# GENERATIONMINING



### MARATHON PALLADIUM – COPPER MINE

## **GREEN METALS FOR FUTURE GENERATIONS**

June 2022

## FORWARD-LOOKING INFORMATION

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TSX:GENM OTCQB: GENMF

This presentation contains certain forward-looking information and forward-looking statements, as defined in applicable securities laws (collectively referred to herein as "forward-looking statements"). Forward-looking statements reflect current expectations or beliefs regarding future events or the Company's future performance. All statements other than statements of historical fact are forward-looking statements. Often, but not always, forward-looking statements can be identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "continues", "forecasts", "projects", "predicts", "intends", "anticipates", "targets" or "believes", or variations of, or the negatives of, such words and phrases or state that certain actions, events or results "may", "could", "would", "should", "might" or "will" be taken, occur or be achieved, including statements relating to the Company's Feasibility Study and results therefrom (including NPV, IRR, capital and operating costs and other financial metrics), Mineral Resource and Mineral Reserve potential, exploration plans, or the ability of the Company and Sibanye Stillwater to vary their respective participating interests in the Marathon Property. All forward-looking statements, including those herein are qualified by this cautionary statement.

Although the Company believes that the expectations expressed in such statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the statements. There are certain factors that could cause actual results to differ materially from those in the forward-looking information. These include commodity price volatility, continued availability of capital and financing, uncertainties involved in interpreting geological data, increases in costs, environmental compliance and changes in environmental legislation and regulation, the Company's relationships with First Nations communities, exploration successes, and general economic, market or business conditions, as well as those risk factors set out in the Company's annual information form, the Technical Report that the Company will file in connection with the Feasibility Study and in the continuous disclosure documents filed by the Company on SEDAR at www.sedar.com. Readers are cautioned that the foregoing list of factors is not exhaustive of the factors that may affect forward-looking statements. Accordingly, readers should not place undue reliance on forward-looking statements. The forward-looking statements in this news release or as of the date or dates specified in such statements.

Forward-looking statements are based on a number of assumptions which may prove to be incorrect, including, but not limited to, assumptions relating to: the availability of financing for the Company's operations; operating and capital costs; results of operations; the mine development and production schedule and related costs; the supply and demand for, and the level and volatility of commodity prices; timing of the receipt of regulatory and governmental approvals for development projects and other operations; the accuracy of Mineral Reserve and Mineral Resource Estimates, production estimates and capital and operating cost estimates; and general business and economic conditions.

Investors are cautioned that any such statements are not guarantees of future performance and actual results or developments may differ materially from those projected in the forward-looking information. For more information on the Company, investors are encouraged to review the Company's public filings on SEDAR at www.sedar.com. The Company disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, other than as required by law.

## **INVESTMENT PROPOSITION**

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Robust Feasibility Study Economics - NPV(6%) CAD\$1.07B\*, 30% IRR, 2.3 year payback on upfront CAPEX of CAD\$665M



- Favourable Metals in a Decarbonizing Economy Palladium & Copper
- Disciplined, Experienced Leadership Team



Marathon Project – 13 year mine life in a tier one jurisdiction at a low AISC of \$809/oz PdEq, average of 245,000 ozs PdEq / year



Trading at significant discount to NPV



Project Financing Advancing led by CAD\$240M stream with Wheaton Precious Metals

## MANAGEMENT

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#### TSX:GENM OTCQB: GENMF

#### JAMIE LEVY President, CEO & Director

25 years in financing and management of Canadian mining companies. Was CEO of Pine Point Mining - acquired by Osisko Metals. Formerly Vice President of Pinetree Capital.

#### DREW ANWYLL M.Eng, P.Eng COO

Formerly Senior VP, Technical Services, interim COO and VP, Operations - mine general manager at Detour Gold, also held senior operating positions at Barrick and Placer Dome

#### MAURO BASSOTTI P.Sc Hon, VP, Geology

Formerly Director of Reserves and Resources with Detour Gold, and previously held positions with New Gold, Barrick, and Placer Dome working in both open pit and underground situations.

#### ANN WILKINSON VP, Investor Relations

Developed investor relations strategy for multiple base and precious metals producers and developers including Gold Resource Corporation, TMAC Resources and Breakwater Resources

#### KERRY KNOLL Executive Chairman & Director

Co-founded several successful mining companies over 35 years including Wheaton River, Thompson Creek and Glencairn Gold. Former editor of The Northern Miner Magazine.

#### BRIAN JENNINGS CPA, CA, B.Sc CFO

Extensive experience in financial management of resource companies, and formerly Vice-President Corporate Restructuring at Ernst and Young.

#### CHRISTOPHER STACKHOUSE CA VP, Finance

Spent seven years with Guyana Goldfields through a feasibility study, project financing and development and operation of US\$250 million Aurora Gold Mine, departing as interim CFO

#### JEAN-PAUL DECO CA Manager of Business Development and Concentrate Marketing

Previously head of Glencore's Canadian copper business and has extensive global experience across mining, smelting, offtake, refining operations and trading.

## INDEPENDENT DIRECTORS

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#### CASHEL MEAGHER P.Geo, P.Eng

President & COO of Capstone Mining. Previously Senior Vice President and Chief Operating Officer of Hudbay Minerals Inc.; led construction and startup of Constancia Mine; previously held several senior positions at Inco.

