NI 43-101 Technical Report

Hemlo Mine, Ontario, Canada

Carcetti Capital Corp.

Prepared by:

SLR Consulting (Canada) Ltd.

SLR Project No.: ADV-TO-00122

Effective Date:

December 31, 2024

Signature Date:

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Revision: 0

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Making Sustainability Happen

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1.0 Summary

1.1 Executive Summary

SLR Consulting (Canada) Ltd. (SLR), was retained by Carcetti Capital Corp. (Carcetti) to prepare an independent Technical Report on the Hemlo Gold Mine (Hemlo or Mine), located in Bomby Township, Northwestern Ontario, Canada. The purpose of this report is to support public disclosure of Mineral Resource and Mineral Reserve estimates at the Mine as of December 31, 2024. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).

Carcetti is a Canadian, publicly traded company. On September 10, 2025, Carcetti announced that it had entered into a definitive agreement (Proposed Transaction) to acquire a 100% interest in the Mine from wholly-owned subsidiaries of Barrick Mining Corporation (Barrick). At the time of filing of this report, this Proposed Transaction had not closed.

1.1.1 Conclusions

1.1.1.1 Geology and Mineral Resources

- The Mineral Resource estimates have been prepared according to Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM (2014) Standards) as incorporated with NI 43-101. Mineral Resource estimates were also prepared using the guidance outlined in CIM Estimation of Mineral Resources and Mineral Reserves (MRMR) Best Practice Guidelines dated November 29, 2019 (CIM (2019) MRMR Best Practice Guidelines).
- The Mineral Resource estimate for the Mine comprises the B-Zone and C-Zone block models and is comprised of both open pit and underground portions.
- Underground Mineral Resources are constrained within mining shapes at a gold cut-off grade that varies by material type, averaging 2.38 g/t Au. All blocks within the resultant stope shapes, including waste, are reported within the underground Mineral Resource. Thus, it is considered a diluted resource.
- Open pit Mineral Resources are constrained by an optimized pit shell using the Lerchs-Grossmann algorithm using reasonable pricing and cost inputs. The open pit Mineral Resource uses a 0.21 g/t Au cut-off grade.
- Mineral Resources are reported inclusive of Mineral Reserves and have been depleted to December 31, 2024 using the mined-out surfaces and voids. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability at a US$1,900/oz gold price.
- Measured plus Indicated Mineral Resources total 71.3 million tonnes (Mt) at 1.58 g/t gold (Au) for 3.63 million ounces (Moz) of gold. Including 56.8Mt at 0.88 g/t Au for 1.6Moz in the open pit portion and 14.4Mt at 4.37 g/t Au for 2.0Moz for the underground.
- Inferred Mineral Resources total 9.8 Mt at 1.97 g/t Au for 0.62 Moz of gold. Including 6.5Mt at 0.42 g/t Au for 0.1Moz in the open pit portion and 3.3Mt at 5.02 g/t Au for 0.54Moz for the underground.

1.1.1.2 Mining and Mineral Reserves

- The Mineral Reserves outlined in this report are based on Measured and Indicated Mineral Resources, and do not include any metal contributions from Inferred Mineral Resources. The Mineral Reserves follow CIM (2014) Standards as incorporated into NI 43-101.
- The total Probable Mineral Reserves at Hemlo are estimated at 41.2 Mt at 1.75 g/t Au for 2.32 Moz of gold. Including 28.4Mt at 0.85 g/t Au for 0.8Moz in the open pit portion and 12.8Mt at 3.74 g/t Au for 1.5Moz for the underground.
- Factors that may affect the Mineral Reserve estimates include: adjustments to gold price and exchange rate assumptions; changes in operating and capital cost estimates; dilution adjustments; changes to hydrogeological and underground dewatering assumptions, and changes to modifying factor assumptions, including environmental, permitting, and social licence to operate. As the mine deepens, mining recoveries and dilution could worsen, as geotechnical conditions deteriorate.
- There is upside potential for the Mineral Reserve estimates if mineralization that is currently classified as Inferred Mineral Resources, which is contained within mineral reserve mining blocks and is being sent for processing as 0 g/t dilution, is converted to Mineral Reserves following further definition drilling not currently included in the study. There is also upside potential in the open pit Mineral Reserve with a depletion halo applied around the pit edge and underground workings that may be recoverable in operation.
- Hemlo underground operation has been mining for many years using the proposed methods in the study. The historical C-Zone pit was previously mined by Barrick; the identified Mineral Reserves mined by open pit are a cutback of the C-Zone pit primarily expanding to the west, mined with a larger fleet than previously used.

1.1.1.3 Mineral Processing

- The processing plant currently processes ore from underground mining only and at a rate significantly below its throughput capacity of approximately 3.65 million tonnes per annum (Mtpa).
- The plant is well maintained and incorporates modern automation. This, as well as the two identical, parallel grinding lines, allow it to be operated relatively easily at half or less than half of its design throughput while helping to reduce operating costs.
- Gold recovery has historically showed little variability and typically ranges between 93% and 95%.
- Hemlo uses gold recovery relationships that have been developed from a combination of test work and historical operating performance to predict process plant performance. There are separate recovery relationships for underground and open pit ore. In SLR's opinion, the recovery relationships are adequate for predicting recovery, although the open pit recovery relationships appear to be slightly conservative compared to available test work results on samples representing open pit reserves. An assessment of this conservatism would benefit from additional variability test work conducted on samples that are more spatially representative of open pit ore reserves.
- The reduced throughput since the cessation of the open pit operation in 2020 means that the leach retention time was more than doubled, which may have contributed

(together with higher grades) to a slight increase in recovery from 2020 onwards, ranging from 94% to 95%.

- Preliminary tailings flotation concentrate characterization has indicated that much of the gold in the current plant tailings (i.e., from underground ore only) reports to the concentrate and that the concentrate may typically contain 3 g/t to 6 g/t Au. This represents an opportunity to improve overall gold recovery.
- Gold tellurides were identified in mineralogical analysis of 2023 open pit composites representing open pit ore reserves, however, their presence does not appear to have negatively affected recovery in bottle roll and diagnostic leach tests. SLR is not aware of other deleterious elements that would negatively affect plant recovery.
- The current life of mine (LOM) plan foresees plant throughput of 1.33 Mtpa to 1.44 Mtpa from 2025 to 2027 and there is consequently additional processing capacity available.

1.1.1.4 Infrastructure

- The Mine operations have been active since the start of production in 1985 and supporting infrastructure is in place to support the existing underground mining operations.
- Capital investments have been planned for appropriate infrastructure to restart the open pit, increase mine truck size, replace the crusher building, upgrade the existing conveyor systems, and expand thickener capacity for the restart open pit mine operations.
- Capital investments have also been planned for infrastructure to continue underground mine operations for additional mine development, ventilation, and dewatering systems for the underground mine.
- Subject to approval by ministry and advancing the process upgrade studies to the feasibility level, the centerline raise of the tailings management facility (TMF) without extending the till core will provide a viable option for storing the forecasted LOM tailings.

1.1.1.5 Environment

- The site is managed in a professional and technically sound manner, the Towards Sustainable Mining (TSM) audit report from September 2023 completed by Apex Companies, LLC. supports this conclusion. The Hemlo International Cyanide Management Code Gold Mining Operation Recertification Audit report from May 2021 generated by ERM concludes that the project has met the obligations in implementing the International Cyanide Management Code, which also collaborates the Mine is well managed.

1.1.1.6 Capital and Operating Costs

- Capital and operating costs for the Mine have been estimated from first principles by Hemlo and third-party consultants supported by studies and associated cost estimates prepared within an accuracy range of +/-25%, which is the typical level of a Prefeasibility Study (PFS).
- The costs are supported by engineering quantities estimates from detailed design drawings and equipment lists, with some smaller items factored from other comparable projects. Prices were determined by secured contracts, and vendor quotes with smaller items sourced from in-house databases.

- Capital cost estimates include expansion capital and sustaining capital costs (exclusive of mine closure). The LOM capital cost total is US$816.5M.
- Operating cost estimates include all operational activities required for the mining, processing, general and administrative costs, and off-site costs (including freight & refining and royalties) for all of the forecasted production.
- The LOM operating cost for the project is estimated to be US$2,411M with unit operating costs of US$58.44/t.

1.1.2 Recommendations

1.1.2.1 Geology and Mineral Resources

1 Conduct additional drilling within the areas of the Mineral Resources that make up initial production years with the aim of converting the material from Inferred to the Measured and Indicated categories.

2 Update the structural model for the Hemlo mining camp incorporating historical mining and geological data from the Golden Giant and David Bell mining operations.

3 Property-wide re-evaluation of the mineral potential that reflect current long term metal price assumptions.

4 Further exploration where the deposit remains open along strike and at depth (including drilling from surface and underground).

5 Updated geophysical and geochemical surveys to re-assess regional potential.

6 As additional specific gravity (SG) data is collected, consider estimating SG values directly into the block model in future updates. While the use of the constant value does not represent a risk to the global tonnage estimates, it does not accurately represent the local variability of density across the various lithologies at Hemlo.

7 Carcetti intends to:

   a) Update mineral speciation and metal deportment studies to reflect newly identified mineralized textures in the D-Zone, E-Zone C-Zone 100 and 300 series.

   b) Comprehensive, property-wide geochemical and whole rock analysis.

1.1.2.2 Mining and Mineral Reserves

Underground

1 Engage with subject matter experts to support the site team with attaining improvements in mine recovery and reducing dilution with particular focus on drill and blast performance, mine reconciliation, mine planning, and execution (compliance to plan).

2 Assess rationalization of mining contractors and pricing agreements.

3 Assess strategy for completing higher portions of the operation as an owner-operator.

4 Assess cost optimizations to improve operating margins.

5 Perform geotechnical studies to assess mitigation options for residual geotechnical risk and confirm if current geotechnical assumptions are appropriate. Such studies include but may not be limited to:

a) Review of as-built data and collect additional geotechnical data to better revise the ground characteristics and in situ stress field interpretation in the Interlake and Lower B Zone.

b) Examine possible changes to the mine sequence that will remove/relocate diminishing pillars to the extent possible.

c) Reassess the revised sequence with a 3D non-elastic numerical stress modelling software to define potential for stress damage events.

d) Review ground support design for areas with potential for strain bursting, seismic shakedown, and/or other induced stress failure mechanisms.

e) Assess and document the ground conditions as the remnant areas are re-opened and use this information to inform stope design and sequence in the area.

6 Commence debottlenecking studies to improve operating margin including the following:

a) Enlarge portions of the haulage ramp in the lower C-Zone to allow larger trucks,

b) Assess scanning of truck volumes to confirm truck loading factors,

c) Drill and blast optimizations to improve mining recovery,

d) Assess battery fleet to offset potential ventilation expansion capital of US$27M,

e) Assess ventilation reconfigurations to increase downcasting of fresh air down the ramp to improve available working time,

f) Assess tele-remote potential in areas where long clearance times reduce access to the workplace.

7 Confirm corporate metal price guidance strategy and adjust plans to suit.

8 If owner-operator options are being assessed, commence negotiations with equipment manufacturers for equipment pricing, supply timing, and potential payment facilities to firm up project financials.

9 Confirm future impact of any encumbrances to expected revenue from gold sales (royalties, streams, etc.) and maintain a suitable margin between the gold price used for mine planning and reserve pricing to ensure material deemed as reserves can be mined for a profit.

Open Pit

1 Update pit design, schedule, and costs before execution including designs to address unfavourable wedges on the south wall of the western cutback and adjustments around the historical workings.

2 Complete a detailed haulage assessment to balance truck hours and smooth trucking requirements.

3 Assess potential partnerships with existing pit contractors to improve mining costs and project Net Present Value (NPV).

4 Confirm corporate metal price guidance strategy and adjust plans to suit.

5 Commence negotiations with equipment manufacturers for equipment pricing, supply timing, and potential payment facilities to firm up project financials.

6 Confirm future impact of any encumbrances to expected revenue from gold sales (royalties, streams, etc.) and maintain a suitable margin between the gold price used for mine planning and reserve pricing to ensure material deemed as reserves can be mined for a profit.

1.1.2.3 Mineral Processing

1 Complete variability test work on spatially distributed samples of varying grades selected to represent the overall open pit Mineral Reserves to support recovery variability assessment.

2 Investigate recovery of gold from the tailings flotation concentrate in more detail to help determine if there is a viable means of recovering or realizing the value of this gold.

1.1.2.4 Infrastructure

1 Conduct comprehensive studies for the TMF process upgrade, including expansion of effluent treatment plant (ETP) capacity, optimization of the deposition system to achieve uniform beach formation, assessment of the optimized reclaim system (i.e., barge versus pumphouse), relocation of the hydro line, expansion of the existing flotation plant, and construction of a high-density thickener plant.

2 Communicate with the ministries and clarify the TMF permitting requirements (e.g., fish compensation, long-term treatment) for the LOM raise.

3 TMF reclaim rates can be optimized and should be modular in consideration of the open pit expansion timelines.

4 Review necessity for raising TMF Dam B, and evaluation of the requirements for maintaining two separate basins, which provides operational flexibility and supports natural degradation of contaminants.

5 Investigate opportunities for self performing TMF construction by utilizing mine fleet during development of the open pit.

6 Building a smaller downstream shell should be evaluated for Stage 1 TMF.

7 Water balance studies should be completed for the entire mine.

1.1.2.5 Environmental Studies, Permitting, and Social or Community Impact

1 The negotiations for the agreement with the Biigtigong Nishnaabeg (BN) First Nation were going at the time of filing this Report. Carcetti anticipates them to be complete by the end of 2025. While failure to reach an agreement could lead to delays in regulatory approvals, it is currently considered low risk the agreement will not be reached.

1.1.2.6 Capital and Operating Costs

1 Complete feasibility study level engineering and cost estimates for proposed projects at the mine, crusher, material handling system, process plant, infrastructure, and tailings storage facility expansions.

2 Further study of the effluent treatment plant capacity and cost to expand, if required. No upgrades have been assumed.

3 Engage equipment suppliers and contractors for firm quotations for proposed projects at the mine, crusher, material handling system, process plant, infrastructure, tailings storage facility expansions.

1.1.2.7 Economic Analysis

1 Complete a Mineral Reserve estimate, economic analysis, and sensitivity modelling of the project, considering final financing model related to the acquisition the Mine.

1.1.2.8 Budget

The budget to complete the recommendations is shown in Table 1-1. The work plan is estimated to occur throughout 2026.

Table 1-1: Proposed Work Budget

Area	Cost (US$M)
Regional and Surface Drilling	3.0
UG Exploration and Infill Drilling	9.0
Technical Studies (Underground Geotechnical Study, Open Pit Expansion Project, Tailings Expansion)	3.0
Total	**15.0**

1.1.3 Risks and Opportunities

1.1.3.1 Risks

Mineral Reserves

1 Underperformance relative to mine plan based on lower metal values compared to Mineral Resource model, lower mining recovery, higher mining dilution, lower mining productivities, reduced plant performance, and higher mining costs.

2 The near term mine plan may be impacted by interruptions to technical support during the Proposed Transaction transition.

3 Revised cut-off value based on changes to royalties, commodity streams, and offtake agreements related to project financing.

Underground Geotechnical

1 Concentration of induced stress in diminishing pillars are likely to present stability challenges and may produce strain bursts and/or seismic shakedown events (as has been observed previously at site in areas with diminishing pillars). The mine plan contains diminishing pillars with a potential induced stress hazard in:

a) The Lower B-Zone and the Interlake where the proposed sequence involves mining to a central access (e.g., longitudinal retreat mining).

b) The temporary sill pillar proposed in the Interlake near 8870 RL.

2 The ground support package may not be adequate for strain burst and/or seismic shake down failure mechanisms (previous similar events have caused falls of ground which impacted production) and should be reviewed for those areas with such hazards.

3 Available geotechnical data (e.g., rock mass structure, intact strength, and in situ stress) is mostly gathered from historically mined, shallower areas, in the mine and may not be applicable at depth. This introduces some uncertainty into geotechnical assessments which use these datasets (e.g., stope sizing).

4 The ground support condition in remnant areas is largely unknown as the mine is beginning to re-establish access to these areas. This results in uncertainty in the level of remediation effort required to re-establish those areas.

Open Pit Geotechnical

1 For the west, north, and east wall orientations, the open pit slope designs rely on consistent, vertical, or inclined pre-shear that can drill the full 20 m vertical separation of the double benches rather than complete a double bench as two 10 m single benches with a mini bench or lip in between. Drilling the full 20 m vertical separation with inclined or vertical pre-shearing in a single pass has not been previously used in this open pit.

Tailings

1 Stage 1 rockfill TMF placement is anticipated to take more than two years because of the required fill volume.

2 Permitting and approval of the TMF centerline raise may influence the project schedule and could involve constructing Dyke 3, presenting an opportunity for careful planning.

3 Achieving consistent production of non-acid generating (NAG) and thickened tailings may be challenging at times, which highlights the importance of considering closure and water management strategies.

4 To fulfill permitting requirements, sumps and pump-back systems may be permanently maintained for the centreline raise, ensuring ongoing compliance but also increasing operational expenses.

5 Since uniform steep beach formation may not always be feasible at all times, additional operational measures may be required for mechanical formation and maintenance of tailings beach, contributing to additional operating costs (OPEX).

Environmental Studies, Permitting, and Social or Community Impact

1 There is a risk of delays on the permitting of the expansion of the pit; this risk is not greater than usual.

2 Renewal of the agreement with the BN First Nation is in progress as of the filing of this Report; although delay is possible, the risk of non-agreement is consider low at this point.

1.1.3.2 Opportunities

Geology

1 The deposit remains open in several directions. Additional drilling is required to test continuity and grade extensions.

2 The Mineral Resources are currently stated using a US$1,900/oz gold price. Using a higher gold price may lead to an increase in the Mineral Resource.

3 Historical areas within the former Golden Giant and David Bell mines hold additional exploration potential. Data compilation (historical stopes) and confirmation drilling are required to assess these zones.

4 Additional infill and step-out drilling may lead to an upgrade from Inferred to Measured or Indicated classification, which could allow for inclusion into future Mineral Reserve and mine planning studies. There is no certainty that all or part of the Mineral Resources will be upgraded with additional drilling.

Mining

1 Given the potential for significant Measured and Indicated Resource increase under higher gold price scenarios, the economic viability of larger, lower-grade stopes should be evaluated as an additional mill feed source.

2 Existing ramps and portals could be utilized to haul ore from near-surface mineralization; cost–benefit studies are recommended.

3 Although the open pit demonstrates robust economics, detailed optimization studies comparing open pit and underground mining methods should be performed.

Mineral Processing

1 Preliminary tailings flotation concentrate characterization has indicated that much of the gold in the current plant tailings (i.e., from underground ore only) reports to the concentrate and that the concentrate may typically contain 3 g/t Au to 6 g/t Au. This represents an opportunity to improve overall gold recovery, and recovery of gold from the tailings flotation concentrate should be investigated in more detail.

2 Existing mill infrastructure could accommodate additional ore feed (up to approximately 3.65 Mtpa) prior to the commencement of open pit mining.

Infrastructure

1 The existing hoist is not currently operating at full capacity of approximately 2.6 Mtpa, offering an opportunity to hoist additional material.

2 Opportunities should be assessed to reprocess historical David Bell tailings to recover residual gold and free capacity within the existing tailings facility.

3 The potential use of the existing open pit should be evaluated for tailings backfill and long-term tailings management.

1.2 Economic Analysis

A financial analysis of the project was carried out using a free cash flow (FCF) approach to support the evaluation of project economics, and the declaration of Minerals Reserves. The financial analysis has been run with no additional inflation (constant dollar basis).

The model includes the forecast of production, revenue, expansion capital costs, sustaining capital costs, operating costs, and longer-term rehabilitation costs, and all tax, royalties, and other obligations.

All values are presented in real 2025 USD values unless otherwise stated.

Considering the project on a stand-alone basis, the undiscounted pre-tax cash flow totals US$2,202 million over the mine life.

The World Gold Council Adjusted Operating Cost (AOC) is US$1,343 per ounce of gold. The mine life capital cost, including both pre-production and sustaining unit cost, is US$155 per ounce, for an All-in Sustaining Cost (AISC) of US$1,545 per ounce of gold. Average annual gold production during operation is 154,000 ounces per year.

The after-tax NPV at a 5% discount rate is US$1,094 million.

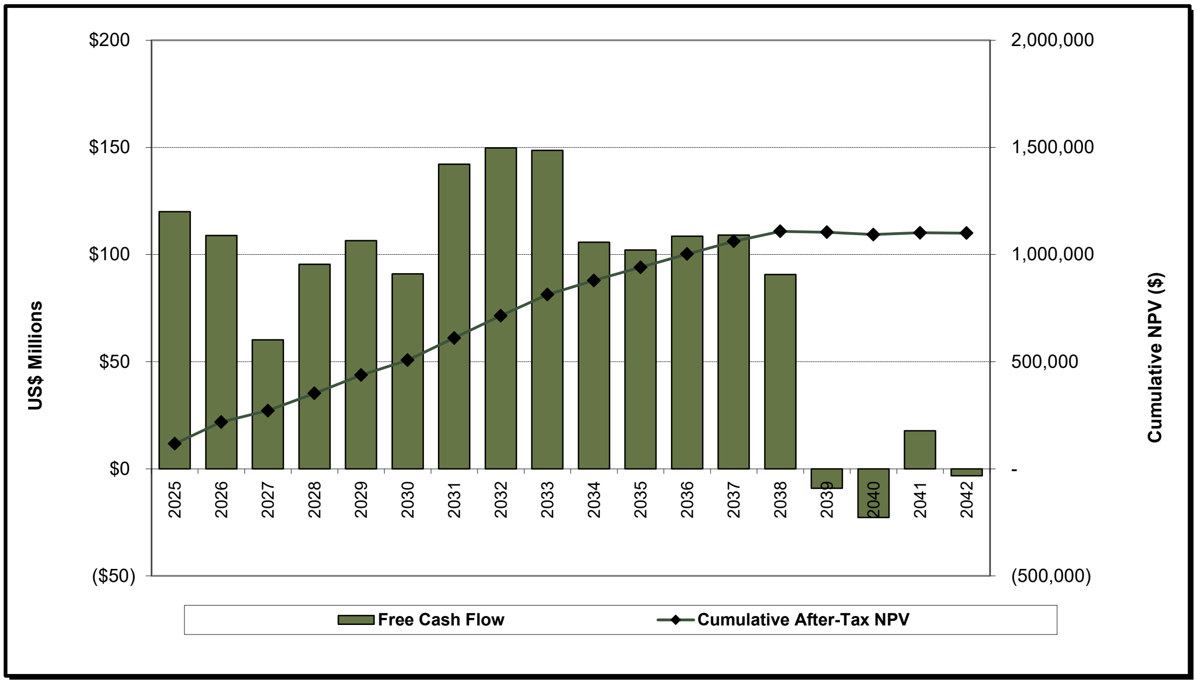
The LOM total cash flows for the project are summarized in Table 1-2.

Table 1-2: LOM Cash Flow Summary

Cash Flow Summary	Unit	LOM Total/ Avg
Au Price	$/oz	2,780
Payable Au	oz	2,153,958
Total Revenue	US$000	6,007,634
Refining & Transport	US$000	5,493
NSR Royalty	US$000	125,565
NPI Royalty	US$000	369,253
Total Direct Operating Cost	US$000	2,410,508
Total Project Capital	US$000	457,917
Total Sustaining Capital	US$000	353,634
Total Closure/Reclamation/Monitoring	US$000	82,966
Changes in Working Capital	US$000	0
Net Pre-Tax Cash Flow	US$000	2,202,299
Taxes	US$000	714,210
After-Tax Cashflow	US$000	1,488,089
Discounted Cash Flow at 5%	**US$000**	**1,094,176**
AISC	**US$/oz**	**1,545**

Figure 1-1 shows the forecast revenue, costs, cash flows, cumulative cash flows, and cumulative NPV for the project.

Figure 1-1: Cash Flow Summary



Source: SLR 2025.

1.3 Technical Summary

1.3.1 Property Description and Location

The Mine is located in Bomby Township, Northwestern Ontario, Canada, just north of Lake Superior on the Trans-Canada Highway, approximately 35 km east of the town of Marathon, Ontario. The centre of the property is located at 580,681 mE and 5,394,349 mN (UTM Zone 16, NAD83), 85°54’ W longitude and 48°41’ N latitude.

1.3.2 Land Tenure

Land tenure interests at Hemlo include freehold patents, leasehold patents, and unpatented mining claims. Barrick Mining Corporation (through its subsidiaries Lac Properties Inc. (“Lac Properties”), 1539041 B.C. ULC and Barrick (collectively, the “Barrick Subsidiaries”) holds a 100% interest in all patents and claims that comprise the Mine property, except for Mining Lease LEA-108070 (mining rights only) pursuant to which Lac Properties Inc. holds the interest. All patents and claims are in good standing as of the date of this Technical Report. The unpatented mining claims cover an area of 5,566 ha and the mining leases and patents total 4,534 ha. There are multiple royalties, back-in rights, payments, or other agreements and encumbrances to which the property is subject,

1.3.3 Existing Infrastructure

Located 35 km east of Marathon and adjacent to the Trans-Canada Highway, the Mine benefits from excellent road access, transportation, and communication links. The main Canadian Pacific Railway line lies just south of the Mine, with a major electrical transmission corridor to the north.

There is a skilled workforce in the neighbouring towns of Marathon, Manitouwadge, White River, and the Biigtigong Nishnaabeg and Netmizaaggamig Nishnaabeg First Nation communities. The Mine employs approximately 700 people, including contractors and temporary employees.

The mines in the Hemlo area have been active year-round since the start of production in 1985. At present, only the Williams underground mine is in production.

The Williams Mine site consists of the following major infrastructure:

- 10,000 tpd carbon-in-pulp (CIP) gold mill with refining capabilities
- 431 ha tailings facility (planned upgrades for LOM)
- 1,300 m deep shaft with production and service hoists with a capacity of 2.6 Mtpa
- Extensive truck garages, wash bays, and fuel storage (>100,000 L)
- 100 m^3/hr paste backfill plant and decline ramps
- 115 kV power line feeding two 33 MVA transformers

1.3.4 History

Minor gold findings were noted in the late 1800s after the Canadian Pacific Railroad's construction. Sporadic exploration work took place between the 1940s and 1980s.

Production began in 1985 at the David Bell Mine (Cominco Ltd.'s ("Teck") (collectively, "Teck-Corona JV") and Page-William's mine (Lac Minerals, later awarded to Teck-Corona JV). Noranda Mines Limited ("Noranda") initiated the Golden Giant JV (1982), leading to production from the Golden Giant property ("Golden Giant") shaft ("Golden Giant Shaft") in 1985. Control of Golden Giant passed to Hemlo Gold Mines, Inc. ("Hemlo Inc."), Battle Mountain Gold Canada Ltd. ("Battle Mountain"), and eventually Newmont Canada Corporation ("Newmont Canada"). Teck drilled the Interlake claims (1987-1988), later acquired by Franco-Nevada Corporation, which merged with Newmont Mining Corporation ("Newmont") before reforming as a separate company in 2007.

Barrick consolidated the Hemlo operations through acquisitions between 2009 and 2010, closing the David Bell Mine in 2014 and the Williams pit in 2020. Underground operations continue in the Williams, Golden Sceptre, and Interlake sectors.

The three mines at Hemlo have produced approximately 25 Moz of gold as of the end of 2024.

1.3.5 Geology and Mineralization

The Hemlo deposit is an example of an orogenic gold deposit. Orogenic gold deposits are a significant type of gold deposits worldwide, responsible for a substantial portion of historical and current gold production. These deposits are primarily associated with metamorphic belts in orogenic (mountain-building) regions and are typically formed during compressional to transpressional tectonic regimes, typically in the late stages of orogeny.

The Hemlo gold deposit occurs in the eastern half of the Schreiber-Hemlo greenstone belt, within the Wawa Subprovince of the Archean Superior Structural Province of Ontario. The geology of the eastern half of the Schreiber–Hemlo greenstone belt is designated as the Hemlo greenstone belt (HGB). Massive to pillowed, tholeiitic basalt flows and felsic to intermediate, calc-alkalic pyroclastic rocks with related sedimentary deposits dominate the western part of the HGB, whereas turbiditic wacke-mudstone and minor conglomerate deposits dominate the eastern part. The Hemlo gold deposit is in the south-central part of the HGB. In this area, volcano-sedimentary lithotectonic units dip to the north or north-northeast and are isoclinally folded and transposed within high-strain zones.

Metasedimentary rocks of the deposit are subdivided into volcaniclastic and epiclastic units. The volcaniclastic units comprise tuffaceous conglomerate, tuffaceous sandstone, and tuffaceous mudstone. Epiclastic units comprise sandstone, mudstone, and conglomerate, which incorporate nonvolcanic and volcanic detritus. A distinctive, intermediate-felsic intrusive unit is located in the central part of the deposit termed the Moose Lake Porphyry.

The primary mineralizing event introduced Au, S, Mo, Zn, As, Sb, Hg, Tl, W, K, Si, Fe, and V during or before early deformation and prior to peak metamorphism. Alteration includes feldspathization and sericitization, with significant silicification and pyritization in the ore zone. Subsequent remobilization events redistributed Au with stibnite (quartz veins), calc-silicate assemblages, and low-temperature sulphides.

Hemlo comprises several zones: David Bell, Golden Giant, Williams, and Golden Sceptre. The now-closed David Bell and Golden Giant mines produced gold primarily from altered fragmental and sedimentary rocks. Only the Williams Mine remains operational.

The Williams Mine includes three zones:

- A-Zone: Near-surface and mined out.
- B-Zone: Mineralization occurs at the contact between metasediments and MLP, with gold associated with pyrite in a quartz-feldspar matrix.
- C-Zone: Features parasitically folded mineralization in two styles: disseminated and vein-hosted, within either felsic MLP or heterolithic volcaniclastic/sedimentary rocks.

Mineralization dips 60–70° northeast and plunges approximately 45° northwest. The Footwall Zone lies 30–80 m into the footwall from the Main Zone.

1.3.6 Exploration Status

Recent exploration has included a surface mapping and trenching program, drone magnetic surveying, soil surveys, and drill testing. No additional exploration (other than drilling) has been completed since 2021.

1.3.7 Mineral Resources

The Mineral Resource estimates have been prepared according to CIM (2014) Standards as incorporated with NI 43-101. Mineral Resource estimates were also prepared using the guidance outlined in CIM (2019) MRMR Best Practice Guidelines.

The Mineral Resource estimate for the Mine comprises the B-Zone and C-Zone block models. Both of these reviewed block models comprise all the mineralized domains representing the Hemlo deposit. The estimate was completed internally by Hemlo mine staff and further reviewed and accepted by Brian Hartman, P.Geo. of SLR, a Registered Member of the Society for Mining, Metallurgy & Exploration, and a Practicing Member with Professional Geoscientists Ontario. The effective date of the Mineral Resource estimate is December 31, 2024.

The Hemlo Mineral Resource represents both open pit and underground portions.

Underground Mineral Resources are constrained within optimized mining shapes at a gold cut-off grade that varies by material type, averaging 2.38 g/t Au using Deswik Stope Optimizer (DSO). All blocks within the resultant stope shapes, including waste, are reported within the underground Mineral Resource. Thus, it is considered a diluted resource which adheres to Reasonable Prospects for Eventual Economic Extraction (RPEEE) considerations

For the open pit, Mineral Resources are constrained within an optimized pit shell using the Lerchs-Grossmann algorithm applying reasonable pricing and cost inputs. The open pit Mineral Resource uses a 0.21 g/t Au cut-off grade.

Mineral Resources are reported inclusive of Mineral Reserves and have been depleted to December 31, 2024 using the mined-out surfaces and voids. Mineral Resources that are not Mineral Reserves do no have demonstrated economic viability. The Hemlo Mineral Resource is shown in Table 1-2.

Table 1-3: Hemlo Mineral Resource as of December 31, 2024

	Measured Resources			Indicated Resources			Measured + Indicated Resources			Inferred Resources		
	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content
	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)
Open Pit												
Hemlo Open Pit	0	0.00	0	56,875	0.88	1,601	56,875	0.88	1,601	6,501	0.42	88
Subtotal Open Pit	**0**	**0.00**	**0**	**56,875**	**0.88**	**1,601**	**56,875**	**0.88**	**1,601**	**6,501**	**0.42**	**88**
Underground												
UG Excluding Interlake	2,587	4.19	349	7,475	4.24	1,020	10,062	4.23	1,368	2,096	3.78	255
Interlake Claim	1,750	4.89	275	2,594	4.57	381	4,345	4.70	656	1,224	7.13	281
Subtotal Underground	**4,337**	**4.47**	**624**	**10,069**	**4.33**	**1,401**	**14,406**	**4.37**	**2,025**	**3,320**	**5.02**	**535**
Total In Situ	**4,337**	**4.47**	**624**	**66,944**	**1.39**	**3,002**	**71,281**	**1.58**	**3,626**	**9,821**	**1.97**	**624**

Notes:

1. The Mineral Resource estimate has been prepared according to CIM (2014) Standards and using CIM (2019) MRMR Best Practice Guidelines.
2. Open Pit Mineral Resources are reported based on an economic pit shell. Underground Mineral Resources are constrained within stope shapes generated by Deswik Stope Optimizer. Refer to Section 14.12.
3. Open Pit Mineral Resources are reported at a cut-off grade of 0.21 g/t Au. Underground Mineral Resources are reported on a diluted basis using a gold cut-off grade that varies by material type and mining method and averages 2.38 g/t Au.
4. Both Underground and Open Pit Mineral Resources are estimated using a long-term gold price of US$1,900/oz.
5. A constant SG value of 2.72 has been applied to all blocks in the model. Waste dump material is assigned an SG of 2.0.
6. Mineral Resources are inclusive of Mineral Reserves.
7. Mineral Resources have been depleted to December 31, 2024 using the mined-out surfaces and voids.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9. Numbers may not add due to rounding.
10. The QP responsible for this Mineral Resource estimate is Brian Hartman (P.Geo.) of SLR.

The QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

1.3.8 Mineral Reserves

The Mineral Reserves outlined in this report are based on Measured and Indicated Resources and exclude metal classified as Inferred Mineral Resources. The Mineral Reserve estimate follows the CIM (2019) MRMR Best Practice Guidelines.

Factors that may affect the Mineral Reserve estimates include but are not limited to the following: adjustments to gold price and exchange rate assumptions; changes in operating and capital cost estimates; dilution adjustments; changes to geotechnical and hydrogeological conditions; changes to mine execution performance; and changes to modifying factor assumptions; changes to assumptions used for environmental (rainfall, etc.), permitting, and impacts to the social licence to operate. As the mine deepens or proceeds into remnant sections of the mine, mining recoveries and dilution could worsen, as geotechnical conditions deteriorate. Reserves could also be affected by financial agreements (royalties, metal streams, etc.) that are applied to the property, which lowers the expected revenue from metal sales, impacting operating margin and cut-off values which may impact the Mineral Reserves.

There is upside potential for the Mineral Reserve estimates if mineralization that is currently classified as Inferred Mineral Resources, which is contained within mineral reserve mining blocks and is being sent for processing as 0 g/t dilution, is converted to Mineral Reserves following further definition drilling not currently included in the study. There is also potential upside in the open pit Mineral Reserve with a depletion halo applied around the pit edge and underground workings, that may be recoverable in operation.

The Mineral Reserves for Hemlo are entirely Probable Reserves and are estimated to be 41.2 Mt at 1.75 g/t Au for 2.32 Moz Au as summarized in Table 1-4.

Table 1-4: Hemlo Mining Reserves

	Proven Reserves			Probable Reserves		
	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content
	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)
Hemlo Open Pit	-	-	-	28,446	0.85	781
Hemlo Underground	-	-	-	12,802	3.74	1,540
Total	**-**	**-**	**-**	**41,249**	**1.75**	**2,321**

Notes:

1. The independent qualified person for the 2025 MRE, as defined by NI 43-101 guidelines, is Jason Allen, P. Eng. (#39170), of Entech Mining Ltd. The effective date of the estimate is December 31, 2024.
2. The Hemlo Mineral Reserve estimate follows the CIM (2019) MRMR Best Practice Guidelines.
3. These Mineral Reserves have been diluted based on site geotechnical recommendations and have had a mining recovery applied.
4. The Mineral Reserve is depleted for all mining to December 31, 2024.
5. A minimum mining width of 3.0 m is used with an additional 1.5 m considered for overbreak. Alimak stopes have an average width of 6.6 m and longhole stopes have an average width of 9.1 m.
6. The Mineral Reserve is reported using a US$134.1/t NSR breakeven cut-off value (COV), a US$110.8/t or US$120.0/t NSR stope incremental COV depending on mining method (US$120 /t or US$131/t when inputted into MSO considering backfill dilution), and a US$34.1 NSR marginal COV. Any material included in between the Marginal COV of US$34.1/t NSR used for mine planning and US$39.54/t NSR (average G&A, processing cost for 2025-2027) was deemed immaterial.
7. Price assumptions are US$1,700/oz Au. Processing recovery was estimated at 92.8% with mine royalties of 2-3% applied, depending on claim (average of 2.092%).
   a. If Carcetti enters into a streaming arrangement to finance the purchase of the Hemlo operations, the agreement may have a material impact on the Mineral Reserves and the cut-off value updated to reflect the arrangement.
8. Estimates use metric units (metres (m), tonnes (t), and g/t). Metal contents are presented in troy ounces (metric tonne x grade / 31.103475).

The independent QP is not aware of any environmental, permitting, legal, title-related, taxation, socio-political or marketing issues, or any other relevant issue that could materially affect the Mineral Reserve estimate.

1.3.9 Mining Method

The Mine operates as an underground operation that employs longhole and Alimak stoping with backfill. Pastefill is used in most voids, with some voids being filled with uncemented rockfill. Longhole stoping with pastefill is mostly used in the operation with Alimak considered in the upper C-Zone. Future mining plans considers longhole stoping with pillars in place of backfill, where limited pastefill infrastructure exists or insufficient waste is available to place in mined voids.

Longhole stoping (LHS) is the primary method employed underground, accounting for more than 80% of underground stope production. Target sublevel spacing is 30 m, or between existing development levels, with a target strike length of 20 m. Strike lengths may vary depending on orebody continuity, geometry, and ground conditions.

Alimak makes up for the remainder of underground stope production with sublevel spacing reaching up to 150 m vertically. Target strike lengths for stopes are 20 m, though they can vary depending on orebody continuity, geometry, and ground conditions. Alimak is mostly employed in the upper C-Zone, where stope strikes are limited along strike and extend vertically over multiple levels.

The average stope width for LHS is 9.1 m and the average width for Alimak stoping is 6.6 m. Total unplanned dilution is estimated to be 26%–30% and is based on performance at site. Mine production is estimated to range between 1.1 Mtpa and 1.4 Mtpa over nine years with mined metal estimated to range between 130 koz and 190 koz per annum. Underground operations complete in 2035.

Hemlo has a historical open pit that mined the upper portions of the C-Zone. The study assesses a cutback to the west to supplement the underground operation commencing in 2027 and targeting completion in 2034.

To reduce fixed costs being applied to the lower margin pit, a smaller pit shell was selected (equivalent to a US$1,400 /oz pit shell) for design. Pit design considered conventional drill and blast over 10 m benches mined with 22 m^3 excavators and hauled via 135-147 t trucks. Average production from the pit (ore and waste) is approximately 30 Mtpa during the first three years while pre-stripping and mining of the existing dump material occurs. As the mine deepens and interacts with the historical workings, shovel productivity is reduced, with pit production (ore and waste) reduced to 10-18 Mtpa.

The pit completes in 2034 with the processing facility continuing to treat stockpiles until 2038.

1.3.10 Mineral Processing

The processing plant at Hemlo (the Williams Mill) uses a conventional flowsheet consisting of crushing, grinding, gravity concentration and intensive cyanide leaching of the concentrate, cyanide leaching of the gravity tails, carbon adsorption in a CIP circuit, carbon elution and regeneration, electrowinning, and refining. The carbon adsorption tails are treated in a cyanide detoxification circuit using the SO_2/air process, and a portion of the detoxified tailings is used for mine backfill via the Williams paste plant. Flotation is used to separate sulphides from the remainder of the detoxified tailings prior to deposition, un-thickened, in a conventional TMF. The sulphide concentrate is sent to a separate paddock within the larger TMF.

The mill was originally designed to process 3,000 dry tpd when it started production in 1985. However, after several expansions and optimization modifications, the capacity reached approximately 10,000 tpd by 2004 (3.65 Mtpa). Between 2005 and 2019, throughput on an annual average basis ranged from 6,900 tpd to 9,600 tpd. After the closure of the Williams open pit in 2020, mill throughput decreased to between 3,000 tpd and 5,500 tpd during 2021 to 2024.

Mill feed grades decreased steadily between 2003 and 2018 from 4.9 g/t to 1.9 g/t, after which the closure of the open pit coincided with an increase in mill feed grades to range from 3.2 g/t to 3.7 g/t from 2020 to 2024. This corresponded with a small increase in recovery from 93% in 2018 to between 94% and 95% in later years.

1.3.11 Project Infrastructure

The Mine operations have been active since the start of production of the Williams Mine in 1985 and have infrastructure in place for the operations. The David Bell and Golden Giant mines have been closed and the surface operations are currently in progressive reclamation. Underground workings for these two mines remain accessible through the Williams Mine and are currently used for ventilation for the Williams Mine.

The Williams mine site consists of the following major infrastructure:

- Wash bay accommodating 150-tonne class haul trucks
- 3-bay garage accommodating 90-tonne class haul trucks
- Fuel bays with storage capacities > 100,000 litres

- Primary gyratory crusher and overland conveyors
- 10,000 tpd CIP gold mill with electrowinning and refining capacity
- Processing plant including a cyanide destruction and sulphide float circuit to produce cyanide free NAG tails
- 431 ha TMF with plans to change the deposition method so it has capacity to operate for the LOM
- Surface water management infrastructure for the management and potential discharge of surface water runoff from the Williams site
- Effluent treatment plant for the treatment and discharge of excess water from the TMF
- Hoistroom and headframe (63.4 m high) with a 1,300 m deep shaft
- 4.6 m diameter production hoist with 22 t capacity skips with capacity up to 2.6 million tonnes per annum (Mtpa)
- 3.7 m service hoist with cage and counterweight
- 100 m³/hr paste backfill plant
- Service building housing the maintenance facilities, offices, and mine dry
- Support infrastructure including water treatment, sewage treatment, emergency response, storage areas, buildings, and roadways to support the site
- 4 x 5 m decline and a series of ramp connected levels connecting to the base of the mine.
- 115 kV power line from the Ontario power grid feeding two 33 MVA main transformers.

To restart the open pit, certain infrastructure has to be rebuilt including the washbay, workshop, and material handling system. These were assessed at a high level for the suitability of for the proposed mine plan.

In summary:

- The workshop will have to be expanded to accommodate the larger trucks.
- The washbay is suitably sized.
- The crusher building will have to be increased to accommodate the larger trucks and the dust collection system needs to be replaced.
- The #10 conveyor will need to be repaired.
- The #19 conveyor will need to be replaced.
- A new engineering and administration building will need to be constructed.
- The fuel station and ready line will be relocated.

The TMF will have to be expanded to accommodate the addition ore from the open pit. The proposed centreline raise is described in 2025 studies by WSP to store thickened and NAG tailings within the existing TMF.

1.3.12 Market Studies

The long-term commodity price forecasts used to support Mineral Resources and Mineral Reserves as of December 31, 2024 are:

- Mineral Resources: US$1,900/oz Au
- Mineral Reserves: US$1,700/oz Au

Both pricing assumptions are below the current market spot price as of the date of this report, with higher metal prices being used for the Mineral Resource estimate utilized for the positioning of long term infrastructure to ensure that future potential price pit pushbacks are not sterilized.

The cash flow analysis presented in this study considers metal prices based on consensus market forecast provided by the Canadian Imperial Bank of Commerce (CIBC). The gold and silver prices are shown in Table 1-5.

Table 1-5: Gold and Silver Prices

Metal	2025	2026	2027	2028	2029	2030-LOM
Gold (US$/oz)	3,195	3,265	3,050	2,915	2,840	2,610
Silver (US$/oz)	34.15	35.25	34.05	32.85	31.90	29.85

1.3.13 Environmental, Permitting and Social Considerations

The Mine lies in the Bombay Township, outside the closest municipality of Marathon, Ontario and is therefore not subject to municipal zoning or bylaw requirements. The mine lies within Crown Lands managed by the Ministry of Natural Resources and Forestry (MNRF).

The project has been operating since 1985 in that time several environmental studies have been conducted for permitting purposes and monitoring requirements. Water management and water issues are the most relevant environmental aspect in the site. Surface water is managed in a professional manner and according to the requirements of the environmental permits received. The Mine conducts all the required water quality monitoring and there are no issues with compliance or water quality of the surrounding water bodies.

Hemlo follows all provincial and federal laws with the necessary permits, including those for occupational health and safety, environmental monitoring, and reporting. Over the course of the mine life, Hemlo has submitted a number of applications to modify the development consent in line with various pit expansions, operating adjustments and mine life extensions. All permits are in good standing, and the Mine is in compliance with those permits.

Environmental approvals for the proposed Open Pit Expansion Project have not yet been granted. However, environmental baseline studies and other related assessments are currently in progress. The project anticipates provincial permits updates will be required, including Environmental Compliance Approval (ECA) amendment and an update to the closure plan. Depending on the footprint of the project, federal permits may be required, At the time of writing this report, the Mine is awaiting confirmation from the Department of Fisheries and Oceans.

Hemlo in 2023 was a signatory, through Barrick, of the Towards Sustainable Mining (TSM) initiative, and the latest audit was finalized in August 2023. Their performance on Indigenous and Community Relationships was rated A to AA in the different categories, indicating that community engagement is managed well.

Hemlo has two first nations within its area of influence, the agreement with the Netmizaaggamig Nishnaabeg (NN) Frist Nation has been extended until June 30, 2026. The agreement with the BN First Nation expired in June 2025 and at their request, the parties are working collaboratively on a new agreement. The risk of not coming to an agreement are low; negotiations are ongoing and are expected to conclude by the end of 2025.

Environmental rehabilitation plans are in place, and the cost of the mine closure rehabilitation work is accounted for in the Bonded Financial Assurance for the Williams Mine and a Letter of Credit for the David Bell Mine. The latest “Williams Mine Closure Plan Amendment” was submitted to the Ontario Ministry of Northern Development and Mines in July 2018 and updated in January 2019. The Provision for Environmental Rehabilitation (PER) estimate is C$87.7M. The PER estimate for the David Bell Mine is C$4.6M.

1.3.14 Capital and Operating Cost Estimates

Capital and operating costs for the Mine are based on cost estimates prepared from first principles by Hemlo and third-party consultants supported by studies and associated cost estimates prepared within an accuracy range of +/-25%, which is the typical level of a PFS.

The costs are supported by engineering quantities estimates from detailed design drawings and equipment lists, with some smaller items factored from other comparable projects. Prices were determined by secured contracts, and vendor quotes with smaller items sourced from in-house databases.

Capital and operating costs reflect current price trends and exchange rates as of the effective date of this Technical Report.

All costs presented are in real US dollars (US$) as of Q1 2025, without allowance for further inflation.

1.3.14.1 Capital Costs

Costs have been presented in three capital allocations:

- Expansion Capital: Capital costs required for the expansion project above the current production rate.
- Sustaining Capital: Capital cost required to sustain the production rate throughout the LOM.
- Closure Cost: Capital cost required to close and decommission the mine site and the end of the LOM.

The total capital cost is presented in Table 1-6.

Table 1-6: Capital Cost Estimate

Description	Expansion Capital (US$M)	Sustaining Capital (US$M)	Total Capital (US$M)
Mining – Open Pit	335.0	0.0	335
Mining – Underground	0.0	227.6	227.6
Material Handling, Crushing & Conveying	10.8	0.0	10.8
Processing Plant	32.3	8.1	40.5
Tailings & Water Management	6.2	91.4	97.6
Infrastructure	3.0	0.0	3.0
Drilling	0.0	31.5	31.5
Indirect Costs	30.3	0.0	30.3
Contingency & Escalation	40.3	0.0	40.3
Total Project Capital	**457.9**	**358.6**	**816.5**

1.3.14.2 Operating Costs

The operating costs for the LOM (Table 1-7) were developed considering the planned mine physicals, equipment hours, labour projections, consumables forecasts, and other expected incurred costs.

Table 1-7: Operating Costs

Area	LOM Total (US$M)	LOM Unit Cost (US$/t Ore)
Mining – Underground	1,211	29.35
Mining – Open Pit	393	9.52
Processing	558	13.53
General and Administration	249	6.04
Total	**2,411**	**58.44**

2.0 Introduction

SLR Consulting (Canada) Ltd. (SLR) ,was retained by Carcetti Capital Corp. (Carcetti) to prepare an independent Technical Report on the Hemlo Gold Mine (Hemlo or the Mine), located in Bomby Township, Northwestern Ontario, Canada. The purpose of this Technical Report is to support Carcetti's public disclosure of Mineral Resource and Mineral Reserve estimates at the Mine as of December 31, 2024. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).

Carcetti is a Canadian, publicly traded company. On September 10, 2025, Carcetti announced that it had entered into a definitive agreement (Proposed Transaction) to acquire a 100% interest in the Mine from wholly-owned subsidiaries of Barrick Mining Corporation (Barrick). At the time of filing of this report, this Proposed Transaction had not closed.

The Hemlo property is located just north of Lake Superior on the Trans-Canada Highway, approximately 35 km east of the town of Marathon, Ontario, at approximately 85°54' W longitude and 48°41' N latitude.

In production since 1985, operations at the Hemlo have produced approximately 25 million ounces (Moz) of gold to December 2024. Past underground production came from Williams, Golden Giant, and David Bell underground (UG) mines stretching over a length of two kilometres and a vertical distance of approximately 1,500 m below surface.

Hemlo is currently in operation at the Williams Mine, with underground Mineral Reserves projected to sustain underground operations until 2034 at an average production rate of approximately 4,000 tpd.

There is an expansion planned to the historical Williams open pit. The open pit is planned as a traditional truck and shovel/loader operation with an annual ore production rate of up to 13,000 tonnes per day (tpd) of ore to the plant (up to 82,000 tpd moved, including waste and low-grade to stockpile). This expansion is planned to commence in 2027, with mining completed in 2034 and stockpile reclaim scheduled until 2038.

Mineral processing of up to 10,000 tpd at Hemlo consists of grinding, cyanide leaching, carbon-in-pulp (CIP), carbon stripping and reactivation, electrowinning, and refining.

2.1 Sources of Information

The key information source for this Technical Report was the current operational report, supporting studies and underlying data prepared by Hemlo, previous owners, and various third-party consultants. The documentation reviewed, and other sources of information, are listed at the end of this report in Section 27.

During the site visit and in meetings throughout the study, discussions were held with operating personnel from the Mine and regional technical support staff.

2.2 Qualified Persons

This Technical Report was prepared by SLR, Entech, and WSP.

The Qualified Persons (QPs) and their responsibilities for this Technical Report are listed in Section 29 Certificates of Qualified Persons and summarized in Table 2-1.

Table 2-1: Qualified Persons and Responsibilities

QP, Designation, Title	Company	Responsible for
Brian Hartman, P. Geo.	SLR USA Advisory Inc.	1.1.1.1, 1.1.2.1, 1.1.2.8, 1.1.3.2, 1.3.1, 1.3.2, 1.3.4, 1.3.5, 1.3.6, 1.3.7, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.1, 12.2, 12.3, 12.4.1, 14, 23, 25.1, 25.7.2.1, 26.1, 26.8
Lance Engelbrecht, P. Eng.	SLR Consulting (Canada) Ltd.	1.1.1.3, 1.1.2.3, 1.1.3.2, 1.3.10, 12.4.3, 13, 17, 25.3, 25.7.2.3, 26.3
Marc Rougier, P. Eng.	WSP Canada Inc.	1.1.3.1, 16.2.1, 25.7.1.3
James Smith, P. Eng.	WSP Canada Inc.	1.1.3.1, 16.1.1, 25.7.1.2
Jason Allen, P. Eng.	Entech Mining Ltd.	1.1.1.2, 1.1.2.2, 1.1.3.1, 1.1.3.2, 1.3.8, 1.3.9, 12.4.2, 15, 16 (excluding 16.1.1, 16.1.5, 16.2.1), 21.2.1.1, 21.2.2.1, 21.3.1, 25.2, 25.7.1.1, 25.7.2.2, 26.2
Jason Cox, P. Eng.	SLR Consulting (Canada) Ltd.	1.1.1.4, 1.1.1.6, 1.1.2.4, 1.1.2.6, 1.1.2.7, 1.1.3.2, 1.2, 1.3.3, 1.3.11, 1.3.12, 1.3.14, 12.4.5, 16.1.5, 18.1, 18.2, 19, 21 (excluding 21.2.1.1, 21.2.2.1, 21.3.1), 22, 24, 25.4, 25.6, 25.7.2.4, 26.6, 26.7
Siavash Farhangi, P. Eng.	WSP Canada Inc.	1.1.1.4, 1.1.2.4, 1.1.3.1, 18.3, 25.4, 25.7.1.4, 26.4, 27
Gonzalo Rios, FAusIMM	SLR Consulting (Canada) Ltd.	1.1.1.5, 1.1.2.5, 1.1.3.1, 1.3.13, 12.4.4, 20, 25.5, 25.7.1.5, 26.5

2.3 Site Visits of Qualified Persons

- Brian Hartman is employed by SLR USA Advisory Inc. as the Principal Resource Geologist. He visited the Mine from May 21 to 22, 2025 where he reviewed the drill core at the Hemlo core shack, including procedures for logging, sampling, and QA/QC, and held discussions with geological staff regarding regional and local geology, drilling, data validation/verification, geological modeling, resource estimation methods, and block model validation.
- Lance Engelbrecht is employed by SLR Consulting (Canada) Ltd. as a Principal Metallurgist. He visited the Mine from May 21 to 22, 2025 where he visited the open pit, the open pit crushing facilities, and the grinding, gravity, CIP, and flotation processing facilities, as well as the TMF and water treatment plant, and surface infrastructure, and discussed the process flow sheet and historical production figures with Hemlo Mine metallurgical staff, and discussed metallurgical test work information and metallurgical testing procedures, as well as forecasting methods based on metallurgical test work.

- Marc Rougier is employed by WSP as the Senior Principal Geological Engineer. He has completed multiple visits since 2010. The most recent personal visit to the property described in the Technical Report was from June 20 to 22, 2022.
- James Smith is employed by WSP as the Geological Engineer. He visited the Mine from May 28 to 29, 2025 where he reviewed aspects of the underground geotechnical character and currently employed mining and ground support methods.
- Jason Allen is employed by Entech Mining Ltd. as Director of Entech. He visited on May 28 to May 29, 2025, where he visited the UG operation and viewed various active workplaces including development, stoping, and truck loading in the Interlake zone. The proposed pit expansion, including the potential ore stockpiles, and west waste dumps were also viewed. The supporting pit infrastructure (surface crusher, surface material handling, and workshop) was viewed during a previous trip completed on April 23 to April 25, 2024.
- Jason Cox is employed by SLR Consulting (Canada) Ltd. as a Global Technical Director. He has not visited the Mine in the course of the current work, but toured the site in 2016 as part of the preparation of a previous Technical Report on the property.
- Siavash Farhangi is employed by WSP as the Senior Principal, Tailings & Mine Waste. He visited the Mine September 16 to 18, 2025 where he reviewed the TMF.
- Gonzalo Rios is employed by SLR Consulting (Canada) Ltd. as the Principal Consultant, ESG. He visited the Mine from May 28 to 29, 2025 where he reviewed the open pit, TSF, Plant, Water Monitoring Points, Water Treatment Plant, Shops, and Expansion Areas.

2.4 List of Abbreviations

Units of measurement used in this Technical Report conform to the metric system. All currency in this Technical Report is US dollars (US$) unless otherwise noted.

a	annum
A	ampere
°C	degree Celsius
C$, CAD	Canadian dollars
cfm	cubic feet per minute
cm	centimetre
d	day
ft	foot
g	gram
G	giga (billion)
g/L	gram per litre
g/t	gram per tonne
ha	hectare
hp	horsepower
hr	hour
hr/d	hours per day
in.	inch
k	kilo (thousand)
kg	kilogram
km	kilometre
km^2	square kilometre
km/h	kilometre per hour
koz	thousand ounces
kPa	kilopascal
kt	kilotonne
ktpd	thousand tonnes per day
kVA	kilovolt-amperes
kW	kilowatt
kWh	kilowatt-hour
L	litre
lb	pound
m	metre
M	mega (million); molar
m^2	square metre
m^3	cubic metre
masl	metres above sea level
m^3/h	cubic metres per hour
min	minute
mm	millimetre
Mm^3	million cubic metres
Moz	million ounces
MVA	megavolt-amperes
MW	megawatt
MWh	megawatt-hour
oz	Troy ounce (31.1035g)
ppm	part per million
RL	relative elevation
s	second
t	metric tonne
t/m^3	tonnes per cubic metre
tkm	tonne kilometre
tkm/mo	tonne kilometre per month
tpa	metric tonne per year
tpd	metric tonne per day
tph	tonnes per hour
US$, USD	United States dollar
V	volt
W	watt
wt%	weight percent
yr	year

3.0 Reliance on Other Experts

This Technical Report has been prepared by SLR for Carcetti. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to SLR at the time of preparation of this Technical Report.
- Assumptions, conditions, and qualifications as set forth in this Technical Report.

For the purpose of this Technical Report, SLR has relied on ownership information provided by Barrick. This opinion is relied on in Sections 4 and the Summary of this Technical Report. SLR has not researched property title or mineral rights for the Hemlo Mine and expresses no opinion as to the ownership status of the property.

SLR has relied on Barrick for guidance on applicable taxes, royalties, and other government levies or interests, applicable to revenue or income from Hemlo Mine. This information is relied on in Section 4 and the Summary of this Technical Report.

4.0 Property Description and Location

4.1 Location

The Mine is in Bomby Township, Northwestern Ontario, Canada, just north of Lake Superior on the Trans-Canada Highway, approximately 35 km east of the town of Marathon, Ontario (Figure 4-1). The property consists of the Williams Mine and processing facility at the western end, the Golden Giant Mine in the centre, and the David Bell Mine at the eastern end. The centre of the property is located at 580,681 mE and 5,394,349 mN (UTM Zone 16, NAD83), 85°54' W longitude and 48°41' N latitude.

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LEGEND	
National capital	Highway
Provincial capital	River
City/Town	

N

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT

PROJECT		
NAME: CARCETTI CAPITAL CORP - HEMLO MINE		
DRAWING: GENERAL LOCATION PLAN		
FIGURE No. 4-1	PROJECT No. ADV-TO-00122	DATE October 2025

4.2 Land Tenure

Land tenure interests at Hemlo include freehold patents, leasehold patents, and unpatented mining claims. Barrick Mining Corporation (through the Barrick Subsidiaries) holds a 100% interest in all patents and claims that comprise the Mine property, except for Mining Lease LEA-108070 (mining rights only) pursuant to which Lac Properties Inc. holds the interest.

In 2009, Barrick acquired Teck Cominco Ltd.'s (Teck) 50% interest in the Mine. In September 2010, Barrick completed the acquisition of Newmont Mining Corporation's (Newmont) interest in the Golden Giant Mine. In March 2015, Barrick acquired certain lands to the west and north of the Williams Mine, as well as claims underlying the Molson Lake tailings management facility (TMF). Barrick acquired the following properties: CLM 271, CLM 272, CLM 284, CLM 277, CLM 278, and the southern portion of CLM 285. Barrick also acquired the mineral rights on portions of CLM 273, CLM 274, the Sceptre claim, and Horizon claims that it did not already own.

All patents and claims are in good standing as of the date of this Technical Report in that realty and mining land taxes are paid for all patents and assessment credits have been applied to all unpatented mining claims. The unpatented mining claims cover an area of 5,566 ha and are listed in Table 4-1.

Table 4-1: Unpatented Claims of the Hemlo Property

Tenure Number	Title Type	Tenure Status	Issue Date	Expiry Date	Holder	Area (ha)
104214	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	2.35
118978	Boundary Cell Mining Claim	Active	4/10/2018	3/7/2026	(100) BARRICK GOLD INC.	5.45
119207	Boundary Cell Mining Claim	Active	4/10/2018	10/5/2026	(100) BARRICK GOLD INC.	16.04
120572	Boundary Cell Mining Claim	Active	4/10/2018	10/5/2026	(100) BARRICK GOLD INC.	11.13
122175	Boundary Cell Mining Claim	Active	4/10/2018	3/7/2026	(100) BARRICK GOLD INC.	13.83
124767	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	17.60
129499	Boundary Cell Mining Claim	Active	4/10/2018	10/5/2026	(100) BARRICK GOLD INC.	20.62
139558	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	13.68
142388	Boundary Cell Mining Claim	Active	4/10/2018	9/4/2026	(100) BARRICK GOLD INC.	8.78
145801	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	15.59
146317	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	1.32
158536	Boundary Cell Mining Claim	Active	4/10/2018	9/4/2026	(100) BARRICK GOLD INC.	20.64
160355	Boundary Cell Mining Claim	Active	4/10/2018	9/18/2026	(100) BARRICK GOLD INC.	15.21
160633	Boundary Cell Mining Claim	Active	4/10/2018	9/4/2026	(100) BARRICK GOLD INC.	2.60
174736	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	0.53
175581	Boundary Cell Mining Claim	Active	4/10/2018	10/5/2026	(100) BARRICK GOLD INC.	20.31
177794	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	2.85
177806	Boundary Cell Mining Claim	Active	4/10/2018	3/7/2026	(100) BARRICK GOLD INC.	6.39
181484	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	14.24
187397	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	1.85
192865	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	1.06
193911	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	5.80
194345	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	19.12
200876	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	1.59

Tenure Number	Title Type	Tenure Status	Issue Date	Expiry Date	Holder	Area (ha)
203671	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	13.44
203905	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	11.68
207095	Boundary Cell Mining Claim	Active	4/10/2018	3/7/2026	(100) BARRICK GOLD INC.	13.00
220552	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	2.10
221347	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	0.79
223169	Boundary Cell Mining Claim	Active	4/10/2018	3/7/2026	(100) BARRICK GOLD INC.	2.74
223716	Boundary Cell Mining Claim	Active	4/10/2018	3/7/2026	(100) BARRICK GOLD INC.	18.02
230892	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	20.74
232402	Boundary Cell Mining Claim	Active	4/10/2018	10/5/2026	(100) BARRICK GOLD INC.	9.91
238410	Boundary Cell Mining Claim	Active	4/10/2018	9/4/2026	(100) BARRICK GOLD INC.	12.68
241109	Boundary Cell Mining Claim	Active	4/10/2018	9/4/2026	(100) BARRICK GOLD INC.	8.51
243895	Boundary Cell Mining Claim	Active	4/10/2018	3/7/2026	(100) BARRICK GOLD INC.	12.02
244610	Boundary Cell Mining Claim	Active	4/10/2018	10/5/2026	(100) BARRICK GOLD INC.	8.30
244611	Boundary Cell Mining Claim	Active	4/10/2018	10/5/2026	(100) BARRICK GOLD INC.	19.82
245841	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	16.81
260981	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	2.60
260989	Boundary Cell Mining Claim	Active	4/10/2018	3/7/2026	(100) BARRICK GOLD INC.	5.76
261043	Boundary Cell Mining Claim	Active	4/10/2018	3/7/2026	(100) BARRICK GOLD INC.	7.49
261123	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	18.66
262318	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	0.03
268778	Boundary Cell Mining Claim	Active	4/10/2018	9/4/2026	(100) BARRICK GOLD INC.	16.72
268805	Boundary Cell Mining Claim	Active	4/10/2018	9/4/2026	(100) BARRICK GOLD INC.	2.69
269498	Boundary Cell Mining Claim	Active	4/10/2018	9/4/2026	(100) BARRICK GOLD INC.	17.00
286811	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	21.26
289264	Boundary Cell Mining Claim	Active	4/10/2018	9/18/2026	(100) BARRICK GOLD INC.	18.60
306970	Boundary Cell Mining Claim	Active	4/10/2018	9/4/2026	(100) BARRICK GOLD INC.	18.14

Tenure Number	Title Type	Tenure Status	Issue Date	Expiry Date	Holder	Area (ha)
309546	Boundary Cell Mining Claim	Active	4/10/2018	10/5/2026	(100) BARRICK GOLD INC.	15.39
315534	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	12.62
316652	Boundary Cell Mining Claim	Active	4/10/2018	9/4/2026	(100) BARRICK GOLD INC.	9.99
322002	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	15.64
322876	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	21.02
325978	Boundary Cell Mining Claim	Active	4/10/2018	3/7/2026	(100) BARRICK GOLD INC.	2.81
326910	Boundary Cell Mining Claim	Active	4/10/2018	3/7/2026	(100) BARRICK GOLD INC.	6.07
326964	Boundary Cell Mining Claim	Active	4/10/2018	3/7/2026	(100) BARRICK GOLD INC.	11.71
332514	Boundary Cell Mining Claim	Active	4/10/2018	9/4/2026	(100) BARRICK GOLD INC.	12.45
335233	Boundary Cell Mining Claim	Active	4/10/2018	10/15/2026	(100) BARRICK GOLD INC.	0.27
726117	Multi-cell Mining Claim	Active	5/17/2022	10/5/2026	(100) BARRICK GOLD INC.	127.77
726132	Multi-cell Mining Claim	Active	5/17/2022	10/15/2026	(100) BARRICK GOLD INC.	532.41
726152	Multi-cell Mining Claim	Active	5/17/2022	10/15/2026	(100) BARRICK GOLD INC.	447.23
726155	Multi-cell Mining Claim	Active	5/17/2022	10/15/2026	(100) BARRICK GOLD INC.	532.41
726156	Multi-cell Mining Claim	Active	5/17/2022	10/15/2026	(100) BARRICK GOLD INC.	255.57
726157	Multi-cell Mining Claim	Active	5/17/2022	8/11/2026	(100) BARRICK GOLD INC.	490.12
726158	Multi-cell Mining Claim	Active	5/17/2022	8/21/2026	(100) BARRICK GOLD INC.	447.41
726159	Multi-cell Mining Claim	Active	5/17/2022	10/15/2026	(100) BARRICK GOLD INC.	532.60
726160	Multi-cell Mining Claim	Active	5/17/2022	10/15/2026	(100) BARRICK GOLD INC.	170.48
726161	Multi-cell Mining Claim	Active	5/17/2022	3/7/2026	(100) BARRICK GOLD INC.	425.83
726162	Multi-cell Mining Claim	Active	5/17/2022	3/7/2026	(100) BARRICK GOLD INC.	447.18
726163	Multi-cell Mining Claim	Active	5/17/2022	3/7/2026	(100) BARRICK GOLD INC.	511.14

Table 4-2 lists all mining leases and patents held by the Barrick Subsidiaries which total 4,534 ha. Except as noted below, the Barrick Subsidiaries holds the surface rights to all mining patents and has the right to access the surface lands of all unpatented claims held by the Barrick Subsidiaries.

Table 4-2: Patents and Leases of the Mine Property

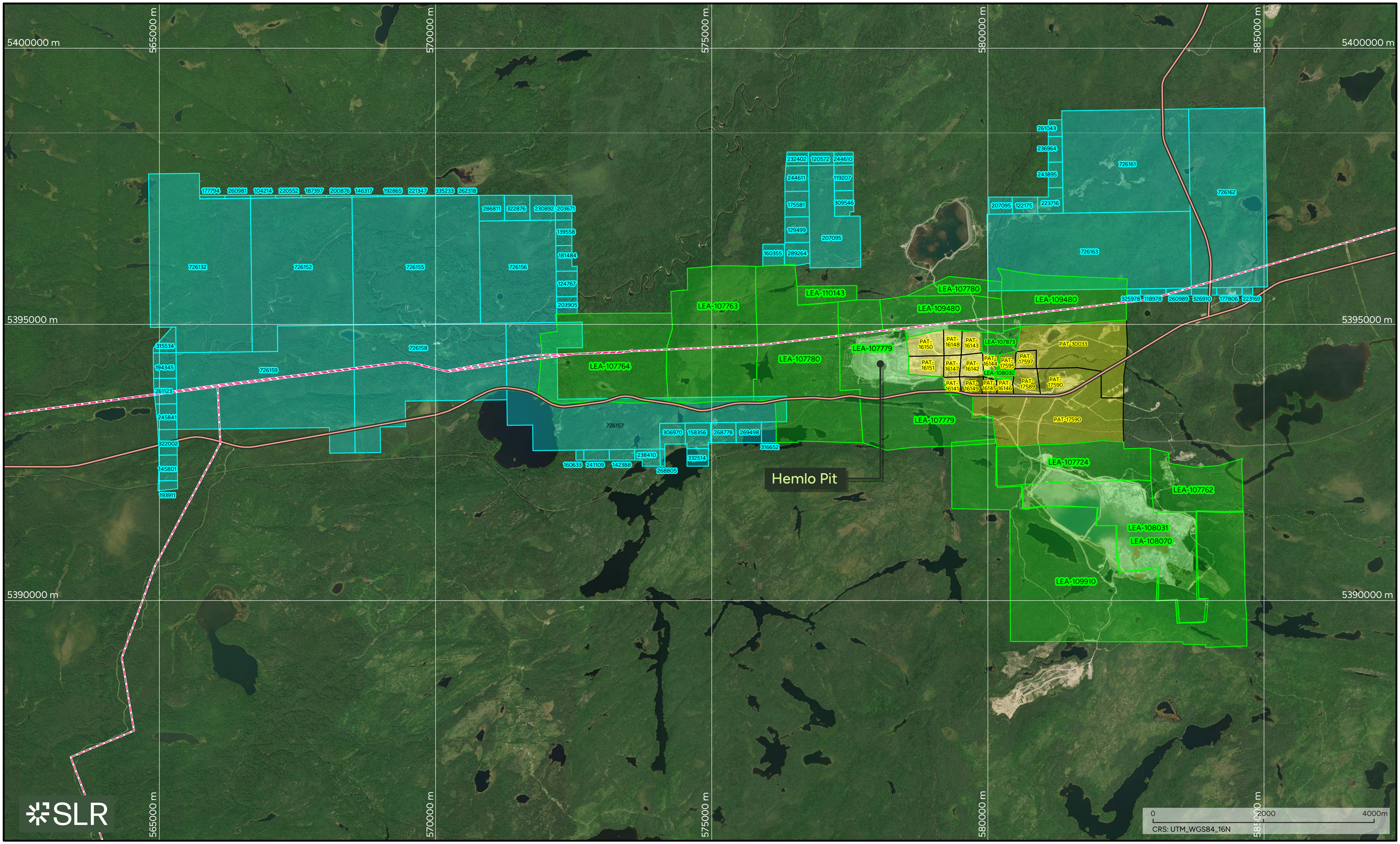
Tenure Number	Title Type	Disposition	Area (ha)	Short Legal Description
LEA-107724	Lease	Mining and Surface Rights	217.31	CLM277
LEA-107762	Lease	Mining and Surface Rights	145.06	CLM278
LEA-107763	Lease	Mining and Surface Rights	362.92	CLM272
LEA-107764	Lease	Mining and Surface Rights	375.62	CLM271
LEA-107765	Lease	Mining and Surface Rights	24.08	TB673886 & TB673889
LEA-107768	Lease	Mining and Surface Rights	191.16	CLM284
LEA-107779	Lease	Mining and Surface Rights	381.54	CLM274
LEA-107780	Lease	Mining and Surface Rights	428.38	CLM273
LEA-108031	Lease	Surface Rights only	334.22	CLM302
LEA-108032	Lease	Mining and Surface Rights	0.53	TB609035 & TB646504
LEA-108070	Lease	Mining Rights only	334.22	CLM302
LEA-109480	Lease	Mining and Surface Rights	141.03	TB687195 and others
LEA-109910	Lease	Mining and Surface Rights as to Part 1 Mining Rights only as to Parts 2, 3 and 4 on Plan 55R-14424	923.90	CLM550
LEA-110143	Lease	Mining and Surface Rights	33.10	CLM285 (now Location CL19228)
LEA-110145	Lease	Mining and Surface Rights	43.37	CLM285 (now Location CL19229)
PAT-16141	Patent	Mining and Surface Rights	7.78	TB32154
PAT-16142	Patent	Mining and Surface Rights	19.10	TB32155
PAT-16143	Patent	Mining and Surface Rights	14.82	TB32156
PAT-16144	Patent	Mining and Surface Rights	12.54	TB32157
PAT-16145	Patent	Mining and Surface Rights	6.48	TB32158
PAT-16146	Patent	Mining and Surface Rights	8.00	TB32159
PAT-16147	Patent	Mining and Surface Rights	12.78	TB32051
PAT-16148	Patent	Mining and Surface Rights	13.69	TB32050
PAT-16149	Patent	Mining and Surface Rights	11.82	TB32053

Tenure Number	Title Type	Disposition	Area (ha)	Short Legal Description
PAT-16150	Patent	Mining and Surface Rights	25.69	TB32055
PAT-16151	Patent	Mining and Surface Rights	26.38	TB32054
PAT-17589	Patent	Mining and Surface Rights	18.02	PT TB549612
PAT-17590	Patent	Mining and Surface Rights	274.98	TB549608 and others
PAT-17595	Patent	Mining and Surface Rights	13.93	PT TB673887
PAT-17596	Patent	Mining and Surface Rights	3.00	PT TB549612
PAT-17597	Patent	Mining and Surface Rights	13.04	PT TB673888
PAT-30033	Patent	Mining and Surface Rights	173.46	CLM275

Figure 4-2 shows the land tenure holdings of the Hemlo Gold Mine and surrounding area.

4.3 Royalties

There are multiple royalties, back-in rights, payments, or other agreements and encumbrances to which the property is subject, shown in Table 4-3. Figure 4-3 displays the royalty/claim boundaries.



LEGEND

- Mining Lease
- Patent
- Mining Claim
- Highway
- HV Powerline

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DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT	PROJECT		
	NAME: CARCETTI CAPITAL CORP - HEMLO MINE		
	DRAWING: HEMLO TENURE MAP		
	FIGURE No.: 4-2	PROJECT No.: ADV-TO-00122	DATE: October 2025

Table 4-3: Summary of Royalties for the Mine

Site	Company/Party	Type	%	$	Comments	Net Royalty
Williams	Lola Williams Current Payee: The Williams Co (0.5%) (Computershare)	NSR	1.50%	CDN	Payable on minerals from: Former PIN 62446- 008 (now included within consolidated PIN 62446-39), Specifically covering the following parcels: Claims in Bomby Township (73) as marked on Plan No. M33-NTC 42-C/12 Thunder Bay Mining Division T.B. 32154 - Entered as Parcel 9170 T.B. 32155 - Entered as Parcel 9171 T.B. 32156 - Entered as Parcel 9172 T.B. 32157 - Entered as Parcel 9175 T.B. 32158 - Entered as Parcel 9173 T.B. 32159 - Entered as Parcel 9174 T.B. 32051 - Entered as Parcel 9203 T.B. 32052 - Entered as Parcel 9204 T.B. 32053 - Entered as Parcel 9205 T.B. 32054 - Entered as Parcel 9206 T.B. 32055 - Entered as Parcel 9207	1.500%
	Barrick buy back of Lola Williams Current Payee: Barrick Gold (Williams Operating Corporation) (1.0%) (Computershare)		1.00%	CDN	Barrick has bought back 2/3's of the Lola Williams Royalty making it in effect a 0.5% NSR.	-1.000%
	River Oaks Gold Corporation Current payees 10213 Yukon Limited. Triple Flag Precious Metals. International Royalty Corporation.	NSR	0.75%	CDN	Payable from minerals from: Former PIN 62446-008 (now included within consolidated PIN 62446-39). Specifically covering the following parcels: Claims in Bomby Township, Thunder Bay Mining Division T.B. 32154 - Entered as Parcel 9170 T.B. 32155 - Entered as Parcel 9171	0.750%

Site	Company/Party	Type	%	$	Comments	Net Royalty
					T.B. 32156 - Entered as Parcel 9172 T.B. 32157 - Entered as Parcel 9175 T.B. 32158 - Entered as Parcel 9173 T.B. 32159 - Entered as Parcel 9174 T.B. 32051 - Entered as Parcel 9203 T.B. 32052 - Entered as Parcel 9204 T.B. 32053 - Entered as Parcel 9205 T.B. 32054 - Entered as Parcel 9206 T.B. 32055 - Entered as Parcel 9207	
	Initial Unit Holders Current Payees: International Royalty Corporation (720 Units) Ron Slaght (50 Units) Joan Elizabeth Enczner (50 Units) Williams Operating Corporation (WOC) (80 Units) Nell Dragovan (50 Units) David Bell (50 Units) (Computershare)	NSR	0.01	CDN	Payable on minerals from: Former PIN 62446- 008 (now included within consolidated PIN 62446-39) Specifically covering the following parcels: T.B. 32154 - Entered as Parcel 9170 T.B. 32155 - Entered as Parcel 9171 T.B. 32156 - Entered as Parcel 9172 T.B. 32157 - Entered as Parcel 9175 T.B. 32158 - Entered as Parcel 9173 T.B. 32159 - Entered as Parcel 9174 T.B. 32051 - Entered as Parcel 9203 T.B. 32052 - Entered as Parcel 9204 T.B. 32053 - Entered as Parcel 9205 T.B. 32054 - Entered as Parcel 9206 T.B. 32055 - Entered as Parcel 9207	0.01
	Mining tax deduction on IUH		0.085%	CDN	Royalty and the agreement allows for an 8.5% deduction for mining taxes making it in effect a 0.782% NPI.	-0.085%

Site	Company/Party	Type	%	$	Comments	Net Royalty
	Barrick buy-back of IUH		0.073%		Barrick has bought back 8% of the IUH	-0.073%
	Williams Subtotal					**2.092%**
David Bell	McKinnon/Larche	NSR	3.00%	CDN	Covers all David Bell Production from the following claims: TB 549608 TB 549609 TB 549610 TB 549611 TB 549612 TB 555005 TB 555006 TB 554061 TB 554062 TB 555063 TB 555064 TB 555065 TB 555066 TB 555067 TB 577521 TB 577526 TB 577527	3.00%
Golden Giant	Newmont Canada Corp (Newmont Canada)	GRR	3.00%-3.50% (Variable)	US	Golden Giant SP/QC and Golden Giant Zone Production for the following properties: PIN 62446-0009 PIN 62446-0010 PIN 62446-0013 PIN 62446-0014 PIN 62446-0015	3.00% -3.50% (Variable)
Interlake Property	Franco-Nevada Corporation	NPI	50.00%	CDN	50% NPI on the UG Interlake Property becomes effective once WOC has recovered all costs attributable to mining on the property. Covers production from PIN 62446-0007 (LT) Mining Lease Number: 109480 Mining Claims:	50.00%

Site	Company/Party	Type	%	$	Comments	Net Royalty
					TB 687195; TB 701681: TB 701682; TB 701683; TB 701684	
		NSR	3.00%	CDN	WOC pays a 3% underlying royalty on all UG Interlake production, these royalty costs are recoverable under the terms of the above 50% NPI Covers minerals from PIN 62446-0007 (LT) Mining Lease Number: 109480 Mining Claims: TB 687195; TB 701681: TB 701682; TB 701683; TB 701684	3.00%
NAE Claims	North American Exploration Ltd	NSR	3.00%	CDN	Covers all claims purchased from North American Exploration Ltd which are the following unpatented Mining Claims : 4267354 4267355 4267357 4267359 4267356 4267358 4267360 4261122 4261118 4258148 4258150 4258149 4261123 4261120	3.00%

Site	Company/Party	Type	%	$	Comments	Net Royalty
					4261119 4261121 4263499 As of August 17, 2015, Barrick abandoned the following unpatented mining claims: 4267354 4267355 4267357 4267359 4267356 4267358 4267360	
MetalCorp Claims	MetalCorp Limited	NSR	2.00%	CDN	Covers all claims purchased from MetalCorp which are the following unpatented Mining Claims located in the Thunder Bay Mining Division, Bomby and Brothers Townships, Ontario, Canada: 4214151 4214170 4222578 Lands were recently converted to lease	2.00%

Figure 4-3: Royalty/Claim Boundaries

4.4 Environmental and Permitting Considerations

The Williams Mine has been operating since 1985. Over the course of the mine life, Hemlo has submitted a number of applications to modify the development consent in line with various pit expansions, operating adjustments, and mine life extensions.

Environmental studies including flora and fauna, hydrogeological studies, and waste rock characterization have been carried out for the mine. The mine has an Environmental Management Plan and Mine Closure Plans supported by financial assurance have been filed with the regulator. Assurance.

The major permits the Mine operates under are summarized in Table 4-4.

Table 4-4: Current Permit List for Hemlo Operation

Permit Description	Permit/Doc Number
Environmental Compliance Approval - Air	3959-AXJHRG
Environmental Compliance Approval - Tailings/Industrial Sewerage Works	8878-BB4P3H
Aggregate Permit - Black River Pit	107926
Aggregate Permit - Cedar Creek Pit	126576
Aggregate Permit - Herrick Lake Sand Pit	80483
Aggregate Permit - Herrick Pit	20203
Aggregate Permit - Philips Creek	20202
Aggregate Permit - Struthers Quarry	20221
Aggregate Permit - Struthers Sand	20819
Aggregate Permit - Wabikoba Lake Area (Pine Grove)	108126
Aggregate Permit - Wabikoba Till Pit	20616
PTTW - Little Cedar Lake Permit To Take Water	6028-A2LKAW
PTTW - Theresa Lake Permit To Take Water	8024-A2LLFZ
PTTW - WOC Cedar Creek Permit To Take Water	5533-A2LMPA
PTTW - WOC C-Zone and Sceptre Pit De-Watering Permit To Take Water	8767-AF2PMW
Encroachment Permit - Emergency Spill Control Pond	EC-2015-61T-1
Encroachment Permit - Pole Placement on MTO Right-of-Way	EC-2019-61T-28
Encroachment Permit - WOC Moose Lake Water Line	EC-2016-61T-49
Encroachment Permit - WOC Pipeline Trestle Overpass	EC-2016-61T-50
Encroachment Permit - Pipeline corridor under Hwy 17	EC-2014-61T-56
Encroachment Permit - WOC Powerline HWY 17	EC-2016-61T-61
PTTW - WOC Pit Storm Water Ponds Permit To Take Water	7163-AK2Q2K
Road Crossing Agreement with Canadian Pacific	OD 50170

Permit Description	Permit/Doc Number
Tailings Bridge - Legal Agreement Between MTO & Williams Operating Corp.	Tailings Bridge
Pipe Crossing Agreement with Canadian Pacific	OD 50298
Pipe Crossing Agreement with Canadian Pacific	OD 50545
Power Crossing Agreement with Canadian Pacific	OD 50655
Teck Corona Landfill COA	A71902-02
Theresa Lake Dam Navigable Waters Approval	8200-85-54
Water Treatment Plant	4-029-84-006
Private Crossing Agreement with Canadian Pacific	OD 55466
Private Crossing Agreement with Canadian Pacific	OD 55467
Private Crossing Agreement with Canadian Pacific	OD 52703
Williams Mine Potable Water Directive	SDWS #762001054
Williams Operating Corp. Landfill COA	A5825391
Encroachment Permit - DBOC Fibre Optic Line and 4160V	EC-2018-61T-00000092
Access Road License Agreement - Nextbridge	23,365,182.70
Entrance Permit DBOC Mine Entrance	EN-2016-61T-32
Entrance Permit DBOC Tailings Entrance	EN-2016-61T-33
Entrance Permit DBOC Yellow Brick Road Entrance	EN-2016-61T-31
Amended and Restated Access Road License Agreement -PMHI	12,830,364.30
Entrance Permit WOC A-Zone Pit Hwy Entrance	EN-2016-61T-36
Entrance Permit WOC Mine Entrance	EN-2016-61T-37
Entrance Permit WOC North Tailings Gate Entrance	EN-2016-61T-34
Entrance Permit WOC Tailings Yellow Gate Entrance	EN-2016-61T-35
Orica License to Occupy	DM_TOR/109805-00042-3793351.1
Pete Jones Bear Management Area	WA-33-002 TR-21B-037
Trap Line Area WA-33	WA-33
Trapline Boundary	T065-N062

Environmental approvals for the proposed Open Pit Expansion Project have not yet been granted. However, environmental baseline studies and other related assessments are currently in progress. The Project may require approval from both provincial and federal authorities.

4.5 QP Comment on Property Description and Location

The QP is not aware of any environmental liabilities on the property. Other than environmental approvals for the proposed Open Pit Expansion Project, the Mine has all required permits to conduct the proposed work on the property. The QP is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the property.

5.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Accessibility

Located 35 km east of Marathon and adjacent to the Trans-Canada Highway, Mine benefits from excellent road access, transportation and communication links. The main Canadian Pacific Railway line lies just south of the Mine, with a major electrical transmission corridor to the north.

5.2 Climate

In Marathon, the summers are cool and partly cloudy and the winters are short, frigid, snowy, windy, and overcast. Over the course of the year, the temperature typically varies from -19°C to 20°C and is rarely below -31°C or above 23°C. The warm season lasts for four months, from June to September, with an average daily high temperature above 14°C. The hottest month of the year in Marathon is August, with an average high of 19°C and low of 12°C. The cold season lasts for three months, from December to February, with an average daily high temperature below -3°C. The coldest month of the year is January, with an average low of -19°C and high of -8°C.

The rainy period of the year lasts for nine months, from March to December, with a sliding 31-day rainfall of at least 13 mm. The month with the most rain is September, with an average rainfall of 69 mm. The snowy period of the year lasts for seven months, from October to May, with a sliding 31-day snowfall of at least 25 mm. The month with the most snow is December, with an average snowfall of 211 mm. The Mine operates year round.

5.3 Local Infrastructure and Resources

There is a skilled workforce in the neighbouring towns of Marathon, Manitouwadge, White River, and the Biigtigong Nishnaabeg and Netmizaaggamig Nishnaabeg First Nation communities. The Hemlo Mine employs approximately 700 people including contractors and temporary employees. The average turnover of employees during 2024 was 11%, driven primarily by high turnover at the senior leadership level and among employees on Fly-in Fly-out or Drive-in Drive-out rosters, largely due to travel logistics challenges. The Williams Mine is non-unionized.

The mines in the Hemlo area have been active year-round since the start of production in 1985. At present, only the Williams underground mine is in production. The David Bell and Golden Giant mines have been closed and their surface infrastructure has been mostly demolished. Remnant mining into the Golden Giant underground mine is planned within the life of mine (LOM) Mineral Reserve. Surface infrastructure modification is not required to mine these UG areas. However, the open pit plan does require modifications to the surface truck shops and material handling systems.

The Williams Mine site consists of the following major infrastructure:

- 10,000 tpd CIP gold mill with refining capabilities
- 431 ha tailings facility (planned upgrades for LOM)
- 1,300 m deep shaft with production and service hoists capable of 2.6 Mtpa
- Extensive truck garages, wash bays, and fuel storage (>100,000 L)
- 100 m³/hr paste backfill plant and decline ramps

- 115 kV power line feeding two 33 MVA transformers

5.4 Physiography

According to Ontario's Ecological Land Classification, the area falls into the Lake Abitibi Ecoregion of the Ontario Shield Ecozone. The area typically contains mixed forests of paper birch, white spruce, trembling aspen, and black spruce.

The natural site topography is variable, with elevations ranging from 310 masl to 360 masl. The Canadian Shield terrain is comprised of weathered rocky ranges, boreal forested uplands (partially logged), a few wetlands, creeks, and lakes. Glacial overburden is typically less than five metres thick. Cedar Creek flows to the east of the Williams property, separating it from Golden Giant.

5.5 Comment Accessibility, Climate, Local Resources, Infrastructure and Physiography

The accessibility, climate, local resources, infrastructure, and physiography of the Hemlo site are well established and allow for year-round mining operations.

6.0 History

6.1 Prior Ownership and Development History

Minor gold findings were noted in the late 1800s after the Canadian Pacific Railroad's construction. In 1944, prospector Peter Moses identified mineralized siliceous schist (Williams C zone), yielding assays of 15 g/t Au. Claims staked by Harry Ollman and J.R. Williams in 1945 and a separate block in 1946 by associates evolved into Lake Superior Mining Corp. Ltd., which outlined a small deposit of 80,750 t at 8 g/t Au. By the late 1950s, the Trans-Canada Highway construction made the “Highway Zone” accessible. Exploration revealed Au-bearing sericitic zones extending for approximately 500 m west to the Golden Sceptre property.

Sporadic exploration continued until 1980 when unpatented surrounding ground was staked by John Larch and Don McKinnon and optioned to junior companies. International Corona Resources Ltd (Corona), Goliath Gold Mines Ltd., Golden Sceptre Resources Ltd, and Interlake Development Corp. (Interlake) conducted drilling, expanding Highway Zone resources to approximately 340,000 t at 6 g/t Au. Significant discoveries included hole 81-C-76 (3 m at 11 g/t Au at 50 m depth, defining the A-Zone) and hole 82-GS-19 (11 m at 11 g/t Au).

Production began in 1985 at the David Bell Mine (Teck-Corona JV) and Page-William’s mine (Lac Minerals, later awarded to Teck-Corona JV). Noranda Mines (Noranda) initiated the Golden Giant JV (1982), leading to production from the Golden Giant shaft in 1985. Control of the Golden Giant property passed to Hemlo Inc., Battle Mountain Gold, and eventually Newmont Canada. Teck drilled the Interlake claims (1987-88), later acquired by Franco-Nevada Corporation, which merged with Newmont before reforming as a separate company in 2007.

Barrick consolidated the Hemlo operations through acquisitions between 2009 and 2010, closing the David Bell Mine in 2014 and the Williams pit in 2020. Underground operations continue in the Williams, Golden Sceptre, and Interlake sectors.

Following the completion of the Proposed Transaction, Carcetti will acquire 100% interest in the Mine from wholly owned subsidiaries of Barrick Mining Corporation.

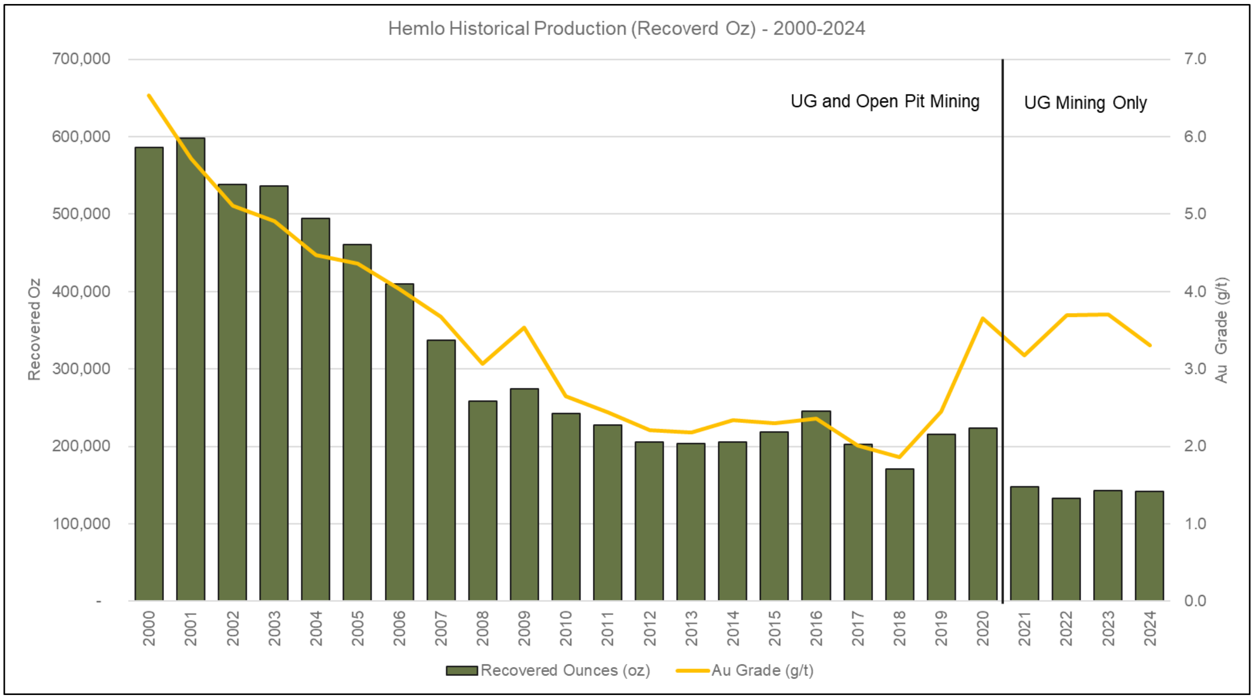
6.2 Past Production

Production from the Williams Mine began in mid-1985 from the A-Zone open pit located at the east end of the property. Soon after, ore was also mined from the underground from the same area to sustain an initial 3,000 tpd mining rate. The completion of the main shaft, the B-Zone infrastructure, and a mill expansion program in 1988 facilitated an increase to 6,300 tpd. The closing of the David Bell Mill in 1999 and increased production from the C-Zone pit brought the mill to a throughput of 10,000 tpd by the end of 2006. Between 2011 and 2016, production ranged from 8,000 tpd to 9,500 tpd. The three mines at Hemlo have produced roughly 25 Moz of gold as of the end of 2024. A summary of Hemlo production since 2000 is shown in Table 6-1 and Figure 6-1.

Table 6-1: Summary of Hemlo Production Since 2000

Year	Tonnes Milled (t)	Au Head Grade (g/t)	Recovery (%)	Recovered Ounces (oz)
2000	2,945,147	6.54	94.64	585,623
2001	3,492,611	5.71	93.15	597,764
2002	3,458,430	5.11	94.71	538,112
2003	3,576,065	4.91	94.98	535,775
2004	3,662,446	4.47	94.00	494,878
2005	3,503,198	4.36	93.68	460,027
2006	3,354,637	4.03	94.18	409,270
2007	3,035,641	3.67	94.07	337,102
2008	2,775,177	3.07	94.43	258,597
2009	2,526,440	3.54	95.47	274,181
2010	3,003,770	2.64	94.79	242,019
2011	3,057,407	2.44	94.91	227,233
2012	3,080,863	2.21	93.86	205,703
2013	3,109,592	2.18	93.28	203,586
2014	2,916,120	2.34	93.93	205,869
2015	3,120,375	2.30	94.64	218,076
2016	3,446,649	2.36	93.70	245,259
2017	3,376,510	2.01	92.86	202,276
2018	3,061,665	1.86	93.04	170,589
2019	2,913,999	2.45	94.13	215,732
2020	2,002,378	3.65	95.11	223,751
2021	1,530,175	3.18	94.86	148,172
2022	1,180,595	3.69	94.99	133,006
2023	1,265,485	3.71	94.33	142,325
2024	1,395,794	3.31	95.46	141,801

Figure 6-1: Hemlo Production Since 2000



Source: SLR 2025.

7.0 Geological Setting and Mineralization

7.1 Regional Geology

The Hemlo gold deposit occurs in the eastern half of the Schreiber-Hemlo greenstone belt, within the Wawa Subprovince of the Archean Superior Structural Province of Ontario. Figure 7-1 illustrates the regional geology.

The Wawa Subprovince has an east-west extent of at least 600 km, being truncated by the Kapuskasing structural zone in the east and extending an unknown distance beneath poorly exposed areas and Phanerozoic cover in northern Minnesota. The southern extent of the Subprovince is obscured by the waters of Lake Superior and unconformably overlying Proterozoic strata of the Animikie Basin.

The Wawa Subprovince comprises isolated, arcuate to linear greenstone belts with intervening masses of granitoid rock. The stratigraphy characterizing the greenstone belts consists of several mafic-ultramafic-felsic volcanic cycles with associated clastic metasedimentary rocks in between. Granitoid rocks internal and bounding the greenstone belts are dominated by foliated to gneissic tonalitic to granodioritic rocks cut by relatively younger, more massive, granodioritic to granitic plutons.

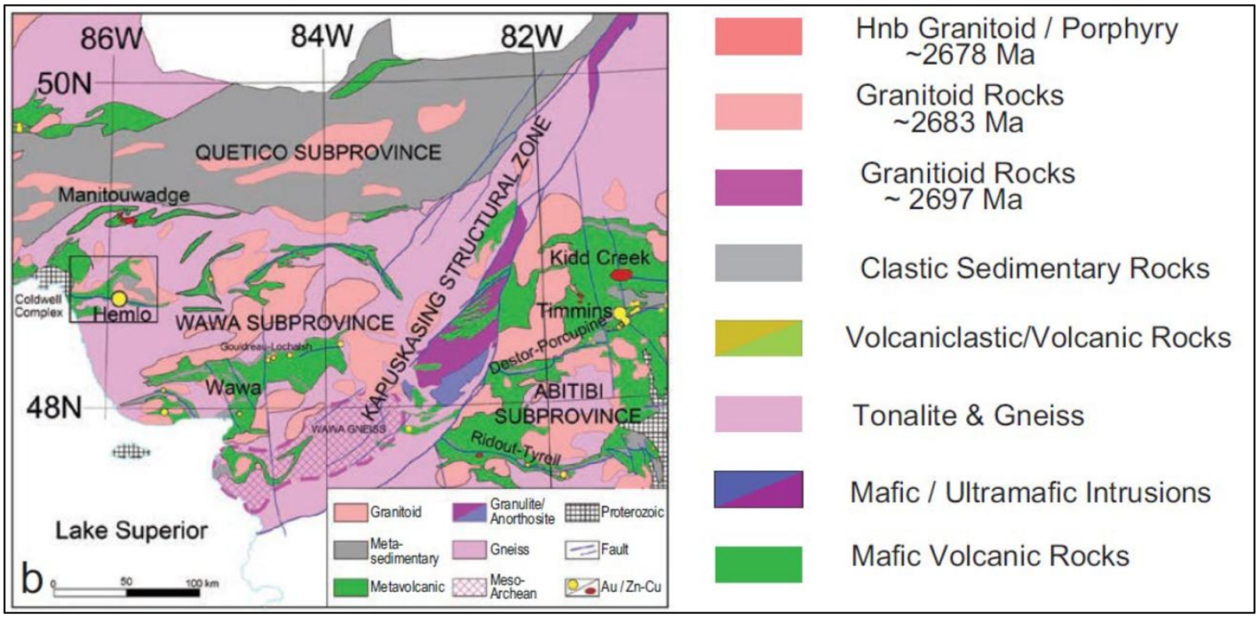
The earliest structures include thrust faults and related recumbent folds which are overprinted by more upright, belt-parallel folds. Late deformation along ductile shears and faults is widespread. Mineral assemblages within the greenstone belts of the Wawa Subprovince indicate greenschist to mid-amphibolite grade metamorphism.

