TECHNICAL MEMORANDUM

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Agnico Eagle Mines Ltd.

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THERMAL ASSESSMENT OF PROPOSED STORAGE OF WATER IN OPEN PITS DURING OPERATION

1.0 INTRODUCTION

To support updated work at the Meliadine Mine, Agnico Eagle Mines Ltd. (Agnico Eagle) has requested WSP to complete thermal assessments for Tiriganiaq, Wesmeg, Pump and FZone pit areas at the Meliadine site (Figure 1) to assess the impact of in-pit storage of saline or contact water on permafrost conditions during mine operation.

Agnico Eagle has adjusted the mine plan considering end of mine in 2036. Pits Tiri02, WES02 and Pump 02 are planned to store saline water during the operation stage. Contact water is to be stored in WES03, Pump01 and FZone02 during operation. In total, six (6) pits were assessed to evaluate the potential effects on permafrost conditions of crown pillars. The locations of the six pits and five cross-sections are illustrated in Figure A1.

Two-dimensional (2D) thermal models were prepared including the storage of saline or contact water, the details are summarized in Table 1.

This technical memorandum summarizes the methodology adopted for the thermal assessment, input parameters, assumptions, and findings of the thermal analyses. The specific underground (UG) work schedule for each pit is summarized from UG drawings provided by Agnico Eagle in January 2026.

Table 1: Summary of In-Pit Storage Scenarios during Operations[(a)]

Pit	In-Pit Material during Operation (2021/2026–2036)	Underground Works
Tiri02	Saline water	2023–2036
WES02	Saline water	2026–2036
WES03	Contact water	
Pump01	Contact water	No underground work
Pump02	Saline Water	2026–2036
FZone02	Contact water	No underground work

Note:
(a) Latest underground works schedule and mine plan provided by Agnico Eagle in January 2026.

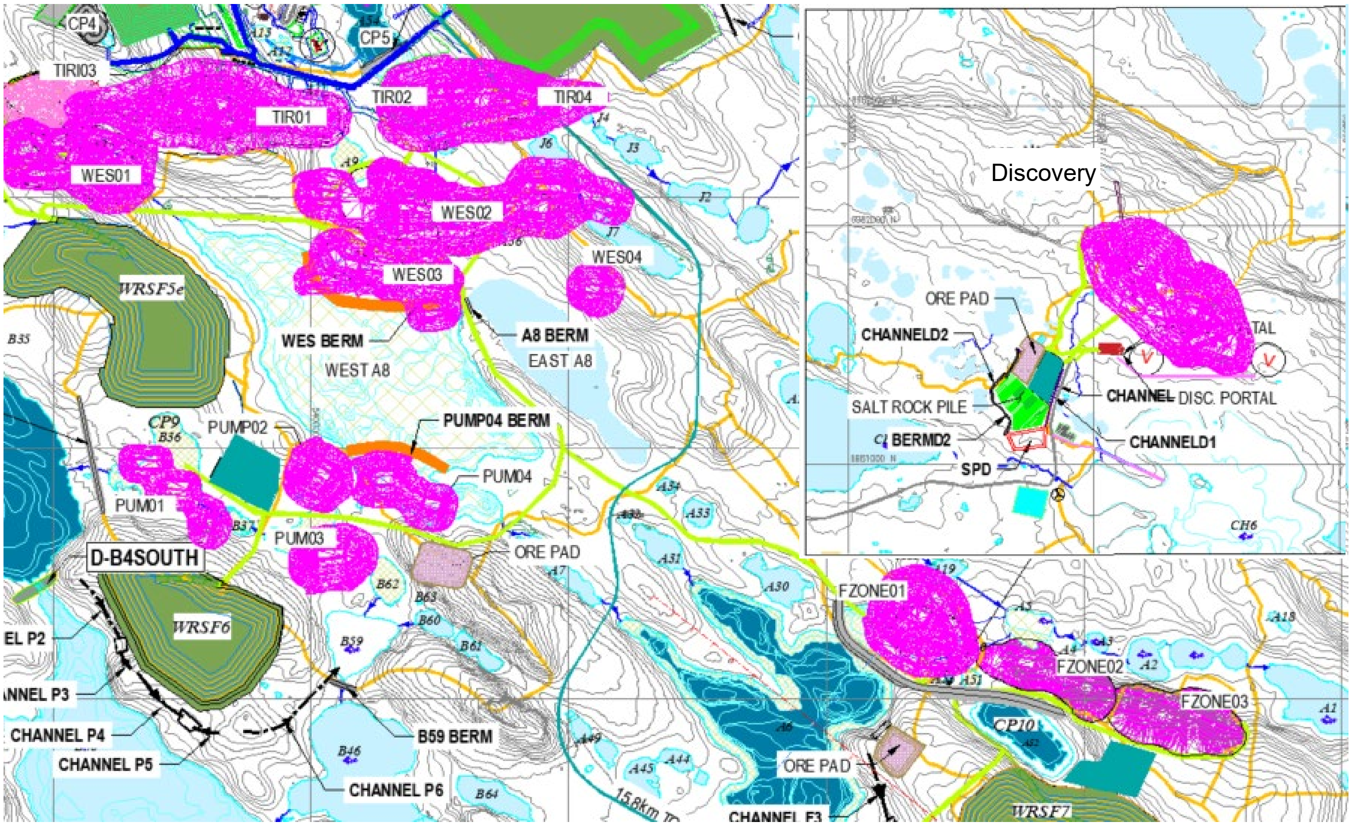

Figure 1: Open Pits Plan View

2.0 SITE CONDITIONS

2.1 Site Climactic Conditions

This Meliadine mine site lies within the Southern Arctic Climatic Region where daylight reaches a minimum of 4 hours per day in winter and a maximum of 20 hours per day in summer. The nearest weather station is Rankin Inlet A (Station 2303401), located approximately 25 km south of the Project site.

Table 2 presents a summary of the site climate data for air temperature and precipitation taken from Golder (2021). The values presented in Okane (2021) are based on data available from Environment and Climate Change Canada (ECCC) for Rankin Inlet A. The monthly mean air temperature is typically above 0°C for the months of June to September and is below 0°C between October and May. July is typically the warmest month and January the coldest.

Table 2: Mean Climate Characteristics – Existing Conditions based on MEL/Rankin Weather Station

Month	Average Maximum Temperature (°C)	Average Minimum Temperature (°C)	Monthly Precipitation	
			Total Precipitation (mm)	Number of Days
January	-26.7	-33.9	17	26
February	-26.4	-33.7	15	24
March	-20.7	-29.2	23	26
April	-11.4	-20.4	32	21
May	-2.3	-8.9	20	22
June	8.1	0.6	33	15
July	15.1	6.3	46	15
August	13.2	6.3	61	18
September	6.4	1.4	50	21
October	-1.8	-7.2	57	27
November	-13.0	-20.8	40	26
December	-21.7	-29.2	25	27
Annual	**-6.7**	**-14.0**	**429**	**270**

2.2 Regional Permafrost

The Meliadine mine site is located within the Southern Arctic terrestrial eco-zone, one of the coldest and driest regions of Canada, in a zone of continuous permafrost. The land surface of the Meliadine site is underlain by permafrost except under lakes where water is too deep to freeze to the bottom during winter. Data obtained from temperature thermistors installed in some boreholes confirm the presence of continuous permafrost to depths between 360 m and 495 m, with the depth of the active layer ranging from approximately 1 m to 3 m. Frozen soils have been observed in most of the boreholes drilled on site. The typical permafrost ground temperatures at the depths of zero annual amplitude (typically at the depth of below 15 m) are in the range of -5.0°C to -7.5°C in the areas away from lakes and streams. The geothermal gradient ranges from 0.01°C/m to 0.02°C/m (Golder 2014).

Taliks (areas of unfrozen ground) are expected beneath a water body where the water depth is greater than the ice thickness. Closed talik formations show a depression in the permafrost and connect the lake waterbody with the sub-permafrost regime are expected for relatively deeper and larger lakes in the mine area. The summary of permafrost depth from site thermistors is provided in Table 3 (Golder 2014). From this table, it is found that permafrost depth is generally between 400 and 500 m if no lake influence is considered. Thermistor data collected near deep lakes, show that the permafrost depth is decreased to about 360 m.

Published data regarding permafrost indicates that the ground ice content in the region is expected to be between 0% and 10% (dry permafrost) based on Golder (2014).

Table 3: Summary of Permafrost Depth from Site Thermistors

Nearby Pit	Thermistor ID	Permafrost Depth (m)
FZone01	GT09-07	360[a]
Discovery	DS09GT-03	430[a]
	DS09GT-04	485[a]
	DS-16	400
	DS-19	420[a]
Tiri01	M98-195	470[a]
	GT21-75	480[a]
WES03	GT21-46	370

(a) Thermistor does not breach the bottom of permafrost. The permafrost depth has been extrapolated using the measured data and temperature gradient.

2.3 Lake Depth

Bathymetry surveys of critical lakes included in this study were provided by Agnico Eagle and used to define temperature boundary conditions as described in Section 4.4. Golder (2021a) reported the average ice thickness of 1.7 m based on the SD-6 Thermal Regime Baseline Studies Report (Golder 2014; WSP 2022). Ice thickness measurements were available between January and April 2024 for the West portion of Lake A8. The average ice thickness over the monitoring period was found to be 1.2 m. there is no update for other lakes. The value of 1.2 m thickness was used in this study.

Table 4: Average Ice Thickness in Lakes

Area	Lake	Average Ice Thickness (m)	Maximum Lake Depth[a] (m)
Main	B4	1.2	2.0
	B5	1.6	3.0
	B7	1.8	4.5
	A6	1.6	4.0
	A8	1.2	4.0
Discovery	CH6	1.7	8.0

(a) Based on bathymetry survey provided by Agnico Eagle using 0.5 m contours.

2.4 Freezing Point of Process and Groundwater

2.4.1 Process Water

Maximum Total Dissolved Solids (TDS) concentration of 1690 mg/L was specified by Agnico Eagle for contact water stored in pits during operations. Saline water is currently stored within Tiri02, where TDS concentration has been measured over time. Concentrations measured at the pond bottom between March 2022 and September 2023 ranged between 33,000 mg/L and 48,474 mg/L, with an average TDS concentration of approximately 38,600 mg/L. Thermistor strings installed within the pond have indicated that a relatively constant temperature of -1.9°C is maintained over time (WSP 2025).

It is assumed that the other pits included in this study assessed for saline water storage (i.e., WES02 and Pump02) will store saline water with salinity levels as measured in Tiri02 and pond water will follow the same cooling pattern measured within Tiri02.

2.4.2 Groundwater

WSP (2023) completed hydrogeological field investigations for the Tiriganiaq and Wolf deposits at the Meliadine Mine. An estimated groundwater salinity profile with depth was developed based on previous and current investigations. Salinity above the regional permafrost table suggested the salinity at a depth of approximately 125 metres below ground surface (mbgs) is 4,500 mg/L. Within the cryopeg, the salinity increases to approximately 60,000 mg/L. The freezing point of groundwater above the regional permafrost was estimated to be -0.3°C at a depth of approximately 125 mbgs based on the method presented in Andersland and Ladanyi (2004).

3.0 CONCEPTUAL CONSTRUCTION SCHEDULE

Conceptual UG construction schedule was provided by Agnico Eagle as summarized in Table 5. This schedule was used as a reference to develop the implementation of underground workings construction sequence in the model geometry. Saline water is stored in Tiri02 from 2021, WES02 from 2028 and Pump02 from 2027; Contact water is stored in WES03 from 2028, Pump01 from 2026 and FZone02 from 2029.

Table 5: Summary of Underground Work Schedule Provided by Agnico Eagle

Calendar Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Mine Year	-5	-4	-3	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12
TIRI UG	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
PUMP UG	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U	U	U
F ZONE UG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WES UG	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

U=Underground mining;

4.0 THERMAL MODEL

Two-dimensional thermal modelling was carried out using the finite element software TEMP/W of GeoStudio 2024 (Version 24.2.1.28), developed by Bentley Systems Incorporated. (Bentley, 2024).

Modelled scenarios are considered as worst cases for all pits. The geometry, initial condition and thermal properties are defined for each pit and stored material. Saline or contact water are not directly included in the model geometry but represented by corresponding temperature boundary conditions on the pit shell.

4.1 Methodology

Both steady and transient analyses were conducted in this study. As requested by Agnico Eagle, perceived worst-case scenarios were considered for each pit including instantaneous excavation and filling of pits. Underground works beneath pits start at different years (in the range of what is summarized in Table 5) based on review of schedule drawings provided by Agnico Eagle, with all UG works ending in 2036. Lake A8, which is present in model cross-sections East alignment and West Alignment, is dewatered during operations.

The general modelling process is as follows:

1) An initial steady-state model without pits or underground works is run to determine the initial ground temperature conditions, based on permafrost limits and ground temperature profiles computed in previous modelling exercises (WSP 2022; WSP 2025).

2) Following definition of initial ground temperature conditions, the pit shells are incorporated in the model geometry assuming instantaneous pit excavation and backfilled with saline or contact water for different pits (see Table 1).

3) Transient models are run for the operational period between 2021/2025 (depending on pit) and 2036 considering the ultimate geometry of each pit and a maximum water storage elevation of 4 m below pit crest. Lake A8 is dewatered during the operation period, and seasonal surface temperatures are applied to lakebed. The constant temperature is maintained for contact and saline water (saline water has an initial short cooling period before the pond temperature stabilizes).

4) Underground workings, when present in the operational stage, are progressively incorporated in the model geometry based on updated UG construction drawings provided by Agnico Eagle in January 2026.

5) Progressive impact on permafrost conditions between the bottom of pits and uppermost underground workings (i.e., within crown pillar) is computed for the model duration. The results are presented in terms of temperature profiles beneath each pit, and temperature contours along the model cross-sections at selected times.

4.2 Model Cross-sections and Geometry

The layout of ultimate pit geometries of Tiri02, WES02, WES03, FZone02, Pump01, and Pump02 were provided by Agnico Eagle. UGs are planned to be constructed beneath four pits (Tiri02, WES02, WES03 and Pump02) based on latest CAD files provided by Agnico Eagle in January 2026.

As directed by Agnico Eagle, a 100-m crown pillar was assumed beneath pits in the model geometry. UGs originally present within the crown pillar in the provided CAD files were artificially relocated in the model geometry to appear below the 100-m crown pillar zone. There is no UG work below Pump01 and FZone02.

WSP has previously conducted thermal models for the storage of saline or contact water in Tiri02, WES02, and WES03, Pump01, Pump02, as well as FZone02 (WSP 2024; WSP 2025). Previous model files including the West and East Alignments model cross-sections were reviewed and updated accordingly for modelling the scenarios required for this study.

