

# Marathon Gold Reports Positive Feasibility Study for the Valentine Gold Project, NL

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TORONTO, March 29, 2021 - [Marathon Gold Corp.](#) ("Marathon" or the "Company"; TSX: MOZ) is pleased to report the results of the Feasibility Study ("FS") for the Valentine Gold Project in Central Newfoundland ("Valentine" or the "Project").

The FS confirms robust economics for a conventional open pit mining and milling operation at Valentine, with low initial capital cost and high rate of return. The FS presents a mine plan based on the same two-pit and centralized mill strategy first presented in the April 2020 Pre-Feasibility Study, with updated Mineral Resource and Mineral Reserve estimates, refined mine and mill designs supported by additional geotechnical and metallurgical data, and updated capital and operating cost estimates. Mineral Resources, Mineral Reserves, and the Project's financial analysis have been completed at base case assumptions of US\$1,500/troy oz gold and a C\$:US\$ exchange of \$0.75.

Highlights of the FS are as follows (all figures are in Canadian dollars and troy ounces unless otherwise noted):

- After-tax Internal Rate of Return ("IRR") of 31.5% and Net Present Value at a 5% discount rate ("NPV<sub>5%</sub>") of \$600M (US\$450M) at US\$1,500/oz gold, increasing to 42.2% and \$868M (US\$651M) at US\$1,750/oz gold;
- Initial capital cost ("Capex") of \$305M (US\$229M) yielding a favourable after-tax NPV<sub>5%</sub>/Capex ratio of 2.0. Total life-of-mine ("LOM") capital of \$662M (US\$496M);
- After-tax payback of 1.9 years;
- 13-year mine life. 22 months construction and commissioning schedule assuming construction start in January 2022. First gold pour in October 2023;
- Average gold production of 173,000 oz/year and \$119M of annual average free cash flow ("FCF") between 2024 and 2033 from the processing of high-grade mill feed, and 56,000 oz/year and \$31M FCF/year between 2034 and 2036 from the processing of low-grade stockpile;
- LOM Total Cash Costs of US\$704/oz and All-In Sustaining Costs ("AISC") of US\$833/oz;
- Mill capacity of 6,800 tpd (2.5 Mtpa) based on gravity-leaching, expanding to 11,000 tpd (4.0 Mtpa) in Year 4 based on gravity-flotation-leaching. LOM average gold recovery of 94.2% for total LOM recovered gold production of 1.93 Moz;
- Proven and Probable Mineral Reserves of 2.05 Moz (47.06 Mt at 1.36 g/t Au), an increase of 0.18Moz, or 10%, compared to the previous estimate in April 2020;
- Measured & Indicated ("M&I") Mineral Resources of 3.14 Moz (56.66 Mt at 1.72 g/t Au), an increase of 0.05 Moz, or 1%, compared to the previous estimate from January 2020. Mineral Resources are inclusive of the Mineral Reserves;
- Inferred Mineral Resources of 1.00 Moz (18.25 Mt at 1.70 g/t Au), an increase of 0.04 Moz, or 4%, compared to the previous estimate;

Matt Manson, President & CEO, commented: "The Feasibility Study for the Valentine Gold Project builds upon the simplified two-pit/central-mill development plan first presented in our April 2020 Pre-Feasibility Study and again in our September 2020 Environmental Impact Statement. All of our site investigative geotechnical work and metallurgical studies conducted over the last 12 months have validated this initial mine and mill design. Optimizations have improved our pit, major facilities and tailings management facility designs. We have increased our Mineral Reserves by 10%, including the quantity of high-grade mill feed which now supports a gold production profile averaging 173 koz/year for 10 years starting in 2024. Total mine life has increased to 13 years. We have applied caution to our estimates of cost and construction schedule, following the COVID challenges of the last 12 months. The receipt of budgeted quotes from vendors on our construction and equipment supply packages, undertaken during January and February of this year, has coincided with very recent inflationary pressure in bulk materials pricing and labour rates. This is reflected in our capital and operating cost estimates. Nonetheless, today's Feasibility Study confirms a compelling mine development opportunity with strong margins, high rate of return and low capital intensity. Substantial Mineral Resources remain outside the initial mine plan, and the Project's exploration potential

offers the prospect of significant mine life extension. The Valentine Gold Project is projected to be the largest gold mine in Atlantic Canada, and a major contributor to the socio-economic well being of the Central Newfoundland."

The Company will be hosting an online technical session on the FS results for the Valentine Gold Project tomorrow, March 30<sup>th</sup>, at 10:00 A.M. EDT. A presentation by management will be followed by Q&A. To register, please visit: <https://bit.ly/397P8dF>

### Valentine Gold Project Feasibility Study

The FS was completed by Ausenco Engineering Canada Inc. as Lead Consultant. Moose Mountain Technical Services acted as Mining Consultant, APEX Geoscience Ltd. as Geological Consultant, Golder Associates Ltd. as Tailings Consultant and Stantec Consulting Ltd. as Site Water Management and Environmental Consultant, and GEMTEC Consulting Engineers and Scientists Limited as Geotechnical Consultant. The Valentine Gold Project Mineral Resource Estimate was prepared by John T. Boyd Company. The Mineral Reserve Estimate was prepared by Moose Mountain Technical Services.

