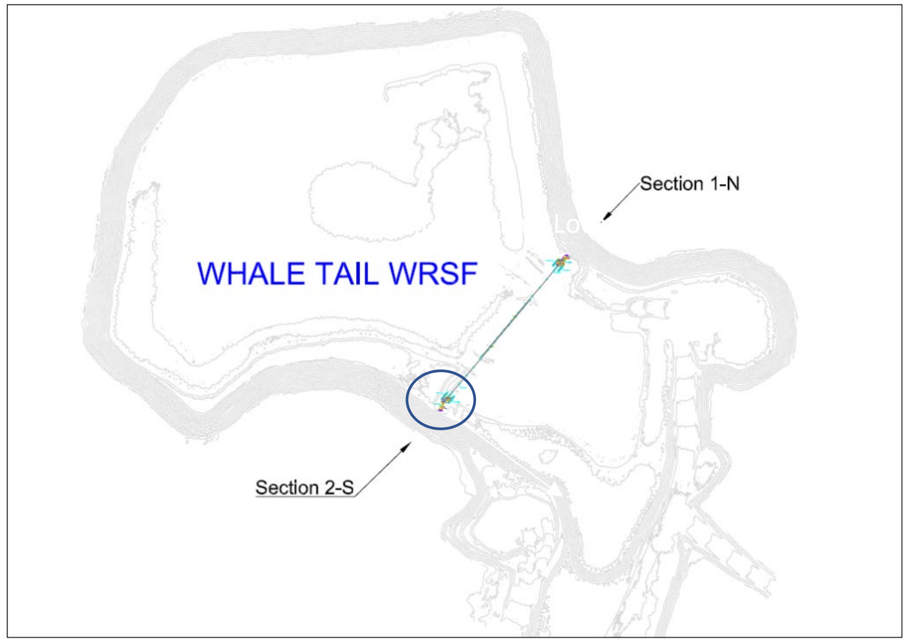


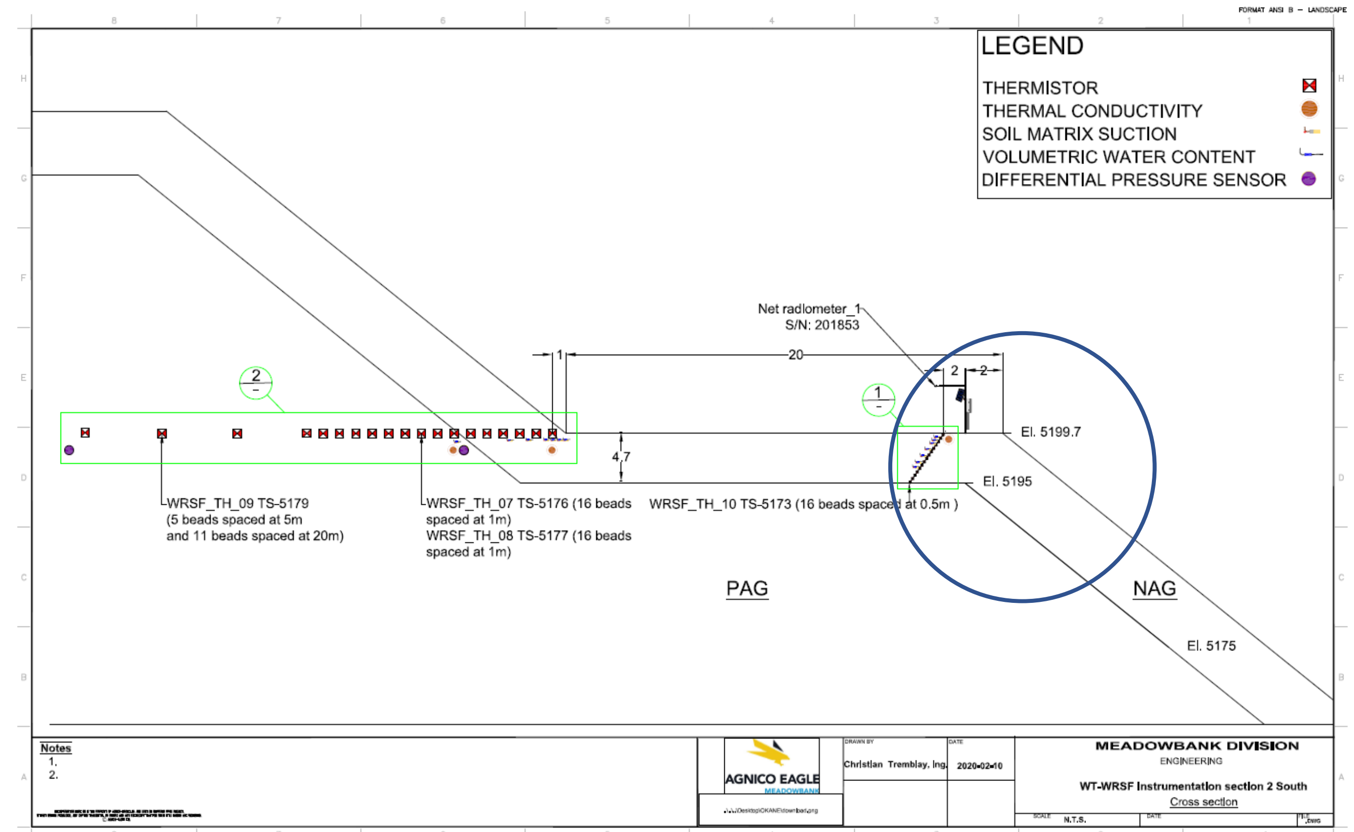


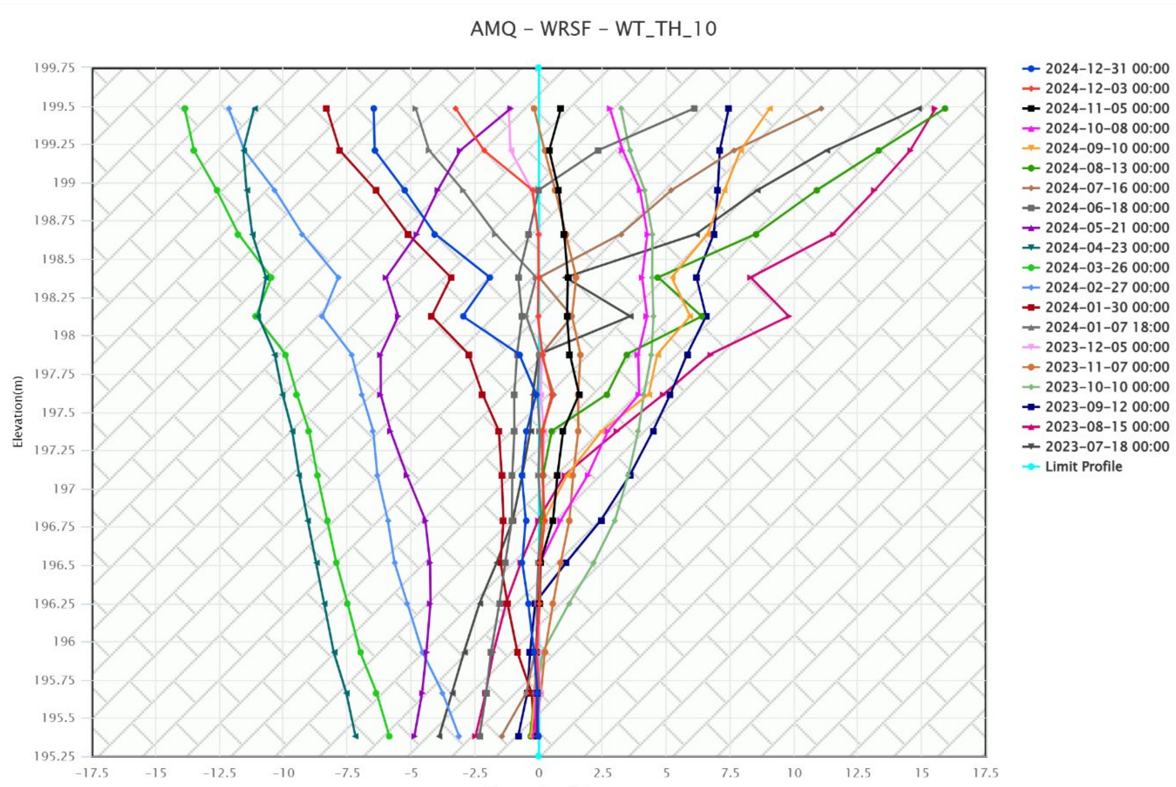


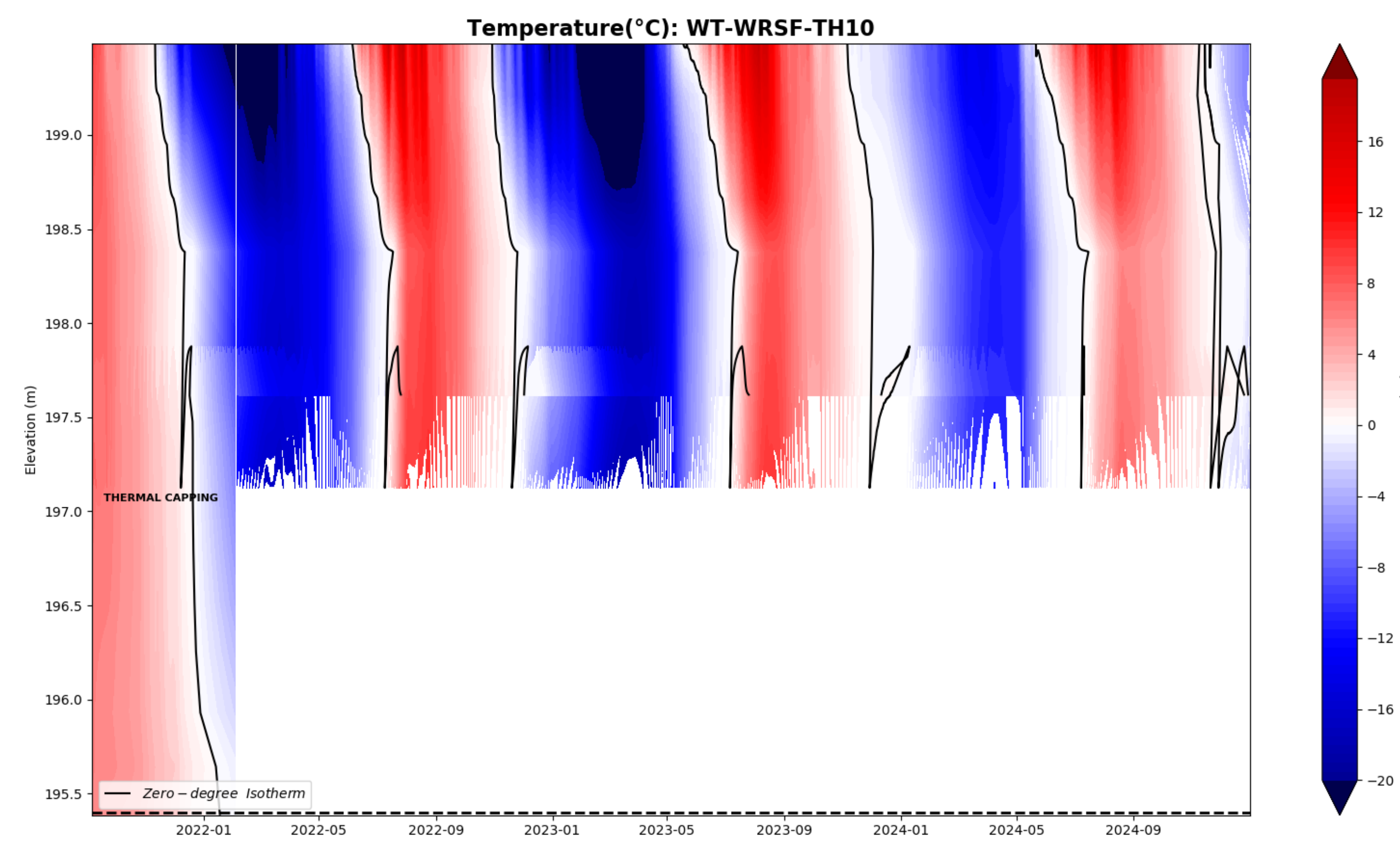
This instrument is installed horizontally and chart needs to be read accordingly

WT WRSF TH10

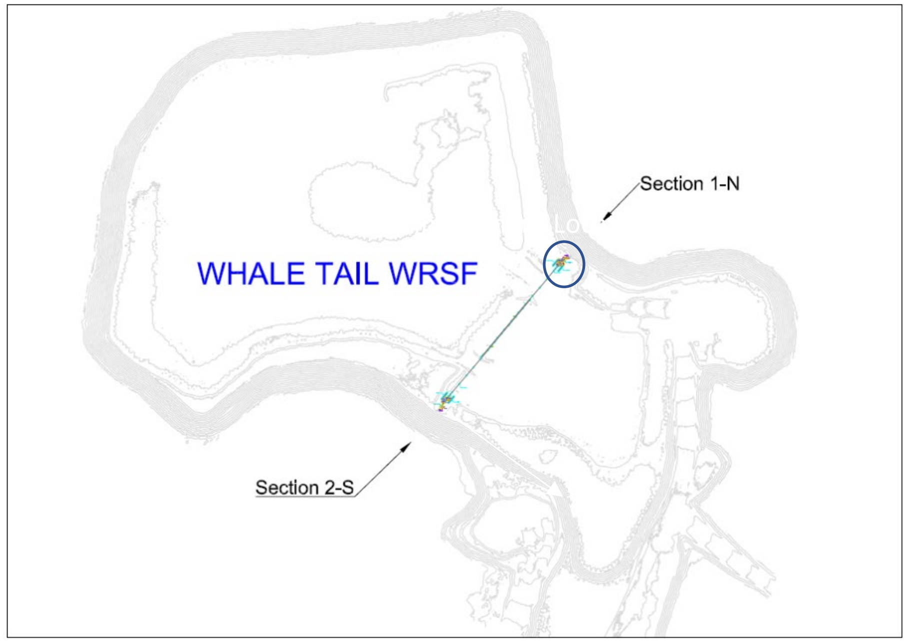

WHALE TAIL WRSF
Section 1-N
Section 2-S

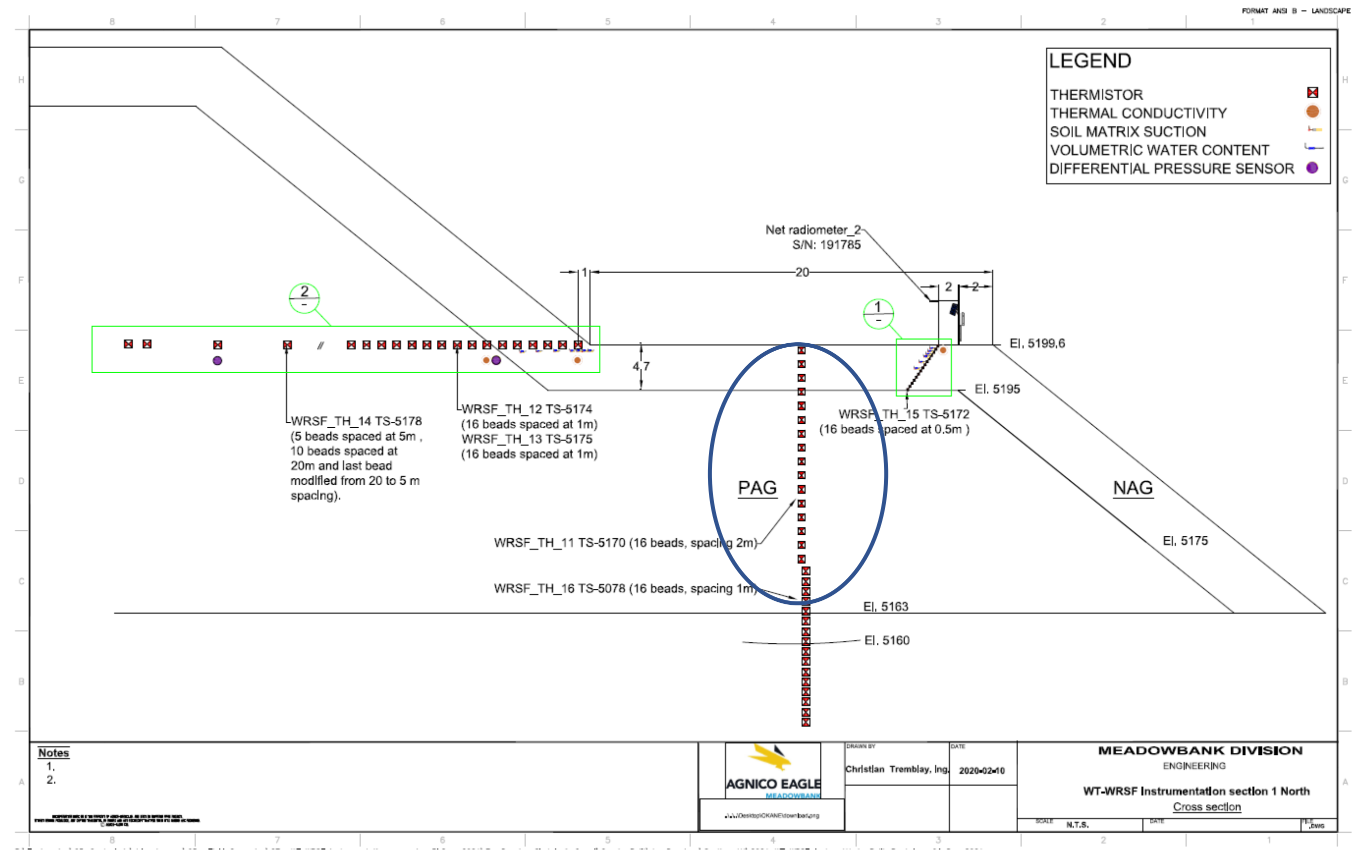

LEGEND
THERMISTOR
THERMAL CONDUCTIVITY
SOIL MATRIX SUCTION
VOLUMETRIC WATER CONTENT
DIFFERENTIAL PRESSURE SENSOR
Net radiometer_1
S/N: 201853
El. 5199.7
El. 5195
El. 5175
4.7
20
WRSF_TH_09 TS-5179
(5 beads spaced at 5m
and 11 beads spaced at 20m)
WRSF_TH_07 TS-5176 (16 beads
spaced at 1m)
WRSF_TH_08 TS-5177 (16 beads
spaced at 1m)
WRSF_TH_10 TS-5173 (16 beads spaced at 0.5m)
PAG
NAG
AGNICO EAGLE
MEADOWBANK DIVISION
ENGINEERING
WT-WRSF Instrumentation section 2 South
Cross section
Notes

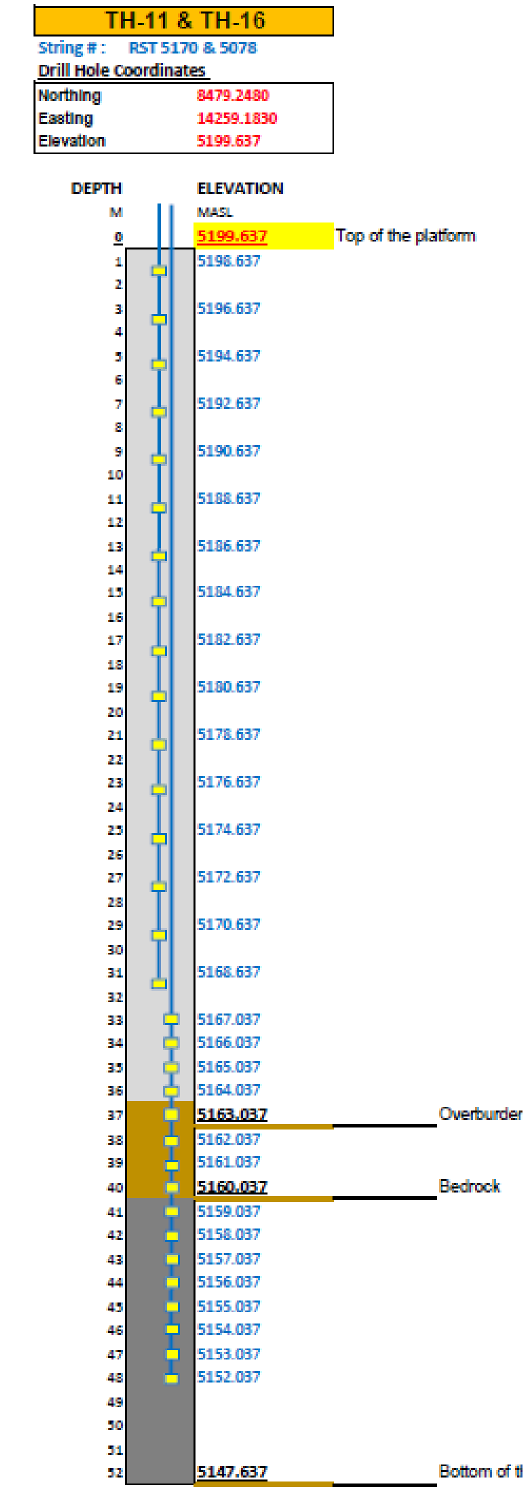

AMQ – WRSF – WT_TH_10
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-07 18:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

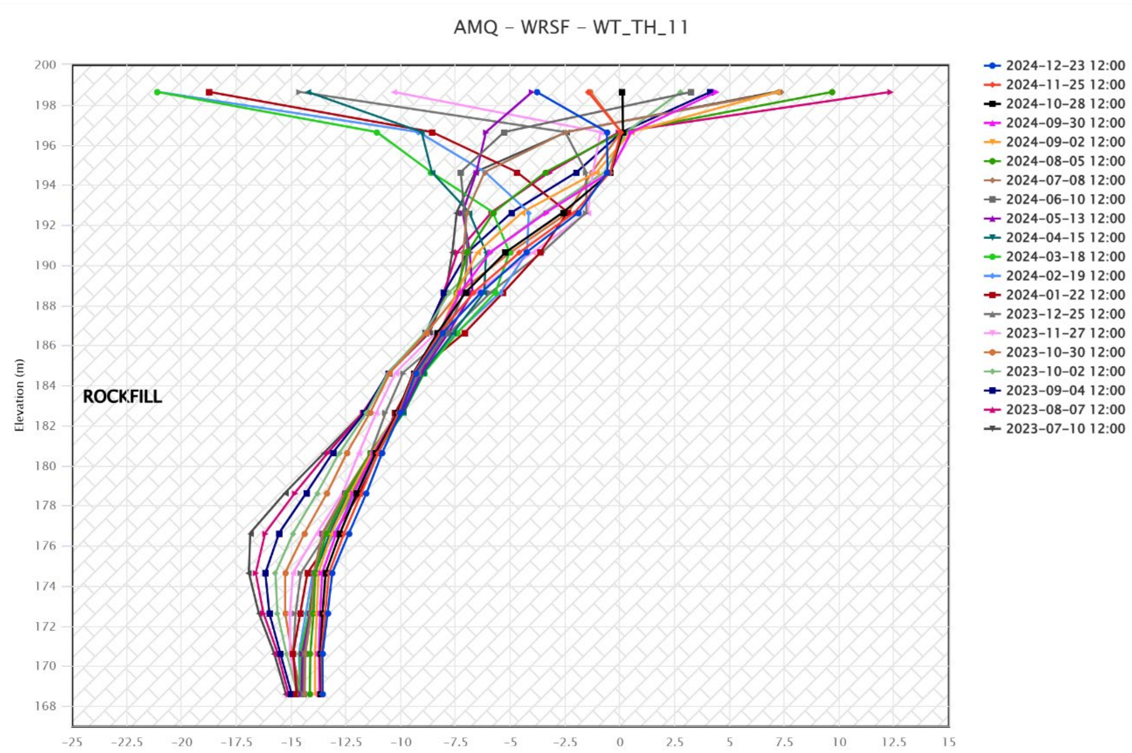

Temperature(°C): WT-WRSF-TH10
Elevation (m)
THERMAL CAPPING
Zero – degree Isotherm
Time: from 9/5/2021 1 to 11/23/2024
Temperature(°C)

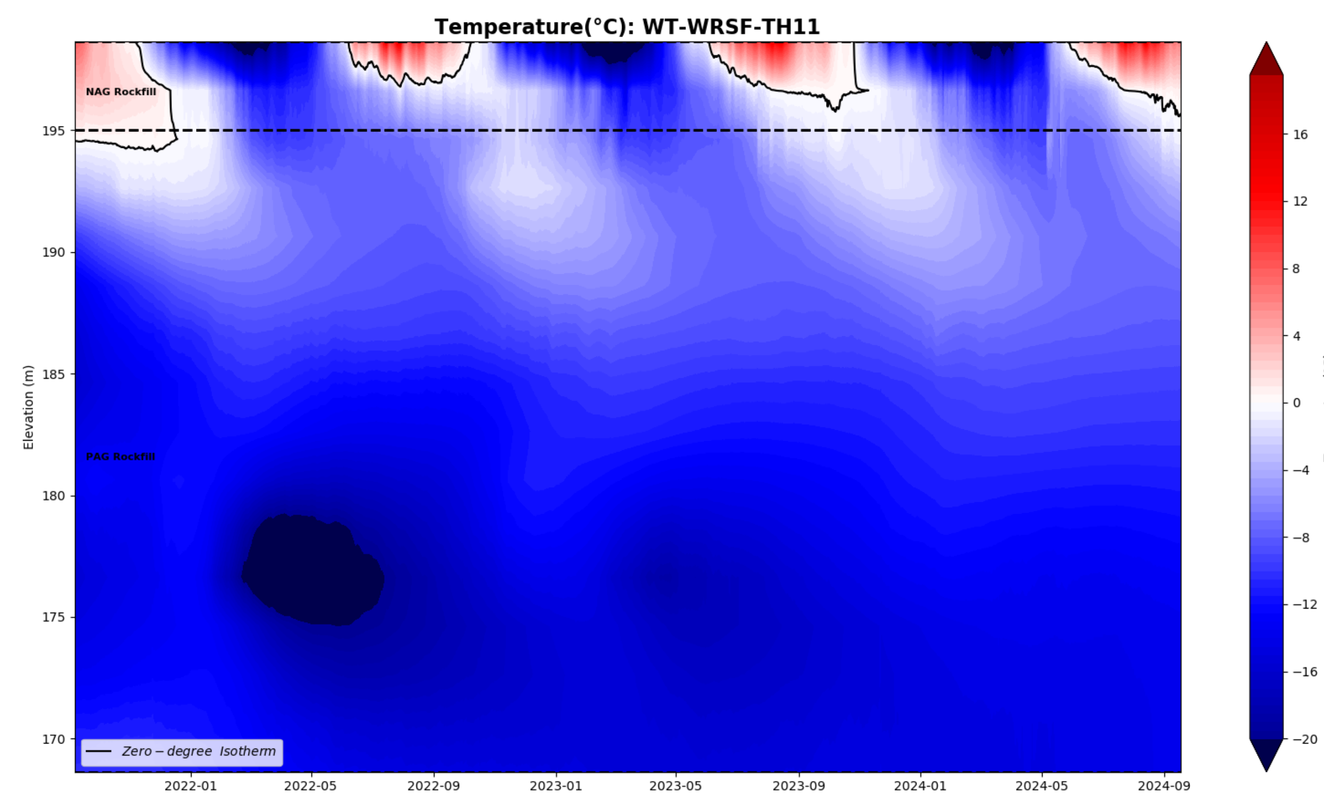
WT WRSF TH11


Section 1-N
WHALE TAIL WRSF
Section 2-S

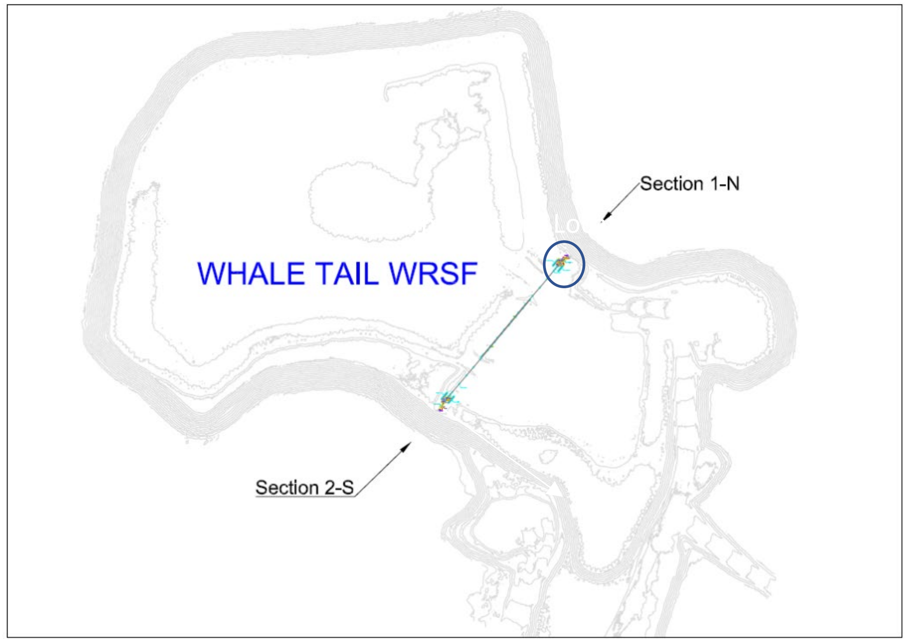

LEGEND
THERMISTOR
THERMAL CONDUCTIVITY
SOIL MATRIX SUCTION
VOLUMETRIC WATER CONTENT
DIFFERENTIAL PRESSURE SENSOR
Net radiometer_2
S/N: 191785
El. 5199,6
El. 5195
WRSF_TH_14 TS-5178
(5 beads spaced at 5m , 10 beads spaced at 20m and last bead modified from 20 to 5 m spacing).
WRSF_TH_12 TS-5174
(16 beads spaced at 1m)
WRSF_TH_13 TS-5175
(16 beads spaced at 1m)
WRSF_TH_15 TS-5172
(16 beads spaced at 0.5m)
PAG
NAG
El. 5175
WRSF_TH_11 TS-5170 (16 beads, spacing 2m)
WRSF_TH_16 TS-5078 (16 beads, spacing 1m)
El. 5163
El. 5160
Notes
AGNICO EAGLE
MEADOWBANK DIVISION
ENGINEERING
WT-WRSF Instrumentation section 1 North
Cross section
Christian Tremblay, Ing.
2020-02-10

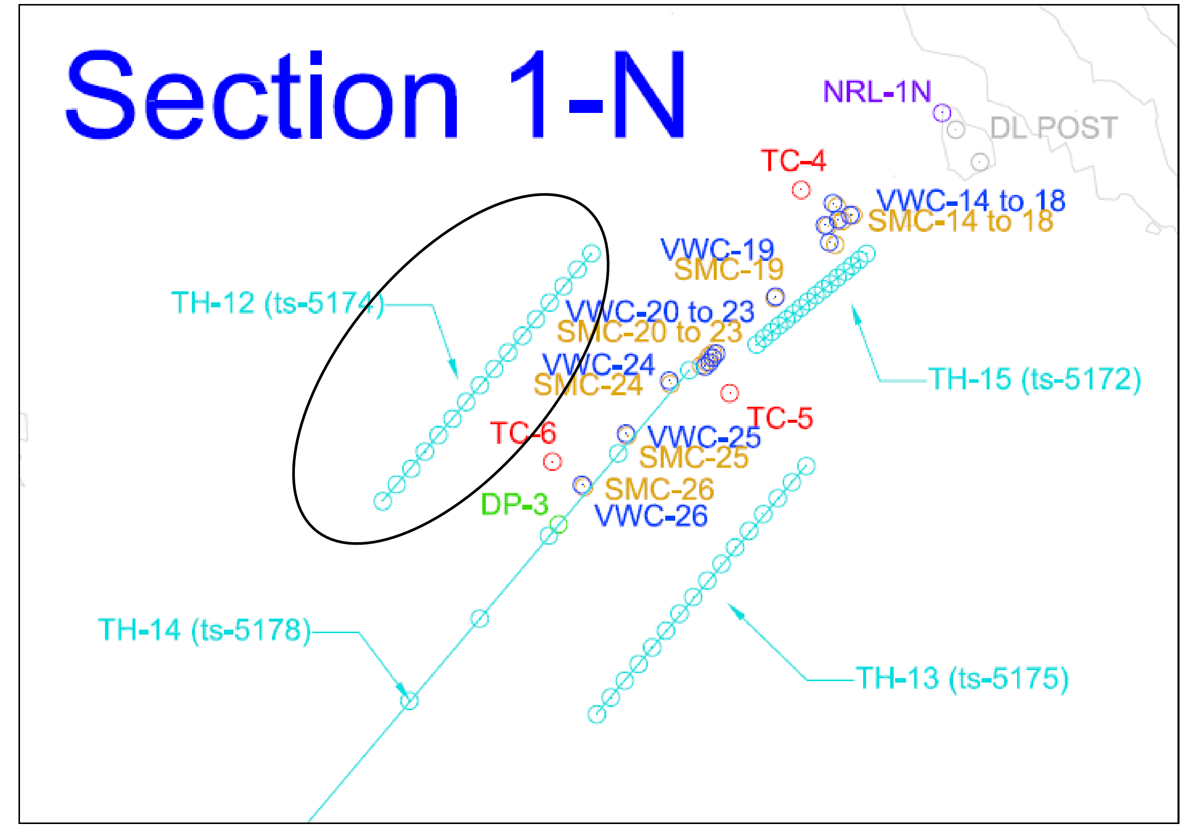

TH-11 & TH-16
String # : RST 5170 & 5078
Drill Hole Coordinates
Northing 8479.2480
Easting 14259.1830
Elevation 5199.637
DEPTH
M
ELEVATION
MASL
0 5199.637 Top of the platform
5163.037 Overburder
5160.037 Bedrock
52 5147.637 Bottom of tl

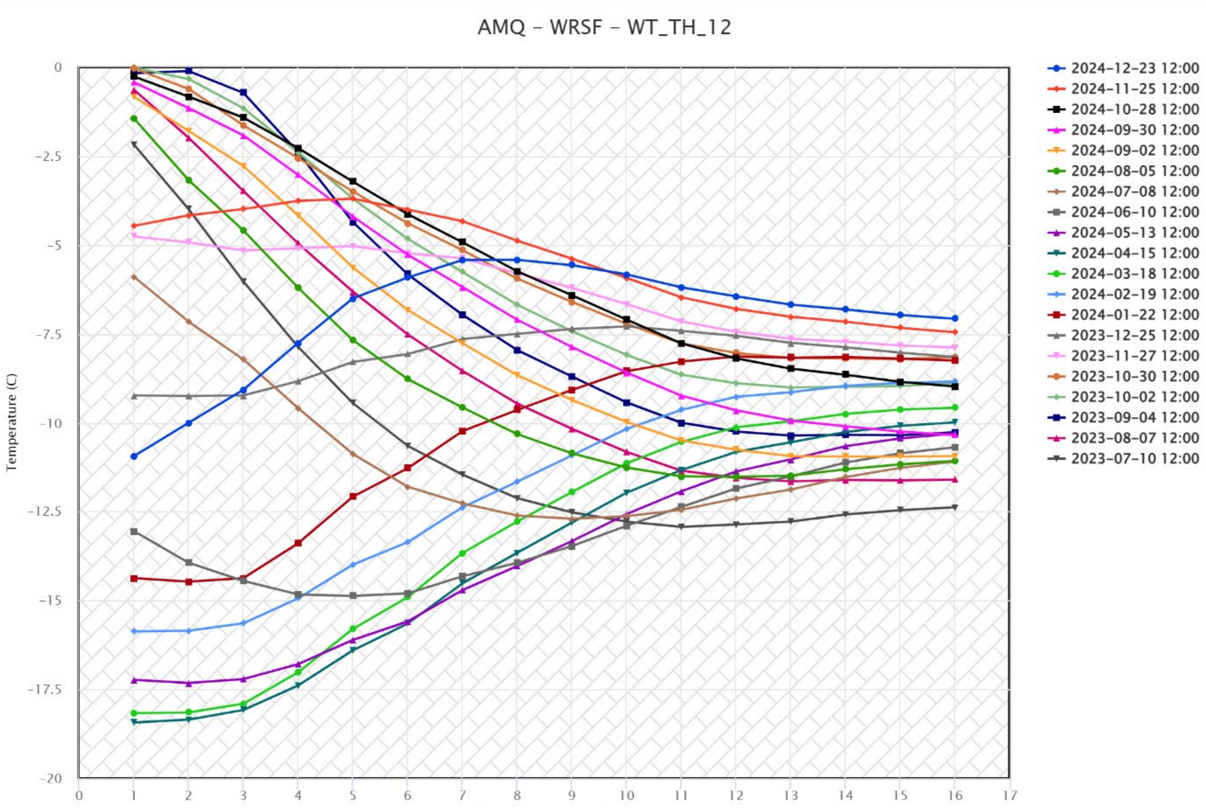

AMQ - WRSF - WT_TH_11
ROCKFILL
Elevation (m)
Temperature (C)
2024-12-23 12:00
2024-11-25 12:00
2024-10-28 12:00
2024-09-30 12:00
2024-09-02 12:00
2024-08-05 12:00
2024-07-08 12:00
2024-06-10 12:00
2024-05-13 12:00
2024-04-15 12:00
2024-03-18 12:00
2024-02-19 12:00
2024-01-22 12:00
2023-12-25 12:00
2023-11-27 12:00
2023-10-30 12:00
2023-10-02 12:00
2023-09-04 12:00
2023-08-07 12:00
2023-07-10 12:00


Temperature(°C): WT-WRSF-TH11
NAG Rockfill
PAG Rockfill
Elevation (m)
Zero – degree Isotherm
Temperature(°C)
Time: from 9/6/2021 1 to 9/17/2024

WT WRSF TH12

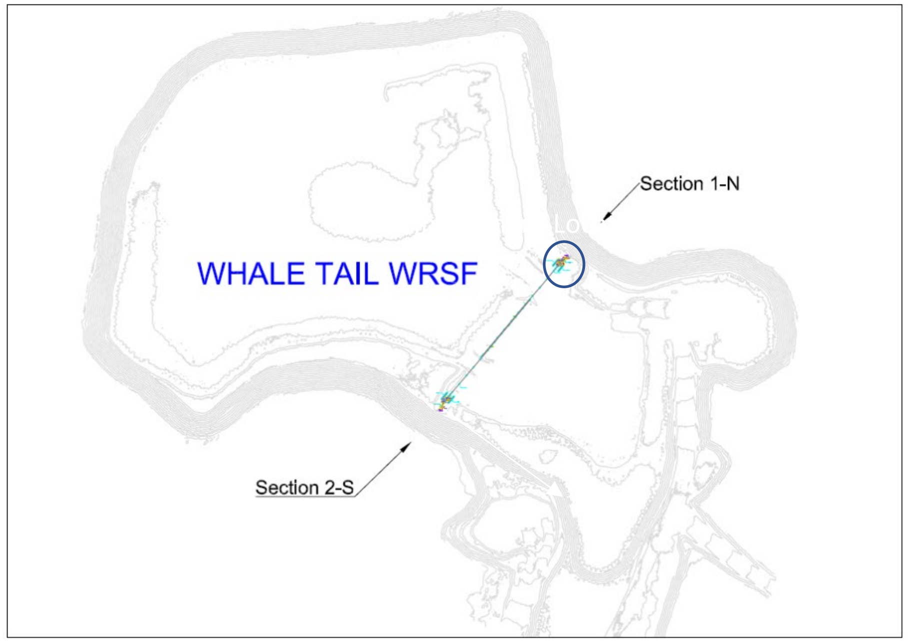


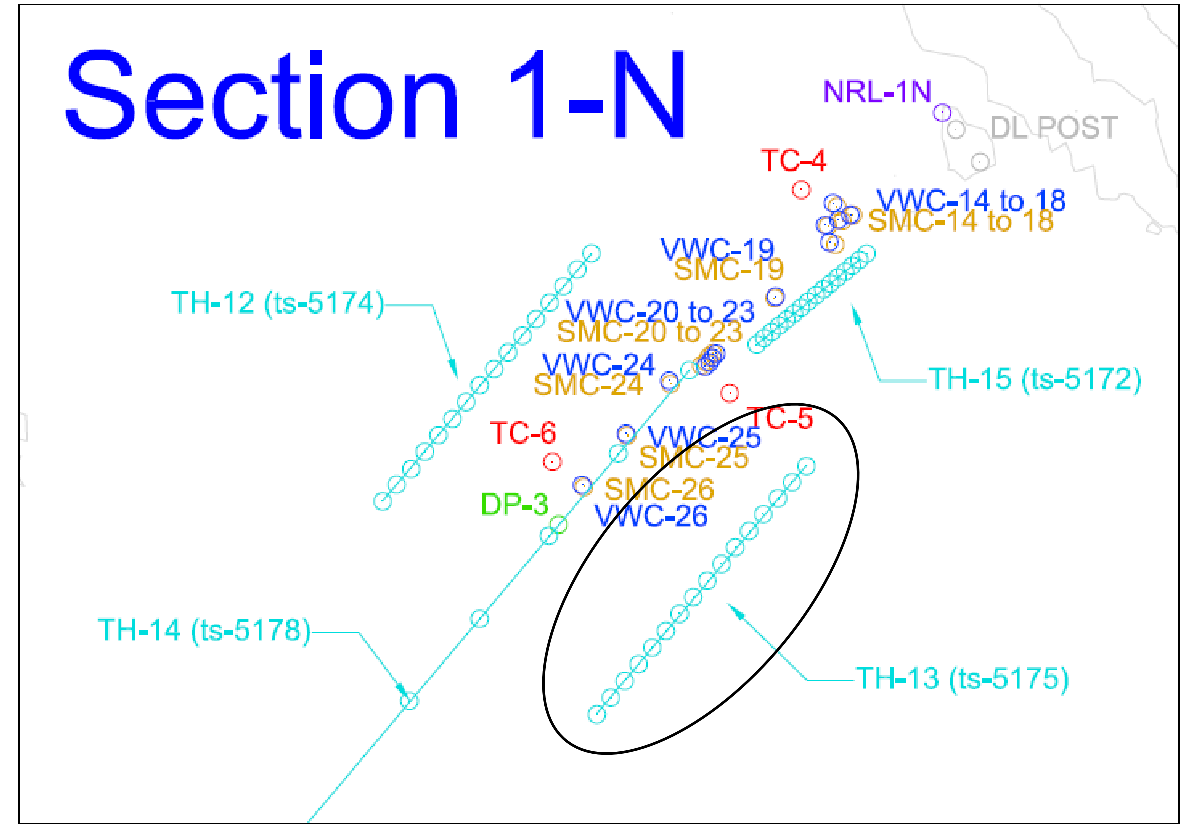


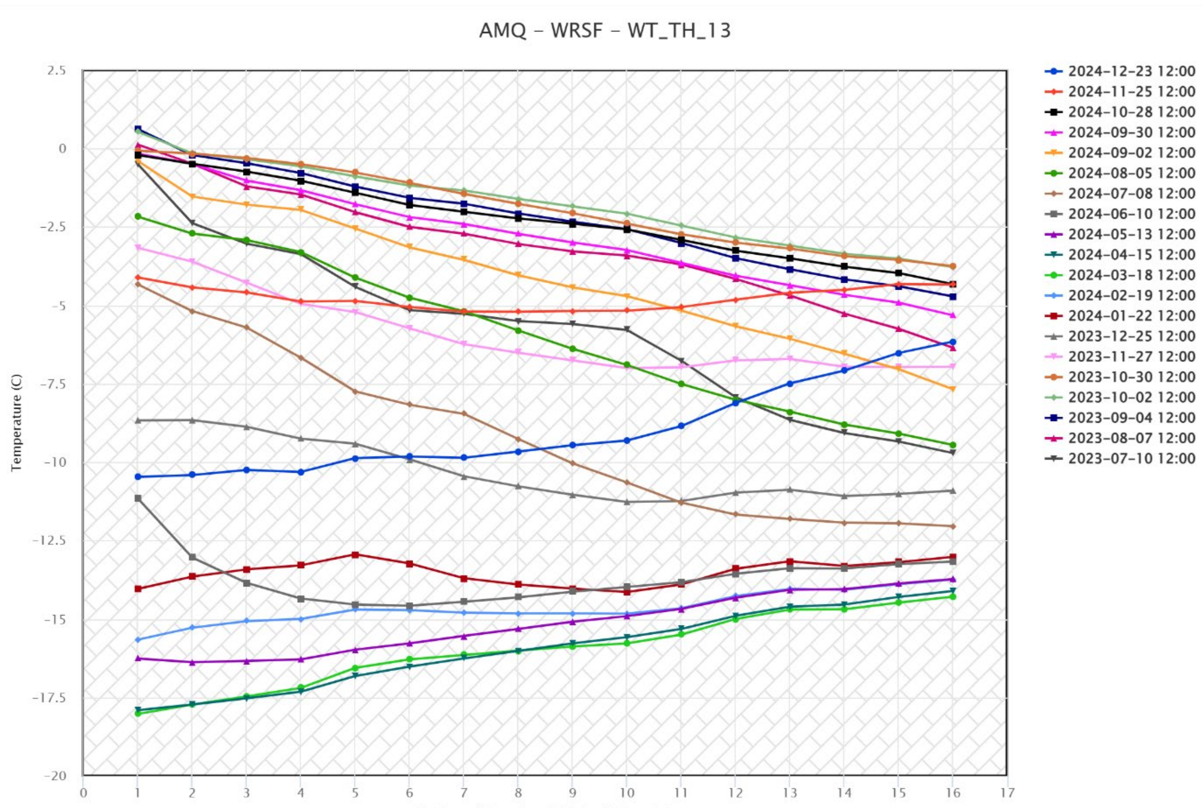


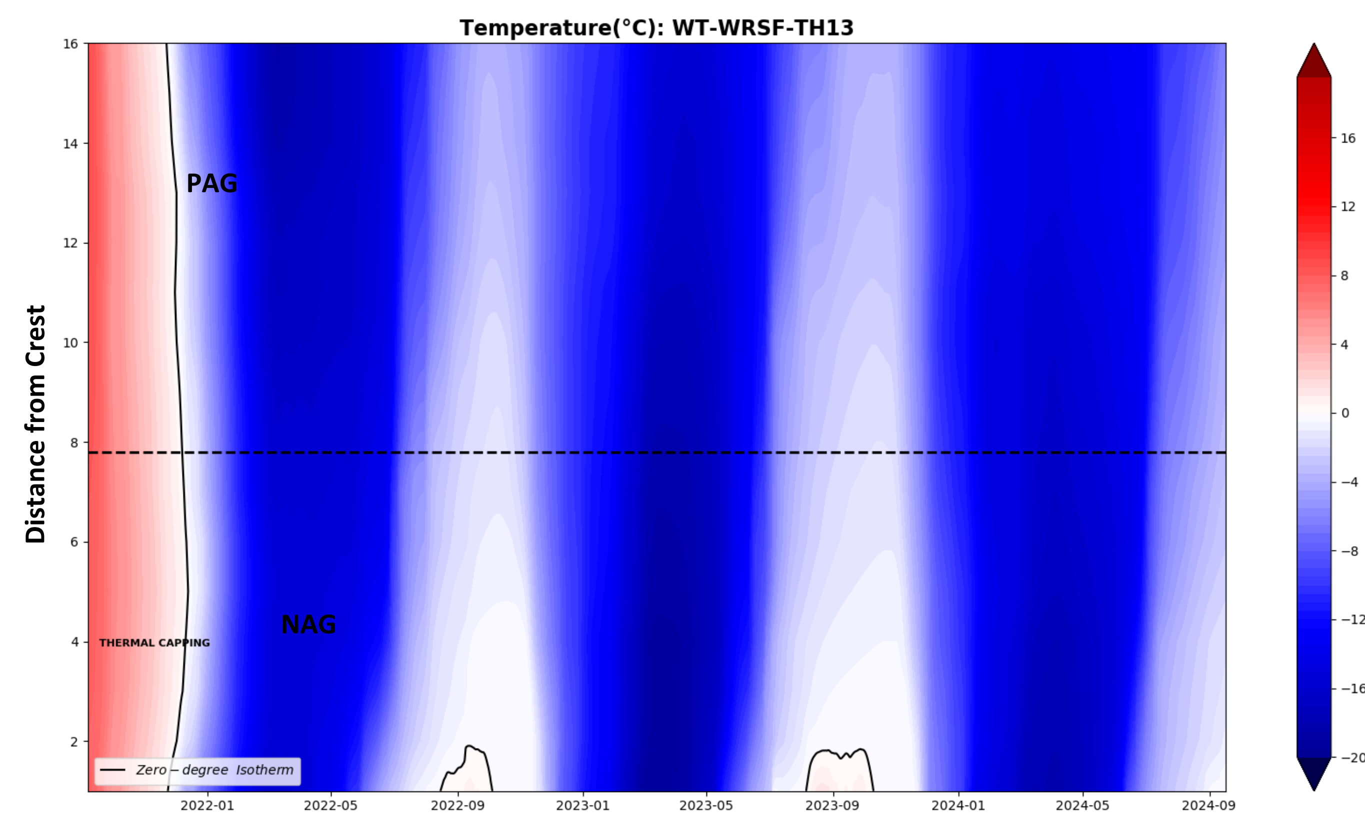
This instrument is installed horizontally and chart needs to be read accordingly

WT WRSF TH13



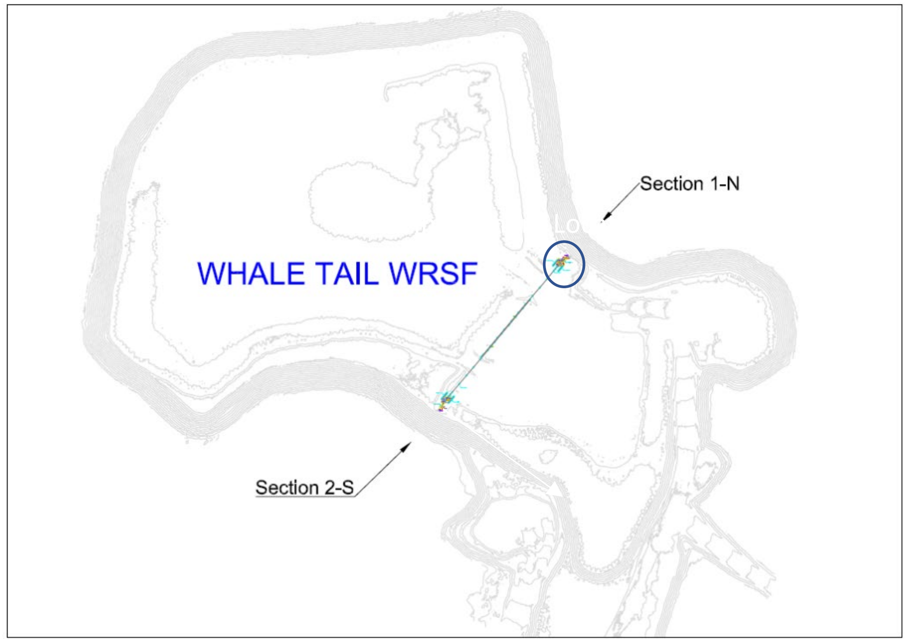


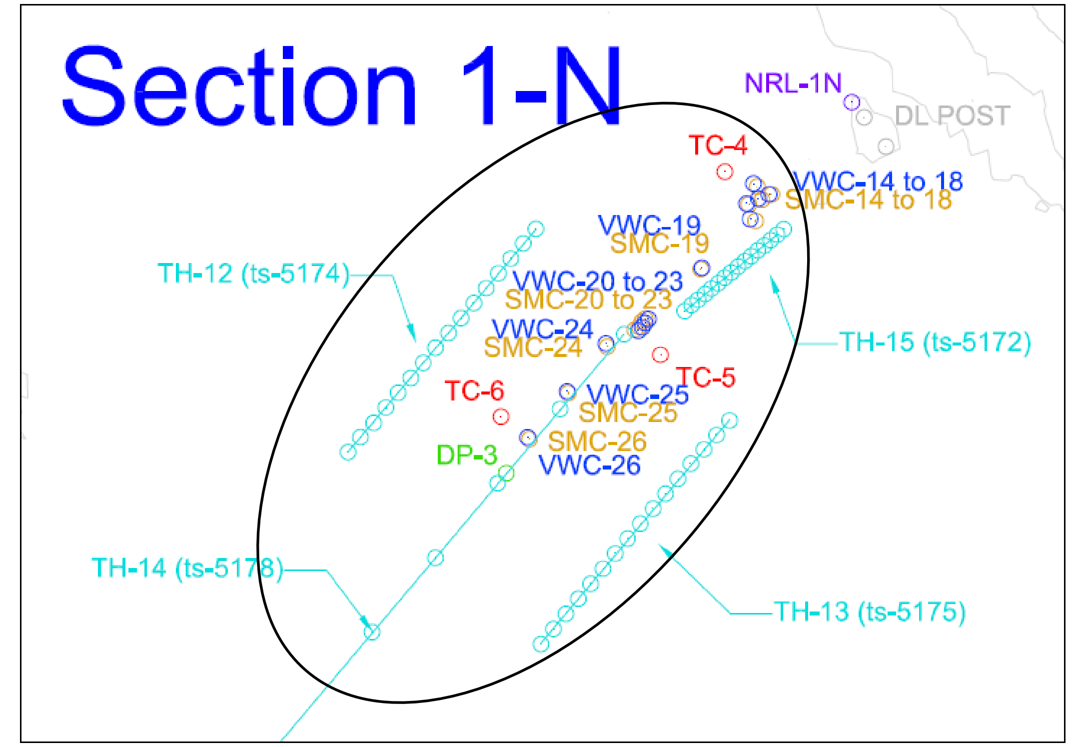


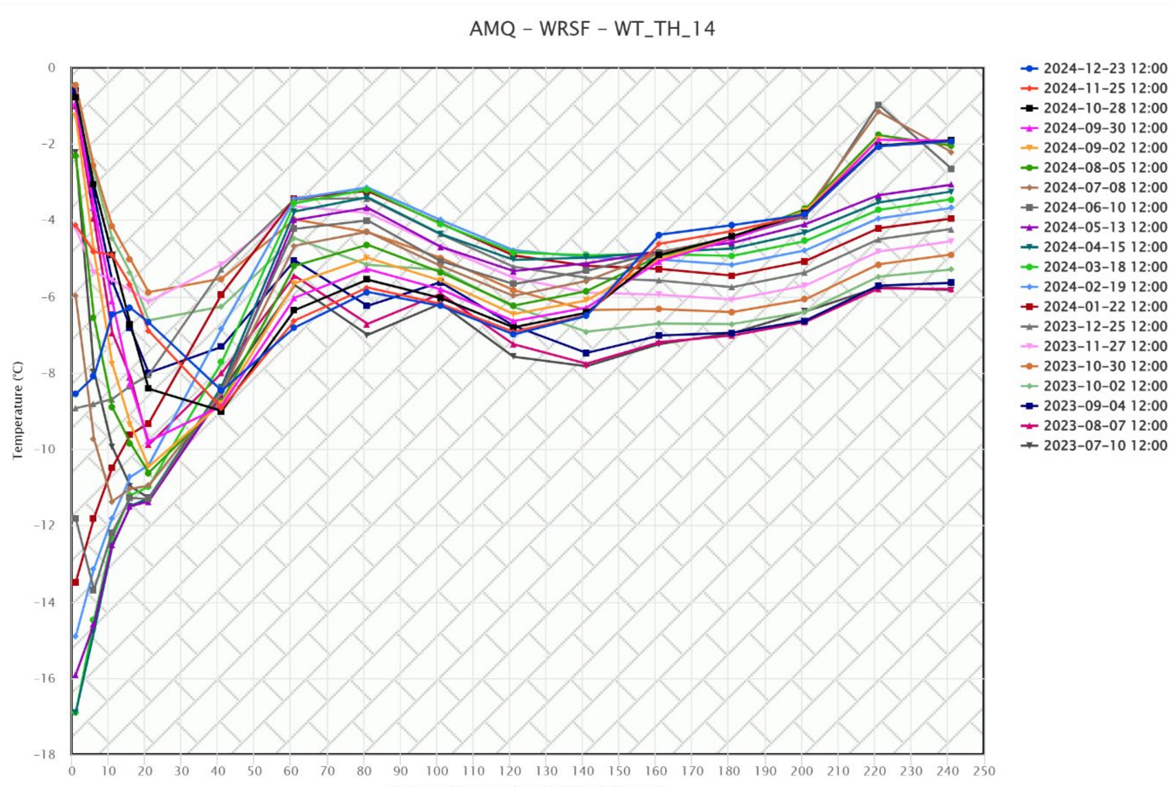


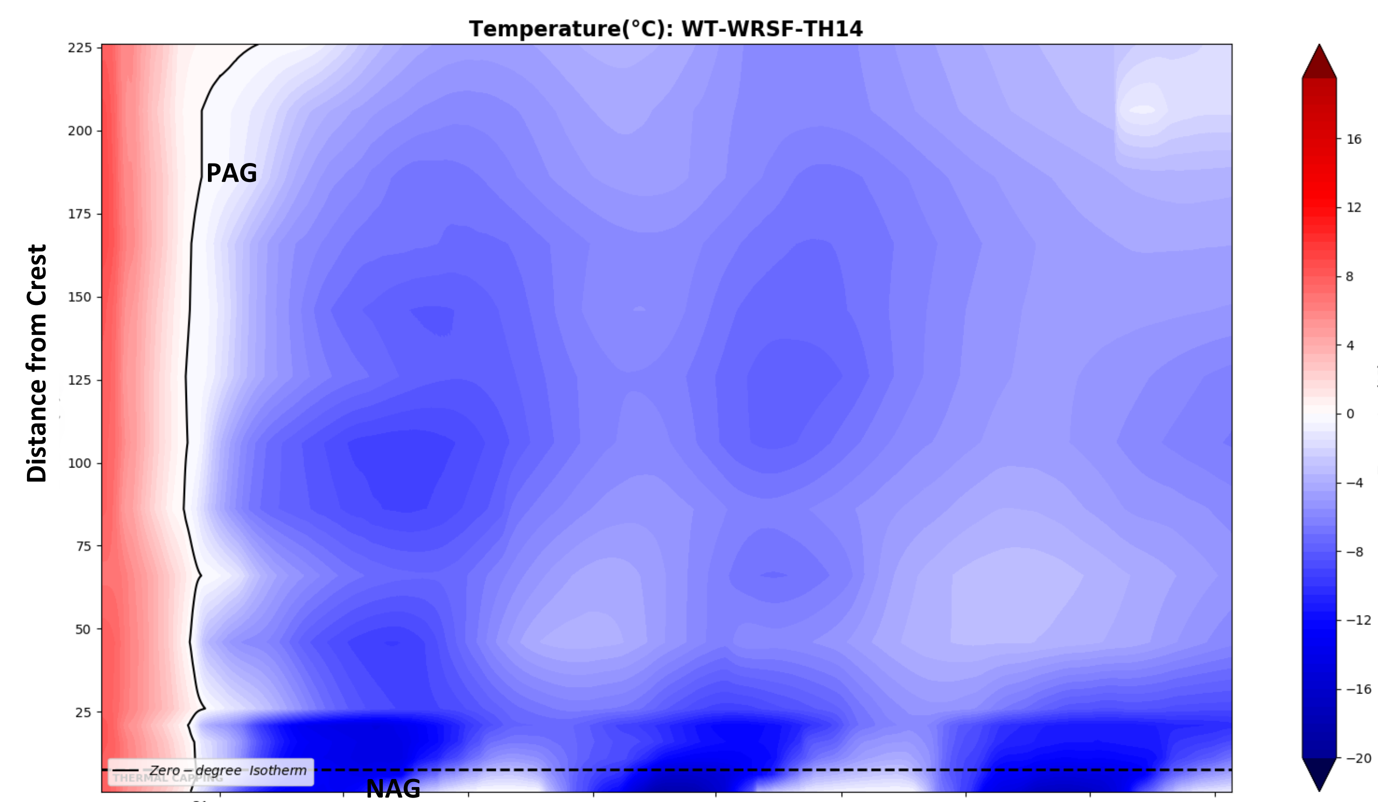
This instrument is installed horizontally and chart needs to be read accordingly

WT WRSF TH14



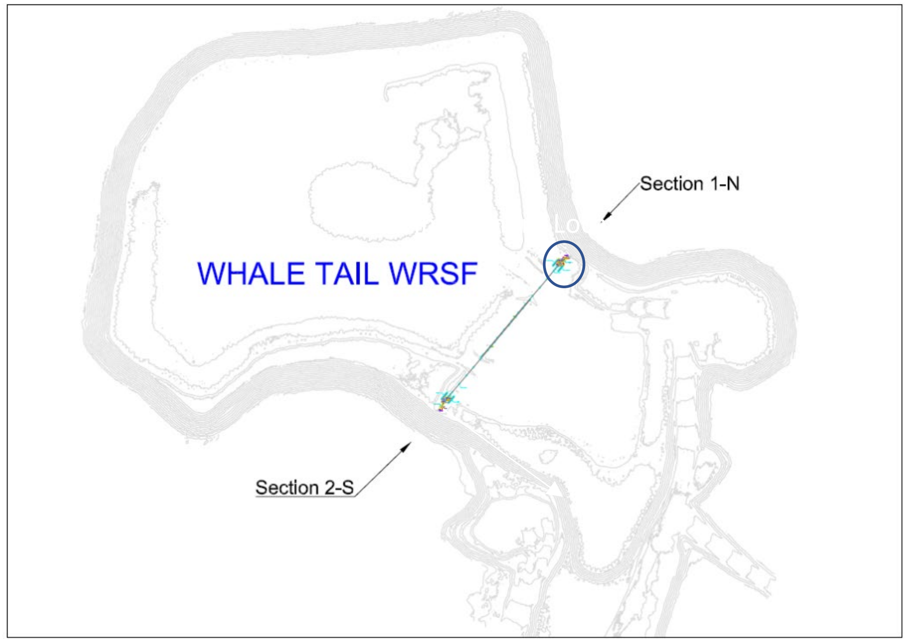


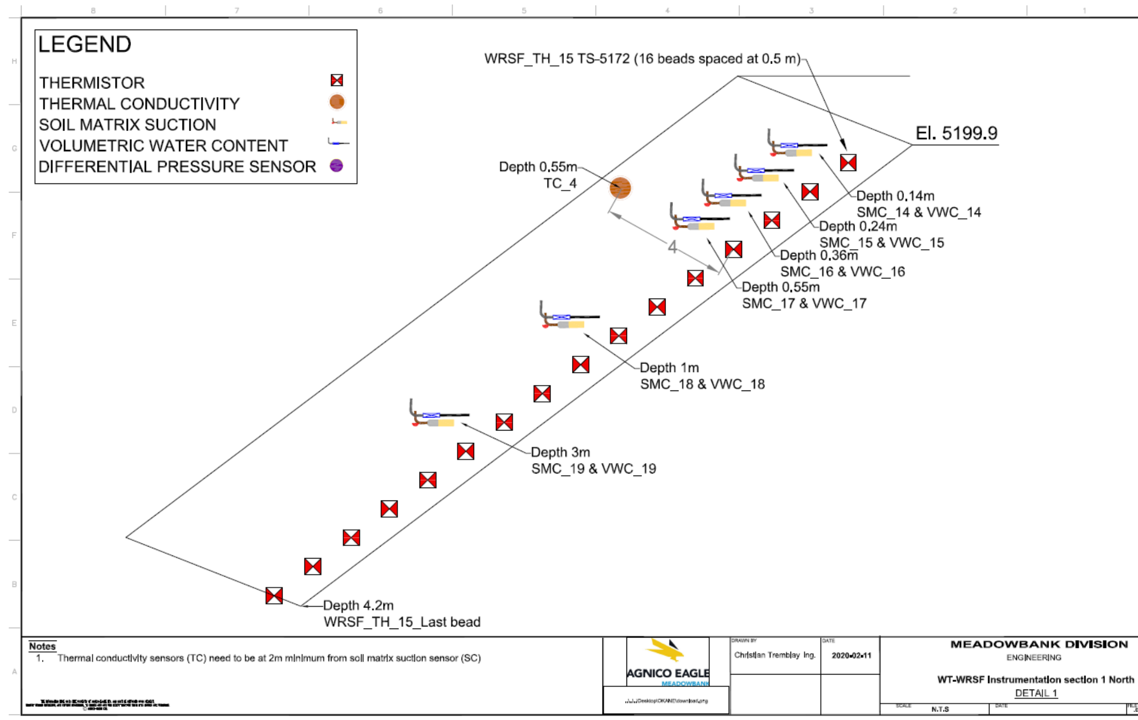


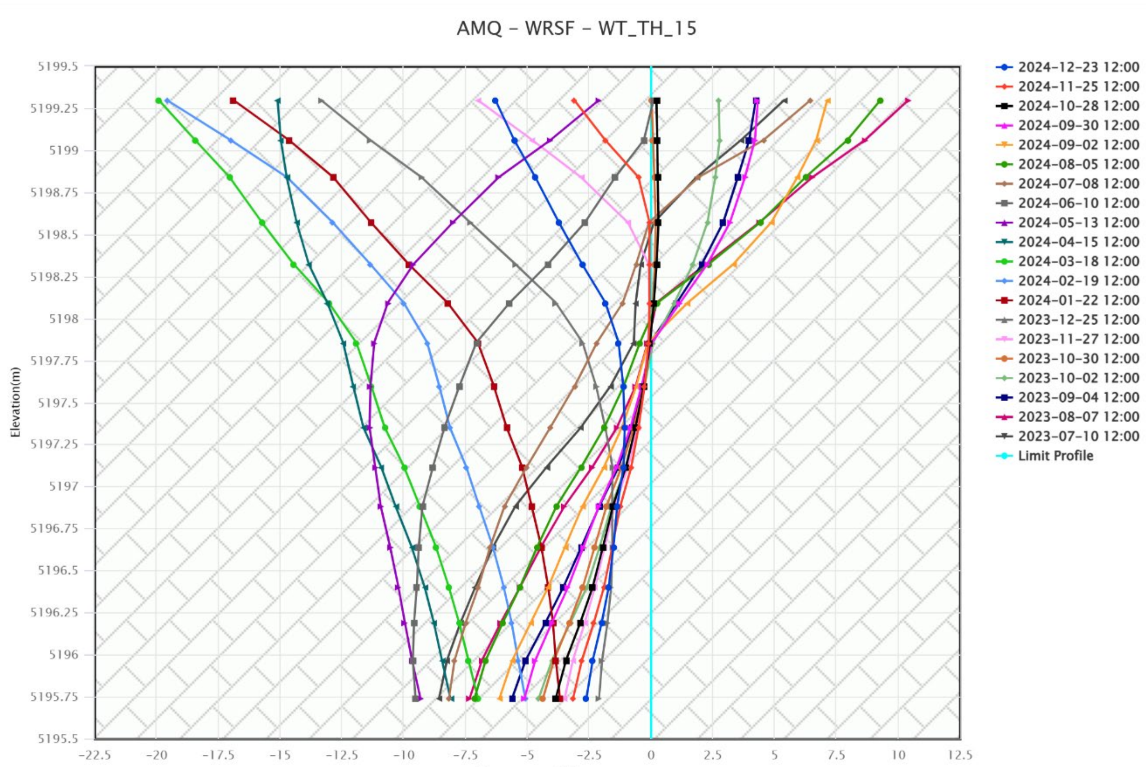


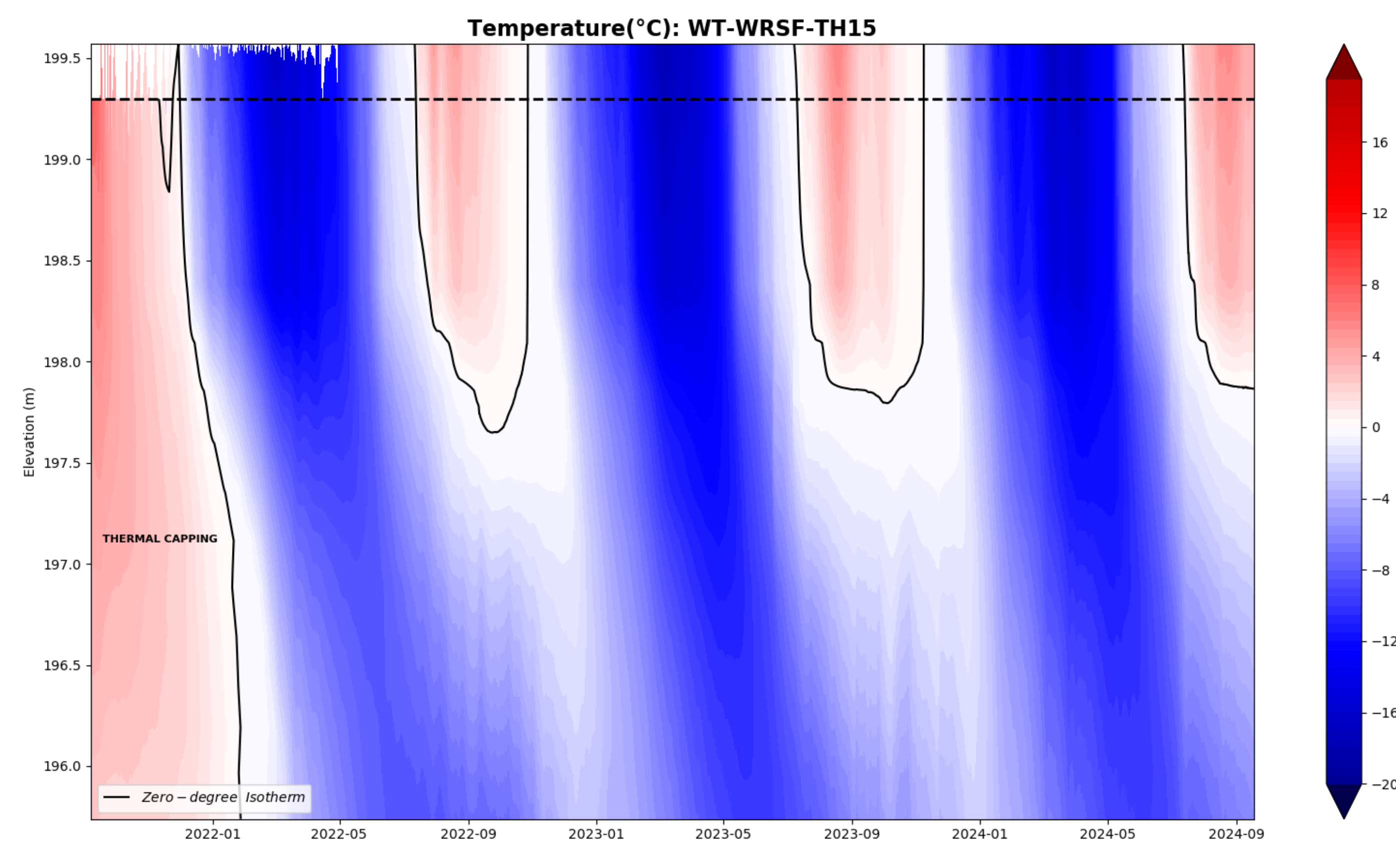
This instrument is installed horizontally and chart needs to be read accordingly