#### STEPHEN REFORD BA.Sc, P.Eng

Geophysicist for 35 years and President of Paterson, Grant & Watson Limited, an international geophysical consulting company.

#### PHILLIP C. WALFORD P.Geo, P.Eng

Geologist, Founder and CEO of Marathon Gold from 2009-2019, developing the Valentine gold project. Was CEO and a founder of Marathon PGM Corp. which sold Marathon palladium project to Stillwater in 2010.

#### PAUL MURPHY B.Comm, FCPA

Chartered Accountant, Chairman of Alamos Gold; was Chief Financial Officer of Guyana Goldfields during construction, production; former partner and head of Mining Group, Western Hemisphere, for PricewaterhouseCoopers

#### **ROD THOMAS** P.Geo

Geologist with 40 years experience in Canada and abroad. Former Exploration Manager BHP Minerals Eastern NA and General Manager of VM Canada (subsidiary of NEXA Res.) Former president of PDAC.

#### JENNIFER WAGNER LL.B

Was Senior Vice-President, Corporate Affairs, Legal Counsel and Corporate Secretary at Kirkland Lake Gold Ltd. until merger with Agnico. She is a member of the Law Society of Upper Canada.

## **CORPORATE** STRUCTURE

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### **Capital Structure**

Shares Outstanding	179.9M
Warrants	0
<b>Options</b> (Weighted average exercise price: C\$0.50)	13.5M
Fully Diluted Shares Outstanding	193.4M
Basic Market Capitalization (Share price: C\$0.61 June 15, 2022 Close)	\$110M

### **Analyst Coverage**

Adam Schatzker	Research Capital Corp
Pierre Vaillancourt	Haywood Securities

### **Key Shareholders**

Sibanye-Stillwater	18.2%
Eric Sprott	9.1%
Zebra Holdings (Lukas Lundin)	~6.2%
Osisko Mining	~3.0%
Officers & Directors	~7.0%

#### **METALS FOR THE GREEN REVOLUTION! TSX:GENM OTCQB: GENMF** COPPER PALLADIUM ATINUM 1.1 Billion lbs\* 1.4 Million oz\* 4.2 million oz\* Palladium is used in part to **Hydrogen Fuel Cells need** An electric car needs about scrub nitrous oxide from 1-2 ounces of platinum per 180 lbs of copper, more than vehicle. More is needed in the gasoline exhaust. Nitrous four times that of a gasolineoxide is 300 times more powered vehicle. Current manufacture of hydrogen fuel. potent than CO<sub>2</sub> as a mine supply will not suffice.

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greenhouse gas.

## PALLADIUM GREENER AND SAFER

- Autocatalysts use 87% of palladium supply: Required by law in most countries
- Modern catalysts convert 98% of carbon monoxide and nitrous oxide
- Nitrous oxide is 300 times more potent than CO<sup>2</sup> as greenhouse gas
- Pd loads per vehicle increasing in China, Europe, India & Brazil to convert more gases\*
- Annual demand of -/+11 million+ ounces
- In 2019, 6.89M oz mined worldwide (and falling) 3.4M oz recovered from recycling (and rising)\*
- Positive research for palladium in
  - EV batteries (Li-ion),
  - Hydrogen production (membranes)
  - Hydrogen storage (Pd nanoparticles "store hydrogen like a sponge")



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## PALLADIUM PRICE (10 YEAR)

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Source: <u>www.macrotrends.net</u>

## **COPPER** CRITICAL TO DECARBONIZATION

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Electrification Alliance: https://electrification-alliance.eu/about/

## **COPPER** CRITICAL TO DECARBONIZATION

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# Copper demand growth puts supply elasticity under stress in an accelerated energy transition (AET-2) scenario

Primary copper demand scenarios versus mine supply potential



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## LOCATION



## **EXCELLENT INFRASTRUCTURE**

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- Located on Trans-Canada Highway
- Served by CPR main rail line
- Property next to Marathon airport
- Town population has been falling
- Main Zone deposit 10 km from Town of Marathon
- New \$1B 230 kilo-volt power line from Wawa to Thunder Bay will cross property
- Essentially carbon-free power
- Numerous towns, First Nations nearby can form bulk of workforce



## OUR MINE BUILDING TEAM

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#### **ENGINEERING AND CONSTRUCTION**

#### DREW ANWYLL M.Eng, P.Eng COO

Formerly Senior VP, Technical Services, interim COO and VP, Operations mine general manager at Detour Gold, also held senior operating positions at Barrick and Placer Dome

#### PAUL MURPHY Ing. Vice-President Projects

Experienced civil engineer with 35 years in construction and engineering. Previously with G-Mining Services, VP Projects at Centerra Gold and GM of Engineering and Construction at IAMGOLD

#### GORDON LUNG, B.Eng Project Services Manager

Vice-President of LQ Consulting and Management Inc., with 10+ years of experience in mining project execution, including several years with SNC improving Kinross mines around the world

#### PIERRE LEGARE Senior Project Advisor

President of LQ Consulting and Management Inc. with over 35 years of experience in construction management of projects at in excess of \$5 billion total installed cost, many through SNC, including Cobre Panama

#### DANIEL JANUSAUSKAS, B.Sc, Technical Services Mgr.

Most recentlyTechnical Services Superintendent at Baffinland Iron, previously as Strategic Mine Engineer at Detour Gold

