

**MIRAMAR NORTHERN MINING LTD.  
 CON MINE**

**March 28, 2024**

Mackenzie Valley Land and Water Board  
 P.O. Box 2130  
 Yellowknife, NT  
 X1A 2P6

**Re: Water Licence MV2017L8-0008:**

**SNP Report for February 2024**

Dear: Ms. MacIntosh

As required under ANNEX A, Part D of the Surveillance Network Program (SNP) and forming part of Part B, Condition 11 of Water Licence MV2017L8-0008. Miramar Northern Mining Ltd. (MNML) hereby submits the monthly Water Licence and SNP report for Con Mine.

**MONTHLY DETAILS**

The site activity during the reporting period can be characterized as **Winter Care and Maintenance**. Pertinent details on water and waste management for the reporting period are provided in Table 1, detailed multi-year water quality trends are included in the Monitoring Results section of this report.

Table 1 - Monthly Matrix

Reporting Month	January		
Freshwater Used	0		m <sup>3</sup>
Treated Effluent Released	0		m <sup>3</sup>
Middle Pud Freeboard from Crest (183.0masl)	8.01*		m
Minewater Elevation – C1 Shaft	117.51**		masl
Non-Hazardous Waste	~1m <sup>3</sup>		m <sup>3</sup>
Effluent Flow Meter Calibration Check (FE/FIT-609)	17-July-2023	0.21	Error +/- %

**NOTE;**

\* Middle Pud elevation measured by survey vibrating wire piezometer compensated with onsite barometric pressure on February 29<sup>th</sup>, 2024 at 12:00pm

\*\* Minewater elevation as measured by vibrating wire piezometer within the C1 shaft compensated with onsite barometric pressure on February 29<sup>th</sup>, 2024 at 12:00pm.

Table 2 provides a summary of all Site and Water Licence activities which occurred during the reporting period, further details on site activity are included in the subsequent sections as appropriate.

**Table 2 - Activity Summary**

<b>Management &amp; Monitoring Plans</b>	<b>Water &amp; Waste</b>	<b>Monitoring</b>	<b>Closure, Construction, Modifications</b>	<b>Other</b>
Engagement	Spills	SNP / MDMER	Construction	Winter Care & Maintenance
Site Water & Mine Flooding	Fresh Water Use	AEMP/EEM	Modifications	Leases
AEMP/EEM	Treated Effluent	QAQC Concerns	Remediation	Inspections
Vegetation Establishment	Acute or Sub-lethal Toxicity Analysis	Vegetation	Vegetation	Meg, Keg, Peg Monitoring
Standard Operating Procedures	Minewater Transfer	Triggers/Action levels	Maintenance	
Solid and Hazardous Waste	Solid Waste / Hazardous Waste	Tailings / Geotechnical / Caps / Dams	Design	
Adaptive Management	Water Balance	Soil Sampling	Other	
Other	Other	Other		
	Activity Occurred During Reporting Period – Details Provided within this Report			
	Activity Occurred During Reporting Period – Details will be provided under separate cover			
	Activity Occurred During Reporting Period – Concern Identified			
	Activity Occurred During Reporting Period – Compliance Issue			
<b>BOLD</b>	Volumes and/or Analytical results reported within this report, no further details provided			
Text	Activity did not occur during the reporting period			

## MANAGEMENT PLANS

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### General Discussion

All Site management plans have now been approved by MVLWB, MNML will operate in accordance with these plans. MNML will review and revise these plans in advance of any operational changes as required in the licence.

### Stakeholder Engagement

MNML provided a project status update and 2024 outlook to the Mayor and staff of the City Yellowknife on February 8<sup>th</sup>, 2024.

### Aquatic Effects Monitoring Program and Phase 8 Environmental Effects Monitoring Program – Re-Evaluation Report

As required under Part J, Condition 5 of the Licence, the 2023 AEMP Re-Evaluation Report was submitted for Review on December 1<sup>st</sup>, 2023. Reviewer responses were provided on February 1<sup>st</sup>, 2024

### Aquatic Effects Monitoring Program and Phase 8 Environmental Effects Monitoring Program – Study Design

As required under Part J, Condition 2 of the Licence, the 2023 AEMP and EEM Phase 8 Study Design was submitted for Review on December 1<sup>st</sup>, 2023. Reviewer responses were provided on February 1<sup>st</sup>, 2024

### Treatment Options Report

As required under Part F, Condition 16 of the Licence, the 2023 Treatment Options Report was submitted for Review on December 1<sup>st</sup>, 2023. Reviewer responses were provided on February 1<sup>st</sup>, 2024

## WATER USE AND WASTE DISPOSAL

### Fresh Water Use

The annual water uses fees for the site were paid to the MVLWB via hand delivered cheque on January 18<sup>th</sup>, 2024. No receipt has been provided by the GNWT to MNML.

No fresh water was used during the month of February.

### Site Water Balance

Minewater and Middle Pud water elevations were monitored throughout the month using the vibrating wire piezometers installed in October 2022. The data loggers are recording the VWP readings which are calibrated to physical elevations and adjusted for on-site barometric pressure and verified through periodic corroboration to manual elevation measurements.

The telemetry system communicating the site instrumentation data including water elevations in Middle Pud, Mine workings, and the on-site barometric pressure is now functional and transmitting data to a centralized data collection point.

## MONITORING PROGRAMS

### Surveillance Monitoring Program (SNP)

Monitoring during winter conditions is limited to observation of water levels within Middle Pud and the underground workings.

## CLOSURE, CONSTRUCTION, OR MODIFICATION ACTIVITIES

### Maintenance Activities

General site maintenance activities and snow removal were on-going in February.