Table 1: Summary of Key Results and Assumptions in the Feasibility Study

	Values	Units
<b>Production Data<sup>note 1</sup></b>		
Life of Mine	13	Years
Processing Years 2023-2026 (Phase 1)	6,800 (2.50)	tpm
Processing Years 2027-2036 (Phase 2)	11,000 (4.00)	tpm
Recovered Gold	1.93	Mt
Average Gold Recovery	94.2%	
Prestrip Tonnes	10.5	Mt
Total Mined Tonnes (including prestrip)	387	Mt
Total Milled Tonnes	47	Mt
Overall Strip Ratio	7.2	wt
Average Annual Gold Production	173	koz
<i>2024-2033: High Grade Feed Run Rate<sup>note 2</sup></i> Average Mill Feed Grade	1.62	g/t
Annual Average After-Tax Free Cash Flow	\$119	C\$M
Average Annual Gold Production	56	koz
<i>2034-2036: Low Grade Stockpile Run Rate<sup>note 2</sup></i> Average Mill Feed Grade	0.49	g/t
Annual Average After-Tax Free Cash Flow	\$31	C\$M
Average Annual Gold Production	146	koz
<i>2024-2036: LOM Run Rate<sup>note 2</sup></i> Average Mill Feed Grade	1.34	g/t
Annual Average After-Tax Free Cash Flow	\$98	C\$M
<b>Capital Costs<sup>note 1</sup></b>		
	Values	Units
Initial Capital	\$305	C\$M
Expansion Capital	\$44	C\$M
LOM Sustaining Capital (including salvage)	\$312	C\$M
LOM Total Capital	\$662	C\$M
Contingency (included in initial and expansion items)	12%	
Capital Intensity (Initial Capital/oz)	\$119	US\$/oz
<b>LOM Operating Costs<sup>notes 1,3</sup></b>		
	Values	Units
Mining (/t mined)	\$2.55	C\$/t
Mining (/t milled)	\$20.44	C\$/t
Processing and Water Treatment (/t milled)	\$12.51	C\$/t
G&A (/t milled)	\$4.58	C\$/t
Total Operating Cost (/t milled)	\$37.52	C\$/t
Refining & Transport	\$3.93	C\$/t

	Silver Credit	(\$9.32)	CS
	Average Cash Cost	\$704	US
	Average All-In Sustaining Cost <sup>note 4</sup>	\$833	US
Financial Analysis <sup>note 1</sup>		Values	Un
	Gold Price Assumption for Financial Analysis	\$1,500	US
	US\$:C\$ Exchange	0.75	
	Pre-Tax NPV <sub>5%</sub>	\$867	CS
	Pre-Tax IRR	36.9%	
	Pre-Tax Payback	1.8	ye
	After-Tax NPV <sub>5%</sub>	\$600	CS
	After-Tax IRR	31.5%	
	After-Tax Payback	1.9	ye
	Royalties <sup>note 5</sup>	1.5%	
	EBITDA	\$2,048	CS
	EBITDA Margin	53.0%	
	Pre-Tax Unlevered Free Cash Flow	\$1,386	CS
	After-Tax Unlevered Free Cash Flow	\$973	CS
	LOM Direct Income Taxes and NL Mining Taxes	\$413	CS
	Effective Cash Tax Rate	30%	

Notes:

1. See note on "Non-IFRS Financial Measures".
2. Measured in full years, excluding 2023 stub-year covering mill commissioning and ramp-up.
3. LOM operating costs exclude capitalized operating costs prior to October 2023 and prestrip mining tonnes.
4. AISC includes Total Cash Costs and Sustaining Capital, including expansion and closure costs. Excludes salvage and Corporate G&A.
5. Assumes the exercise of a right to repurchase 0.5% of the Franco Nevada NSR for US\$7M prior to December 31, 2023.

Mineral Resource Estimate, Effective November 20, 2020

An updated Mineral Resource estimate was prepared for the FS by John T. Boyd Company with an effective date of November 20, 2020 and utilizing Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards on Mineral Resources and Reserves (2014). The new estimate utilizes the same drillhole dataset and estimation methodology as the January 2020 estimate prepared for the April 2020 Pre-Feasibility Study, but at a gold price of US\$1,500/oz and using updated mining cost inputs. Open Pit Mineral Resources are estimated with a bottom cut-off of 0.30 g/t Au, unchanged from the previous estimate. Underground Mineral Resources are estimated with a bottom cut-off of 1.4 g/t Au, compared to 1.66 g/t Au previously.

Total Project Measured and Indicated Mineral Resources (Table 2), which are inclusive of the Mineral Reserves, are 3.14 Moz (56.66 Mt at 1.72 g/t Au), an increase of 1% compared to the previous estimate. Additional Inferred Mineral Resources (Table 3) are 1.00 Moz (18.25 Mt at 1.70 g/t Au), an increase of 4% compared to the previous estimate.

Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability.

Table 2: Measured and Indicated Mineral Resources by Deposit (changes to the previous Jan 2020 estimate shown in italics)

	Category	Tonnes (Mt)			Grade (g/t Au)			Oz (Moz Au)		
Marathon	Measured	23.99	+4	%	1.69	-2	%	1.31	+2	%
	Indicated	13.81	+6	%	1.48	-3	%	0.66	+3	%
	Total M&I	37.80	+4	%	1.62	-2	%	1.96	+2	%