Generally, individual cross-sections were cut through the deepest portion of pit bottoms and perpendicular to main underground workings to reduce the thermal effects of UGs in the 2D model geometry. When larger lakes (e.g., A8) are present, the cross-sections pass through the deepest portion of such lakes to incorporate the effect of lakes on the initial ground temperature. Generally, the bottom elevation of the model geometry is set at Elevation -500 masl, but for the West Alignment cross-section, the bottom elevation is set as -550 masl because of UGs extending deeper in the area.

The model cross-sections and corresponding pits are summarized in Table 6. A plan view showing the location of all cross-sections is shown in Figure A1, and the model cross-sections are shown in Figures A-2 to A-6.

Table 6: Summary of Model Cross-section, Pits, and UG Implementation

Cross-section	Pit	Pit Crest Elevation (masl)	Minimum Pit Bottom Elevation (masl)	UGs Construction Period (year)
Tiri02	Tiri02	66	-65	2023-2035
East Alignment	WES02	62	-55	2026-2032
East Alignment	WES03	62	13	2026-2032
Pump01	Pump01	60	25	No UG construction
West Alignment	Pump02	63	5	2026-2032
West Alignment	WES03	62	-5	2026-2032
FZone02	FZone02	54	5	No UG construction

masl = meters above sea level; UGs = underground workings.

4.3 Material Properties

As part of previous studies (WSP Golder 2022; WSP 2024), calibration of material properties and thermal conditions underneath several pits across the Meliadine site was completed. The calibrated properties and inputs were used in the current study.

Overburden materials have been omitted from the 2D models considering that the primary focus of the study is to assess variations in thermal conditions between pits bottom and underground workings, in areas where overburden materials have been/will be removed.

Thermal properties of bedrock adopted in this study are listed in Table 7, based on previous models (e.g., WSP 2025)

Table 7: Material Properties Adopted in this Study

Material	Volumetric Water Content (m^3/m^3)	Thermal Conductivity (W/m/°C)		Volumetric Heat Capacity ($MJ/m^3/°C$)	
		Frozen	Unfrozen	Frozen	Unfrozen
Bedrock	0.01	3.20	3.20	1.80	1.80

4.4 Boundary Conditions

4.4.1 Boundary Conditions for Steady-state Model

Table 8 summarizes the boundary conditions applied to steady-state models to establish initial conditions across each model section before pit construction and flooding, based on previous model calibrations (WSP Golder 2022; WSP 2024). Table 9 presents the adopted lake temperature boundary conditions for different water depths.

Table 8: Boundary Conditions in Steady-State Models

Boundary Condition	Type	Value	Unit
Average Annual Ground Surface Temperature	Constant	-7.9	°C
Lake Water Temperature	Constant	Variable (Table 9)	°C
Geothermal Gradient	Constant	0.017	°C/m

Table 9: Lake Temperature Boundary Conditions

Boundary	Depth (m)	Temperature (°C)
Shallow Lake Conditions	< 1	-2.0
Intermediate Lake Conditions	< Average Ice Thickness[a]	0
Deep Lake Conditions	> Average Ice Thickness	2.0

(a) Average ice thickness is 1.2 m for transient analysis (WSP 2024).

4.4.2 Boundary Conditions for Transient-state Model

For transient analysis simulating the proposed operation periods, several boundary conditions were used to represent ground surface temperature, lake bottom temperature, pit lake temperature during flooding, and air temperature within active underground tunnels. Table 10 provides a summary of boundary conditions used for the transient stage of each model scenario.

Table 10: Boundary Conditions in Transient-state Models

Boundary Condition	Type	Value	Units	Applicable Cross-section	Figure
Ground surface temperature	Step-function	Temperature varies with time (see below)	°C	All	Figure 2
Pit Lake Contact Water	Constant temperature	4	°C	All	-
Pit Lake Saline Water	Step-function	Temperature varies with time	°C	All	Figure 3
Underground tunnels	Step-function	Temperature varies with time	°C	All	Figure 2
Deep Lake Temperature	Constant temperature	2	°C	All	-
Intermediate Lake Temperature		0			
Shallow Lake Temperature	Step-function	Temperature varies with time	°C	All	Figure 2
Geothermal Gradient	Constant	0.017	°C/m	All	-

Figure 2 shows the monthly surface ground temperature, shallow lakes temperature and underground tunnel temperature functions used as boundary conditions. When underground workings are scheduled for construction, the underground temperature function is applied to the outer walls of each tunnel. The surface ground temperature function is applied to areas away from lakes and to the foundation of Lakes A8 when it is dewatered during operations.

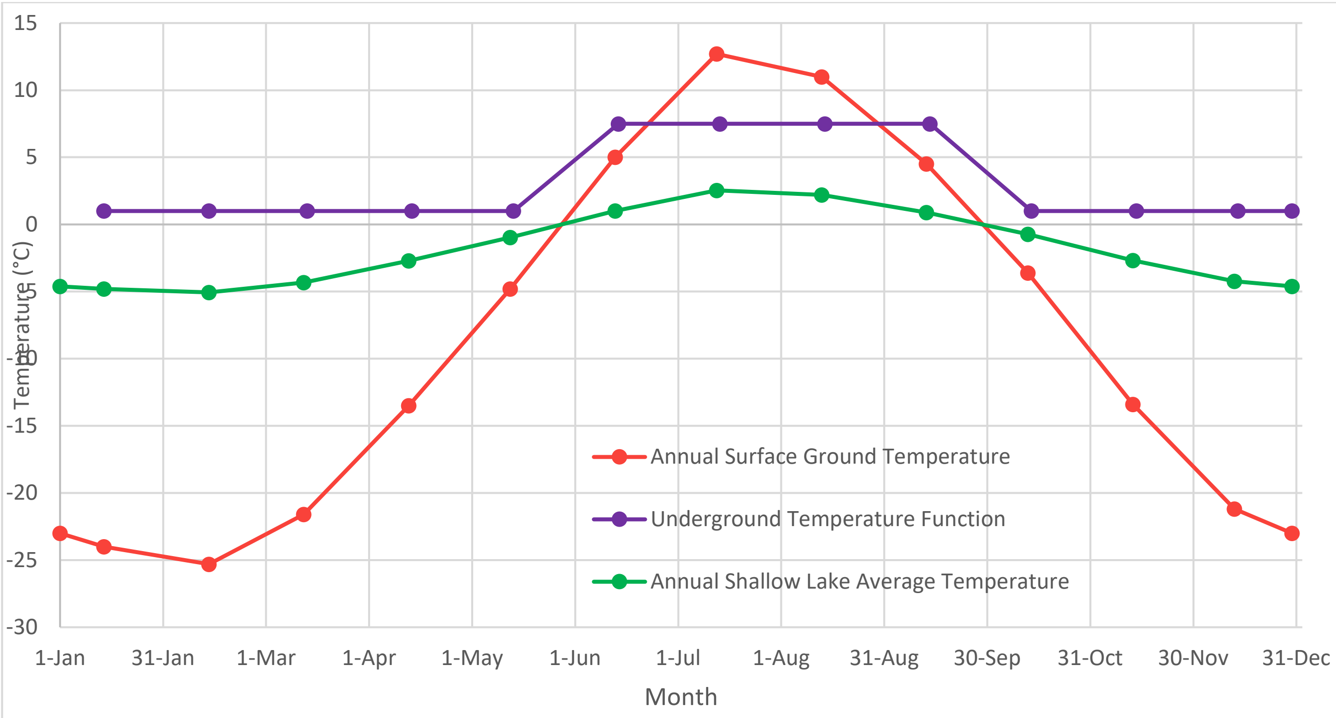

Figure 2: Ground Surface and Underground Air Temperature Functions

TH-01 and TH-02 installed within Pit Tiri02 have measured the temperature of stored saline water between July 2021 to March 2024. The measured temperature of flooded saline water with time was applied to each pit when flooded with saline process water. Over a duration of about 2.5 years, the temperature decreases from 11.4°C to -1.9°C, as shown in Figure 3.

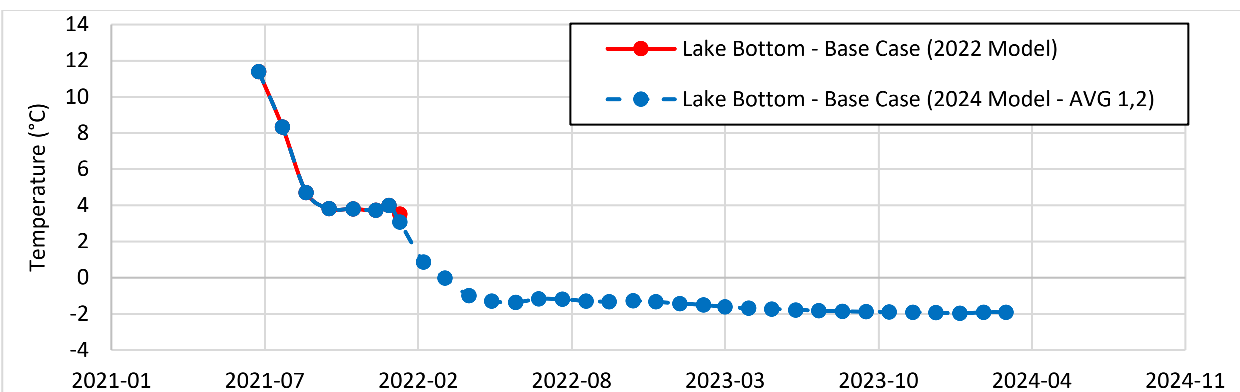

Figure 3: Model Saline Water Temperature Boundary Condition During Operations

4.5 Model Assumptions and Limitations

This study constitutes a simplification of the field reality and carry limitations that shall be taken into consideration for interpretation of model results. The most important model limitations are as follows:

- 2D thermal models can only capture heat transfer along the cross-sections and do not incorporate the dynamics of 3D heat transfer coming from adjacent areas. This limitation has greater effects on model results for cross-sections that include large stretches crossing lakes, or sections crossing shallow and narrow lakes, where the 3D nature of heat transfer from adjacent ground would limit the effect of the lake on permafrost conditions. This limitation was partially overcome by using wide cross-sections, positioning cross-sections that are perpendicular to each other, and adjusting the mean temperature of shallow lakes.
- Pits are assumed to be instantaneously excavated and flooded; no staged construction or cooling back process was considered, which is more conservative than reality.
- A minimum 100-m crown pillar was applied beneath each pit if UG exists below pits.
- The 2D models considered a single, general type of bedrock lithology across the site. Different bedrock lithologies and fracture conditions can affect the rock thermal properties, heat flow patterns and, consequently, variations in ground temperature. This limitation was partially overcome by relying on model input parameters that have been calibrated in previous studies.
- The monthly surface ground temperature function used in the models has yet to be calibrated against site measurements, therefore model results for near-surface areas adjacent to pits and beneath lakes that are temporarily dewatered during operations have less accuracy than model results for areas beneath the pits, which are the primary focus of this study.
- Transient temperature conditions for saline water in Pit WES02 and Pump02 are assumed to follow the same cooling trend observed in Tiri02. The pit lake temperature will depend on salinity levels and may change from pit to pit.

5.0 MODEL RESULTS

Figures in Attachment 1 show temperature profiles below pits and temperature contours across each model section. As discussed in Section 3, open pit excavation and saline/contact water storage schedules are different for the six pits, but mine operation for all six pits ends in 2036. Temperature profiles show temperatures below pits at the beginning of flooding, middle time of mine operation and end of operation (2036). Temperature contour plots are shown at the beginning of flooding and end of operation (2036).

In this study, cryopeg is defined as regions of unfrozen bedrock within permafrost with temperatures less than 0°C, which correlates with a depressed freezing point of groundwater due to high concentrations of dissolved salts, preventing it from freezing. Thawed ground is further defined as zones where temperatures exceed 0°C, which is the freezing point of contact water.

The evolution of temperature profiles was evaluated underneath each pit. The locations where temperature profiles were extracted are shown in each model cross-section in Figures A-2 to A-6.

The following sections provide an assessment of the thermal regime predicted for each cross-section.

5.1 Summary Results for Saline Water Storage during Operation

Three (3) pits were modelled with saline water storage during operation through 2036. The lowest temperature between pit bottom and underground workings are presented in Table 11. As the temperature of saline water was measured to stabilize at -1.9 degrees Celsius, no thawing below the pits is predicted to occur during operations, with some thaw predicted to develop immediately above underground workings.

Figure A-7 shows the temperature profiles below Tiri02 pit bottom from 2021 to 2036. Figures A-8 and A-9 show temperature contours of 2021 and 2026 for Tiri02. The crown pillar remains mostly frozen during operation excepts for a small zone about 6 m above the UG workings.

Figure A-10 shows temperature profiles below WES02 pit bottom. Figures A-12 and A-13 show temperature contours of 2028 and 2036 for WES02 and WES03 in East Alignment. The crown pillar beneath WES02 remains frozen during operation with saline water in WES02.

Figure A-17 shows temperature profiles below Pump02 pit bottom. Figures A-19 and A-20 show temperature contours of 2027 and 2036 for Pump02 in the West Alignment. There is no thaw immediately below pit bottoms during operation with saline water storage.

Table 11: Lowest Temperature and Extent of Frozen Ground between Pit Bottom and UGs: Operation with Saline Water Storage

Cross-section	Pit Name	Pit Bottom Elevation (masl)	End of Operations (with Saline Water) 2036			
			Lowest Temperature and Location		Frozen Range[a, b]	
			(°C)	Elevation (masl)	From (masl)	To (masl)
Tiri02	Tiri02	-65	-3.4	-100	-159	-65
East Alignment	WES02	-55	-3.6	-96	-155	-55
West Alignment	Pump02	5	-3.7	-42	-95	5

(a) Thaw temperature is assumed as 0°C.

(b) Only frozen bedrock between crown pillar of underground work and open pit bottom is reported.

(c) masl = meters above sea level.

5.2 Summary Results for Contact Water Storage during Operation

Three pits (WES03, Pump01 and FZone02) were modelled filled with contact water during operation. The lowest temperature of 100 m below pit bottom, and the extent of frozen ground within the crown pillar are listed in Table 12.

Pit WES03 was included in both Cross-section East Alignment and West Alignment. From Table 12, it is found that crown pillar beneath Pit WES03 remains mostly frozen during operation for both East and West Alignment.

Thaw depth induced by contact water beneath Pump01 is predicted to be 15 m from 2026 to 2036 (Figure A-14). Figures A-15 and A-16 show temperature contours in 2026 and 2036 for Pump01. Based on the latest UG plan (CAD drawings) provided by Agnico Eagle, there are no underground works below Pump01.