The Schreiber–Hemlo greenstone belt of the Wawa Subprovince is bounded to the east by the high-grade Kapuskasing structural zone and to the north by the metasedimentary-dominated Quetico Subprovince. The geology of the eastern half of the Schreiber–Hemlo greenstone belt is designated as the Hemlo greenstone belt (HGB). Massive to pillowed, tholeiitic basalt flows and felsic to intermediate, calc-alkalic pyroclastic rocks with related sedimentary deposits dominate the western part of the HGB, whereas turbiditic wacke-mudstone and minor conglomerate deposits dominate the eastern part. Granitoid plutons intrude a large portion of the HGB greenstone belt. The earliest mafic volcanism is best constrained by cross-cutting relationships with the Dotted Lake pluton (~2697 Ma). Felsic calc-alkalic volcanism occurred between ~2698 to ~2692 Ma, and intermediate volcanism at ~2689 Ma. Sedimentation of the volcaniclastic deposits began at ~2693 Ma. The presence of felsic volcanic rocks dated at 2695 ± 2 Ma west of the deposit near Heron Bay and much older felsic volcanics dated at 2772 ± 2 Ma at the deposit, is possible evidence for a fault in the deposit area, designated the “Hemlo fault zone” (HFZ). Of the four main episodes of granitic magmatism in the HGB, only two (~2720 to ~2718 Ma and ~2690 to ~2684 Ma) are represented in the immediate area of the deposit.

Supracrustal rocks in the HGB display one main penetrative regional fabric that was developed during regional deformation that reached peak conditions of amphibolite-grade metamorphism. Throughout the belt there are local remnants recording earlier stages of deformation, providing evidence for protracted and complex multi-generational folding events. Plutonic activity is largely late to post-deformation, with some plutons exhibiting a weak foliation or deformation of their margins.

Mesoproterozoic, Mid-continent Rift-related magmatism at ~1.1 Ga is reflected in the Port Coldwell alkalic complex and a variety of lamprophyre and alkalic intrusions that occur throughout the HGB.

Figure 7-1: Regional Geology

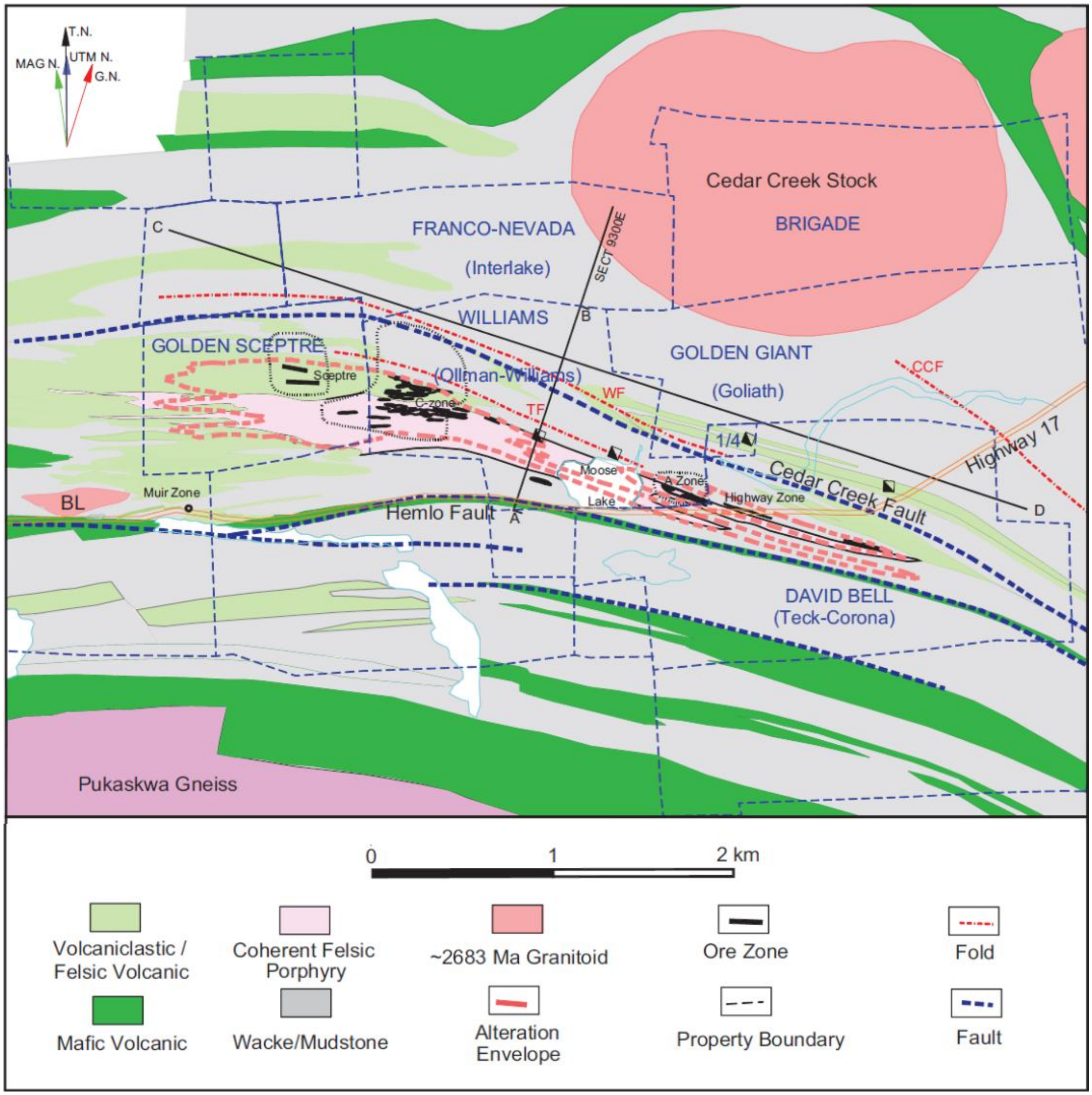


Source: Poulson et al. 2019.

7.2 Local Geology

The Hemlo gold deposit is in the south-central part of the HGB, between the Pukaskwa gneiss and Cedar Creek stock, coincidental with a change in the structural trend from westerly to northwesterly. In this area, volcano-sedimentary lithotectonic units dip to the north or north-northeast and are isoclinally folded and transposed within high-strain zones. Simplified local geology is shown in Figure 7-2.

Figure 7-2: Local Geology of the Hemlo Gold Deposit



Source: Poulson et al. 2019.

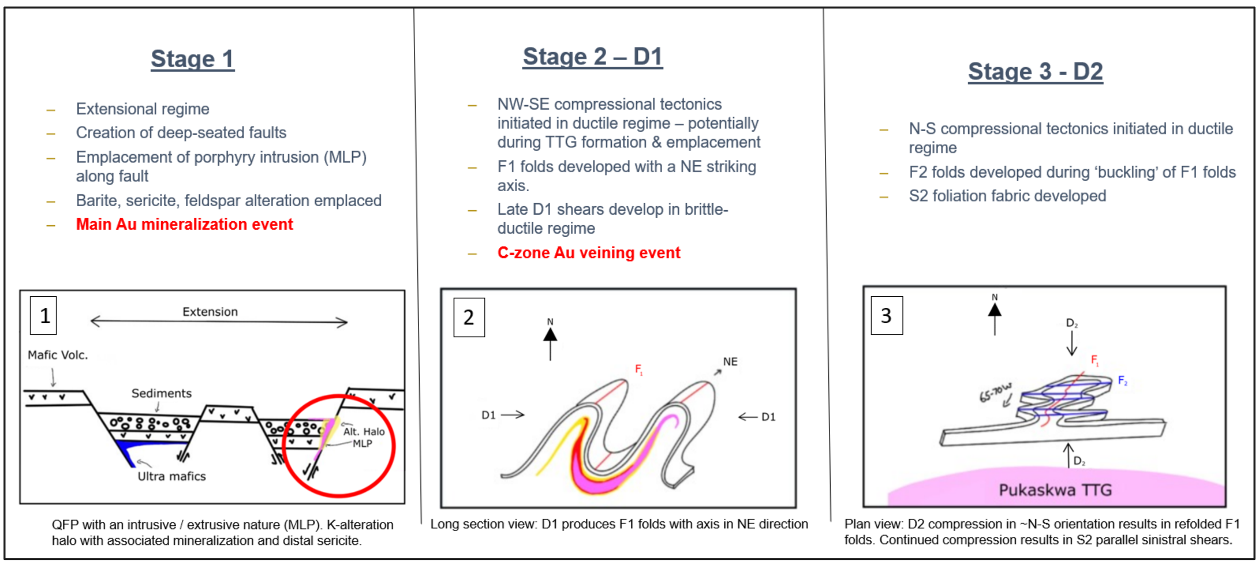
Metasedimentary rocks of the deposit are subdivided into volcaniclastic and epiclastic units. The volcaniclastic units comprise tuffaceous conglomerate, tuffaceous sandstone, and tuffaceous mudstone and have a white to light grey matrix. Epiclastic units comprise sandstone, mudstone, and conglomerate, which incorporate nonvolcanic and volcanic detritus, and have a medium to dark grey matrix. A distinctive, intermediate-felsic intrusive unit is located in the central part of the deposit termed the Moose Lake Porphyry (MLP). The MLP is a texturally diverse unit consisting of massive and fragmental, quartz-plagioclase-phyric rocks interpreted to originate as sub-volcanic intrusions, with minor units of volcanic flows.

Major plutonism occurred from ~2690 to ~2684 Ma involving emplacement of granodiorite to form the Heron Bay and Cedar Lake plutons and the Cedar Creek and Botham stocks, all of which occur internally to the HGB. Abundant, compositionally diverse dikes in the deposit area reflect its complicated magmatic history, and both predate and postdate gold mineralization.

Strain varies across the deposit with an overall increase and degree of recrystallization southward from the Cedar Creek stock and Cedar Lake pluton toward the Pukaskwa batholith.

The order of structural deformation is described in three (D1-D3) or four (D1-D4) main deformational increments. Interpretations from company geologists suggest that D1 and D2 were both major folding phases, with the vast majority of mineralization being emplaced prior to D1, or as D1 initiated. D1 is interpreted as a NW-SE compressional event, forming closed to tight folds with NE-SW striking axial planes. D2 is interpreted as a N-S compressional event resulting in highly complex, transposed isoclinal folds which have been flattened to form E-W striking F2 axial planes and it is this event which resulted in the overall east-west ductile S2 fabric in the HGB. The major folding events (D1/D2) are illustrated in Figure 7-3.

Figure 7-3: Simplified Genetic Model and Structural History for the Hemlo Deposit



Source: Internal Hemlo Memo 2025.

7.3 Property Geology

Hemlo comprises several zones: David Bell, Golden Giant, Williams, and Golden Sceptre. The now-closed David Bell and Golden Giant mines produced gold primarily from altered fragmental and sedimentary rocks. Only the Williams Mine remains operational.

The Williams Mine includes three zones:

- A-Zone: Near-surface and mined out.
- B-Zone: Mineralization occurs at the contact between metasediments and MLP, with gold associated with pyrite in a quartz-feldspar matrix.
- C-Zone: Features parasitically folded mineralization in two styles: disseminated and vein-hosted, within either felsic MLP or heterolithic volcaniclastic/sedimentary rocks.

Mineralization dips 60–70° northeast and plunges approximately 45° northwest. The Footwall Zone lies 30–80 m into the footwall from the Main Zone.

7.4 Mineralization

The primary mineralizing event introduced Au, S, Mo, Zn, As, Sb, Hg, Tl, W, K, Si, Fe, and V during or before early deformation and prior to peak metamorphism. Alteration includes feldspathization (core: microcline-quartz) and sericitization (halo: muscovite-quartz), with significant silicification and pyritization in the ore zone. Potassium enrichment produces strong radiometric anomalies, and pyritization creates distinct very low frequency electromagnetic (VLF-EM) and induced polarization (IP) anomalies. Subsequent remobilization events redistributed Au with stibnite (quartz veins), calc-silicate assemblages, and low-temperature sulphides like realgar, orpiment, and cinnabar. Metal enrichment suggests magmatic fluid transport, though the fluid source is unidentified.

Distinctive Features:

- High Hg content associated with gold.
- Microcline (high Ba) and muscovite (high Ba and V) in alteration zones.
- Rutile enriched in V, W, and Sb.
- Molybdenite and green vanadiferous mica indicate gold presence.

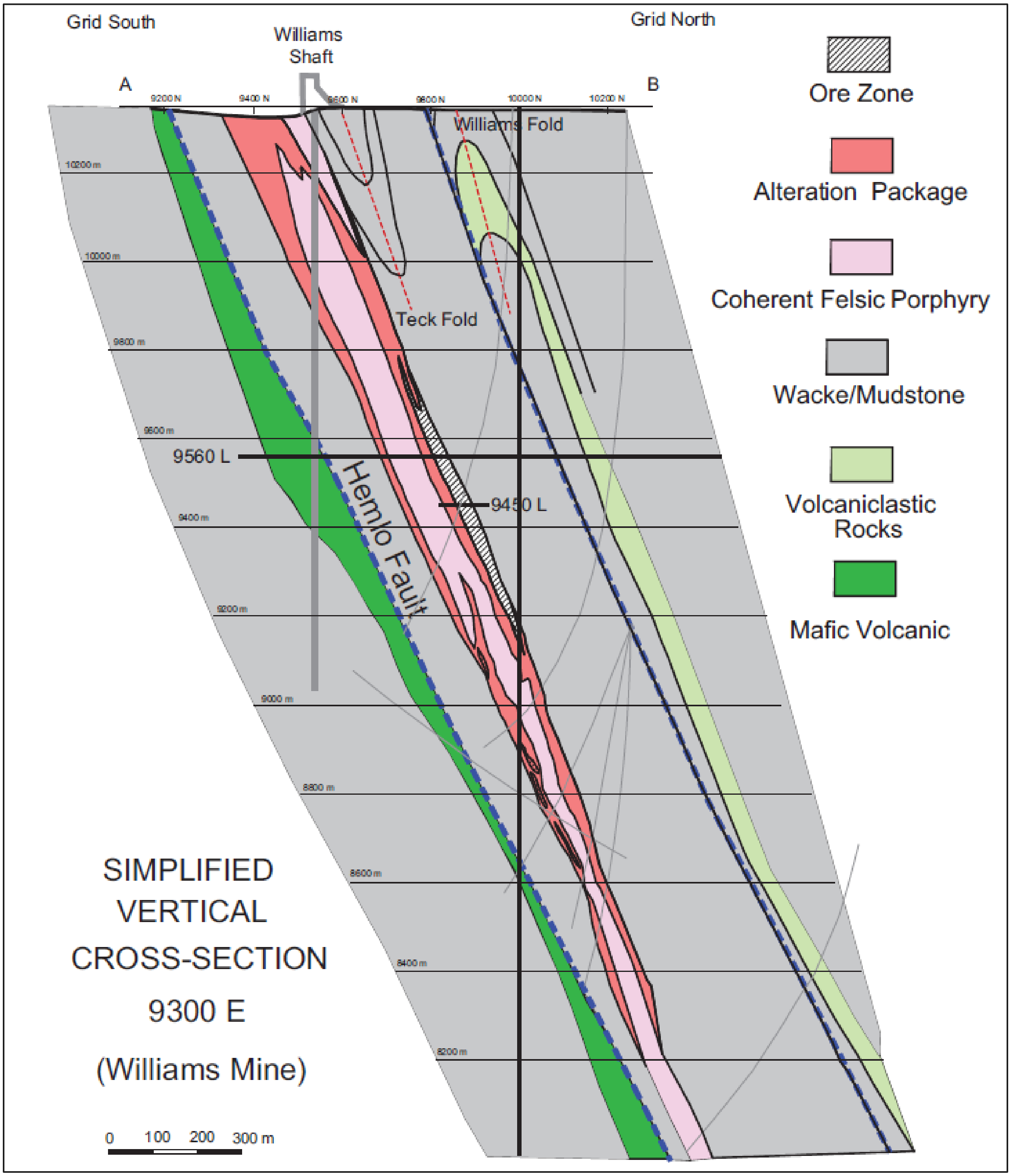
Key Zones:

- B-Zone Footwall (BZFW): Lower-grade lenses (2–9 m thick) south of the B-Zone, extending from David Bell to the Williams pit. Hosted in muscovite schist, it features rapid pinch-outs and minerals like molybdenite, pyrite, and arsenopyrite. (Figure 7-4)
- C-Zone: Thin, low- to medium-grade mineralization 400–600 m west of B-Zone, extending approximately 700 m eastward and to 2,000 m depth (1,300 m below the current pit). Hosted in volcaniclastics (100-series) and MLP (300-series), with quartz veins containing visible gold, molybdenite, and pyrite. Pre-existing structures and lithological contacts strongly control mineralization.

Structural Controls:

- Complex D1 and D2 folding results in poor strike and dip continuity but good down-plunge continuity. Mineralization is shaped by folding, transposition, and boudinaging, with highly variable grades across lenses.

Figure 7-4: Cross-Section of the Williams B-Zone Along Line A-B from Figure 7-2



Source: Poulson et al. 2019.

8.0 Deposit Types

The Hemlo deposit is an example of an orogenic gold deposit. Orogenic gold deposits are a significant type of gold deposits worldwide, responsible for a substantial portion of historical and current gold production. These deposits are primarily associated with metamorphic belts in orogenic (mountain-building) regions and are typically formed during compressional to transpressional tectonic regimes, typically in the late stages of orogeny. These settings involve crustal thickening, metamorphism, and deformation of sedimentary and volcanic sequences. The deposits are emplaced at mid- to upper-crustal depths (approximately 2–15 km), under conditions of greenschist to amphibolite facies metamorphism.

The source of the mineralizing fluids is generally interpreted to be metamorphic devolatilization: as sedimentary and volcanic rocks are buried and heated during regional metamorphism, they release fluids rich in water, carbon dioxide, and sulphur. These fluids become enriched in gold and other metals as they migrate upwards through fault and shear zones. Gold is transported in solution primarily as bisulphide complexes (e.g., $Au(HS)_2^-$), and precipitates in structurally favourable zones due to changes in pressure, temperature, fluid chemistry, or interaction with reactive wall rocks.

Orogenic gold deposits typically show strong structural controls, occurring along major fault zones, shear zones, or fold axes. They are often characterized by quartz ± carbonate vein systems, which host visible gold and sulfide minerals such as pyrite, arsenopyrite, and chalcopyrite. The mineralization may occur as simple quartz veins, sheeted vein systems, stockworks, or disseminated styles, depending on the host rock and structural environment.

These deposits are vertically extensive, often with mineralization continuing to depths of several kilometres, and can range from a few thousand to over a million ounces of gold. Alteration halos around veins include sericite, carbonate, chlorite, and sulphide assemblages, reflecting fluid-rock interaction and heat transfer.

Orogenic gold deposits are globally widespread and are especially abundant in Precambrian terranes such as the Yilgarn Craton in Western Australia, the Abitibi Belt in Canada, and the Birimian belts of West Africa. They are also found in younger Phanerozoic belts such as the Western Cordillera of North America and the Lachlan Fold Belt in Australia. Their broad temporal range reflects the long-standing presence of orogenic processes in Earth's history.

Several models have been proposed to explain the genesis of orogenic gold deposits. The metamorphic model is the most widely accepted, suggesting that fluids are released from devolatilizing rocks during prograde metamorphism. The magmatic model suggests a direct link between gold and magmatic-hydrothermal fluids from intrusions, though this is less commonly supported for classic orogenic settings. Hybrid models propose a combination of sources and processes, potentially involving both metamorphic and magmatic contributions or multi-stage fluid evolution.

9.0 Exploration

This section describes recent exploration work (other than drilling) on the Hemlo property.

In 2019, a mapping and trenching program was conducted in the Blackfly Zone, west of the C-Zone. This program followed up successful surface drilling in 2018, which intersected mineralization below and along strike from the historical Sceptre open pit (now covered by the western waste pile). The exploration target was an extension, or continuation, of C-Zone 100-series style mineralization.

A total of 923 m of channel sampling was completed over four trenches in 2019 and mapping concluded that mineralization did extend west. Mineralization did not resemble C-Zone style mineralization however; it occurred in a similar tectonostratigraphic position, largely along the contact between felsic volcaniclastics and turbidites. The host rock in the Blackfly Zone is mostly confined to a biotite-magnetite-chert host rock of unknown protolith, but interpreted to be incipient iron formation, iron-rich sediments or a hydrothermal replacement body of similar nature. Gold is associated with pyrite, biotite and quartz +/- carbonate veining and replacement textures. Blackfly mineralization and structures were considered prospective with additional exploration planned for 2020.

Drone magnetic surveying was completed over the Blackfly Zone in 2019 to help understand the distribution of lithological units and hoped to identify folding or other controlling structures.

Exploration in 2020 continued the programs initiated in 2019 in the C-Zone and Blackfly Zone as additional deep drilling in the C-Zone and trenching and drilling in the Blackfly Zone.

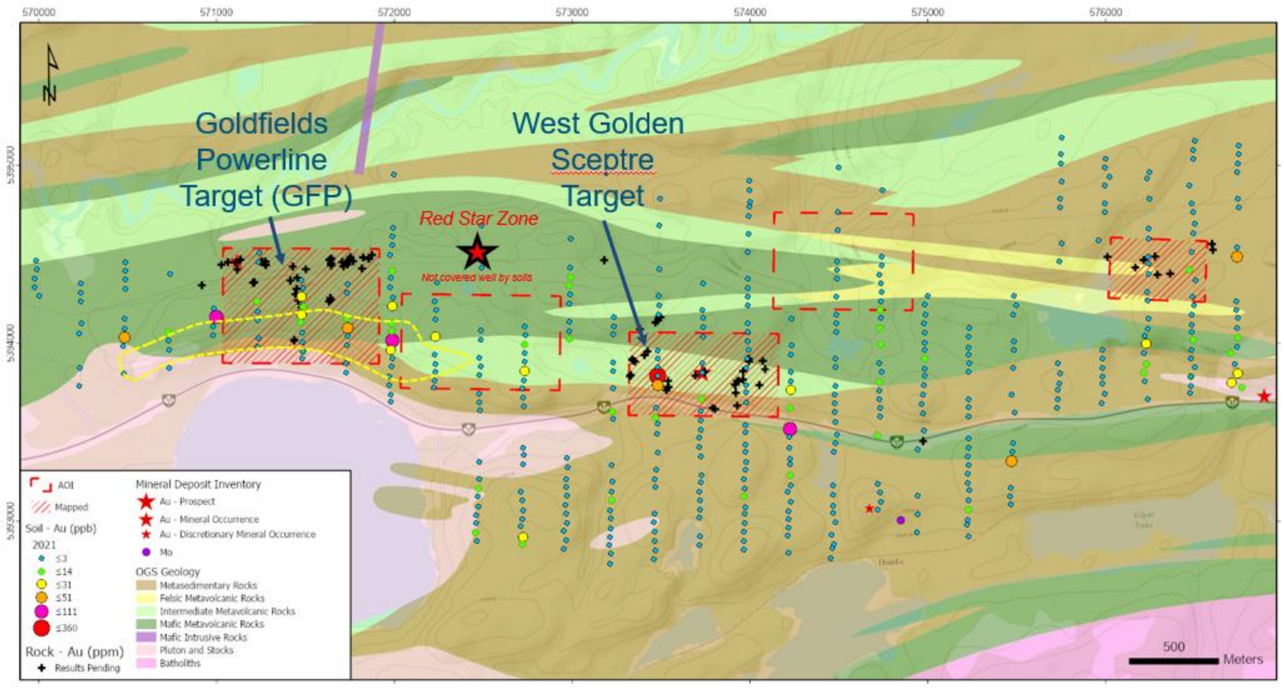
At the Blackfly Zone, an additional four trenches and 939 m of channel sampling were completed, extending the zone to approximately 1,700 m beyond the western limits of the Williams open pit (C-Zone mineralization). Mineralization continued to be hosted primarily in the iron-biotite rich unit described above and evidence for folding of this unit was obtained by mapping, supported by drone magnetic surveying conducted in 2020 and in 2019.

Following the assay results and interpretation of Blackfly mapping, drilling was completed to test the mineralized features and seven holes were completed in a fence along the strike of trenching. Anomalous gold was intersected in all holes, but was deemed uneconomic and no additional work was planned for the Blackfly Zone.

In 2021, surface exploration focused on screening and target development further west of the mine area where relatively little historical exploration has occurred. A soil survey was completed in the spring of 2021, with 466 samples collected. Sampling was confined to a corridor interpreted at the time to bound the potential mineralized package and also targeted possible intrusion-related mineralization where two historical showings - Goldfields Powerline and West Golden Sceptre - are located (Figure 9-1). Soil results showed semi-coherent anomalism in Au, Mo, Cu, Te, Hg, Bi and As, highlighting signatures from both orogenic and intrusion-related deposit styles. In conjunction with the soil sampling, mapping was conducted to ground truth anomalism from that program, with 340 rock samples and 1,029 mapping stations being collected and recorded.

Mapping indicates a domain overall dominated by massive to pillowed to variolitic tholeiitic basalt (locally amphibolite) isoclinally folded into an east-west trending F2 fold, with F3 crenulation folding noted locally in drilling. The core of the camp-scale F2 fold is cored by thin intermediate volcanic rocks and felsic volcanics, all highly strained and recrystallized. The entire sequence is cut by a variety of dikes, including (Proterozoic) diabase, feldspar and quartz feldspar dikes, and intermediate dikes. Alteration is minimal but locally zones of carbonate alteration and quartz-carbonate veining were noted, including at a newly discovered zone dubbed “Red Star”.

Figure 9-1: Hemlo West Soil Survey Results and Red Star Zone



Source: Barrick 2025.

The Red Star Zone is hosted by pillowed basalts, minor fine-grained clastic sediments and feldspar and quartz feldspar dikes. Mineralization on surface comprises quartz-carbonate veining and sulfidation, all which is folded by at least F3 folding as described above and exhibits a mylonitic texture. Surface outcrop samples up to 3.3 g/t Au were collected from carbonate-pyrite veining.

The Red Star Zone was drill tested in late fall of 2021 with 430 m drilled in seven short holes to test surface mineralization. Drilling confirmed mineralization associated with highly strained quartz feldspar porphyry dikes and basalts, showing feldspar alteration. Gold was hosted by quartz-carbonate veins and demonstrated a good correlation between gold and molybdenite and gold and pyrite, similar to Hemlo. While the zone was confirmed, grades were not sufficient to continue exploration in 2022.

The relationship between intrusions to the south and polyphase folded volcanic rocks in this zone were not fully evaluated or drill tested, similarly little follow-up was conducted on historical zones and this area remains an interesting geological target for more detailed follow-up.

No additional exploration (other than drilling) has been completed since 2021.

10.0 Drilling

10.1 Summary

Diamond drilling on the Mine property was conducted in phases by several companies from 1947 to 2024. By December 2024, a total of approximately 13,562 diamond drill holes totalling over 2 million metres and 2,255 grade control holes totalling 219,106 m have been completed.

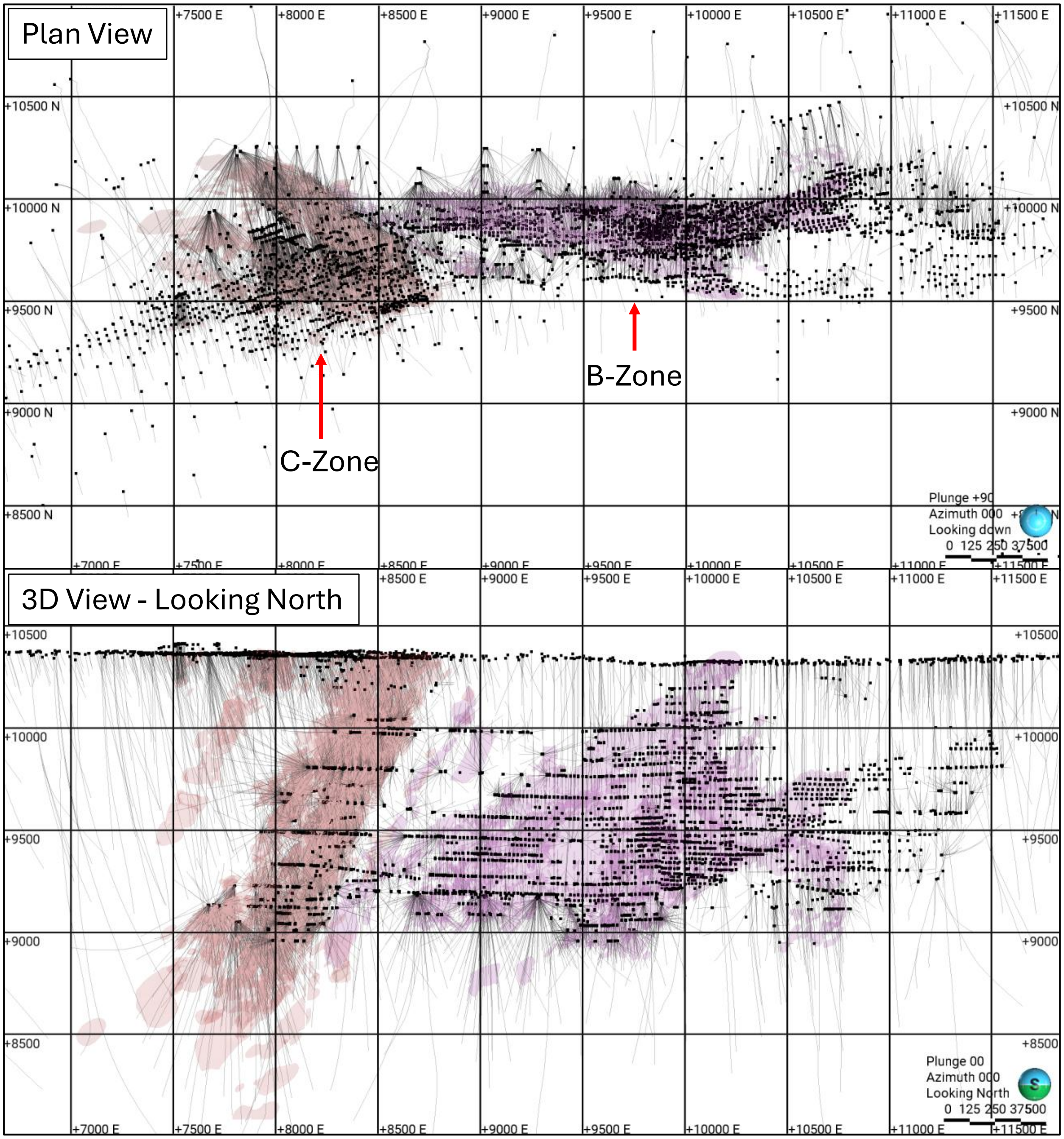
A summary of drilling is shown in Table 10-1 and Figure 10-1.

Table 10-1: Summary of Drilling at Williams Mine

Year	Company	Williams B-Zone		Williams C-Zone		Interlake & C-Zone Deep		WOC Grade Control (Not Broken Out By Zone)		Golden Giant		David Bell		Geotech/ Engineering/ Infrastructure		Totals	
		No. of Holes	Depth (m)	No. of Holes	Depth (m)	No. of Holes	Depth (m)	No. of Holes	Depth (m)	No. of Holes	Depth (m)	No. of Holes	Depth (m)	No. of Holes	Depth (m)	No. of Holes	Depth (m)
1982	Lac Minerals	23	2,796	1	178											24	2,974
1982	Golder Sceptre			21	2,244											21	2,244
1983	Lac Minerals	106	52,852	142	12,333											248	65,185
1983	Noranda			32	9,178											32	9,178
1983	Teck/Noranda					6	11,131									6	11,131
1984	Lac Minerals	27	15,868	60	11,698											87	27,566
1984	Noranda			128	19,539											128	19,539
1984	Teck/Noranda					4	9,398									4	9,398
1985	Lac Minerals			84	5,795											84	5,795
1985	Teck/Noranda					2	3,423									2	3,423
1986	Lac Minerals	70	6,981													70	6,981
1986	Noranda			7	5,026											7	5,026
1987	Lac Minerals			141	18,961											141	18,961
1987	Teck/Noranda					4	10,773									4	10,773
1987	Noranda			5	1,944											5	1,944
1988	Lac Minerals	134	10,773	37	3,992											171	14,765
1989	Teck/Corona	96	8,789	6	3,268											102	12,057
1990	Teck/Corona	191	23,847													191	23,847
1991	Teck/Homestake	107	14,986													107	14,986
1991	Hemlo Gold			54	5,026											54	5,026
1992	Teck/Homestake	101	9,527	20	5,577											121	15,104
1992	Noranda			11	11,697											11	11,697
1993	Teck/Homestake	164	14,378	5	2,337											169	16,715
1994	Teck/Homestake	135	14,332	14	3,436											149	17,768
1995	Teck/Homestake	116	8,680	64	12,338											180	21,018
1996	Teck/Homestake	182	19,258	28	5,282											210	24,540
1997	Teck/Homestake	110	13,192	7	1,986											117	15,178
1997	Franco Nevada					21	10,008									21	10,008
1997	Noranda			4	5,443											4	5,443
1998	Teck/Homestake	104	9,286	42	6,694											146	15,980
1998	Franco Nevada					19	10,055									19	10,055
1998	Noranda			6	4,429											6	4,429
1999	Barrick/Teck	47	5,799	77	10,688											124	16,487
2000	Barrick/Teck	27	3,455	77	16,417											104	19,872
2001	Barrick/Teck	91	5,656	84	11,731											175	17,387

Year	Company	Williams B-Zone		Williams C-Zone		Interlake & C-Zone Deep		WOC Grade Control (Not Broken Out By Zone)		Golden Giant		David Bell		Geotech/ Engineering/ Infrastructure		Totals	
		No. of Holes	Depth (m)	No. of Holes	Depth (m)	No. of Holes	Depth (m)	No. of Holes	Depth (m)	No. of Holes	Depth (m)	No. of Holes	Depth (m)	No. of Holes	Depth (m)	No. of Holes	Depth (m)
2002	Barrick/Teck	136	10,445	76	11,562											212	22,007
2003	Barrick/Teck	113	8,464	127	17,440											240	25,904
2004	Barrick/Teck	119	11,811	221	28,289											340	40,100
2005	Barrick/Teck	65	3,765	257	31,999											322	35,764
2006	Barrick/Teck	149	16,288	262	29,889									34	2,089	445	48,266
2007	Barrick/Teck	177	14,177	109	15,736	37	11,327							24	1,794	347	43,034
2008	Barrick/Teck	9	1,683	177	21,621	104	15,777							60	4,910	350	43,991
2009	Barrick/Teck	40	5,796	111	13,115	77	18,898							37	3,489	265	41,298
2010	Barrick	54	5,849	291	39,347	36	9,870							11	1,936	392	57,002
pre-2011	various owners									1,165	131,382	2,088	377,583			3,253	508,965
2011	Barrick	73	18,943	164	19,856	52	8,364			86	5,143			28	1,388	403	53,694
2012	Barrick	15	6,840	83	15,705	83	10,952			49	2,690	6	273			236	36,460
2013	Barrick	27	6,388	58	8,651					8	334			32	1,003	125	16,376
2014	Barrick	45	5,332	19	3,326	29	2,707							108	1,000	201	12,365
2015	Barrick	82	12,119	99	18,368	37	4,809	11	1,293					46	926	275	37,515
2016	Barrick	64	8,719	183	41,291	47	8,637							100	1,715	394	60,362
2017	Barrick	182	52,057	45	13,254	30	11,996	29	1,515							286	78,822
2018	Barrick	34	7,994	90	27,309	72	23,892	39	2,309							235	61,504
2019	Barrick	42	6,905	8	5,336	36	8,485	185	15,722					800	24,693	1,071	61,141
2020	Barrick	19	4,290	58	7,827	125	25,107	549	48,051							751	85,275
2021	Barrick	27	10,358	24	18,935	143	38269	638	64,041			3	3,352			835	134,955
2022	Barrick	3	920	101	39,441	80	28,674	203	22,564			10	6,630	92	2,794	489	101,023
2023	Barrick	16	4,014	231	45,038	17	7,158	304	33,659					203	8,989	771	98,858
2024	Barrick	17	3,702	26	5,131	23	10,784	297	29,952					172	5,365	535	54,934
TOTAL		**3,339**	**467,314**	**3,977**	**675,703**	**1,084**	**300,494**	**2,255**	**219,106**	**1,308**	**139,549**	**2,107**	**387,838**	**1,747**	**62,091**	**15,817**	**2,252,094**

Figure 10-1 Plan and Long Section View Showing Surface and UG Drill Hole Collars



Source: SLR 2025

10.2 2024 Drilling

10.2.1 Underground Drilling

In 2024, Hemlo conducted an underground drilling campaign totalling 52.4 km that included resource, reserve, and grade control drilling targeting B-Zone and C-Zone portions of the Williams Mine. All holes were drilled at NQ size (47.6 mm) and drill hole collars were surveyed by the mine department. Drill hole orientation was confirmed by a portable Azi-Aligner, followed by a 15 m downhole reflex or continuous gyro test to confirm true location. If the first 15 m survey deviated from the planned dip/azimuth by greater than 1.5°, the hole was to be recollared at the discretion of the geologist. After completion of the first successful 15 m survey, each subsequent 30 m was tested with either a reflex or continuous gyro survey for quality assurance/quality control (QA/QC). Collar locations are measured by mine surveyors and stored within the database.

10.2.2 Resource Drilling

The Mineral Resource Growth (MRG) team conducted three drill programs (two resource and one reserve) for a total of 19.5 km drilling. A summary of these programs is provided below. Not all the results were received from these programs prior to the database cut-off date; most of the programs were still drilling, therefore, results received after the cut-off date will contribute to the 2025 year-end Mineral Resource estimation next year.

The B-Zone Deep resource program consisted of two areas of focus; the eastern target focused on an area within proper/main B-Zone. The geology of this area consisted of typical B-Zone style mineralization assemblage; (Ba, Py, Mo, associated with Au), the ore zone is typically characterized by an intense K-spar alteration of the protolith. The eastern drilling was conducted from 9010 Level targeting the footwall feldspathic alteration domain. The western drilling aimed to test a mineralized volcaniclastic unit between the C-Zone and B-Zone at the border of Interlake claim. Drilling took place in Q1 from 9035 Level and Q3 from 9010 Level to potentially define 35 thousand ounces (koz) on the western side and 17 koz on the eastern portion. Of the 11 holes drilled on the western side target, only two drill holes intercepted favourable/significant intervals. The eastern target had more favourable results with three of the six holes that were drilled intercepting significant mineralized zones. A follow-up has not been proposed for the western target in 2025.

The C-Zone Deep reserve program started Q1 of 2024 and was completed in Q4. At total of 10,736 m were drilled from the 9035 exploration drift. The program aimed to upgrade Inferred Resources to the Indicated category and targeted the main C-Zone 100 series mineralization down plunge. Mineralization in this area is hosted by volcaniclastics and occurs in two forms; 1) disseminated mineralization associated with potassium feldspar-amphibole-pyrite alteration, 2) high grade quartz veining/ silica flooding. Assay results showed eight of the 22 holes had favourable intercepts with some of the holes having multiple zones of mineralization. More resource conversion drilling has been proposed for 2025 in this area.

The C-Zone Upper resource program targeted both the 100 and 300 series mineralization; drilling for both styles of mineralization was carried out from 9765 Level targeting a gap in the 300 series. The drilling aimed to add Inferred material within both 100 and 300 series mineralization. The 300 series mineralization is generally characterized by an increase in feldspar and silica alteration along with predominately disseminated sulphidation. Sulphides typically include 1-5% fine grained pyrite and molybdenite ± sphalerite. Local highly deformed mineralized quartz banding within altered packages typically hosts the highest-grade mineralization. It is worth noting that in some holes the Au mineralization is quite cryptic with weak correlation to alteration intensity and sulphide content. The 9765 level 300 series and 100 series intercepts were consistently lower grade or narrower than expected. As a result of this, the program did not meet its ounce target, and further drilling has not been proposed for the area in 2025.

10.3 Comments on Drilling

The quantity and quality of lithological, geotechnical, collar, and downhole survey data collected in the drill programs are sufficient to support Mineral Resource and Mineral Reserve estimation.

The drilling, sampling methods, and collection process are representative of the material with no known factors that would introduce any biases of significant note. Core recovery is very high, typically greater than 95%. The QA/QC results show that there are no major issues and demonstrate the consistency of analytical results across different generations of exploration and evaluation programs.

No other material factors were identified with the data collection from the drill programs that would significantly affect the accuracy and reliability of drilling results nor the Mineral Resource and Mineral Reserve estimation.

11.0 Sample Preparation, Analyses, and Security

11.1 Core Logging

Currently, all diamond drill core is photographed and logged noting lithology, alteration, structure, and mineralization. Geotechnical logging includes core recovery and rock quality designation (RQD). All the observations are recorded on a laptop computer using acQuire software.

Currently, approximately 10% of drill holes are selected for specific gravity (SG) measurements. Within these drill holes, every sample interval is tested using one piece of 10-20 cm core.

Hemlo maintains detailed written standard operating procedures for core logging.

11.2 Sampling Method and Approach

11.2.1 Diamond Drill Core

Sampling is performed at the Hemlo core facilities by the logging geologists who delineate boundaries between variations in lithology, alteration, and mineralization to best isolate variation in these features by sampling intervals. All core is drilled to NQ diameter. Minimum and maximum sample widths are 0.3 m and 1.3 m. Standard Reference Materials (SRMs) and blanks are inserted at a rate of at least 5% (1 in 20 samples) and 2.5% (1 in 40 samples), respectively. SRMs are “grade-matched” to be analyzed by the same analytical method (atomic absorption (AA) vs. gravimetric) as the surrounding samples.

Zones of mineralization and visible gold are identified by the logging geologist who signals to the external laboratory to perform a silica wash between each sample at the pulverization stage. Logging geologists include a 0 g/t standard and coarse blank (marble) at the end of each identified mineralization zone or interval containing identified visible gold to prevent any gold carryover to low-grade intervals in the analytical process.

Most core holes are selectively sampled on one metre intervals, however, core sample lengths vary from 0.3 m to 1.3 m. Current practice is that most exploration holes and select definition holes are sampled after being sawn into equal halves. One half is placed in a sample bag and the other half remains in the core box, which is stored in a secure location on site.

Sample books are filled out and tags are placed within the sample intervals marked on the core. Tags for quality control samples are also inserted at the prescribed intervals. All sampling information is entered into acQuire.

Either whole or half-sawn core samples are placed into clear plastic bags along with the corresponding sample tag so that the bar code is visible. Sample bags are then placed into a large crate in an ordered fashion. Crates are then labelled with hole and sample information and prepared for shipping. Boxes containing the remaining half core are then labelled with imprinted metal tags for secure storage on site.

Hemlo maintains detailed written standard operating procedures for core sampling.

11.2.2 Underground Samples

Underground mapping and sampling are performed to support grade control modelling. Faces are marked up as discrete sampling intervals so that they don’t cross mineralization, structures, alteration, or lithological contacts. These intervals are between 30 cm and 1.5 m. Photographs are then taken of the marked faces and intervals are given a brief description of sample width, lithology, alteration, mineralization, and sample number. The face is then sampled across the width of each interval with care given to collect a representative sample.

Muck samples are also collected by scoop operators at a rate of one sample per every 10 buckets from all productions stopes and one in every five buckets from all development ore rounds. Samples are labelled with tags that denote date, level and stope number, and the name of the operator. While these samples are not used for grade modelling, they do provide useful information for reconciliation purposes.

Hemlo maintains detailed written standard operation procedures for underground sampling procedures.

11.3 Sample Preparation and Analysis

All drill core samples submitted for analysis in 2024 were prepared and analyzed at ALS Chemex (ALS) with a preparation facility in Thunder Bay, Ontario and analytical facility in Vancouver, British Columbia. The laboratory is independent and ISO/IEC 17025:2017 and ISO 9001:2015 certified.

Check assaying is completed by Activation Laboratories Ltd. (Actlabs) in Thunder Bay, Ontario. Actlabs is also independent and ISO/IEC 17025:2017 and ISO 9001:2015 certified.

A complete analytical laboratory is also located on the mine site adjacent to the core facility. Although this laboratory has been used to assay core drill holes in the past, since approximately 2019, it has only been used to assay underground samples (face and muck sampling) as well as samples from the mill. The on-site laboratory is not certified.

11.3.1 Sample Preparation

All drill core was prepared in the same manner. Once the samples are received by the preparation facility, the sample is weighed, entered a Laboratory Information Management System (LIMS) tracking system, and dried in an oven at 60°C. Dried samples are crushed using a jaw crusher to ensure that 75% of the sample is below 2 mm. The crushed sample is then passed through a riffle splitter and the reject material is retained ("coarse reject"). A split sample of a maximum of 1,000 g is pulverized in an LM2 pulverizer until 85% passes through a 75 µm (200 mesh) screen, and a 200 g split is placed in a packet. The LM2 pulverizer is cleaned with an air hose every sample and with blank material every 10th sample. Regular screen sieve tests are performed on the crushing and pulverizing stages. Reject material is stored for two months and then disposed of only after all QA/QC checks have been completed and results are satisfactory.

11.3.2 Assaying

Samples are analyzed by fire assay (FA) with atomic absorption spectroscopy (AAS) finish. A 50 g sample split is used. The AAS has a minimum detection of 0.01 g/t Au and upper limit of 100 g/t Au. Any sample returning >5 g/t Au was automatically re-fired and analyzed gravimetrically.

For the umpire test program that was initiated in 2023, the master pulp from 5% of all primary samples, selected by grade, was sent from ALS Thunder Bay to Actlabs Thunder Bay. Umpire samples underwent the sample analytical processes as at ALS (50 g fire assay with atomic absorption finish with overlimit to gravimetric finish).

11.3.3 Specific Gravity

SG determination has been completed by ALS using standard water immersion methods on core samples. Hemlo has recently acquired an SG testing apparatus and is currently transitioning to data collection on site during the core logging and sampling process.

11.4 Quality Assurance and Quality Control

To ensure that assay results are reliable, Hemlo employs a QA/QC system to detect errors and minimize their occurrence. This includes adding Certified Reference Materials (CRMs) and blanks directly into the sample stream at regular intervals. Both ALS and Actlabs undertake rigorous internal QA/QC checks by inserting blanks, duplicates, and CRMs, and this data is reported alongside the sample results. Hemlo does not designate its own samples for duplicate analysis, but rather relies on the laboratory duplicate analyses to assess preparation and assaying quality. Data quality is reviewed daily as results are received from the laboratory and summarized each quarter in quality reports.

11.4.1 Certified Reference Material

CRMs are inserted into the sample stream at a frequency of one in 20 (5%) to assess the analytical accuracy of the results reported by the laboratory. The CRMs are purchased from ORE Research & Exploration Pty Ltd (OREAS), a well-known commercial provider for these materials. In calendar year 2023, a total of 17 different types of CRMs were used, with ALS analyzing 7,821 standards. All QA/QC samples are checked when results are imported to the acQuire database. Assay values for CRMs must fall within a tolerance of ±3 standard deviations (σ) from the certified mean as reported on the CRM's certificate to pass. If all CRMs for an external laboratory-issued certificate meet the passing criteria, the certificate will be signed off by the Quality Control Geologist, and the data will be made available to other users within the acQuire database to signal the quality of this certificate is acceptable.

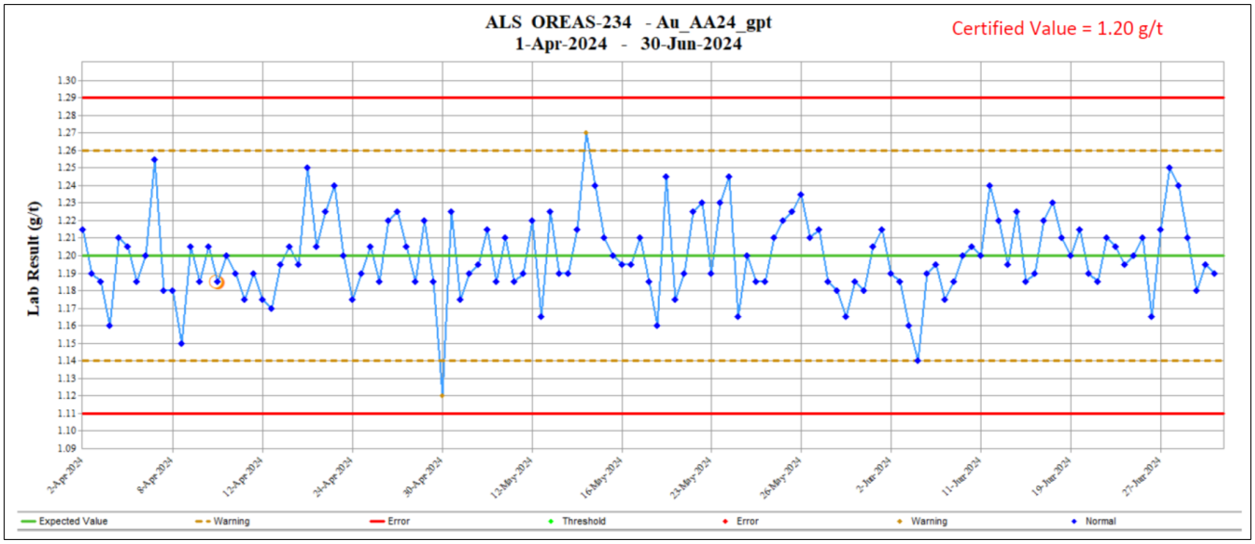
If an analysis falls outside the acceptable range, it is rejected from the database along with primary samples above and below in the sample sequence from the last passing CRM to the next passing CRM. The laboratory is notified, and a re-assay is initiated. Re-assayed values are subsequently assessed using the same criteria, and this process continues until a passing result is achieved. Only those assays with passing CRMs that have been fired and analyzed in the same batch are passed. If any systemic issues in the preparation or analytical processes are discovered through investigations into these failures, appropriate corrective and preventative actions are implemented in conjunction with ALS.

Overall, standard performance in 2023 was good with a generally less than 1% failure rate for most standards. Results are presented in Table 11-1. Elevated failure rates were observed in standards run by gravimetric finish but the bias remains low (<2% on average). This is not currently a cause for concern, but this trend should continue to be monitored on a quarterly basis. As of the date of this report, results from calendar year 2024 have not been fully assembled, but show a similar percentage of failed analyses of less than 1%. Figure 11-1 shows an example chart for OREAS-234 for Q2 2024.

Table 11-1: CRM Performance at ALS During Calendar Year 2023

Material	Technique	Certified Value (g/t)	Average Measured Value (g/t)	Bias%	Standard Failures	Sample Size	% Failed Analyses
MARBLE		N/A			0	3376	0.00%
Blanks					**0**	**3376**	**0.00%**
OREAS-22H	50g AA	0.01			2	1667	0.12%
OREAS-231	50g AA	0.542	0.538	-0.84%	8	517	1.55%
OREAS-232	50g AA	0.902	0.919	1.84%	0	58	0.00%
OREAS-232b	50g AA	0.946	0.96	1.46%	1	1000	0.10%
OREAS-234	50g AA	1.2	1.194	-0.50%	3	415	0.72%
OREAS-236	50g AA	1.86	1.852	-0.42%	9	1019	0.88%
OREAS-237	50g AA	2.21	2.222	0.54%	2	266	0.75%
OREAS-237b	50g AA	2.26	2.276	0.70%	0	352	0.00%
OREAS-238	50g AA	3.03	3.036	0.20%	4	353	1.13%
OREAS-238b	50g AA	3.08	3.095	0.48%	1	235	0.43%
OREAS-239	50g AA	3.55	3.542	-0.24%	0	334	0.00%
OREAS-239b	50g AA	3.61	3.62	0.27%	1	193	0.52%
OREAS-240	50g AA	5.51	5.465	-0.83%	7	624	1.12%
OREAS-240	50g Grav	5.51	5.471	-0.72%	2	329	0.61%
OREAS-242	50g Grav	8.67	8.595	-0.88%	4	228	1.75%
OREAS-256b	50g Grav	7.84	7.81	-0.39%	5	105	4.76%
OREAS-257b	50g Grav	14.22	14.078	-1.01%	2	68	2.94%
OREAS-247	50g Grav	42.96	41.973	-2.35%	4	58	6.90%
Standards					**55**	**7,821**	**0.70%**

Figure 11-1: Performance of OREAS-234 During Q2 2024



Source: ALS 2024.

11.4.2 Blank Samples

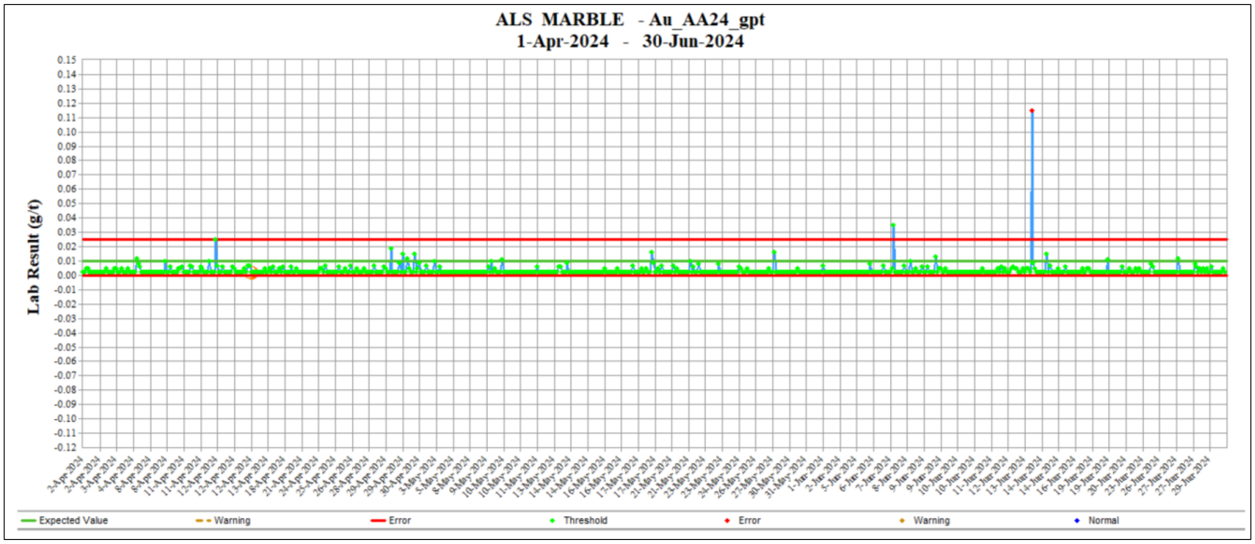
Hemlo currently uses an uncertified coarse blank material consisting of marble garden stone. The blanks are inserted into the sample stream at a ratio of 1:40. The maximum allowable Au value of the marble blank is 1% weighted carryover from the previous two samples. This is calculated by including the weight and grade of both the sample and blank to assess whether the 1% threshold is exceeded.

*% carryover = (Blank Au g/t * Blank weight)/(Previous sample Au g/t * Previous sample weight)*100%.*

Any analysis of this blank material registering 1% or greater carryover is a failure, and a re-assay is requested using the coarse reject material. Careful attention is paid to determine whether a switch has occurred.

A total of 3,376 blank analyses were completed by ALS in 2023. Blank performance was good with no failed assays (Table 11-1). Figure 11-2 shows an example chart of the blank performance in Q2 2024.

Figure 11-2: Performance of Coarse Blank Material During Q2 2024



Source: ALS 2024.

11.4.3 Duplicate Samples

Field duplicates (or twin samples) are not included in the QA/QC program due to the variable nature of the mineralization and therefore the high variability in grade between two halves of core.

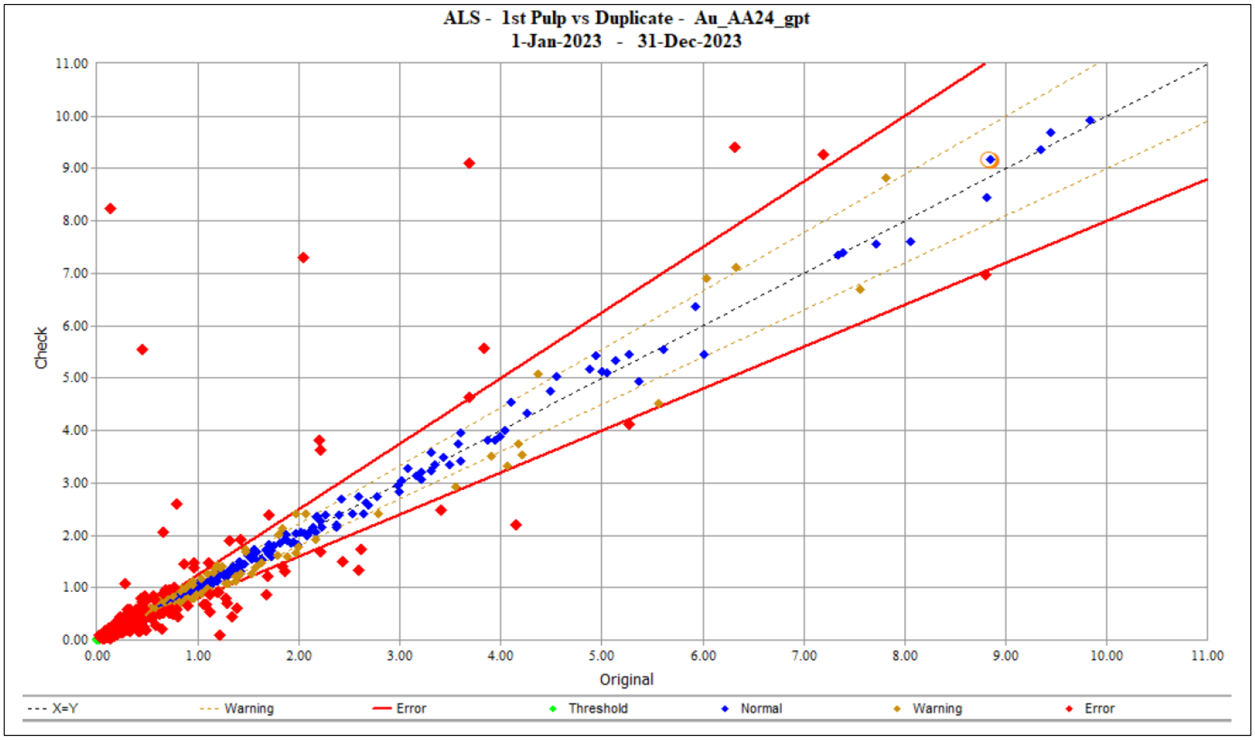
Pulp duplicates and coarse duplicates are run alongside the primary assay. Variation between samples is measured by percentage difference. Less than 10% difference is considered acceptable, 10-20% is considered a warning, and >20% is considered a failure.

A total of 2,475 coarse reject duplicates and 2,217 pulp duplicates were analyzed during 2023 and compared to the corresponding original analyses (Table 11-2 and Figure 11-3). Plots show significant scatter at low grades, generally attributable to decreased precision closer to the detection limit. Because these duplicates are selected at random by the laboratory, the grades represent the grades assayed as opposed to the grades of interest. Future studies should focus on more duplicates in the gravimetric range to assess the performance of duplicates at higher grades.

Table 11-2: Duplicate Performance at ALS During Calendar Year 2023

	Descriptor	2023 Calendar Year			
		Primary vs. Pulp		Primary vs. Coarse	
		AA	Gravimetric	AA	Gravimetric
Fail (>20% Diff)	# Samples	254	6	371	6
	% Failed	11.5%	11.8%	15.0%	12.8%
Warning(10-20% Diff)	# Samples	346	2	409	17
	% Warning	15.6%	3.9%	16.5%	36.2%
Pass (<10% Diff)	# Samples	1,617	43	1,695	24
	% Pass	72.9%	84.3%	68.5%	51.1%

Figure 11-3: Chart Showing Pulp Duplicate Performance at ALS during 2023



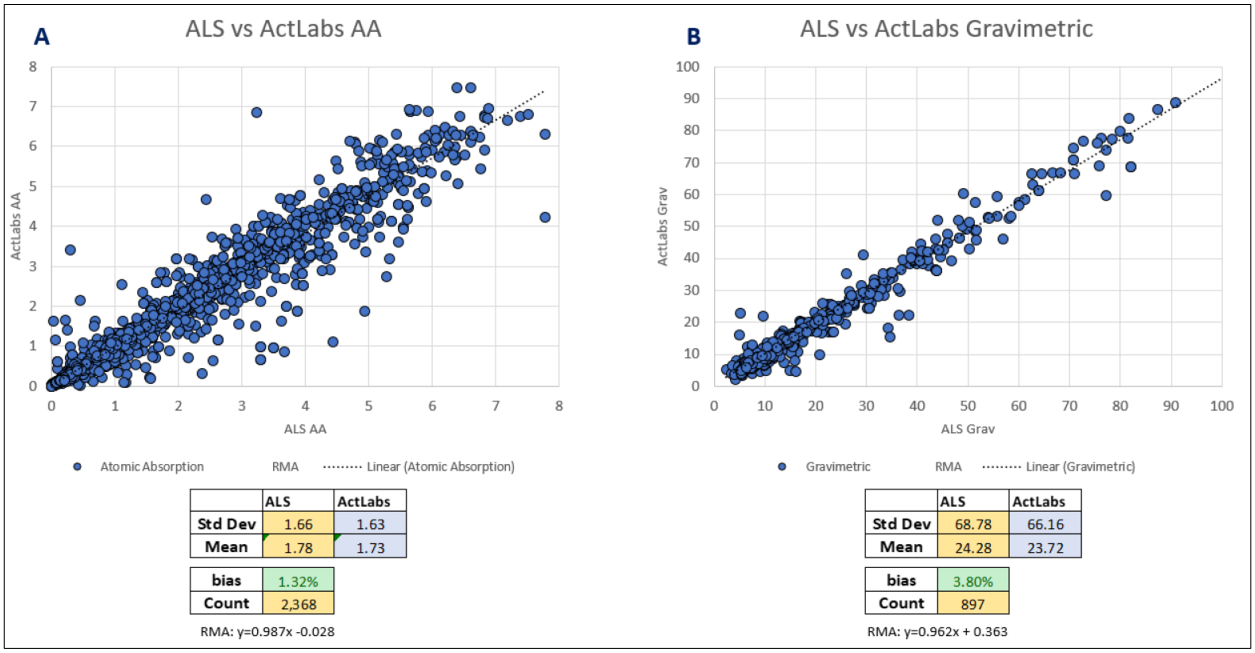
Source: ALS 2023.

11.4.4 Check Assays

An umpire assay program was initiated in 2023 to assess any bias in the primary laboratory (ALS). Actlabs has been used for this program. CRMs and duplicates were added to batches to monitor Actlabs performance. Control samples were assessed and samples from both laboratories were compared using reduced major axis plots and assessed for bias.

Performance between both laboratories was good in 2023 with 2,368 samples run by AA finish and 897 by gravimetric finish. Both techniques produced an average bias <5% for the year which is considered acceptable. Figure 11-4 shows the performance for both AA and gravimetric finish.

Figure 11-4: Performance of Umpire Analyses at Actlabs for 2023



Source: Actlabs 2023.

11.5 Sample Security

Drill core was brought from the drill to the core logging facility by the drillers. On site, the core is kept in and around the core logging tent, where it is logged by the geologist and sample intervals are laid out.

Drill core samples are placed in polybags with corresponding sample tags. Samples are placed into large wooden crates in an orderly manner. Full crates are lidded and labelled with details of their contents.

Samples are picked up by a commercial transport company and transported to ALS in Thunder Bay, Ontario. During transport, samples are under the control of the transport personnel until delivered to ALS. ALS catalogues all received samples and maintains a complete chain of custody of each sample through the analytical process.

11.6 QP Comments on Sample Preparation, Analyses, and Security

In the QP’s opinion, the sample preparation, analysis, and security procedures for Hemlo are performed to industry standards and are sufficiently reliable to support the Mineral Resource estimation. Quality control results indicate no significant bias or other major concerns with assay data quality.

12.0 Data Verification

12.1 Site Visit

A site visit to the Mine was completed on May 21–22, 2025 by Brian Hartman, M.S., P.Geo. of SLR. All relevant data and procedures for measuring, capturing, recording, and storing were reviewed. Presentations of drill core and geological interpretations were made by senior site geologists. Figure 12-1 shows the interior of the core logging facility.

Figure 12-1: Interior of the Hemlo Core Logging Facility

Source: SLR 2025.

Four representative drill holes were examined during the site visit, including 96702502, 92202511, 90352506, and 90352510. Items noted included:

- Drill core condition
- Sample selection
- Core recovery
- Logging, sampling, and core handling procedures
- Labelling and storage of core, coarse rejects, and pulps

The examination indicated good core condition with excellent core recovery that is typically greater than 95%. Logging, sampling, and core handing procedures are well documented and are carried out consistent with industry standards.

12.2 Digital Records Storage

All point samples, drill holes, and geological data are managed on site and stored in a central acQuire SQL database. This database includes survey and geological data, such as collar locations, assay results, downhole surveys, hole depth, lithologies, alteration, mineralization, structural measurements, geotechnical data, SG, and sampling intervals. The database is managed by the site Database Manager.

The acQuire SQL database is configured for optimal validation, with constraints, library tables, triggers, and stored procedures. Data that fails these rules on import is either rejected or placed in buffer tables until corrected. Only authorized and trained users can upload laboratory data from digital files.

12.3 Database Validation and Verification

Drill core is logged directly into acQuire using project-specific geological codes to maintain consistency in results and conclusions. Automatic validations and table look-ups are also incorporated into the database to ensure the integrity of the data being loaded. A database manager oversees the data capture process, as well as importing external data such as laboratory assay results, into the database.

Drill hole collars have been validated against topographic surfaces and underground development shapes. Drill hole traces were visually checked to validate downhole surveys.

SLR reviewed assay certificates from a number of holes within the remaining Mineral Resource areas to compare the assay database against the original assay certificates. No errors were found.

Because the Mine is a producing mine with a long history of gold production, no independent samples were required by SLR to demonstrate the existence of gold-bearing mineralization.

12.4 QP Comments on Data Verification

12.4.1 Mineral Resources

The QP has reviewed the Hemlo database management practices, on-site procedures and protocols, quality control procedures and analyses, and checks of the assay database against assay certificates. The QP finds the database integrity and QA/QC program to be acceptable for Mineral Resource estimation.

12.4.2 Mineral Reserves

The Mineral Reserve QP visited the Mine on May 28 to May 29, 2025, where he visited the UG operation and viewed various active workplaces including development, stoping, and truck loading. The proposed pit expansion, including the potential ore stockpiles, and west waste dumps were also viewed. The supporting pit infrastructure was viewed during a previous trip completed on April 23 to April 25, 2024.

The QP notes that historical data is inconsistent for mining recovery, dilution, and other input parameters. The QP has used provided historical data which they were able to validate and used other sources (benchmarks, internal database, and site audits) for the purposes of this Technical Report.

12.4.3 Metallurgical Assumptions

The QP engaged with the Mine metallurgists and other personnel to ensure that forecasted plant performance aligned with the historical performance of the operation. The QP did not visit any of the laboratories used in the metallurgical test programs.

12.4.4 Environmental Studies, Permitting, and Social or Community Impact

The QP relied on the data and analyses carried out by Hemlo or independent third parties hired by Hemlo. Based on the QP's experience and review of the data and analysis, these studies were appropriate for the Mine.

12.4.5 Capital and Operating Costs, and Economic Analysis

The QP engaged regularly with the personnel who developed the capital and operating cost estimates and financial model. As part of the data verification process, the QP reviewed historical incurred costs, budgetary quotes, or input prices provided by prospective vendors, to ensure that they were being captured correctly within the capital and operating cost estimates, and financial model.

13.0 Mineral Processing and Metallurgical Testing

13.1 Metallurgical Testing

In 2017, an underground ore characterization test work program was carried out to evaluate ore from new areas underground. The samples were selected based on lithology and ore zone to represent stopes included in the "Phase 5 Underground Expansion project". The main objectives of the program were to determine the range of hardness and leach recoveries that could be expected from the different ore types. The test work reportedly confirmed that the samples were soft to medium hardness in terms of comminution, and that recovery was sensitive to grind size while leach kinetics were fast with leaching complete within 24 hours. Additionally, the leach extractions were reported to correlate well with actual daily plant recoveries when reconciled with ore type.

Test work to support the implementation of cyanide destruction and tailings flotation to separate sulphides from the bulk of the tailings was completed from 2018 to 2019 and is not discussed in this report. Cyanide destruction and tailings flotation circuits were installed and commissioned in 2020 and have operated satisfactorily since starting up.

In 2021, AMC Mining Consultants conducted a study of blending sulphide concentrate in the paste backfill. Results from the study indicated that the addition of 5% to 25% sulphide concentrate to mill tailings did not have any major impact on the rheology or Uniaxial Compressive Strength (UCS) strength of paste fill samples. As the sulphide paddock in the TMF fills up, the addition of the flotation concentrate to paste backfill may become a viable alternative to expanding the paddock.

Preliminary tailings flotation concentrate characterization has indicated that much of the gold in the current plant tailings (i.e., from underground ore only) reports to the concentrate and that the concentrate may typically contain 3 g/t to 6 g/t Au. This represents an opportunity to improve overall gold recovery. The QP recommends that the recovery of gold from the concentrate be investigated in more detail.

In 2023, two composite samples, the East Zone composite and the Horizon composite, representing ore from open pit Mineral Reserves were used for bottle roll testing, diagnostic leaching, and mineralogical analysis. Each composite was made up of 100 drill core intervals and the source locations of the individual intervals are shown in Figure 13-1 and Figure 13-2. The intervals were chosen to produce composites meeting gold grade requirements. Notably, while 92% of the intervals making up the East Zone composite are within the reserve pit shell, only 45% of the intervals making up the Horizon composite are within the reserve pit shell. Results from bottle roll tests using the two composites are shown in Table 13-1.

Table 13-1: Bottle Roll Test Results for Open Pit Composites

Sample	Head (Calculated) (g/t Au)	Extraction (% Au)			Residue (g/t Au)
		8 h	24 h	48 h	
East Zone	1.35	96	97	97.0	0.04
Horizon	0.58	96	97	94.8	0.03

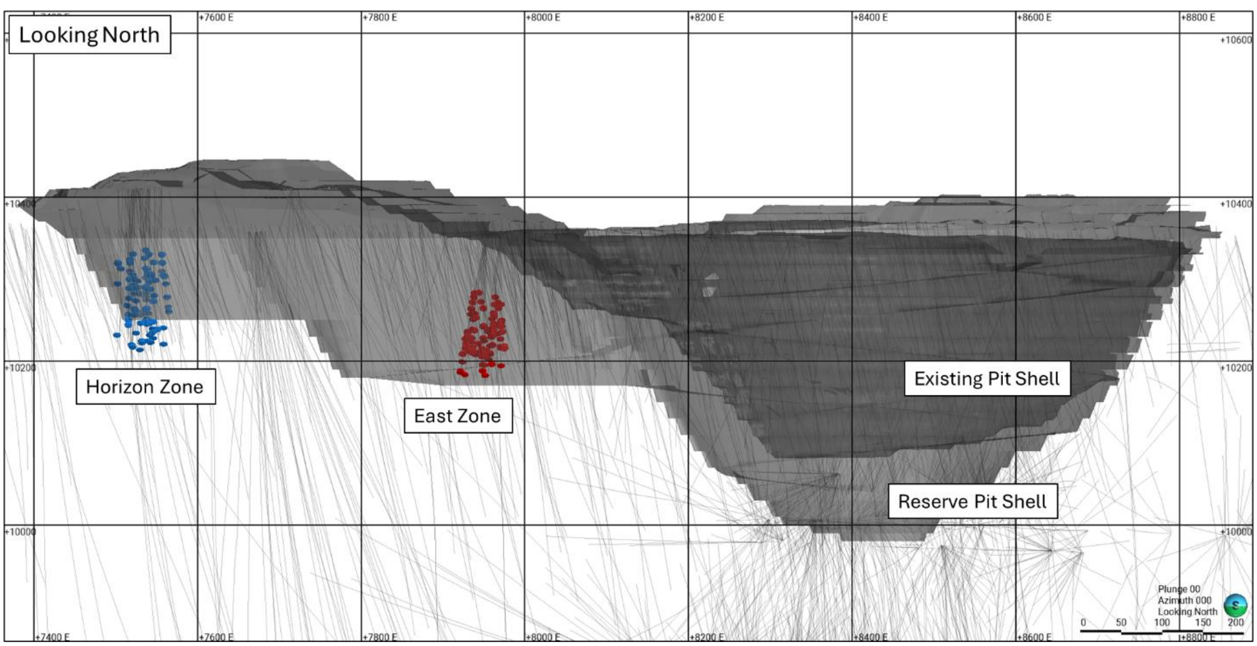
Diagnostic leach tests were conducted on both composites after gravity concentration (which recovered 29% to 31% of the contained gold), indicating that the gold not recoverable by gravity concentration and cyanide leaching was mostly locked in silicates. The test results are shown in Table 13-2.

Table 13-2: Diagnostic Leach Test Results for Open Pit Composites

Stage	Process	Distribution (% Au)	
		East Zone	Horizon
1	Gravity Recovery: recovery of coarse liberated gold	29.1	30.5
2	Cyanide Leach: extraction of readily available gold	67.9	65.7
	Subtotal:	**97.0**	**96.2**
3	Intensive Tellurium Leach: extraction of gold possibly associated with tellurides	1.0	0.2
4	Hot Aqua Regia Acid Leach: extraction of gold possibly associated with pyrite, arsenopyrite and/or other sulphides	0.4	0.7
	Remaining Material: gold locked in silicates, or associated with fine sulphides locked in silicates	1.6	2.9
	Total:	**100**	**100**

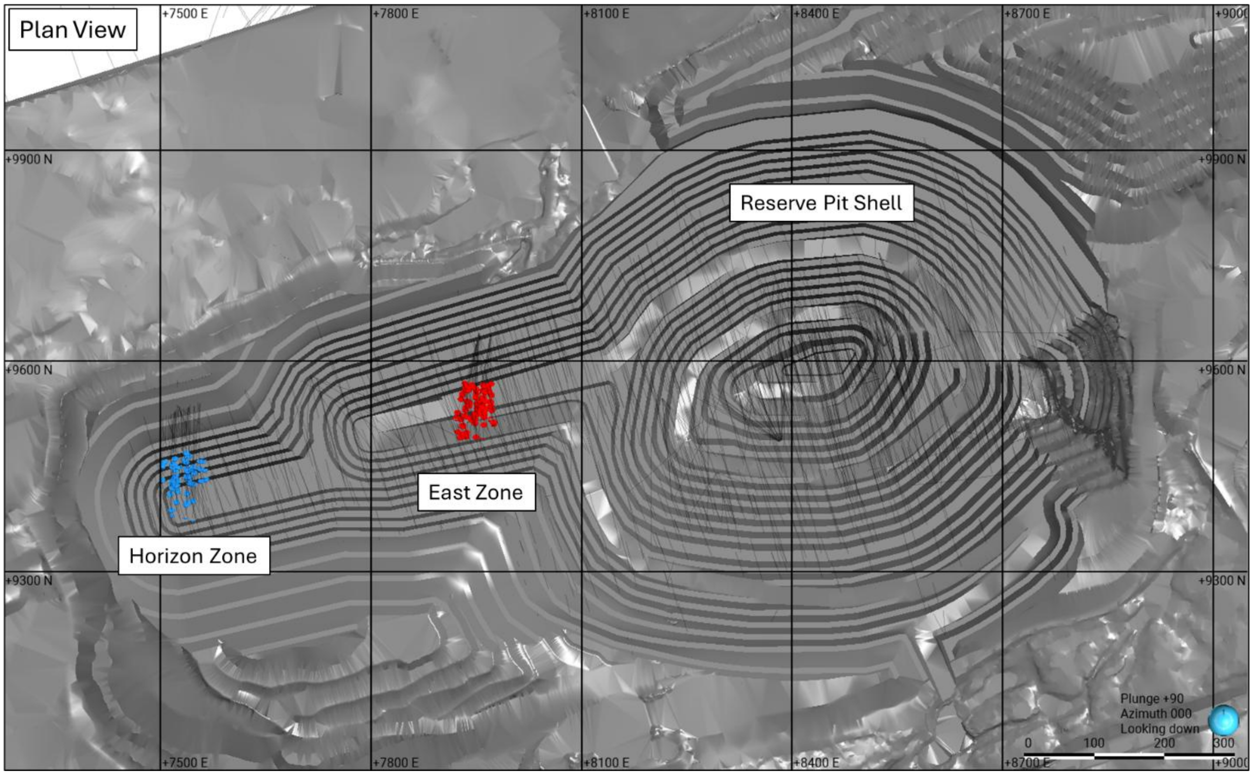
Although the two composites returned similar, high recoveries, and historical operating data (on an annual average basis) appears to indicate that recovery variability is small, the QP recommends that variability test work be completed on samples selected to represent a wider, more even spatial and grade distribution of open pit Mineral Reserves to support recovery variability assessment.

Figure 13-1: Constituent Interval Source Locations for the 2023 East Zone and Horizon Composites in Relation to the Existing and Reserve Pit Shells



Source: SLR 2025.

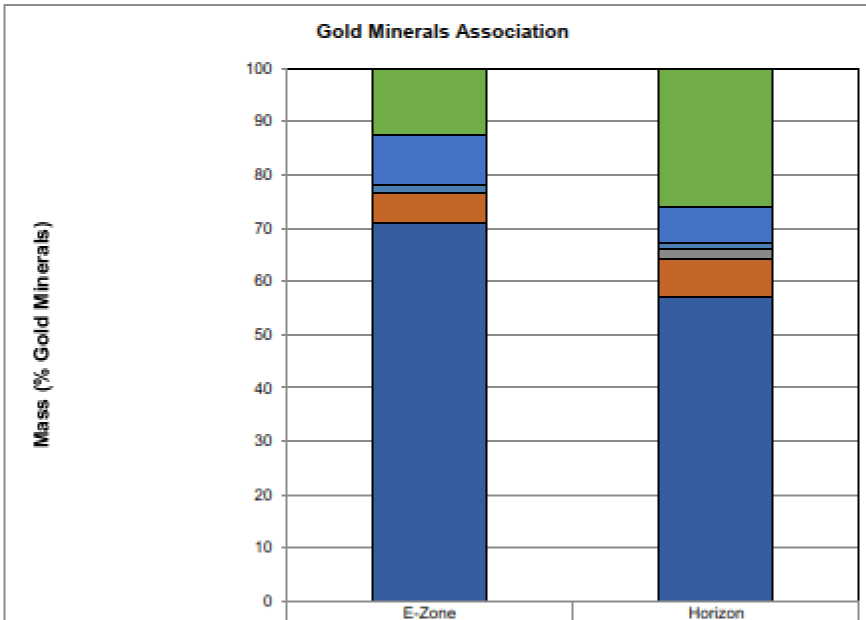
Figure 13-2: Constituent Interval Source Locations for the 2023 East Zone and Horizon Composites – Plan View



Source: SLR 2025.

Mineralogical analysis of the two composites using Quantitative Evaluation of Materials by Scanning Electron Microscopy (QEMSCAN) indicated that the main minerals present in the samples were plagioclase, quartz, biotite, and potassium feldspars. The main sulphide mineral present in both samples was pyrite, with little or no other detected sulphides. Pyrite liberation was measured at 90% to 97% free and liberated. The majority of gold was present as native, free gold with minor associations with silicates or complex mineralization and trace association with pyrite. The gold mineral associations of the two composites are presented in Figure 13-3.

Figure 13-3: Gold Mineral Associations of Open Pit Composites



	E-Zone	Horizon
Complex	12.6	26.1
Gold Minerals : Py : Silc	0.01	0.00
Gold Minerals : Other	0.00	0.00
Gold Minerals : Carbonates	0.00	0.00
Gold Minerals : Oxides	0.00	0.00
Gold Minerals : Silicates	9.25	6.76
Gold Minerals: Other Sulphides	0.01	0.11
Gold Minerals : Pyrite	1.49	1.01
Gold Minerals : Ag Minerals	0.00	0.00
Lib Gold Minerals	0.08	2.03
Free Gold Minerals	5.78	7.09
Pure Gold Minerals	70.8	56.9

Source: SGS 2024.

13.2 Recovery Estimates

Hemlo uses gold recovery relationships based on a combination of test work and historical operating performance to predict process plant performance. There are separate recovery relationships for underground and open pit ore. There are two relationships for open pit ore based on geological domains, one for volcanic sedimentary rock (100 series) and one for intrusive igneous rock (300 series), and two relationships for underground ore, one for ore from the B-Zone lower west area, and one for the balance of the underground ore. The relationships provide correlations between predicted gold recovery and mill throughput rate (which affects grinding product size distribution) and plant feed gold grade. Over time, the constants and the coefficients of the variables have been adjusted so that the relationships produced recovery predictions that were more consistent with actual plant performance. The relationships are provided below:

Open Pit Ore

Volcanic Sedimentary Domain (100 series): $$Recovery, \% = 97.61 + \frac{-0.0082\ tph - 2.06}{Au\ Head\ Grade,\ \ g/t}$$

Intrusive Igneous Domain (300 series): $$Recovery, \% = 94.71 + \frac{-0.0035\ tph - 5.6}{Au\ Head\ Grade, g/t}$$

Underground Ore

Underground ore: $$Recovery, \% = 96.35 + \frac{-0.032\ tph - 1.2}{Au\ Head\ Grade, g/t}$$

B-Zone (lower west): $$Recovery, \% = 90.35 + \frac{-0.032\ tph - 1.2}{Au\ Head\ Grade, g/t}$$

In 2020, the open pit operation was closed and the ore processed since 2021 has been sourced from the underground mine. Therefore, actual recoveries for 2021 through to 2024 can be compared to the underground ore recovery relationship predictions, which SLR calculated based on annual average head grades and estimated hourly throughput rates. The predicted and actual recoveries are presented in Table 13-3 and show that the recovery relationship provides a good estimate of actual plant performance (within the small range of head grades and throughput rates realized over the four years). Small amounts of B-Zone lower west ore have been processed and the processing plant experienced decreased recovery when processing this ore; therefore, a recovery penalty of 6% has been applied to the underground recovery relationship for ore from this area only.

Table 13-3: Actual and Predicted Recoveries for 2021 to 2024 for Underground Ore

Year	Average Throughput (estimated) (tph)	Average Head Grade (annual, calculated) (g/t Au)	Predicted Recovery (%)	Actual Recovery (%)
2021	190[1]	3.18	94.1	94.9
2022	138	3.69	94.8	95.0
2023	160	3.71	94.6	94.3
2024	173	3.33	94.3	94.7

Notes:

1. Estimated using assumed plant utilization of 92% (utilization in 2022 through 2024 averaged 90.8%)

The two 2023 composite samples representing ore from open pit reserves were from areas of volcanic sedimentary rock. Therefore, the extractions achieved in bottle roll tests on these composites can be compared to predicted recoveries using the 100 series recovery relationship. The bottle roll test extractions were 97.0% for the East Zone composite and 94.8% for the Horizon composite, while the gravity-leach test extractions during the diagnostic tests were 97.0% and 96.2% respectively. The predicted recoveries from the 100 series recovery relationship, assuming a mill throughput rate of 225 tph and using the calculated head grades of 1.35 g/t for the East Zone composite and 0.58 g/t for the Horizon composite, are 94.7% (East Zone) and 90.9% (Horizon). Since the recovery prediction relationship gives a significantly lower recovery estimate than the extraction achieved in the bottle roll tests, it appears that the recovery predictions are conservative compared to what might be achieved in practice. However, it should be noted that at higher throughputs leach retention time is also reduced, which may negatively affect plant recovery, and no adjustment was made to the bottle roll test results to account for soluble losses that would occur in practice, although in the QP's opinion, this should not significantly affect plant recovery.

In the QP's opinion, the recovery relationships derived by Hemlo are adequate for predicting recovery, although the open pit recovery relationships appear to be slightly conservative compared to available test work results, and an assessment of this conservatism would benefit from additional variability test work conducted on samples that are more spatially representative of open pit Mineral Reserves.

Although gold tellurides were identified in mineralogical analysis of the 2023 open pit composites, their presence does not appear to have negatively affected recovery in bottle roll and diagnostic leach tests. The QP is not aware of other deleterious elements that would negatively affect plant recovery.

13.3 Plant Operating Data

Historical operating data from 2003 to 2024 is presented in Table 13-4. The data shows that the plant recovery has remained consistent between approximately 93% and 95% over the 22-year period. Lower gold grades, likely due to lower grades coming from the open pit towards the end of its life prior to 2020, appear to have had only a minor effect on plant recovery. After cessation of open pit mining in 2020, there was an increase in recoveries, which in the QP's opinion was likely due both to increased gold grades in the plant feed and increased retention time in the leach circuit due to lower throughput.

The plant currently utilizes only one of the two parallel grinding lines at a time, with throughputs below the maximum capacity of a single line due to ore availability constraints from only the underground mine. Optimization work has therefore been concentrated on the grinding and leaching circuits to maximize recovery and reduce operating costs.

Table 13-4: Historical Plant Performance – 2003 to 2024

Year	Tonnes Milled		Gold Produced	Head Grade	Recovery
	(tpa)	(tpd)[1]	(oz)	(g/t Au)	(%)
2003	3,576,065	9,797	535,775	4.91	94.98
2004	3,662,446	10,034	494,878	4.47	93.99
2005	3,503,198	9,598	460,299	4.36	93.68
2006	3,354,637	9,191	413,563	4.03	94.17
2007	3,035,642	8,317	339,382	3.67	94.07
2008	2,775,261	7,603	257,559	3.06	94.39
2009	2,528,485	6,927	278,440	3.55	95.47
2010	3,003,766	8,229	242,224	2.65	94.79
2011	3,057,407	8,376	227,487	2.44	94.91
2012	3,080,863	8,441	206,063	2.22	93.90
2013	3,109,584	8,519	204,309	2.19	93.28
2014	2,916,118	7,989	206,095	2.34	93.93
2015	3,120,388	8,549	218,557	2.3	94.63
2016	3,446,648	9,443	245,275	2.36	93.70
2017	3,376,510	9,251	202,520	2.01	92.86
2018	3,061,665	8,388	170,734	1.86	93.04
2019	2,914,004	7,984	213,231	2.45	94.13
2020	2,022,378	5,541	222,919	3.66	95.11
2021	1,530,178	4,192	150,094	3.18	94.86
2022	1,097,823	3,008	132,336	3.69	94.99
2023	1,265,484	3,467	142,483	3.71	94.33
2024	1,395,795	3,824	143,015	3.33	94.74

Source: Barrick 2024

Notes:

1. Average on an annual basis

14.0 Mineral Resource Estimates

14.1 Summary

The Mineral Resource estimates have been prepared according to the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) 2014 Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM (2014) Standards) as incorporated with NI 43-101. Mineral Resource estimates were also prepared using the guidance outlined in CIM Estimation of Mineral Resources and Mineral Reserves (MRMR) Best Practice Guidelines 2019 (CIM (2019) MRMR Best Practice Guidelines).

The Mineral Resource estimate for the Mine comprises the B-Zone and C-Zone block models. Both of these reviewed block models comprise all the mineralized domains representing the Hemlo deposit. The estimate was completed internally by Hemlo mine staff and further reviewed and accepted by Brian Hartman, P.Geo. of SLR, a Registered Member of the Society for Mining, Metallurgy & Exploration, and a Practicing Member with Professional Geoscientists Ontario. The effective date of the Mineral Resource estimate is December 31, 2024.

The Hemlo Mineral Resource represents both open pit and underground portions.

Underground Mineral Resources are constrained within optimized mining shapes at a gold cut-off grade that varies by material type, averaging 2.38 g/t Au using Deswik Stope Optimizer (DSO). All blocks within the resultant stope shapes, including waste, are reported within the underground Mineral Resource. Thus, it is considered a diluted resource which adheres to Reasonable Prospects for Eventual Economic Extraction (RPEEE) considerations

For the open pit, Mineral Resources are constrained within an optimized pit shell using the Lerchs-Grossmann algorithm applying reasonable pricing and cost inputs. The open pit Mineral Resource uses a 0.21 g/t Au cut-off grade.

Mineral Resources are reported inclusive of Mineral Reserves and have been depleted to December 31, 2024 using the mined-out surfaces and voids. Mineral Resources that are not Mineral Reserves do no have demonstrated economic viability. The Hemlo Mineral Resource is shown in Table 14-1.

Table 14-1: Hemlo Mineral Resource – December 31, 2024

	Measured Resources			Indicated Resources			Measured + Indicated Resources			Inferred Resources		
	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content
	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)
Open Pit												
Hemlo Open Pit	0	0.00	0	56,875	0.88	1,601	56,875	0.88	1,601	6,501	0.42	88
Subtotal Open Pit	**0**	**0.00**	**0**	**56,875**	**0.88**	**1,601**	**56,875**	**0.88**	**1,601**	**6,501**	**0.42**	**88**
Underground												
UG Excluding Interlake	2,587	4.19	349	7,475	4.24	1,020	10,062	4.23	1,368	2,096	3.78	255
Interlake Claim	1,750	4.89	275	2,594	4.57	381	4,345	4.70	656	1,224	7.13	281
Subtotal Underground	**4,337**	**4.47**	**624**	**10,069**	**4.33**	**1,401**	**14,406**	**4.37**	**2,025**	**3,320**	**5.02**	**535**
Total In Situ	**4,337**	**4.47**	**624**	**66,944**	**1.39**	**3,002**	**71,281**	**1.58**	**3,626**	**9,821**	**1.97**	**624**

Notes:
1. The Mineral Resource estimate has been prepared according to CIM (2014) Standards and using CIM (2019) MRMR Best Practice Guidelines.
2. Open Pit Mineral Resources are reported based on an economic pit shell. Underground Mineral Resources are constrained within stope shapes generated by Deswik Stope Optimizer. Refer to Section 14.12.
3. Open Pit Mineral Resources are reported at a cut-off grade of 0.21 g/t Au. Underground Mineral Resources are reported on a diluted basis using a gold cut-off grade that varies by material type and mining method and averages 2.38 g/t Au.
4. Both Underground and Open Pit Mineral Resources are estimated using a long-term gold price of US$1,900/oz.
5. A constant SG value of 2.72 has been applied to all blocks in the model. Waste dump material is assigned an SG of 2.0.
6. Mineral Resources are inclusive of Mineral Reserves.
7. Mineral Resources have been depleted to December 31, 2024 using the mined-out surfaces and voids.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9. Numbers may not add due to rounding.
10. The QP responsible for this Mineral Resource estimate is Brian Hartman (P.Geo.) of SLR.

The QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

14.2 Resource Database

Drill hole data is stored and maintained in an acQuire software database. The database is maintained at site and updated as new validated data become available. The database consists of 13,179 drill holes that were used to inform the 2024 year-end Mineral Resource estimate.

14.3 Geological Interpretation

With a history of multiple companies operating on the deposit over the course of four decades, as with many long-operating mines, there have been thousands of local lithology codes applied at Hemlo. The intricacy of lithology codes at Hemlo is amplified by the fact that historical and some present codes refer to alteration domains and do not define a specific protolith. For the sake of clarity, current lithology codes used by mining geologists for domaining purposes are outlined in Table 14-2. Unique suffixes may be used to define specific lithologies, but the protolith(s) are always defined by the first numeric code outlined below.

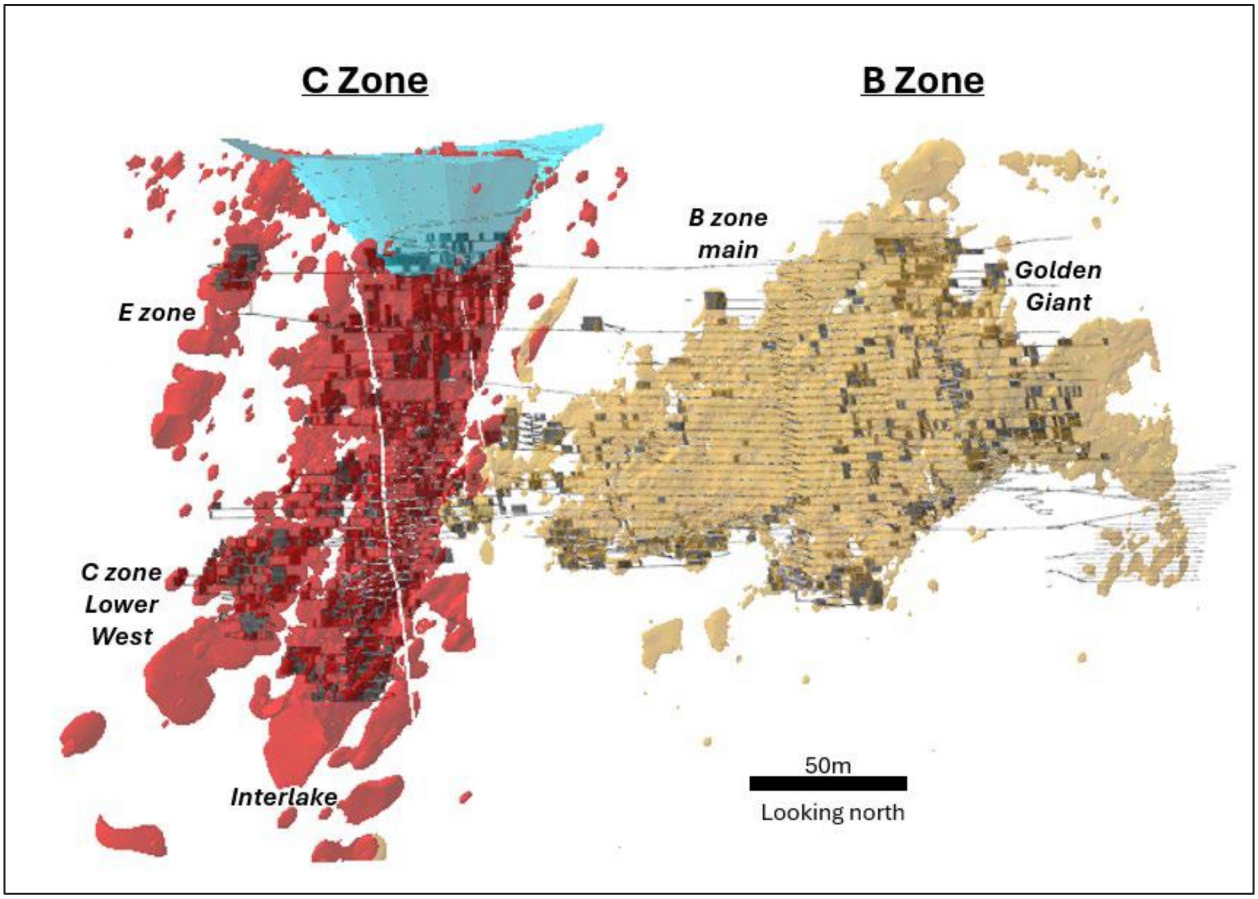
Table 14-2: Current Mine Lithology Codes

Code	Lithology	Description
1	Mafic Volcanics	Amphibolite grade mafic volcanics
2	Volcaniclastics	Sandstone to conglomeritic felsic-intermediate volcaniclastics
3	Felsic-Intermediate Porphyry	Refers to the Moose Lake Porphyry, a felsic-intermediate quartz-plagioclase porphyry
4	Sediments	Groups together sedimentary rocks of all types present in the Hemlo gold deposit without the distinguishable feldspathization of ore-grade material. Refers to the variable alternating layers of wackes, mudstones, conglomerates, etc.
6.1	Volcaniclastics, Sediments	Code 6 is used to refer to the main B-Zone orebody characterized by a high level of feldspathization (microcline) and intense strain (mylonitic – sub-mylonitic). While it is understood that the main ore protoliths are both volcaniclastics and sediments, code 6 is colloquially used to define this lithology since protolith identification is visually difficult. 6.1 is used to reference the hanging wall (HW) portion of the B-Zone, the thickest, highest-grade part of the deposit.
6.2	Volcaniclastics, Sediments	As above. 6.2 is used to reference the footwall (FW) portion of the B-Zone, a thinner more discontinuous unit with the same ore characteristics as the 6.1 unit.
9	Intermediate Porphyry	Post-mineralization intermediate quartz-plagioclase dikes and sills
13	Diabase	Paleoproterozoic cross-cutting diabase dikes

14.3.1 Geological Models

The Mine is split into two main regions (C-Zone and B-Zone), with sub-zones included within each (Figure 14-1). The two regions differ geologically, with the B-Zone mineralization occurring at the contact between metasediments and MLP, with gold associated with pyrite in a quartz-feldspar matrix. The C-Zone features two styles of parasitically folded mineralization; disseminated and vein-hosted, hosted within either felsic MLP or heterolithic volcaniclastic/ sedimentary rocks.