WT WRSF TH15

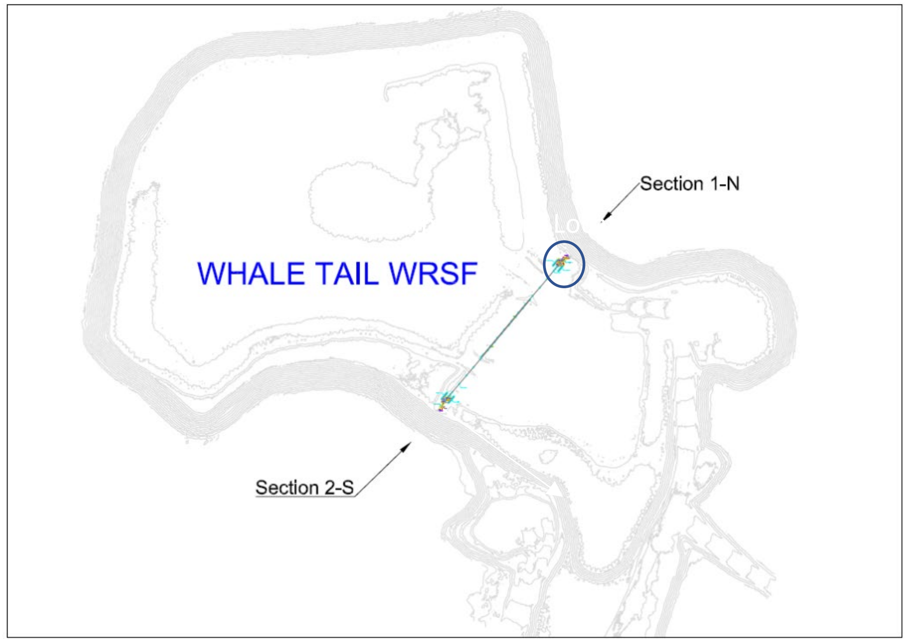

Section 1-N
WHALE TAIL WRSF
Section 2-S

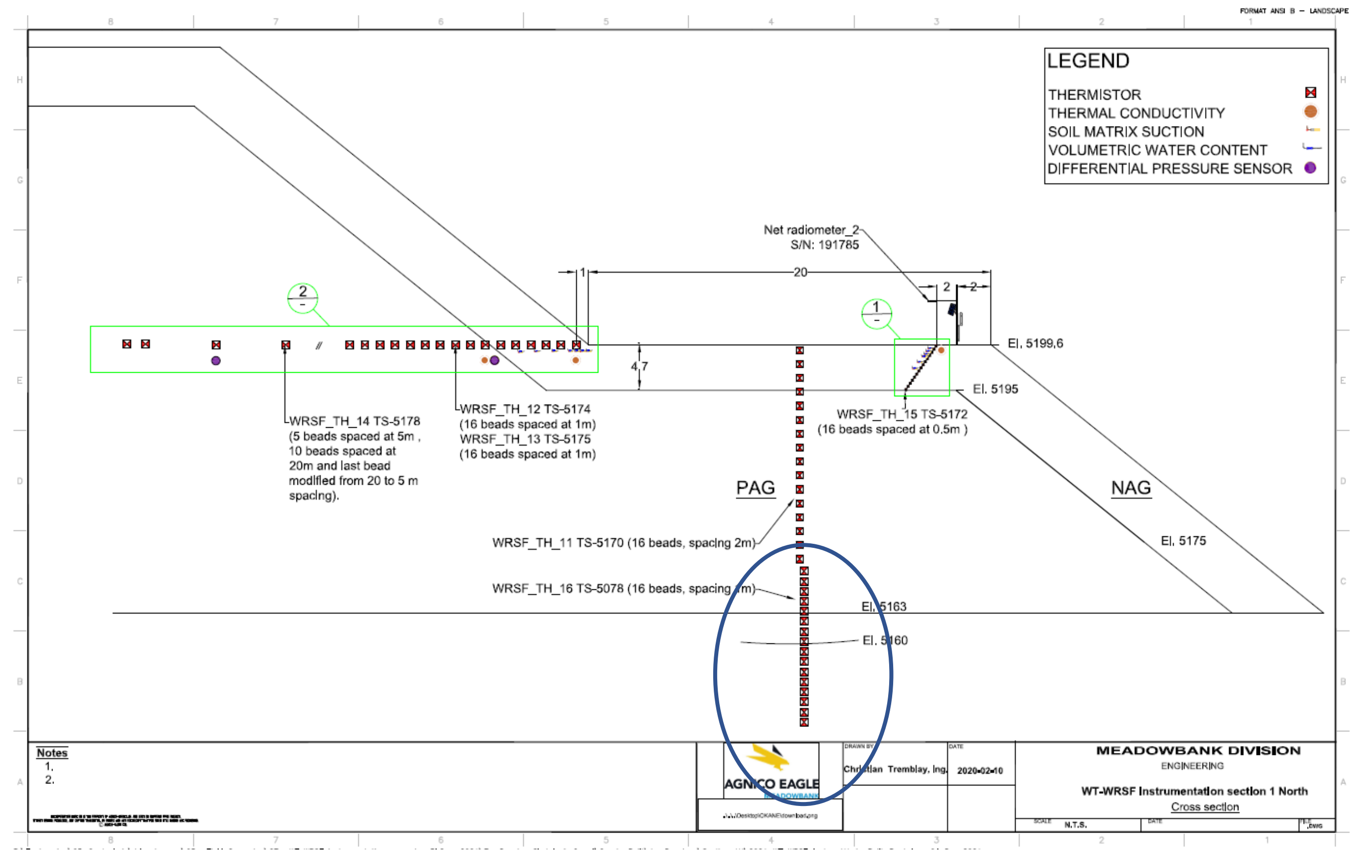

LEGEND
THERMISTOR
THERMAL CONDUCTIVITY
SOIL MATRIX SUCTION
VOLUMETRIC WATER CONTENT
DIFFERENTIAL PRESSURE SENSOR
WRSF_TH_15 TS-5172 (16 beads spaced at 0.5 m)
El. 5199.9
Depth 0.55m
TC_4
Depth 0.14m
SMC_14 & VWC_14
Depth 0.24m
SMC_15 & VWC_15
Depth 0.36m
SMC_16 & VWC_16
Depth 0.55m
SMC_17 & VWC_17
Depth 1m
SMC_18 & VWC_18
Depth 3m
SMC_19 & VWC_19
Depth 4.2m
WRSF_TH_15_Last bead
Notes
1. Thermal conductivity sensors (TC) need to be at 2m minimum from soil matrix suction sensor (SC)
AGNICO EAGLE
MEADOWBANK DIVISION
WT-WRSF Instrumentation section 1 North
DETAIL 1

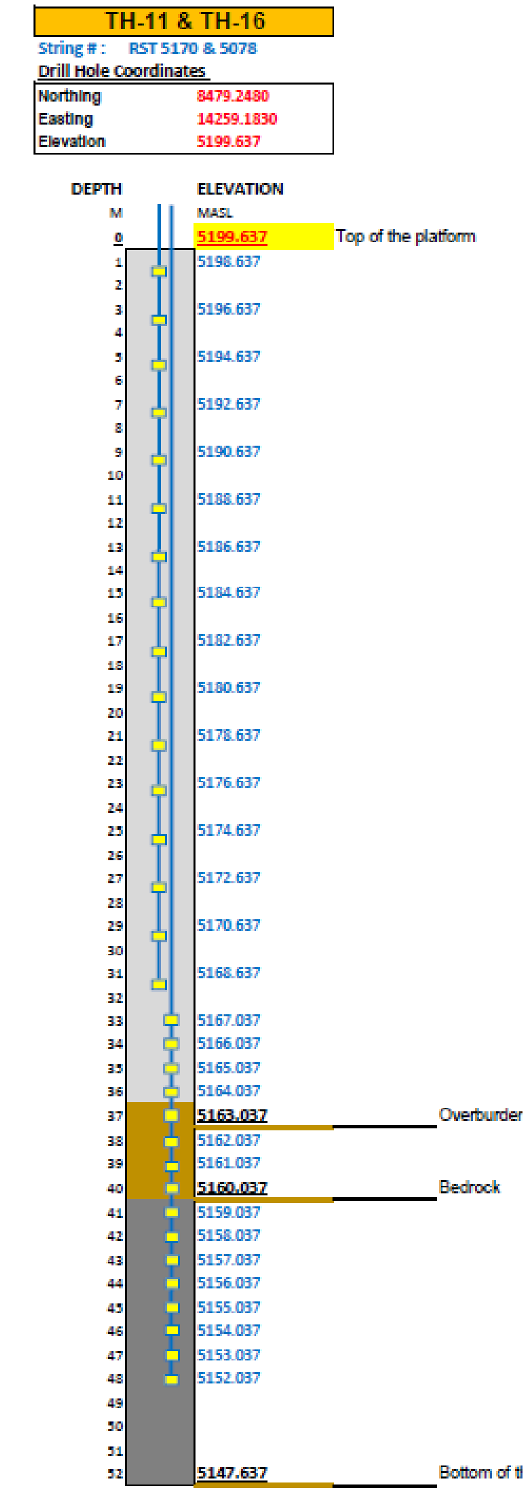

AMQ – WRSF – WT_TH_15
Elevation(m)
Temperature (°C)
2024-12-23 12:00
2024-11-25 12:00
2024-10-28 12:00
2024-09-30 12:00
2024-09-02 12:00
2024-08-05 12:00
2024-07-08 12:00
2024-06-10 12:00
2024-05-13 12:00
2024-04-15 12:00
2024-03-18 12:00
2024-02-19 12:00
2024-01-22 12:00
2023-12-25 12:00
2023-11-27 12:00
2023-10-30 12:00
2023-10-02 12:00
2023-09-04 12:00
2023-08-07 12:00
2023-07-10 12:00
Limit Profile

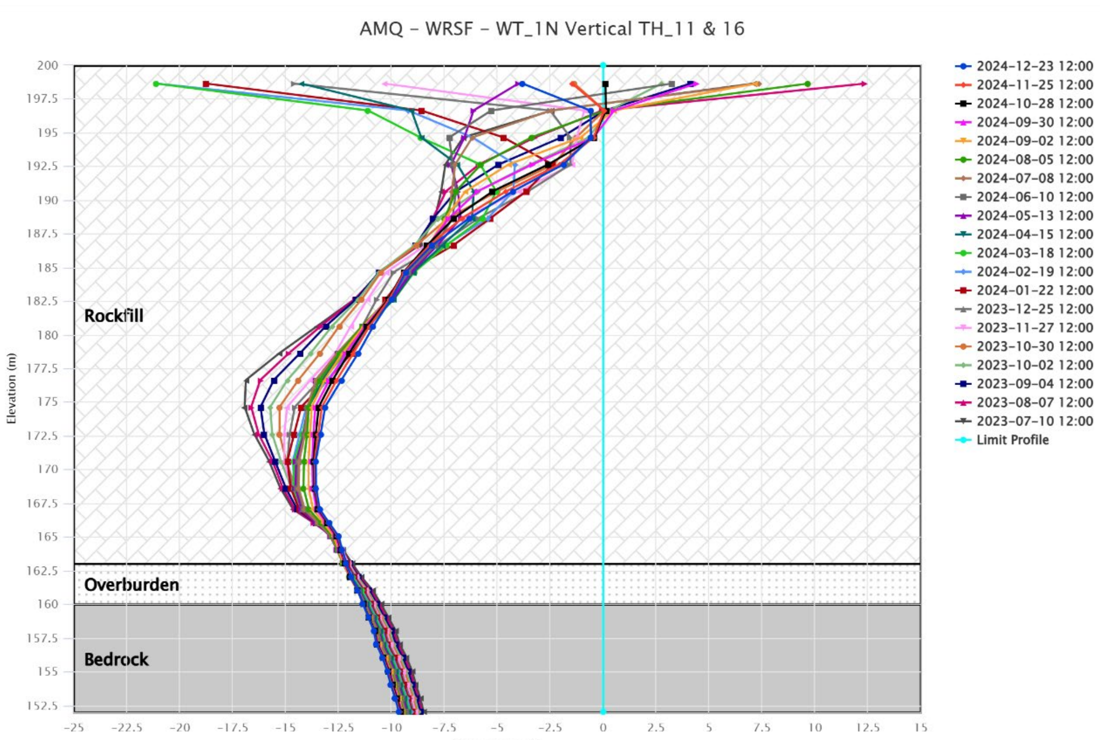

Temperature(°C): WT-WRSF-TH15
Elevation (m)
THERMAL CAPPING
Zero – degree Isotherm
Time: from 9/6/2021 1 to 9/17/2024
Temperature(°C)

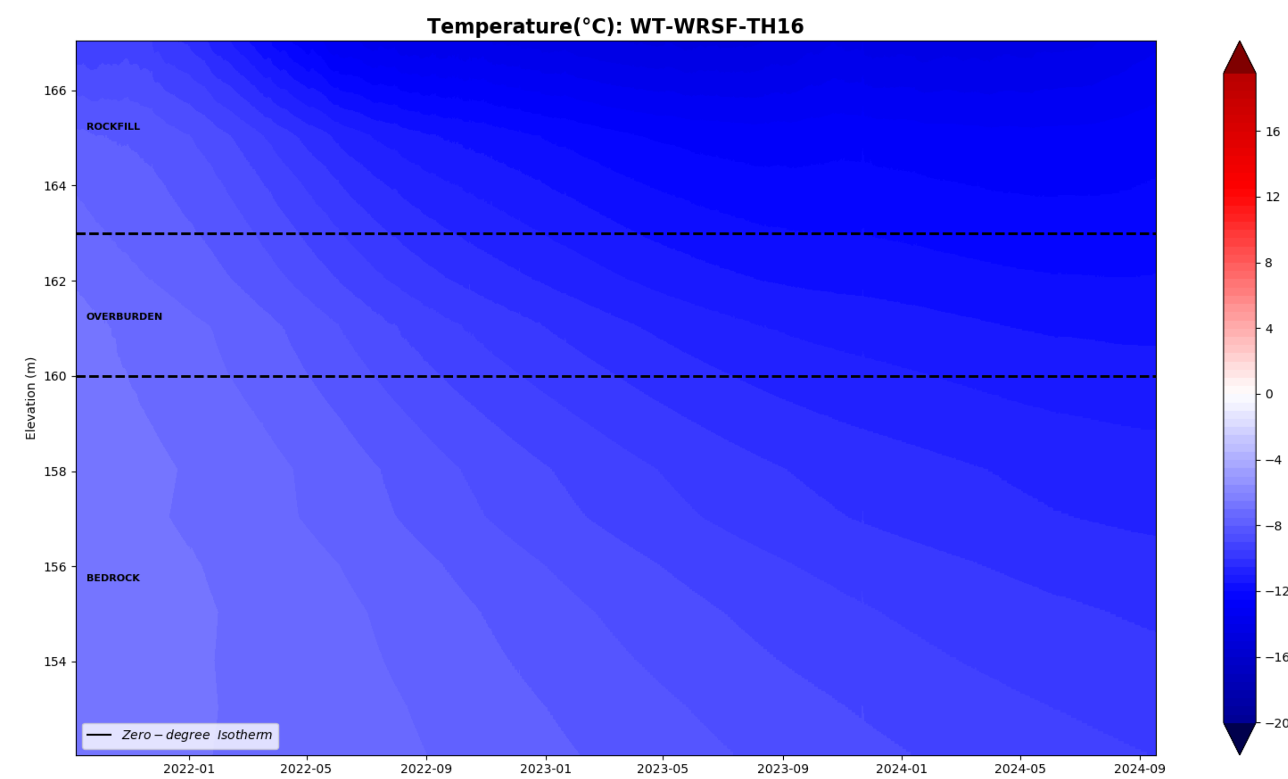
WT WRSF TH16


WHALE TAIL WRSF
Section 1-N
Section 2-S

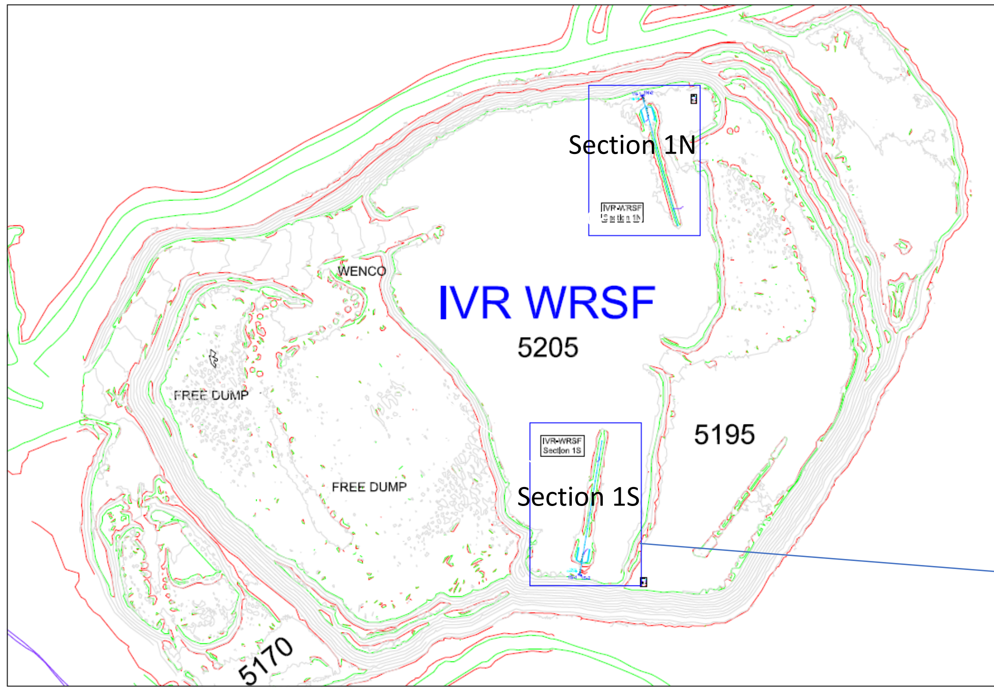

LEGEND
THERMISTOR
THERMAL CONDUCTIVITY
SOIL MATRIX SUCTION
VOLUMETRIC WATER CONTENT
DIFFERENTIAL PRESSURE SENSOR
Net radiometer_2
S/N: 191785
El. 5199.6
El. 5195
WRSF_TH_14 TS-5178
(5 beads spaced at 5m , 10 beads spaced at 20m and last bead modified from 20 to 5 m spacing).
WRSF_TH_12 TS-5174
(16 beads spaced at 1m)
WRSF_TH_13 TS-5175
(16 beads spaced at 1m)
WRSF_TH_15 TS-5172
(16 beads spaced at 0.5m)
PAG
NAG
El. 5175
WRSF_TH_11 TS-5170 (16 beads, spacing 2m)
WRSF_TH_16 TS-5078 (16 beads, spacing 1m)
El. 5163
El. 5160
Notes
MEADOWBANK DIVISION
ENGINEERING
WT-WRSF Instrumentation section 1 North
Cross section
AGNICO EAGLE

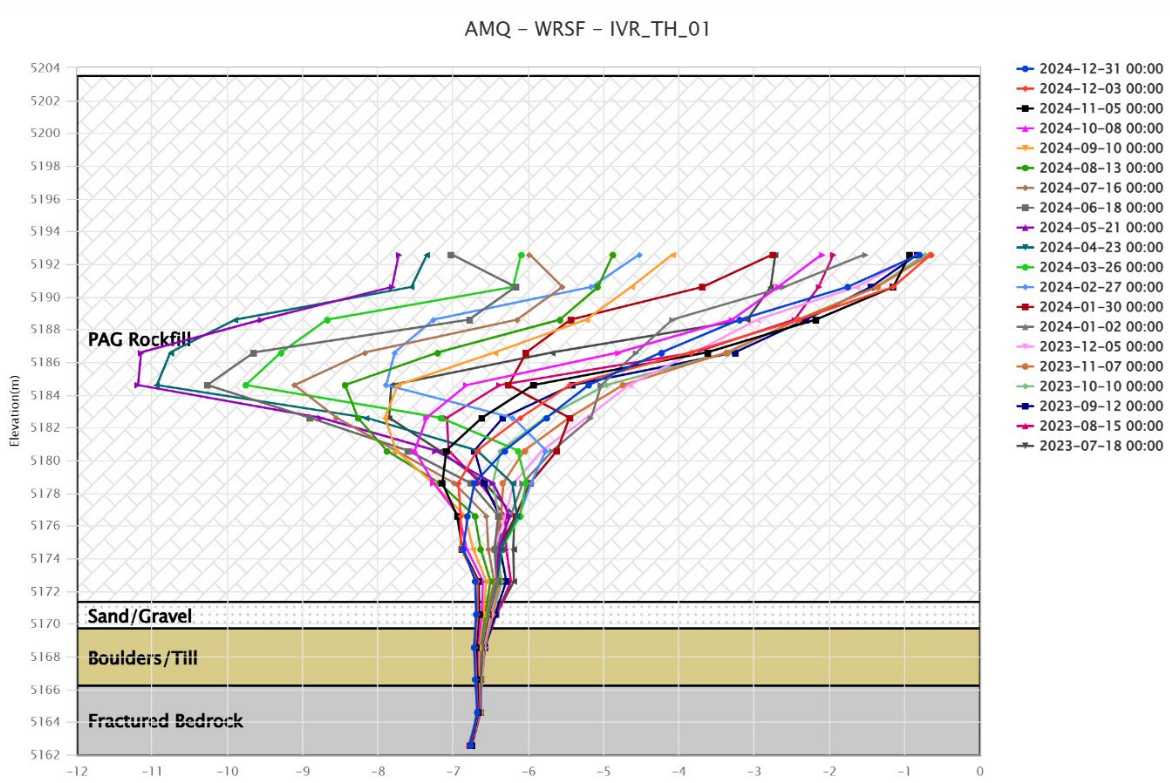

TH-11 & TH-16
String # : RST 5170 & 5078
Drill Hole Coordinates
Northing 8479.2480
Easting 14259.1830
Elevation 5199.637
DEPTH
M
ELEVATION
MASL
0 5199.637 Top of the platform
1 5198.637
3 5196.637
5 5194.637
7 5192.637
9 5190.637
11 5188.637
13 5186.637
15 5184.637
17 5182.637
19 5180.637
21 5178.637
23 5176.637
25 5174.637
27 5172.637
29 5170.637
31 5168.637
33 5167.037
34 5166.037
35 5165.037
36 5164.037
37 5163.037 Overburden
38 5162.037
39 5161.037
40 5160.037 Bedrock
41 5159.037
42 5158.037
43 5157.037
44 5156.037
45 5155.037
46 5154.037
47 5153.037
48 5152.037
52 5147.637 Bottom of t

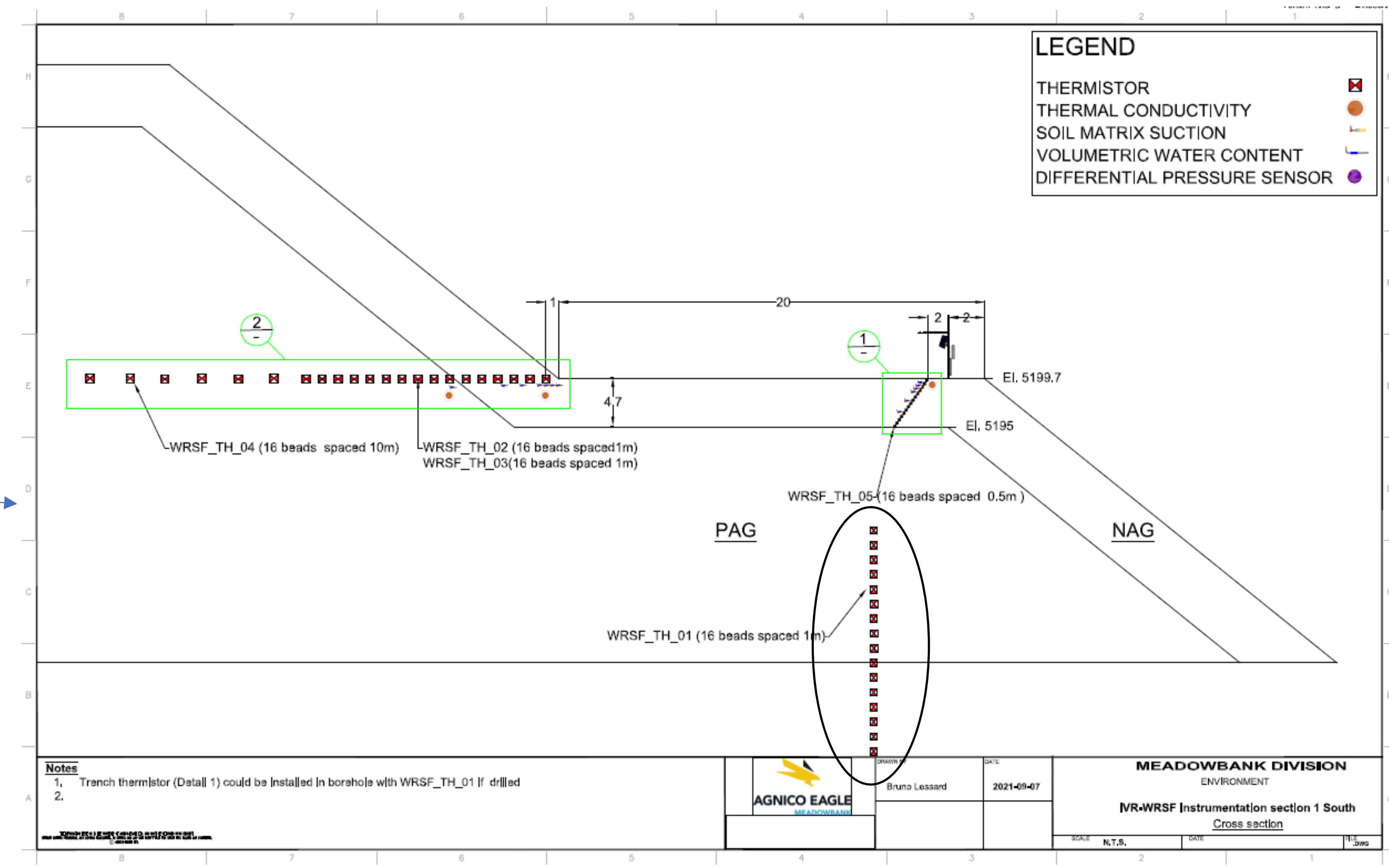

AMQ – WRSF – WT_1N Vertical TH_11 & 16
Rockfill
Overburden
Bedrock
Elevation (m)
Temperature (C)
2024-12-23 12:00
2024-11-25 12:00
2024-10-28 12:00
2024-09-30 12:00
2024-09-02 12:00
2024-08-05 12:00
2024-07-08 12:00
2024-06-10 12:00
2024-05-13 12:00
2024-04-15 12:00
2024-03-18 12:00
2024-02-19 12:00
2024-01-22 12:00
2023-12-25 12:00
2023-11-27 12:00
2023-10-30 12:00
2023-10-02 12:00
2023-09-04 12:00
2023-08-07 12:00
2023-07-10 12:00
Limit Profile


Temperature(°C): WT-WRSF-TH16
ROCKFILL
OVERBURDEN
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 9/6/2021 1 to 9/17/2024
Temperature(°C)