#### **METALLURGY**

#### STEVE HAGGARTY, P.Eng

Metallurgy & Mining engineer, worked with first tier companies including Barrick (VP Operational Support), Homestake, International Corona & Teck

#### **ENVIRONMENTAL, SUSTAINABILITY & GOVERNANCE**

#### JEREMY DART Manager of Environment

20 years in mining, environmental, community and indigenous relations and closure management. Former environmental manager with Barrick Gold – Hemlo Mines

## ROBUST FEASIBILITY STUDY HIGHLIGHTS<sup>1</sup>

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- 13-year mine life producing 245,000 ounces Palladium Eq
- Upfront Capex C\$665 million, AISC US\$809 per ounce PdEq
- Base Case IRR of 30%, after-tax NPV(6%) of C\$1 billion, using US\$1725 Pd and US\$3.20 Cu
  - At spot prices<sup>2</sup> IRR of 47%, after-tax NPV(6%) of C\$2 billion, using US\$2,395 Pd and US\$3.99 Cu\*
- Base Case payback of 2.3 years, Spot payback 1.5 years
- Completed by G Mining and Ausenco

<sup>1</sup> on a 100% basis, all dollars in C\$ unless otherwise noted

<sup>2</sup> Other spot prices 22 Feb 2021: Pd = Au=US\$1,807/oz, Pt=\$US1,268/oz, Ag=US\$27.45/oz

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## FEASIBILITY STUDY

METAL PRODUCTION1	UNITS	RECOVERED METALS	PAYABLE METAL	DISTRIBUTION OF REVENUE
Palladium	k oz	2,028	1,905	58.7%
Copper	M lbs	493	467	26.8%
Platinum	k oz	634	537	9.6%
Gold	k oz	183	151	3.8%
Silver	k oz	3,796	2,823	1.0%
Palladium Equivalent	k oz	3,399	3,195	n/a

ECONOMIC ANALYSIS BASE CASE	UNITS	BASE CASE	SPOT PRICE <sup>1</sup>
Pre-tax Undiscounted Cash Flow	C\$M	3,004	5,305
Pre-tax NPV6%	C\$M	1,636	3,042
Pre-tax IRR	%	38.6	59.9%
Pre-tax Payback	years	1.9	1.2
After-tax Undiscounted Cash Flow		2,060	3,626
After-tax NPV6%	C\$M	1,068	2,025
After-tax IRR	%	29.7	46.5
After-tax Payback	years	2.3	1.5

## BASE CASE – CASH FLOW CAD\$ (AFTER TAX)

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After-Tax Cash Flow —Cumul After-Tax Cash Flow

## PAYABLE METALS – PRODUCTION PROFILE

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## FEASIBILITY STUDY – SENSITIVITIES

PALLADIUM PRICE (US\$/oz)	1,000	1,250	1,500	1,725	1,850	2,000	2,500
NPV 6% (C\$ M)	356	601	847	1,068	1,190	1,337	1,831
Payback (years)	4.3	3.2	2.6	2.3	2.1	2.0	1.6
IRR (%)	14.8%	20.2%	25.3%	29.7%	32.1%	34.8%	43.7%
COPPER PRICE (US\$/Ib)	2.00	2.50	3.00	3.20	3.50	4.00	4.50
NPV 6% (C\$ M)	792	907	1,022	1,068	1,137	1,251	1,365
Payback (years)	2.7	2.5	2.3	2.3	2.2	2.1	2.0
IRR (%)	24.7%	26.8%	28.9%	29.7%	30.9%	32.9%	34.8%
AFTER-TAX RESULTS	OPEX SENSITIVITY						
		-20%	-15%	0%	15%	20%	
NPV 6% (C\$ M)		1,270	1,220	1,068	916	866	
		0.4	0.4	0.0	0.4	0.5	

	1,270	1,220	1,000	910	000	
Payback (years)	2.1	2.1	2.3	2.4	2.5	
IRR (%)	33.0%	32.2%	29.7%	27.1%	26.2%	

AFTER-TAX RESULTS	(	CAPEX SENS	SITIVITY			
	-20%	-15%	0%	15%	20%	
NPV 6% (C\$ M)	1,195	1,163	1,068	972	940	
Payback (years)	1.9	2.0	2.3	2.6	2.7	
IRR (%)	37.7%	35.4%	29.7%	25.3%	24.1%	

MARATHON MINE FINANCING

- Capex C\$665 million net of equipment lease and preproduction revenue, does not include potential cost overrun facility\*
- Wheaton Precious Metals to pay C\$240 million for stream of 100% gold and 22% platinum production
- C\$40 million up front, balance during construction
- Net stream cost is 4.8% of mine revenue at FS base case metal prices
- WPM return: P/NAV5% 1.02x / IRR 5.45% @ FS prices
- Increases IRR to 38% (from 30%), reduces payback to 1.75 years\*
- Expecting debt package of US\$400 million
- Negotiating debt with banks, smelters, private equity firms
- Final debt package will determine equity component



PRECIOUS METALS



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## \* Compared with base case from 2021 Feasibility study

## CU CARBON INTENSITY – WORLDWIDE

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The curves represent individual mining operations. The height of the stacked bars representing the CO<sup>2</sup> eq intensity and the width of the bar representing the relative Cu equivalence production. Cu equivalence calculations are from Skarn Associates Limited and based on 2020 metal prices. Scope 1 (emissions arising from on-site activities) and Scope 2 (emissions from purchased energy, in this case electrical power required for site operations being generated by grid power providers) represent direct on-site mining and processing CO<sup>2</sup> intensity. Other components and contributors for the estimation of the bar graphs are as described in the chart legends and are reflective of the emissions for the overall project value chain.