Figure 14-1: Zones in the Hemlo Model



Source: Barrick 2024.

14.3.1.1 B-Zone

In 2024, high- and low-grade indicator shells were generated using Seequent's Leapfrog software (Leapfrog), with inputs that honour the interference fold patterns identified from underground mapping and remodelling in 2022. A 0.3 g/t Au cut-off was used for the low-grade (LG) shell and a 2 g/t Au cut-off was used for the high-grade (HG) shell. The high-grade shell was constrained within the four alteration and lithology domains: 1) HW feldspar unit, 2) FW feldspar unit, 3) MLP, and 4) sediments. The orientation of the grade shell was controlled with a structural trend built in Leapfrog, applying a global dip of 70°, a dip azimuth of 0° and pitch of 60°. In addition, three meshes guided the localized variations of strike and dip for the structural trend. The low-grade shell used the same structural trend but was not constrained within the alteration or lithology units to ensure all mineralization was captured.

The 2024 model refines the edges of the deposit to better encapsulate peripheral mineralization in the B-Zone. The lower contacts of the main lithological unit domaining mineralization in the B-Zone were expanded to fully capture gradational mineralization between the high-grade FW mineralization and the bordering sediment lithology.

In addition, new drilling in 2024 supported updating the contact zone between the B-Zone high-grade HW domain and its connection to its low to moderate grade volcaniclastic extension currently modelled as part of the C-Zone. This recent drilling confirmed the continuity of these separately modelled lithologies. Based on this new drilling, most of the mineralization was identified in the MLP as opposed to the predicted B-Zone high-grade HW feldspathic zone. Therefore, drilling additions helped refine the boundary of both units to generate a clearer understanding of mineralization along the contact between the C-Zone and B-Zone. Table 14-3 shows the estimation domains defined for the 2024 B-Zone model.

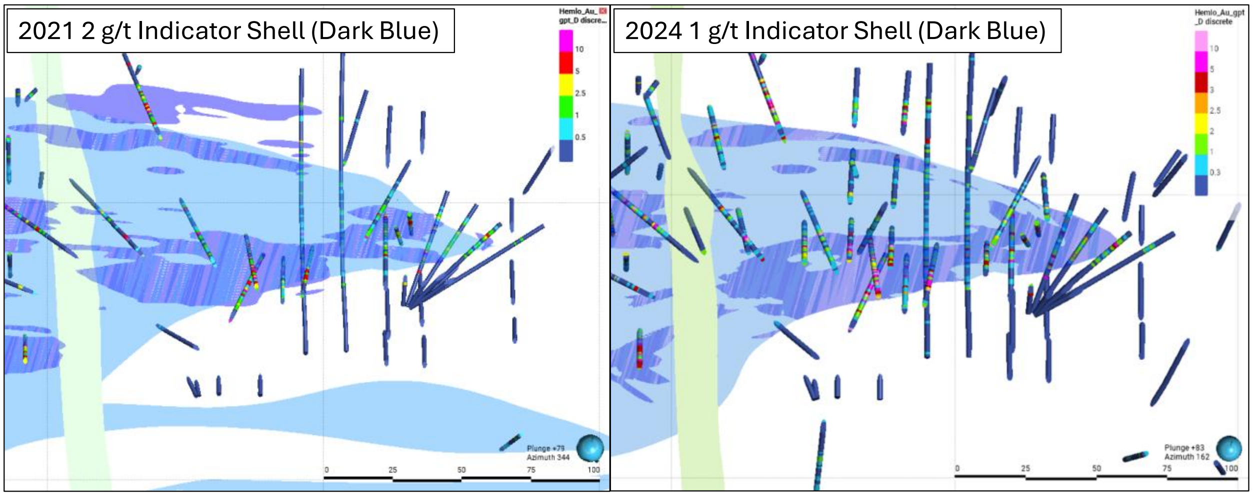
Table 14-3: B-Zone Estimation Domains

Domain	Description
302	HG domain on the 3 lithology
397	Dzone vein modelled on the 3 lithology
398	Dzone vein modelled on the 3 lithology
399	Dzone vein modelled on the 3 lithology
405	HG domain on the 4 lithology
406	Dzone vein modelled on the transition between the 2 lithology and the 6.1 lithology
499	Dzone vein modelled on the transition between the 2 lithology and the 6.1 lithology
601	HG east domain on the FW (6.2 lithology)
602	HG west domain on the FW (6.2 lithology)
801	HG domain on the HW (6.1 lithology)
1001	LG domain
2000	Background domain
909-913	Dikes

14.3.1.2 C-Zone

In 2024, high- and low-grade indicator shells were generated in Leapfrog. A 0.3 g/t cut off was used for the low-grade shell and a 1 g/t cut-off was used for the high-grade shell. A structural trend was created based on the measured stretching lineation and integrated mapped mineralized veins underground. High-grade shells were constrained using three lithology domains: 1) volcaniclastics, 2) MLP, and 3) sediments. Additionally, several high-grade veins were modelled from underground mapping and drill holes, including one tightly folded high-grade vein. These veins were only built in areas of high geological confidence and were used as separate domains to ensure high grade was not smeared outside the veins, and low grade was not smeared inside the veins. Figure 14-2 shows a comparison of the 2021 versus 2024 interpretations of the high-grade indicator shells. In 2021, the shells were interpreted to be lithological contact parallel, while in 2024 the parasitic folding of the ore zones is now apparent.

Figure 14-2: Plan View Comparison of the 2021 vs 2024 C-Zone High Grade Shells on the 9090 Level



Source: SLR 2025.

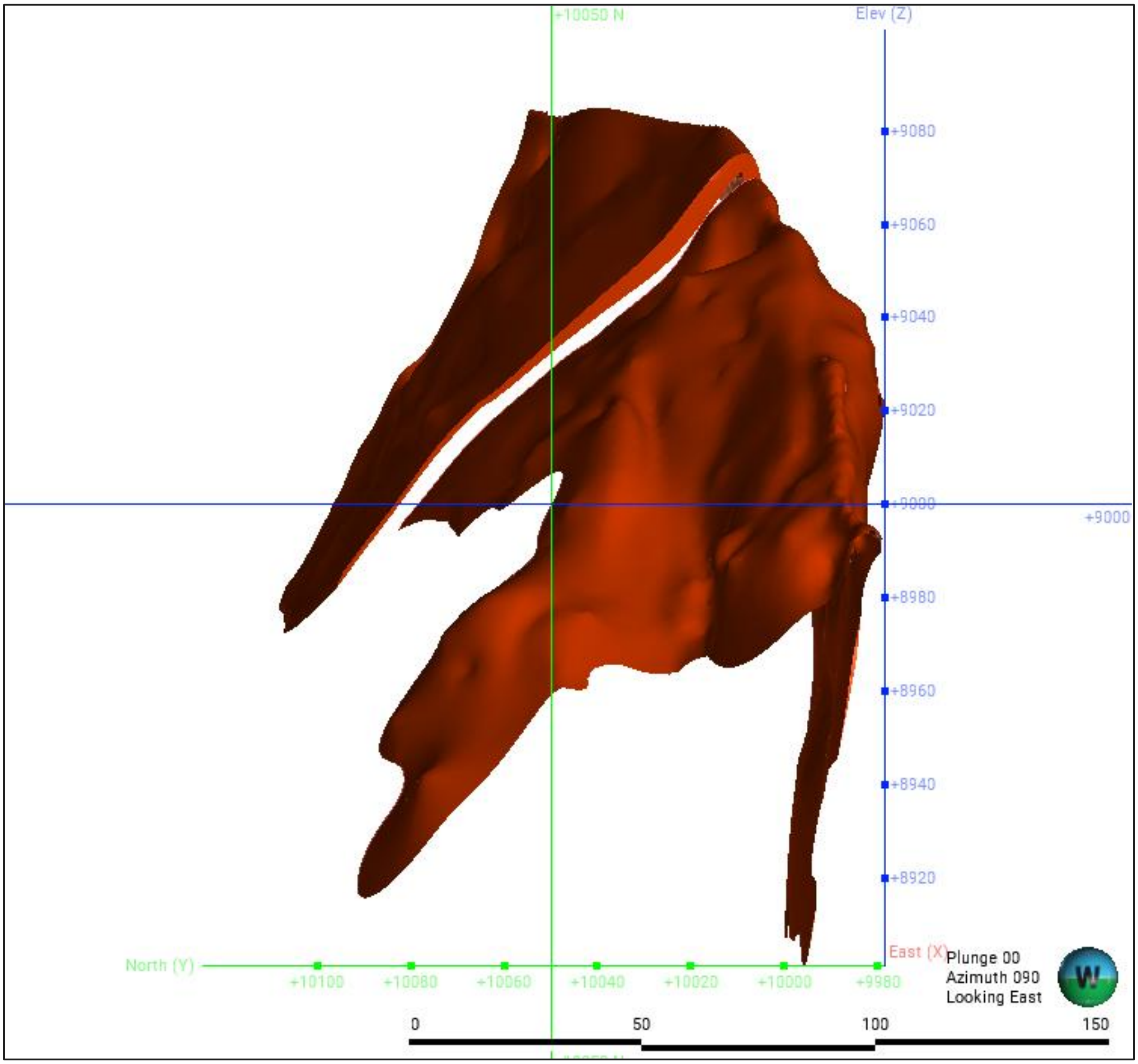
Table 14-4 shows the estimation domains defined for the 2024 C-Zone model.

Table 14-4: C-Zone Estimation Domains

Domain	Description
1, 2, 3, 4, 5, 7, 8, 9	Veins
10	Folded Vein
100	LG domain on the 2 lithology
101	HG domain on the 2 lithology at Ezone
102	HG domain on the 2 lithology at Czone
300	LG domain on the 3 lithology
305	HG domain on the 3 lithology Czone
312	HG domain on the 3 lithology Dzone
401	HG domain on the 4 lithology HW
402	HG domain on the 4 lithology FW
2000	Background domain
909-913	Dikes

Vein 10 is folded, as shown in Figure 14-3. Local anisotropy in the folded vein was accounted for using Vulcan's projection unfolding function. A dynamic anisotropy approach was also evaluated as part of a parallel sensitivity analysis to estimate this folded vein. This analysis resulted in a slight increase in ounces in comparison to the applied unfolding processes. Ongoing detailed analyses will be performed for the next model update to further understand the high variability of Au grades associated with Vein 10.

Figure 14-3: View of Folded Vein 10 Looking East



Source: SLR 2025.

14.4 Assays

The raw assay statistics by domain are shown in Table 14-5.

Table 14-5: Raw Assay Statistics by Domain

B-Zone Assays - Au g/t						
Domain	**Samples**	**Min**	**Max**	**Mean**	**SD**	**CV**
302	316	0.28	334.54	6.48	21.9	3.38
397	40	0.15	77.00	6.28	15.1	2.41
398	37	0.03	243.00	15.47	45.0	2.91
399	269	0.02	37.70	2.48	4.1	1.66
405	1,102	0.05	2,020.00	8.12	41.3	5.08
406	388	0.14	75.60	2.86	5.5	1.94
467	232	0.00	270.69	18.65	26.9	1.44
499	230	0.01	641.00	4.69	43.9	9.36
601	1,733	0.00	714.09	12.60	25.6	2.03
602	7,782	0.00	927.00	5.80	18.9	3.26
801	63,997	0.00	5,725.30	8.94	33.1	3.71
1001	222,731	0.00	4,360.00	1.37	10.5	7.62
2000	295,347	0.00	370.04	0.29	2.2	7.82
All	615,491	0.00	5,725.30	1.64	12.8	7.83
C-Zone Assays - Au g/t						
Domain	**Samples**	**Min**	**Max**	**Mean**	**SD**	**CV**
1	29	0.43	187.00	19.98	42.7	2.14
2	214	0.03	2,737.40	67.64	232.2	3.43
3	101	0.03	209.00	6.15	19.8	3.22
4	166	0.02	269.00	7.24	26.8	3.71
5	58	0.06	27.70	4.62	7.3	1.57
7	73	0.04	78.80	5.14	10.6	2.06
8	39	0.15	181.00	16.49	27.0	1.64
9	125	0.02	1,165.00	20.99	118.5	5.65
10	1,783	0.00	9,910.00	30.90	232.9	7.54
100	175,063	0.00	9,750.00	0.69	14.2	20.50
101	3,027	0.02	784.46	3.08	11.0	3.57
102	71,219	0.00	11,000.00	4.21	37.6	8.93
300	146,419	0.00	993.00	0.66	4.3	6.50
305	43,701	0.00	2,386.74	3.35	18.4	5.51
312	1,398	0.00	724.00	2.11	12.0	5.69
401	2,034	0.01	805.00	3.65	16.0	4.38
402	488	0.01	127.50	3.12	9.2	2.96
2000	515,123	0.00	1,210.00	0.17	2.1	12.59
All	982,900	0.00	11,000.00	0.83	15.5	18.57
Note. SD – standard deviation, CV – coefficient of variation.						

14.5 Compositing

Approximately 50% of samples are at 1 m intervals, with more than 90% between 0.5 m and 1.5 m. Samples were composited to 2 m lengths within the grade-shell domains and 1 m lengths within the modelled veins; both composite datasets used a 50% merge tolerance. The 2 m composites effectively reduced the nugget effect and variance, producing a locally smoother model that reduces the overestimation error. However, the modelled veins are largely narrower than 2 m, so a 1 m composite was used for the vein domains.

Assays were composited in Vulcan starting at the first mineralized wireframe boundary from the collar and resetting at each new wireframe boundary. Composites less than 50% of the composite length, which were located at the bottom of the mineralized intercept, were added to the previous composite.

Composite statistics are shown in Table 14-6.

Table 14-6: Composite Statistics by Domain

B-Zone Composites - Au g/t						
Domain	**Samples**	**Min**	**Max**	**Mean**	**SD**	**CV**
302	132	1.22	149.13	6.39	13.70	2.14
397	16	0.37	38.83	6.26	9.47	1.51
398	27	0.05	242.74	15.18	35.55	2.34
399	114	0.02	21.45	2.47	2.98	1.21
405	486	0.10	327.70	7.98	18.42	2.31
406	165	0.50	24.66	2.82	3.13	1.11
467	77	2.09	82.25	18.22	16.34	0.90
499	105	0.04	641.00	4.72	43.96	9.32
601	629	0.00	225.12	12.39	15.55	1.26
602	3,356	0.01	249.71	5.71	9.98	1.75
801	26,230	0.00	1,466.88	8.92	18.86	2.12
1001	96,960	0.00	723.40	1.38	5.26	3.80
2000	135,310	0.00	167.10	0.29	1.66	5.72
All	275,097	0.00	1,466.88	1.63	7.46	4.56
C-Zone Composites - Au g/t						
Domain	**Samples**	**Min**	**Max**	**Mean**	**SD**	**CV**
1	22	0.38	107.73	20.26	32.57	1.61
2	137	0.03	2,737.40	65.67	206.81	3.15
3	103	0.03	82.11	5.85	12.59	2.15
4	158	0.06	161.29	6.49	17.47	2.69
5	60	0.06	25.84	3.53	5.46	1.55
7	68	0.04	45.50	4.64	8.75	1.89
8	36	0.37	153.43	17.03	26.72	1.57
9	92	0.03	1,985.00	23.79	128.25	5.39
10	1,206	0.01	3,477.88	30.55	135.72	4.44
100	79,857	0.00	1,462.16	0.71	5.77	8.19
101	1,382	0.03	104.83	3.05	5.45	1.79
102	32,415	0.01	1,650.65	4.17	17.19	4.12
300	66,109	0.00	231.99	0.67	2.51	3.74
305	19,389	0.00	879.54	3.32	10.78	3.25
312	621	0.03	109.23	2.16	5.14	2.38
401	969	0.03	144.34	3.60	7.81	2.17
402	197	0.05	35.81	3.10	4.94	1.59
2000	238,918	0.00	200.39	0.17	1.16	6.86
All	452,533	0.00	3,477.88	0.83	8.26	9.92
Note. SD – standard deviation, CV – coefficient of variation.						

14.5.1 Treatment of High-Grade Outliers

Capping values for high-grade outliers by domain were reviewed and updated for the 2024 model. Upon review, and taking into consideration the domain grouping, capping values were selected as per Table 14-7. The capping values were applied to the composites, and the capped dataset was reviewed again for stationarity.

Table 14-7: Capping Levels

B-Zone Domains		C-Zone Domains	
Domain	**Au g/t Cap Value**	**Domain**	**Au g/t Cap Value**
302	15	Vein 1	25
397	14	Vein 2	300
398	20	Vein 3	30
399	8	Vein 4	30
405	27	Vein 5	10
406	11	Vein 7	16
407	12	Vein 8	40
499	5	Vein 9	60
601	55	Vein 10	275
602	45	100	35
801	90	102	220
1001	15	118	10
2000	5	300	45
909-913	none	305	100
		312	15
		401	20
		402	8
		2000	5

In general, the capping occurred within the upper 0.1% probability of the populations. The larger domains of B-Zone and C-Zone do not show significant changes in their capping values with respect to the previous year's model. It should be noted that the C-Zone capping is relatively high when compared with the B-Zone capping due to the nature of the mineralization in the zone.

Table 14-8: shows a comparison of average uncapped versus capped grades by domain.

Table 14-8: Comparison of Uncapped vs Capped Composites by Domain

B-Zone					
Domain	**Samples**	**Composite Grade Au g/t**		**Composite CV**	
		Uncapped	**Capped**	**Uncapped**	**Capped**
302	132	6.4	4.9	2.1	0.7
397	16	6.3	4.6	1.5	0.9
398	27	15.2	5.9	2.3	1.2
399	114	2.5	2.2	1.2	0.9
405	486	8.0	6.7	2.3	0.9
406	165	2.8	2.6	1.1	0.8
499	105	4.7	1.4	9.3	1.1
601	629	12.4	11.9	1.3	1.0
602	3,356	5.7	5.4	1.7	1.1
801	26,230	8.9	8.5	2.1	1.3
1001	96,960	1.4	1.2	3.8	1.5
2000	135,310	0.3	0.2	5.7	2.8
C-Zone					
Domain	**Samples**	**Composite Grade Au g/t**		**Composite CV**	
		Uncapped	**Capped**	**Uncapped**	**Capped**
1	22	20.3	9.2	1.6	1.0
2	137	65.7	49.6	3.1	1.4
3	103	5.9	4.7	2.2	1.7
4	158	6.5	4.5	2.7	1.5
5	60	3.5	2.7	1.5	1.1
7	68	4.6	3.4	1.9	1.5
8	36	17.0	12.8	1.6	1.0
9	92	23.8	6.1	5.4	2.2
10	1,206	30.5	23.2	4.4	2.0
100	79,857	0.7	0.7	8.2	2.3
101	1,382	3.1	2.9	1.8	1.2
102	32,415	4.2	4.0	4.1	2.6
300	66,109	0.7	0.6	3.7	2.5
305	19,389	3.3	3.2	3.2	2.1
312	621	2.2	1.9	2.4	1.1
401	969	3.6	3.1	2.2	1.2
402	197	3.1	2.4	1.6	0.8
2000	238,918	0.2	0.1	6.9	2.5
Note. CV – coefficient of variation.					

14.5.2 High Grade Distance Restrictions

Table 14-9 shows the high-yield values uses in the estimation process for B-Zone and C-Zone. This parameter was defined to control the impact of high-grade samples in the estimation for lower-grade domains. During the interpolation process, this assigns a maximum distance to the block to be estimated in which these samples are involved.

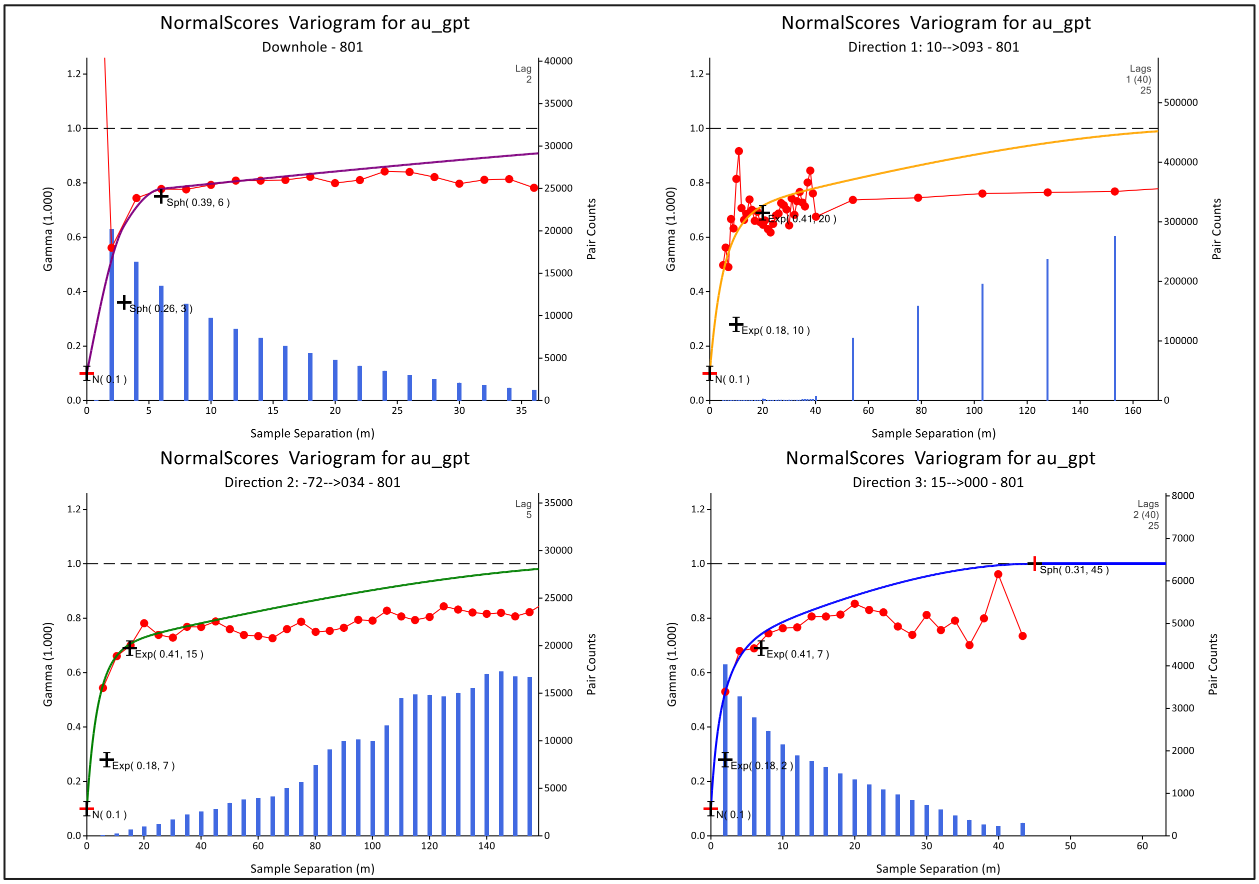
Table 14-9: High Grade Distance Restrictions

B-Zone Domains												
B-Zone Domains	Au g/t Value	Pass 1 Radius (m)			Au g/t Value	Pass 2 Radius (m)			Au g/t Value	Pass 3 Radius (m)		
		R1	R2	R3		R1	R2	R3		R1	R2	R3
HG domain (801)	-	-	-	-	-	-	-	-	10	25	25	5
LG domain (1001)	-	-	-	-	-	-	-	-	10	25	25	5
Background (2000)	-	-	-	-	-	-	-	-	2	25	25	5
C-Zone Domains												
C-Zone Domains	Au g/t Value	Pass 1 Radius (m)			Au g/t Value	Pass 2 Radius (m)			Au g/t Value	Pass 3 Radius (m)		
		R1	R2	R3		R1	R2	R3		R1	R2	R3
Folded Vein (10)	-	-	-	-	200	10	10	2	200	10	10	4
LG domain (100)	25	10	10	3	20	10	10	3	10	10	10	4
LG domain (300)	25	10	10	3	20	10	10	3	15	10	10	4
Background (2000)	5	20	20	5	5	20	20	5	2	20	20	5

14.6 Variography

Variography was completed on several domains which contained abundant drill data. Spherical or exponential three-structure models were fitted to experimental semi-variograms. An example from B-Zone Domain 801 is shown in Figure 14-4. All variogram model parameters are shown in Table 14-10.

Figure 14-4: Example Variogram for B-Zone Domain 801



Source: SLR 2025.

Table 14-10: Variogram Parameters

B-Zone						
Domain	**Nugget**	**Model**	**Sill**	**Major**	**Semi-Major**	**Minor**
601	0.19	Exponential	0.556	50	45	6
		Exponential	0.105	70	50	6
		Spherical	0.148	75	60	8
602	0.15	Exponential	0.53	5	4	3
		Spherical	0.21	12	12	5
		Spherical	0.11	40	40	6
801	0.148	Exponential	0.325	10	7	2
		Exponential	0.313	20	15	7
		Spherical	0.214	200	200	45
1001	0.194	Exponential	0.446	3	4	3
		Exponential	0.238	15	8	8
		Spherical	0.121	108	70	25
2000	0.192	Exponential	0.366	15	7	10
		Spherical	0.227	80	80	15
		Spherical	0.215	400	400	80
C-Zone						
Domain	**Nugget**	**Model**	**Sill**	**Major**	**Semi-Major**	**Minor**
Veins	0.281	Exponential	0.462	10	10	10
		Spherical	0.145	20	20	20
		Spherical	0.112	100	35	25
100	0.237	Exponential	0.577	3	3	2
		Exponential	0.163	15	15	8
		Spherical	0.0242	140	100	30
101	0.21	Exponential	0.28	15	5	2
		Exponential	0.4	30	13	5
		Spherical	0.11	90	20	7
102	0.2	Exponential	0.34	2	2	2
		Exponential	0.36	12	5	5
		Spherical	0.1	80	35	10
300	0.317	Exponential	0.351	4	3	4
		Exponential	0.242	14	5	5
		Spherical	0.0904	80	35	10
305	0.2	Exponential	0.28	5	2	2
		Exponential	0.41	12	5	5
		Spherical	0.11	60	14	7
401/402	0.2	Exponential	0.47	13	8	3
		Spherical	0.23	23	20	7
		Spherical	0.1	32	25	10
2000	0.333	Exponential	0.543	20	15	8
		Spherical	0.0503	80	80	20
		Spherical	0.0742	730	400	130

Some domains with low sample support use applied variography from an analogous variogram. For example, the variogram created for Domain 801 was used for all the lesser informed domains at B-Zone that are geologically equivalent. The variograms applied to unmodelled domains are listed below.

B-Zone:

- HG 801 variogram was used to estimate domains 801, 302, 397, 398, 399, 405, 406, 407 and 499.

C-Zone:

- Veins variogram was used to estimate vein domains (1-9).
- HG 305 variogram was used to estimate domains 310 and 312.
- HG 401-402 combined data variogram was used to estimate the 400 series domains.

14.7 Block Models

Two separate block models were created, one for B-Zone and one for C-Zone. The block models use a parent block size of 5 m x 5 m x 5 m and are sub-blocked to a minimum size of 1 m x 1 m x 1 m. The block model parameters are shown in Table 14-11.

Table 14-11: Block Model Parameters

B-Zone Block Model Parameters			
	X	Y	Z
Parent Block Size (m)	5	5	5
Sub-block Size (m)	1	1	1
Origin	7860	9345	8300
Boundary Size (m)	3005	1015	2070
Size in Blocks	601	203	414
C-Zone Block Model Parameters			
	X	Y	Z
Parent Block Size (m)	5	5	5
Sub-block Size (m)	1	1	1
Origin	6870	8950	8080
Boundary Size (m)	2205	1350	2325
Size in Blocks	441	270	465

14.8 Interpolation Methods

Grade estimation was performed in Vulcan using Ordinary Kriging (OK), based on test work and estimation updates completed in 2024. Overall, the strategy for the 2024 model follows the strategy used in the 2023 model in the following aspects: several passes to perform the estimation, the use of the high yield to control the smearing of the isolated high-grade samples, and the use of the short-range first pass to reduce smoothing local to the drilling data.

Table 14-12 summarizes the estimation search distances by pass and Table 14-13 shows the composite selection criteria.

Table 14-12: Search Distances by Pass

Search Neighbourhood Distances									
B-Zone Domains	**Pass 1 Radius (m)**			**Pass 2 Radius (m)**			**Pass 3 Radius (m)**		
	R1	**R2**	**R3**	**R1**	**R2**	**R3**	**R1**	**R2**	**R3**
HG Domains	20	15-20	3-4	50*	50	5-10	100	100	20
LG Domains	20	15	5	50	50	10	200	200	50
Background	20	18	5	50	50	12	200	200	50
C-Zone Domains	**Pass 1 Radius (m)**			**Pass 2 Radius (m)**			**Pass 3 Radius (m)**		
	R1	**R2**	**R3**	**R1**	**R2**	**R3**	**R1**	**R2**	**R3**
Veins	20	15	2	50	40	3	100	100	20
Grade Shell Domains	15	10	4	50	40	6	150	150	20
Background	15	10	7	50	40	10	150	150	25

Table 14-13: Composite Selection Criteria by Pass

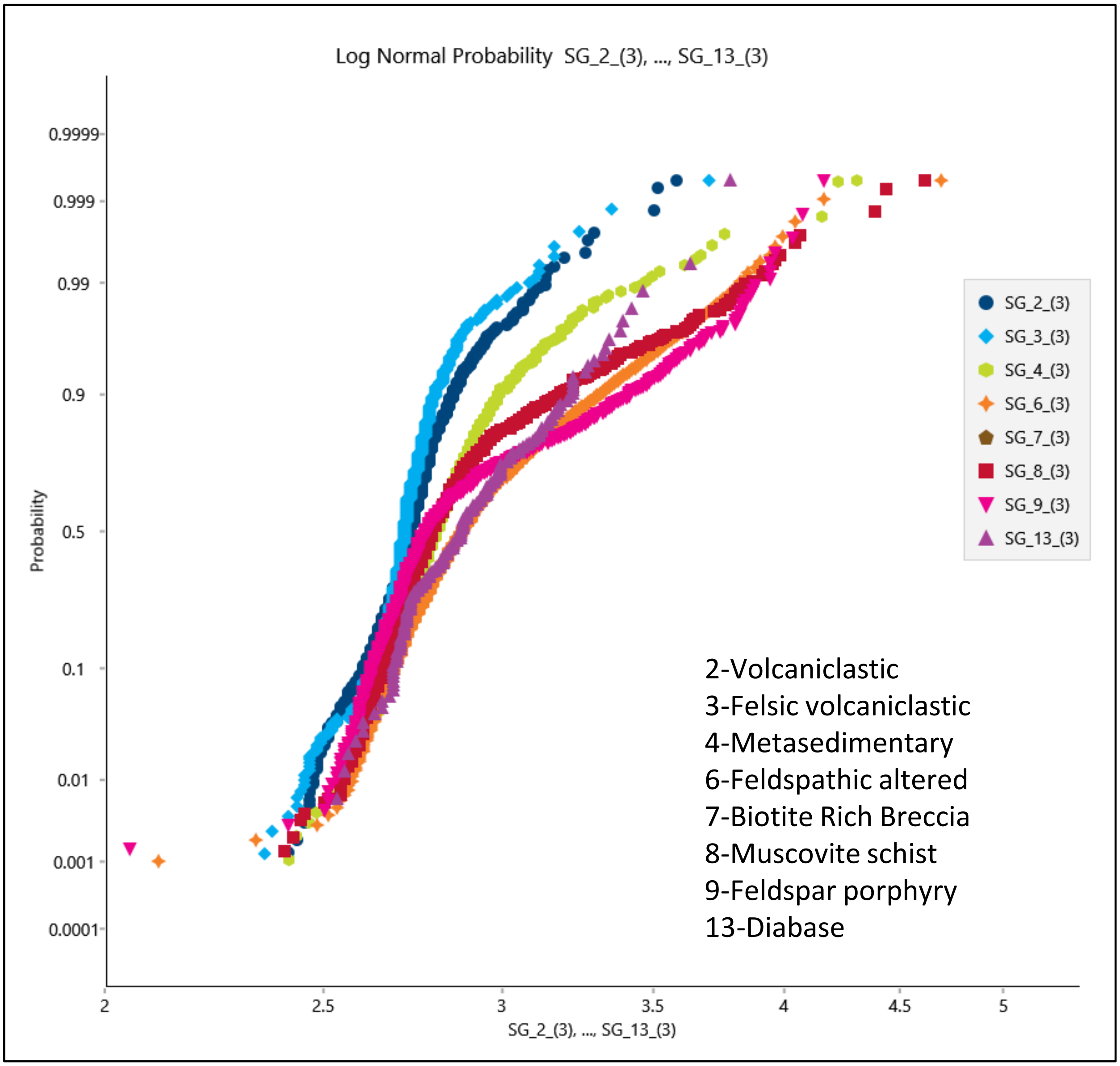
B-Zone Domains	**Pass 1**			**Pass 2**			**Pass 3**		
	Min	**Max**	**Max/DH**	**Min**	**Max**	**Max/DH**	**Min**	**Max**	**Max/DH**
HG Domains	3	4-6	2	3-4	7	2-3	4	8	3-4
LG Domains	3	6	2	4	7	3	4	8	4
Background	3	6	2	4	7	3	4	8	4
C-Zone Domains	**Pass 1**			**Pass 2**			**Pass 3**		
	Min	**Max**	**Max/DH**	**Min**	**Max**	**Max/DH**	**Min**	**Max**	**Max/DH**
Veins	2	4	1	2	5	2	3	6	3
Grade Shell Domains	3	6	2	4	7	2	4	8	3
Background	4	6	3	4	10	3	4	10	3

14.9 Bulk Density

The current drill hole database contains over 46,000 SG measurements. Unfortunately, a large majority of these are within the mined-out David Bell Mine. The B-Zone and C-Zone currently have sparse data coverage. As a result, a constant value of 2.72 is used in the block model.

While the use of the constant value does not represent a risk to the global tonnage estimates, it does not accurately represent the local variability of density across the various lithologies at Hemlo. The most critical lithologies in terms of variability are the Feldspathic Altered (6) and Felspar Porphyry (9). The B-Zone and C-Zone also show slightly different trends in densities from east to west. Figure 14-5 shows a log probability plot of SG data by domain.

Figure 14-5: Log Probability Plot of SG Data by Lithological Domain



Source: SLR 2025.

The frequency of SG data collection has increased with the intent of estimating SG values directly into the block model in future updates.

14.10 Model Validation

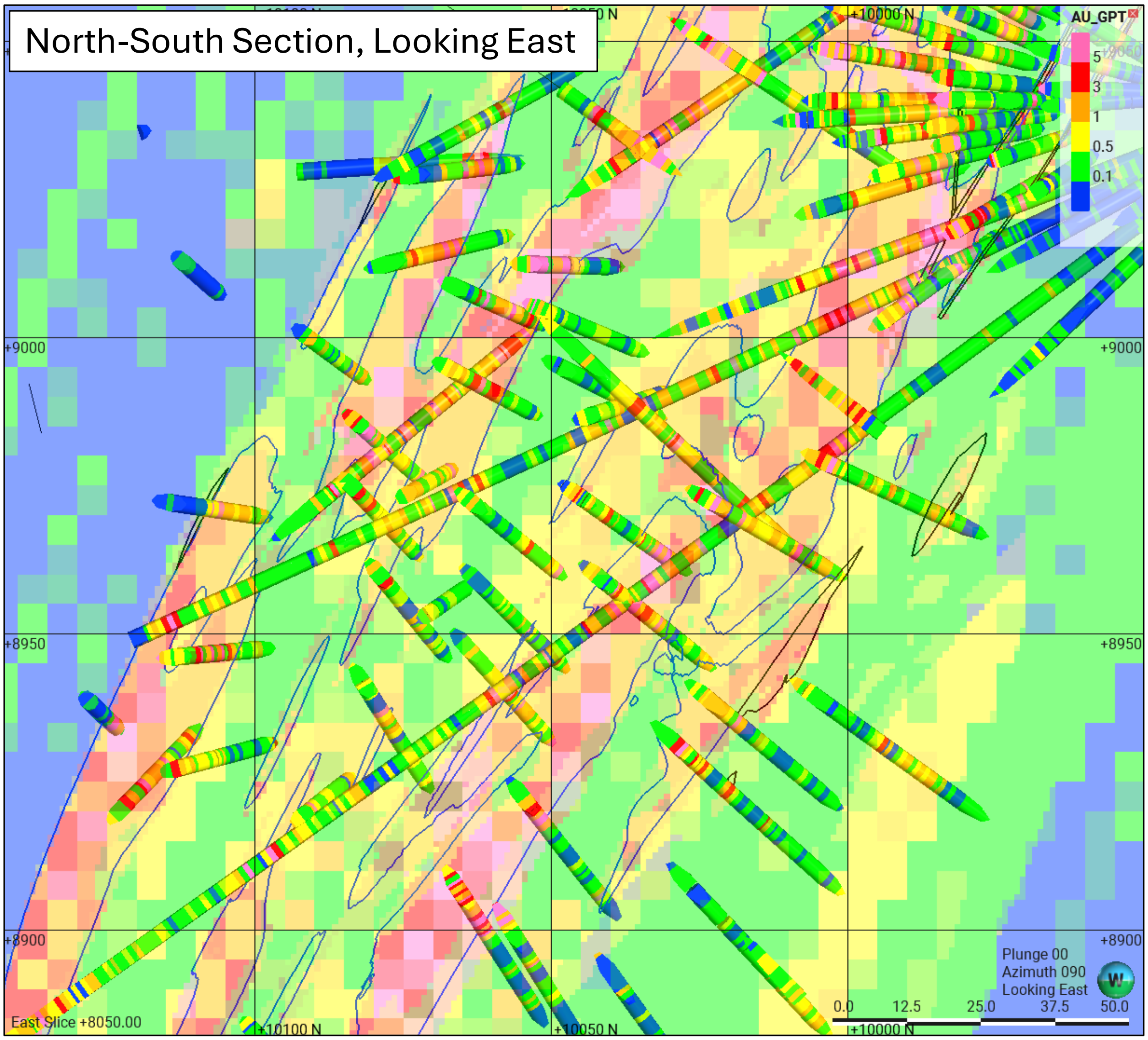
Validations include:

- Visual comparisons of drill hole assay/composite grades versus estimated block grades,
- Swath plots in the XYZ directions,
- Comparison of average OK versus Nearest Neighbour (NN) grades above a zero cut-off,

- Model histogram comparison against the Change of Support Discrete Gaussian Model at the parent block support,
- Decluster plots (scatterplots of the model estimates versus declustered data with Change of Support).

The visual comparison of drill hole grades to block grades did not show any significant discrepancies. Figure 14-6 shows an example along a north-south section comparing drill hole composite gold grades to block gold grades.

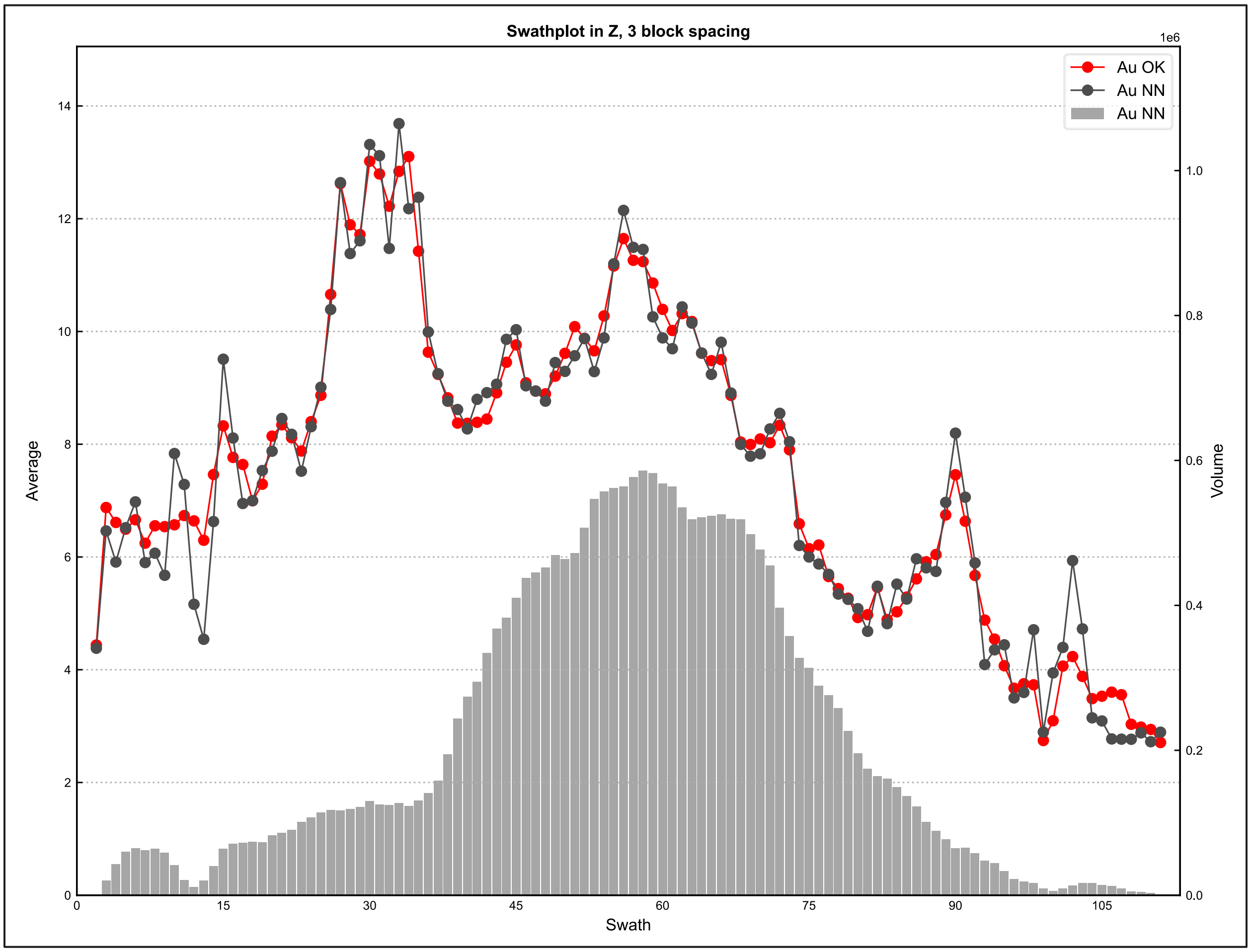
Figure 14-6: Visual Comparison of Drill Hole vs Block Gold Grades



Source: SLR 2025.

Swath plots were created along X, Y, and Z swaths across the B-Zone and C-Zone models. The swaths generally show good agreement between the OK grades and NN grades, with the OK grades showing the typical smoothing versus the NN grades. The swaths indicate no significant local bias in grade estimates. An example swath by elevation for B-Zone is shown in Figure 14-7.

Figure 14-7: Swath Plot by Elevation for B-Zone High Grade Zones



Source: Barrick 2025.

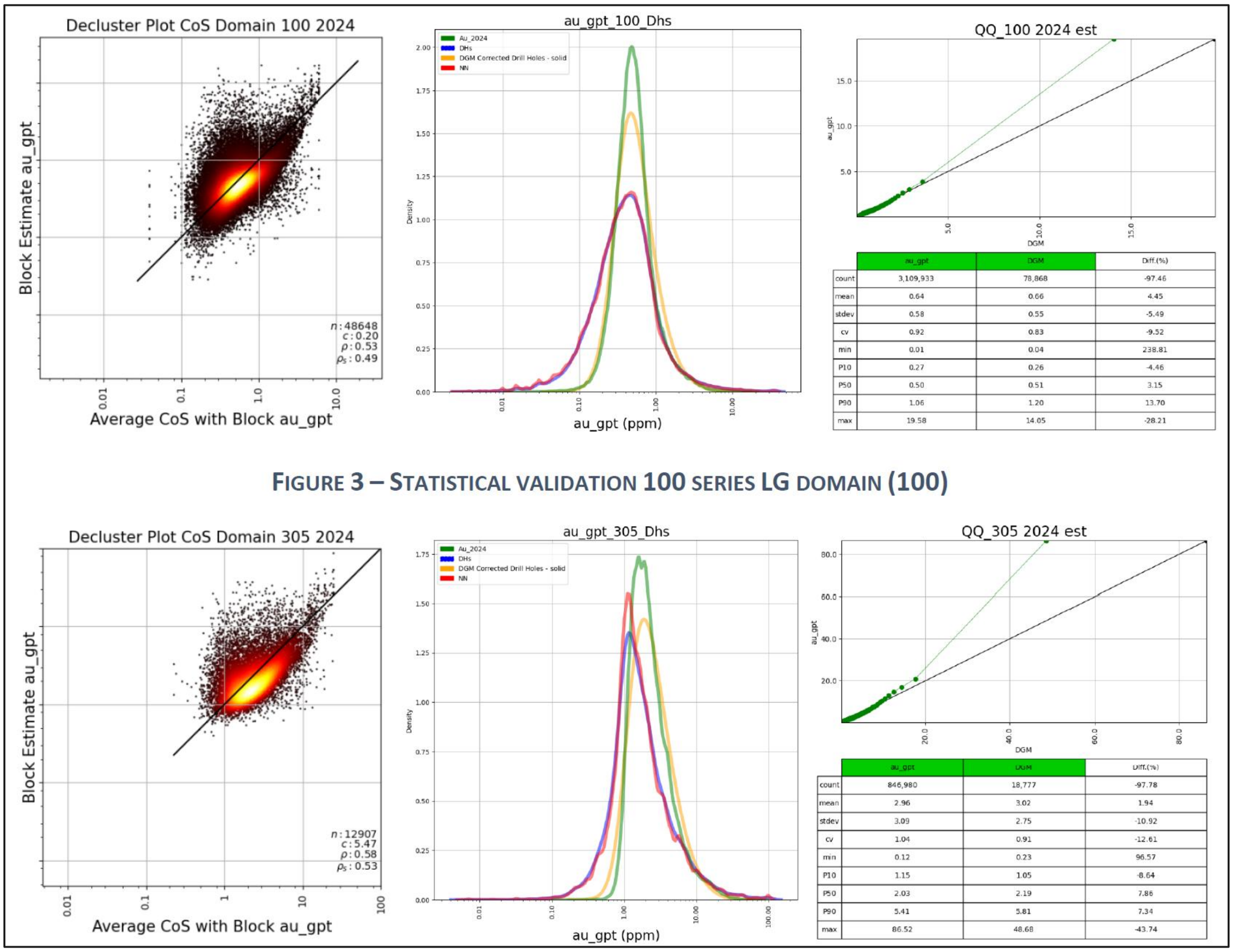
Table 14-14 shows a comparison of NN versus OK grades at a zero cut-off grouped by high-grade and low-grade domains. The difference in grades is within 1%, indicating no significant global bias in global gold grade estimates.

Table 14-14: Comparison of NN vs. OK Grades at a Zero Cut-off

Domain		NN Au g/t	OK Au g/t	%Diff
B-Zone	High Grade	8.95	8.97	0.2%
	Low Grade	0.98	0.99	1.0%
C-Zone	High Grade	3.55	3.58	0.8%
	Low Grade	0.63	0.63	0.0%

Figure 14-8 shows examples of the Change of Support validation, which demonstrates that a good reproduction of the statistics, histograms, and trends of the gold grades is obtained.

Figure 14-8: Validation Plots for the 100 LG Domain (Top) and 305 HG Domain (Bottom)



Source: Barrick 2025.

14.11 Classification

Definitions for resource categories used in this Technical Report are consistent with those defined by CIM (2014) Standards and adopted by NI 43-101. In the CIM classification, a Mineral Resource is defined as "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction". Mineral Resources are classified into Measured, Indicated, and Inferred categories.

14.11.1 Underground

The strategy to classify Indicated Mineral Resources for underground is based on the average distance to the nearest three holes. Classification of Inferred uses the average distance to the nearest two holes. Table 14-15 shows the Mineral Resources classification distances used for underground. Indicated and Inferred Mineral Resources are only considered within the modelled geologic domains and not for the background zone due to its lower geologic confidence.

Table 14-15: Classification Scheme for Underground Mineral Resources

Zone	Measured	Indicated	Inferred
C-Zone	<=15 m	>15 m and <=30 m	>30 m and <50 m
B-Zone	<=15 m	>15 m and <=40 m	>40 m and <75 m

A smoothing process was also performed to remove the spotted-dog effect. A final check was completed to ensure the consistency of the final result.

14.11.2 Open Pit

For the open pit Mineral Resource classification, the distance criteria differ from the underground for Indicated and Inferred Mineral Resources because the continuity of the orebody is higher when considering a lower cut-off grade. Indicated classification is based on average distances of less than 40 m as shown in Table 14-16. No Measured classification has been defined for the open pit.

Table 14-16: Classification Scheme for Open Pit Mineral Resources

Zone	Measured	Indicated	Inferred
C-Zone	-	≤40 m	>40 m and <75 m

14.12 Reasonable Prospects for Eventual Economic Extraction

14.12.1 Underground

Underground mining shapes for long hole stoping were created based on the block model and understanding of the geological domains at appropriate cut-off grades using DSO.

The underground Mineral Resource estimate was prepared using a gold price of US$1,900/oz and a variable cut-off grade (COG) based on mining zone and mining method. For longhole stoping (LHS), 2.38 g/t Au was utilized throughout the Mine, except for the BLW Zone which utilizes 2.54 g/t Au due to the lower metallurgical recovery associated with this zone. A COG of 2.39 g/t Au was utilized for Alimak mining (Alimak).

To generate unit costs, the Mine’s total costs across peak production years were distributed across categories such as longhole mining, Alimak mining, lateral development (CAPEX/OPEX split), and vertical development. Costs were allocated or split across categories based on tonnes, metres, or head count for labour. The cut-off grade parameters are summarized in Table 14-17.

The longhole stopes were qualitatively filtered for:

- Directly adjacent to historical mining shapes in both the hanging wall and footwall,
- In the crown pillar,
- Overlapping with Open Pit shell, and
- Isolated zones.

This filtering process resulted in the removal of approximately 22% of stope tonnes from the Mineral Resource.

Table 14-17: Underground Resource Cut-off Grade Parameters

Parameters	Units	LHS BLW	LHS Other	Alimak
Gold Price	US$/oz	1,900.00	1,900.00	1,900.00
Metallurgical Recovery		87.67%	93.50%	93.50%
Royalties		2.55%	2.55%	2.55%
External Refining & Selling	US$/oz	3.47	3.47	3.47
Grade Control Drilling	US$/t	3.88	3.88	3.88
Equipment Replacement CAPEX	US$/t	10.16	10.16	10.16
Variable Mining OPEX	US$/t	16.60	16.60	16.65
Fixed Mining OPEX	US$/t	66.39	66.39	66.59
Mining General and Administration (G&A)	US$/t	10.12	10.12	10.16
Processing OPEX	US$/t	19.67	19.67	19.67
Process CAPEX	US$/t	2.82	2.82	2.82
Process G&A	US$/t	2.74	2.74	2.74
Total Cost	**US$/t**	**132.38**	**132.38**	**132.67**
Breakeven Cut-off Grade	**g/t**	**2.54**	**2.38**	**2.39**

14.12.2 Open Pit

The open pit Mineral Resource estimate is constrained by a pit shell using the parameters shown in Table 14-18. This results in a marginal cut-off grade of 0.21 g/t Au within the pit.

For the purposes of generating the resource pit shell, all existing underground mined areas and resource shapes were depleted from the block model. The model was then reblocked to a 10 m x 5 m x 10 m block size. Waste dump material was assigned an SG of 2.0.

Table 14-18: Open Pit Cut-Off Parameters

Item	Units	Value
Gold Price	US$/oz	$1,900.00
Process Recovery	%	85.00%
Refining	US$/oz	$4.55
Royalty	%	2.09%
Strip Ratio	O:W	3.39
Mining Recovery	%	100%
Mining Dilution	%	0%
Revenue	US$/oz	$1,571
Mining Cost	US$/t-ore	$3.78
Mining Cost	US$/	$16.59
Processing	US$/	$7.63
G&A	US$/	$1.14
Rehandle Cost	US$/	$1.67
Plant + G&A + Rehandle	US$/	$10.44
Sustaining Capital	US$/	
Total Operating Cost	US$/	$27.03
Total Cut-off Grade	g/t	0.54
Marginal Cut-off Grade (Process + G&A + Rehandle)	g/t	0.21

14.13 Mineral Resource Statement

The Mineral Resource estimates have been prepared according to CIM (2014) Standards as incorporated with NI 43-101. Mineral Resource estimates were also prepared using the guidance outlined in CIM (2019) MRMR Best Practice Guidelines.

The Mineral Resource estimate for the Mine comprises the B-Zone and C-Zone block models. The estimate was completed internally by Hemlo mine staff and further reviewed and accepted by Brian Hartman, P.Geo. of SLR, a Registered Member of the Society for Mining, Metallurgy & Exploration, and a Practicing Member with Professional Geoscientists Ontario. The effective date of the Mineral Resource estimate is December 31, 2024.

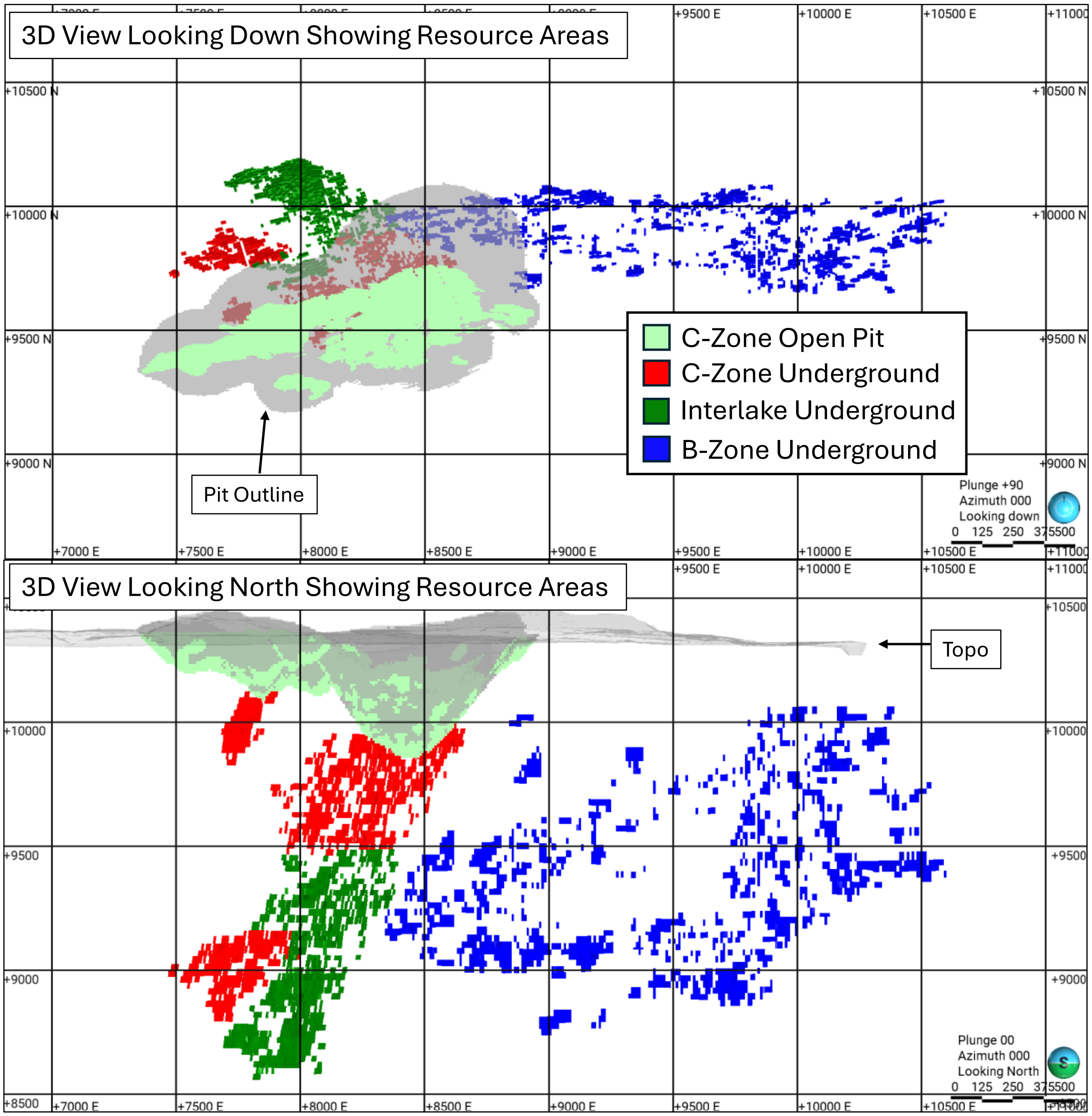
The Hemlo Mineral Resource is comprised of both open pit and underground portions as shown in Figure 14-9. The classification is shown in Figure 14-10.

Underground Mineral Resources are constrained within mining shapes at a gold cut-off grade that varies by material type, averaging 2.38 g/t Au using DSO. All blocks within the resultant stope shapes, including waste, are reported within the underground Mineral Resource. Thus, it is considered a diluted resource.

For the open pit, Mineral Resources are constrained by an optimized pit shell using the Lerchs-Grossmann algorithm using reasonable pricing and cost inputs. The open pit Mineral Resource uses a 0.21 g/t Au cut-off grade.

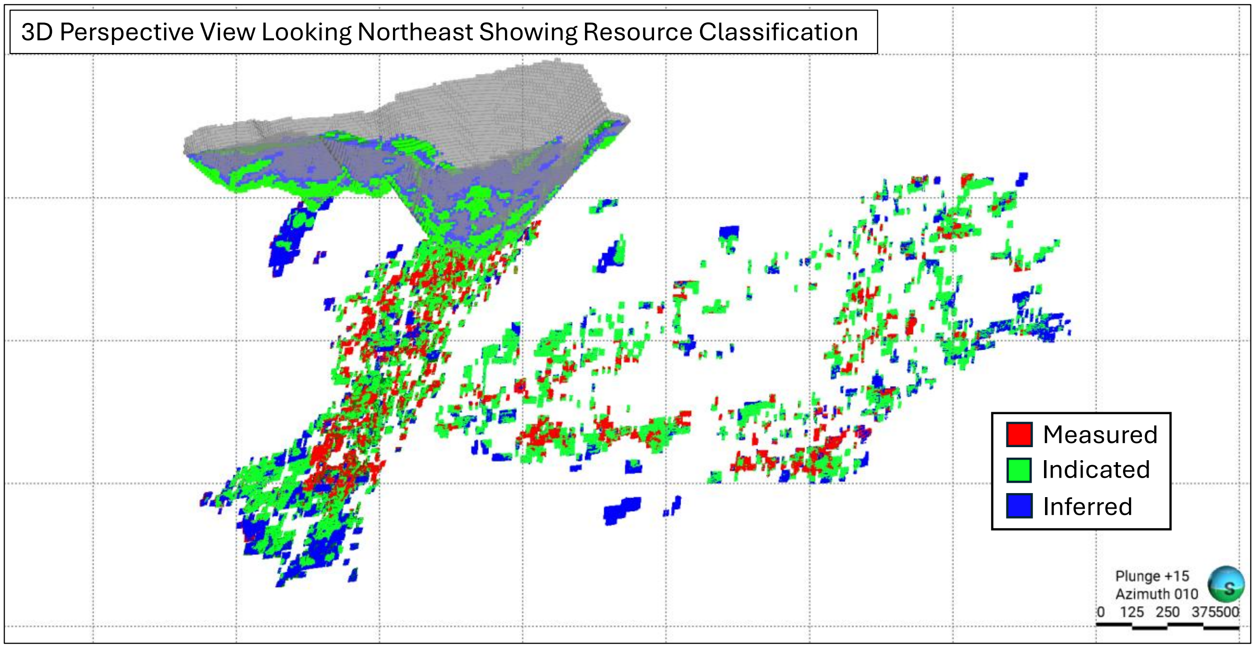
Mineral Resources are reported inclusive of Mineral Reserves and have been depleted to December 31, 2024 using the mined-out surfaces and voids. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The Hemlo Mineral Resource as of December 31, 2024 is shown in Table 14-9.

Figure 14-9: Hemlo Mineral Resource Areas



Source: SLR 2025.

Figure 14-10: Mineral Resource Classification



Source: SLR 2025.

Table 14-19: Hemlo Mineral Resource – December 31, 2024

	Measured Resources			Indicated Resources			Measured + Indicated Resources			Inferred Resources		
	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content
	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)
Open Pit												
Hemlo Open Pit	0	0.00	0	56,875	0.88	1,601	56,875	0.88	1,601	6,501	0.42	88
Subtotal Open Pit	**0**	**0.00**	**0**	**56,875**	**0.88**	**1,601**	**56,875**	**0.88**	**1,601**	**6,501**	**0.42**	**88**
Underground												
UG Excluding Interlake	2,587	4.19	349	7,475	4.24	1,020	10,062	4.23	1,368	2,096	3.78	255
Interlake Claim	1,750	4.89	275	2,594	4.57	381	4,345	4.70	656	1,224	7.13	281
Subtotal Underground	**4,337**	**4.47**	**624**	**10,069**	**4.33**	**1,401**	**14,406**	**4.37**	**2,025**	**3,320**	**5.02**	**535**
Total In Situ	**4,337**	**4.47**	**624**	**66,944**	**1.39**	**3,002**	**71,281**	**1.58**	**3,626**	**9,821**	**1.97**	**624**

Notes:

1. The Mineral Resource estimate has been prepared according to CIM (2014) Standards and using CIM (2019) MRMR Best Practice Guidelines.
2. Open Pit Mineral Resources are reported based on an economic pit shell. Underground Mineral Resources are constrained within stope shapes generated by Deswik Stope Optimizer. Refer to Section 14.12.
3. Open Pit Mineral Resources are reported at a cut-off grade of 0.21 g/t Au. Underground Mineral Resources are reported on a diluted basis using a gold cut-off grade that varies by material type and mining method and averages 2.38 g/t Au.
4. Both Underground and Open Pit Mineral Resources are estimated using a long-term gold price of US$1,900/oz.
5. A constant SG value of 2.72 has been applied to all blocks in the model. Waste dump material is assigned an SG of 2.0.
6. Mineral Resources are inclusive of Mineral Reserves.
7. Mineral Resources have been depleted to December 31, 2024 using the mined-out surfaces and voids.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9. Numbers may not add due to rounding.
10. The QP responsible for this Mineral Resource estimate is Brian Hartman (P.Geo.) of SLR.

14.14 Mineral Resource Sensitivity

A series of sensitivities were performed on the resource shapes by adjusting the gold metal price and are shown in Table 14-20 and Table 14-21. For each metal price new DSO shapes were generated and filtered as described above. The Pit Shell remains constant and the cut-off grade inside the pit was adjusted.

Table 14-20: Resource Sensitivity – Underground

Metal Price	Cut-off Grade	Measured Resources			Indicated Resources			Measured + Indicated Resources			Inferred Resources		
		Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content
(US$/oz)	(g/t Au)	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz)
1700	2.66/2.84	3,051	5.05	496	6,887	4.70	1,042	9,939	4.81	1,537	2,702	5.5	477
1900	2.38/2.54	4,337	4.47	624	10,069	4.33	1,401	14,406	4.37	2,025	3,320	5.0	535
2100	2.16/2.30	5,106	4.16	683	12,088	3.95	1,535	17,194	4.01	2,218	4,180	4.5	601
2500	1.81/1.93	6,011	3.66	708	14,918	3.44	1,648	20,928	3.50	2,357	5,953	3.8	717

Table 14-21: Resource Sensitivity – Open Pit

Metal Price	Cut-off Grade	Measured Resources			Indicated Resources			Measured + Indicated Resources			Inferred Resources		
		Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content
(US$/oz)	(g/t Au)	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz)
1700	0.23				56,261	0.88	1,597	56,261	0.88	1,597	5,746	0.5	83
1900	0.21				56,875	0.88	1,601	56,875	0.88	1,601	6,501	0.4	88
2100	0.19				57,312	0.87	1,604	57,312	0.87	1,604	7,339	0.4	94
2500	0.16				57,770	0.87	1,607	57,770	0.87	1,607	8,614	0.4	101

14.15 Factors that May Affect the Mineral Resource Estimate

The QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

15.0 Mineral Reserve Estimates

The Hemlo Mineral Reserves are supported by a Prefeasibility Study (PFS) completed by third party consultants in consultation with Carcetti. The PFS establishes the technical and economic viability of the evaluated deposits in accordance with CIM (2019) MRMR Best Practice Guidelines. The deposits have been evaluated considering underground and open pit mining methods, which have been historically employed at Hemlo.

15.1 Mineral Reserve Statement

Mineral Reserves are a subset of Mineral Resources and are not in addition to the Mineral Resources. Under CIM (2014) Standards, Mineral Reserves are divided into Proven and Probable Reserves depending on the quality and quantity of the supporting data, and the opinions of the QPs completing the estimate.

At Hemlo, Mineral Reserves are all classified as Probable Reserves and are estimated to be 41.2 Mt averaging 1.75 g/t Au for 2.32 Moz Au, as summarized in Table 15-1 as of December 31, 2024.

Table 15-1: Hemlo Open Pit and Underground Mineral Reserves – December 31, 2024

	Proven Reserves			Probable Reserves		
	Tonnage	Grade	Metal Content	Tonnage	Grade	Metal Content
	(kt)	(g/t Au)	(koz Au)	(kt)	(g/t Au)	(koz Au)
Open Pit						
Hemlo OP	-	-	-	28,446	0.85	781
Subtotal Open Pit	**-**	**-**	**-**	**28,446**	**0.85**	**781**
Underground by Claim						
INT	-	-	-	3,746	3.93	473
274	-	-	-	168	4.09	22
GGT	-	-	-	1,406	4.20	190
HOR	-	-	-	196	3.52	22
SCP	-	-	-	1,803	3.72	216
WOC	-	-	-	5,483	3.50	617
Subtotal Underground	**-**	**-**	**-**	**12,802**	**3.74**	**1,540**
Total	**-**	**-**	**-**	**41,249**	**1.75**	**2,321**

Notes:

1. The independent qualified person for the 2025 MRE, as defined by NI 43-101 guidelines, is Jason Allen, P. Eng. (#39170), of Entech Mining Ltd. The effective date of the estimate is December 31, 2024.
2. The Hemlo Mineral Reserve estimate follows the CIM (2019) MRMR Best Practice Guidelines.
3. These Mineral Reserves have been diluted based on site geotechnical recommendations and have had a mining recovery applied.
4. The Mineral Reserve is depleted for all mining to December 31, 2024.
5. A minimum mining width of 3.0 m is used with an additional 1.5 m considered for overbreak. Alimak stopes have an average width of 6.6 m and longhole stopes have an average width of 9.1 m.
6. The Mineral Reserve is reported using a US$134.1/t NSR breakeven cut-off value (COV), a US$110.8/t or US$120.0/t NSR stope incremental COV depending on mining method (US$120 /t or US$131/t when inputted into MSO considering backfill dilution), and a US$34.1 NSR marginal COV. Any material included in between the Marginal COV of US$34.1/t NSR used for mine planning and US$39.54/t NSR (average G&A, processing cost for 2025-2027) was deemed immaterial.
7. Price assumptions are US$1,700 /oz Au. Processing recovery was estimated at 92.8% with mine royalties of 2-3% applied, depending on claim (average of 2.092%).
    a. If Carcetti enters into a streaming arrangement to finance the purchase of the Hemlo operations, the agreement may have a material impact on the Mineral Reserves and the cut-off value updated to reflect the arrangement.
8. Estimates use metric units (metres (m), tonnes (t), and g/t). Metal contents are presented in troy ounces (metric tonne x grade / 31.103475).
9. The independent QP is not aware of any environmental, permitting, legal, title-related, taxation, socio-political or marketing issues, or any other relevant issue that could materially affect the Mineral Reserve estimate.

15.2 Mineral Reserve Estimation Process

15.2.1 Underground

The general process of estimating underground Mineral Reserves for Hemlo is summarized as follows:

- A set of mineral resource models dated December 31, 2024, were provided by Hemlo to Entech;

- The mineral resource model was imported into Deswik®, and modelled grades within the inferred material were set to zero. Stope optimizations were completed using Datamine Mineable Shape Optimiser® (MSO) considering an incremental economic cut-off value of US$110.8/t for areas designated for longhole stoping and US$123.0/t for Alimak stoping prior to completing an orphan analysis;
- Unplanned dilution was added during the MSO stage with 1.0 m dilution applied to the hanging wall and 0.5 m applied to the footwall. The resulting stope shapes were reviewed for practicality of mining, with unpractical mining shapes removed.
    - The cut-off values used for MSO were escalated to allow for backfill dilution (8.1% for longhole stoping and 5.0% for Alimak stoping);
- Modifying factors were applied to these stope shapes including backfill dilution and recovery factors based on estimated performance at Hemlo, and industry average recovery performance;
- A development design was produced to align with the resulting stope shapes that tied into the existing underground as-builts. The development design follows current site design criteria and ground control management plan. A development dilution factor of 25% and recovery factor of 95% was applied;
- Stope shapes were depleted with the development drives. The estimated mining recovery for stoping was 92% for all production;
- The mine design was then depleted with current site as-builts provided by Barrick up until December 31, 2024;
- Orphan analyses were completed using Deswik's Pseudoflow to remove uneconomic stopes that do pay for development using the following cost estimates:
    - capital lateral development cost of US$8,858 /m;
    - capital vertical development cost of US$5,619 /m;
    - operating lateral development cost of US$6,181 /m;
    - operating vertical development cost of US$5,619 /m; and
    - production costs including processing, general and administration of US$110.8 /t for longhole stoping and US$123.0/t for Alimak stoping.
- The mine design was sequenced and scheduled in Deswik® to produce a mine plan; and
- The resulting plan was evaluated in a financial model based on estimated mining costs to confirm economic potential.

The stope design parameters used for the mine plan is summarized in Table 15-2 with the dilution and recovery parameters summarized in Table 15-3.

Table 15-2: Stope Design Parameters

Parameter	Unit	Longhole	Alimak
ICOV	US$/t NSR	111	123
Fill Dilution Estimate	%	8.1	5.00
MSO Cut-Off Value[1]	US$/t NSR	120	131
Minimum Mining Width	m	3.0	3.0
Final Minimum Mining Width	m	4.5	4.5
Target Final Stope Length	m	20	20
Stope Height	m	30[2]	45 – 150[2]

Notes:

1. Rounded to nearest whole digit and considers backfill dilution
2. Variable height between existing development as-builts

Table 15-3: Dilution and Recovery Summary

Description	Units	Longhole Stoping	Alimak Stoping	Development
Total Planned Dilution[1]	**%**	**40**	**40**	**-**
Total Unplanned Dilution	**%**	**29.67**	**26**	**25**
Unplanned Fill Dilution[2]	%	8.67	5	25
Unplanned Rock Dilution[3]	%	21	21	-
Minimum Target Mining Width	m	3.00	3.00	-
ELOS – HW	*m*	*1.00*	*1.00*	-
ELOS – FW	*m*	*0.50*	*0.50*	-
Minimum Total Mining Width	m	4.50	4.50	-
Mining Recovery[4,5]	**%**	**92**	**92**	**95**

Notes:

1. Included in MSO shape. Recovered Diluted Tonnes (RDT) is the fully diluted ore inclusive of mining recovery.
   RDT = Targeted mineralization x (1 + Planned dilution) x (1 + unplanned dilution) x Mining Recovery
   Planned Dilution = (RDT – Targeted Mineralization) / [(1 + unplanned dilution) x Mining Recovery] - 1
   Planned Dilution is expressed as total planned material below cut-off divided by target mineralization above cut-off within the MSO Shapes.
2. Applied as factor to volume of the shape (assumed density of backfill = 2.00 t/m^3).
3. Included in MSO shape.
   Weighted Average by total tonnes within mining shape
   Included in MSO shape as interrogated dilution
   Expressed as total unplanned material tonnes divided by target shape tonnes
   Unplanned Dilution estimated by Equivalent Linear Overbreak Slough (ELOS) in Rock (1.5 m) divided by total Average MSO Width Minus ELOS (7.2 m)
4. Applied as a factor to the final shape tonnes as a reduction in planned and unplanned material.
5. 61% recovery in longhole stopes where there is no fill placed to simulate a 33% pillar factor.

The preliminary costs used for economic analysis are summarized in Table 15-4. The marginal cut-off value considered was US$34.1/t, which determines the minimum economic value to consider processing, and the minimum cut-off value for production was US$110.8/t, which excludes cost of development.

Table 15-4: Preliminary Mining Costs

Parameter	Unit	Value
Development – Capital – Lateral	US$/m	8,858
Development – Operating – Lateral	US$/m	6,181
Development – Capital – Vertical	US$/m	5,619
Rehabilitation – Capital – Lateral	US$/m	2,214
Rehabilitation – Operating - Lateral	US$/m	1,545
Mining Costs - Longhole	US$/t mined	69.4
Mining Costs - Alimak	US$/t mined	81.6
Backfill Costs	US$/t mined	7.3
Allocated Milling, G&A Costs	US$/t mined	34.1

An economic analysis was completed on a level per level basis and then each individual stope was checked to ensure that all material defined as "ore" continued to return positive cash flow. The cut-off grades based on application to the reserve are summarized in Table 15-5.

These values were derived from the financial model completed July 31, 2025. Variance between these final values and the preliminary values used in the mine design are within the accuracy level required of this study.

Table 15-5: Operating Costs and Cut-off Value for Hemlo Underground

Operating Costs	Unit	Full Economic Cut-Off Value	Incremental Cut-Off Value	Marginal Cut-Off Value
Production	US$/t ore	80.1	80.1	-
Operating Development	US$/t ore	14.5		-
Sustaining Capital	US$/t ore	3.6	3.6	3.6
Processing, G&A, Tailings[1]	US$/t ore	35.94	35.94	35.94
Subtotal	US$/t ore	134.14	119.64	39.54

Notes:
1. Average of 2025, 2026, and 2027 prior to feed from Open Pit

15.2.2 Open Pit

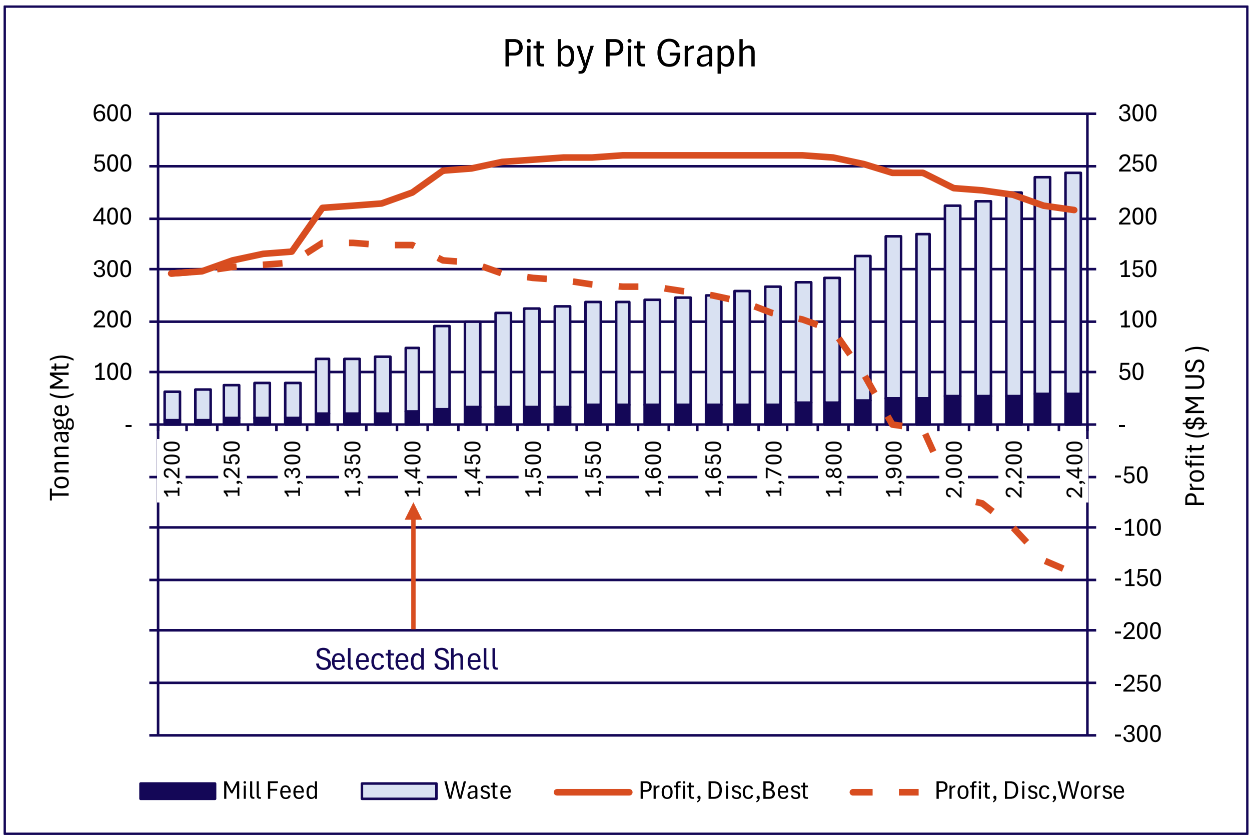
The general process of estimating open pit Mineral Reserves for Hemlo is summarized as follows:

- A set of Mineral Resource models dated December 31, 2024, were provided by Barrick to Entech;
- The Mineral Resource model was imported into Deswik and modelled grades within the Inferred material were set to zero. Datamine MSO was used to model dilution where the

shape value needs to achieve the estimated processing, G&A, surface haulage differential between waste and ore, sustaining capital, rehandle, and grade control costs;

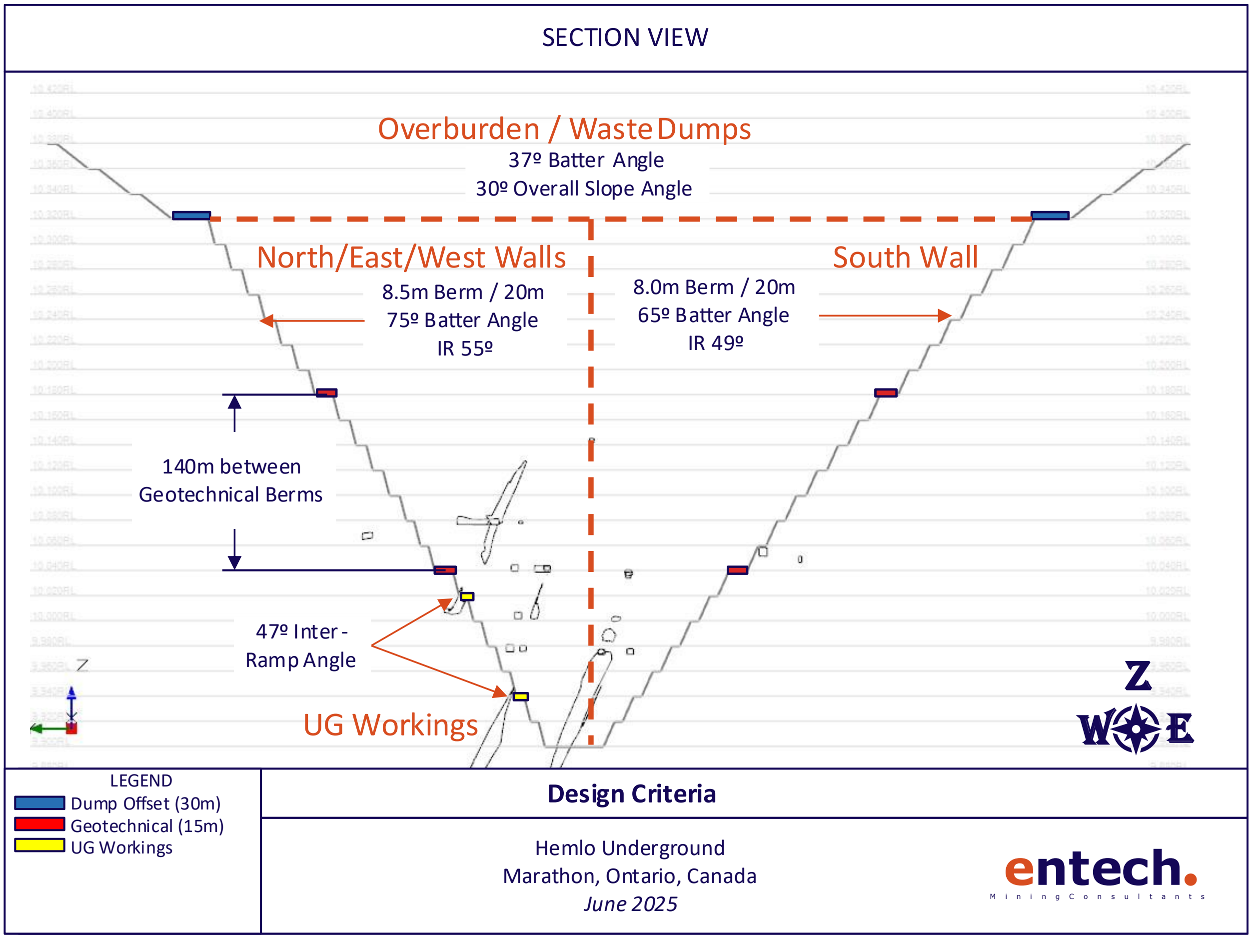
- A mixing zone of 1.0 m was applied to the footwall and hanging wall to the shape that considered a minimum mining width of 7.0 m (9.0 m total minimum width) with a total dilution estimated at 19.8% and summarized in Table 15-6;
- Due to the use of MSO, mining recovery was set at 100%;
- Pit optimization was completed using GEOVIA Whittle® (Whittle) with inter-ramp slopes ranging from 37° to 55° considering a processing and G&A costs of US$10.59/t , mining costs of US$3.03/t for ore mining, US$2.85/t for waste, US$2.58/t for overburden / existing waste, and a vertical haulage increment cost of US$0.02 per 10 m vertical haulage increment;
- A pit shell representing a gold price of US$1,400/oz was selected for pit design as illustrated in Figure 15-1 considering a slope design scheme as illustrated in Figure 15-2;
- The pit design was sequenced and scheduled in Deswik® to produce a mine plan;
- The resulting plan was evaluated in a financial model based on estimated mining costs to confirm economic potential.

Figure 15-1: Pit by Pit Graph by Metal Price (US$/oz Au)



Source: Entech 2025.

Figure 15-2: Open Pit Design Criteria



Source: Entech 2025.

Dilution and recovery parameters summarized in Table 15-6.

Table 15-6: Dilution and Recovery Summary for Hemlo Open Pit Mine

Description	Units	Open Pit
Planned Dilution[1]	%	12.7
Unplanned Dilution[2]	%	6.3
Mine Recovery	%	100

Notes:

1. Included in MSO shape
   Percentage calculated by mass of material below cut-off value divided by mass of material above cut-off
2. Included in MSO shape
   Percentage calculated as the total mixing zone width (m) divided by the average MSO width (m) exclusive of the mixing zone

Mining, processing, and G&A preliminary costs are summarized in Table 15-7.

Table 15-7: Cut-Off Value Inputs – Open Pit Mining

Item	Unit	Value
Mining Cost		
Ore Mining	US$/t	3.03
Waste Mining	US$/t	2.85
Overburden / Existing broken waste	US$/t	2.58
G&A Costs	**US$/t ore**	**1.67**
Site, Camp, Technical Services	US$/t ore	1.67
Processing Costs[1]	**US$/t ore**	**7.88**
Direct / Indirect	US$/t ore	6.78
Rehandle (Crushed Ore)	US$/t ore	1.10
Sustaining Capital	US$/t ore	-
Reallocation of Mining Costs[2]	**US$/t ore**	**1.04**
Grade Control	US$/t ore	0.48
Rehandle of ROM to Crusher	US$/t ore	0.56
In-pit Cut-Off Value	**US$/t ore**	**10.59**

Notes:
1. Site Based Costs (variable component)
2. Estimate from previous studies

The open pit expansion is expected to start in 2027. The underground operation will continue to pay the fixed costs (processing and G&A) for the operation up until 2034. The pit will cover costs following completion of underground operations.

The in-pit cut-off value is estimated to be US$11.13/t as summarized in Table 15-8. These values were derived from the financial model completed on July 31, 2025. Variance between these final values and the preliminary values used in the mine design are within the accuracy level required of this study.

Table 15-8: Operating Costs and Cut-off Value for Hemlo Open Pit[1]

Operating Costs	Cost US$M	Unit Cost US$/t Ore[2]	Unit Cost US$/t Moved
Grade Control, Production, Mine G&A[3]	374.5	13.17	3.96
Processing, G&A, Tailings[4]	316.5	11.13	3.35
Sub Total	**691.0**	**24.29**	**7.31**

Notes:
1. Based on 94.5 Mt moved after pre-stripping activities.
2. Based on 28.4 Mt Open Pit Ore Processed
3. Excludes Rehandle
4. Includes Rehandle, Includes variable costs for Processing of US$4.5/t and Thickener Cost of US$1.5/t, Site G&A of US$10.1M following completion of primary pit and underground mining activities.

15.3 Factors Affecting Mineral Reserve Estimates

The Hemlo Mineral Reserves is based on a PFS level of assessment. The QP is not aware of any issues that could substantially affect the Mineral Reserve estimate. Technical factors that could impact the Mineral Reserves are summarized, but not limited to, as follows:

- Changes to metal price assumptions and exchange rates;
- Changes to royalties, commodity streams, and offtake agreements related to project financing;
- Changes to processing recoveries;
- Changes to inputs to estimate metal content;
- Changes to the geological interpretation of the deposits;
- Changes to the geotechnical and mine plan assumptions;
- Changes to the near term mine plan due to interruptions to technical support during the Proposed Transaction transition;
- Understanding and delineation of historical as-builts and voids and their condition;
- Changes to the cost estimates and subsequent estimate for cut-off grades;
- Changes to the assumptions made to the exclusion zones around existing voids including the 2 m offset from the pit edge;
- The ability to continue to operate and expanded the TMF as required to accommodate the processed Mineral Reserve material; and
- Maintain ongoing agreements with main stakeholders (First Nation and local communities).

16.0 Mining Methods

The Hemlo deposit is currently being mined underground using a combination of methods (Alimak, longhole stoping with backfill), however, historically a small open pit contributed to the operation by mining the upper portion of the C-deposit. This report considers an open pit and underground operation over approximately 10 years.

16.1 Underground Mining

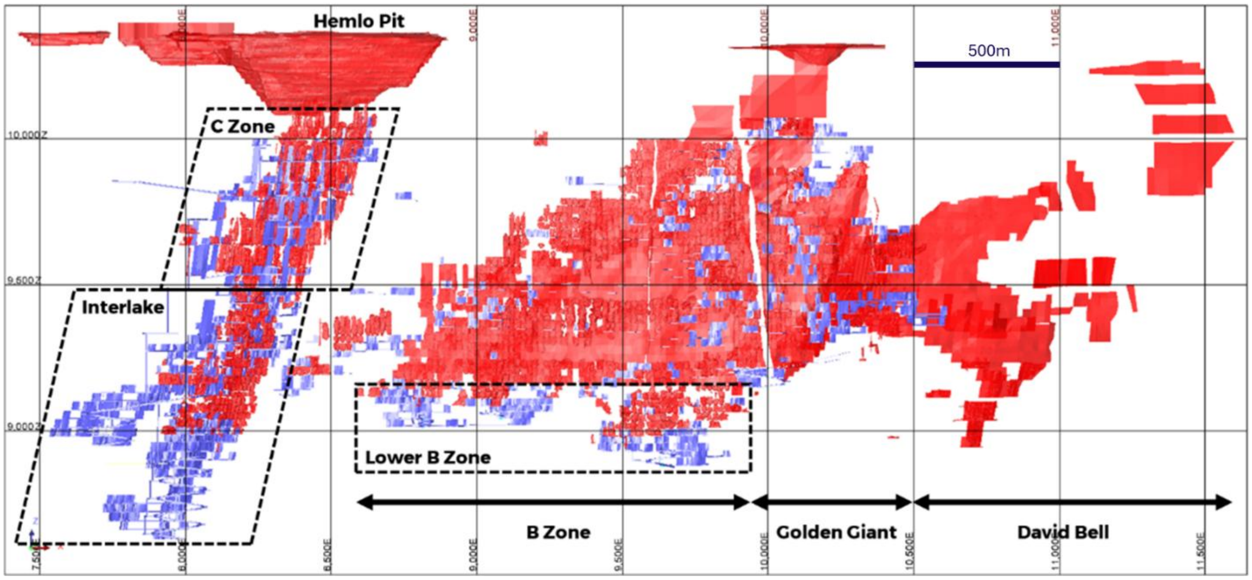
The underground Hemlo operation (Hemlo Underground) employs longhole and Alimak stoping with backfill. Pastefill is used in most voids, with some voids being filled with uncemented rockfill. Longhole stoping with pastefill is mostly used in the operation with Alimak considered in the upper C-Zone. Future mining plans consider longhole stoping with pillars in place of backfill, where limited pastefill infrastructure exists or insufficient waste is available to place in mined voids.

16.1.1 Geotechnical Considerations

A review of the geotechnical stability of the provided mine plan and sequence was completed for the proposed Hemlo underground LOM. The layout and sequence provided for review involve mining deeper into the Interlake and lower B-Zone employing the longhole open stope method (LHOS), additional Alimak mining and LHOS in the C-Zone, and remnant LHOS mining in the upper B-Zone and Golden Giant areas (Figure 16-1). Available geotechnical data used in this review is from previous investigations, studies, as-built performance, and as-built data capture. No geotechnical data collection was completed specifically to support this Technical Report. The findings in this chapter summarize the work outlined in the geotechnical review report submitted under separate cover (WSP 2025).

The geotechnical data available for Hemlo was collected at the mine over more than 50 years by mine staff, various consultants, and research groups. The geotechnical data review mostly focused on the interpretations and summary figures / tables in the provided studies, the available drilling / mapping database, historical drift and stope performance, and site observations. Key pieces of geotechnical information included a geotechnical block model developed from a photo logging campaign, the exploration drill hole database, and cavity monitoring surveys (CMS) of the as-built stopes, drifts, and raises. Multiple iterations of geologic solids and fault wireframes were also available for review, each with varying levels of confidence and reliability.

Figure 16-1: Longitudinal View (looking north) of the Hemlo Mining Zones



Source: WSP 2025.

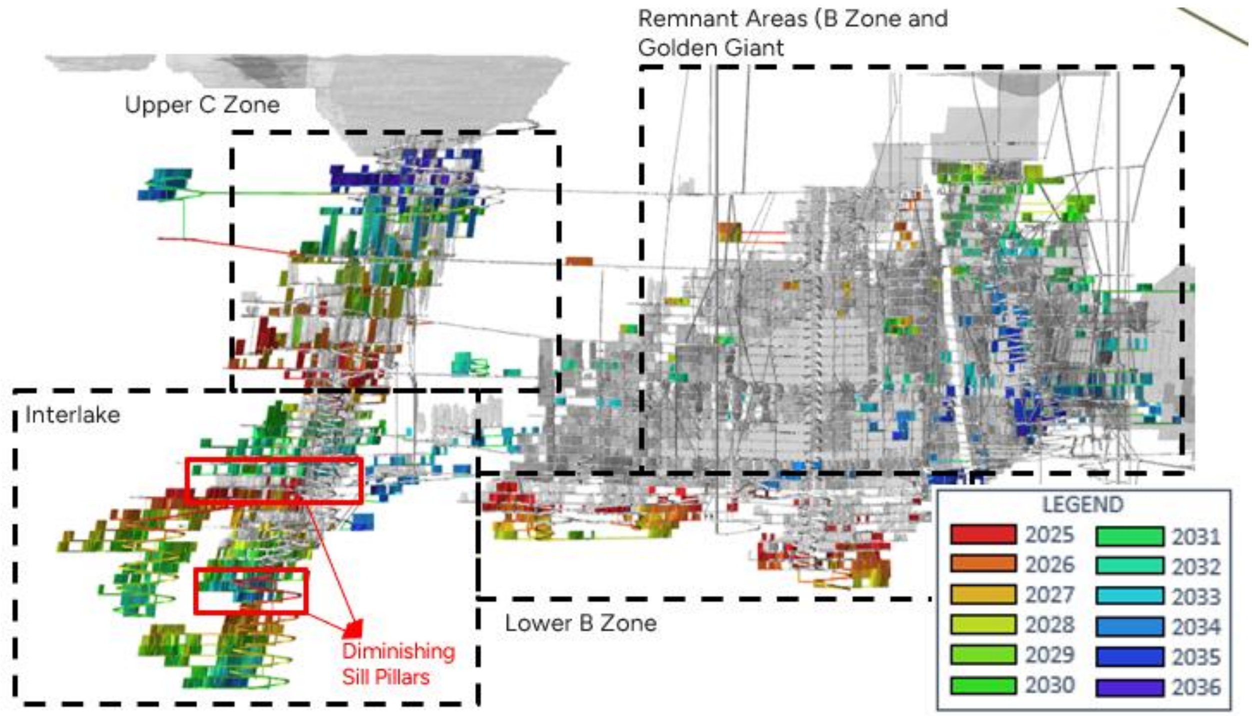
Note: As-built Stopes show in red and Proposed Mine Design in purple.

16.1.1.1 Mine Design

The mine design contains the following key criteria of importance for the selected geotechnical assessments:

- The ground support used in the mine design is based on Hemlo's Ground Control Management Plan (GCMP – Barrick 2024) with the addition of more cable bolts for each stope brow (Hemlo 2025).
- The mine will use LHOS where possible with transverse stope mining in select remnant areas.
- The mine will employ an underhand excavation sequence with two temporary sill pillars (Figure 16-2) and lateral retreat mining on each level to a central access (creating a diminishing middling pillar on most levels).
- Stopes are split by:
  - LHOS sized at a maximum 20 m (along strike) x 30 m (high) x the ore thickness (varies but is generally 5 m to 10 m).
  - Alimak with sizes of 20 m (along strike) x up to 180 m (high) x the ore thickness (varies but is generally 4 m to 7 m).
  - Planned Equivalent Linear Overbreak Slough (ELOS) is averaged at 1 m for the hanging wall (HW) and 0.5 m for the footwall (FW) for both stope types.

Figure 16-2: Longitudinal View of the Mine Design Sequence by Year (looking north)



Source: WSP 2025.

16.1.1.2 Engineering Geology Model

The HW and FW typically consist of metasediments with some areas also containing muscovite schist of variable alteration. The ore zone (OZ) is composed mostly of felsic and intermediate metavolcaniclastic rock masses. Additionally, large subvertical diabase dikes and smaller lamprophyre dikes are present, which generally cross-cut the foliation. The lithological contacts, orebody and foliation usually dip north at angles from 60° to 70°. The different lithologies are very similar in structure and geomechanical properties, except for the muscovite schist, which has variable schistosity intensity, alteration intensity, fabric spacing, and intact strength.

Multiple studies are available in which geomechanical parameters were estimated. Some geotechnical domains were also defined in previous studies and were typically defined by lithology and/or by their relation to the ore zone (e.g., HW, OZ, and FW); each domain generally showed limited variation in intact rock strength, elastic properties, and rock mass classification, except for the muscovite schist and lamprophyre dikes.

Rock Mass Classification

The rock mass classification has been interpreted by different studies:

- Coulson (2009) suggest an average Q' of 8.9 ,9.8 and 9.1 and an average Geological Strength Index (GSI) of 67, 69, and 67 respectively for the HW, OZ, and FW of the B-Zone. The Q' range (for all domains) is 1.4 to 15.8. This interpretation is based on geotechnical mapping from 1990, 1994, 2004, and 2009; the raw data was not available for WSP to independently evaluate.

- MDEng (2011) suggests an average Q' of 13.8 (ranging from 3 to 36) and an average GSI of 64 for the rock in C-Zone. This is based on spot geotechnical mapping at 33 locations from near surface down to 9140 Level. The lithology which was mapped is not made clear in the report.
- Table 16-1 presents a summary of the mean rock mass classification values obtained by Dempers and Seymour (2021); this rock mass model is based on core photo logging of 90 exploration drill holes and geotechnical data collected from three geotechnical drill holes.
- Some geotechnical mapping has been completed since the above studies but has not been compiled and compared with the results of the rock mass model or the Coulson (2009) and MDEng (2011) studies.

Table 16-1: Rock Mass Model Mean Classification Values (Dempers and Seymour 2021)

Zone	Lithology	RQD/Jn	Jr/Ja	Q'	Q	GSI
HW & FW	Metasedimentary Rocks	15.8	0.9	14.8	3.0	64
OZ	Intermediate Metavolcanics	15.1	1.0	14.6	2.9	60
	Felsic Metavolcanics	15.8	0.9	14.0	2.8	63
FW	Muscovite Schist	15.3	0.7	10.2	2.0	54

The rock mass model (Dempers and Seymour 2021) includes a Q' block model which suggests that the lower bound of recorded Q' data (1 to 10) is generally observed in the upper C-Zone, in some remnant B-Zone areas, and in the area between the B- and C-Zones. Limited data from drilling or mapping was available to WSP in the lower areas of the mine (Interlake and lower B-Zone).