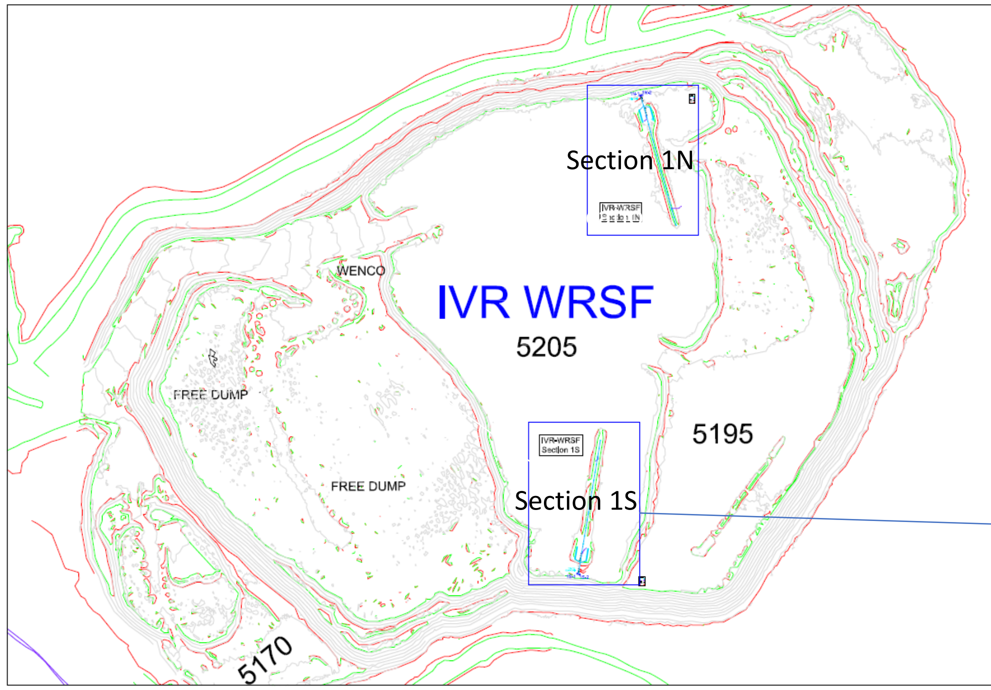
IVR WRSF TH01

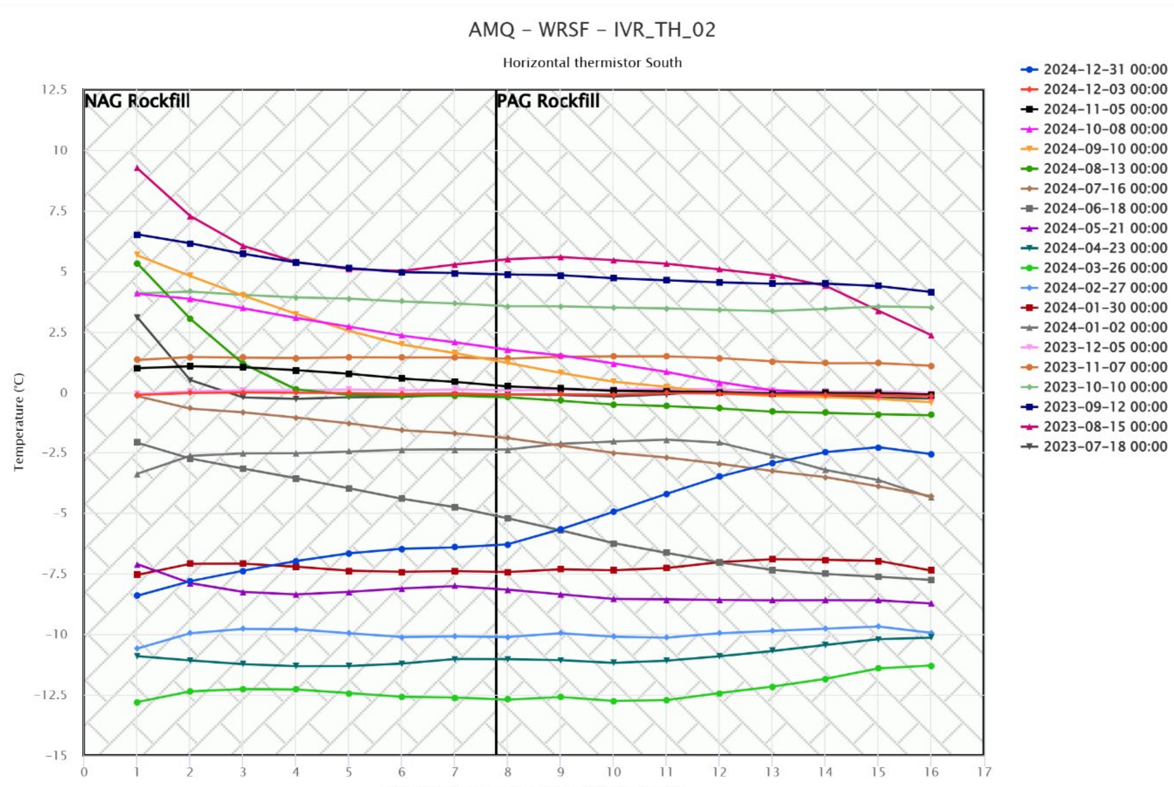


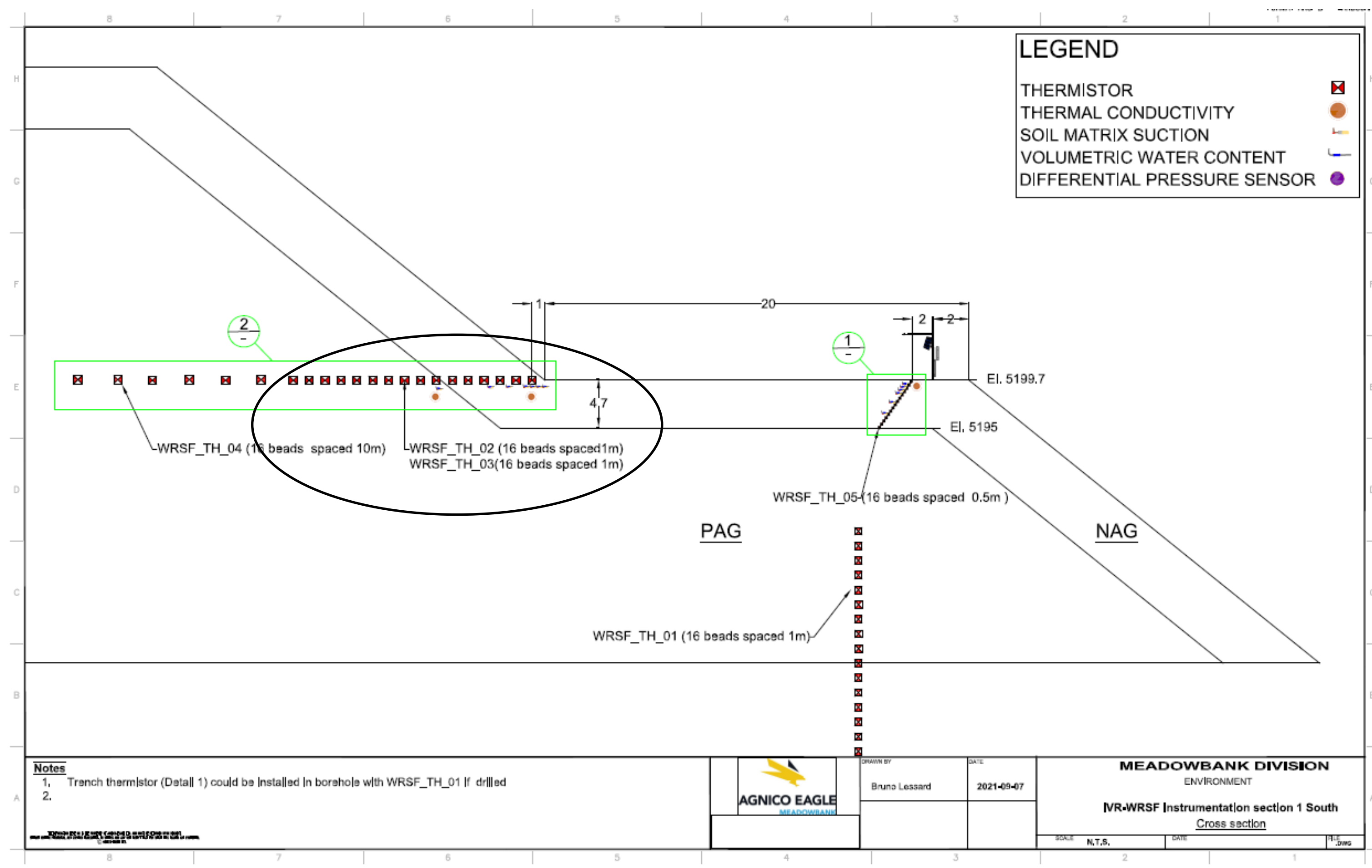




IVR WRSF TH02

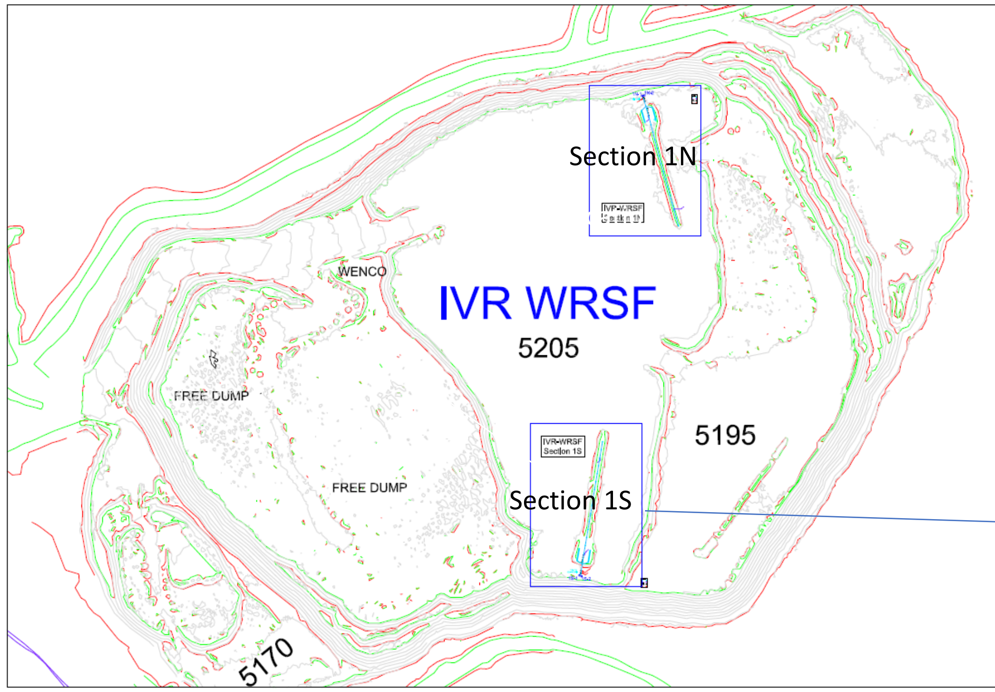


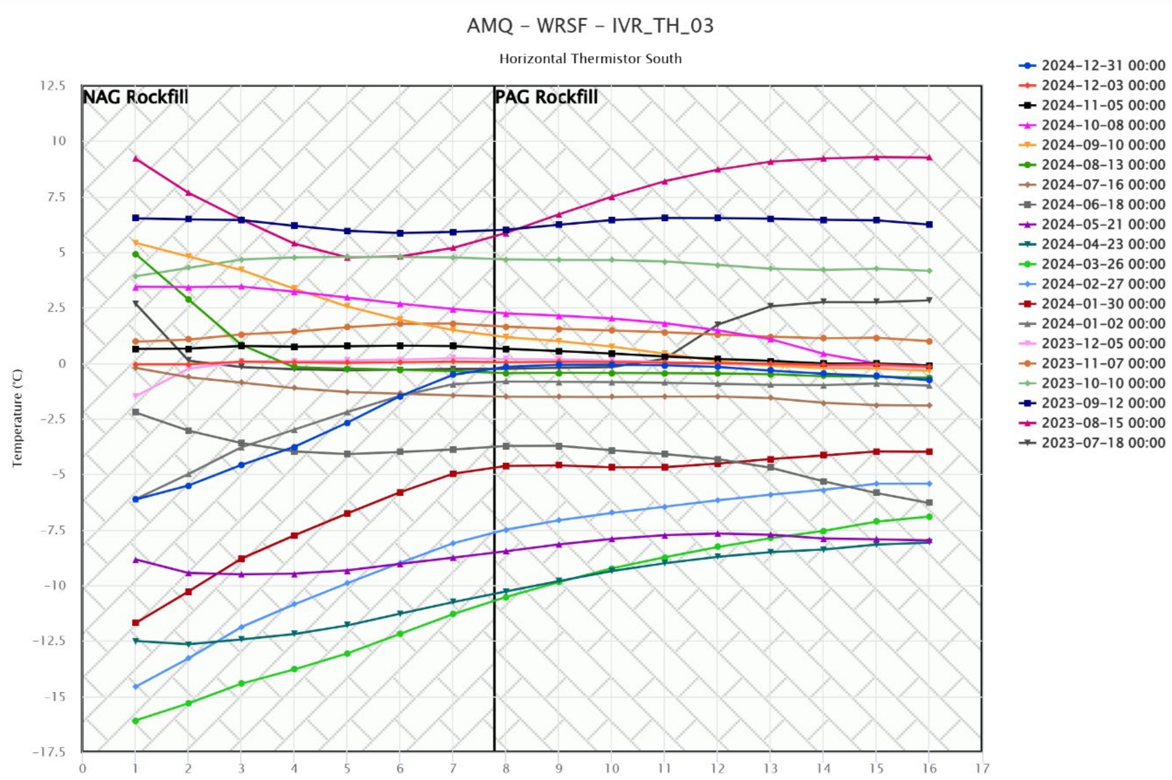


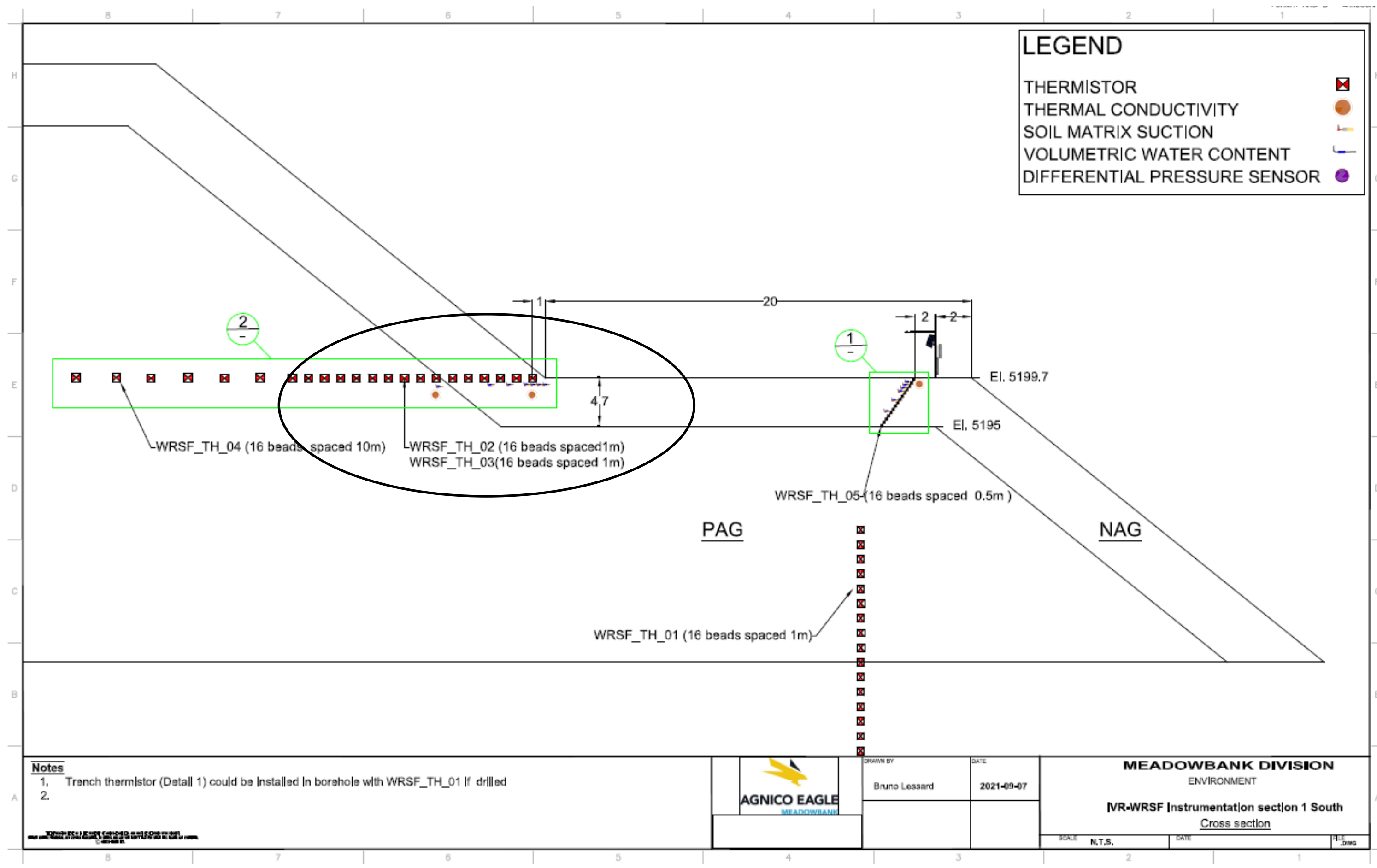


This instrument is installed horizontally and chart needs to be read accordingly

IVR WRSF TH03

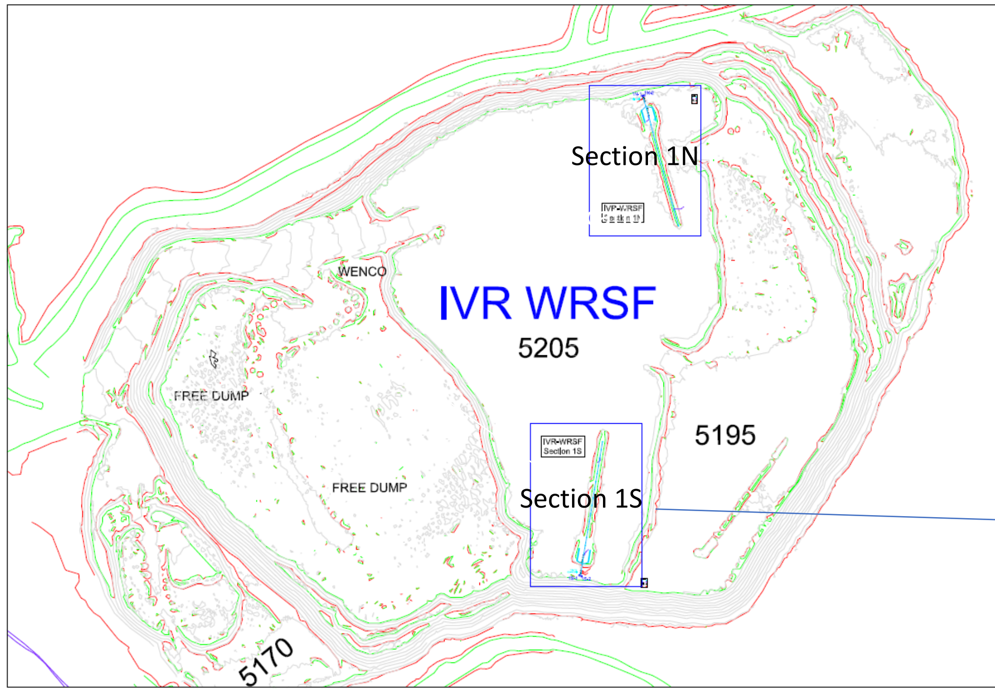


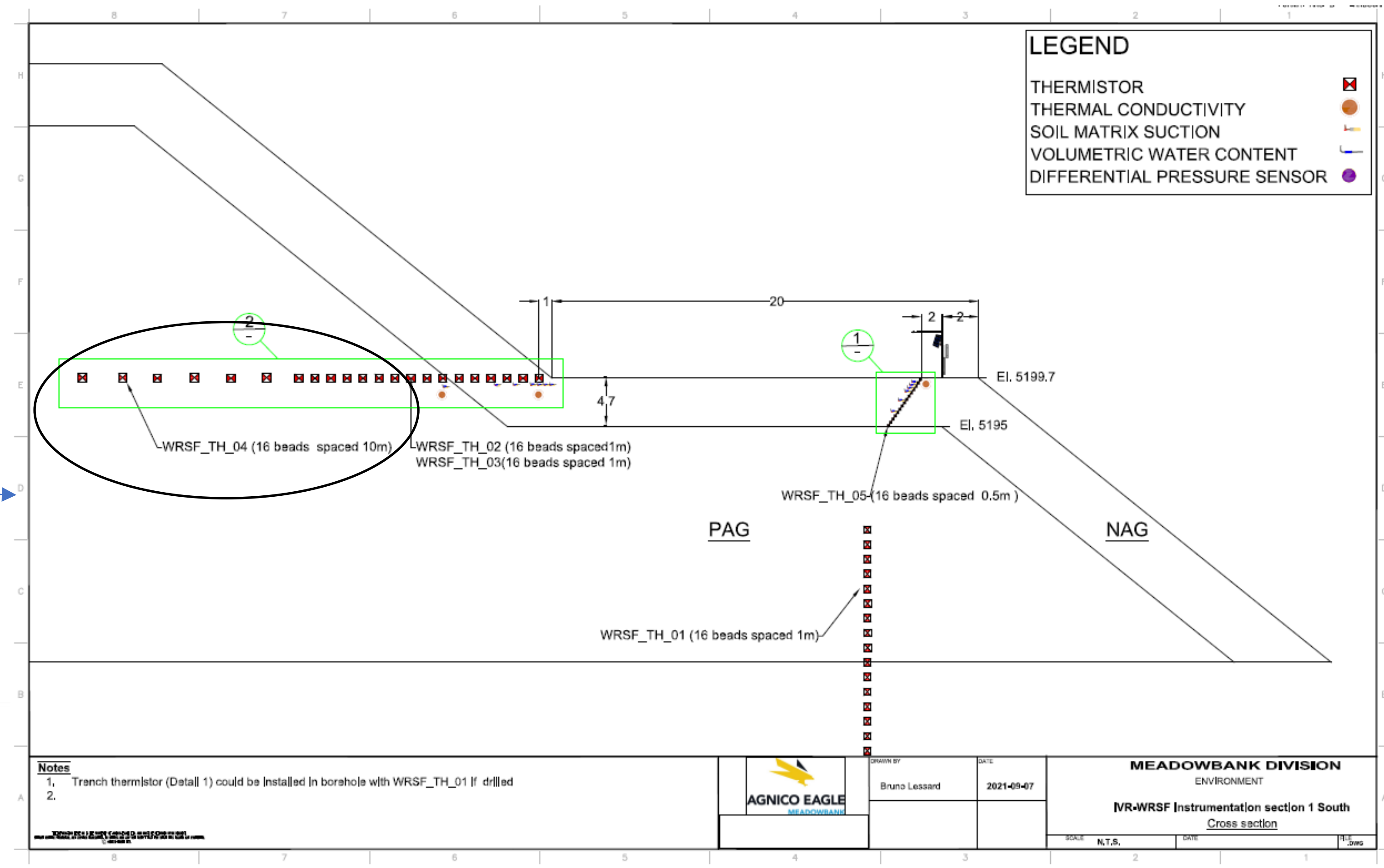


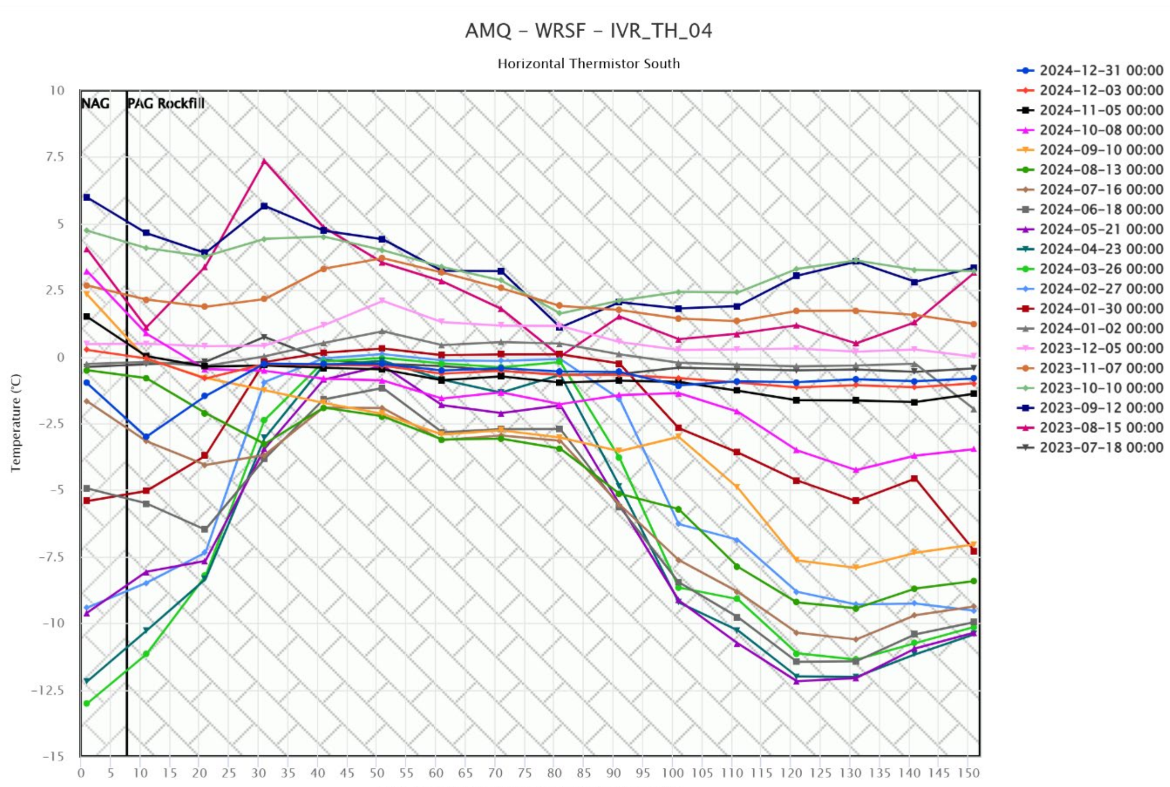


This instrument is installed horizontally and chart needs to be read accordingly

IVR WRSF TH04

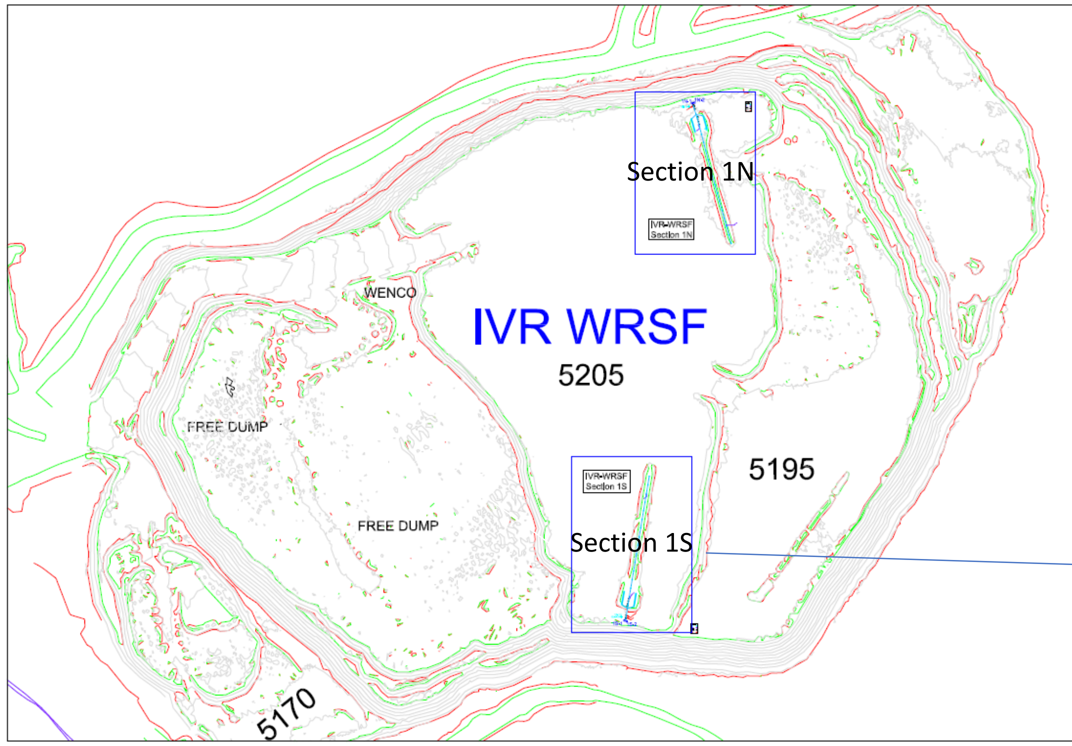


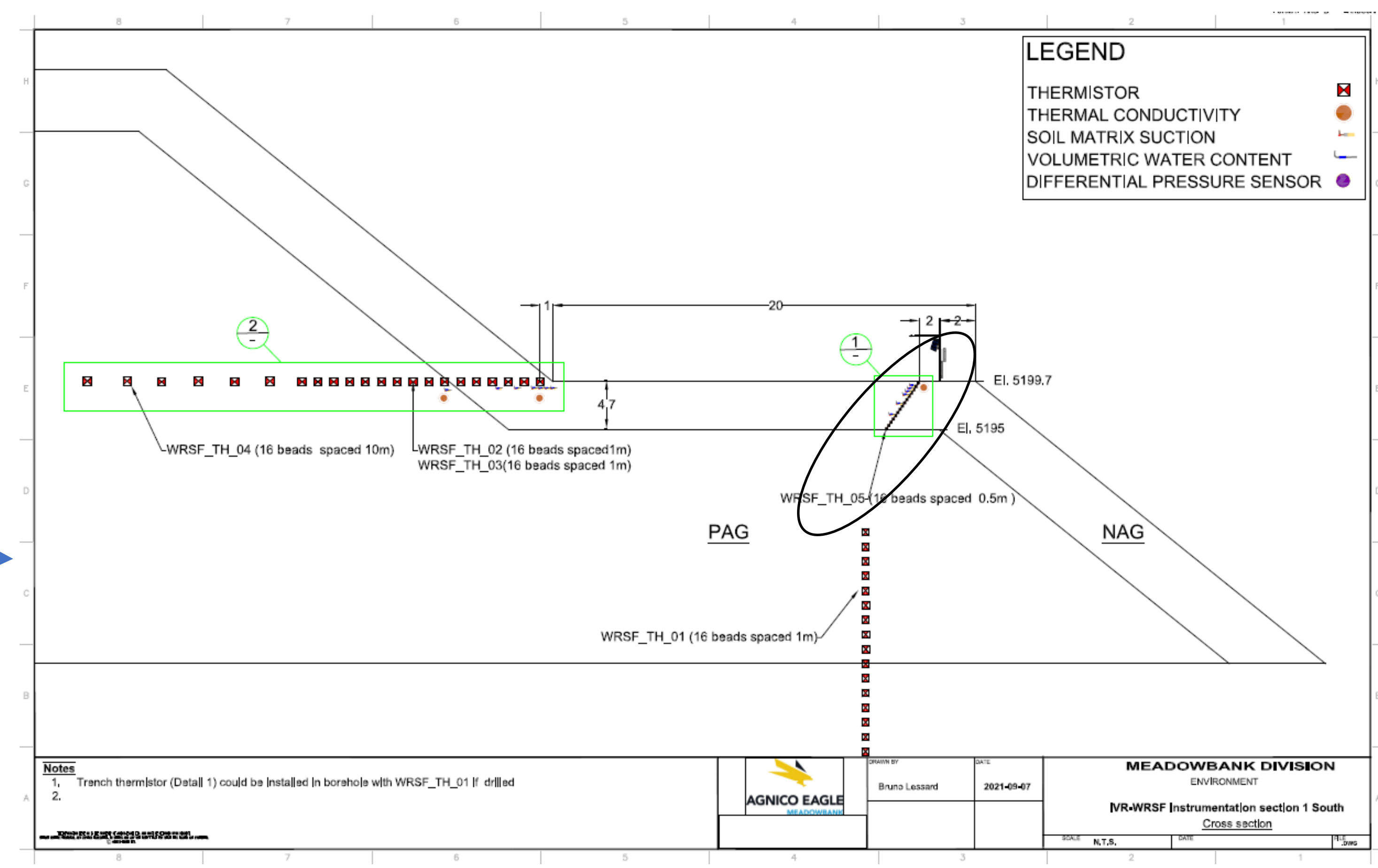


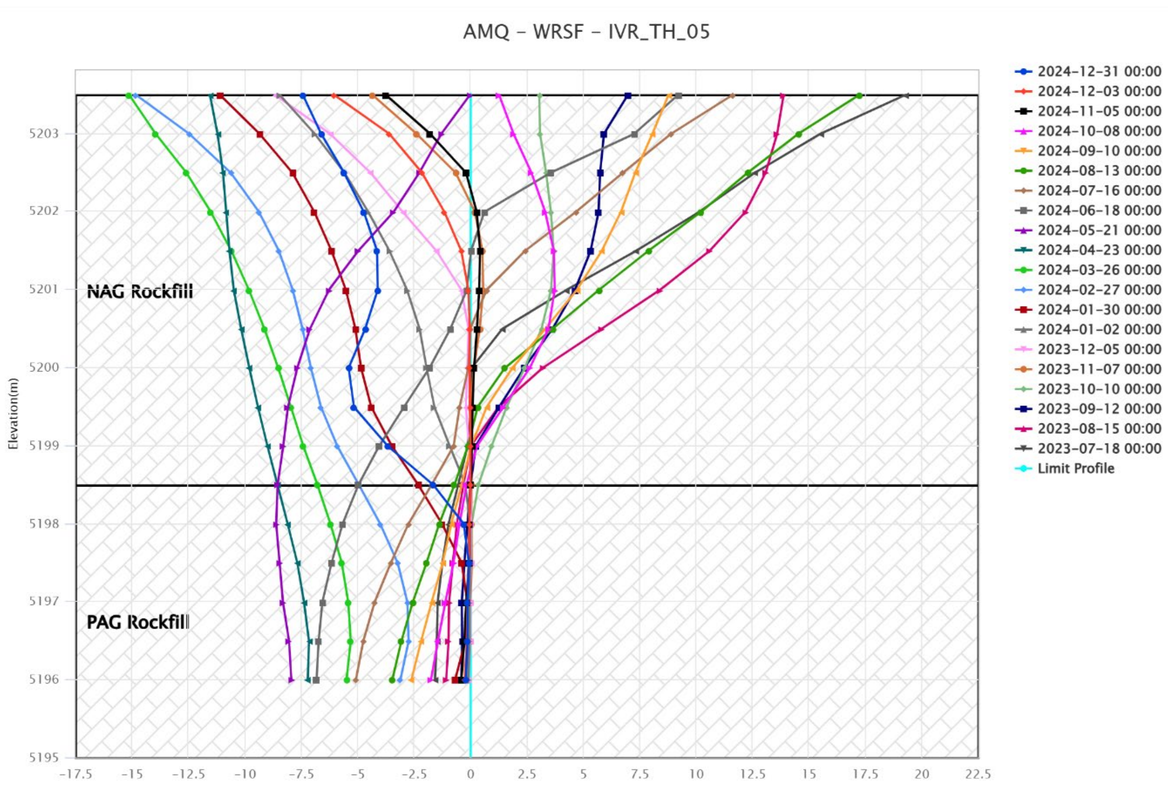


This instrument is installed horizontally and chart needs to be read accordingly

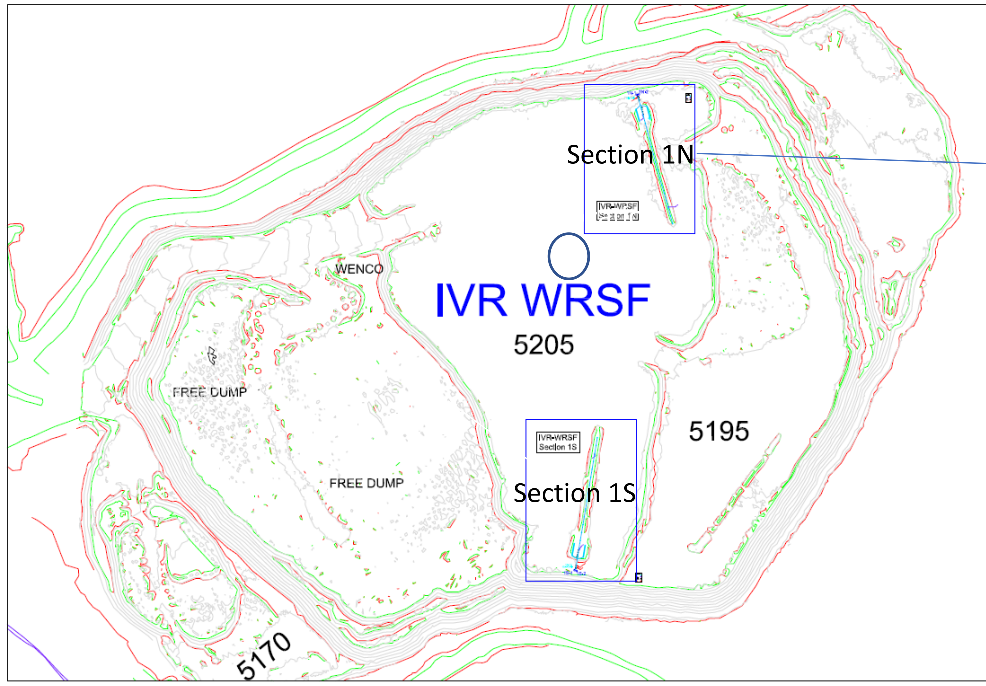
IVR WRSF TH05

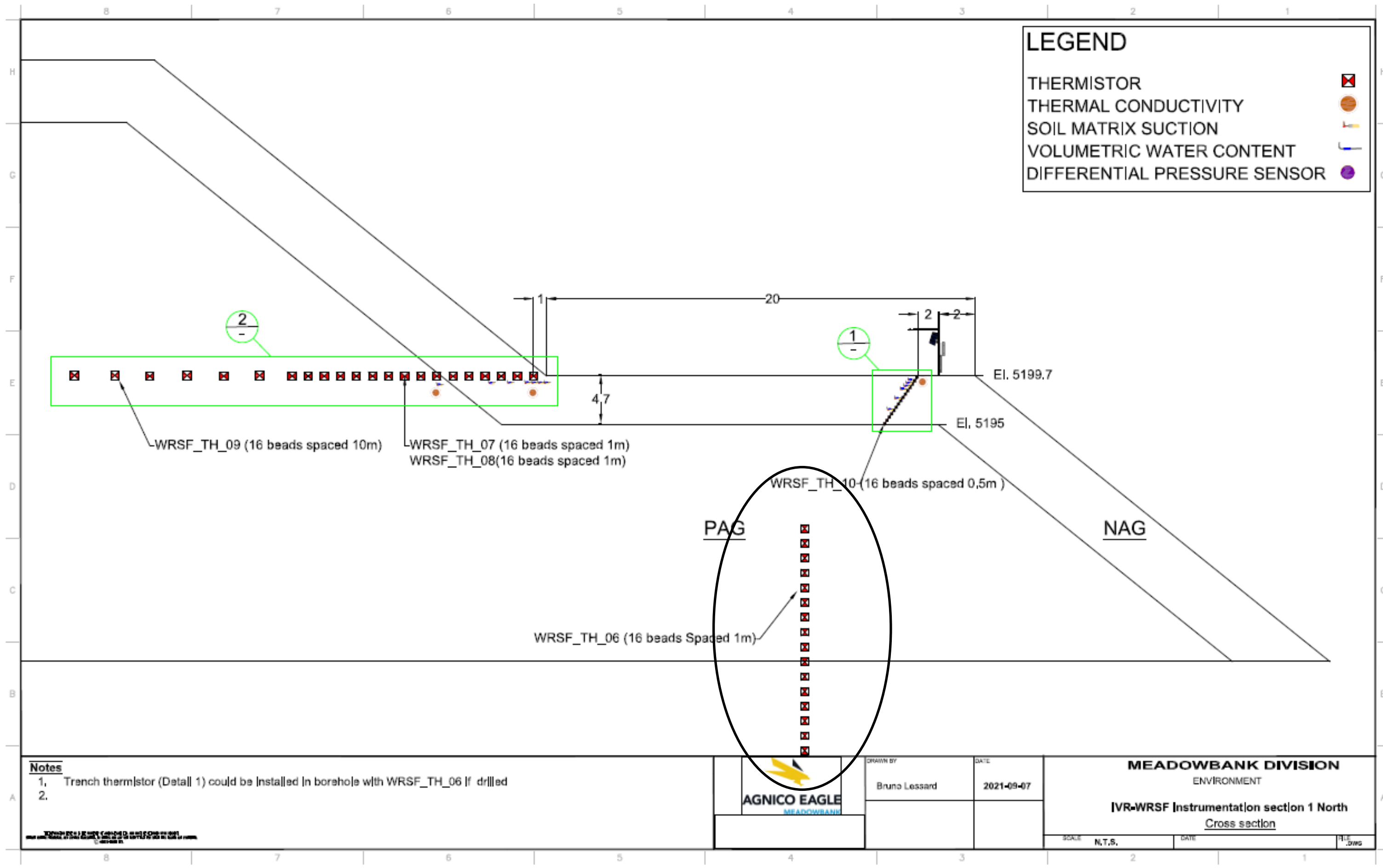


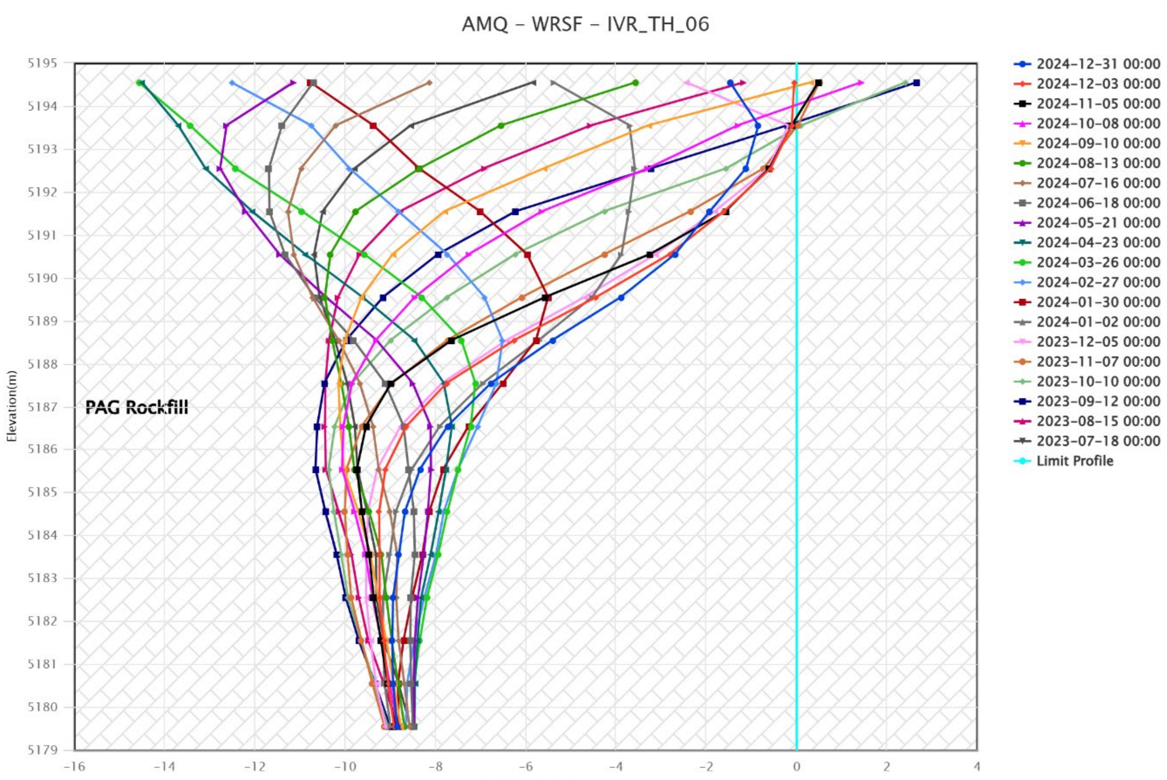




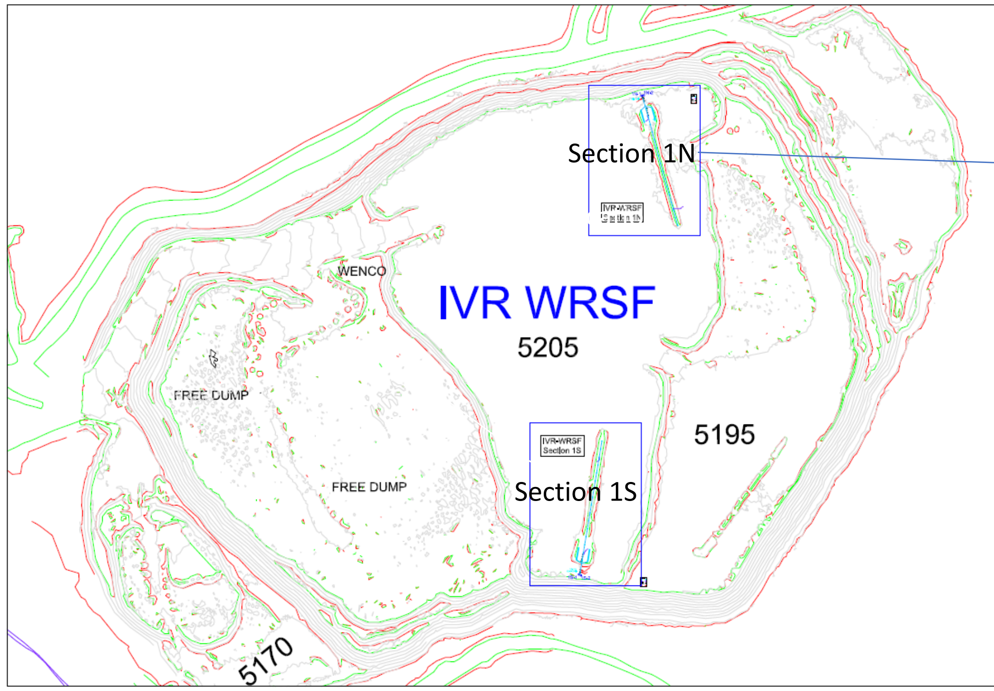
IVR WRSF TH06

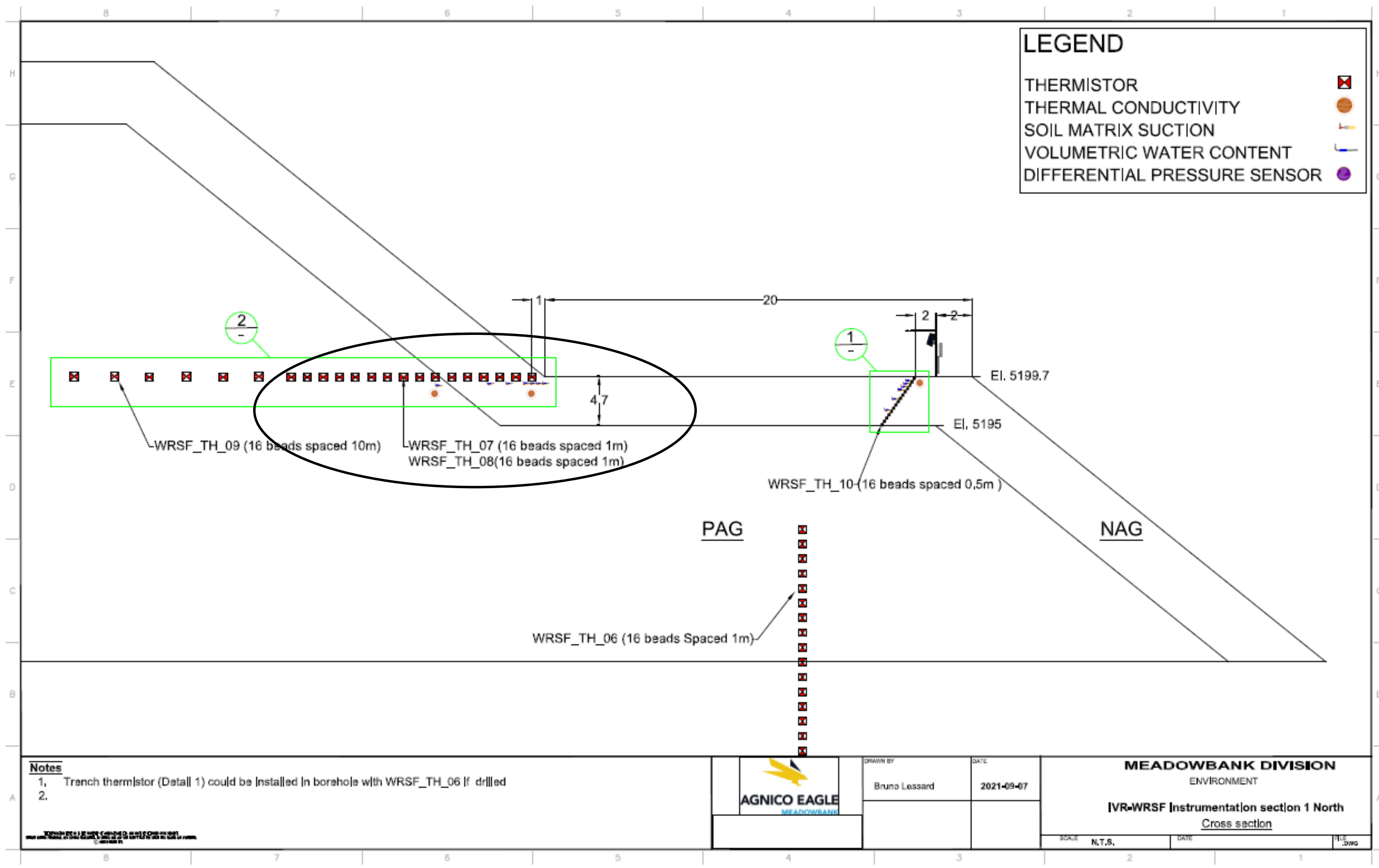


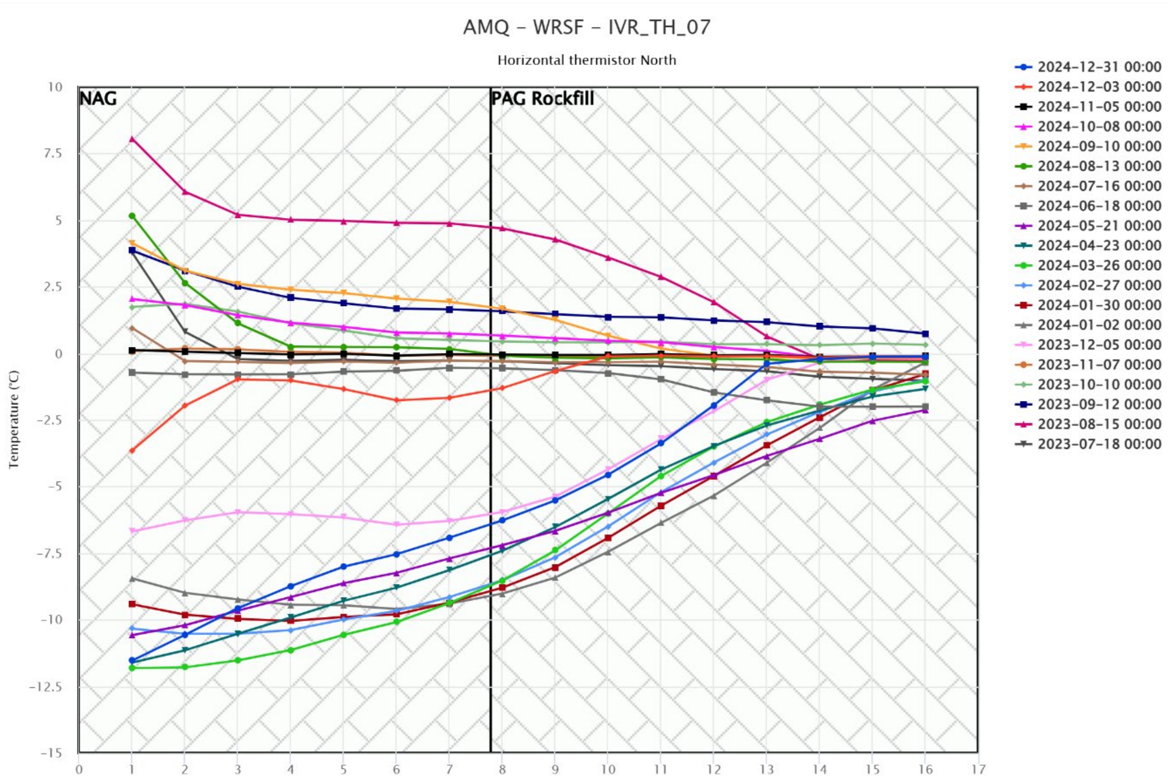




IVR WRSF TH07

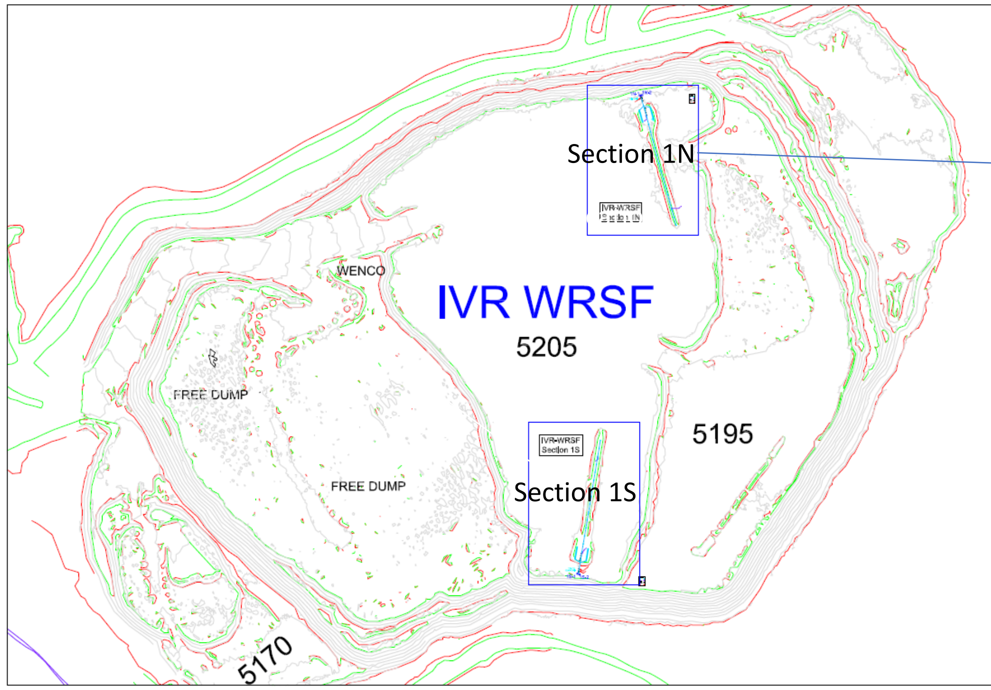


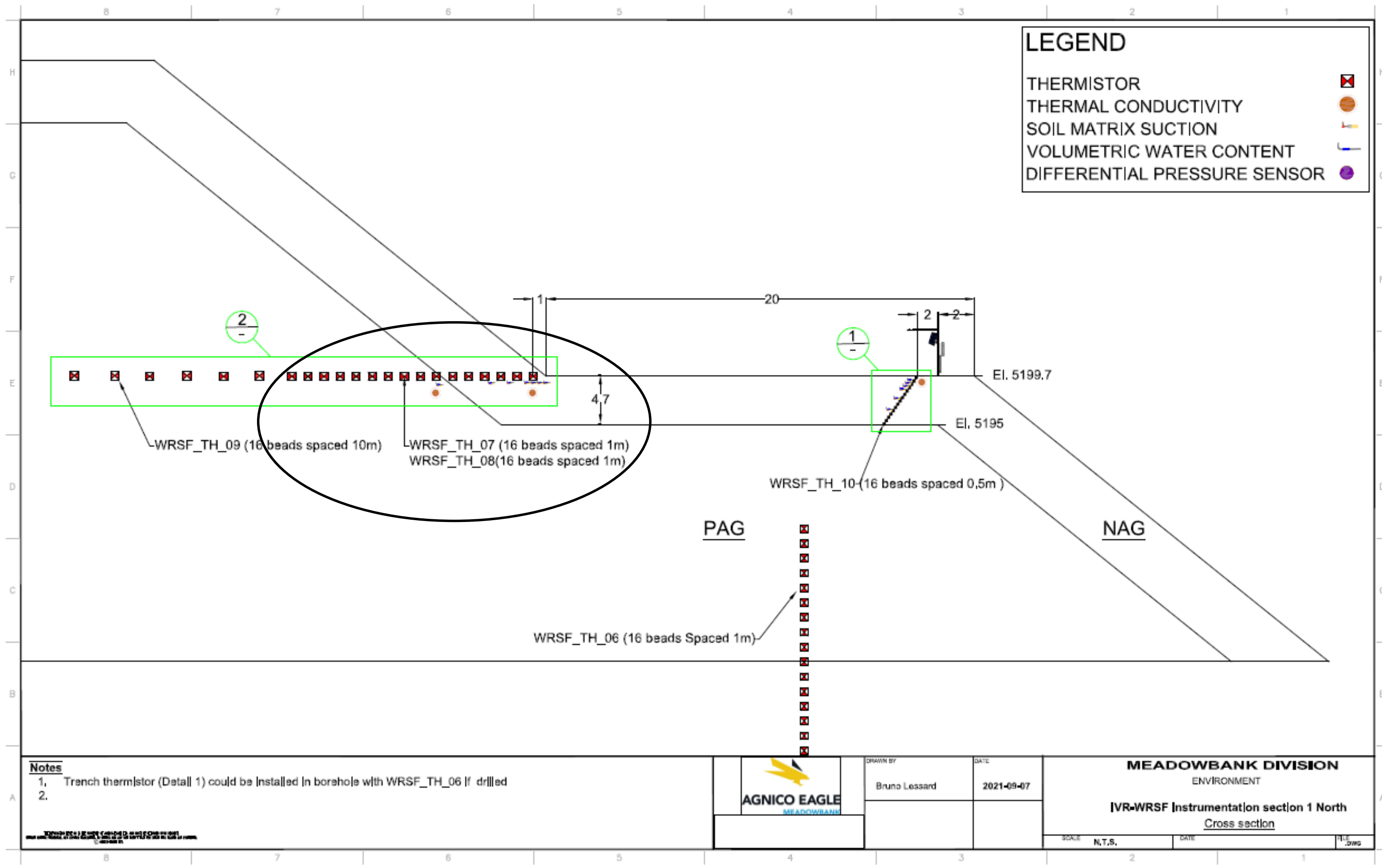


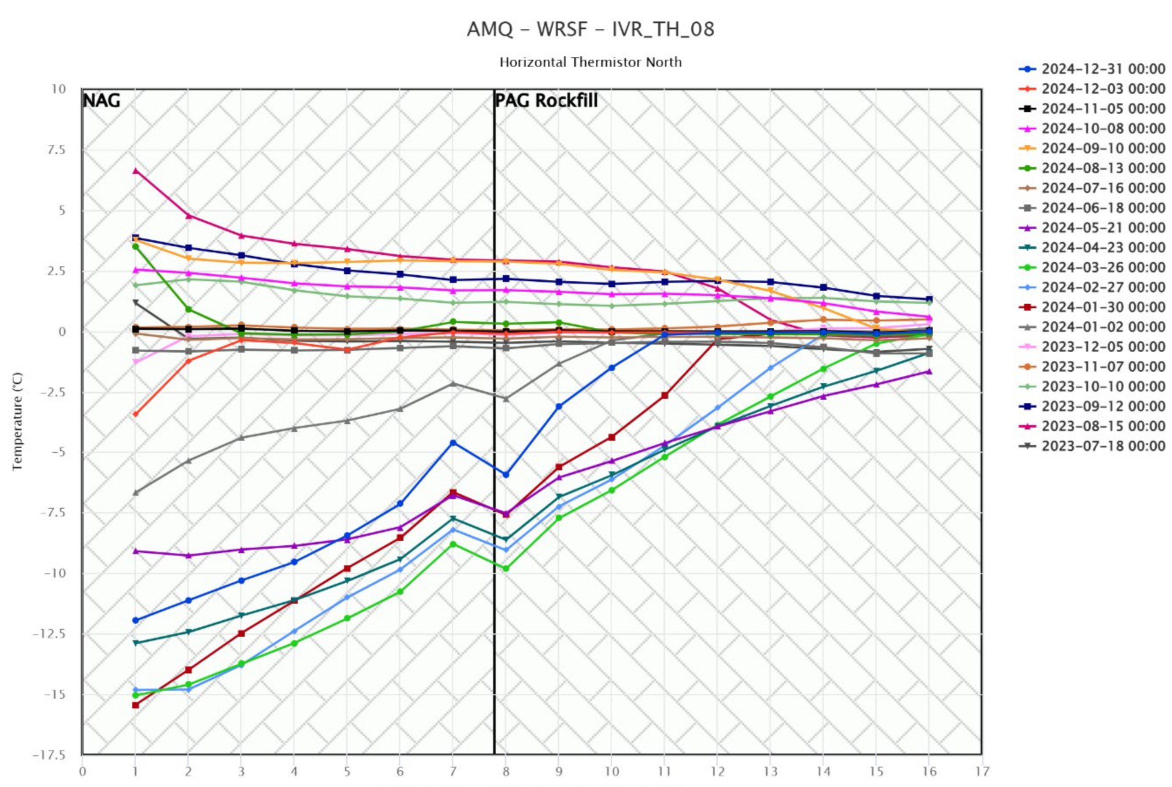


This instrument is installed horizontally and chart needs to be read accordingly

IVR WRSF TH08

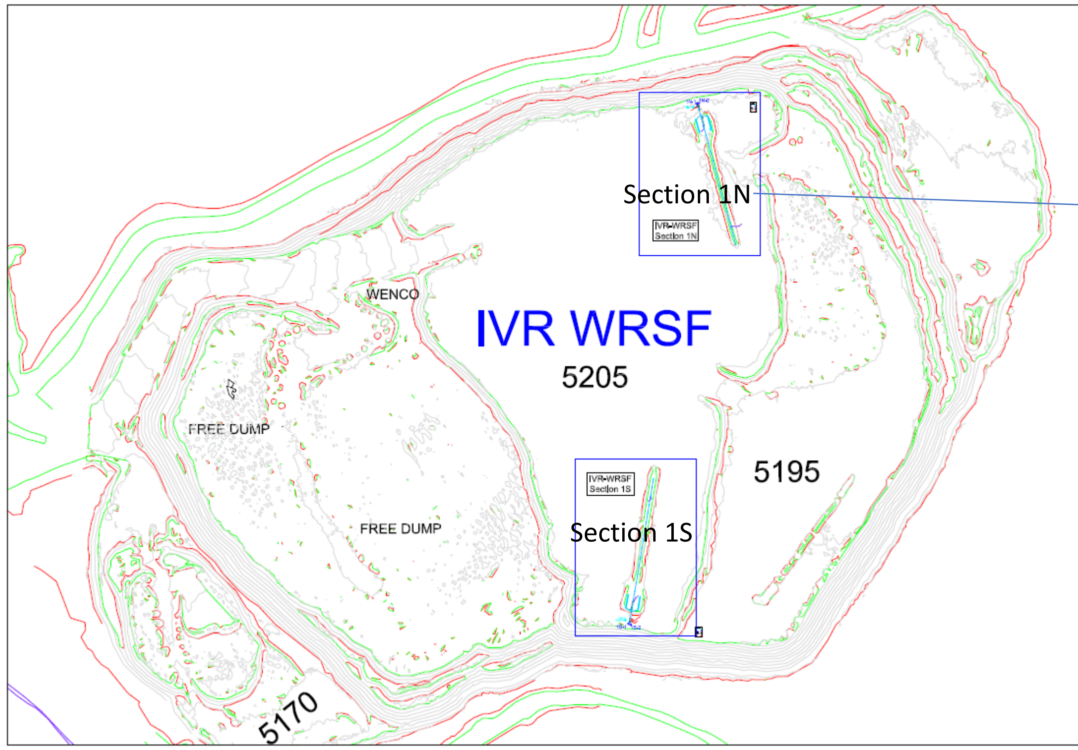


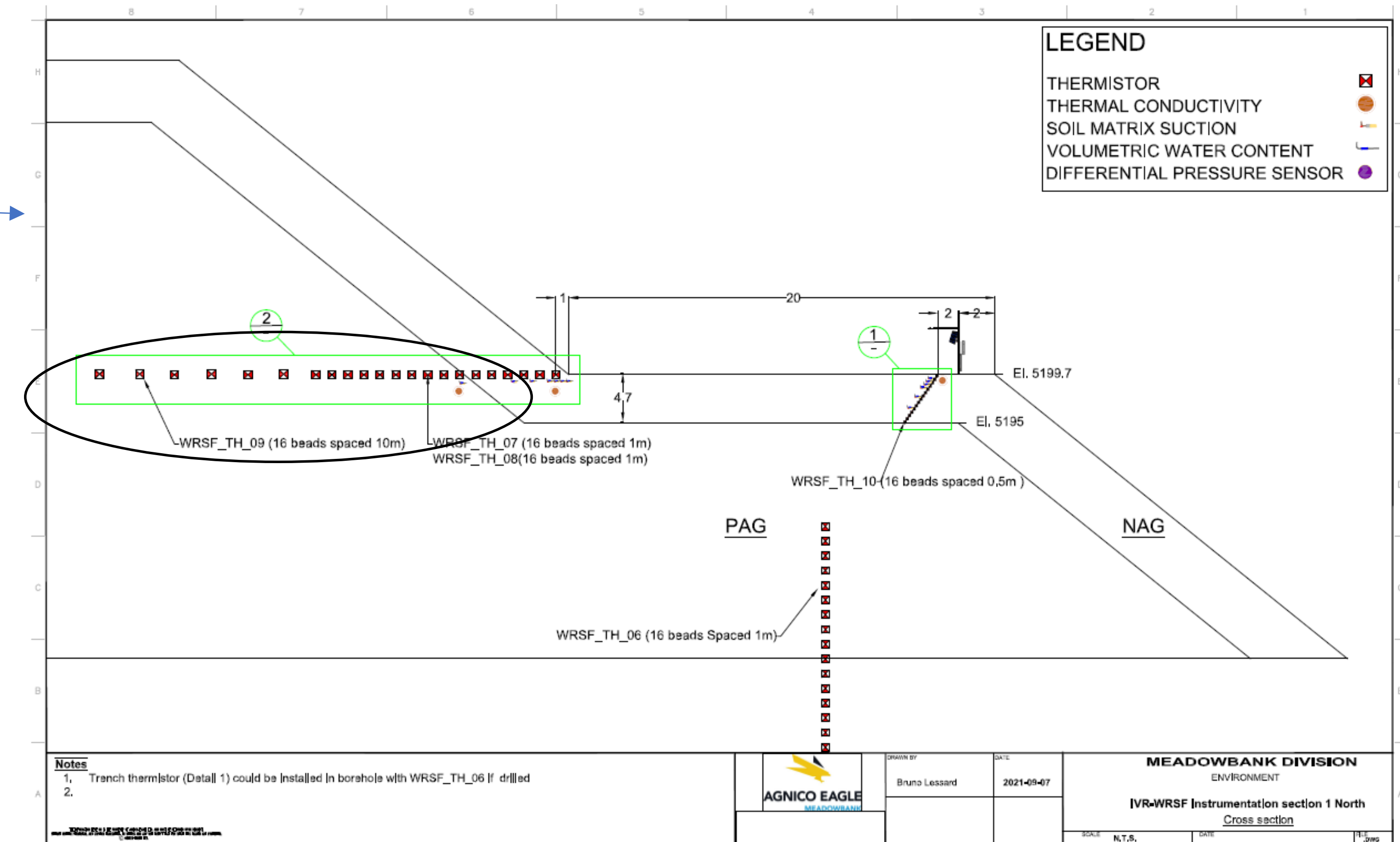


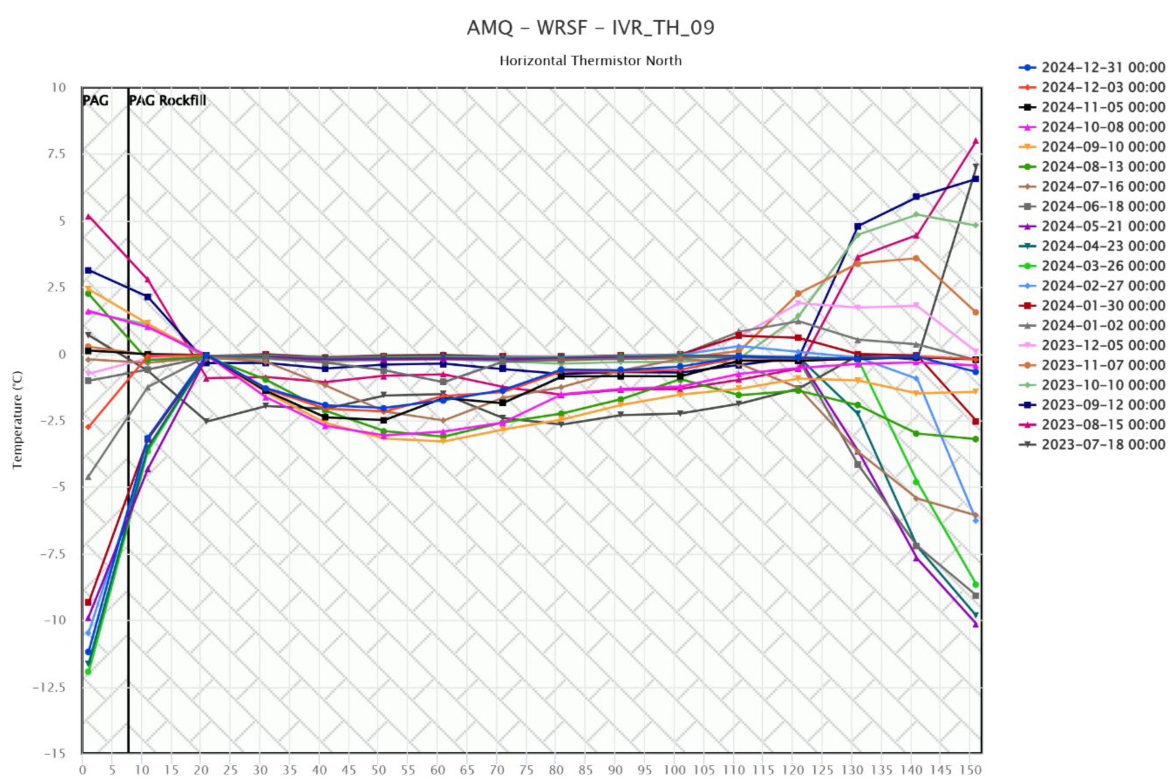


This instrument is installed horizontally and chart needs to be read accordingly

IVR WRSF TH09

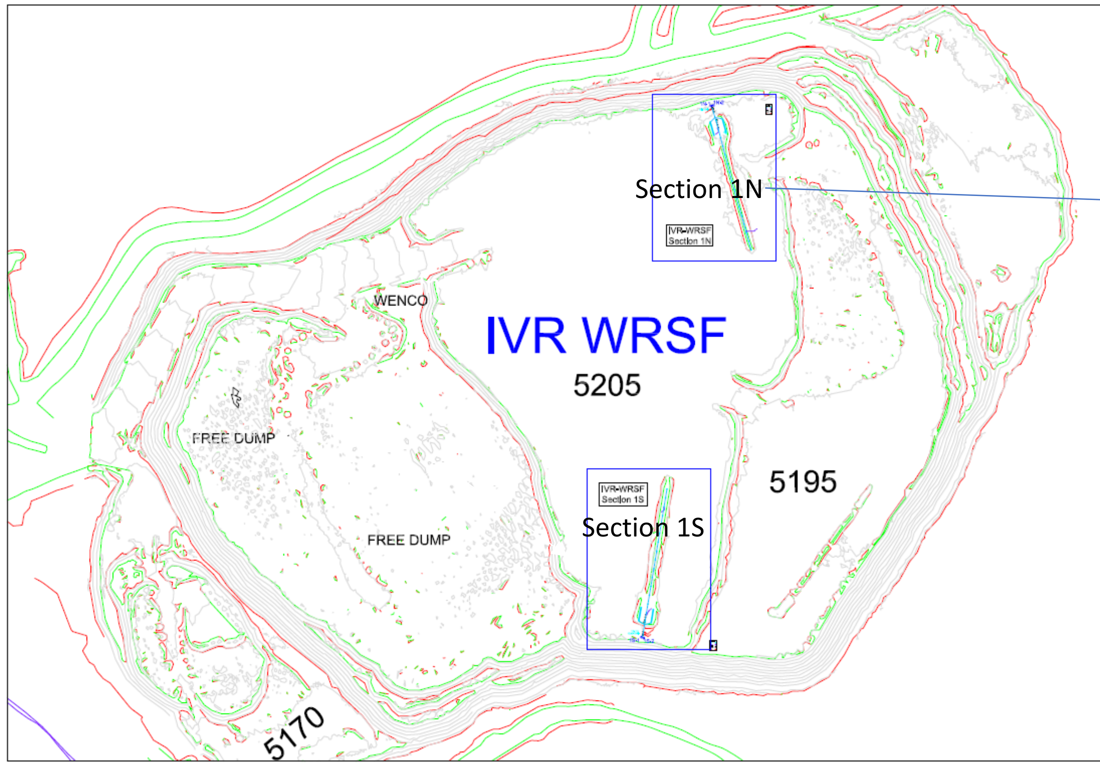


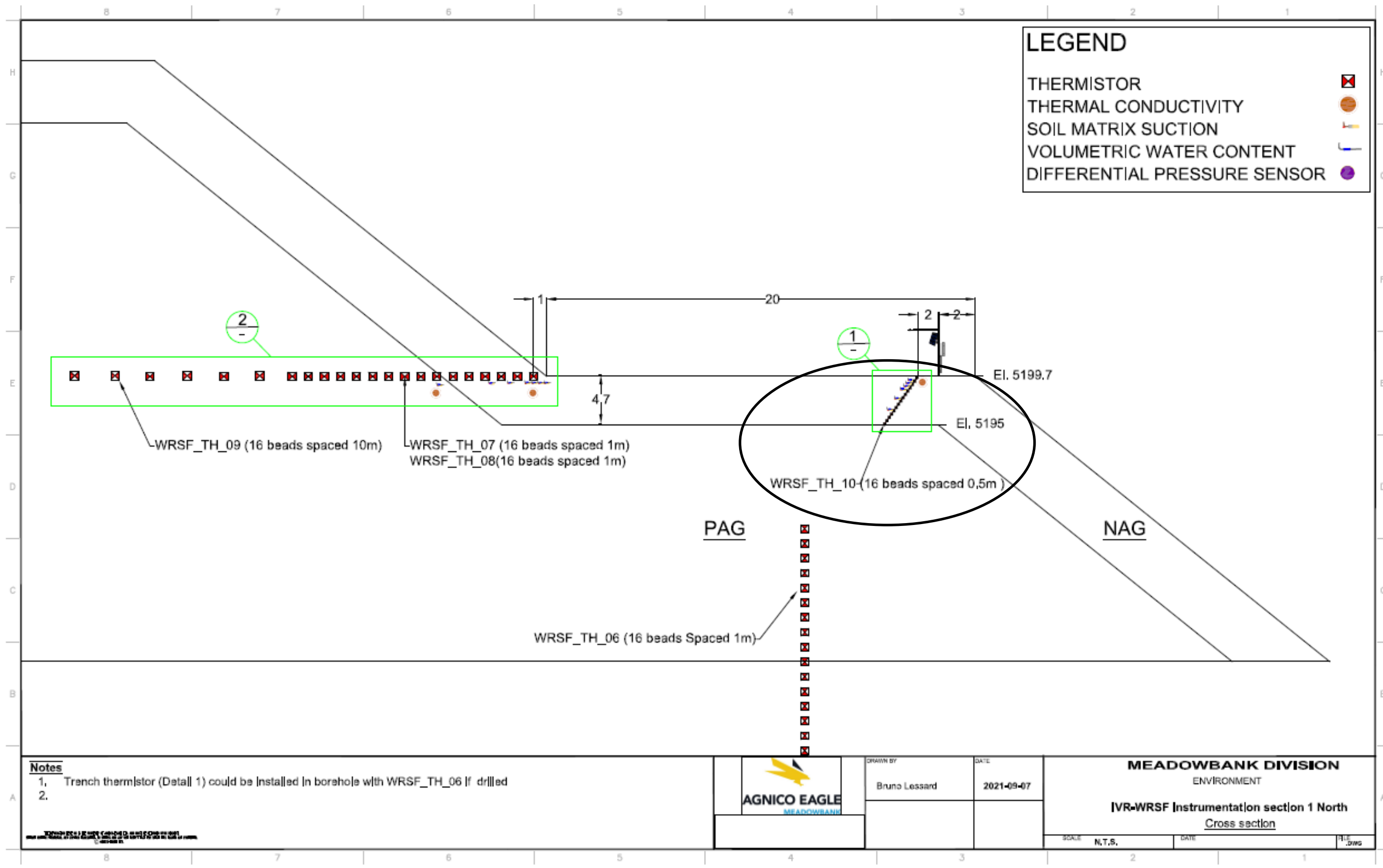


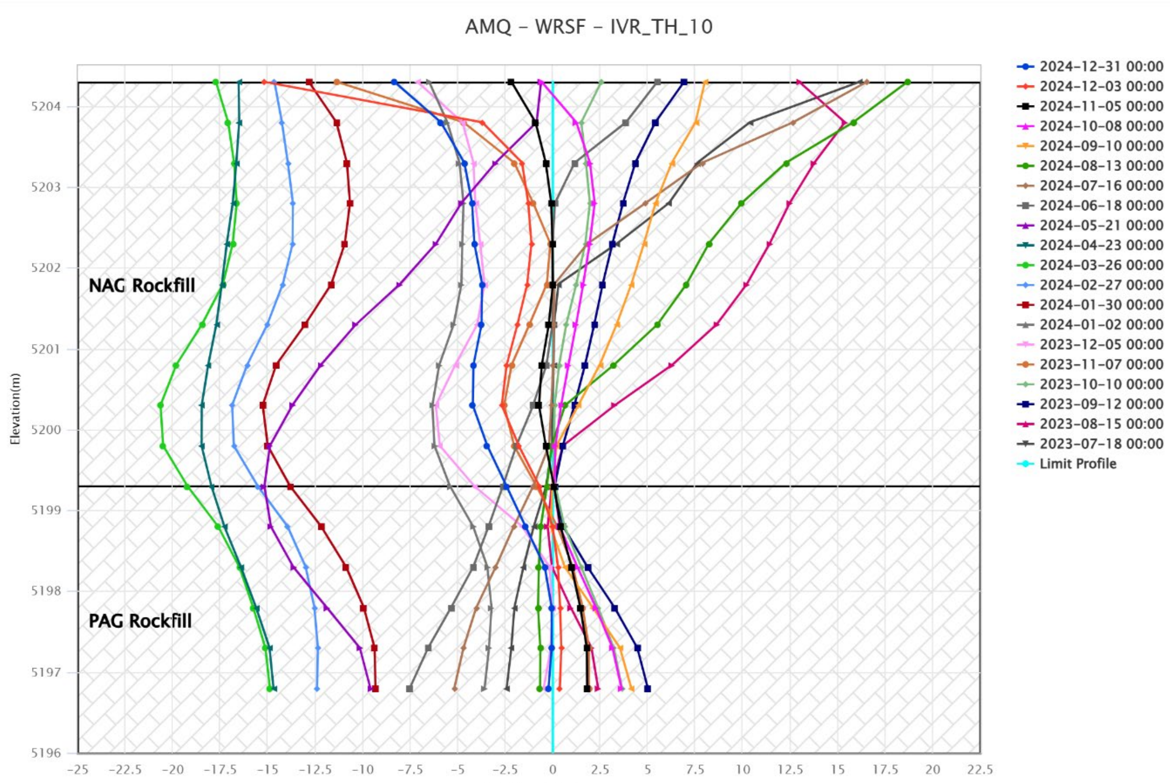


This instrument is installed horizontally and chart needs to be read accordingly

IVR WRSF TH10

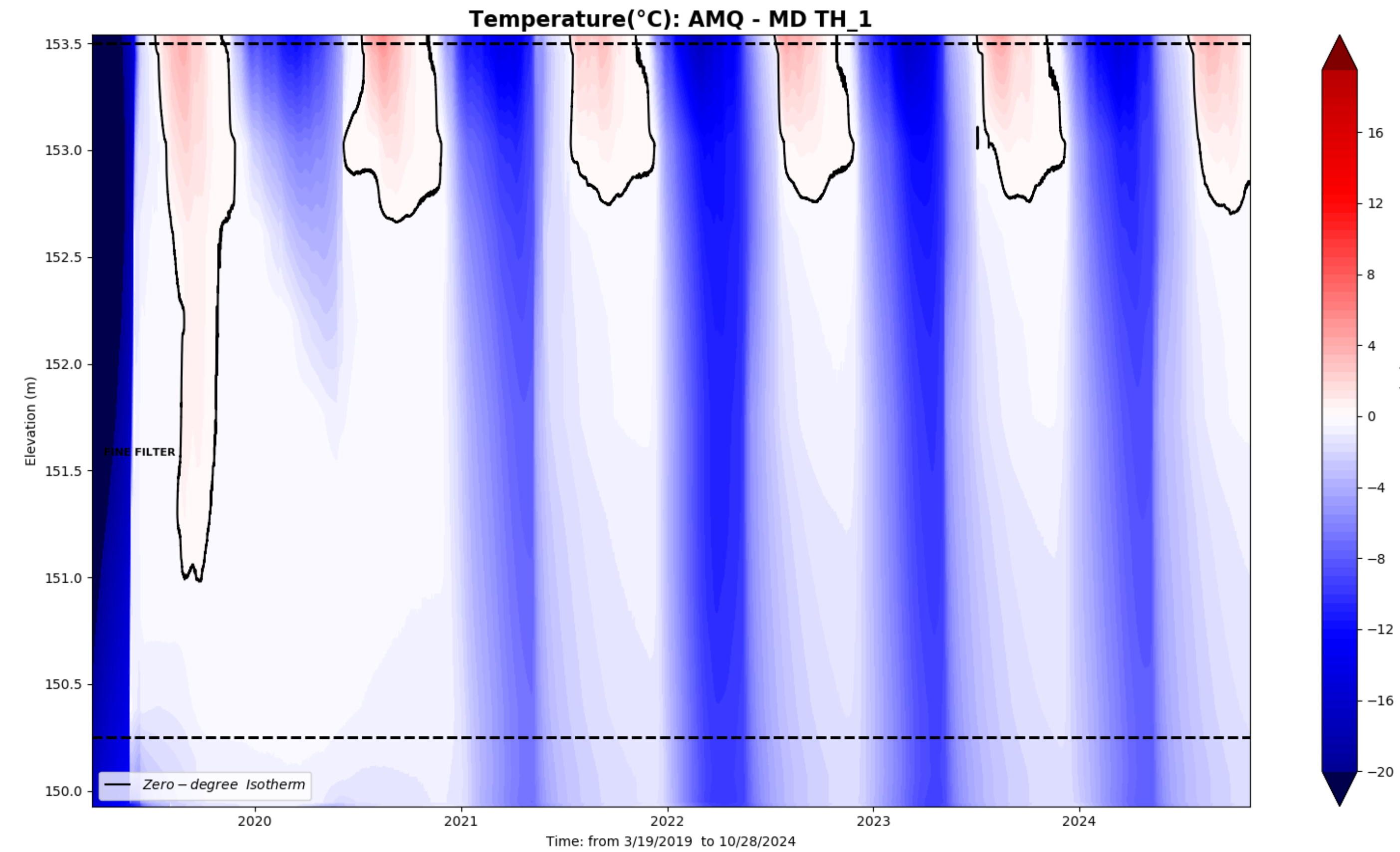


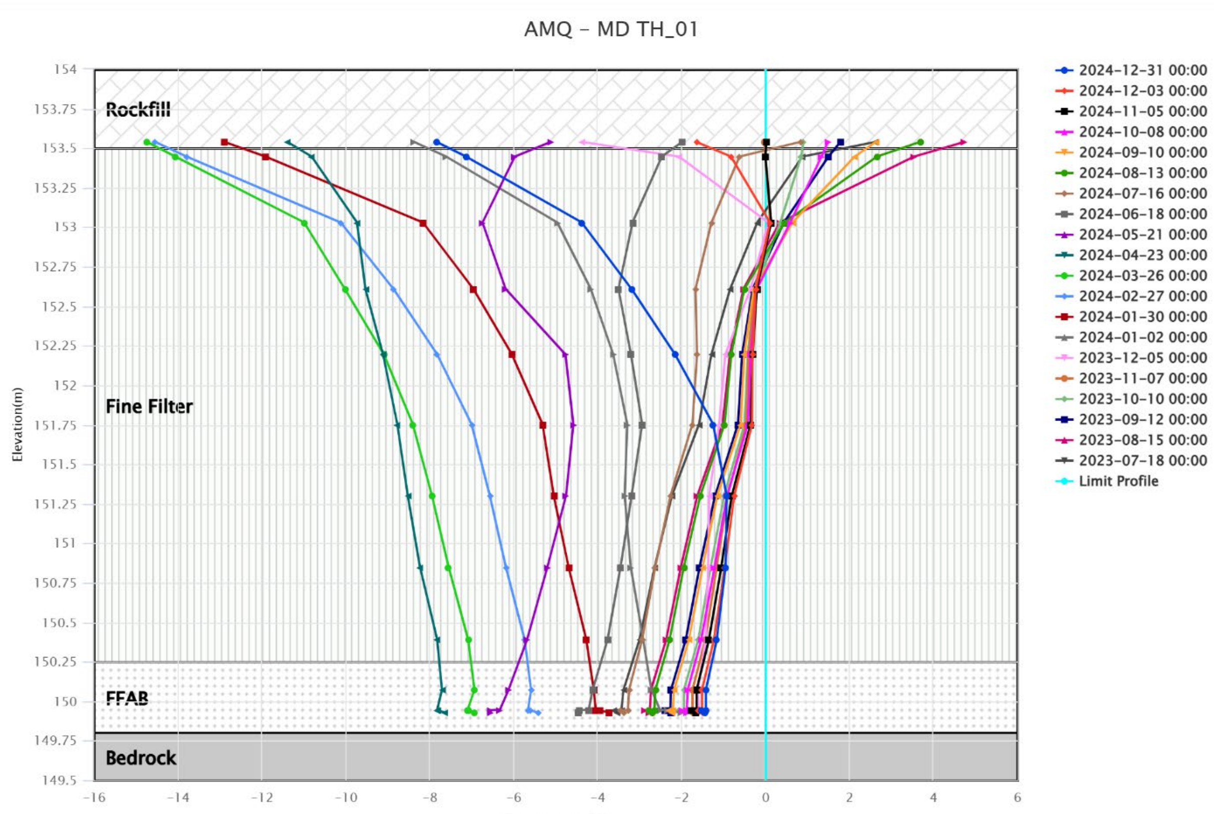


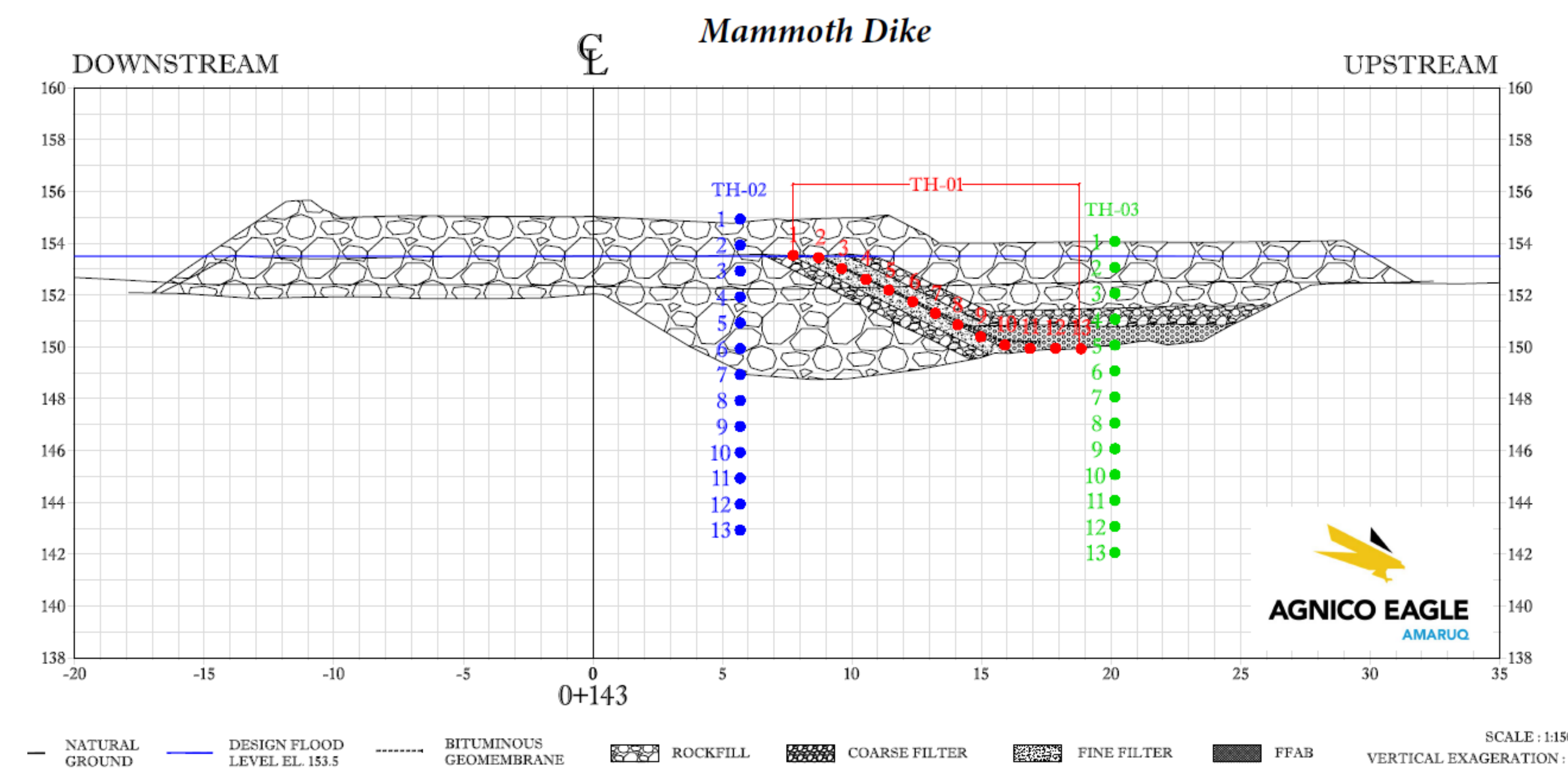


MD TH01


MD TH 01
MD TH 02
MD TH 03
MAMMOTH DIKE

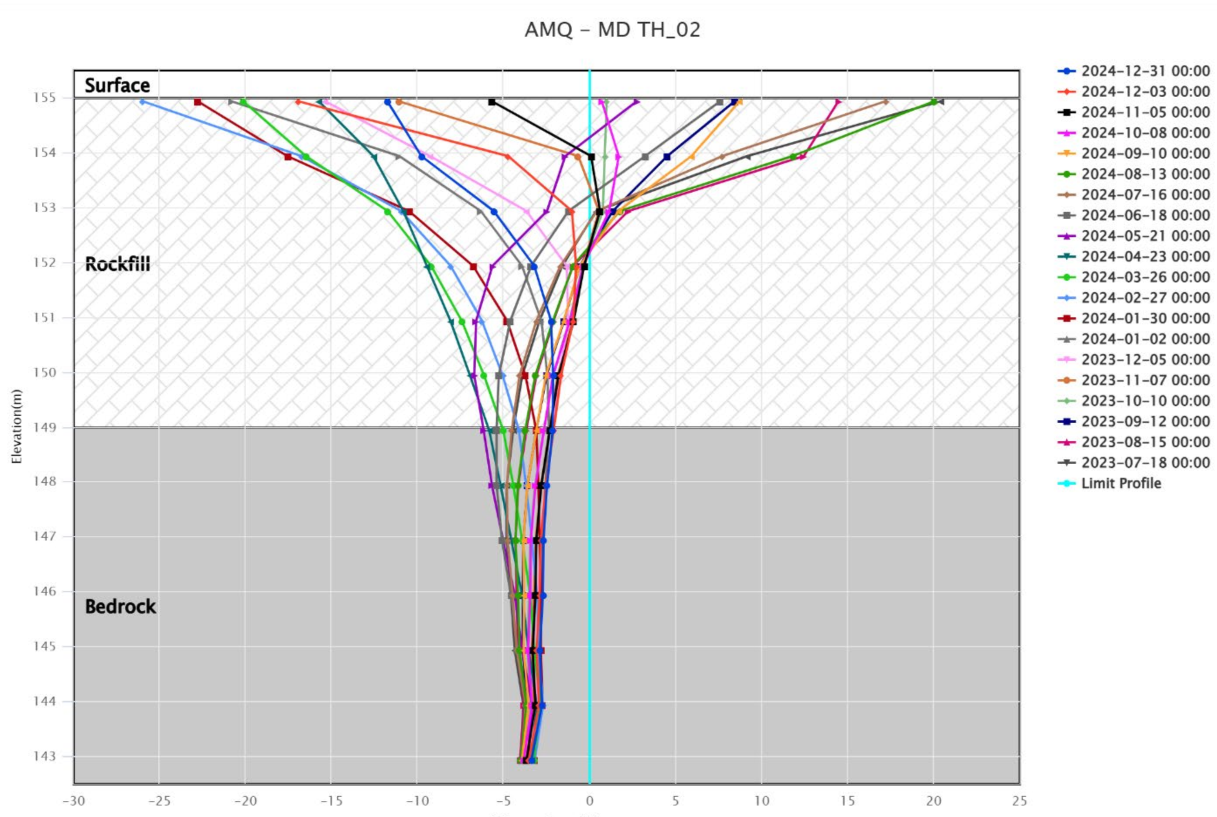

Temperature(°C): AMQ - MD TH_1
Elevation (m)
153.5
153.0
152.5
152.0
151.5
151.0
150.5
150.0
FINE FILTER
Zero – degree Isotherm
2020
2021
2022
2023
2024
Time: from 3/19/2019 to 10/28/2024
Temperature(°C)
16
12
8
4
0
−4
−8
−12
−16
−20


AMQ – MD TH_01
Elevation(m)
Rockfill
Fine Filter
FFAB
Bedrock
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile


Mammoth Dike
DOWNSTREAM
UPSTREAM
℄
TH-02
TH-01
TH-03
0+143
AGNICO EAGLE
AMARUQ
NATURAL GROUND
DESIGN FLOOD LEVEL EL. 153.5
BITUMINOUS GEOMEMBRANE
ROCKFILL
COARSE FILTER
FINE FILTER
FFAB

MD TH02


MD TH
01
MD TH
02
MD TH
03
MAMMOTH
DIKE


AMQ – MD TH_02
Surface
Rockfill
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
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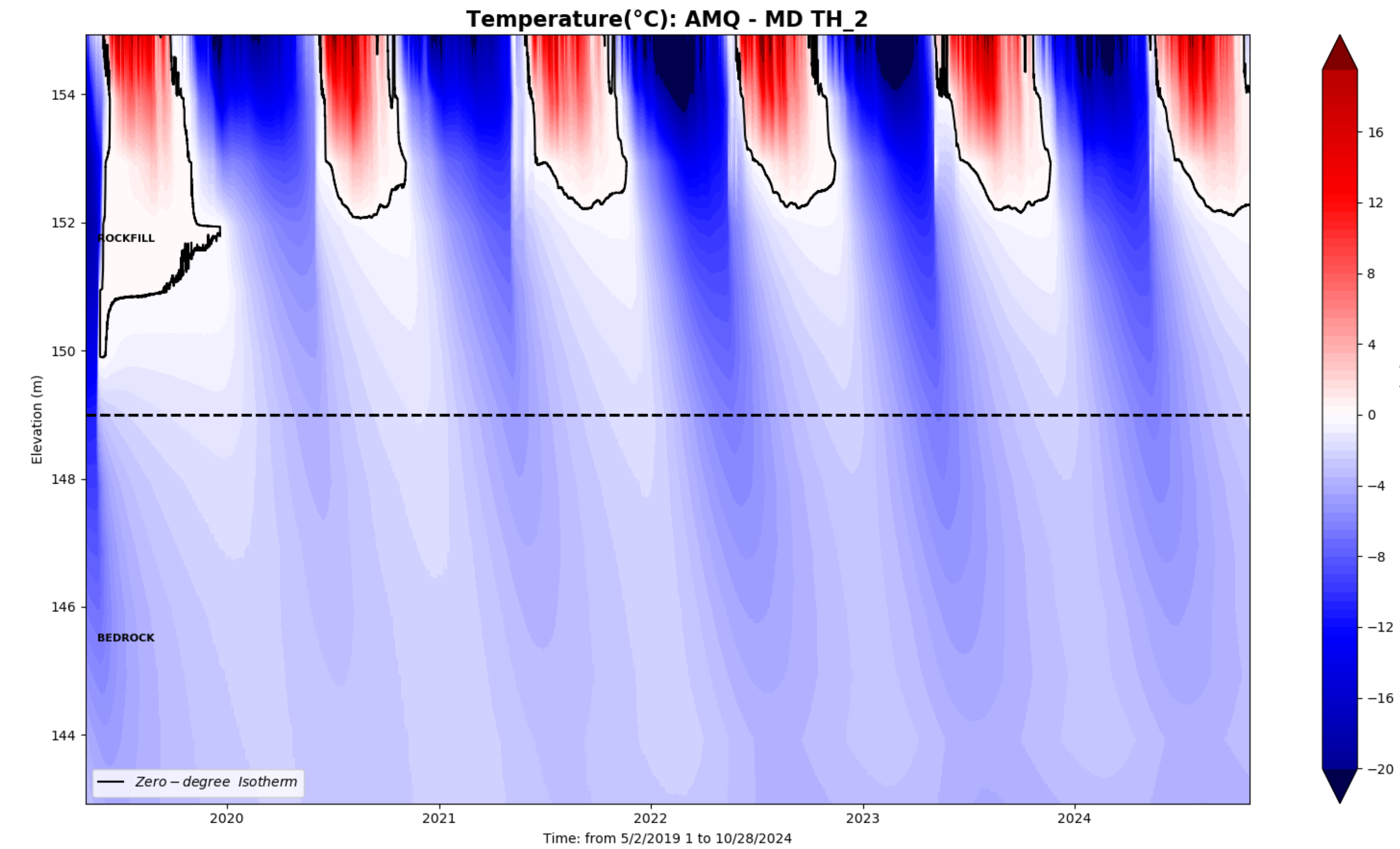
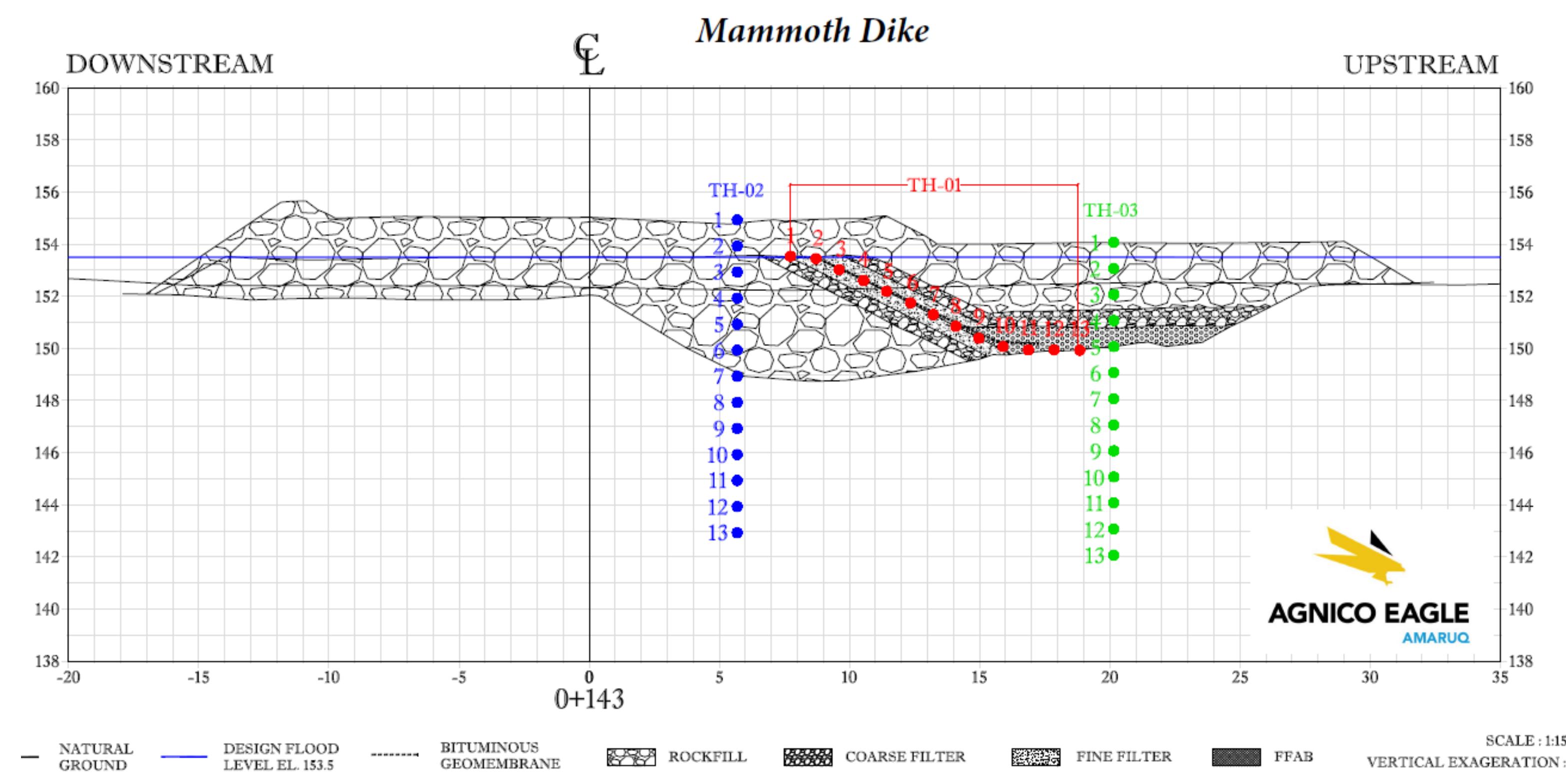
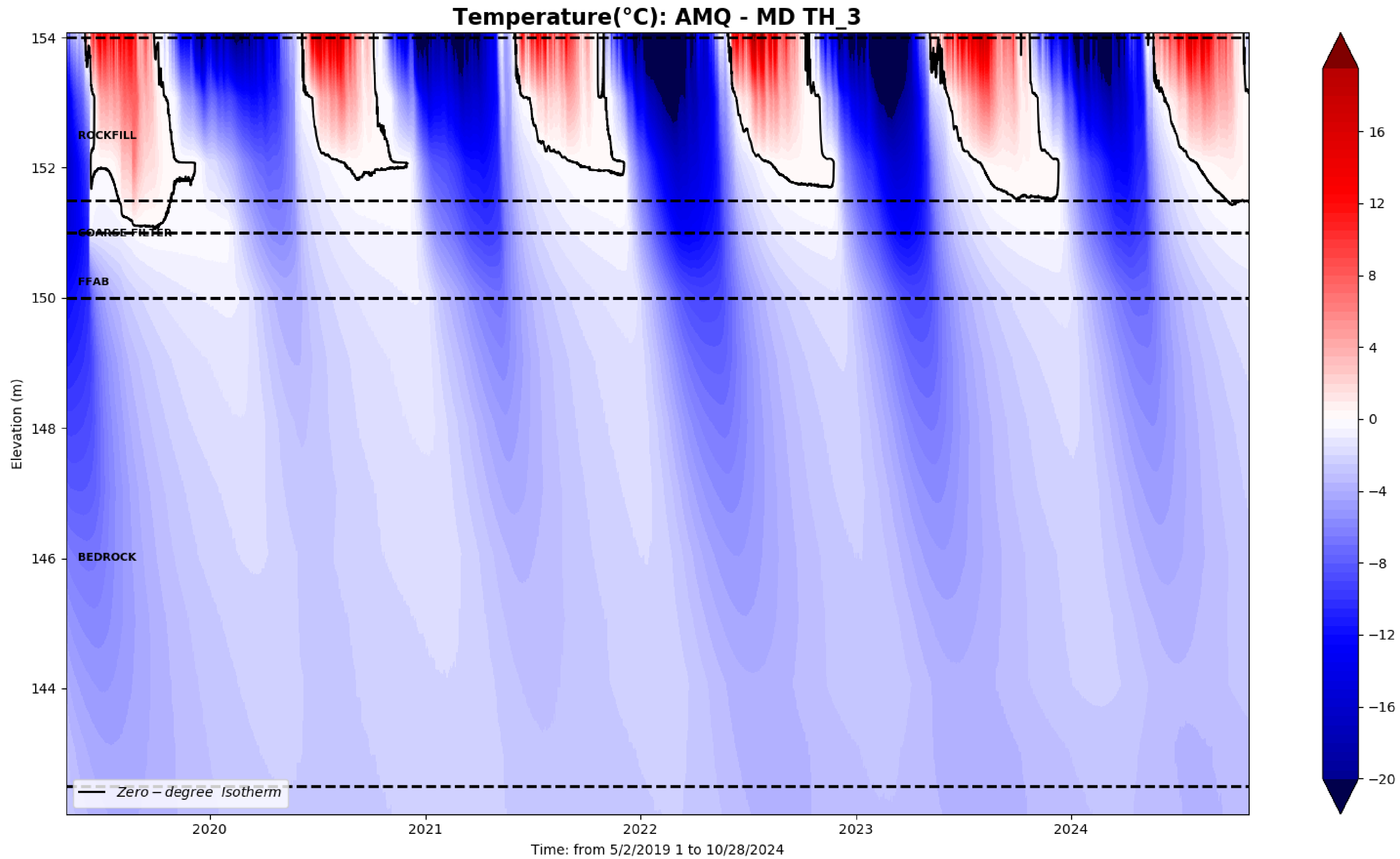
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

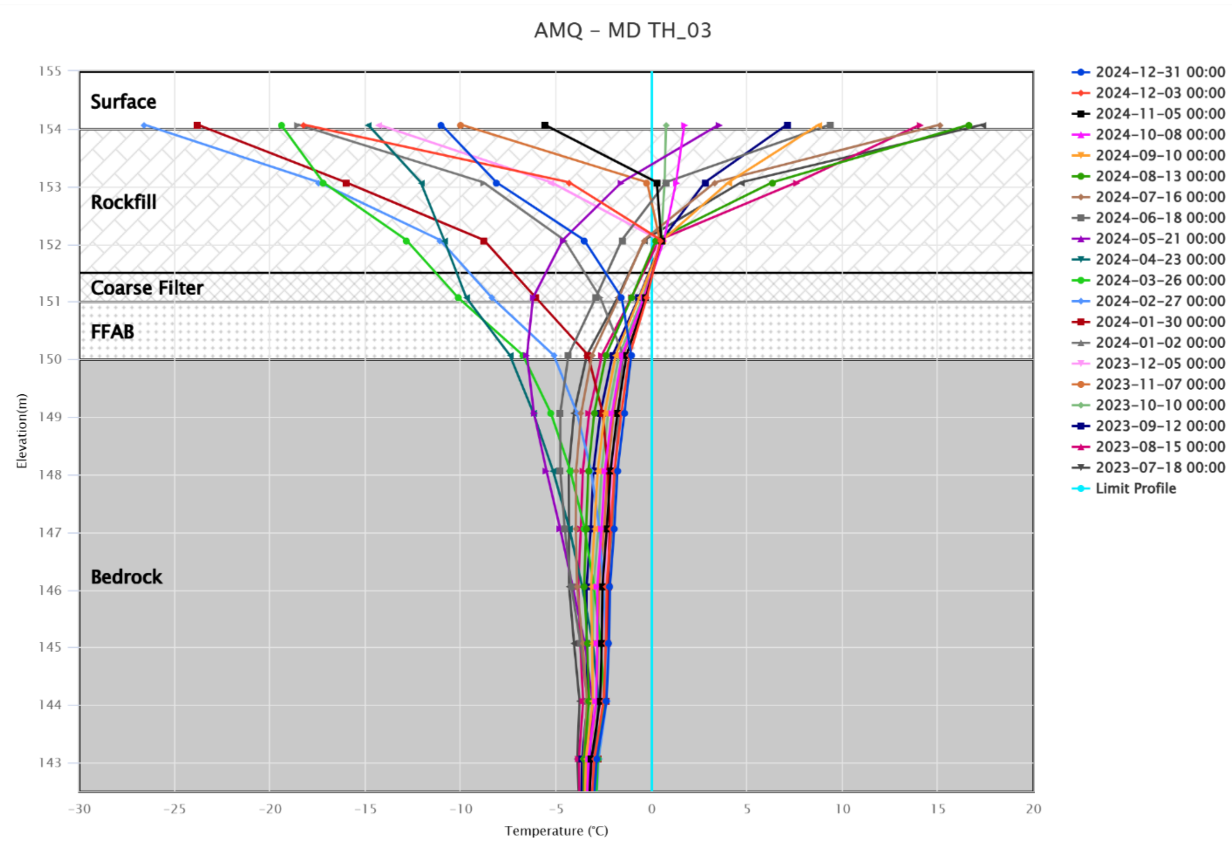

Temperature(°C): AMQ - MD TH_2
ROCKFILL
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 5/2/2019 1 to 10/28/2024
Temperature(°C)

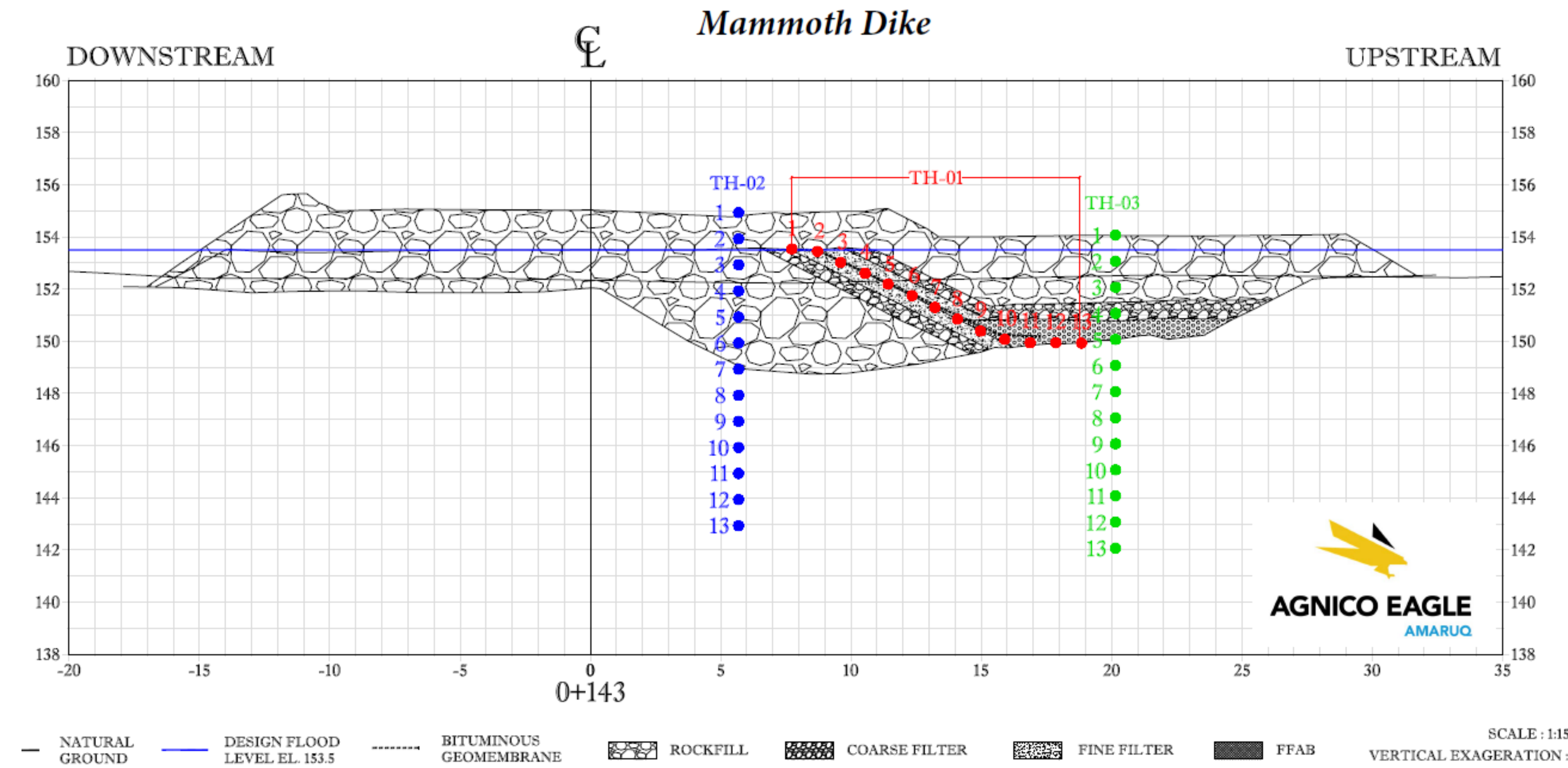

Mammoth Dike
DOWNSTREAM
UPSTREAM
TH-02
TH-01
TH-03
0+143
NATURAL GROUND
DESIGN FLOOD LEVEL EL. 153.5
BITUMINOUS GEOMEMBRANE
ROCKFILL
COARSE FILTER
FINE FILTER
FFAB
AGNICO EAGLE
AMARUQ