Figure A-21 shows temperature profiles below FZONE02. It is found the permafrost gradually warm up and thaw from pit bottom to a depth of about 14 m below the pit bottom from 2029 to 2036. Figures A-22 and A-23 show temperature contours in 2026 and 2036. Based on the latest mine plan, there are no UG works below FZone02.

Table 12: Lowest Temperature and Extent of Frozen Ground Between Pit Bottom and UGs: Operation with Contact Water Storage

Cross-section	Pit Name	Pit Bottom Elevation (masl)	End of Operations (with Contact Water) 2036			
			Lowest Temperature and Location		Frozen Range[a, b]	
			(°C)	Elevation (masl)	From (masl)	To (masl)
East Alignment	WES03	13	-2.9	-35	-75	0
West Alignment	WES03	-5	-1.1	-61	-105	-29
Pump01	Pump01	25	-5.5	-75	-75	10
FZone02	FZone02	5	-4	-95	-95	-9

(a) Thaw temperature is assumed as 0°C.
(b) Only frozen bedrock between crown pillar of underground workings and open pit bottom is reported.
(c) masl = meters above sea level.

6.0 CONCLUSIONS

The effects on permafrost of storing saline (Tiri02, WES02 and Pump02) or contact water (WES03, Pump01 and FZone02) in multiple pits at the Meliadine Mine Site was assessed during proposed operation stage to evaluate warming trends and the extent of thaw underneath each pit. Underground workings were assumed to start 100 m below all pits and were added to the model geometry from its mine schedule until the end of operations in 2036.

Five cross-sections and six open pits were prepared based on the latest UG geometries provided by Agnico Eagle in January 2026. Based on simulations for different storage materials, the key conclusions are as follows:

- Overall, the simulations indicate no connected thawed zones (above 0°C) will develop during operations between pit bottoms and underground workings, although a warming trend is predicted within the crown pillar.
- Freezing temperature of saline water in Tiri02 is measured as -1.9 °C. Provided that this low temperature is sustained, the storage of saline water will keep bedrock below pit bottom frozen (i.e., less than 0°C). However, flow of saline water into bedrock will depend on salinity of bedrock pore water and the associated freezing point depression.
- Underground workings have noticeable impact on the surrounding bedrock temperature during operation, especially in high-density UG areas.
- In-pit storage of relatively warm (i.e., around 4 °C) contact water during operations is predicted to cause the bedrock to thaw progressively below the pit. For WES03, bedrock thaw depth is different for different locations from 2028 to 2036: 13 m below the pit bottom of East Alignment, and 24 m below the pit bottom of West Alignment. For Pump01, frozen bedrock is predicted to thaw to a depth of about 15 m below the pit bottom from 2026 to 2036, while thaw depth beneath FZone02 from 2029 to 2036 is approximately 14 m below the pit bottom.

7.0 CLOSURE

The reader is referred to the Study Limitations section, which follows the text and forms an integral part of this memorandum.

We trust that this report provides the information that you require currently. Please do not hesitate to contact the undersigned if you have any questions or require any further clarification.

Yours sincerely,

WSP Canada Inc.

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Attachment 1: Figures

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The report is intended to be used in its entirety. No excerpts may be taken to be representative of the findings in the assessment.

The conclusions presented in this report are based on work performed by trained, professional and technical staff, in accordance with their reasonable interpretation of current and accepted engineering and scientific practices at the time the work was performed.

The content and opinions contained in the present report are based on the observations and/or information available to WSP at the time of preparation, using investigation techniques and engineering analysis methods consistent with those ordinarily exercised by WSP and other engineering/scientific practitioners working under similar conditions, and subject to the same time, financial and physical constraints applicable to this project.

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This limitations statement is considered an integral part of this report.

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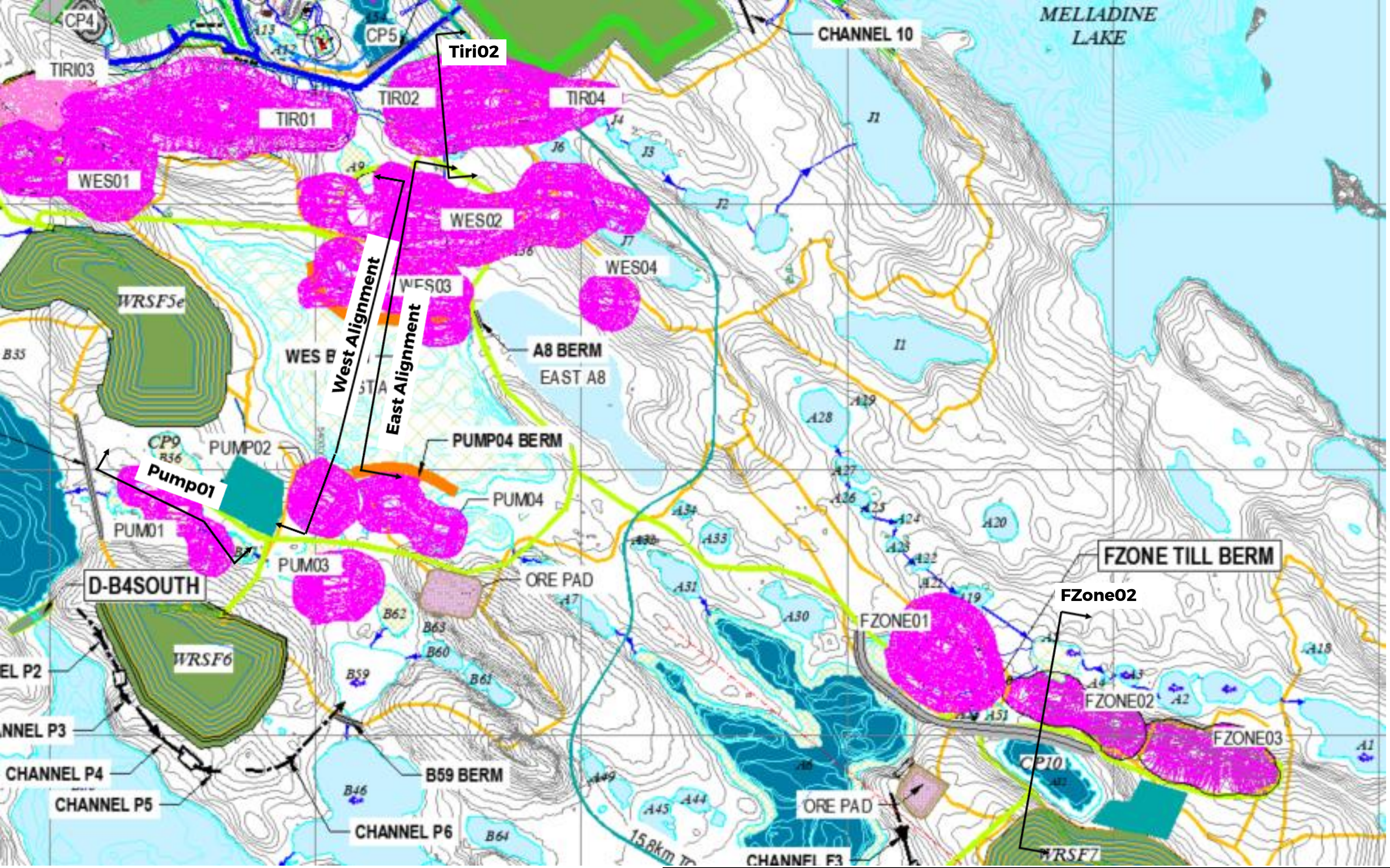
ATTACHMENT 1

Figures



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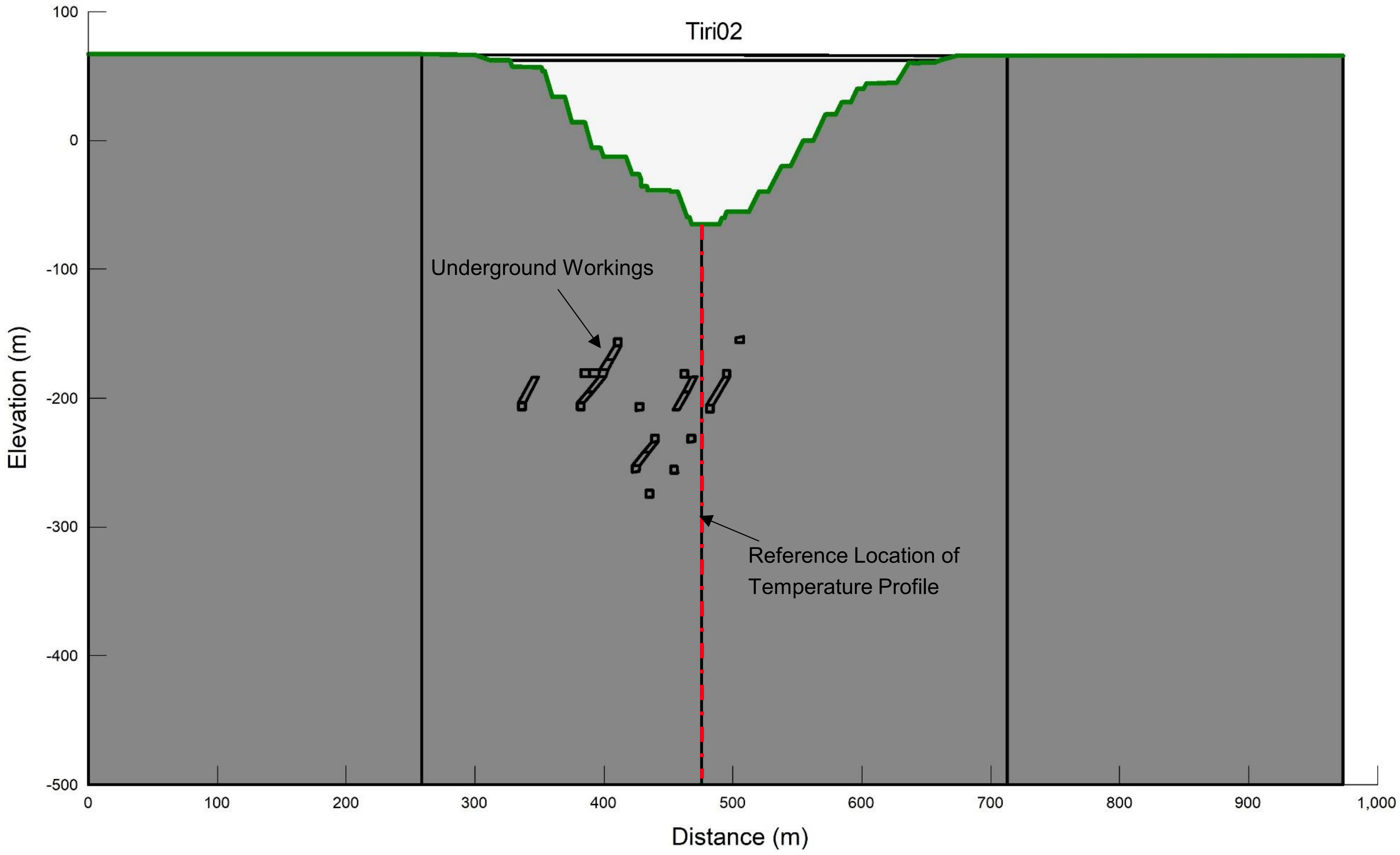
wsp

YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
Location of Selected Model Cross-sections

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-1**



PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
Cross-section of Tiri02 Model

CONSULTANT		
	YYYY-MM-DD	2026-03-08
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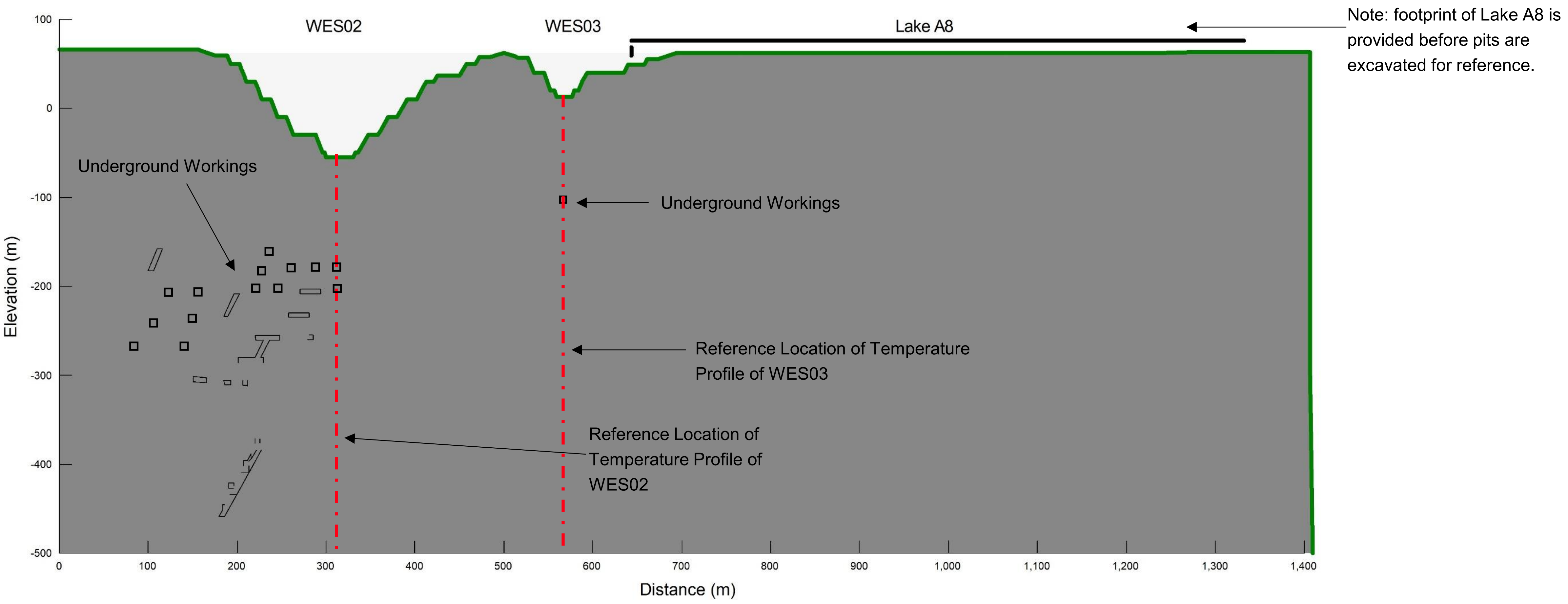
	REVIEWED	FJ
	APPROVED	FJ