# GENERATIONMININGADVANCING THE MARATHON PROJECT 2019-2024TSX:GENM

OTCQB: GENMF



#### TIMELINE (ESTIMATED)

	2019	2020	2021	2022	2023	2024
Asset Acquisition	$\checkmark$					
PEA Study	$\checkmark$	$\checkmark$				
Feasibility Study		$\checkmark$				
EA/Permits/Social			$\checkmark$			
Detailed Engineering						
First Nations Agreements		$\checkmark$				
Mine Financing						
Construction						
Preproduction/Commissioning						
Production						

Important note: Construction and production are subject to favorable results in the feasibility study, permitting and financing of the project.

## JOINT REVIEW PANEL HEARINGS PROCESS

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## **POST-JRP PROCESS**

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Permitting Period (Province)~2-3 months

## **KEY PERMITS**

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Permits can ONLY be issued after EA approval (by Federal and Provincial Ministries Key approvals include:

- Metal and Diamond Mining Effluent Regulations Schedule 2 Amendment (ECCC)
- Fisheries Act Section 35 Fisheries Authorization (DFO)
- Explosives Act Explosives Manufacturing and Storage Authorization (NRCan)
- Mining Act Mine Closure Plan Acceptance (NDMNRF)
- Lakes and Rivers Improvement Act PSMF Approval and Work Permit (NDMNRF)
- Crown Forest Sustainability Act Forest Resource Licence for timber harvesting (NDMNRF)
- Public Lands Act Work Permit for portion of access road (NDMNRF)
- Ontario Environmental Protection Act Environmental Compliance Approval for Air/Noise, Sewage (MECP)
- Ontario Water Resources Act Permit to Take Water (MECP)
- Endangered Species Act Overall Benefit Permit (MECP)
- Ontario Energy Board Act Leave-to-Construct for grid connection (MECP)
- Planning Act/ Building Permit (Town of Marathon)

## LASSONDE CURVE - THE DISCOVERY LIFECYCLE

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## SINGLE ASSET DEVELOPERS – SHARE PRICE PERFORMANCE

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#### GENERATIONMINING P/NPV COMPARABLE GOLD & PGM DEVELOPERS TSX:GENM **OTCQB: GENMF**



## WHY INVEST

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Trading at significant discount to NPV



Project Financing Advancing led by CAD\$240M stream with Wheaton Precious Metals

## **INVESTOR RELATIONS**

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- Over 10 years of comprehensive baseline studies to inform design, reduce environmental and social impacts
- Marathon's electricity source essentially carbon-free
  - All other palladium producing areas are carbon-dependant
- Evaluating electrical mining fleet
  - Evaluating trolley-assist for truck fleet
  - Trade-off between electric vs. diesel shovels
- State-of-the-art water treatment plant
- Carbon-capture in construction concrete
- High-efficiency plant equipment



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- Compensate for impact through enhancing habitats offsite, stream/lake restoration projects, removing old forestry roads, increasing biodiversity of forests nearby
- Second lowest carbon footprint of copper mines in Canada, bottom 4% worldwide
- Enough copper per year for 275,000 electric cars
- Producing one tonne of copper at Marathon will emit 1.5 tonnes of carbon dioxide (compared with average of 4.65 tonnes worldwide)
- That one tonne will be enough for 12 electric cars, each saving 4.6 tonnes\* of carbon emissions per operating year if using carbon-free grid
- Total savings of 55 tonnes of emissions per year per tonne of copper produced. And that copper will be recycled in perpetuity

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- Acknowledgement of Indigenous Rights
  - Generation has signed agreement-in-principal with nearby Biigtigong Nishnaabeg First Nation
  - Advancing negotiations with other Indigenous communities
- Regular engagement with communities identify land uses, recreational and traditional (medicinal plants, trapping, country foods) and where possible avoid or alter design to reduce impact
- Strong support from location town of Marathon
- Support youth-training and apprenticeships
- Support First Nation and Métis businesses
- Hire locally when possible

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- Government benefits from substantial taxes in base case
  - Local Marathon taxes payable: \$24 million over life of mine
  - Provincial mining taxes of \$245 million
  - Provincial corporate income taxes of \$279 million
  - Federal corporate income taxes of \$419 million
- More than 1,000 direct construction jobs and 400 permanent jobs


# ENVIRONMENTAL, SOCIAL, GOVERNANCE

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- Board of Directors has five independent members (of eight), with targeted skillsets covering financial, technical and legal aspects of mining
- Full website disclosure of all relevant environmental studies and other related documents
- Training and educating our employees and site contractors in the development and implementation of our environmental and social policies and programs
- Collaborate with local communities, to monitor and confirm social and environmental predictions and adjust operations through adaptive management

#### **US\$651**\* **US\$837**\* **US\$1626**\* **US\$965**\*

At 5 grams palladium and 40 lbs copper per car, each car would consume \$651 worth of our metals at recent spot prices

**GREEN IS THE NEW GOLD** –

**ICE CAR** 

Pd-Cu

\* Dollar amounts are based on recent spot prices: US\$1222/oz platinum, US\$4.60/lb copper and US\$2900/oz palladium.