MD TH03

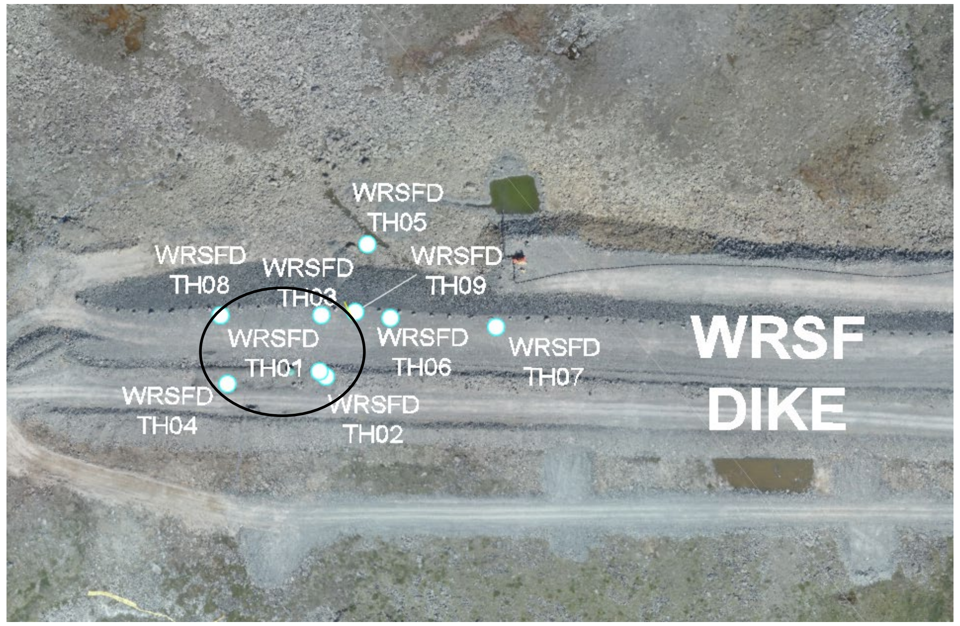

MD TH
01
MD TH
02
MD TH
03
MAMMOTH
DIKE

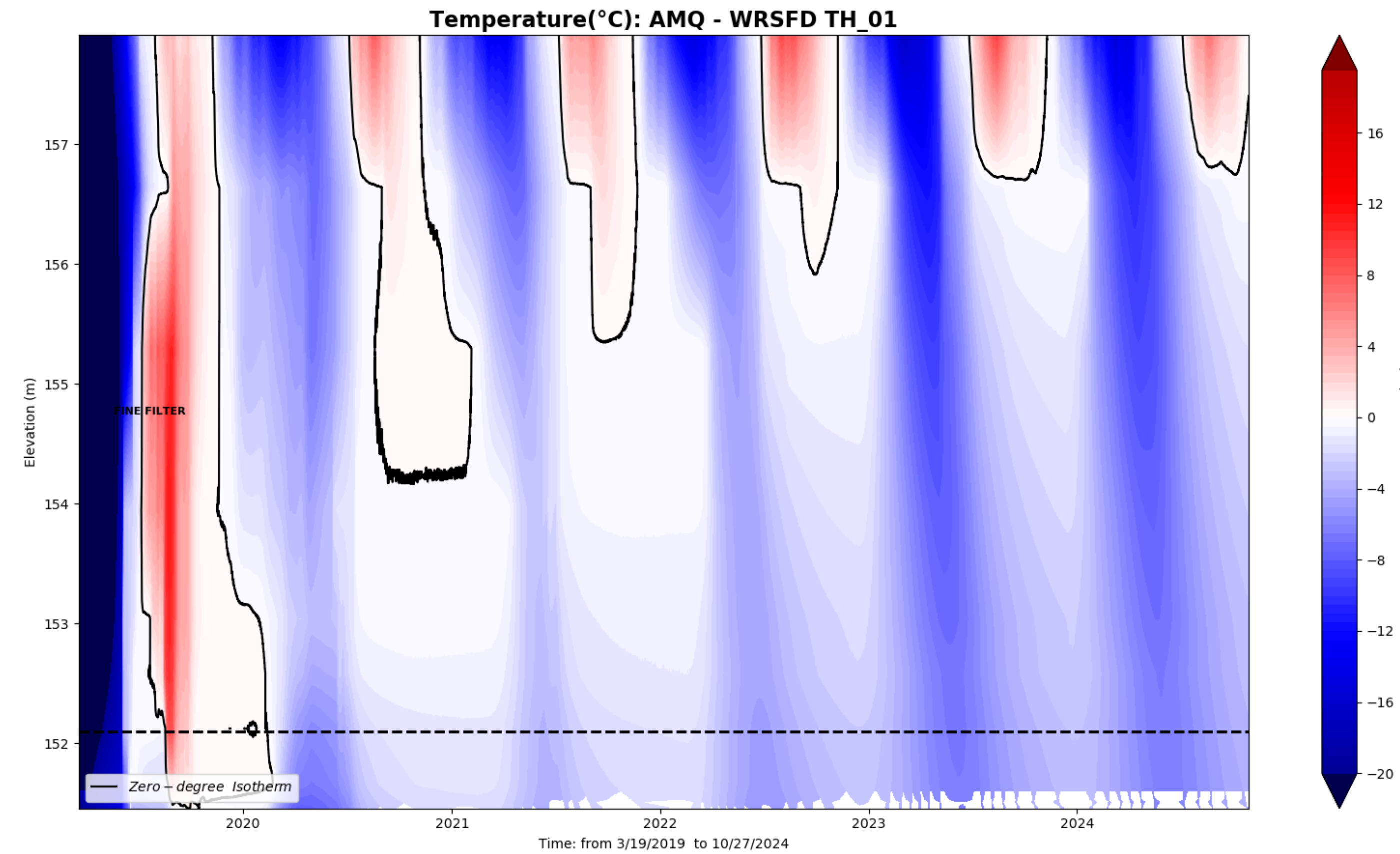

Temperature(°C): AMQ - MD TH_3
154
152
150
148
146
144
Elevation (m)
ROCKFILL
COARSE FILTER
FFAB
BEDROCK
Zero – degree Isotherm
2020
2021
2022
2023
2024
Time: from 5/2/2019 1 to 10/28/2024
16
12
8
4
0
−4
−8
−12
−16
−20
Temperature(°C)

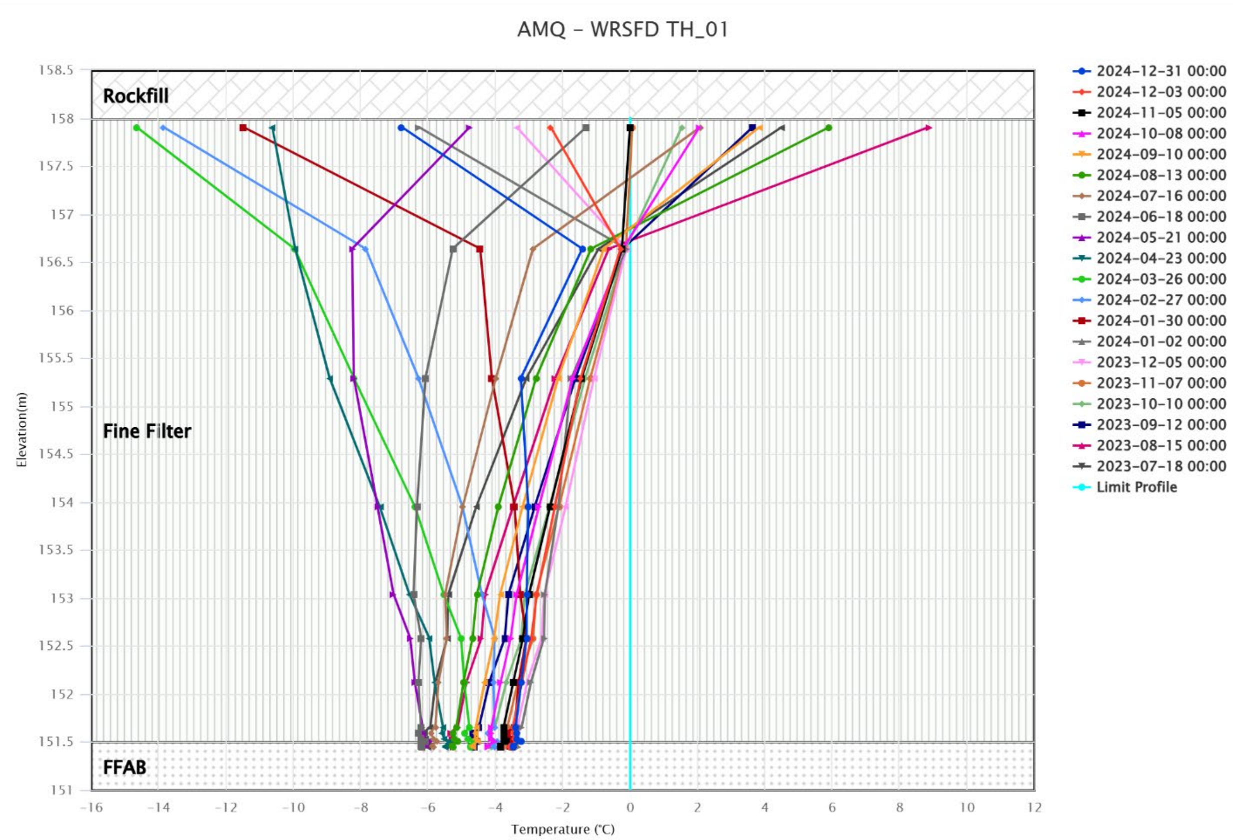

AMQ - MD TH_03
Surface
Rockfill
Coarse Filter
FFAB
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

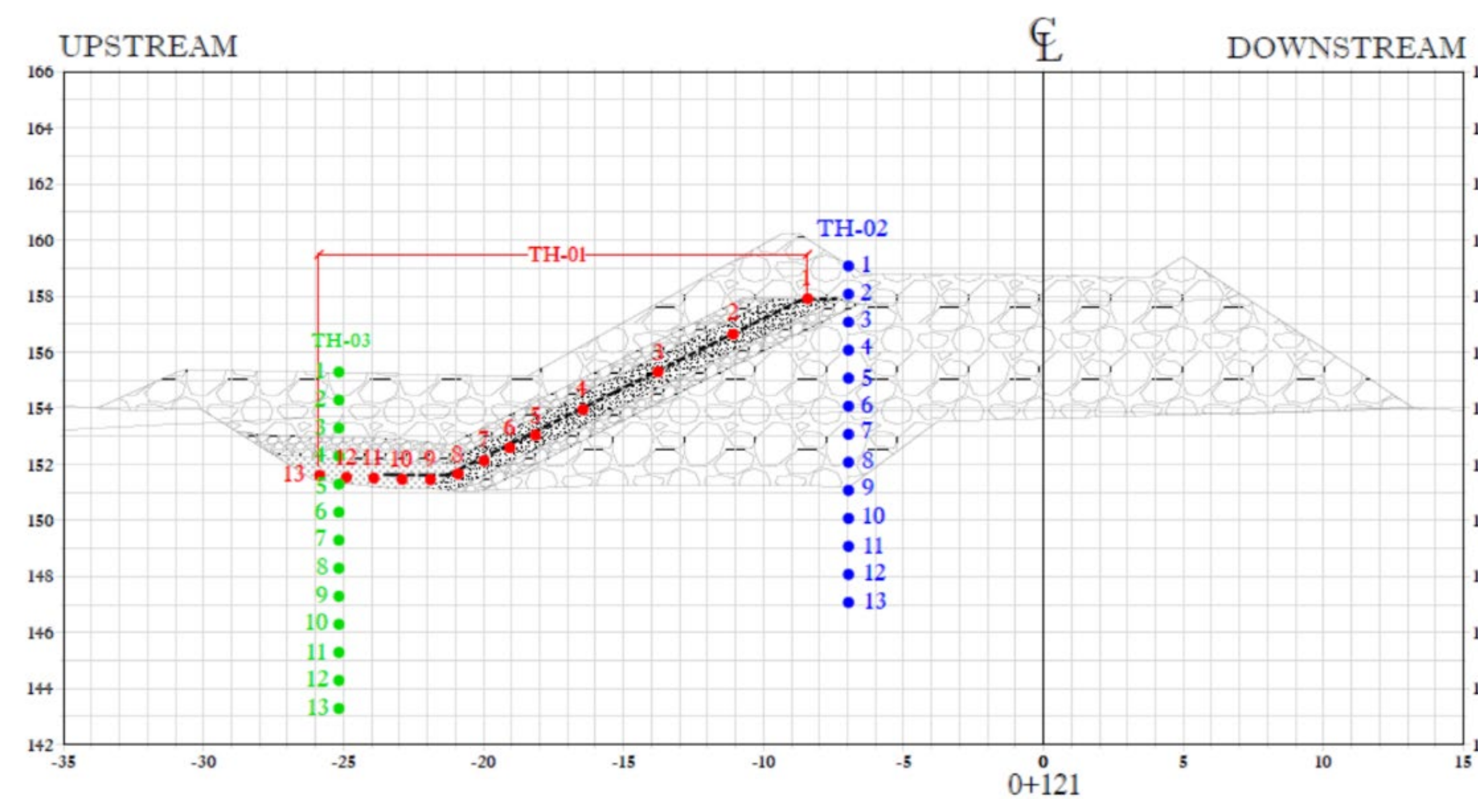

Mammoth Dike
DOWNSTREAM
UPSTREAM
TH-02
TH-01
TH-03
0+143
AGNICO EAGLE
AMARUQ
NATURAL GROUND
DESIGN FLOOD LEVEL EL. 153.5
BITUMINOUS GEOMEMBRANE
ROCKFILL
COARSE FILTER
FINE FILTER
FFAB
SCALE : 1:15
VERTICAL EXAGERATION :

WRSFD TH01

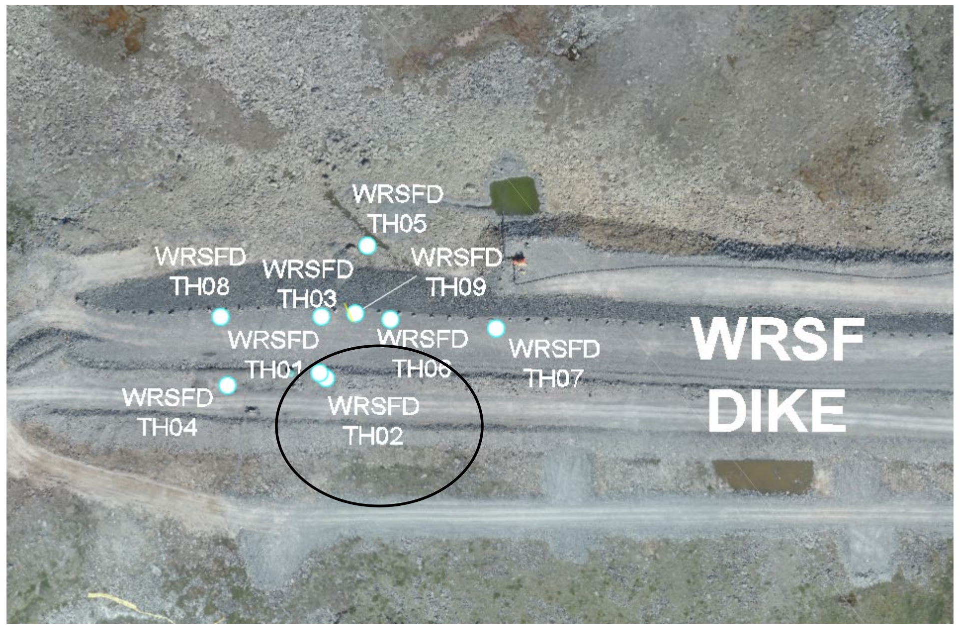

WRSFD TH05
WRSFD TH08
WRSFD TH03
WRSFD TH09
WRSFD TH01
WRSFD TH06
WRSFD TH07
WRSFD TH04
WRSFD TH02
WRSF DIKE

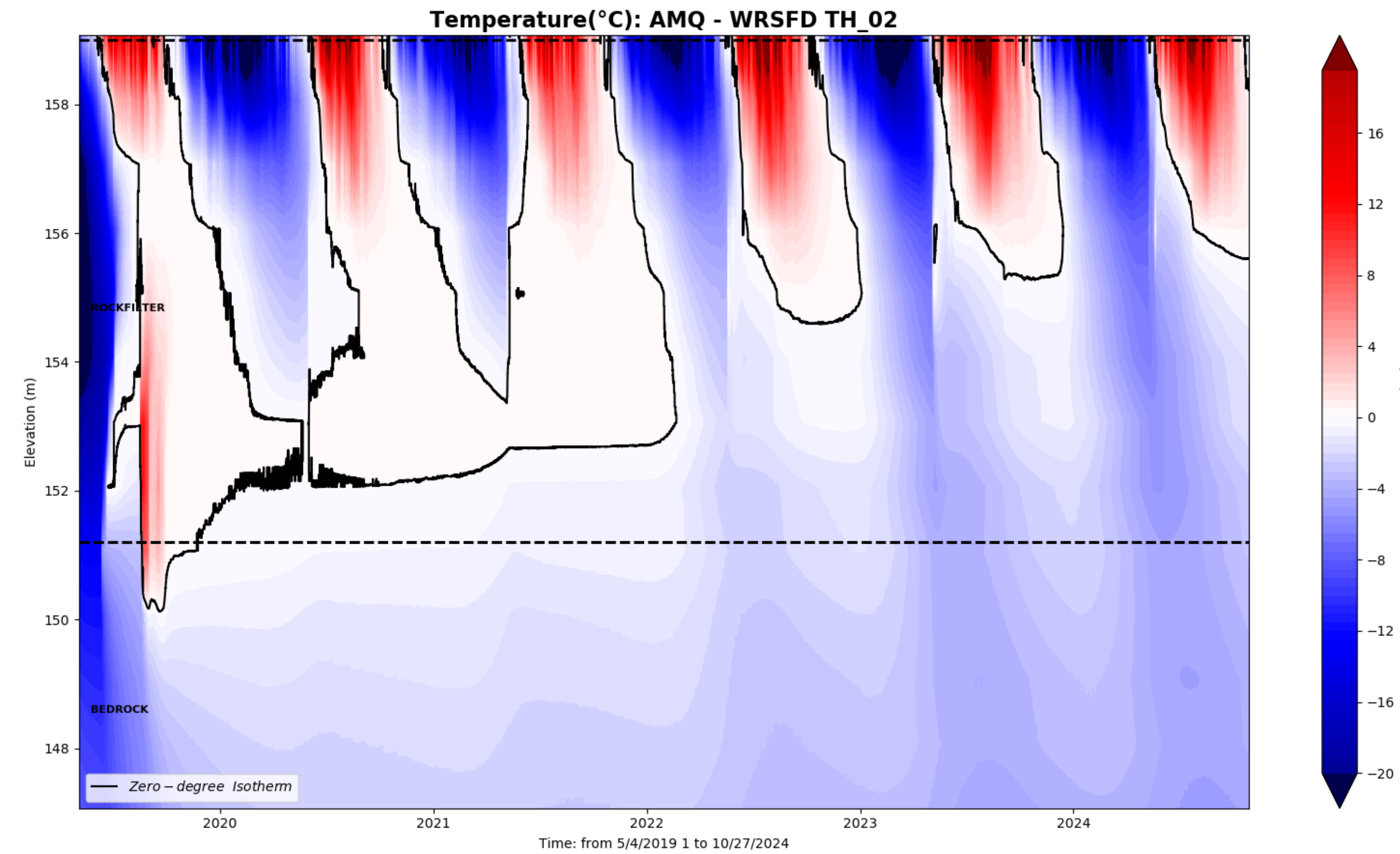

Temperature(°C): AMQ - WRSFD TH_01
Elevation (m)
FINE FILTER
Zero – degree Isotherm
Time: from 3/19/2019 to 10/27/2024
Temperature(°C)

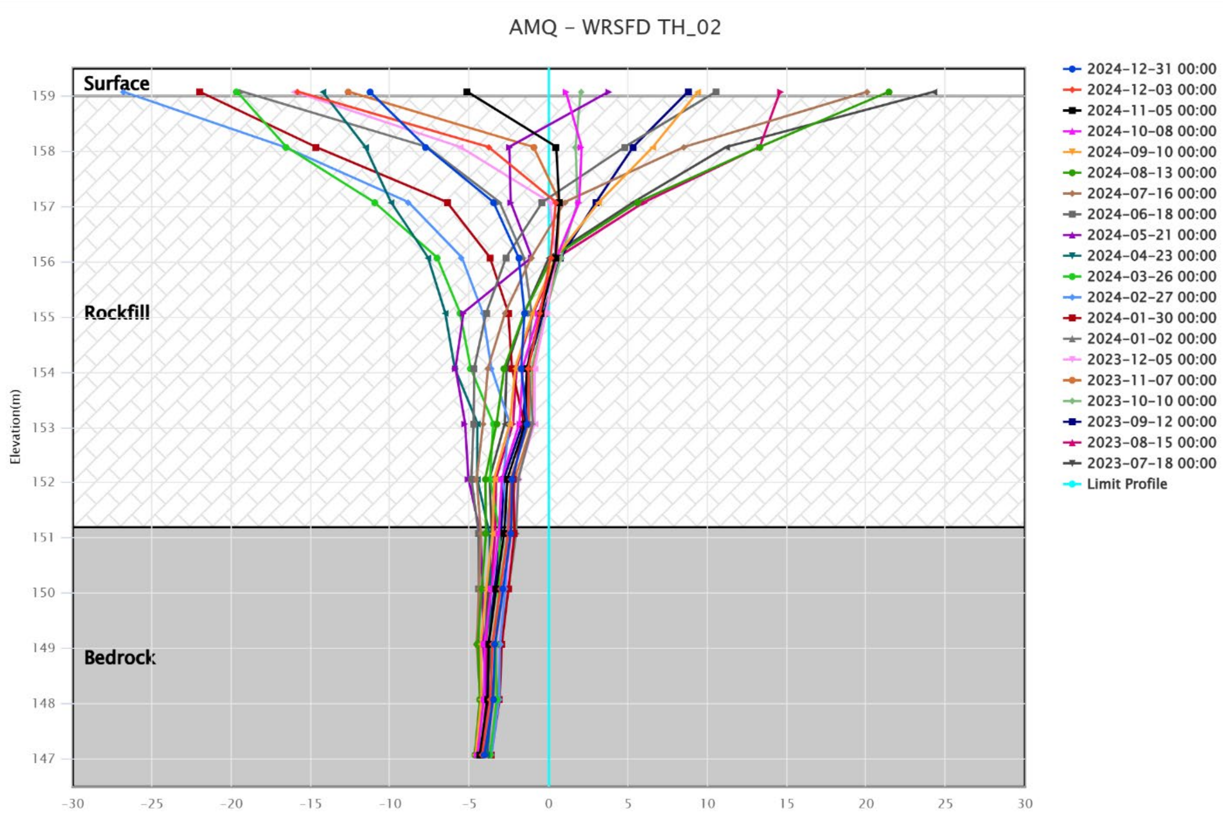

AMQ – WRSFD TH_01
Rockfill
Fine Filter
FFAB
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

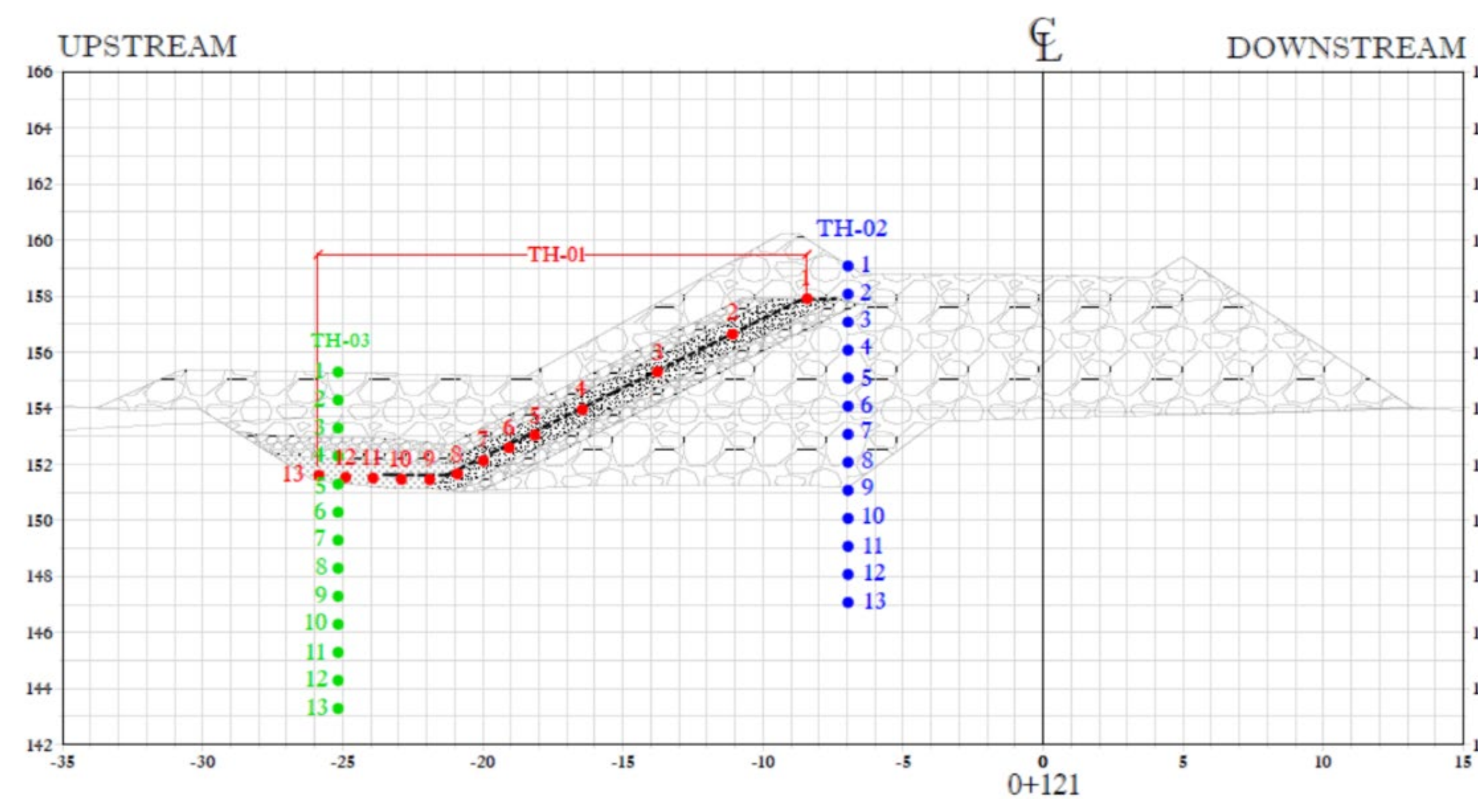

UPSTREAM
DOWNSTREAM
TH-01
TH-02
TH-03
0+121

WRSFD TH02

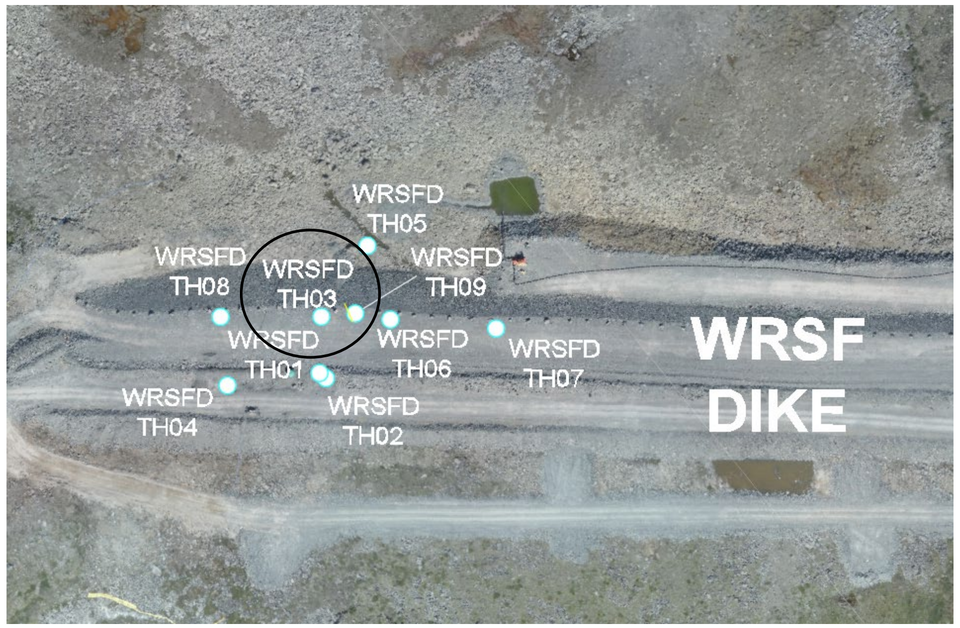

WRSFD TH05
WRSFD TH08
WRSFD TH03
WRSFD TH09
WRSFD TH01
WRSFD TH06
WRSFD TH07
WRSFD TH04
WRSFD TH02
WRSF DIKE

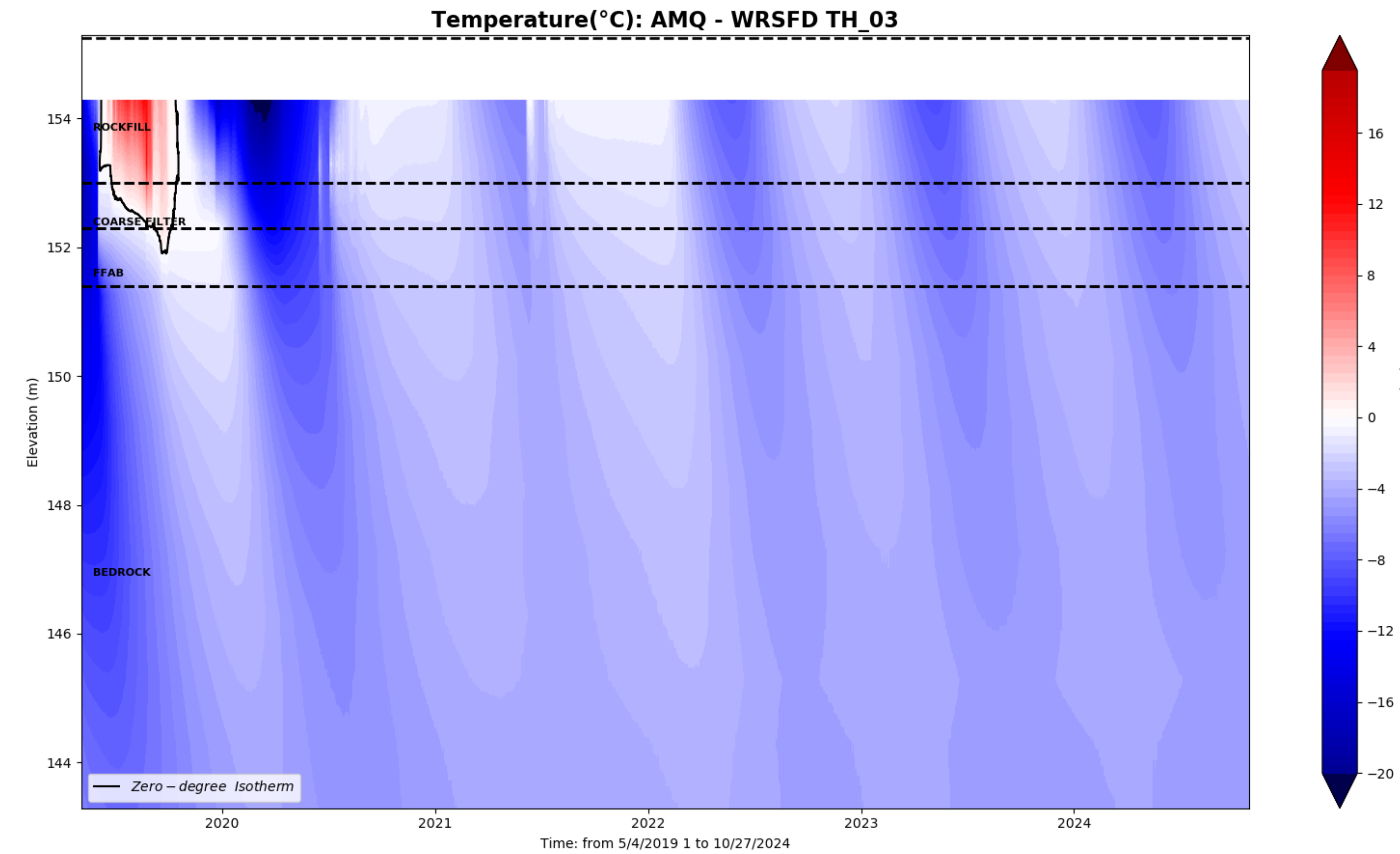

Temperature(°C): AMQ - WRSFD TH_02
Elevation (m)
Temperature(°C)
ROCKFILTER
BEDROCK
Zero – degree Isotherm
Time: from 5/4/2019 1 to 10/27/2024

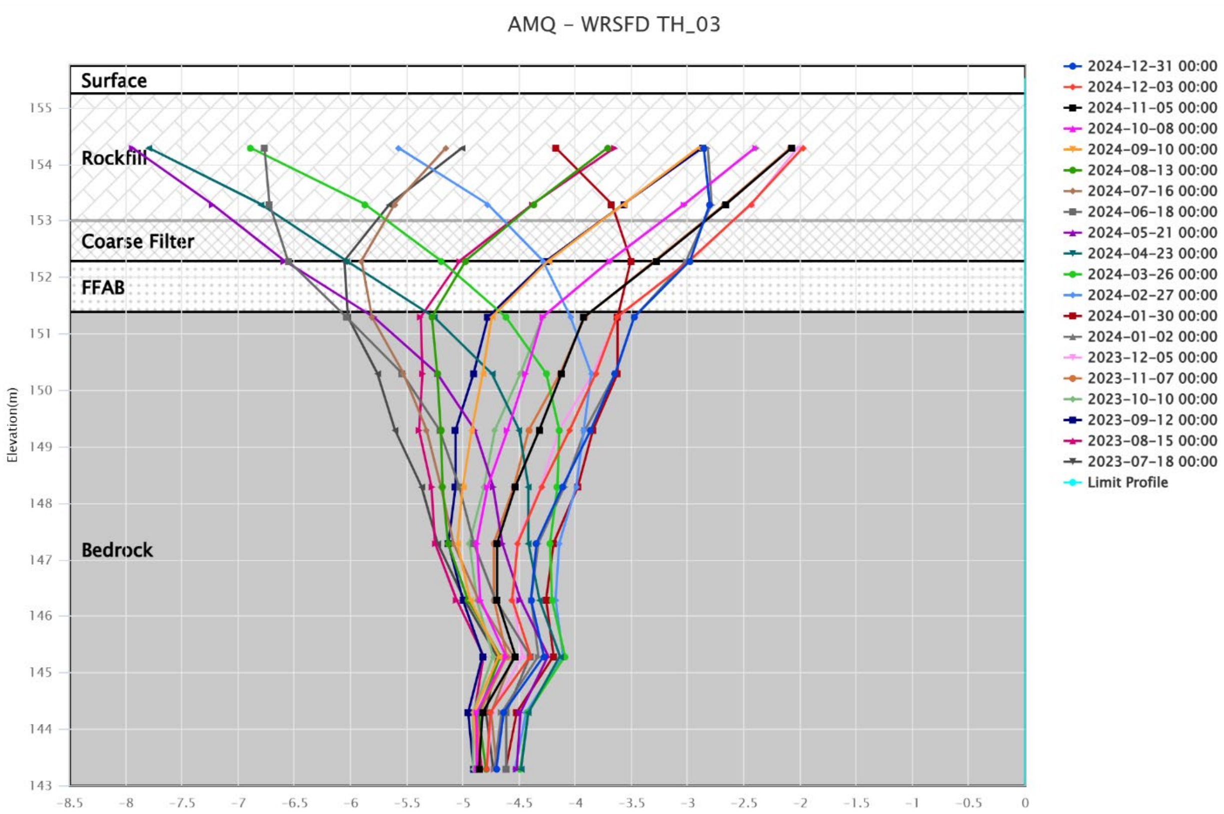

AMQ – WRSFD TH_02
Surface
Rockfill
Bedrock
Elevation(m)
Temperature (C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

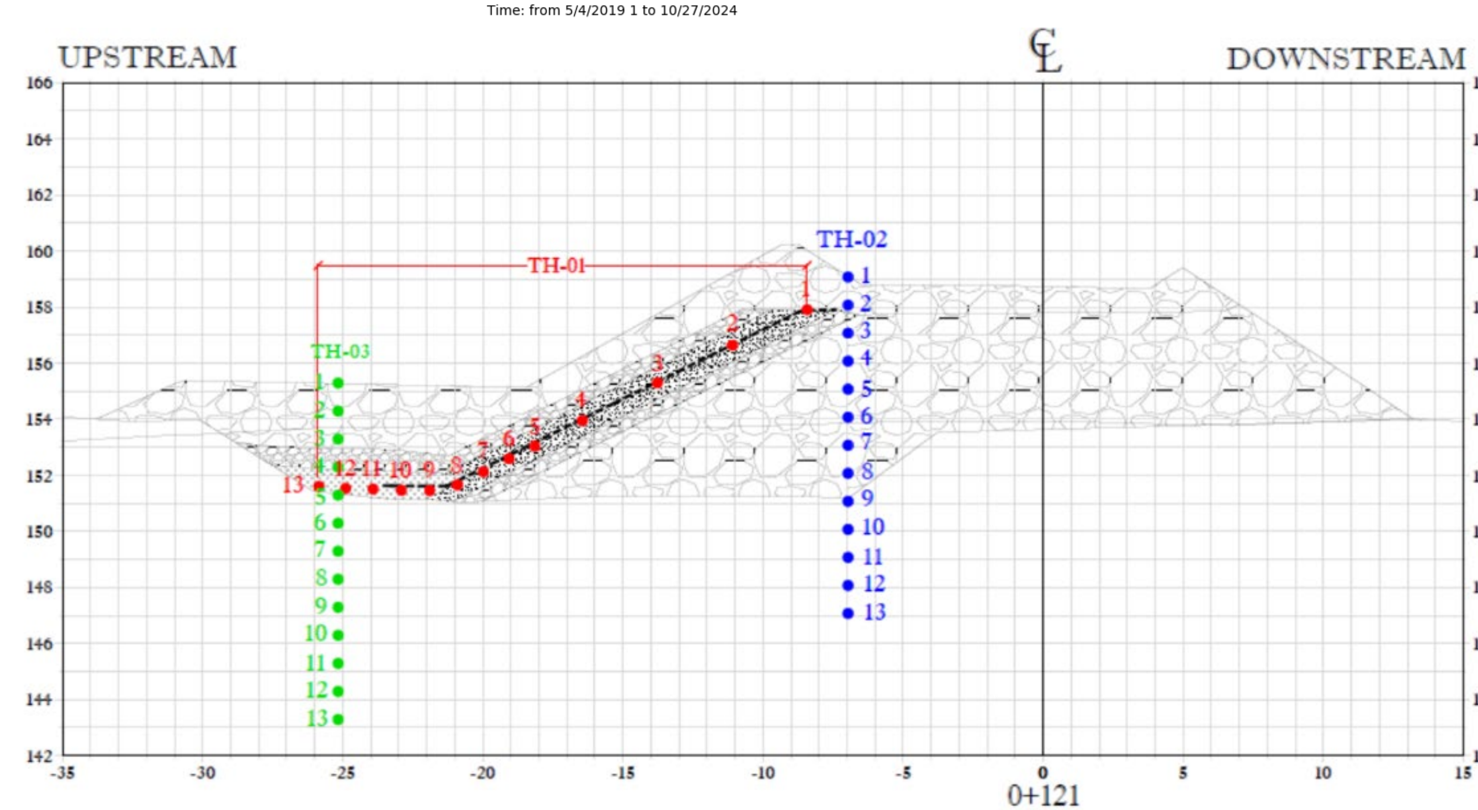

UPSTREAM
DOWNSTREAM
CL
TH-01
TH-02
TH-03
0+121

WRSFD TH03

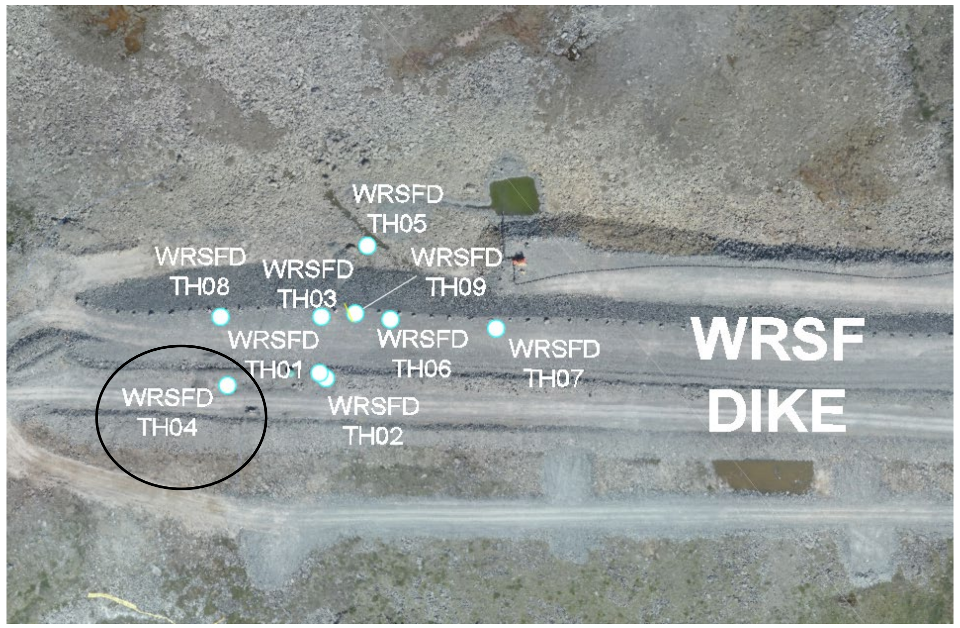

WRSFD TH05
WRSFD TH08
WRSFD TH03
WRSFD TH09
WRSFD TH01
WRSFD TH06
WRSFD TH07
WRSFD TH04
WRSFD TH02
WRSF DIKE

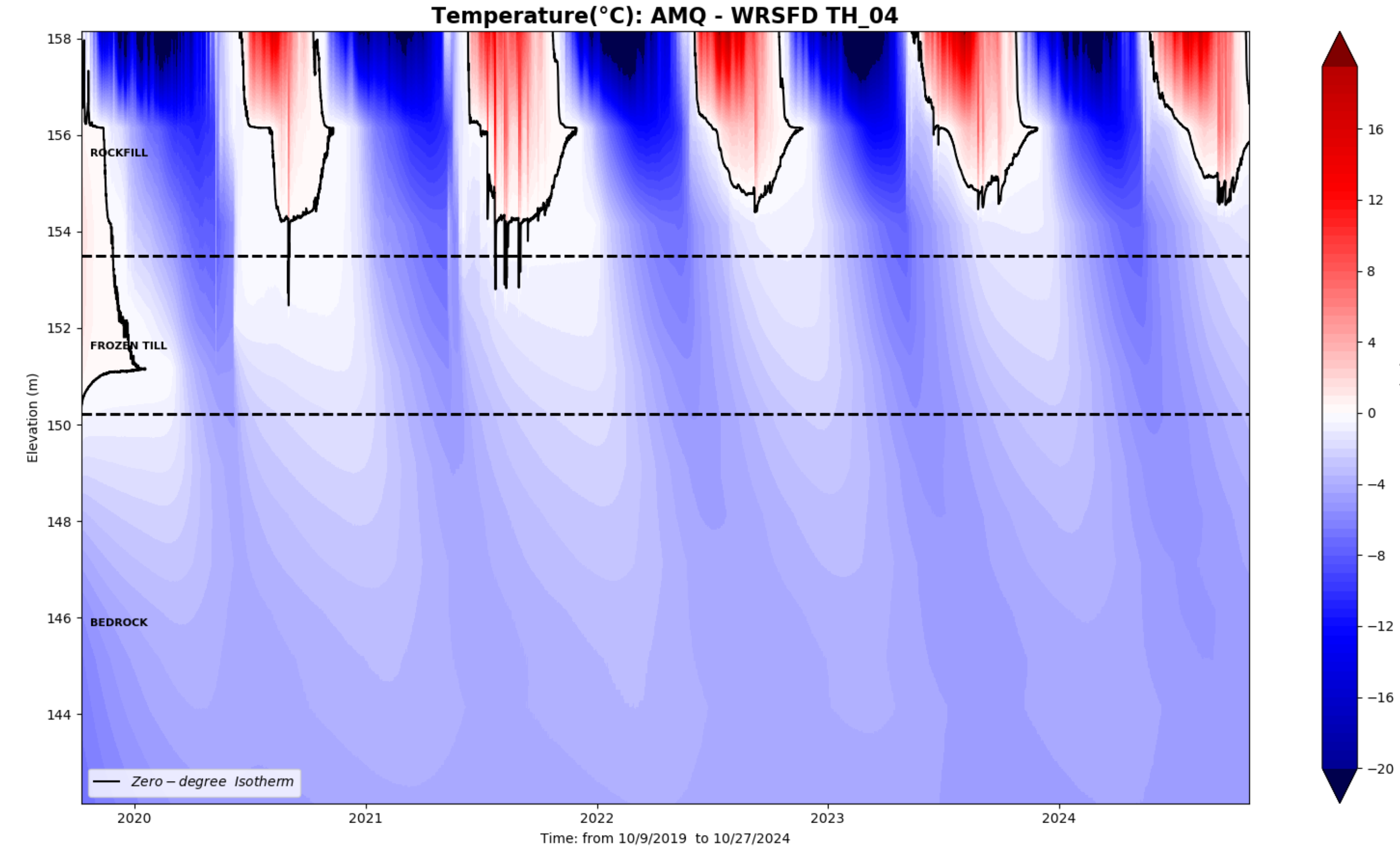

Temperature(°C): AMQ - WRSFD TH_03
ROCKFILL
COARSE FILTER
FFAB
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 5/4/2019 1 to 10/27/2024
Temperature(°C)

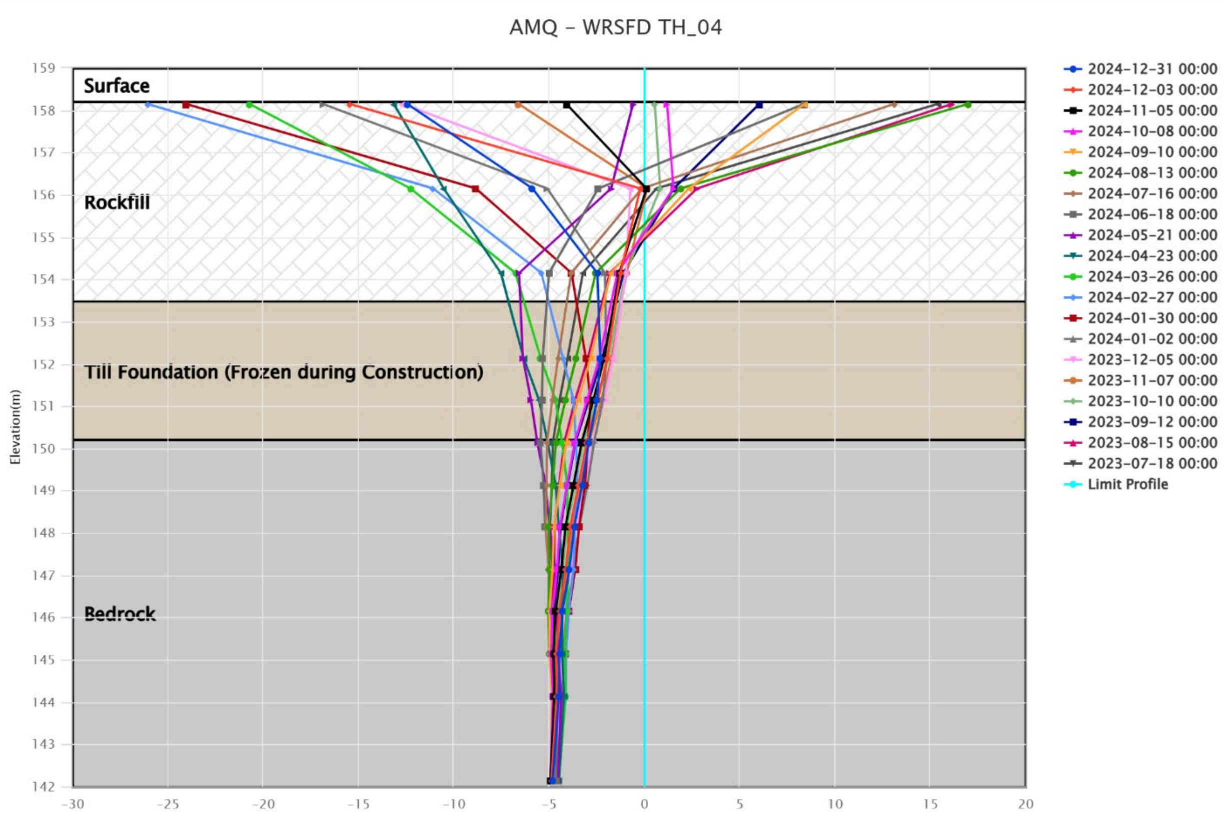

AMQ – WRSFD TH_03
Surface
Rockfill
Coarse Filter
FFAB
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

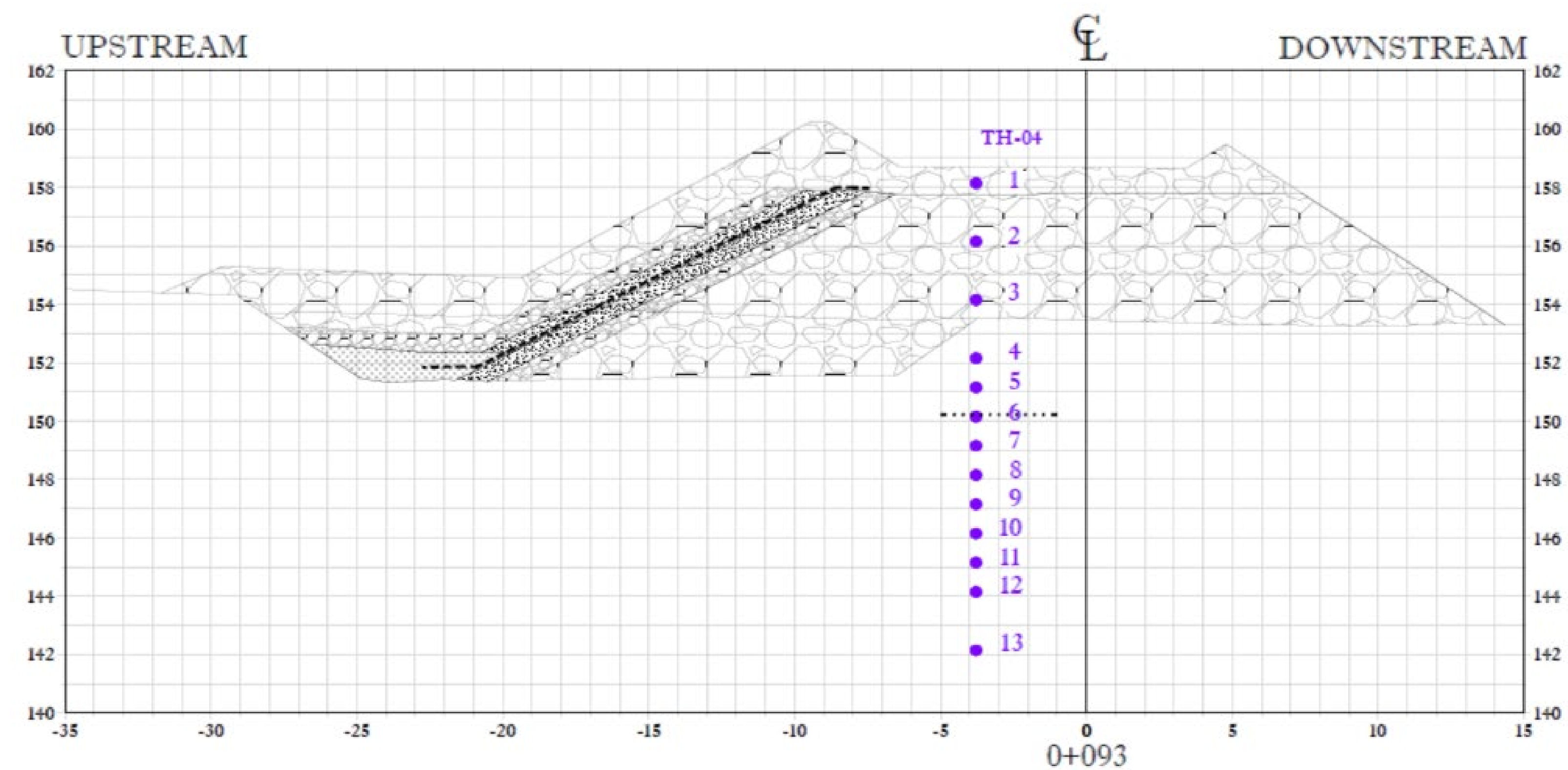

UPSTREAM
DOWNSTREAM
℄
TH-01
TH-02
TH-03
0+121

WRSFD TH04

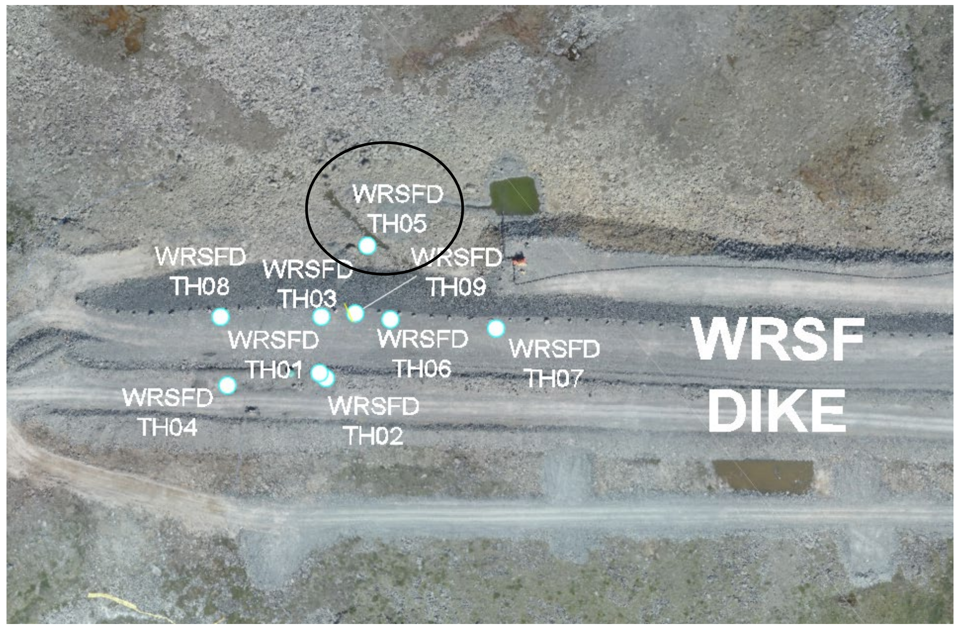

WRSFD TH05
WRSFD TH08
WRSFD TH03
WRSFD TH09
WRSFD TH01
WRSFD TH06
WRSFD TH07
WRSFD TH04
WRSFD TH02
WRSF DIKE

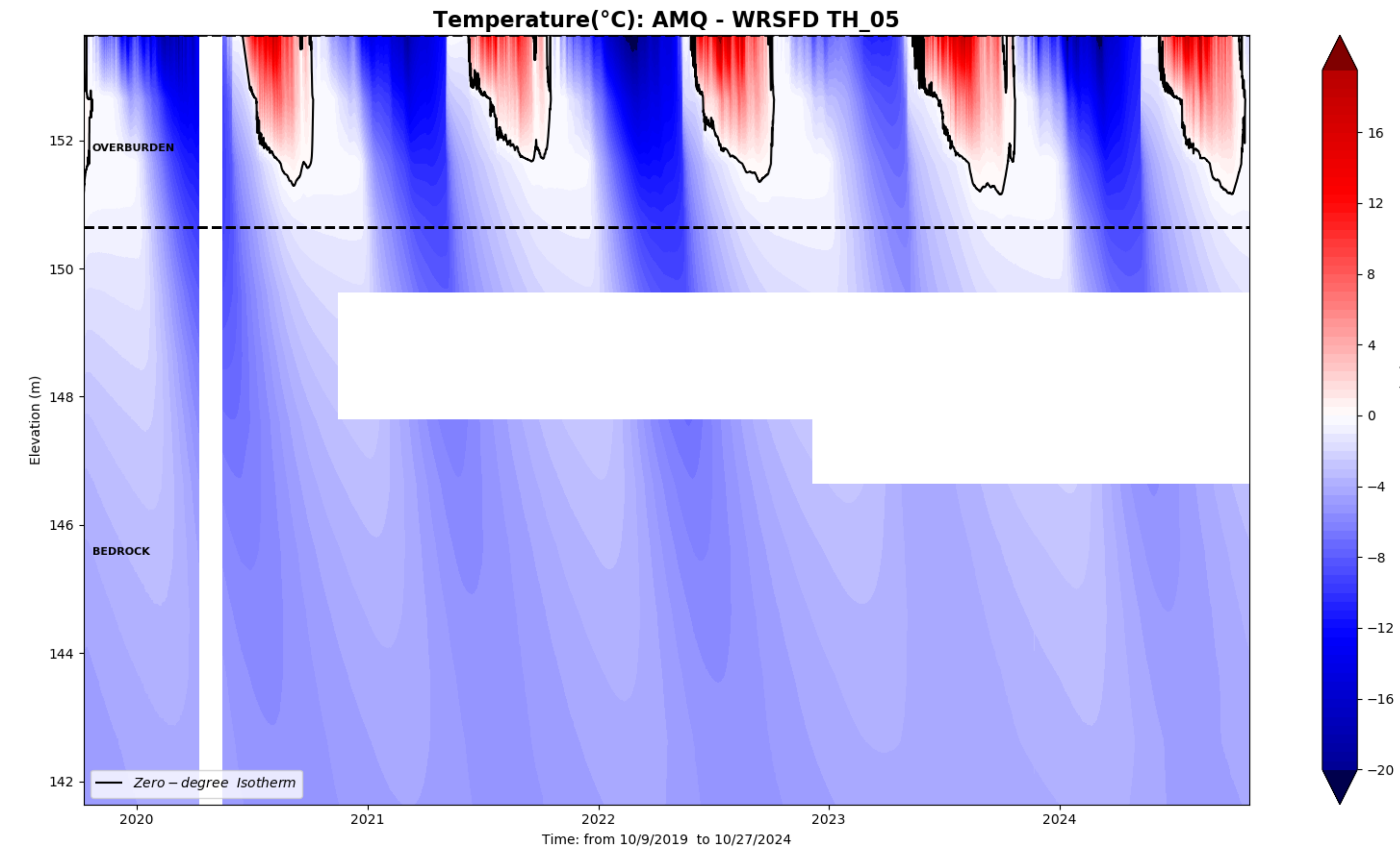

Temperature(°C): AMQ - WRSFD TH_04
ROCKFILL
FROZEN TILL
BEDROCK
Elevation (m)
Temperature(°C)
Zero – degree Isotherm
2020
2021
2022
2023
2024
Time: from 10/9/2019 to 10/27/2024

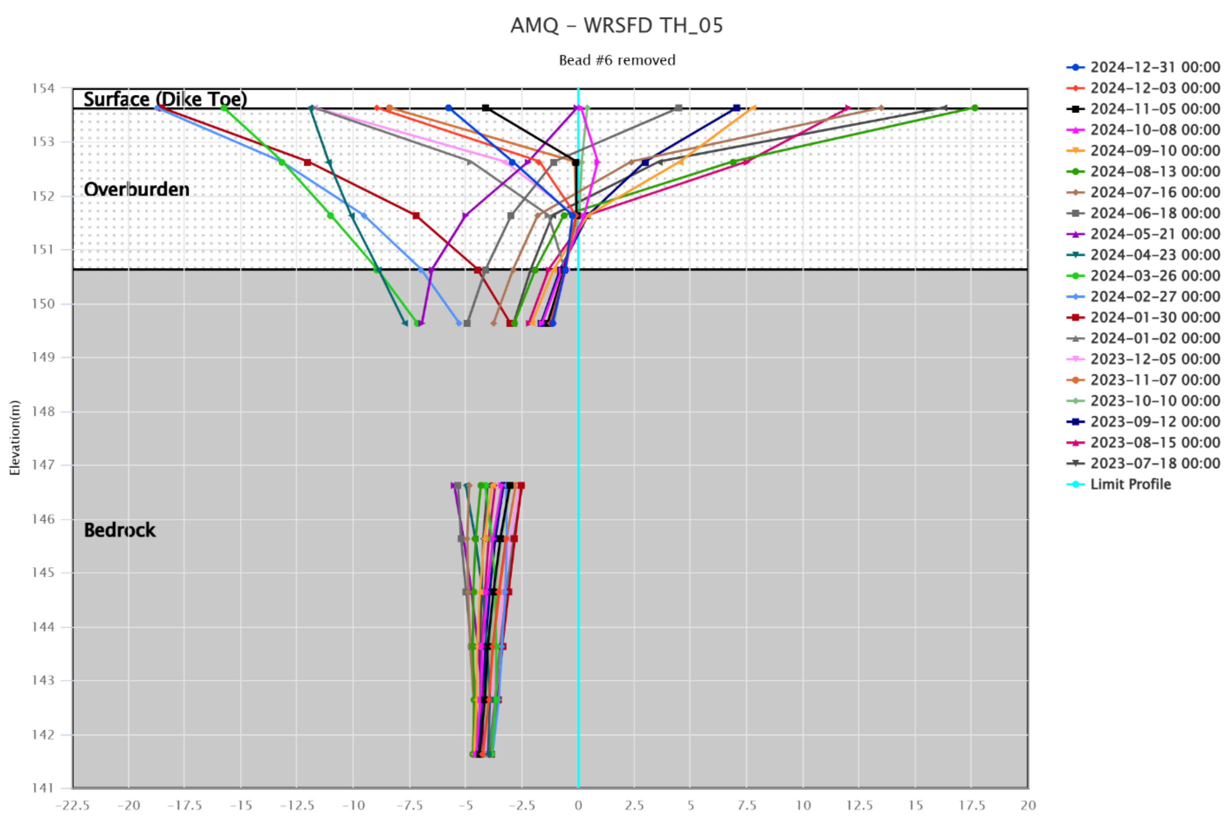

AMQ – WRSFD TH_04
Surface
Rockfill
Till Foundation (Frozen during Construction)
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

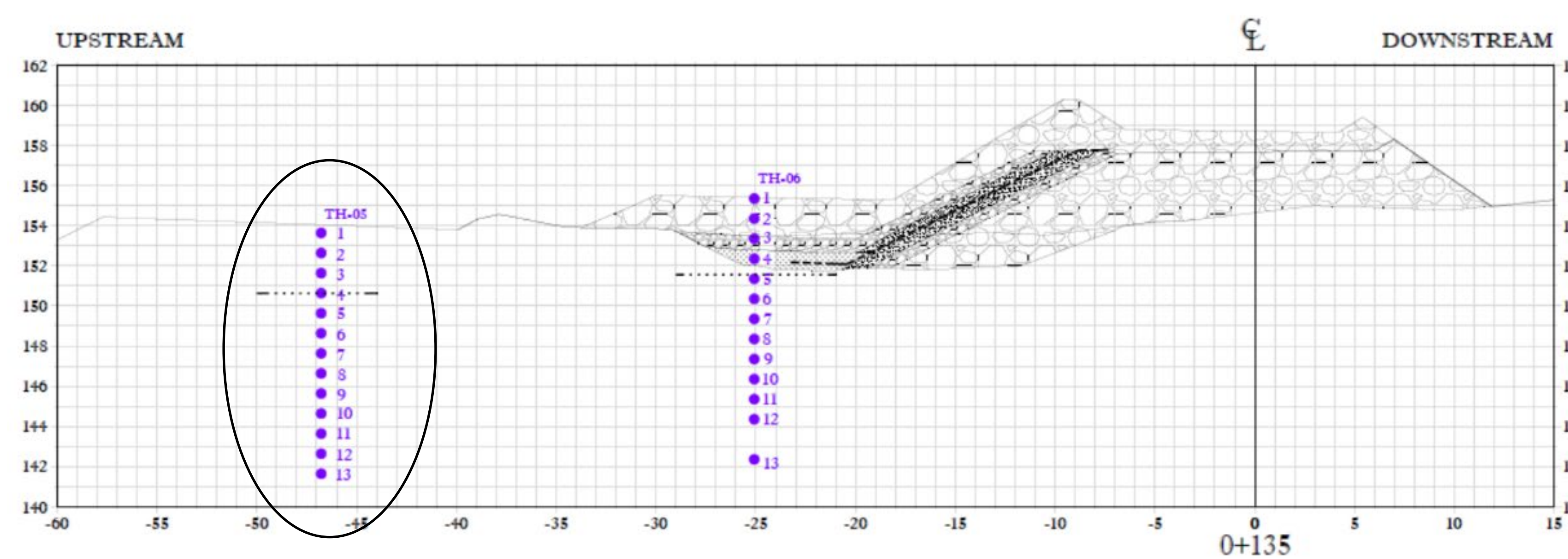

UPSTREAM
DOWNSTREAM
TH-04
1
2
3
4
5
6
7
8
9
10
11
12
13
0+093

WRSFD TH05

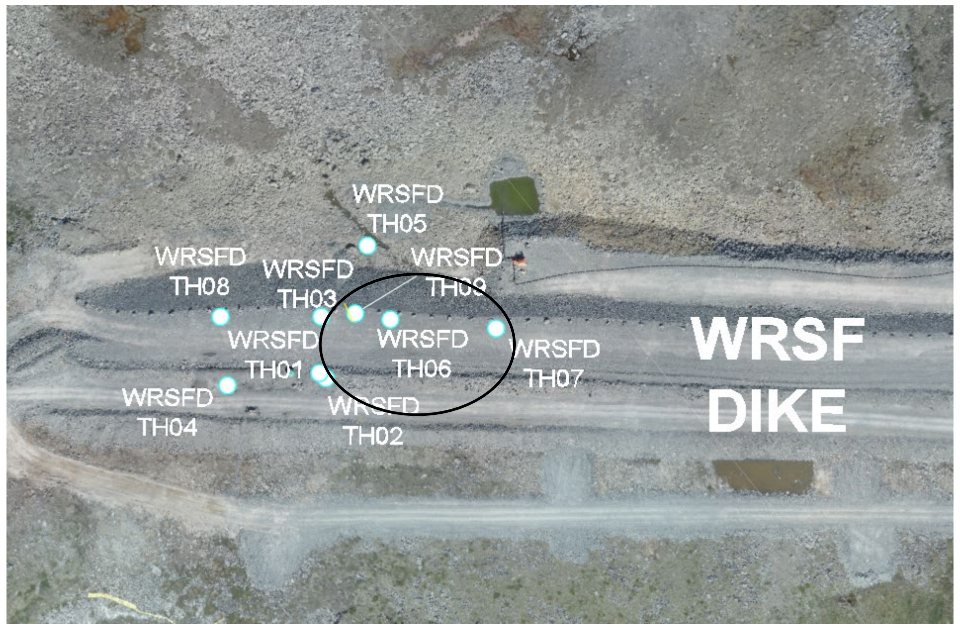

WRSFD
TH05
WRSFD
TH08
WRSFD
TH03
WRSFD
TH09
WRSFD
TH01
WRSFD
TH06
WRSFD
TH07
WRSF
DIKE
WRSFD
TH04
WRSFD
TH02

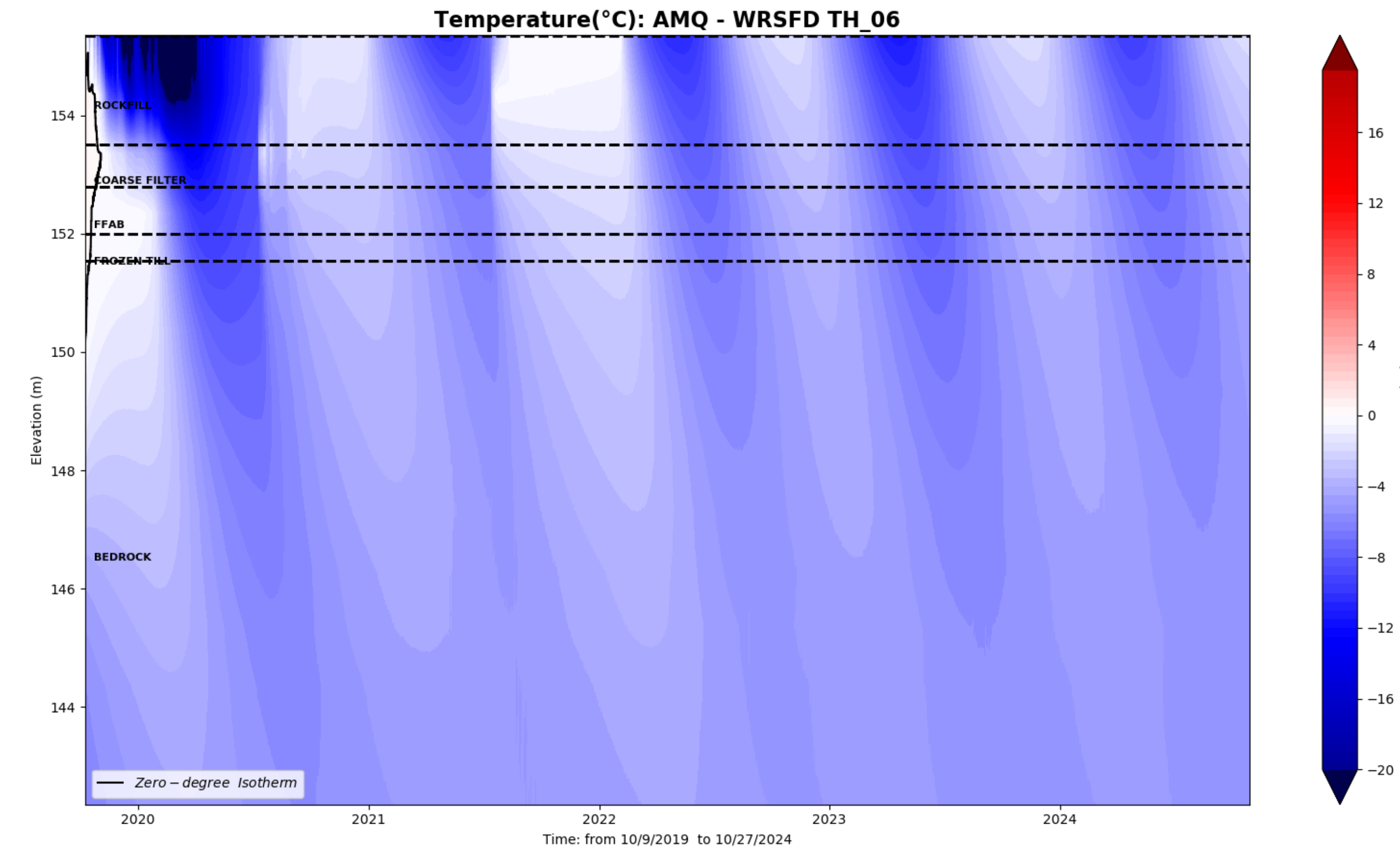

Temperature(°C): AMQ - WRSFD TH_05
OVERBURDEN
BEDROCK
Elevation (m)
Zero – degree Isotherm
Temperature(°C)
Time: from 10/9/2019 to 10/27/2024

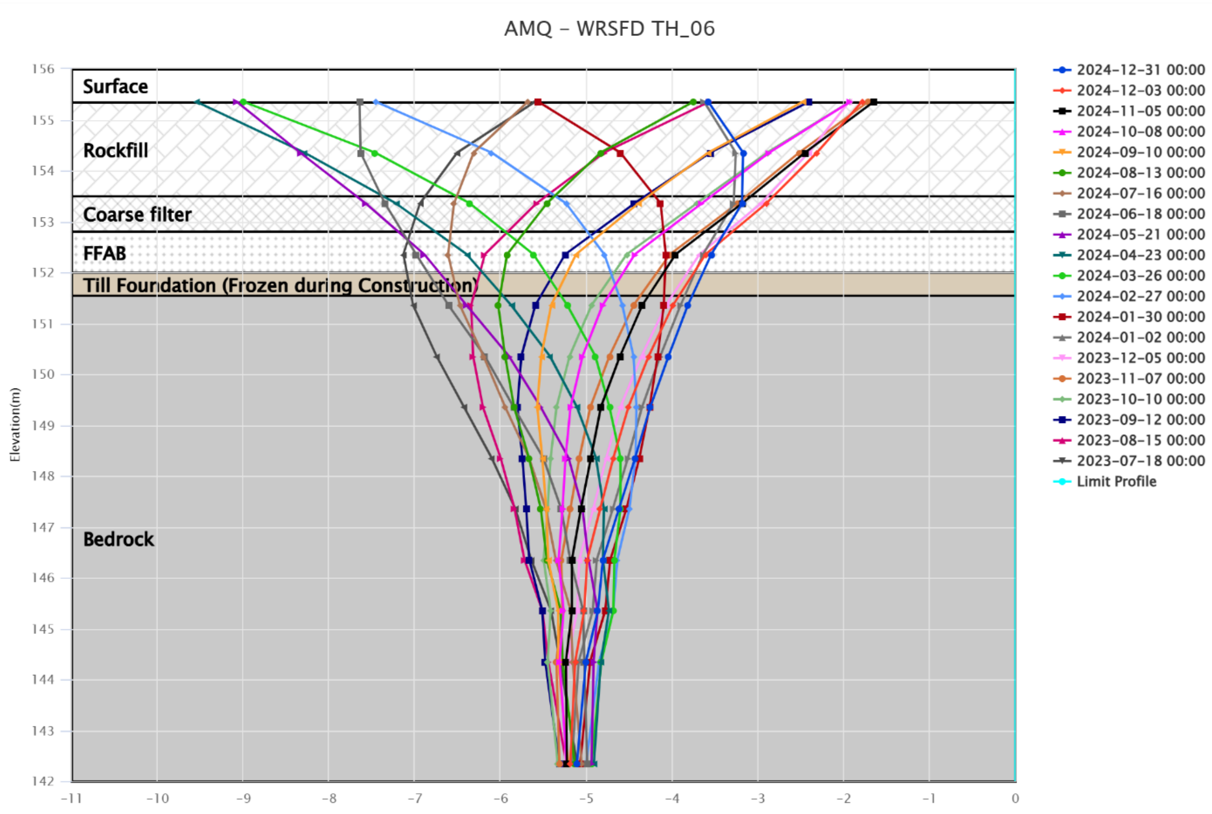

AMQ – WRSFD TH_05
Bead #6 removed
Surface (Dike Toe)
Overburden
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