Intact Rock Strength

The intact rock strength has been interpreted by different laboratory strength testing campaigns. The Hemlo GCMP (2025) specifically states that some of the raw laboratory testing data is not available and only reports mean UCS and Young's Modulus (E), Poisson's Ratio, tensile strength, and Triaxial Compressive Strength (TCS) results. Hoek Brown failure criterion estimates are only available in a single study (Bewick 2013) and are only applicable for the B-Zone; this assumes a single set of values for failures through B-Zone intact rock not influenced by foliation σ_{ci} = 178 MPa and m_i = 19 based on 52 test samples. Other studies summarize the intact rock strength as follows:

- UCS and TCS testing was done in the B-Zone and the Golden Giant Mine in 1986 and 1988, which are summarized by Coulson (2009) (Table 16-2). Hoek-Brown failure criterion parameters were not estimated from the laboratory data, but possible m_i values are discussed.
- Laboratory testing in the C-Zone is summarized in the GCMP (Hemlo 2025) (Table 16-2). The source of this data is unknown to WSP.
- MDEng (2011) reported UCS values for the muscovite schist, metavolcanics, and intrusive for the C-Zone with average UCS values that ranged from 80 MPa to 141 MPa. The location of testing and raw laboratory reports were not available for review by WSP.

- Laboratory testing campaigns were performed for the open pit and include estimates of Hoek Brown failure criterion parameters (WSP 2024). σ_{ci} is 143 MPa for the intermediate metavolcaniclastics and ranged from 112 MPa to 245 MPa for the felsic metavolcanics and from 102 MPa to 233 MPa for the metasediments. m_i ranged from 5 to 14.

Table 16-2: Intact Strength Values Reported in the GCMP (Hemlo 2025)

Area	Zone	Lithology	UCS (MPa)	E (GPa)	ν (-)
B-Zone	HW	-	163	54.0	0.272
	OZ	-	175	57.5	0.278
	FW	-	176	55.3	0.292
C-Zone and Interlake	HW & FW	Metasedimentary Rocks	123	37.5	0.170
	OZ	Intermediate Metavolcanics	114	37.8	0.170
		Felsic Metavolcanics	110	29.3	0.170
	FW	Muscovite Schist	58	16.5	0.150

The data suggests the B-Zone underground has a greater intact strength than the C-Zone underground and that the C-Zone lithologies near the open pit have a higher intact strength than the same lithologies underground.

Rock Mass Fabric

The rock mass fabric orientation has been estimated from oriented core drilling and from underground mapping and typically estimates the same major structural sets and orientations. Hemlo has three major structural sets (A – Foliation, B – Joint Set, C – Joint Set) and two less represented (or minor) structural sets (D – Joint Set and E – Joint Set). The foliation set is oriented east-west and is parallel to the orebody (~70° dip), Set B is north-south and subvertical, while Set C is east-west and sub-horizontal. Sets D and E are inclined NW-SE and dipping in opposite directions; these sets are sometimes reported to be less common than A, B, and C (Coulson 2009; MDEng 2011; Hemlo 2025).

Major Structures

A major structure model was developed for the site by Dempers and Seymour (2021). Two principal orientations can be observed: subparallel to the orebody and perpendicular to the orebody. The fault groupings (G1 to G4) typically exhibit a mixture of brittle, ductile, and heavily jointed rock with gouge infill; suggesting poor character that may produce poor stability locally. Data collected from Hemlo site staff have indicated that the faults may not be as persistent as the structural model suggests; as such, it can be challenging to predict the exact location where drifting may experience poor, faulted, ground. In addition to poor ground, it is possible that induced stresses may behave differently close to and between faults.

In Situ Stress

Multiple in situ stress estimates are available for the site as listed below.

- B-Zone: CSIRO Hollows Inclusion (HI) cell and USBM cells done in 1985, 1988, and 1992 in the B-Zone.

- C-Zone: Stress state calibration of the C-Zone using seismic data (Global Mine Design, 2015; Earl, Malovichko & Rebuli, 2015). As-built stope and orepass CMS damage reconciliation assessment. Acoustic Emission measurements done by the Western Australia School of Mines (2019).

The GCMP (Hemlo 2025) has interpreted the above studies to suggest that the C-Zone has an east-west major principal stress orientation while B-Zone has a north-south major stress orientation. This difference is unusual for such a small footprint but could be real if the faults provided strong controls on local in situ stress orientation. A few notes should be considered when using the in situ stress data:

- The Acoustic Emission laboratory-based estimates can be strongly influenced by the lithology, defects, source location, and damage within the core sample which was tested; typically, Acoustic Emission estimates should be confirmed with a second, more typical, in situ stress measurement option (e.g., mini-frac / overcoring).
- The 1985 and 1988 over core tests in B-Zone did not uniformly suggest a north-south in situ stress orientation. There were tests at depth (> 300 m) which reported a principal stress orientation closer to east-west (Golder 1985; Golder 1988). The tests reporting north-south orientation were mostly at shallower depth (< 300 m).

Given that most areas of interest in this study at greater depths (>300 m), an east-west major stress was selected as the base case for this study; however, north-south stress sensitivities were checked as a sensitivity.

Selected Assessment Input Parameters

The parameters used in the geotechnical assessments completed for this study are shown in Table 16-3. These parameters are assigned with a range to account for the range of classification and intact strength parameters interpreted from the various previous studies and to provide a range of input sensitivity for the geotechnical assessments. The structural sets and their orientation are broadly agreed across the studies and are not varied from what is stated in the GCMP (Hemlo 2025).

Table 16-3: Summary of the Geomechanical Parameters Used in this Review

UCS (MPa)	Ei (GPa)	Poisson's Ratio	Q'
125 to 175	55	0.27	5 to 30

16.1.1.3 Stope Stability and Dilution

An empirical assessment was performed to review stope stability and dilution using the Stope Stability Graph (Potvin 1988) and the ELOS graph (Clark and Pakalnis 1997; Capes and Milne 2008); respectively. Elastic numerical stress modelling (Section 16.1.1.4) was used to inform the input parameters for stope stability. The results of these assessments were compared to actual stope performance and were used to identify risks for the proposed mine design, as discussed in the following subsections.

Longhole Open Stoping

The as-built conditions of the LHOS at Hemlo suggest that most stopes, with sizes similar to the proposed design sizes, maintained stability in the C-Zone, B-Zone, lower B-Zone, and Interlake, Those with instability are attributed by site to poor drilling and blasting performance and variability of the muscovite schist alteration and strength in the HW. In addition, the mine measured ELOS for 75 historical LHOS CMS scans distributed in the lower B-Zone and Interlake and the measurements indicate an average ELOS of 0.6 m on the HW and 0.5 m on the FW, with no significant differences observed between the mining areas. The highest ELOS measured was 2.0 m on the HW and 2.4 m on the FW.

Empirical assessments performed by WSP suggest:

- In areas with lower induced stress (C-Zone, remnant B-Zone mining) the proposed mine design shapes meet standard design acceptance criteria considering lower bound UCS (~125 MPa) and a minimum Q' of 14.
- In the lower B-Zone and Interlake, the empirical assessments suggest that the as-built stopes (and thus, the proposed design stopes) do not meet standard design acceptance criteria without considering a UCS of ~180 MPa and a Q' ranging from 20 to 30.
    - This suggests that the rock mass parameters for the lower B-Zone and Interlake should generally be better than what is reported by most studies (including the GCMP). More geotechnical data in the lower areas should be collected to confirm this.
- The proposed mine design ELOS assumption of 1 m on the HW and 0.5 m on the FW are appropriate based on the as-built stope performance.
    - Like stope stability, empirical ELOS estimates suggest that the rock mass input data must be on the higher end of the range of character to result in ELOS values measured from the as-built stopes for the lower B-Zone and Interlake areas.

The following potential challenges for the LOM have been identified and may require local adjustment to ground support and/or stope size based on observed rock conditions and drift or nearby stope performance:

- Changing intensity of the muscovite schist alteration in the HW. This could reduce the rock quality in the HW resulting in an increased potential for slabbing instability (along foliation / schistosity) or stress damage.
- Drill control challenges have been identified by the mine engineering team as a contributing factor to some of the instability and larger ELOS values experienced in the as-built stopes.
- Increased stress on the HW as the mine moves deeper. This challenge is accentuated by the apparent disconnect between the rock character (intact strength and Q') interpreted in previous studies and the as-built stope performance.

Alimak

Alimak mining is planned in the PFS mine design in the C Zone. Planned ELOS for Alimak stopes is averaged at 1 m for the hanging wall (HW) and 0.5 m for the footwall (FW). The mine has not provided WSP sufficient as-built measurements for ELOS on Alimak stopes to provide commentary on the reasonableness of the planned ELOS values (four Alimak ELOS measurements were provided to WSP). Measurements are on-going for as-built Alimak ELOS reconciliation and should be reviewed when complete.

According to the empirical stope stability assessment (Potvin 1988) performed by WSP, the HW remains stable with support for heights up to 120 m when the strike length is 20 m. At a height of 180 m, the HW falls into the transition zone between "stable with support" and "caving".

Historically, Alimak stopes with a height of 180 m were only utilized on 9765 Level, while subsequent levels had a reduced stope height down to 80 m. The performance of the as-built 180-m high stopes is uncertain as WSP does not have the design shapes, just the as-built CMS; however, there is no evidence of excessive caving or instability in the CMS data provided by site.

As discussed in previous sections, uncertainties remain for the rock mass quality as local variation may not be fully captured; future studies should work to better characterize the rock mass variability. The potential challenges outlined in LHOS section are also applicable to Alimak stopes and may require local adjustment to ground support and/or stope size based on observed rock conditions and drift or nearby stope performance.

16.1.1.4 Mine Sequence and Stability

The induced stresses and potential stability impacts from the proposed mine sequence was assessed using a series of 3D elastic numerical stress models. The following subsections discuss the results for each mining area.

C-Zone and Remnant B-Zone Areas

The C-Zone and Remnant B-Zone mining areas include stopes adjacent to mined stopes and new stopes in adjacent veins (typically in the FW). The Remnant B-Zone mining is almost entirely on the FW side of the existing extraction.

- The likelihood of stress-induced drift collapse is minimal due to the lower in situ stresses, although some levels do contain diminishing middling pillars due to longitudinal retreat to a central access. Stress damage bulking is still possible in areas where induced stress is concentrated; this is more likely in the C-Zone. Local variations in intact strength remain a control and an uncertainty.
- Remnant B-Zone mining areas mostly have low induced stress (due to the large extraction ratio) and the FW veins typically are at least partially stress shadowed by the as-built stoping.
- Elastic modelling suggests significant induced stresses near the dike between B-Zone and Golden Giant.
    - Stopes near to the dike will likely have high induced stress and may exhibit more stress damage and present stability challenges during mining.
    - These areas may generate seismicity and crush events during mining, with the risk increasing towards the bottom of the Remnant B-Zone mining areas.

Lower B-Zone and Interlake

- The proposed mine sequence concentrates induced stress on each ore level through diminishing pillars to a central access (longitudinal retreat mining). Previous experience at site has shown that such pillars have the potential to experience crush events resulting in instances of strain bursts, stress damage, and/or seismic shake down. These strain bursts have typically been located in areas of acute mining or in diminishing pillars during retreat. Some of the strain bursts have resulted in drift / brow collapses and the current standard installed ground support (MD bolts, welded wire mesh, targeted cable bolting – see Section 16.1.1.5 for ground support commentary) was not always able to retain the damaged rock.

- Other areas are experiencing stress damage bulking in which the primary bolt (MD bolt) and surface support elements (four gauge welded wire mesh) are showing load, converging into the drift, but are retaining the ground and displacing with the bulking.
- The as-built sequence has been identified as a key contributor to the stress concentrations that lead to the recorded instances of stress damage. In the next stage of study, the mining sequence should be updated to follow a longitudinal retreat to an access at the end of each design level; this will remove many of the diminishing pillars on the sill levels and help mitigate induced stress concerns.
- When that sequence is updated, a 3D non-elastic stress assessment through to LOM should be completed and benchmarked against previous stress related ground collapses. The objective of this assessment is to understand if similar ground and stress conditions will occur in the LOM plan which could potentially generate significant high energy stress damage similar to what is seen in the previous ground falls (e.g., strain bursts and/or seismic shake down).
- Two diminishing sill pillars are also identified in the Interlake area. WSP's 3D elastic numerical stress model suggests that the lower of the two diminishing sill pillars (near ~8870 Level) may contain high induced stress concentrations (80 MPa to 100 MPa) before and during mining of the sill pillar. This induced stress will present ground stability challenges and likely produce strain bursts and seismic events. To minimize the impact of the induced stress concentrating in the sill pillar, sequences in which the sill pillar will be relocated to a smaller area of the orebody (potentially near the 8810 Level) should be assessed in future studies.

16.1.1.5 Ground Support

Table 16-4 presents the primary ground support standards from Hemlo's GCMP (Hemlo 2025). Secondary ground support is installed according to guidance from the Hemlo ground control team in areas of poor ground. Additionally, spot bolts and local adjustments are occasionally implemented to account for different ground conditions. Sixteen cable bolts are planned for each LHOS, eight cables are planned for Alimak brows and every 2 m of the Alimak raise, 11 cables are planned for 3-way intersections, and 22 cables are planned for 4-way intersections and 3-way intersections on ramps. WSP has not been provided the proposed layout of the above cables; the 11 cable allotment for 3 way intersections could support a static deadload assuming the cables are twin strand (and have a minimum capacity of 35 tonnes), the depth of damage is no deeper than 1/3 the span of the intersection, and that the 11 cables includes installation for 1 ring into the adjacent drifts. Under high stress conditions this may be insufficient (as the cable spacing would be closer to 2.5 m) and should be reviewed further in future studies.

Table 16-4: Primary Ground Support Standards Based on GCMP

<table>
<tr><th>Development</th><th>Dynamic Ground Support</th><th>Static Ground Support</th></tr>
<tr><td>Long Term Developments</td><td rowspan="3">2.4 m galvanized MD bolts with 1.1 m x 1.3 m spacing
#4 Gauge, 10 cm x 10cm Welded Wire Mesh (WWM)</td><td>1.5 m Threaded #6 rebar with 1.1 m x 1.1 m spacing
#6 Gauge, 10 cm x 10 cm WWM</td></tr>
<tr><td rowspan="2">Short Term Developments</td><td>2.4 m galvanized 46 mm friction bolts with 1.1 m x 1.3 m spacing
#4 Gauge, 10 cm x 10 cm WWM</td></tr>
<tr><td>1.5 m Threaded #6 rebar with 1.1 m x 1.1 m spacing
#6 Gauge, 10 cm x 10 cm WWM</td></tr>
<tr><td>Alimak Raises</td><td colspan="2">0.3 m x 2.1 m #0 Straps along HW
1.5 m Threaded #6 rebar in sidewalls and FW
0.9 Mechanical Bolts
#6 Gauge 10 cm x 10 cm WWM</td></tr>
</table>

The ground support review suggests that the current ground support is adequate for failure mechanisms that are kinematically driven or due to low energy stress damage bulking. The as-built drift and brow performance suggest that the current ground support is not adequate to address high energy stress damage (e.g., strain bursts and seismic shake down) failure mechanisms; such failure mechanism have been noted in areas where the as-built mine sequence concentrated stress in rock pillars. The increase in brow and drift cable bolting, included in the mine design portion of this study, should help, but will not remove this hazard.

Regardless, the following challenges remain to be addressed in future studies:

- End anchored friction bolts (MD bolts), that are currently used as the primary bolt element in stress conditions, have reduced effectiveness against strain burst and seismic shake down failure mechanisms. Sequence changes (to remove diminishing pillars) will mitigate the potential of generating such stress conditions that produce strain bursts and seismic shake down.
    - In the event strain bursts and seismic shake down events are forecasted to continue (after adjusting the sequence to the extent possible) alternative primary bolt elements (e.g., resin bar) should be explored for use in the lower areas of the mine.
- Fibre reinforced shotcrete is not currently used extensively underground and increased use can help manage convergence and stress damage bulking but is unlikely to meaningfully mitigate strain bursts or seismic shake down.
- Twin strand cable bolts require ideal installation conditions and assumption of perfect load transfer to achieve double the capacity of a single cable bolt; in reality, it is likely that the twin stand cables installed at Hemlo have an as-built capacity less than 50 tonnes but higher than 25 tonnes. This should be studied further through back analysis of cable failures, pull test performance, and review of QC records; it may be that the spacing of twin strand cables should be reduced.
- The ground support condition in remnant areas is largely unknown as the mine is beginning to re-establish access to these areas.

16.1.1.6 Vertical Infrastructure Stability

Table 16-5 presents the vertical infrastructure profile shape and dimensions considered in the proposed mine design.

Table 16-5: Vertical Infrastructure Design

Description	Profile Shape	Dimensions
Ventilation Raise < 30 m length	Rectangular	4.0 m x 6.0 m
Ventilation Raise ≥ 30 m length	Circular	5.0 m [(1)]
Escapeway Raise	Circular	1.5 m [(1)]

Notes:
1. Internal excavation diameter.

An empirical vertical stability assessment using McCracken and Stacey (1988) was completed. As there is limited local information on the rock mass quality at the raise locations, a Q' of 14 was assumed. The following commentary is based on the vertical stability review:

- For the general rock mass quality, the ventilation raise design is stable unsupported in moderate stress conditions. Support could be required in higher stress conditions.
  - At depth, high induced stress may damage vertical development (as has been observed in other areas historically) and the ground support requirements will be dependent on offset distances and sequence from the main mining fronts. This will need to be reviewed after the stoping sequence is updated in future studies.
  - No evidence of instability was observed in the CMS data provided by site for the as-built ventilation raises (although the GCMP does note damage to some ore passes due to stress conditions).
- Escapeway raises are stable unsupported but require ground support and/or a steel liner (as per the GCMP) and should be designed based on geotechnical logging of the raise pilot hole.
- A pilot hole to collect geotechnical data prior to excavation of each raise is recommended; this information should be used to develop detailed ground support recommendations.
  - If borehole breakout or poor rock mass quality is encountered in the pilot hole, relocating the raise or using an excavation method that enables in-cycle support should be considered.

16.1.1.7 Crown and Rib Pillar Stability

Empirical crown pillar stability assessment using the scaled-span method (Carter 2014), empirical rib pillar stability assessment using Hedley's method (1972), and temporary sill pillar excavation assessment using 3D numerical stress model (RS3 – RocScience 2025a) were completed to identify potential instability issues with the proposed mine design. The minimum distance between the LOM stopes and the LOM pit design is approximately 30 m for stopes with a maximum span of 15 m. The following is concluded from the crown pillar stability review (considering a base case Q' of 14):

- The crown pillars present in the mine plan have a 7% Probability of Failure (PoF) suggesting a stable condition for five to 10 years. This is reasonable considering that these stopes will be backfilled and open only for a short period of time.
- Local geotechnical ore drift mapping is recommended to record local rock mass condition and check against crown pillar stability assumptions.

Site is contemplating leaving rib pillars and not using backfill for stopes in the Upper Golden Giant mine area. The permanent rib pillars should be of sufficient size to prevent instability. The rib pillars were assessed for stability up to a depth of 300 m; the outcome of this assessment indicates:

- Rib pillars of 10 m should be considered for 20 m strike length stopes (typical stope span is 15 m).
  - This results in a 66% recovery (not including ELOS) which reasonably agrees with the 61% recovery (considering ELOS) currently considered in the mine design.

16.1.1.8 Backfill Strength

A backfill strength assessment was completed using the Mitchell et al. (1982) method considering a design acceptance criteria of 1.5 Factor of Safety (FoS). Hemlo's current backfill strength targets are provided in Table 16-6. When compared with the results of the Mitchell assessment method, the current backfill strength targets used by Hemlo are generally appropriate; except for the 7 m to 15 m span stopes (underhanded mined) which (according to Mitchell's method) require a slightly higher backfill strength to achieve a 1.5 FoS (1.7 MPa UCS). Achieved backfill strength information was not available to WSP; although WSP understands from Hemlo site staff commentary that testing is consistent, no failures of backfill have been reported, and that the achieved strength was typically higher than the minimum strength requirement.

Table 16-6: Strength Requirements for the Various Paste Fill Cases

Case	Hemlo's Current Strength Targets (UCS MPa)
Underhand Mining - <7m Span Non-Entry Stopes	1.0 MPa
Underhand Mining - 7 m<Span<15 m Non-Entry Stopes	1.5 MPa
Drifts through paste fill (4x4 to 5x5)	800 kPa
Overhand Mining - freestanding <25 m vertical	350 kPa
Overhand Mining - freestanding 50 m vertical	650 kPa
Driving stopes - paste as platform	350 a

16.1.1.9 Path Forward and Residual Risk

As study of the LOM plan proceeds into the next stages (e.g., Feasibility Study, detailed design, etc.) the following potential residual risks should be further assessed and addressed as necessary:

- With a central access, the mine sequence on each level has a diminishing middling pillar. In future studies, the mine sequence should be adjusted to remove diminishing middling pillars (where possible) on each level in the Interlake and Lower B Zone (i.e., the level access should not be central and instead on one end or the other to retreat in a single direction).

  - While a longitudinal retreat to a central access is a common mine design option, removing the diminishing middling pillar at Hemlo is preferred because this will:
    - Mitigate induced stress concentrations which have caused strain bursts and seismic shakedown occasionally leading to drift and brow collapse in as-built areas of the Lower B Zone and Interlake.
    - Reduce seismic risk and reduce risk of delays related to seismicity and ground falls.
    - Reduce ground support challenges (continued high energy stress damage events are likely to require a change in primary bolting type).
- The sequence should be reviewed to adjust the location of the temporary sill pillar in the Interlake. Consider moving it approximately 2 levels deeper (e.g., 8810 L) to limit the size of the pillar and limit the amount of sill drifting that will experience high stress.
- The mine has recently experienced seismic events which produced strain bursts when the mining sequence wasn't followed which resulted in a relatively high concentration of induced stress in pillars of rock. In these scenarios the existing ground support system could not retain the damaged ground and resulted in falls of ground. Changing the sequence (as discussed above) to mitigate induced stress should improve the drift performance.
  - The updated sequence should then be assessed with 3D non-elastic numerical stress modelling software to define potential for continued strain bursts / seismic events.
  - In the event such stress / seismic events are assessed to remain a potential risk for the mine; the ground support in place for drifts should be reviewed and resin grouted steel bar should be considered to replace the current end-anchored friction sets as the primary bolt element.
- Variation in alteration intensity in the muscovite schist has been observed to impact the strength of this unit which is occasionally exposed on the stope HW. There have been instances where weak, altered, muscovite schist has contributed to instability in stope HWs.
  - Consider correlating the available geologic drift mapping of muscovite schist alteration intensity to rock strength and include in stop stability assessments used in the stope note process.
  - Once correlated, this relationship can be used to identify where the severity of muscovite schist alteration in the HW may require local stope geometry modification or blasting sequence adjustments.
  - This correlation can help improve stope stability forecasts in future studies.
- Available geotechnical data is typically from historically mined areas. The interpreted intact strength and Q' may be misrepresenting some areas of the rock mass.
  - Collecting additional laboratory strength samples for uniaxial compressive strength and triaxial compressive strength testing of the rock at depth can help improve correlations between stability assessments and observed rock behaviour. These

samples can potentially be collected from exploration or grade control drill core without an associated geotechnical logging campaign.

- Periodically mapping development headings for geotechnical information can also help improve the correlation between rock mass character and drift performance.
- This data collection, combined with a thorough reconciliation with as-built drift and stope performance, can improve the confidence of assessment results in future studies.

- The in situ stress orientation of the B Zone and C Zone are reported to have approximately a 90° difference. This relationship is unusual and is based on in situ overcoring testing data from 1985 to 1992 (for the B Zone) and on calibration from micro seismicity, as-built damage correlations and Acoustic Emissions laboratory testing in 2019 (for the C Zone).
  - The Acoustic Emissions testing method relies on core orientation assumptions relative to the assumed in situ stress field and does not account for specimen damage and the results could be mis-leading depending on the samples selected for testing.
  - Additional investigation should be considered to de-risk this uncertainty (one option, for example, could include downhole televiewer surveys to examine the orientation of observed breakouts in drillholes).
  - Higher confidence in the in situ stress orientation will improve confidence in assessments estimating potential stress damage in future studies.
- Assess and document the ground conditions as the remnant areas are re-opened and use this information to inform stope design and sequence in the area.

16.1.2 Proposed Mining Methods

Hemlo is an existing mine that employs LHS and Alimak stoping.

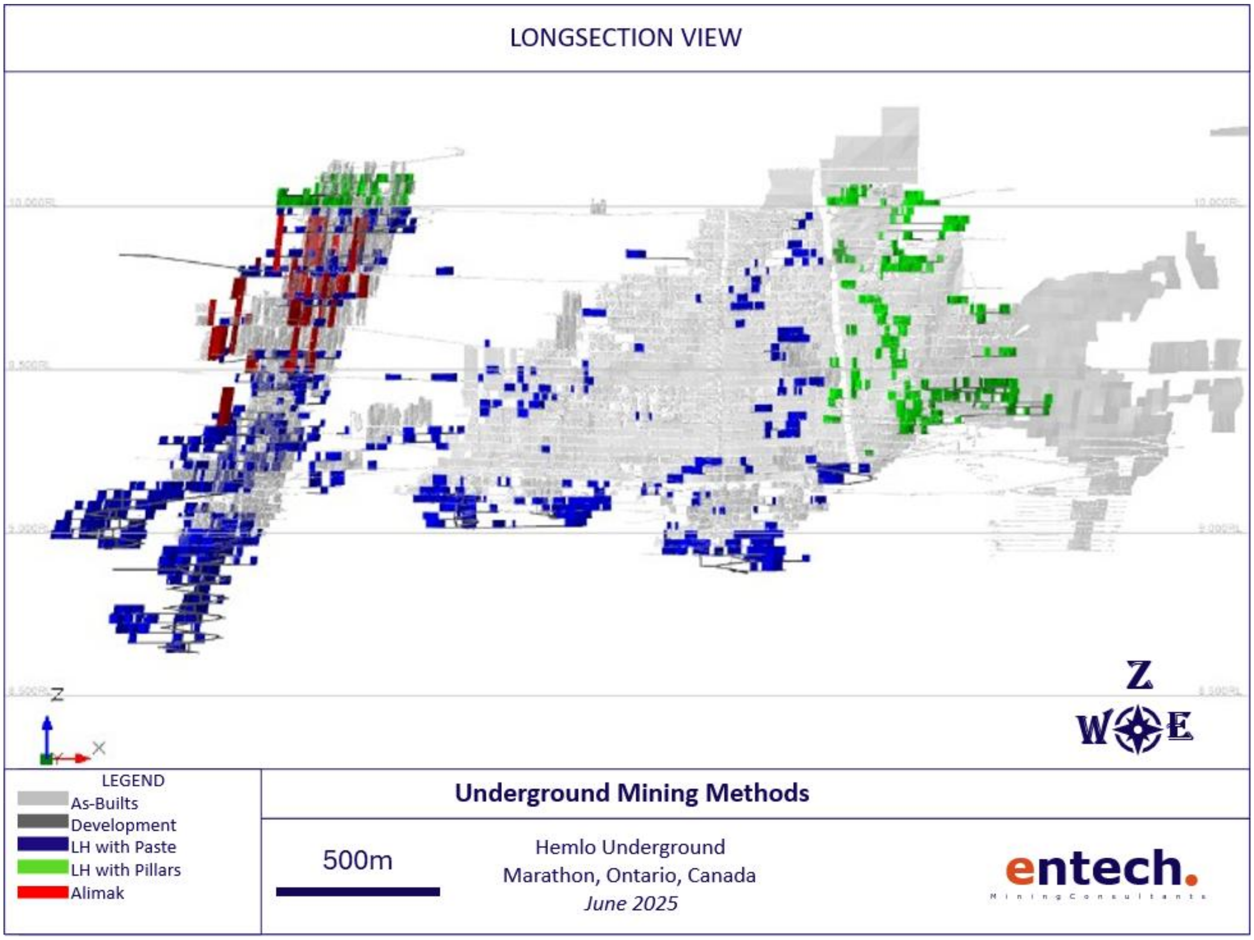
LHS is the primary method employed underground, accounting for more than 80% of underground stope production. Target sublevel spacing is 30 m, or between existing development levels, with a target strike length of 20 m. Strike lengths may vary depending on orebody continuity, geometry, and ground conditions.

Alimak makes up for the remainder of underground stope production with sublevel spacing reaching up to 150 m vertically. Target strike lengths for stopes are 20 m, though they can vary depending on orebody continuity, geometry, and ground conditions. Alimak is mostly employed in the upper C-Zone, where grade continuity along strike is limited and vertical continuity is quite high.

Both stoping methods will generally employ pastefill to support excavated production stopes, using the existing pastefill plant and infrastructure at Hemlo. Where pastefill infrastructure unavailable, such as in the uppermost portion of C-Zone and most of the Golden Giant Zone, pillars are proposed.

Figure 16-3 illustrates the proposed mining methods for Hemlo Underground, while Table 16-7 summarizes the dimensions and mining direction for each method.

Figure 16-3: Longsection of Hemlo Underground by Mining Method



Source: Entech 2025.

Table 16-7: Stope Dimensions by Mining Method

Description	Units	Longhole Stoping	Alimak Stoping
Stope Height	m	30	30 – 150
Stope Length	m	10 – 25	15 – 20
Stope Width	m	3 – 20	3 – 20
Mining Direction[1]	N/A	Top-Down	Bottom-Up

Notes:
1. General mining direction. Some sequencing variations may occur.

16.1.2.1 Block Model Preparation

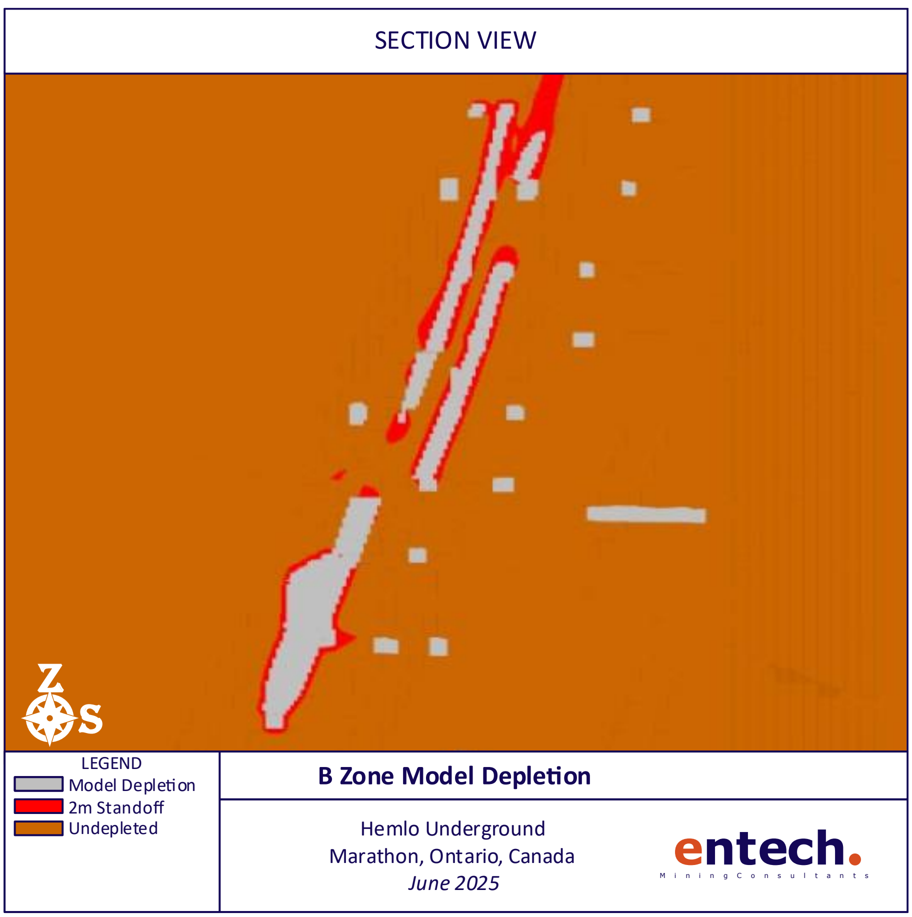
There were two block models provided for the underground study, both depleted to existing development and production workings as of December 31, 2024. The areas with their corresponding block models are summarized in Table 16-8.

Table 16-8: Underground Mining Zones and the Corresponding Block Model

Mining Zone	Block Model
B-Zone	BZ_GG_2024_YE_Rev1_depleted_6_AU123.gmdlb
C-Zone	CZ_EZ_2024_YE_DEP_Rev4_AU123.gmdlb
E-Zone	CZ_EZ_2024_YE_DEP_Rev4_AU123.gmdlb
Golden Giant	BZ_GG_2024_YE_Rev1_depleted_6_AU123.gmdlb
Interlake	CZ_EZ_2024_YE_DEP_Rev4_AU123.gmdlb

The provided site models used production design shapes, rather than detailed surveys of the underground workings to complete model depletion. This is particularly prevalent around the older workings in the B-Zone and Golden Giant mining areas. By using design shapes rather than surveyed actuals, this could potentially leave economic material that has been mined. To address this issue, a further 2 m depletion was applied around mined stope production voids in both models. The additional depletion is illustrated in Figure 16-4.

Figure 16-4: 2 m Depletion Halo Surrounding Production Shapes Schematic



Source: Entech 2025.

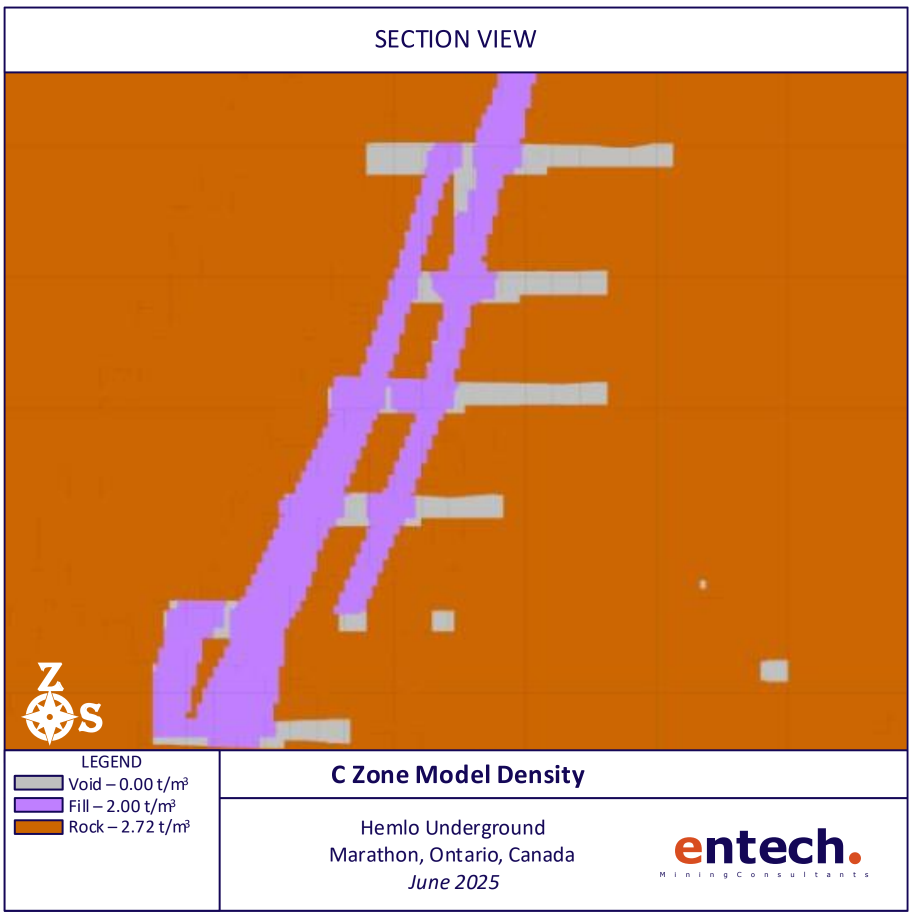
Density of the provided model was also modified, as summarized in Table 16-9 and illustrated in Figure 16-5. Underground development, outside of stoping, is typically unfilled and thus given a zero density, while production as-builts are typically filled and given a 2.00 t/m³ density.

Table 16-9: Model Density by Material Location

Parameter	Unit	Value
Development As-built[1]	t/m³	0.00
Production As-built[2]	t/m³	2.00
2m Production As-built Halo	t/m³	2.72
Other	t/m³	2.72

Notes:
1. Assumed Void
2. Assumed Filled with Pastefill

Figure 16-5: Block Model Cells Coded by Density Schematic



Source: Entech 2025.

For declaring Mineral Reserves, any material that was not classified as either Measured Resource or Indicated Resource was set to zero.

16.1.2.2 Net Smelter Return

Hemlo exclusively produces gold, but due to varying metallurgical recovery based on rock type, an NSR model was used. This process creates a block value that considers the estimated recovery of the block and is converted to a grade value (US$/t NSR) for use in the MSO process. The recovery equations used by Hemlo are summarized as follows:

100 Series:

$$[Recovery\ \%] = 97.61 + \left(\frac{-0.0082 \times [Mill\ Feed\ Rate] - 2.06}{[Feed\ Grade]}\right)$$

300 Series:

$$[Recovery\ \%] = 94.71 + \left(\frac{-0.0035 \times [Mill\ Feed\ Rate] - 5.60}{[Feed\ Grade]}\right)$$

B-Zone Lower West:

$$[Recovery\ \%] = 90.35 + \left(\frac{-0.032 \times [Mill\ Feed\ Rate] - 1.20}{[Feed\ Grade]}\right)$$

Else:

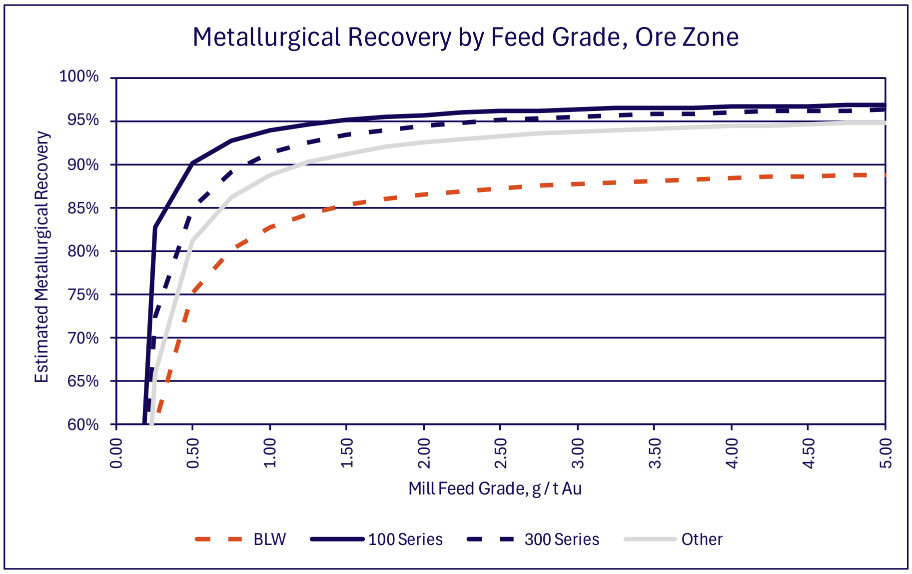
$$[Recovery\ \%] = 96.35 + \left(\frac{-0.032 \times [Mill\ Feed\ Rate] - 1.20}{[Feed\ Grade]}\right)$$

Mill Feed Rate = 200 tonnes per hour

Feed Grade = Supplied in Block Model, g / t Au

Using these formulas, Figure 16-6 illustrates the estimated metallurgical recovery for a given grade and feed source.

Figure 16-6: Estimated Metallurgical Recovery at Hemlo Underground



Source: Entech 2025.

Table 16-10 summarizes the metal price, royalties, and selling costs used. Royalties vary based on the claim at Hemlo, and for the study, a flat royalty rate of 2.092% was used. A Net Profit Interest royalty (NPI) also applies to the Interlake claim. The royalties are complex and are discussed in Section 4.

Table 16-10: NSR Estimation Parameters

Parameter	Unit	Value
Metal Price	US$/oz	1,700.00
Metallurgical Recovery	%	Formula-based
Royalties	%	2.092
Payability	%	99.97
Refining Cost	US$/oz	3.50
Realized Gold Price[1]	US$/oz	1,660.44

Notes:

1. Per recoverable oz Au

The NSR Estimation Parameters (Table 16-10) were then used to estimate NSR, based on the following equation:

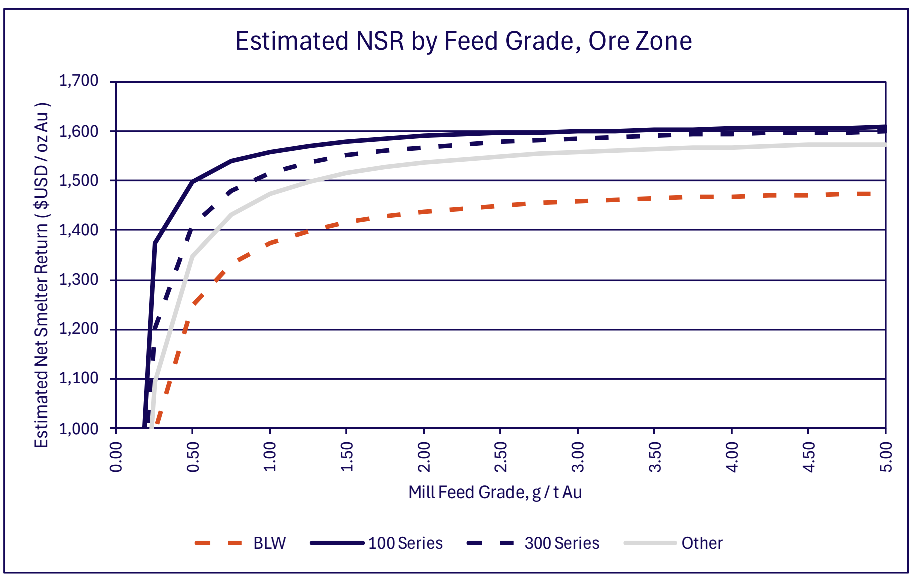
Net Smelter Return:

$$[NSR] = [Rec.Metal] \times ([Price] \times (1 - [Royalty\%]) \times [Payability\%] - [Refining])$$

Recovered Metal = [Modelled Insitu Metal] × [Metallurgical Recovery]

Figure 16-7 illustrates the impact of recovery on block value especially at lower grades between the various rock types. NSR values were then coded into the block model for mine planning evaluation.

Figure 16-7: Estimated Net Smelter Return at Hemlo Underground



Source: Entech 2025.

16.1.2.3 Cut-Off Value

A cut-off value (COV) is used to segregate material based on whether a block's estimated revenue exceeds or is lower than the estimated costs of extraction and processing of that block. There were three COVs used to assess and schedule mining at Hemlo: Fully Costed (FCCOV), Incremental (ICOV), and Marginal (MCOV).

The FCCOV accounts for all the operating and sustaining capital costs associated with extraction and processing of mineralized material.

The ICOV can be used when the operation has invested in development and access infrastructure and no further investment in development is required to access the material on existing designs. The ICOV can exclude the costs of development and partially exclude the sustaining capital costs depending on whether the activity will proceed or not. The ICOV would only require that the material value exceed the costs of the incremental surface handling, processing, G&A, mining, and a partial allocation of the sustaining capital. ICOV is used in the MSO process to determine the economic extents of mineralization.

The MCOV can be used when the operation has committed to mining material such as development excavation to access stoping material. At this point the decision to mine has been made and appropriately paid for by other tasks driving these activities, so this will not generate additional mining costs. The MCOV can exclude all mining costs, as these costs will occur whether the material is treated or sent to the waste facility. The MCOV would only require that the material value exceed the costs of the incremental surface handling, processing, and G&A.

A summary of the costs used in calculating the COVs is provided in Table 16-11.

Table 16-11: Cost Included in Mine Cut-Off Values

Cut-Off Value	G&A	Processing	Surface Handling	Mining	Sustaining Capital	Operating Development
Fully Costed	✓	✓	✓	✓	✓	✓
Incremental	✓	✓	✓	✓	✓[1]	✗
Marginal	✓	✓	✓	✗	✗	✗

Notes:
1. Partially Included

The COVs were based on cost estimates provided by site. The data was grouped into the cut-off bins and summarized in Table 16-12.

Table 16-12: Preliminary Estimates of the Various Cut-Off Values

Parameter	Unit	LHS	Alimak
Marginal Costs	US$/t	34	34
Incremental Costs[1]	US$/t	111	123
Fully Costed Costs[2]	US$/t	152	165

Notes:
1. Used for MSO Stope Evaluation
2. Not used for mine planning

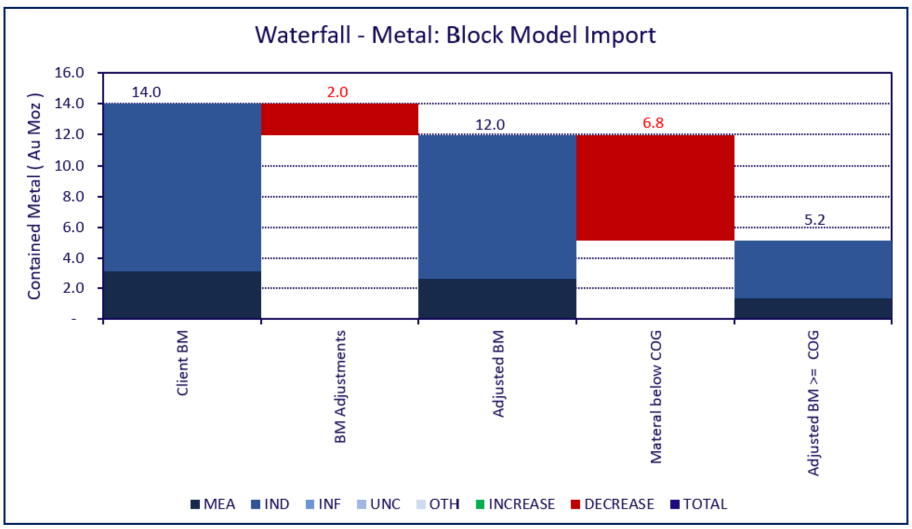
When completing the MSO process, the cut-off value was increased to allow for potential backfill dilution. Backfill dilution was estimated at 8.1% for longhole stoping and 5.0% for Alimak, which increases the ICOV used for mine planning. Longhole stoping ICOV increased from US$111/t to US$120/t for longhole and from US$123/t to US$131/t for Alimak.

Orphan analyses were then completed to confirm that each stope could pay for the required development.

16.1.2.4 Target Mineralization

Target mineralization is material above the cut-off grade that is the target for mine planning. When the model is received by Entech, internal processes remove metal that was deemed not suitable for mining, for example removing a 2.0 m mineralized skin surrounding existing voids. Following depletion and applying a COV, the available Measured and Indicated metal reduces from 14.0 Moz to 12.0 Moz, with 5.2 Moz representing the target mineralization as illustrated in Figure 16-8.

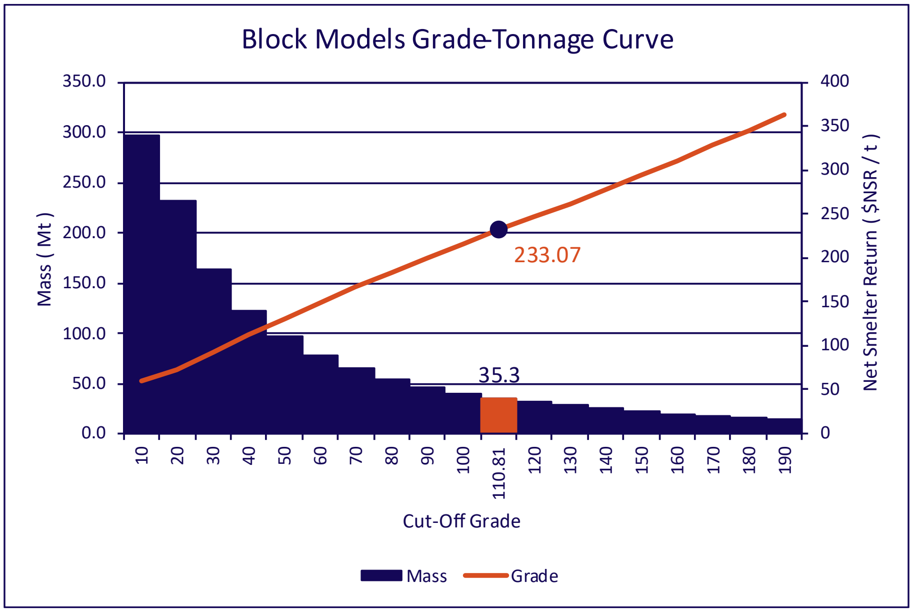
Figure 16-8: A Waterfall Chart Illustrating the Model Standardization Process



Source: Entech 2025.

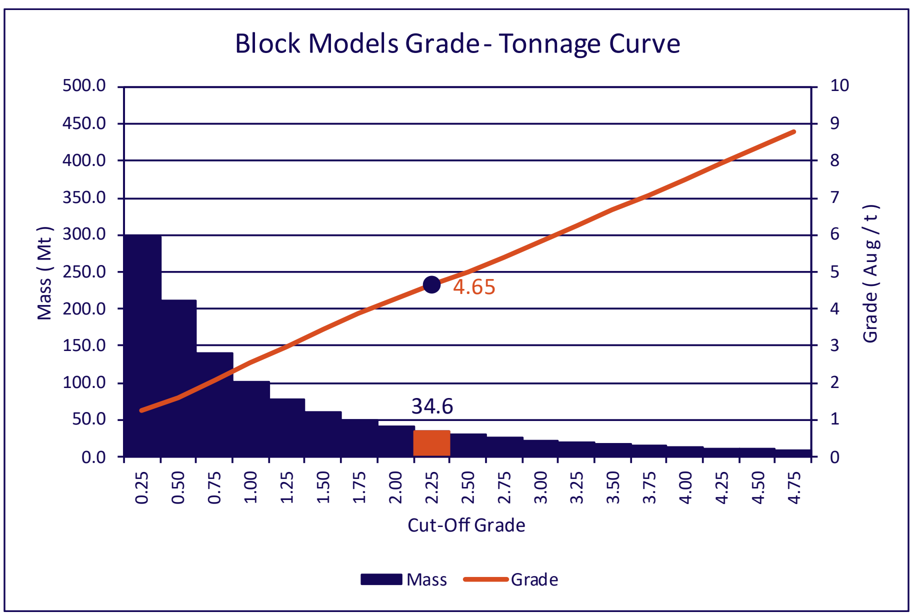
The grade-tonnage curves based on NSR and grade are illustrated in Figure 16-9 and Figure 16-10 respectively.

Figure 16-9: A Grade-Tonnage Curve of the Final Block Models (NSR)



Source: Entech 2025.

Figure 16-10: A Grade-Tonnage Curve of the Final Block Models (In Situ Grade)



Source: Entech 2025.

16.1.2.5 Mine Dilution and Mining Recovery

Mining factors are used to account for the combination of dilution and recovery that affects the material quality and quantity of an operation. Dilution is waste material that enters the material movement stream and often has two negative impacts:

- Increased cost (mining, processing, treatment, and increased storage of tailings); and

- Increased mined material loss (through processing and impacting on mining recoveries).

There are multiple sources of dilution, which can be classified in the following two categories:

- Planned dilution; and
- Unplanned dilution.

Planned dilution is additional waste that is deliberately mined concurrently with the target mineralized material, allowing the mineralized material to be recovered albeit at an overall lower grade. This planned excavation is driven by what is known as the minimum mining width, which considers drilling and blasting activities to be executed effectively.

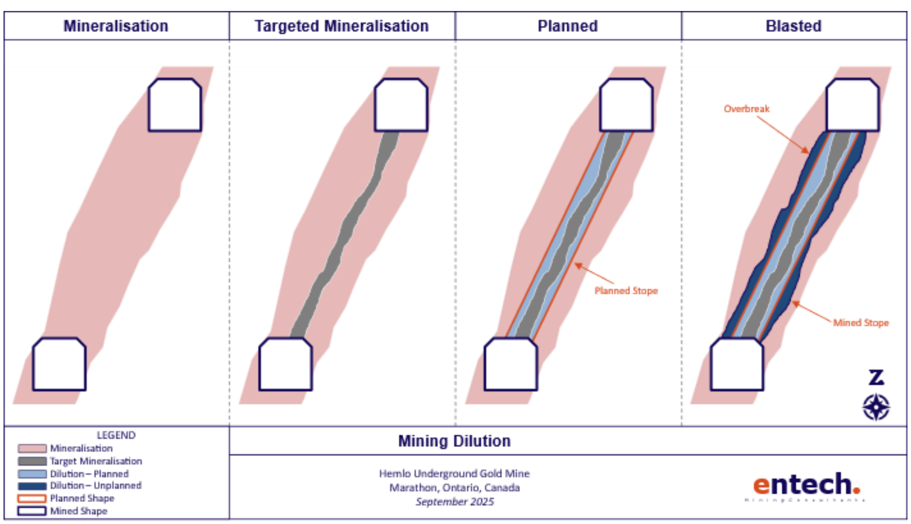
Unplanned dilution is waste material that unintentionally finds its way into the plant-feed during extraction and can be from a variety of sources including:

- Over-break during blasting and geotechnical conditions;
- Backfill dilution ravelling from adjacent stopes after blasting;
- Mucking of waste material (backfill or road base material) during the mucking of mineralized material;
- Misrouting and dumping of waste material on the plant-feed stockpile; and
- Misrouting and dumping of waste in mineralized material locations (stockpiles, mineralized material passes) leading to a mixing of mineralized material and waste rock.

Mining loss has a significant impact on the mining business, with a reduction of revenue through the loss of mineralized material. Mining loss can occur in a variety of different ways such as poor blasting, poor recovery of blasted muck, and weak ground conditions impacting on the access to the mineralized material, among others. Mining loss was considered as an allowance for a reduction in production and revenue.

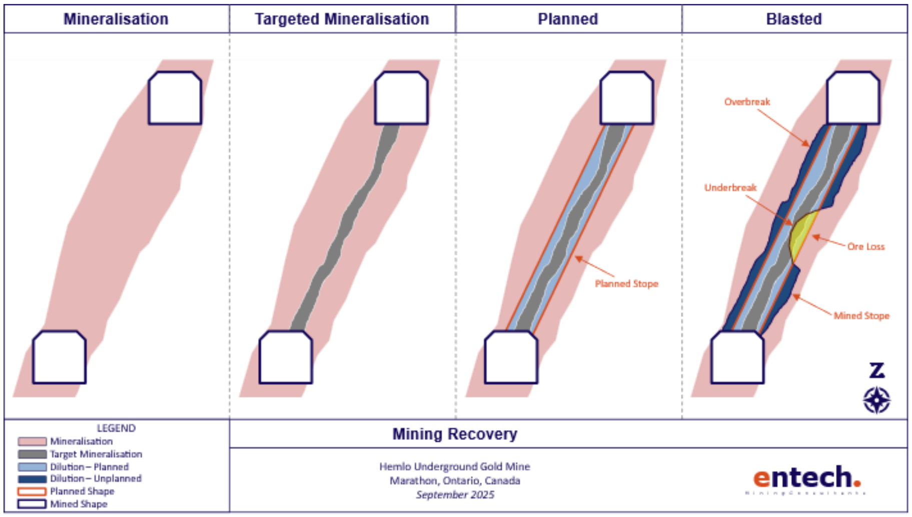
An example of dilution and underbreak due to blasting performance is illustrated in Figure 16-11 and Figure 16-12. Underbreak in waste is an economic benefit; however, it also reflects that the operation is not achieving the targeted mining shape.

Figure 16-11: Mining Dilution Schematic



Source: Entech 2025.

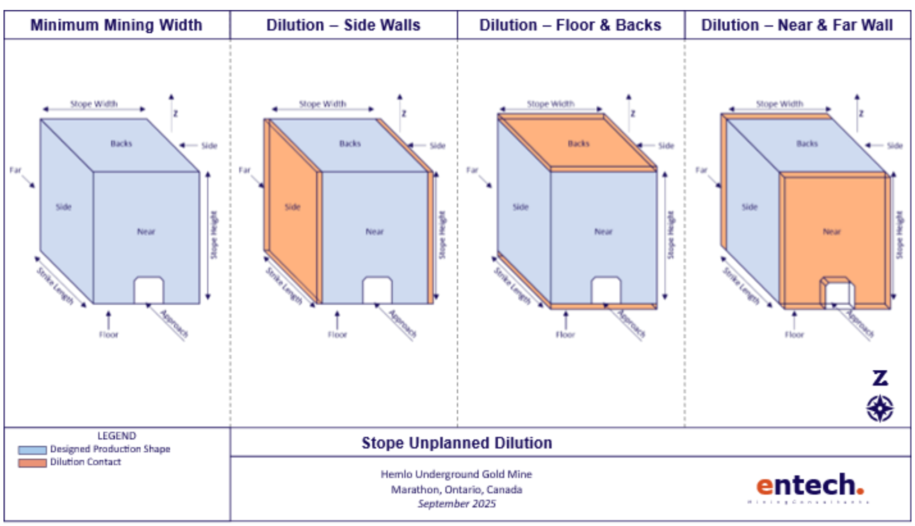
Figure 16-12: Mining Recovery and Ore Loss Schematic



Source: Entech 2025.

For preliminary design at Hemlo Underground, planned dilution and unplanned rock dilution was accounted for using the Datamine MSO. Unplanned fill dilution and mining loss was applied as a factor to the shapes created by MSO within the schedule. A diagram of the mining shapes and the contact surfaces to which the fill dilution was applied is illustrated in Figure 16-13.

Figure 16-13: Stope Shapes and their Dilution Contacts Schematic



Source: Entech 2025.

While mineralization and waste are included in the final mining shape created by MSO, fill is added as a factor during post-processing and based on the dimensions of the created shape. Ore contacts are not factored as dilution as these contacts would otherwise be mined by other adjacent mining shapes, leaving no net change to the mine plan. A summary of the estimated ELOS by contact type is provided in Table 16-13.

Table 16-13: Surface Contacts and Depth of Failure for Each Mining Method

Method		Side	Side	Near	Far	Backs	Floor
Longhole Stoping	Contact	W	W		F	F	O
	ELOS	1.00 m	0.50 m	-	1.00 m	1.00 m	-
Alimak Stoping	Contact	F	O	W	W	O	O
	ELOS	1.00 m	-	1.00 m	0.50 m	-	-

Notes:
O = Ore – Mined from adjacent shapes
W = Waste – Included in MSO
F = Fill – Applied as Factor

A prudent mining recovery was assumed for development at 95%, due to the resolution of geological data during its excavation. Mining recovery for LHS and Alimak were assumed to be 92%. Development unplanned dilution was 25% and based on data provided by the Hemlo.

Table 16-14 summarizes the dilution and mining recovery assumptions. Unless dilution was interrogated during the MSO process supported by the values in the block model, dilution was assigned zero grade.

Table 16-14: Dilution and Recovery Summary for Hemlo Underground Mine

Description	Units	Longhole Stoping	Alimak Stoping	Development
Total Planned Dilution[1]	**%**	**40**	**40**	**-**
Total Unplanned Dilution	%	29.67	26	25
Unplanned Fill Dilution[2]	%	8.67	5	25
Unplanned Rock Dilution[3]	%	21	21	-
Minimum Target Mining Width	m	3.00	3.00	-
ELOS – HW	*m*	*1.00*	*1.00*	-
ELOS – FW	*m*	*0.50*	*0.50*	-
Minimum Total Mining Width	m	4.50	4.50	-
Mining Recovery[45]	**%**	**92**	**92**	**95**

Notes:
1. Included in MSO shape. Recovered Diluted Tonnes (RDT) is the fully diluted ore inclusive of mining recovery.
   RDT = Targeted mineralization x (1 + Planned dilution) x (1 + unplanned dilution) x Mining Recovery
   Planned Dilution = (RDT – Targeted Mineralization) / [(1 + unplanned dilution) x Mining Recovery] - 1
   Planned Dilution is expressed as total planned material below cut-off divided by target mineralisation above cut-off within the MSO Shapes.
2. Applied as factor to volume of the shape (assumed density of backfill = 2.00 t/m^3)
3. Included in MSO shape.
   Weighted Average by total tonnes within mining shape
   Included in MSO shape as interrogated dilution
   Expressed as total unplanned material tonnes divided by target shape tonnes
   Unplanned Dilution estimated by ELOS in Rock (1.5 m) divided by total Average MSO Width Minus ELOS (7.2 m)
4. Applied as a factor to the final shape tonnes as a reduction in planned and unplanned material
5. 61% recovery in longhole stopes where there is no fill placed to simulate a 33% pillar factor

16.1.2.6 Historical Performance

Proposed stope recoveries are higher than current mine recoveries employed by Hemlo operations for LOM planning. Operations use 86% stope recovery and 100% for development recovery. The basis for the increase in mine recovery is as follows:

- When comparing the grade control (M2) to declared ore mined (DOM) for 2024 and 2025, DOM is reported to be 107% for tonnes and 102% for ounces mined;
- Development is estimated to be approximately 13.3% of total material mined implying that for every 100 oz mined, the current LOM should recover approximately 89.6 oz (considering 2% uplift from the grade control to DOM);
- Additional site support by subject matter experts (SMEs) is recommended to improve current drill and blast design performance and mine planning execution. For example, by employing slot drifts to reduce complicated blasting (which currently replaces slot drifts) and adjusting stope shapes to reduce acute angles that are difficult to mine should improve stope recovery performance;
- Increase the use of the large diameter reamer (~760 mm) to reduce conventional longhole raises; and
- Complete thorough stope close-out reviews where senior technical personnel observe the stopes and review final surveys prior to commencing backfill in typical operating conditions.

By employing the aforementioned techniques and improving site support, the additional 2.8% recovery should be achieved (LOM overall mine recovery of 89.6% to the proposed recovery of 92.4%).

16.1.2.7 Mine Design Considerations

Backfill

Cemented paste fill is currently used at Hemlo and it is proposed that this backfill method continues. The average binder content used for cost estimation was 3.5% with a binder cost of C$291/t. Backfill infrastructure was continued to the lower extraction zones with areas potentially outside of the reach for paste backfill (mainly the Golden Giant Zone) left unfilled with pillars for local support.

Stand-off and Pillar Sizes

Development was positioned to allow for a minimum 2:1 pillar size (minimum lateral offset is 2 x height of opening) where the pillar width was typically a minimum of 10 m. For positioning ramp infrastructure, a minimum offset of 50 m was considered.

Stope Design Parameters

Stope design parameters were based on values already being employed on site. The parameters for stope generation using Datamine MSO are summarized in Table 16-15.

Table 16-15: Preliminary MSO Parameters

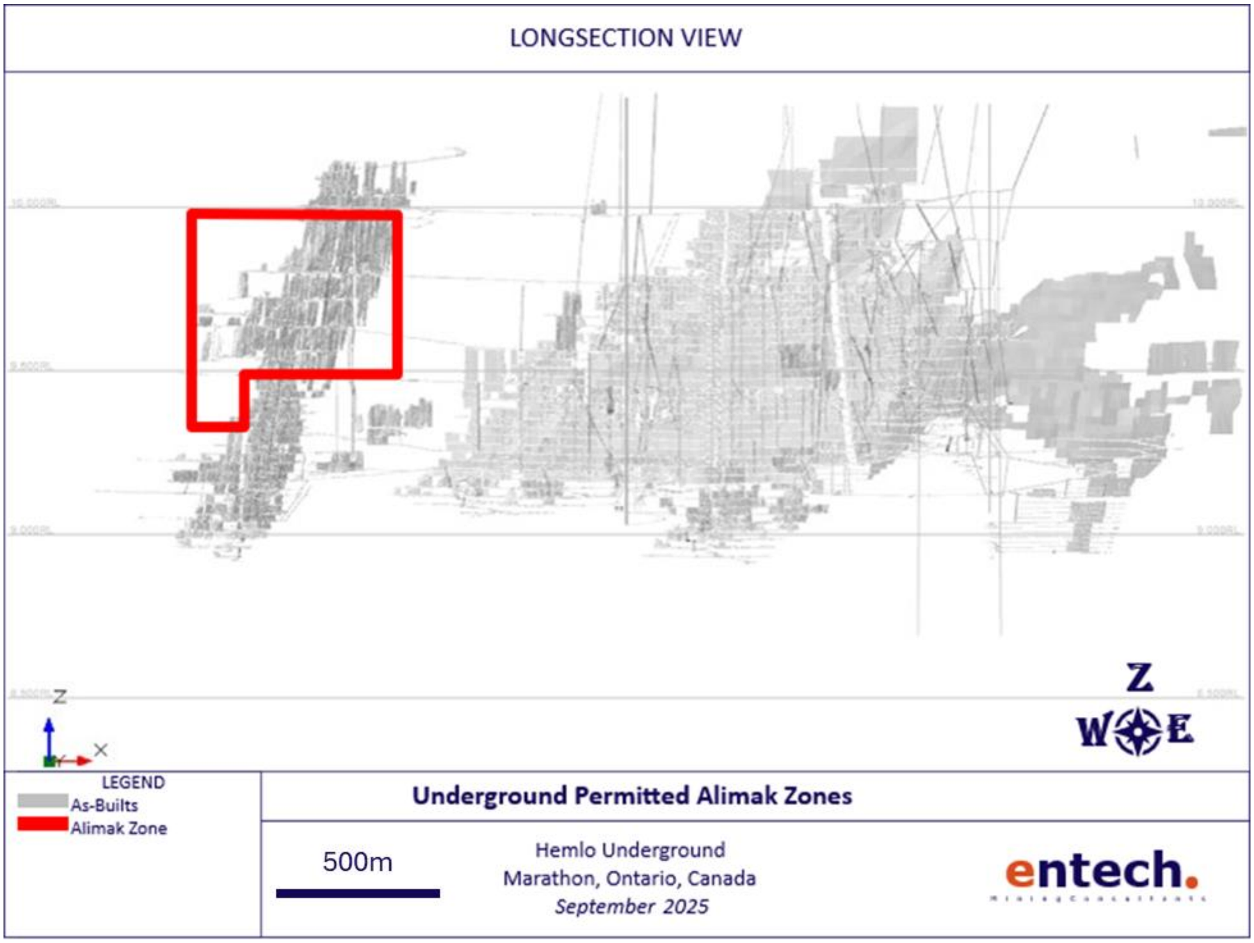
Parameter	Unit	Longhole	Alimak
ICOV	US$/t NSR	111	123
Fill Dilution Estimate	%	8.1	5.00
MSO Cut-Off Value[1]	US$/t NSR	120	131
Minimum Mining Width	m	3.0	3.0
ELOS – FW	m	1.0	1.0
ELOS – HW	m	0.5	0.5
Final Minimum Mining Width	m	4.5	4.5
Stope Assessment Length	m	5	20
Target Final Stope Length	m	20	20
Stope Height	m	30[2]	45 – 150

Notes:

1. Rounded to nearest whole digit
2. Variable height between existing development as-builts

Figure 16-14 illustrates the location where Alimak shape creation was restricted to either the existing Alimak areas or the upper C-Zone where mineralization suits its implementation. Longhole was allowed to be employed throughout the mine in any areas not designated for Alimak stoping.

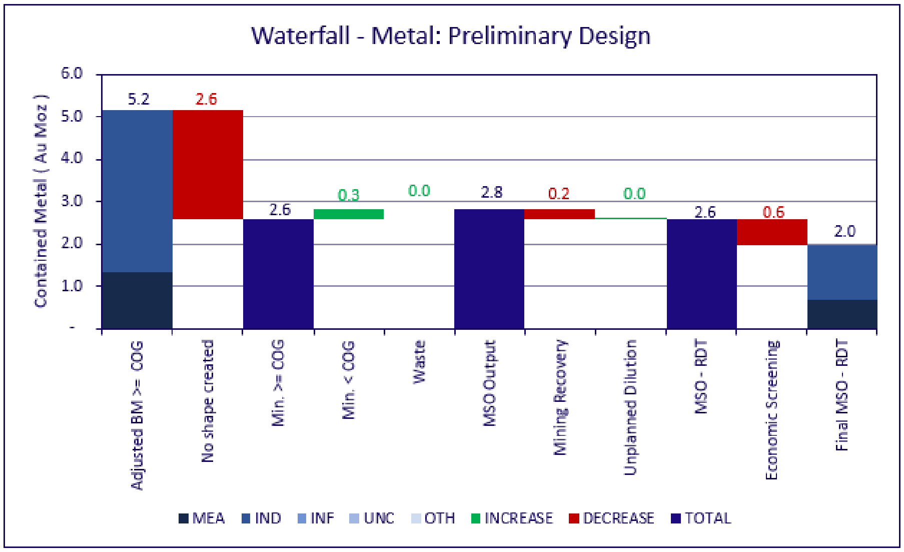
Figure 16-14: Mine by Primary Mining Method



Source: Entech 2025.

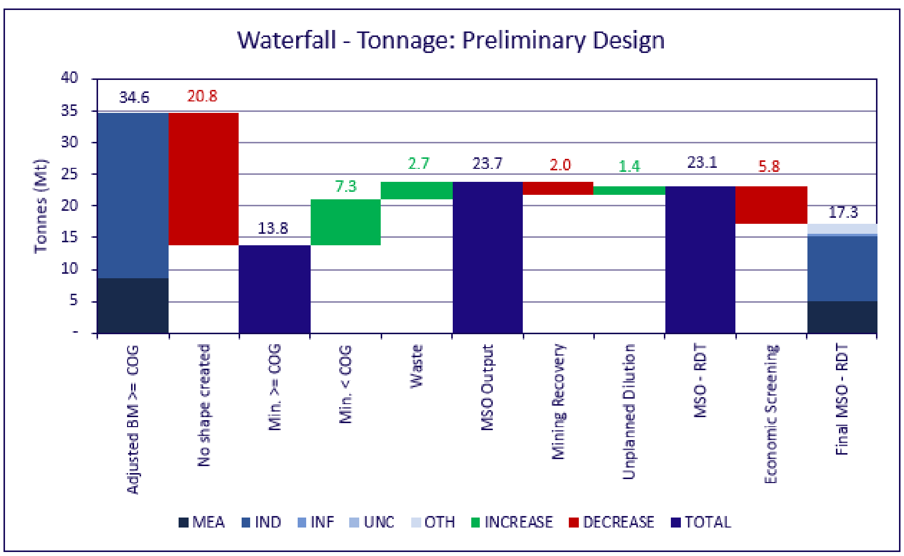
Preliminary results indicate that of the 5.2 Moz targeted by MSO, 2.0 Moz are captured by the stope optimization process which could be potentially mined for a profit when considering an estimate for development to the shape. Figure 16-15 illustrates the metal flow and Figure 16-16, the mineralization flow from the provided block models to the preliminary MSO output.

Figure 16-15: Waterfall of Contained Metal from Standardized Block Model to MSO Shapes



Source: Entech 2025.

Figure 16-16: Waterfall of Tonnes from Standardized Block Model to MSO Shapes

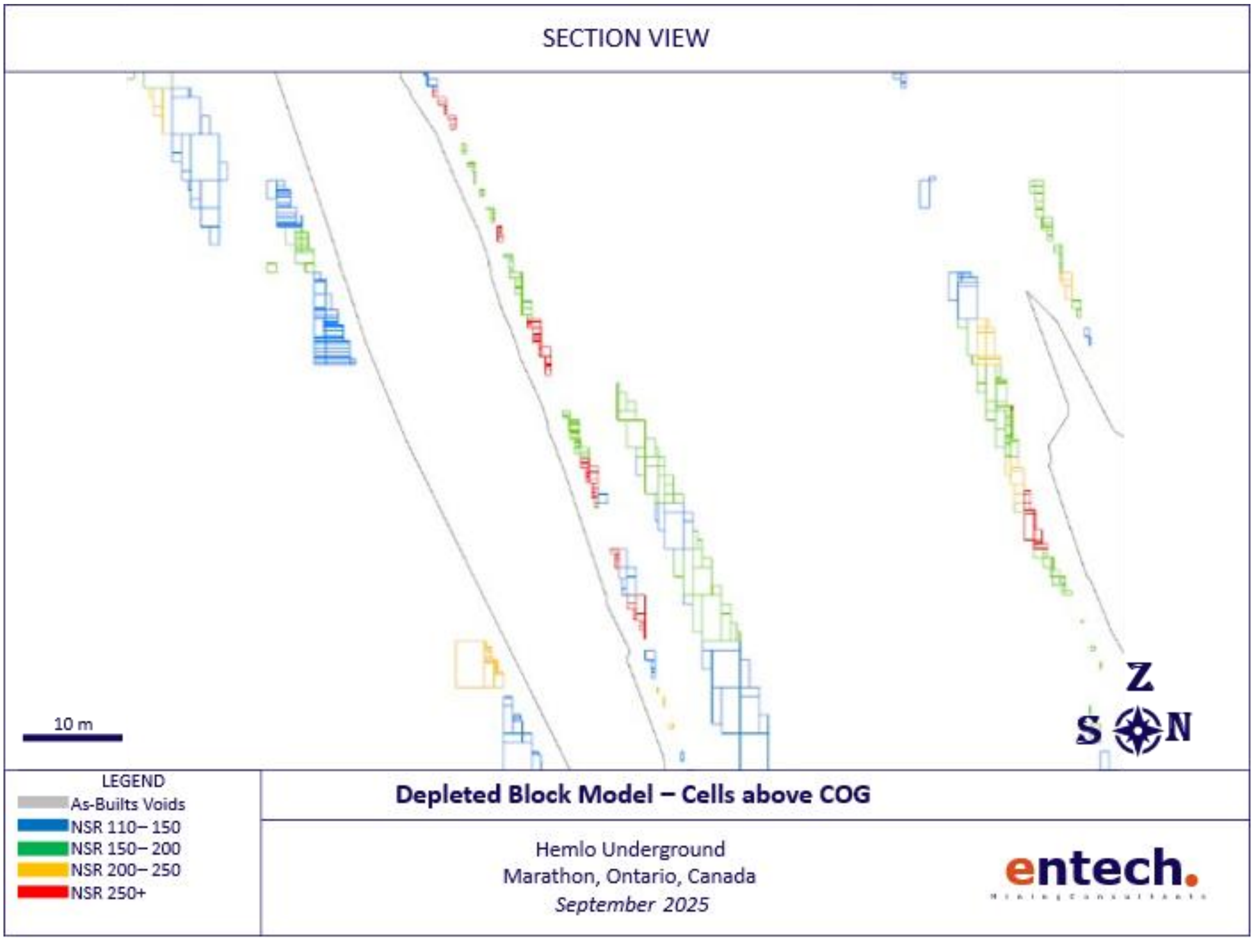


Source: Entech 2025.

Metal identified within the MSO process indicates a conversion of approximately 50% prior to applying stope recovery and completing an orphan assessment. Further investigation by Entech into the lower conversion identified thin mineralization close to existing voids or mineralization requiring additional development that renders the mineralization uneconomic.

Figure 16-17 illustrates an example within the C-Zone where areas of mineralized material with grades above the economic cut-off grade were excluded by MSO.

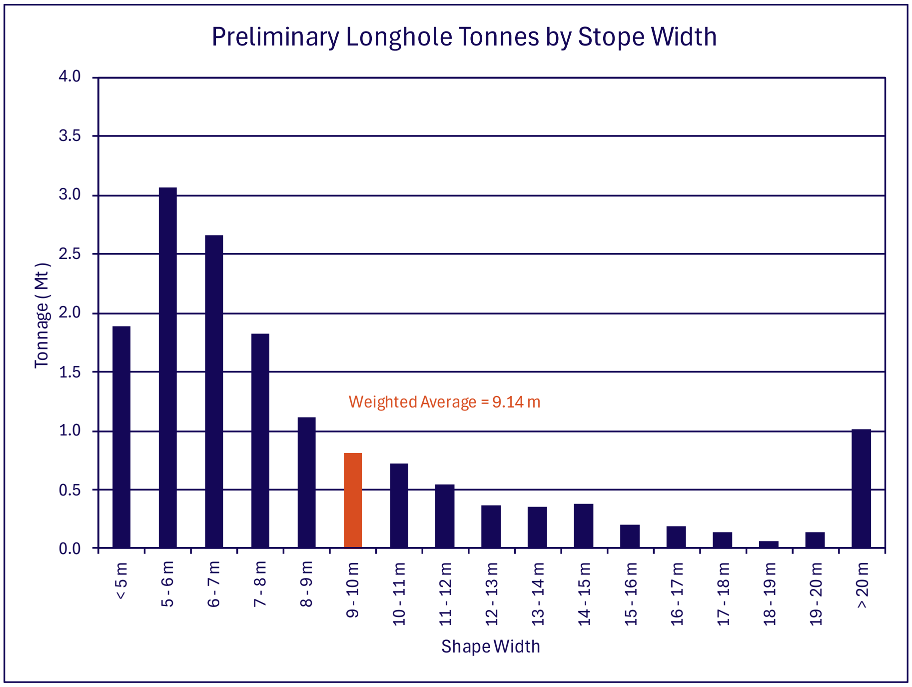
Figure 16-17: Sample Section (C-Zone) Illustrating Economic Material Not Converted



Source: Entech 2025.

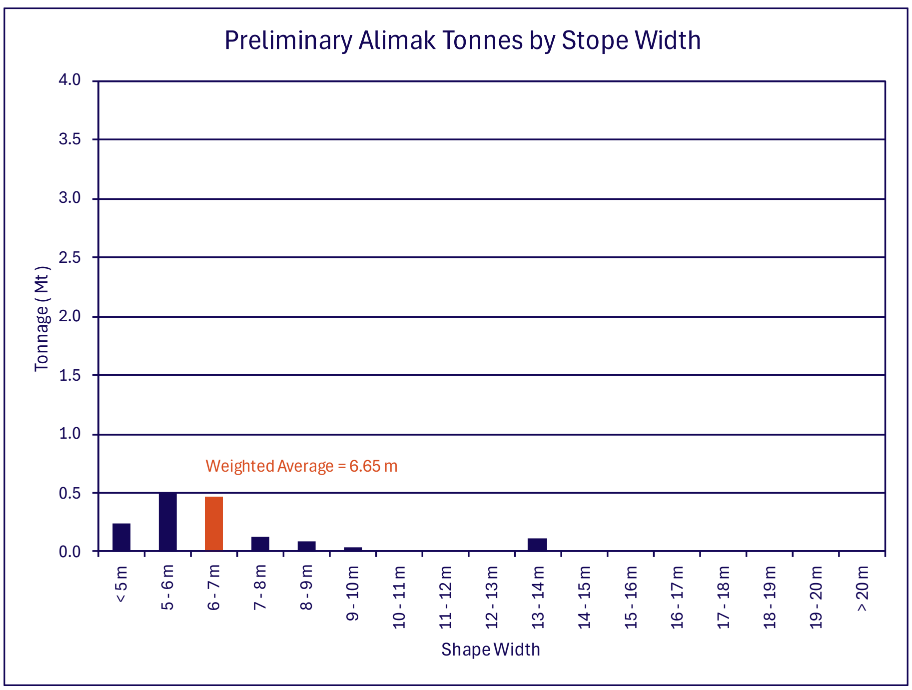
An estimate of stope width was completed on the MSO outputs. Figure 16-18 and Figure 16-19 illustrates shape tonnes by estimated width for longhole and Alimak stoping, respectively. The mass weighted average is approximately 9 m for longhole stopes and 7 m for Alimak stopes.

Figure 16-18: Screened Longhole MSO Shape Tonnes by Width



Source: Entech 2025.

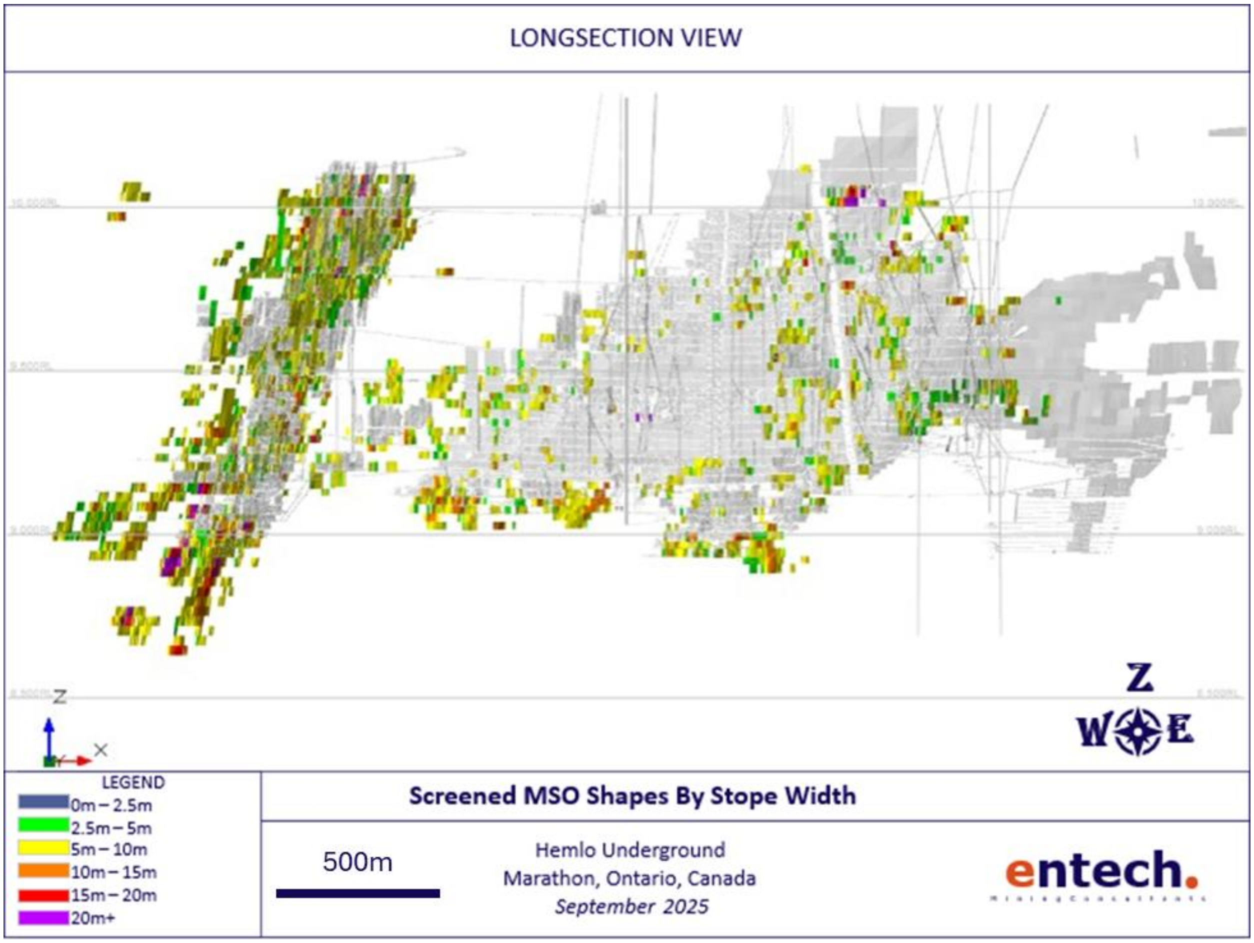
Figure 16-19: Screened Alimak MSO Shape Tonnes by Width



Source: Entech 2025.

Figure 16-20 illustrates the screened MSO shapes by average shape width with the bulk of the wider stopes concentrated in the Interlake and Lower C zones.

Figure 16-20: Preliminary Stope Shapes by Average Width



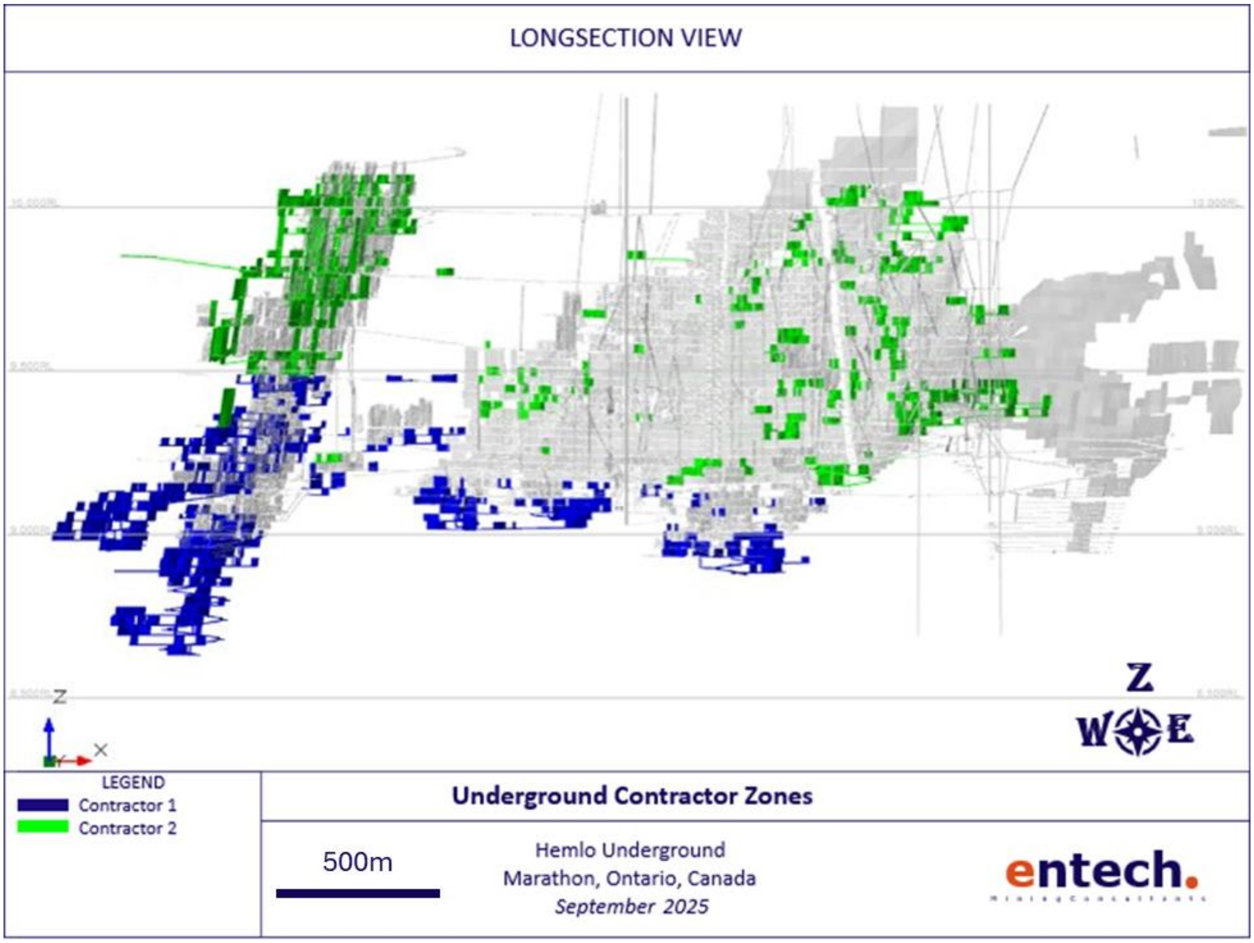
Source: Entech 2025.

16.1.3 Underground Mine Design

Mine Operations

The mine employs mining contractors to carry out the general mining activities with the site providing operational guidance. In general, one contractor completes Alimak and remnant stoping with the other focussed on longhole stoping deeper in the mine. Figure 16-21 illustrates the general location by each major contractor on site with the tonnes split approximately 60-40 favouring Contractor 1.

Figure 16-21: Mine Plan by Mining Contractor Zone



Source: Entech 2025.

16.1.3.1 Development

Where possible, the development design incorporates a minimum stand-off distance of 50 m to position the ramp away from mineralization. This distance is assumed to avoid damage to the ramp due to ground stress changes and blasting from stope extraction. This stand-off distance also allows sufficient space between the ramp and the mineralized body for the excavation of the level accesses, stockpiles, and sumps.

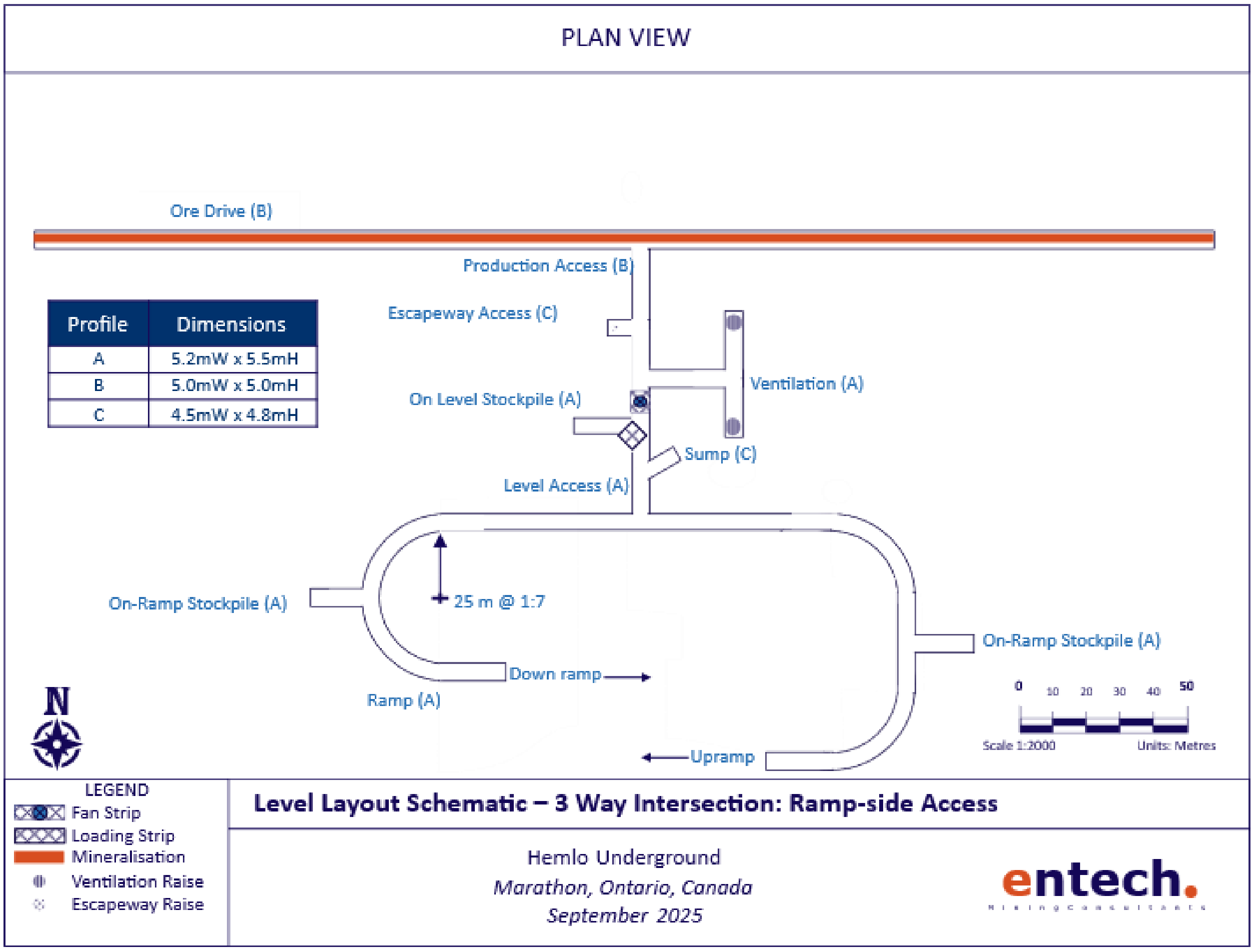
A ramp mined is proposed to be excavated to a width of 5.2 m and a height of 5.5 m with an arched profile. This profile allows sufficient room to accommodate a trucking fleet of 45 t underground trucks, as well as secondary ventilation ducting and service piping required for advancing development and maintaining production. Other planned development includes the following:

- Access drifts;
- Sills (development on mineralization);
- Operating waste development (sills mining material below cut-off);
- Sumps, escapeways, and accesses to the escapeways;

- Return airways and accesses to the return airways;
- Stockpiles; and
- Footwall drives, as required.

A typical level layout for the mine is provided in Figure 16-22.

Figure 16-22: Hemlo Underground Mine Typical Development Level Layout Schematic



Source: Entech 2025.

As Hemlo is an operating mine, development profiles employed in the mine plan are based on existing design and planning standards at site and are summarized in Table 16-16.

Table 16-16: Development Profiles for the Hemlo Underground Mine

Development Type	Profile Shape	Width (m)	Height (m)
Ramp	Arch	5.2	5.5
Level Access	Arch	5.2	5.5
Stockpile	Arch	5.2	5.5
Sump	Arch	4.5	4.8
Ventilation Accesses	Arch	5.2	5.5
Escapeway Access	Arch	4.5	4.8
Production Access	Arch	5.0	5.0
Pastefill Infrastructure Drive	Arch	5.0	5.0
Exploration Drive	Arch	5.2	5.5
Footwall Drive	Arch	5.2	5.5
Production Drift	Arch	5.0	5.0
Ventilation Raise < 30 m	Rectangular	4.0	6.0
Ventilation Raise ≥ 30 m	Circular[1]	5.0	
Escapeway Raise	Circular[1]	1.5	

Notes:
1. Internal excavation diameter

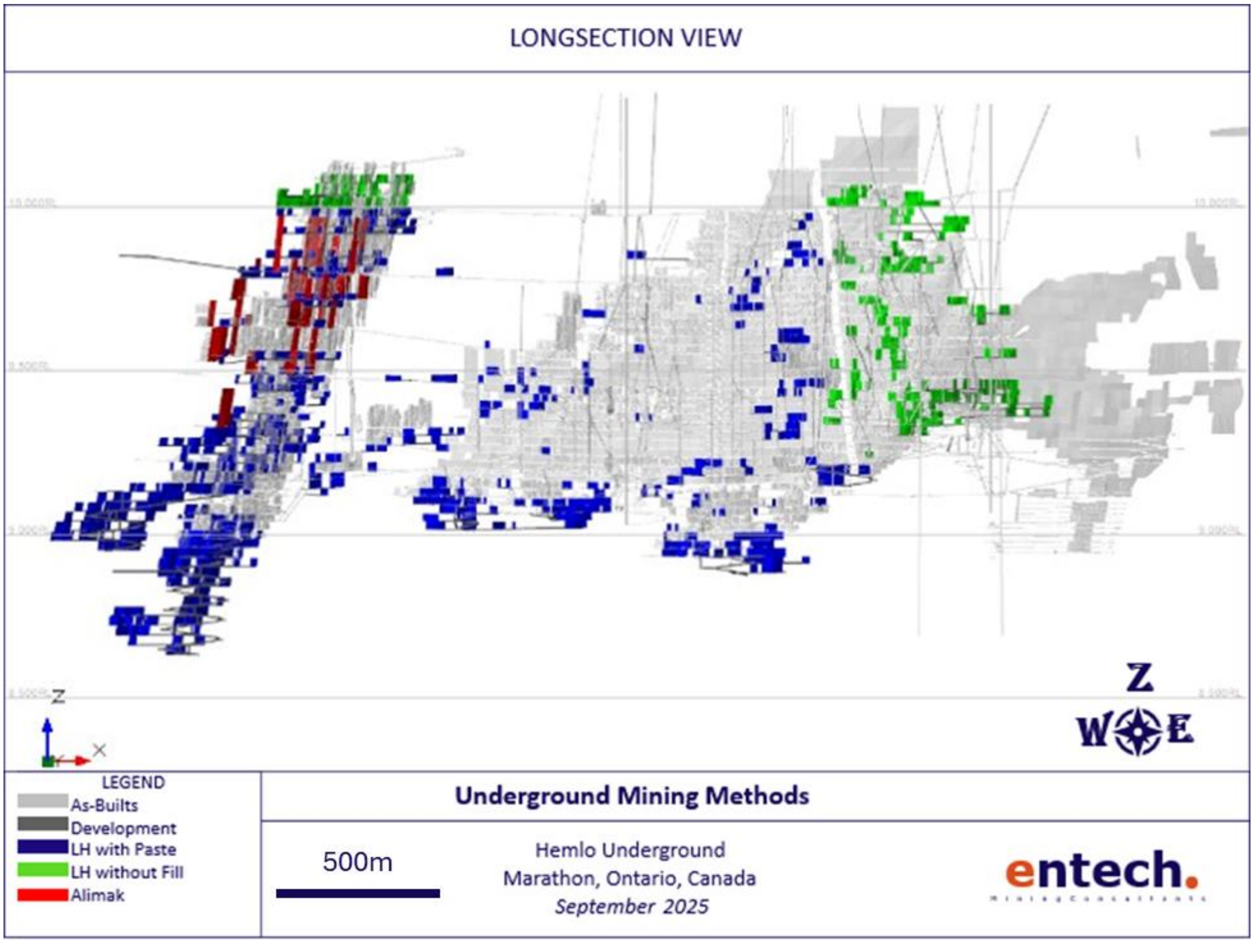
16.1.3.2 Production

The conversion of preliminary to final long-term planning shapes was accomplished by combining MSO shapes into a singular shape, which represents the final desired mining package for a stope. These shapes were then sequenced based on one of the following mining methods:

- Top-down longitudinal longhole stoping with paste backfill;
- Top-down longitudinal longhole stoping with pillars;
- Bottom-up longitudinal longhole stoping with paste backfill; and
- Bottom-up Alimak stoping with paste backfill.