### Construction Activities

Construction of the Upper Pud Spillway and Middle Pud Conveyance was completed in August, as built survey was completed as expected in September the draft as built report was received in January and will be provided upon completion.

## OTHER

### Leases

MNML continues to work with the GNWT on the relinquishment of the Tin Can Hill and Rat Lake leases back to the GNWT.

MNML continues to work with the GNWT on the renewal of the other surfaces leases for the Mine Site.

## **Mineral Exploration**

MNML has entered into a previously announced an option agreement with Gold Terra Resources Corporation (GTR) to allow for the on-going exploration of the MNML mineral claims. This exploration is anticipated to be ongoing for the next several years. MNML and GTR are working collaboratively to determine access routes to drill site locations that have minimize impact to the reclamation project and improve access to post-closure monitoring locations.

GTR continues with their exploration project on the Con Mine Lease, the exploration drill was relocated to the second location in January 2024, drilling is expected to continue in this location for several months. These activities are being completed under GTRC's land use permits with site access granted by MNML.

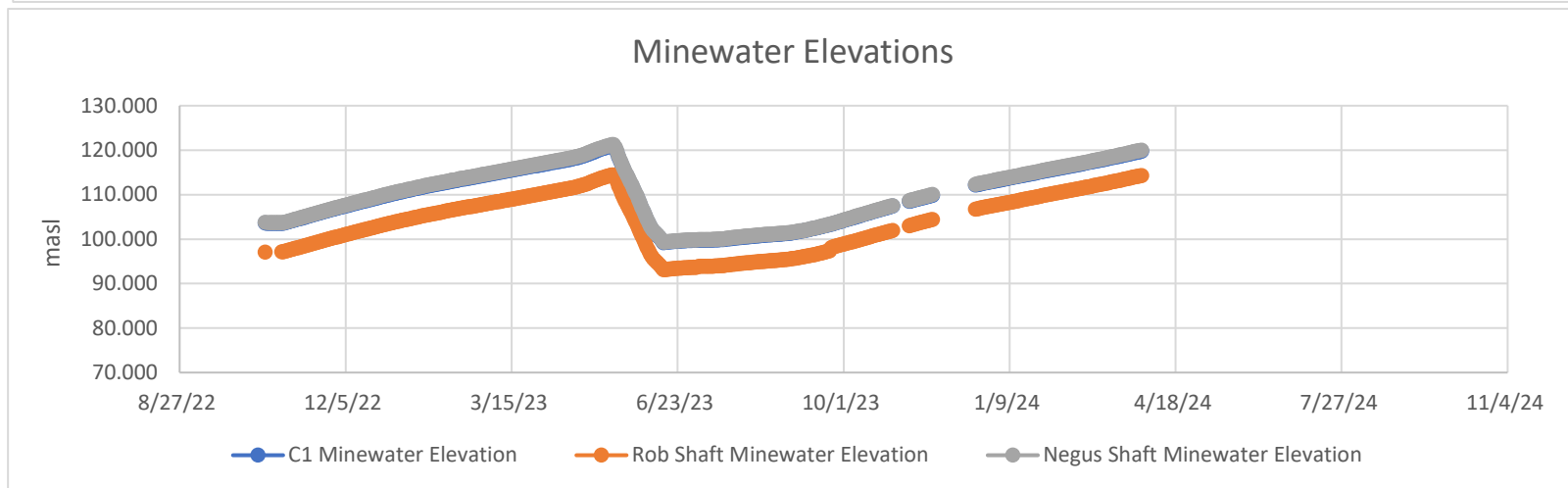
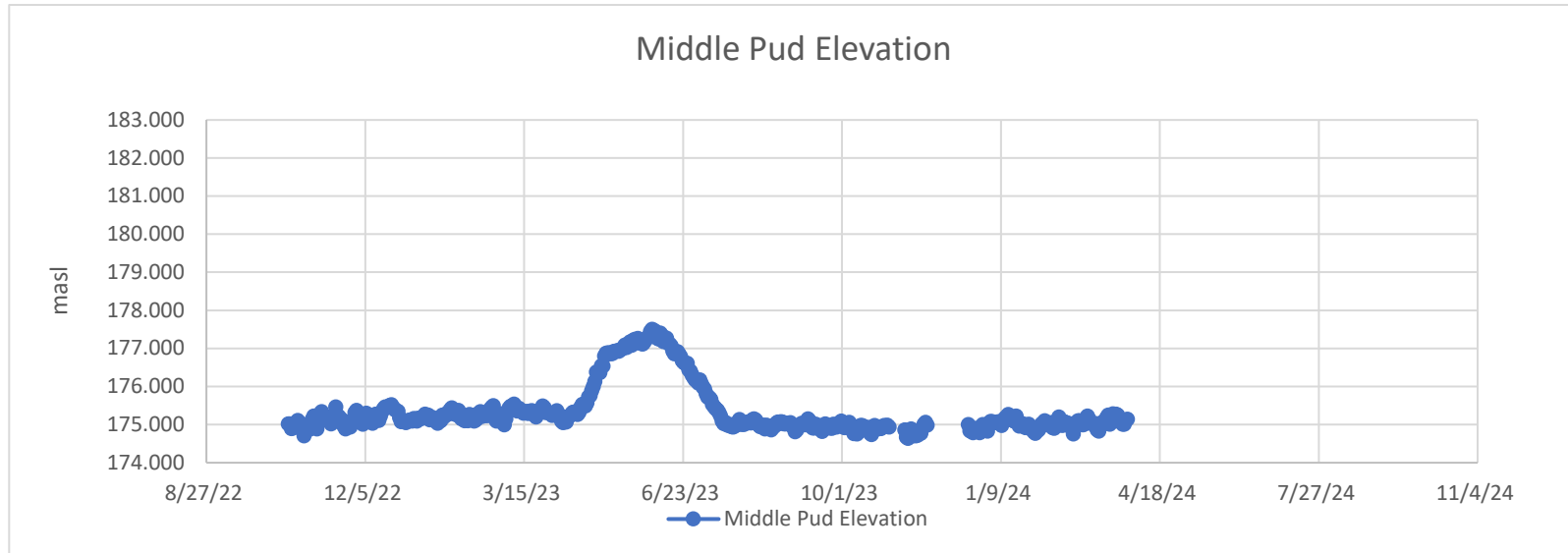
## **SITE WATER BALANCE TRACKING**