**Hydrogen Fuel Cells** estimated 88 lbs copper. More Pt

need 1 oz+ of platinum per vehicle, plus an is needed to make hydrogen fuel





Although amounts vary,

a typical hybrid uses

about 88 lbs of copper

and 6 grams of

palladium





An electric car needs

about 182 lbs of copper.

At \$4.60 per lb, that is

US\$837 per car. Plus

more for charging

stations

Cu

MARATHON'S METALS NEEDED IN ALL FUTURE CARS

## **ELECTRIC CAR** FUEL CELL CAR

Pt-Cu

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# ADDITIONAL FEASIBILITY STUDY

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# FEASIBILITY STUDY – KEY ASSUMPTIONS

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PRICE ASSUMPTIONS	UNITS	PRICE
Palladium	US\$/oz	1,725
Copper	US\$/lb	3.20
Platinum	US\$/oz	1,000
Gold	US\$/oz	1,400
Silver	US\$/oz	20.00
Exchange Rate	C\$/US\$	1.28
Diesel Fuel	\$/L	0.77
Electricity	\$/kWhr	0.08

#### **Recoveries**

Metal	Recovery @ Avg. Grade
Palladium	86.9%
Copper	93.0%
Platinum	84.2%
Gold	72.4%
Silver	71.5%

Discount Rate Sensitivity	NPV (After-Tax) (\$M)
0%	2,060
5%	1,191
6%	1,068
8%	859
10%	689

# FEASIBILITY STUDY – HIGH-LEVEL CAPITAL AND OPERATING COSTS

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CAPITAL COSTS	UNITS	
Initial Capital <sup>1</sup>	\$M	665
LOM Sustaining Capital	\$M	423
LOM Total Capital	\$M	1,087
Closure Costs	\$M	66

<sup>1</sup> Initial Capital shown after equipment financing. Contingency at approximately 11.7% of initial Capital.

OPERATING COSTS	UNITS	
Mining <sup>2</sup>	\$/t mined	2.53
Processing	\$/t milled	9.08
General & Administration	\$/t milled	2.48
Transport & Refining Charges	\$/t milled	2.80
Royalties	\$/t milled	0.03
Total Operating Costs	\$/t milled	23.63
LOM Average Operating Cost	US\$/oz Pd Eq	687
LOM Average AISC	US\$/oz Pd Eq	809

<sup>2</sup> Mining cost also noted as \$9.23/tonne milled, all amounts \$C unless noted otherwise

# FEASIBILITY STUDY – CAPEX

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CAPITAL COSTS	INITIAL (\$M)	SUSTAINING (\$M)	TOTAL (\$M)
Mining	127.8	184.1	311.9
Process Plant	269.2	38.5	307.7
Infrastructure	107.7	29.3	136.9
Tailings Storage and Water Management	61.2	170.8	232.0
Construction Indirects	113.5		
General and Owner's Cost	14.9		
Preproduction, Startup, Commissioning	(52.9)		
Subtotal (before equipment financing)	641.4	422.6	988.5
Contingency <sup>1</sup>	74.8		
Subtotal (including contingency)	716.1		
Less: Equipment Financing Drawdowns	(72.4)		
Add: Equipment Lease Payment & Fees	21.0		
Total Initial Capital (after equipment financing)	664.7	422.6	1,087.3
Closure & Reclamation <sup>2</sup>		65.9	65.9
Total Capital Costs	664.7	488.5	1,153.2

<sup>1</sup> Contingency applied to sub-project level, approx. 11.7% on overall initial capital.

<sup>2</sup> Closure cost estimate is \$55.1 M, additional cost included for carrying cost of closure bond.

# COMPARISON – IRR & NPV/CAPEX – PRECIOUS METAL MINES

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Project	FS Date	Initial Capex (M)	Metal Price \$US	IRR	Post Tax NPV (M)	NPV/ Capex
HISTORICAL						
Detour Lake	2010	\$1,019	\$850	12.4%	\$760 (5%)	0.74
Malartic	2008	\$642	\$775	25.1%	\$730 (5%)	1.13
Rainy River	2013	\$713	\$1,400	23.7%	\$931 (5%)	1.30
Atlantic Gold	2015	\$137	\$1,200	30.0%	\$168 (5%)	1.22
CURRENT AND FUTURE	· · · · · ·					
Cote Lake	2018	\$1,147	\$1,250	15.2%	\$795 (5%)	0.69
Magino	2017	\$405	\$1,300	19.5%	\$288 (5%)	0.71
Waterberg	2019	US\$874	\$1,546 (Pd)	20.7%	US\$982 (8%)	1.12
Platreef	2017	US\$1,544	\$1,037**	14.2%	US\$916 (8%)	0.58
Platreef	2020	US\$1,438	\$1,225**	19.8%	US1,849 (8%)	1.28
Eagle (Victoria)	2016	\$370	\$1,250	29.5%	\$508 (5%)	1.37
Hardrock	2020	\$952	\$1,400	20.1%	\$1,050 (5%)	1.10
MARATHON (Consensus)	2021	\$665	\$1,725	29.7%	\$1,068 (6%)	1.63
MARATHON (Spot)	2021	\$665	\$2,395	46.5%	\$2,025 (6%)	3.09

\*Based On Original Feasibility Study \*\*Avg Pd and Pt Sources: SEDAR company filings, company websites