Leprechaun	Measured	8.60	+1	%	2.22	-0	%	0.61	+0	%
	Indicated	8.48	+1	%	1.72	-1	%	0.47	+1	%
	Total M&I	17.07	+1	%	1.98	-0	%	1.08	+1	%
Victory	Measured	-			-			-		
	Indicated	1.09	+1	%	1.46	-1	%	0.05	+0	%
	Total M&I	1.09	+1	%	1.46	-1	%	0.05	+0	%
Sprite	Measured	-			-			-		
	Indicated	0.70	+3	%	1.74	-1	%	0.04	+1	%
	Total M&I	0.70	+3	%	1.74	-1	%	0.04	+1	%
All Deposits	Measured	32.59	+3	%	1.83	-2	%	1.92	+1	%
	Indicated	24.07	+4	%	1.57	-2	%	1.22	+2	%
	Total M&I	56.66	+3	%	1.72	-2	%	3.14	+1	%

Table 3: Inferred Mineral Resources by Deposit (changes to the previous Jan 2020 estimate shown in italics)

	Category	Tonnes (Mt)		Grade (g/t Au)		Oz (Moz Au)				
Marathon	Inferred	11.68	+10	%	1.86	-5	%	0.70	+5	%
Leprechaun	Inferred	2.99	+5	%	1.63	-2	%	0.16	+3	%
Victory	Inferred	2.33	+9	%	1.26	-4	%	0.09	+5	%
Sprite	Inferred	1.25	+5	%	1.26	-2	%	0.05	+3	%
All Deposits	Total Inferred	18.25	+9	%	1.70	-4	%	1.00	+4	%

*Notes to the Mineral Resources (Tables 2 and 3):*

- The Mineral Resource has an effective date of November 20, 2020.*
- Mineral Resources are based on \$1,500/oz gold with a US\$:C\$ exchange rate of 0.75.*
- In-pit Mineral Resources have been determined by the Whittle method based on an estimate of their reasonable prospects for economic extraction, using certain assumptions for gold recovery, costs for mining, processing and sale.*
- The Mineral Resources were estimated using a block model with a block size of 6 m by 6 m by 6 m sub-blocked to a minimum block size of 2 m by 2 m by 2 m using ID3 methods for grade estimation. All Mineral Resources are reported using an open pit gold cut-off of 0.300 g/t Au and an underground gold cut-off of 1.4 g/t Au.*
- The reader is reminded that mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, socio-political, marketing, or other relevant issues including risks set forth in in Marathon's Annual Information Form for the year ended December 31, 2020 and other filings made with Canadian securities regulatory authorities and available at [www.sedar.com](http://www.sedar.com).*
- Mineral Resources are inclusive of the Mineral Reserves.*
- Columns may not sum exactly due to rounding.*

## Mining

The FS contemplates open pit mining from the Marathon and Leprechaun Deposits only. Mineral Resources contained within the Sprite or Victory Deposits, or any potential Mineral Resources at the Berry Zone, have not been considered as part of the FS, and remain subject to ongoing exploration.

Ore with a cut-off grade of 0.70 g/t Au ("high-grade") will be prioritized for mill processing, initially at 6,800 tonnes per day ("tpd"), or 2.5 Million tonnes per annum ("Mtpa"), and then at 11,000 tpd, or 4.0 Mtpa, following mill expansion. Ore between 0.70 g/t and 0.30 g/t Au ("low-grade") will be stockpiled for processing at the end of the mine life. Following a ramp-up in mining and processing in 2023, high-grade mill feed at +0.70 g/t Au supports a 10-year production period between 2024 and 2033 averaging 173 Moz/year at an average head grade of 1.62 g/t Au. Thereafter, the low-grade stockpile supports a 3-year production period between 2034 and 2036 averaging 56 koz/year at an average head grade of 0.49 g/t Au.

The open pits have been designed and scheduled to maximise project rate of return. Pit slope optimization has been undertaken based on geotechnical drill data collected in 2020. Each deposit will be developed in

three phases, with the Marathon pit reaching a maximum dimension of 1,350 m x 700 m x 328 m deep, and the Leprechaun pit achieving 1,000 m x 725 m x 306 m deep. LOM strip ratios will be 6.3 at Marathon, 8.9 at Leprechaun, and 7.2 overall. Mining will be by conventional drill/blast/load/haul methods, with 12 m benches for waste and using selective mining practices on 6 m flitches for ore. Dual-lane haul road allowances will support a diesel-powered mining fleet that will include seventeen 140-tonne and eleven 90-tonne payload trucks operating between the two open pits.

#### Mineral Reserve Estimate, Effective March 29, 2021

An updated Mineral Reserve estimate was prepared by Moose Mountain Technical Services, with an effective date of March 29, 2021 (Table 4). Proven and Probable Mineral Reserves are derived from the Measured and Indicated Mineral Resources utilizing Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards on Mineral Resources and Reserves (2014).

Mine planning and Mineral Reserves use block dimensions of 6x6x6 m with whole block dilution after re-blocking the Mineral Resource model, which has been sub-blocked at a 2x2x2 m minimum block size. Mining dilution of 25% and ore loss of 5% is introduced when compared to the Mineral Resources in the block model. Ore blocks surrounded by waste on all sides, and blocks surrounded by waste on three sides with a grade of less than 0.5 g/t Au are also treated as waste. This yields an additional mining recovery loss of 6% by tonnage and 2% by gold content.

Total Proven Mineral Reserves, estimated at a gold price of US\$1,500/oz with a bottom-cut-off of 0.30 g/t Au, stand at 1.40 Moz (29.68 Mt at 1.46 g/t Au). Total Probable Mineral Reserves stand at 0.65 Moz (17.38 Mt at 1.17 g/t Au). These are increases of 9% and 12% respectively compared to the previous estimates.