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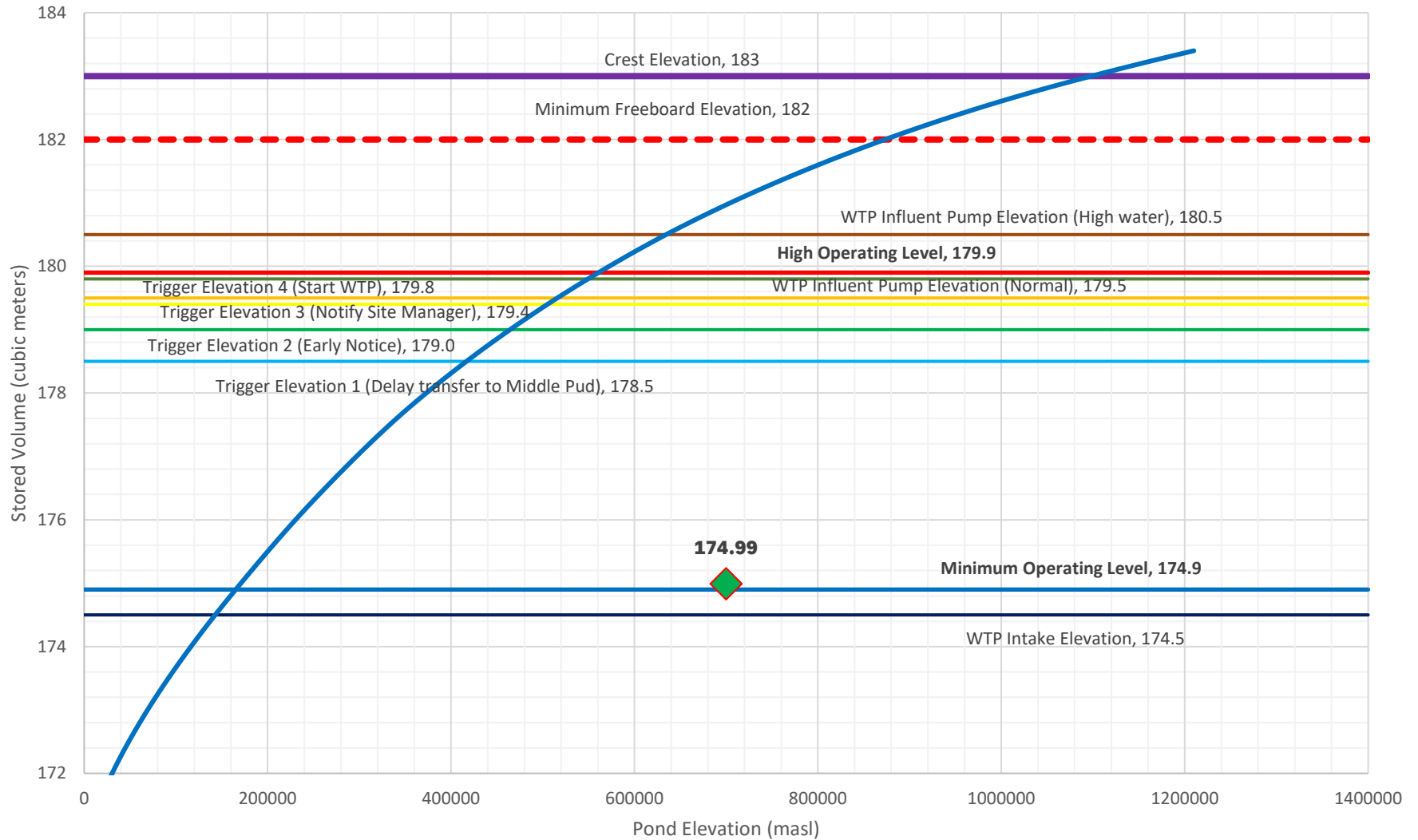
<b>Middle Pud</b>	
Date of Report	Thursday, February 29, 2024
Current water Elevation (masl)	174.99
Available Freeboard From Crest (183.0masl) (m)	8.01
Distance to High Operating Level (179.9 masl) (m)	4.91
Volume to High Operating Level (m3)	459,172
Height of water above low pond level (m)	0.09
Volume of water remaining above low operating level (m3)	5,134
Average discharge rate (m3/day)	0.00
Minewater Inflow (m3/day)	0
Net Discharged from Middle Pud (m3/day)	0.00
Treatment Days Remaining w/o rain (days)	#DIV/0!
Approximate End Date	#DIV/0!