# FEASIBILITY STUDY – KEY OPERATIONS DESIGN ELEMENTS

#### GENERATIONMINING

Key Operations Design	Elements	
Open Pit	Conventional Truck / Shovel Operation	40 M tonnes per year 110,000 tonnes per day 3 operating pits
Processing Plant	Satellite Crusher SAG → Pebble → Ball Mill Flotation Concentrate regrind Cleaning PGM Scavenger	9.2 M tonnes per year 25,200 tonnes per day
Tailings Storage Facility	Thickened Tailings Downstream construction Construction staged over mine life using min Water management systems	e fleet
Cu-PGM Concentrate		~90,000 tonnes of conc per year

# MARATHON – PRELIMINARY SITE PLAN

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# QUALIFIED PERSONS

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The Feasibility Study was prepared through the collaboration of the following consulting firms and Qualified Persons:

Consulting Firms	Area of Responsibility	Qualified Person
G-Mining Services	Mineral Reserves Estimate Mine design Infrastructure design Capital and operating costs (Mining and G&A) Financial analysis	Antoine Champagne, ing. Paul Murphy, ing. Antoine Champagne, ing. Louis-Pierre Gignac, ing.
Ausenco Engineering Canada Inc. and Haggarty Technical Services	Metallurgical Testing Plant design Capital and Operating costs (Plant)	Robert Raponi, P.Eng
P&E Mining Consultants Inc.	Mineral Resource Estimate Geological technical information QA/QC review of drilling and sampling data	Eugene Purich, P.Eng., FEC, CET
Knight Piésold Ltd. and WESC Inc.	Tailings design and water management Environmental studies and permitting	Craig Hall, P.Eng

This presentation has been reviewed and approved by Drew Anwyll, P.Eng., M.Eng., Chief Operating Officer of the Company, and a Qualified Person as defined by Canadian Securities Administrators National Instrument 43-101 ("NI43-101") "Standards of Disclosure for Mineral Projects".

The technical information in this presentation has been reviewed and approved by the following independent Qualified Person: Louis-Pierre Gignac, ing.

# DISCLAIMER

### GENERATIONMINING

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#### **Non-IFRS Financial Measures**

The Company has included certain terms or performance measures commonly used in the mining industry that are not defined under International Financial Reporting Standards ("IFRS") in this news release. These include operating costs, AISC, LOM average AISC, LOM average operating cost, and Free Cash Flow. Non-IFRS measures do not have any standardized meaning prescribed under IFRS, and therefore, they may not be comparable to similar measures employed by other companies. The data presented is intended to provide additional information and should not be considered in isolation or as a substitute for measures prepared in accordance with IFRS. These measures do not have any standardized meaning prescribed under IFRS, and therefore any standardized meaning prescribed under IFRS.

• Operating Costs include mining, processing, general and administrative and other, concentrate transportation costs, treatment and refining charges, and royalties.

• AISC include Operating Costs, closure, and reclamation, and sustaining capital.

- LOM Average AISC includes LOM AISC divided by LOM Pd Eq.
- LOM Average Operating Cost includes LOM Operating Costs divided by LOM Pd Eq.
- Free Cash Flow includes total revenue less Operating Costs, working capital adjustments, equipment financing, initial capital, sustaining capital and closure costs

#### **Information Concerning Estimates of Mineral Reserves and Resources**

The Mineral Reserve and Mineral Resource estimates in this presentation have been disclosed in accordance with NI 43-101, which differs significantly from the requirements of the U.S. Securities and Exchange Commission (the "SEC"), and information with respect to mineralization and Mineral Reserves and Mineral Resources contained herein may not be comparable to similar information disclosed by U.S. companies. The requirements of NI 43-101 for identification of "reserves" are not the same as those of the SEC, and reserves reported by the Company in compliance with NI 43-101 may not qualify as "reserves" under SEC standards. Under U.S. standards, mineralization may not be classified as a "reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. In addition, and without limiting the generality of the foregoing, this press release uses the terms "Measured Resources", "Indicated Resources" and "Inferred Resources". U.S. investors are advised that, while such terms are recognized and required by Canadian securities laws, the SEC has not recognized them in the past. U.S. investors should also understand that "Inferred Resources" have a great amount of uncertainty as to their existence and as to their economic and legal feasibility. It cannot be assumed that all or any part of "Inferred Resources" exist, are economically or legally mineable or will ever be upgraded to a higher category. Under Canadian securities laws, "Inferred Resources" may not form the basis of feasibility or pre-feasibility studies except in certain cases. Disclosure of "contained ounces" in a Mineral Resource is a permitted disclosure under Canadian securities laws, however, the SEC normally only permits issuers to report mineralization that does not constitute "reserves" by SEC standards as in place tonnage and grade, without reference to unit measures. Accordingly, information concerning mineral deposits set forth i information made public by companies that report in accordance with U.S. standards.