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-2**



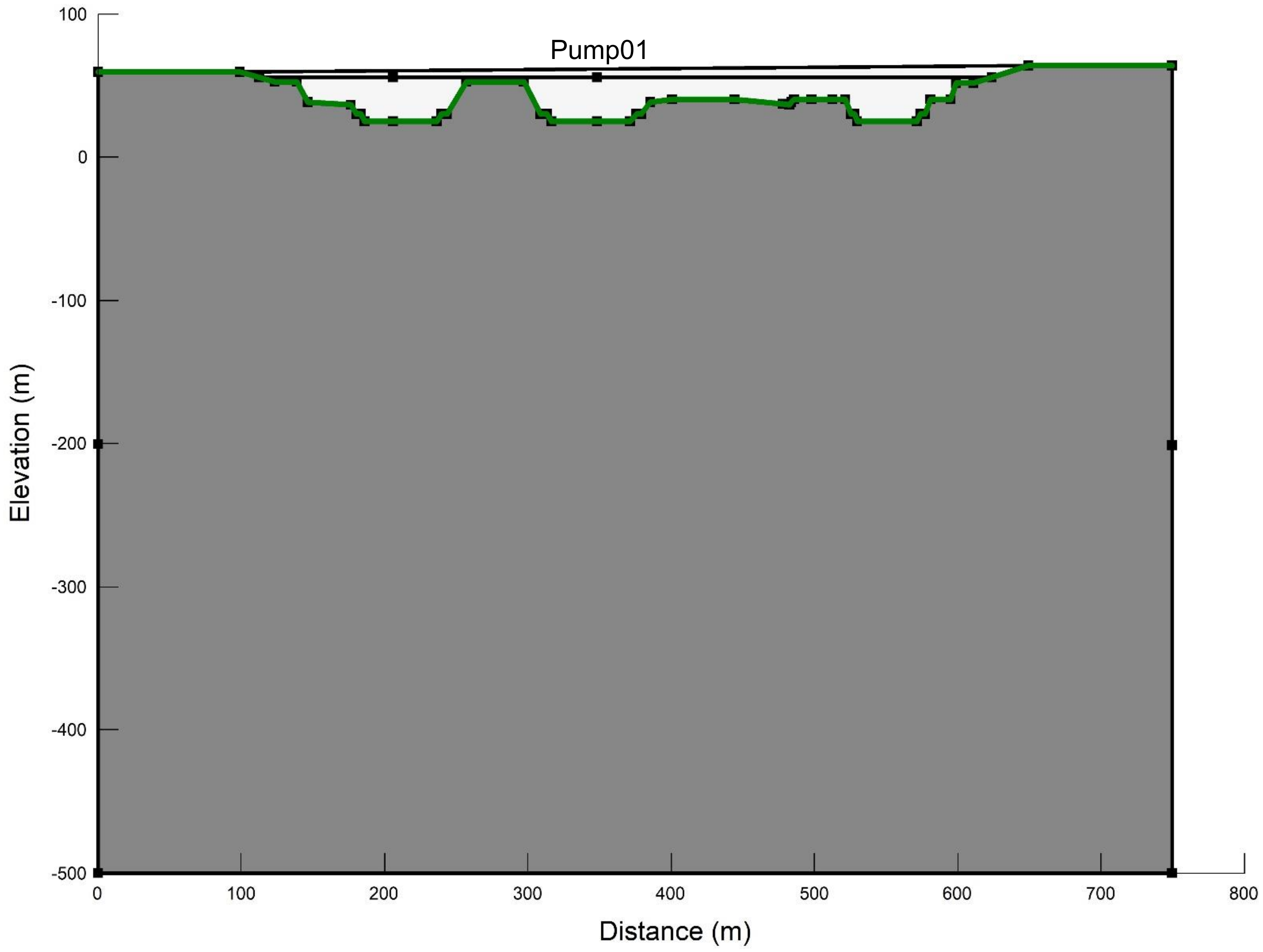
CONSULTANT

YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
Cross-section of East Alignment Model

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-3**

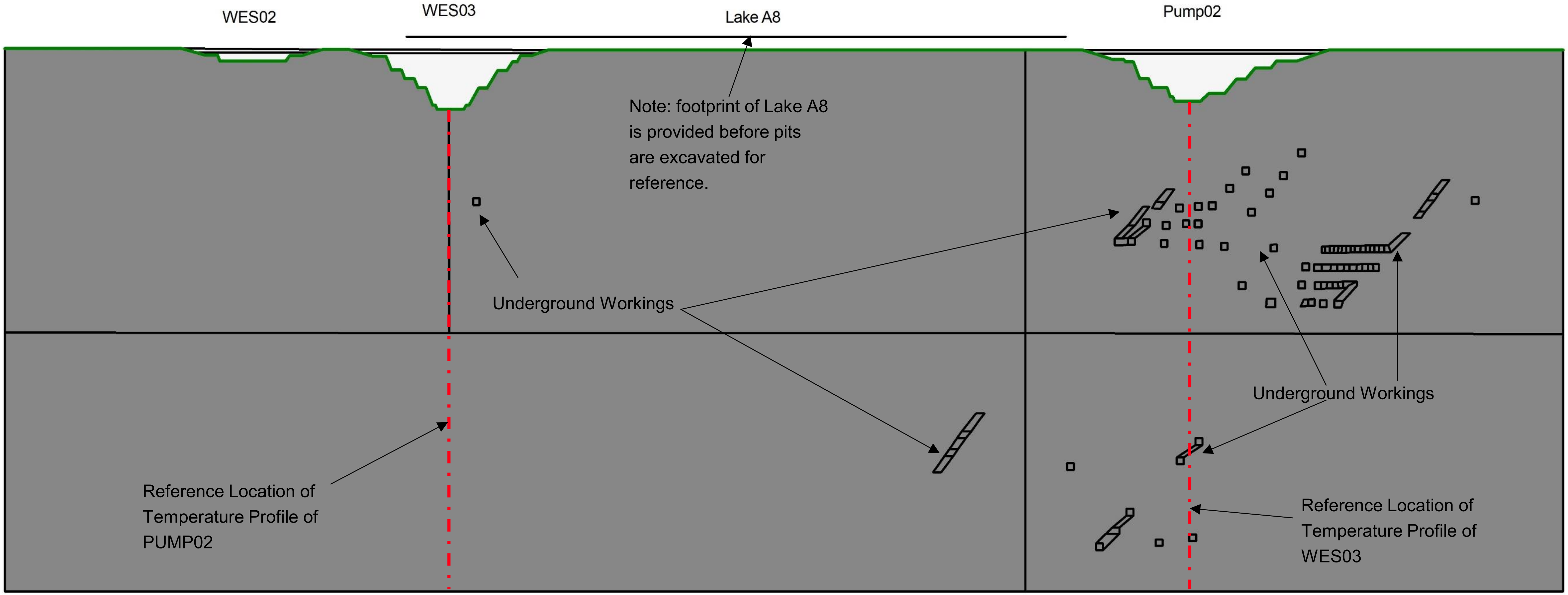


CONSULTANT		YYYY-MM-DD	2026-03-08
		PREPARED	JX
		REVIEWED	FJ
		APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
Cross-section of Pump01 Model

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-4**



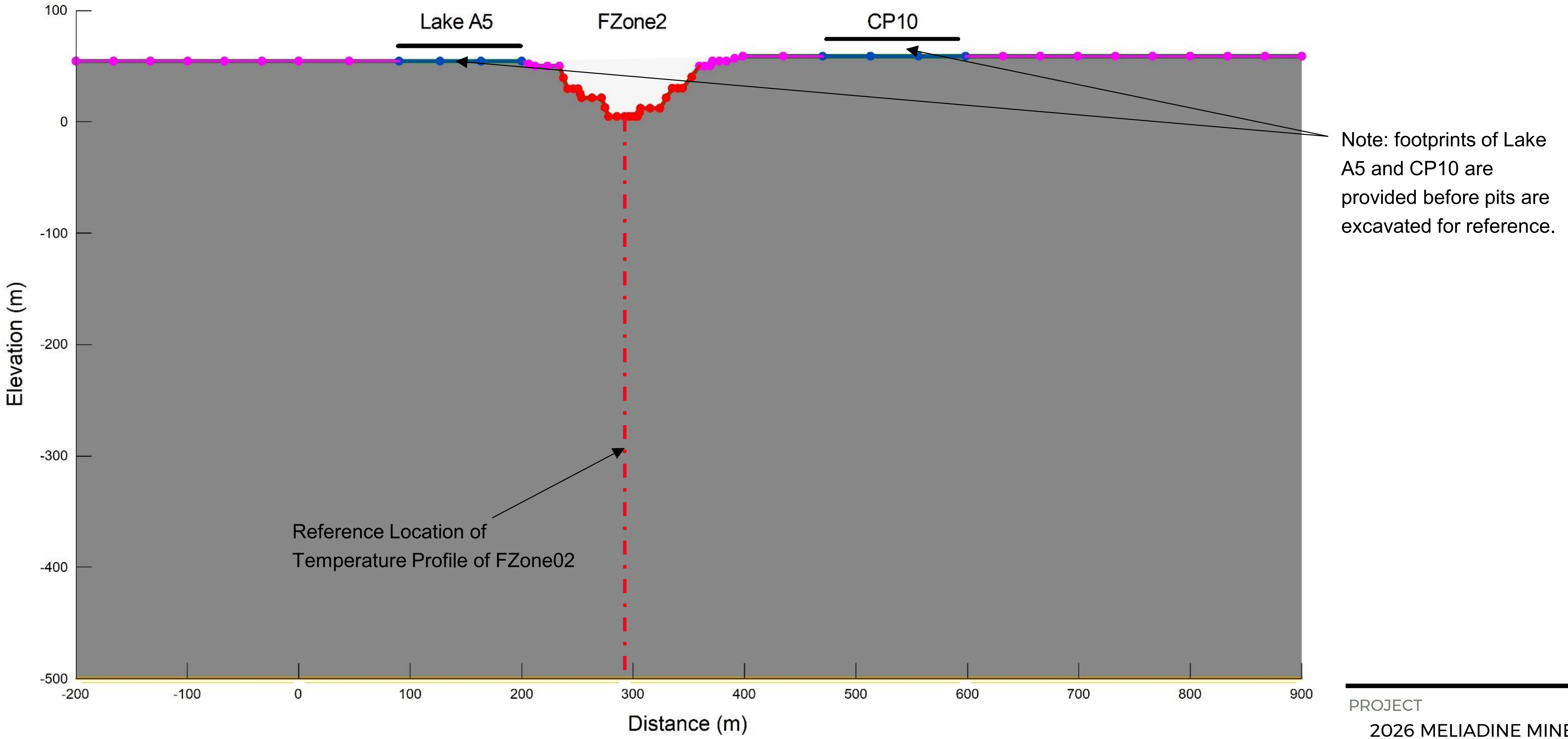
PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
Cross-section of West Alignment Model

CONSULTANT

YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	A-5



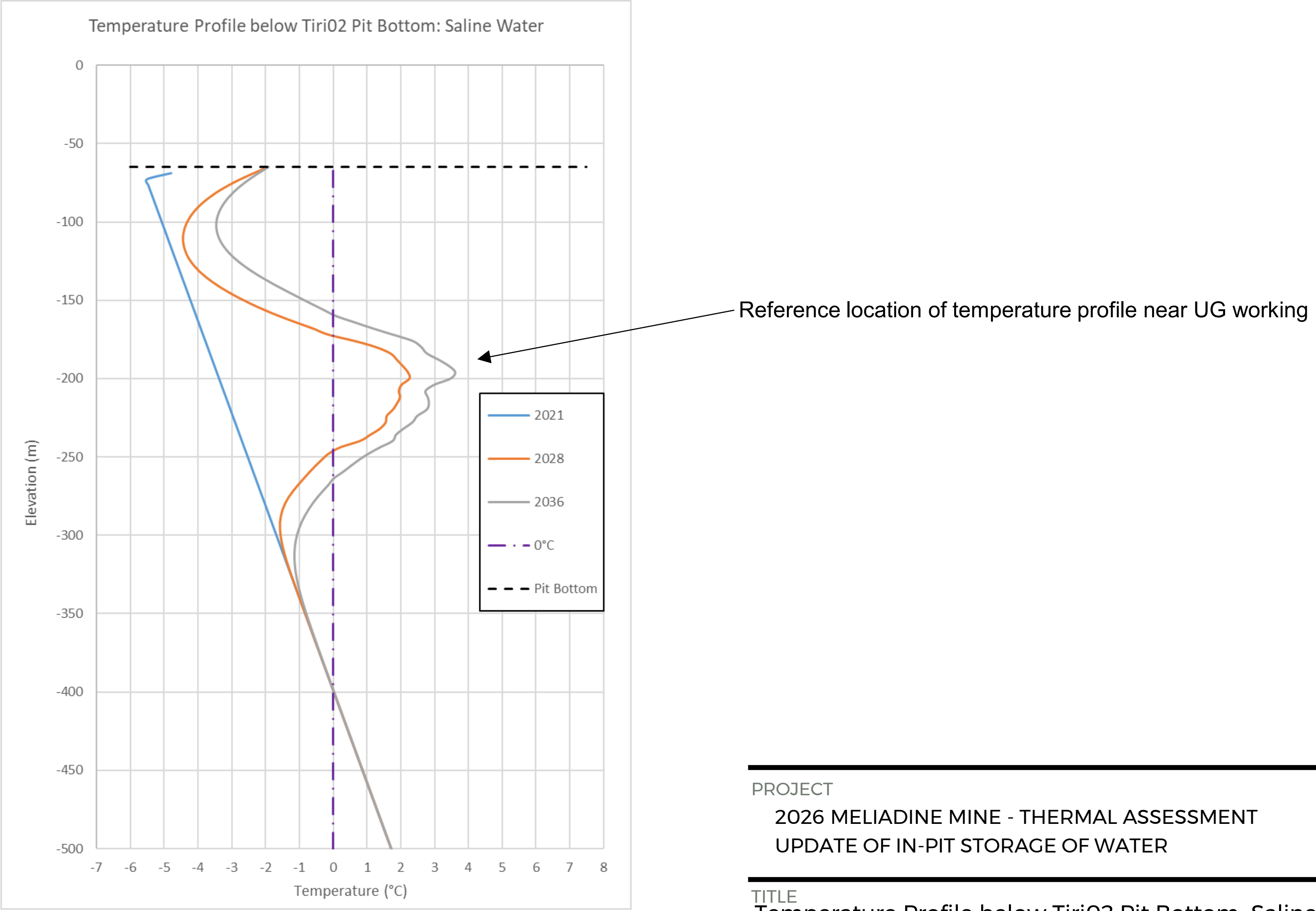
CONSULTANT	
YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT UPDATE OF IN-PIT STORAGE OF WATER