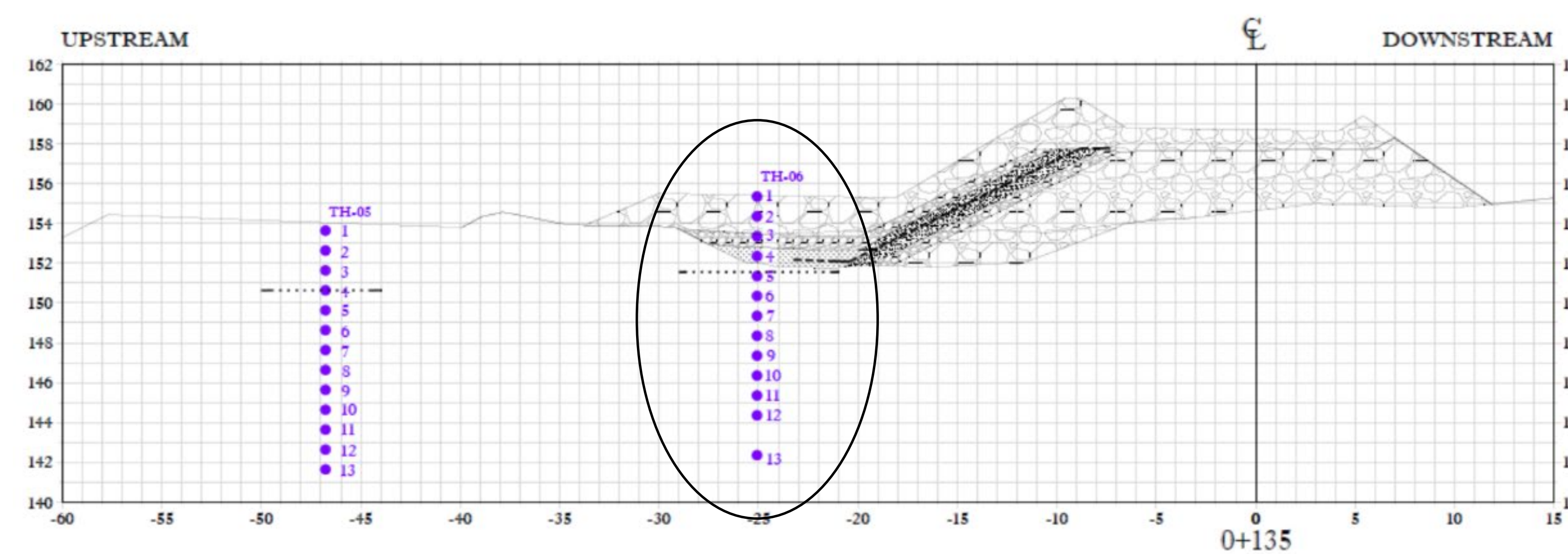

UPSTREAM
DOWNSTREAM
TH-05
TH-06
0+135

WRSFD TH06

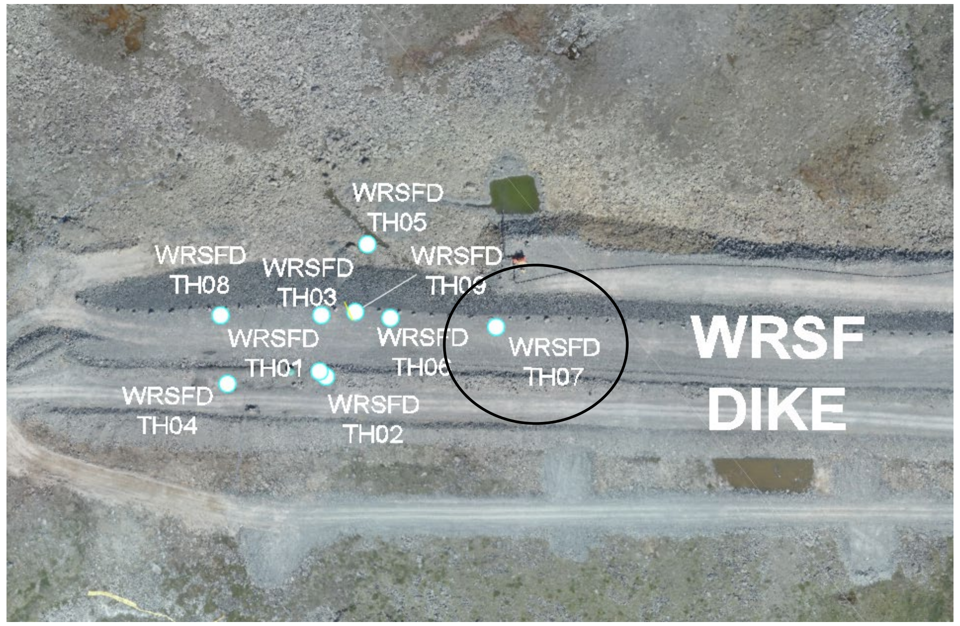

WRSFD TH05
WRSFD TH08
WRSFD TH03
WRSFD TH09
WRSFD TH01
WRSFD TH06
WRSFD TH07
WRSFD TH04
WRSFD TH02
WRSF DIKE

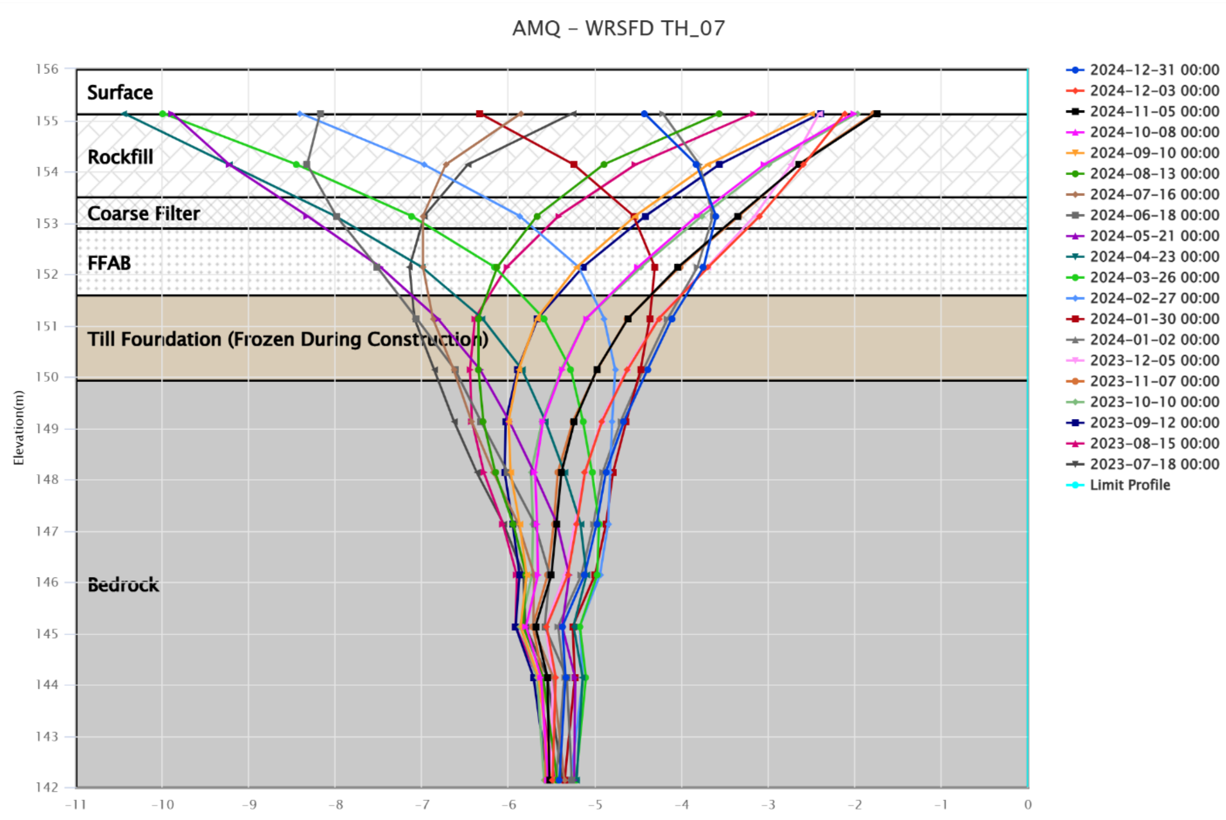

Temperature(°C): AMQ - WRSFD TH_06
ROCKFILL
COARSE FILTER
FFAB
FROZEN TILL
BEDROCK
Elevation (m)
Temperature(°C)
Zero – degree Isotherm
2020
2021
2022
2023
2024
Time: from 10/9/2019 to 10/27/2024

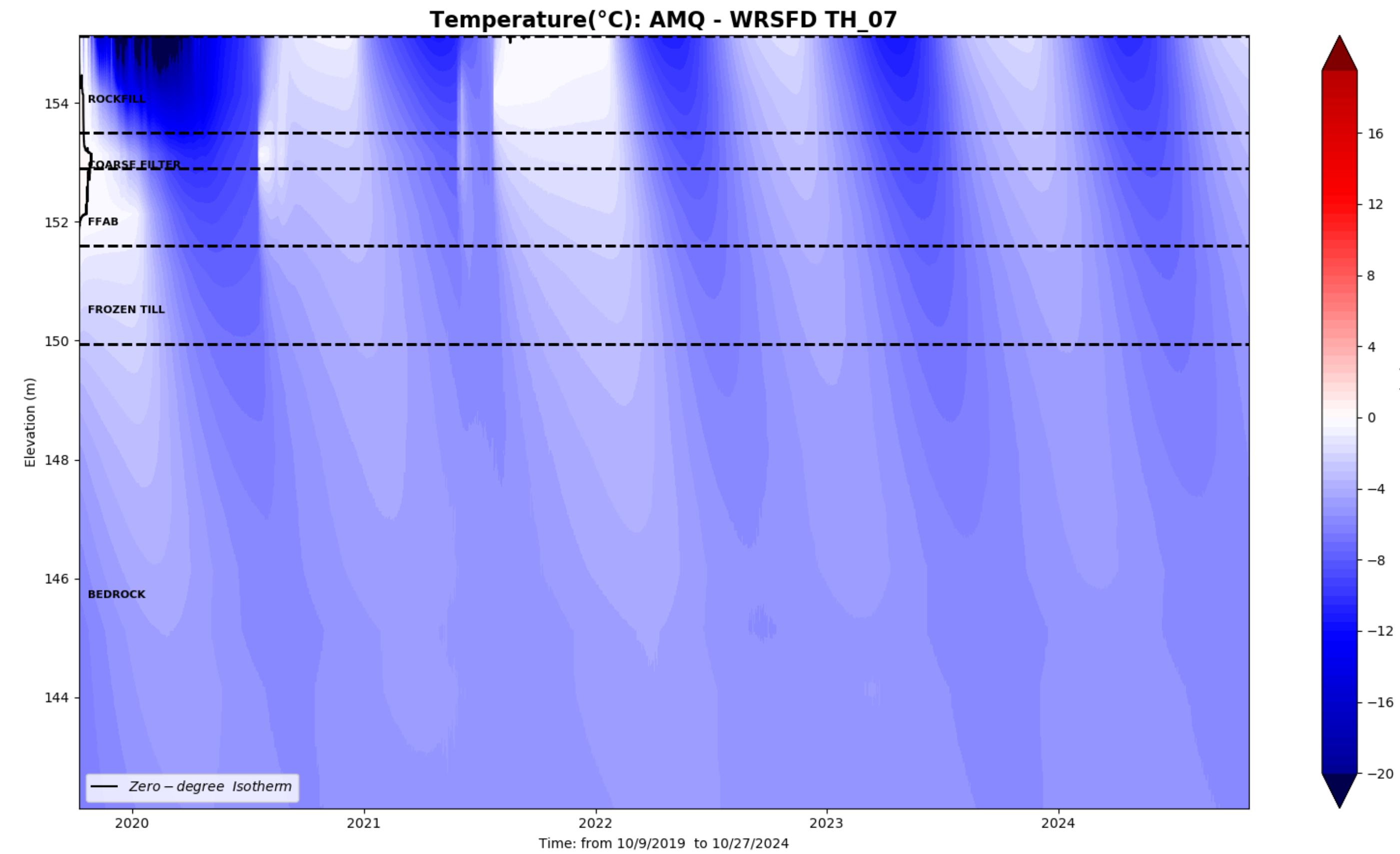

AMQ – WRSFD TH_06
Surface
Rockfill
Coarse filter
FFAB
Till Foundation (Frozen during Construction)
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

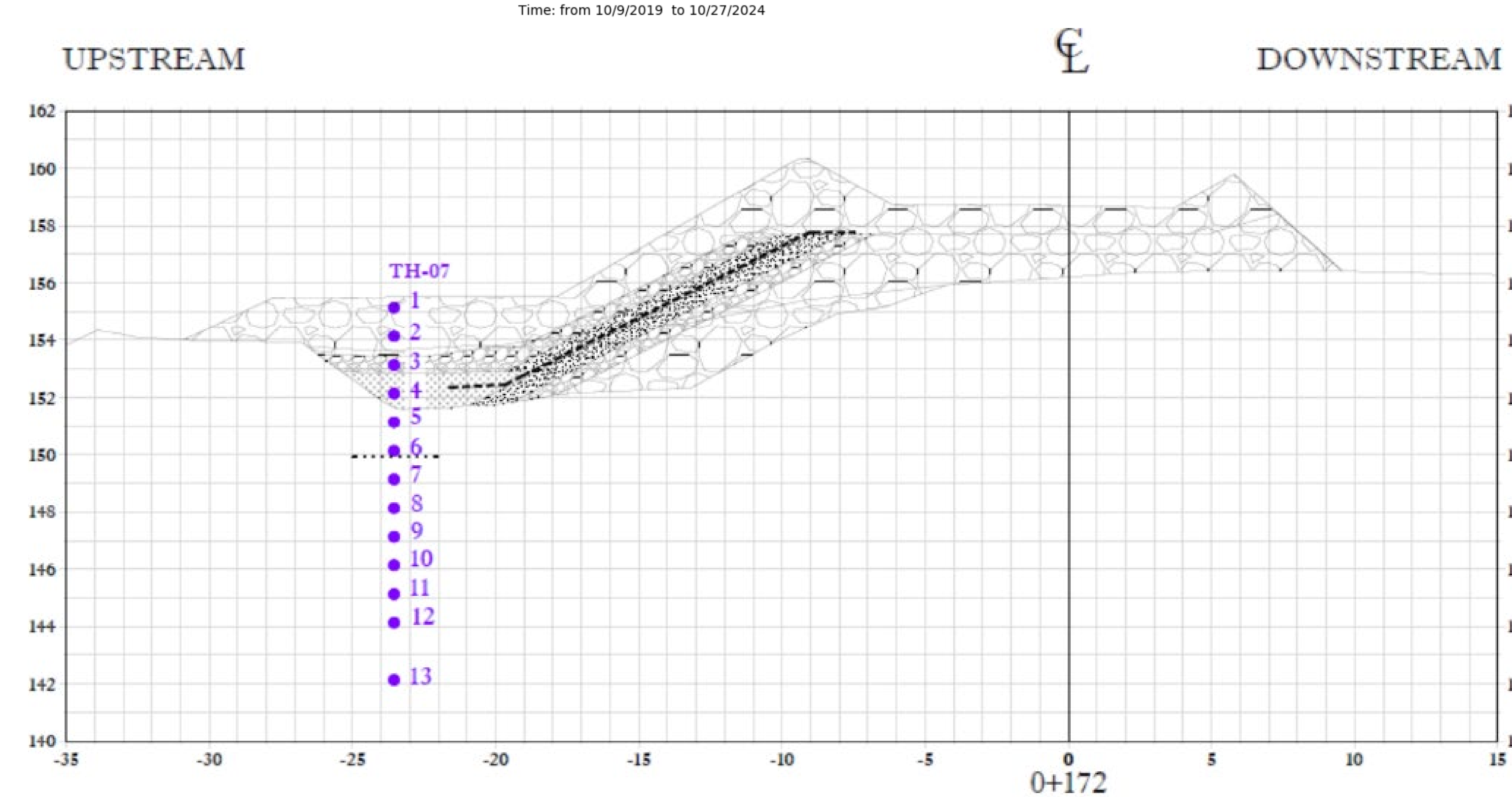

UPSTREAM
DOWNSTREAM
TH-05
TH-06
0+135

WRSFD TH07

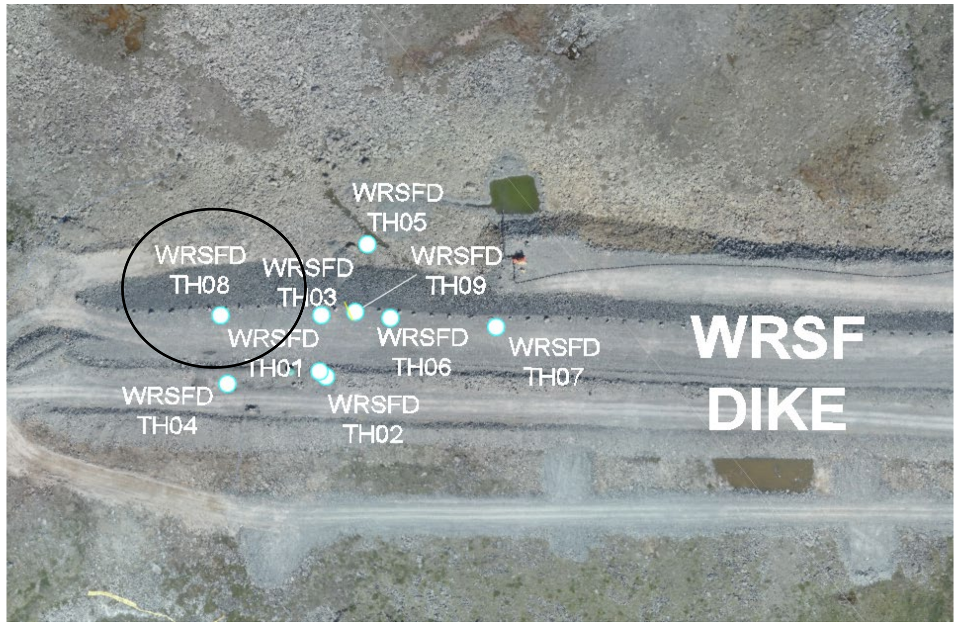

WRSFD TH05
WRSFD TH08
WRSFD TH03
WRSFD TH09
WRSFD TH01
WRSFD TH06
WRSFD TH07
WRSFD TH04
WRSFD TH02
WRSF DIKE

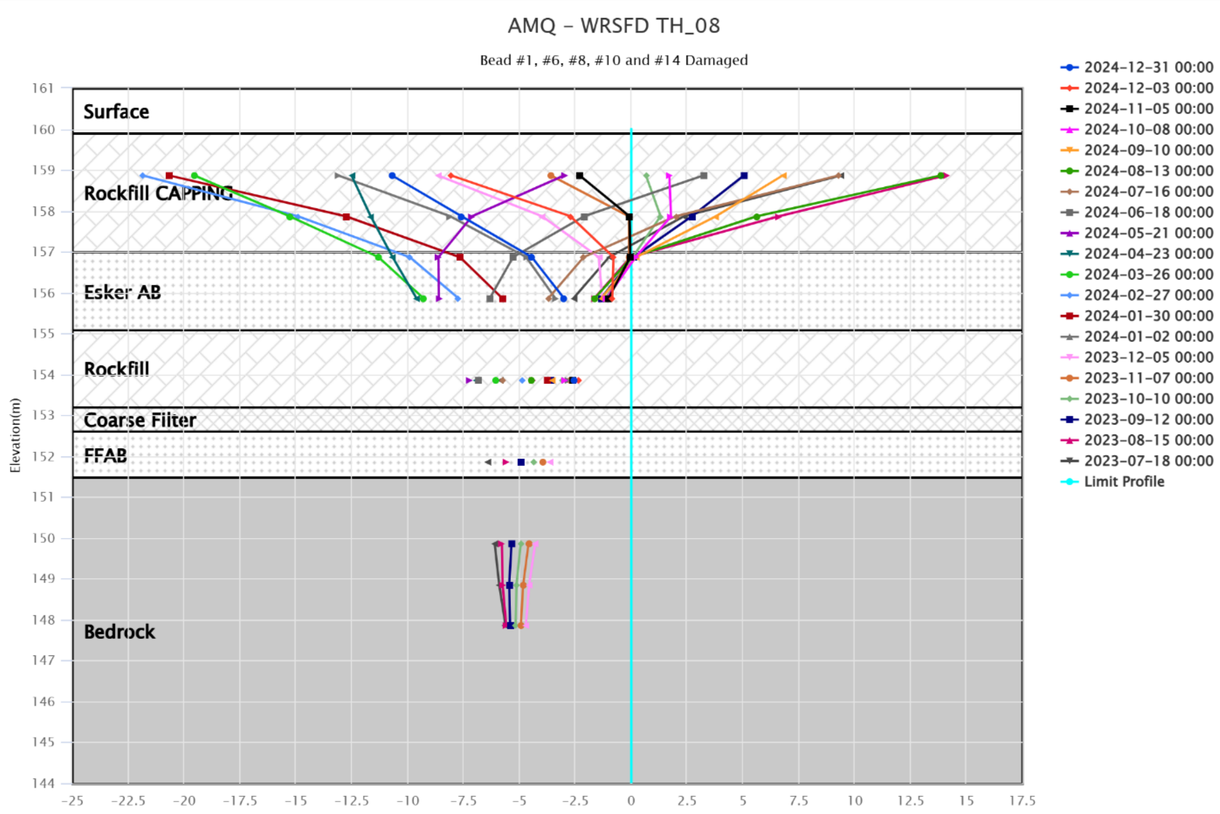

AMQ – WRSFD TH_07
Surface
Rockfill
Coarse Filter
FFAB
Till Foundation (Frozen During Construction)
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

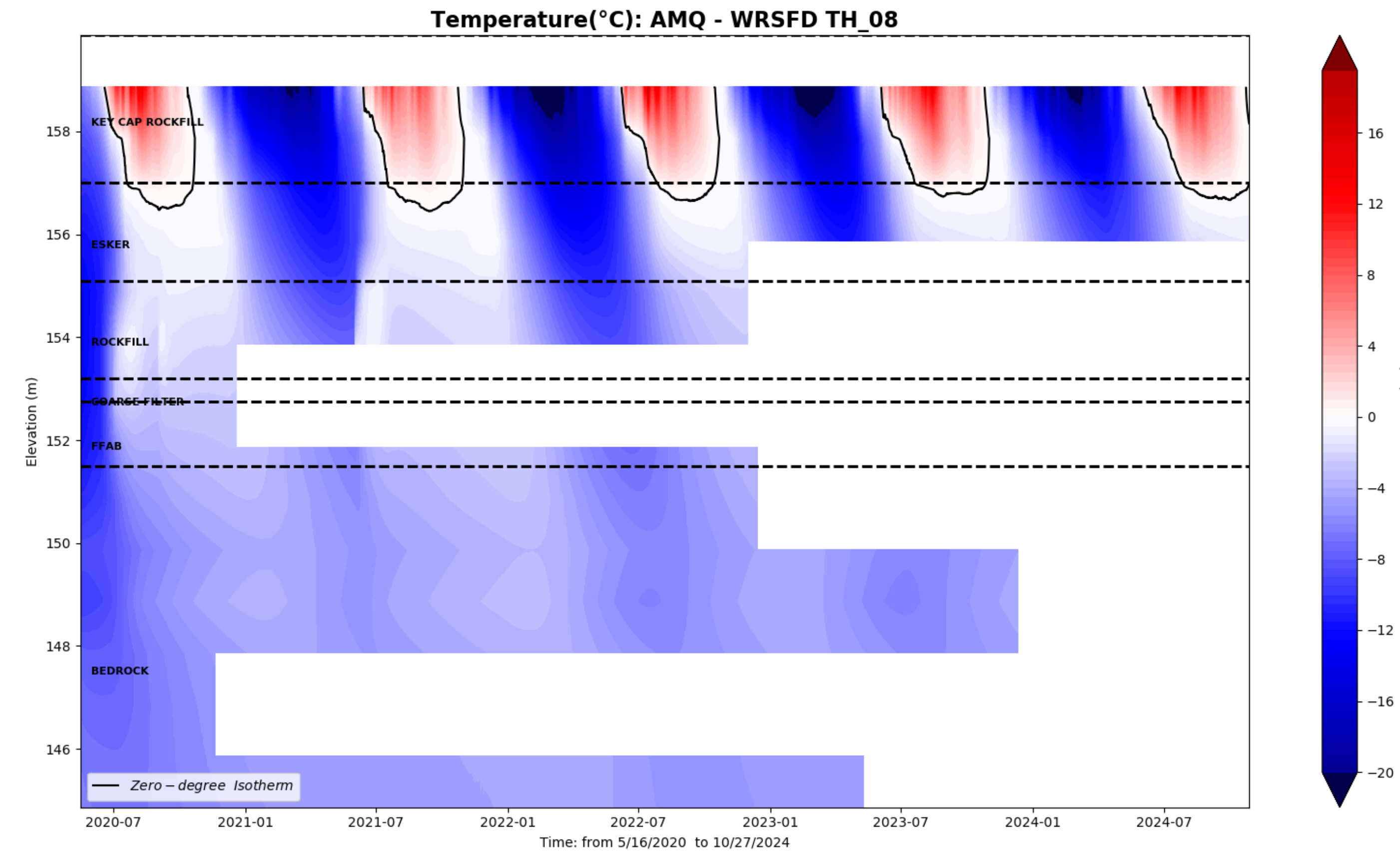

Temperature(°C): AMQ - WRSFD TH_07
ROCKFILL
COARSE FILTER
FFAB
FROZEN TILL
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 10/9/2019 to 10/27/2024
Temperature(°C)

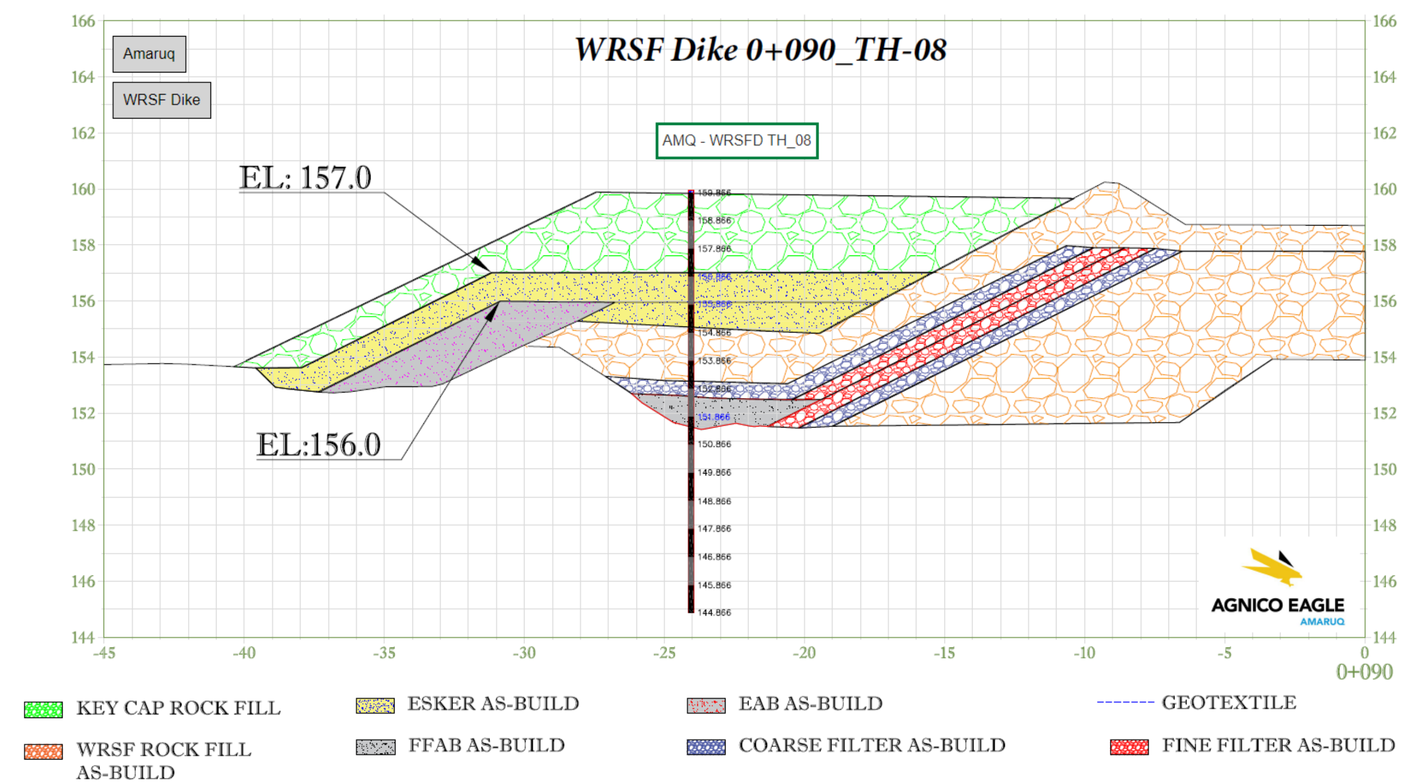

UPSTREAM
DOWNSTREAM
TH-07
0+172

WRSFD TH08

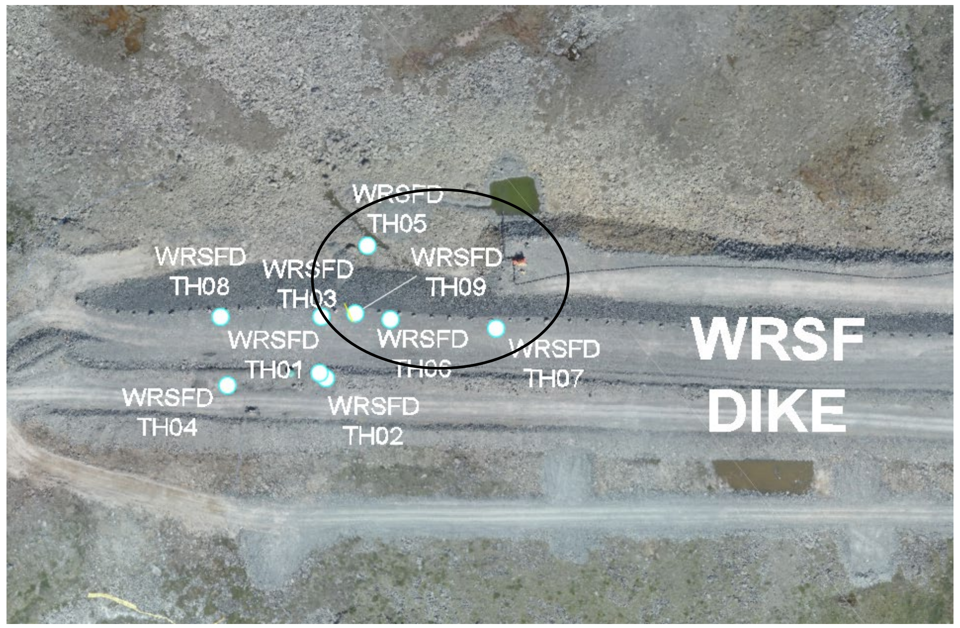

WRSFD TH05
WRSFD TH08
WRSFD TH03
WRSFD TH09
WRSFD TH01
WRSFD TH06
WRSFD TH07
WRSFD TH04
WRSFD TH02
WRSF DIKE

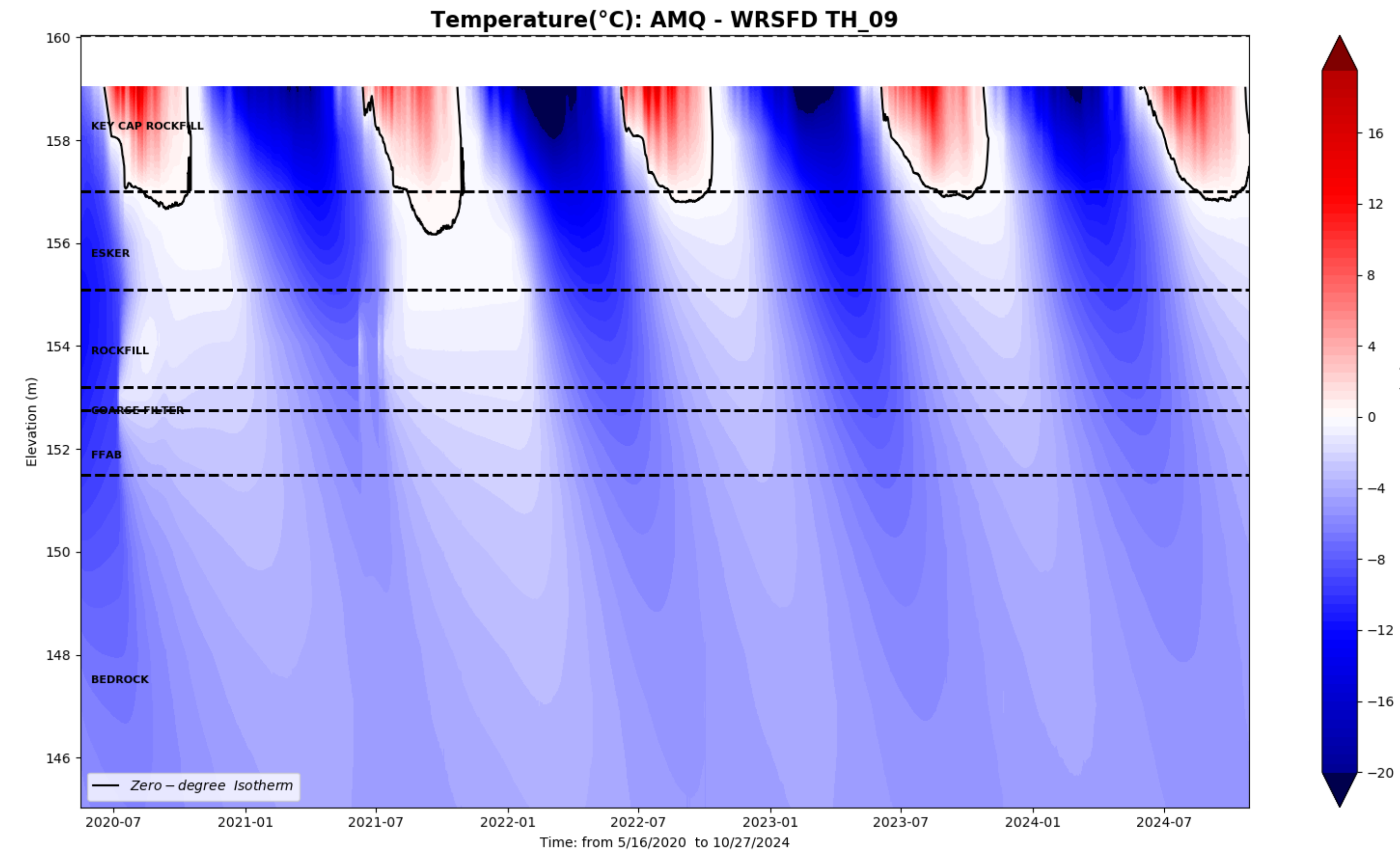

AMQ – WRSFD TH_08
Bead #1, #6, #8, #10 and #14 Damaged
Surface
Rockfill CAPPING
Esker AB
Rockfill
Coarse Filter
FFAB
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

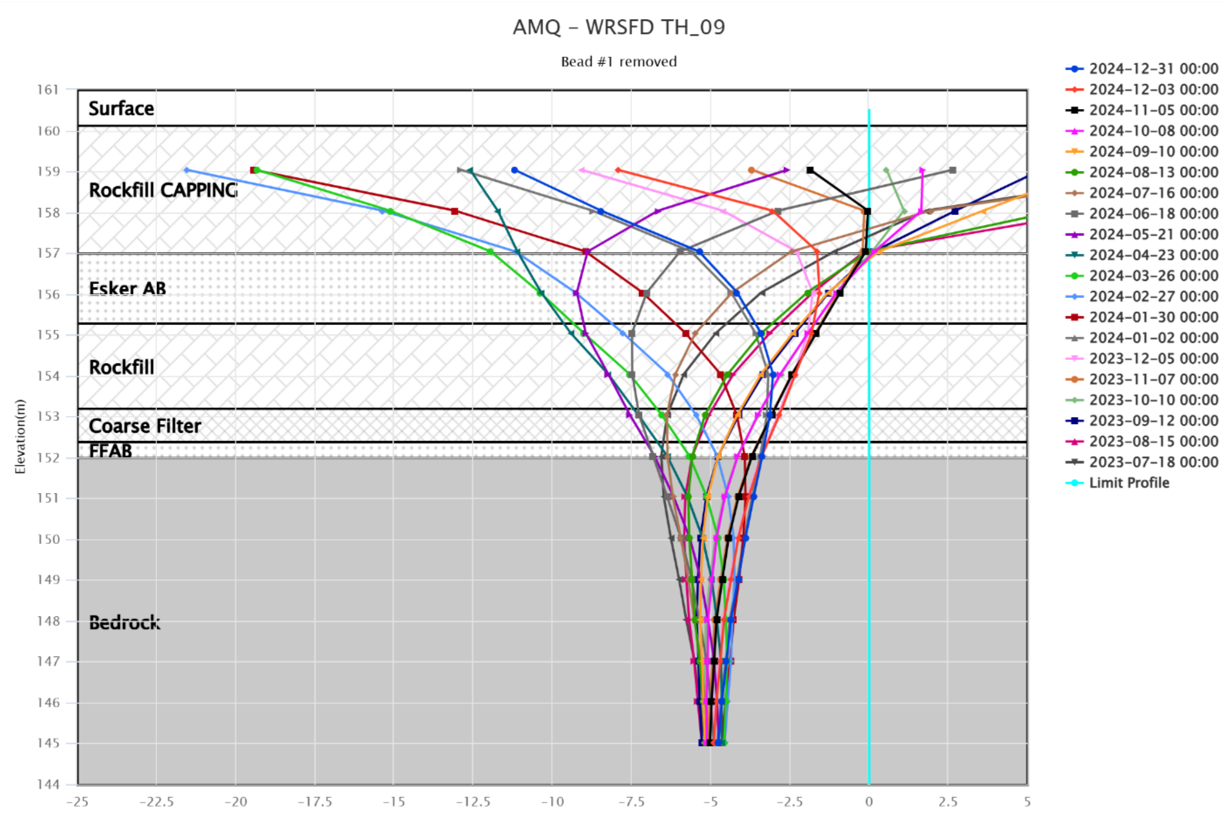

Temperature(°C): AMQ - WRSFD TH_08
KEY CAP ROCKFILL
ESKER
ROCKFILL
COARSE FILTER
FFAB
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 5/16/2020 to 10/27/2024
Temperature(°C)

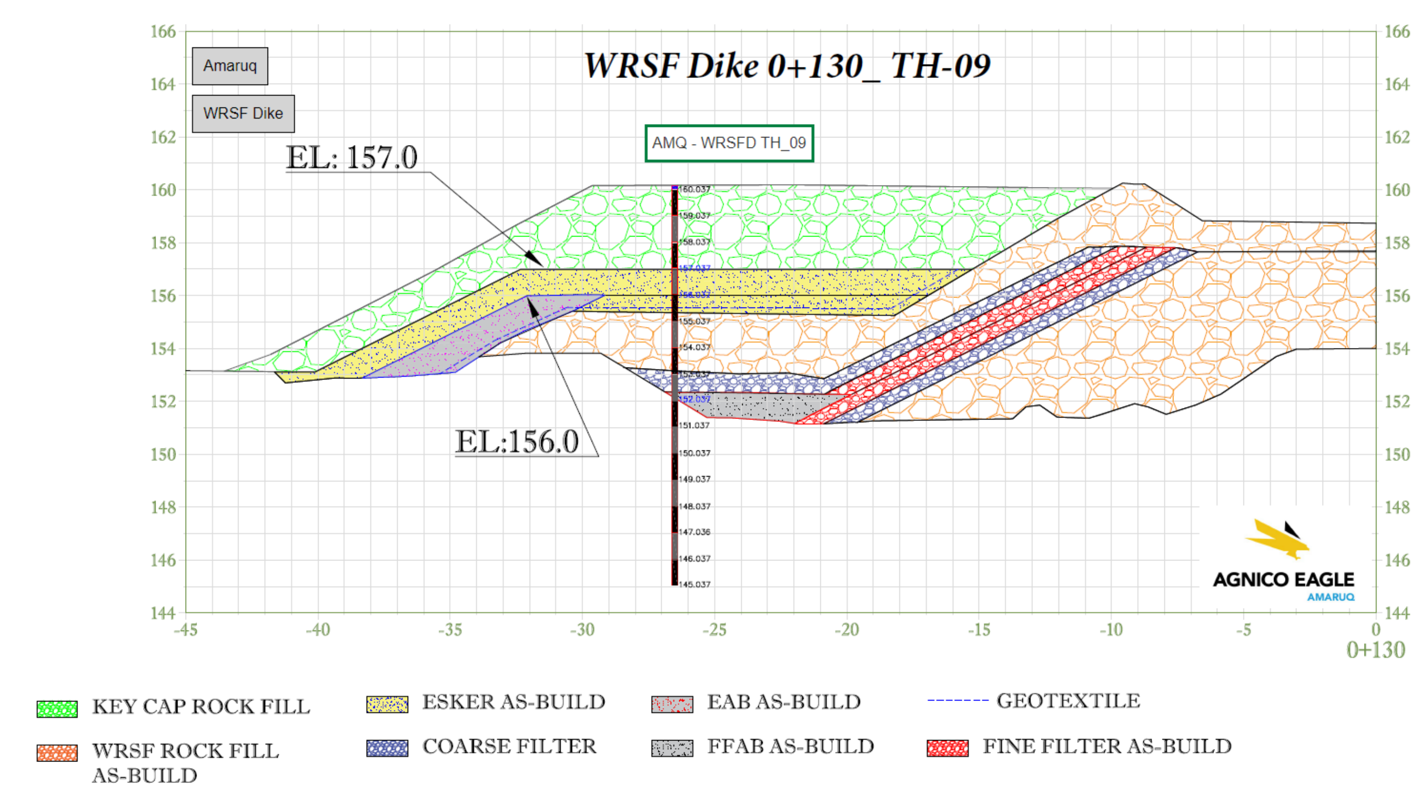

Amaruq
WRSF Dike
WRSF Dike 0+090_TH-08
AMQ - WRSFD TH_08
EL: 157.0
EL:156.0
AGNICO EAGLE
0+090
KEY CAP ROCK FILL
ESKER AS-BUILD
EAB AS-BUILD
GEOTEXTILE
WRSF ROCK FILL AS-BUILD
FFAB AS-BUILD
COARSE FILTER AS-BUILD
FINE FILTER AS-BUILD

WRSFD TH09

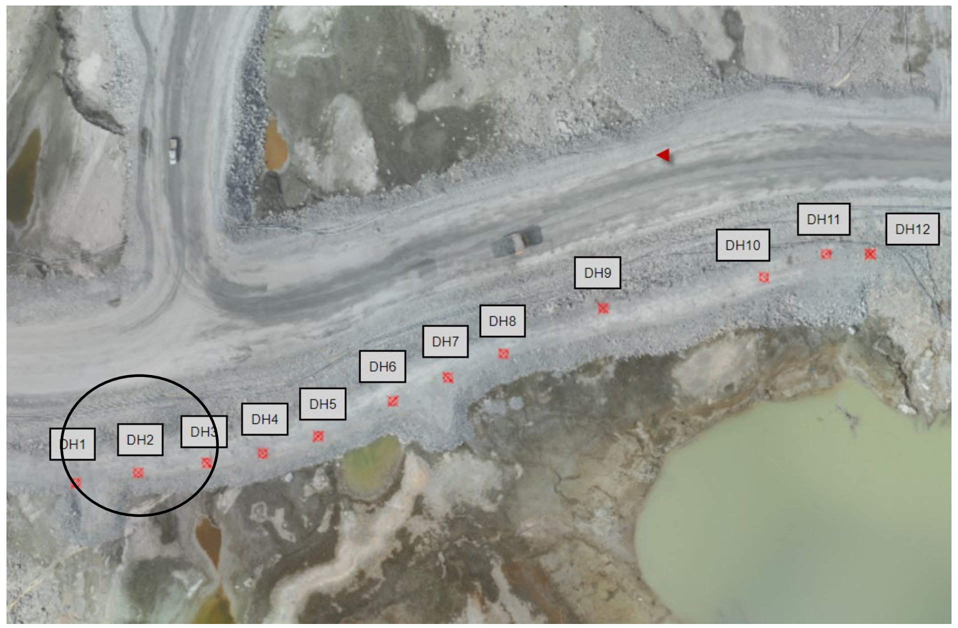

WRSFD TH05
WRSFD TH08
WRSFD TH03
WRSFD TH09
WRSFD TH01
WRSFD TH06
WRSFD TH07
WRSFD TH04
WRSFD TH02
WRSF DIKE

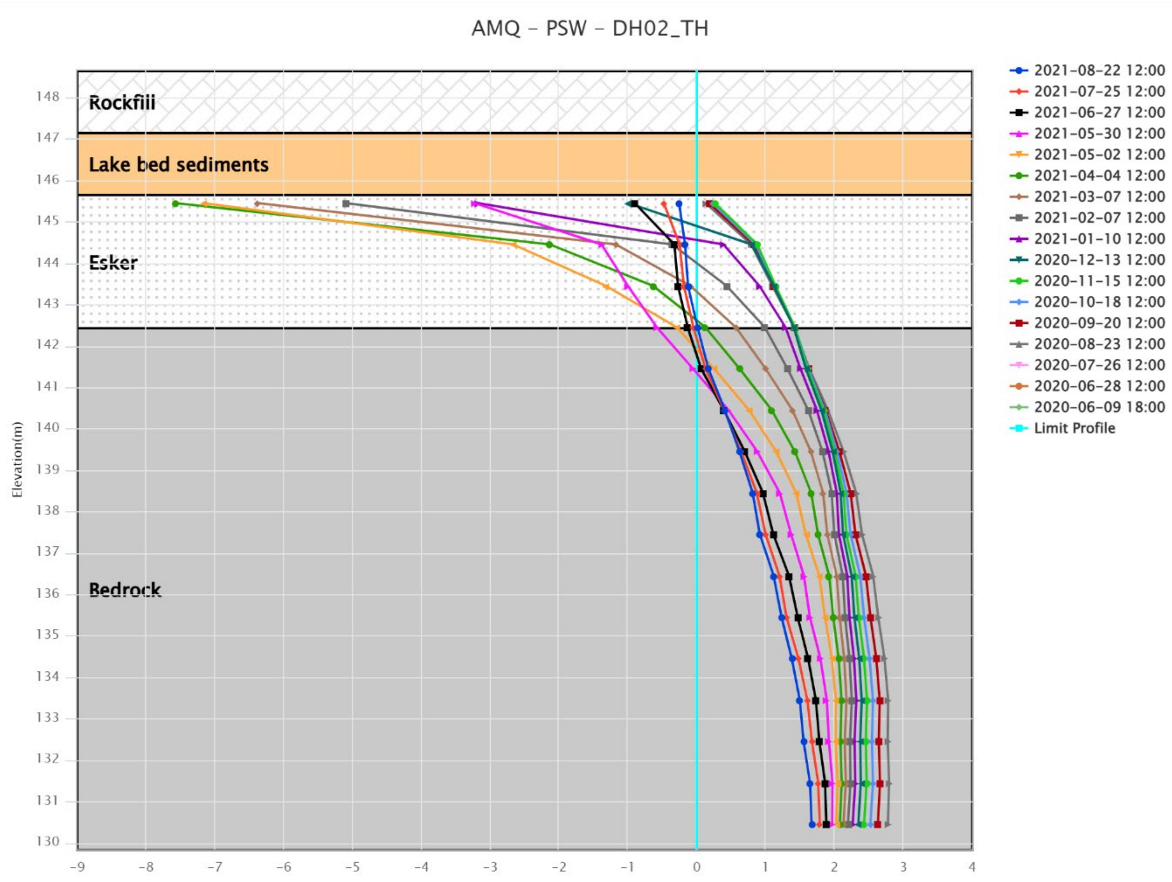

Temperature(°C): AMQ - WRSFD TH_09
KEY CAP ROCKFILL
ESKER
ROCKFILL
COARSE FILTER
FFAB
BEDROCK
Zero – degree Isotherm
Elevation (m)
Temperature(°C)
Time: from 5/16/2020 to 10/27/2024

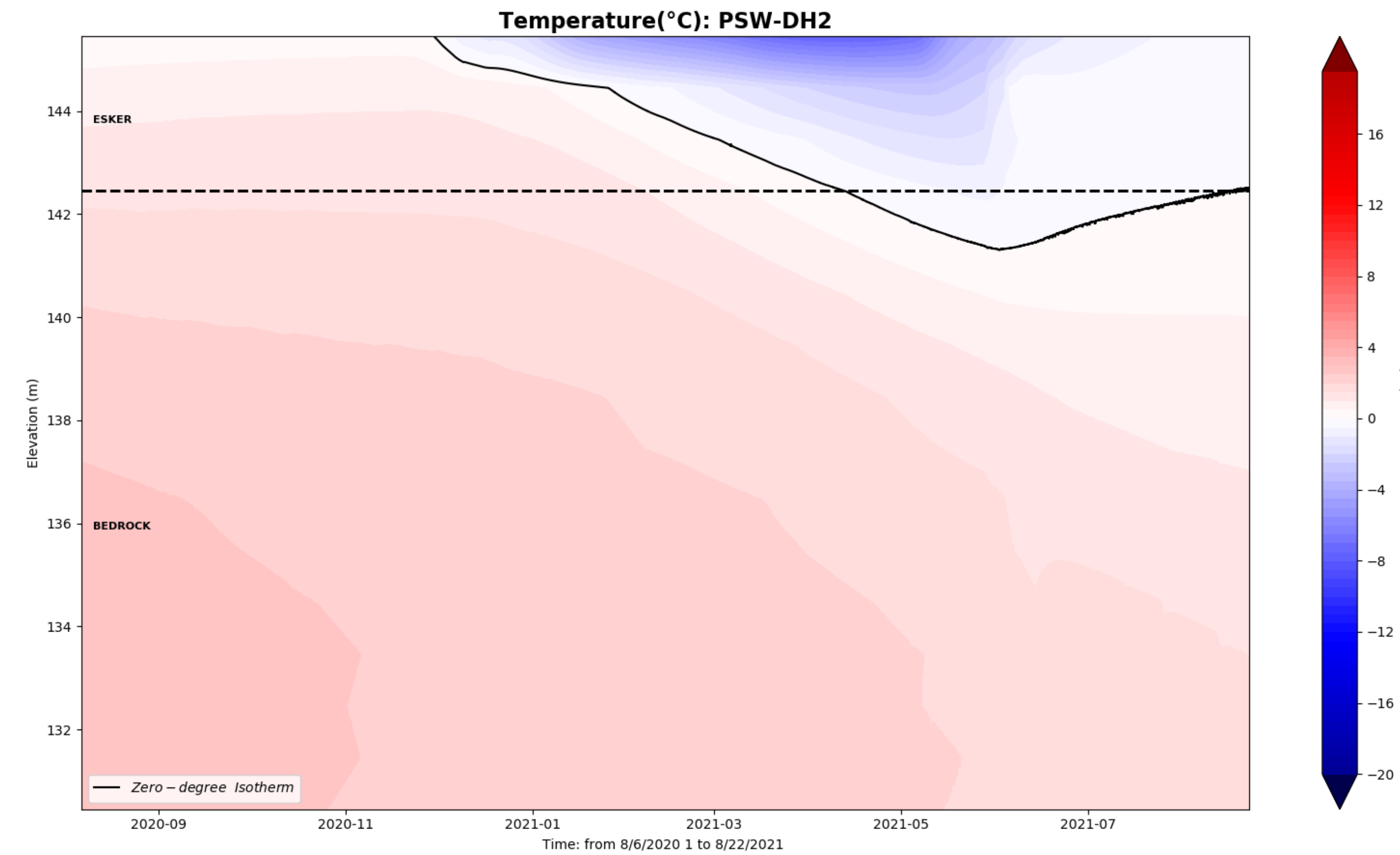

AMQ – WRSFD TH_09
Bead #1 removed
Surface
Rockfill CAPPING
Esker AB
Rockfill
Coarse Filter
FFAB
Bedrock
Elevation(m)
Temperature (°C)
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

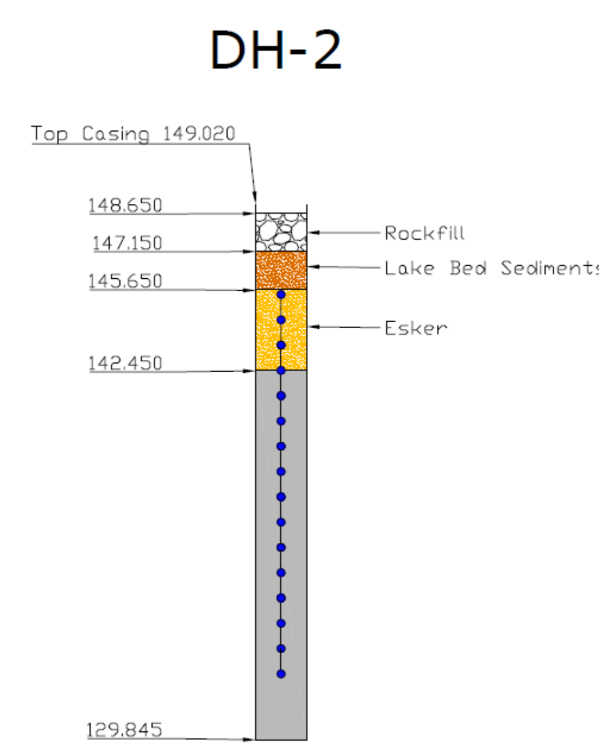

Amaruq
WRSF Dike
WRSF Dike 0+130_ TH-09
AMQ - WRSFD TH_09
EL: 157.0
EL:156.0
AGNICO EAGLE
0+130
KEY CAP ROCK FILL
ESKER AS-BUILD
EAB AS-BUILD
GEOTEXTILE
WRSF ROCK FILL AS-BUILD
COARSE FILTER
FFAB AS-BUILD
FINE FILTER AS-BUILD

PSW – DH 2 TH

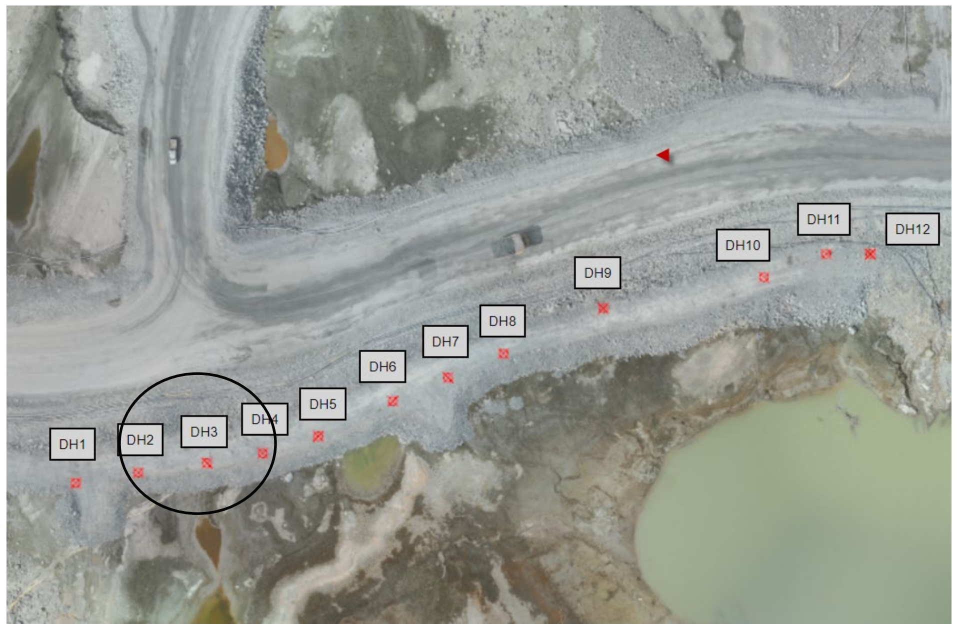

DH1
DH2
DH3
DH4
DH5
DH6
DH7
DH8
DH9
DH10
DH11
DH12

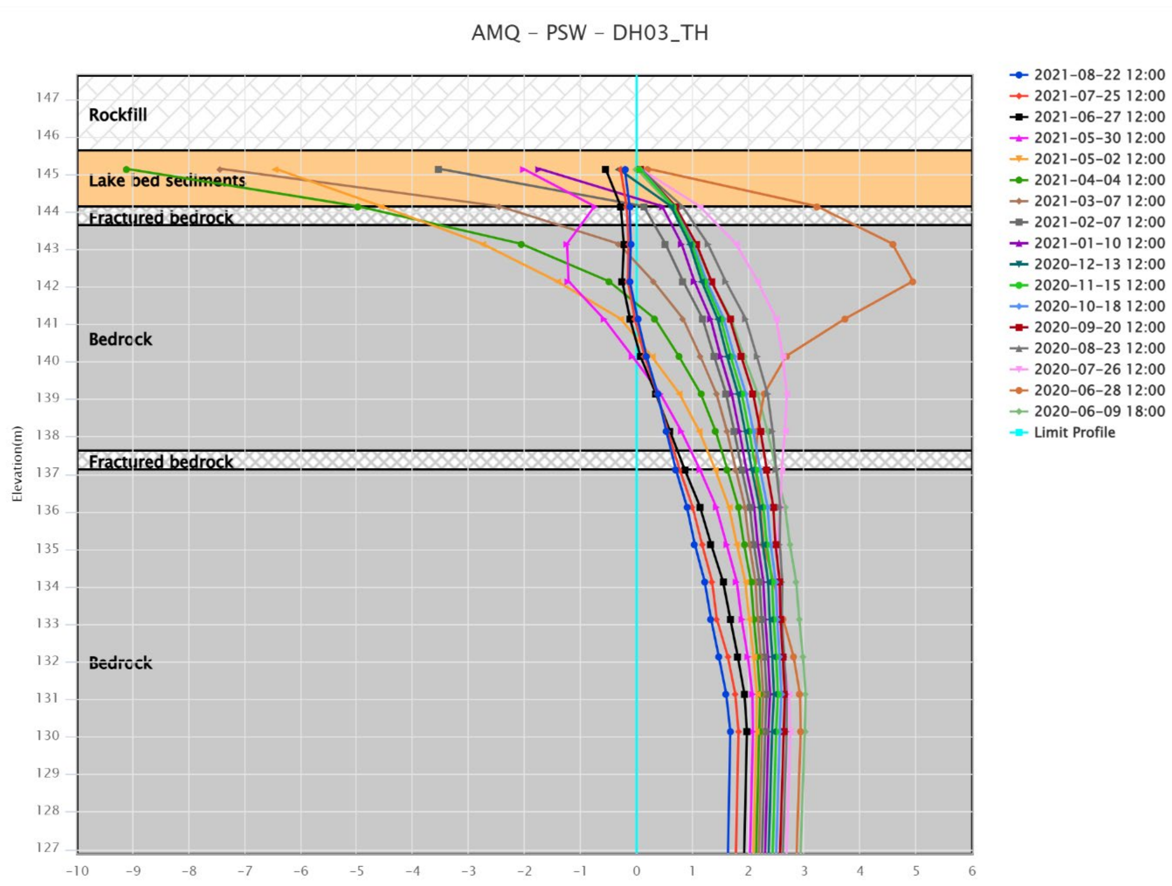

AMQ – PSW – DH02_TH
Rockfill
Lake bed sediments
Esker
Bedrock
Elevation(m)
Temperature (°C)
2021-08-22 12:00
2021-07-25 12:00
2021-06-27 12:00
2021-05-30 12:00
2021-05-02 12:00
2021-04-04 12:00
2021-03-07 12:00
2021-02-07 12:00
2021-01-10 12:00
2020-12-13 12:00
2020-11-15 12:00
2020-10-18 12:00
2020-09-20 12:00
2020-08-23 12:00
2020-07-26 12:00
2020-06-28 12:00
2020-06-09 18:00
Limit Profile

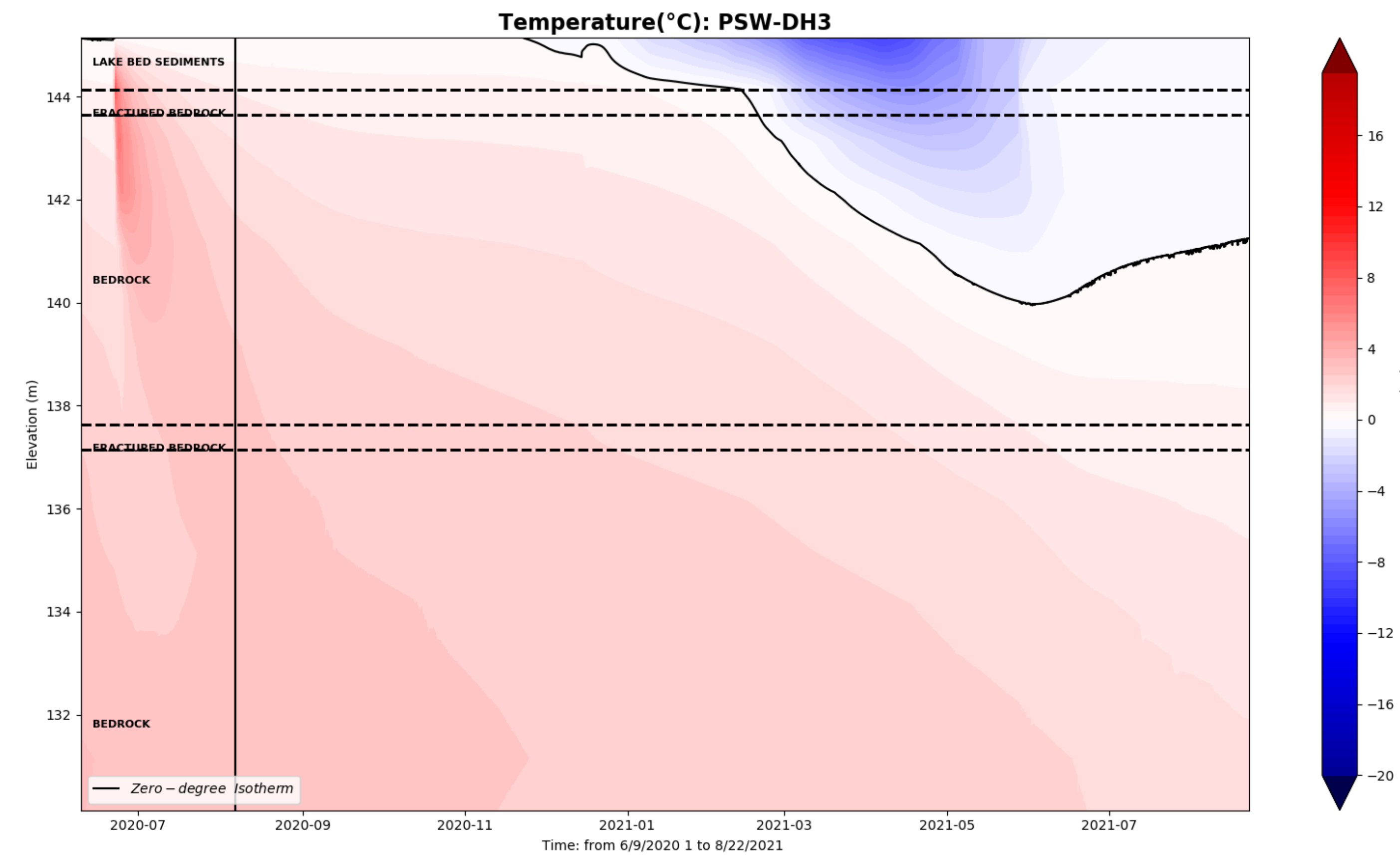

Temperature(°C): PSW-DH2
ESKER
BEDROCK
Elevation (m)
Zero – degree Isotherm
2020-09
2020-11
2021-01
2021-03
2021-05
2021-07
Time: from 8/6/2020 1 to 8/22/2021
Temperature(°C)


DH-2
Top Casing 149.020
148.650
147.150
145.650
142.450
129.845
Rockfill
Lake Bed Sediments
Esker