# **DISCLAIMER CONTINUED**

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#### Information Concerning Estimates of Mineral Reserves and Resources (Con't)

SEC has adopted amendments to its disclosure rules to modernize the mineral property disclosure requirements under the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"). These amendments became effective February 25, 2019 (the "SEC Modernization Rules") with compliance required for the first fiscal year beginning on or after January 1, 2021. Under the SEC Modernization Rules, the historical property disclosure requirements for mining registrants included in Industry Guide 7 under the U.S. Securities Act of 1933, as amended, will be rescinded and replaced with disclosure requirements in subpart 1300 of SEC Regulation S-K. As a result of the adoption of the SEC Modernization Rules, the SEC now recognizes estimates of "Measured Mineral Resources", "Indicated Mineral Resources" and "Inferred Mineral Resources." In addition, the SEC has amended its definitions of "Proven Mineral Reserves" and "Probable Mineral Reserves" to be "substantially similar" to the corresponding standards under NI 43-101. While the SEC will now recognize "Measured Mineral Resources", "Indicated Mineral Resources" and "Inferred Mineral Resources", U.S. investors should not assume that any part or all of the mineralization in these categories will ever be converted into a higher category of Mineral Resources or into Mineral Resources, U.S. investors are cautioned not to assume that any Measured Mineral Resources that the Company reports are or will be economically or legally mineable. Further, "Inferred Mineral Resources" have a greater amount of uncertainty as to their existence and as to whether they can be mineral legally or economically. Therefore, U.S. investors are also cautioned not to assume that any Mineral Resources," (Indicated Mineral Resources," and "Inferred Mineral Resources," indicated Mineral Resources," and "Inferred Mineral Resources," an

Mineral Resources are not Mineral Reserves, and do not have demonstrated economic viability, but do have reasonable prospects for economic extraction. Measured and Indicated Mineral Resources are sufficiently well defined to allow geological and grade continuity to be reasonably assumed and permit the application of technical and economic parameters in assessing the economic viability of the Mineral Resource. Inferred Mineral Resources are estimated on limited information not sufficient to verify geological and grade continuity or to allow technical and economic parameters to be applied. Inferred Mineral Resources are too speculative geologically to have economic considerations applied to them to enable them to be categorized as Mineral Reserves. There is no certainty that Mineral Resources of any classification can be upgraded to Mineral Reserves through continued exploration.

The Company's Mineral Reserve and Mineral Resource figures are estimates and the Company can provide no assurances that the indicated levels of mineral will be produced or that the Company will receive the price assumed in determining its Mineral Reserves. Such estimates are expressions of judgment based on knowledge, mining experience, analysis of drilling results and industry practices. Valid estimates made at a given time may significantly change when new information becomes available. While the Company believes that these Mineral Reserve and Mineral Resource Estimates are well established and the best estimates of the Company's management, by their nature Mineral Reserve and Mineral Resource Estimates are imprecise and depend, to a certain extent, upon analysis of drilling results and statistical inferences which may ultimately prove unreliable. If the Company's Mineral Reserve or Mineral Reserve Estimates are inaccurate or are reduced in the future, this could have an adverse impact on the Company's future cash flows, earnings, results or operations and financial condition. The Company estimates the future mine life of the Marathon Project. The Company can give no assurance that its mine life estimate will be achieved. Failure to achieve this estimate could have an adverse impact on the Company's future cash flows, earnings, results of operations and financial condition.

# EXPLORATION ACTIVITIES

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# MARATHON EXPLORATION



# SALLY DEPOSIT

## GENERATIONMINING



# RESERVES AND RESOURCES

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# MINERAL RESOURCES

TSX:GENM OTCQB: GENMF

Pit Constrained Combined Mineral Resource Estimate<sup>1-8</sup> for the Marathon, Geordie and Sally Deposits (Effective date June 30, 2020)

MINERAL RESOURCE	TONNAGE	P	d	С	ı	Αι	I	Pt	t	A	g
CLASS	kt	g/t	koz	%	M lbs	g/t	koz	g/t	koz	g/t	koz
MARATHON DEPOSIT											
Measured	113,793	0.63	2,304	0.20	502	0.07	262	0.21	762	1.49	5,466
Indicated	89,012	0.45	1,296	0.19	373	0.06	182	0.16	449	1.77	5,078
M&I	202,806	0.55	3,599	0.20	875	0.07	444	0.19	1,211	1.62	10,544
Inferred	6,931	0.43	95	0.17	26	0.08	17	0.14	32	1.55	345
GEORDIE DEPOSIT											
Indicated	17,268	0.56	312	0.35	133	0.05	25	0.04	20	2.40	1,351
Inferred	12,899	0.51	212	0.28	80	0.03	14	0.03	12	2.40	982
SALLY DEPOSIT											
Indicated	24,801	0.35	278	0.17	93	0.07	56	0.20	160	0.70	567
Inferred	14,019	0.28	124	0.19	57	0.05	24	0.15	70	0.60	280
TOTAL PROJECT											
Measured	113,793	0.63	2,304	0.20	502	0.07	262	0.21	762	1.49	5,466
Indicated	131,081	0.45	1,886	0.21	599	0.06	263	0.15	629	1.66	6,996
M&I	244,874	0.53	4,190	0.20	1,101	0.07	525	0.18	1,391	1.58	12,462
Inferred	33,849	0.40	431	0.22	163	0.05	55	0.10	114	1.48	1,607

For Notes see next slide.

# MINERAL RESOURCES

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The Mineral Resource Estimate includes all three deposits and was prepared by P&E.

Notes:

<sup>1</sup> Mineral Resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions(2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by

CIM Council.

<sup>2</sup>. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, marketing, or other relevant issues.

<sup>3.</sup>The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

<sup>4</sup>. Mineral Resources are reported within a constraining pit shell at a NSR cut-off value of \$13/t.