<b>C1 - Shaft</b>	
Date of Report	Thursday, February 29, 2024
Current water Elevation (masl)	<b>117.51</b>
Available Freeboard to Maximum Elevation) (140masl)	22.49
Distance to Trigger 3 Elevation (137.5 masl) (m)	19.99
Distance to Trigger 2 Elevation (135.0 masl) (m)	17.49
Distance to Trigger 1 Elevation (130 masl) (m)	12.49
Distance to Sufficient 180 day storage (117.6 masl) (m)	0.09
Distance to Low Water Elevation (74.9 masl) (m)	-42.61
Volume stored above pumps	56,869
Average rate of elevation change Last 5 days (m/day)	0.07
Minewater dewatering rate (m3/day)	0



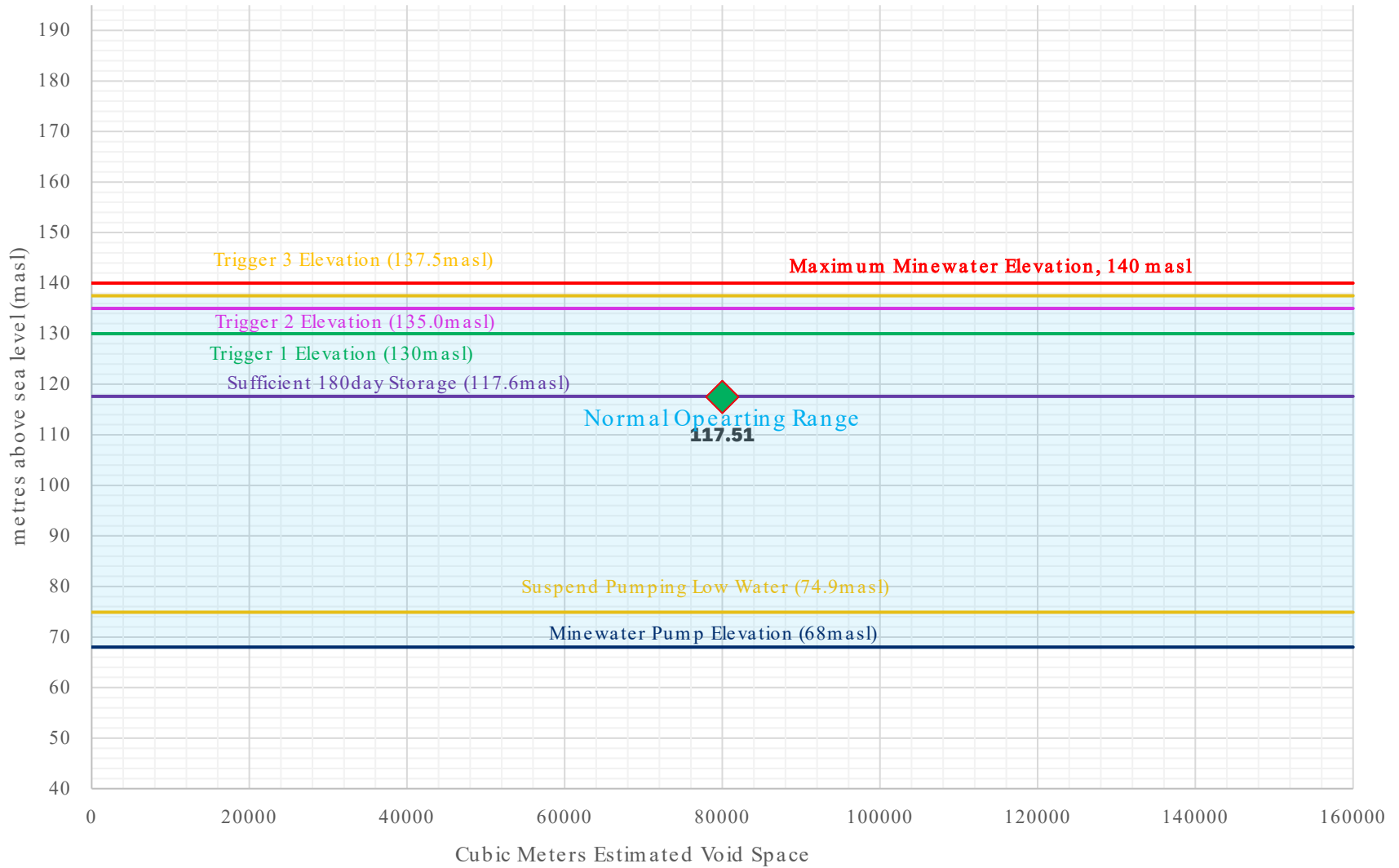


### Con Mine - Middle Pud Stage Storage Curve



- Crest Elevation
- - - Minimum Freeboard Elevation
- WTP Influent Pump Elevation (High water)
- High Operating Level
- Trigger Elevation 4 (Start WTP)
- WTP Influent Pump Elevation (Normal)
- Trigger Elevation 3 (Notify Site Manager)
- Trigger Elevation 2 (Early Notice)
- Minimum Operating Level
- WTP Intake Elevation
- Trigger Elevation 1 (Delay transfer to Middle Pud)
- Middle Pud Volume
- ◆ Current Level