Figure 16-23 illustrates the selected mineralization by mining method, with the dominant mining method being top-down with paste backfill.

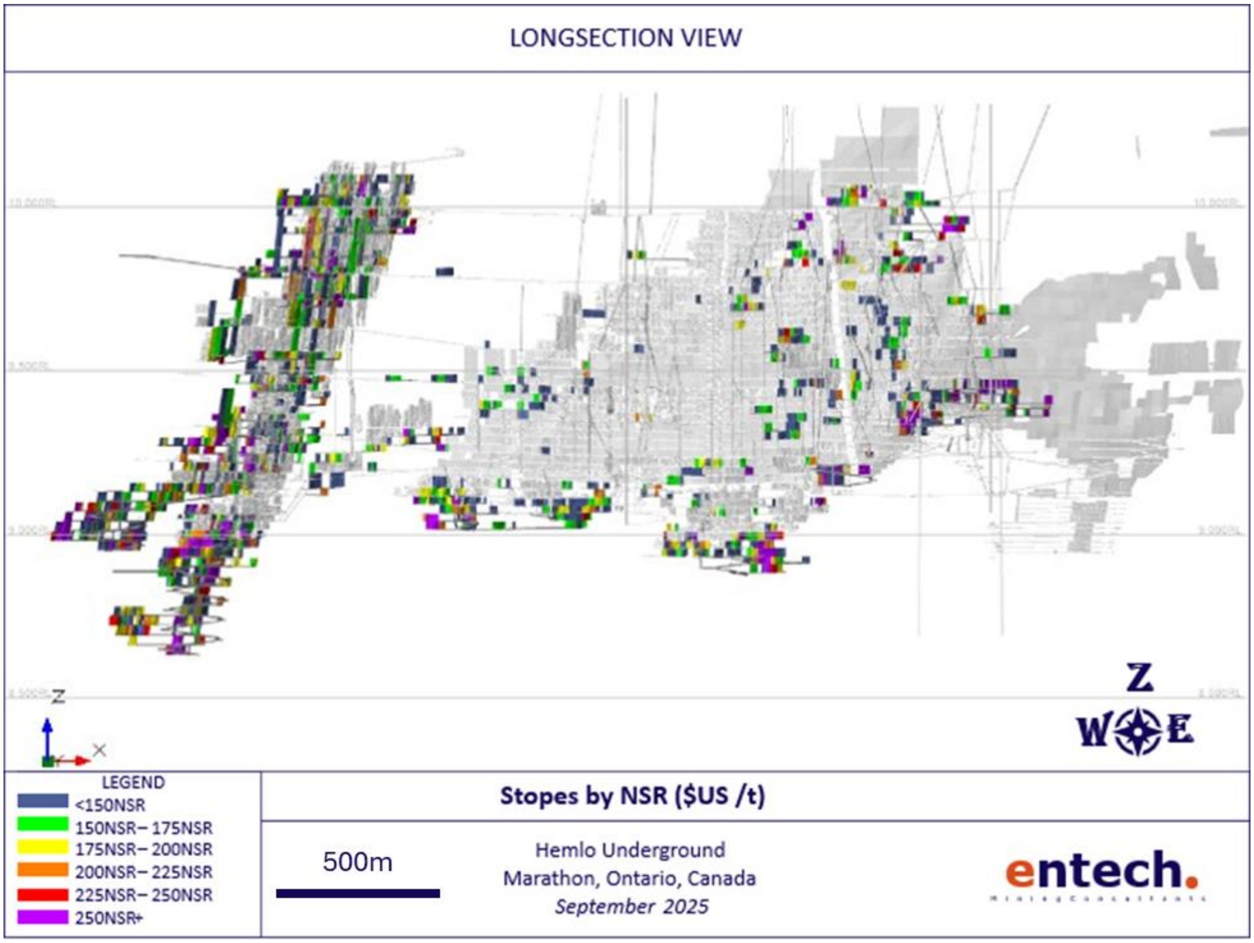
Figure 16-23: Proposed Mining Methods for Hemlo Underground Mine



Source: Entech 2025.

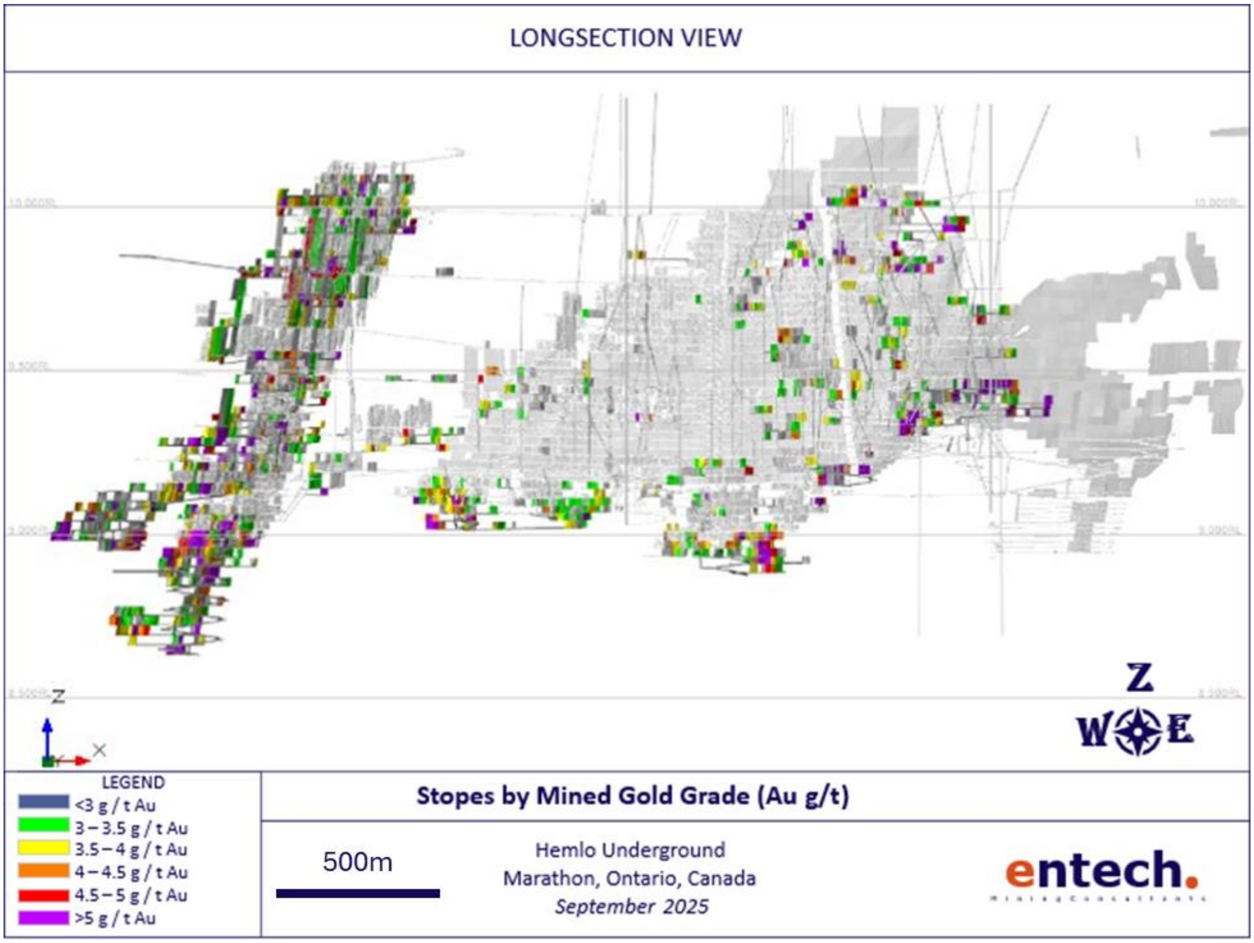
Additionally, the production shapes by NSR and mined grade are illustrated in Figure 16-24 and Figure 16-25, respectively.

Figure 16-24: Production Shapes by NSR for Hemlo Underground Mine



Source: Entech 2025.

Figure 16-25: Production Shapes by Mined Grade for Hemlo Underground Mine



Source: Entech 2025.

16.1.3.3 Orphan Analysis

An orphan analysis is an economic assessment of the designed mine plan to estimate the economic extents to be included in the schedule. The orphan analysis was completed using Deswik's Pseudoflow Tool. Pseudoflow uses the Lerchs-Grossmann optimization algorithm to identify the required revenue factor of an activity (or set of activities) to be included in the plan. Areas with a revenue factor greater than 1 indicate that they require more revenue than is contained and should be excluded from the mine plan. Table 16-17 summarizes the key parameters used in the orphan analysis, while Figure 16-26 illustrates the resulting economic mine plan by the revenue factor required to pay for the activity.

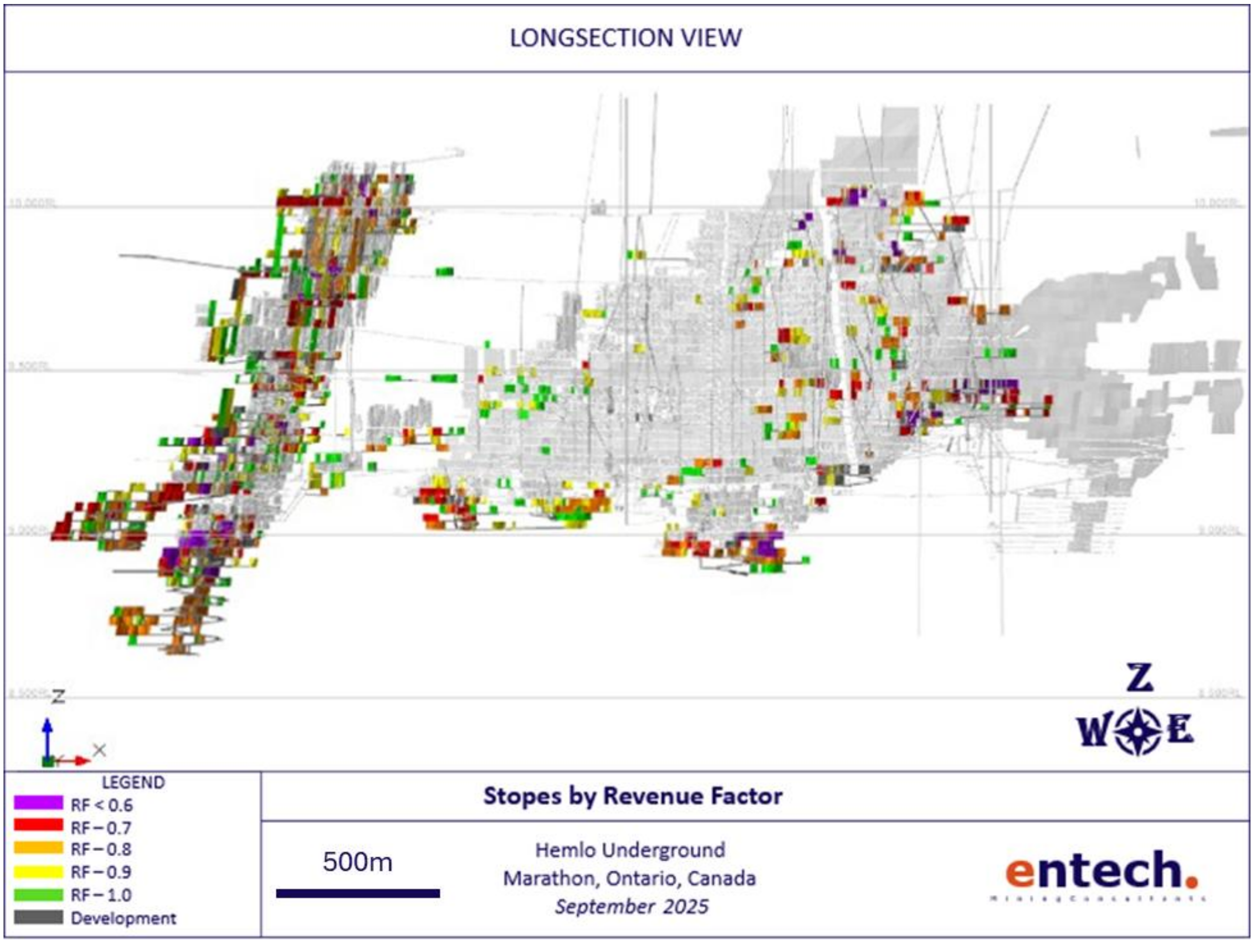
Table 16-17: Key Orphan Analysis Parameters

Parameter	Unit	Value
Development – Capital – Lateral	US$/m	8,858
Development – Operating – Lateral	US$/m	6,181
Development – Capital – Vertical	US$/m	5,619
Rehabilitation – Capital – Lateral	US$/m	2,214
Rehabilitation – Operating - Lateral	US$/m	1,545
Mining Costs - Longhole	US$/t mined	69.4
Mining Costs - Alimak	US$/t mined	81.6
Backfill Costs	US$/t mined	7.3
Allocated Milling, G&A Costs	US$/t mined	34.1
Revenue Factor		1.00
Profit Tolerance[1]	%	0

Notes:

1. Mine planning considers US$1,700/oz Au and excludes impact from potential metal streams
2. Activity profitability must be positive to remain in schedule

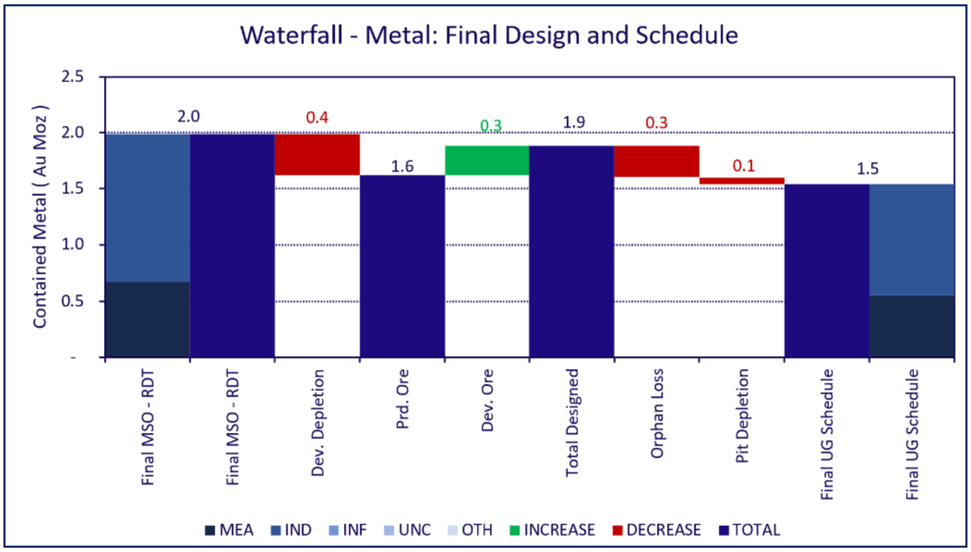
Figure 16-26: Hemlo Underground Mine Plan by Pseudoflow Revenue Factor



Source: Entech 2025.

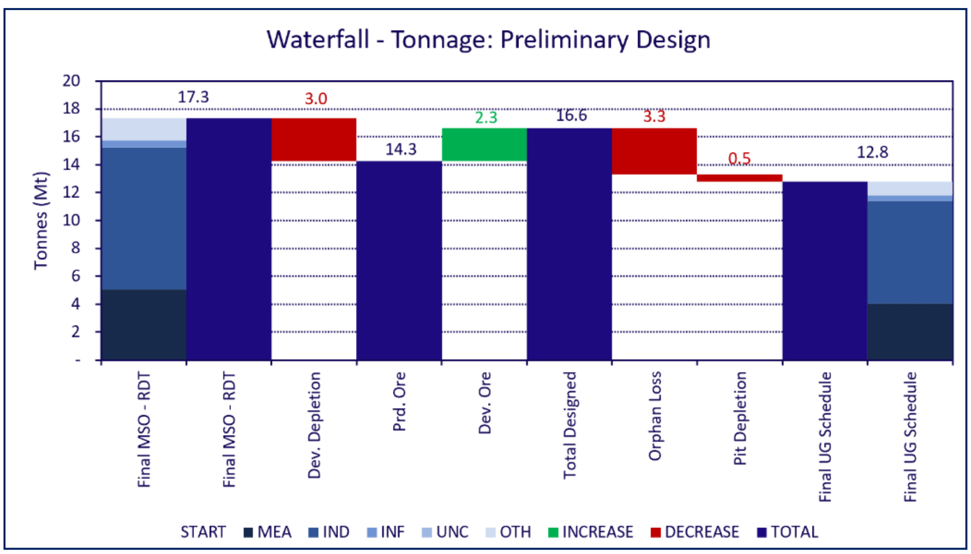
Following from the detailed orphan analysis, additional material was removed from the mine plan. Figure 16-27 illustrates the metal flow and Figure 16-28 the mineralization flow from the initial MSO shapes to the final schedule for economic assessment and reserve declaration.

Figure 16-27: Waterfall of Metal Contained in MSO Shapes to UG Schedule



Source: Entech 2025.

Figure 16-28: Waterfall of Mineralization Contained in MSO Shapes to UG Schedule



Source: Entech 2025.

16.1.4 Mine Schedule

16.1.4.1 Activity and Equipment Rates

Contractor mining is currently employed at Hemlo, with Contractor 2 operating Alimak stopes and their surrounding areas, while Contractor 1 operates the remainder of the mine. As the mine is currently in operation, scheduled rates are based on existing long-term performance data on site.

The development rates used are inclusive of the time taken to drill, blast, ventilate, muck, and install ground support. Contractor 1 uses a bolt-boring jumbo development configuration, while Contractor 2 employs a separate bolter to install ground support while the jumbo only bores.

Ventilation raises are typically excavated employing drill and blast methods (with a longhole drill rig), while escapeway raises are excavated by raisebore.

Scheduled lateral and vertical development advance rates are summarized in Table 16-18.

Table 16-18: Development Activity and Equipment Rates for Hemlo Underground Mine

Activity	Units	Contractor 1	Contractor 2
Lateral Development			
Single Heading[12]	m / day	2.00	1.80
Equipment Capacity[1]	m / day	6.00	3.60
Development Rehabilitation			
Single Heading	m / day	10.00	5.00
Equipment Capacity	m / day	10.00	5.00
Fill Development			
Single Heading	m / day	2.00	1.80
Equipment Capacity	m / day	6.00	3.60
Vertical Development – Raisebore			
Single Heading	m / day	1.80	1.80
Equipment Capacity	m / day	1.80	1.80
Vertical Development – Longhole[3]			
Single Heading	m / day	4.00	4.00
Equipment Capacity	m / day	4.00	4.00

Notes:
1. 25% rate penalty for slot drives
2. Currently site assigns all headings the same priority
3. Excavation rate, drill rate is 100 m / day (25 m + reaming)

Production tasks are broken into specific activities, due to the different task rates, equipment required and longer durations, and for each task. Some tasks, such as drilling, can fully use equipment capacity until it is completed, while other tasks, such as stope excavation, occupy only a portion of the daily uptime of equipment to complete the task. For each production task, rates and the sequence of tasks may vary depending on whether the task is completed as an Alimak or longhole stope, as well as whether it is completed by Contractor 1 or Contractor 2. Some tasks are also given fixed duration allowances instead of being tied to a production metric, as their duration is irrespective of the size of the production task.

Task rates and fixed activity durations for Alimak mining and longhole mining are summarized in Table 16-19 and Table 16-20, respectively.

Table 16-19: Alimak Production Tasks Rates and Durations for Hemlo Underground Mine

Activity	Units	Activity Rate	Duration
Nest Setup	d	-	8
Raise[1]	mV/d	2.4	-
Screen[1]	mV/d	8	-
Cablebolting[2]	cbm/d	100	-
Production Drilling[3]	drm/d	180	-
Undercut Slash	d	-	2
Load and Blast[4]	chm/d	700	-
Seismic Delay	d	-	1
Stope Excavation[5]	tpd	800	-
Backfill Preparation	d	-	10
Paste and Breather Hole Drilling[6]	m/d	100	-
Backfill[7]	m^3/d	1,957	-
Backfill Cure	d	-	21

Notes:
1. mV = Stope Height
2. cbm = Cablebolt Metres = 8 x 6m cablebolts at the brow + 8 x 6m cablebolts every 2 vertical metres
3. drm = Drill Metres = 1 drill metre per 7.3 t of the stope
4. chm = Charge Metres = 75% of Drill Metres
5. Total Loader Productivity = 800 tonnes per day
6. Drill metres = 2 x 25m reamer holes
7. Fill volume = diluted mined volume + 100 m^3 brow offset allowance

Table 16-20: Longhole Production Task Rates and Durations for Hemlo Underground Mine

Activity	Units	Activity Rate	Duration
Site Preparation	d	-	2
Cablebolting[1]	cbm/d	100	-
Slot Raise[2]	mV/d	5	-
Drilling[3]	drm/d	180	-
Load and Blast[4]	chm/d	700	-
Seismic Delay	d	-	1
Stope Excavation[56]	tpd	800	-
Backfill Preparation	d	-	10
Backfill[7]	m^3/d	1,957	-
Backfill Cure	d	-	21

Notes:

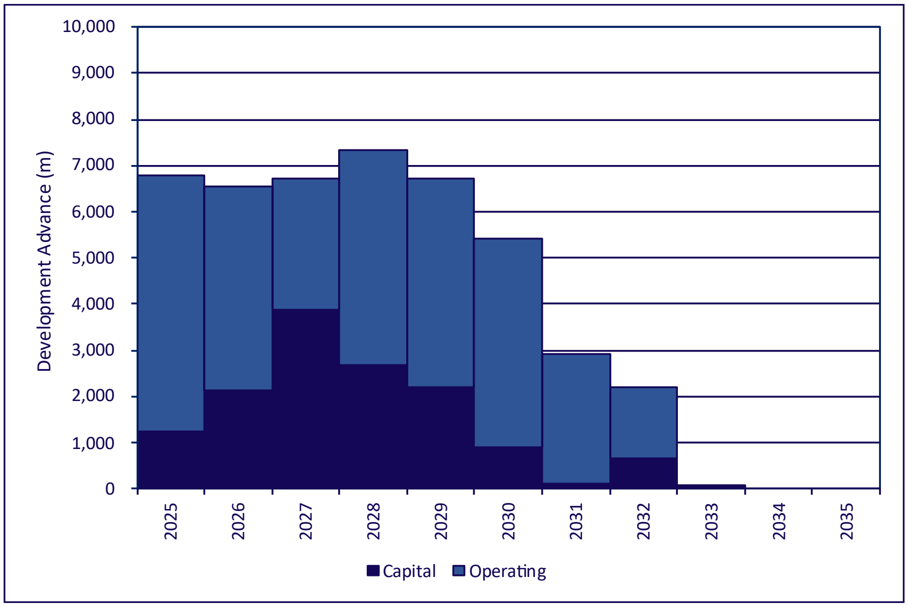
1. cbm = Cablebolt Metres = 8 x 6m cablebolts at the brow + 8 x 6m cablebolts in the hanging wall
2. mV = Vertical Development Metres = Stope Height – 5.0 m
3. drm = Drill Metres = 1 drill metre per 6.9 t of the stope
4. chm = Charge Metres = 75% of Drill Metres
5. Total Loader Productivity = 800 tonnes per day
6. 50% rate penalty in Golden Giant, B-Zone Upper and Main Areas, due to complexities accessing older workings
7. Fill volume = diluted mined volume + 100 m^3 brow offset allowance

16.1.4.2 Lateral Development

There are up to four jumbos proposed for mine for development, split across the two contractor fleets, which is considered sufficient to meet the estimated annual lateral development requirements. While the Contractor 1 jumbo fleet will be configured for bolt-boring, an additional bolter is used by Contractor 2 for ground support installation.

The annual lateral development schedule is illustrated in Figure 16-29, while the total and annual development schedule is summarized in Table 16-21.

Figure 16-29: Annual Lateral Development for Hemlo Underground Mine



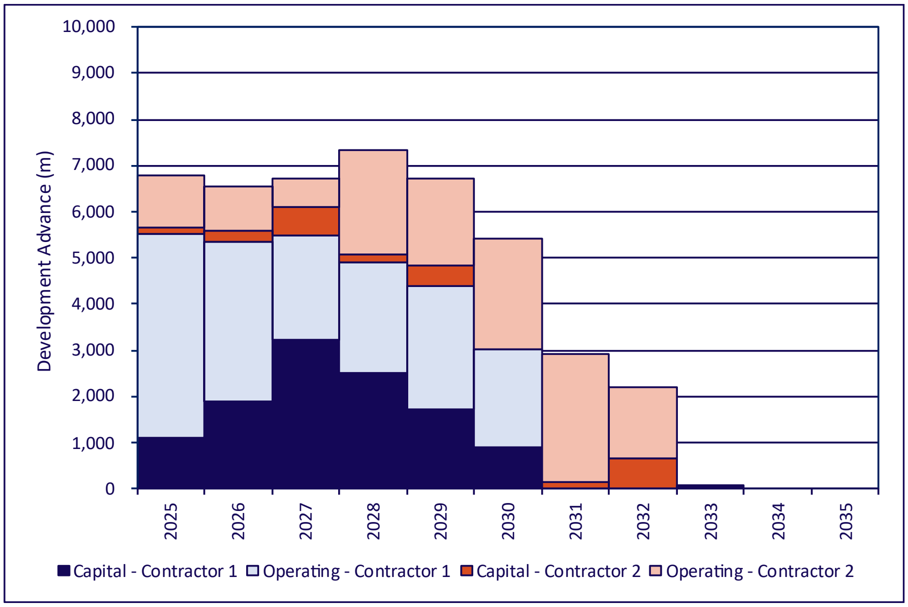
Source: Entech 2025.

Table 16-21: Total and Annual Lateral Development Schedule for Hemlo Underground Mine

Period	Capital (km)	Ramp (km)	Other (km)	Operating (km)	Sills (km)	Other (km)	Total (km)
TOTAL	**13.9**	**5.2**	**8.7**	**30.8**	**30.2**	**0.6**	**44.7**
2025	**1.3**	0.4	0.9	**5.5**	5.3	0.2	**6.8**
2026	**2.1**	0.7	1.4	**4.4**	4.2	0.2	**6.5**
2027	**3.9**	1.7	2.2	**2.8**	2.8	0.0	**6.7**
2028	**2.7**	1.0	1.7	**4.6**	4.6	0.0	**7.3**
2029	**2.2**	0.7	1.5	**4.5**	4.4	0.1	**6.7**
2030	**0.9**	0.2	0.7	**4.5**	4.5	0.0	**5.4**
2031	**0.1**	0.1	0.0	**2.8**	2.8	0.0	**2.9**
2032	**0.7**	0.4	0.3	**1.5**	1.5	0.0	**2.2**
2033	**0.0**	0.0	0.0	**0.0**	0.0	0.0	**0.1**

Development and by equipment and mining contractor is summarized in Figure 16-30.

Figure 16-30: Lateral Development by Contractor at Hemlo Underground Mine



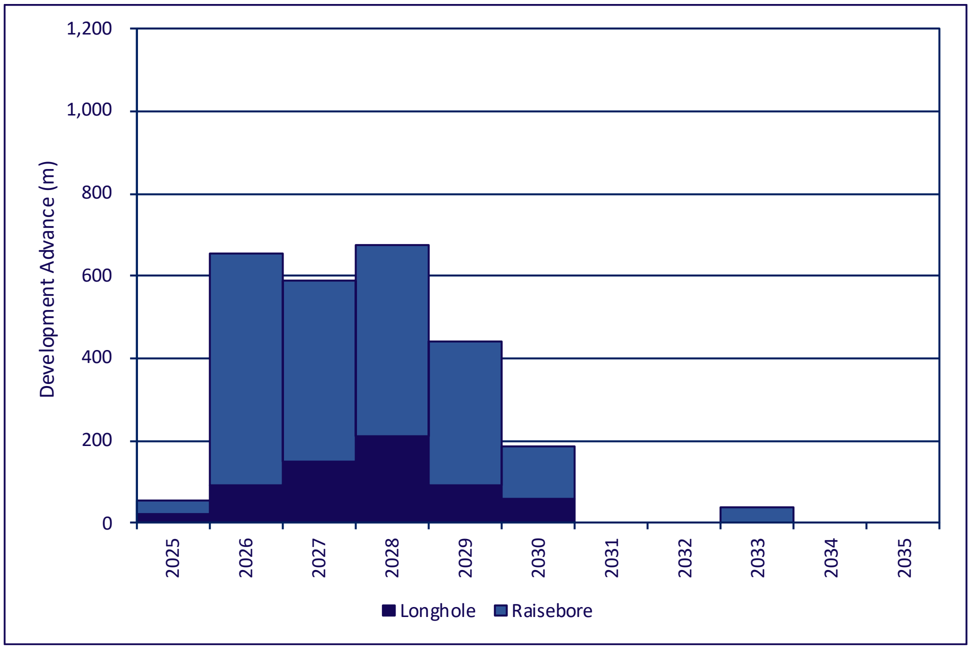
Source: Entech 2025.

16.1.4.3 Vertical Development

Vertical development at Hemlo has historically been completed by a combination of longhole raising, raiseboring, and Alimak raising. The mine plan has restricted vertical development to either longhole or raisebore methods. For ventilation raises greater than 35 m vertical in length, a 5.0 m diameter raisebore is proposed excavated at 1.8 m per day. For shorter raises, longhole blasting is proposed to excavate a profile of 4.0 m by 6.0 m. The longhole raises have an estimate of 25 drill metres per metre advance, which is drilled at a rate of 100 m per day. Egress raises will be completed by a 1.5 m diameter raisebore excavated at 1.8 m per day.

The annual vertical development schedule is illustrated in Figure 16-31, while the total and annual vertical development schedule is summarized in Table 16-22.

Figure 16-31: Annual Vertical Development for Hemlo Underground Mine



Source: Entech 2025.

Table 16-22: Total and Annual Vertical Development Schedule for Hemlo Underground Mine

Period	Ventilation (km)	Egress (km)	Total (km)
TOTAL	**1.9**	**0.7**	**2.6**
2025	0.0	0.0	**0.1**
2026	0.6	0.1	**0.7**
2027	0.5	0.1	**0.6**
2028	0.5	0.2	**0.7**
2029	0.3	0.1	**0.4**
2030	0.1	0.1	**0.2**
2031	0.0	0.0	**0.0**
2032	0.0	0.0	**0.0**
2033	0.0	0.0	**0.0**
2034	-	-	**-**
2035	-	-	**-**

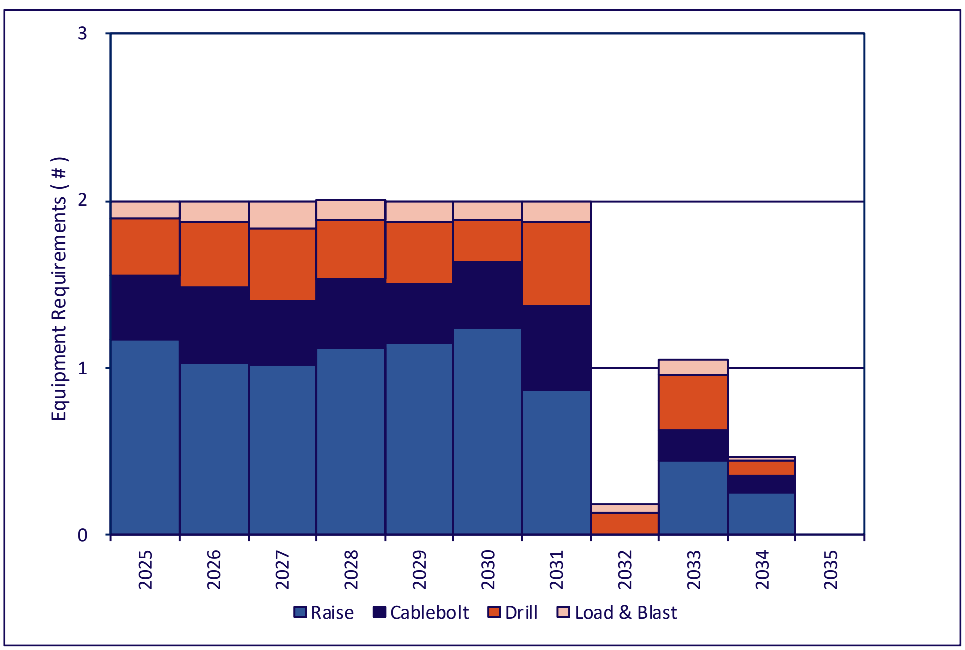
16.1.4.4 Alimak Stoping

There are two Alimak mining crews in the mine plan for Hemlo Underground. The activities included for estimating production are as follows:

- Raising;
- In-cycle ground support;
- Meshing/Screening;
- Cablebolting;
- Production Drilling;
- Charging;
- Mucking; and
- Backfill.

Following installation of the raise, production holes are drilled and blasted in horizontal slices from the bottom of the stope panel retreating upwards. Stope mucking is scheduled at a rate of 800 tpd and following excavation, the stope is backfilled with paste. The annual Alimak production schedule is illustrated in Figure 16-32, showing the quantity of Alimak units required on site and what activity it is being employed for, while the total and annual Alimak schedule physicals are summarized in Table 16-23.

Figure 16-32: Annual Alimak Production for Hemlo Underground Mine



Source: Entech 2025.

Table 16-23: Total and Annual Alimak Production Schedule for Hemlo Underground Mine

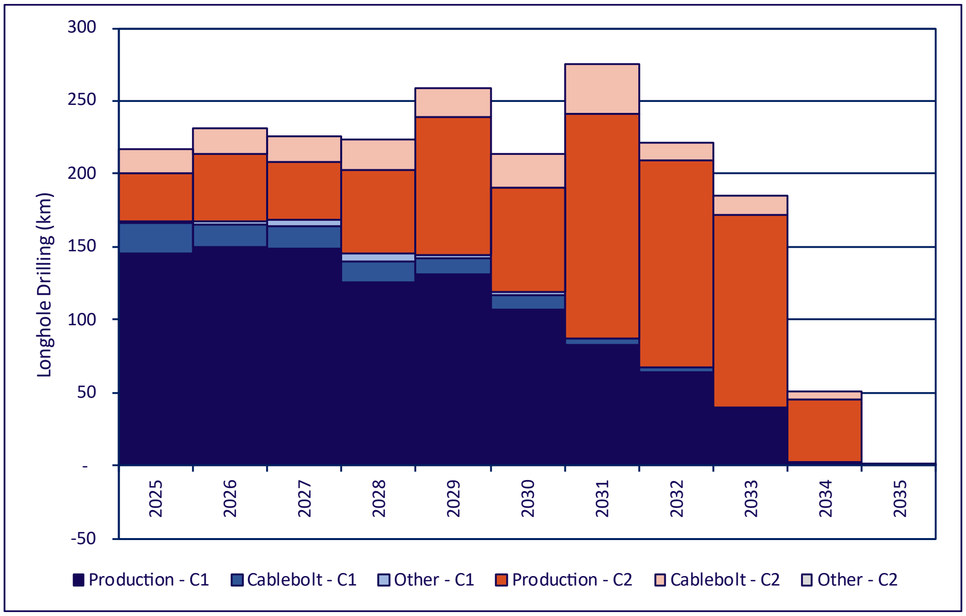
Period	Raising (m)	Cablebolting (km)	Drilling (km)	Production (kt)
TOTAL	**4,714**	**116**	**212**	**1,459**
2025	658	14	23	141
2026	582	17	26	163
2027	574	14	28	165
2028	625	15	23	175
2029	651	13	25	163
2030	707	14	17	166
2031	497	18	34	171
2032	0	0	9	107
2033	267	7	22	148
2034	152	4	6	62

16.1.4.5 Longhole Production Drilling

Longhole drilling rates consider drill rig moves, service hole drilling, maintenance, and other unspecified delays. For Hemlo Underground, up to six longhole drill rigs are estimated to meet the estimated annual drilling requirements based on an average drill rate of 180 m per day. A drill factor of 6.9 tonnes per metre was used to estimate drilling quantities for both contractors with an additional 96 m for cable bolting. An additional contractor completes slot drilling (canister slots), paste hole installations, and support production drilling in the remnant longhole zones.

The annual longhole drilling schedule is illustrated in Figure 16-33, while the total and annual longhole drilling schedule is summarized in Table 16-24.

Figure 16-33: Annual Longhole Drilling Schedule for Hemlo Underground Mine



Source: Entech 2025.

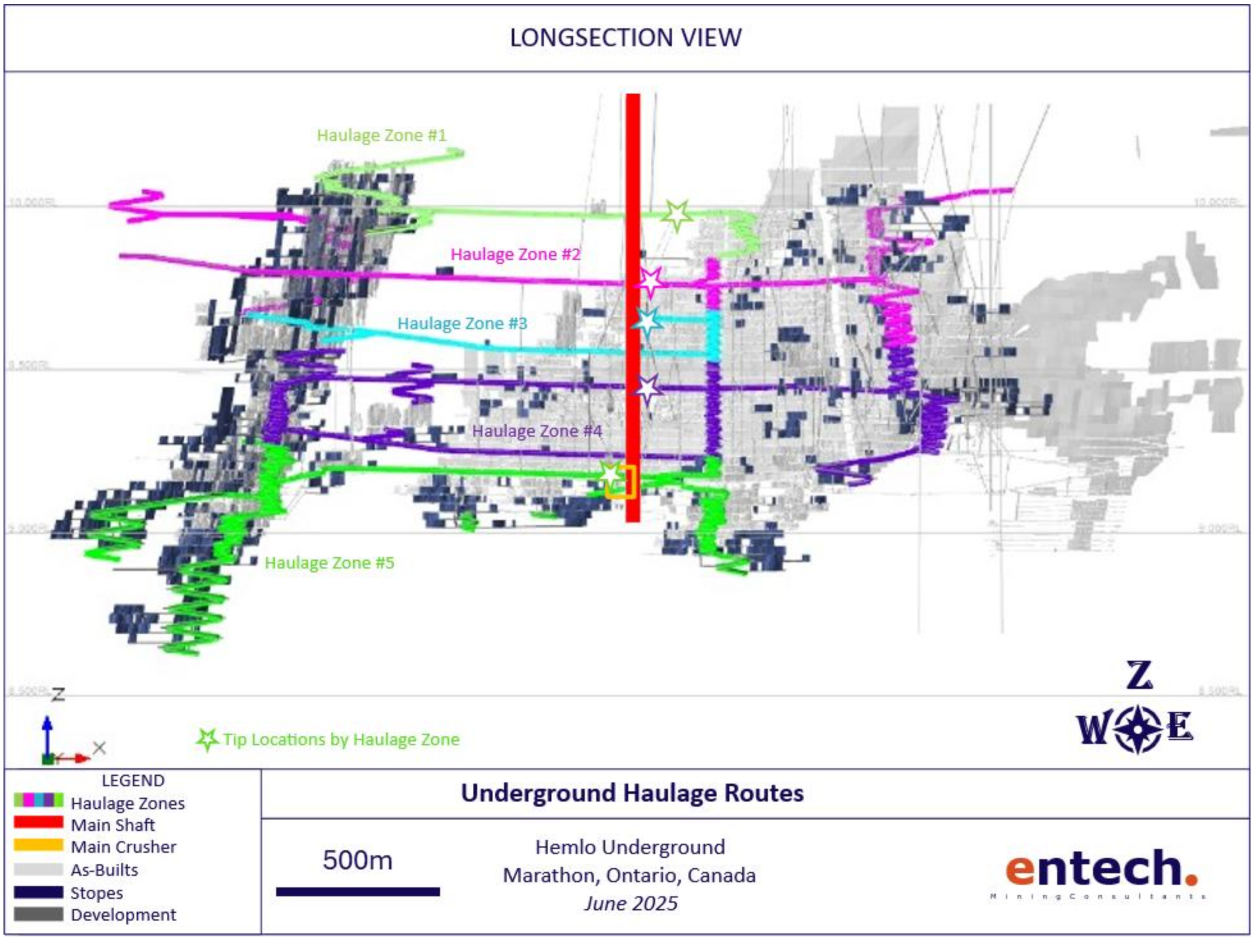
Table 16-24: Total and Annual Longhole Production Schedule for Hemlo Underground Mine

Period	Drilling (km)	Production (kt)
TOTAL	**1,598**	**9,843**
2025	156	913
2026	170	1,043
2027	161	1,120
2028	160	1,023
2029	201	1,108
2030	162	1,060
2031	204	1,121
2032	198	1,236
2033	148	965
2034	39	238
2035	1	15

16.1.4.6 Material Movement

Material haulage at Hemlo consists of 17 tonne capacity LH517 loaders and 45 tonne capacity TH545 trucks. Truck loading occurs at remuck bays and hauled to an underground ore or waste pass and fed into a crushing circuit. Material is then hauled to surface via a production shaft capable of 3.6 Mtpa. The key haulage routes and dump locations are illustrated in Figure 16-34.

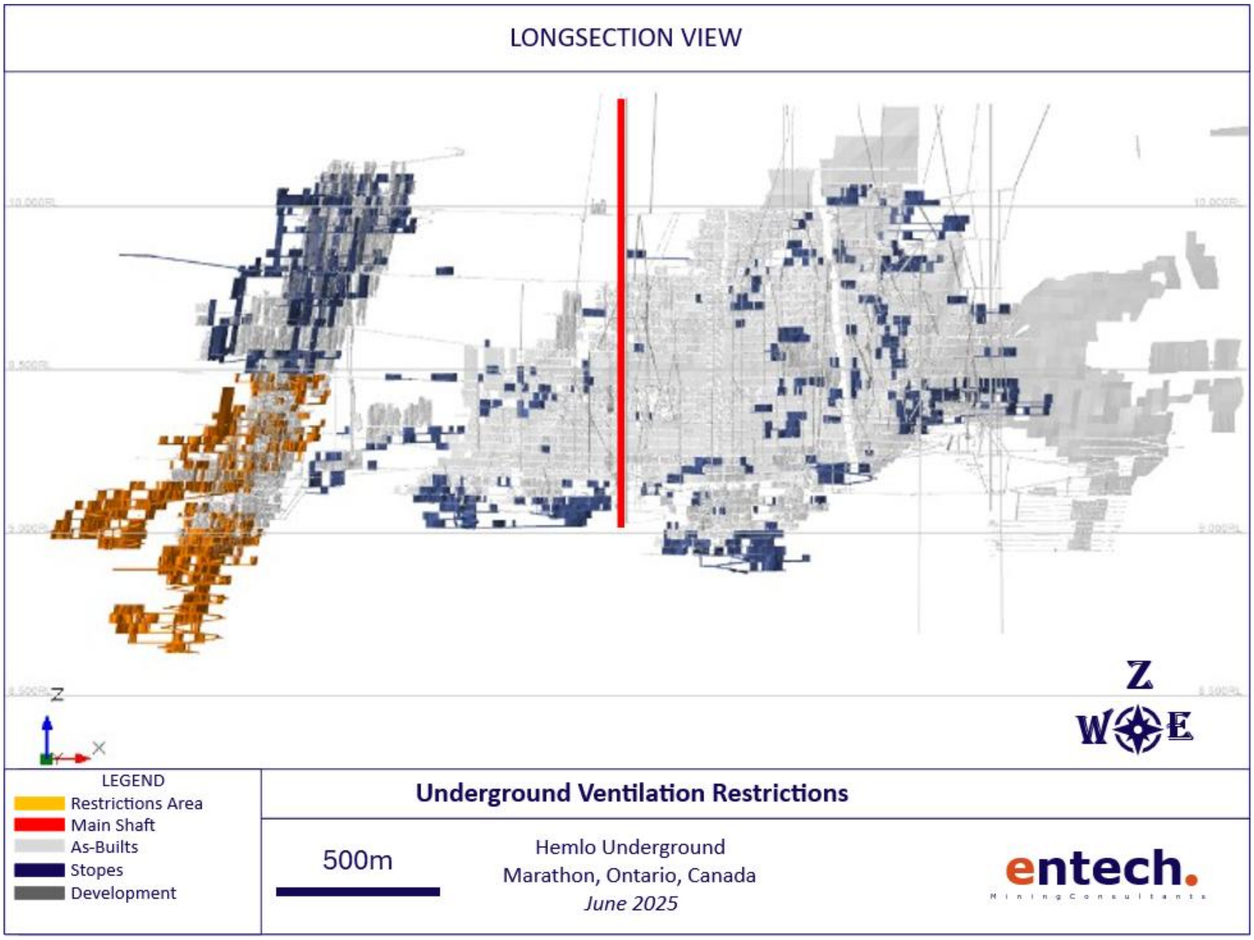
Figure 16-34: Main Haulage Pathways at Hemlo Underground Mine



Source: Entech 2025.

While the trucks have a nominal capacity of 45 tonnes, due to tight spots in the ramp along the route from lower Interlake and C-Zone to the ore pass, truck capacity was limited to 38 tonnes. Additionally, due to temperature and contaminant clearance constraints, limits have also been placed on the quantity of loaders and trucks allowed in the Interlake and Lower C zones. The areas affected by this restriction are illustrated in Figure 16-35.

Figure 16-35: Ventilation Restrictions at Hemlo Underground Mine



Source: Entech 2025.

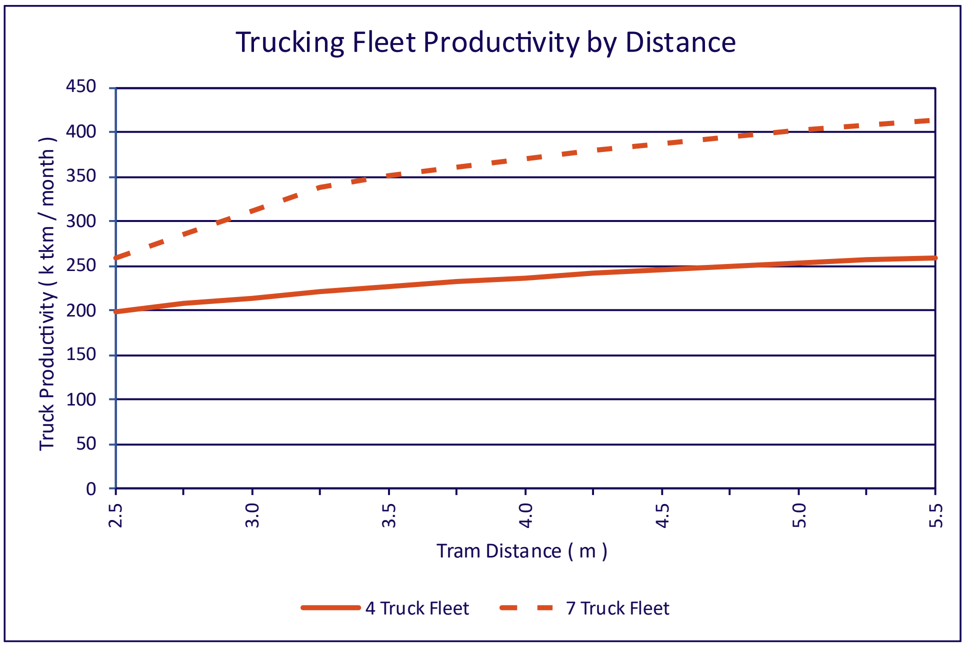
Following installation of additional ventilation capacity, the current haulage constraint of four trucks (200 k tkm/mo) was increased to seven trucks (315 k tkm/mo). These are considered conservative estimates, given the potential productivity of trucks over the haulage distances expected from these areas. Table 16-25 summarizes the key parameters in calculating the truck haulage, while Figure 16-36 illustrates the calculated truck haulage against the haulage distances from loading points in the Interlake and lower C-Zone to the underground dump location.

Table 16-25: Key Haulage Calculation Parameters

Parameter	Unit	Value
Truck Capacity	t	45
Truck Fill Factor	%	85
Truck Limited Capacity	t	38.2
Tram Speed – Loaded	km/h	6.8
Tram Speed – Unloaded	km/h	15.0
Buckets per Truck	#	3
Load Time per Truck[1]	min	10.7
Daily Productive Uptime[1]	h/d	15.9

Notes:
1. Includes truck entrance/exit and loader maneuvering
2. Time spent actively hauling. Excluding meetings, breaks, downtime, etc.

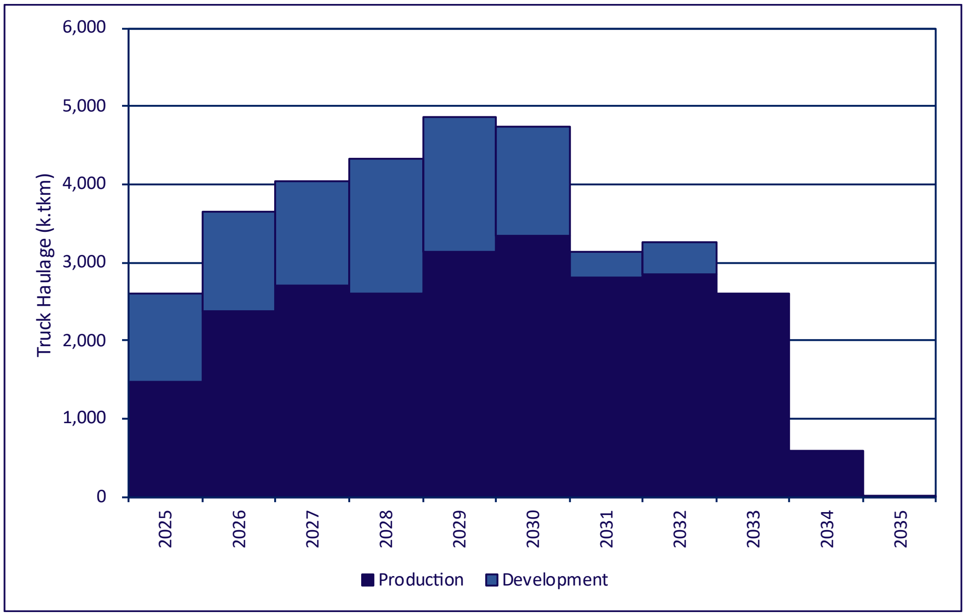
Figure 16-36: Monthly Truck Haulage by Distance and Fleet



Source: Entech 2025.

Contractor 1 uses equipment owned by the mine and Contractor 2 provides their own fleet. The annual material movement schedule is illustrated in Figure 16-37, while the total and annual material movement requirements of the schedule is summarized in Table 16-26.

Figure 16-37: Annual Trucking Requirements



Source: Entech 2025.

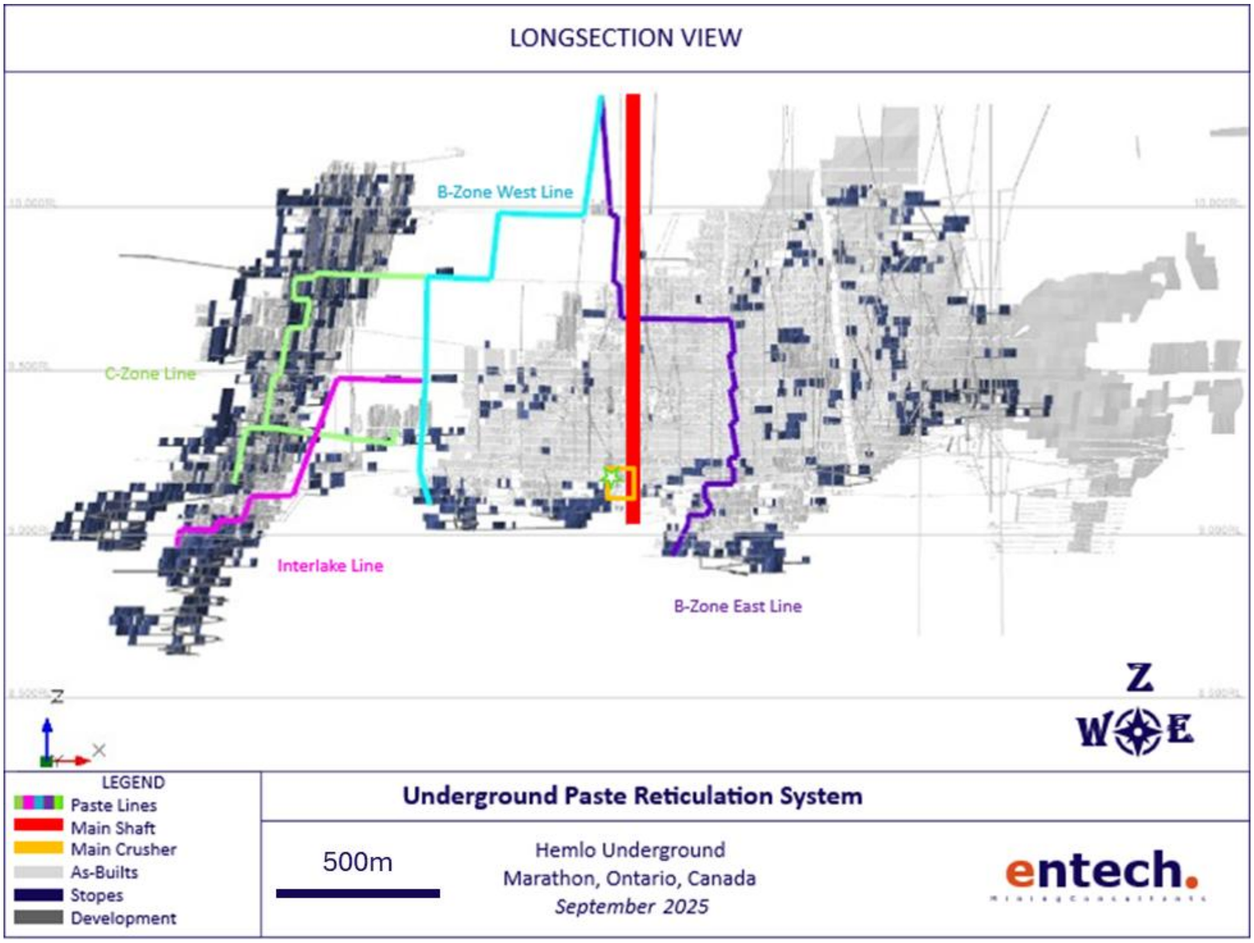
Table 16-26: Total and Annual Material Movement Schedule for Hemlo Underground Mine

Period	Development (kt)	Production (kt)	Total Ore (kt)	Total Waste (kt)	Total (kt)
TOTAL	**1,501**	**11,302**	**12,802**	**2,269**	**15,071**
2025	**273**	**1,054**	1,327	**267**	**1,594**
2026	**223**	**1,206**	1,429	**349**	**1,778**
2027	**155**	**1,285**	1,440	**449**	**1,889**
2028	**235**	**1,198**	1,433	**407**	**1,839**
2029	**169**	**1,272**	1,440	**403**	**1,843**
2030	**214**	**1,226**	1,440	**226**	**1,666**
2031	**148**	**1,292**	1,440	**75**	**1,515**
2032	**82**	**1,343**	1,425	**90**	**1,515**
2033	**2**	**1,112**	1,115	**4**	**1,119**
2034	**0**	**300**	300	**0**	**300**
2035	**0**	**15**	15	**0**	**15**

16.1.4.7 Backfill

Hemlo currently fills most production voids with paste backfill. There are some areas where pastefill infrastructure is not available to fill production voids and under these circumstances, pillars are used for support and voids were left unfilled. Where pillars are left, the mining sequence is exclusively top-down. The paste infrastructure is illustrated in Figure 16-38.

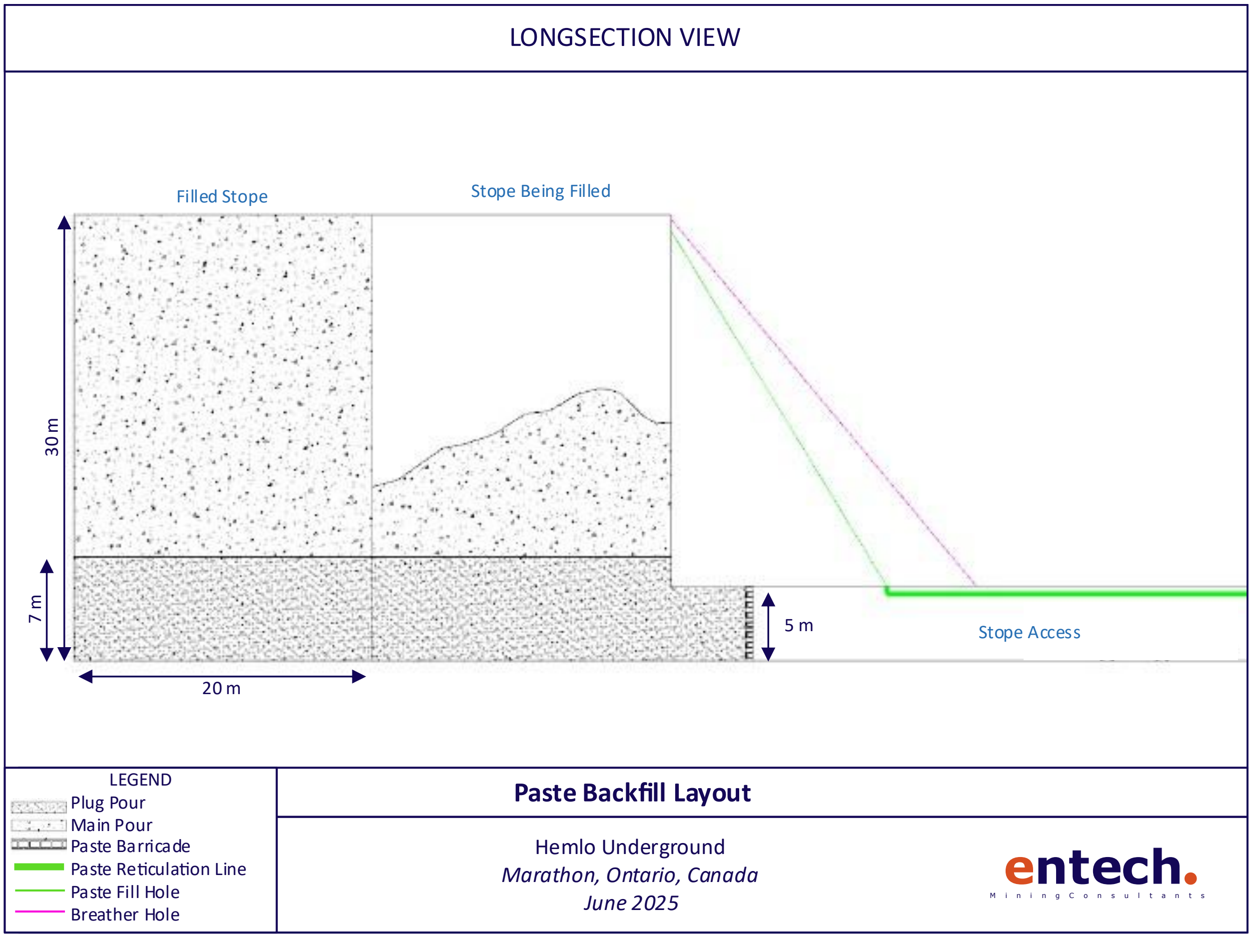
Figure 16-38: Pastefill Infrastructure and Availability Underground



Source: Entech 2025.

Pastefill is a flexible fill option and can be suited to both bottom-up and top-down mining with little alteration to the pouring process. The process involves erecting a barricade near the stope brow and the stope is filled in two separate pours; a plug and the main pour. Following the plug pour (~7 m high) the paste is allowed to begin curing, prior to filling the remaining void. Once filled and after a week of cure time, drilling can occur. Following 21 days and after drilling is complete, the paste wall is removed and initial slot blasting commences. A schematic of the pastefill pour and infrastructure is illustrated in Figure 16-39.

Figure 16-39: Schematic of Pastefilling Activity and Associated Infrastructure



Source: Entech 2025.

For costing purposes, an average of 3.5% binder at C$291/t binder cost based on a plug of 6.5% binder and a main pour of 2.5% as summarized in Table 16-27.

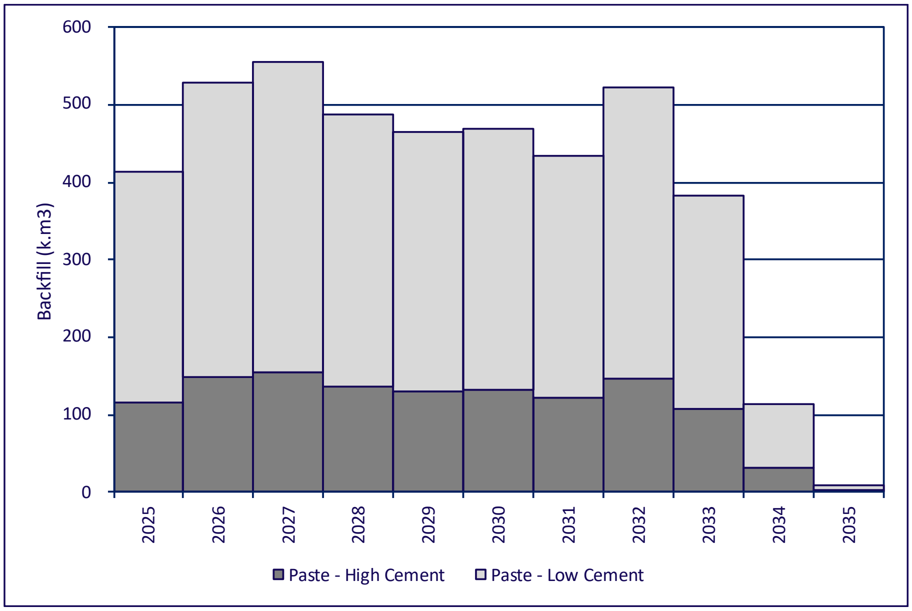
Table 16-27: Backfill Binder Quantities and Curing Durations

Activity	Unit	Bottom-Up	Top-Down
Plug Pour	% Binder	6.5	6.5
Plug Cure	d	0.5	0.5
Main Body Pour	% Binder	2.5	2.5
Body Cure – Development[1]	d	7.0	7.0
Body Cure – Production[2]	d	21.0	21.0

Notes:
1. Development activities include paste barricade removal and fill development to enable production
2. Production activities include blasting activities to initiate production

All paste activities are completed at an average rate of 1,957 m^3 per day, which includes utilization, downtime and availability, but excludes cure durations. The annual backfill profile is illustrated in Figure 16-40 while the total and annual backfill schedule is summarized in Table 16-28.

Figure 16-40: Annual Backfill Schedule for Hemlo Underground Mine



Source: Entech 2025.

Table 16-28: Total and Annual Backfill Schedule for Hemlo Underground Mine

Period	Pastefill Low Cement[1] (k.m^3)	Pastefill High Cement[2] (k.m^3)	Pastefill Total (k.m^3)
TOTAL	**3,152**	**1,226**	4,378
2025	298	116	414
2026	380	148	528
2027	399	155	555
2028	351	136	487
2029	334	130	464
2030	338	132	470
2031	312	122	434
2032	376	146	522
2033	275	107	382
2034	82	32	115
2035	6	2	8

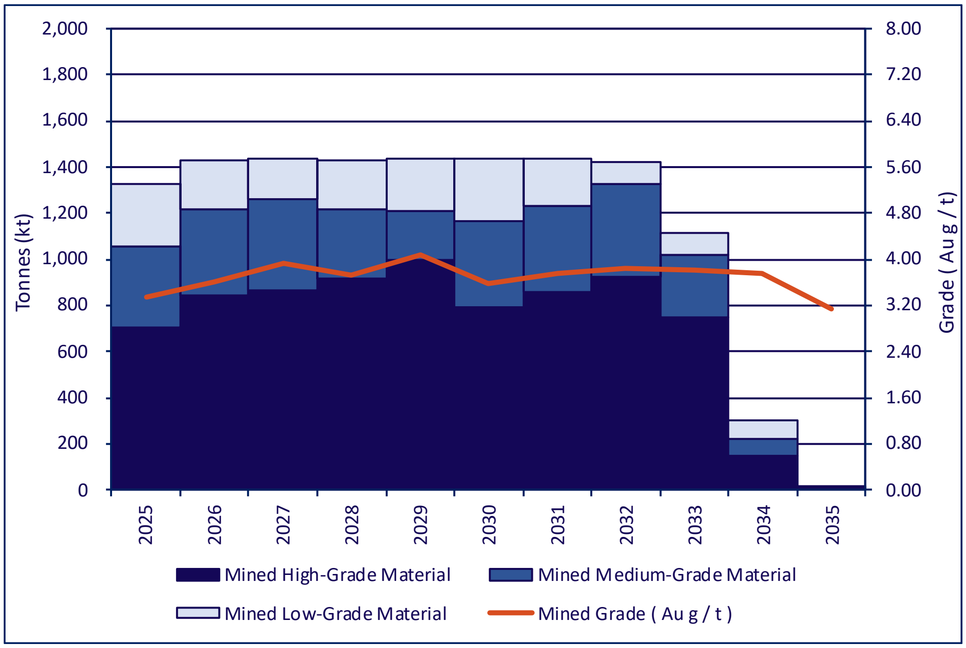
Notes:
1. Top-down main body pour activities and all bottom-up pastefill activities
2. Top-down plug pour activities

16.1.4.8 Underground Production Summary

The processing facility at Hemlo has a maximum capacity of 3.50 Mtpa.

Annual ore production from the underground mine is illustrated in Figure 16-41. The COV used for High-Grade and Low-Grade bins are greater than US$155/t NSR and lower than US$130/t NSR, respectively.

Figure 16-41: Mine Ore Schedule for Hemlo Underground Mine



Source: Entech 2025.

The total and annual mine ore production is summarized in Table 16-29, while the total ore production from the underground, by resource classification, is summarized in Table 16-30.

Table 16-29: Total and Annual Mine Ore Schedule for Hemlo Underground Mine

Period	Tonnes (Mt)	Grade (US$/t NSR)	Mined Grade (g/t Au)	Mined Metal (koz Au)	Rec. Metal[1] (koz Au)
TOTAL	**12.8**	**189.42**	**3.74**	**1,539.9**	**1,460.5**
2025	1.3	167.2	3.34	142.5	133.6
2026	1.4	181.5	3.60	165.2	156.2
2027	1.4	198.9	3.94	182.6	172.5
2028	1.4	188.3	3.74	172.1	162.5
2029	1.4	205.9	4.08	188.7	178.6
2030	1.4	180.8	3.57	165.4	156.8
2031	1.4	190.7	3.74	173.2	165.4
2032	1.4	196.1	3.84	175.9	168.3
2033	1.1	194.5	3.81	136.5	130.6
2034	0.3	192.1	3.76	36.2	34.7
2035	0.0	161.6	3.14	1.5	1.5

Notes:
1. Estimated recoverable metal

Table 16-30: Total Ore Production, by Resource Classification, for Hemlo Underground Mine

Classification	Tonnes (Mt)	Grade (US$/t NSR)	Mined Grade (g/t Au)	Mined Metal (koz Au)	Rec. Metal[1] (koz Au)
TOTAL	**12.8**	**189.42**	**3.74**	**1,539.9**	**1,460.5**
Measured	4.0	216.19	4.26	553.2	525.8
Indicated	7.4	210.29	4.16	986.7	934.7
Dilution[2]	1.4	-	-	-	-

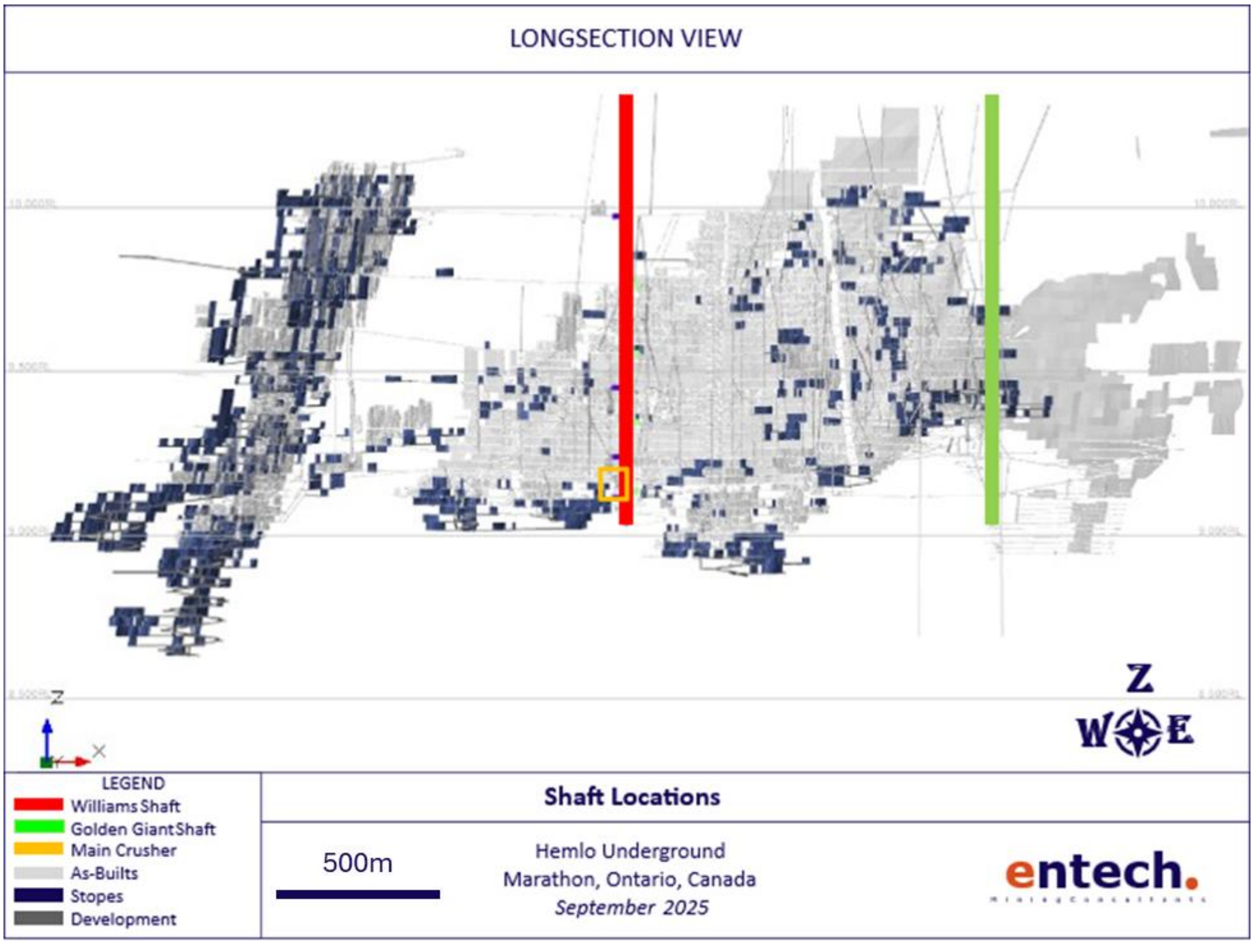
Notes:
1. Estimated recoverable metal
2. Dilution is non-mineralised material outside of the proposed that already include planned and unplanned dilution

16.1.5 Underground Infrastructure and Services

16.1.5.1 Shafts

There are two existing shafts at Hemlo Underground: the Williams Shaft and Golden Giant Shaft (headframe is decommissioned). The locations of these shafts are illustrated in Figure 16-42. Run of mine (ROM) material is designed and scheduled to be hoisted via the Williams Shaft with existing infrastructure.

Figure 16-42: Shafts at Hemlo Underground Mine

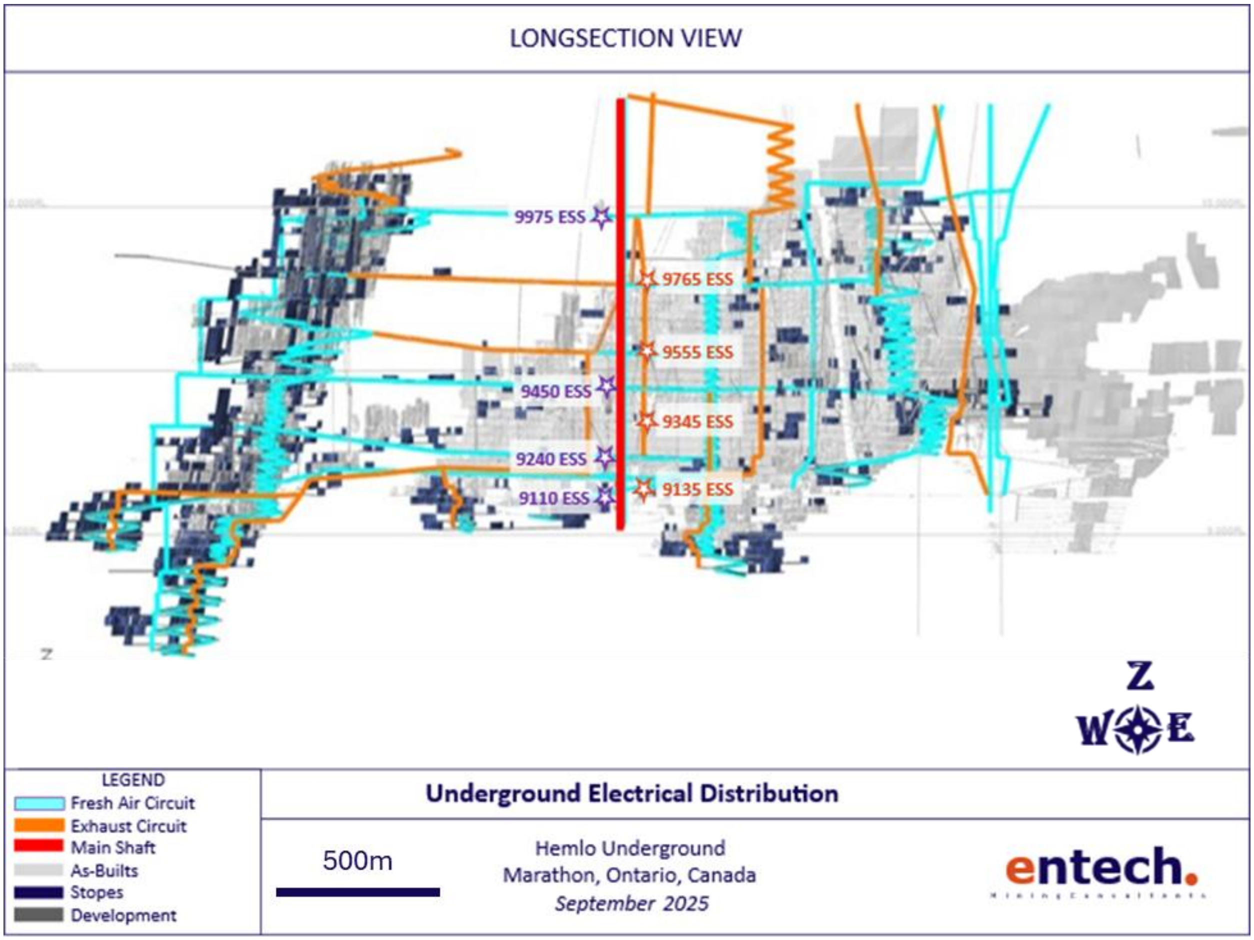


Source: Entech 2025.

16.1.5.2 Primary Ventilation

The primary ventilation circuit is illustrated in Figure 16-43. The mine plan includes extension of the existing circuit via down ramp development and exhaust raises between sublevels. A new series of fresh air raises are included in the mine plan in C-Zone in addition to the ramp fresh air. These raises are designed to supplement ventilation requirements in the lower portion of Interlake.

Figure 16-43: Ventilation Circuit at Hemlo Underground Mine



Source: Entech 2025.

The estimated ventilation demand for Hemlo is summarized in Table 16-31.

Table 16-31: Ventilation Demand Estimate for the Hemlo Mine

Equipment/Unit	Quantity (#)	Engine Power (kW)	Utilization	Demand[1] (m^3/s)
Barrick				
Truck	8	450	85%	183.6
Loader	5	315	85%	80.3
Cablebolter	3	110	25%	5.0
Development Drill	4	119	25%	7.1
Production Drill	2	110	25%	3.3
Production Raisebore	1	121	25%	1.8
Ancillary Equipment[2]	-	1,905	25%	28.6
Light Vehicles	21	100	25%	31.5
Contractor				
Truck	3	300	85%	45.9
Loader	4	350	85%	71.4
Development Drill	2	135	25%	4.1
Raisebore	1	250	25%	3.8
Production Drill	2	110	25%	3.3
Ancillary Equipment[2]	-	535	25%	8.0
Light Vehicles	3	100	25%	4.5
Subtotal				482.1
Contingency (10%)				48.2
Mine Leakage (10%)				48.2
Total				**578.6**

Notes:

1. Total airflow requirements based on 0.06 m^3/s^{-1} per Engine kW
2. Total Engine Power of Ancillary Equipment has been combined

16.1.5.3 Auxiliary Ventilation

When headings are located outside of the primary ventilation circuit, auxiliary fans are required to deliver fresh air into the working headings. Auxiliary ventilation is provided via 1,067 mm/1,220 mm flexible ducting fed from 55-110 kW fans located in fresh air. When truck loading occurs outside of the primary flow, approximately 50 m^3/s will be required to be provided, and approximately 20 m^3/s for mucking. The estimates are summarized in Table 16-32.

Table 16-32: Level Ventilation Demand Estimate for Hemlo Underground Mine

Equipment/Unit	Model	Quantity (#)	Engine Power (kW)	Utilization	Demand[1] (m^3/s)
Trucks	TH545	1	450	100%	27.0
Loaders	LH517	1	310	100%	18.6
Subtotal					45.6
Contingency[2]					4.6
Total					**50.2**

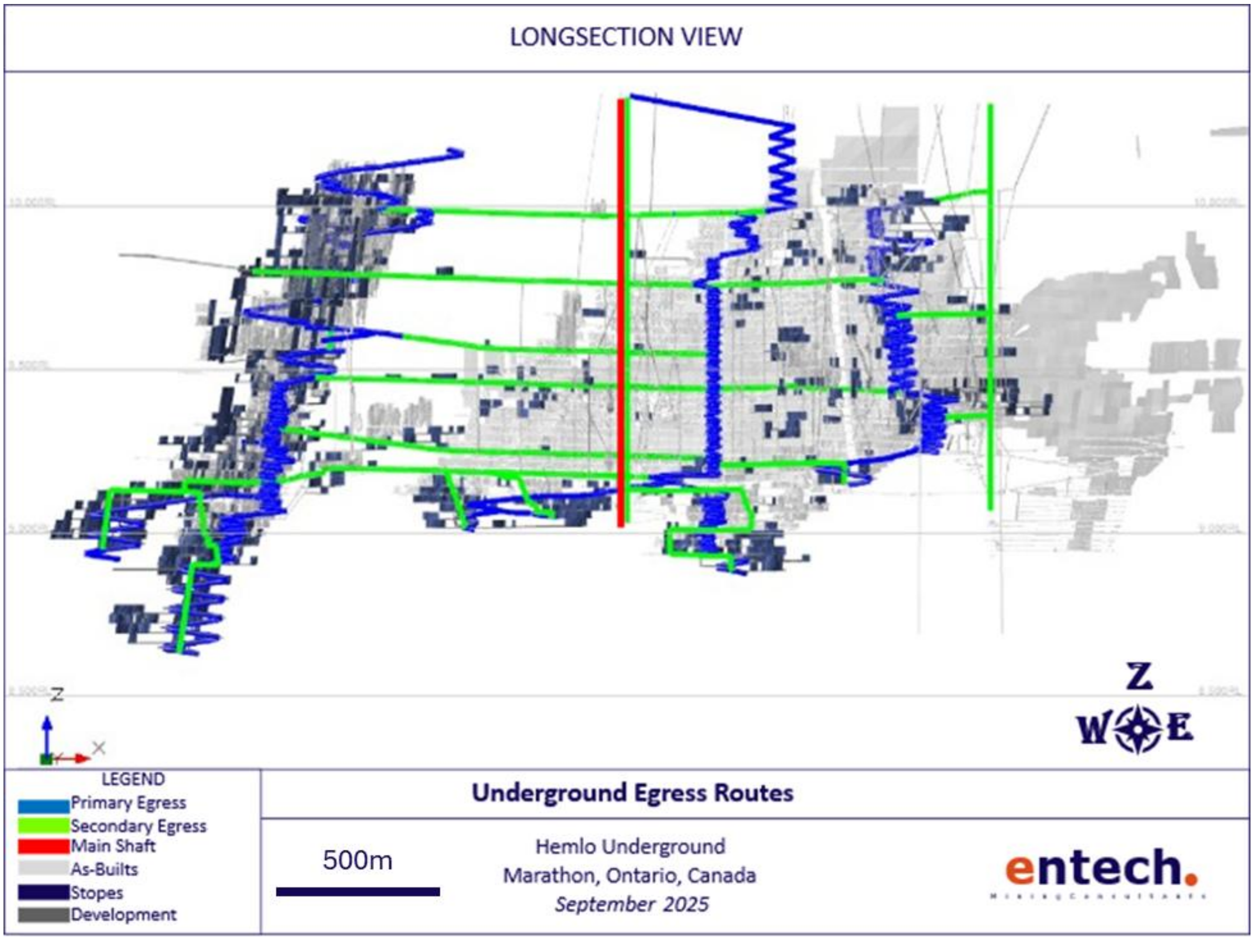
Notes:

1. Total airflow requirements based on $0.06 m^3 s^{-1}$ per Engine kW
2. Contingency of 10% to account for ducting condition

16.1.5.4 Secondary Means of Egress

The mine plan extends the existing secondary egress routes to new locations and is illustrated in Figure 16-44. New level designs contain a secondary means of egress between each production level to reduce entrapment potential. Escapeways are intended to be separated from the exhaust ventilation circuit to reduce the introduction of smoke and other contaminants to the egress circuit.

Figure 16-44: Secondary Egress for Hemlo Mine

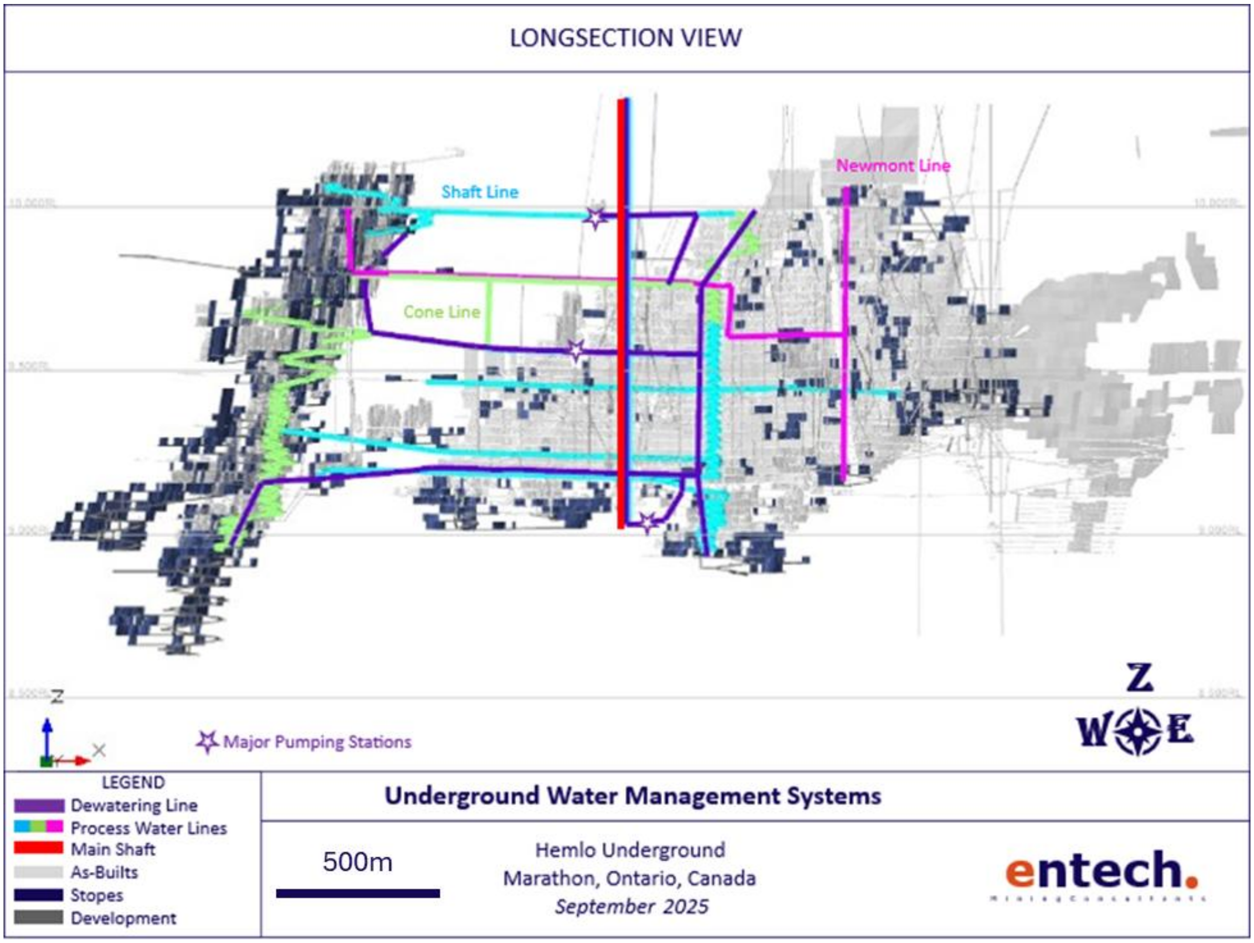


Source: Entech 2025.

16.1.5.5 Water Management

Operations have a well-established plan to manage water underground with plans to extend the system to the new locations. The main pumping stations, primary dewatering lines, and process water lines are illustrated in Figure 16-45.

Figure 16-45: Dewatering Circuit at Hemlo Underground Mine

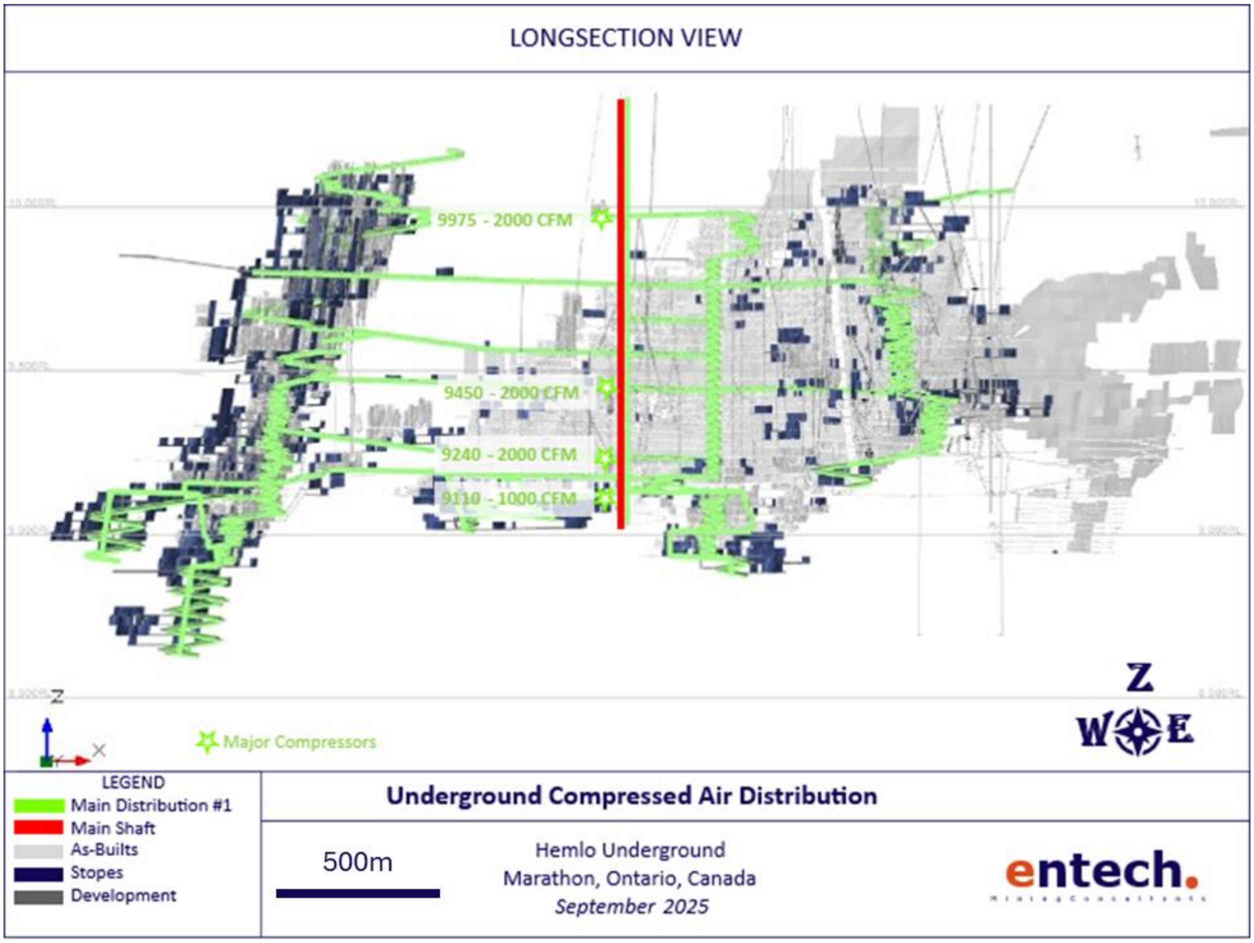


Source: Entech 2025.

16.1.5.6 Compressed Air

Compressed air is provided throughout the primary infrastructure of the active workings with plans to extend the system to the lower levels. An overview of this system, including compressor locations and flow rates, is illustrated in Figure 16-46.

Figure 16-46: Compressed Air Infrastructure at Hemlo Underground Mine

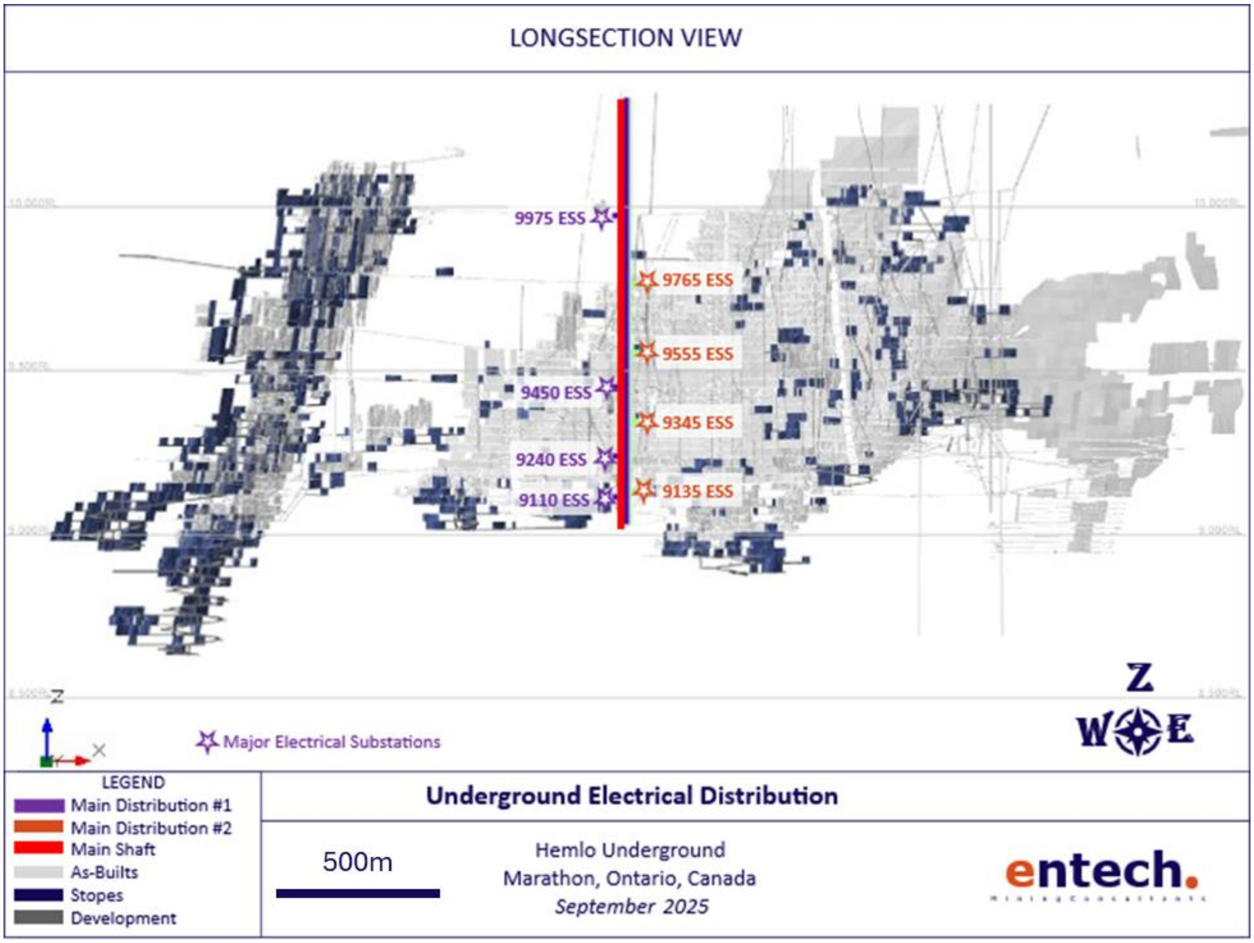


Source: Entech 2025.

16.1.5.7 Electrical Power

Mains power is provided throughout the primary infrastructure with connections to substations for connection to fixed plant and mobile fleet. The locations of the main electrical substations are illustrated in Figure 16-47.

Figure 16-47: Electrical Infrastructure at Hemlo Underground Mine



Source: Entech 2025.

The power demand is approximately 9.2 MWh per month with approximately 33% required for surface (shaft haulage, compressors, surface ventilation fans) and the remainder consumed underground. Total demand for Hemlo Underground is approximately 13 MW which includes the following:

- surface fans;
- compressors;
- shaft haulage;
- underground ventilation;
- pumping;
- fixed plant; and
- mobile fleet.

Power unit cost is US$0.046 per kWh of consumption.

16.1.6 Mine Personnel

Hemlo Underground operates seven days a week with two 12-hr shifts each day of the year. A variety of different rosters are worked by staff, depending on whether run by a contractor or by the owner, as well as depending on the position employed. The estimated quantities of mine personnel are summarized in Table 16-33.

Table 16-33: Mine Personnel Estimate at Hemlo Underground Mine (Underground Only)

Position Description	Headcount (max)
Total	**381**
Technical Services	40
Subtotal Owners	**40**
Contractor Operations Labour	172
Contractor Maintenance Labour	116
Contractor Management, Supervision, Support	53
Subtotal Contractor	**341**

16.2 Open Pit Mining

Hemlo has a historical open pit that mined the upper portions of the C-Zone. The study assesses a cutback to the west to supplement the underground operation commencing in 2027 and targeting completion in 2034. Open pit mining is proposed to be completed using conventional drill and blast on 10 m benches. Mining is proposed to be completed with 22 m^3 excavators and hauled via 135-147 t trucks.

16.2.1 Geotechnical Characterization

16.2.1.1 Open Pit

WSP was retained to assess the proposed open pit design for compliance with the slope design geotechnical recommendations. The reference slope design reports are WSP 2024a, WSP 2025a and WSP 2025b. WSP 2024a covers previous design studies, presents the results of targeted geotechnical drilling and provides recommendations for double benching. WSP 2025a is a review of a revised ultimate pit design applying the same geotechnical recommendations as WSP 2024a with the addition of recommendations for single benching near or through underground workings. WSP 2025b is a conformance review of the proposed pit design to the 2024a and 2025a geotechnical recommendations.

The proposed Hemlo C-Zone open pit rock slopes will expose strong to very strong foliated rock cross-cut by faults and dikes, with some benching to expose existing underground voids and locally some exposures of weaker schistose rock. The existing C-Zone pit provides precedent experience with achievable bench geometries and influence of major structures.

The open pit will be excavated with 20 m double benches on final walls using pre-shear or pre-split controlled blasting over the full 20 m length, except in areas where benching through underground workings was deemed more suitable for single benching, on north walls and end walls. The open pit south walls do not require pre-split or pre-shear due to benches breaking back to the foliation fabric. The existing south walls have been successfully excavated with cushion or trim blasting and careful scaling.

North walls are defined as those with orientations +/- 20 degrees to the foliation strike. Benches on this orientation are prone to bench-scale toppling. Slope performance on the proposed design can improve with excellent inclined pre-shears to the full 20 m vertical of the double bench. Conformance review results indicate that the north wall proposed double bench slope geometries conform to the geotechnical recommendation of 55° inter-ramp angle (IRA).