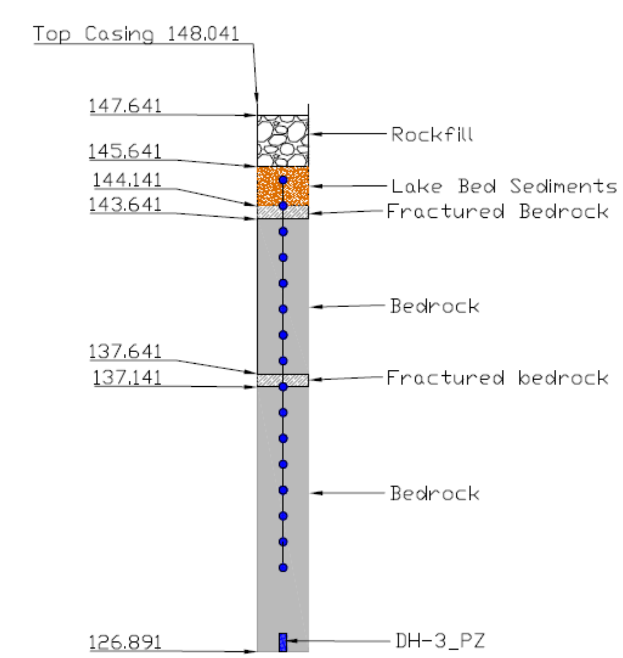
PSW – DH 3 TH



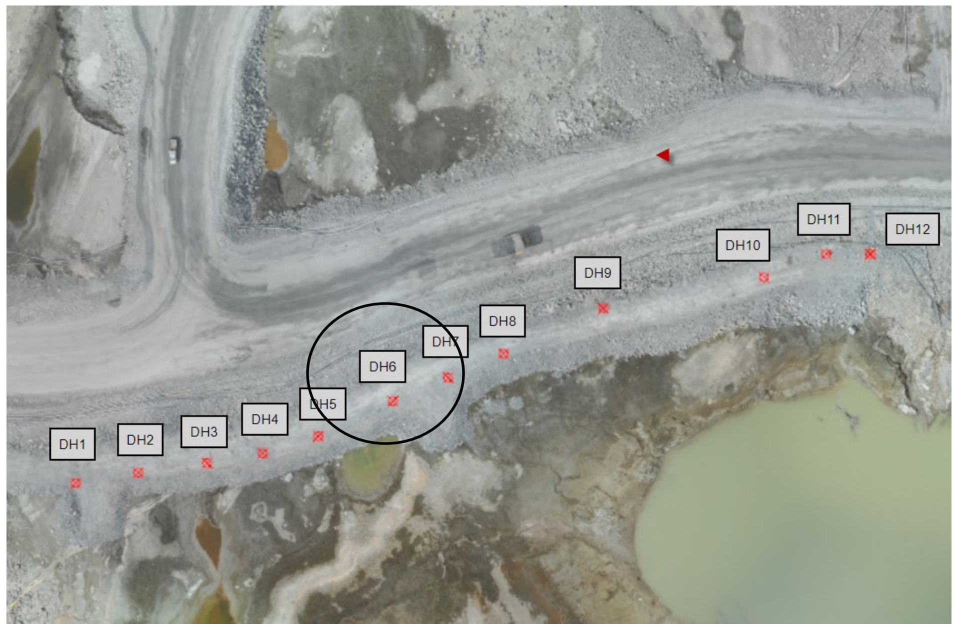


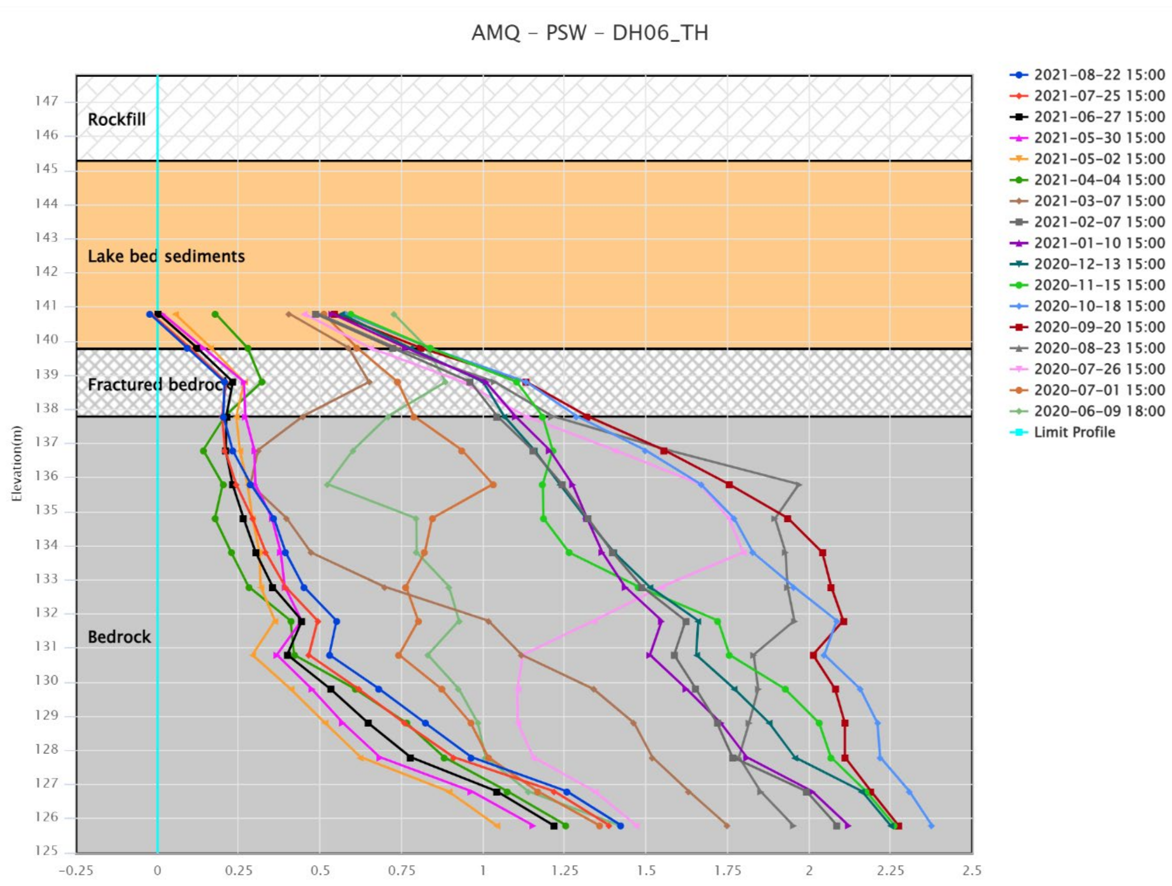


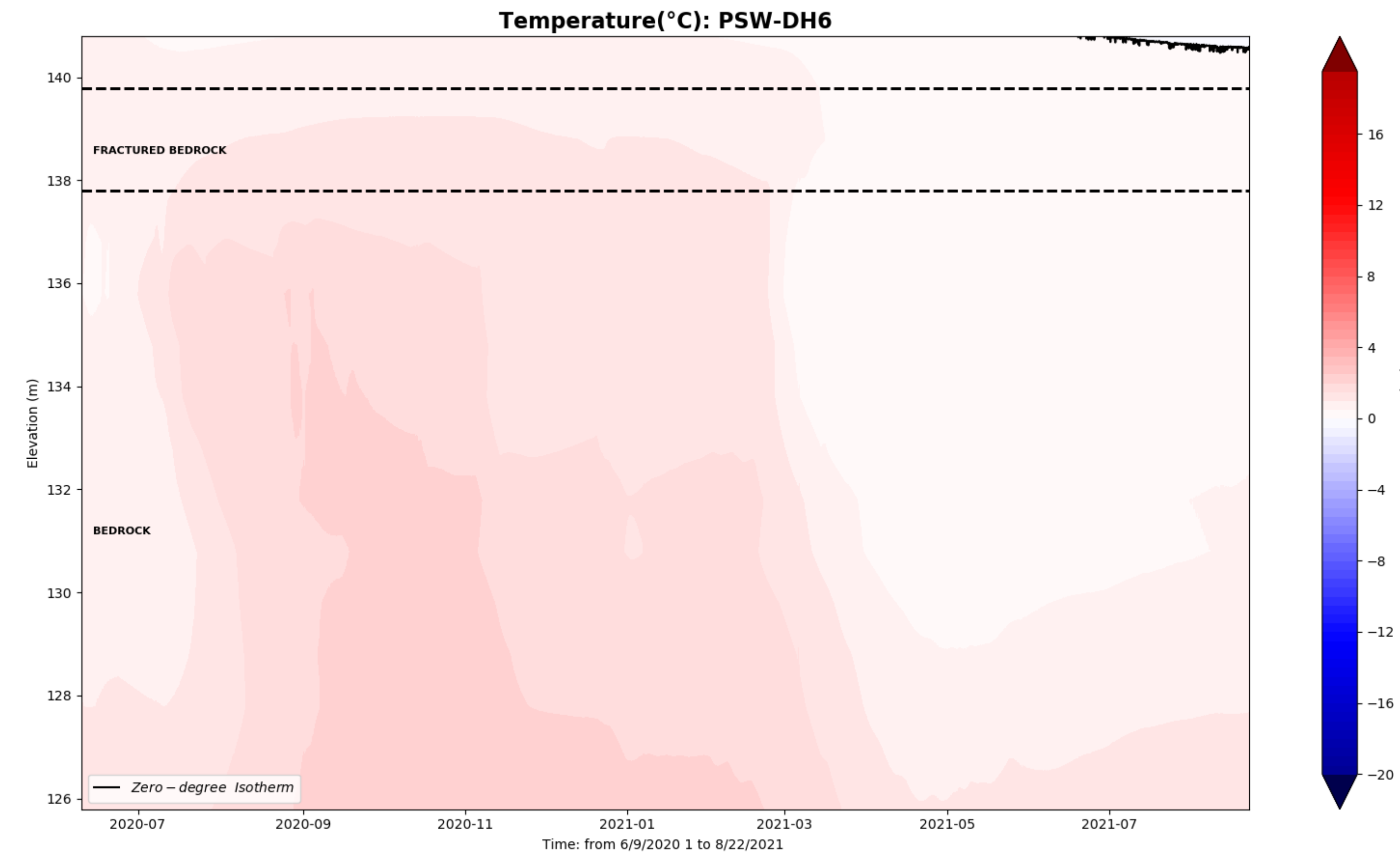
DH-3

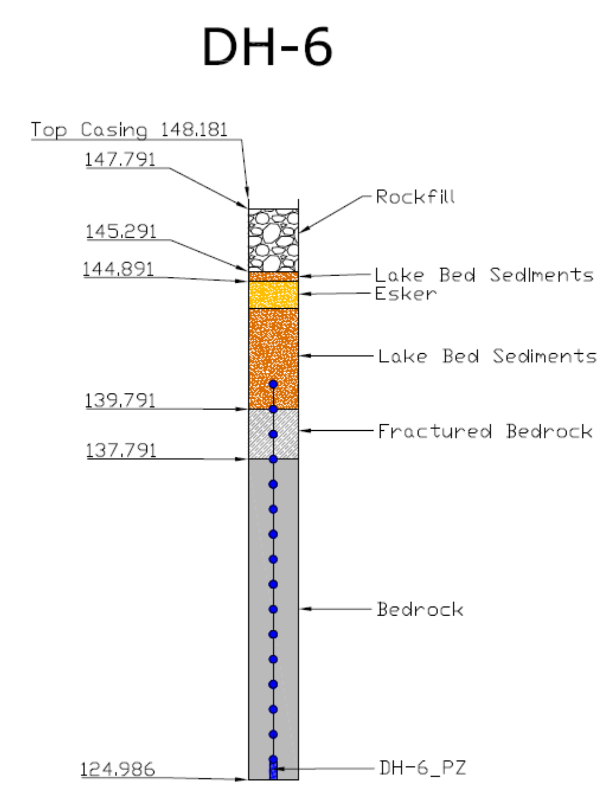


PSW – DH 6 TH

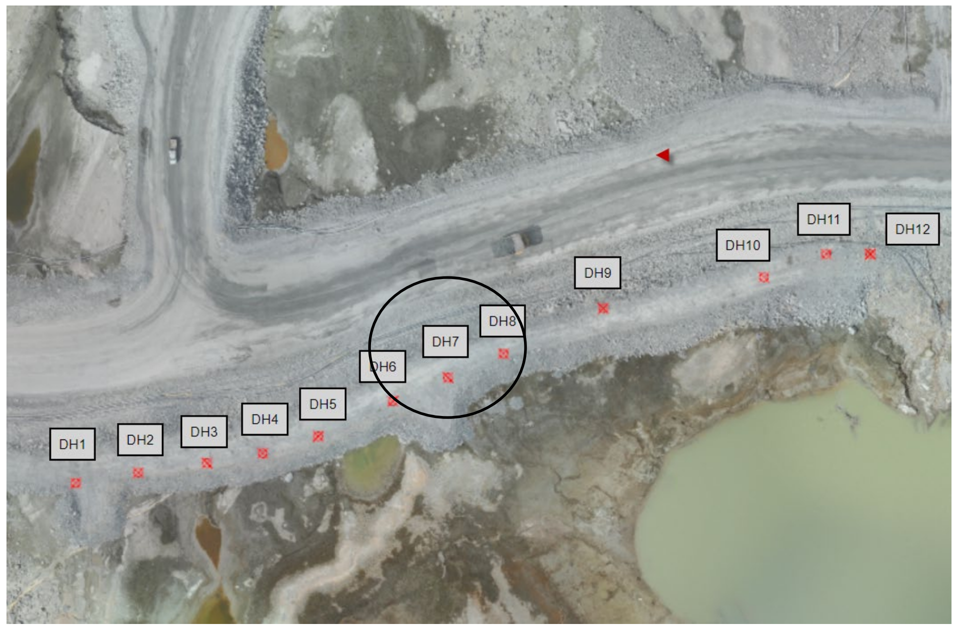

DH1
DH2
DH3
DH4
DH5
DH6
DH7
DH8
DH9
DH10
DH11
DH12


AMQ – PSW – DH06_TH
Rockfill
Lake bed sediments
Fractured bedrock
Bedrock
Elevation(m)
Temperatures (°C)
2021-08-22 15:00
2021-07-25 15:00
2021-06-27 15:00
2021-05-30 15:00
2021-05-02 15:00
2021-04-04 15:00
2021-03-07 15:00
2021-02-07 15:00
2021-01-10 15:00
2020-12-13 15:00
2020-11-15 15:00
2020-10-18 15:00
2020-09-20 15:00
2020-08-23 15:00
2020-07-26 15:00
2020-07-01 15:00
2020-06-09 18:00
Limit Profile

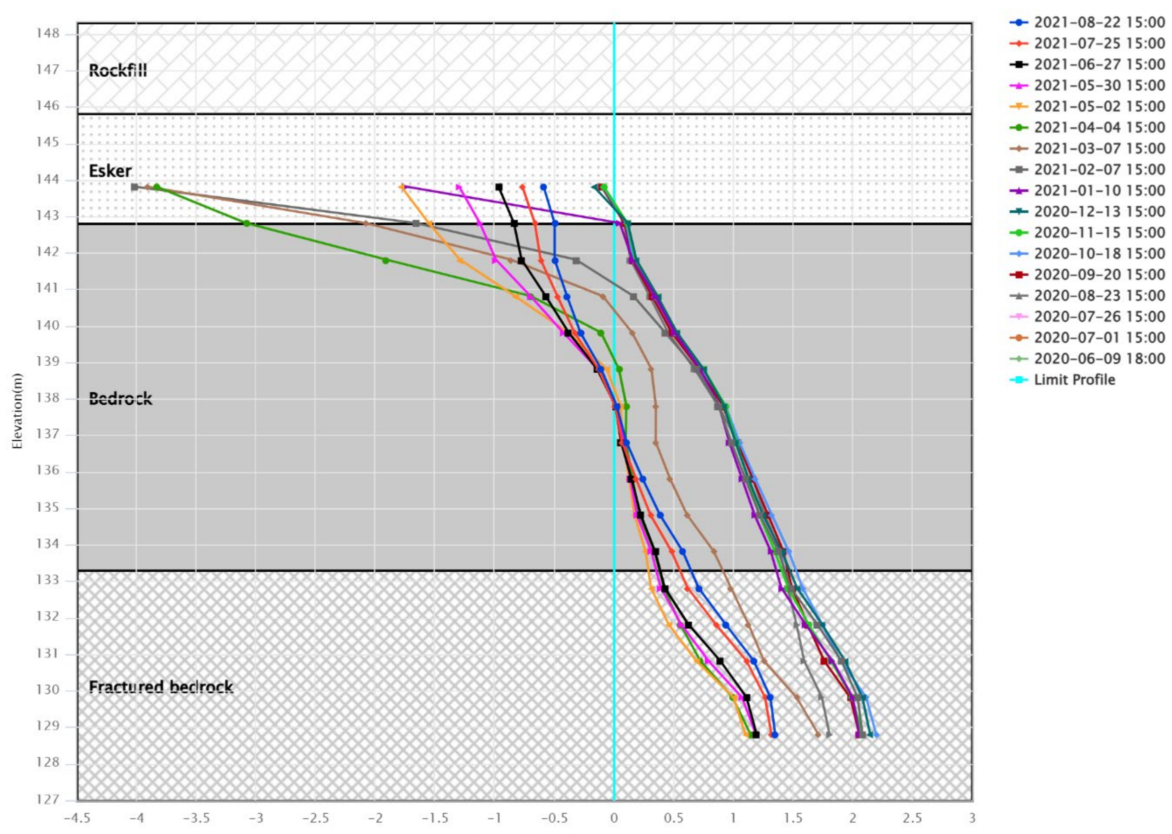

Temperature(°C): PSW-DH6
FRACTURED BEDROCK
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 6/9/2020 1 to 8/22/2021
Temperature(°C)


DH-6
Top Casing 148.181
147.791
145.291
144.891
139.791
137.791
124.986
Rockfill
Lake Bed Sediments
Esker
Lake Bed Sediments
Fractured Bedrock
Bedrock
DH-6_PZ

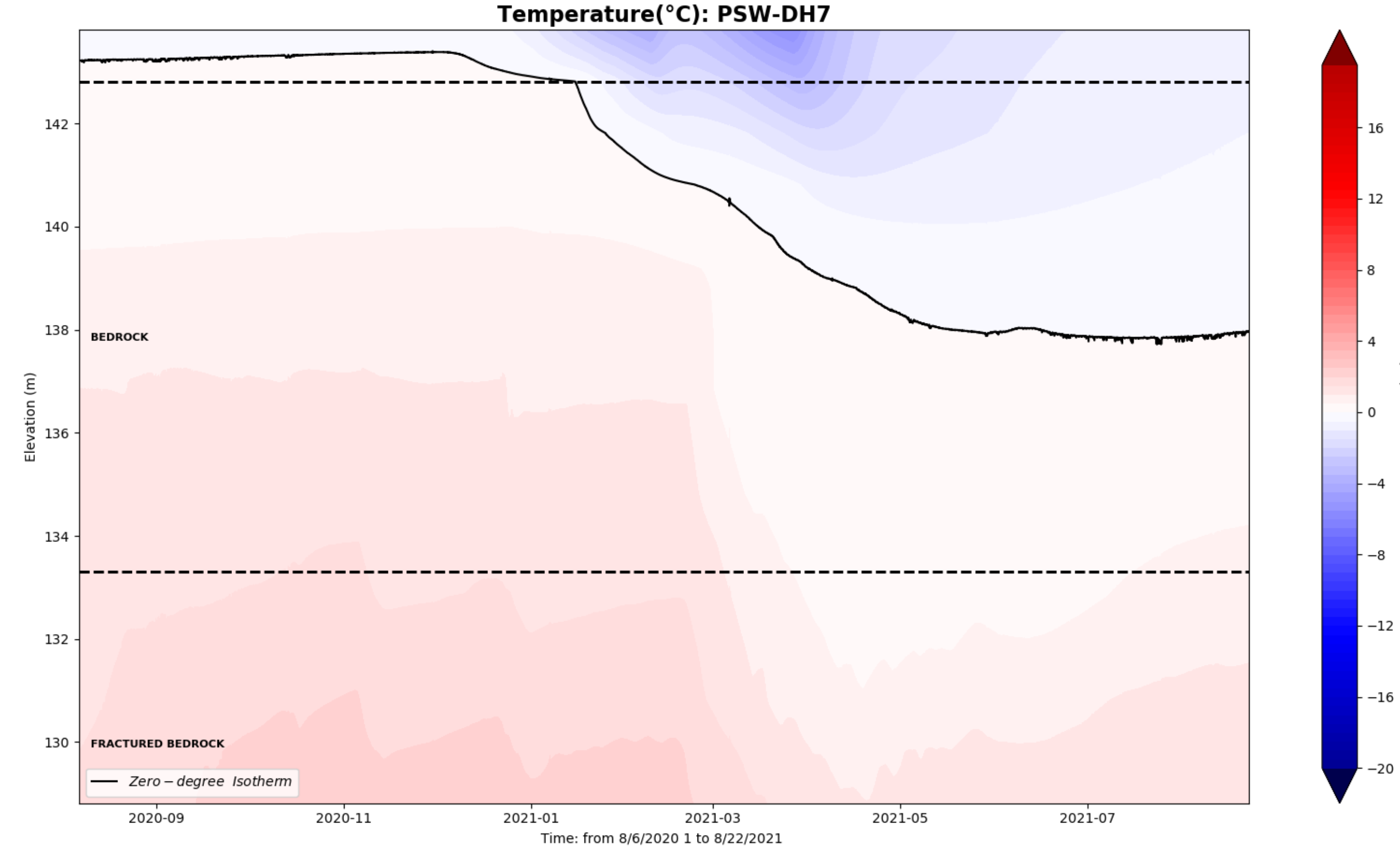
PSW – DH 7 TH



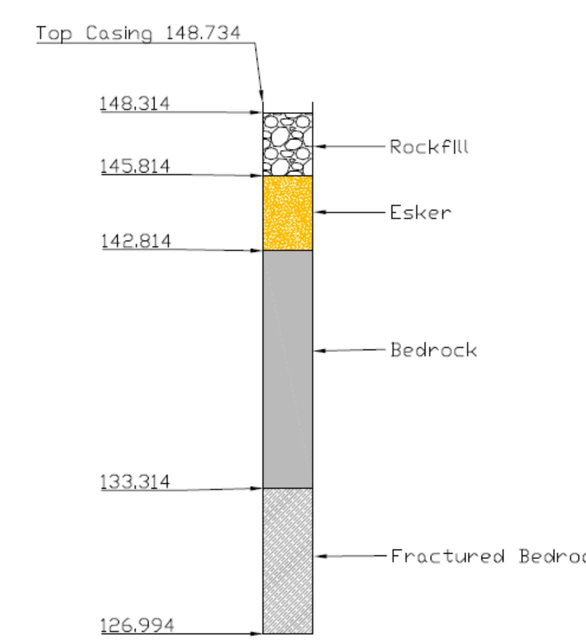
AMQ – PSW – DH07_TH



Temperature(°C): PSW-DH7

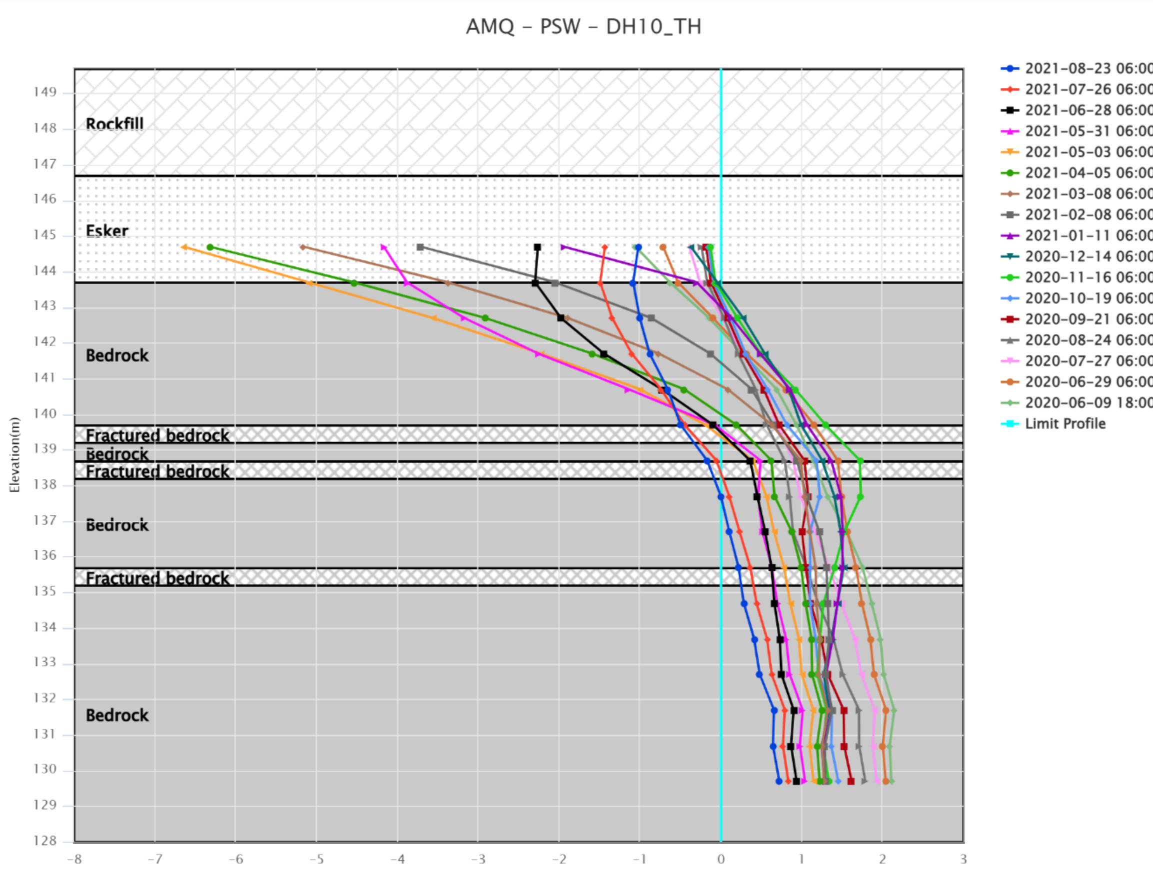


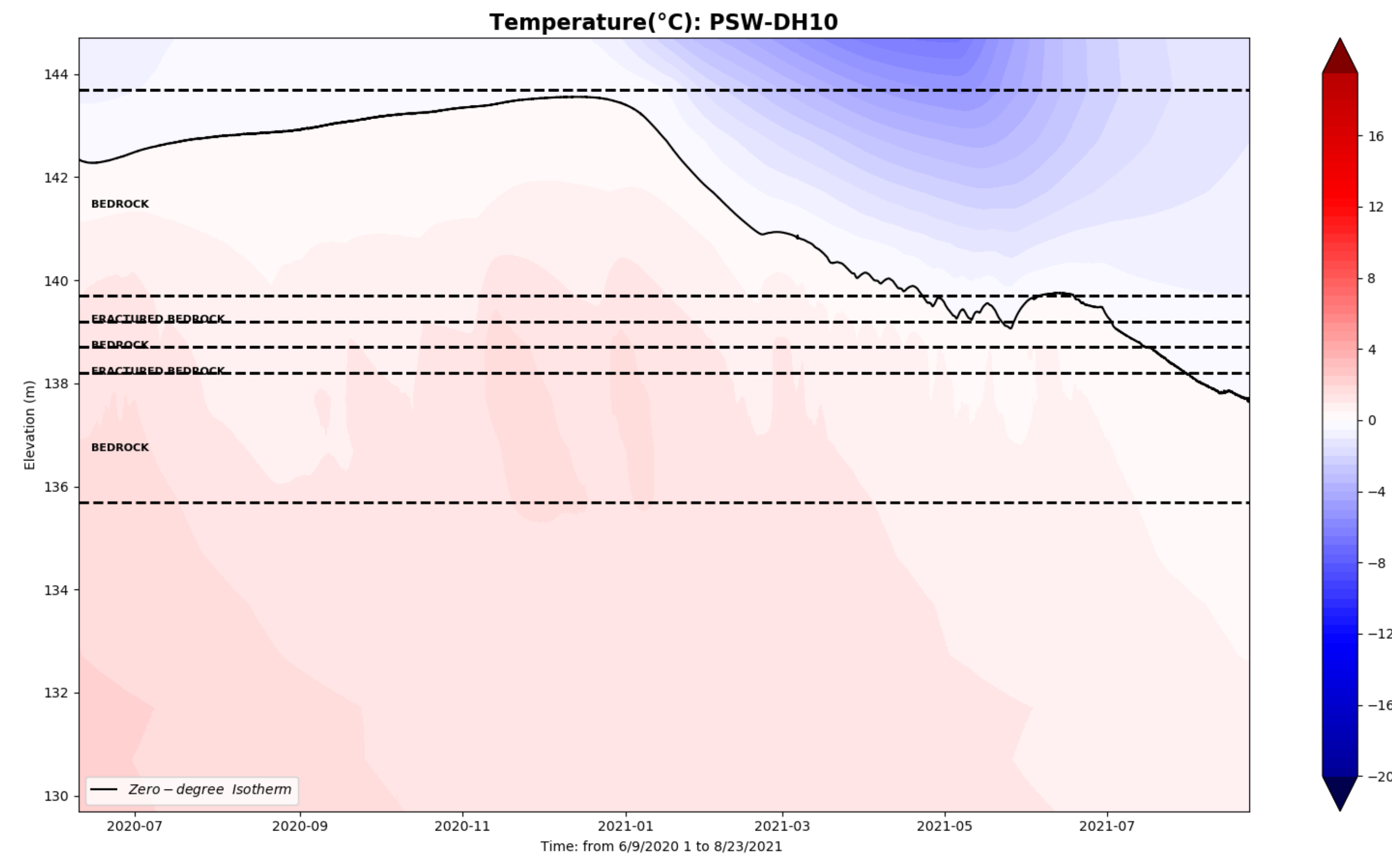
DH-7

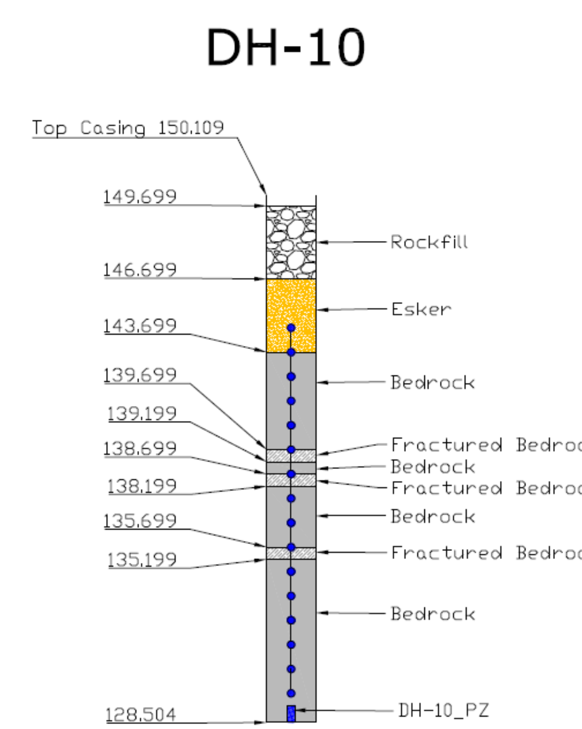


PSW – DH 10 TH


DH1
DH2
DH3
DH4
DH5
DH6
DH7
DH8
DH9
DH10
DH11
DH12

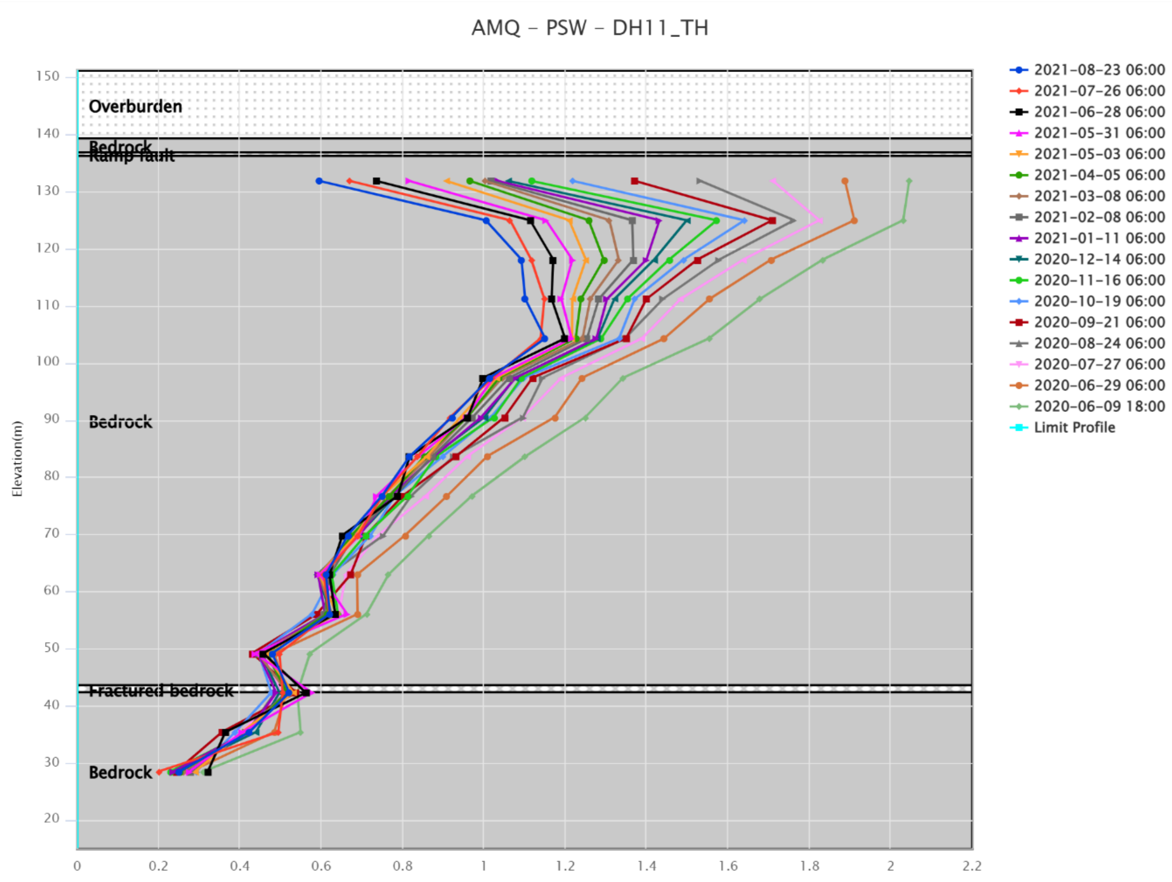

AMQ – PSW – DH10_TH
Rockfill
Esker
Bedrock
Fractured bedrock
Bedrock
Fractured bedrock
Bedrock
Fractured bedrock
Bedrock
Elevation(m)
Temperatures (°C)
2021-08-23 06:00
2021-07-26 06:00
2021-06-28 06:00
2021-05-31 06:00
2021-05-03 06:00
2021-04-05 06:00
2021-03-08 06:00
2021-02-08 06:00
2021-01-11 06:00
2020-12-14 06:00
2020-11-16 06:00
2020-10-19 06:00
2020-09-21 06:00
2020-08-24 06:00
2020-07-27 06:00
2020-06-29 06:00
2020-06-09 18:00
Limit Profile

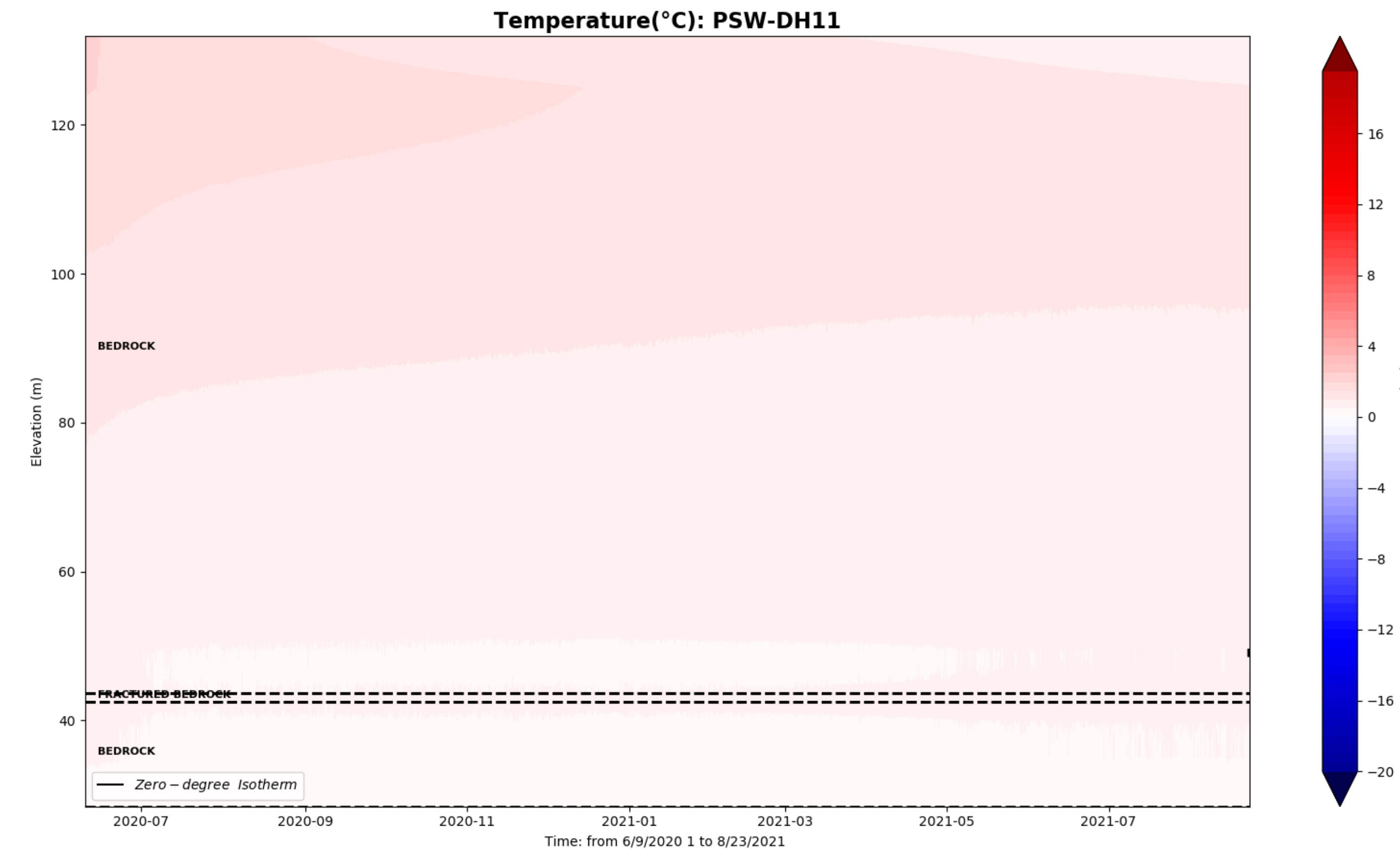

Temperature(°C): PSW-DH10
BEDROCK
FRACTURED BEDROCK
BEDROCK
FRACTURED BEDROCK
BEDROCK
Elevation (m)
Zero – degree Isotherm
2020-07
2020-09
2020-11
2021-01
2021-03
2021-05
2021-07
Time: from 6/9/2020 1 to 8/23/2021
Temperature(°C)

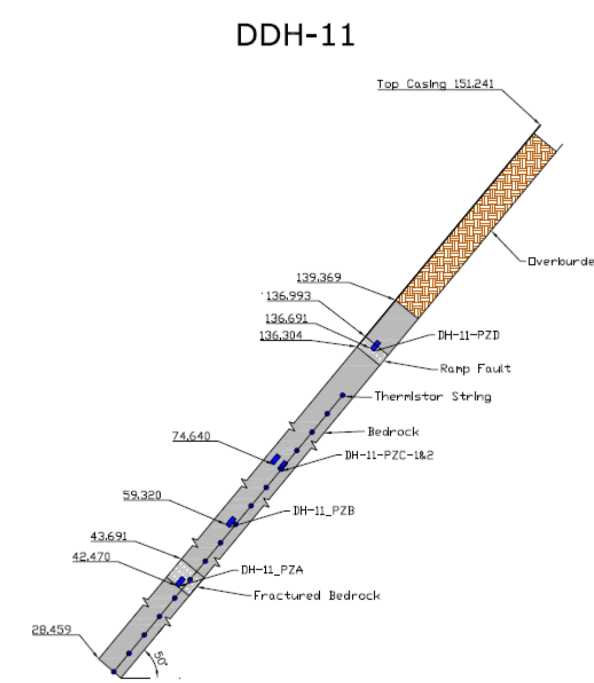

DH-10
Top Casing 150.109
149.699
146.699
143.699
139.699
139.199
138.699
138.199
135.699
135.199
128.504
Rockfill
Esker
Bedrock
Fractured Bedrock
Bedrock
Fractured Bedrock
Bedrock
Fractured Bedrock
Bedrock
DH-10_PZ

PSW – DH 11 TH


DH1
DH2
DH3
DH4
DH5
DH6
DH7
DH8
DH9
DH10
DH11
DH12

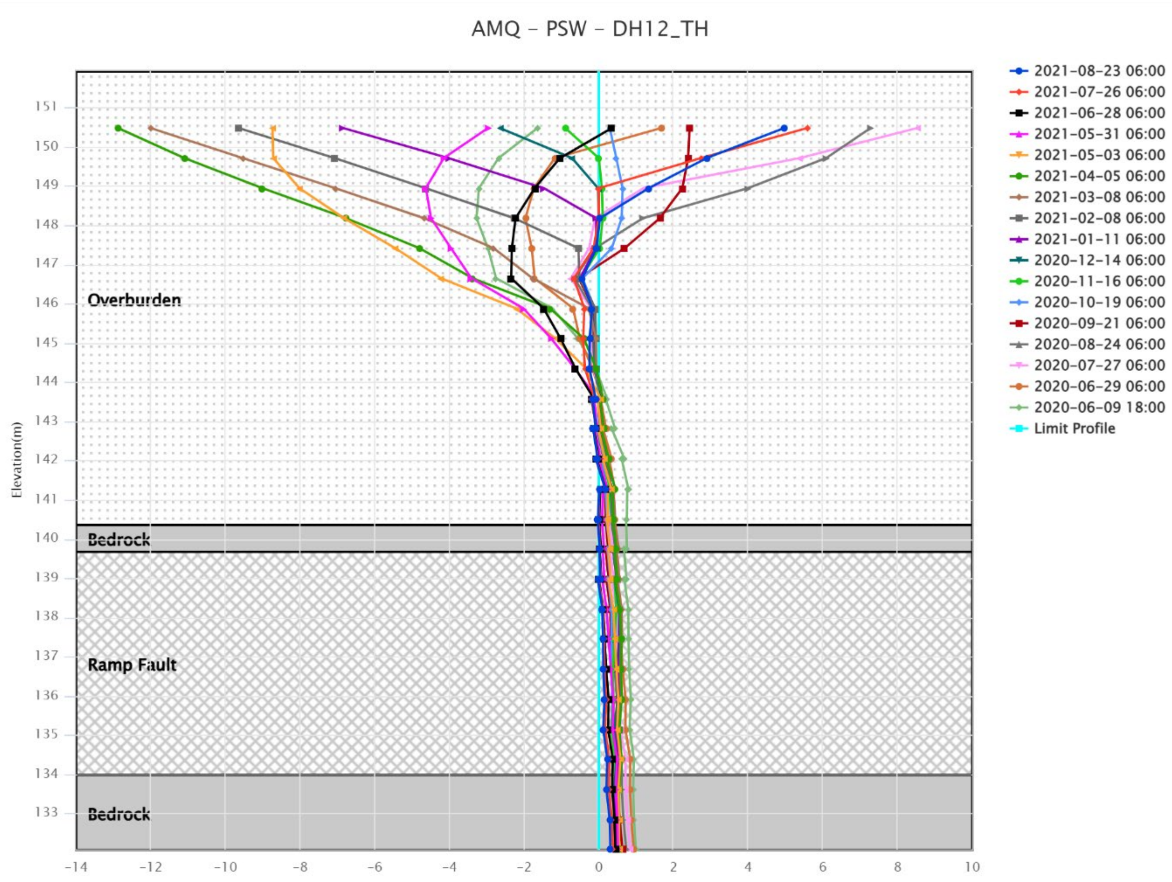

AMQ – PSW – DH11_TH
Overburden
Bedrock
Ramp fault
Bedrock
Fractured bedrock
Bedrock
Elevation(m)
Temperatures (°C)
2021-08-23 06:00
2021-07-26 06:00
2021-06-28 06:00
2021-05-31 06:00
2021-05-03 06:00
2021-04-05 06:00
2021-03-08 06:00
2021-02-08 06:00
2021-01-11 06:00
2020-12-14 06:00
2020-11-16 06:00
2020-10-19 06:00
2020-09-21 06:00
2020-08-24 06:00
2020-07-27 06:00
2020-06-29 06:00
2020-06-09 18:00
Limit Profile

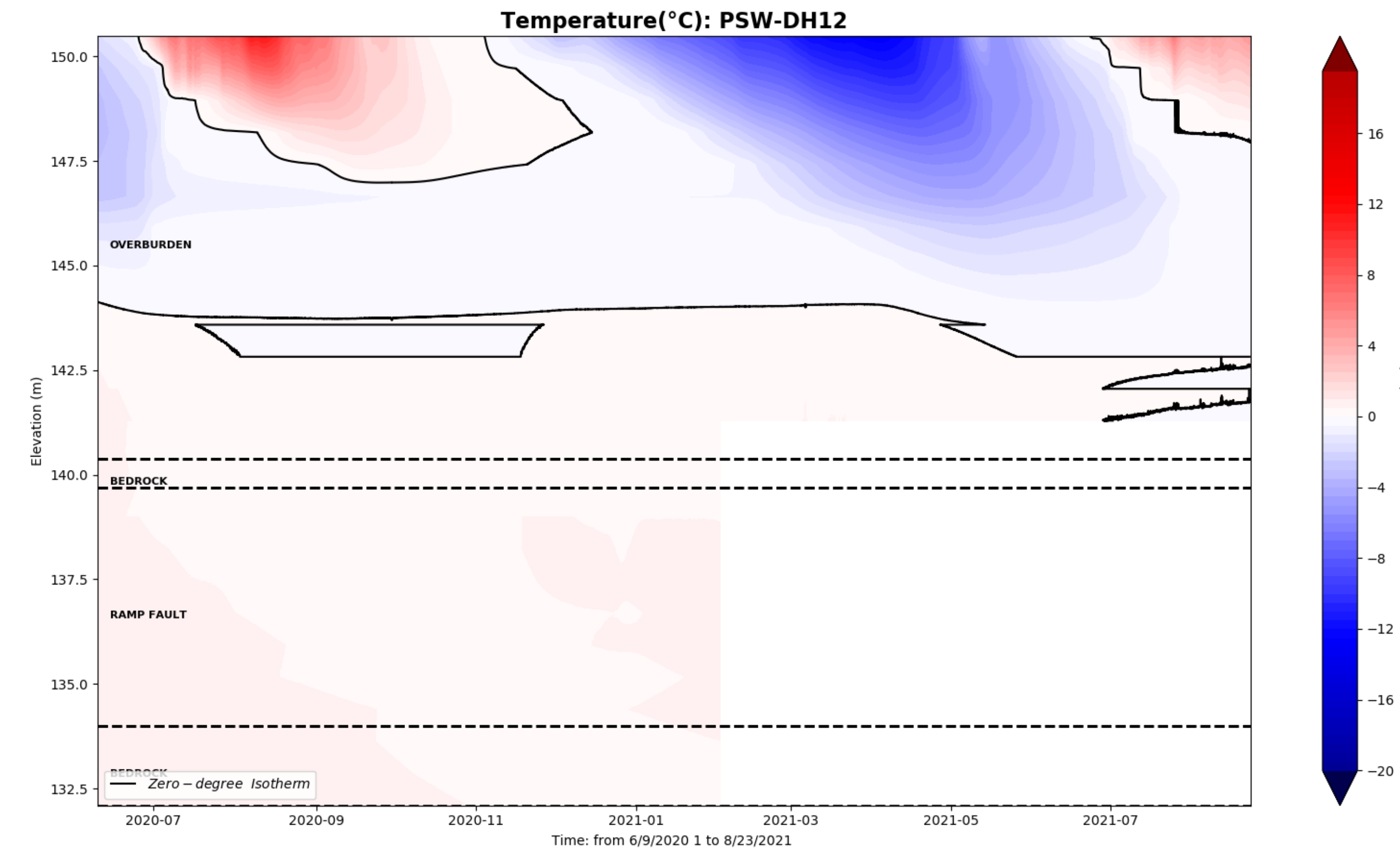

Temperature(°C): PSW-DH11
BEDROCK
FRACTURED BEDROCK
BEDROCK
Zero – degree Isotherm
Elevation (m)
Time: from 6/9/2020 1 to 8/23/2021
Temperature(°C)

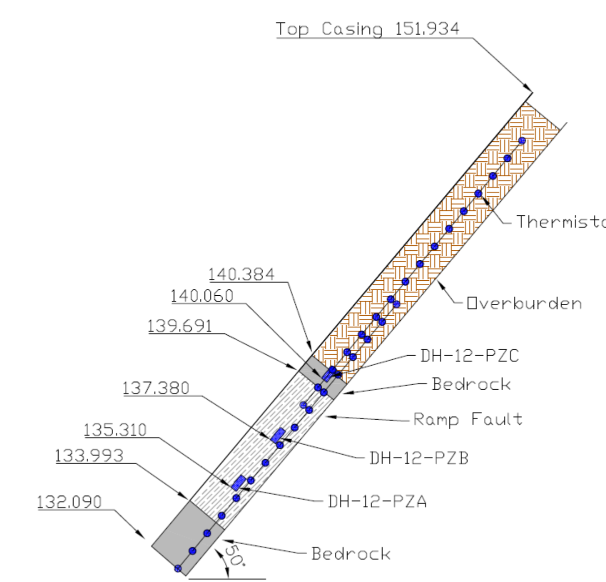

DDH-11
Top Casing 151.241
Overburden
139.369
136.993
136.691
136.304
DH-11-PZD
Ramp Fault
Thermistor String
74.640
Bedrock
DH-11-PZC-1&2
59.320
DH-11_PZB
43.691
42.470
DH-11_PZA
Fractured Bedrock
28.459

PSW – DH 12 TH

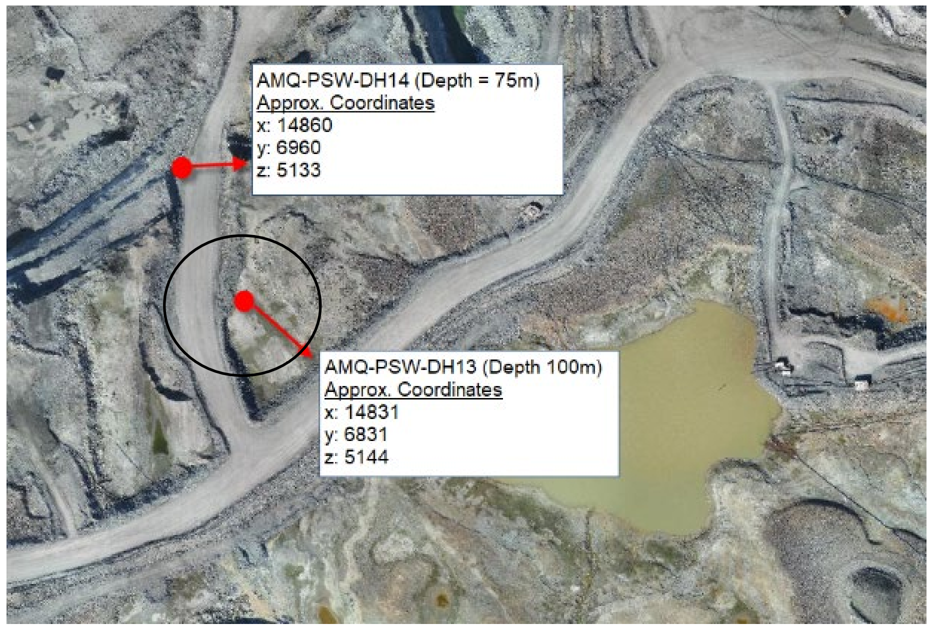

DH1
DH2
DH3
DH4
DH5
DH6
DH7
DH8
DH9
DH10
DH11
DH12

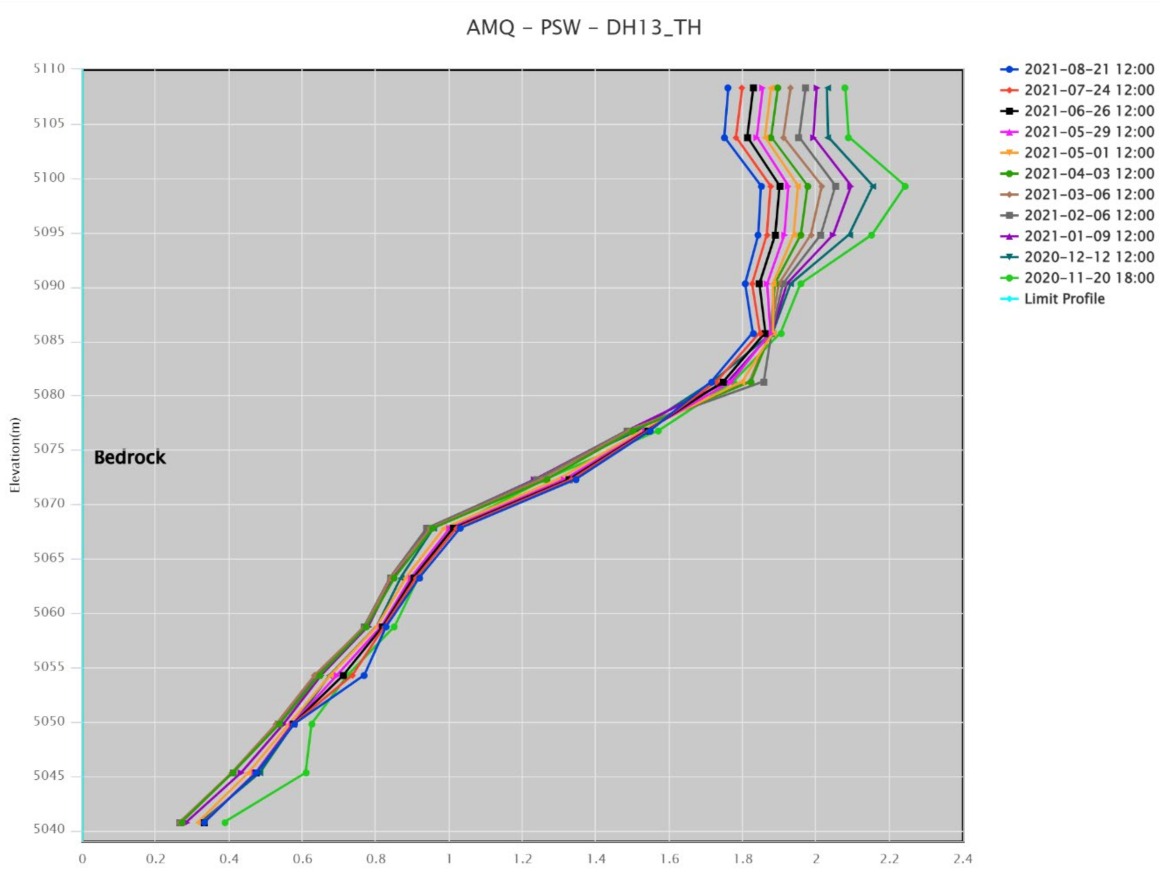

AMQ - PSW - DH12_TH
Elevation(m)
Temperatures (°C)
Overburden
Bedrock
Ramp Fault
Bedrock
2021-08-23 06:00
2021-07-26 06:00
2021-06-28 06:00
2021-05-31 06:00
2021-05-03 06:00
2021-04-05 06:00
2021-03-08 06:00
2021-02-08 06:00
2021-01-11 06:00
2020-12-14 06:00
2020-11-16 06:00
2020-10-19 06:00
2020-09-21 06:00
2020-08-24 06:00
2020-07-27 06:00
2020-06-29 06:00
2020-06-09 18:00
Limit Profile

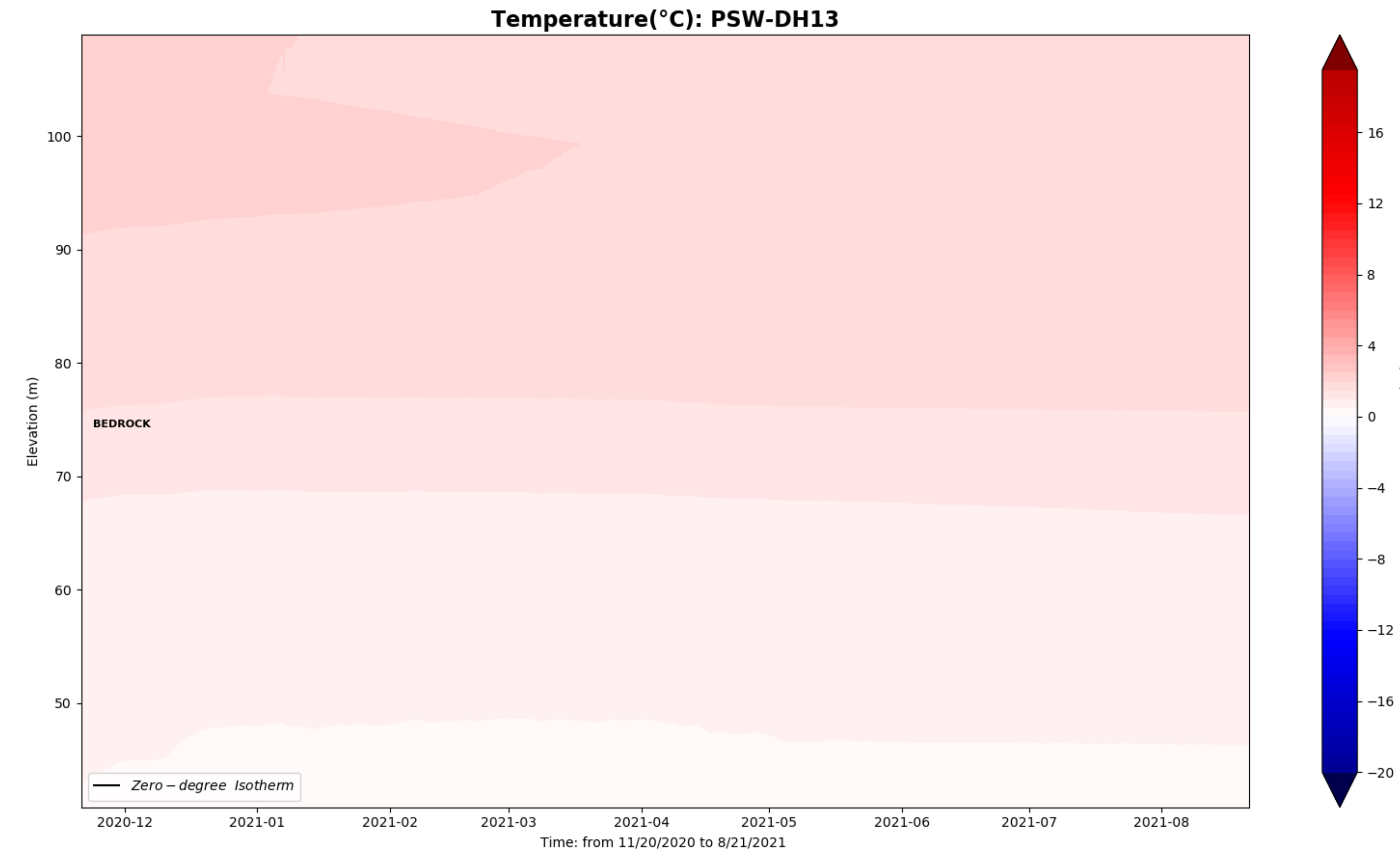

Temperature(°C): PSW-DH12
Elevation (m)
OVERBURDEN
BEDROCK
RAMP FAULT
Zero – degree Isotherm
2020-07
2020-09
2020-11
2021-01
2021-03
2021-05
2021-07
Time: from 6/9/2020 1 to 8/23/2021
Temperature(°C)

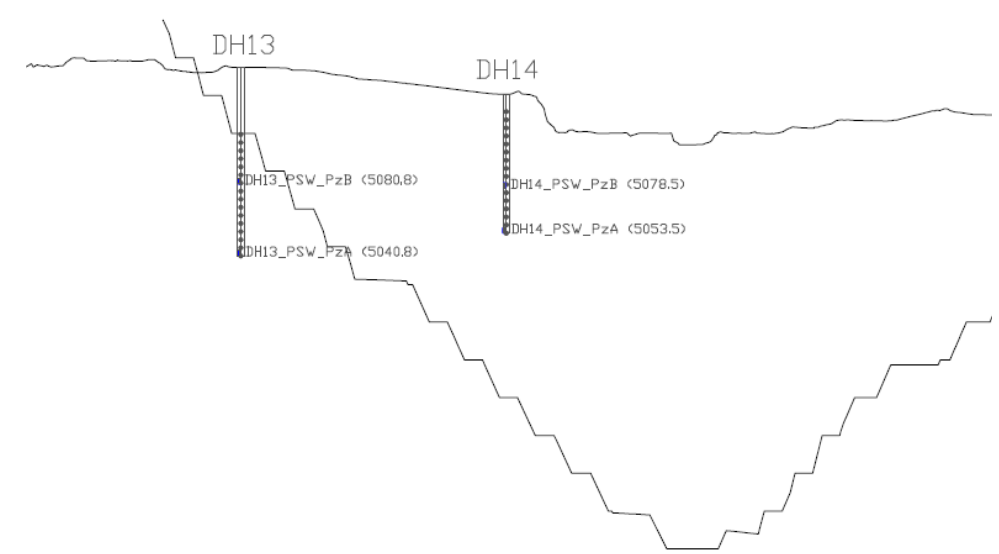

Top Casing 151.934
Thermistor
Overburden
140.384
140.060
139.691
DH-12-PZC
Bedrock
137.380
Ramp Fault
135.310
DH-12-PZB
133.993
DH-12-PZA
132.090
Bedrock
50°

PSW – DH 13 TH

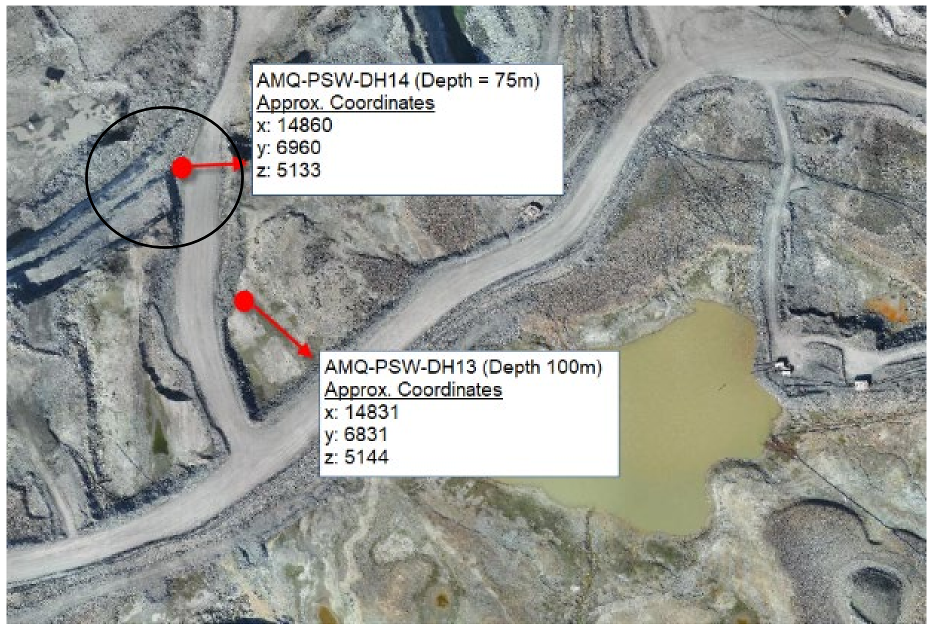

AMQ-PSW-DH14 (Depth = 75m)
Approx. Coordinates
x: 14860
y: 6960
z: 5133
AMQ-PSW-DH13 (Depth 100m)
Approx. Coordinates
x: 14831
y: 6831
z: 5144

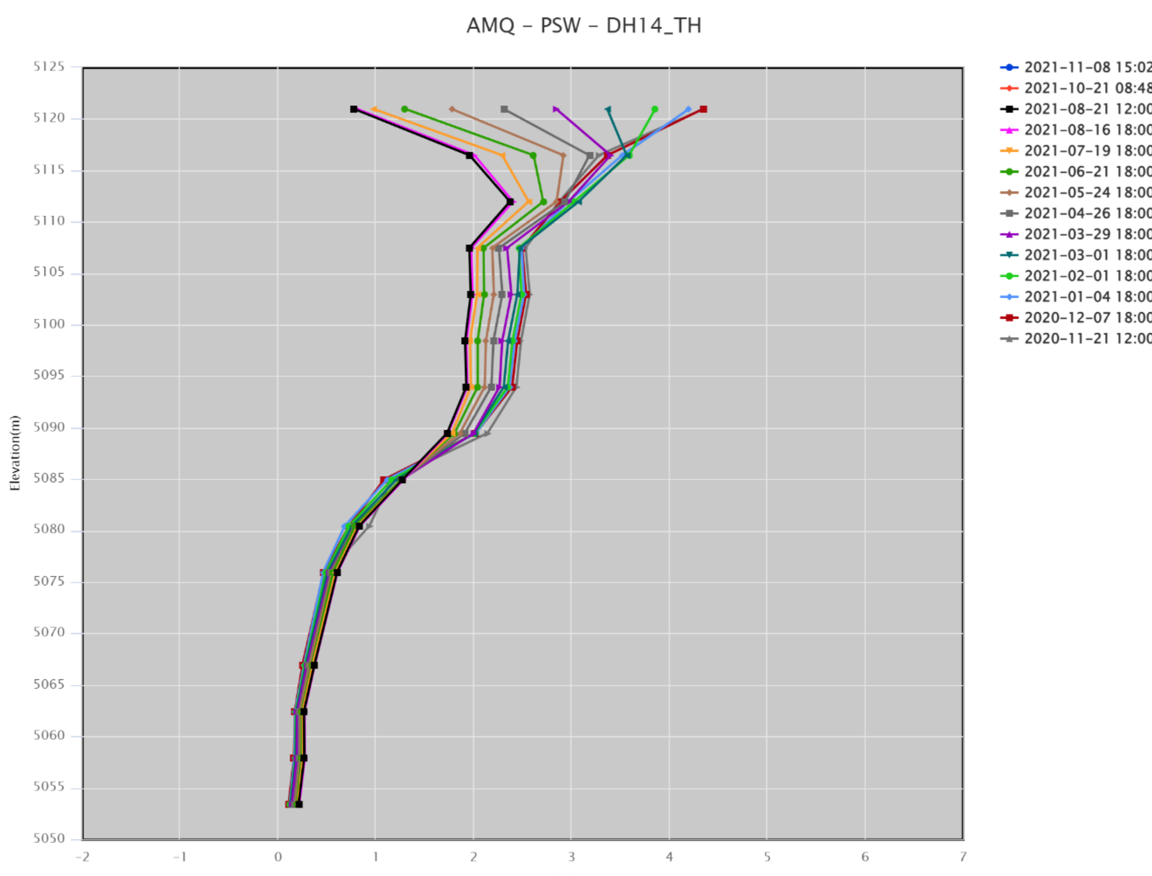

AMQ – PSW – DH13_TH
Bedrock
Elevation(m)
Temperature (°C)
2021-08-21 12:00
2021-07-24 12:00
2021-06-26 12:00
2021-05-29 12:00
2021-05-01 12:00
2021-04-03 12:00
2021-03-06 12:00
2021-02-06 12:00
2021-01-09 12:00
2020-12-12 12:00
2020-11-20 18:00
Limit Profile

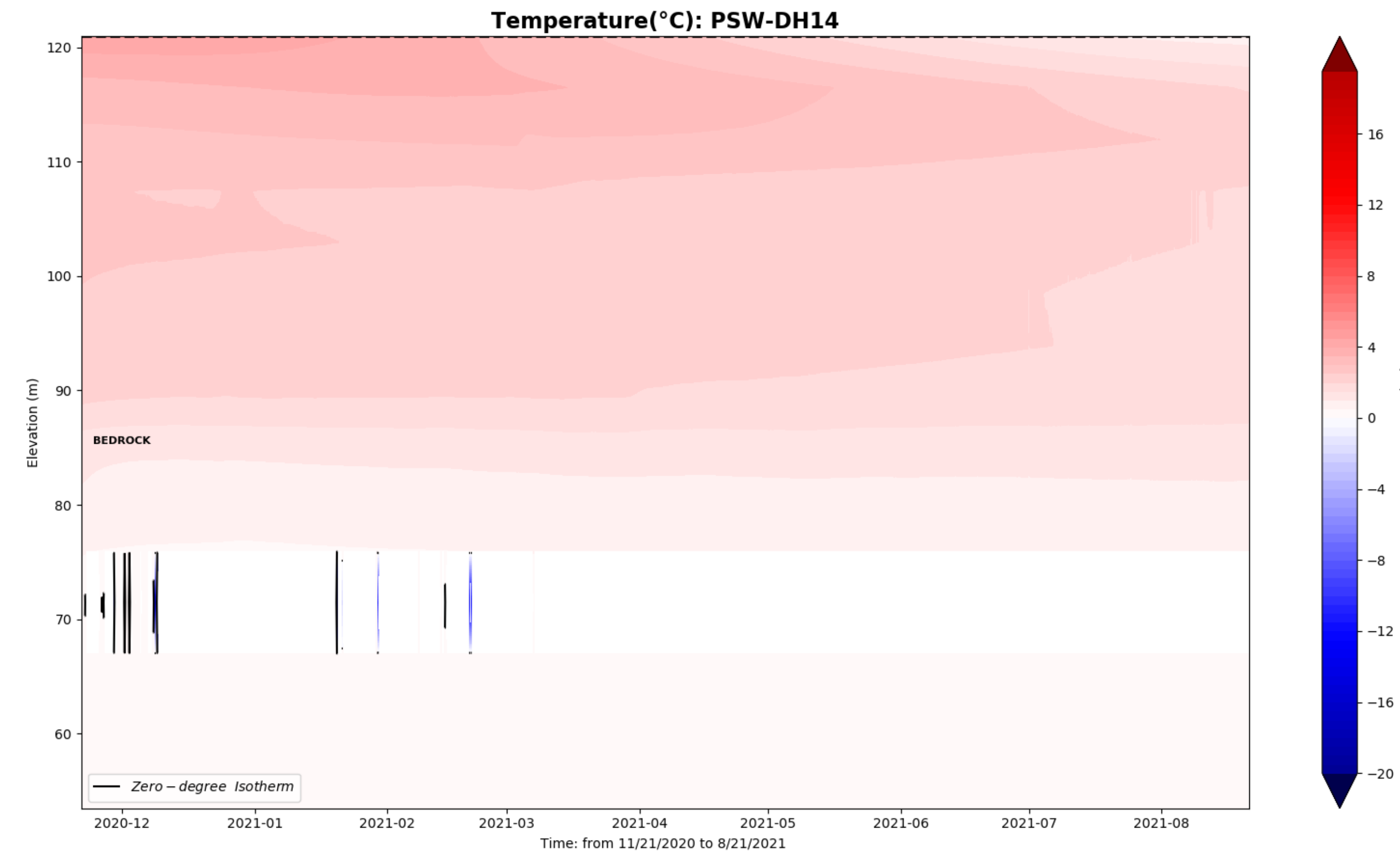

Temperature(°C): PSW-DH13
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 11/20/2020 to 8/21/2021
Temperature(°C)

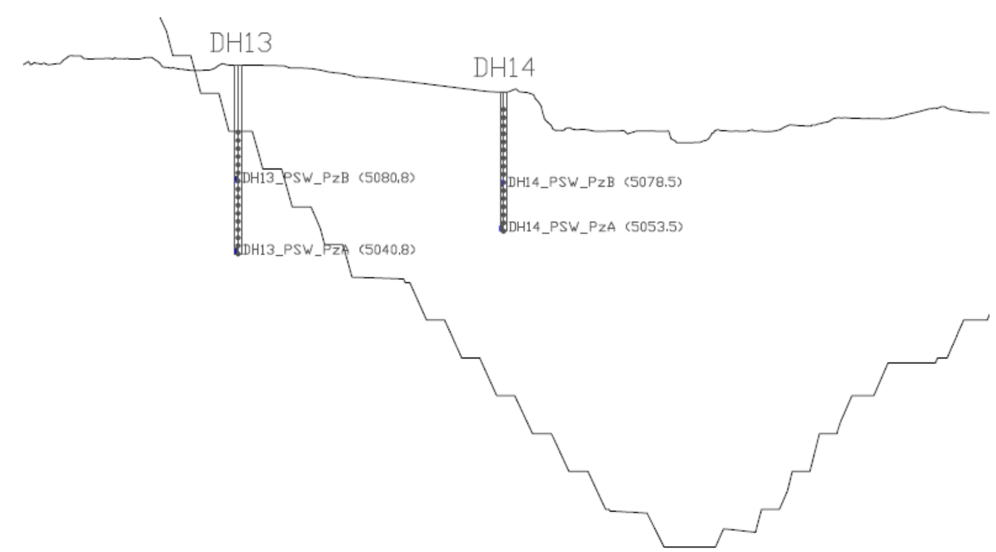

DH13
DH14
DH13_PSW_PzB (5080.8)
DH13_PSW_PzA (5040.8)
DH14_PSW_PzB (5078.5)
DH14_PSW_PzA (5053.5)

PSW – DH 14 TH


AMQ-PSW-DH14 (Depth = 75m)
Approx. Coordinates
x: 14860
y: 6960
z: 5133
AMQ-PSW-DH13 (Depth 100m)
Approx. Coordinates
x: 14831
y: 6831
z: 5144

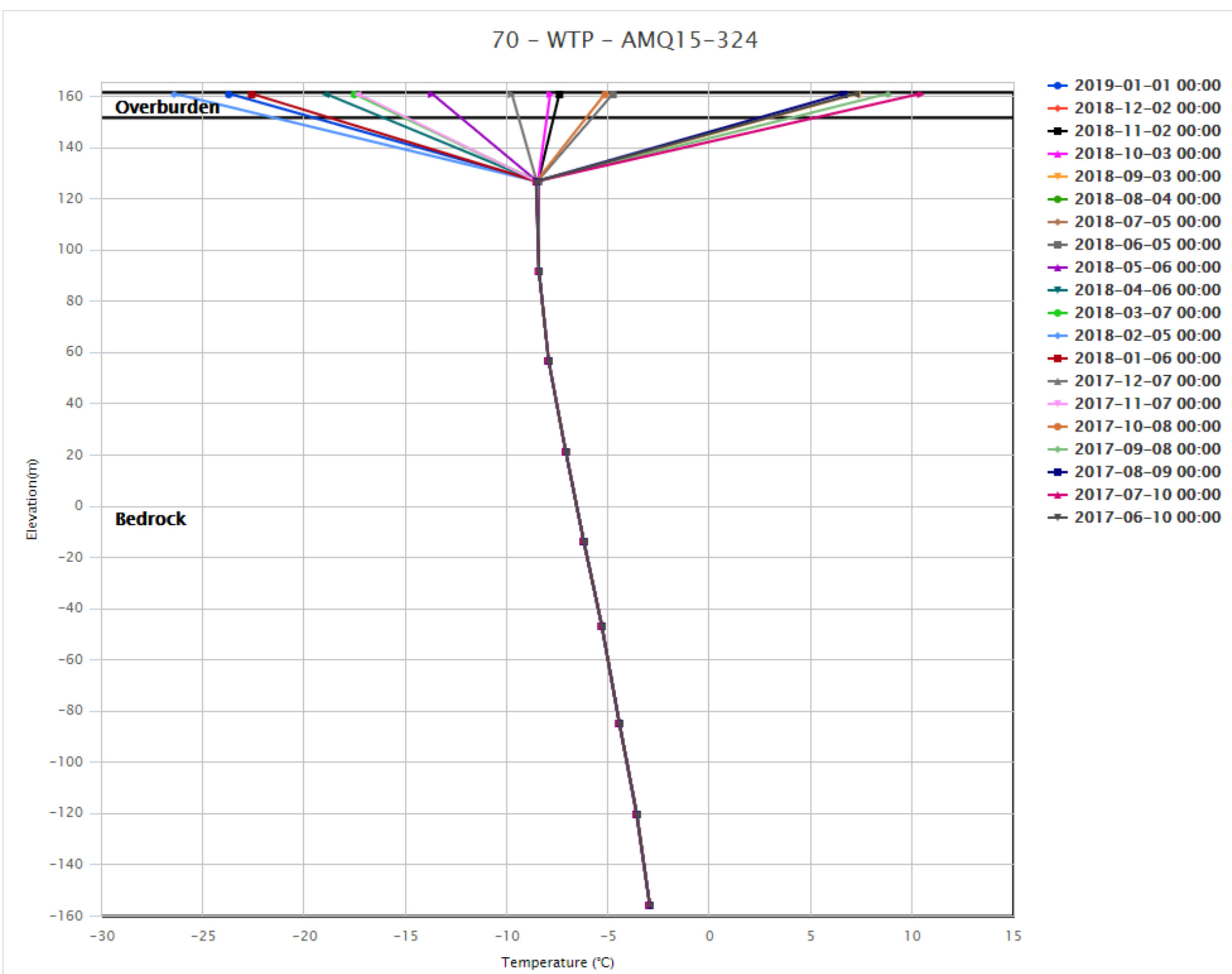

AMQ – PSW – DH14_TH
Elevation(m)
Temperature (°C)
5125
5120
5115
5110
5105
5100
5095
5090
5085
5080
5075
5070
5065
5060
5055
5050
-2
-1
0
1
2
3
4
5
6
7
2021-11-08 15:02
2021-10-21 08:48
2021-08-21 12:00
2021-08-16 18:00
2021-07-19 18:00
2021-06-21 18:00
2021-05-24 18:00
2021-04-26 18:00
2021-03-29 18:00
2021-03-01 18:00
2021-02-01 18:00
2021-01-04 18:00
2020-12-07 18:00
2020-11-21 12:00