TITLE
Cross-section of FZone02 Model

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-6**

Tiri02 - Saline Water during Operation



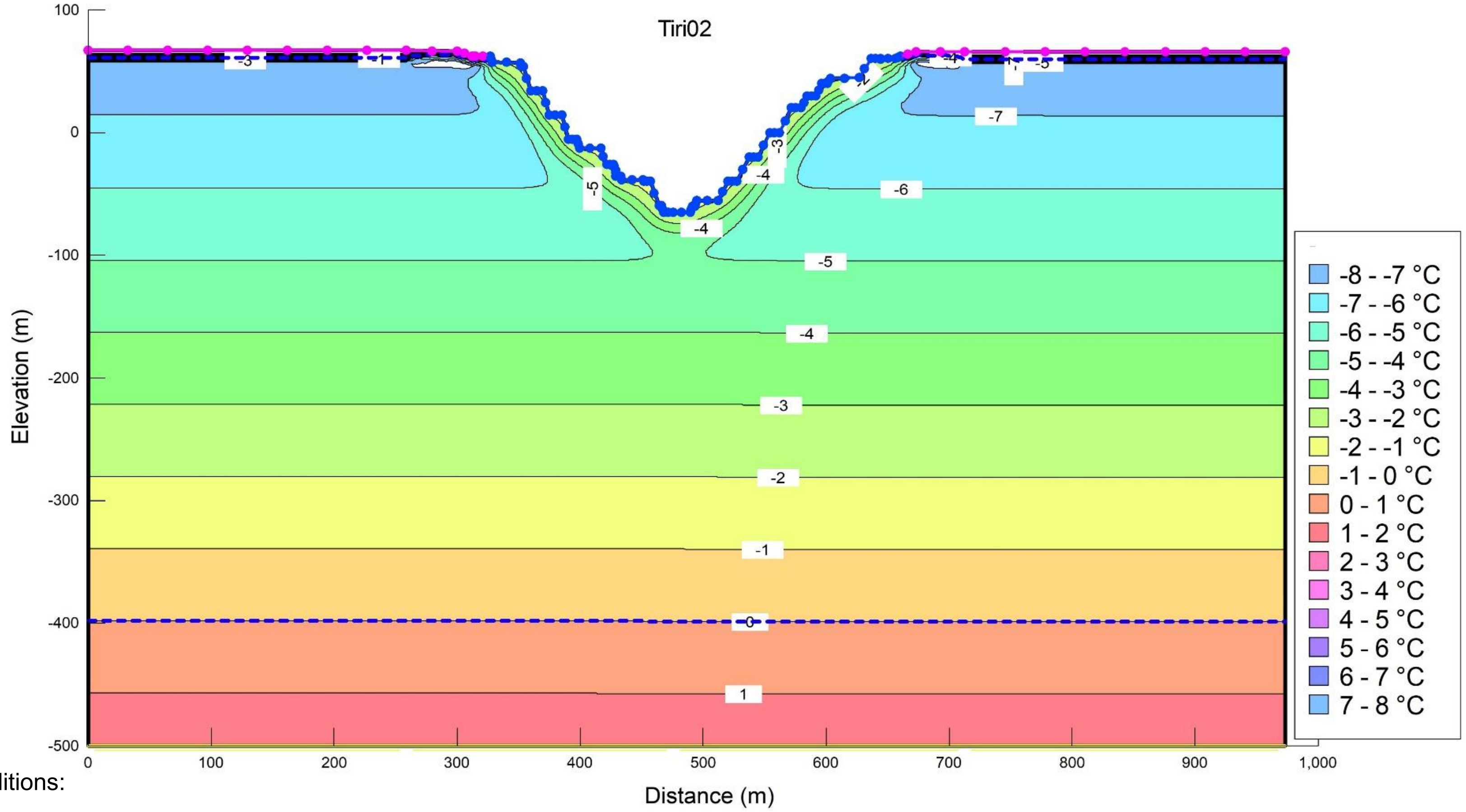
CONSULTANT	
YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
Temperature Profile below Tiri02 Pit Bottom: Saline Water Storage during Operation

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-7**

Note:
(1) UG = Underground.
(2) Temperature profile location of Tiri02 is shown in Figure A-2



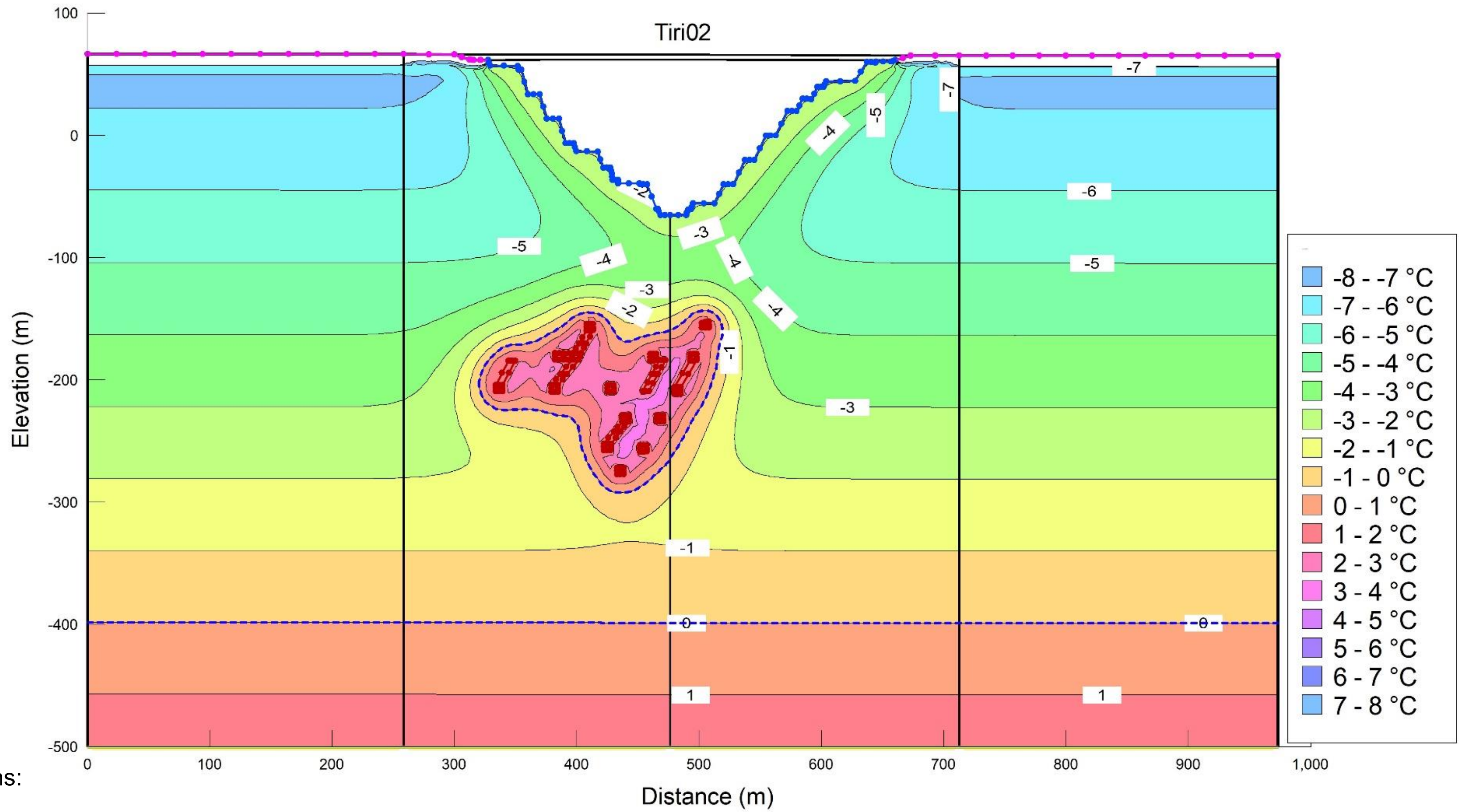
Ground Surface Boundary Conditions:

- Average Ground Temperature Function
- Saline Water Function

Note: The blue dotted line represents the isotherm for 0°C.

PROJECT	2026 MELIADINE MINE - THERMAL ASSESSMENT UPDATE OF IN-PIT STORAGE OF WATER
TITLE	Tiri02 Temperature Contours: Initial Temperature Conditions when Pit Tiri02 is excavated in 2021
CONSULTANT	wsp
YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-8**



Ground Surface Boundary Conditions:

- Average Ground Temperature Function
- Saline Water Function

Note: The blue dotted line represents the isotherm for 0°C.

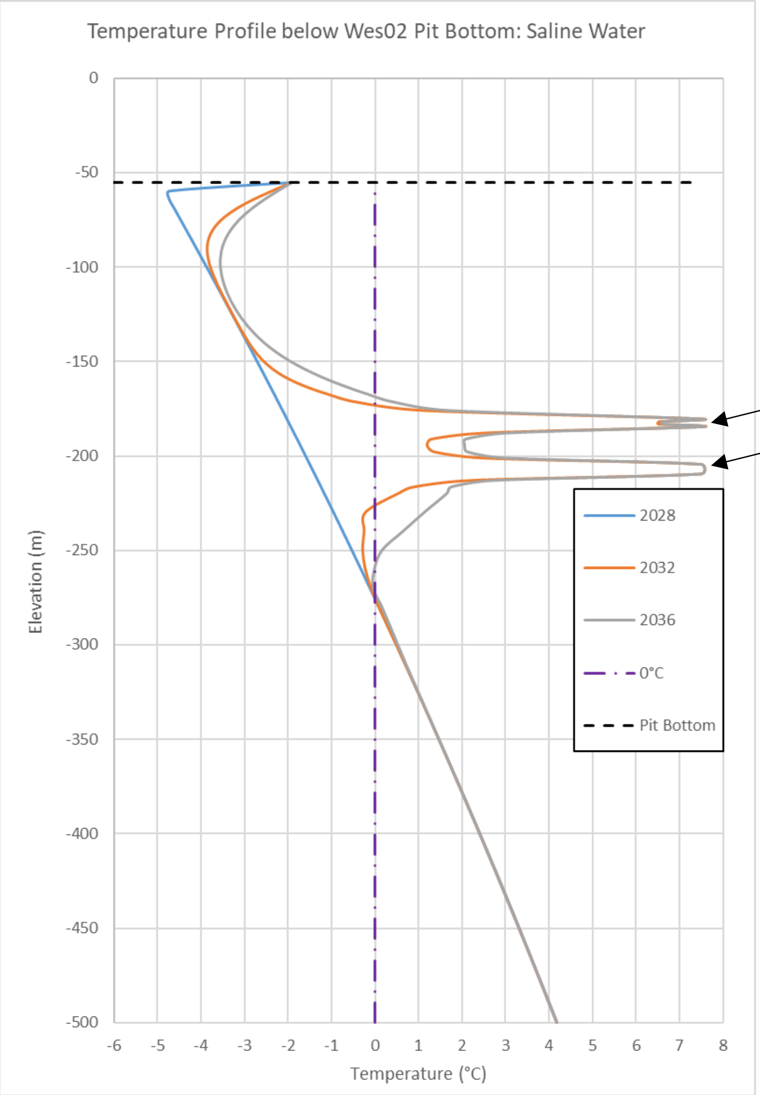
CONSULTANT	wsp
YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
Tiri02 Temperature Contours: Saline Water Storage during Operation, 2036

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-9**

WES02 (East Alignment) - Saline Water during Operation



Reference location of temperature profile intercepts UG working

PROJECT

2026 MELIADINE MINE - THERMAL ASSESSMENT UPDATE OF IN-PIT STORAGE OF WATER

TITLE

Temperature Profile below WES02 Pit Bottom: Saline Water Storage during Operation in East Alignment

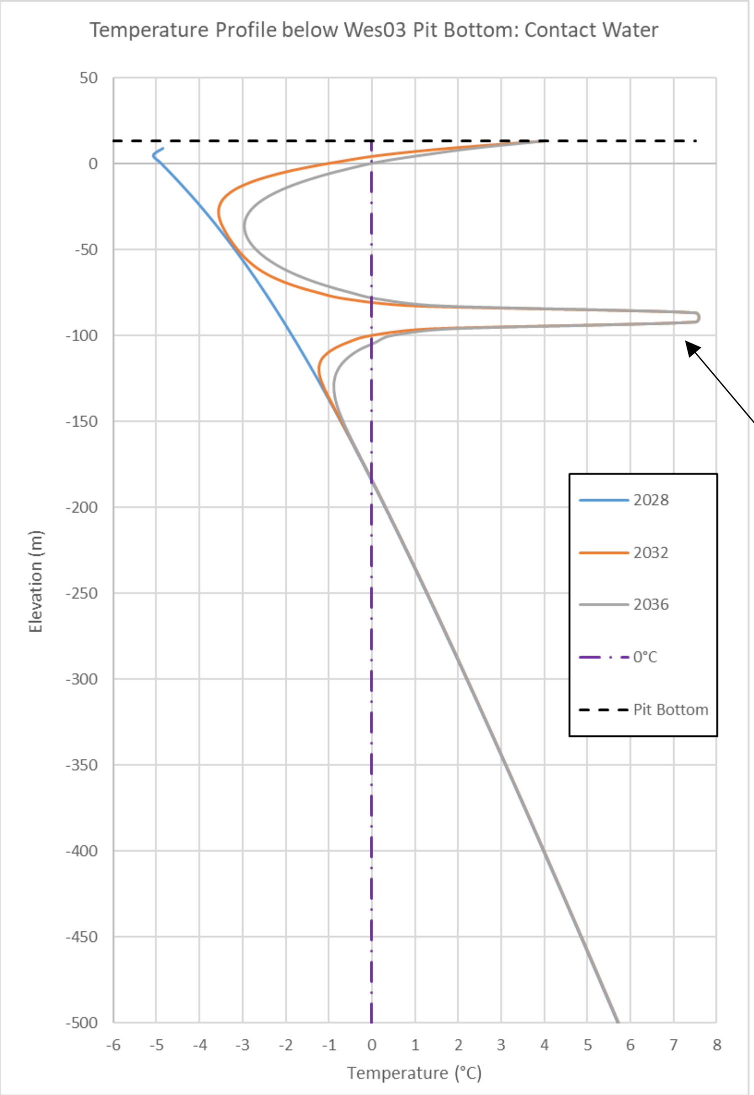
CONSULTANT

YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-10**

Note:
(1) UG = Underground.
(2) Temperature profile location of Wes02 and Wes03 in East Alignment are shown in Figure A-3