<sup>5</sup> NSR  $(C\$/t) = (Ag \times 0.48) + (Au \times 42.14) + (Cu \times 73.27) + (Pd \times 50.50) + (Pt \times 25.07) - 2.62.$ 

<sup>6.</sup>The Mineral Resource Estimate was based on metal prices of US\$3.00/lb copper, US\$1,500/oz gold, US\$18/oz silver, US\$1,600/oz palladium, and US\$900/oz platinum.

<sup>7</sup> Mineral Resources are inclusive of Mineral Reserves.

<sup>8.</sup> Contained metal totals may differ due to rounding.

# MARATHON PROJECT – OPEN PITGENERATIONMININGMINERAL RESERVES1-8 – EFFECTIVE SEPT. 15, 2020TSX:GENMFOTCQB: GENMFOTCQB: GENMF

The Mineral Reserve Estimate includes only the Marathon deposit and was prepared by G Mining Services Inc.

MINERAL	TON	NAGE	Р	d	С	u	Α	u	P	t	Α	g
RESERVES	kt	%	g/t	koz	%	M lbs	g/t	koz	g/t	koz	g/t	koz
Proven	85,091	72%	0.660	1,805	0.202	379	0.070	191	0.212	581	1.359	3,719
Probable	32,610	28%	0.512	537	0.213	153	0.061	64	0.168	176	1.541	1,616
P&P	117,701	100%	0.619	2,342	0.205	532	0.067	255	0.200	756	1.410	5,334

<sup>1</sup> CIM definitions were followed for Mineral Reserves.

- <sup>2</sup> Mineral Reserves are estimated at a cut-off grade varying from \$18.00 to \$21.33 NSR/t of ore.
- <sup>3</sup> Mineral Reserves are estimated using the following long-term metal prices (Pd = US\$1,500/oz, Pt = US\$900/oz, Cu = US\$2.75/lb, Au = US\$1,300/oz and Ag = US\$16/oz) and an exchange rate of US\$/\$0.75).
- <sup>4</sup> A minimum mining width of 5 m was used.
- <sup>5</sup> Bulk density of ore is variable and averages  $3.07 \text{ t/m}^3$ .
- <sup>6</sup> The average strip ratio is 2.8:1.
- <sup>7</sup> The average mining dilution factor is 9%.
- <sup>8</sup> Numbers may not add due to rounding.

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## SIMPLIFIED PROCESS FLOWSHEET



# METALLURGICAL TEST PROGRAM - 2020

#### GENERATIONMINING

El	lement	Unit	South Pit (W-Horizon)	North Pit (Main Zone)
	Pd	g/t	171	39
	Cu	%	18.7	19.7
	Pt	g/t	43.5	7.6
	Au	g/t	17.6	3.3
	Ag	g/t	50	68
	Rh	g/t	2.4	0.58
	Ni	%	0.31	0.49
	Zn	%	0.1	0.17
	Fe	%	20.3	24.7
	As	%	0.01	0.01
	Sb	%	< 0.002	< 0.002
	S	%	17	24
	F	%	0.07	0.07
	Hg	g/t	<0.3	< 0.3
	Si	%	11.3	7
	Mg	%	6.2	2.2
	V	g/t	80	88
	Pb	%	0.02	0.02
	Мо	%	< 0.01	< 0.01
	Со	%	0.04	0.08
	Sn	%	< 0.002	< 0.002
	Cl	g/t	18	67
	Bi	%	< 0.002	< 0.002
	Cd	%	< 0.002	< 0.002
	Al <sub>2</sub> O <sub>3</sub>	%	1.1	3.7
	CaO	%	0.9	3.2
	Mn	g/t	0.039	355
	Cr	g/t	40	40
	Ва	g/t	27	85
	Se	g/t	174	87
	Те	g/t	51	13
	SG		3.57	3.71

# COMPARISON WITH TOP TEN PRECIOUS METAL MINES IN CANADA 2020 ('000 OZS)\*

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\*\*Based on metal prices used in March, 2021 Marathon Feasibility Study. Not 43 101 compliant

# COLDWELL MINERALIZATION MODEL

#### GENERATIONMINING



## 2021 DRILLING

TSX:GENM OTCQB: GENMF



Highlights of 2021 Chonolith drilling: Hole 43, 16m @ 2.11 g/t PdEq; Hole 44, 80m @ 1.08 g/t PdEq; Hole 45, 46m @ 1.78 g/t PdEq and 37m @ 1.4 g/t PdEq

# **CARBON INTENSITY - CANADA**

- 2<sup>ND</sup> LOWEST IN CANADA FOR CARBON EMISSIONS ON A COPPER EQUIVALENT BASIS ONCE MARATHON IS IN PRODUCTION
- ACCESS TO ONTARIO NUCLEAR POWER GRID OF SIGNIFICANT BENEFIT
- CONTINUED ASSESSMENT OF OPPORTUNITIES TO FURTHER REDUCE



# FEASIBILITY STUDY – PRODUCTION PROFILE

#### GENERATIONMINING

TSX:GENM **OTCQB: GENMF** 



Platinum, Gold and Silver - Payable Metal

□ Au □ Pt □ Ag

# LOOKING FOR SOURCE OF HIGH GRADE

#### GENERATIONMINING

TSX:GENM OTCQB: GENMF

Sample K008054, 188.28g/t TPGM, 9.11% Cu, 0.60% Ni, 6.4% S