Proven Mineral Reserves estimated with a 0.70 g/t Au cut-off and scheduled for priority processing as high-grade mill feed, stand at 1.21 Moz (17.94 Mt at 2.11 g/t Au). Probable Mineral Reserves with a 0.70 g/t Au cut-off stand at 0.53 Moz (9.47 Mt at 1.74 g/t Au). These are increases of 8% and 9% respectively compared to the previous estimates.

Table 4: Proven and Probable Mineral Reserves (changes to the previous April 2020 estimate shown in italics)

	Category	Tonnes (Mt)			Diluted Grade (g/t Au)			In Situ Gold (Moz Au)		
Marathon Deposit	Proven	20.56	+15	%	1.36	-3	%	0.90	+11	%
	Probable	9.11	+20	%	1.15	-5	%	0.34	+14	%
	Total	29.67	+17	%	1.30	-4	%	1.24	+12	%
Leprechaun Deposit	Proven	9.12	+9	%	1.69	-3	%	0.50	+5	%
	Probable	8.27	+15	%	1.19	-5	%	0.32	+10	%
	Total	17.39	+11	%	1.45	-4	%	0.81	+7	%
All Deposits	Proven	29.68	+13	%	1.46	-4	%	1.40	+9	%
	Probable	17.38	+18	%	1.17	-5	%	0.65	+12	%
	Total	47.06	+15	%	1.36	-4	%	2.05	+10	%
High Grade (+0.70 g/t)	Proven	17.94	+8	%	2.11	-0	%	1.21	+8	%
	Probable	9.47	+9	%	1.74	+0	%	0.53	+9	%
	Total	27.41	+8	%	1.98	-0	%	1.75	+8	%
Low Grade (+0.30/-0.70 g/t)	Proven	11.74	+22	%	0.48	-4	%	0.18	+17	%
	Probable	7.91	+29	%	0.48	-5	%	0.12	+23	%
	Total	19.65	+25	%	0.48	-4	%	0.30	+19	%

All Deposits	Proven	29.68	+13	%	1.46	-4	%	1.40	+9	%
	Probable	17.38	+18	%	1.17	-5	%	0.65	+12	%
	Total	47.06	+15	%	1.36	-4	%	2.05	+10	%

*Notes to the Mineral Reserves:*

- 1. The Mineral Reserve estimate has been prepared by an independent Qualified Person, Marc Schulte, P.Eng., of Moose Mountain Technical Services, with an effective date of March 29, 2021.*
- 2. The Mineral Reserves are based on the Mineral Resource Estimate effective November 20, 2020.*
- 3. The Mineral Reserves are based on engineering and technical information developed at a Feasibility level for the Marathon and Leprechaun Deposits.*
- 4. Mineral Reserves are mined tonnes and grade, referenced to the mill feed at the crusher. This mill feed accounts for modifying factors such as estimated mining dilution and recovery.*
- 5. Mineral Reserves are reported at a cut-off grade of 0.30 g/t Au, based on a US\$1,500/oz gold price, 0.75 US\$:C\$ exchange rate, 99.8% payable gold, US\$5/oz refining and transport costs, 0% royalties, 87% process recovery at cutoff, \$12.00/t process costs, \$3.00/t G&A costs, and \$1.50/t stockpile re-handle costs.*
- 6. The estimate of mineral reserves may be materially affected by environmental, permitting, legal, title, socio-political, marketing, or other relevant issues including risks set forth in in Marathon's Annual Information Form for the year ended December 31, 2020 and other filings made with Canadian securities regulatory authorities and available at [www.sedar.com](http://www.sedar.com).*
- 7. Columns may not sum exactly due to rounding.*

Measured and Indicated Mineral Resources of 0.76 Moz (15.52 Mt at 1.53 g/t Au) are contained within the Whittle pit shells used in the Mineral Resource estimate at the Marathon and Leprechaun Deposits but are located outside the mining pit shells. These Mineral Resources have a reasonable prospect of economic extraction, but at a higher strip ratio and lower rate of return than provided by the optimized mining pits.

Additional Inferred Mineral Resources of 0.61 Moz (12.45 Mt at 1.51 g/t Au) are contained within the Whittle pit shells used in the Mineral Resource estimate at the Marathon and Leprechaun Deposits. Of these, a subset of 0.29 Moz (5.92 Mt at 1.50 g/t Au) are contained within the mining pit shells. All of these Inferred Mineral Resources are cited on an undiluted basis, and are treated as waste and excluded from the economic analysis. The successful future conversion of any in-pit Inferred Mineral Resources would have the effect of increasing mine production and reducing pit strip ratios.

### Processing and Recovery

The FS contemplates an initial milling strategy based on grinding to 75 µm followed by gravity concentration and cyanidation of gravity concentrates and tails ("Gravity-Leaching"). Grinding will be by way of a SAG and a ball mill. Processing capacity in Phase 1 will be 6,800 tpd (2.5 Mtpa).

Following the first three years of production, the mill will be expanded by coarsening the initial grind to 150 µm and adding flotation and regrinding of the flotation concentrates, followed by cyanidation of both the concentrate and tailings streams ("Gravity-Flotation-Leaching"). No additional grinding equipment will be required for this expansion phase other than a pebble crusher installed on the SAG mill recirculating load. Processing capacity in Phase 2 will be 11,000 tpd (4.0 Mtpa). The FS incorporates scheduled ramp-ups to the Phase 1 nameplate capacity in early 2024 and to the Phase 2 nameplate capacity in 2027.