WES03 (East Alignment) - Contact Water during Operation



Reference location of temperature profile intercepts UG working

PROJECT	
2026 MELIADINE MINE - THERMAL ASSESSMENT UPDATE OF IN-PIT STORAGE OF WATER	

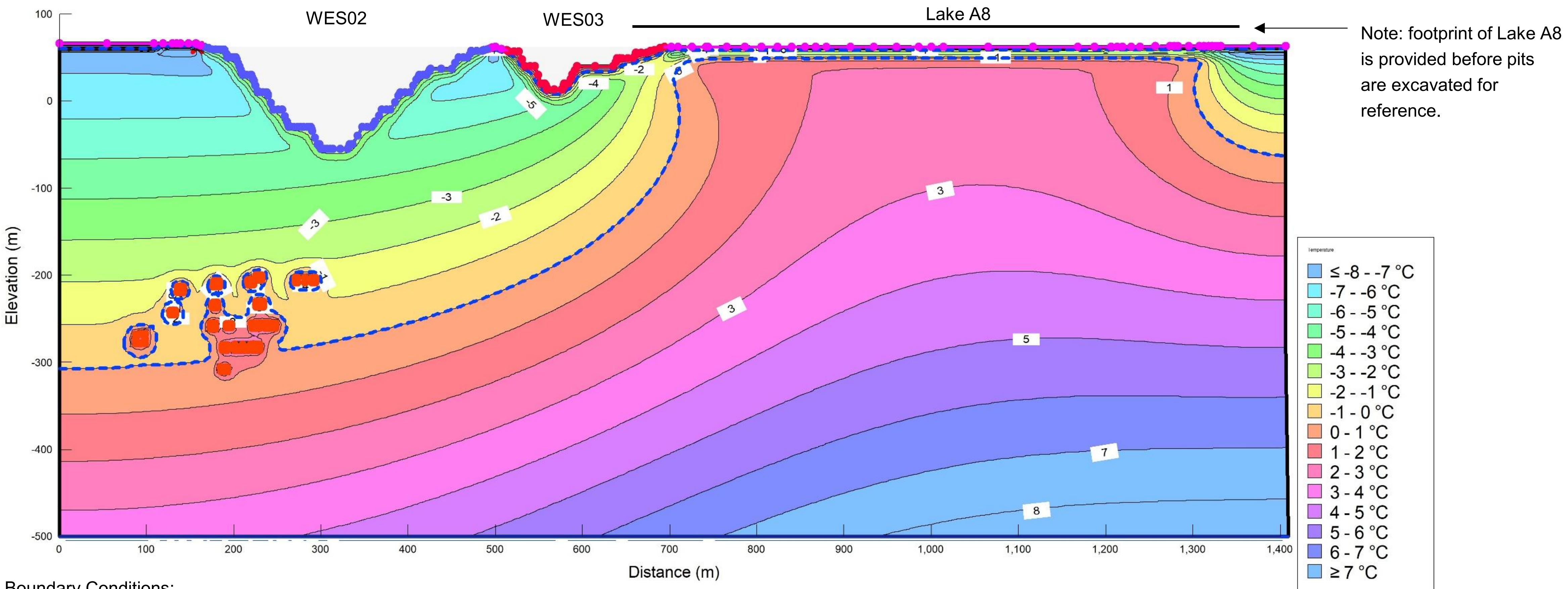
TITLE
Temperature Profile below WES03 Pit Bottom: Contact Water Storage during Operation in East Alignment

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-11**

CONSULTANT

YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

Note:
(1) UG = Underground.
(2) Temperature profile location of Wes02 and Wes03 in East Alignment are shown in Figure A-3



Ground Surface Boundary Conditions:

- Average Ground Temperature Function
- Saline Water Function
- Contact Water Temperature

Note:
(1) Lake A8 is dewatered during operation.
(2) WES02 is filled with saline water from 2028 to 2036.
(3) WES03 is filled with contact water from 2028 to 2036.
(4) The blue dotted line represents the isotherm for 0°C.

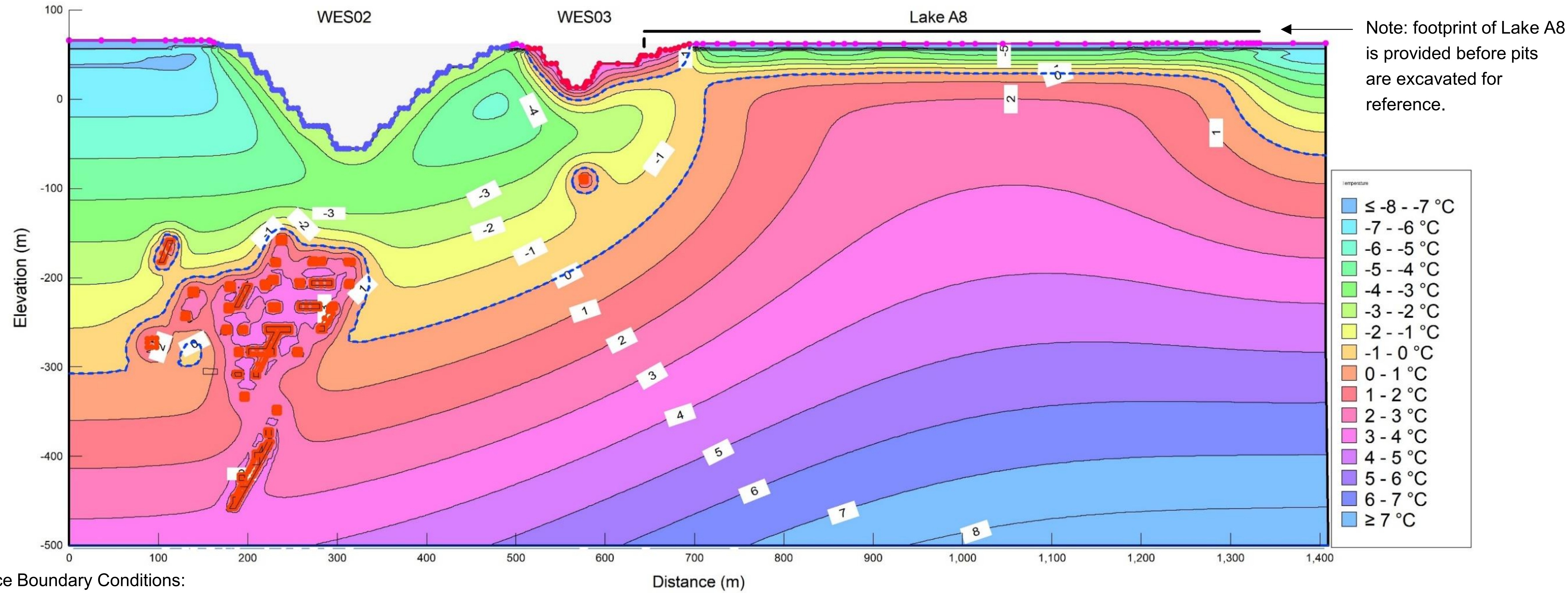
CONSULTANT: wsp

YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
WES02 and WES03 Temperature Contours in East Alignment, when WES02 and WES03 are Excavated in 2028

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	A-12



Ground Surface Boundary Conditions:

- Average Ground Temperature Function
- Saline Water Function
- Contact Water Temperature

Note:
(1) Lake A8 is dewatered during operation.
(2) WES02 is filled with saline water from 2028 to 2036.
(3) WES03 is filled with contact water from 2028 to 2036.
(4) The blue dotted line represents the isotherm for 0°C.

CONSULTANT

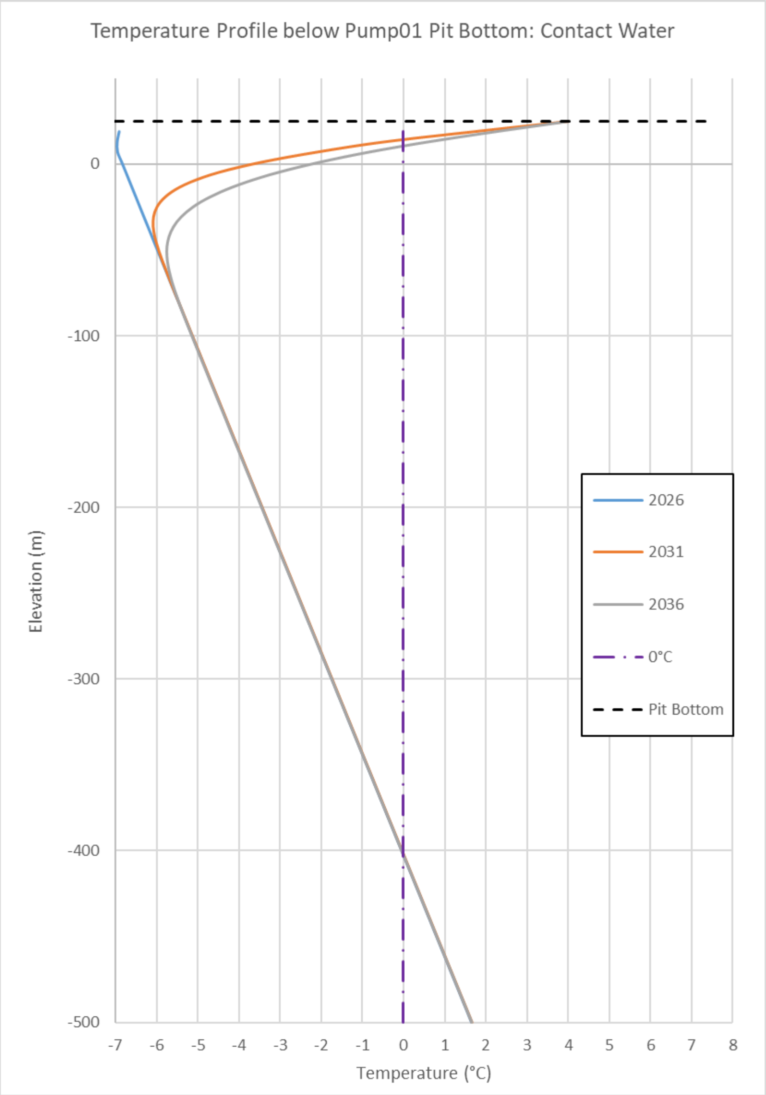
YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
WES02 and WES03 Temperature Contours in East Alignment: Saline (WES02) and Contact Water (WES03) Storage during Operation, 2036

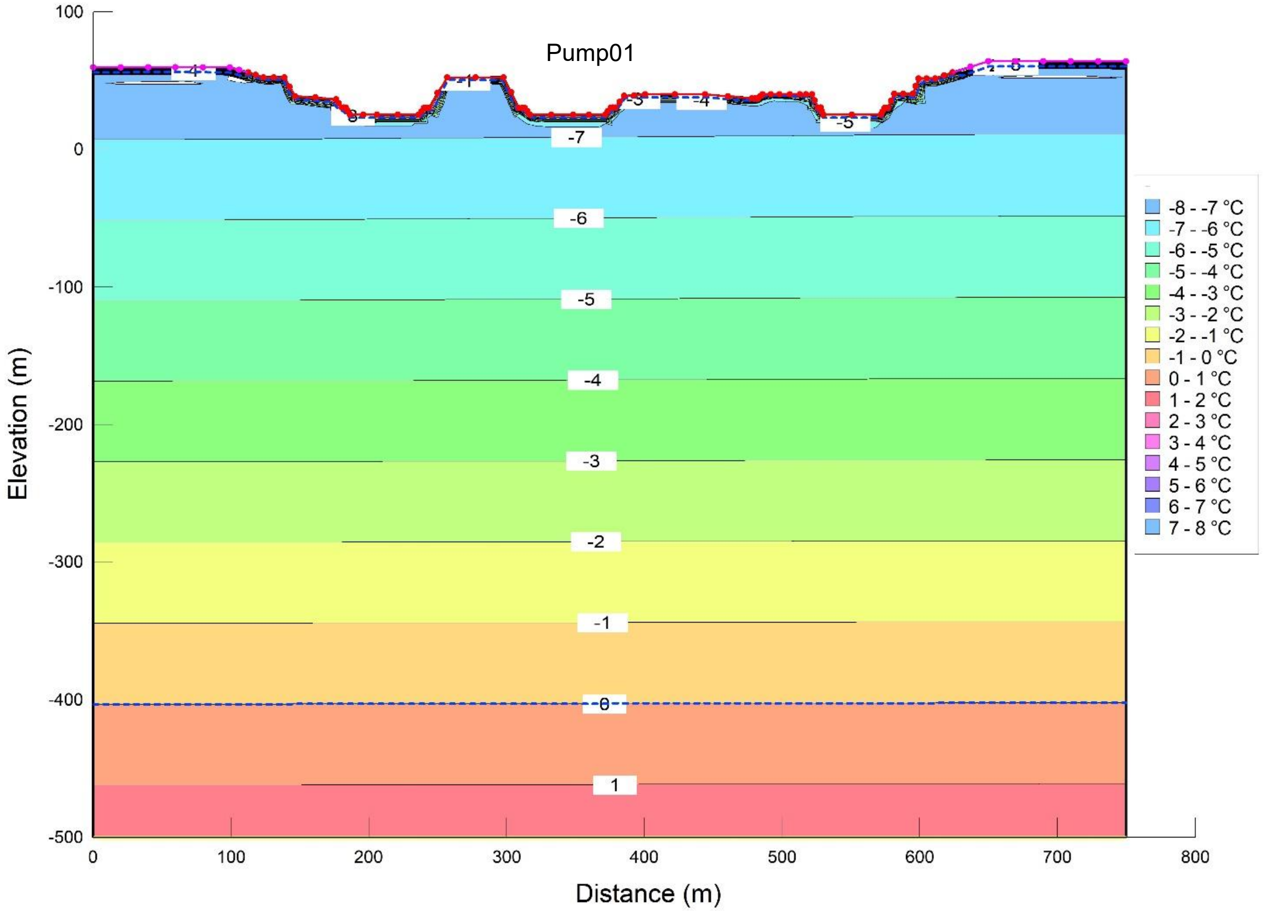
PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-13**

Pump01 - Contact Water during Operation



Note:
(1) There is no underground work below Pump01 from 2026 Mine Plan.
(2) Temperature profile location of Pump01 is shown in Figure A-4

CONSULTANT	YYYY-MM-DD	2026-03-08	PROJECT	2026 MELIADINE MINE - THERMAL ASSESSMENT UPDATE OF IN-PIT STORAGE OF WATER	
wsp	PREPARED	JX	TITLE	Temperature Profile below Pump01 Pit Bottom: Contact Water Storage during Operation	
	REVIEWED	FJ	PROJECT NO. CA0066296.6872	TASK 3020	REV 0
	APPROVED	FJ	FIGURE **A-14**		



Ground Surface Boundary Conditions:

- Average Ground Temperature Function
- Contact Water Temperature

Note: The blue dotted line represents the isotherm for 0°C.