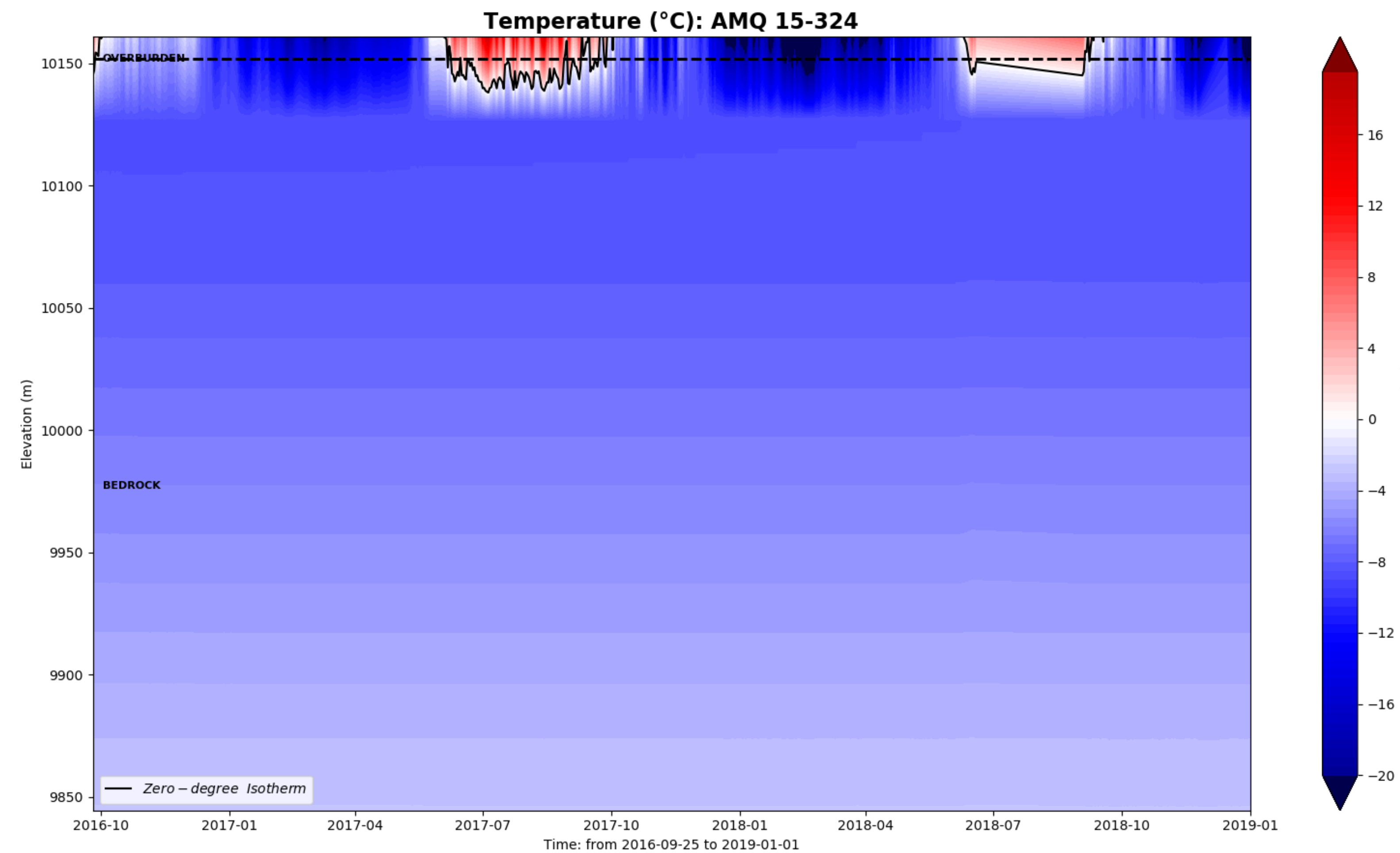

Temperature(°C): PSW-DH14
Elevation (m)
120
110
100
90
80
70
60
BEDROCK
Zero – degree Isotherm
2020-12
2021-01
2021-02
2021-03
2021-04
2021-05
2021-06
2021-07
2021-08
Time: from 11/21/2020 to 8/21/2021
Temperature(°C)
16
12
8
4
0
−4
−8
−12
−16
−20


DH13
DH14
DH13_PSW_PzB (5080.8)
DH13_PSW_PzA (5040.8)
DH14_PSW_PzB (5078.5)
DH14_PSW_PzA (5053.5)

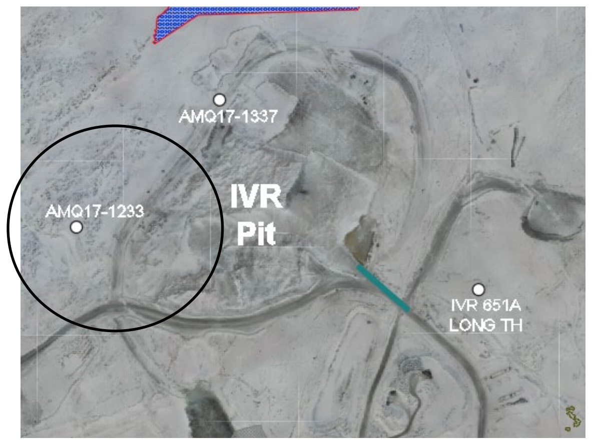
AMQ 15-324

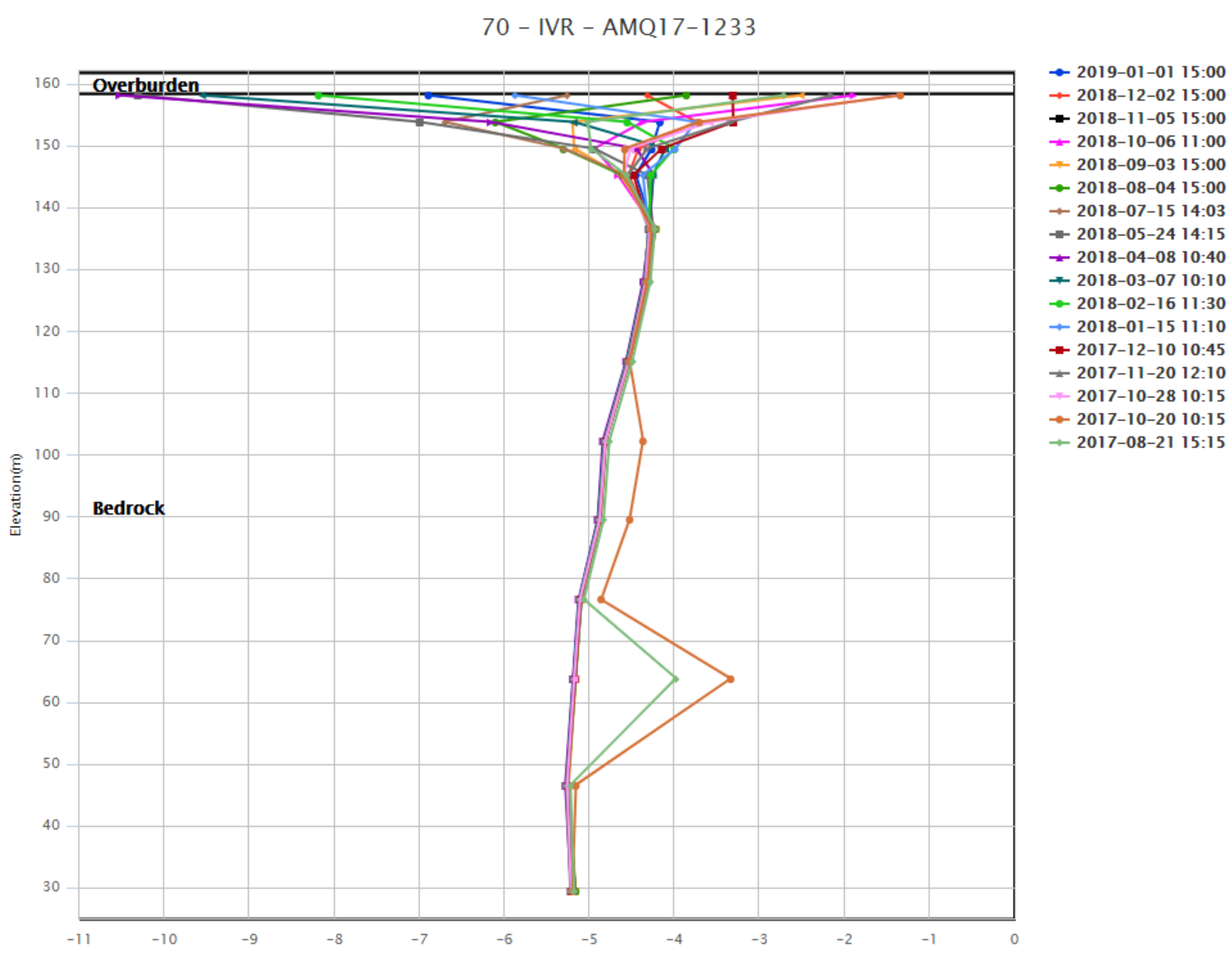

Whale Tail
Pit
AMQ15
-324
WHALE TAIL
DIKE

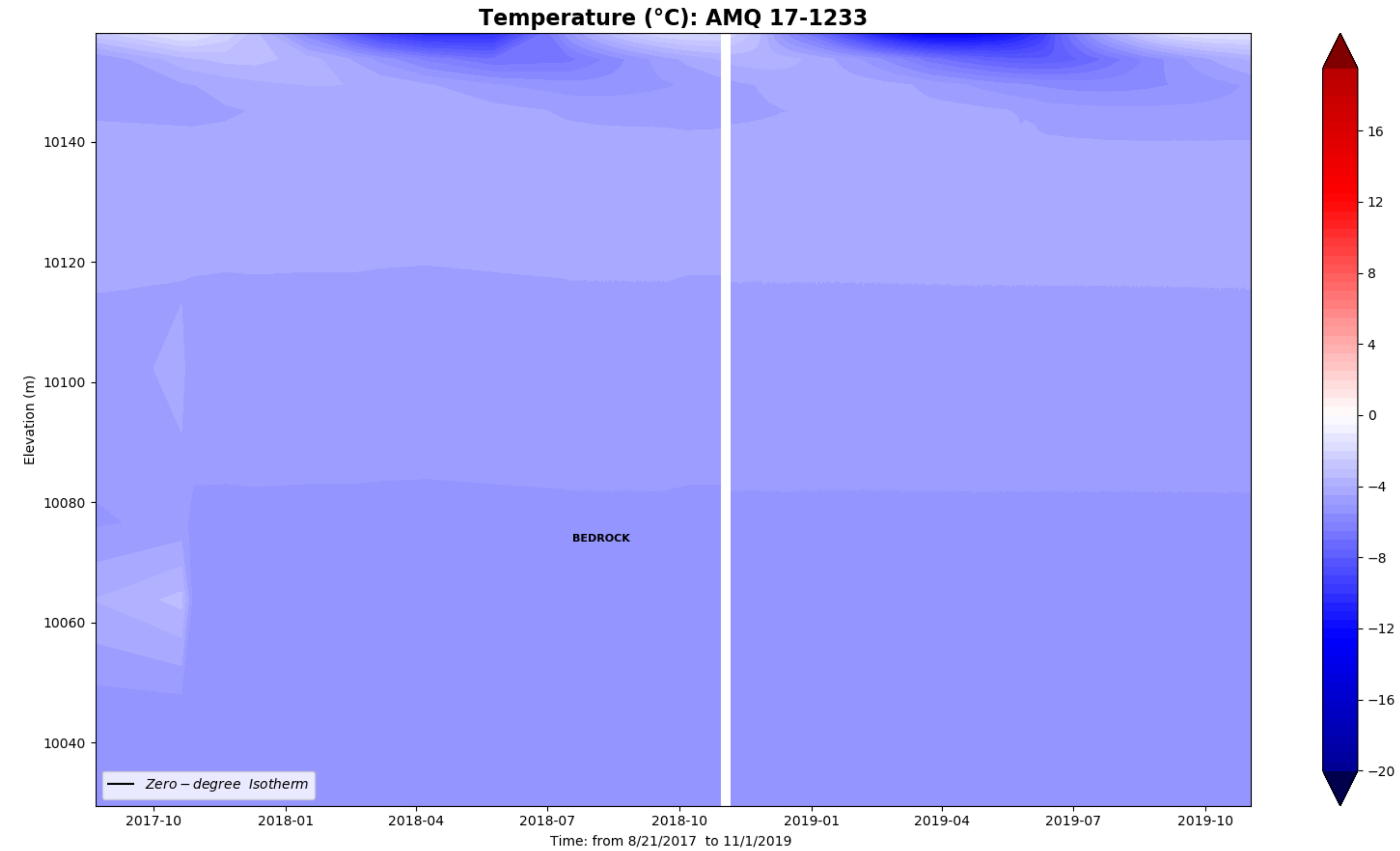

70 – WTP – AMQ15-324
Overburden
Bedrock
Elevation(m)
Temperature (°C)
2019-01-01 00:00
2018-12-02 00:00
2018-11-02 00:00
2018-10-03 00:00
2018-09-03 00:00
2018-08-04 00:00
2018-07-05 00:00
2018-06-05 00:00
2018-05-06 00:00
2018-04-06 00:00
2018-03-07 00:00
2018-02-05 00:00
2018-01-06 00:00
2017-12-07 00:00
2017-11-07 00:00
2017-10-08 00:00
2017-09-08 00:00
2017-08-09 00:00
2017-07-10 00:00
2017-06-10 00:00


Temperature (°C): AMQ 15-324
OVERBURDEN
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 2016-09-25 to 2019-01-01
Temperature (°C)

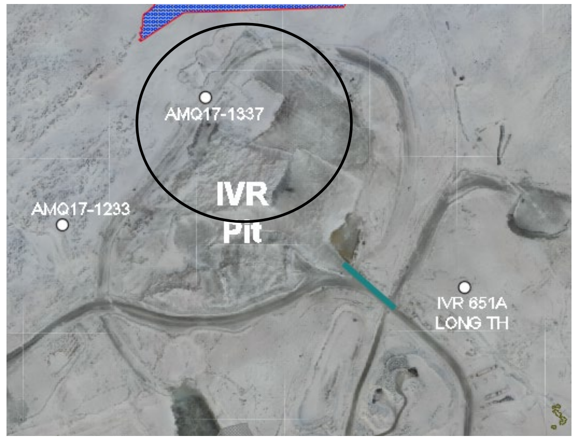
AMQ 17-1233

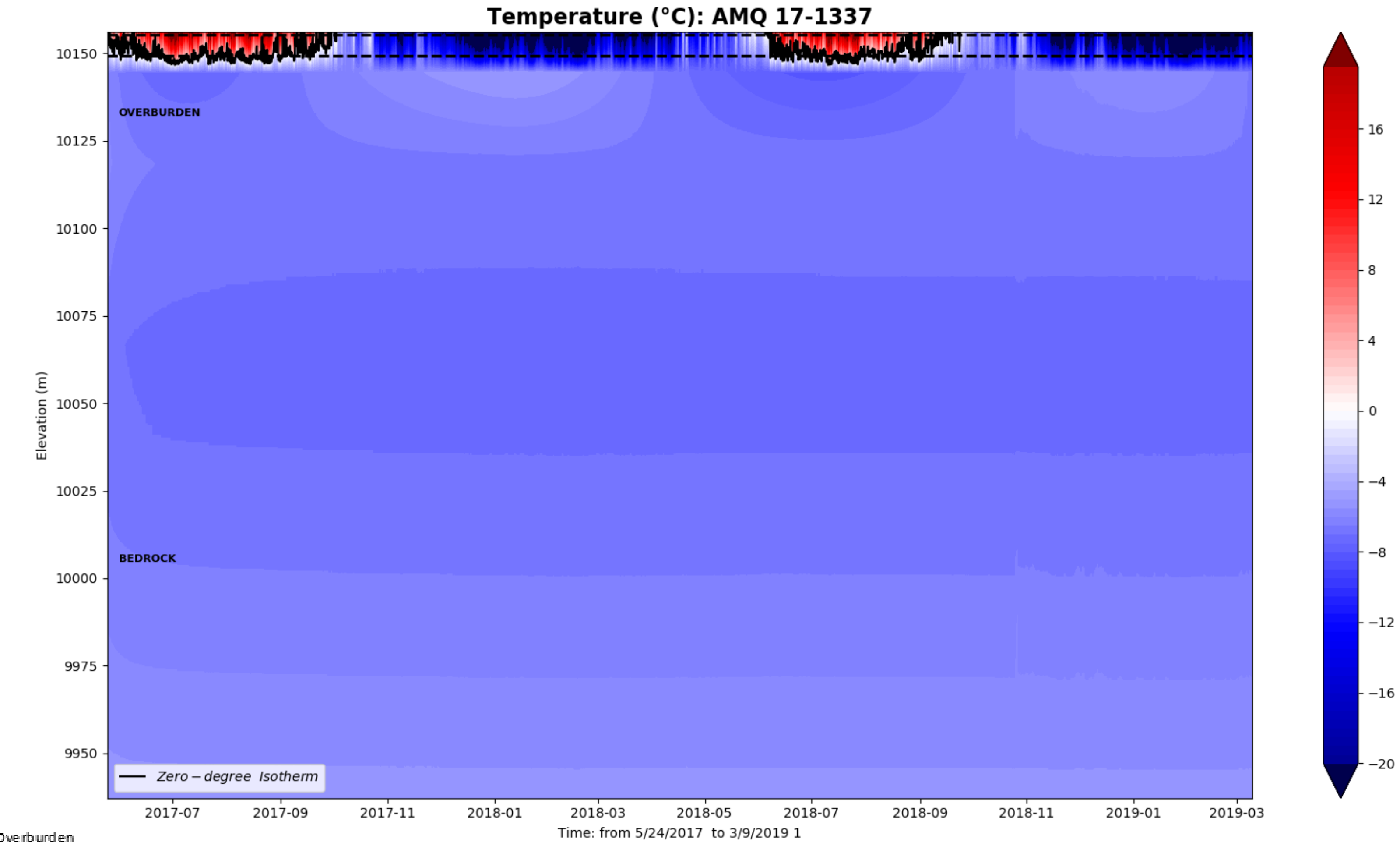

AMQ17-1337
AMQ17-1233
IVR
Pit
IVR 651A
LONG TH

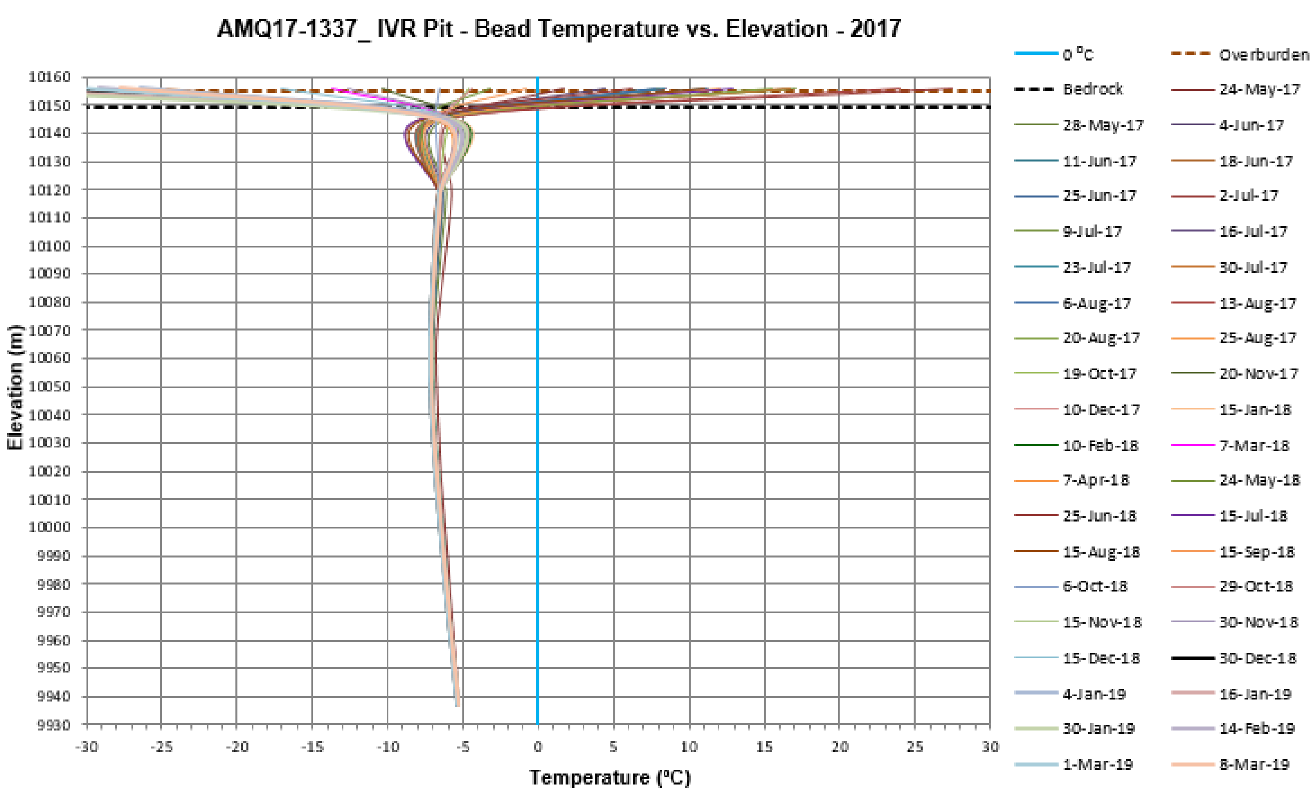

70 – IVR – AMQ17-1233
Overburden
Bedrock
Elevation(m)
Temperature (°C)
2019-01-01 15:00
2018-12-02 15:00
2018-11-05 15:00
2018-10-06 11:00
2018-09-03 15:00
2018-08-04 15:00
2018-07-15 14:03
2018-05-24 14:15
2018-04-08 10:40
2018-03-07 10:10
2018-02-16 11:30
2018-01-15 11:10
2017-12-10 10:45
2017-11-20 12:10
2017-10-28 10:15
2017-10-20 10:15
2017-08-21 15:15


Temperature (°C): AMQ 17-1233
Elevation (m)
BEDROCK
Zero – degree Isotherm
Time: from 8/21/2017 to 11/1/2019
Temperature (°C)

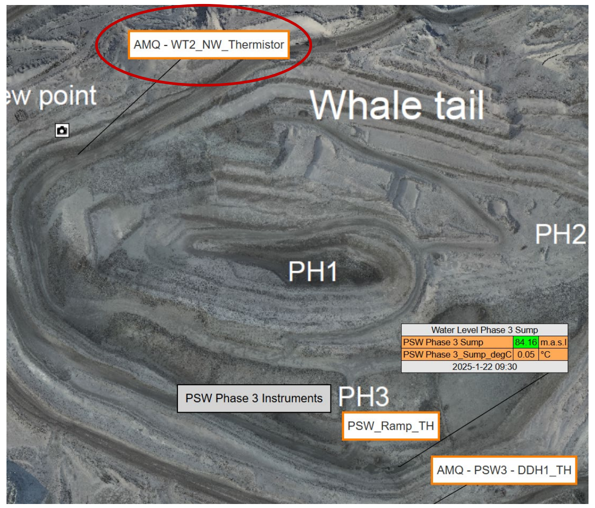
AMQ 17-1337

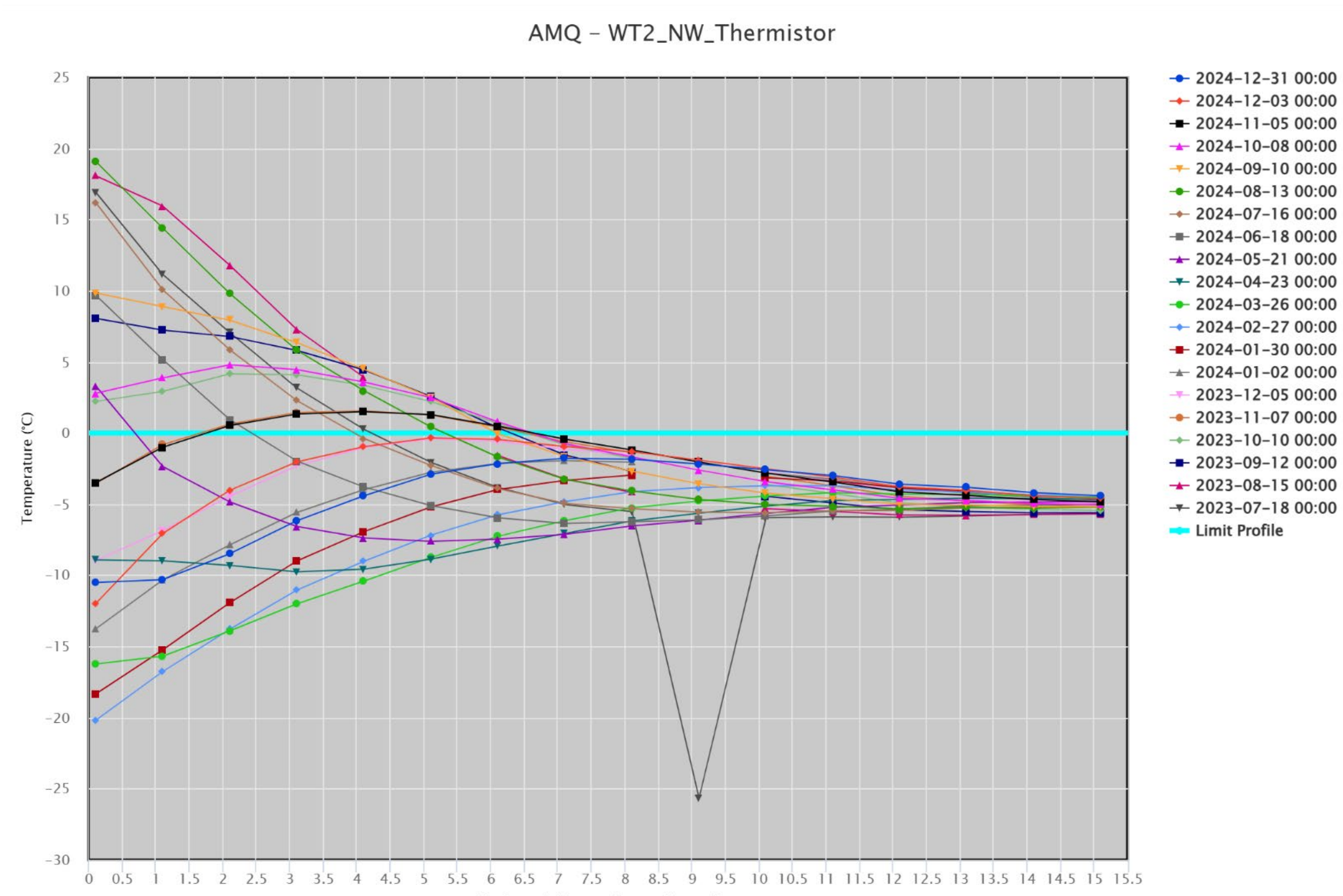

AMQ17-1337
IVR
Pit
AMQ17-1233
IVR 851A
LONG TH


Temperature (°C): AMQ 17-1337
OVERBURDEN
BEDROCK
Zero – degree Isotherm
Elevation (m)
10150
10125
10100
10075
10050
10025
10000
9975
9950
2017-07
2017-09
2017-11
2018-01
2018-03
2018-05
2018-07
2018-09
2018-11
2019-01
2019-03
Time: from 5/24/2017 to 3/9/2019 1
Temperature (°C)
16
12
8
4
0
−4
−8
−12
−16
−20

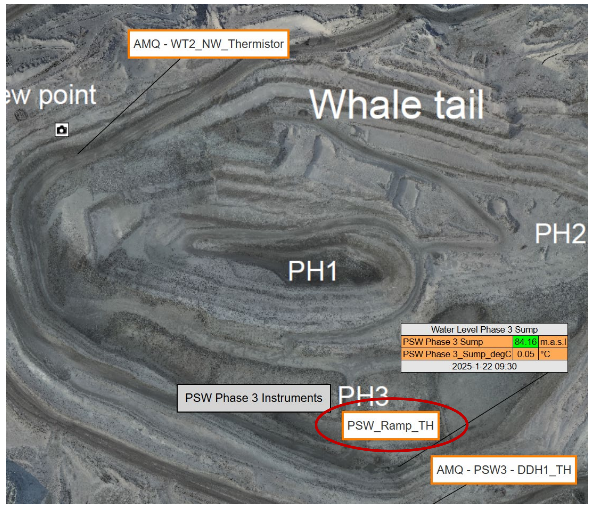

AMQ17-1337_ IVR Pit - Bead Temperature vs. Elevation - 2017
Elevation (m)
Temperature (ºC)
0 °C
Overburden
Bedrock
24-May-17
28-May-17
4-Jun-17
11-Jun-17
18-Jun-17
25-Jun-17
2-Jul-17
9-Jul-17
16-Jul-17
23-Jul-17
30-Jul-17
6-Aug-17
13-Aug-17
20-Aug-17
25-Aug-17
19-Oct-17
20-Nov-17
10-Dec-17
15-Jan-18
10-Feb-18
7-Mar-18
7-Apr-18
24-May-18
25-Jun-18
15-Jul-18
15-Aug-18
15-Sep-18
6-Oct-18
29-Oct-18
15-Nov-18
30-Nov-18
15-Dec-18
30-Dec-18
4-Jan-19
16-Jan-19
30-Jan-19
14-Feb-19
1-Mar-19
8-Mar-19

AMQ – WT2_NW_TH

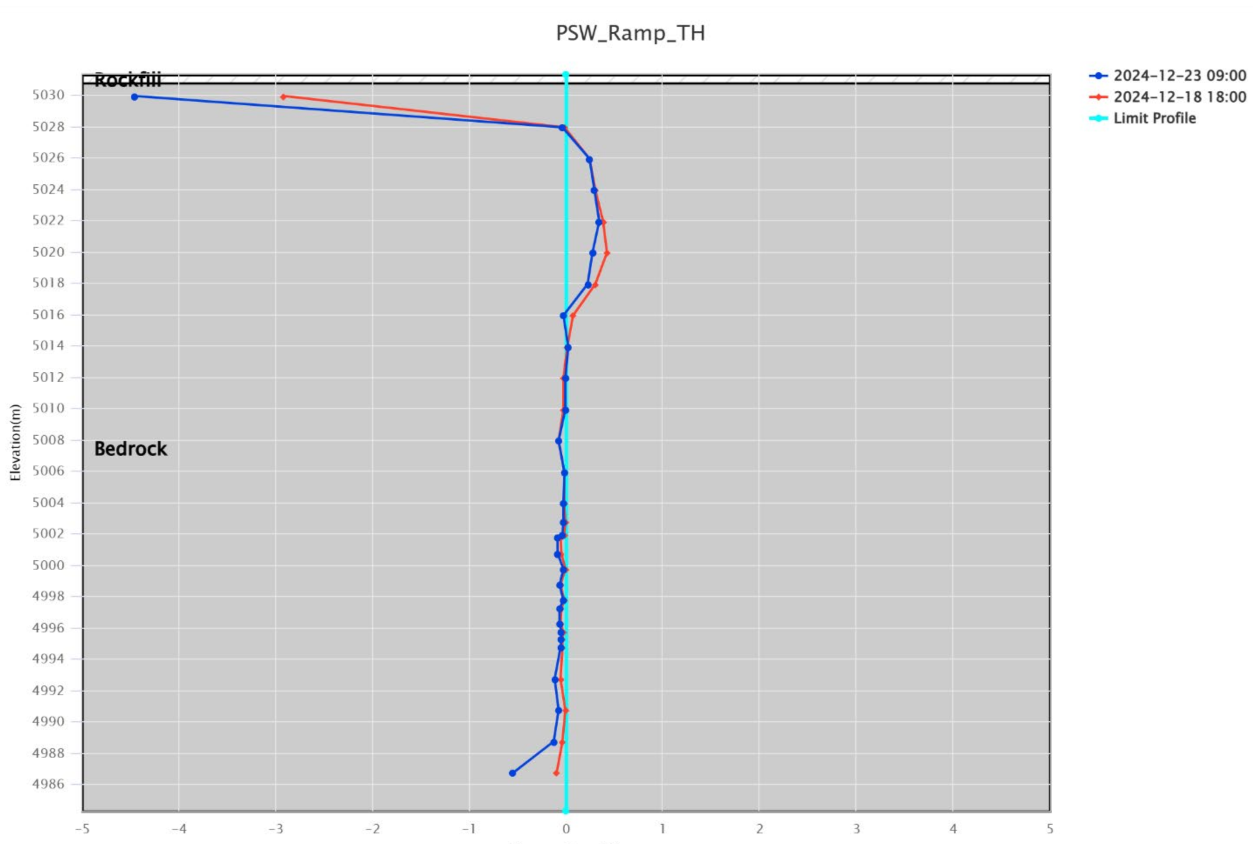

AMQ - WT2_NW_Thermistor
Whale tail
PH1
PH2
PH3
PSW Phase 3 Instruments
PSW_Ramp_TH
AMQ - PSW3 - DDH1_TH


AMQ – WT2_NW_Thermistor
Temperature (°C)
Horizontal distance from collar surface
2024-12-31 00:00
2024-12-03 00:00
2024-11-05 00:00
2024-10-08 00:00
2024-09-10 00:00
2024-08-13 00:00
2024-07-16 00:00
2024-06-18 00:00
2024-05-21 00:00
2024-04-23 00:00
2024-03-26 00:00
2024-02-27 00:00
2024-01-30 00:00
2024-01-02 00:00
2023-12-05 00:00
2023-11-07 00:00
2023-10-10 00:00
2023-09-12 00:00
2023-08-15 00:00
2023-07-18 00:00
Limit Profile

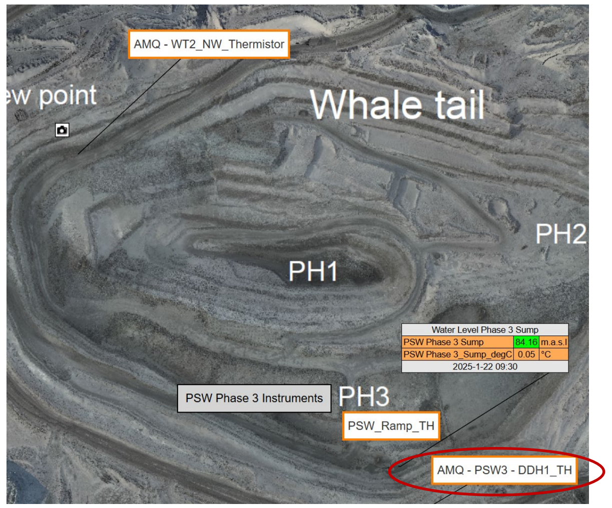
PSW_Ramp_TH

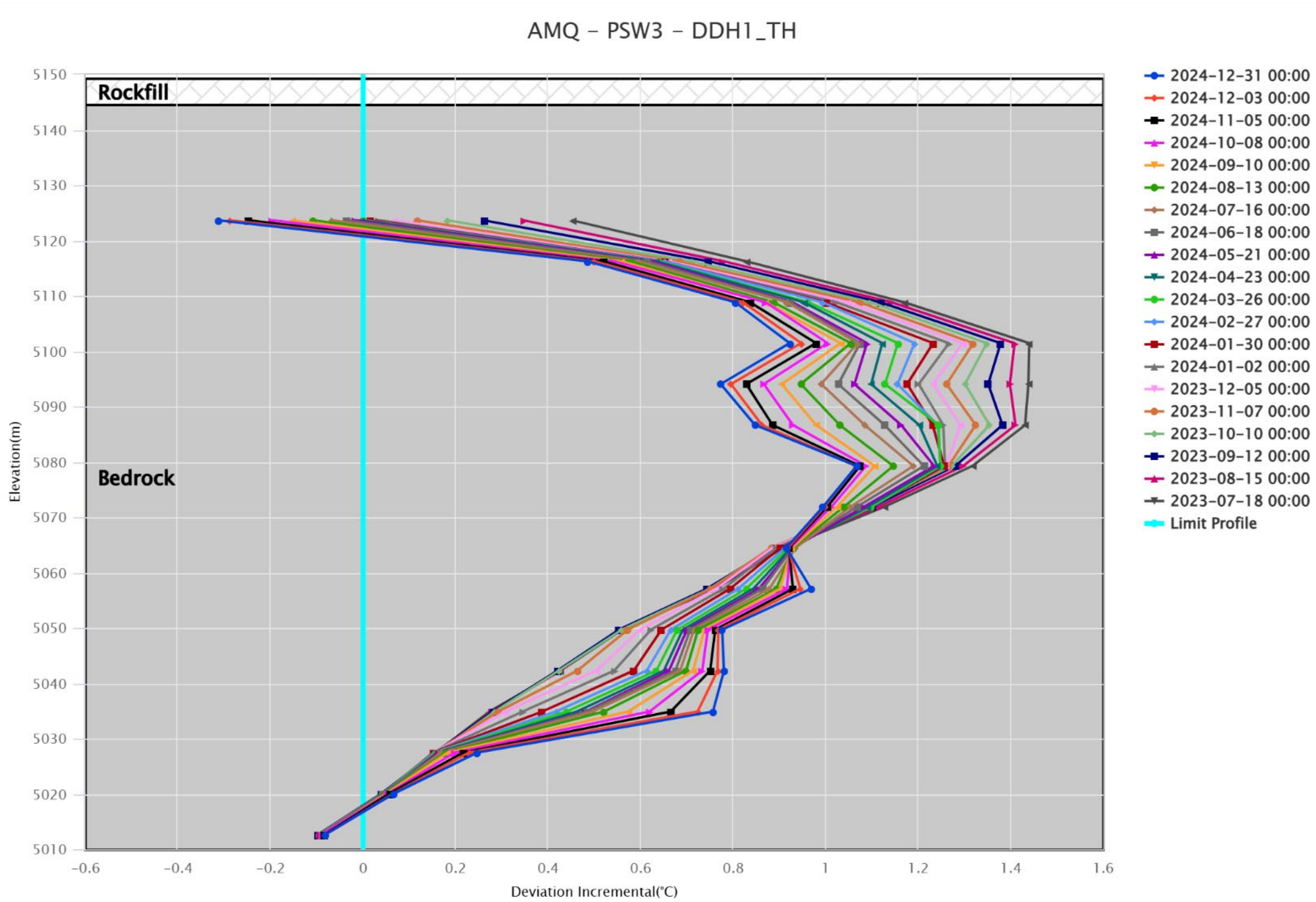


Not enough readings yet for interpretation

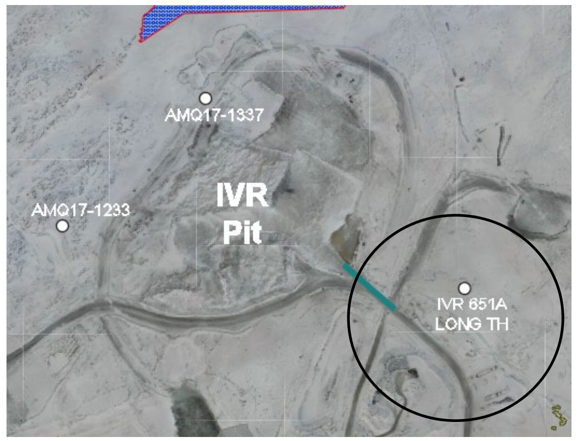


AMQ – PSW3 – DDH1_TH

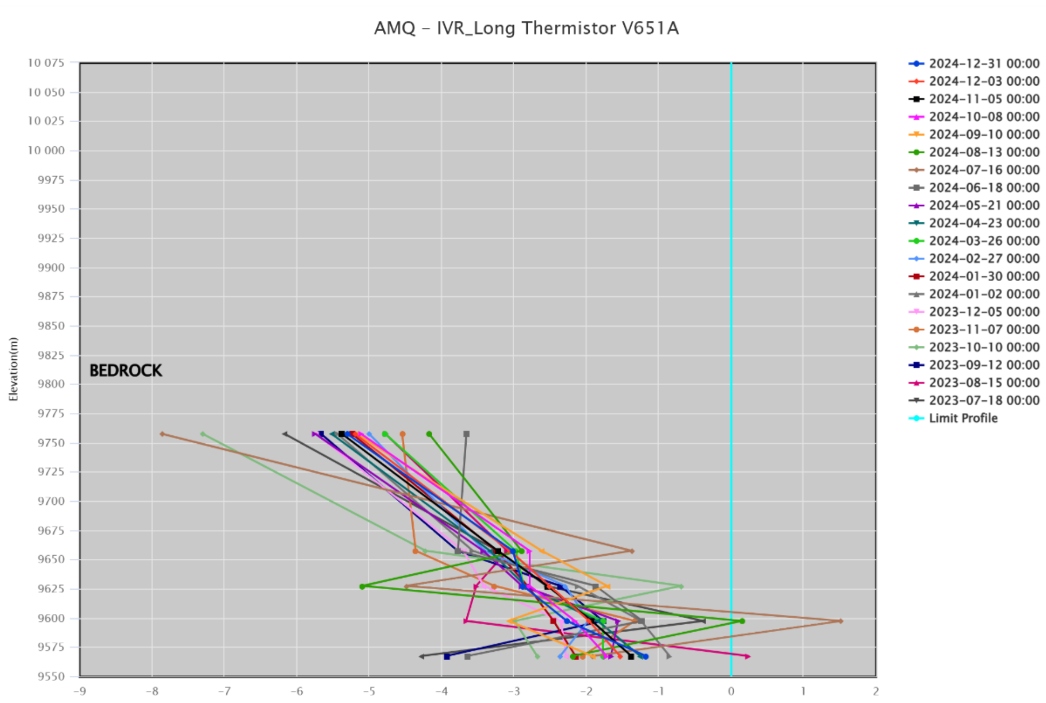




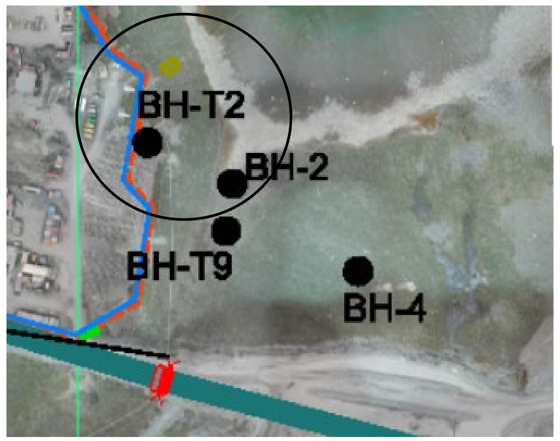
V651A Long TH

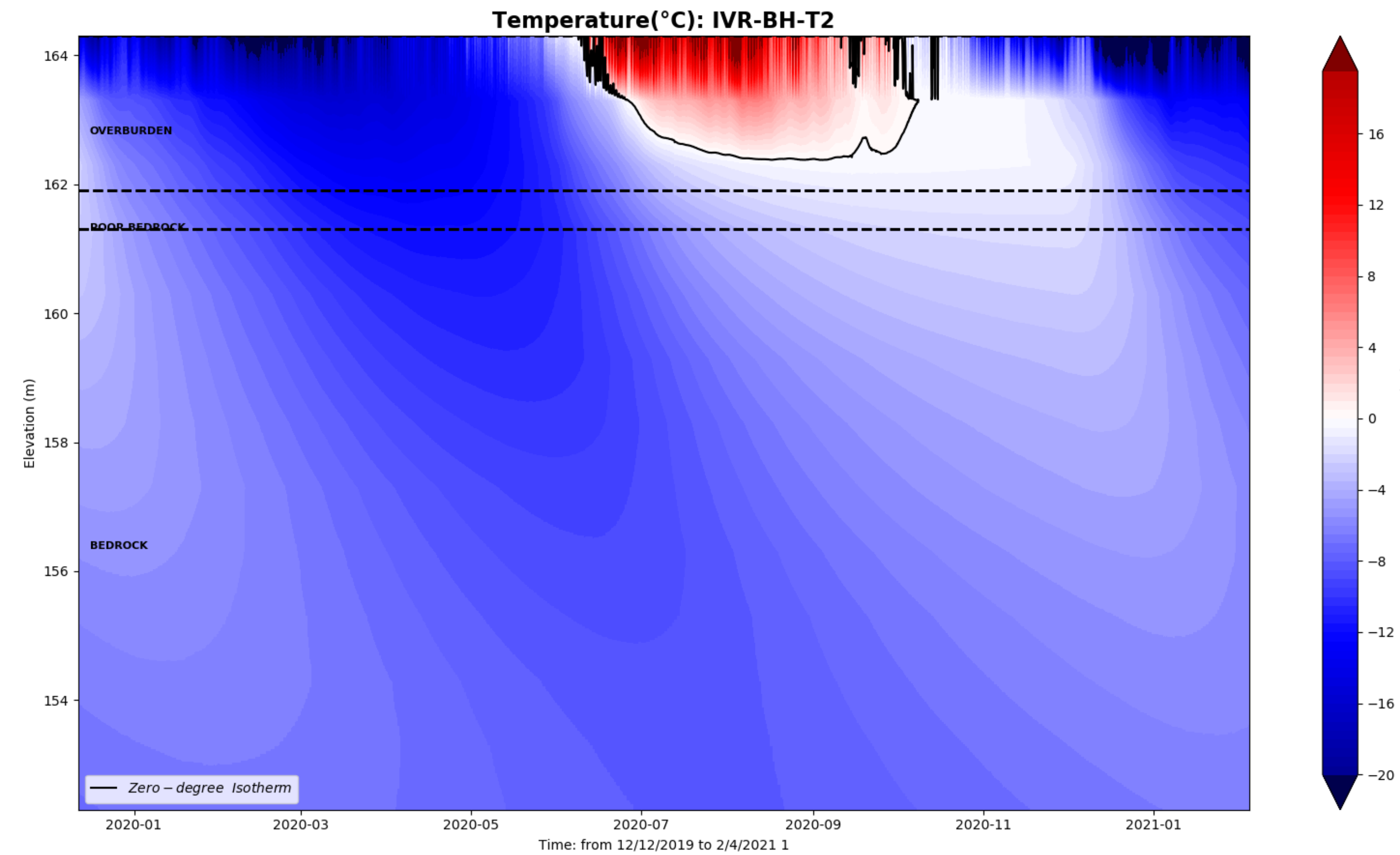


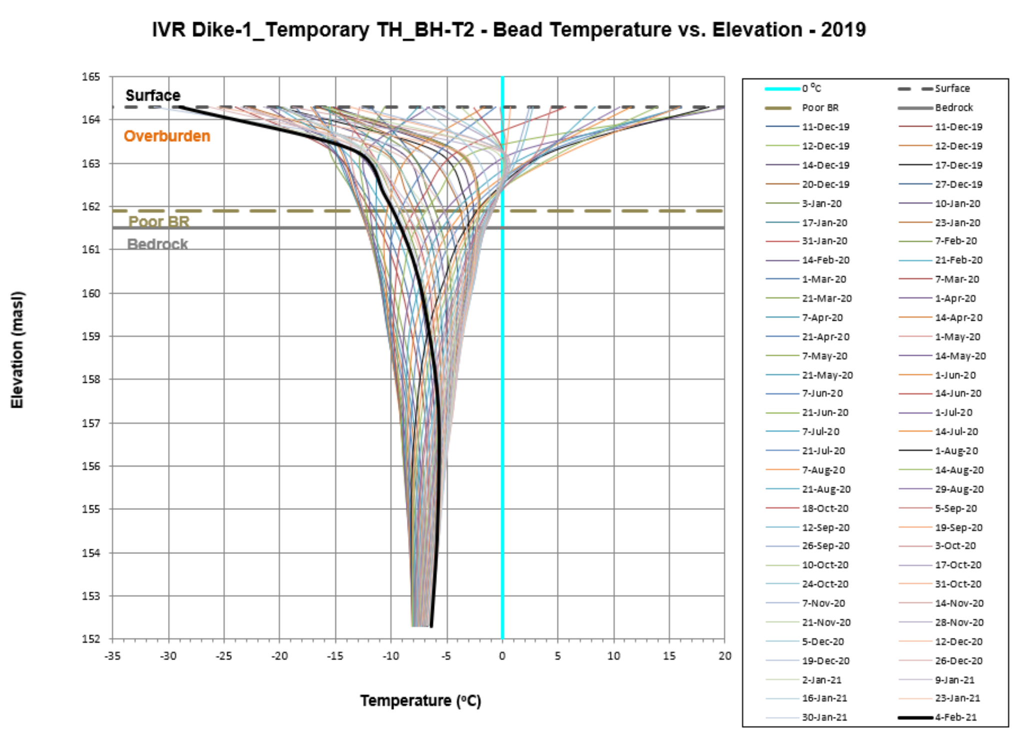
Note that readings are unstable and many beads are not functional



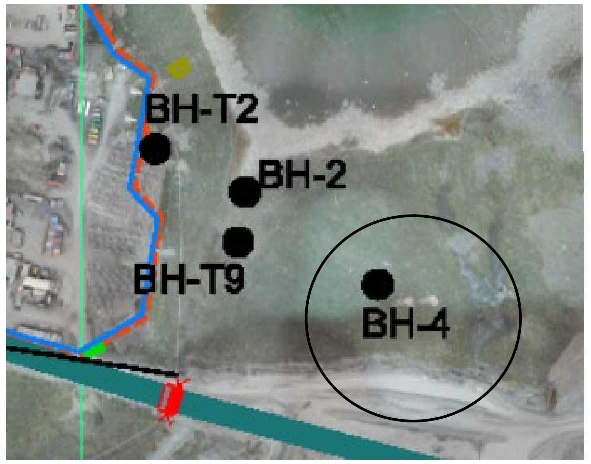
IVR-BH-T2

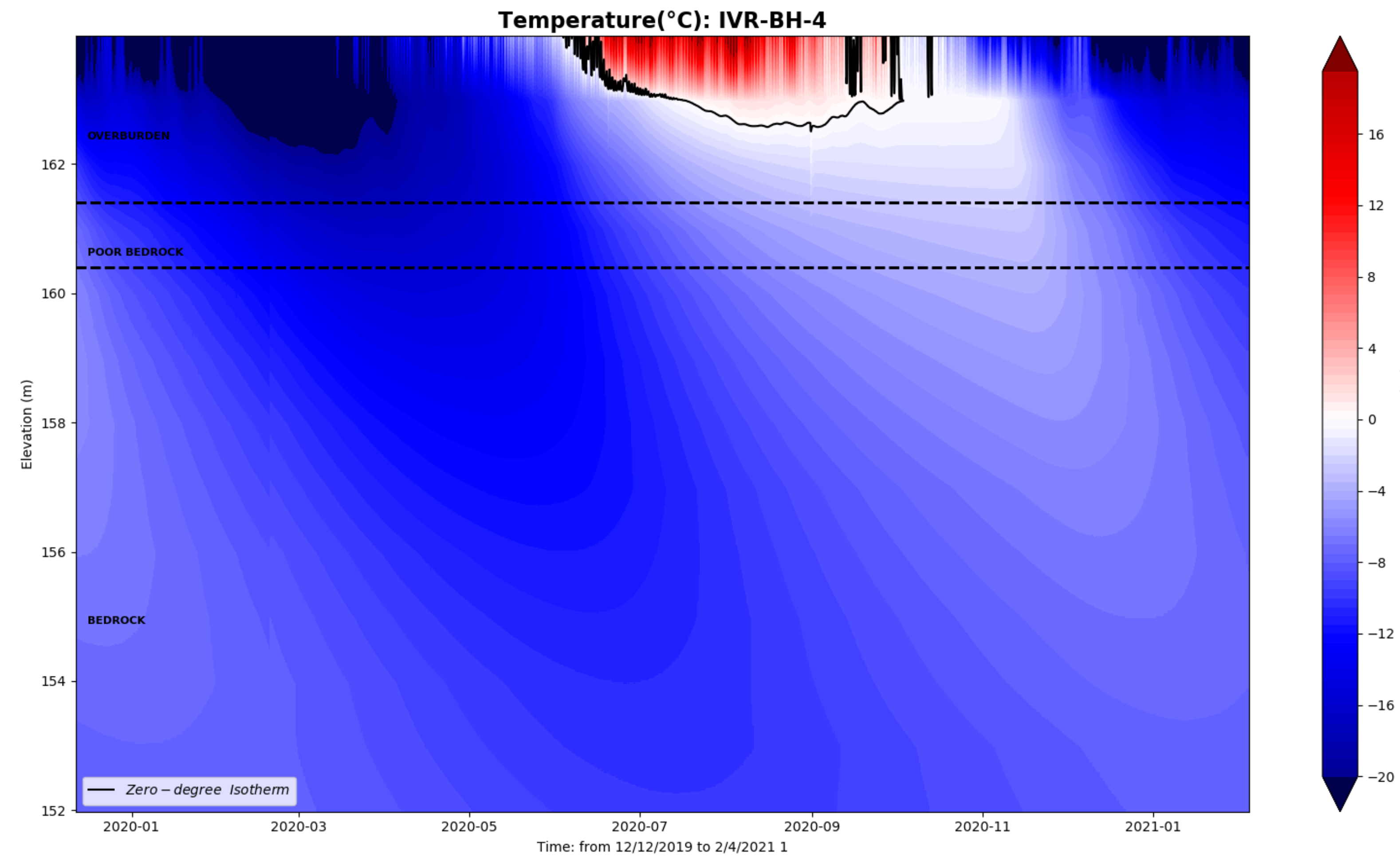

BH-T2
BH-2
BH-T9
BH-4

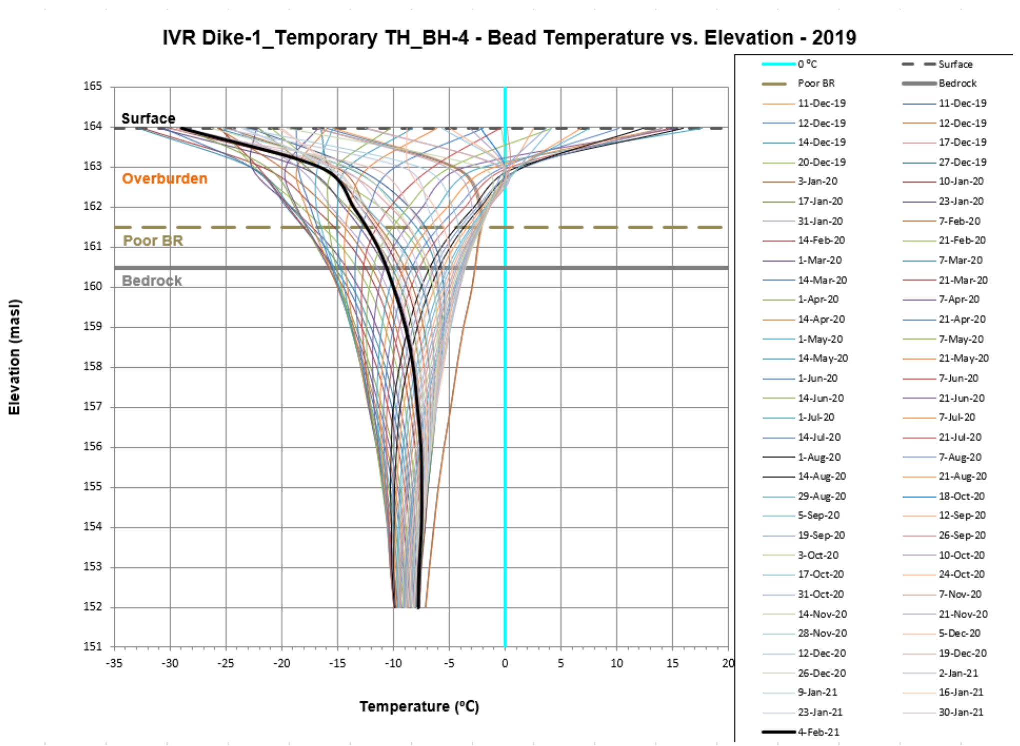

Temperature(°C): IVR-BH-T2
OVERBURDEN
POOR BEDROCK
BEDROCK
Elevation (m)
Zero – degree Isotherm
Time: from 12/12/2019 to 2/4/2021 1
Temperature(°C)


IVR Dike-1_Temporary TH_BH-T2 - Bead Temperature vs. Elevation - 2019
Surface
Overburden
Poor BR
Bedrock
Elevation (masl)
Temperature (°C)

IVR-BH-4

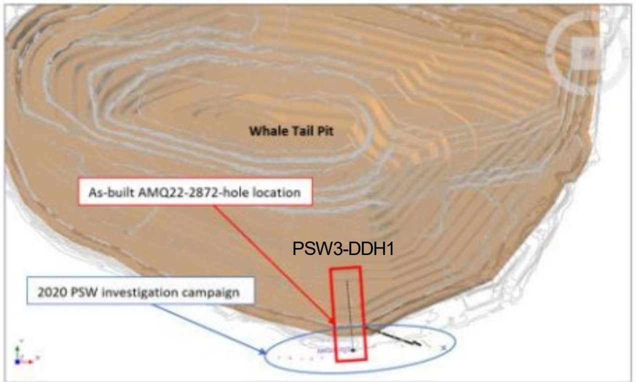

BH-T2
BH-2
BH-T9
BH-4

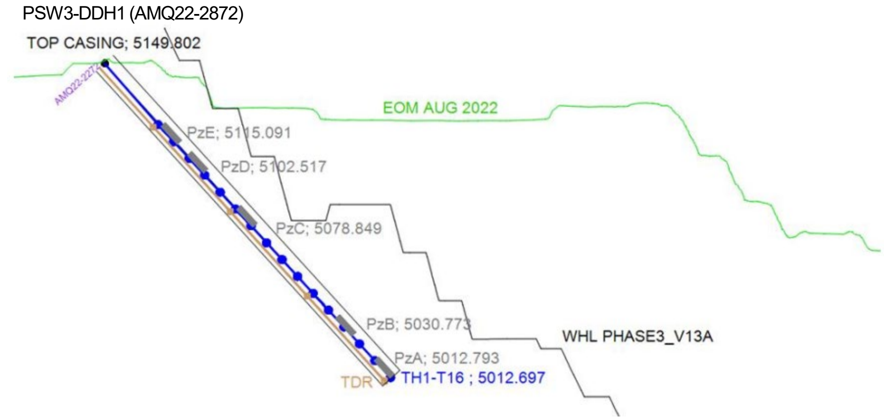

Temperature(°C): IVR-BH-4
OVERBURDEN
POOR BEDROCK
BEDROCK
Elevation (m)
162
160
158
156
154
152
Zero – degree Isotherm
2020-01
2020-03
2020-05
2020-07
2020-09
2020-11
2021-01
Time: from 12/12/2019 to 2/4/2021 1
Temperature(°C)
16
12
8
4
0
−4
−8
−12
−16
−20

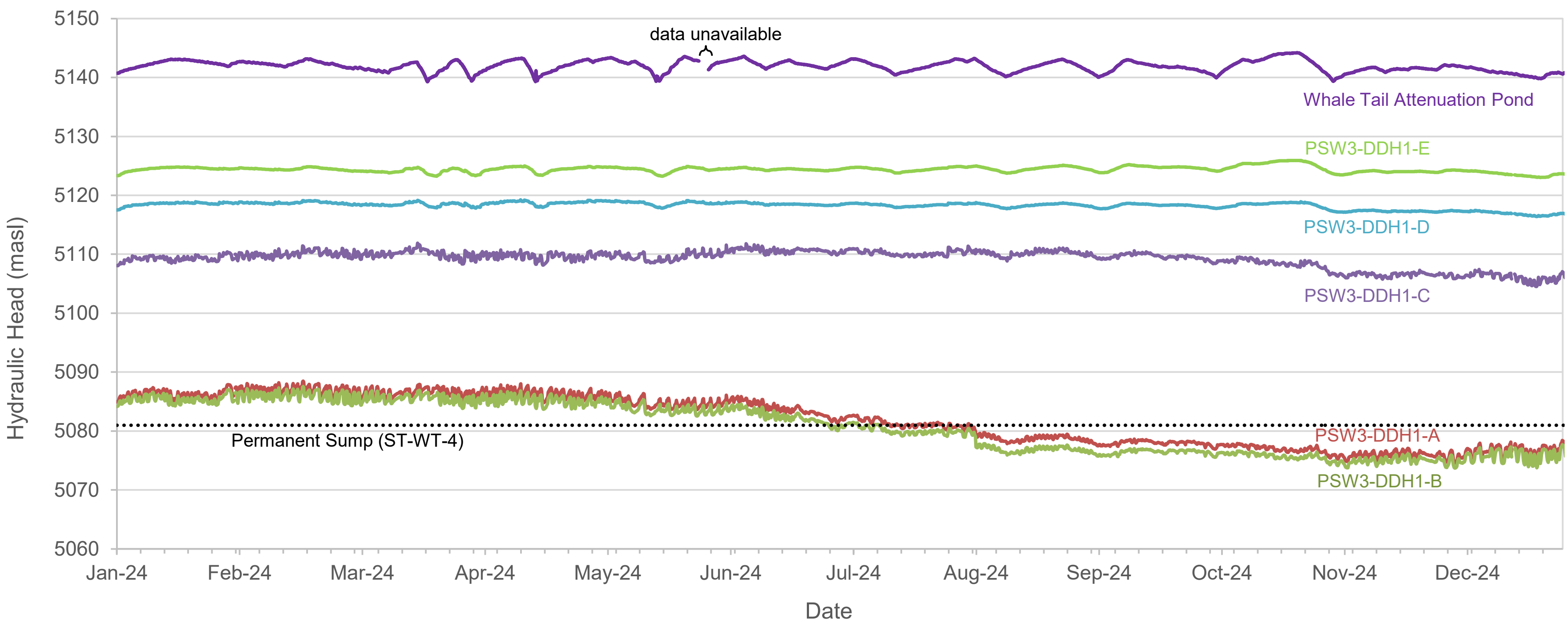

IVR Dike-1_Temporary TH_BH-4 - Bead Temperature vs. Elevation - 2019
Surface
Overburden
Poor BR
Bedrock
Elevation (masl)
Temperature (°C)
0 °C
Surface
Poor BR
Bedrock
4-Feb-21

ATTACHMENT C

2024 Piezometric Data







Notes:
1) Borehole AMQ22-2872 (PSW3-DDH1) is instrumented with five multilevel piezometers (Pz), (A (deep) through E (shallow).
2) mRL – metres relative level (mine grid)
3) Whale Tail Attenuation Pond hydraulic head data unavailable between May 26 to May 29, 2024, due to equipment malfunction related to operations.
4) Whale Tail Pit permanent sump (ST-WT-4) located at 5081 mRL.