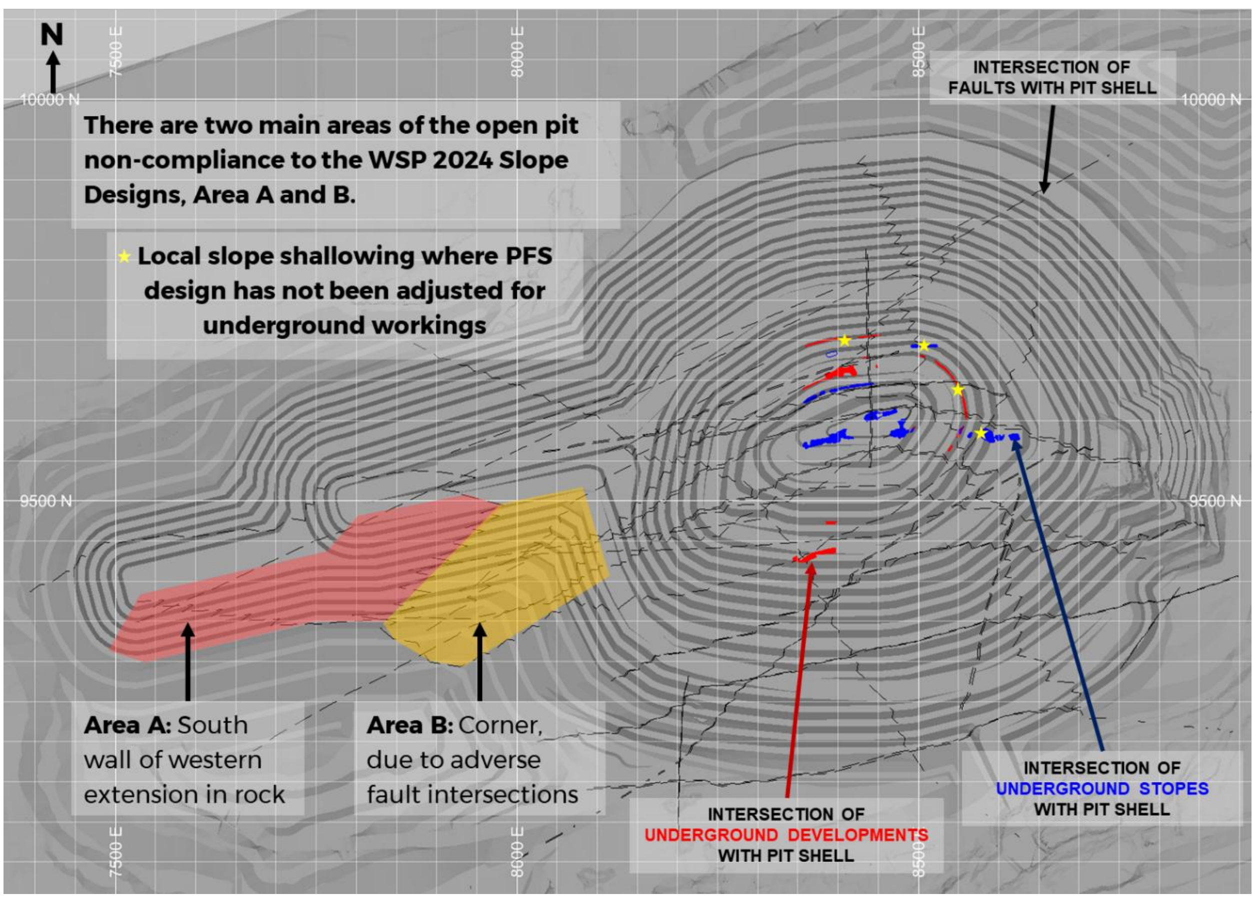
Similarly, the proposed pit design end walls, east and west, conform to the 55° IRA. Given that the end walls are perpendicular to the foliation, vertical pre-shearing is appropriate, as the end wall benches will not be prone to bench-scale planar or toppling failure.

The main south wall double benches conform to the recommended 49° IRA. This design sector is comprised of walls that parallel the pit foliation with mean dip of 65°. South walls have orientations within +/- 20 degrees of the foliation strike and are mineable without pre-shearing. Cushion or trim blasting and careful scaling works.

Single benching is recommended when mining through underground workings, with a maximum 47° IRA. The proposed pit has double benches apart from the bottom 30 m of the planned pit. Step-outs are included to minimize bench interactions with large stopes. In areas where step-outs are not incorporated into the proposed design, local slope shallowing to 47° IRA is recommended where large stopes and developments are expected to daylight on the pit walls, as highlighted in four (4) underground working areas in Figure 16-48.

The review by WSP indicates two proposed design pit wall areas requiring modifications, named Areas A and B and shown in Figure 16-48.

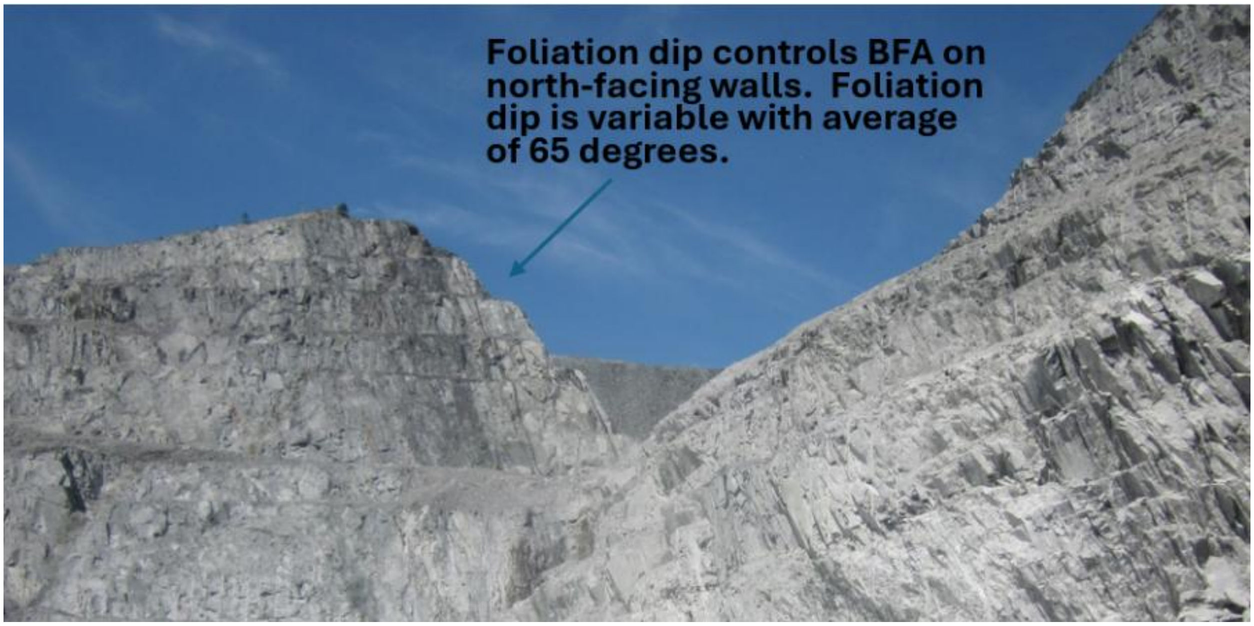
Figure 16-48: Proposed Open Pit Design Areas A and B Schematic



Source: WSP 2025.

Area A is the south wall of the western extension of the proposed open pit design with a 55° IRA. This wall orientation will have bench face angles (BFA) controlled by the planar failure along foliation (Figure 16-49). The foliation in the west structural domain is expected to be slightly steeper than the south structural domain and a footwall design of 52° IRA in the west extension is recommended (WSP, 2025b).

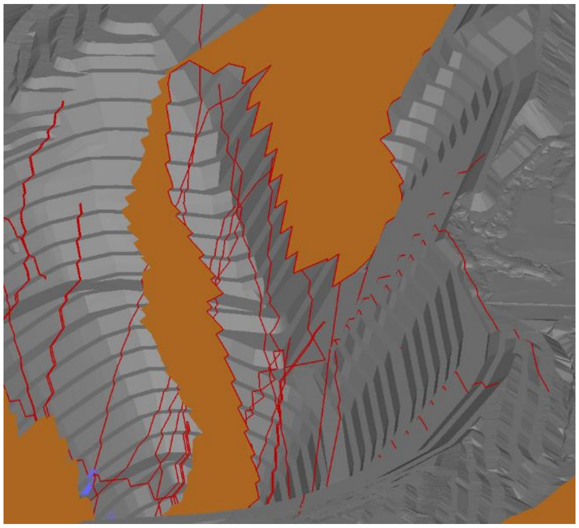
Figure 16-49: Looking West at Analogous Foliation Controlled Benching



Source: WSP 2025.

Area B is the open pit wall corner adjacent and to the east of Area A. Projection of major faults onto this corner or nose indicate fault-fault wedges and planes daylighting as shown in Figure 16-50. This observation was also noted in WSP 2024a, 2025a and 2025b reports. In this location, the WSP reports explain that these expected falls of ground are too large to manage operationally without step-ins and operational delays. As these will be brittle failures, relying on advance warning from radar is not recommended for costing and planning within this report. The conservative solution is to lay back the slope to mine-out the key high confidence fault, eliminating the larger volume hazards. The volume and cost of moving this additional waste are included as pre-strip and operating costs, depending on when the waste would be moved, which are summarized in Section 21.2.1.1 and Section 21.3.1.2.

Figure 16-50: Area B Design Modification Considered in Cost – Isometric View



Source: WSP 2025.

In summary, the proposed open pit design complies with the geotechnical criteria from WSP 2024a and WSP 2025a on the main wall orientations. Design modifications for areas A and B are required and 4 localized areas where underground workings are expected to daylight in the pit. In both cases the design requires reducing the slope angles. For the purpose of this Technical Report:

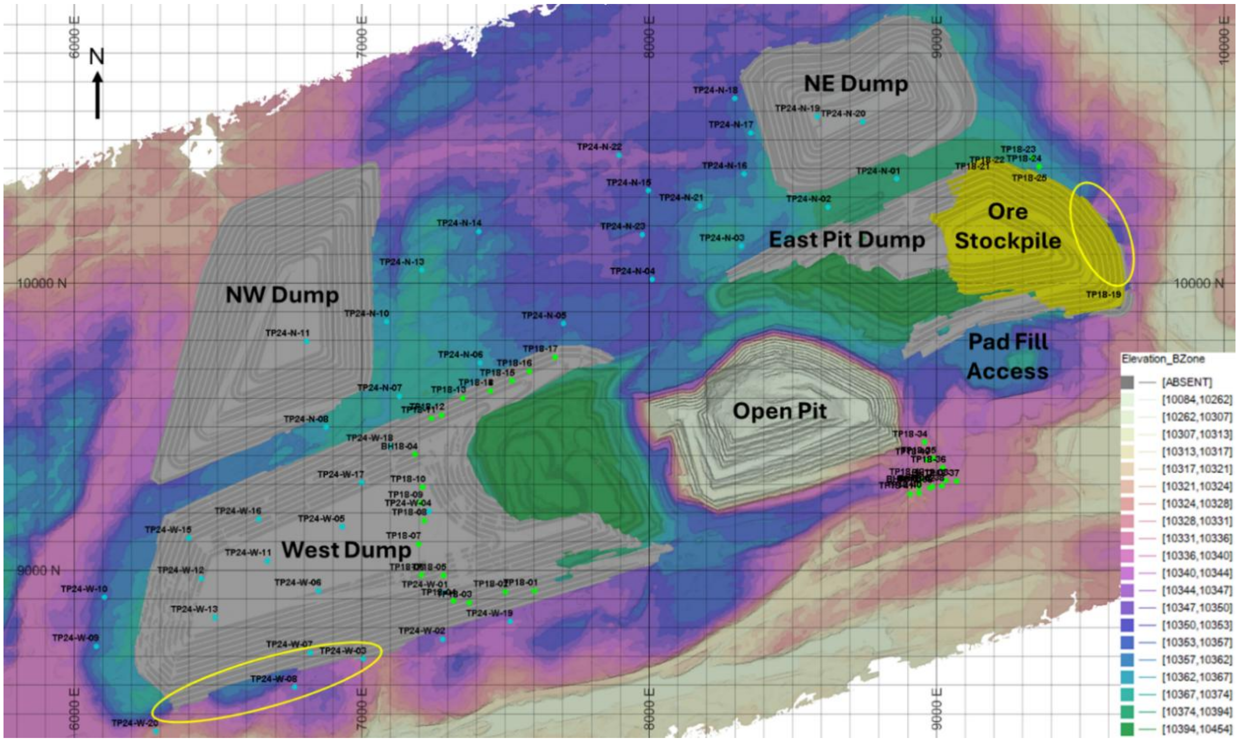
- In areas A and B the tonnage of additional waste rock and overburden have been estimated and the costs of excavation carried in Section 21.2.1.1 Open Pit.
- Shovel productivity has been reduced (see note on Table 16-54) in the area that interact with the four underground workings.

16.2.1.2 Waste Rock Dumps

WSP was retained to review the proposed dump designs for compliance with previous WSP geotechnical recommendations. The reference dump design reports are WSP 2024b, WSP 2025c and WSP 2025d. The WSP (2024b) technical memorandum provides geotechnical slope design recommendations for the expansion of the current Hemlo waste rock dumps (Dump1NE, Dump2NW and Dump3NWb designs). The WSP 2025c technical memorandum provides geotechnical slope design recommendations for the 20241123 NE, NE pit, NW and West ultimate dump designs. The WSP 2025d is a conformance review of the PFS dump design to the 2024b and 2025c geotechnical recommendations.

The Hemlo site is undergoing expansion of its waste rock management infrastructure. The proposed dumps are shown on Figure 16-51 and include the Ore Stockpile and East, West, Northeast, and Northwest waste rock dumps (WRD), designed to support open pit and underground mining operations. These dumps are engineered to accommodate the deposition of waste rock and ore in a manner that ensures long-term geotechnical stability and environmental compliance.

Figure 16-51: Hemlo Proposed Dump Designs



Source: WSP 2025.

Note. Data shown in metres in Mine Grid B-Zone coordinates.
Color indicates Ground Surface Topography Contours
Circle area indicate Potential Areas with Steeper Topography Parallel to Dump Toes

The natural topography at Hemlo is relatively flat terrain with overburden consisting of organics, silt, and silty sand overlying bedrock. Based on available test pit information, overburden thickness ranges from 0.9 m to 2.0 m, with localized bedrock outcrops. The geotechnical model assumes groundwater at or near the surface.

The dumps will be constructed using an ascending construction method with multiple 10 m high lifts. Each lift includes 6.7 m wide catch berms and 37° BFAs, resulting in an overall slope angle of approximately 27°. The dumps are designed to be free-draining, with surface water management features such as ditches and sumps incorporated around the perimeters.

The proposed dump expansion areas are more than 60 m away from pit slope crest and are not expected to impact open pit slope stability. Existing dumps are adjacent to the open pit slopes with no impact on slope stability. The existing west dump will need to be relocated where the western PFS pit expansion underlies the dump. Two benches of dump material will be mined as part of the PFS pit design (39° BFA, 20 m tall, 6 m wide berm, 30° IRA). It is understood that the Hemlo closure plan will be updated by the end of 2025 and the waste dump designs will subsequently be updated based on the closure design criteria.

Topography which is sloping parallel to the dump slope toes have potential to create stability issues, which have been highlighted in the WSP (2024b) and WSP (2025c) design reviews. The ground surface topography shown in Figure 16-51 suggests that slope parallel topography can be expected in the southwest perimeters of the West Dump and east perimeters of the Ore Stockpile.

In summary, the proposed waste dump designs comply with the geotechnical criteria from WSP 2024b and WSP 2025b stability assessments for the proposed dump geometries. In localized areas, development works are recommended for the dump foundations as follows:

- **Organics Removal:** Minimum 11 m width under first lift where natural topography slopes less than 10° parallel to the WRD slope toe. This will not be a concern if the mine intends to remove all organics within the WRD foundation footprints prior to construction; and
- **Shear Keys:** Shear keys should be excavated to bedrock and backfilled with waste rock where natural topography slopes 10° or more, parallel to the dump toe. For planning purposes, a shear key under the first lift width is recommended. This width could be optimized at the feasibility level.

For the next stage of the project, it is recommended to confirm foundation conditions through test pits where there are currently data gaps, such as:

- the west and north perimeters of the NW Dump;
- north and east perimeters of the NE Dump; and
- east perimeter of the Ore Stockpile.

16.2.2 Block Model Preparation

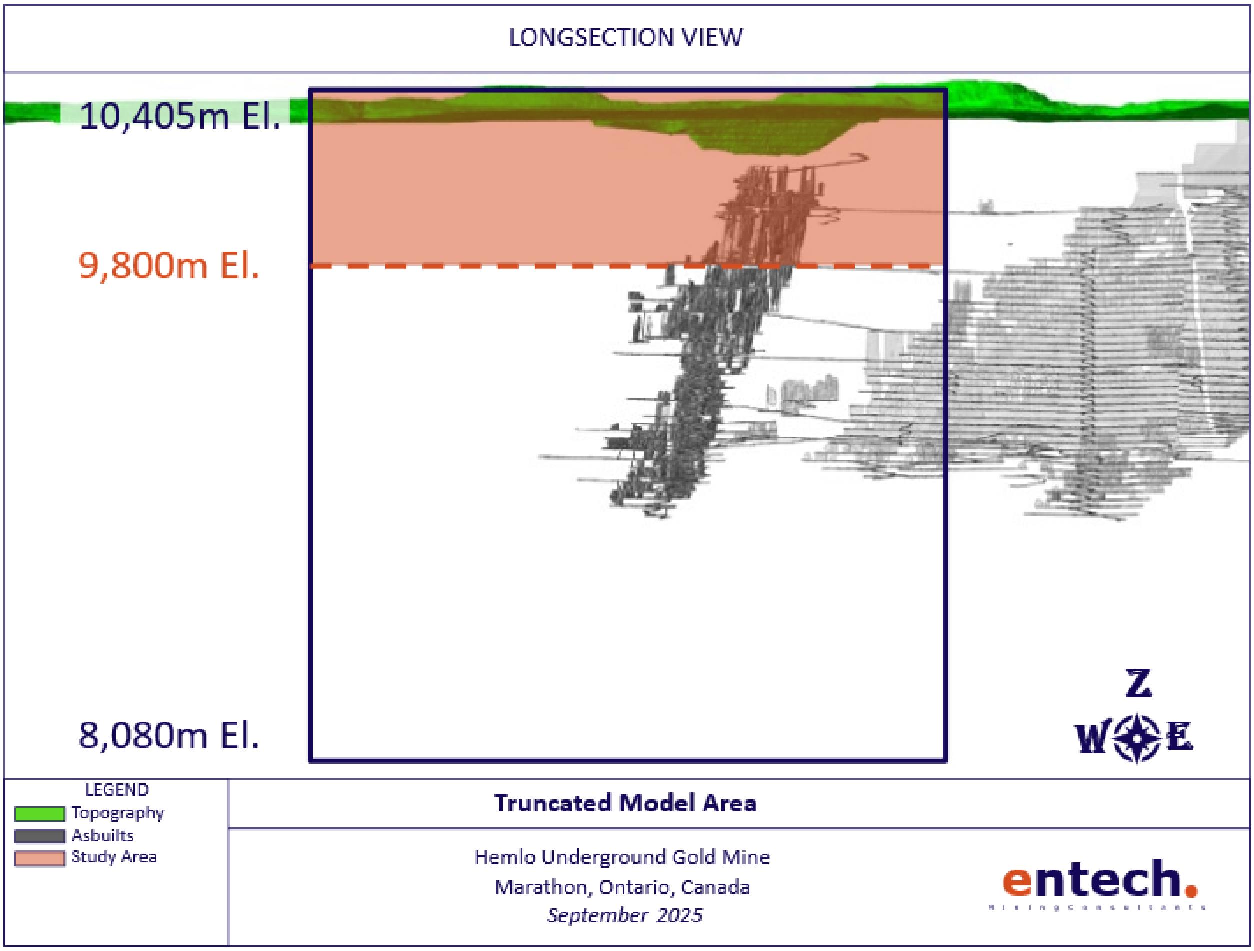
There was one model provided for use in the open pit study, depleted to underground development and production workings as of December 31, 2024. The open pit block model used for the study is presented in Table 16-34.

Table 16-34: Open Pit Mining Zones and the Corresponding Block Model

Mining Zone	Block Model
C-Zone Pit	CZ_EZ_2024_YE_DEP_Rev4_AU123.gmdlb

The provided model covers both the underground and open pit mining areas where the model was truncated from the 8,080 mRL to the 9,800 mRL for optimization purposes. The model truncation is illustrated in Figure 16-52.

Figure 16-52: Limitations Applied to the C-Zone Block Model Extents



Source: Entech 2025.

To improve cost estimation, the model density was modified with a set of fields which flag different material types of the block model. All voids were treated as filled due to some of the void conditions being unknown, which provides some added conservatism as it disincentivizes mining algorithms to mine through as-builts at a reduced cost.

The name of the added attributes and the modifying actions are summarized in Table 16-35 and the updated model density is summarized in Table 16-36.

Table 16-35: Flag Fields Added to the Block Model

Field Name	Description
ENT_DEV_ASB_FLAG	Development As-builts: 1 = Inside, 0 = Outside
ENT_DEV_05M FLAG	Within 5m of Development As-builts: 1 = Inside, 0 = Outside
ENT_DEV_10M_FLAG	Within 10m of Development As-builts: 1 = Inside, 0 = Outside
ENT_PRD_ASB_FLAG	Production As-builts: 1 = Inside, 0 = Outside
ENT_PRD_05M_FLAG	Within 5m of Production As-builts: 1 = Inside, 0 = Outside
ENT_PRD_10M_FLAG	Within 10m of Production As-builts: 1 = Inside, 0 = Outside
ENT_INSITU_FLAG	Insitu Rock: 1 = Yes, 0 = No
ENT_BACKFILL_FLAG	Surface Backfill: 1 = Yes, 0 = No
ENT_TOPO_FLAG	Above Topography: 1 = Yes, 0 = No
ENT_NAG_FLAG	Non-Acid Generating Rock: 1 = Yes, 0 = No
ENT_PAG_FLAG	Potentially-Acid Generating Rock: 1 = Yes, 0 = No

Table 16-36: Model Density by Material Location

Parameter	Unit	Value
Air	t/m^3	0.00
Surface Backfill	t/m^3	2.05
Development As-built[1]	t/m^3	2.00
Production As-built[2]	t/m^3	2.00
Other	t/m^3	2.72

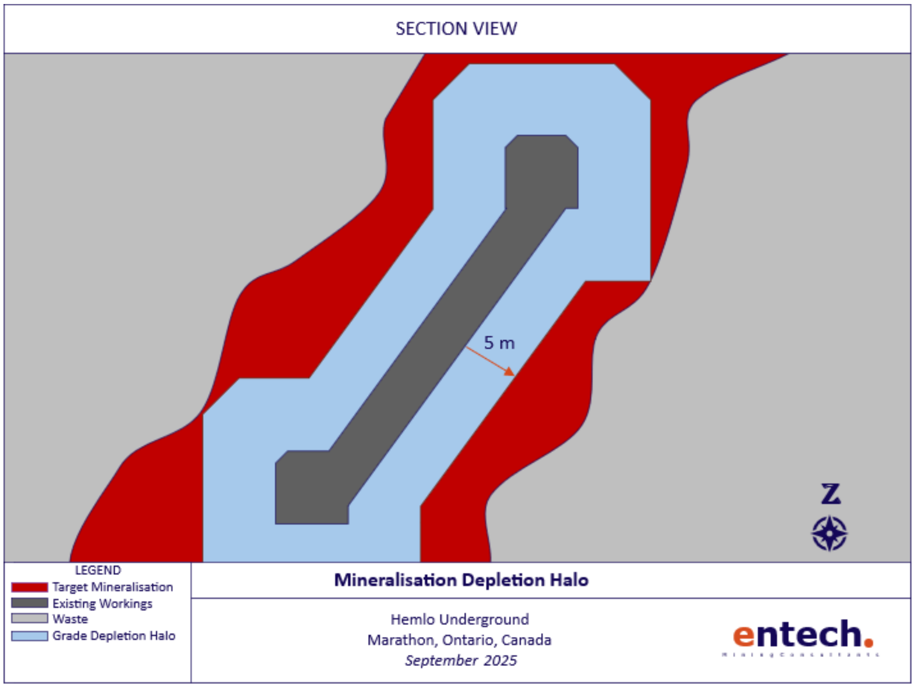
Notes:

1. Assumed Void
2. Assumed Filled with Pastefill

Historical underground workings present a challenge for operations with potential mining loss via blasted material filling voids and either being unrecoverable or incurring additional dilution and costs to the point where material is no longer profitable to process. To address this potential issue, material within a 5 m halo that surrounds the historical voids was given a grade reduction of 29%.

Figure 16-53 illustrates the concept of a grade penalty halo surrounding underground workings.

Figure 16-53: Mining Recovery Surrounding Underground Workings



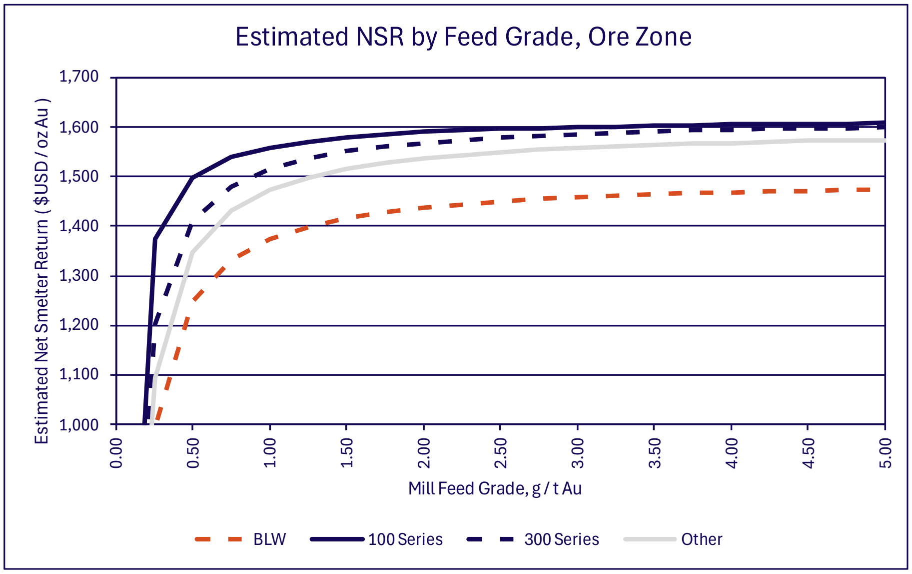
Source: Entech 2025.

As this study is to determine the potential for Mineral Reserves, any metal in material that was not Measured or Indicated was removed from the model.

16.2.3 Net Smelter Return

Both the underground and open pit studies consider NSR to estimate a block value due to the varying processing recoveries. The recoverable gold value per ounce is significantly impacted at the lower grades targeted by the pit as illustrated in Figure 16-54.

Figure 16-54: Estimated Net Smelter Return at Hemlo



Source: Entech 2025

16.2.3.1 Cut-Off Value

The in-pit COV is the minimum value that mineralization needs to meet before being sent to processing, also known as the marginal cut-off value. The cut-off value includes costs of processing, G&A, royalties (tonnage based, rather than revenue based), and sustaining costs. Additionally, it should contain any operational cost differences between treatment of material as ore and treatment of material as waste, such as grade control or rehandling costs. Previous studies highlighted an approximate 50% increase in the marginal cut-off value if the open pit mining activities (not stockpile management activities) operated past the known life of the underground operation, due to the increase in apportioned fixed costs applied to the open pit from the underground.

The cost estimates used for COV calculation are summarized in Table 16-37.

Table 16-37: Cut-Off Value Inputs

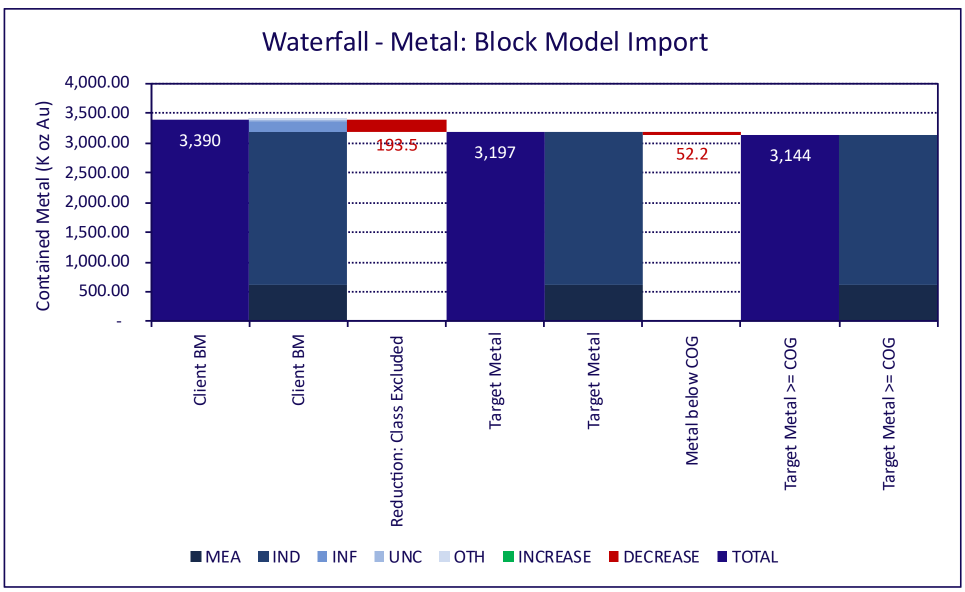
Item	Unit	Value
G&A Costs	**US$/t ore**	**1.67**
Site, Camp, Technical Services	US$/t ore	1.67
Processing Costs[1]	**US$/t ore**	**7.88**
Direct / Indirect	US$/t ore	6.78
Rehandle (Crushed Ore)	US$/t ore	1.10
Sustaining Capital	US$/t ore	-
Reallocation of Mining Costs[2]	**US$/t ore**	**1.04**
Grade Control	**US$/t ore**	**0.48**
Rehandle of ROM to Crusher	US$/t ore	0.56
In-pit Cut-Off Value	**US$/t ore**	**10.59**

Notes:

1. Site Based Costs (variable component)
2. Estimate from previous studies

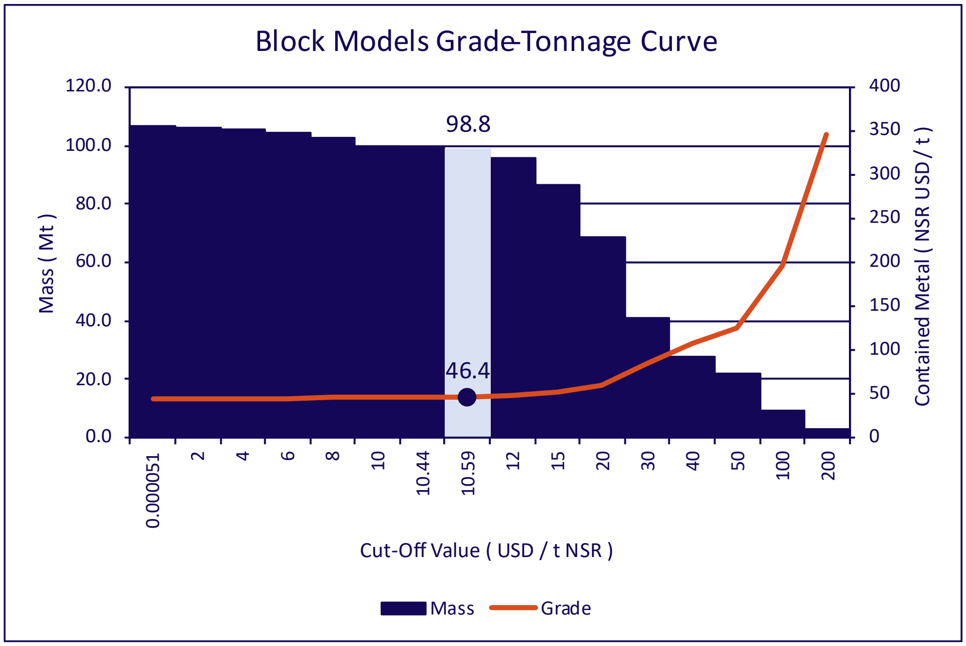
A waterfall chart demonstrating the material and metal flow from the provided block models to the material above cut-off is illustrated in Figure 16-55, while a grade-tonnage curves based on NSR and grade are illustrated in Figure 16-56 and Figure 16-57 respectively.

Figure 16-55: A Waterfall Chart Illustrating the Model Standardization Process



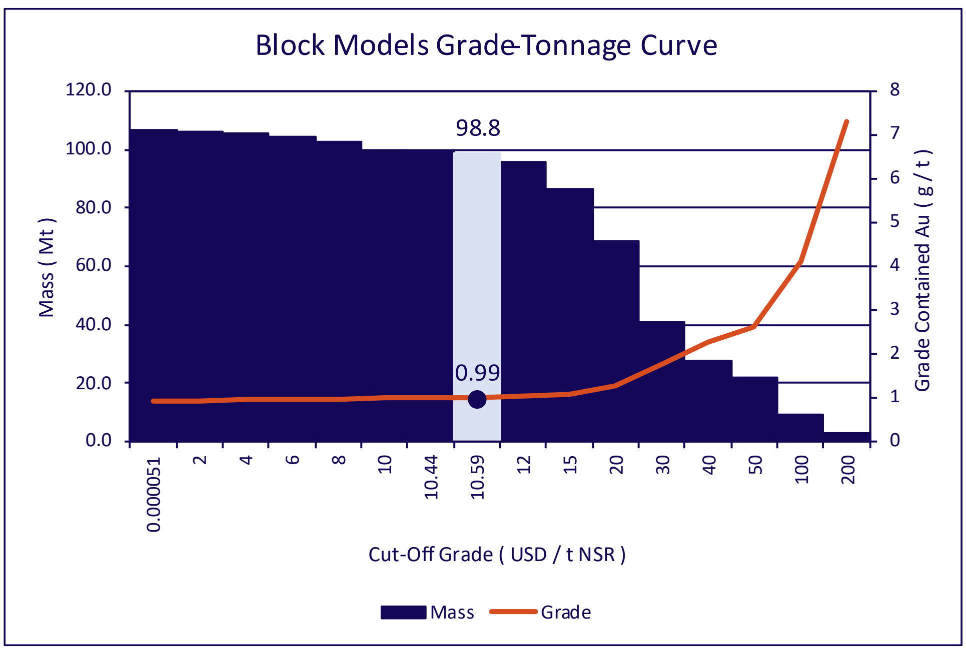
Source: Entech 2025.

Figure 16-56: A Grade-Tonnage Curve of the Final Block Models (NSR)



Source: Entech 2025.

Figure 16-57: A Grade-Tonnage Curve of the final Block Models (In Situ Grade)



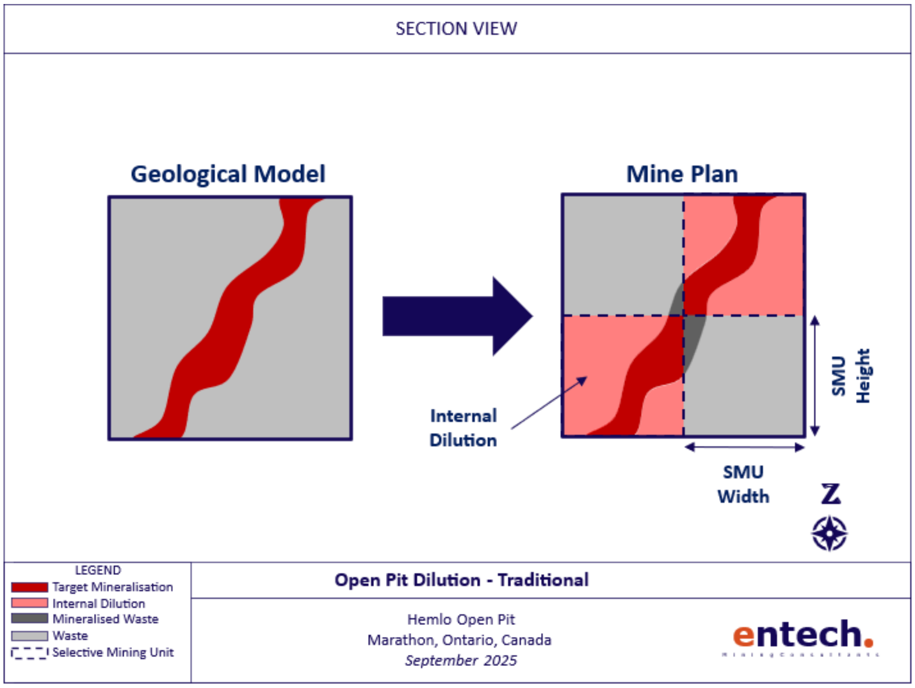
Source: Entech 2025.

16.2.4 Mine Dilution and Recovery

Dilution Factors

Dilution for open pit mining is typically described as "internal" or "external" dilution. Traditionally, internal dilution is the addition of uneconomic material to the targeted mineralization when creating a selective mining unit (SMU), represented by a block within a block model. External dilution is a mining factor to allow for further mixing of uneconomic material, typically along the ore/waste contacts. The concept of an SMU is illustrated in Figure 16-58.

Figure 16-58: Traditional Approach to Modelling Open Pit Dilution

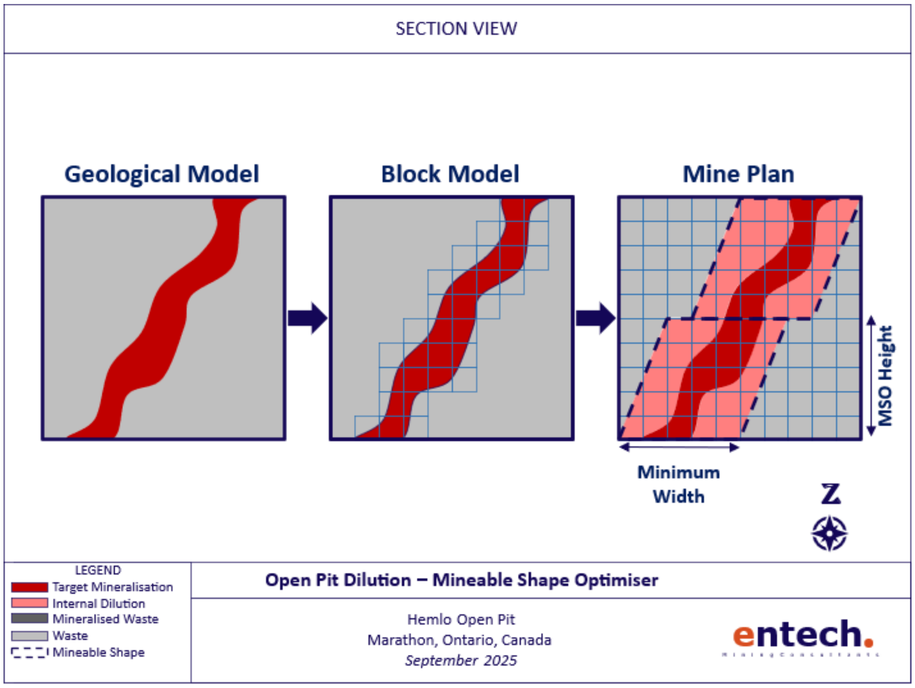


Source: Entech 2025.

Rather than the traditional approach of using the block model to reflect dilution, mining shapes were created with Datamine MSO on a block model that reflects the geology at a higher resolution. The MSO process estimates dilution by applying minimum mining width (MMW) constraint to the mineralization over a specific height (typically bench or flitch height) and only those the diluted shapes that meet the cut-off value are sent for processing.

Figure 16-59 illustrates the concept of going from a model that represents the mineralization to the mine plan based on the MSO process.

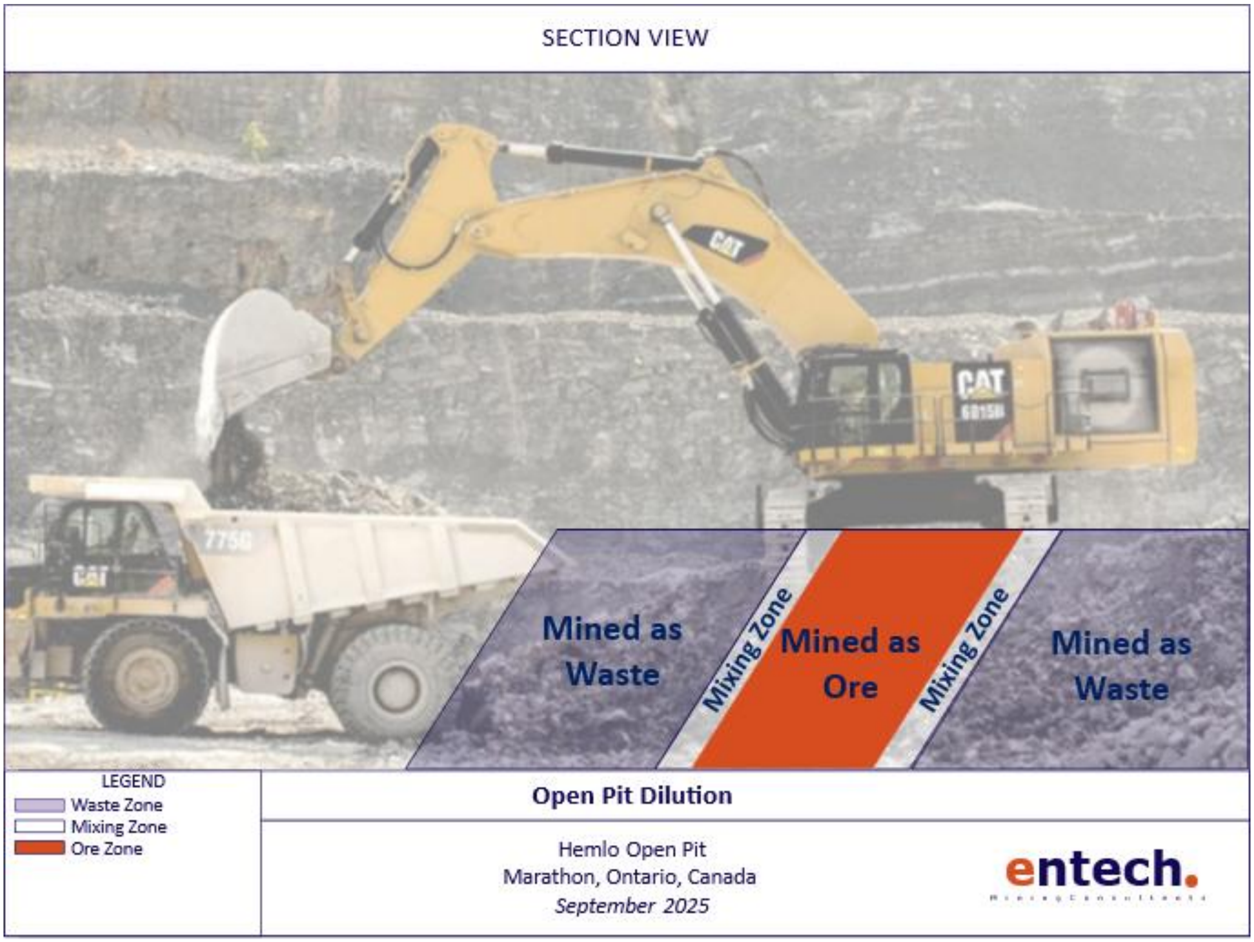
Figure 16-59: MSO Approach to Estimate Dilution



Source: Entech 2025.

Blasting in open pits typically contains both ore and waste material blasted within the same shot with segregation being completed by operations during excavation. As there is no rigidly defined barrier for ore and waste within the blasted material, a mixing zone consisting of both ore and waste material exists at the ore block contacts. This is the dominant source of external dilution in open pit mining, and the concept is illustrated in Figure 16-60.

Figure 16-60: Ore and Waste Segregation During Excavation



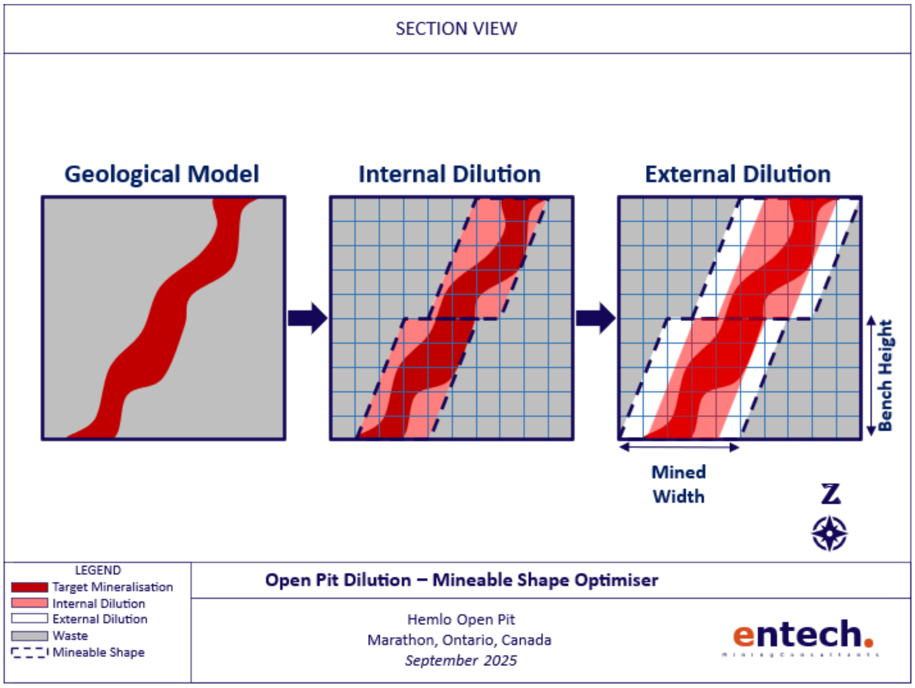
Source: Entech 2025

The entire mixing zone would be considered external dilution and is fully mined and treated as ore to ensure full recovery of the economic material. The mixing zone can vary by several factors, notably the following conditions:

- Spatial considerations - bench height, drill and blast parameters, equipment size;
- Mineralization geometry; and
- Grade control resolution.

External dilution is traditionally considered by applying a factor to the mined material. Rather than applying a factor, a dilution skin was added in MSO to reflect the mixing zone between uneconomic and targeted material as illustrated in Figure 16-61.

Figure 16-61: Internal and External Dilution in the MSO Process



Source: Entech 2025.

The minimum mining width used in MSO for a 22 m^3 sized excavator bucket was 7 m. This width does not represent the physical minimum distance of the bucket but a more practical minimum working width. An additional mixing zone of 1 m, based on drill and blast practices anticipated on site, was added to the hanging wall and footwall of the mineable shape, resulting in a final minimum mining width of 9 m.

The MSO parameters used for the Hemlo Open Pit study are summarized in Table 16-38.

Table 16-38: MSO Key Input Parameter Summary

Description	Units	Open Pit
MSO Cut-Off Value (in pit)	US$/t NSR	10.59
MSO Height	m	10.0
MSO Length	m	10.0
Minimum Total Mining Width	m	9.0
Minimum Target Mining Width	m	7.0
Mixing Zone – HW	*m*	*1.0*
Mixing Zone – FW	*m*	*1.0*

Total dilution which is defined as total material below cut-off divided by material above cut-off is 19.8%. Planned and unplanned dilution estimates are summarized in Table 16-39.

Table 16-39: Dilution Summary for Hemlo Open Pit Mine

Description	Units	Open Pit
Planned Dilution[1]	%	12.7
Unplanned Dilution[2]	%	6.3

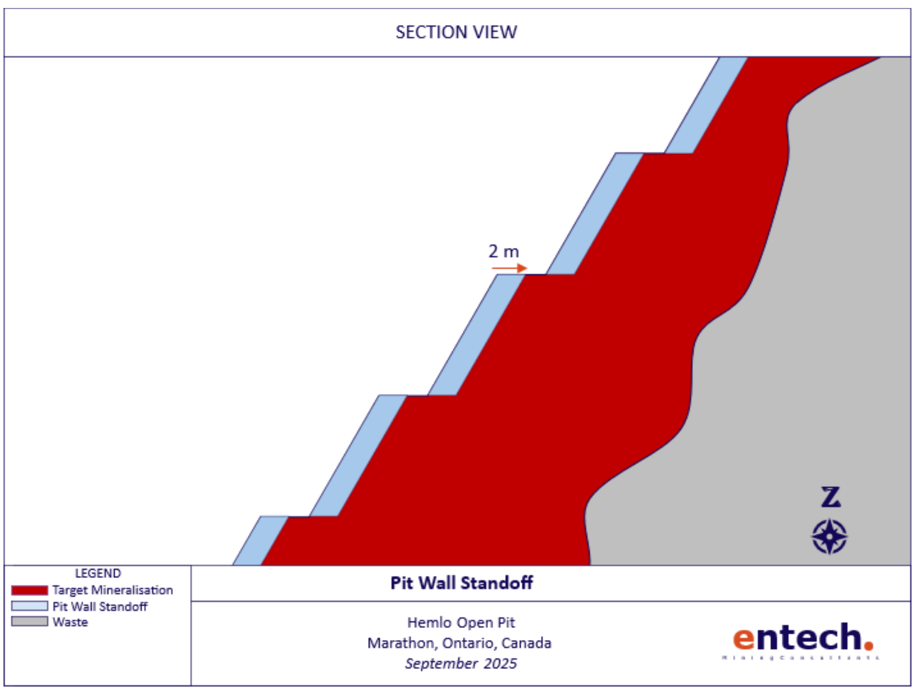
1. Included in MSO shape
   Percentage calculated by mass of material below cut-off value divided by mass of material above cut-off
2. Included in MSO shape
   Percentage calculated as the total mixing zone width (m) divided by the average MSO width (m) exclusive of the mixing zone

Recovery Factors

Mining loss can occur when blasting material near a pit edge during mining a pit cutback. Material blasted near the pit edge can be heaved towards the centre of the open pit, potentially mixing with material within the pit and diluting it below the economic cut-off. A 2 m standoff was applied to the pit surface to limit mineable shapes being created at the pit edge and have higher risk mineralization contributing to the pit economics.

An example of pit wall standoff can be seen in Figure 16-62.

Figure 16-62: Pit Wall Standoff for MSO Creation



Source: Entech 2025.

Through higher cost mining (blast mats, precision drill and blast, etc.) throw of mineralization near the pit edge could be managed. Through discussions with the study team, a conservative approach was taken to implement the pit offset and treat the excluded mineralization as upside during production.

Due to approaches taken with MSO and exclusion of potential economic material, all material mined had a recovery of 100% applied. The modification factors are summarized in Table 16-40.

Table 16-40: Dilution and Recovery Summary for Hemlo Open Pit Mine

Description	Units	Open Pit
Planned Dilution[1]	%	10
Unplanned Dilution[2]	%	6
Mining Recovery[3]	%	100

Notes:
1. Included in MSO shape
   Percentage calculated by mass of material below cut-off value divided by mass of material above cut-off
2. Included in MSO shape
   Percentage calculated as the total mixing zone divided by the average MSO width exclusive of the mixing zone
3. Inclusion of the mixing zone implies that the material identified as ore is captured by mining. The rare event of dumping mineralization on the waste dump did not warrant a notable reduction in mining recovery.

16.2.4.1 Preliminary MSO Outcomes

The parameters used in MSO are summarized in Table 16-41.

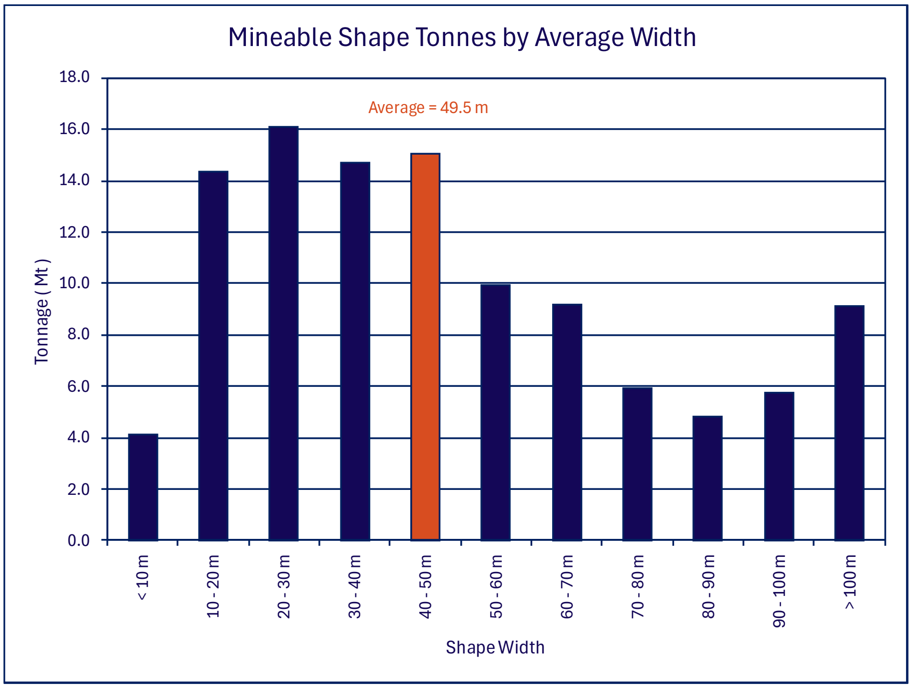
Table 16-41: Mineable Shape MSO Parameters

Parameter	Unit	Value
MSO Cut-Off Value[1]	US$/t NSR	10.59
Minimum Mining Width	m	7.0
ELOS (Mixing Zone) – FW	m	1.0
ELOS (Mixing Zone) – HW	m	1.0
Final Minimum Mining Width	m	9.0
Shape Assessment Length	m	10.0
Shape Height	m	10.0
Material Exclusion Standoff[2]	m	2.0

Notes:
1. In-pit cut-off value
2. Standoff distance from current topography

MSO was applied against the model from the 9,800 to the 10,405 mRL. The resulting MSO shapes are illustrated in Figure 16-63 with the mineralization summarized by average MSO width. The weighted average (by tonnage) shape width is 49.5 m.

Figure 16-63: Mineable Shape Tonnes by Width



Source: Entech 2025.

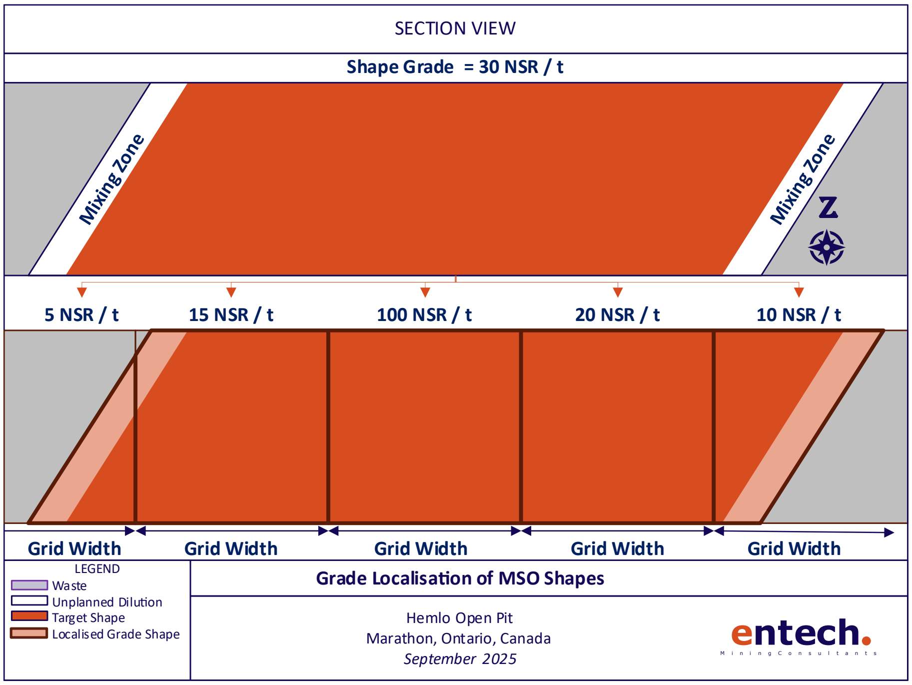
16.2.5 Open Pit Mine Design

16.2.5.1 Open Pit Optimization

Open pit optimization was completed using Whittle and serves as a guide for pit design. Whittle applies the Lerchs-Grossmann algorithm to determine the economic extents of an open pit for a block model using a set of design parameters and revenue factors. An attribute representing the MSO grade was added to the model, where the grades were zero unless the centroid of the block was contained within the MSO wireframes. The grade of the block was assigned the same grade MSO wireframe, regardless of the previous estimated value.

Prior to recoding the block model with the MSO grade, the MSO shapes were split on a 20 m by 20 m grid and reinterrogated to reduce the impact of grade smearing for open pit optimization. The periphery shapes containing the mixing zone dilution may run below the economic cut-off, but these split shapes, if they fall within the pit shell, are treated as ore and sent for processing. The grade localization concept is illustrated in Figure 16-64.

Figure 16-64: Splitting MSO Shapes for Grade Localization



Source: Entech 2025.

For economic pit shell estimation using Whittle, NSR was estimated for each block, which accounted for processing recovery, as well as associated selling costs. Mining costs were based on 22 m^3 excavators loading 135-150 t trucks and are summarized in Table 16-42.

Table 16-42: Economic Parameters – Whittle

Parameter	Unit	Value
Revenue	$ / NSR	1.00
Gold Value	$ /oz Au	1,700
PCOST (Processing, G&A, Sustaining Capital)	$ / t ore	10.59
Mining Cost – Ore	$ / t	3.03
Mining Cost – Waste	$ / t	2.85
Mining Cost – Overburden	$ / t	2.58
Vertical Mining Cost Factor	$ / 10 mV	0.02

Geotechnical slope parameters were provided by WSP, based on designs from previous studies of the open pit. The input slope parameters are summarized in Table 16-43.

Table 16-43: Geotechnical Slope Parameters – Whittle

Parameter	Value
Surface Material	
Overburden	30º
Dump Material[1]	30º
Rock	
Azimuth = 015.0	50º
Azimuth = 062.5	49º
Azimuth = 110.0	38º
Azimuth = 195	38º
Azimuth = 240	45º
Azimuth = 285	50º

Notes:
1. Surface backfill material at the pit edges to be relocated prior to mining

Mining dilution, mining recovery, and processing recovery were accounted for during the block model preparation and MSO process. The maximum processing rate is based on the maximum throughput able to be fed through to the existing processing infrastructure. While this is a maximum, as the open pit will be mined alongside the underground, open pit material may be displaced by underground feed.

The input parameters used in Whittle are summarized in Table 16-44.

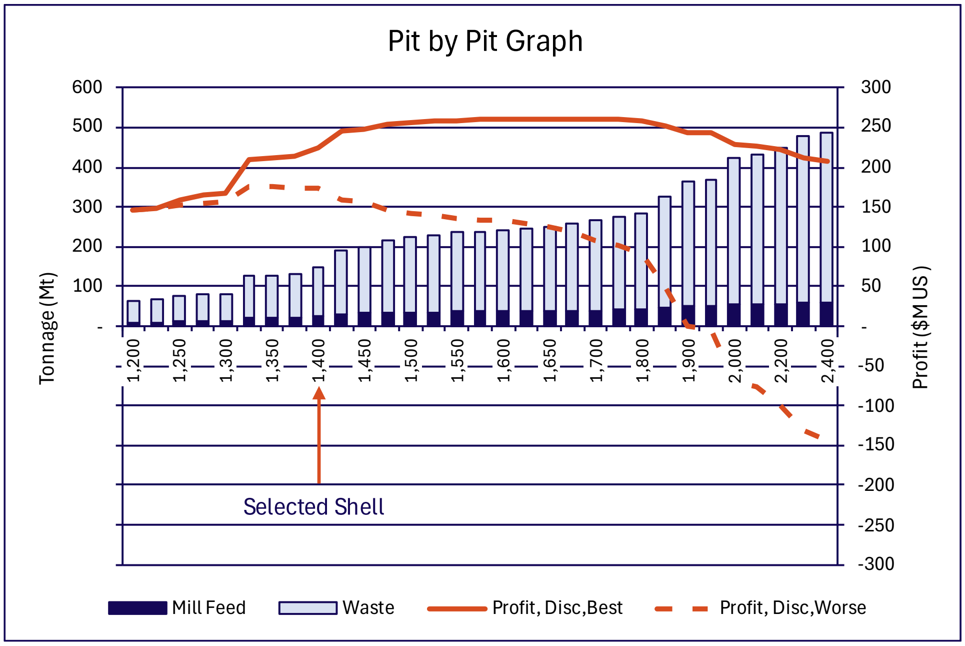
Table 16-44: Mining Parameters – Whittle

Parameter	Unit	Value
Factors		
Mining Dilution[1]	%	0
Mining Recovery[2]	%	100
Processing Recovery[3]	%	100
Schedule		
Maximum Processing Rate	Mtpa ore	3.5
Maximum Mining Rate	Mtpa	40.0
Discount Rate	%	6

Notes:
1. Included in MSO and coding process
2. Dilution fully mined to ensure full recovery of economic material
3. Included in NSR

The outputs of the pit optimizations are illustrated in Figure 16-65 and summarized in Table 16-45.

Figure 16-65: Pit by Pit Graph by Metal Price (US$/oz Au)



Source: Entech 2025.

Table 16-45: Pit Optimization Summary (COV 10.59, Contractor Model)

Pit Shell (#)	Revenue Factor (#)	Au (US$/oz)	Strip Ratio (W:O)	Total (Mt)	Waste (Mt)	Mill Feed (Mt)	Mined Grade (g / t Au)	Mined Metal (koz)	Rec. Metal (koz)	NPV Best (US$ M)	NPV Worst (US$ M)
5	0.76	1,300	5.6	82.3	69.8	12.5	1.03	414	363	167	156
9	**0.82**	**1,400**	**5.1**	**147.1**	**123.1**	**23.9**	**0.89**	**682**	**604**	**224**	**173**
13	0.88	1,500	5.4	225.2	190.1	35.1	0.85	960	856	257	143
17	0.94	1,600	5.5	240.2	203.1	37.1	0.85	1,013	902	260	133
21	1.00	1,700	5.7	268.9	228.6	40.2	0.85	1,099	976	261	108
23	1.06	1,800	5.8	284.2	242.2	42.0	0.85	1,142	1,015	259	91
25	1.12	1,900	6.4	363.3	313.9	49.4	0.85	1,344	1,195	244	1
27	1.18	2,000	6.9	425.0	371.1	54.0	0.86	1,488	1,322	229	-69
28	1.24	2,100	6.9	431.5	376.9	54.6	0.86	1,503	1,335	227	-77
29	1.29	2,200	7.0	447.9	392.1	55.9	0.86	1,538	1,367	222	-100
30	1.35	2,300	7.2	477.2	418.9	58.3	0.85	1,601	1,422	211	-132
31	1.41	2,400	7.2	486.3	427.3	59.0	0.85	1,620	1,439	208	-144

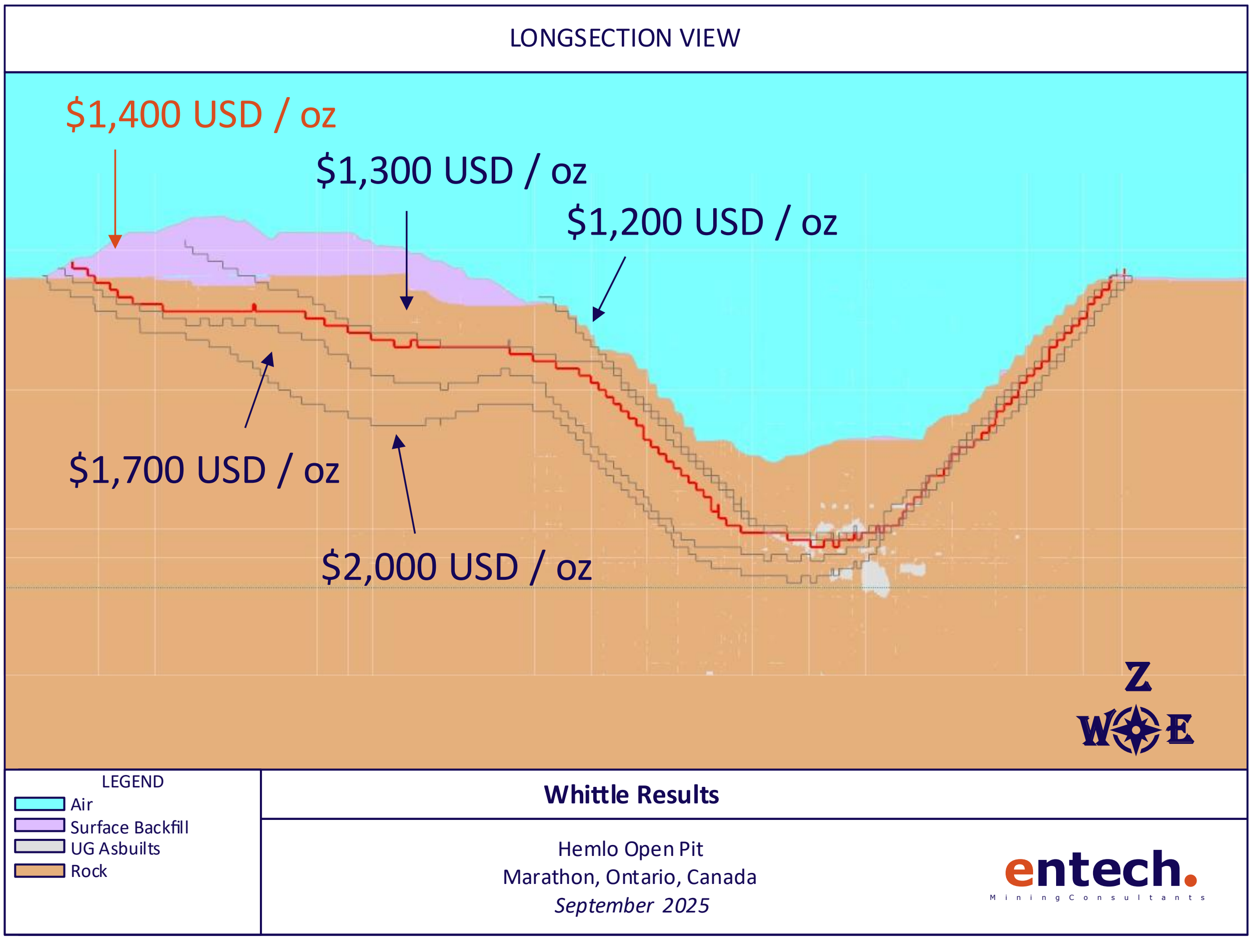
For pit design, pit shell 9 was selected (revenue factor = 0.82, metal price US$1,400/oz) based on the following:

- Maximizing profitability;

- Matching open pit mine life to underground mine life; and
- Practical considerations around backfill considerations, surface disturbance, and infrastructure.

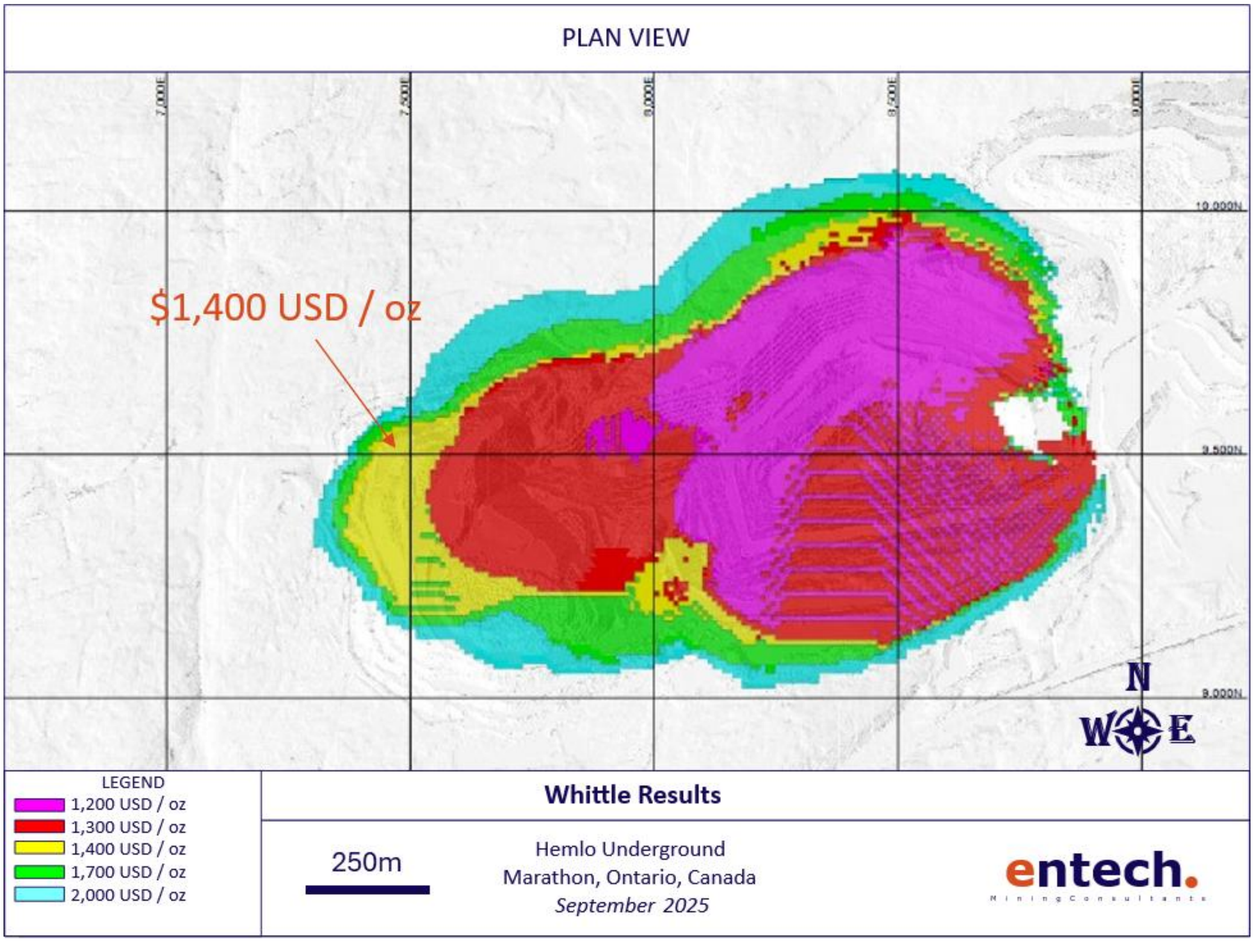
Longsections for pit shells for various metal prices are illustrated in Figure 16-66 and in plan view in Figure 16-67. These illustrate that most of the western expansion of the pit is by the US$1,400/oz pit shell and remaining increases have slight footprint expansions but increase the shallow depths of this expansion.

Figure 16-66: Whittle Pit Shells - Longsection



Source: Entech 2025.

Figure 16-67: Whittle Pit Shells - Plan



Source: Entech 2025.

16.2.5.2 Open Pit Design

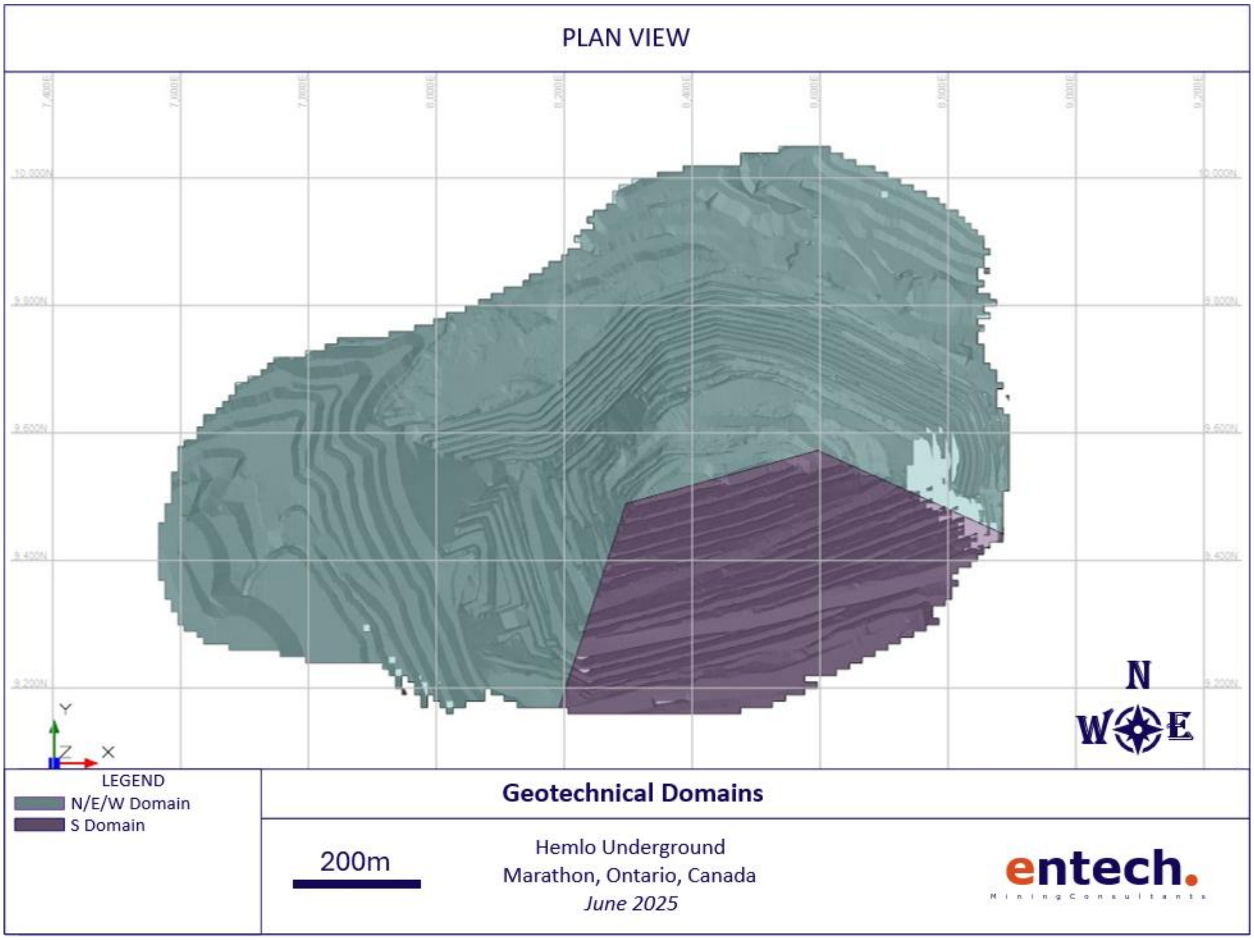
There are four broad geotechnical domains considered for the design of the open pit:

- Overburden and surface waste dump domains;
- South wall domain;
- North, east, and west wall domains; and
- Near significant underground voids.

The overburden and surface waste dump domains occur at the start of mine life, on the northeastern and western walls, when relocating waste material to alternative waste dumps to allow for the mining of the pit. The underground workings domains will be relevant at the end of the open pit mine life, mining below the 10,020 mRL, where the depth of the pit intersects development and production as-builts from the underground mine. When considering the impact of the underground voids, the IRA was reduced to 47°.

The design domains considered for pit design are illustrated in Figure 16-68.

Figure 16-68: Geotechnical Design Domains



Source: Entech 2025.

Additional considerations for design, based on the criteria provided by WSP in previous studies, were:

- Geotechnical berms positioned where continuous rock face exceeds 140 m vertically;
- 30 m offsets of waste dumps from pit crest; and
- Preferential pit ramp placement on the south wall to avoid topping failures on the north wall.

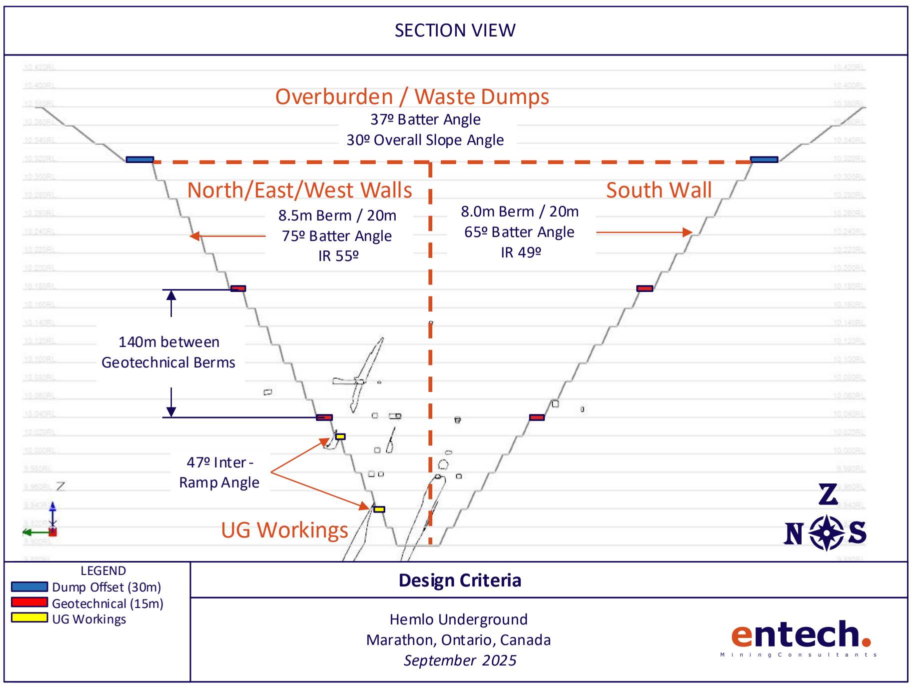
The geotechnical design parameters for all domains are summarized in Table 16-46 and illustrated in Figure 16-69.

Table 16-46: Geotechnical Design Parameters

Parameter	Wall Type	BFA (°)	Bench Height (m)	Berm Width (m)	IRA (°)
Overburden / Dump					
Site	-	-	20	-	37º
Rock					
South	Footwall	65º	20	8.0	49º
West	End Wall	75º	20	8.5	55º
North	Hanging Wall	75º	20	8.5	55º
East	End Wall	75º	20	8.5	47º
Underground Workings					
Significant Voids[1]	**-**	**75º**	**10**	**6.5**	**47º**

1 – Inter-ramp angle used to govern pit design.

Figure 16-69: Open Pit Design Criteria Schematic



Source: Entech 2025.

A set of geotechnical structures were provided, with some to be considered for design and others to be addressed operationally. Table 16-47 lists the structure files provided, as well as whether they were considered during long term pit design, or to be addressed during operations.

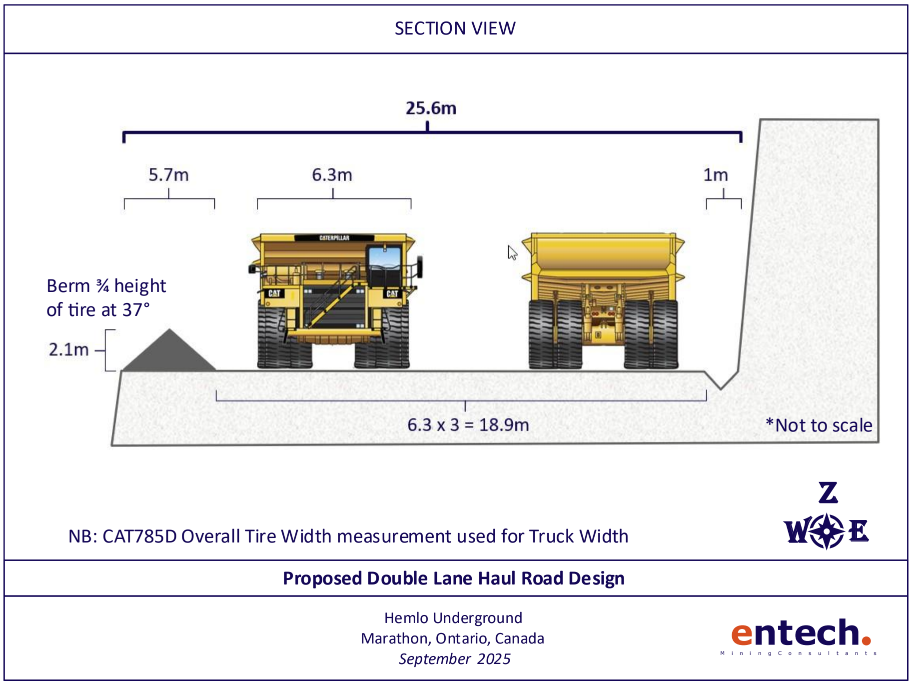
Table 16-47: Provided Structure Files and Consideration for Design Impacts

Fault File Name	Design Impact
2021faulttrace – discontinuity.dxf	N
Hemlo_sgz_aug2021_g1.dxf	N
Hemlo_sgz_aug2021_g2.dxf	N
Northwallfault_ext.dxf	Y
Nwf1.dxf	Y
Nwf2.dxf	N
Nwf3.dxf	N
Sgz_g1.dxf	Y
Sgz_g2.dxf	Y
Shear_strike_256_dip_70.dxf	N
Sw_fault_centre.dxf	N
Sw_fault_centre-2.dxf	N
W1.dxf	N
W2.dxf	N
W3.dxf	N
Wedgefault_strike296.dxf	N
Wedgeshearstrike.dxf	Y

Additional costs were included in the cost estimate to account for additional design modifications, in particular a wedge that would likely to be formed on the west of the pit.

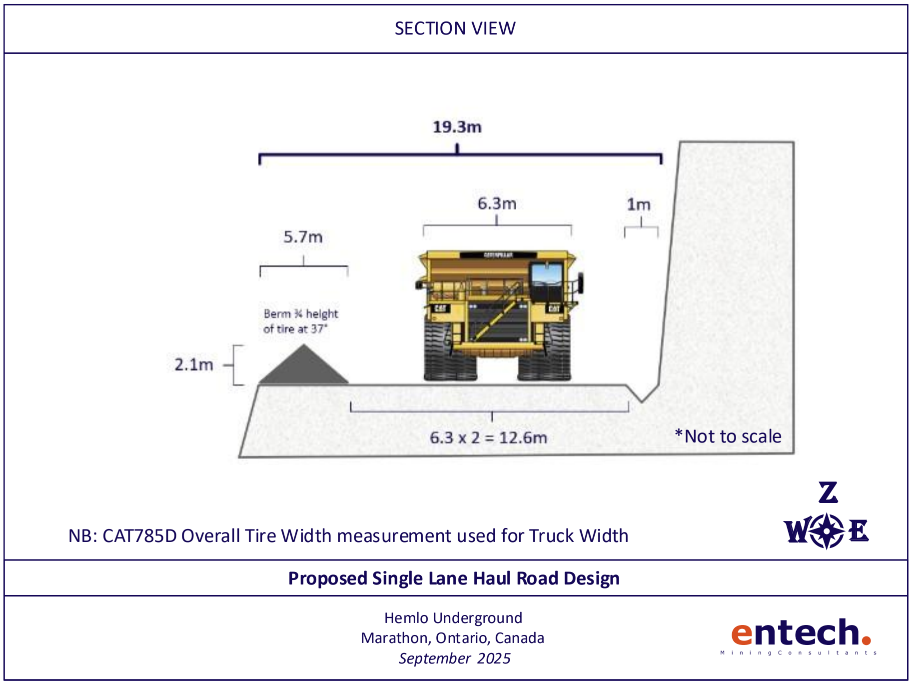
Ramp widths were based on a double lane ramp being used until the 10,110 mRL, then narrowing to a single lane for the remaining depth of the design. Lane widths were based on the width of CAT 785 mining trucks, with appropriate considerations for berms and drainage ditches. The proposed ramps widths are illustrated in Figure 16-70 for a double lane and in Figure 16-71 for a single lane ramp.

Figure 16-70: Double Lane Ramp Design Layout



Source: Entech 2025.

Figure 16-71: Single Lane Ramp Design Layout



Source: Entech 2025.

The design parameters used are summarized in Table 16-48.

Table 16-48: Open Pit Design Parameters

Parameter	Unit	S	N/E/W
Bench Height	m	20.0	20.0
Ramp Gradient	%	10.0	10.0
Ramp Width (> 10,110 mRL)	m	25.6	25.6
Ramp Width (< 10,110 mRL)	m	19.3	19.3
Berm Width – Fresh	m	8.0	8.5
Berm Width – Overburden	m	12.0	12.0
Berm - Geotechnical	m	20.0	20.0
Batter Face Angle (BFA)	º	65.0	75.0
Inter-ramp Angle (Fresh)	º	49.0	47.0 – 55.0
Inter-ramp Angle (Historical Workings)	º	47.0	47.0

Design Updates

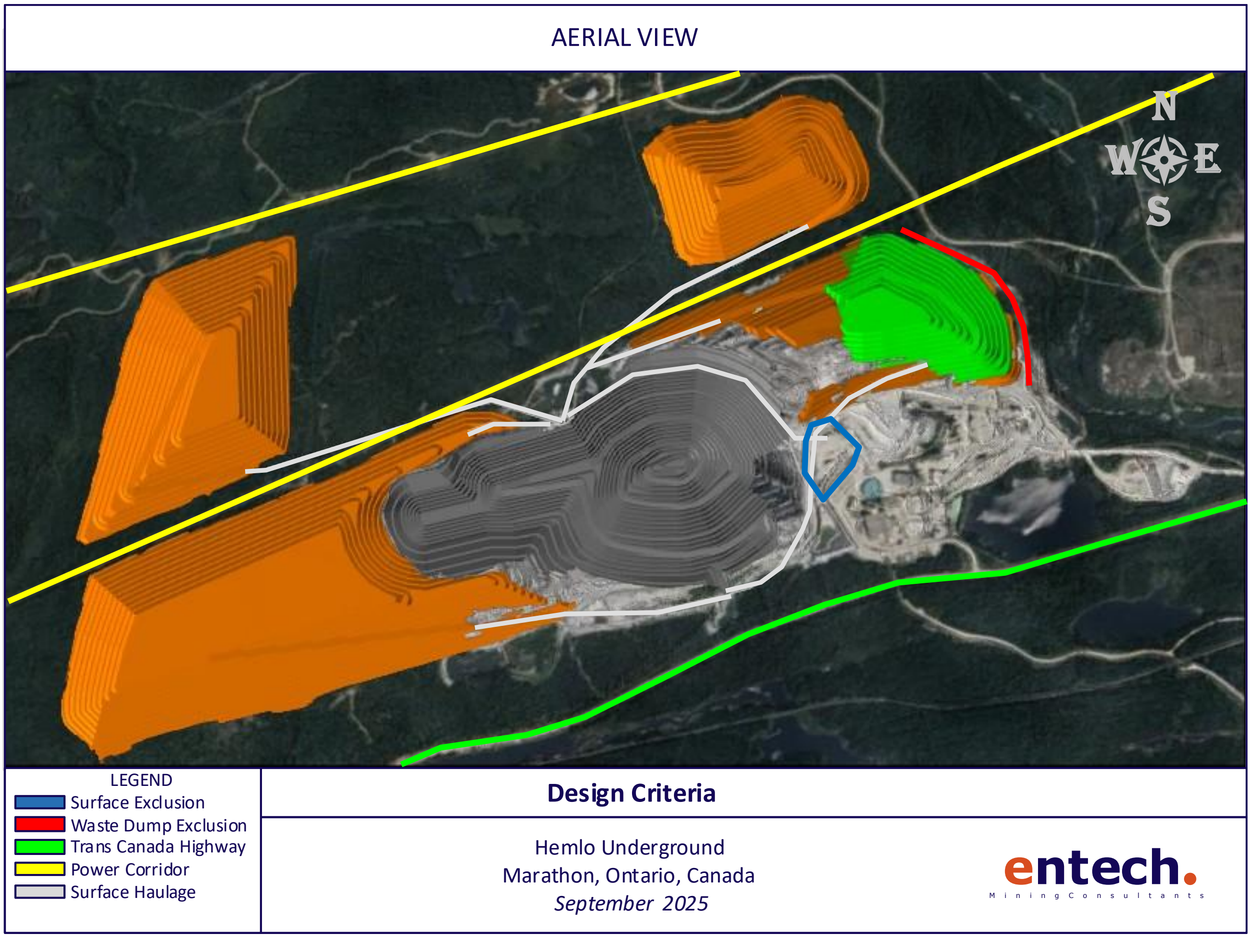
Following reviews with the geotechnical QP, additional material on the south wall and around the bullnose is required to be mined. Prior to a construction decision, further design and schedule optimization is required. The following was completed to estimate the cost impact and accounted for in the financial model:

- Preliminary design adjustments estimate an additional 0.8 Mm^3 of additional material to be mined along the south wall where 0.4 Mm^3 is comprised of dump material; and
- Design adjustments to the bullnose to the Wedge fault incurs approximately 0.6 Mm^3 of additional material to be mined.
- Approximately US$6M of additional costs to mine the additional material with the proposed fleet and labour over the initial years.

16.2.5.3 Ore Stockpile and Waste Dump Design

Stockpile and dump design at Hemlo has several topographical features to consider, when designing for materials storage. Existing open pits, operating milling infrastructure, power, and water all have interactions with the Hemlo open pit operation as illustrated in Figure 16-72.

Figure 16-72: Schematic of Features Impacting Dump and Stockpile Design



Source: Entech 2025.

Material storage dumps were designed to a 2:1 overall slope ratio (lateral distance to vertical distance) in 10 m lifts. The BFAs were designed at 37º with berms sized to achieve that slope ratio. The design parameters are summarized in Table 16-49.

Table 16-49: Dump and Stockpile Design Parameters

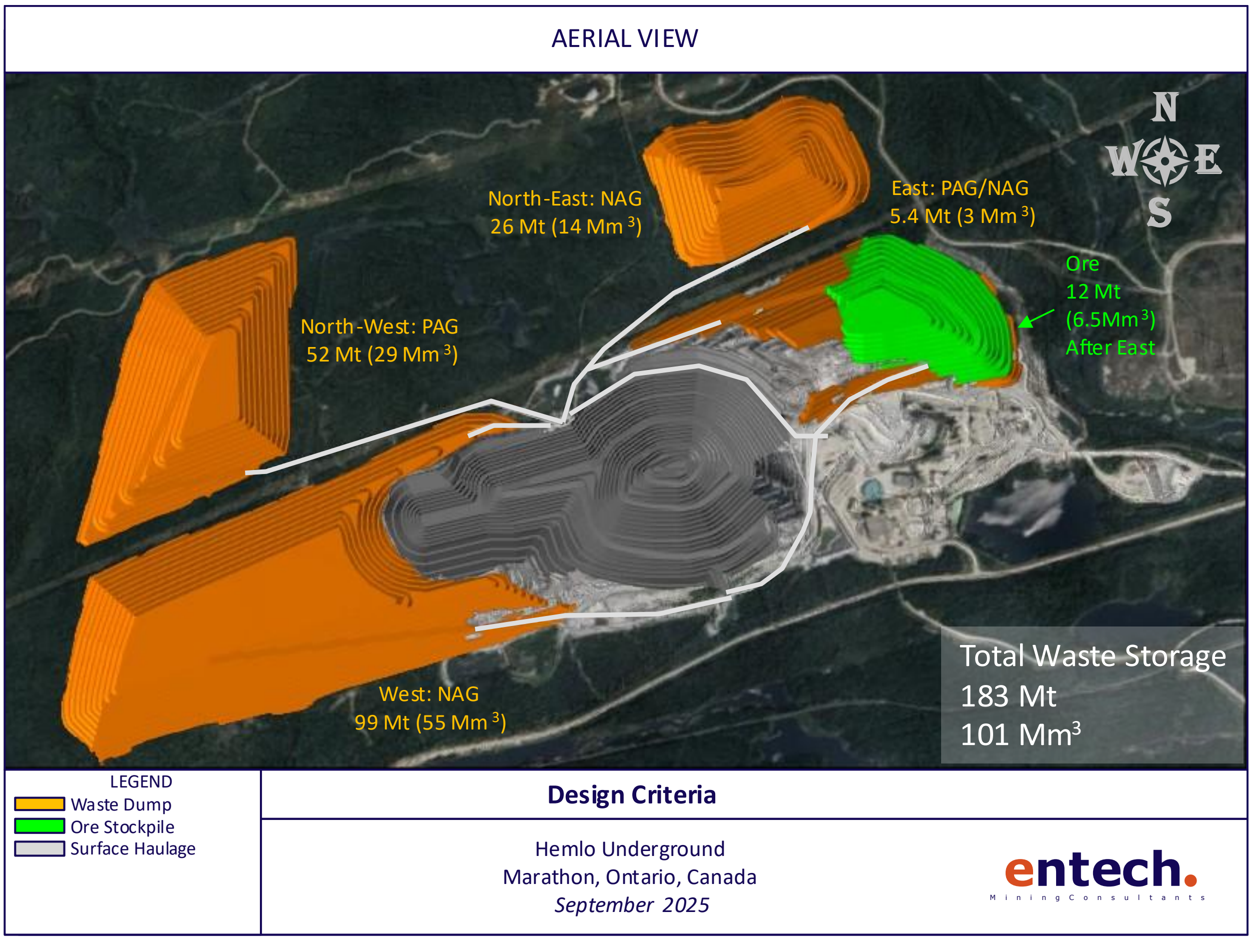
Parameter	Unit	Waste Dump	Ore Stockpile
Bench Height	m	10.0	10.0
Ramp Gradient	%	8.0	8.0
Ramp Width	m	25.6	25.6
Berm Width	m	6.7	6.7
Batter Face Angle (BFA)	º	37.0	37.0
Topographical Standoff	m	30.0	30.0

After completing a preliminary pit design and schedule, quantities of non-acid generating (NAG) and potentially acid generating (PAG) waste, as well as ROM stockpiling requirements were estimated. The storage requirements are summarized in Table 16-50. To cater for these volumes, four WRDs and one Ore Stockpile are proposed and their locations are illustrated in Figure 16-73.

Table 16-50: Dump and Stockpile Requirements

Location	Unit	Value
Waste – NAG	M.m^3	41.5
Waste – PAG	M.m^3	26.4
Ore	M.m^3	6.5

Figure 16-73: Schematic of Ore Stockpile and Waste Dump Capacities



Source: Entech 2025.

The volume of the WRDs, specified in the order in which they will be filled for each material type, is summarized in Table 16-51.

Table 16-51: Dump and Stockpile Capacity

Location	Unit	Value
Waste – NAG	**Mm^3**	**69.2**
North-East	Mm^3	14.1
West	Mm^3	55.1
Waste - PAG	**Mm^3**	**32.4**
East	Mm^3	3.0
North-West	Mm^3	29.4
Ore	**Mm^3**	**6.5**
All	Mm^3	6.5

Both the West and NW WRDs are larger than the total amount of stockpiled material required (27.2 Mm^3 and 6 Mm^3 respectively). These volumes provide additional capacity for potential redesign should further investigations into topographical interactions, or expansions of the pit design, require additional waste storage.

16.2.6 Mine Schedule

Owner-operated and contractor operated scenarios were evaluated for Hemlo. For scheduling and costing purposes, the operation is assumed to be using an owner-owned and operated fleet. The anticipated start date of earthmoving activities is January 2027, which will provide enough time to complete detailed mine planning and source equipment and potential contractors, if required.

16.2.6.1 Activities and Equipment Rates

The scheduled design is split into 60 m x 60 m x 10 m mining blocks (Length x Width x Height). For each mining block there are three activity types scheduled: drilling, blasting, and excavation activities.

Drilling activities were calculated as a sum of waste drilling and ore drilling. Pre-split drilling was assumed to use 152 mm diameter holes, while the remaining drilling would be using 203 mm diameter holes. The anticipated drill and blast designs would target a powder factor of 0.27 - 0.38 kg ANFO/t mined (waste-ore) with an additional 5% drilling costed to allow for potential redrills. The drilling parameters are summarized in Table 16-52.

Table 16-52: Drilling Activity Parameters

Activity	Units	Waste Rock[1]	Ore
Burden	m	6.1	5.1
Spacing	m	7.0	5.8
Subdrill	m	1.8	1.5
Stemming	m	4.1	4.1
Drill Factor[2]	m^3/m	34.3	24.5
Pre-split Allowance[3]	%	13	0
Stiffness Ratio		1.6	2.0
Powder Factor	kg/t	0.27	0.38

Notes:

1. No drilling required in overburden or surface dump material
2. No consideration applied for geometry of ore/waste material
3. Applied as a factor of metres drilled

Blasting activities were not scheduled with equipment, instead blasting was provided a 2-day delay as an allowance per scheduled mining block with rock mined (either ore or waste). Mining blocks consisting entirely of surface material was given nil delay, as it only requires rehandle instead of drilling and blasting.

Equipment rates are based on active operations for 2 x 12 hour shifts, 7 days a week. Accounting for day and shift losses, equipment mechanical availability and utilization, the annual productive hours for equipment are summarized in Table 16-53.

Table 16-53: Average Utilized Time Per Calendar Day

Activity	Units	Value
Calendar Days	d/yr	365
Internal Day Loss	d/yr	5
External Day Loss	d/yr	5
Available Calendar Days	d/yr	355
Shifts per Day	shift/d	2
Shift Length	hr/shift	12.0
Shift Loss – Blasting	hr/shift	1.0
Shift Loss – Startup, Lunch	hr/shift	1.0
Mechanical Availability	%	85.0
Utilization	%	95.0
Utilized Hours per Shift	U hr/shift	8.1
Utilized Hours per Day	U hr/yr	16.2
Utilized Hours per Year	U hr/yr	5,733
Utilized Hours per Calendar Day	**U hr/d**	**15.7**

Material movement rates assumed a fleet of trucks that would fully support the shovels, which would require some queuing for trucks. Due to the risk mitigation requirements of working around underground workings, as well as general difficulty with mining around historical workings, a productivity penalty of 50% has been applied to any material mined within 10 m of underground workings. The productivity assumptions for excavators are summarized in Table 16-54.