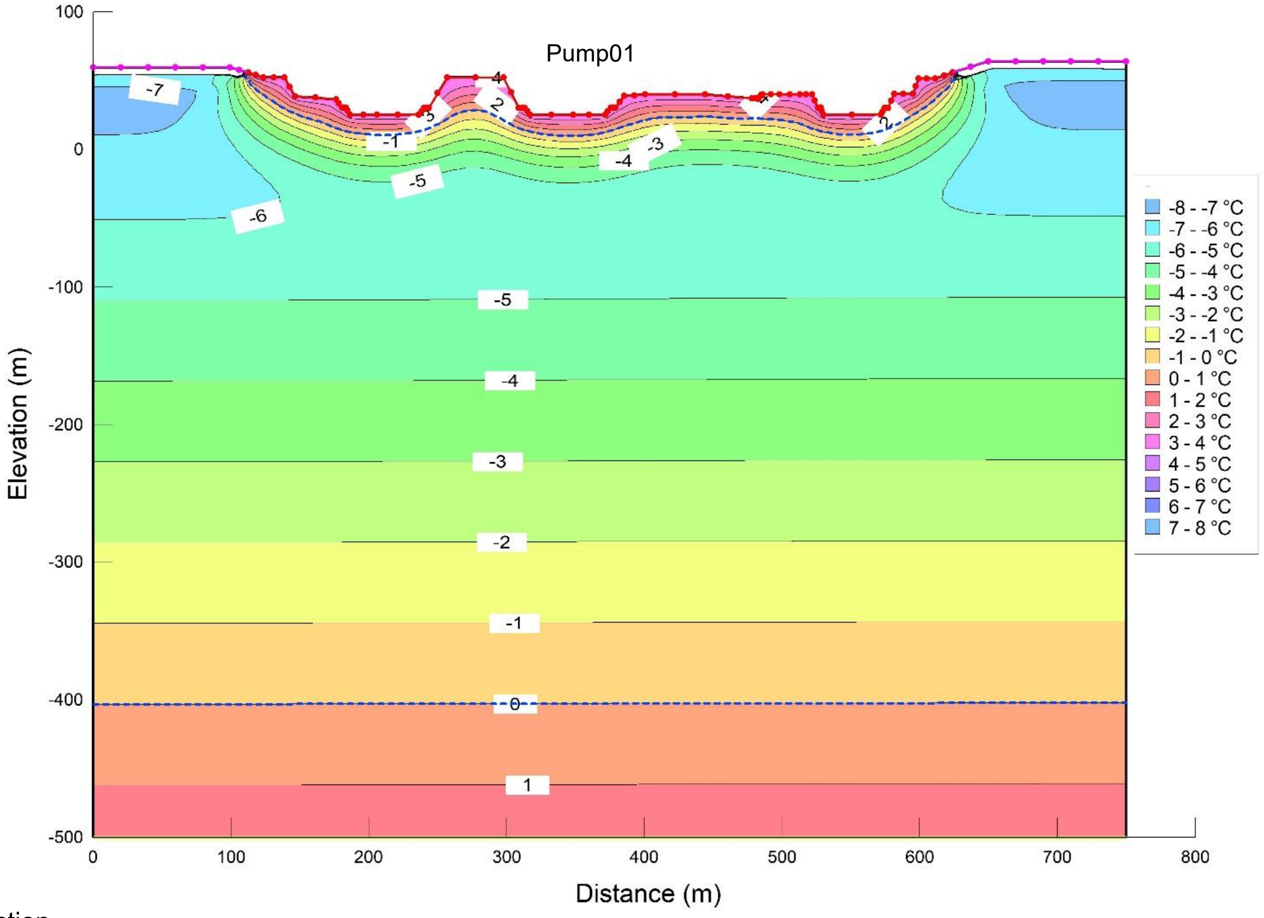
CONSULTANT

YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
PUMP01 Temperature Contours: Initial Temperature Conditions when Pit Pump01 is excavated in 2026

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-15**



Ground Surface Boundary Conditions:

- Average Ground Temperature Function
- Contact Water Temperature

Note: The blue dotted line represents the isotherm for 0°C.

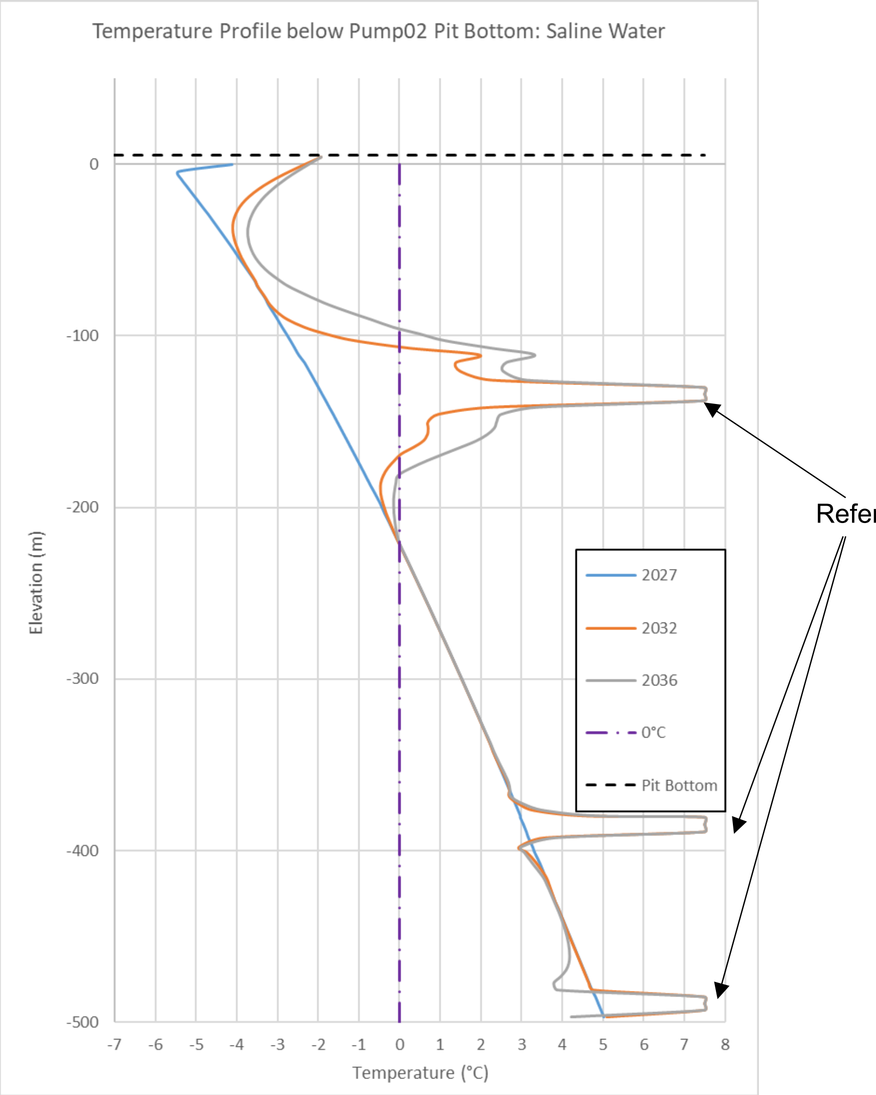
CONSULTANT	wsp	YYYY-MM-DD	2026-03-08
		PREPARED	JX
		REVIEWED	FJ
		APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
Pump01 Temperature Contours: Contact Water Storage during Operation, 2036

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-16**

Pump02 (West Alignment) - Saline Water during Operation



Note:
(1) UG = Underground.
(2) Temperature profile location of Pump02 in West Alignment are shown in Figure A-5

CONSULTANT

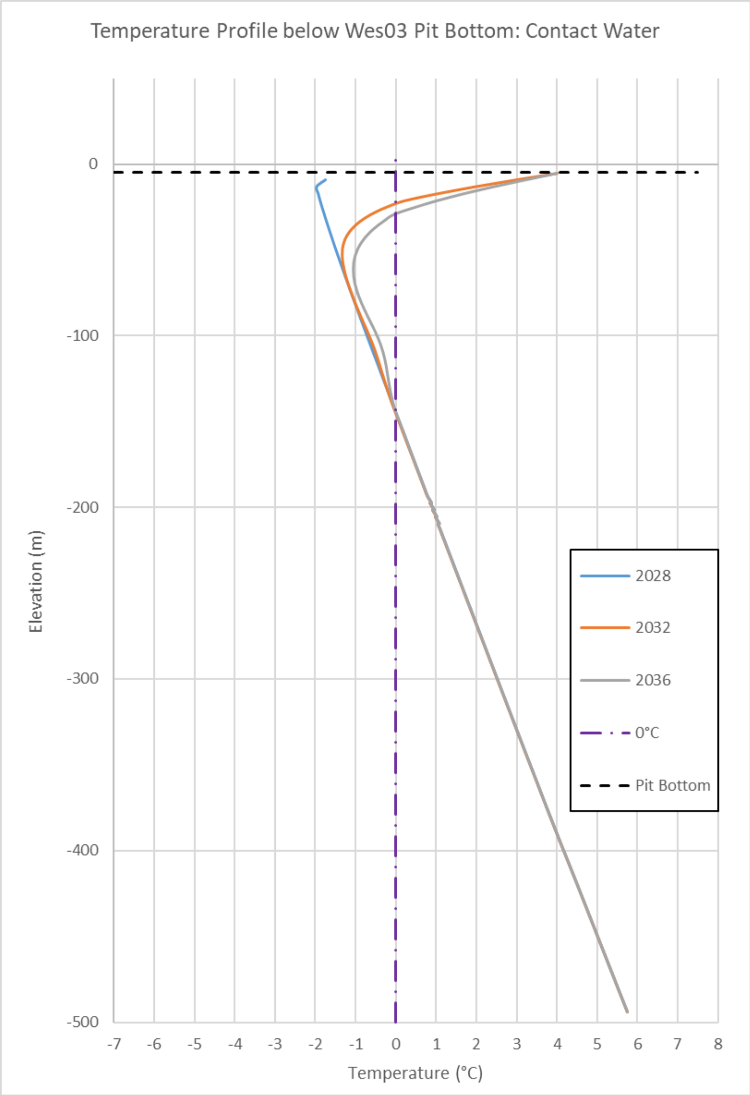
YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT UPDATE OF IN-PIT STORAGE OF WATER

TITLE
Temperature Profile below Pump02 Pit Bottom: Saline Water Storage during Operation in West Alignment

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-17**

WES03 (West Alignment) - Contact Water during Operation



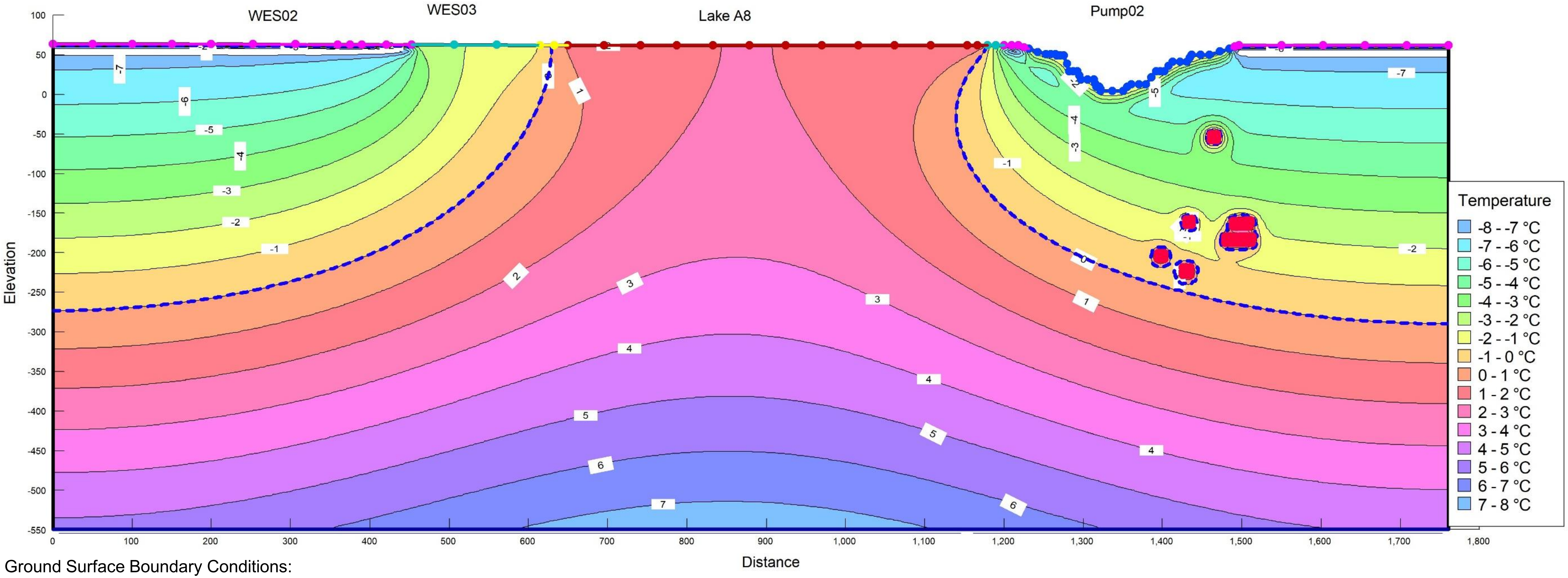
Note:
(1) Temperature profile location of Wes03 in West Alignment are shown in Figure A-5

CONSULTANT	
YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
Temperature Profile below WES03 Pit Bottom: Contact Water Storage during Operation in West Alignment

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-18**



Ground Surface Boundary Conditions:

- Average Ground Temperature Function
- Saline Water Function
- Deep Lake Temperature
- Shallow Lake Temperature
- Intermediate Lake Temperature

Note:

(1) Lake A8 is dewatered during operation of Pump02 and WES03.
(2) Pump02 is filled with saline water from 2027 to 2036.
(3) WES03 is filled with contact water from 2028 to 2036.
(4) Footprint of Lake A8 is provided before pits are excavated for reference.
(5) The blue dotted line represents the isotherm for 0°C.