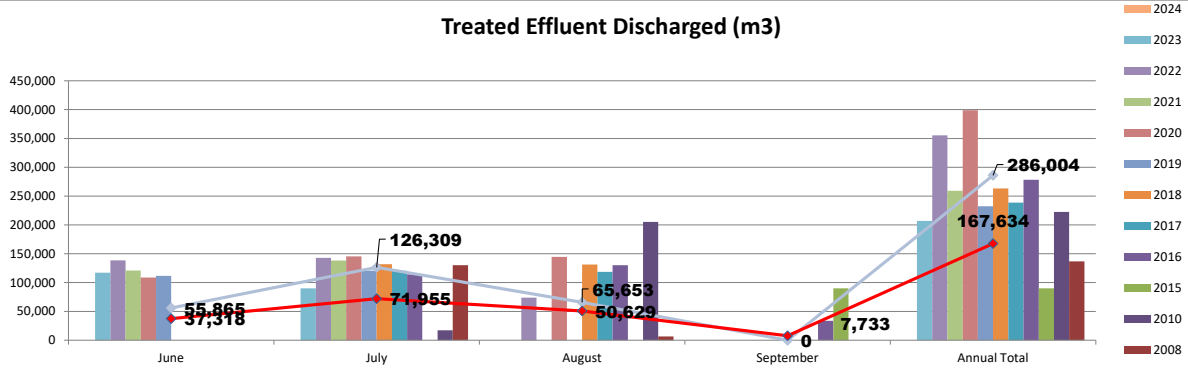
### Near Surface Minewater Storage



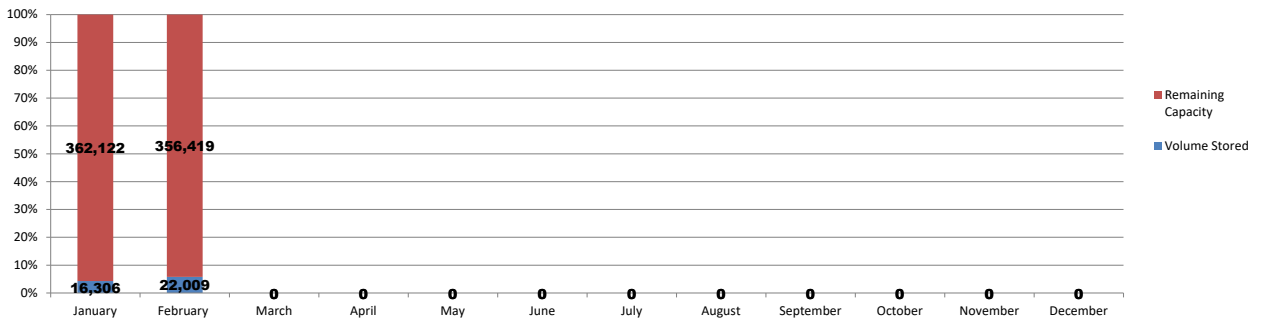
- |  |   |                                     |
|--|---|-------------------------------------|
| — Minewater Storage                    | — Maximum Minewater Elevation           | — Minewater Pump Elevation (68masl) |
| — Trigger 3 Elevation (137.5masl)      | — Trigger 2 Elevation (135.0masl)       | — Trigger 1 Elevation (130masl)     |
| — Suspend Pumping Low Water (74.9masl) | — Sufficient 180day Storage (117.6masl) | ◆ Current Elevation                 |

### Middle Pud Storage Management

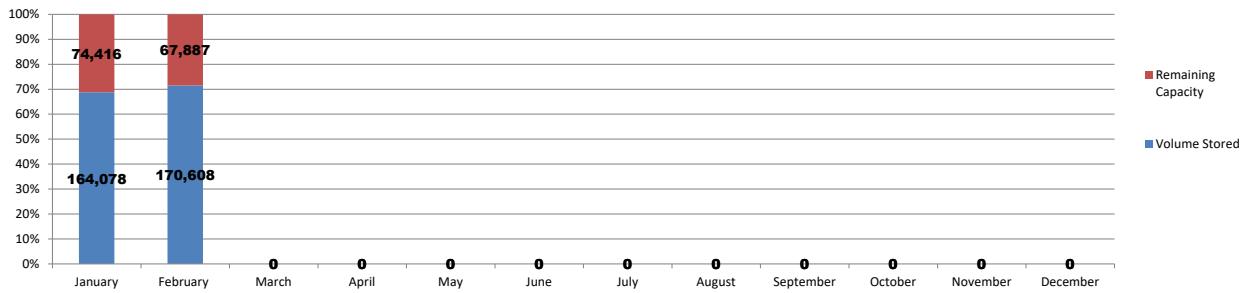
Treated Effluent Discharged (m3)



Current Year - Middle Pud Working Range Storage Capacity (m3)



Current Year - Minewater Storage Capacity to 140 masl (m3) @ 3X void space\*

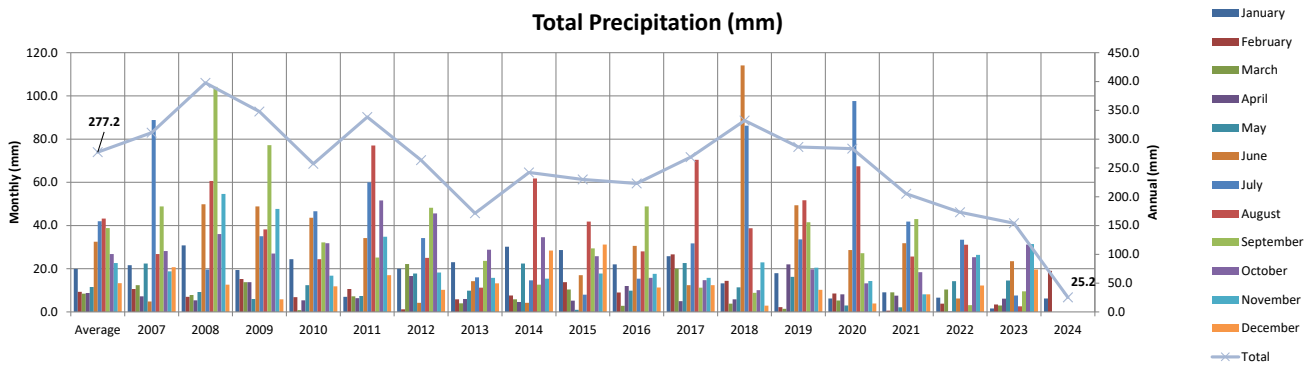


Notes: \* Volume multiplier determined from modelled void Space vs actual volume dewatered curve, to be correlated as new data is collected.