CLIENT
AGNICO EAGLE
AGNICO EAGLE MINES LIMITED:
MEADOWBANK DIVISION

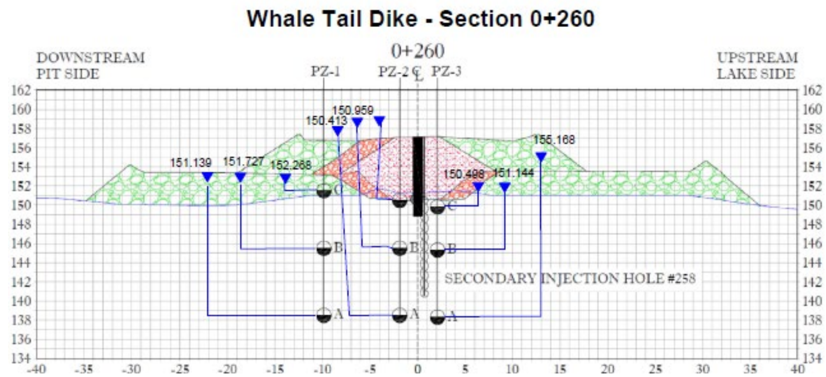
CONSULTANT
wsp

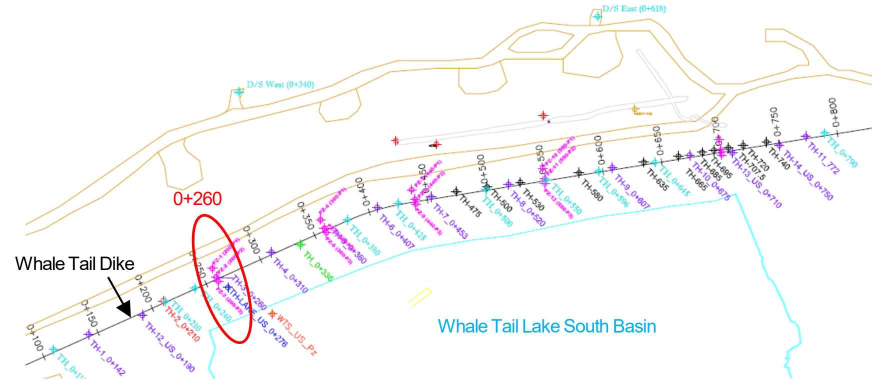
YYYY-MM-DD	2025-01-21
PREPARED	NU
DESIGN	--
REVIEW	DH
APPROVED	JL

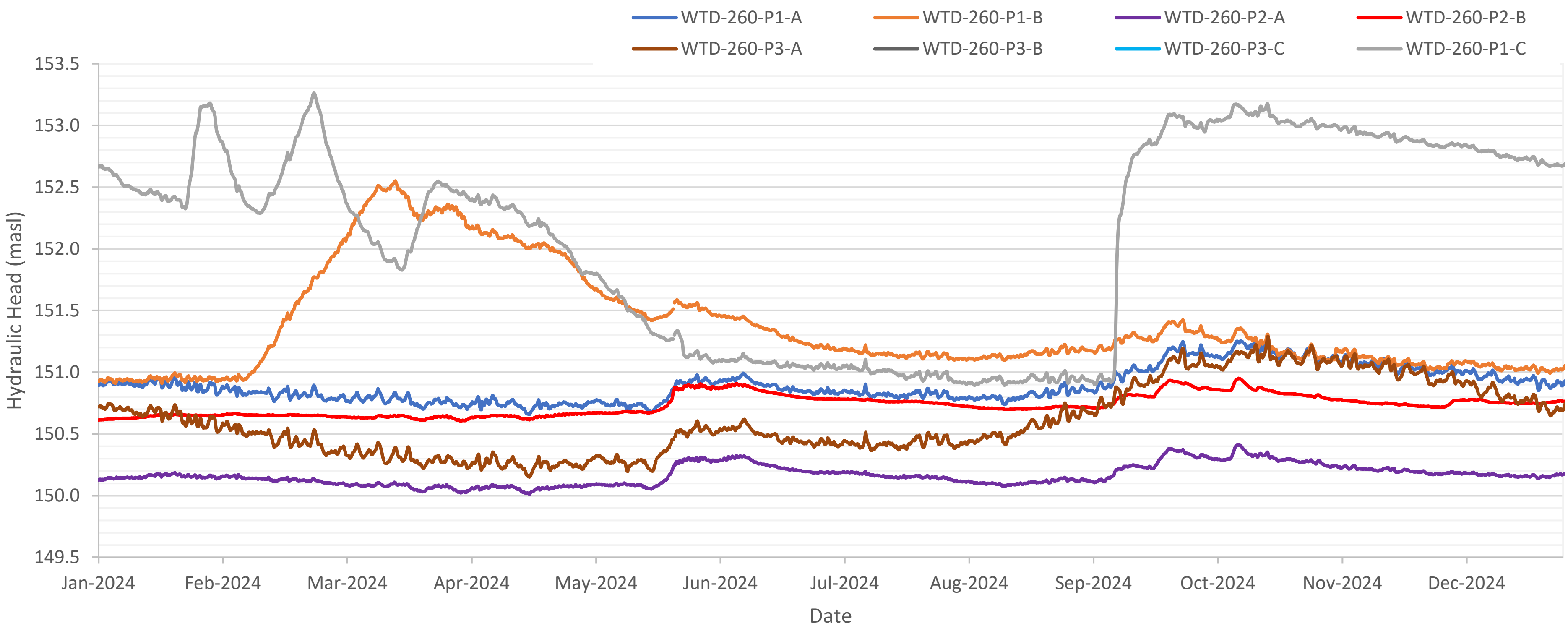
PROJECT
2024 GROUNDWATER MONITORING PROGRAM
WHALE TAIL PIT PROJECT, NUNAVUT

TITLE
WHALE TAIL PIT SOUTH WALL AND WHALE TAIL ATTENUATION POND HYDRAULIC HEAD DATA, JANUARY TO DECEMBER 2024

PROJECT No.	DOC.	Rev.	
CA0037376.3015	MBK2024_029	0	C-1



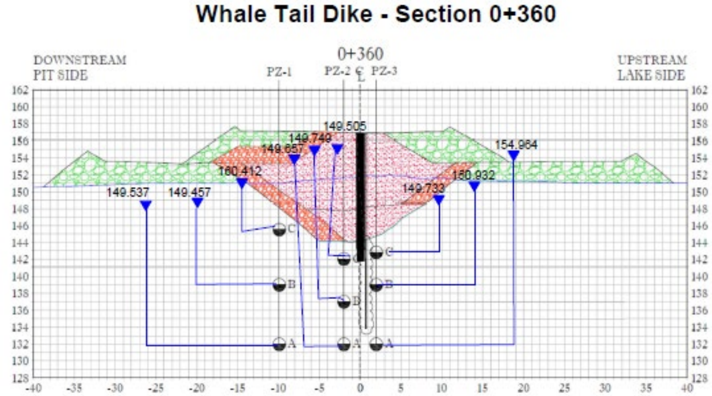


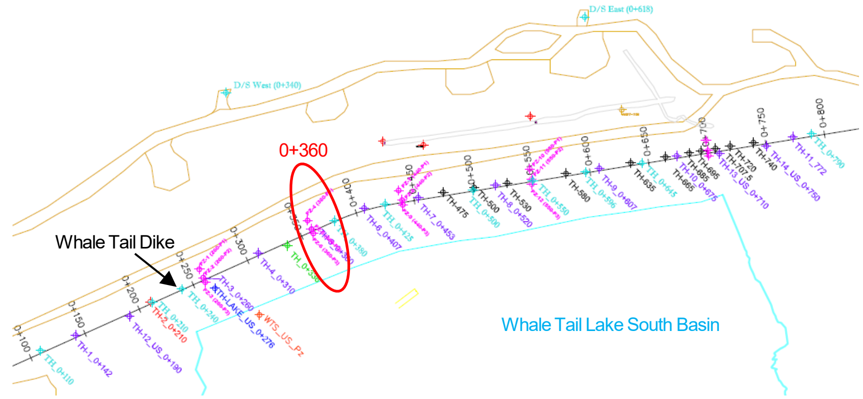


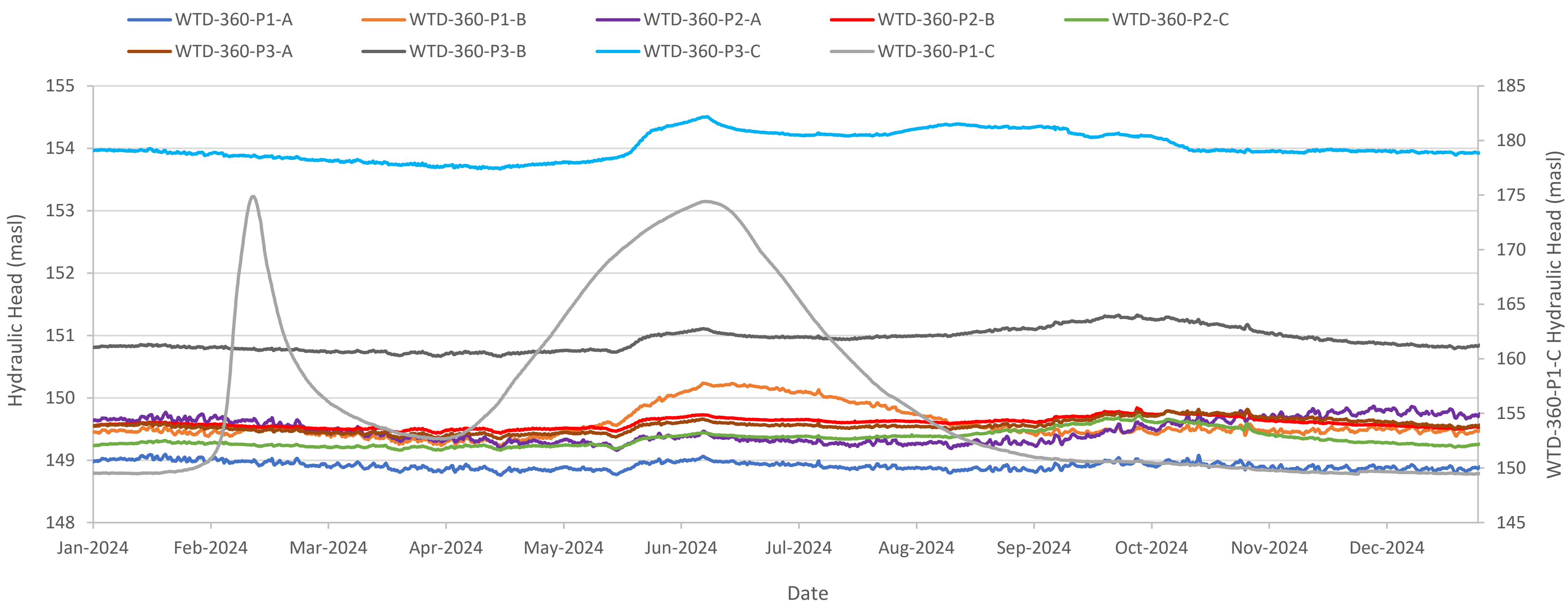
CLIENT		PROJECT
AGNICO EAGLE	AGNICO EAGLE MINES LIMITED: MEADOWBANK DIVISION	2024 GROUNDWATER MONITORING PROGRAM WHALE TAIL PIT PROJECT, NUNAVUT

CONSULTANT			TITLE
wsp	YYYY-MM-DD	2025-01-21	**HYDRAULIC HEADS MEASURED AT WTD-260 SERIES PEIZOMETERS, JANUARY TO DECEMBER 2024**
	PREPARED	NU	
	DESIGN	--	
	REVIEW	DH	
	APPROVED	JL	

PROJECT No.	DOC.	Rev.	
CA0037376.3015	MBK2024_029	0	C-2







CLIENT

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MEADOWBANK DIVISION

PROJECT

2024 GROUNDWATER MONITORING PROGRAM
WHALE TAIL PIT PROJECT, NUNAVUT

CONSULTANT

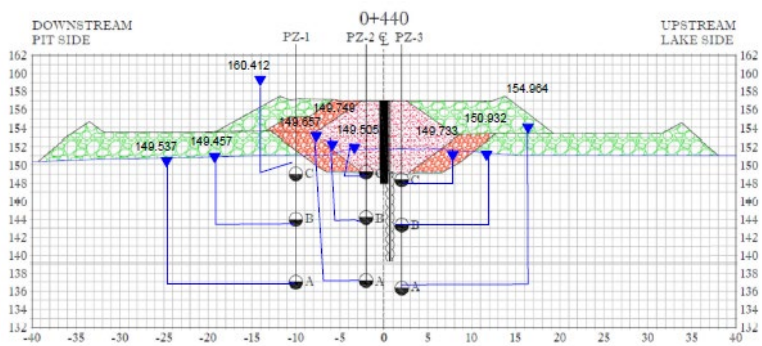
YYYY-MM-DD	2025-01-21
PREPARED	NU
DESIGN	--
REVIEW	DH
APPROVED	JL

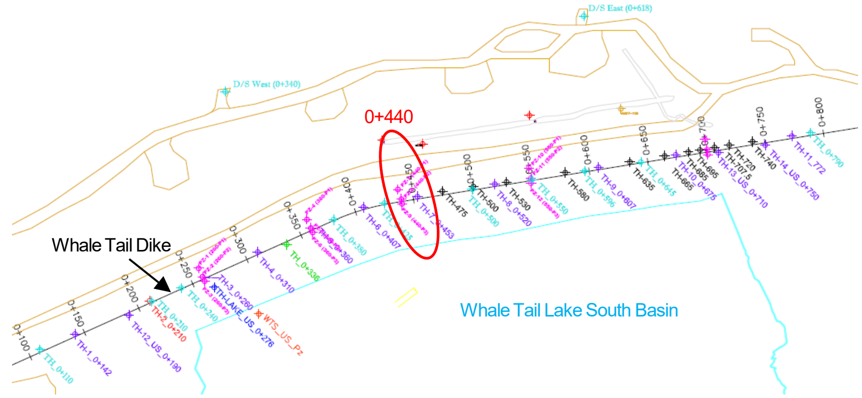
TITLE

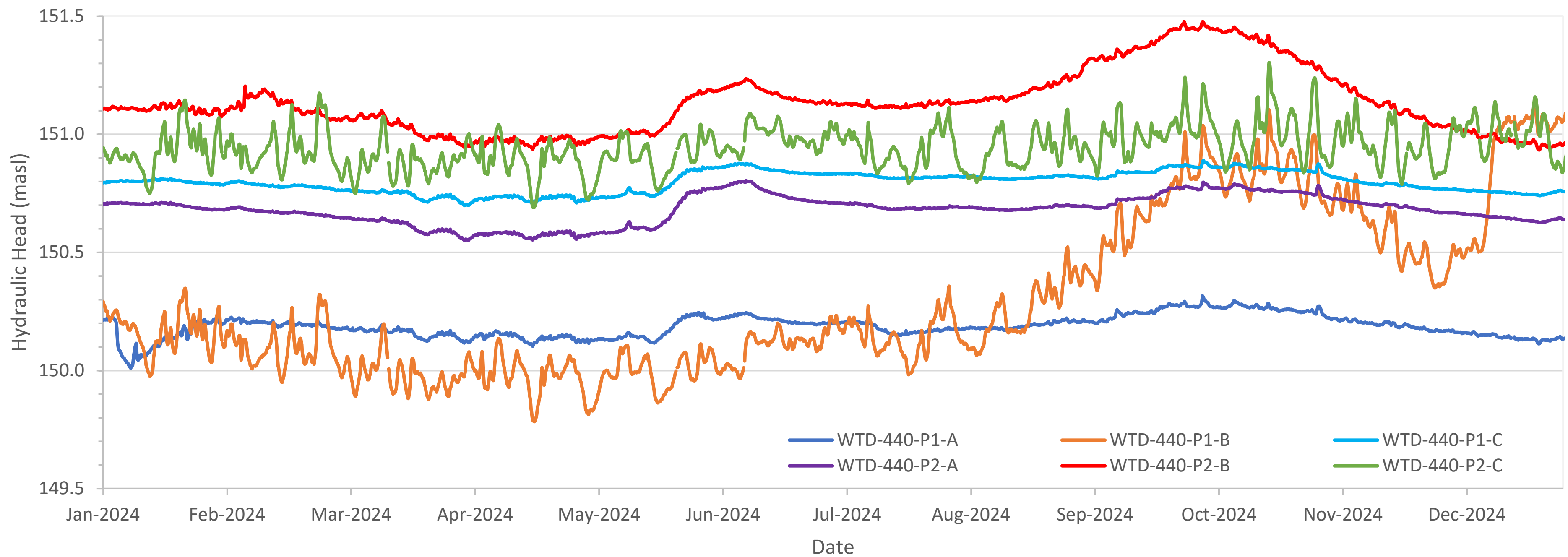
HYDRAULIC HEADS MEASURED AT WTD-360 SERIES PEIZOMETERS, JANUARY TO DECEMBER 2024

PROJECT No.	DOC.	Rev.	
CA0037376.3015	MBK2024_029	0	C-3

Whale Tail Dike - Section 0+440







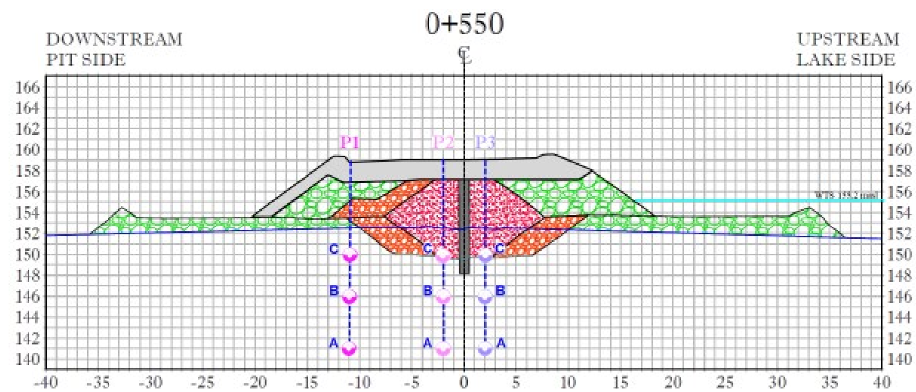
CLIENT	
AGNICO EAGLE	AGNICO EAGLE MINES LIMITED: MEADOWBANK DIVISION

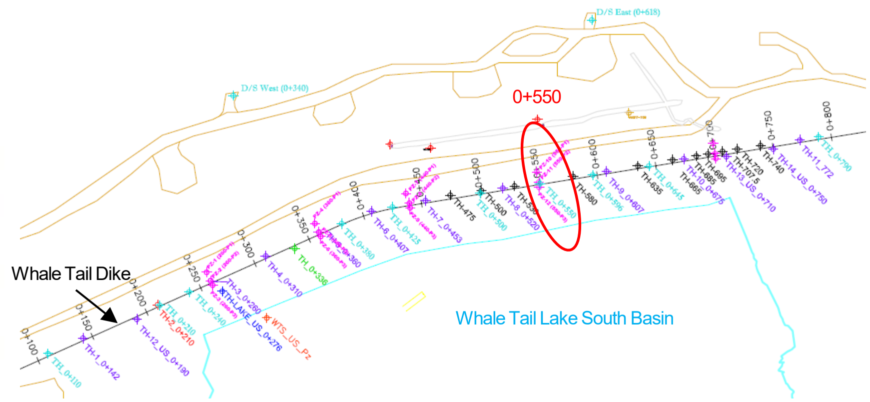
CONSULTANT		
wsp	YYYY-MM-DD	2025-01-21
	PREPARED	NU
	DESIGN	--
	REVIEW	DH
	APPROVED	JL

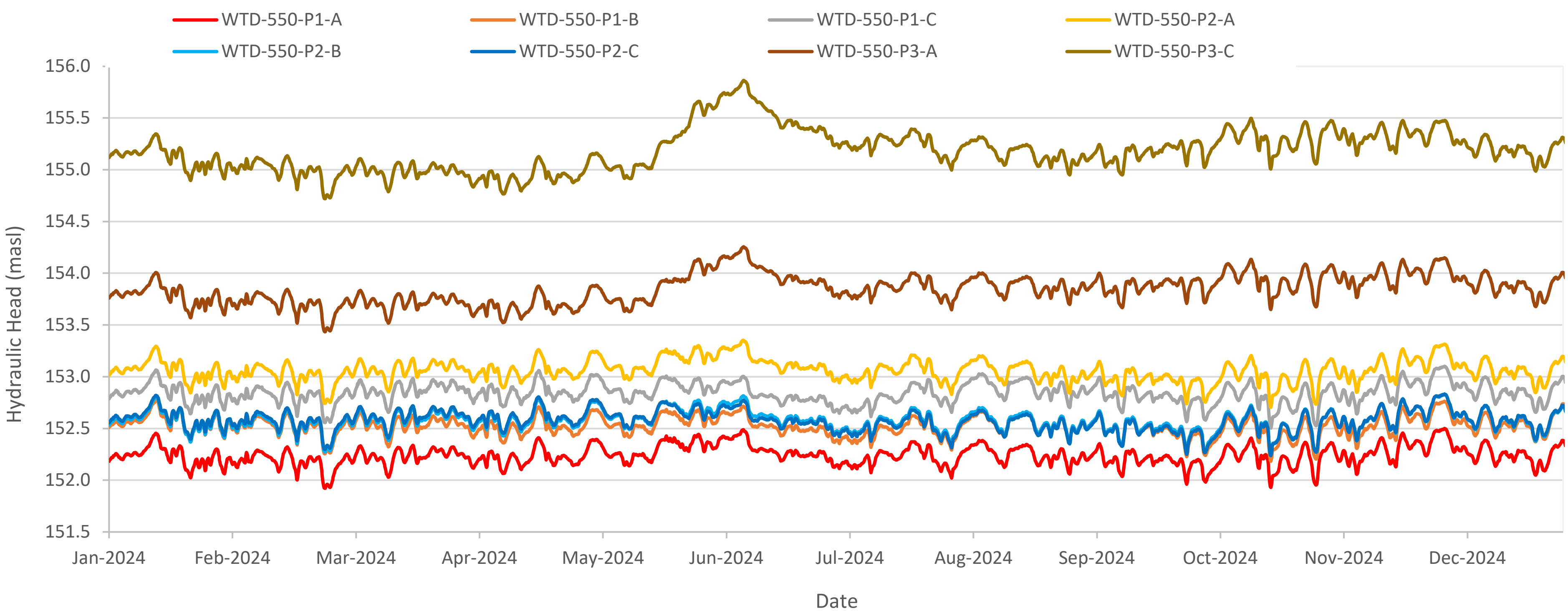
PROJECT
2024 GROUNDWATER MONITORING PROGRAM
WHALE TAIL PIT PROJECT, NUNAVUT

TITLE
HYDRAULIC HEADS MEASURED AT WTD-440 SERIES PEIZOMETERS, JANUARY TO DECEMBER 2024

PROJECT No.	DOC.	Rev.	
CA0037376.3015	MBK2024_029	0	C-4







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MEADOWBANK DIVISION

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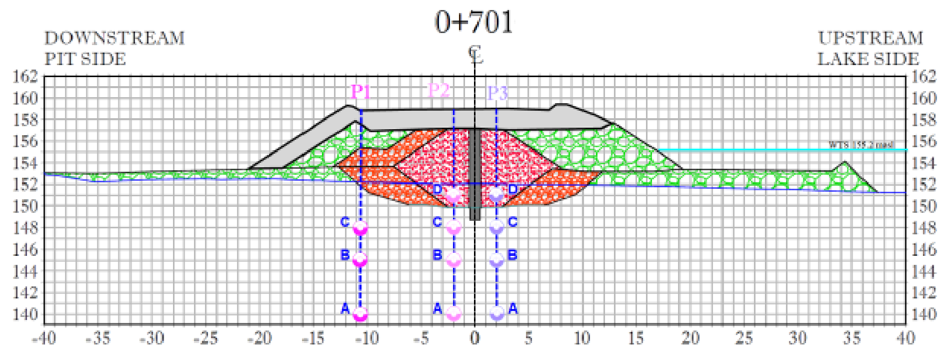
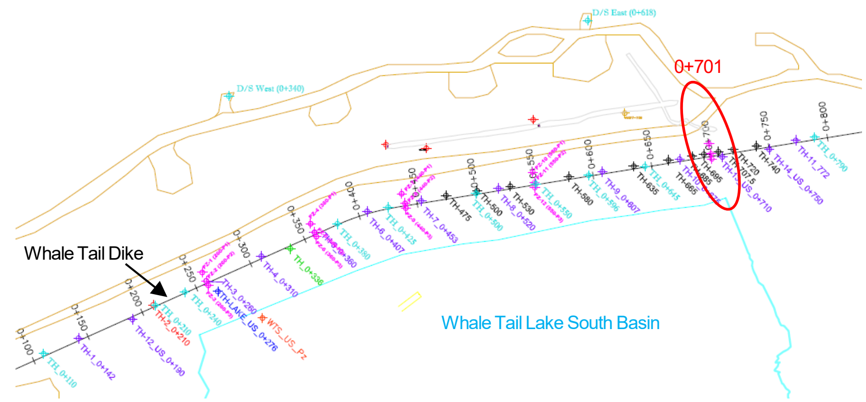
YYYY-MM-DD	2025-01-21
PREPARED	NU
DESIGN	--
REVIEW	DH
APPROVED	JL

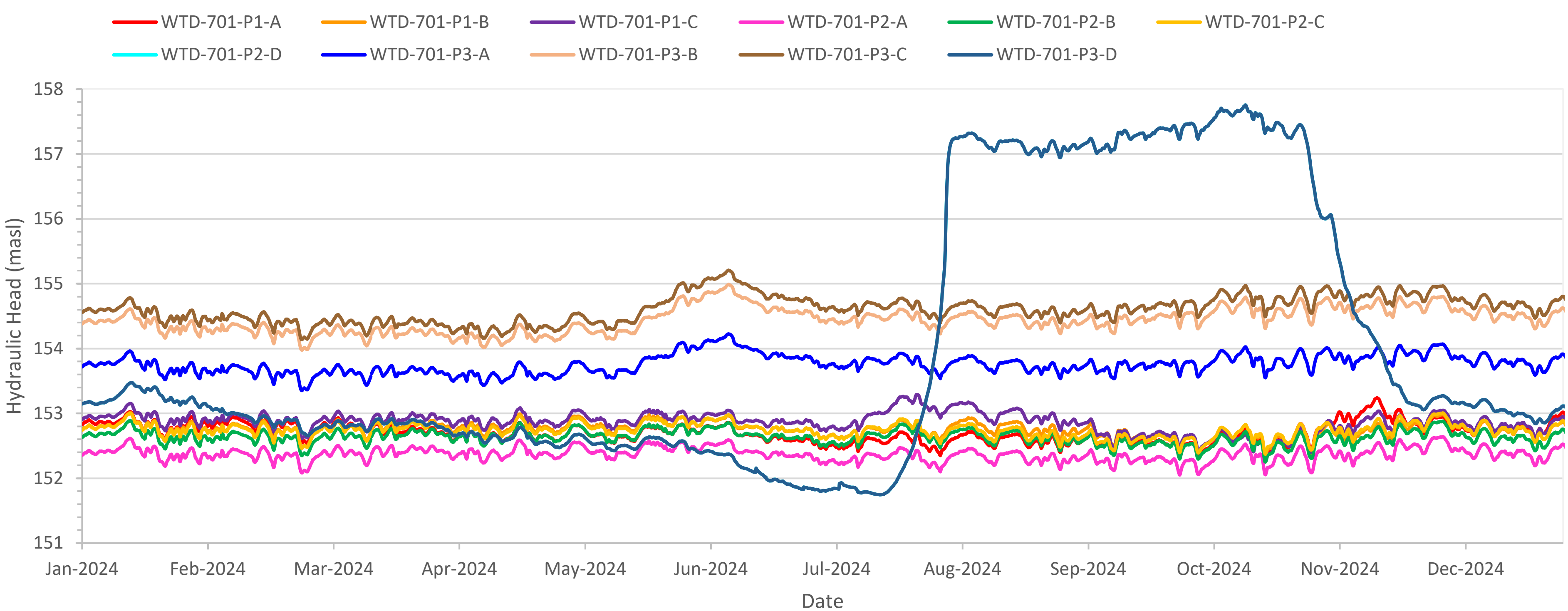
PROJECT
2024 GROUNDWATER MONITORING PROGRAM
WHALE TAIL PIT PROJECT, NUNAVUT

TITLE
HYDRAULIC HEADS MEASURED AT WTD-550 SERIES PEIZOMETERS, JANUARY TO DECEMBER 2024

PROJECT No.	DOC.	Rev.	
CA0037376.3015	MBK2024_029	0	C-5







CLIENT	AGNICO EAGLE MINES LIMITED: MEADOWBANK DIVISION	PROJECT	2024 GROUNDWATER MONITORING PROGRAM WHALE TAIL PIT PROJECT, NUNAVUT
CONSULTANT	YYYY-MM-DD: 2025-01-21	TITLE	**HYDRAULIC HEADS MEASURED AT WTD UPSTREAM AND WTD-701 SERIES PEIZOMETERS, JANUARY TO DECEMBER 2024**
	PREPARED: NU		
	DESIGN: --		
	REVIEW: DH	PROJECT No. CA0037376.3015	DOC. MBK2024_029
	APPROVED: JL	Rev. 0	C-6

ATTACHMENT D

2024 Seepage Survey Photograph (provided by Agnico Eagle)

Photo 1: Seepage along Whale Tail Pit south wall in winter 2024.

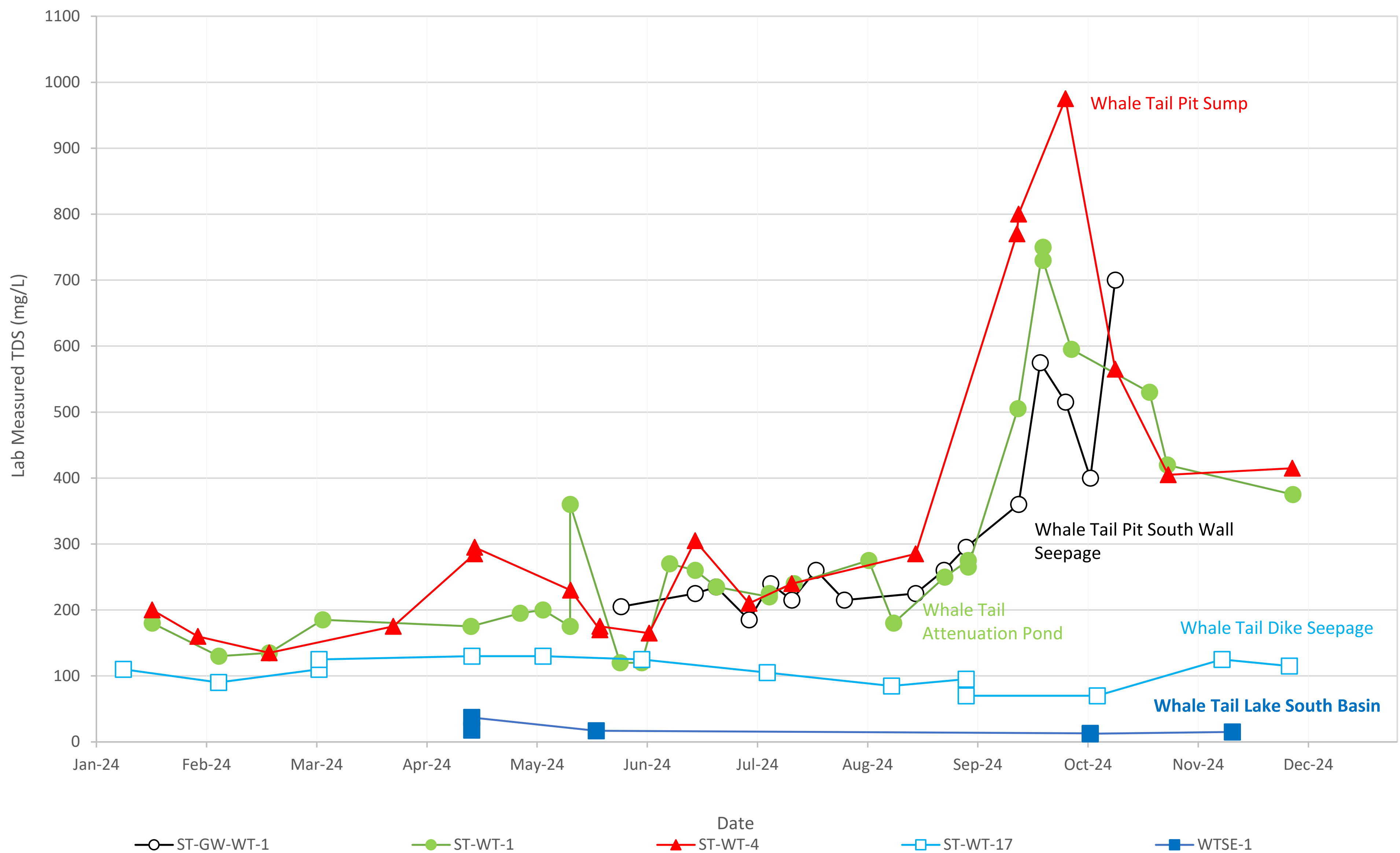
ATTACHMENT E

2024 Supplemental Water Quality Data (provided by Agnico Eagle)

Parameter	Unit	2024-05-27	2024-06-17	2024-06-23	2024-07-02	2024-07-08	2024-07-14	2024-07-21	2024-07-29	2024-08-18	2024-08-26	2024-09-01	2024-09-16	2024-09-22	2024-09-29	2024-10-06	2024-10-13
	Sample name	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1	ST-WT-GW-1	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1	ST-WT-GW-1	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1
	Sample type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	Unit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQ01- Field Measured																	
Temperature	°C	0	3.4	2.8	3.9	4.6	2	16	2.4	2.7	2.7	2.2	2.4	1.9	2.4	1.8	0.8
pH	pH units	7.48	7.49	7.3	7.22	7.28	7.45	6.94	7.29	7.81	6.73	7.45	7.08	6.96	7.19	6.46	6.52
Conductivity	uS/cm	273	256	260	272	290	309	349	296	328	378	379	439	586	589	570	587
Dissolved oxygen	mg/L	11.86	11.52	12.45	11.95	11.37	10.88	10.84	13.11	12.79	13.71	12.15	11.59	12.15	11.38	13.11	11.91
Dissolved oxygen	%	108.5	98.7	108.6	108	102.9	98.7	103.4	112.2	105.5	112.7	103.2	104.6	107.4	105	110.1	102.6
Turbidity	NTU	0.31	5.2	2.03	2.48	1.54	1.24	2.54	1.26	2.33	2.72	1.43	1.48	4.93	2.96	2.36	2.35
WQ02- Conventional Parameters																	
pH	pH units	7.69	7.58	7.39	7.68	7.6	7.76	7.82	7.62	7.68	7.56	7.64	7.65	7.32	7.56	7.63	7.61
Turbidity	NTU	4.7	2.1	1.7	3.2	2.1	2.7	2.9	2.2	3	1.5	3.8	1.7	5.5	1.7	3.5	3.4
Conductivity	ms/cm	0.284	0.27	0.268	0.285	0.306	0.311	1.17	0.304	0.328	0.358	0.369	0.468	0.582	0.623	0.585	0.629
Hardness, as CaCO3	mg/L	94.6	83.9	94.7	102	97.6	104	120	106	126	127	130	165	211	229	222	220
Total alkalinity, as CaCO3	mg/L	49	46	52	49	48	57	65	52	51	48	50	46	34	47	50	48
Carbonate, as CaCO3	mg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as CaCO3	mg/L	49	46	52	49	48	57	65	52	50	48	50	46	34	47	50	48
TDS	mg/L	205	225	235	185	240	215	260	215	225	260	295	360	575	515	400	700
TSS	mg/L	12	4	1	2	2	2	2	1	< 1	2	3	7	13	8	5	5
Total organic carbon	mg/L	1.4	1.3	1.4	1.3	1.4	1.4	1.6	1.4	1.3	1.3	1.3	1.2	1.4	1.5	1.6	1.5
Dissolved organic carbon	mg/L	1.7	1.3	1.3	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.1	1.2	1.3	2.1	1.6
Salinity	ppm	N/A	N/A	-	NA	NA	-	-	-	-	-	NA	-	NA	N/A	-	-
Sodium Adsorption Ratio (salinity in water)	-	-	-	0.23	0.24	0.24	0.24	0.24	0.24	0.25	0.23	0.23	0.23	0.23	-	0.26	0.28
WQ03- Major Ions																	
Bromide	mg/L	-	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-	1	< 1.0
Chloride	mg/L	29	28	30	30	32	32	32	32	35	35	40	55	62	80	78	75
Cyanide	mg/L	< 0.00050	< 0.00050	< 0.00050	0.00104	0.00059	< 0.00050	< 0.00050	< 0.00050	0.00059	0.00083	< 0.00050	< 0.00050	< 0.00050	0.00102	0.00097	0.00061
Cyanide (free)	mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	0.0031	< 0.0020	0.0037	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	0.0024	< 0.0020	0.0026
Cyanide (WAD)	mg/L	-	-	< 0.00050	< 0.00050	0.0011	0.00067	< 0.00050	< 0.00050	< 0.00050	0.00081	0.0007	0.00052	< 0.00050	-	< 0.00050	0.001
Fluoride	mg/L	-	-	0.21	0.14	0.17	0.24	0.16	0.16	0.16	0.19	0.15	0.21	0.2	-	0.15	0.16
Silica	mg/L	9.2	10	9.9	9.8	9.8	9.7	9.8	9.7	9.8	9.4	9.7	9.6	9.8	9.9	10	9.6
Sulfate	mg/L	45	37	38	40	46	45	45	47	48	64	59	81	160	120	110	130
WQ04- Nutrients and Chlorophylla																	
Total Ammonia (as NH3)	mg/L	0.11	0.27	0.2	0.32	0.2	0.22	0.24	0.24	0.21	0.22	0.2	0.32	0.32	0.31	0.34	0.31
Ammonia Nitrogen (as N)	mg/L	0.089	0.22	0.16	0.26	0.16	0.18	0.2	0.2	0.17	0.18	0.17	0.26	0.26	0.26	0.28	0.26
Un-Ionized Ammonia, calculated	mg/L	-	-	< 0.0004	0.0005	< 0.0004	0.0005	0.0005	< 0.0004	0.0011	< 0.0004	0.0005	< 0.0004	< 0.0004	-	< 0.0004	< 0.0004
Nitrate (as N)	mg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.14	0.2	0.11	< 0.10
Nitrite (as N)	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.018	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.055	< 0.010	0.023
Nitrate + nitrite (as N)	mg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.14	0.26	0.11	0.12
Total Kjeldahl nitrogen	mg/L	0.13	0.33	0.33	0.32	0.31	0.29	0.27	0.31	0.29	0.24	0.33	0.33	0.29	0.44	0.42	0.39
Total phosphorus	mg/L	0.0065	0.012	0.012	0.013	0.0042	0.009	0.013	0.014	0.0089	0.06	0.0054	0.0061	< 0.0010	0.0052	< 0.0010	0.0057
Orthophosphate (P)	mg/L	< 0.010	< 0.010	< 0.010	0.012	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
WQ06- Total Metals																	
Aluminum	mg/L	0.244	0.0097	0.0577	0.0787	0.0843	0.0271	0.0527	0.0819	0.0755	0.407	0.104	0.466	1.65	0.58	0.671	0.438
Antimony	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	0.0142	0.026	0.0265	0.0304	0.0225	0.0241	0.0261	0.0268	0.027	0.0582	0.0251	0.0213	0.0179	0.0133	0.0259	0.0132
Barium	mg/L	0.0528	0.0531	0.0534	0.0628	0.0626	0.0632	0.0689	0.0663	0.0746	0.079	0.0816	0.0993	0.123	0.138	0.137	0.129
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	0.00015	< 0.00010	0.0002	0.00059	0.00022	0.0003	0.00018
Bismuth	mg/L	-	-	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	-	< 0.0010	< 0.0010
Boron	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	0.000036	< 0.000010	0.000031	0.000026	0.000036	0.000049	0.000062	0.000052	0.000061	0.000227	0.000068	0.00024	0.000662	0.000165	0.000394	0.000182
Calcium	mg/L	28.7	24.8	28	30.5	28.1	30.8	35.7	31.3	37.2	37.1	37.9	47.4	62	68.1	66.1	64.7
Chromium	mg/L	0.0056	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	-	-	0.00216	0.00213	0.00308	0.00146	0.00235	0.00184	0.00321	0.00749	0.00392	0.00783	0.0224	-	0.0103	0.00666
Copper	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	0.0013	< 0.00050	0.00071	0.00326	0.00111	0.0016	0.00102
Iron	mg/L	0.581	0.488	0.542	0.777	0.681	0.539	0.746	0.66	0.748	1.85	0.855	0.984	1.52	1.37	1.22	1.12
Lead	mg/L	0.00041	< 0.00020	0.00174	0.00026	0.00025	0.00061	0.00223	0.0029	0.00524	0.0125	0.00346	0.00604	0.0135	0.00704	0.00835	0.00615
Lithium	mg/L	0.0039	0.0031	0.0038	0.0039	0.0035	0.0036	0.0043	0.0037	0.0047	0.0051	0.005	0.0068	0.0115	0.0083	0.0077	0.0073
Magnesium	mg/L	5.53	5.3	6.03	6.31	6.68	6.61	7.48	6.71	7.94	8.46	8.54	11.4	13.6	14.2	13.8	14.1
Manganese	mg/L	0.178	0.196	0.209	0.213	0.22	0.224	0.271	0.221	0.288	0.311	0.307	0.39	0.571	0.52	0.509	0.451
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.0053	0.0051	0.0051	0.0053	0.0056	0.0055	0.0056	0.0056	0.0061	0.0059	0.0056	0.0054	0.0058	0.0065	0.0062	0.0067
Nickel	mg/L	0.0049	0.0016	0.0032	0.003	0.0043	0.0022	0.0033	0.003	0.0046	0.0097	0.0052	0.0094	0.0253	0.0115	0.0121	0.0086
Potassium	mg/L	2.75	2.09	2.27	2.41	2.39	2.43	2.7	2.45	2.76	2.88	2.95	3.51	4.09	4.48	4.24	4.86
Selenium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	-	-	4.26	4.42	3.9	4.1	4.79	4.37	4.59	4.62	4.29	4.39	4.94	-	4.99	4.06
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	4.3	4.14	4.71	4.8	4.89	4.95	5.76	5.07	5.87	5.49	5.73	6.58	6.72	7.79	7.53	7.91
Strontium	mg/L	0.135	0.124	0.131	0.133	0.137	0.149	0.172	0.146	0.175	0.168	0.2	0.224	0.291	0.302	0.312	0.305
Sulphur	mg/L	-	-	10.5	11.4	12.1	12	13.6	13.3	16.4	18.8	17.4	25	39.1	-	32.9	33.9

	Sample date	2024-05-27	2024-06-17	2024-06-23	2024-07-02	2024-07-08	2024-07-14	2024-07-21	2024-07-29	2024-08-18	2024-08-26	2024-09-01	2024-09-16	2024-09-22	2024-09-29	2024-10-06	2024-10-13
	Sample name	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1	ST-WT-GW-1	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1	ST-WT-GW-1	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1	ST-GW-WT-1
	Sample type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	Unit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tellurium	mg/L	-	-	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	-	< 0.0010	< 0.0010
Thallium	mg/L	0.000011	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	0.0171	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	0.00029	0.00011	0.00014	0.00018	0.0002	0.00014	0.0002	0.00019	0.00026	0.00057	0.00027	0.00076	0.00262	0.00112	0.0012	0.00067
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	0.0155	0.0145	0.0509	0.0532	0.103	0.0514	0.0529	0.0437	0.0613	0.17	0.0766	0.147	0.348	0.106	0.178	0.0993
WQ07- Dissolved Metals																	
Aluminum	mg/L	0.009	0.0055	0.0205	0.016	0.0413	0.0033	0.0253	0.0427	0.0495	0.108	0.0582	0.0235	0.12	0.0517	0.0415	0.739
Antimony	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	0.01	0.0264	0.0283	0.0241	0.0198	0.014	0.0235	0.0275	0.0246	0.0219	0.0236	0.0189	0.0129	0.00787	0.0204	0.0156
Barium	mg/L	0.0547	0.0588	0.0581	0.0652	0.0697	0.0738	0.0747	0.0749	0.0799	0.0829	0.0872	0.118	0.136	0.152	0.132	0.151
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	0.00014	< 0.00010	< 0.00010	0.00022
Bismuth	mg/L	-	-	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	-	< 0.0010	< 0.0010
Boron	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	0.000031	< 0.000010	0.000017	< 0.000010	0.000038	0.000051	0.000049	0.000034	0.000015	0.000097	0.000042	0.000243	0.000997	0.000109	0.00037	0.000235
Calcium	mg/L	-	-	31.4	32.7	31.3	37	37.3	36	37.4	39	41.2	55.3	69.2	-	69.5	73.9
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0016	< 0.0010	< 0.0010	0.0012
Cobalt	mg/L	-	-	0.0024	0.00231	0.00324	0.00173	0.00233	0.00194	0.0027	0.00658	0.00427	0.00985	0.0325	-	0.0108	0.0075
Copper	mg/L	0.00473	0.00138	0.00147	< 0.00020	0.00067	0.00031	0.00041	0.00103	0.00036	0.00048	< 0.00020	0.00032	0.0019	0.00155	0.00039	0.00176
Iron	mg/L	0.0141	0.473	0.442	0.429	0.452	0.0051	0.638	0.661	0.694	0.774	0.722	0.857	1.35	1.06	1.03	1.38
Lead	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.00099	0.00173	0.00089	0.00079	< 0.00020	< 0.00020	0.00123	0.00029	0.00078	0.00735
Lithium	mg/L	0.0046	0.0037	0.0041	0.0039	0.005	0.0044	0.0043	0.0041	0.0042	0.0049	0.0053	0.0071	0.0154	0.0099	0.0076	0.009
Magnesium	mg/L	-	-	6.51	6.88	7.41	8	7.63	7.67	7.67	9.2	9.26	12.4	16.8	-	13.6	16.2
Manganese	mg/L	0.186	0.229	0.235	0.234	0.255	0.25	0.277	0.256	0.3	0.319	0.338	0.448	0.706	0.571	0.53	0.513
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.0058	0.0059	0.0057	0.0057	0.0063	0.0065	0.006	0.0063	0.0064	0.0061	0.006	0.0064	0.0065	0.0078	0.0067	0.0082
Nickel	mg/L	0.0038	0.002	0.0035	0.0032	0.0048	0.0025	0.0032	0.003	0.0044	0.0086	0.0065	0.0121	0.0376	0.0139	0.0125	0.011
Potassium	mg/L	-	-	2.47	2.61	2.72	3	2.77	3.39	2.9	3.15	3.23	4.03	5.34	-	4.41	5.56
Selenium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	-	-	4.69	4.55	4.29	4.84	4.82	4.88	4.48	4.65	4.66	4.93	5.38	-	5.08	4.94
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	-	-	4.98	5.26	5.79	6.1	5.8	6.15	6.3	6.12	6.18	7.35	8.01	-	8.1	10.3
Strontium	mg/L	0.157	0.149	0.15	0.152	0.162	0.171	0.175	0.164	0.179	0.176	0.21	0.253	0.322	0.358	0.326	0.364
Sulphur	mg/L	-	-	11.5	11.7	14.1	-	13.8	14.4	15.7	20.8	18.7	28.1	48.2	-	32.7	41.8
Tellurium	mg/L	-	-	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	-	< 0.0010	< 0.0010
Thallium	mg/L	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	0.000018	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0066	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	0.00028	0.00012	0.00021	0.0002	0.00016	0.00015	0.00019	0.00018	0.00022	0.00037	0.00028	0.00069	0.00043	0.00061	0.00078	0.00077
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	0.0308	0.045	0.0501	0.0611	0.11	0.0547	0.0742	0.0556	0.0532	0.132	0.0776	0.156	0.504	0.107	0.166	0.134
WQ08- Radionuclides																	
Radium-226	Bq/l	-	-	0.04	0.038	0.03	0.037	0.038	0.064	0.045	0.054	0.065	0.028	0.099	-	0.12	0.12
WR01- Acid-Base Accounting																	
Sulphur (total)	mg/L	-	-	10.5	11.4	12.1	12	13.6	13.3	16.4	18.8	17.4	25	39.1	-	32.9	33.9
QA/QC																	
Calculated TDS	mg/L	156	142	153	156	161	168	180	168	180	194	197	245	341	336	322	338
Lab Measured TDS	mg/L	205	225	235	185	240	215	260	215	225	260	295	360	575	515	400	700
TDS (Lab vs Calc)	%	76%	63%	65%	84%	67%	78%	69%	78%	80%	75%	67%	68%	59%	65%	81%	48%

Note: - denotes parameter was not analyzed



Notes:
Water quality samples collected by Agnico Eagle and analyzed by analytical laboratory Bureau Veritas.
* Calculated TDS is shown for the Whale Tail Lake South Basin as samples are not analyzed for TDS. TDS may be biased for Whale Tail Lake South Basin (WTSE-1) as lab analysis did not include calcium, magnesium, potassium and sodium.
Duplicates water quality results also shown for ST-WT-1, ST-WT-4, ST-WT-17 and WTSE-1.

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CLIENT
AGNICO EAGLE
AGNICO EAGLE MINES LIMITED:
MEADOWBANK DIVISION

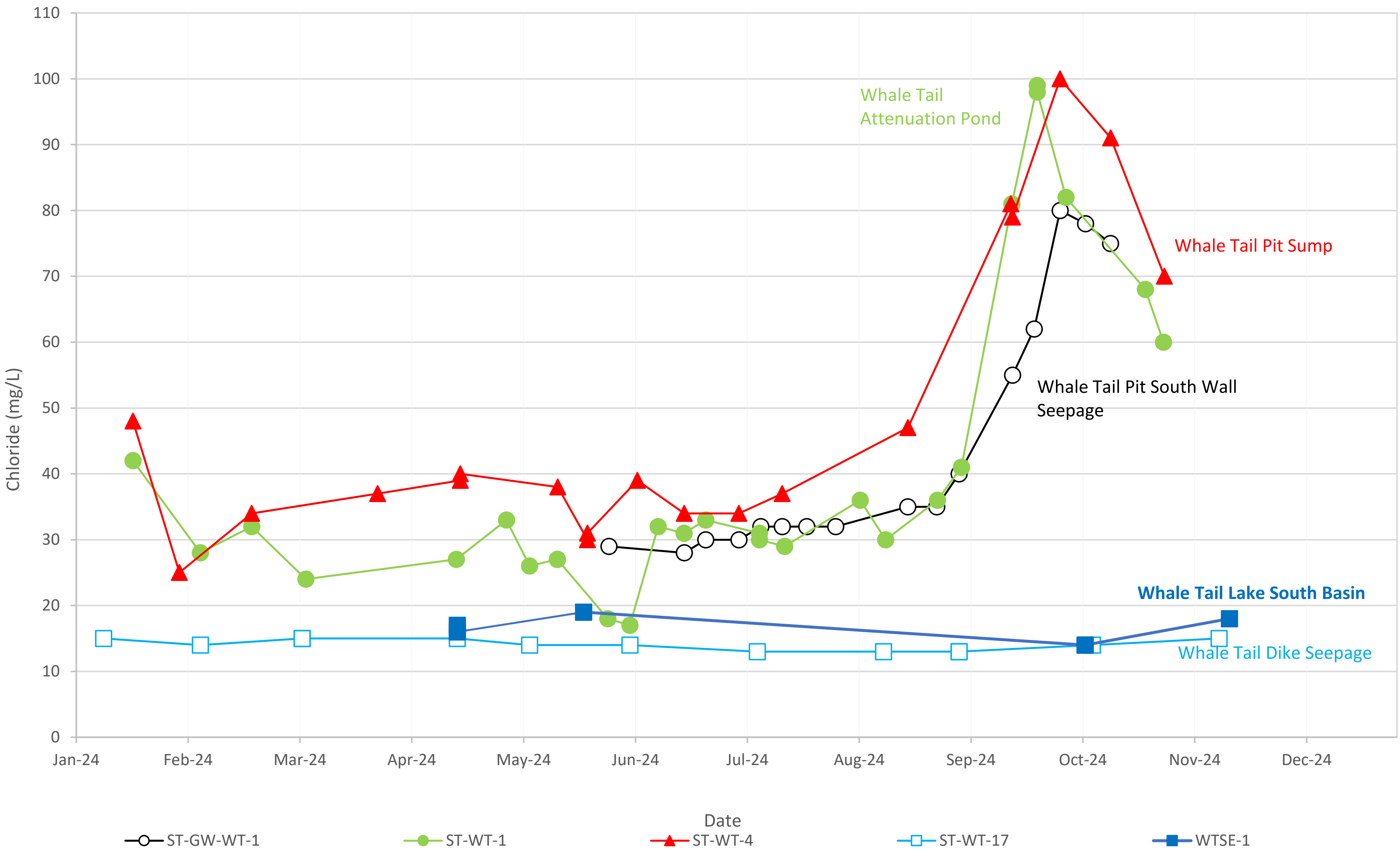
CONSULTANT
wsp

YYYY-MM-DD	2025-03-14
PREPARED	NU
DESIGN	–
REVIEW	DH
APPROVED	JL

PROJECT
2024 GROUNDWATER MONITORING PROGRAM
WHALE TAIL PIT PROJECT, NUNAVUT

TITLE
TOTAL DISSOLVED SOLIDS (TDS) CONCENTRATIONS, JANUARY TO DECEMBER 2024

PROJECT No.	DOC.	Rev.	
CA0037376.3015	2024MBK_029	0	E-1



Notes:
Water quality samples collected by Agnico Eagle and analyzed by analytical laboratory Bureau Veritas.
Duplicates water quality results also shown for ST-WT-1, ST-WT-4, ST-WT-17 and WTSE-1.

CLIENT	AGNICO EAGLE MINES LIMITED: MEADOWBANK DIVISION
PROJECT	2024 GROUNDWATER MONITORING PROGRAM WHALE TAIL PIT PROJECT, NUNAVUT
CONSULTANT	WSP
YYYY-MM-DD	2025-03-14
PREPARED	NU
DESIGN	–
REVIEW	DH
APPROVED	JL
TITLE	**CLORIDE CONCENTRATIONS, JANUARY TO DECEMBER 2024**
PROJECT No.	CA0037376.3015
DOC.	2024MBK_029
Rev.	0

E-2

ATTACHMENT F

2022 Whale Tail Groundwater Model Update

LORAX ENVIRONMENTAL

TECHNICAL MEMORANDUM

To:	**Marie-Pier Marcil, Eric Haley (Agnico Eagle)**	**Date: Feb 22, 2023**
Cc:	**Angie Arbaiza (Agnico Eagle)**	
From:	**Laura-Lee Findlater, Joseph Xu, Justin Bourne (Lorax)**	**Project #: A634-8**
Subject:	**2022 Whale Tail Groundwater Model Update**	

1. Introduction

Agnico Eagle Mines Limited (Agnico Eagle) operates the Meadowbank Complex, a gold operation approximately 110 km north of Baker Lake by road in the Kivalliq District of Nunavut. Ore is mined from the Whale Tail site and processed at the Meadowbank mine site. The Whale Tail mine site is operated under Water Licence No. 2AM-WTP1830.

A numerical groundwater flow and transport model was initially developed in 2016 for Whale Tail Pit project assessment and permitting applications (Golder 2016). The model provided predictions of groundwater inflow and total dissolved solids (TDS) concentrations during operations and closure. The model was updated in 2019 to support the Expansion Project comprising a new underground development (Golder 2019a). The groundwater model update incorporated the revised mine plan and additional hydrogeological and thermal data and analyses compiled since 2016.

In accordance with the mine's Groundwater Monitoring Plan (GWMP), observed groundwater inflow rates are compared to model predictions in the Groundwater Management Monitoring Report appended to the Annual Report each year. In the most recently published Annual Report, WSP Golder (2022) indicates that 2021 winter inflow to the Whale Tail Pit was trending 50% higher than predictions (from Golder 2019a). This triggered a review and update of the groundwater model per the following conditions outlined in Section 5 of the GWMP:

- Groundwater inflow quantity to the mine, based on rolling monthly average of inflow over six consecutive months, is 20% higher than predicted groundwater inflow.

This memorandum briefly summarizes methods and results of the 2022 groundwater model update which comprised the following tasks:

- Rebuilding of the groundwater model to refine mesh in the area of interest and incorporate as-built mine extents;
- Calibration of the groundwater model to 2021 flow and water level data;
- Validation of the groundwater model; and,
- Predictions of future mine operations (2022-2025).

Areas where the 2022 groundwater model assumptions/parameterization differ from the 2019 groundwater model are discussed below. No transport simulations were undertaken under this mandate.

2. Numerical Methods

The 2022 groundwater model has been updated using the finite element modeling software FEFLOW (v.7.2) (DHI, 2022) which is the same modeling platform used to develop the 2019 groundwater model (Golder 2019a). The updated groundwater model domain covers similar lateral extents as the 2019 groundwater model except for a slight truncation of the model domain along the southwest margin. The model domain is divided into 35 layers of thickness ranging from 2 m to 80 m. The horizontal mesh size varies from approximately 12.5 m near the mine site to 25 m in more distal areas. Overall, the 2022 model has higher discretization than the 2019 model.

The 2022 groundwater model utilizes an updated permafrost distribution simulated by Golder which incorporated temperature data from more recent underground drillholes and expanded coverage into the northeast end of Kangislulik Lake (Golder 2021a) (Figure 1). The position of open and closed taliks did not change markedly between the 2021 thermal model and the 2019 version used to inform the 2019 groundwater model (Golder 2019b). The position of the closed talik extending into Whale Tail Pit was manually adjusted in the 2022 groundwater model to more accurately reflect temperature profiles measured from thermistors installed along the Whale Tail Pit south wall in 2020 (Figure 1).

Groundwater simulations were undertaken for current conditions and future operations. Mine extents for current operations (October 2021 and January 2022) were provided by Agnico Eagle. BBA Consultants provided end-of-year snapshots for 2022 through 2025 for future operations simulations. The model was run in steady-state mode for 2021 and 2022 simulations. For years 2023 through 2025, the model was run transiently to quantify groundwater released from aquifer storage to the underground.

For all 2021 through 2025 model runs, specified head boundary conditions of 155.5 m asl and 142 m asl were applied to the Whale Tail South Basin and Whale Tail Attenuation Pond, respectively. Of note, the top of the model domain has incorporated topographic data and Whale Tail Lake bathymetric data. The specific head boundary conditions were applied across multiple layers as dictated by lake depth. In contrast, the 2019 groundwater model assumed a uniform ground surface elevation of 148 m asl with specified head boundary conditions for the Whale Tail Lake and Attenuation Pond applied to the top layer only.

LEGEND

- ▲ Vibrating Wire Piezometer/Thermistor
- Westbay Installation
- ■ Wall Seepage
- Sump (Flow and Water Quality)
- Drillhole Trace

Coordinate System: *NAD 1983 UTM Zone 14N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

1:8,000

0 100 200 Meters

DATE SAVED:	Jan 31, 2023
DRAWN BY:	GM
REVIEWED:	LF
VERSION:	1

CLIENT:

AGNICO EAGLE

LORAX ENVIRONMENTAL

PROJECT:

2022 Whale Tail Groundwater Model Update

TITLE:

Whale Tail Pit Monitoring Stations Informing Groundwater Model

PROJECT #: A634-8 *FIGURE:* 1

P:\@Drafting\Meadowbank\Drafting Figures\MXD\WT Groundwater Operation_20230130.mxd

3. Model Calibration and Validation

The 2022 groundwater model calibration benefitted from operational data not available for the 2019 model. Mining of the Whale Tail Pit, combined with prior dewatering of the north Whale Tail Lake basin, has served as a large-scale hydraulic stress upon which hydraulic parameters can be estimated.

The calibration data include 2021 average winter pumping rates from the Whale Tail Pit sump (Table 1) and November 2021 groundwater pressures measured at Westbay AMQ16-262 (Figure 1, Table 2). The groundwater model was calibrated in a steady-state simulation using the October 2021 pit extents, noting that the underground mining extents were limited to frozen ground and not interacting with the groundwater system. Since pit extents for earlier snapshots in 2021 were not readily available, the flow target used to calibrate the model was an average of flows measured between January-March and October-December 2021. This equated to an average target flow rate of 2059 m^3/d.

Table 1:
Volumes Pumped from the Whale Tail Pit Sump (2020-2021)

Month	Total Pumped Volume[1] (m^3)	Average Daily Pumping Rate (m^3/day)
Oct-20	57,836	1,866
Nov-20	44,744	1,491
Dec-20	57,945	1,869
Jan-21	62,721	2,023
Feb-21	43,703	1,561
Mar-21	71,320	2,301
Apr-21	48,680	1,623
May-21	49,484	1,596
Jun-21	126,825	4,228
Jul-21	121,399	3,916
Aug-21	135,056	4,357
Sep-21	124,540	4,151
Oct-21	74,035	2,388
Nov-21	75,828	2,528
Dec-21	48,161	1,554
Jan-March , Oct-Dec 2021 Average		2,059

Notes:
1. 2020 volumes from Golder (2021b), 2021 volumes from WSP Golder (2022).

Table 2:
Simulated and observed November 2021 freshwater elevations at Westbay AMQ16-626

Port	Port Position (m bgs)	Port Position (m asl)	Water Level Elevation (m asl)		Residual (Simulated-Observed) (m)
			Observed[1]	Simulated	
6*	257.9	-103.4	147.6	146.61	-0.99
5	289.7	-124.8	148.2	147.16	-1.04
4	326.3	-171.8	150.1	147.95	-2.15
3	356.2	-201.7	150.0	148.31	-1.69
2	411.7	-257.2	149.8	149.50	-0.30
1	455.9	-301.4	150.0	150.05	0.05

Notes:
mbgs = metres below ground surface (vertical down from surface); m asl = metres above sea level; -- = not measured
*Port 6 is suspected to be located within or near the cryopeg, which may influence measured hydraulic head (WSP Golder 2022).
1. Estimated freshwater hydraulic heads compute from November 2, 2021 pore pressure measurements. Reported in WSP Golder (2022).

Bedrock hydraulic conductivity was adjusted until the average pit inflow rate and Westbay water levels were reasonably approximated, based on modeler professional judgement. The 2022 calibrated hydraulic conductivity distribution is shown in Figure 2 with parameters listed in Table 3. Through the calibration process, it was found that the difference in water levels measured between Westbay ports supported the use of anisotropy in bedrock hydraulic conductivity values, hence the two lines representing horizontal (Kh) and vertical hydraulic conductivity (Kv) in Figure 2. Both lines represent the Base Case hydraulic conductivity distribution determined in the 2022 groundwater model update. The ratio of horizontal to vertical hydraulic conductivity ranges from 2.5-fold to 10-fold (Table 3). The 2019 groundwater model assumed isotropic hydraulic conductivity (Kh=Kv). The Upper Case hydraulic conductivity distribution from 2019 is also shown in Figure 2.

Both the 2019 and 2022 models simulate a trend of decreasing hydraulic conductivity with depth and do not differentiate between lithological units (*i.e.,* hydraulic conductivity for the layer is uniform across the model domain). In addition, neither model version simulates enhanced permeability zones as hydraulic testing information at the time of model development had not indicated widespread occurrence of such features.

The 2022 groundwater model simulates a 2021 Whale Tail Pit winter inflow rate of 2,058 m^3/d, which essentially matches the observed average winter flow rate target of 2,059 m^3/d (<0.05% difference). Simulated water levels at Westbay AMQ16-262 agree within 2.2 m of observed values. (Table 2). For this time period, flows reporting to the Whale Tail Pit sump are approximately 30% derived from the Whale Tail Attenuation Pond and 70% derived from moderately deep groundwater (10 m to approximately 200 m) draining the Whale Tail South

Basin. No groundwater originating from deeper bedrock (>200 m) is simulated to report to the Whale Tail Pit sump. The 2019 groundwater model predicted a higher proportion of flow (~80%) originating from the attenuation pond.

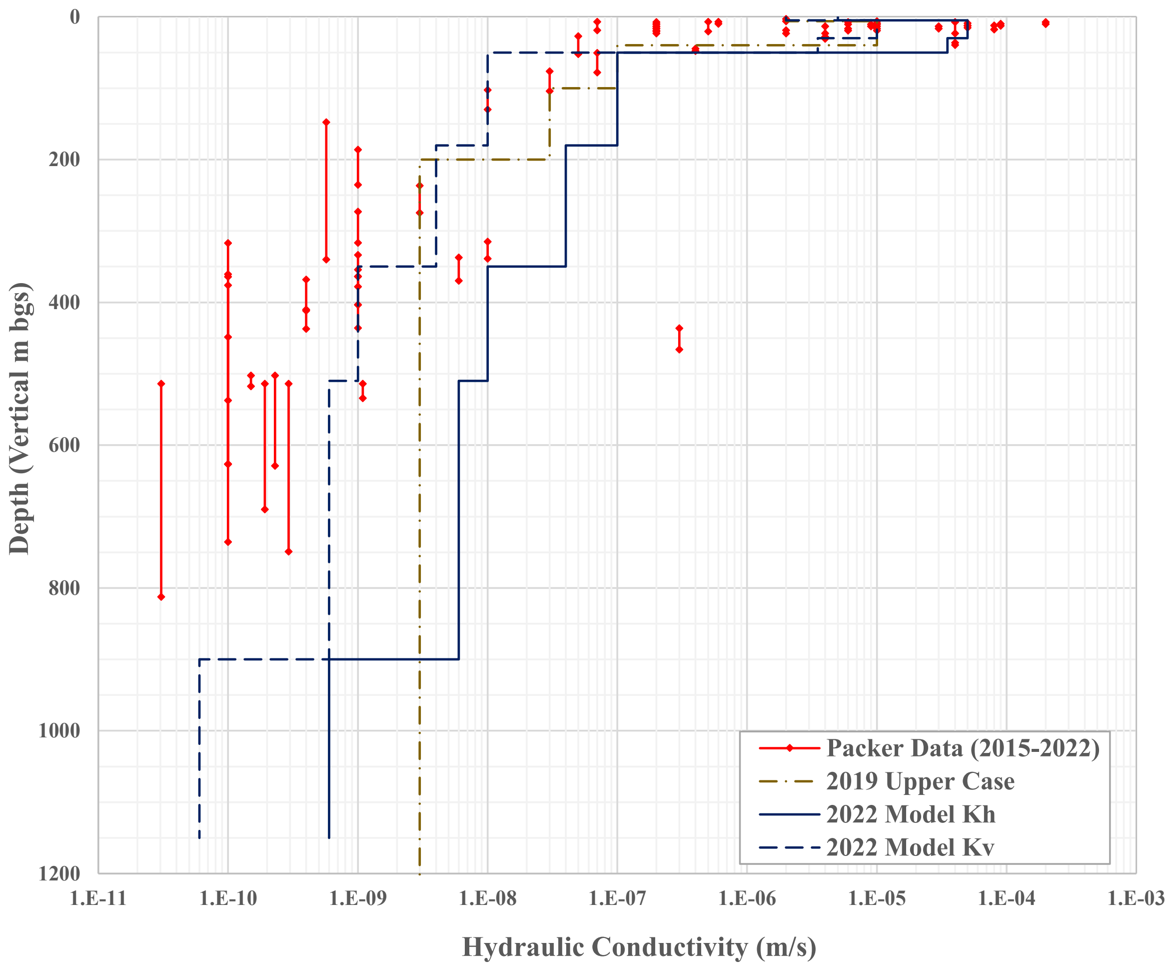


Figure 2: Simulated hydraulic conductivity distribution used in the 2019 and 2022 groundwater models.

4. Model Validation

The 2022 groundwater model was validated against four different data sources:

i. Flow rates measured from a drillhole advanced near the Whale Tail Pit Seep #1 (ST-WT-GW-1) in November 2021;

ii. January 2022 Whale Tail Pit sump flow rates;

iii. Baseline water levels collected at Westbay AMQ16-262; and

iv. August 2021 water levels collected from vibrating wire piezometers (VWPs) installed along the south wall of the Whale Tail Pit.

Table 3:
Calibrated hydraulic parameters from the 2022 groundwater model

Depth (mbgs)	2019 Model EA/Upper Case[1]	2022 Model				
	K (m/s)	K_h (m/s)	K_v (m/s)	K_h:K_v	Sy (-)	Ss (m^{-1})
2-6 (Overburden)	2.E-06	5E-06	2E-06	2.5	0.001	1E-04
6 – 30	1.E-05	5E-05	1E-05	5	0.01	1E-005
30 – 40	1.E-005	3.5E-05	3.5E-06	10	0.01	1E-05
40 – 50	1.E-07				0.01	1E-05
50 – 100	1.E-07	1E-07	1E-08	10	0.0006	1E-06
100 – 180	3.E-08				0.0006	1E-06
180 - 200	3.E-08	4E-08	4E-09	10	0.0006	1E-06
200 - 350	4.E-09				0.0006	1E-06
350 - 510	4.E-09	1E-08	1E-09	10	0.0006	1E-06
510 - 900		6E-09	6E-10	10	0.0006	1E-06
900 - 1150		6E-10	6E-11	10	0.0006	1E-06

Notes:
K= hydraulic conductivity, Sy = specific yield, Ss = specific storage
1. Per Golder (2019a)

4.1 ST-WT-GW-1 Drillhole Flow Rates

In an effort mitigate an ice wall which forms seasonally at the ST-WT-GW-1 seepage face, Agnico Eagle advanced an inclined borehole from the pit floor to concentrate the seepage. The borehole was drilled on October 21st, 2021, and flow rates measured on November 2nd and 8th, 2021 (Table 3, Figure 1). The drillhole was incorporated into the updated groundwater model and a steady state flow rate of 1,010 m^3/d was simulated. The simulated value agrees within 10% observed values.

Table 4:
Whale Tail Pit South Wall Flowing Drillhole Data

Borehole ID		ST-WT-GW-1 (DH1)
Drilled Date		October 21, 2021
Northing	m	7,255,424.88
Easting	m	606,877.59
Collar Elevation	m asl	140.91
Azimuth/Dip	degrees	180/30
Length	m	58.30
Flow Rate Nov 2, 2021	m^3/d	936
Flow Rate Nov 8, 2021	m^3/d	1,080

4.2 January 2022 Pit Inflow Rates

The January 2022 Whale Tail Pit extents were incorporated into a steady-state run of the updated groundwater model. The model simulated 2,354 m^3/d inflow to Whale Tail Pit, about 6% higher than the observed flow rate of 2,226 m^3/d.

4.3 Baseline Water Levels

Baseline water levels were measured at Westbay AMQ16-262 in November 2018, prior to the onset of lake dewatering and mining activities (Table 4). The updated groundwater model was configured to simulate baseline conditions with Whale Tail Lake occupying its pre-mine limits at an elevation 153 m. Simulated and observed water level elevations for Westbay AMQ16-262 are provided in Table 4 and agree within 0.31 m of observed levels.

Table 5:
Simulated and observed baseline freshwater elevations at Westbay AMQ16-626

Port	Port Position (m bgs)	Port Position (m asl)	Water Level Elevation (m asl)		Residual (Simulated-Observed) (m)
			Observed[1]	Simulated	
6*	257.9	-103.4	154.0	153.69	-0.31
5	289.7	-124.8	--	153.64	N/A
4	326.3	-171.8	153.6	153.52	-0.08
3	356.2	-201.7	153.4	153.43	0.03
2	411.7	-257.2	152.9	152.93	0.03
1	455.9	-301.4	152.5	152.71	0.21

Notes:
mbgs = metres below ground surface (vertical down from surface); m asl = metres above sea level; -- = not measured
*Port 6 is suspected to be located within or near the cryopeg, which may influence measured hydraulic head (WSP Golder 2022).
1. Estimated freshwater hydraulic heads compute from November 9, 2018 pore pressure measurements. Reported in WSP Golder (2022).

4.4 Whale Tail Pit South Wall VWPs

A series of thermistor strings nested with vibrating wire piezometers (VWPs) were installed along the south wall of the Whale Tail Pit in 2020 (Figure 1). These instruments collected water level data between June 2020 and August 2021 (Table 6) and were decommissioned thereafter on account of pit expansion. The water level in most piezometers dropped by several meters over the period of record on account of mining of the Whale Tail Pit. The water levels in the piezometers track closely with that of the Whale Tail Attenuation Pond but also respond to blasting in the pit (WSP Golder 2022).

Table 6:
Simulated and observed water levels at Pit South Wall VWPs

Sensor	Collar Co-ordinates (m UTM)		Collar El. (m asl)	Dip	Az.	Approx. Sensor Depth[1] (v m bgs)	Sensor Elevation (m asl)	August 2022 Water Level Elevation	Simulated October 2022 Water Level Elevation (m asl)	Residual (Simulated-Observed) (m asl)
	Easting	Northing								
DH3_PZ	607,016	7,255,140	147.6	90	0	20.8	126.89	129.22	134.54	5.32
DH6_PZ	607,058	7,255,184	147.8	90	0	22.8	124.99	134.89	134.45	-0.44
DH10_PZA	607,142	7,255,272	150.7	90	0	22.2	128.50	136.34	135.82	-0.52
DH11_PZA	607,156	7,255,287	151.2	50	0	108.8	42.47	131.37	130.04	-1.33
DH11_PZB	607,156	7,255,287	151.2	50	0	91.9	59.32	134.17	130.33	-3.84
DH11_PZC	607,156	7,255,287	151.2	50	0	76.6	74.64	133.63	130.66	-2.97
DH11_PZD	607,156	7,255,287	151.2	50	0	14.6	136.69	136.98	136.19	-0.79
DH12_PZA	607,168	7,255,294	151.9	50	0	16.6	135.31	137.46	136.73	-0.73
DH12_PZB	607,168	7,255,294	151.9	50	0	14.6	137.38	137.48	136.76	-0.72
DH12_PZC	607,168	7,255,294	151.9	50	0	11.9	140.06	139.00	136.80	-2.20
DH13_PZA	n/a	n/a	145.4	90	0	103.2	40.80	128.00	120.14	-7.87
DH13_PZB	n/a	n/a	145.4	90	0	63.2	80.80	135.24	123.18	-12.06
DH14_PZA	n/a	n/a	130.8	90	0	79.5	53.50	109.41	97.10	-12.31
DH14_PZB	n/a	n/a	130.8	90	0	54.5	78.50	108.34	101.52	-6.82

Notes:
n/a = not available, v m bgs = vertical metres below existing ground surface, m asl = metres above sea level
Wells in red were used to adjust shallow permafrost depth in 2022 groundwater model.

Observed August 2021 and simulated October 2021 water levels for the VWPs are provided in Table 6. In comparing the simulated and observed water levels, it should be noted that the August measurements occur during a high flow period while the groundwater model simulates a low flow period. Thus, the comparison is not truly a model validation, rather it is an independent check that the model is reasonably approximating water levels in this area. The simulated water levels are predominantly lower than the observed values, which is to be expected given the disparate flow seasons represented.

5. Model Predictions (2022-2025)

Simulated Whale Tail Pit and underground dewatering rates for future operations are provided in Table 7 and Table 8, respectively. Upper case predictions from the 2019 groundwater model are shown for reference. Overall, groundwater inflows to Whale Tail Pit are predicted to stabilize in 2023 as pit expansion is limited to frozen ground. Conservatively, neither the 2019 nor 2022 groundwater models simulate permafrost aggradation into the Whale Tail Pit south wall during this time, although experience at Meadowbank suggests that this is a possibility.

The 2022 groundwater model predicts pit inflow rates that are essentially double the 2019 Upper Case estimates (Table 7). This is attributed to a variety of factors, including higher hydraulic conductivity values (particularly Kh) used in the 2022 model over the upper 200 m interval (Figure 2); differences in pit representation on account of a higher resolution mesh in the 2022 model, adjustments to the depth of the closed talik in the pit (Section 2) and differences lake boundary condition implementation between the two models (Section 2).

The proportion of pit inflow derived from the Whale Tail South Basin and Attenuation Pond also differs between the 2019 and 2022 models (Table 7). The 2022 model predicts that most flow to the pit (~65-67%) is derived from the Whale Tail South Basin, which the 2019 model predicted to contribute 15% or less flow to the pit. Of the total flow the 2022 model predicts to report to the pit, 10% of this travels from the Whale Tail South Basin to the Attenuation Pond then onto the pit. This flow component is included in the portion of flow originating from the Whale Tail South Basin (columns 5 and 6 of Table 7). Using 2025 as an example, of the 2,438 m^3/d that is derived from the Whale Tail South Basin, 375 m^3/d (10% of 3,750 m^3/d) total pit inflow first reports to the Whale Tail Attenuation Pond, and then travels to the pit.

The underground dewatering rates predicted by 2022 groundwater model are generally lower than those predicted by the 2019 groundwater model (Table 8). This difference is attributed to a combination of factors, including lower vertical hydraulic conductivity and higher mesh refinement used in the 2022 model as well as modifications to the mine plan.

Table 7:
Simulated Whale Tail Pit Inflow for Future Operations (2022-2025)

Year	2022 Groundwater Model - Base Case					2019 Groundwater Model – Upper Case[2]				
	Whale Tail Pit Inflow	Inflow from Whale Tail Attenuation Pond		Inflow From Whale Tail South Basin[3]		Whale Tail Pit Inflow	Inflow from Whale Tail Attenuation Pond		Inflow From Whale Tail South Basin	
	(m^3/d)[1]	%	m^3/d	%	m^3/d	m^3/d	%	m^3/d	%	m^3/d
2022	3,070	33%	1,013	67%	2,057	1,360	81%	1,102	9%	122
2023	3,740	35%	1,309	65%	2,431	1,360	82%	1,115	12%	163
2024	3,750	35%	1,313	65%	2,438	1,350	82%	1,107	14%	189
2025	3,750	35%	1,313	65%	2,438	1,350	82%	1,107	15%	203

Notes:
1. Year 2022 simulated as a steady-state run using the end of year snapshot. All other years simulated in transient runs using end of year snapshots; inflow values represent and average of the year and include release from storage.
2. Per Golder (2019a).
3. Approximately 10% of the inflow to Whale Tail Pit travels from the Whale Tail South Basin to the Whale Tail Attenuation Pond and then on to the pit. This flow is included in the percentage/flow rate originating from the Whale Tail South Basin.

Table 8:
Simulated Whale Tail Underground Inflow for Future Operations (2022-2025)

Year	Underground Inflow (m^3/d)	
	2022 Groundwater Model – Base Case[1]	2019 Groundwater Model – Upper Case[1]
2022	10	250
2023	30	420
2024	60	410
2025	290	340

Notes:
1. Year 2022 simulated as a steady-state run using the end of year snapshot. All other years simulated in transient runs using end of year snapshots; inflow values represent an average of the year and include release from storage.
2. Per Golder (2019a).

6. Summary

The Whale Tail groundwater model was updated in 2022 to improve model performance against observed winter inflows to the Whale Tail Pit. The model update comprised refinement of the model mesh and incorporation of an updated permafrost surface determined by the 2021 thermal model update and observations from thermistors installed along the pit the south wall in 2020. The model was calibrated to winter 2021 flows (January-March and October-December) and November 2021 Westbay water levels while simulating the October 2021 as-built mine extents. The model essentially reproduces observed flows (2,058 m^3/d) and reasonably simulates Westbay water level data. The data supported the use of anisotropy in hydraulic conductivity, with Kh exceeding Kv by 2.5 to 10 times. In contrast, the 2019 groundwater model utilized isotropic hydraulic conductivity (Kh = Kv).

The 2022 model was validated against flow rates measured at a drillhole advanced near pit seep ST-WT-GW-1 in November 2021, January 2022 pit inflow rates (simulated with January 2022 pit extents) and baseline Westbay water levels. Model performance was also checked using open water season water levels at Whale Tail Pit south wall VWPs. The model provided acceptable results for all validation metrics.

The model predicts that open pit dewatering rates will stabilize around 3,750 m^3/d in 2024 while underground inflow rates are predicted to climb from 10 m^3/d in 2022 to 290 m^3/d in 2025. Flow reporting to the Whale Tail Pit is mostly derived the Whale Tail South Basin with the Whale Tail Attenuation Pond providing the balance of the flow. This is a reversal from the 2019 groundwater model which found the majority of flow to Whale Tail Pit originated from the Whale Tail Attenuation Pond. The differences in flow predictions between the 2019 and 2022 models can be attributed to a number of factors including the updated hydraulic conductivity distribution, refinements in model mesh and mine plan implementation, closed talik position in Whale Tail Pit, and differences in implementation of lake boundary conditions.

7. Closure

This memorandum has been prepared Lorax Environmental Services Ltd. (Lorax) for the exclusive use of Agnico Eagle. If any clarification or additional information is required, please contact the undersigned.

Yours very truly,

Lorax Environmental Services Ltd.

per:

REGISTERED PROFESSIONAL GEOSCIENTIST
L.L. FINDLATER
LICENSEE
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Feb 22, 2023

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LORAX ENVIRONMENTAL SERVICES LTD.
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Date Feb 22, 2023
PERMIT NUMBER: P 1487
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