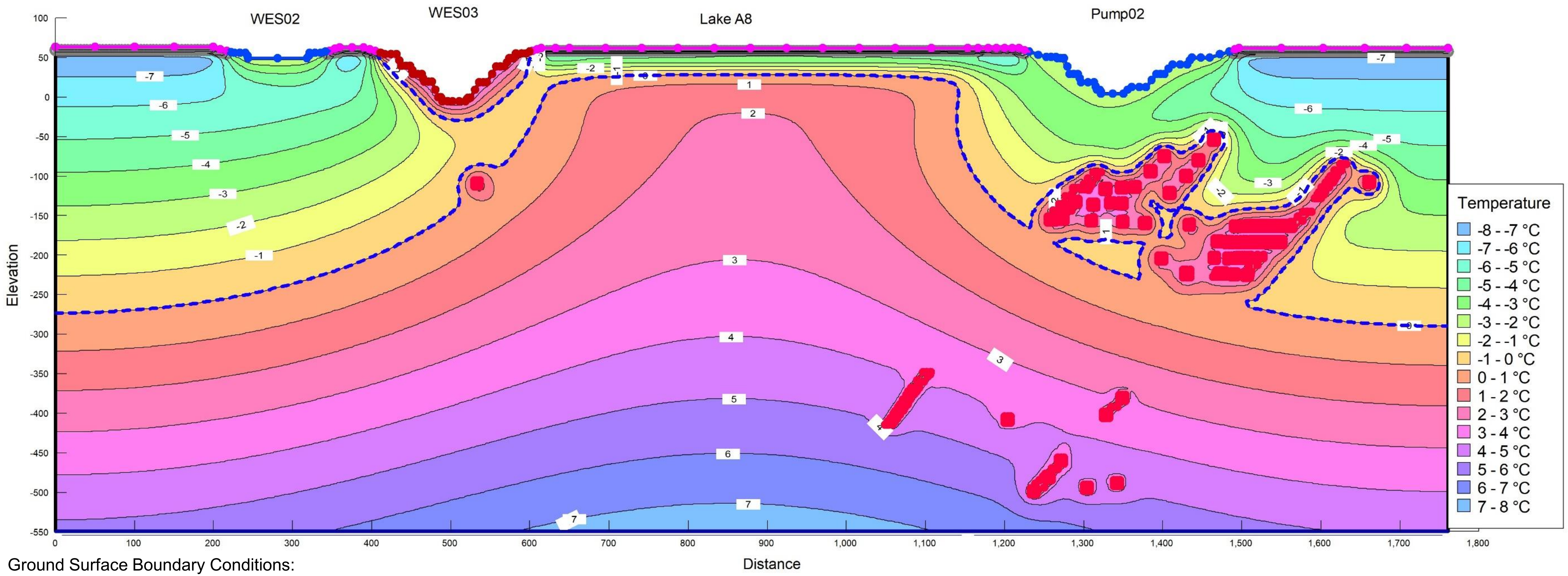
CONSULTANT

YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
Pump02 and WES03 Temperature Contours: Initial Temperature Conditions when Pump02 is excavated in 2027

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	A-19



Ground Surface Boundary Conditions:

- Average Ground Temperature Function
- Saline Water Function
- Contact Water Temperature

Note:

(1) Lake A8 is dewatered during operation of Pump02 and WES03.
(2) Pump02 is filled with saline water from 2027 to 2036.
(3) WES03 is filled with contact water from 2028 to 2036.
(4) Footprint of Lake A8 is provided before pits are excavated for reference.
(5) The blue dotted line represents the isotherm for 0°C.

CONSULTANT wsp

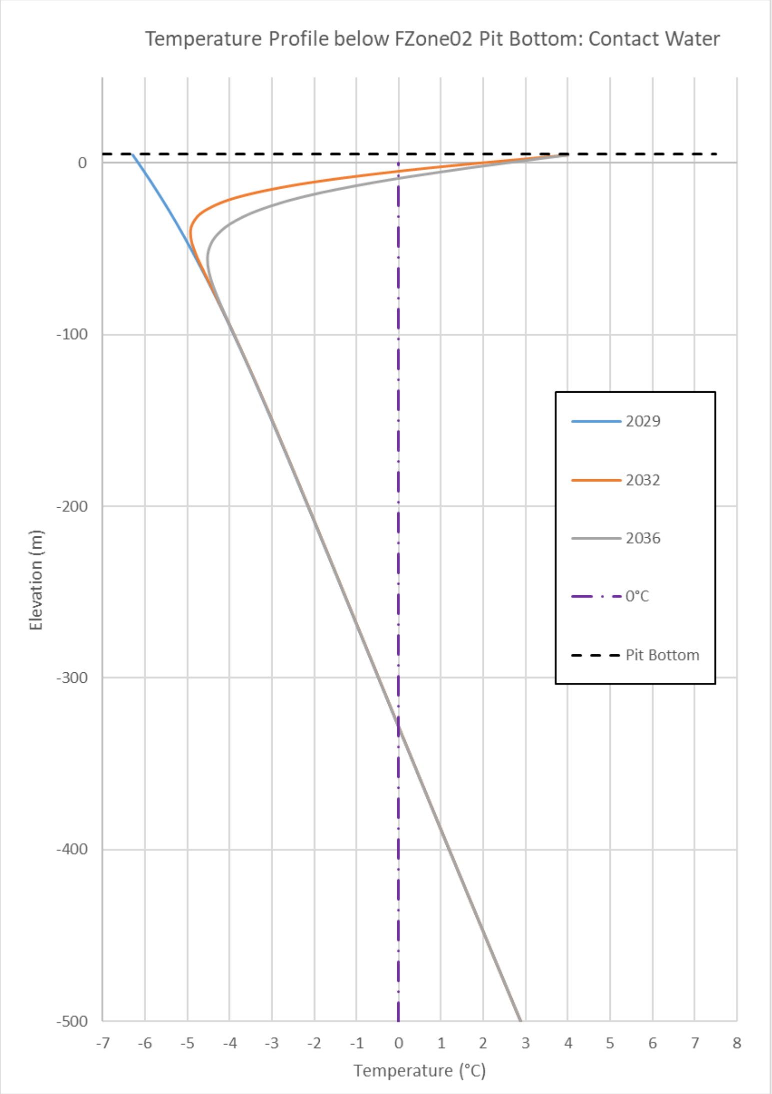
YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
Pump02 and WES03 Temperature Contours in West Alignment: Saline (Pump02) and Contact Water (WES03) Storage during Operation, 2036

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-20**

FZone02 - Contact Water during Operation



Note:
(1) There is no underground work Below FZone02 from 2026 Mine Plan.
(2) Temperature profile location of FZone02 is shown in Figure A-6

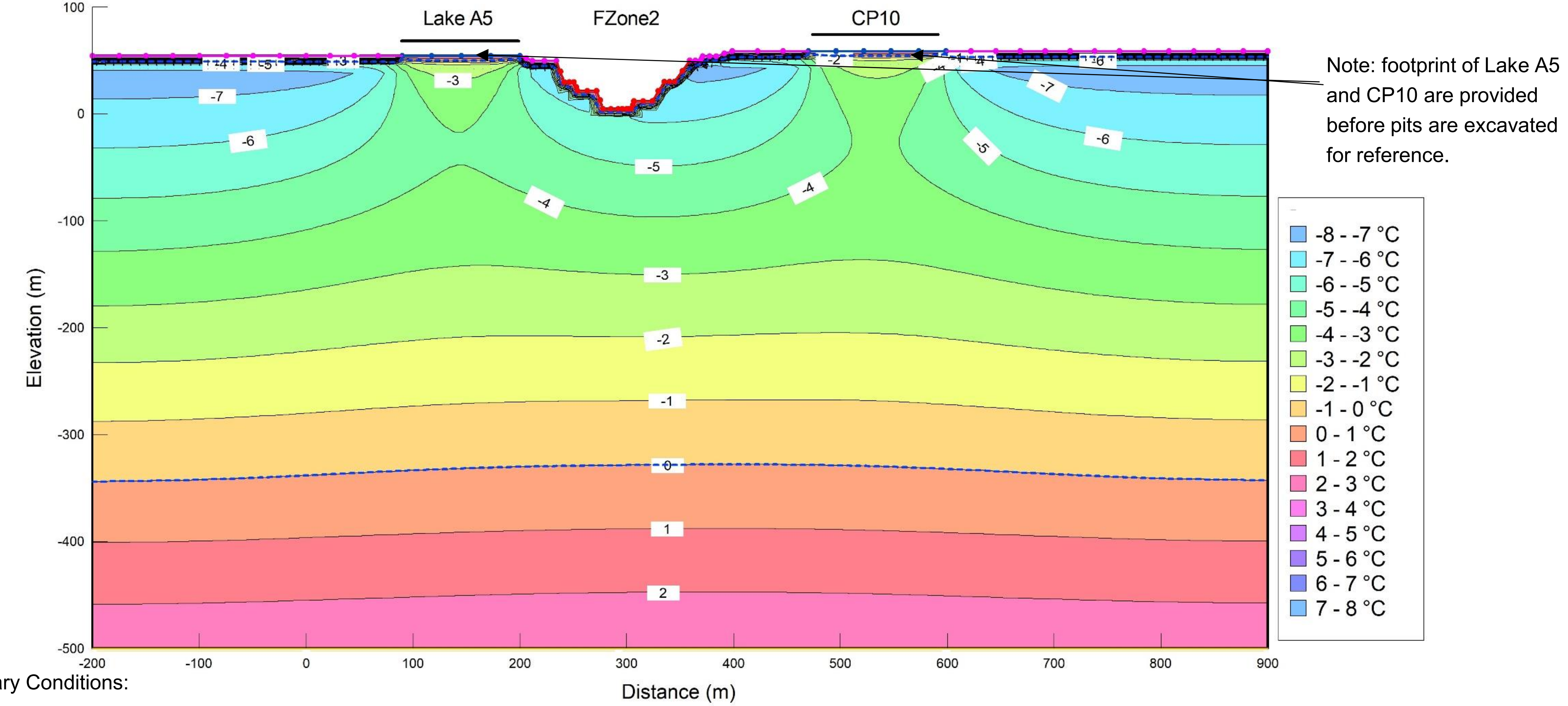
CONSULTANT

YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
Temperature Profile below FZone02 Pit Bottom: Contact Water Storage during Operation

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-21**



Ground Surface Boundary Conditions:

- Average Ground Temperature Function
- Contact Water Temperature
- Shallow Lake Temperature

Note: The blue dotted line represents the isotherm for 0°C.

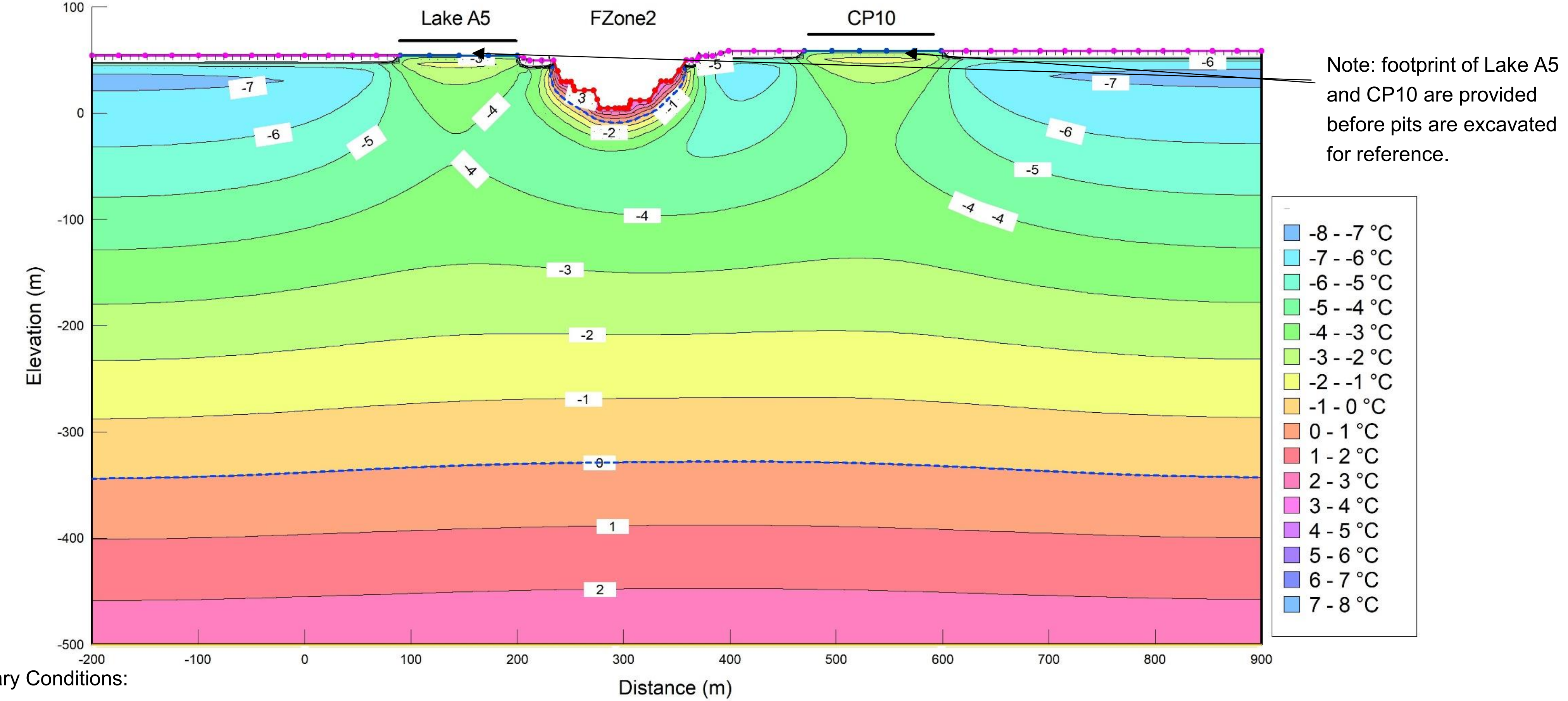
CONSULTANT: wsp

YYYY-MM-DD	2026-03-08
PREPARED	JX
REVIEWED	FJ
APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
FZone02 Temperature Contours: Initial Temperature Conditions when Pit FZone02 is excavated in 2029

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-22**



Ground Surface Boundary Conditions:

- Average Ground Temperature Function
- Contact Water Temperature
- Shallow Lake Temperature

Note: The blue dotted line represents the isotherm for 0°C.

CONSULTANT		YYYY-MM-DD	2026-03-08
		PREPARED	JX
		REVIEWED	FJ
		APPROVED	FJ

PROJECT
2026 MELIADINE MINE - THERMAL ASSESSMENT
UPDATE OF IN-PIT STORAGE OF WATER

TITLE
FZone02 Temperature Contours: Contact Water Storage during Operation, 2036

PROJECT NO.	TASK	REV	FIGURE
CA0066296.6872	3020	0	**A-23**