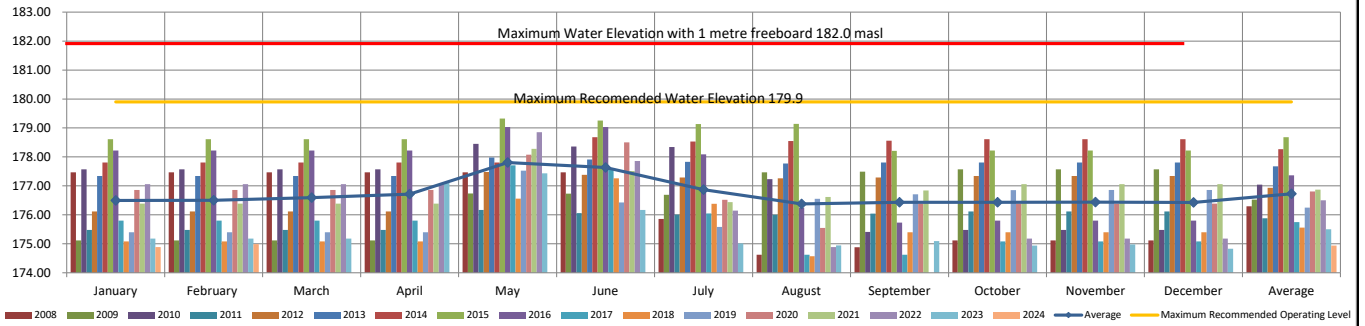
Middle Pud And Minewater elevations from VWPs - January 31st, 2024 - Middle Pud under Ice Cover, minewater elevation from C1 shaft  
Middle Pud And Minewater elevations from VWPs - February 29th, 2024 - Middle Pud under Ice Cover, minewater elevation from C1 shaft

## Surface Water Accumulation

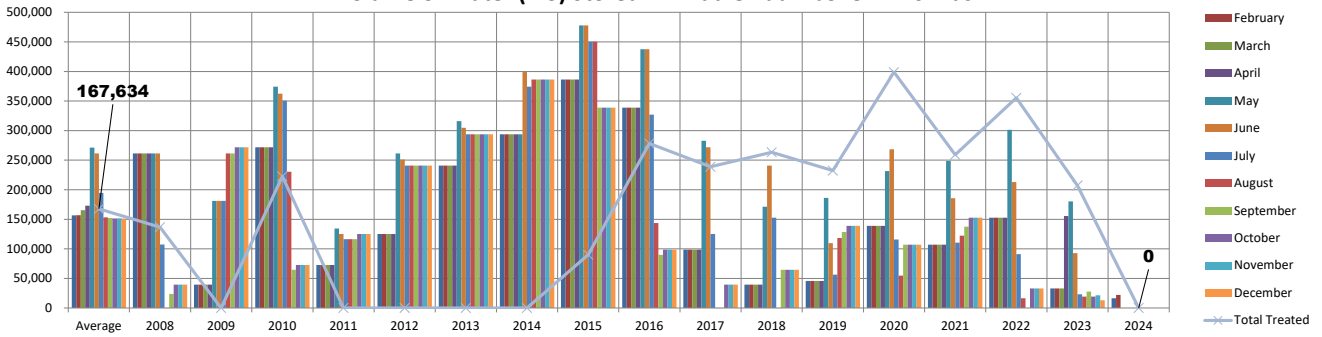
### Total Precipitation (mm)



### Middle Pud Elevation (masl)



### Volume of Water (m3) Stored in Middle Pud Above 174.6 masl



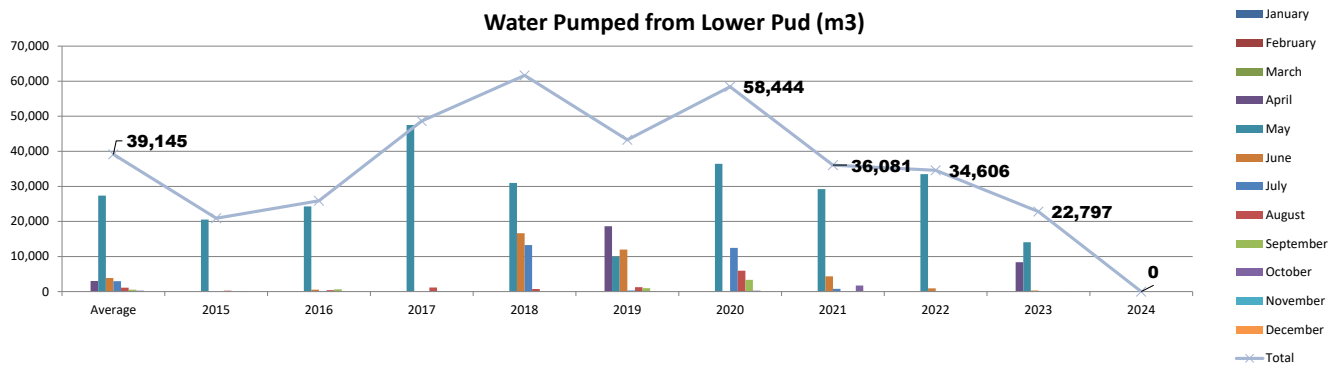
**Notes:**

2020 Annual Geotechnical Inspection Report recommend a new maximum pond elevation of 179.9 masl. Which provides 3.1 metres of freeboard and sufficient volume to contain a PMP event.