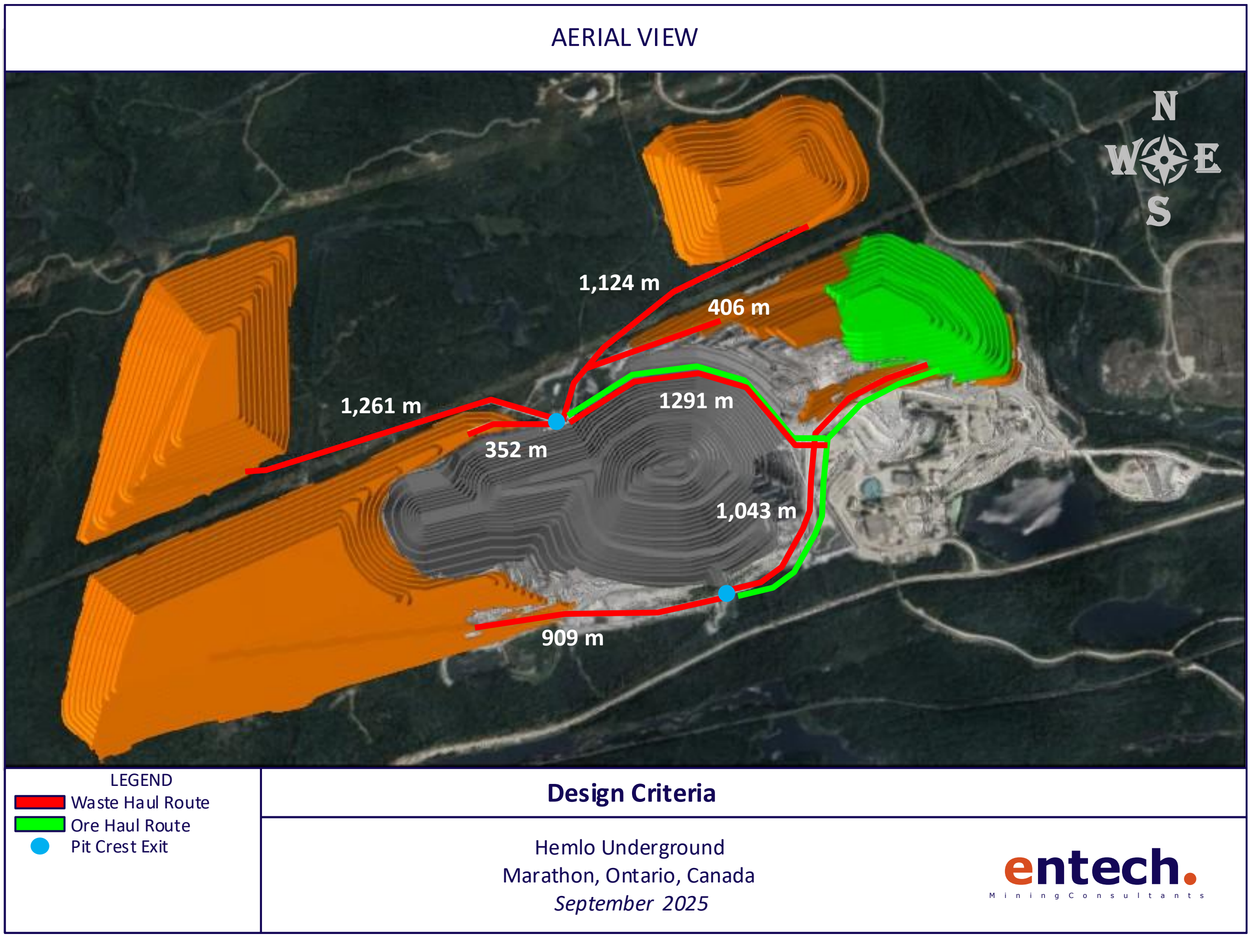
Table 16-54: Excavator Productivity Assumptions

Activity	Units	Value
Excavator, 22 m^3 per pass	**t/pass**	**38**
Maximum Capacity[1]	t	40
Bucket Fill Factor	%	95
Truck	**t/cycle**	**132**
Maximum Capacity[2]	t	139
Bucket Fill Factor	%	95
Time – Total Truck Loading Time	**s**	**185**
Time – Truck Setup	s	30
Time – Truck Wait	s	15
Time – Swing Cycle	s	35
Load Cycles per Truck	#	4
Utilized Hours per Calendar Day	**U hr/d**	**15.7**
Annual Capacity	Mtpa	14.7
Calendar Day Capacity	**ktpd**	**40.4**
Underground Workings Penalty[34]	%	50
Annual Capacity	Mtpa	17.4
Calendar Day Capacity	**ktpd**	**20.2**

Notes:
1. Excavator maximum capacity constrained by tonnage
2. Truck maximum capacity constrained by tonnage (older fleet was being considered)
3. Material within 10m of underground workings receives a shovel productivity penalty
4. Material below the 10,020m RL receives a shovel production penalty due to the significant presence of underground workings

Truck estimates are based on the calculated haulage distances from the mining block, along the bench to the pit ramp, exiting the pit and then to the appropriate material dump location. Above and including the 10,290 m bench, all material exits the pit via a temporary North ramp. The North ramp is removed once the 10,290 m bench is mined and then all material is routed through the South ramp. The haulage routes used by the open pit are illustrated in Figure 16-74.

Figure 16-74: Schematic of Haulage Routes at Hemlo Open Pit



Source: Entech 2025.

Loaded, inclined (grading greater than 3%) travel speeds are capped by maximum speeds according to the CAT 785 rim pull curve. All other speeds are capped at an average of 35 km/h, factoring in road conditions, speed limits, turning and deceleration requirements. The truck productivity assumptions are summarized in Table 16-55.

Table 16-55: Truck Productivity Assumptions

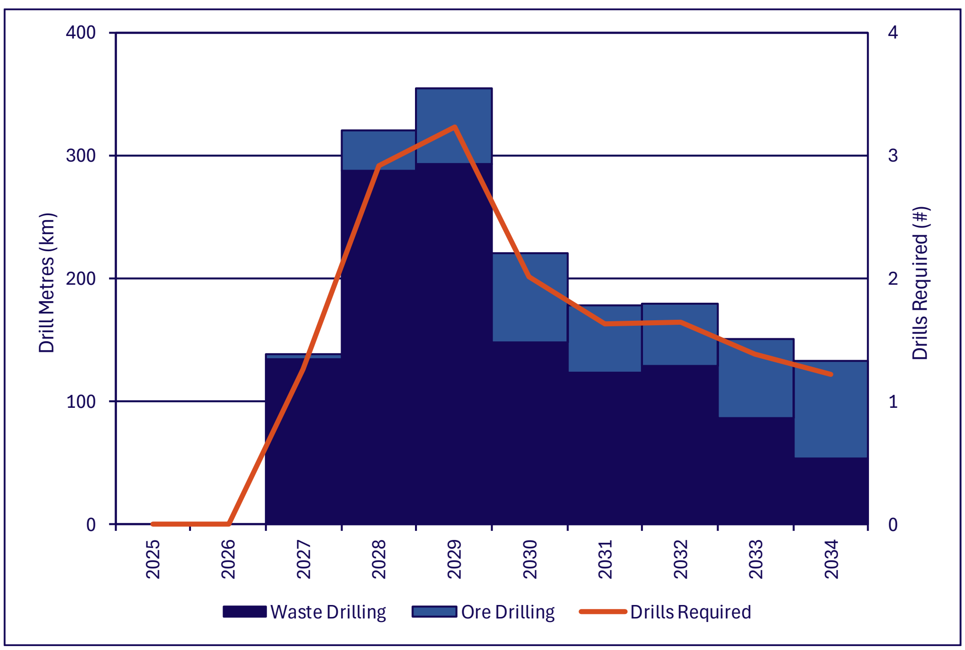
Activity	Units	Value
Truck Bucket Load (CAT 785)	**t/bucket**	**132**
Maximum Capacity[1]	t	139
Bucket Fill Factor	%	95
Distance[2]	m	From Design
Speed – Loaded – Incline	km/h	11.3
Speed – Elsewhere	km/h	35.0
Time – Total Cycle Time	**s**	**Varies**
Time – Tram Time	s	Varies
Time – Loading Time	s	185
Utilized Hours per Calendar Day	**U hr/d**	**15.7**

Notes:
1. Maximum capacity is volume constrained at an Insitu density of 2.72 t/m^3
2. On-bench distances increased by 50% to account for tramming around the existing pit

16.2.6.2 Drilling

Drilling is to be completed with 152 mm and 203 mm diameter drill bits, at a rate of 300 m of drilling per day. The initial six months of material movement is relocating backfill from existing waste dumps, which requires no drilling. A maximum of four drills is required in the schedule to satisfy the production schedule. The annual drilling schedule and drill requirements are illustrated in Figure 16-75 and summarized in Table 16-56.

Figure 16-75: Annual Drilling Schedule for the Hemlo Open Pit Mine



Source: Entech 2025.

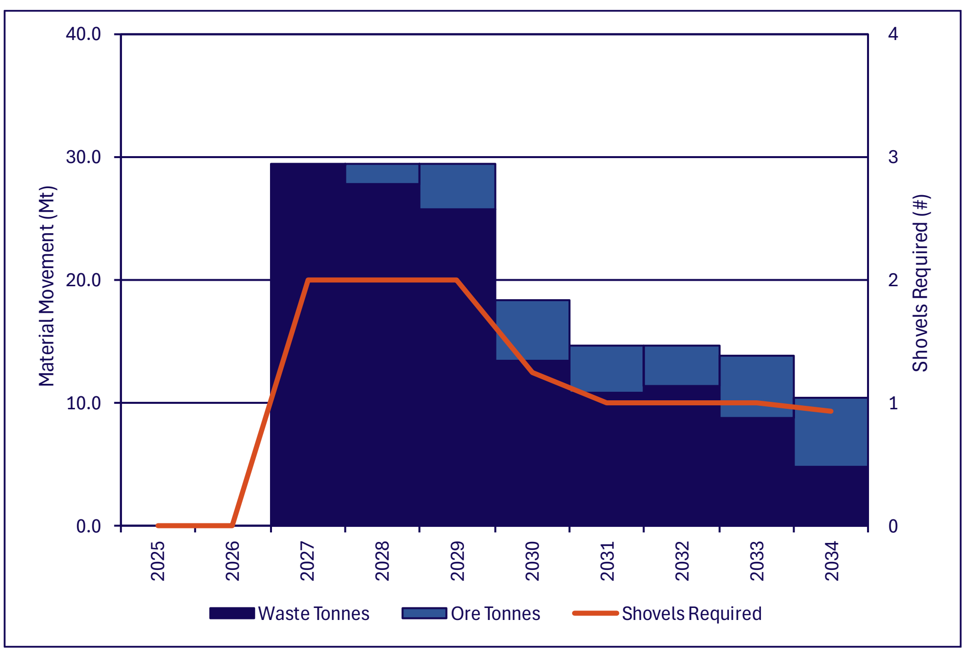
Table 16-56: Total and Annual Drilling Schedule for Hemlo Open Pit Mine

Period	Ore Drilling (km)	Waste Drilling (km)	Total (km)
TOTAL	**420**	**1,259**	**1,679**
2025	-	-	**-**
2026	-	-	**-**
2027	4	135	**139**
2028	32	289	**321**
2029	60	294	**355**
2030	73	148	**221**
2031	55	123	**178**
2032	51	129	**180**
2033	65	87	**151**
2034	80	54	**134**

16.2.6.3 Material Movement

The material movement fleet configuration prioritizes the utilization of shovels, with sufficient trucks available to fully utilize available shovels for the life of mine. The schedule requires two shovels initially, with a reduction to one shovel in 2030. Material movement rates dip in the final years of the schedule due to proximity to underground workings. The annual material movement schedule and shovel requirements are illustrated in Figure 16-76 and summarized in Table 16-57.

Figure 16-76: Annual Material Movement Schedule for the Hemlo Open Pit Mine



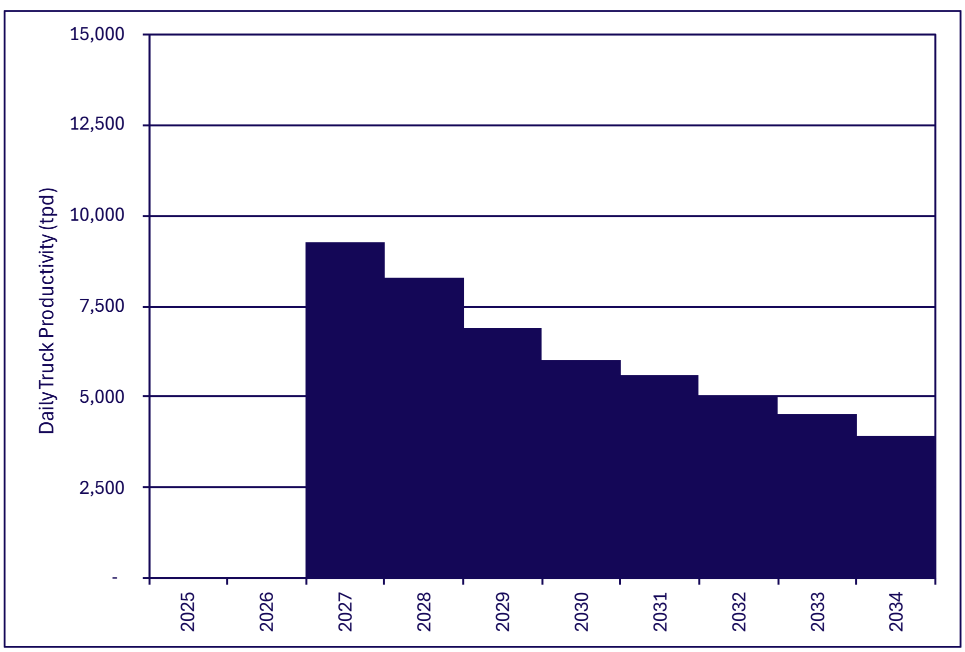
Source: Entech 2025.

Table 16-57: Total and Annual Material Movement Schedule for Hemlo Open Pit Mine

Period	Ore Tonnes (Mt)	Waste Tonnes (Mt)	Total (Mt)
TOTAL	**28.4**	**132.3**	**160.7**
2025	0.0	0.0	**0.0**
2026	0.0	0.0	**0.0**
2027	0.1	29.3	**29.5**
2028	1.8	27.8	**29.5**
2029	3.7	25.8	**29.5**
2030	4.9	13.5	**18.4**
2031	3.9	10.8	**14.7**
2032	3.4	11.4	**14.8**
2033	5.1	8.8	**13.9**
2034	5.6	4.9	**10.5**

Truck productivity is based on the distances trammed to haul material from source to destination. As the pit deepens, the distances travelled increase and the productivity of each truck decreases. Annual average daily truck productivity over the life of mine is illustrated in Figure 16-77.

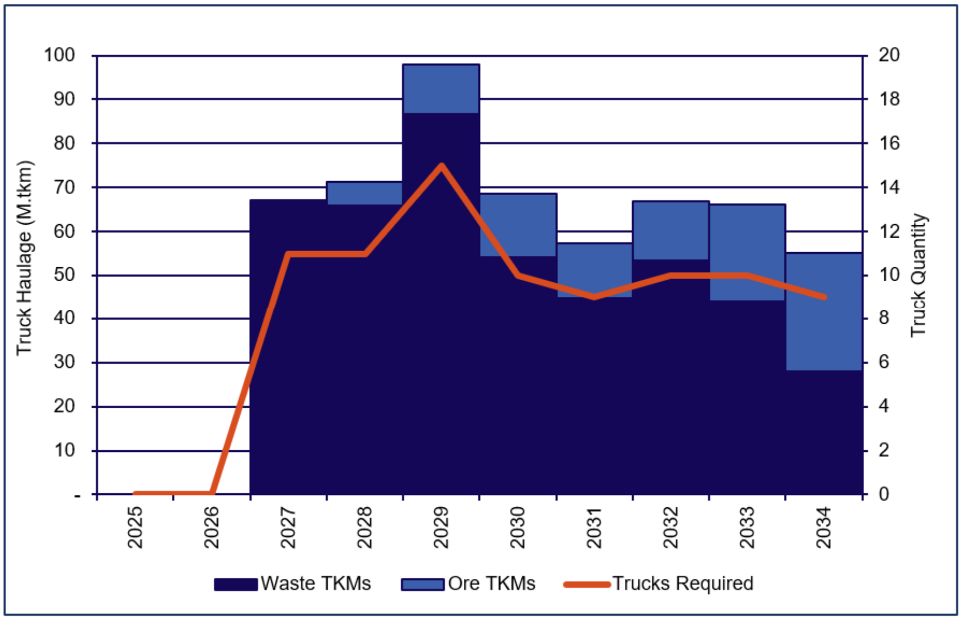
Figure 16-77: Average Daily Truck Productivity (tpd) by Year



Source: Entech 2025.

Generally, 10 to 11 trucks are required for the life of the mine with a peak of 15 in 2029 to keep the shovels fully utilized. The annual material haulage schedule and truck requirements are illustrated in Figure 16-78 and summarized in Table 16-58.

Figure 16-78: Annual Material Haulage Schedule for the Hemlo Open Pit Mine



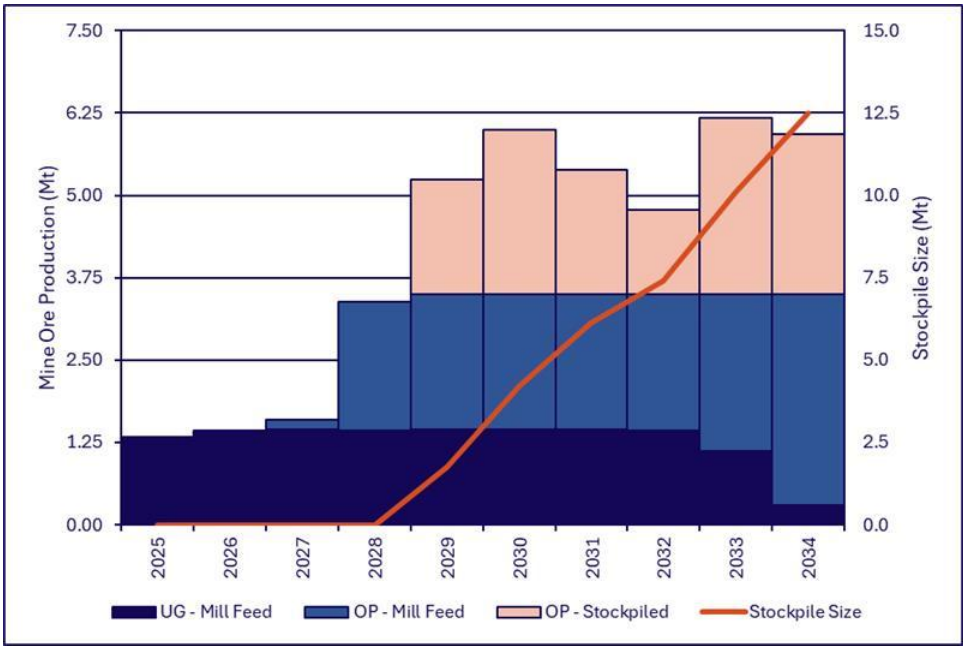
Source: Entech 2025.

Table 16-58: Total and Annual Material Haulage Schedule for Hemlo Open Pit Mine

Period	Ore Haulage (M.tkm)	Waste Haulage (M.tkm)	Total (M.tkm)
TOTAL	**98.5**	**379.7**	**478.2**
2025	0.0	0.0	**0.0**
2026	0.0	0.0	**0.0**
2027	0.3	59.7	**60.0**
2028	4.8	63.0	**67.8**
2029	10.5	72.6	**83.1**
2030	14.7	44.2	**58.8**
2031	11.6	37.6	**49.2**
2032	12.1	43.5	**55.6**
2033	19.9	35.6	**55.6**
2034	24.6	23.4	**48.0**

Based on the production profile of the pit to complete no later than the underground operation, a surface ore stockpile is generated commencing in 2029 and continues to build until pit completion as illustrated in Figure 16-79. The maximum stockpile is estimated to be approximately 12.5 Mt with additional rehandle of a further 1 Mt occurring throughout the life of the operation.

Figure 16-79: Combined Mine Mill Feed and Ore Stockpile



Source: Entech 2025.

16.2.7 Mine Personnel

The Hemlo open pit is proposed to operate seven days a week with two 12-hr shifts each day of the year with staff working a 4:3 roster. The estimated quantities of mine personnel are summarized in Table 16-59.

Table 16-59: Mine Personnel Estimate for Hemlo Open Pit Mine

Position Description	Headcount (max)
Total	**265**
Barrick Technical Services	19
Operations Labour including Supervision and Support	154
Contractor Maintenance Labour	92
Subtotal Owners	**265**

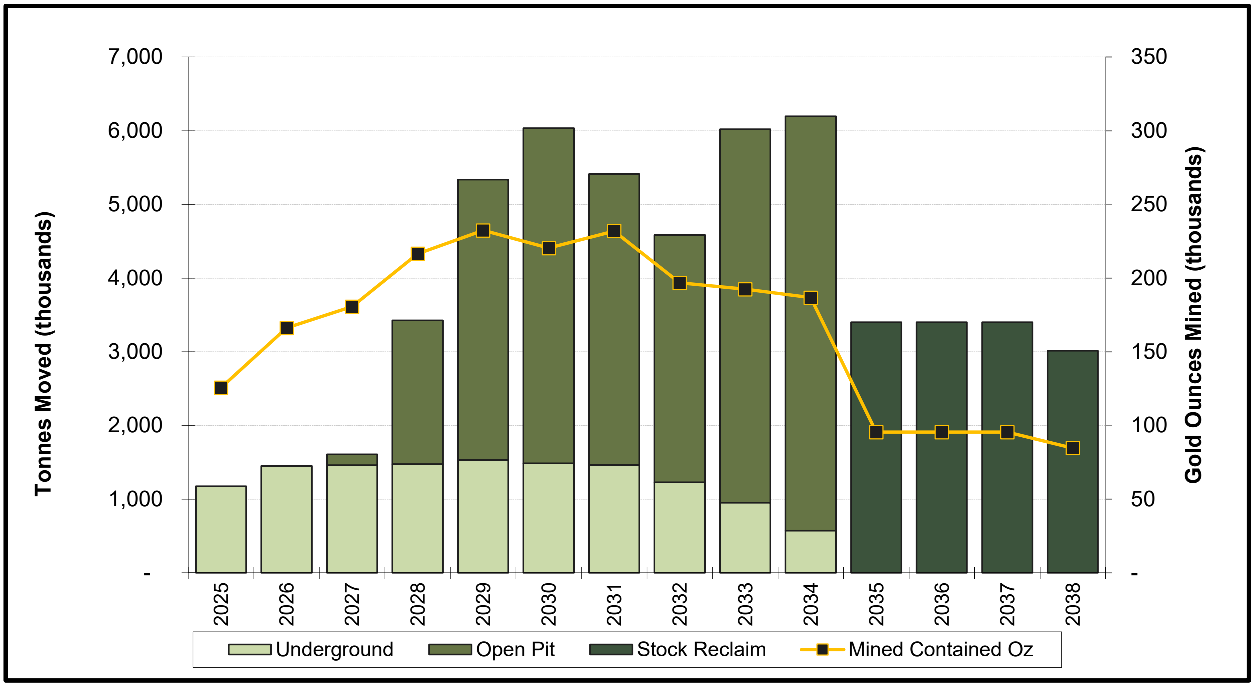
16.3 Integrated Life of Mine Plan

The underground mine is currently in operation and the open pit expansion is expected to start in 2027 with ramp-up finished in 2028. Mining operations are currently planned to deplete the Mineral Reserves in 2034 with stockpile reclaim scheduled until 2038.

Over the LOM, a total of 41.2 Mt of plant feed are expected to be delivered to the mill at an average grade 1.75 g/t Au. A total of 134.5 Mt of waste rock is anticipated to be mined, resulting in an average stripping ratio of 4.65 w:o. There is little expected pre-stripping ahead of production due to the exposure of ore at surface. Throughout the mine life, a total of 13 Mt of ore are delivered to stockpiles before being delivered to the mill. The total mine life is 14 years.

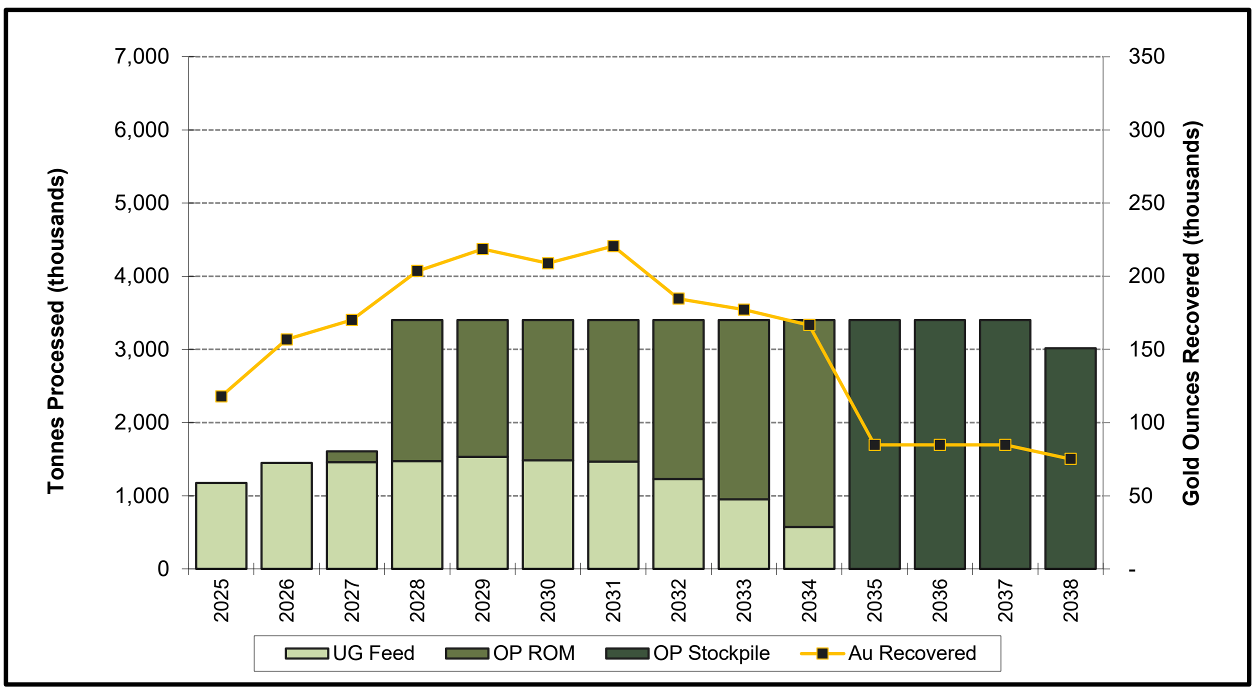
The mine schedule and plant feed are summarized in Figure 16-80 and Figure 16-81 which show the mined and milled tonnes respectively.

Figure 16-80: LOM Production Schedule – Mined Tonnes



Source: SLR 2025.

Figure 16-81: LOM Production Schedule – Mill Feed Tonnes



Source: SLR 2025.

17.0 Recovery Methods

The processing plant at Hemlo (the Williams Mill) uses a conventional flowsheet consisting of crushing, grinding, gravity concentration and intensive cyanide leaching of the concentrate, cyanide leaching of the gravity tails, carbon adsorption in a CIP circuit, carbon elution and regeneration, electrowinning, and refining. The carbon adsorption tails are treated in a cyanide detoxification circuit using the SO_2/air process, and a portion of the detoxified tailings is used for mine backfill via the Williams paste plant. Flotation is used to separate sulphides from the remainder of the detoxified tailings prior to deposition, un-thickened, in a conventional TMF. The sulphide concentrate is sent to a separate paddock within the larger TMF.

Hemlo production started in 1985 at the Williams Mine (open pit and underground soon after) with processing at the Williams Mill, as well as at the David Bell Mine and David Bell Mill. In 1999, the David Bell Mill was shut down and David Bell ore was trucked to the Williams Mill until the David Bell Mine's closure in 2014. The Williams Mill was originally designed to process 3,000 dry tpd and was subsequently expanded to process 6,300 tpd in 1988. Over the next ten years, throughput gradually increased to 7,000 tpd. Closure of the David Bell Mill in 1999 added another 1,250 tpd of ore to the Williams Mill. By 2004, mill throughput had increased to 10,000 tpd (approximately 3.65 Mtpa). Between 2005 and 2019, production ranged from 6,900 tpd to 9,600 tpd. With the closure of the Williams open pit in 2020, mill throughput decreased to between 3,000 tpd and 5,500 tpd during 2021 to 2024.

Mill feed grades decreased steadily from 4.9 g/t Au in 2003 to 1.9 g/t Au in 2018, after which the closure of the open pit coincided with an increase in mill feed grades, which ranged from 3.2 g/t Au to 3.7 g/t Au from 2020 to 2024.

17.1 Process Description

A simplified process flowsheet for the Williams Mill is presented in Figure 17-1.

17.1.1 Crushing

The ore and waste rock from the underground mine are crushed by jaw crushers located underground and then transported separately to a 300 t waste rock bin and a 300 t ore bin. Ore and waste are reclaimed from their respective bins by feeders and are conveyed to a transfer tower where they are hoisted separately to the surface. The ore is then transported to the two coarse ore surge bins near the mill, each with a live capacity of 4,000 t and a nominal capacity of 6,000 t, while waste rock is delivered to a load-out bin for trucking to waste rock storage.

While the open pit was operating, the ROM from the pit was trucked to the dump pocket of a 42' x 65' gyratory crusher where it was crushed to approximately 80% passing 90 mm. The crushed ore was conveyed to a stockpile with a nominal capacity of 40,000 t. The stockpiled ore was reclaimed by a front-end loader into a loading hopper and conveyed onto the coarse ore surge bin feed conveyor at a controlled rate (the same conveyor used for transporting crushed ore from the underground mine) and delivered to the two coarse ore surge bins near the mill. After the closure of the open pit mine, the gyratory crusher, crushed ore transfer conveyors, and stockpiling conveyors were decommissioned but left in place. Restarting the open pit operation will require refurbishment of the crusher and conveyors.

17.1.2 Grinding

The grinding area comprises two parallel lines, each consisting of a semi-autogenous grinding (SAG) mill, a ball mill, and associated classification cyclone cluster, with a capacity of approximately 225 tph. The crushed ore surge bins are each dedicated to feeding one grinding line, and the ore is reclaimed at a controlled rate by feeders onto the separate SAG mill feed conveyors. The SAG mills are 6.71 m in diameter and 3.66 m long (22' diameter x 12' long), each with a pebble screen. The ball mills are 4.88 m in diameter x 6.40 m long (16' diameter x 21' long). All of the mills have 2,600 kW motors. The SAG mill pebble screen oversize is recycled back to the feed of each respective SAG mill. The pebble screen undersize and ball mill discharge are combined in each line and then classified by cyclones. The target particle size of the cyclone overflow is approximately 80% passing 75 µm. The overflow from the two cyclone clusters is combined and flows by gravity to a linear trash screen prior to being pumped to a 65 m conventional pre-leach thickener.

While the full capacity of the mill is achieved by utilizing the two parallel grinding lines, the two lines operate independently, and the closure of the open pit has allowed the mill to be operated using only a single grinding line since 2021. Both lines are fully operation-ready, and each line has been used alternately over the last five years.

The grinding circuit can be operated in either a split mode or a blend mode. In the split milling mode, ore can be preferentially directed to one or the other grinding line (e.g. underground ore to one line and open pit ore to the other). Historically, the underground ore was significantly higher in gold grades than the open pit ore. The purpose of split milling was to allow for a finer grind on the more-grind-sensitive underground ore, while maximizing throughput of open pit ore through the other grinding line. The blend mode involves directing a mix of ores to the two coarse ore bins, allowing the bin levels to be maintained at 60%.

17.1.3 Gravity Concentration

In 2021, a gravity circuit was installed on grinding line 1 for gravity gold recovery. The circuit includes a Knelson concentrator and an intensive leach reactor (ILR). Subsequently, piping was installed to allow the circuit to be fed from grinding line 2 when that line is in use. Currently, the gravity circuit can only be fed from one grinding line at a time. The Knelson concentrate is processed in the ILR, producing a high-grade gold solution that is transferred to the pregnant solution tank at the gold room, where the gold is recovered by electrowinning.

Consideration is being given to the installation of a second Knelson concentrator, which would allow both grinding lines to feed the gravity circuit simultaneously. The concentrate from the second Knelson concentrator would be treated in the existing ILR, which has sufficient capacity.

17.1.4 Leaching and Carbon Adsorption

The pre-leach thickener underflow, at a solids content between approximately 50% and 54% solids, is pumped to the cyanide leach circuit, which consists of nine 12.2 m diameter x 13.0 m high tanks (normally eight in operation and one on standby). At a mill throughput of 10,000 tpd, the tanks allow for 24 hours of leach retention time. However, at current throughputs, retention time would be from 48 hours to more than 60 hours. Each leach tank is equipped with a dual-propeller agitator for mixing. Sodium cyanide solution is added to the leach circuit to dissolve the gold, and hydrated lime slurry is added to the circuit to maintain the slurry pH at 10.5 or higher. The first two leach tanks are aerated with oxygen gas, generated from liquid oxygen. The slurry overflows by gravity from one tank to the next and flows through a trash screen before advancing to the CIP circuit.

The discharge slurry from the final leach tank flows by gravity to three, 1.12 m wide x 2.44 m long trash screens, with apertures of 28 mesh (595 µm). The screen undersize is pumped to the CIP circuit where the gold-cyanide complex is adsorbed onto activated carbon. The CIP slurry solid density is approximately 50% to 54% solids. The six, 8.0 m diameter x 9.2 m high CIP tanks are each equipped with a dual-propeller agitator, an in-tank carbon transfer pump, and an inter-stage screen to retain the carbon within each tank. The carbon is pumped counter-current to the slurry flow. Loaded carbon leaves the CIP circuit from the first CIP tank, and stripped, regenerated carbon is added into the last CIP tank. The carbon concentration in the CIP tanks is approximately 33 g/L to 35 g/L of slurry.

17.1.5 Carbon Elution and Regeneration

The loaded carbon leaving the first CIP tank is transferred to the carbon elution circuit, which has a capacity of 7 t per carbon batch. The leach residue flows by gravity to three, 1.22 m wide x 2.44 m long vibrating carbon safety screens to capture any fine carbon that escapes the CIP circuit. The screen undersize reports to the tailings pump box. Loaded carbon from the CIP circuit is washed with a diluted acid solution and stripped in a high temperature and pressure elution process. The stripped carbon is regenerated in a rotary kiln. The barren solution from the elution circuit is circulated back to the leach and elution circuits.

17.1.6 Refining

The gold in the pregnant solution from carbon elution and from the ILR is recovered by electrowinning. The gold sludge produced from the electrowinning circuit is dried, treated in a retort to remove mercury, and then smelted in an electric induction furnace to produce doré bars.

17.1.7 Tailings Detoxification, Flotation, and Disposal

A portion of the mill tailings is sent to the Williams paste plant to produce backfill for the underground mine. The portion required for backfill ranges from 30% to 50% of the total tonnage produced from the UG feed only.

Cyanide destruction and sulphide flotation circuits were added and commissioned in 2020. The CIP tailings stream is pumped to the cyanide destruction circuit, which reduces weak acid dissociable (WAD) cyanide to below 1 ppm, and then to flotation (excluding the tailings required for paste backfill). In flotation, a potassium amyl xanthate (PAX), a polyglycol frother, and air are added to remove sulphide minerals, thereby producing a NAG tailings stream and a sulphide concentrate. The sulphide concentrate is deposited in a paddock within the TMF, while the flotation tailings are deposited in the Williams Basin within the TMF. Both streams are pumped, unthickened, approximately 4 km to 6 km to the TMF. Dilution water is added to the flotation tailings at the mill to maintain velocity and prevent solids from settling within the pipe to the TMF. The residual cyanide in the tailings degrades seasonally by natural attenuation. The water in the TMF is recycled back to the mill as process make-up water, while the excess supernatant is treated during the summer in an effluent treatment plant adjacent to the TMF prior to being discharged into the environment.

17.1.8 Reagents and Consumables

Key consumables and reagents include grinding media, hydrated lime, sodium cyanide, cyanide destruction chemicals (sodium metabisulphite and copper sulphate), and flotation reagents. The Hemlo ore is a low reagent-consuming ore with requirements from 2022 to 2024 of approximately 0.21 kg/t sodium cyanide, and 0.5 kg/t hydrated lime. Oxygen consumption has decreased from 0.47 kg/t in 2022 to 0.23 kg/t in 2024. Grinding media consumption averaged 1.09 kg/t from 2022 to 2024.

17.1.9 Water Requirements

A recent focus in the mill operations has been maximizing the water recycle from the TMF to the plant to minimize additional water being introduced into the circuit as water volumes within the TMF became challenging to cope with. Consequently, the use of raw water has been significantly reduced and was negligible from August 2024 through to April 2025 (the latest information provided).

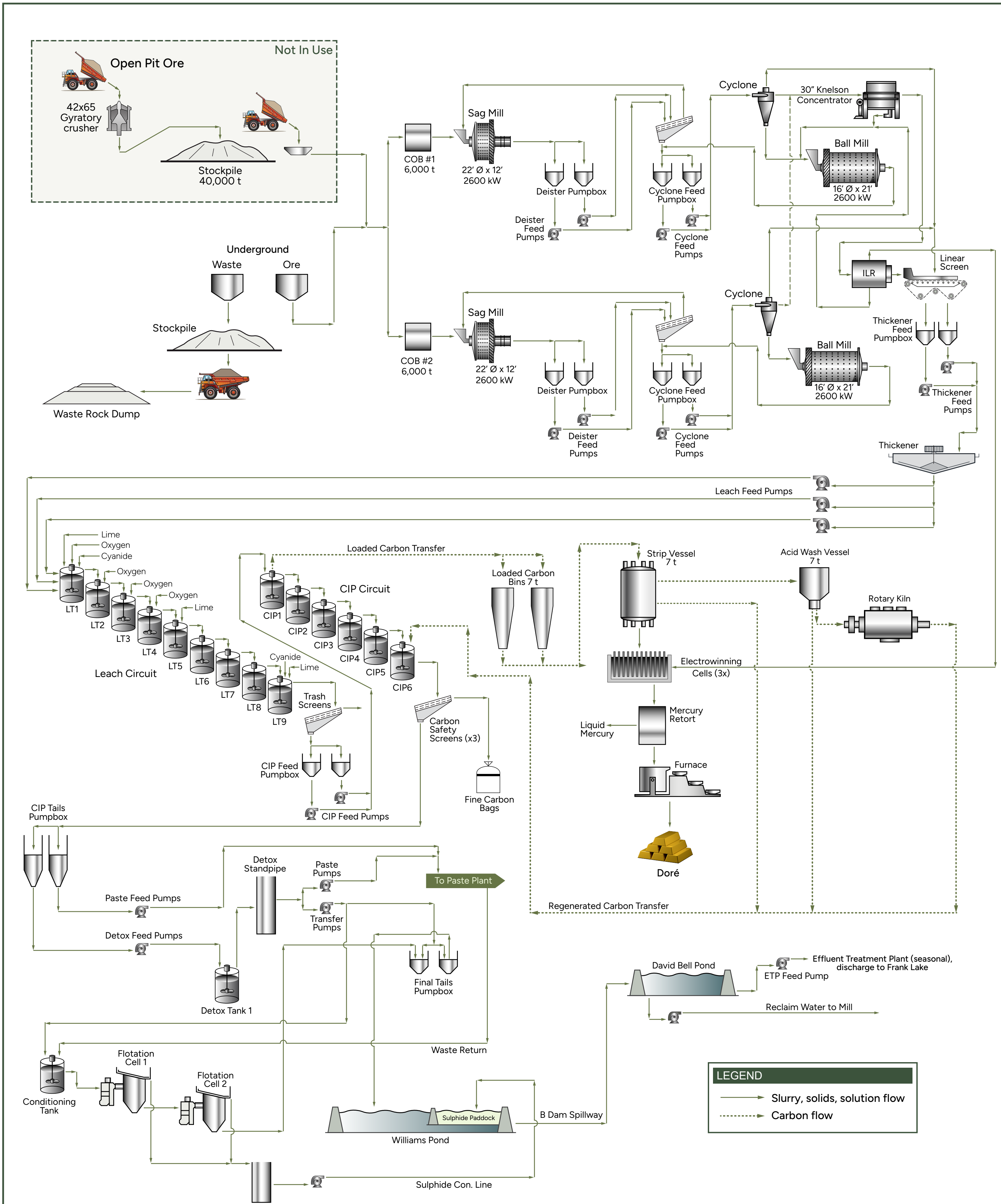
17.1.10 Expansion

The potential for restarting open pit operations to supplement the underground ore supply has been assessed. Processing throughput could return to 10,000 tpd or more. This would require:

- Refurbishment of the primary gyratory crusher, crushed ore conveyor and stockpile conveyors
- Replacement of the stockpile reclaim conveyor and reclaim hopper (conveying crushed ore to the coarse ore bins)
- Installation of a second Knelson concentrator in the grinding area
- Installation of an additional cyanide destruction tank
- Installation of additional tailings flotation cells.

Additionally, to assist with the water balance in the TMF, as well as the collection and pumping of reclaim water, a tailings thickener may be installed near the TMF.

All other equipment is expected to be adequate to achieve the proposed throughputs. A flowsheet showing the mill expansion requirements is presented in Figure 17-2.



CLIENT	PROJECT
	NAME: CARCETTI CAPITAL CORP - HEMLO MINE
	DRAWING: HEMLO PROCESSING FLOWSHEET
	FIGURE No. 17-1 · PROJECT No. ADV-TO-00122 · DATE October 2025

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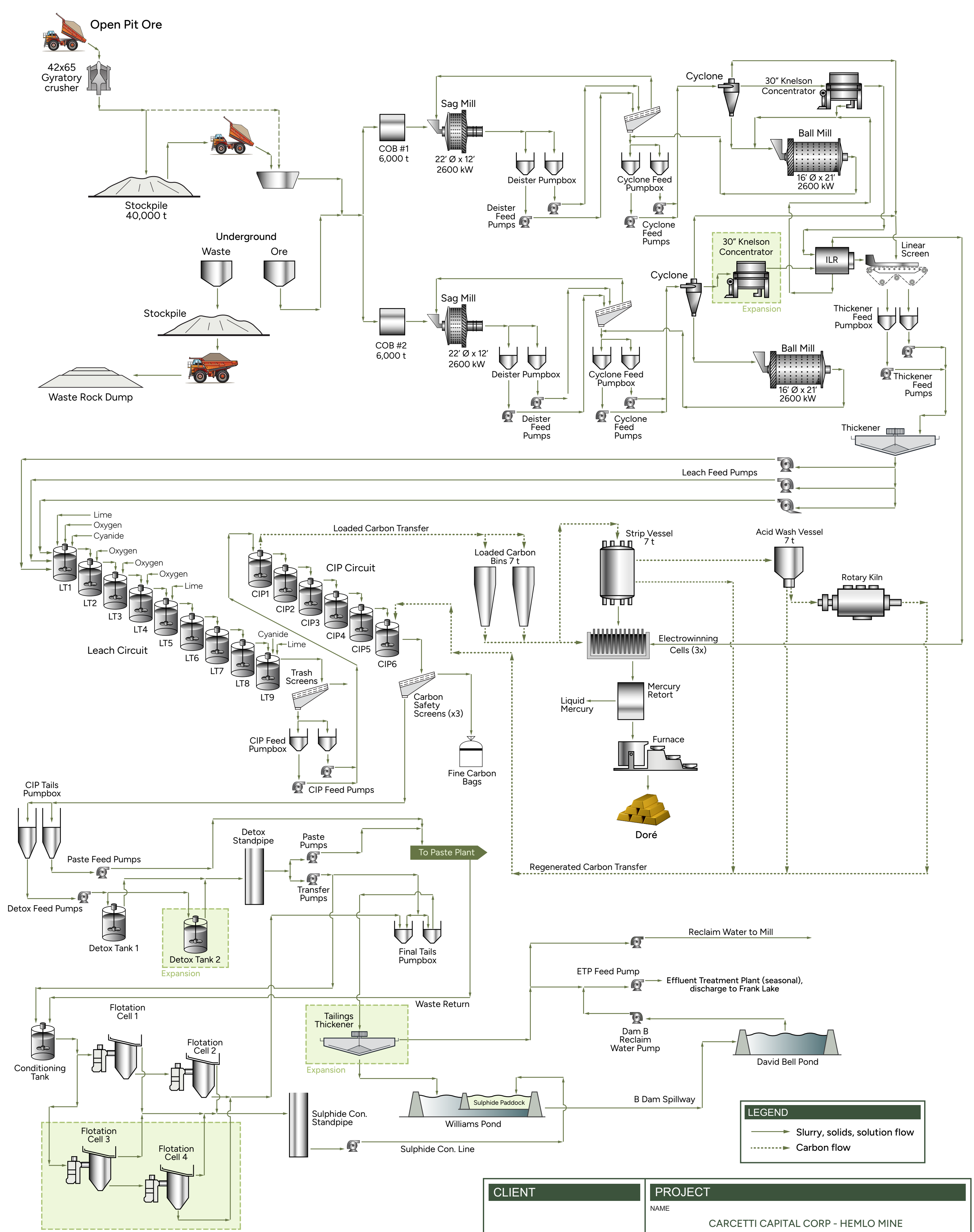

CLIENT	PROJECT
	NAME CARCETTI CAPITAL CORP - HEMLO MINE
	DRAWING HEMLO PROCESSING EXPANSION FLOWSHEET

FIGURE No.	PROJECT No.	DATE
17-2	ADV-TO-00122	October 2025

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18.0 Infrastructure

The Mine operations have been active since the start of production in 1985 and supporting infrastructure is in place to support the existing underground mining operations. The mines are located adjacent to Trans Canada Highway 17 km and 40 km east from Marathon, Ontario. The Mine uses the GMS camp and accommodation facilities east of the Marathon airport. The Mine is supplied by propane fuel for heating and has propane storage tanks on site.

The Williams Mine has been active since the start of production in 1985. The David Bell and Golden Giant mines have been closed and the surface operations are currently in progressive reclamation. Underground workings for these two mines remain accessible through the Williams Mine and are currently used for ventilation for the Williams Mine. Additional ventilation and dewatering systems are planned for the expansion of the underground mine.

Open pit mining operations at Hemlo ceased in 2020. The previous open pit mine operation had an existing shop, currently used to maintain a small fleet of open pit equipment, and material handling infrastructure that has remained unused since the pit's closure in 2020. Past work suggested a mill feed strategy that incorporates stockpiles to blend the open pit ore feed, complementing the underground mine while operational.

Once underground mining ceases, the mill feed would rely solely on the stockpile.

For the proposed open pit expansion, 150-tonne trucks have been selected. This is a larger truck than the 90-tonne trucks on site that were previously used for the open pit, which will require an expansion of the facilities to allow for larger trucks.

The Hemlo site layout is shown in Figure 18-1.

LEGEND

- Highway
- Rail
- Road/Track
- Watercourse

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CLIENT

PROJECT

NAME

HEMLO GOLD MINE

DRAWING

HEMLO GOLD MINE SITE LAYOUT

FIGURE No.	PROJECT No.	DATE
xx	ADV-TO-00122	July 2025

18.1 Current On-Site infrastructure

18.1.1 Underground Infrastructure

18.1.1.1 Hoisting Infrastructure

Williams Shaft commenced operation in 1990. The shaft consists of a headframe (63.4 m high) with a 1,300 m deep shaft and two independent hoists which allow continuous hoisting activities as well as movement of personnel and goods. Annual inspections are conducted by Arcanite.

Production Hoist

- Double drum – Two 22 t skips capable of hoisting 400 tph
- Campaign haulage of ore and waste to surface
- Fed by ore passes and underground jaw crusher
    - Ore pass capacity circa 15 kt with additional 1,600 kt loading pocket

Service Hoist

- Independent hoist available for personnel and goods transfer, cage balanced by counterweight
- Capacity for 24 personnel per trip
- Maximum operating weight 11.4 t, capable of transferring light vehicles or other goods

18.1.1.2 Underground Material Handling System

- #3 Jaw Crusher
    - Throughput of 700–800 tph
    - 7,400 t storage bin
    - Rock-tech rockbreaker with grizzly.
- #4 Jaw Crusher
    - Throughput of 700–800 tph
    - 8,400 t storage bin shared with #5 Jaw Crusher
- #5 Jaw Crusher
    - Throughput of 750–850 tph
    - 900 t in lower raise beneath #5
    - Rock-tech rockbreaker with grizzly.

18.1.1.3 Ventilation

Fresh air enters the mine through the Main Shaft and the David Bell Shaft and primarily exhausts through the Newmont Shaft, #5 VR, and the A-Zone Portal. Main fans are as listed:

- #5 Exhaust Fan x1 (148” 2000HP)

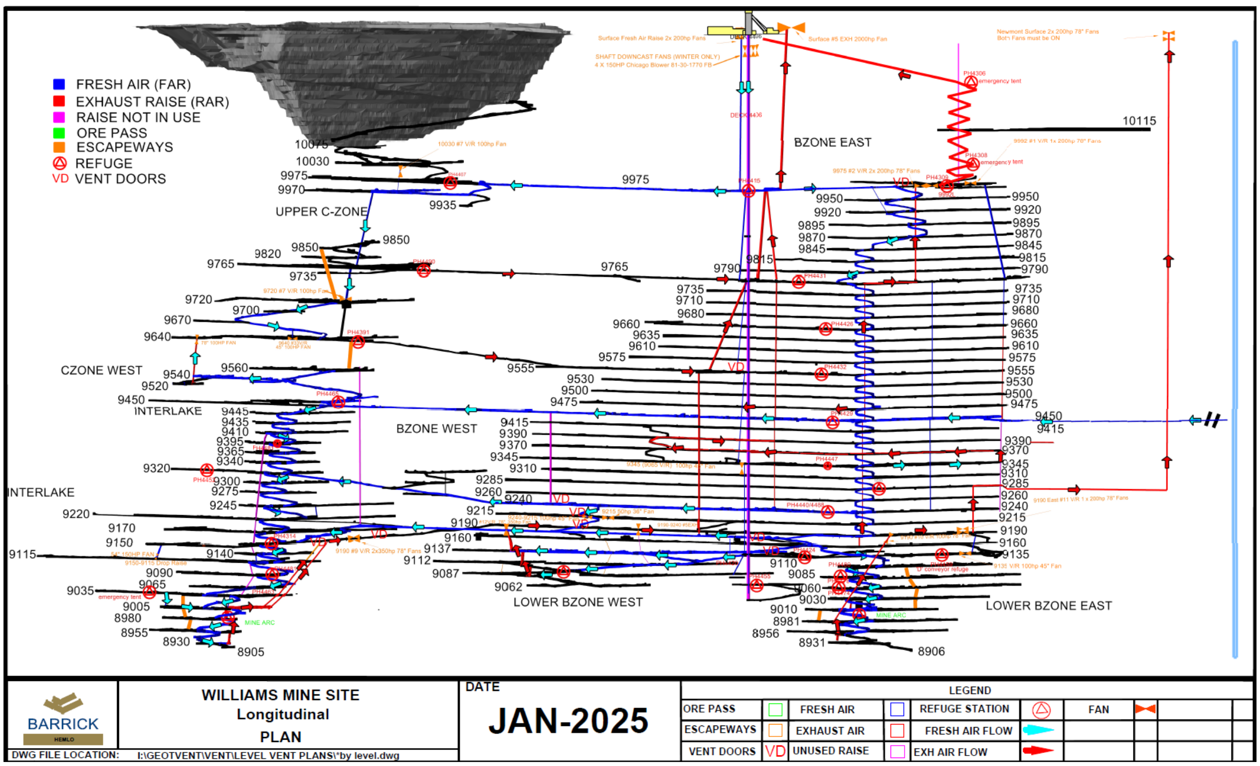
- Newmont Exhaust Fans x 2 (78” 200HP)
- Shaft Downcast Fans x 4 (84” 150HP)
- #3 Fresh Air Fans x 2 (78” 200HP)
- Several underground booster fans

There are numerous design parameters considered within the ventilation planning at Hemlo, including airborne contaminants, planned fleet, velocity, and temperature.

Bulkhead walls and ventilation equipment doors are utilized to direct flow through the mine as needed. Secondary ventilation is provided by auxiliary fans (typically 100HP to 150HP) pushing through vent bag or rigid plastic ducting.

The January 2025 ventilation plan is shown in Figure 18-2.

Figure 18-2: Schematic of January 2025 Ventilation Plan



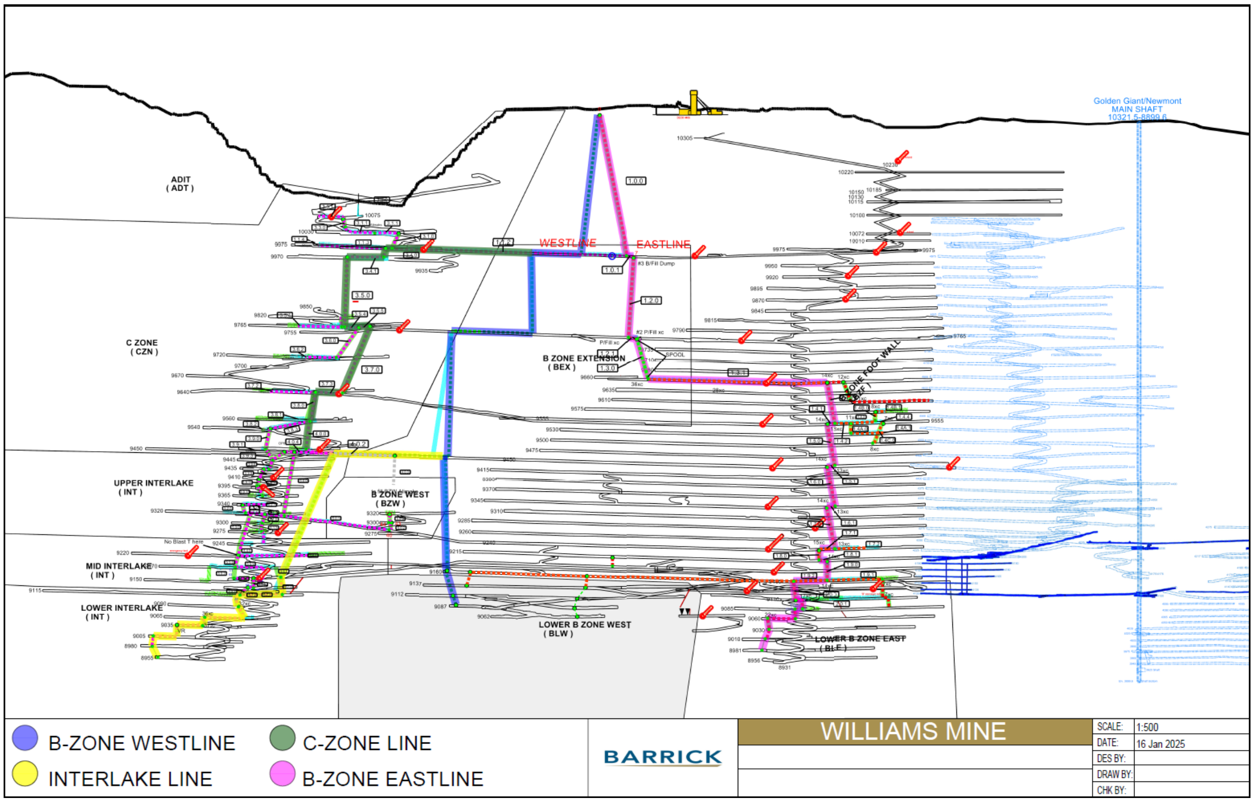
Source: Barrick 2025.

18.1.1.4 Pastefill

The pastefill flows from the plant to underground via a surface borehole, and then travels through a series of pipelines and boreholes to reach the void. A second borehole from surface is planned to be drilled to add redundancy.

The January 2025 paste reticulation plan is shown in Figure 18-3.

Figure 18-3: Schematic of January 2025 Paste Reticulation Plan



Source: Barrick 2025.

Paste Plant

The paste material on site consists of tailings received from the mill, mine water, and 90/10 slag cement binder. This produces a predictable, strength gaining material that will provide localized and regional stability to the surrounding area.

The paste plant uses a disc vacuum filter, a twin shaft continuous paste mixer, and a piston pump to produce and distribute paste.

Underground Distribution System

The underground distribution system (UDS) at Hemlo mine is a pump fed, single borehole system that delivers pastefill from the surface paste plant to the underground.

The surface borehole is a cased borehole, whereas the majority of the downstream distribution system takes advantage of the suitable rock quality and uses uncased boreholes to distribute paste. The paste then runs through 8” schedule 80 pipelines, before being transitioned to high density polyethylene (HDPE) for downhole stopes.

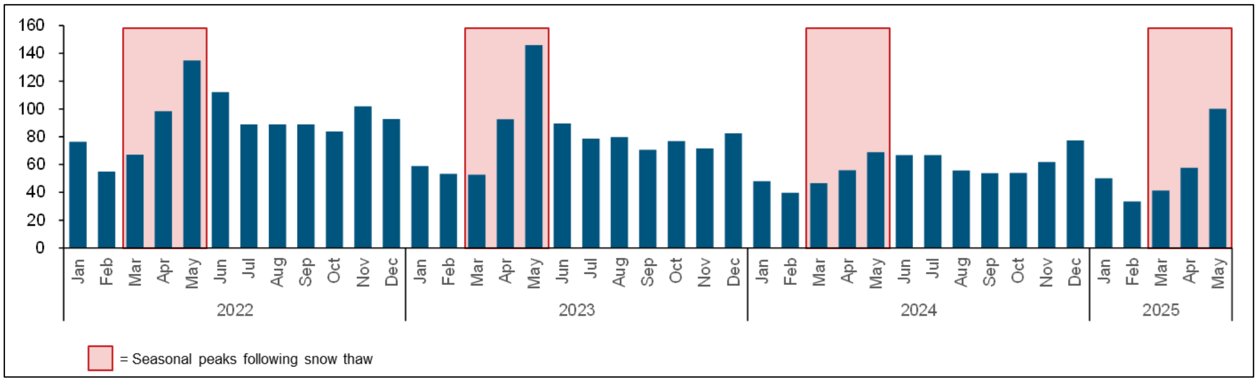
Diverter valves with a dump port or blast tees are present at the bottom of boreholes to minimize damages to the line in the case of a process upset.

18.1.1.5 Underground Dewatering

Water management plan in place, supported by a Trigger Action Response Plan (TARP). HMI system monitors water levels, flow rates, pump hours, faults, and operations. Three sets of dams used to collect seepage and reuse as process water.

High inflow events typically occur seasonally during spring freshet. Monthly underground water pumped to surface in shown in Figure 18-4.

Figure 18-4: Monthly Underground Water Pumped to Surface



Source: Barrick 2025.

18.1.1.6 Supporting Infrastructure

Supporting underground infrastructure includes three underground workshops and fuelling infrastructure.

18.1.2 Surface Infrastructure

The Williams Mine site consists of the following major on-site infrastructure:

- Wash bay accommodating 150-tonne class haul trucks
- 3-bay garage accommodating 90-tonne class haul trucks
- Fuel bays with storage capacities > 100,000 litres
- Primary gyratory crusher and overland conveyors
- 10,000 tpd CIP gold mill with electrowinning and refining capacity (described further in Section 17)
- Processing plant includes a cyanide destruction and sulphide float circuit to produce cyanide free NAG tails
- 431 ha TMF with plans to change the deposition method so it has capacity to operate for the LOM (described further in Section 18.3)
- Effluent treatment plant for the treatment and discharge of excess water from the TMF.
- Service building housing the maintenance facilities, offices, and mine dry
- Support infrastructure including water treatment, sewage treatment, emergency response, storage areas, buildings, and roadways to support the site

18.1.2.1 Power

Site power is supplied by Ontario Hydro's 115 kV M2W line feeding two primary 33 MVA transformers located on the site's main substation. The Hemlo substation and transformers are shown in Figure 18-5.

Figure 18-5: Hemlo Substation and Transformers

Source: SLR 2025.

18.1.2.2 Surface Water

Surface water management infrastructure for the management and potential discharge of surface water runoff from the Williams site.

- Water Supply
  - Manage dams/reservoirs along the Cedar Creek Watershed, balancing mine water supply and other water users
  - Cedar Creek supplies process and drinking water
  - On-site potable water treatment plant
- Wastewater and Effluent Treatment
  - Sanitary sewage treatment plant discharging to TMF

    - Actiflo treatment plant in mill treats tailings water prior to re-use, when needed
    - Effluent treatment plant (ETP) at TMF
    - Reactor-clarifier for metals precipitation
    - Cyanide detoxification prior to tailings deposition
- Water Discharge and Reuse
    - ~95% water recycle rate
    - Seasonal discharge (approximately 2.5M m^3/yr) from eight registered discharge locations
        - Four stormwater runoff ponds at C-Zone pit
        - Three stormwater runoff ponds at David Bell/Newmont sites
        - ETP discharges to Frank Lake (April 1 to November 15), maximum 14,400 m^3/d

18.1.2.3 Camp

The Hemlo camp is operated by the First Nations partners. It includes a total of 112 rooms.

18.2 Open Pit Restart Infrastructure

To restart the open pit, certain infrastructure has to be rebuilt including the washbay, workshop and material handling system. These were assessed at a high level to determine their suitability for the proposed mine plan.

In summary:

- New lined stockpiles for potentially acid generating waste rock
- An expanded workshop to accommodate the larger trucks.
- The washbay to be suitably sized.
- The crusher building will have to be increased to accommodate the larger trucks and the dust collection system needs to be replaced.
- The #10 conveyor will need to be repaired.
- The #19 conveyor will need to be replaced.

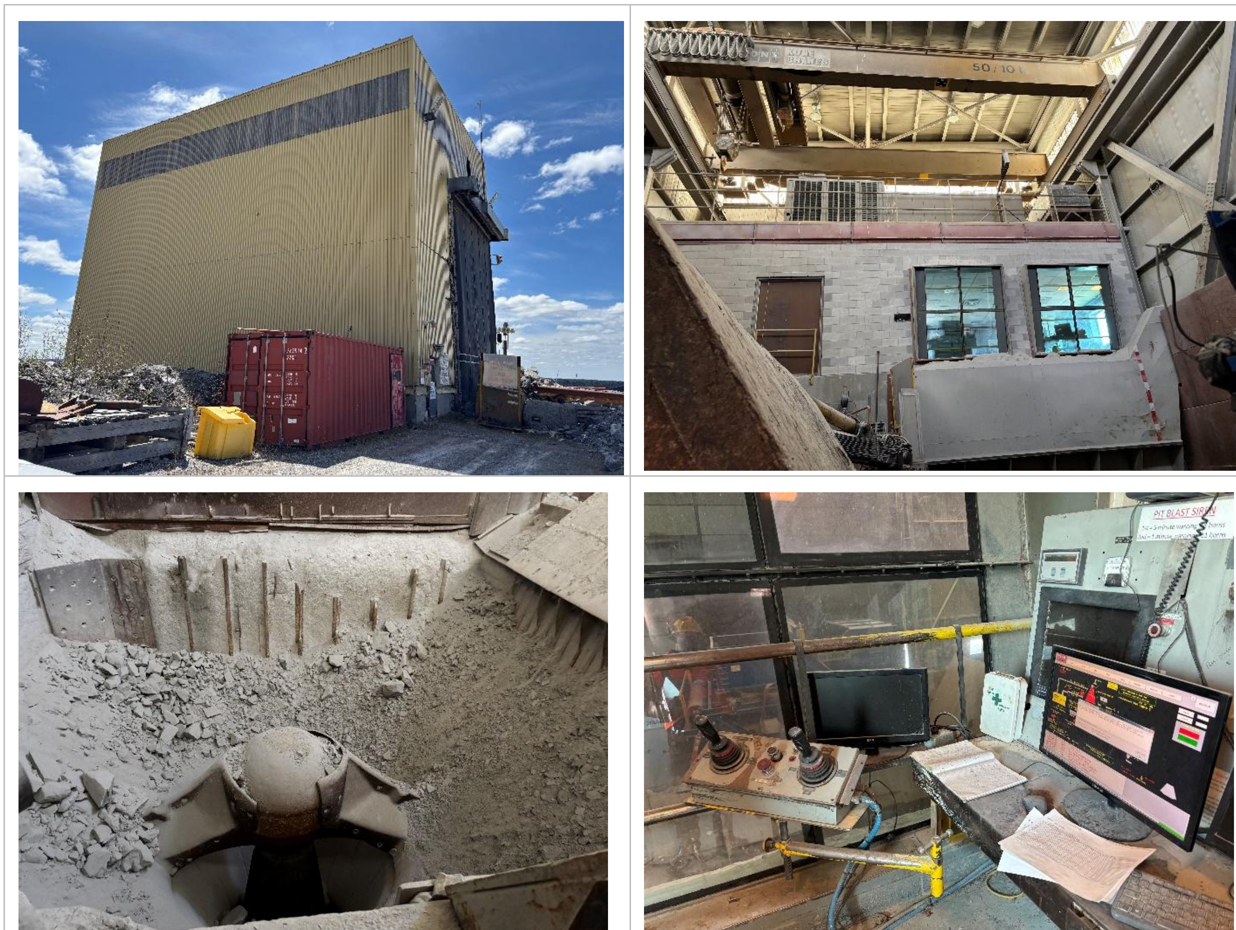
18.2.1 Crushing and Material Handling System Upgrades

In October 2024, J.L. Richards & Associates Limited (JLR) was engaged to complete an asset assessment of the material handling equipment, complete a scoping study, and develop an estimate to bring the system back to operation as part of the open pit mine restart.

The existing primary crusher circuit at Hemlo consists of a 1,000 tph Metso gyratory crusher installed in 1988. The primary purpose of the crushing system was to produce backfill aggregate and roadbed for the underground and surface operations. The gyratory crusher dump pocket was sized to handle CAT 777 (90 tonne) trucks and was subsequently provided with a Rock-Tech rock breaker to help the gyratory crusher process oversized materials from the pit run material. The gyratory crusher is housed in a structural steel cladded facility, with a 50 and 10 tonne overhead bridge crane for maintenance purposes and a 40,000 cfm dust collection system.

Figure 18-6 below shows the existing crusher building.

Figure 18-6: Existing Crusher Building



Source: SLR 2025.

The crushed ore is discharged on #10 conveyor with a capacity of 1,000 tph which feeds a series of conveyors, and ultimately discharges at the screening building via #16 stacking conveyor. Conveyor #10 is equipped with a belt magnet to remove tramp steel residing on the belt.

Figure 18-7 below shows the #10 conveyor discharge from the crusher apron feeder. Conveyor #10 requires refurbishment which has been considered in the cost estimates.

Figure 18-7: Conveyor #10, from the Crusher to the Screen Building

Source: SLR 2025.

Figure 18-8 below shows the screen building transfer station and radial stacker. The conveyor goes through the screen building, which is not operating, but the screen building provides a structure to support the conveyor.

Figure 18-8: Screen Building and Stacker Conveyor

Source: SLR 2025.

Once reclaimed from the stacker, ore is fed into a feed hopper for conveyor #19 as shown in Figure 18-9 below.

Figure 18-9: Conveyor #19 Loading Hopper

Source: SLR 2025.

A portable secondary crushing facility and the new transfer conveyor is planned that will both be fed from the nearby electrical substation. The secondary crusher will reduce the ore size to -64 mm. After secondary crushing, the ore will be sent for screening, where the oversize material is accumulated in a stockpile, and the acceptable material drops onto a new feeder conveyor. This new feeder conveyor feeds directly into the new #19 conveyor.

Before commissioning, the JLR study has recommended that #19 conveyor be replaced.

The #19 conveyor has experienced substantial undermining of conveyor foundations with several missing conveyor supports, with evidence of conveyor being damaged along the length of the conveyor. Based on the extensive damage to that conveyor and missing/incomplete footings and conveyor supports, therefore Carcetti plans to have this conveyor replaced as part of the open pit expansion project.

Figure 18-10 below shows the discharge of #19 conveyor to the #3 transfer station.

Figure 18-10: Conveyor #19 Discharge to #3 Transfer Station

Source: SLR 2025.

Conveyor #19 brings the ore to the transfer house, where it feeds onto the #3 conveyor, which moves the material to the #7 skipping conveyor for delivery to the coarse ore bin.

The Figure 18-11 below shows conveyor #3 and the coarse ore bin.

Figure 18-11: Conveyor #3 to Coarse Ore Bins at the Mill

Source: SLR 2025.

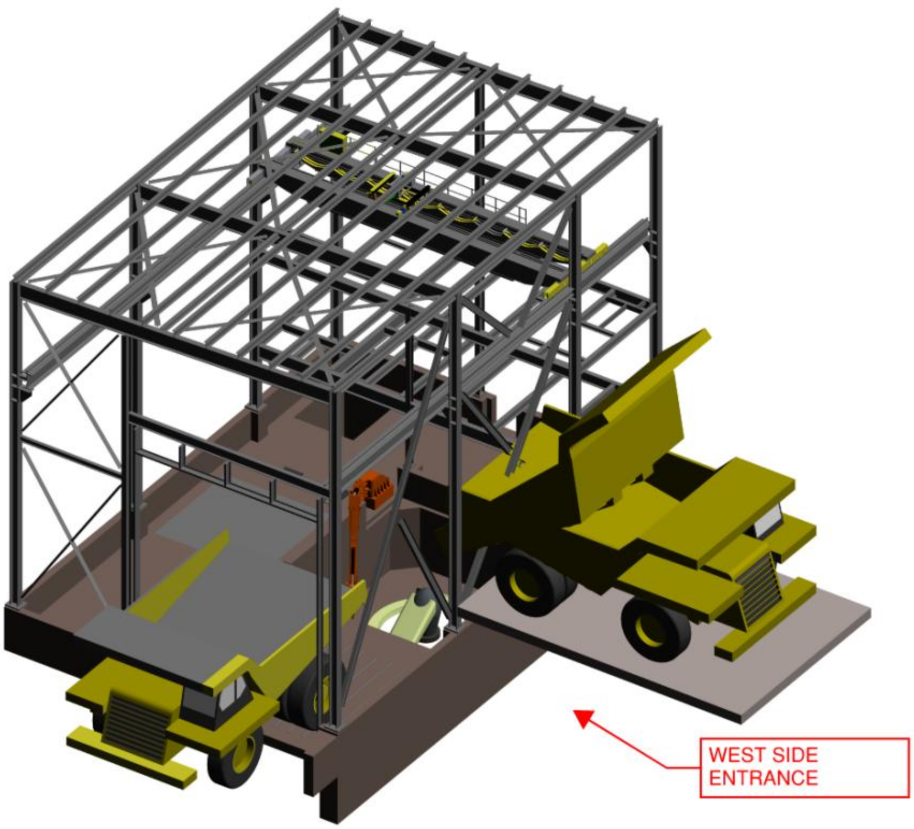
To facilitate the desired increase in milling capacity the primary crushing plant must be upgraded to handle CAT 785D (150 tonne) mine trucks and maintain a throughput of 6,000 tpd. It is assumed that pit run ore will be operated during dayshift only for an average of 10 hours per day at a design flow of minimum 600 tph. The system plan is for non-concurrent operation, where the open pit operates during the day shift, and the underground mine operates at night.

Hemlo reported that the primary crushing plant required two-stage dumping of ore into the crusher, since the single-stage dumping was not always feasible, to prevent overfilling the crusher dump pocket. This problem with CAT 777s would be more significant with larger CAT 785D trucks proposed. The vendor has been approached to provide validation with respect to single versus dual stage dumping and potential issues with increasing the surcharge on the primary crusher from 90 tonne to 150 tonne.

Additionally, the process flow assumes that necessary modifications will be made to the gyratory crusher and primary crusher building to handle a throughput of 6,000 tpd from the open pit with an ore feed size of -115 mm. The portable rock breaker will also need to be refurbished and relocated, as the crusher loading pocket is planned to be raised by 2.4 m.

Figure 18-12 shows the 3D model of the new crusher building that would allow the accommodation of larger trucks.

Figure 18-12: New Crusher Building 3D Model



Source: JLR 2024.

The general arrangement of the open pit mine crushing and material handling system is shown in Figure 18-13.

Figure 18-13: Proposed Material Handling System General Arrangement

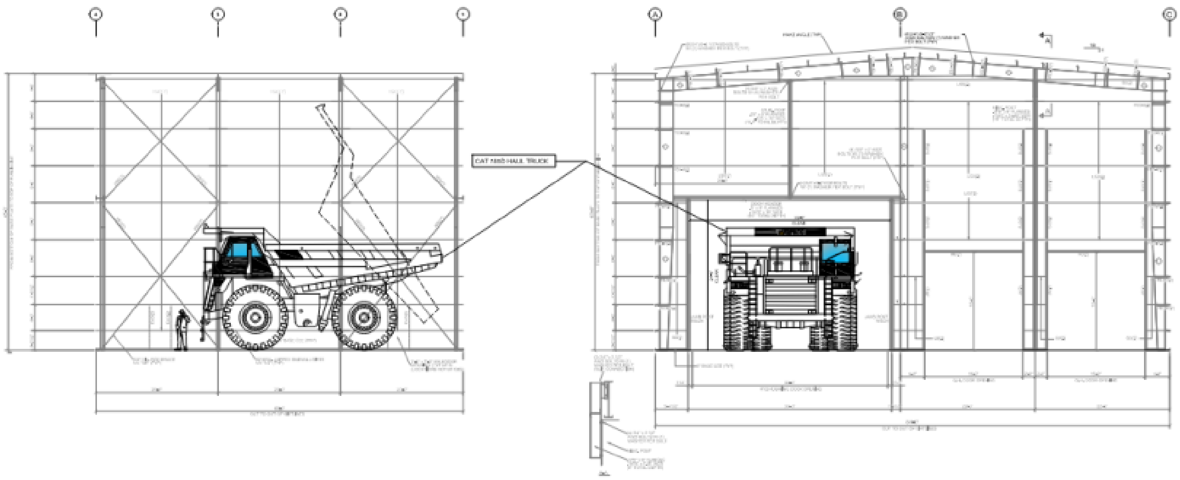
Source: JLR 2024.

18.2.2 Washbay

JLR reviewed the condition of the existing washbay from the building exterior, access was limited due to the automatic wash system. The existing wash bay building drawings provided by Hemlo were used to assess the accommodation of the CAT 785D haul truck. Based on the drawings created by JLR, which reference both the existing building plans and the overall dimensions of the CAT 785D haul truck, it was determined that no modifications are required to accommodate the truck within the building. Capital cost to replace the truck spray nozzles and raise them by approximately one metre were carried in addition to a replacement waste oil boiler system.

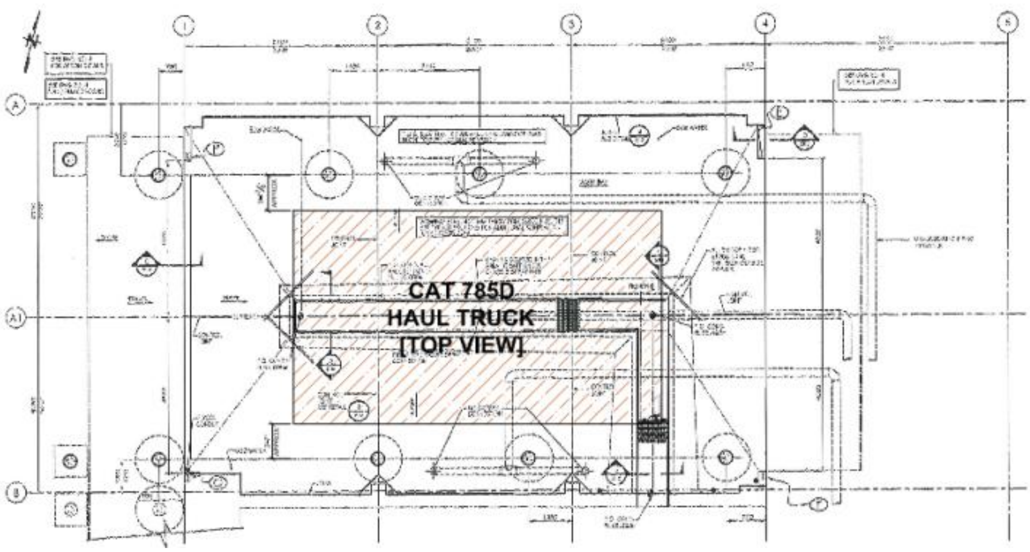
Figure 18-14 and Figure 18-15 show the elevation and plan views of the washbay with 150-tonne trucks.

Figure 18-14: Elevation View of Washbay with CAT 785D



Source: JLR 2024.

Figure 18-15: Plan View of Washbay with CAT 785D



Source: JLR 2024.

18.2.3 Administration and Dry Expansion

A 60-person dry facility and two ATCO trailers for administration are proposed for the additional fleet and staff required for the increase in open pit ore production. As staff numbers were not provided a conservative expansion was included. The existing office trailers adjacent to the shop appear to have a 4" sanitary line and lift station. The total capacity of the lift station and impact on the existing sanitary system were not reviewed during phase A due to limited information available. The sanitary capacity along with a review of fire water requirements should be completed in phase B to identify if any sanitary or buried service upgrades are required to service the new facilities. As the adjacent shop is sprinklered it is anticipated that sufficient fire water is available.

Figure 18-16 below shows the proposed dry facilities expansion.

Figure 18-16: Dry Facilities Expansion

Source: JLR 2024.

18.3 Tailings

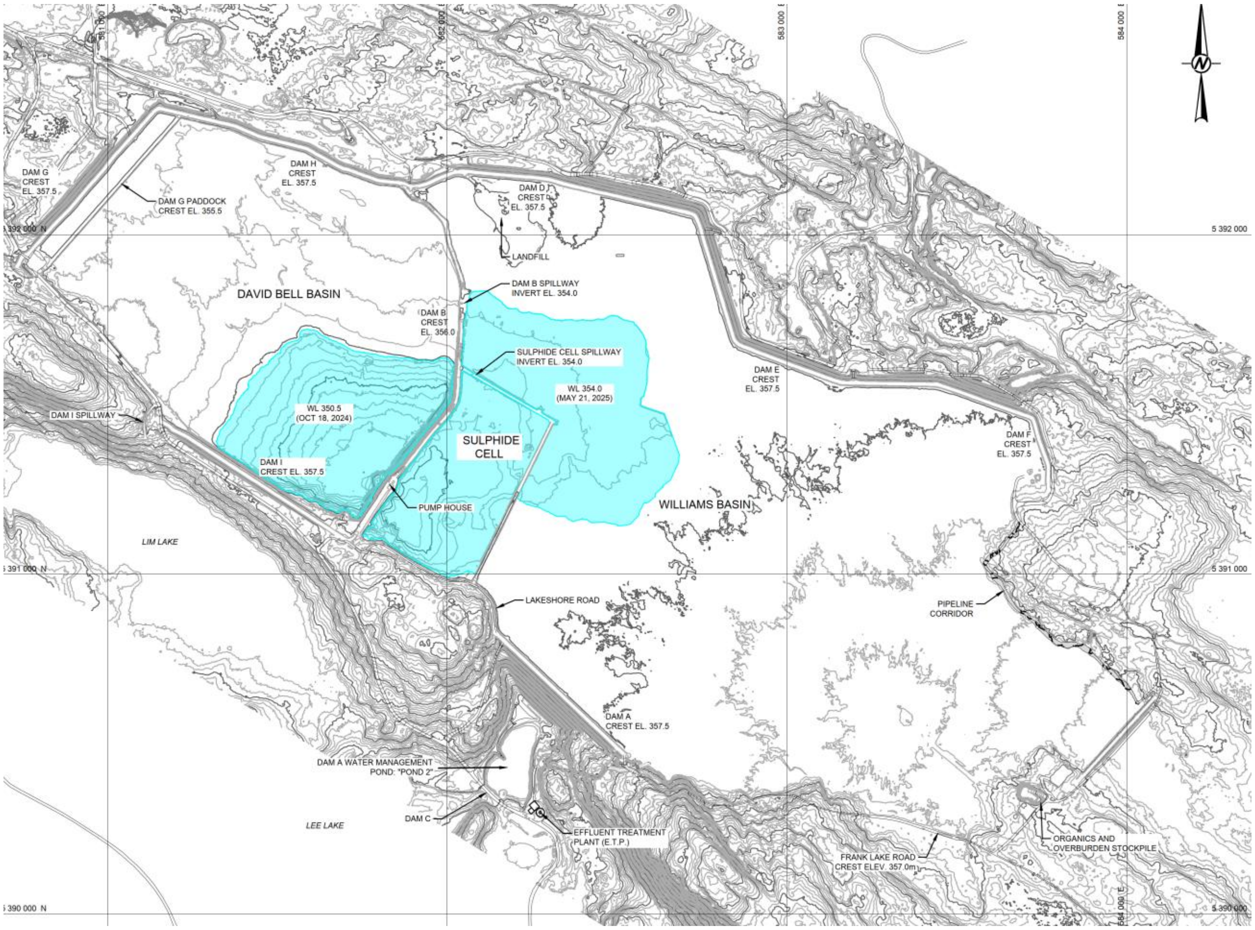
18.3.1 Current Configuration

Tailings disposal at the Hemlo Williams Mine is managed through a surface TMF that is located south of the mine site, across Provincial Highway 17, as depicted in Figure 18-17. The TMF comprises perimeter zoned earthfill dams, designated as Dams A, DEF, G, H, I, and J. Dam B functions as an internal divider, creating two distinct basins within the TMF, David Bell and Williams Basins. David Bell is mainly used for pond attenuation and the Williams Basin is used for tailings deposition. An internal Sulphide Cell has been constructed to segregate and store sulphide concentrates within the Williams Basin. Figure 18-18 provides a plan view illustrating the current configuration of the TMF.

Figure 18-17: TMF – Location Plan

Source: WSP 2025.

Figure 18-18: TMF Current Configuration – General Arrangement



Source: WSP 2025.

The perimeter earthfill dams have a central low permeability till core, upstream and downstream filter zones, granular shell, and surface erosion protection. The core zone is founded on grouted bedrock. A protection zone is located on the crest to shield the core zone from traffic and frost damage during winter. The core zones of Dams A, DEF, G, and H are upstream-inclined due to previous dam raises using a modified centreline method.

Tailings slurry is currently deposited via single-point discharge into the Williams Basin. Dam B has an overflow spillway that directs process and runoff water from Williams to the David Bell Basin for containment and reclamation to the plant as part of standard operations utilizing a pumphouse located at Dam B. Excess water is sent to the ETP for processing and subsequent release to the environment via the pumphouse located on Dam B. Water treatment occurs seasonally, generally from early spring through late fall, to reduce pond levels and maintain storage capacity for winter and spring freshet periods. The pumphouse also provides capability to transfer water between the Williams and David Bell Basins.

Dam I features an emergency spillway, which functions to prevent embankment overtopping during major storm events.

The existing TMF is nearing its capacity, necessitating the establishment of additional short-term tailings storage in summer 2025 through the construction of an internal berm and dyke system within the Williams Basin (WSP 2024a). This interim measure will provide sufficient storage for ongoing operations until the perimeter embankment raises are completed.

Paddock Berms will be constructed as part of the short-term storage measures approximately 60 m upstream of Dams D, E, F, and A, with dykes positioned an additional 60 m upstream of the Paddock Berms. The area between the perimeter embankments and Paddock Berms will be infilled with Non-Acid Generating (NAG) tailings to facilitate future closure of the facility. Tailings deposition will be managed via spigotting from the crest of the internal dykes into the Williams Basin, ensuring that tailings and ponded water remain away from the perimeter embankments.

According to the latest classification assessment, the TMF has been designated as a “High” consequence structure under the Global Industry Standard on Tailings Management (GISTM) framework (WSP 2023). However, both the seismic stability assessment and spillway flood routing have been conducted in accordance with recommendations for “Extreme” consequence structures, as per Canadian Dams Association (CDA) Dam Safety Guidelines. Seismic stability analyses were performed using a design earthquake event with a return period of 10,000 years. Additionally, the spillway is engineered to accommodate the Inflow Design Flood (IDF) based on flows generated by the Probable Maximum Precipitation (PMP).

18.3.2 Expansion Trade-Offs

The tailings slurry currently being routed to the TMF has low solids contents (20-30%), and the presence of the till core allows disposal of Potentially Acid Generating (PAG) tailings.

Various concepts to increase the capacity of TMF, without increasing the hydraulic head acting on the existing core, have been reviewed in consideration of the geotechnical risks associated with cracking of the inclined core (Golder 2016) and based on feedback from the Independent Geotechnical Review Board (IGRB) for the site.

A feasibility-level study conducted in 2018 proposed the construction of an upstream stack within the Williams Basin to expand the facility's capacity. At that time, an additional 20 Mt of tailings containment was required beyond the existing facility capacity. This concept consisted of constructing seven (7) dykes with 4H:1V side slopes and required thickening of the tailings (Golder 2018). Floatation tailings (NAG) were also needed to be produced at the plant as the tailings will not be saturated above the core level, and a dry closure concept is preferred.

Subsequent modifications to the mine plan (i.e., including an increase in tailings storage requirements to 40 Mt) along with updated industry practices (i.e., designing for undrained tailings behaviour), resulted in a flatter 16H:1V overall slope that reduced the capacity of Williams Basin (Golder 2022). Therefore, utilizing a two (2) dyke concept was only considered a short-term measure while a comprehensive LOM concept was developed.

A conceptual-level trade-off was conducted to assess the feasibility of expanding the existing TMF, either by raising the perimeter dams or constructing a new cell, to accommodate the additional 40 Mt of tailings above the current capacity (Golder 2021). The selected option from the study was raising the existing TMF perimeter dams with a pervious cross-section (without raising the core). Omitting the core reduces the risk of cracking but results in unsaturated tailings and higher seepage rates through the perimeter dam, requiring the disposal of NAG and thickened tailings, similar to the stack concept.

A Multiple Accounts Analysis (MAA) study, was completed to confirm the preferred alternative for tailings storage for the mine expansion (WSP 2024b). The MAA utilized the process recommended by Environment Canda (EC 2016) and considered several alternatives for tailings management including consideration for new sites and various tailings dewatering technologies.

Short-listed alternatives included utilizing the existing facility, new impoundment facility, and new filtered tailings stacks. The MAA assessed the alternatives against environmental, socio-economic, technical and project economic criteria. The results of the MAA identified that utilizing the existing TMF with a centreline raise was the preferred alternative for tailings management for the mine expansion, based on lowest cost and minimum disturbed ground.

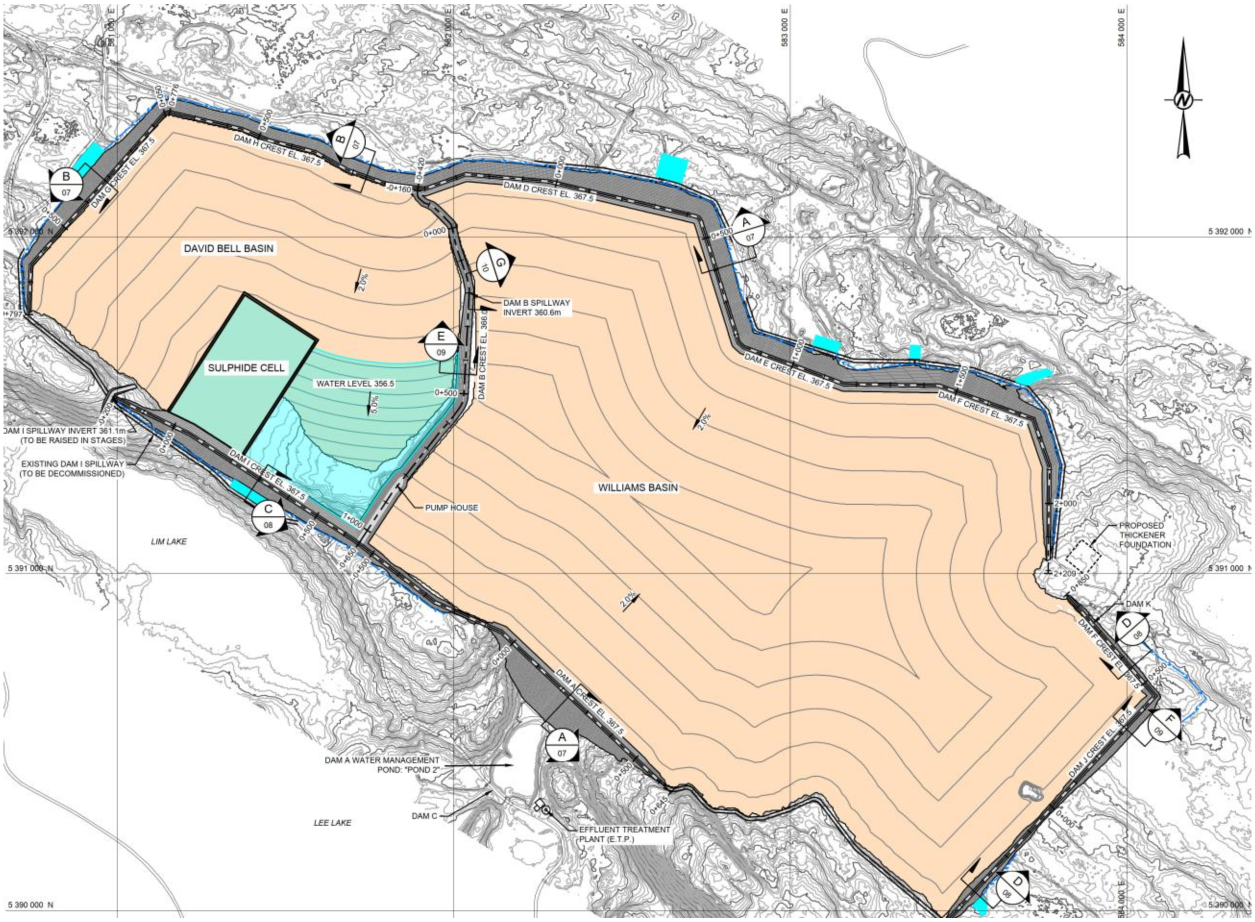
18.3.3 TMF Raise Design

The revised expansion of the Hemlo mining operations will produce approximately 36.4 Mt, consisting of 5.8 Mt directed to the underground as paste fill and surface storage requirements within the TMF of approximately 28.8 Mt of flotation tailings and 1.8 Mt of sulphide concentrate over the planned mine life from 2027 to 2038 (12 years) (WSP 2025a).

The required surface storage capacity within the TMF will be achieved by incrementally raising the existing perimeter embankments using a centreline method (Figure 18-19). Embankment raises will occur in stages, as described below. Dams A, DEF, G, H, and J will be raised with granular fill and will incorporate an internal inclined sand drain. A sand drain will also be established on the downstream slope to facilitate seepage control. Both upstream and downstream slopes will be protected with riprap to mitigate erosion. The dam crest will be maintained at a width of 10 m, with an upstream slope of 2.5H:1V and a downstream slope of 2.0H:1V. The frost protection layer, present on the crest, will be removed and reused as road topping following completion of the raise. The sand drain will also include perforated 8-inch HDPE pipe along the crest of the existing dams with downpour pipes spaced at approximately 100 m intervals.

The main changes from the MAA configuration consist of flattening the upstream slopes to 2.5H:1V (based on stability analyses) and incorporating perforated drains and establishing the drain along the existing downstream slope, rather than connecting to the existing downstream filter (based on seepage analyses).

Figure 18-19: TMF Proposed Raise – General Arrangement



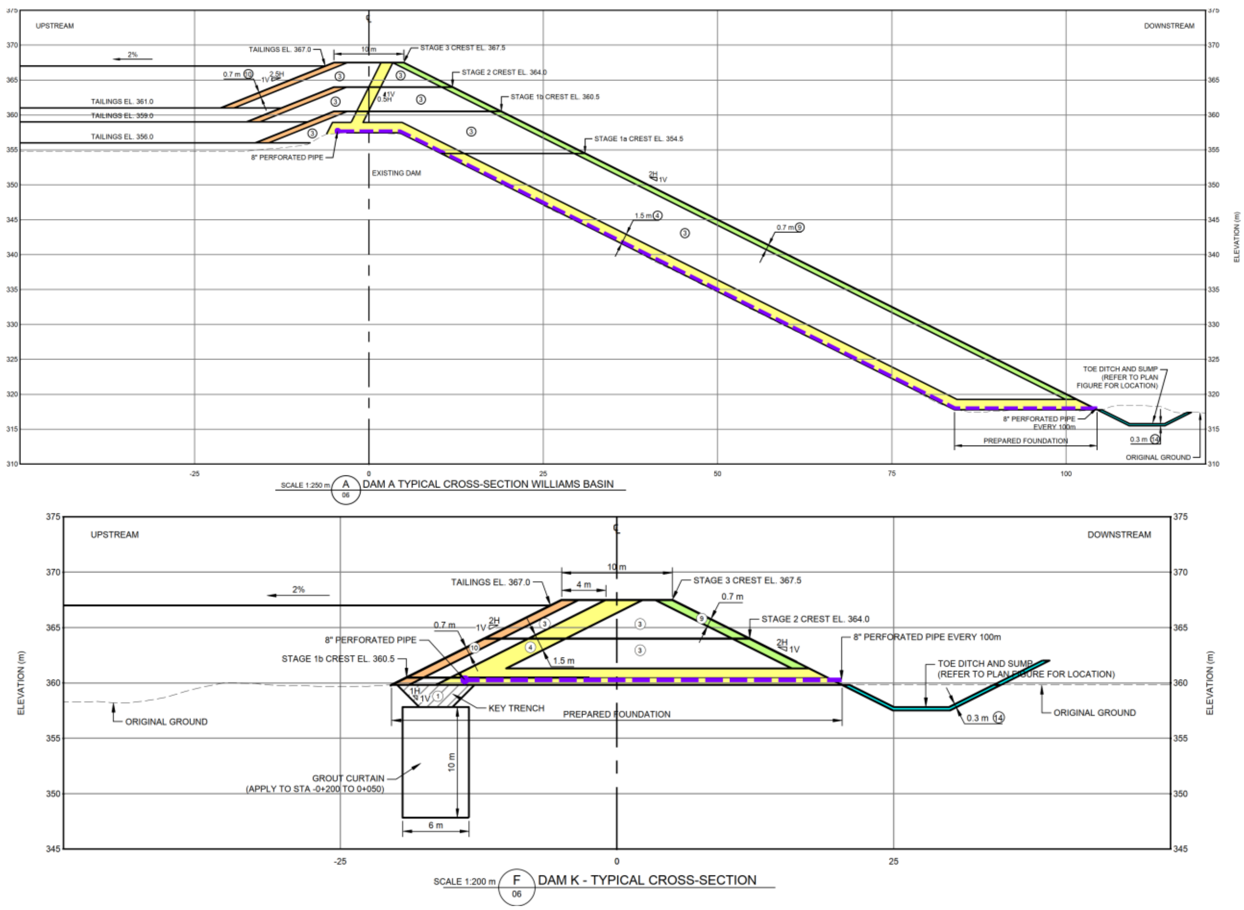
Source: WSP 2025.

Dam I will be raised using the centreline method while preserving its current cross-section, which includes a low-permeable till core, filter and transition zones, shell zones, and erosion protection. As the core in this dam was not previously inclined, these design features will remain unchanged. Dam I will continue to serve as a water containment dam, maintaining the pond within the David Bell Basin. Dam I upstream and downstream slopes will be at 2.5H:1V and 2H:1V respectively and have a crest width of ten (10) m. It is expected that approximately 160 m of western extension of Dam I will require bedrock grouting. Dam I emergency spillway will be built at the location corresponding to the ultimate crest elevation, with its weir being raised according to the various stage of raise.

Similarly, Dam B will be raised utilizing the centreline method and will maintain its existing cross-sectional configuration, comprising an internal till core, filter zones, a transition zone, shell zones on both the upstream and downstream sides, and riprap for erosion protection. Dam B upstream and downstream slopes will be at 2H:1V with a crest width of six (6) m. The overflow spillway for Dam B will also be elevated with each embankment stage to ensure that tailings remain contained within each basin while facilitating the transfer of water between the Williams to the David Bell Basins. The crest width is widened to 25 m at the south end of Dam B to accommodate the reclaim pumphouse. Dam B pumphouse will be raised in conjunction with raising the perimeter dams. A mobile barge will be utilized for the mill reclaim, during construction period that does not allow utilizing he pumphouse at Dam B. Dam B crest at all stages will be established at 1.5 m below the crest of the perimeter dams.

Where new dams will be built along the alignment, the cross section comprises of an inclined drain (sand with perforated pipe) that extend along to the downstream toe. The upstream and downstream slopes will be at 2H:1V with a minimum crest width of 10 m. Seepage cut off is provided by a till backfilled key trench along upstream toe. Based on current investigation data, only 250 m of south extension of Dam J will require bedrock grouting. Figure 18-20 illustrates a typical cross-section of the embankment raise (top), as well as the cross-section for the new alignment (bottom).

Figure 18-20: TMF Dams – Typical Cross-Sections



LEGEND

1. CORE - GLACIAL TILL
2. SAND AND GRAVEL
3. RANDOM ROCKFILL
4. FILTER - PROCESSED OR SELECT PIT RUN SAND
5. TRANSITION - PROCESSED OR SELECT PIT RUN SAND
9. EROSION PROTECTION (450 mm MINUS)
10. EROSION PROTECTION (600 mm MINUS)
14. DITCH EROSION PROTECTION (D_{50} = 75 mm)

Source: WSP 2025.