Mill design, and the strategy of processing expansion is largely unchanged from the April 2020 Pre-Feasibility Study. Adjustments have been made in the estimated quantity of consumables (lime, oxygen) in the gold recovery process, in the sizing of the SAG and ball mills, the sizing of the ROM bin, lime silo, carbon stripping circuit and the regrind mill, and in the layout of the Gravity and Goldroom circuits. Process design has been supported by a metallurgical test-work program conducted by the Company and Ausenco under the supervision of Mr. John Goode, a consultant to Marathon. The test-work program has included studies in mineralogy, comminution, gravity concentration, flotation, leaching and cyanide destruction. This work has been performed by a variety of third-party laboratories starting in 2010, and has been ongoing since 2018 with a specific focus on the flow sheet elements utilized in the FS released today.

LOM gold recovery is estimated at 94.2% compared to 93% in the April 2020 Pre-Feasibility Study. Recoveries are estimated at an average grade of 1.36 g/t Au, being 87% at the cut-off grade of 0.30 g/t Au

and capped at 96.5%. Phase 1 Gravity-Leaching has the advantage of a lower initial capital cost but at an average \$4.90/t higher overall operating cost and an estimated 1.7% lower recovery. Phase 2 Gravity-Flotation-Leaching allows for higher throughput, with an estimated \$44M of expansion capital, at a lower average operating cost and higher recovery.

### Capital and Operating Costs

Capital costs (Table 5) have a basis of estimate at Class 3 (FEL3) with a stated +/-15% accuracy (after the Association for the Advancement of Cost Engineering International) and are stated in Q1 2021 Canadian dollars. Contingencies are estimated on all initial and expansion capital items at an average 12%, and on sustaining capital items at an average 7%. Growth factors of up to 5% have been applied on an item-by-item basis. More than 88% of equipment costs, bulk materials and labour rates are estimated with budget quotes from vendors. The remaining 12% of costs are estimated from consultant databases on precedent projects, or from factoring such items as freight and construction indirects from supply pricing. Over 70% of project costs have been provided by Newfoundland and Labrador ("NL") based vendors and contractors.

Mobile equipment and camp buildings are assumed to be lease financed with associated costs contained within sustaining capital estimates. Capital costs of \$44M for the Phase 2 (Gravity-Flotation-Leaching) expansion of the mill are financed internally out of cash flow at gold price assumptions above US\$1,460/oz.

The initial capital cost of \$305M (US\$229M) represents a 12% increase compared to the estimate contained within the April 2020 Pre-Feasibility Study. The total LOM capital cost of \$662M (US\$496M) represents an 18% increase compared to the previous estimate. These increases reflect inflationary trends in materials costs experienced in the first quarter of 2021 for items such as steel and lumber, as well as the provision of larger mobile equipment, increases in labour rate estimates within NL, increased G&A and project execution costs partly attributable to COVID-19 provisions, and an extension of the project construction and commissioning schedule from 18 to 22 months.

Table 5: Capital Costs

Item	Cost (C\$M)
Pre-strip Mining Capex	\$ 32
Mining	\$ 19
Process Plant	\$ 88
Infrastructure	\$ 54
Offsite Infrastructure	\$ 21
Contractor Indirects	\$ 16
Project Delivery	\$ 29
Owners Cost	\$ 15
Contingency	\$ 32
Total Initial Capital	\$ 305
Mill Expansion	\$ 40
Contingency	\$ 4
Mill Expansion Capital	\$ 44
Sustaining Capital, Mining	\$ 186
Sustaining Capital, Infrastructure	\$ 89
Closure	\$ 36
Salvage	\$ (20 )
Contingency	\$ 21
Total Sustaining Capital	\$ 312
Total	\$ 662

*Notes:*

1. See note on "Non-IFRS Financial Measures".
2. Columns may not sum exactly due to rounding.

Mine operating costs (Table 6) are estimated at \$2.55/t mined or \$20.44/t milled (LOM) based on an annual average mining rate of approximately 38 Mt. Mining costs reflect the relatively high strip ratios in the Marathon and Leprechaun pits and the relatively short haul distances for waste. Mining costs for selectively mined tonnes, along ore/waste boundaries, are estimated at \$3.11/t, comprised of \$3.63/t in ore and \$2.72/t in waste. Mining costs for bulk mined tonnes, which are to be mined with larger equipment with less stringent grade control practices, are estimated at \$2.42/t, comprised of \$3.15/t in ore and \$2.38/t in waste. Process-related costs (LOM) are estimated at \$12.51/t milled and G&A at \$4.58/t milled, for total site costs of \$37.52/t milled. Bullion transport and refinery charges are estimated at \$3.93/oz. A credit of \$9.32/oz has been estimated for payable silver content within dor?. Diesel costs are estimated at \$0.96/litre and power at \$0.063/kWh.

Overall LOM Total Cash Costs of US\$704/oz represent an increase of 11% compared to the estimate contained within the April 2020 Pre-Feasibility Study. This increase reflects similar trends in Q1 2021 bulk materials pricing and indirect costs such as labour that are reflected in the capital cost estimates. LOM AISC of US\$833/oz represent an increase of 13% compared to the April 2020 Pre-Feasibility Study, driven primarily by the increase in Total Cash Costs.