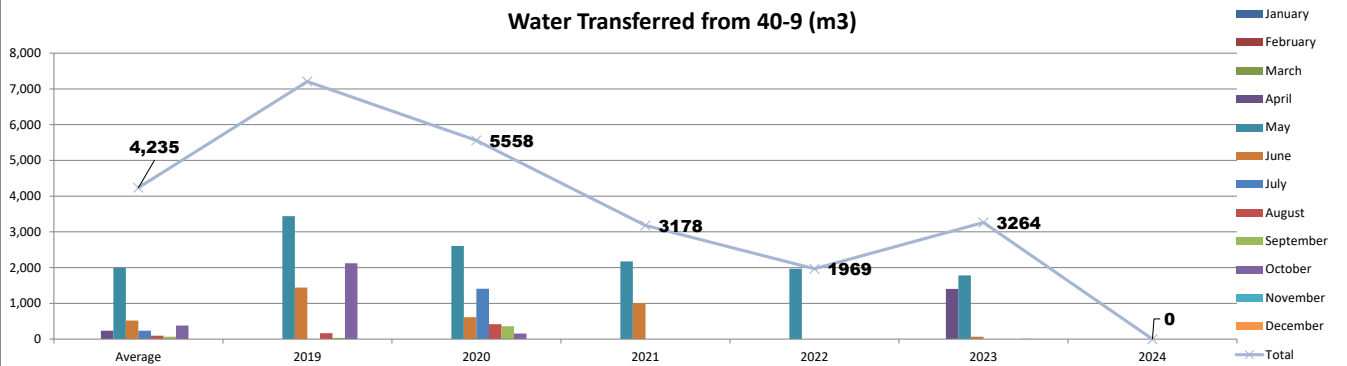
Environment Canada weather data for August 2023 is incomplete between August 16-31, 2023 due to city of Yellowknife evacuation.

### Water Transferred

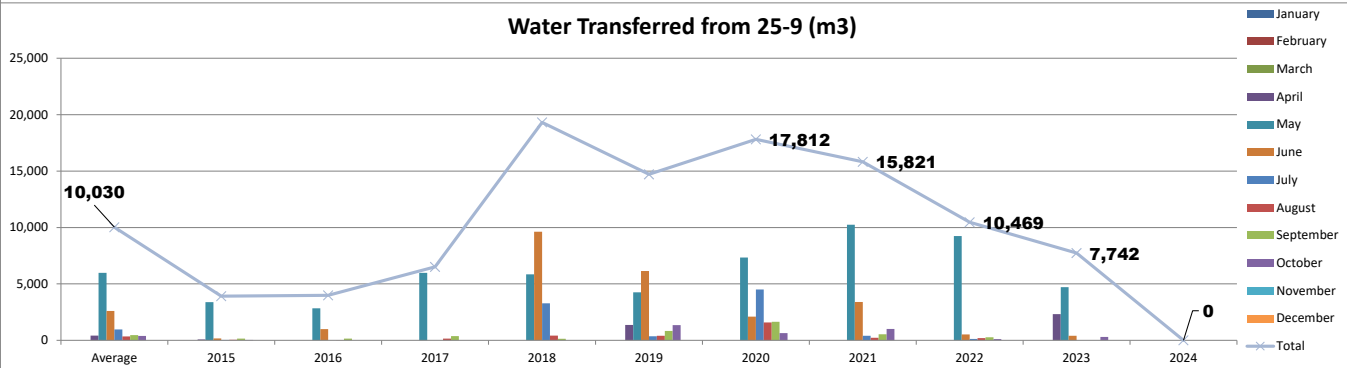
#### Water Pumped from Lower Pud (m3)



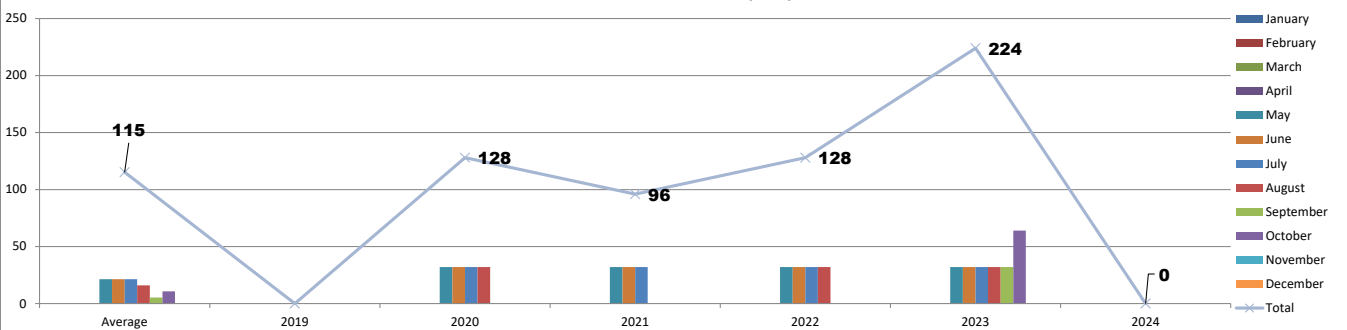
#### Water Transferred from 40-9 (m3)