Allowances have been included for construction of a new toe road in areas where the existing access road will be buried by dam construction to maintain access around the full perimeter of the dam.

A seepage collection system will be established downstream of the TMF and will consist of collection ditches and downstream sumps located around the perimeter of the facility to collect seepage and runoff from the downstream slope and toe areas. Seepage and runoff will be collected in the ditches and routed to the collection sumps for temporary containment and pumped back into the TMF with a pump and pipeline system. It is assumed that pump-back is only required during operation, as the deposited tailings will be NAG. The pumping demands for the sumps vary between 30 and 250 m^3/hr, based on the reporting catchment area.

Storage of sulphide concentrate will be provided with a rockfill cell built within David Bell Basin, which will be raised with corresponding perimeter dam raises. Based on studies completed by others, the preferred location for the thickener is at close to the downstream toe of eastern end of Dam DEF.

18.3.4 Investigation and Analyses

Tailings strength and properties have been estimated through various CPT campaigns (Golder 2022). The specific gravity of the tailings was measured to be approximately 2.72. At the test locations, close to the dam upstream toes, the tailings contain approximately 24% fine sand sized particles, 73% of silt sized particles and 3% of clay sized particles.

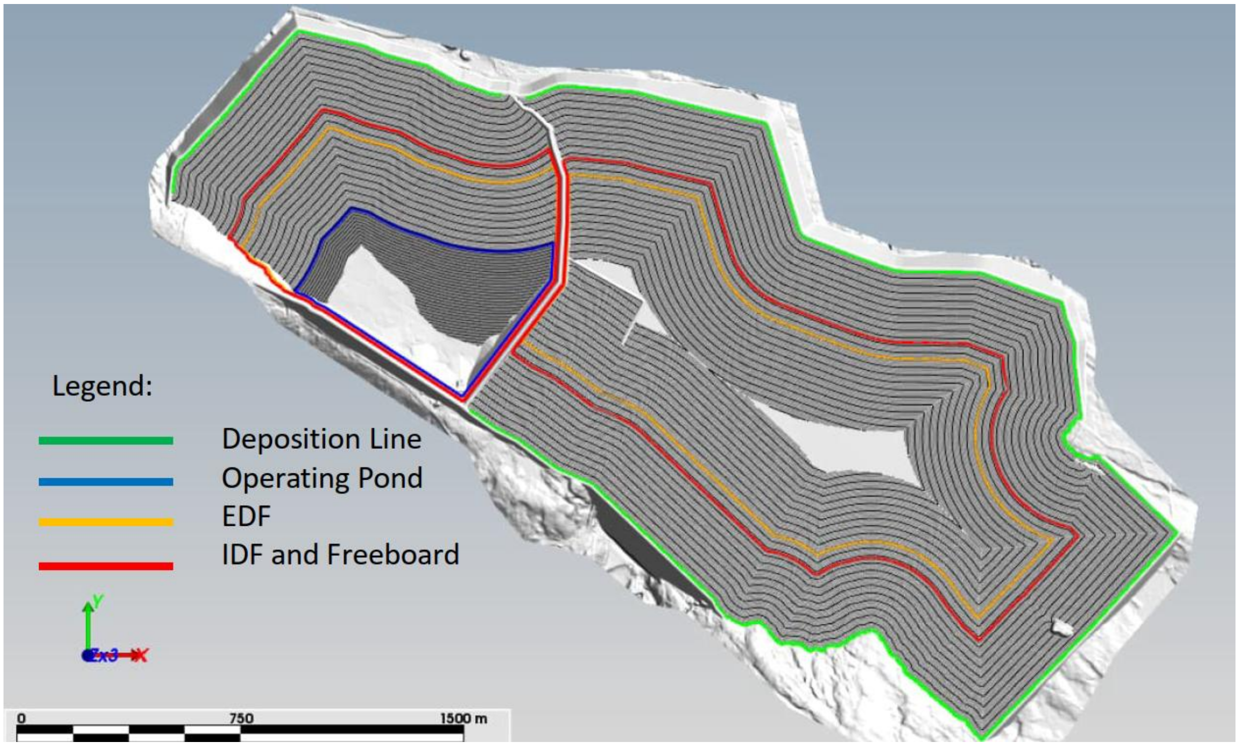
The stratigraphy of site has been well studied through historical investigation campaigns throughout the years. A site investigation was conducted to assess the sub-surface soil and bedrock conditions at the downstream toe area and along the natural ground abutment interfaces of the dams, in support of the planned expansion and raise of the TMF dams. The site investigation confirms that the overburden is relatively shallow, and the bedrock has low hydraulic conductivity along the new embankment alignment (WSP 2025b).

Geotechnical and hydrotechnical designs have been advanced at the PFS level to confirm the TMF configuration. Geotechnical analyses consist of tailings deposition plan, sequence of raise assessment, stability and seepage analyses. The centerline raise of embankments has been designed to achieve the stability FoS required for various loading conditions, in accordance with CDA (2019) recommendations for an Extreme consequence facility. Seepage analyses have been also completed to estimate seepage loss and size of toe ditch and sumps. Hydrotechnical analyses included TMF water balance to estimate operating pond volume, flood routing analyses to size spillways, and perimeter sumps and ditch sizing.

18.3.5 Tailings Deposition and Water Management

Thickened NAG tailings with targeted solid contents of 55-60% will be routed and deposited into the TMF from the thickener utilizing a tailings delivery and deposition pipeline and centrifuge pumps. A tailings deposition line will be established on the perimeter embankments and will include spigot deposition points at approximately 50 m intervals. Utilizing perimeter spigotting for deposition will optimize storage capacity with control over deposition locations as well as increasing in situ density of the deposited tailings solids. Tailings will require thickening to increase the solids content in the tailings slurry prior to being routed to the TMF. The use of thickened tailings facilitates the formation of a minimum 200 m wide tailings beach upstream of the perimeter embankments with a 2% beach slope. This will help in managing the supernatant pond away from the upstream slope and lowering the phreatic surface to a level within the existing till core elevation of the perimeter dams to mange and reduce seepage. Tailings deposited above the elevation of the existing till core within the perimeter dams, along with construction fill materials, will comprise NAG tailings and fill to ensure the prevention of impacted water release from the facility. Figure 18-21 illustrates the tailings deposition concept for the ultimate (final) rise of the TMF to a crest elevation of 367.5 masl.

Figure 18-21: TMF Deposition – Ultimate Stage



Source: WSP 2025.

Pond operations will continue within the David Bell Basin with each stage of perimeter embankment raise with process and runoff water from the Willams Basin being routed to David Bell through a spillway at Dam B. The pond within the David Bell Basin has been sized to store and mange water from the operations and annual runoff by establishing a Maximum Operating Water Level (MOWL) for each embankment stage. The MOWL also considers water reclaim from the pond for use in processing at the plant and the seasonal water transfer to ETP. A contingency storage has also been established, identified as the Environmental Design Flood (EDF), above the MOWL that will be contained below the spillway invert for each stage. This ensures that risk of release through the spillway will be minimized if the pond is operated at the MOWL. The spillway constructed at Dam I, for each embankment stage, is designed to prevent water from overtopping the dam crest during extreme precipitation events. The crest height also includes freeboard allowance to provide containment for wave run-up and wind set-up during significant storm events in the unlikely event that the spillway becomes active. Similar to current operation, the pump house at Dam B will be utilized to reclaim back to mill and seasonal discharge via ETP. The current TMF water balance is based on a reclaim rate of 5,480 m^3/day and seasonal ETP discharge rate of 14,400 m^3/day.

18.3.6 Schedule of Raise

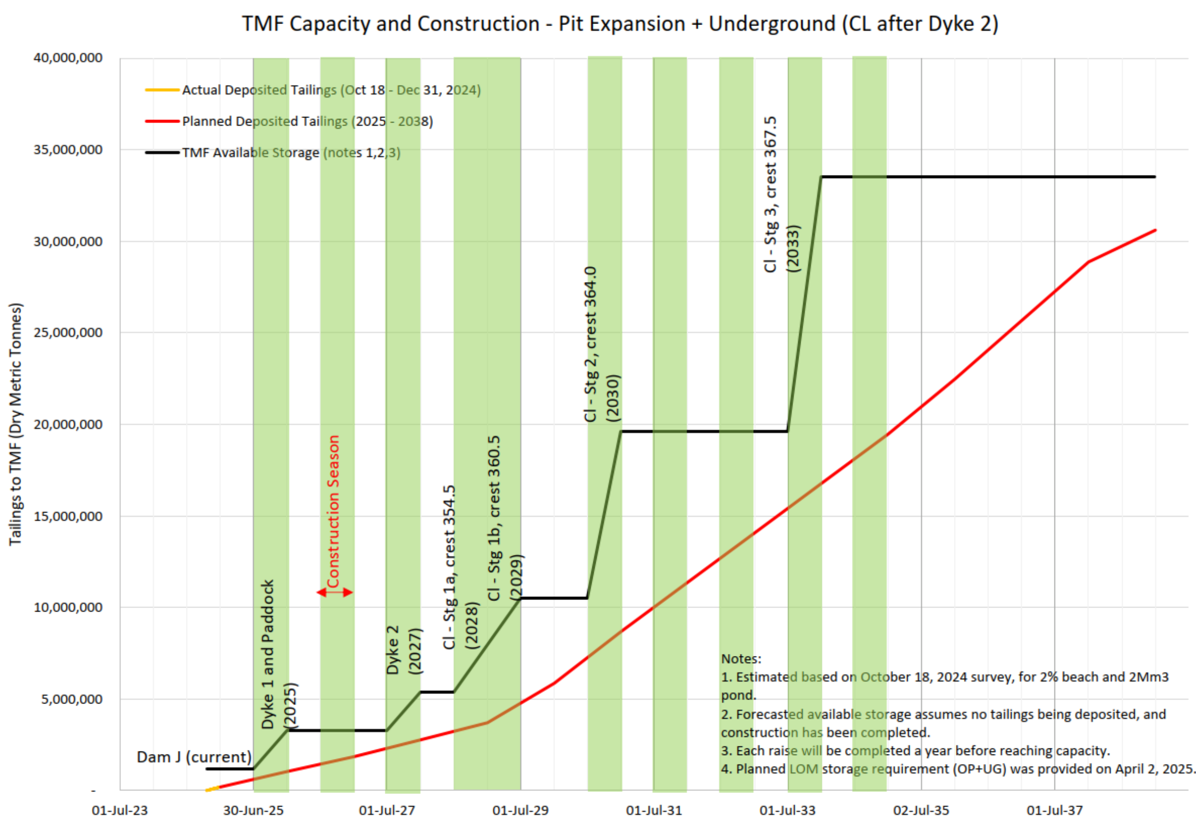
Rasing the crest level of the perimeter dams will be carried out incrementally over the remaining life of the mine to ensure ongoing containment and to optimize cost distribution. Three stages have been identified based on the current combined underground and open pit production rate, as summarised in Table 18-1.

Table 18-1: TMF Schedule of Raise

Stage No	Crest Elevation / Raise (masl/m)	Operation Period (Years)	Incremental Capacity (Mt)
Stage 1	360.5 masl (3.0 m)	2029 - 2030	5.1
Stage 2	364.0 masl (3.5 m)	2030 - 2033	9.1
Stage 3	367.5 masl (3.5 m)	2033 - LOM	13.8
Source: Based on April 2, 2025 LOM tailings production rate			

The embankment raise schedule based on the tailings throughput as illustrated in Figure 18-22. The TMF will have a maximum height of 50 m, located at Dam A, and a total area of 340 ha at the end of the operations. Dam B will continue to be raised and maintained 1.5 m below the perimeter dams at each stage, to maintain separation between the Williams and David Bell basins.

Figure 18-22: TMF Schedule of Raise



Source: WSP 2025.

18.3.7 Monitoring and Construction

The operations of the TMF will be subject to continuous monitoring through both visual inspections and the use of instrumentation. Existing Vibrating Wire Piezometers (VWPs) are utilized to monitor the phreatic surface level within the dam in real time, featuring trigger alert levels that prompt specified responses and actions should an alert occur. Pond elevations are also tracked and installation of staff gauges, in the tailings basin, are recommended for visually assessment of pond locations relative to the upstream slopes of the perimeter dams. Other existing monitoring instruments include thermistor to monitor frost penetration at the crest and seepage monitoring stations along the toe. While the thermistor will be raised with each raise, the seepage monitoring station will be only established in the areas that the seepage may bypass the downstream toe sump and ditch network.

Routine visual inspections will be conducted by site personnel to identify necessary operational or maintenance activities. Independent annual Dam Safety Inspections (DSI) will be carried out to evaluate the condition and performance of the dams and to determine any operational, maintenance, or surveillance measures required to ensure dam safety, by the Engineer of Record (EoR). Additionally, independent Dam Safety Reviews (DSR) will be undertaken at five-year intervals to assess the design and overall performance of the dams and to verify adherence to the original design intent.

The perimeter dams will be raised in stages, and a construction Quality Assurance (by the designer) and Quality Control (by contactor), i.e., a QA/QC) program, will be implemented to verify that the raises are completed according to technical specifications and the design intent is met. Record of construction reports will be generated for each stage to document construction and QA/QC activities. The downstream shell zone will be built to the full width during Stage 1 construction to support subsequent Stage 2 and 3 embankment raises and to use mine waste material generated during the early years of expansion. Construction fill materials are sourced locally, including both local borrow sources and NAG mine waste material.

18.3.8 TMF Closure

Closure design is currently under development by third parties and remains at a preliminary stage. Based on completed studies to date, the closure concept involves establishing a vegetated soil cover over the tailings beach. Water treatment will be maintained until the TMF water meets criteria for direct discharge into the receiving environment.

After decommissioning the ETP, a closure overflow spillway will be established in the abutment of Dam I, directing flow toward Lim Lake. The Normal Operating Water Level of the TMF will be reduced once the closure overflow spillway is established. The overflow spillway has been designed to handle the Probable Maximum Precipitation (PMP) while maintaining a minimum setback of 200 m between the TMF upstream slopes and the supernatant pond.

19.0 Market Studies and Contracts

19.1 Markets

The principal commodities produced at Hemlo are gold and silver, which are freely traded, at prices that are widely known, so that prospects for sale of any production are virtually assured.

19.2 Commodity Price Assumptions

Carcetti sets metal price forecasts by reviewing the LOM for the operations, which is 10+ years, and considering the commodity price for that duration. The guidance is based on a combination of historical and current contract pricing, contract negotiations, knowledge of its key markets from a long-term operations production record, short-term versus long-term price forecasts prepared by Carcetti's internal marketing group, public documents, and analyst forecasts when considering the long-term commodity price forecasts.

The long-term commodity price forecasts used to support Mineral Resources and Mineral Reserves as of December 31, 2024 are:

- Mineral Resources: US$1,900/oz Au
- Mineral Reserves: US$1,700/oz Au

Both pricing assumptions are below the current market spot price as of the date of this report, with higher metal prices being used for the Mineral Resource estimate utilized for the positioning of longterm infrastructure to ensure that future potential price pit pushbacks are not sterilized.

The cash flow analysis presented in this study considers metal prices based on consensus market forecast provided by CIBC. The gold and silver prices are shown in Table 19-1.

Table 19-1: Gold and Silver Prices

Metal	2025	2026	2027	2028	2029	2030-LOM
Gold (US$/oz)	3,195	3,265	3,050	2,915	2,840	2,610
Silver (US$/oz)	34.15	35.25	34.05	32.85	31.90	29.85

19.3 Contracts

The Mine is a large, modern open pit and underground mining operation. The contracts in place for smelting and refining are normal contracts for a large producer.

There are numerous existing contracts to provide services to supplement Hemlo's workforce in relation to the underground operations. Major underground contractors include:

- Barminco Mining Services Canada Limited provides lateral development and production stoping services.
- Manroc Developments Inc. provides Alimak mining services and lateral development.
- Boart Longyear Inc. and Boart Longyear Ventures Inc. provide longhole and exploration drilling support.
- Mining and Construction Tools AB provides rock tools and equipment maintenance support.

Hemlo is expected to enter into other construction and operational contracts as the open pit expansion proceeds.

19.4 QP Comment on Market Studies and Contracts

The QP has reviewed commodity pricing assumptions used in this study and considers them appropriate to the commodity and mine life projections. Additionally, the QP considers marketing assumptions acceptable for the use in estimating Mineral Reserves and the supporting economic analysis.

20.0 Environmental Studies, Permitting, and Social or Community Impact

The Mine lies in Bombay Township, outside the closest municipality of Marathon, Ontario and therefore not subject to municipal zoning or bylaw requirements. The Mine lies within Crown Lands managed by the Ministry of Natural Resources and Forestry (MNRF).

20.1 Environmental Studies

The Mine has been operating since 1985 and several environmental studies have been conducted for permitting purposes and monitoring requirements over this time. The following subsections give a general description of the environmental conditions of the site. Water management and water issues are the most relevant environmental aspect in the site.

20.1.1 Surface Hydrology

The site runoff and operational discharges from the Williams operations drain into two watersheds: mine/mill site drainage flows into tributaries of the Black River (Unnamed Lake, Cedar Creek and Blueberry Creek), while the tailings effluent is currently discharged into a tributary of the White River (Frank Lake). It is noted that historical tailings effluent discharges were also directed to Lim Lake, another tributary of the White River.

The Black River flows into the Pic River, just upstream of Lake Superior. Both the Pic and White Rivers flow into the north shore of Lake Superior, east of Marathon; the White River mouth is located several kilometres to the southeast of the Pic River mouth.

Cedar Creek is used as a fresh water source for the mine/mill operations. The creek flows in a northerly direction past the mine/mill site, and then northwest to the Black River. The Cedar Creek watershed comprises a number of lakes, including (from upstream to downstream): Spider, Theresa, Wabikoba, Caribou Throat (Ellis), Etna, Cedar, and Little Cedar.

The outfall of Theresa Lake and Little Cedar Lake are actively controlled by outlet structures. A rockfill overflow dam is also located at the outlet of Caribou Throat (Ellis) Lake. Theresa Lake is operated as a reservoir to supplement flow downstream during dry spells in the summer months, typically, in late August. All three control structures were constructed and repaired by the three mines. The dams have been operated and maintained by one of the three mines on a three-year rotation, as per the Shared Services Agreement (updated in March 2015) between Barrick and Newmont .

Surface water is managed in a professional manner and according to the requirements of the environmental permits received.

20.1.2 Hemlo Tailings Management Facility

Under current operations, excess water that cannot be recycled, along with tailings, are deposited to the tailings basin, located approximately 2.5 km southeast of the Williams Mine/Mill site. The basin (formerly Molson Lake) is contained within a rock-rimmed valley, with the emergency spillway (Dam I valley) draining southward towards the White River. The main topographic feature in the vicinity of the Molson Lake watershed is bedrock ridges, with a maximum relief of approximately 80 m. The main Dam (A) and a series of auxiliary dams around the perimeter of the basin contain the tailings and water. Low-lying areas around the local creeks and lakes typically consist of muskeg and spruce bog.

Treated effluent is permitted to seasonally discharge (April to November) to the west end of Frank Lake via an effluent pipeline. Frank Lake drains to the east through Frank Creek, and through a shallow unnamed lake, eventually discharging to the White River, approximately 5.25 km downstream from the point of effluent discharge.

20.1.3 Water Quality

Baseline (pre-development) surface water quality, sediment, benthic and fisheries data for the Cedar Creek/Black River and Frank Lake/Lim Lake/White River watersheds were conducted in May/June 1983 (Wood 1983) and include long-term data from provincial water quality stations for the Black and White River watersheds, and shorter-term sampling data from the site area. This 1983 baseline survey was followed up by three operational water quality studies that were conducted by Ecological Services for Planning Ltd. (ESP) in 1992, which included water bodies within the unnamed lake watershed system.

Due to changes in the regulations since the mine operations started some parameters currently required by the Code were not included in the baseline studies. All required parameters, however, are now being sampled as per the Ministry of the Environment, Conservation and Parks (MOECP) Environmental Compliance Approval (ECA) requirements and other related regulations.

The Mine conducts all the required water quality monitoring and there are no issues with compliance or water quality of the surrounding water bodies.

20.1.4 Hydrogeology

Deep groundwater flow is locally affected by the existing underground mine workings, the open pit, and associated dewatering operations. Groundwater inflow is estimated at above 1,000 m^3/day. For underground operations the infiltration is capture and used as fresh water, also, pumping from surface is necessary. Water is removed from the mine primarily as evaporated water with the ventilated air, or as moisture in the mined ore. Excess mine water is pumped to surface to the Sedimentation Pond system located immediately south of the mill site, on an as required basis, for reuse in the mining and milling process or for treatment and discharge.

20.1.5 Terrestrial Plant and Animal Life

Wildlife has not departed from the area due to mine operations. Sightings of wolves, foxes, moose, bears, otters, beavers, and various birds continue in different areas on the property. During the site visit, a bear and several birds were sighted. Once reclamation is complete, it is anticipated that wildlife will continue to thrive. The planned re-vegetation program, which is part of the mine closure and reclamation plan (Section 20.4), will result in improved terrestrial habitat and will encourage re-colonization of local flora and fauna.

20.2 Project Permitting

The Mine has been operating since 1985, following all provincial and federal laws with the necessary permits, including those for occupational health and safety, environmental monitoring, and reporting. Over the course of the mine life, Hemlo has submitted a number of applications to modify the development consent in line with various pit expansions, operating adjustments, and mine life extensions. All permits are in good standing, and the mine is in compliance with those permits.

The Mine has an Environmental Management System and all required mining approvals have been granted for underground and open pit mine production, stockpiles, and tailings storage facilities.

Table 20-1 has a list of the major environmental permits. These were obtained and reviewed by the QP of this section.

Table 20-1: Hemlo Mine Permits

Permit Description	Permit / Doc Number	Environment Site Registry
Environmental Compliance Approval - Air	3959-AXJHRG	AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL 3959-AXJHRG
Environmental Compliance Approval - Tailings/Industrial Sewerage Works	8878-BB4P3H	AMENDMENT TO ENVIRONMENTAL COMPLIANCE APPROVAL 8878-BB4P3H
Aggregate Permit - Black River Pit	107926	Williams Operating Corporation — Open Aggregates
Aggregate Permit - Cedar Creek Pit	126576	Williams Operating Corporation — Open Aggregates
Aggregate Permit - Herrick Lake Sand Pit	80483	Williams Operating Corporation — Open Aggregates
Aggregate Permit - Herrick Pit	20203	Williams Operating Corporation — Open Aggregates
Aggregate Permit - Philips Creek	20202	Williams Operating Corporation — Open Aggregates
Aggregate Permit - Struthers Quarry	20221	Williams Operating Corporation — Open Aggregates
Aggregate Permit - Struthers Sand	20819	Williams Operating Corporation — Open Aggregates
Aggregate Permit - Wabikoba Lake Area (Pine Grove)	108126	Williams Operating Corporation — Open Aggregates
Aggregate Permit - Wabikoba Till Pit	20616	Williams Operating Corporation — Open Aggregates
PTTW - Little Cedar Lake Permit To Take Water	6028-A2LKAW	1472-9TKN39-36.pdf
PTTW - Theresa Lake Permit To Take Water	8024-A2LLFZ	7077-9TKPZC-36.pdf
PTTW - WOC Cedar Creek Permit To Take Water	5533-A2LMPA	6317-9TKQV7-36.pdf
PTTW - WOC C-Zone and Sceptre Pit De-Watering Permit To Take Water	8767-AF2PMW	2821-ABRHRP-36.pdf
Encroachment Permit - Emergency Spill Control Pond	EC-2015-61T-1	Not Publicly Found
Encroachment Permit - Pole Placement on MTO Right-of-Way	EC-2019-61T-28	Not Publicly Found
Encroachment Permit - WOC Moose Lake Water Line	EC-2016-61T-49	Not Publicly Found
Encroachment Permit - WOC Pipeline Trestle Overpass	EC-2016-61T-50	Not Publicly Found

Permit Description	Permit / Doc Number	Environment Site Registry
Encroachment Permit - Pipeline corridor under Hwy 17	EC-2014-61T-56	Not Publicly Found
Encroachment Permit - WOC Powerline HWY 17	EC-2016-61T-61	Not Publicly Found
PTTW - WOC Pit Storm Water Ponds Permit To Take Water	7163-AK2Q2K	0181-AJ6QTM-36.pdf
Road Crossing Agreement with Canadian Pacific	OD 50170	N/A
Tailings Bridge - Legal Agreement Between MTO & Williams Operating Corp.	Tailings Bridge	N/A
Pipe Crossing Agreement with Canadian Pacific	OD 50298	N/A
Pipe Crossing Agreement with Canadian Pacific	OD 50545	N/A
Power Crossing Agreement with Canadian Pacific	OD 50655	N/A
Teck Corona Landfill COA	A71902-02	N/A
Theresa Lake Dam Navigable Waters Approval	8200-85-54	N/A
Water Treatment Plant	4-029-84-006	N/A
Private Crossing Agreement with Canadian Pacific	OD 55466	N/A
Private Crossing Agreement with Canadian Pacific	OD 55467	N/A
Private Crossing Agreement with Canadian Pacific	OD 52703	N/A
Williams Mine Potable Water Directive	SDWS #762001054	N/A
Williams Operating Corp. Landfill COA	A5825391	N/A
Encroachment Permit - DBOC Fibre Optic Line and 4160V	EC-2018-61T-00000092	Not Publicly Found
Access Road License Agreement - Nextbridge	23,365,182.70	N/A
Entrance Permit DBOC Mine Entrance	EN-2016-61T-32	
Entrance Permit DBOC Tailings Entrance	EN-2016-61T-33	
Entrance Permit DBOC Yellow Brick Road Entrance	EN-2016-61T-31	N/A

Permit Description	Permit / Doc Number	Environment Site Registry
Amended and Restated Access Road License Agreement - PMHI	12,830,364.30	N/A
Entrance Permit WOC A-Zone Pit Hwy Entrance	EN-2016-61T-36	Not Publicly Found
Entrance Permit WOC Mine Entrance	EN-2016-61T-37	Not Publicly Found
Entrance Permit WOC North Tailings Gate Entrance	EN-2016-61T-34	Not Publicly Found
Entrance Permit WOC Tailings Yellow Gate Entrance	EN-2016-61T-35	Not Publicly Found
Orica License to Occupy	DM_TOR/109805-00042-3793351.1	Not Publicly Found
Pete Jones Bear Management Area	WA-33-002 TR-21B-037	Not Publicly Found
Trap Line Area WA-33	WA-33	Not Publicly Found
Williams Mine Potable Water Directive	SDWS # 762001054	Not Publicly Found

Environmental approvals for the proposed Open Pit Expansion Project have not yet been granted. However, environmental baseline studies and other related assessments are currently in progress. The Project anticipates the following requirements:

- **Provincial:** Provincial permits updates will be required and include ECA amendment and an Updated Closure Plan.
- **Federal:** Federal permits update may be required based on the footprint of the Open Pit Expansion Project. At the time of writing this report, the Mine is awaiting confirmation from the Department of Fisheries and Oceans.

The timeline for obtaining these regulatory approvals has been factored into the overall project plan to ensure the necessary review and approval processes are completed in a timely manner.

20.3 Social or Community Requirements

The main stakeholders of the site are the Netmizaaggamig Nishnaabeg First Nation and the Biigtigong Nishnaabeg First Nation. Hemlo has agreements with both to provide funding for local education, training, employment, business opportunities, revenue opportunities, and economic development projects. The agreements signed expired in December 2024 and were extended until June 2025. At the time of this report the parties are working collaboratively on a new agreement for the Biigtigong Nishnaabeg First Nation. The risk of not coming to an agreement are low; negotiations are ongoing and are expected to conclude by the end of 2025. For the Netmizaaggamig Nishnaabeg First Nation the existing agreement has been extended until June 30, 2026. The cost of the different initiatives is included in the financial model, some of these initiatives are services contracts, therefore they are part of the operations budget.

Another stakeholder is the town of Marathon, several employees live there, and the camp for FIFO employees and visitors is located in Marathon. Hemlo has made several contributions and donations to the town.

Hemlo in 2023 was a signatory, through Barrick, of the Towards Sustainable Mining (TSM) initiative, and the latest audit was finalized in August 2023. Their performance on Indigenous and Community Relationships was rated A to AA in the different categories, indicating that community engagement is managed well.

20.4 Mine Closure Requirements

Environmental rehabilitation plans are in place, and the cost of the mine closure rehabilitation work is accounted for in the Bonded Financial Assurance for the Williams Mine and a Letter of Credit for the David Bell Mine. The latest “Williams Mine Closure Plan Amendment” was submitted to the Ontario Ministry of Northern Development and Mines in July 2018 and updated in January 2019. The Provision for Environmental Rehabilitation (PER) estimate is C$87.7M. The PER estimate for the David Bell Mine is C$4.6M. The closure cost estimate in the financial model totals US$83.0M.

The closure plan and cost estimate are in line with a mine of this size. The closure plan complies with Ontario and Canadian regulatory requirements and was developed by qualified professionals.

The closure plan includes progressive rehabilitation that have been and will be implemented throughout the life of the mine. Some of the activities that have already taken place are:

- Substantial backfilling of the A-Zone open pit with mine rock;

- Milling of the low grade stockpile identified in the 1993 Closure Plan submission;
- Utilization of as much as practical B-Zone mine rock for underground backfill operations;
- Removal of the A-Zone headframe;
- Removal of the A-Zone hoist room;
- Removal of the cemented rockfill plant;
- Removal of the conveyance system from the rock storage silo (beehive) to the batch plant;
- Removal of the beehive (ore transfer building);
- Decommissioning of the old fuel farm located behind the Security Building;
- Cement capping of the B-Zone No. 3 backfill raise;
- Removal from the site of stored liquid wastes and materials with high PCB levels;
- Recontouring and revegetating of disturbed areas no longer required; and,
- Stockpiling of topsoil from recent construction for future site reclamation works.

Anticipated future progressive rehabilitation work includes the following:

- Contouring (and, where required as per closure designs, covering with topsoil and seeding) of rock storage areas when rock piles reach design capacity;
- Processing of stockpiled low grade ore, subject to economic considerations;
- Decommissioning and salvage of buildings and equipment, once no longer required or as replaced;
- Construction of the beached tailings (i.e., paddocks comprised of rockfill berms to contain tailings) and 50 m dry cover at the tailings facility dams, where feasible, subject to the deposition plan.

Some of the rehabilitation measures at final closure will include:

- The conventional PAG slurry tailings will be covered with either a minimum 1 m thick water cover (in the David Bell basin) or a dry bituminous geomembrane cover (i.e., beached tailings in both the Williams and David Bell Basins) to prevent metal leaching/acid rock drainage (ML/ARD) generation. The dry 50m wide cover on the upstream perimeter dam beaches will be constructed during operations, with the exception of Dam I, which will be completed shortly after shutdown of operations. The NAG thickened tailings will be placed with a 2% slope towards the TMF pond (i.e., towards the David Bell Basin).
- Following flooding of the open pit (approximately 59 years after operations cease), a water treatment facility by way of a high density sludge (HDS) water treatment facility will be in place to treat water collected in the open pit for discharge to Cedar Creek.
- If not completed during progressive rehabilitation or the state of Inactivity, all surface openings, including shafts and raises for ventilation and backfilling, will be secured in accordance with the Mine Rehabilitation Code, with a reinforced concrete cap anchored to bedrock and covered with gravel and top soil.

- All buildings and infrastructure will be demolished to grade. Concrete building foundations and structures will be broken up and reduced to within 0.5 m of grade to allow drainage.
- When no longer required (for long term monitoring or other potential land use), site access roads will be rehabilitated by scarification, re-grading, removal of culverts and re-vegetation in accordance with the Mine Rehabilitation Code. The roads will also be breached at the culvert locations to allow for natural drainage.
- For the waste dumps and other stockpiles the primary long term closure concern with respect to the mine site is ARD from the PAG mine rock stockpiles. Geochemical testing of the mine rock indicates that net acidity Barrick-Hemlo - Williams Operating Corporation Williams Mine Closure Plan 8-8 July 2018 will not be measurably generated for up until 60 to 160 years after placement (for scheduling purposes, it was assumed that acid generating conditions would occur approximately 60+ years after closure). Metal leaching from the NAG mine rock is a secondary concern, however, all runoff from both the PAG and NAG mine rock areas will be collected by way of existing perimeter ditching around the mine rock areas, directed to the open pit and treated in a newly constructed water treatment facility (i.e., HDS water treatment facility) prior to discharging to the environment (Cedar Creek).
- Monitoring will be carried out through all stages of closure. The required monitoring can be categorized as:
  - Physical stability monitoring;
  - Chemical stability monitoring;
  - Environmental monitoring; and
  - Other monitoring, as required, to ensure the safe operation of facilities at the mine site or to ensure the success of rehabilitation works.

20.5 QP Comments on Environmental and Social

Hemlo has a regional permitting team as well as site-based environmental teams and management systems to ensure that the necessary permits and licences are obtained and maintained. These teams also carry out the required monitoring and reporting.

The Hemlo International Cyanide Management Code Gold Mining Operation Recertification Audit report from May 2021 generated by ERM concludes that the project has met the obligations in implementing the International Cyanide Management Code, which indicates the Mine is well managed.

The QP considers there are no notable challenges at the Mine with respect to permitting, licensing, government relations, non-governmental organizations, social or legal issues, or community development.

21.0 Capital and Operating Costs

21.1 Basis and Sources of Cost Estimates

Capital and operating costs for the Mine are based on cost estimates prepared from first principles by Hemlo and third-party consultants supported by studies and associated cost estimates prepared within an accuracy range of +/-25%, which is the typical level of a PFS.

The costs are supported by engineering quantities estimates from detailed design drawings and equipment lists, with some smaller items factored from other comparable projects. Prices were determined by secured contracts, and vendor quotes with smaller items sourced from in-house databases.

Capital and operating costs reflect current price trends and exchange rates as of the effective date of this report.

All costs presented are in real USD as of Q1 2025, without allowance for further inflation.

21.2 Capital Costs

Costs have been presented in three capital allocations:

- Expansion Capital: Capital costs required for the expansion project above the current production rate.
- Sustaining Capital: Capital cost required to sustain the production rate throughout the LOM.
- Closure Cost: Capital cost required to close and decommission the mine site and the end of the LOM.

The total capital cost is presented in Table 21-1.

Table 21-1: Capital Cost Estimate

Description	Expansion Capital ($M)	Sustaining Capital ($M)	Total Capital ($M)
Mining – Open Pit	335.0	0.0	335
Mining – Underground	0.0	227.6	227.6
Material Handling, Crushing & Conveying	10.8	0.0	10.8
Processing Plant	32.3	8.1	40.5
Tailings & Water Management	6.2	91.4	97.6
Infrastructure	3.0	0.0	3.0
Drilling	0.0	31.5	31.5
Indirect Costs	30.3	0.0	30.3
Contingency & Escalation	40.3	0.0	40.3
Total Project Capital	**457.9**	**358.6**	**816.5**

21.2.1 Expansion Capital Cost

Expansion capital has been defined as items related to the restart of the open pit operation and the expansion of the processing plant and tailing management facility.

The project expansion capital costs are presented in Table 21-2.

Table 21-2: Expansion Capital Cost

Description	Capital Cost ($M)
1 - Mining - OP	**335.0**
1.1 - Pre-Strip	170.0
1.2 - Mine Infrastructure Area & Services	12.7
1.3 - Mining Equipment - Open Pit (Down Payment))	12.3
1.3 - Mining Equipment - Open Pit (Lease)	107.1
1.4 - Mining Equipment - Open Pit (Rebuilds)	32.9
3 - Material Handling, Crushing & Conveying	**10.8**
3.1 - Primary Crushing	6.8
3.2 - Ore Conveying	3.4
3.5 - Secondary Crushing	0.6
4 - Processing Plant	**32.3**
4.1 - Grinding & Classification	3.0
4.2 - Gravity Concentration	0.8
4.4 - Cyanide Detoxification	4.2
4.5 - Carbon stripping & regeneration	0.0
4.6 - Gold room	0.0
4.7 - Flotation	6.5
4.8 - Tailings Handling	17.8
5 - Tailings & Water Management	**6.2**
5.2 - Water Management	6.2
6 - Infrastructure	**3.0**
6.1 - On-Site Infrastructure	3.0
8 - Indirect Costs	**30.3**
8.1 - Owner's Costs (Common Construction Facilities & Services)	4.6
8.2 - Indirect Costs (Implementation Contractors, EPCM)	25.7
9 - Contingency & Escalation	**40.3**
9.1 - Contingency	40.3
Total	**457.9**

21.2.1.1 Open Pit Mining

Open pit mining including pre-stripping activities for the C-Pit expansion at Hemlo is proposed to be executed by the Owner's team with contractors engaged to provide explosives supply and services. The purchase of the fleet and completing the initial pre-strip (27 months) is determined by the month where the strip ratio is either equal to or below the average strip ratio for the pit.

The pre-strip includes the following costs:

- Clearing and grubbing, preparation of waste facilities, road networks, geotechnical drilling;
- Labour, supervision, maintenance labour, technical services; and,
- Parts, consumables including diesel, lube, explosives, drilling.

Approximately 27 Mt of 66 Mt moved during the pre-strip period is preexisting waste that only requires load and haul. A summary of the pre-strip costs is summarized in Table 21-3.

Table 21-3: Open Pit Initial Capital Costs – Pre-Stripping

Capital Cost Description	US$/t Moved[1]	US$/t Mined[1]	US$M
Consumables / Direct Costs	0.60	0.25	39.4
Parts, Lube, Diesel	0.84	0.35	55.5
Labour	0.94	0.39	62.1
Subtotal	**2.37**	**0.98**	**157.0**

Notes:
1. 66.2 Mt moved | 160.7 Mt mined

The fleet pricing is based on recent quotes from suppliers. The fleet includes the following:

- CAT6040 excavators and CAT785 Trucks;
- Pit Viper 271 drills, D650i pre-split drill;
- 992 Front End Loaders (FEL);
- D10 dozers and graders;
- Explosive loaders, Water and service trucks, sand trucks;
- Utility fleet consisting of smaller excavators, FELs, and crew buses.

The fleet capital estimate is summarized in Table 21-4.

Table 21-4: Open Pit Initial Capital Costs - Fleet

Capital Cost Description	Life (hours)	Units Purchased	US$/unit	US$M
Excavator - CAT6040	60,000	2	7.9	15.8
Truck - CAT785	60,000	11	3.7	40.7
Drill - PV271	45,000	5	3.2	16.0
FEL - 992	60,000	1	2.7	2.7
Dump Dozer - D10	100,000	3	2.2	6.5
Explosives Loader	34,000	2	1.5	3.0
Mine Service Trucks, 775	34,000	2	2.0	4.0
Water Truck, 775	34,000	1	1.6	1.6
Pit LVs	6,000	20	0.1	1.4
Stemming Truck	24,000	2	1.0	1.9
Pre-split Drill - D650i	25,000	1	1.0	1.0
Sand Truck	17,000	1	0.8	0.8
Grader - Cat16	34,000	3	1.6	4.7
Tyre Handler	13,000	1	1.6	1.6
Utility FEL	21,000	1	1.5	1.5
Utility Excavator, 374	36,000	1	1.0	1.0
Crew Bus	6,000	2	0.5	0.9
Subtotal				**105.0**

The total Open Pit capital costs including equipment rebuilds is summarized in Table 21-5. Rebuilds are timed based on 50% of the hours being incurred.

Table 21-5: Open Pit Capital Cost Summary

Capital Cost Description	US$M
Pre-Strip (66.2 Mt)	157.0
Fleet (Initial Purchase)	105.0
Rebuilds	32.9
Geotechnical and Minor Clearing and Grubbing	3.0
Subtotal	**296.2**

21.2.1.2 Processing

The expansion capital associated with the process plant includes upgrades to:

- Primary Crushing
- Ore Conveying
- Secondary Crushing

- Grinding & Classification
- Gravity Concentration
- Cyanide Detoxification

The cost estimates for these items are based on estimates proved by Hemlo.

21.2.1.3 Tailings

The tailing management facility expansion includes costs associated with earth works and surface water management controls. The cost estimates for these items are based on estimates provided by Hemlo.

21.2.1.4 Indirect Costs

Indirect costs are approximately 27% of direct costs and cover freight, engineering, procurement, and construction management (EPCM), owner's costs, first fills, and capital spares.

21.2.1.5 Contingency

Contingency was applied to each area and equals 10% of the direct and indirect totals.

21.2.2 Sustaining Capital

In addition to the project capital, sustaining capital is required for the continuation of the mining operations.

During the LOM, US$343.9M of sustaining capital costs are expected to be incurred, which is outlined in Table 21-6.

Table 21-6: Sustaining Capital Cost

Description	Capital Cost (US$M)
2 - Mining - UG	**227.6**
2.1 - Underground Development - Lateral	76.9
2.2 - Underground Development - Vertical	11.3
2.3 - Underground Mine Infrastructure	16.8
2.4 - Underground Mine Material Handling	8.1
2.5 - Ventilation Expansion	27.5
2.6 - Underground Mining Equipment	81.5
2.7 - Paste Backfill Reticulation	5.6
4 - Processing Plant	**8.1**
4.1 - Grinding & Classification	7.0
4.2 - Gravity Concentration	0.0
4.3 - Leaching circuit	1.2
5 - Tailings & Water Management	**91.4**
5.1 - TMF - Dykes	13.7
5.1 - TMF - CLRaise 1a	20.7
5.1 - TMF - CLRaise 1b,2&3	57.0
7 - Drilling	**31.5**
7.1 - Exploration Drilling	31.5

21.2.2.1 Underground Mining

Mine development and underground production at Hemlo is proposed to be executed by mining contractors with the owner's team providing technical services and site management. Multiple mining contractors have been engaged to provide mine personnel, mining equipment (Contractor 2), maintenance personnel, and front-line management/supervision. The Company is required to supply the fleet (Contractor 1), parts (Contactor 1), and all consumables to support mining activities.

The Owner will continue to provide and maintain the required surface infrastructure to support the mining contractor including ventilation, maintenance facilities, fixed mine equipment including main pumps, and other mine facilities including messing, changerooms, explosive storage, wash bay, waste rock storage, ore and waste storage facilities, and water management infrastructure.

Mining capital costs have been estimated by the existing contracts and historical data collected by Entech at other underground mining operations.

The following items are capitalized:

- mine development (declines, accesses, return airways, fresh airways, sumps);
- rebuilds of fleet and fixed plant;

- ventilation expansion project and associated development and plant;
- extensions of mine services (fresh air, fresh water and compressed air), including primary fans, primary pumps, air compressors and mine services distribution lines;
- paste pipe, and dewatering systems;
- underground electrical substations, electrification and distribution;
- surface facilities including mine administration buildings, changeroom, and maintenance,
- underground maintenance facilities;
- explosive magazines, diesel storage and fueling station;
- haul roads and surface stockpile site preparation;
- data and radio communications systems; and
- seismic system upgrades.

Lateral development costs range from approximately US$5,700/m to US$6,850/m depending on contractor and location. Average cost for lateral development is US$5,969/m which includes reallocation of fixed and mobile plant at a cost of US$957/m.

The underground equipment expense of US$81.5M includes the following:

- US$36.0M is proposed to acquire new mobile fleet;
- US$39.3M in rebuilds of the mobile fleet; and,
- US$6.2M in and fixed plant rebuilds.

21.2.2.2 Processing Plant

Processing Plant includes major equipment rebuilds, and other non-operating costs associated with the processing facility.

21.2.2.3 Tailing and Water Management

Tailings Storage Facilities includes dam raises above the current dam limit. The unit rates were based on contractor quotes, historical cost, or internal benchmarks. The costs were scheduled according to the TMF construction schedule (Figure 18-22). Capital cost for each of the raises are summarized in Table 21-7 below.

Table 21-7: TMF Stage Cost

Stage	Schedule Year	Percent of Total Height (%)	Capital Cost (US$M)
Stage 1a	2028	27%	19.4
Stage 1b	2029	32%	23.6
Stage 2	2030	20%	14.3
Stage 3	2033	21%	15.4
Total			**72.7**

21.2.2.4 Drilling

This includes cost for exploration drilling over the LOM.

21.2.3 Closure Costs

A closure cost estimate was prepared as part of the PFS and conforms to the process which is covered in Section 20.4. Closure costs are estimated to be C$83.0M.

The closure costs incurred at cessation of operations, are in addition to the progressive closure of the TMF during the LOM which are included in the operating cost estimates.

21.3 Operating Costs

The operating costs for the LOM (Table 21-8) were developed considering the planned mine physicals, equipment hours, labour projections, consumables forecasts, and other expected incurred costs.

Table 21-8: Operating Costs

Area	LOM Total (US$M)	LOM Unit Cost (US$/t Ore)
Mining – Underground	1,211	29.35
Mining – Open Pit	393	9.52
Processing	558	13.53
General and Administration	249	6.04
Total	**2,411**	**58.44**

21.3.1 Mining

21.3.1.1 Underground

Mine development and underground production at Hemlo is proposed to be executed by mining contractors with the owner’s team providing technical services and site management. Multiple mining contractors have been engaged to provide mine personnel, mining equipment (Alimak / remnant mining), maintenance personnel, and front-line management/supervision. The Owner is required to supply the fleet for the lower longhole stoping zones, parts for the supplied fleet, and all consumables to support mining activities. Additional contractors are employed to complete production drilling and slot drilling.

Underground production averages 3,800 tpd for 9 years with paste backfill and hauled to surface via a production shaft. The key consumable pricing that supports the cost estimates are summarized as follows:

- Power US$0.046 kWh;
- Diesel US$0.98/L;
- Cement / Binder US$224/t cement;
- Anfo US$1.45/kg; and
- Drill consumables US$15.3/m

Underground mining operating costs are summarized in Table 21-9 and by method in Table 21-10.

Table 21-9: Underground Mining Operating Costs

Description	US$M	US$/t ore	US$/m
Operating Development	185	14.5	6,014
Production	1,025	80.1	
Sub Total	**1,211**	**94.6**	

Table 21-10: Underground Mining Operating Costs by Method

Description	US$M	US$/t ore
Longhole Stoping - Interlake	371	99.0
Longhole Stoping – Lower C-Zone / B-Zone	334	89.9
Alimak Stoping	154	106.9
Longhole Stoping – Remnant	352	90.3
Sub Total	**1,211**	**94.6**

21.3.1.2 Open Pit

Bulk mining is proposed to be carried out by the Owner, with blasting support services provided by a third party. Previous mining at C-Pit was completed by the Owner and a small technical services team to manage the operation. Operators are expected to be sourced locally with an allowance of 50% of mine personnel being sourced from outside of Marathon and housed at Owner provided accommodation.

Fleet comparisons of 90-100 t class trucks with 135-145 t class trucks indicate that the larger sized fleet has a cost advantage over the smaller sized fleet. Other factors such as camp sizing, surface infrastructure, and mine life all impact the cost implications, especially if pit operations operate past underground incurring additional fixed costs.

Open pit mining operating costs are summarized in Table 21-11.

Table 21-11: Open Pit Mining Operating Costs

Description	US$M	US$/t Post-Strip[1]	US$/t mined[1]
Fuel	60.9	0.63	0.54
Consumables	101.6	1.08	0.88
Labour	149.3	1.58	1.32
Maintenance	65.1	0.70	0.59
Stockpile Rehandle	18.3	0.19	0.11
Total	**395.1**	**4.18**	**3.44**

Notes:
1. 94.5 Mt moved | 160.7 Mt mined

21.3.2 Processing

Processing costs include activities related to the processing of ore produced from the mine, including grinding, flotation, thickening, plant maintenance, and tailings management (excluding dam raises). This includes labour, power, reagents, and other associated costs.

The processing operation cost was based on historical actual costs and applied as:

- Fixed cost of US$23 M/year,
- Processing variable cost of US$4.50/t milled, and
- Tailings Thickening variable cost of US$1.5/t milled once the tailings thickener is constructed in 2028.

21.3.3 G&A

G&A costs include items associated with the site and not directly related to mining or processing. This includes items such as camp, water treatment, security, site roads, management, administration, and other site wide costs.

The G&A operation cost was based on historical actual costs and applied as US$20.6 M/year

21.4 Comments on Capital and Operating Costs

The capital and operating estimates for the Mine are based on Hemlo's past operating experience and well supported by technical studies at a PFS level. The estimates were prepared in accordance with normal engineering and cost estimation practices.

Appropriate provision has been made in the estimates for the expected mine operating usages including labour, fuel, and power and for closure and environmental considerations.

The cost assumptions used in the determination of the Mineral Resources and Mineral Reserves are appropriate.

22.0 Economic Analysis

A financial analysis of the project was carried out using a free cash flow (FCF) approach to support the declaration of Minerals Reserves. This method of valuation requires projecting yearly cash inflows, or revenues, and subtracting yearly cash outflows such as operating costs, capital costs, and taxes. The resulting net annual cash flows are discounted back to the date of valuation and totalled to determine the net present value (NPV) of the project at selected discount rates.

All values are presented in real 2025 USD values unless otherwise stated. The economic analysis has been run with no additional inflation (constant dollar basis).

The model includes the development and expansion capital costs, sustaining capital costs, operating costs, and longer-term rehabilitation costs, and all tax, royalties and other obligations.

An after-tax Cash Flow Projection has been generated from the LOM production schedule and capital and operating cost estimates, and is summarized in Table 22-1. A summary of the key criteria is provided below.

22.1 Economic Criteria

22.1.1 Mine Plan

- Basis of the model is the production/mine plan as presented in Section 16 which includes mined tonnes (ore and waste), processed ore tonnes, grade, and recoveries and the Mineral Resource and Mineral Reserve estimates presented in Sections 14 and 15 of this report, respectively.
- No Inferred Mineral Resources are included in the mine plan and are considered waste.
- Mine life: 14 years.
- LOM production plan as summarized in Section 16.3.

22.1.2 Revenue

Revenue has been estimated based on the following:

- Mill recovery by zone, as indicated by test work, averaging 92.8%.
- Gold at refinery 99.965% payable.
- Exchange rate US$1.00 = C$1.35.
- Metal price: See section 19. LOM average US$2,780 per ounce gold.
- Net Smelter Return includes doré refining, transport, and insurance costs.
- Revenue is recognized at the time of production.

22.1.3 Costs

- All costs are presented as of January 1, 2025 (i.e., no escalation or inflation is applied) in US dollars (US$) unless otherwise noted.
- Capital and operating costs have been applied as described in Section 21.
- Mine life capital totals US$811.6M.

- Average operating cost over the mine life is US$58.44 per tonne milled.

22.1.4 Taxation and Royalties

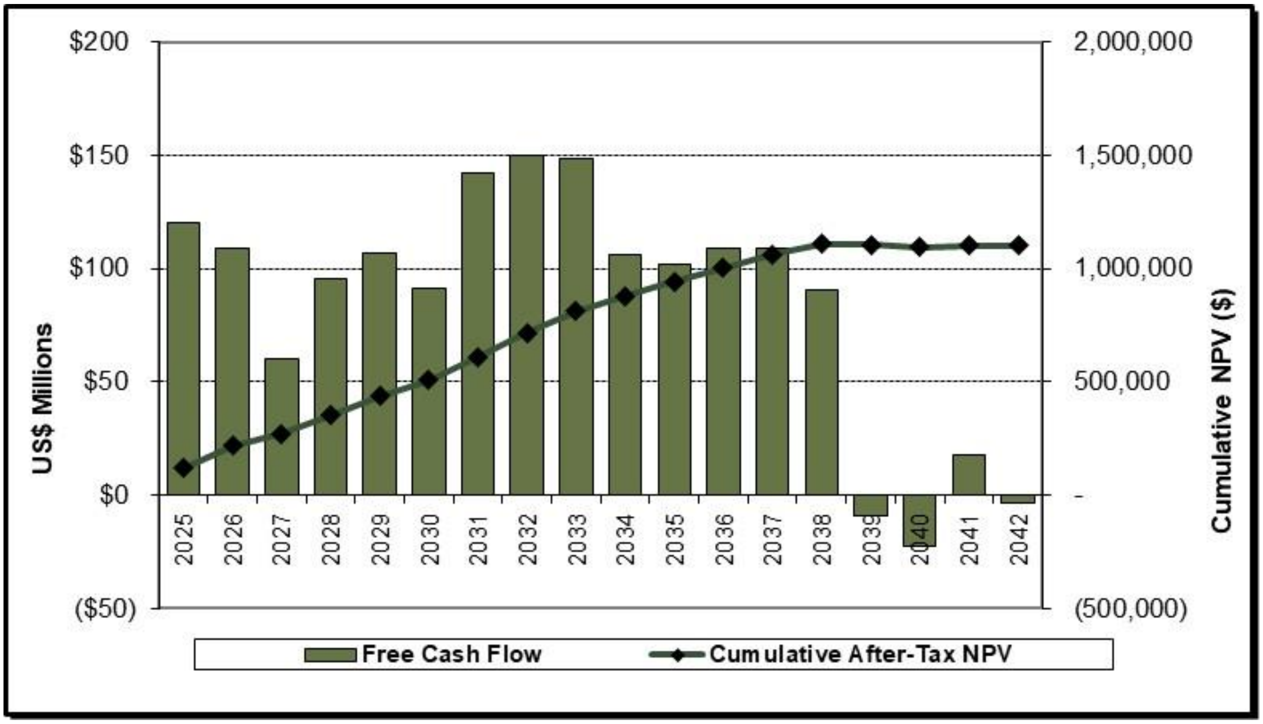
- Taxes, royalties, treatment and refining charges are applied as described in Section 4 and Section 21.
- The project is modelled on a 100% equity basis with no debt.
- No commodity streams were considered for the economic analysis presented in this report. Commodity streams were considered in the financing terms as part of Proposed Transaction as presented in Carcetti's press release dated September 10, 2025. It should be noted that these agreements are not finalized as at the filing of this report.
- CAD/USD is the largest currency rate exposure. Exchange rate assumption of 0.74USD:1CAD. Other exchange rates were applied, where appropriate at prevailing market rates.

Table 22-1: After-Tax Cash Flow Summary

Cash Flow Summary	Unit	LOM Total/ Avg	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045 to 2081
Au Price	US$/oz	**2,780**	3,195	3,265	3,050	2,915	2,840	2,610	2,610	2,610	2,610	2,610	2,610	2,610	2,610	2,610	2,610	2,610	2,610	2,610	2,610	2,610	2,610
Payable Au	oz	**2,153,958**	133,559	156,186	174,446	197,088	215,688	198,239	208,558	211,912	195,399	136,036	85,501	84,401	84,401	72,543							
Total Revenue	US$000	**6,007,634**	427,999	511,490	533,725	576,324	614,479	519,062	546,080	554,861	511,625	356,191	223,872	220,991	220,991	189,944							
Refining & Transport	US$000	**5,493**	341	398	445	503	550	506	532	540	498	347	218	215	215	185							
NSR Royalty	US$000	**125,565**	8,947	10,692	11,156	12,046	12,843	10,848	11,413	11,596	10,693	7,444	4,679	4,619	4,619	3,970							
NPI Royalty	US$000	**369,253**	25,963	52,902	58,133	47,334	53,515	36,743	29,998	35,969	25,418	3,277	0	0	0	0							
Operating Cost	US$000	**2,410,508**	178,013	178,285	172,869	192,756	266,802	274,909	261,337	246,957	228,469	171,054	69,278	57,743	57,743	54,292							
Project Capital	US$000	**457,917**	11,587	64,290	144,944	111,534	46,118	24,083	25,057	30,303													
Sustaining Capital	US$000	**353,634**	35,309	43,605	49,740	64,986	75,057	36,739	7,811	9,690	27,753	2,945											
Closure/Reclamation/Monitoring	US$000	**82,966**										10,000					7,218	22,664	6,541	3,285	3,384	3,055	26,817
Working Capital	US$000	**0**	-4,629	1,988	5,849	5,572	3,032	1,872	2,116	1,391	1,898	1,987	996	502		-134	1,907	0	-24,347	0	0	0	0
Net Pre-Tax Cash Flow	US$000	**2,202,299**	172,469	159,330	90,588	141,592	156,561	133,362	207,817	218,414	216,896	159,137	148,702	157,912	158,414	131,631	-9,125	-22,664	17,805	-3,285	-3,384	-3,055	-26,817
Taxes	US$000	**714,210**	52,420	50,481	30,408	46,178	50,066	42,431	65,612	68,681	68,325	53,395	46,623	49,322	49,322	40,948							
After-Tax Cash Flow	US$000	**1,488,089**	120,048	108,849	60,180	95,414	106,496	90,931	142,204	149,733	148,571	105,742	102,079	108,591	109,093	90,684	-9,125	-22,664	17,805	-3,285	-3,384	-3,055	-26,817
Discounted Cash Flow at 5%	**US$000**	**1,094,176**	**117,155**	**101,168**	**53,270**	**80,436**	**85,503**	**69,529**	**103,558**	**103,848**	**98,135**	**66,520**	**61,158**	**61,961**	**59,283**	**46,932**	**-4,498**	**-10,639**	**7,960**	**-1,399**	**-1,372**	**-1,180**	**-3,152**
AISC	**US$/oz**	**1,545**	**1,852**	**1,821**	**1,666**	**1,602**	**1,886**	**1,806**	**1,483**	**1,430**	**1,490**	**1,426**	**859**	**733**	**733**	**797**							
Cumulative After-Tax Cash Flow	US$000		120,048	228,898	289,078	384,492	490,988	581,918	724,123	873,856	1,022,427	1,128,170	1,230,249	1,338,840	1,447,932	1,538,616	1,529,490	1,506,826	1,524,631	1,521,346	1,517,962	1,514,906	1,488,089
Cumulative DCF at 5%	US$000		117,155	218,323	271,592	352,029	437,531	507,061	610,619	714,467	812,602	879,122	940,279	1,002,240	1,061,523	1,108,455	1,103,957	1,093,318	1,101,278	1,099,880	1,098,507	1,097,327	1,094,176

Figure 22-1 shows the forecast revenue, costs, cash flows, cumulative cash flows and cumulative NPV for the project.

Figure 22-1: Cash Flow Summary



Source: SLR 2025.

22.2 Cash Flow Analysis

Considering the project on a stand-alone basis, the undiscounted pre-tax cash flow totals US$2,202 million over the mine life.

The World Gold Council Adjusted Operating Cost (AOC) is US$1,343 per ounce of gold. The mine life capital cost, including both pre-production and sustaining unit cost, is US$155 per ounce, for an All in Sustaining Cost (AISC) of US$1,545 per ounce of gold. Average annual gold production during operation is 154,000 ounces per year.

The after-tax NPV at a 5% discount rate is US$1,094 million.

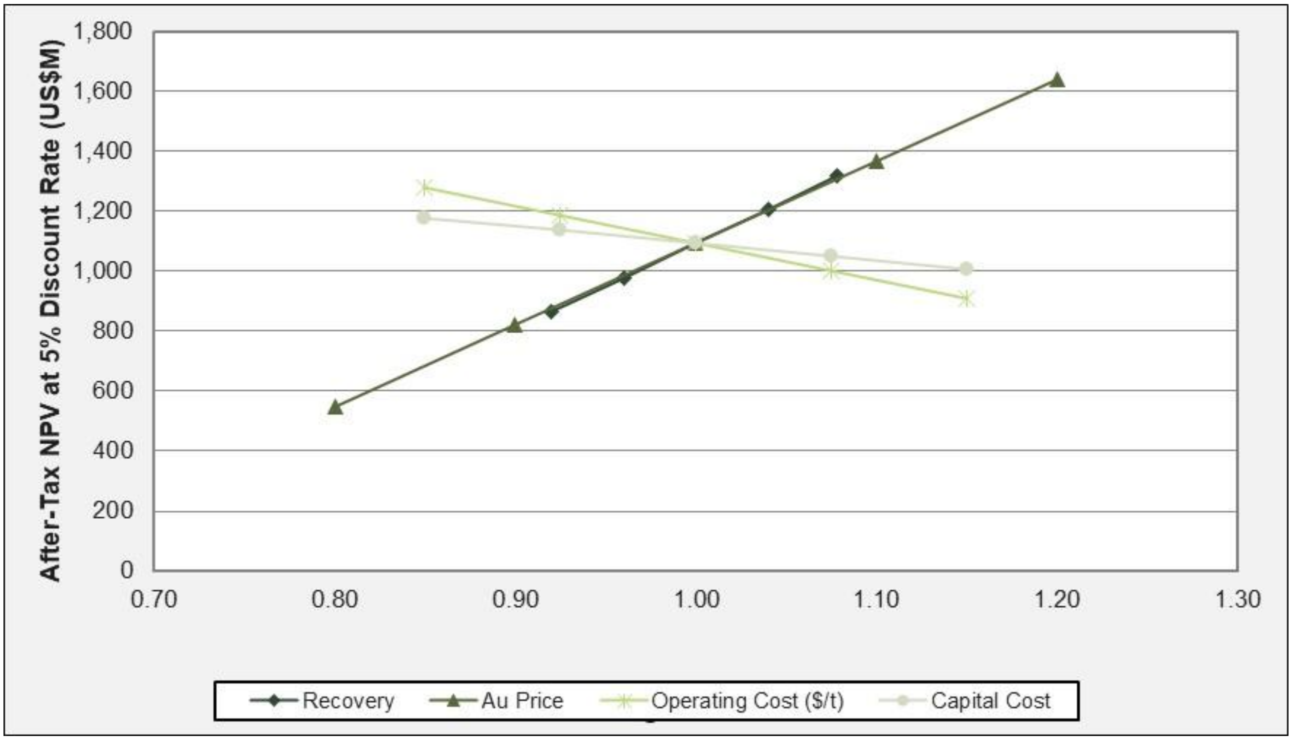
22.3 Sensitivity Analysis

Project risks can be identified in both economic and non-economic terms. Key economic risks were examined by running cash flow sensitivities:

- Gold price
- Head grade
- Operating costs
- Capital costs

Pre-tax IRR sensitivity over the base case has been calculated for -20% to +20% variations. The sensitivities are shown in Figure 22-2 and Table 22-2.

Figure 22-2: After-Tax Sensitivity Analysis



Source: SLR 2025.

Table 22-2: After-Tax Sensitivity Analyses

Variance	Recovery (% Au)	NPV at 5% (US$000)
92%	85.4	865
96%	89.1	980
100%	92.8	1,094
104%	96.5	1,209
108%	100.0	1,318
Variance	**Metal Prices (US$/oz Au)**	**NPV at 5% (US$000)**
80%	2,088	550
90%	2,349	822
100%	2,610	1,094
110%	2,871	1,366
120%	3,132	1,639
Variance	**Operating Costs (US$/t)**	**NPV at 5% (US$000)**
85%	42.77	1,280
93%	50.30	1,187
100%	58.44	1,094
118%	67.18	1,001
135%	76.54	909
Variance	**Capital Costs (US$000)**	**NPV at 5% (US$000)**
85%	773	1,179
93%	834	1,137
100%	895	1,094
118%	955	1,052
135%	1,016	1,009

23.0 Adjacent Properties

There are no adjacent properties that are material or relevant to the Mine.

24.0 Other Relevant Data and Information

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.

25.0 Interpretation and Conclusions

25.1 Geology and Mineral Resources

- The Mineral Resource estimates have been prepared according to CIM (2014) Standards as incorporated with NI 43-101. Mineral Resource estimates were also prepared using the guidance outlined in CIM (2019) MRMR Best Practice Guidelines.
- The Mineral Resource estimate for the Mine comprises the B-Zone and C-Zone block models and is comprised of both open pit and underground portions.
- Underground Mineral Resources are constrained within mining shapes at a gold cut-off grade that varies by material type, averaging 2.38 g/t Au. All blocks within the resultant stope shapes, including waste, are reported within the underground Mineral Resource. Thus, it is considered a diluted resource.
- Open pit Mineral Resources are constrained by an optimized pit shell using the Lerchs-Grossmann algorithm using reasonable pricing and cost inputs. The open pit Mineral Resource uses a 0.21 g/t Au cut-off grade.
- Mineral Resources are reported inclusive of Mineral Reserves and have been depleted to December 31, 2024 using the mined-out surfaces and voids. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability at a US$1,900/oz gold price.
- Measured plus Indicated Mineral Resources total 71.3 Mt at 1.58 g/t gold (Au) for 3.63 million ounces (Moz) of gold. Including 56.8Mt at 0.88 g/t Au for 1.6Moz in the open pit portion and 14.4Mt at 4.37 g/t Au for 2.0Moz for the underground.
- Inferred Mineral Resources total 9.8 Mt at 1.97 g/t Au for 0.62 Moz of gold. Including 6.5Mt at 0.42 g/t Au for 0.1Moz in the open pit portion and 3.3Mt at 5.02 g/t Au for 0.54Moz for the underground.

25.2 Mining and Mineral Reserves

- The Mineral Reserves outlined in this report are based on Measured and Indicated Mineral Resources, and do not include any metal contributions from Inferred Mineral Resources. The Mineral Reserves follow CIM (2014) Standards as incorporated into NI 43-101.
- The total Probable Mineral Reserves at Hemlo are estimated at 41.2 Mt at 1.75 g/t Au for 2.32 Moz of gold. Including 28.4Mt at 0.85 g/t Au for 0.8Moz in the open pit portion and 12.8Mt at 3.74 g/t Au for 1.5Moz for the underground.
- Factors that may affect the Mineral Reserve estimates include: adjustments to gold price and exchange rate assumptions; changes in operating and capital cost estimates; dilution adjustments; changes to hydrogeological and underground dewatering assumptions, and changes to modifying factor assumptions, including environmental, permitting, and social licence to operate. As the mine deepens, mining recoveries and dilution could worsen, as geotechnical conditions deteriorate.
- There is upside potential for the Mineral Reserve estimates if mineralization that is currently classified as Inferred Mineral Resources, which is contained within mineral reserve mining blocks and is being sent for processing as 0 g/t dilution, is converted to

Mineral Reserves following further definition drilling not currently included in the study. There is also upside potential in the open pit Mineral Reserve with a depletion halo applied around the pit edge and underground workings that may be recoverable in operation.

- Hemlo underground operation has been mining for many years using the proposed methods in the study. The historical C-Zone pit was previously mined by Barrick; the identified Mineral Reserves mined by open pit are a cutback of the C-Zone pit primarily expanding to the west, mined with a larger fleet than previously used.

25.3 Mineral Processing

- The processing plant currently processes ore from underground mining only and at a rate significantly below its throughput capacity of approximately 3.65 Mtpa.
- The plant is well maintained and incorporates modern automation. This, as well as the two identical, parallel grinding lines, allow it to be operated relatively easily at half or less than half of its design throughput while helping to reduce operating costs.
- Gold recovery has historically showed little variability and typically ranges between 93% and 95%.
- Hemlo uses gold recovery relationships that have been developed from a combination of test work and historical operating performance to predict process plant performance. There are separate recovery relationships for underground and open pit ore. In SLR's opinion, the recovery relationships are adequate for predicting recovery, although the open pit recovery relationships appear to be slightly conservative compared to available test work results on samples representing open pit reserves. An assessment of this conservatism would benefit from additional variability test work conducted on samples that are more spatially representative of open pit ore reserves.
- The reduced throughput since the cessation of the open pit operation in 2020 means that the leach retention time was more than doubled, which may have contributed (together with higher grades) to a slight increase in recovery from 2020 onwards, ranging from 94% to 95%.
- Preliminary tailings flotation concentrate characterization has indicated that much of the gold in the current plant tailings (i.e., from underground ore only) reports to the concentrate and that the concentrate may typically contain 3 g/t to 6 g/t Au. This represents an opportunity to improve overall gold recovery.
- Gold tellurides were identified in mineralogical analysis of 2023 open pit composites representing open pit ore reserves, however, their presence does not appear to have negatively affected recovery in bottle roll and diagnostic leach tests. SLR is not aware of other deleterious elements that would negatively affect plant recovery.
- The current LOM plan foresees plant throughput of 1.33 Mtpa to 1.44 Mtpa from 2025 to 2027 and there is consequently additional processing capacity available.

25.4 Infrastructure

- The Mine operations have been active since the start of production in 1985 and supporting infrastructure is in place to support the existing underground mining operations.

- Capital investments have been planned for appropriate infrastructure to restart the open pit, increase mine truck size, replace the crusher building, upgrade the existing conveyor systems, and expand thickener capacity for the restart open pit mine operations.
- Capital investments have also been planned for infrastructure to continue underground mine operations for additional mine development, ventilation, and dewatering systems for the underground mine.
- Subject to approval by ministry and advancing the process upgrade studies to the feasibility level, the centerline raise of the TMF without extending the till core will provide a viable option for storing the forecasted LOM tailings.

25.5 Environment

- The site is managed in a professional and technically sound manner, the TSM audit report from September 2023 completed by Apex Companies, LLC. supports this conclusion. The Hemlo International Cyanide Management Code Gold Mining Operation Recertification Audit report from May 2021 generated by ERM concludes that the project has met the obligations in implementing the International Cyanide Management Code, which also collaborates the Mine is well managed.

25.6 Capital and Operating Costs

- Capital and operating costs for the Mine have been estimated from first principles by Hemlo and third-party consultants supported by studies and associated cost estimates prepared within an accuracy range of +/-25%, which is the typical level of a PFS.
- The costs are supported by engineering quantities estimates from detailed design drawings and equipment lists, with some smaller items factored from other comparable projects. Prices were determined by secured contracts, and vendor quotes with smaller items sourced from in-house databases.
- Capital cost estimates include expansion capital and sustaining capital costs (exclusive of mine closure). The LOM capital cost total is US$816.5M.
- Operating cost estimates include all operational activities required for the mining, processing, general and administrative costs, and off-site costs (including freight & refining and royalties) for all of the forecasted production.
- The LOM operating cost for the project is estimated to be US$2,411M with unit operating costs of US$58.44/t.

25.7 Risks and Opportunities

25.7.1 Risks

25.7.1.1 Mineral Reserves

1. Underperformance relative to mine plan based on lower metal values compared to Mineral Resource model, lower mining recovery, higher mining dilution, lower mining productivities, reduced plant performance, and higher mining costs.
2. The near term mine plan may be impacted by interruptions to technical support during the Proposed Transaction transition.

3 Revised cut-off value based on changes to royalties, commodity streams, and offtake agreements related to project financing.

25.7.1.2 Underground Geotechnical

1 Concentration of induced stress in diminishing pillars are likely to present stability challenges and may produce strain bursts and/or seismic shakedown events (as has been observed previously at site in areas with diminishing pillars). The mine plan contains diminishing pillars with a potential induced stress hazard in:

a) The Lower B-Zone and the Interlake where the proposed sequence involves mining to a central access (e.g., longitudinal retreat mining).

b) The temporary sill pillar proposed in the Interlake near 8870 RL.

2 The ground support package may not be adequate for strain burst and/or seismic shake down failure mechanisms (previous similar events have caused falls of ground which impacted production) and should be reviewed for those areas with such hazards.

3 Available geotechnical data (e.g., rock mass structure, intact strength, and in situ stress) is mostly gathered from historically mined, shallower areas, in the mine and may not be applicable at depth. This introduces some uncertainty into geotechnical assessments which use these datasets (e.g., stope sizing).

4 The ground support condition in remnant areas is largely unknown as the mine is beginning to re-establish access to these areas. This results in uncertainty in the level of remediation effort required to re-establish those areas.

25.7.1.3 Open Pit Geotechnical

1 For the west, north, and east wall orientations, the open pit slope designs rely on consistent, vertical, or inclined pre-shear that can drill the full 20 m vertical separation of the double benches rather than complete a double bench as two 10 m single benches with a mini bench or lip in between. Drilling benches the full 20 m vertical separation with inclined or vertical pre-shearing in a single pass has not been previously used in this open pit.

25.7.1.4 Tailings

1 Stage 1 rockfill TMF placement is anticipated to take more than two years because of the required fill volume.

2 Permitting and approval of the TMF centerline raise may influence the project schedule and could involve constructing Dyke 3, presenting an opportunity for careful planning.

3 Achieving consistent production of NAG and thickened tailings may be challenging at times, which highlights the importance of considering closure and water management strategies.

4 To fulfill permitting requirements, sumps and pump-back systems may be permanently maintained for the centreline raise, ensuring ongoing compliance but also increasing operational expenses.

5 Since uniform steep beach formation may not always be feasible at all times, additional operational measures may be required for mechanical formation and maintenance of tailings beach, contributing to additional OPEX.

25.7.1.5 Environmental Studies, Permitting, and Social or Community Impact

1 There is a risk of delays on the permitting of the expansion of the pit; this risk is not greater than usual.

2 Renewal of the agreement with the BN First Nation is in progress as of the filing of this Report; although delay is possible, the risk of non-agreement is consider low at this point.

25.7.2 Opportunities

25.7.2.1 Geology

1 The deposit remains open in several directions. Additional drilling is required to test continuity and grade extensions.

2 The Mineral Resources are currently stated using a US$1,900/oz gold price. Using a higher gold price may lead to an increase in the Mineral Resource.

3 Historical areas within the former Golden Giant and David Bell mines hold additional exploration potential. Data compilation (historical stopes) and confirmation drilling are required to assess these zones.

4 Additional infill and step-out drilling may lead to an upgrade from Inferred to Measured or Indicated classification, which could allow for inclusion into future Mineral Reserve and mine planning studies. There is no certainty that all or part of the Mineral Resources will be upgrade with additional drilling.

25.7.2.2 Mining

1 Given the potential for significant Measured and Indicated Resource increase under higher gold price scenarios, the economic viability of larger, lower-grade stopes should be evaluated as an additional mill feed source.

2 Existing ramps and portals could be utilized to haul ore from near-surface mineralization; cost–benefit studies are recommended.

3 Although the open pit demonstrates robust economics, detailed optimization studies comparing open pit and underground mining methods should be performed.

25.7.2.3 Mineral Processing

1 Preliminary tailings flotation concentrate characterization has indicated that much of the gold in the current plant tailings (i.e., from underground ore only) reports to the concentrate and that the concentrate may typically contain 3 g/t Au to 6 g/t Au. This represents an opportunity to improve overall gold recovery and recovery of gold from the tailings flotation concentrate should be investigated in more detail.

2 Existing mill infrastructure could accommodate additional ore feed (up to approximately 3.65 Mtpa) prior to the commencement of open-pit mining.

25.7.2.4 Infrastructure

3 The existing hoist is not currently operating at full capacity of approximately 2.6 Mtpa, offering an opportunity to hoist additional material.

4 Opportunities should be assessed to reprocess historical David Bell tailings to recover residual gold and free capacity within the existing tailings facility.

5 The potential use of the existing open pit should be evaluated for tailings backfill and long-term tailings management.

26.0 Recommendations

26.1 Geology and Mineral Resources

1 Conduct additional drilling within the areas of the Mineral Resources that make up initial production years with the aim of converting the material from Inferred to the Measured and Indicated categories.

2 Update the structural model for the Hemlo mining camp incorporating historical mining and geological data from the Golden Giant and David Bell mining operations

3 Property-wide re-evaluation of the mineral potential that reflect current long term metal price assumptions.

4 Further exploration where the deposit remains open along strike and at depth (including drilling from surface and underground).

5 Updated geophysical and geochemical surveys to re-assess regional potential.

6 As additional SG data is collected, consider estimating SG values directly into the block model in future updates. While the use of the constant value does not represent a risk to the global tonnage estimates, it does not accurately represent the local variability of density across the various lithologies at Hemlo.

7 Carcetti intends to:

a) Update mineral speciation and metal deportment studies to reflect newly identified mineralized textures in the D-Zone, E-Zone C-Zone 100 and 300 series. .

b) Comprehensive, property-wide geochemical and whole rock analysis.

26.2 Mining and Mineral Reserves

26.2.1 Underground

1 Engage with subject matter experts to support the site team with attaining improvements in mine recovery and reducing dilution with particular focus on drill and blast performance, mine reconciliation, mine planning, and execution (compliance to plan).

2 Assess rationalization of mining contractors and pricing agreements.

3 Assess strategy for completing higher portions of the operation as an owner-operator.

4 Assess cost optimizations to improve operating margins.

5 Perform geotechnical studies to assess mitigation options for residual geotechnical risk and confirm if current geotechnical assumptions are appropriate. Such studies include but may not be limited to:

a) Review of as-built data and collect additional geotechnical data to better revise the ground characteristics and in situ stress field interpretation in the Interlake and Lower B Zone.

b) Examine possible changes to the mine sequence that will remove/relocate diminishing pillars to the extent possible.

c) Reassess the revised sequence with a 3D non-elastic numerical stress modelling software to define potential for stress damage events.

d) Review ground support design for areas with potential for strain bursting, seismic shakedown, and/or other induced stress failure mechanisms.

e) Assess and document the ground conditions as the remnant areas are re-opened and use this information to inform stope design and sequence in the area.

6 Commence debottlenecking studies to improve operating margin including the following:

a) Enlarge portions of the haulage ramp in the lower C-Zone to allow larger trucks,

b) Assess scanning of truck volumes to confirm truck loading factors,

c) Drill and blast optimizations to improve mining recovery,

d) Assess battery fleet to offset potential ventilation expansion capital of US$27M,

e) Assess ventilation reconfigurations to increase downcasting of fresh air down the ramp to improve available working time,

f) Assess tele-remote potential in areas where long clearance times reduce access to the workplace.

7 Confirm corporate metal price guidance strategy and adjust plans to suit.

8 If owner-operator options are being assessed, commence negotiations with equipment manufacturers for equipment pricing, supply timing, and potential payment facilities to firm up project financials.

9 Confirm future impact of any encumbrances to expected revenue from gold sales (royalties, streams, etc.) and maintain a suitable margin between the gold price used for mine planning and reserve pricing to ensure material deemed as reserves can be mined for a profit.

26.2.2 Open Pit

1 Update pit design, schedule, and costs before execution including designs to address unfavourable wedges on the south wall of the western cutback and adjustments around the historical workings.

2 Complete a detailed haulage assessment to balance truck hours and smooth trucking requirements.

3 Assess potential partnerships with existing pit contractors to improve mining costs and project NPV.

4 Confirm corporate metal price guidance strategy and adjust plans to suit.

5 Commence negotiations with equipment manufacturers for equipment pricing, supply timing, and potential payment facilities to firm up project financials.

6 Confirm future impact of any encumbrances to expected revenue from gold sales (royalties, streams, etc.) and maintain a suitable margin between the gold price used for mine planning and reserve pricing to ensure material deemed as reserves can be mined for a profit.

26.3 Mineral Processing

1. Complete variability test work on spatially distributed samples of varying grades selected to represent the overall open pit Mineral Reserves to support recovery variability assessment.
2. Investigate recovery of gold from the tailings flotation concentrate in more detail to help determine if there is a viable means of recovering or realizing the value of this gold.

26.4 Infrastructure

1. Conduct comprehensive studies for the TMF process upgrade, including expansion of ETP capacity, optimization of the deposition system to achieve uniform beach formation, assessment of the optimized reclaim system (i.e., barge versus pumphouse), relocation of the hydro line, expansion of the existing flotation plant, and construction of a high-density thickener plant.
2. Communicate with the ministries and clarify the TMF permitting requirements (e.g., fish compensation, long-term treatment) for the LOM raise.
3. TMF reclaim rates can be optimized and should be modular in consideration of the open pit expansion timelines.
4. Review necessity for raising TMF Dam B, and evaluation of the requirements for maintaining two separate basins, which provides operational flexibility and supports natural degradation of contaminants.
5. Investigate opportunities for self performing TMF construction by utilizing mine fleet during development of the open pit.
6. Building a smaller downstream shell should be evaluated for Stage 1 TMF.
7. Water balance studies should be completed for the entire mine.

26.5 Environmental Studies, Permitting, and Social or Community Impact

1. The negotiations for the agreement with the Biigtigong Nishnaabeg (BN) First Nation were going at the time of filing this Report. Carcetti anticipates them to be complete by the end of 2025. While failure to reach an agreement could lead to delays in regulatory approvals, it is currently considered low risk the agreement will not be reached.

26.6 Capital and Operating Costs

1. Complete feasibility study level engineering and cost estimates for proposed projects at the mine, crusher, material handling system, process plant, infrastructure, and tailings storage facility expansions.
2. Further study of the effluent treatment plant capacity and cost to expand, if required. No upgrades have been assumed.
3. Engage equipment suppliers and contractors for firm quotations for proposed projects at the mine, crusher, material handling system, process plant, infrastructure, tailings storage facility expansions.

26.7 Economic Analysis

1. Complete a Mineral Reserve estimate, economic analysis, and sensitivity modeling of the project, considering final financing model related to the acquisition the Mine.

26.8 Budget

The budget to complete the recommendations is shown in Table 26-1. The work plan is estimated to occur throughout 2026.

Table 26-1: Proposed Work Budget

Area	Cost (US$M)
Regional and Surface Drilling	3.0
UG Exploration and Infill Drilling	9.0
Technical Studies (Underground Geotechnical Study, Open Pit Expansion Project, Tailings Expansion)	3.0
Total	**15.0**

27.0 References

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28.0 Date and Signature Date

This report titled "NI 43-101 Technical Report for the Hemlo Mine, Ontario, Canada" with an effective date of December 31, 2024 was prepared and signed by the following authors:

	(Signed & Sealed) ***Brian Hartman***
Dated at Denver, CO October 27, 2025	Brian Hartman, P. Geo.
	(Signed & Sealed) ***Lance Engelbrecht***
Dated at Toronto, ON October 27, 2025	Lance Engelbrecht, P. Eng.
	(Signed & Sealed) ***Marc Rougier***
Dated at Mississauga, ON October 27, 2025	Marc Rougier, P. Eng.
	(Signed & Sealed) ***James Smith***
Dated at Mississauga, ON October 27, 2025	James Smith, P. Eng.
	(Signed & Sealed) ***Jason Allen***
Dated at Vancouver, BC October 27, 2025	Jason Allen, P. Eng.
	(Signed & Sealed) ***Jason J. Cox***
Dated at Toronto, ON October 27, 2025	Jason J. Cox, P. Eng.
	(Signed & Sealed) ***Siavash Farhangi***
Dated at Mississauga, ON October 27, 2025	Siavash Farhangi, P. Eng.
	(Signed & Sealed) ***Gonzalo Rios***
Dated at Vancouver, BC October 27, 2025	Gonzalo Rios, FAusIMM

29.0 Certificate of Qualified Person

29.1 Brian Hartman

I, Brian S. Hartman, P.Geo., as an author of this report entitled "NI 43-101 Technical Report for the Hemlo Mine, Ontario, Canada" with an effective date of December 31, 2024 prepared for Carcetti Capital Corp., do hereby certify that:

1 I am Principal Geologist with SLR USA Advisory Inc, of 1658 Cole Blvd., Suite 100, Lakewood, CO 80401.

2 I am a graduate of the University of Iowa in 2001 with a Bachelor of Science in Geoscience and in 2004 with a Master of Science in Geoscience.

3 I am registered as a Professional Geologist in the Province of Ontario (#2413) and a Registered Member with the Society for Mining, Metallurgy & Exploration (#04175655). I have worked as a geologist for a total of 21 years since my graduation. My relevant experience for the purpose of the Technical Report is:

- Review and report as a geological consultant on numerous mining operations and exploration projects for due diligence and regulatory requirements.
- Preparation of mineral resource estimates and mining studies for projects around the world, including for precious metals, base metals, and rare earths.

4 I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

5 I visited the Hemlo Mine from May 21 to 22, 2025.

6 I am responsible for Sections 1.1.1.1, 1.1.2.1, 1.1.2.8, 1.1.3.2, 1.3.1, 1.3.2, 1.3.4, 1.3.5, 1.3.6, 1.3.7, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.1, 12.2, 12.3, 12.4.1, 14, 23, 25.1, 25.7.2.1, 26.1, and 26.8 and related disclosure in Section 27 of the Technical Report.

7 I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.

8 I have had no prior involvement with the property that is the subject of the Technical Report.

9 I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10 At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Sections 1.1.1.1, 1.1.2.1, 1.1.3.2, 1.3.1, 1.3.2, 1.3.4, 1.3.5, 1.3.6, 1.3.7, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.1, 12.2, 12.3, 12.4.1, 14, 23, 25.1, 25.7.2.1, and 26.1 in the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 27th day of October 2025

(Signed) *Brian S. Hartman*

Brian S. Hartman, P.Geo.

29.2 Lance Engelbrecht

I, Lance Engelbrecht, P.Eng., as an author of this report entitled "NI 43-101 Technical Report for the Hemlo Mine, Ontario, Canada" with an effective date of December 31, 2024 prepared for Carcetti Capital Corp., do hereby certify that:

1 I am I am Technical Manager – Metallurgy and Principal Metallurgist with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave Toronto, ON M5J 2H7.

2 I am a graduate of University of the Witwatersrand, Johannesburg, South Africa in 1992 with a Bachelor of Science degree in Engineering, Metallurgy and Materials (Mineral Processing Option).

3 I am registered as a Professional Engineer in the Provinces of Ontario (Reg.# 100540095) and Newfoundland and Labrador (Reg.# 10730). I have worked as a metallurgist for a total of 32 years since my graduation. My relevant experience for the purpose of the Technical Report is:

- Review and report as a metallurgical consultant on numerous mining operations and projects for due diligence and regulatory requirements.
- Preparation of conceptual, prefeasibility, and feasibility studies for projects around the world including for precious metals, base metals, and rare earths, as well as test work interpretation, recommendations, and supervision.
- Management and operational experience at Canadian and international milling, smelting, and refining operations.

4 I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

5 I visited the Hemlo Mine from May 21 to 22, 2025.

6 I am responsible for preparation of Sections 1.1.1.3, 1.1.2.3, 1.1.3.2, 1.3.10, 12.4.3, 13, 17, 25.3, 25.7.2.3, 26.3, and related disclosure in Section 27 of the Technical Report.

7 I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.

8 I have had no prior involvement with the property that is the subject of the Technical Report.

9 I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10 At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Sections 1.1.1.3, 1.1.2.3, 1.1.3.2, 1.3.10, 12.4.3, 13, 17, 25.3, 25.7.2.3, and 26.3 in the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 27th day of October 2025

(Signed) *Lance Engelbrecht*

Lance Engelbrecht, P.Eng.

CERTIFICATE OF QUALIFIED PERSON MARC ROUGIER

I, Marc Rougier, state that:

(a) I am a Senior Geotechnical Engineer at:
WSP Canada Inc.
6925 Century Ave, Suite 600
Mississauga, Ontario
L5N 7K2 Canada

(b) This certificate applies to the technical report titled “NI 43-101 Technical Report for the Hemlo Mine, Ontario, Canada”; with an effective date of: December 31, 2024 (the “Technical Report”).

(c) I am a “qualified person” for the purposes of National Instrument 43-101 (“NI 43-101”). My qualifications as a qualified person are as follows. I am a graduate of Queen’s University Kingston Ontario with a B.ASc. in Geological Engineering from 1991, I am a member in good standing of the Professional Engineers of Ontario (#90423880). My relevant experience after graduation, for the purpose of the Technical Report, includes over 34 years of experience in geotechnical engineering in the areas of waste dump, open pit slope and rock slope stability for mineral projects nationally and internationally in a variety of commodities through 34 years of consulting experience with a strong focus on gold and base metals related projects.

(d) I have completed multiple visits since 2010. The most recent personal visit to the property described in the Technical Report was from June 20th to 22nd, 2022.

(e) I am responsible for Item 1.1.3.1, 16.2.1, 25.7.1.3 of the Technical Report.

(f) I am independent of the issuer as described in Section 1.5 of NI 43-101.

(g) I have had prior involvement with the Property that is the subject of this Technical Report from 2010 to present. My prior involvement included support for open pit rock mechanics, tailings dam foundation characterization for grouting, waste rock dump foundation characterization and slope design, and review of open pit Canary vibrating wire piezometer monitoring reports.

(h) I have read NI 43-101 and the parts of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101; and

(i) At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the parts of the Technical Report for which I am responsible, contain(s) all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated at Mississauga, Ontario this October 27, 2025.

Signed and Sealed by Marc Rougier

Marc Rougier, P.Eng.

CERTIFICATE OF QUALIFIED PERSON JAMES SMITH

I, James Smith, state that:

(a) I am a Senior Geotechnical Engineer at:
WSP Canada Inc.
6925 Century Ave, Suite 600
Mississauga, Ontario
L5N 7K2 Canada

(b) This certificate applies to the technical report titled "NI 43-101 Technical Report for the Hemlo Mine, Ontario, Canada"; with an effective date of: December 31, 2024 (the "Technical Report").

(c) I am a "qualified person" for the purposes of National Instrument 43-101 ("NI 43-101"). My qualifications as a qualified person are as follows. I am a graduate of University of Waterloo with a B.ASc. in Geological Engineering from 2012, I am a member in good standing of the Professional Engineers of Ontario (#100523579). My relevant experience after graduation, for the purpose of the Technical Report, includes over 13 years of experience in geotechnical engineering in the areas of underground mine stability and rock mass characterisation for mineral projects nationally and internationally in a variety of commodities through 13 years of consulting experience with a strong focus on gold and base metals related projects.

(d) I did complete a personal visit to the property described in the Technical Report from May 28 to 29, 2025.

(e) I am responsible for Item 1.1.3.1, 16.1.1, 25.7.1.2of the Technical Report.

(f) I am independent of the issuer as described in Section 1.5 of NI 43-101.

(g) I have had prior involvement with the Property that is the subject of this Technical Report. My prior involvement was before 2020 and included support for open pit rock mechanics, tailings dam construction, and some limited aspects of underground rock mechanics.

(h) I have read NI 43-101 and the parts of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101; and

(i) At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the parts of the Technical Report for which I am responsible, contain(s) all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated at Mississauga, Ontario this October 27, 2025.

Signed and Sealed by James Smith

James Smith; P.Eng.

Jason Allen

I, Jason P Allen, P.Eng., as an author of this report entitled “NI 43-101 Technical Report for the Hemlo Mine, Ontario, Canada” with an effective date of December 31, 2024 prepared for Carcetti Capital Corp., do hereby certify that:

1 I am a Director with Entech Mining Ltd., of Suite 835, 1100 Melville St Vancouver, BC, V6E 4A6.

2 I am with a Bachelor of Engineering Degree in Mining Engineering in 2001 from Western Australian School of Mines, and also obtained a Master of Engineering Science (Mining Geomechanics) in 2013 from the Western Australian School of Mines.

3 I am registered as a professional engineer in good standing in British Columbia, Canada (No. 39170). I am also registered as a chartered professional in Western Australia, Australia (MAusIMM (CP) 225796). I have practiced my profession for 23 years. I have worked continuously as a miner, mining engineer, senior mining engineer, technical services manager, alternate underground manager, senior mining consultant, and as a director of a consultancy since 2000. Various roles include drill and blast, mine design, short-term and long-term planning, ventilation, capital projects, and project evaluations (preliminary, prefeasibility, and feasibility studies). My relevant experience for the purpose of the Technical Report is:

- Mine engineering design and planning for both open pit and underground operations; and,
- Project Evaluations and Cost Estimation.

4 I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

5 I visited the Hemlo Mine from May 28 to 29, 2025.

6 I am responsible for .1.1.1.2, 1.1.2.2, 1.1.3.1, 1.1.3.2, 1.3.8, 1.3.9, 12.4.2, 15, 16 (excluding 16.1.1, 16.1.5, 16.2.1), 21.2.1.1, 21.2.2.1, 21.3.1, 25.2, 25.7.1.1, 25.7.2.2, 26.2 of the Technical Report of the Technical Report.

7 I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.

8 I have had prior involvement with the property that is the subject of the Technical Report, including the following engagements:

- Various Open Pit evaluations from 2023 to 2024; and,
- Underground Evaluations in 2019, 2020, 2024.

9 I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10 At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible for contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 27th day of October, 2025

(Signed & Sealed) ***Jason Allen***

Jason Allen, P.Eng.

PERMIT TO PRACTICE
Entech Mining Ltd: 1001493
Engineers & Geoscientists of BC

29.6 Jason Cox

I, Jason J. Cox, P.Eng., as an author of this report entitled “NI 43-101 Technical Report for the Hemlo Mine, located in Ontario, Canada” with an effective date of December 31, 2024 prepared for Carcetti Capital Corp., do hereby certify that:

1 I am a Global Technical Director with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave Toronto, ON M5J 2H7.

2 I am a graduate of Queen’s University in 1996 with a B.Sc. in Mining Engineering.

3 I am registered as a Professional Engineer in the Province of Ontario (Reg.#90487158). I have worked as a mining engineer/geologist for a total of 29 years since my graduation. My relevant experience for the purpose of the Technical Report is:

- Review and report as a consultant on many mining operations and projects around the world for due diligence and regulatory disclosure requirements.
- Engineering study work (PEA, PFS, FS) on projects in Canada and elsewhere, including cash flow analysis and economic evaluation.
- Operational experience at three North American mines.
- Construction experience as Contract Co-ordinator for underground development and infrastructure at a mine in the USA.

4 I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

5 I visited the Hemlo Mine on December 14 and 15, 2016.

6 I am responsible for Sections 1.1.1.4, 1.1.1.6, 1.1.2.4, 1.1.2.6, 1.1.2.7, 1.1.3.2, 1.2, 1.3.3, 1.3.11, 1.3.12, 1.3.14, 12.4.5, 16.1.5, 18.1, 18.2, 19, 21 (excluding 21.2.1.1, 21.2.2.1, 21.3.1), 22, 24, 25.4, 25.6, 25.7.2.4, 26.6, 26.7, and related disclosure in Section 27 of the Technical Report.

7 I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.

8 I have carried out previous independent technical reviews of Mineral Reserves for the property, and completed previous independent Technical Reports.

9 I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10 At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Sections 1.1.1.4, 1.1.1.6, 1.1.2.4, 1.1.2.6, 1.1.2.7, 1.1.3.2, 1.2, 1.3.3, 1.3.11, 1.3.12, 1.3.14, 12.4.5, 16.1.5, 18.1, 18.2, 19, 21 (excluding 21.2.1.1, 21.2.2.1, 21.3.1), 22, 24, 25.4, 25.6, 25.7.2.4, 26.6, and 26.7 in the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 27th day of October 2025

(Signed) *Jason J. Cox*

Jason J. Cox, P.Eng.

CERTIFICATE OF QUALIFIED PERSON SIAVASH FARHANGI

I, Siavash Farhangi, state that:

(a) I am a Senior Principal Tailings Engineer at:
WSP Canada Inc.
6925 Century Ave, Suite 600
Mississauga, Ontario
L5N 7K2 Canada

(b) This certificate applies to the technical report titled "NI 43-101 Technical Report for the Hemlo Mine, Ontario, Canada"; with an effective date of: December 31, 2024 (the "Technical Report").

(c) I am a "qualified person" for the purposes of National Instrument 43-101 ("NI 43-101"). My qualifications as a qualified person are as follows. I am a graduate of Sharif University of Technology with a B.Sc. in Civil Engineering in 1998, and hold a M.Sc. in Environmental Engineering from University of Nottingham (2002) and a Ph.D. degree in geotechnical engineering from University of Southampton (2006). I am a member in good standing of the Professional Engineers of Ontario (#100119308). My relevant experience after graduation, for the purpose of the Technical Report, includes over 19 years of experience in geotechnical engineering in the areas of tailings and mine waste management for mineral projects nationally and internationally in a variety of commodities with a strong focus on gold and base metals related projects.

(d) I have completed multiple visits since 2017. The most recent personal visit to the property described in the Technical Report was from September 16 to 18, 2025.

(e) I am responsible for Item 1.1.1.4, 1.1.2.4, 1.1.3.1, 18.3, 25.4, 25.7.1.4, 26.4, and 27 of the Technical Report.

(f) I am independent of the issuer as described in Section 1.5 of NI 43-101.

(g) I have had prior involvement with the Property that is the subject of this Technical Report. My prior involvement includes, Dam Safety Review (2013) and since 2017 acting as the Engineer of Record (EoR) for the tailings facility, responsible for design, review of construction activities and providing operational support as the EoR.

(h) I have read NI 43-101 and the parts of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101; and

(i) At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the parts of the Technical Report for which I am responsible, contain(s) all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated at Mississauga, Ontario this October 27, 2025.

Signed and Sealed by Siavash Farhangi

Siavash Farhangi; P.Eng.

29.8 Gonzalo Rios

I, Gonzalo Rios, FAusIMM, as an author of this report entitled “NI 43-101 Technical Report for the Hemlo Mine, located in Ontario, Canada” with an effective date of December 31, 2024 prepared for Carcetti Capital Corp., do hereby certify that:

1 I am Executive Consultant - ESG with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave Toronto, ON M5J 2H7.

2 I am a graduate of University of Toronto, Toronto, Canada in 1992 with a Bachelor of Science in Chemistry].

3 I am registered as a Fellow in the of AusIMM (Reg.#3089013). I have worked as in mining for a total of 30 years since my graduation. My relevant experience for the purpose of the Technical Report is:

- Review and report as a ESG consultant on numerous mining operations and exploration projects for due diligence and regulatory requirements.

4 I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

5 I visited the Hemlo Mine from May 28 to 29, 2025.

6 I am responsible for Sections 1.1.1.5, 1.1.2.5, 1.1.3.1, 1.3.13, 12.4.4, 20, 25.5, 25.7.1.5, 26.5 and related disclosure in Section 27 of the Technical Report.

7 I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.

8 I have had no prior involvement with the property that is the subject of the Technical Report.

9 I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10 At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Sections 1.1.1.5, 1.1.2.5, 1.1.3.1, 1.3.13, 12.4.4, 20, 25.5, 25.7.1.5, and 26.5 in the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 27th day of October 2025

(Signed) *Gonzalo Rios*

Gonzalo Rios, FAusIMM

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