Table 6: Operating Costs

Item	Value	Units
Tonnes Mined, excluding pre-strip	376	Mt
Tonnes Milled, LOM	47	Mt
Payable Ounces	1.93	Moz
	\$ 962	C\$M
Mining Costs	\$ 2.55	C\$/tonne mined
	\$ 20.44	C\$/tonne milled
	\$ 589	C\$M
Processing & Water Treatment	\$ 12.51	C\$/tonne milled
	\$ 215	C\$M
G&A	\$ 4.58	C\$/tonne milled
	\$ 1,765	C\$M
Total	\$ 37.52	C\$/tonne milled
Off-Site Costs, Refining and Transport	\$ 8	C\$M
Silver Credit	\$ (18 )	C\$M
Royalties	\$ 58	C\$M
Total Cash Costs	\$ 704	US\$/oz
Sustaining Capital (excluding salvage)	\$ 332	C\$M
Total AISC <sup>note 2</sup>	\$ 833	US\$/oz

## Notes:

1. Columns may not sum exactly due to rounding.
2. AISC includes Cash Costs and Sustaining Capital, including closure costs; excludes salvage and corporate G&A.

## Financial Analysis

At a US\$1,500 gold price and a US\$:C\$ exchange of 0.75 the Project generates an after-tax NPV<sub>5%</sub> of \$600M, at a 5% discount rate, and IRR of 31.5% based on an effective cash tax rate of 30%. Payback on initial capital is 1.9 years. Before taxes, NPV<sub>5%</sub> is \$867M, IRR is 36.9%, and payback is 1.8 years. The Project's valuation is discounted to December 31, 2021.

LOM after-tax FCF is estimated at \$973M on an unlevered basis. Annual average after-tax FCF during the 10-year high-grade production period between 2024 and 2033 is estimated at \$119M.



Compared to the April 2020 Pre-Feasibility Study, after-tax NPV<sub>5%</sub> and after-tax LOM FCF have grown by 27% and 37% respectively, reflecting increased Mineral Reserves and mine life, increased metallurgical recoveries, and an increased gold price. IRR has decreased from 36.2% to 31.5% reflecting the higher up-front capital costs and extension of the construction schedule, partially offset by the items noted above.

At US\$1,750/oz gold the Project generates an after-tax NPV<sub>5%</sub> of \$868M and IRR of 42.2% (Table 7). The Project generates a 15% after-tax IRR at a gold price of US\$1,185/oz, more than US\$500/oz below the current spot price. The Project is most sensitive to revenue attributes such as gold price, head grade and exchange rate, followed by operating cost and capital cost (Table 8).

A 1.5% Net Smelter Royalty ("NSR") is applied to all gold production. In February 2019 the Company sold a 2% net smelter returns royalty on the Valentine Gold Project to Franco-Nevada Corp. The FS assumes the exercise of a right in favour of the Company to repurchase 0.5% of the NSR for US\$7M prior to December 31, 2022, the cost of which is excluded from the Project-level economic analysis.

Table 7: After-Tax Valuation Sensitivities to the Gold Price at a US\$:C\$ exchange of 0.75

Gold Price (US\$/oz)		\$1,250	\$1,350	\$1,450	\$1,500	\$1,550	\$1,650	\$1,750
Price Case		Downside			Base Case			Spot
	0%	\$579	\$739	\$894	\$973	\$1,052	\$1,205	\$1,351
	3%	\$403	\$537	\$663	\$727	\$792	\$915	\$1,033
	5%	\$313	\$432	\$544	\$600	\$657	\$765	\$868
NPV (C\$M)	8%	\$208	\$309	\$402	\$450	\$497	\$587	\$672
	10%	\$153	\$245	\$328	\$370	\$412	\$492	\$568
	15%	\$52	\$125	\$190	\$223	\$255	\$316	\$375
IRR		18.8%	24.4%	29.2%	31.5%	33.9%	38.1%	42.2%
NPV <sub>5%</sub> /Capex		1.0	1.4	1.8	2.0	2.2	2.5	2.8
Payback <sup>note 2</sup>	Years	5.4	3.8	3.3	1.9	1.7	1.5	1.4
Total FCF <sup>note 3</sup>	C\$M	\$579	\$739	\$894	\$973	\$1,052	\$1,205	\$1,351
Average Annual FCF <sup>note 4</sup>	C\$M	\$84	\$98	\$112	\$119	\$126	\$139	\$152

Notes:

1. See note on "Non-IFRS Financial Measures".
2. Payback is defined as achieving cumulative positive free cashflow after all cash costs and capital costs, including sustaining and expansion.
3. Calculated LOM, unlevered.
4. Calculated for the period 2024-2033 of sustained high grade mill feed, unlevered.

Table 8: After-Tax Valuation Sensitivity to Certain Operating Parameters (NPV<sub>5%</sub>, C\$M)

Factor		-20%	-10%	0%	10%	20%
Head Grade	IRR	15.9%	24.4%	31.5%	38.1%	44.2%
	NPV	\$249	\$432	\$600	\$765	\$920
Operating Cost	IRR	37.5%	34.7%	31.5%	28.2%	24.9%
	NPV	\$752	\$680	\$600	\$520	\$442
Initial Capital Cost	IRR	38.5%	34.7%	31.5%	28.9%	26.6%
	NPV	\$639	\$620	\$600	\$581	\$561
Mining Cost (C\$/t Mined)	IRR	35.6%	33.6%	31.5%	29.4%	27.3%
	NPV	\$690	\$646	\$600	\$554	\$510
\$C:\$US F/X	IRR	47.1%	38.8%	31.5%	25.0%	18.8%
	NPV	\$999	\$783	\$600	\$447	\$312

Notes:

1. See note on "Non-IFRS Financial Measures".

## Infrastructure and Facilities

The FS contains a revised site layout for the mill, primary crusher and related facilities to provide for a potential future open pit at the nearby Berry Zone, which is currently subject to ongoing exploration. The construction of the mill building structure will be based on pre-engineered components erected at site. The mine truck maintenance facility with 8 vehicle bays will be constructed in two phases as the mining fleet is expanded. Mine administrative buildings and a 300-person accommodation camp will be modular construction.