#### Water Transferred from 25-9 (m3)



#### Fresh Water Use (m3)

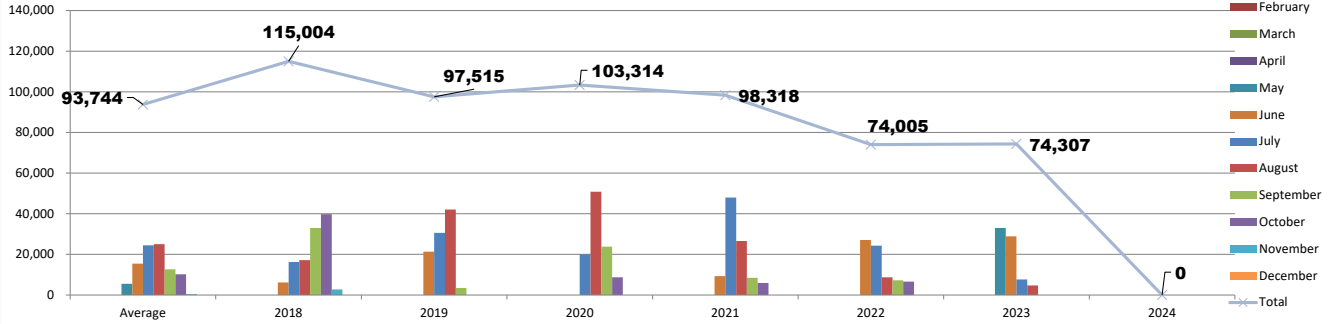


**Notes:**

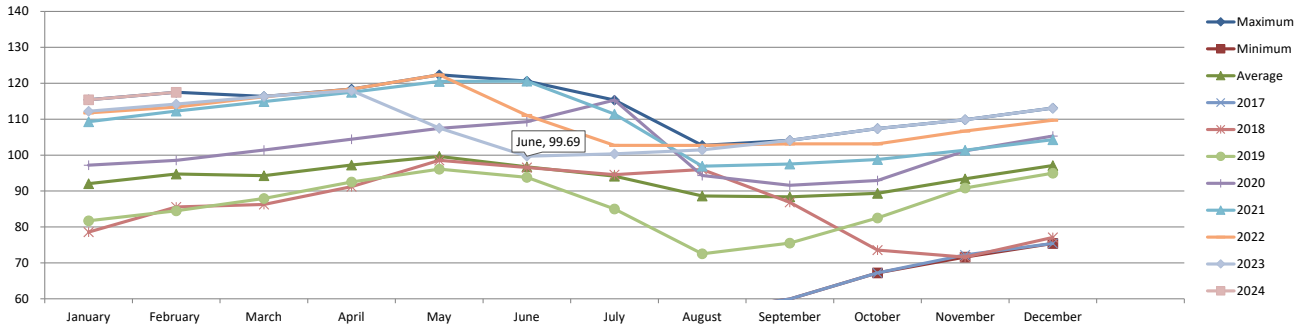
Fresh water for WTP non-potable water tank, chemical makeup water.

### Minewater

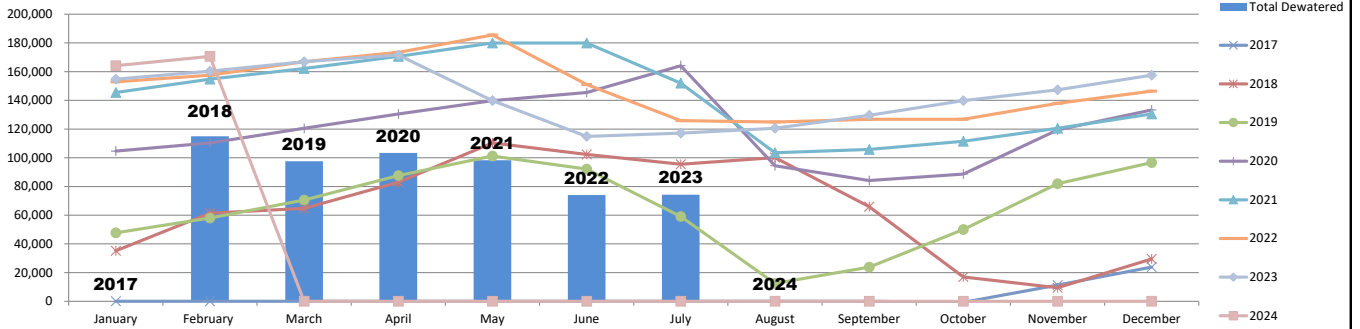
Minewater Transferred to Middle Pud (m3)



Monthly Average Minewater Elevation (masl)



Minewater Stored Above Pump (m3) @ 3X Void Space\*



Notes: \* Volume multiplier determined from modelled void Space vs actual volume dewatered curve, to be correlated as new data is collected.  
Minewater Elevation is reported at the Elevation in the C1-Shaft only as recored on 29-Feb-2024 @ 12:00 by Vibrating Wire Peisometer (VWP); compenstated with barometric pressure as recorded at the same time using the onsite Barometric Pressure sensor located at the internal dams.

## **MONITORING RESULTS**

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## **MONITORING RESULTS – ACUTE AND CHRONIC TOXICITY ANALYSIS**

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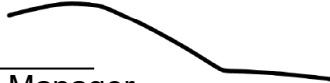
## **QAQC RESULTS**

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This concludes the monthly Water Licence and SNP Report for Con Mine. An electronic copy of this report and attachments have been provided to the distribution list via E-mail. Hard copies can be made available upon request. Should you require additional information, please contact the writer by telephone at 766-5300, ext. 5317, or by e-mail at the following address [Dwight.Grabke@Newmont.com](mailto:Dwight.Grabke@Newmont.com) :

Sincerely,



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Dwight Grabke, Environmental Manager  
Miramar Northern Mining Ltd. – Con Mine

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