A water treatment plant will be located close to the mill facilities for process water management. Site water will be collected in a system of ditching and sedimentation ponds for treatment as required. The Tailings Management Facility ("TMF") design has been optimized since the April 2020 Pre-Feasibility Study, with a refined dam alignment for reduced height and fill requirements, a polishing pond located closer to the mill for efficient integration with the water treatment plant, and updated foundation and liner provisions following site geotechnical surveys in 2020. The TMF will have a design capacity of 30Mt and be constructed in six stages between 2022 and 2029. Thereafter, the (then) depleted Leprechaun Pit will receive the remaining 17Mt of tailings materials scheduled in the FS mine plan.

Cost provision has been made for the upgrading and widening of the current 80 km long access road from Millertown via Red Indian Lake, and upgrading several bridges. Site communications will be by way of sequenced microwave towers providing broadband connectivity. The FS contains a capital cost estimate provided by NL Hydro for a 66 kV transmission line from the nearby Star Lake Hydroelectric Generating Station and a related site sub-station. This power line, which is subject to a separate environmental assessment and permitting process being conducted by NL Hydro, is expected to be approximately 40 km long and follow existing road easements for most of its length. Peak power demand for Phase 1 mill processing at the Project (Gravity-Leach) is estimated at 17 MW, increasing to 20 MW following the Phase 2 mill expansion (Gravity-Flotation-Leaching).

## Environment, Permitting and Communities

The Valentine Gold Project is subject to regulation under the environmental protection regimes of the *Canadian Environmental Assessment Act, 2012* and the *Newfoundland and Labrador Environmental Protection Act*. On September 29, 2020, the Company filed an Environmental Impact Statement ("EIS") for the Project with the Impact Assessment Agency of Canada ("IAAC"), and the NL Department of Environment, Climate Change and Municipalities ("NLDECCM"). Following an initial 30-day review period, the IAAC assessed the EIS to be in conformity with federal guidelines issued in July 2019, and the EIS was accepted into the formal IAAC and NLDECCM technical review processes. These reviews are expected to occur over a period of approximately 12 months and include information requests and submissions, as well as public consultations.

The EIS has been authored by Marathon and Stantec of St. John's, NL, and utilizes extensive environmental baseline data collected at the Project site by Marathon and its consultants starting in 2011. It incorporates the results of a Current Land Use and Traditional Knowledge Study completed by the Qalipu Mi'kmaq First Nation, land and resource use information provided by the Miawpukek Mi'kmaq First Nation, and an independent economic assessment of the Project completed by Strategic Concepts Inc. of St. John's, NL. Starting in March 2019, and continuing through to the summer of 2020, a series of public meetings, engagements and information sessions on the Project were conducted with the Qalipu and Miawpukek Mi'kmaq First Nations, the communities of Millertown, Buchans, Buchans Junction, Badger, Grand Falls-Windsor and Bishop's Falls, and regional civil society groups. Feedback received from these sessions has been incorporated into the Project's planning and design process contained within the FS.

The EIS assesses the potential environmental and socio-economic effects of the Project in fifteen separate areas of study, including water and air quality, wildlife, vegetation and wetlands, fish and fish habitat, communities, Indigenous groups, and the regional and provincial economies. A particular focus of study has been delineating potential effects on water quality and fish habitat through the placement of the Project's infrastructure and facilities, and potential effects on the nearby Victoria Lake hydroelectric reservoir and dam. The EIS also describes the potential effects on migration of the Buchans caribou herd, which is known to transit seasonally through the area of the Project and is one of several herds located in the central region of NL. In each of the fifteen areas of study, the EIS assesses and characterises the potential effects from the

Project's development, and the mitigation measures to be adopted with the aim of reducing the Project's environmental footprint.

The project is expected to have a significant economic impact on Central Newfoundland. The FS estimates direct total taxation to provincial and federal authorities in excess of \$400M over the 13 year mine life, with direct employment peaking at over 400 persons. Strategic Concepts Inc. assessed that, based on the April 2020 Pre-Feasibility Study, the Project would create average annual employment (direct, indirect and induced) of nearly 1,300 person years in Canada, including an annual average of 725 person years within NL, it would generate approximately C\$1.3 billion in income to workers and businesses within Canada, including C\$750 million to workers and businesses located within NL, and it would contribute approximately C\$3.6 billion to Canada's gross domestic product ("GDP"), including C\$2.9 billion to NL's GDP.

In December 2020, Marathon announced the completion of Cooperation Agreements with each of the six Central Newfoundland communities within the immediate socio-economic impact of the Project. The agreements identify the interests of each community in employment, business opportunities, community investment, and environmental protection. Marathon is also currently engaged with the Qalipu and Miawpukek Mi'kmaq First Nations in areas of economic and employment participation and environmental protection. Additionally, Marathon is engaged with the Government of Newfoundland and Labrador on the completion of an NL Benefits Agreement, including a Gender Equity, Diversity and Inclusivity Plan, that would govern the period of mine construction, operation, and closure.

### Project Schedule

The Valentine Gold Project FS contemplates ground-breaking for site construction in January 2022, with a total 22-month construction period and first gold production by October 2023. This schedule is dependent upon the completion of the EA and the receipt of Federal and Provincial Ministerial Approval by the end of the third quarter of this year, and the receipt of sufficient site-specific permits to be able to commence construction. The reader is cautioned that while the FS has been developed with due consideration of potential impacts on cost and schedule from the ongoing COVID-19 challenges, any additional prolongation of COVID-related work restrictions, such as disruption to supply chains, travel, labour markets, work practices and permitting, amongst other factors, may materially impact the Project's execution schedule.

### NI 43-101 Technical Report

Marathon will file an updated Technical Report prepared in accordance with the requirements of National Instrument 43-101 - *Standards of Disclosure for Mineral Projects* ("NI 43-101") for the Valentine Gold Project FS including a description of the updated Mineral Resource Estimate.

### Qualified Persons

Disclosure of a scientific or technical nature in this news release has been approved by Mr. Tim Williams, FAusIMM, Chief Operating Officer of Marathon, Mr. Paolo Toscano, P.Eng. (Ont.), Vice President, Projects for Marathon, and Mr. James Powell, P.Eng. (NL), Vice President, Regulatory and Government Affairs for Marathon. Ms. Jessica Borysenko, P.Geo. (NL), Manager, GIS, is responsible for data quality assurance and control for Marathon. Mr. Williams and Ms. Borysenko have verified the data disclosed in this news release, including sampling, analytical and test data underlying the information it contains. This included a site inspection, drill database verification, and independent analytical testwork.

The Qualified Person responsible for the preparation of the November 2020 Valentine Gold Project Mineral Resource Estimate is Robert Farmer, P.Eng. of John T Boyd Company. The Qualified Person responsible for the preparation of the Mineral Reserves and mine planning is Marc Schulte, P.Eng., of Moose Mountain Technical Services. Roy Eccles, P.Geo., of APEX Geoscience Ltd. is the Qualified Person responsible for geological technical information including a QA/QC review of drilling and sampling data used in the Mineral Resource Estimate. Paul Staples P.Eng., of Ausenco Engineering Canada Inc. is the Qualified Person responsible for the design of the process plant and infrastructure, and financial modelling. Peter Merry, P.Eng., of Golder Associates Ltd. is the Qualified Person responsible for design of the TMF and its water management infrastructure. Sheldon Smith, P.Geo., of Stantec Consulting Ltd. is the Qualified Person responsible for site water balance and surface water management. Shawn Russell, P.Eng. and Carolyn Anstey-Moore, P.Geo of GEMTEC Consulting Engineers and Scientists Limited are the Qualified Persons

responsible for site wide geotechnical and hydrogeological considerations. Each of Mr. Farmer, Mr. Eccles, Mr. Staples, Mr. Schulte, Mr. Merry, Mr. Smith, Mr. Russell and Mrs. Anstey-Moore are considered to be "independent" of Marathon and the Valentine Gold Project for purposes of NI 43-101.

#### Non-IFRS Financial Measures

The Company has included certain non-IFRS financial measures in this news release, such as Initial Capital Cost, Total Cash Cost, AISC, Expansion Capital, Capital Intensity, EBITDA and Effective Cash Tax Rate which are not measures recognized under IFRS and do not have a standardized meaning prescribed by IFRS. As a result, these measures may not be comparable to similar measures reported by other corporations. Each of these measures are intended to provide additional information to the reader and should not be considered in isolation or as a substitute for measures prepared in accordance with IFRS.

Certain non-IFRS financial measures used in this news release and common to the gold mining industry are defined below.

#### *Total Cash Cost and Total Cash Cost per Ounce*

Total Cash Cost is reflective of the cost of production. Total Cash Cost reported in the FS include mining costs, processing & water treatment costs, general and administrative costs of the mine, off-site costs, refining costs, transportation costs and royalties. Total Cash Cost per Ounce is calculated as Total Cash Cost divided by payable gold ounces.

#### *All-in Sustaining Cost (AISC) and AISC per Ounce*

AISC is reflective of all of the expenditures that are required to produce an ounce of gold from operations. AISC reported in the FS includes total cash costs, sustaining capital, expansion capital and closure costs, but excludes corporate general and administrative costs and salvage. AISC per Ounce is calculated as AISC divided by payable gold ounces.

#### About Marathon

Marathon (TSX:MOZ) is a Toronto based gold company advancing its 100%-owned Valentine Gold Project located in the central region of Newfoundland and Labrador, one of the top mining jurisdictions in the world. The Project comprises a series of four mineralized deposits along a 20-kilometre system. A March 2021 Feasibility Study outlined an open pit mining and conventional milling operation over a thirteen-year mine life with a 30% after-tax rate of return. The Project has estimated Proven Mineral Reserves of 1.40 Moz (29.58 Mt at 1.46 g/t) and Probable Mineral Reserves of 0.65 Moz (17.38 Mt at 1.17 g/t). Total Measured Mineral Resources (inclusive of the Mineral Reserves) comprise 1.92 Moz (32.59 Mt at 1.83 g/t) with Indicated Mineral Resources (inclusive of the Mineral Reserves) of 1.22 Moz (24.07 Mt at 1.57 g/t). Additional Inferred Mineral Resources are 1.00 Moz (18.25 Mt at 1.70 g/t Au). Please see Marathon's Annual Information Form for the year ended December 31, 2020 and other filings made with Canadian securities regulatory authorities and available at [www.sedar.com](http://www.sedar.com) for further details and assumptions relating to the Valentine Gold Project.

#### About Ausenco

Ausenco is a global company based across 26 offices in 14 countries, with projects in over 80 locations worldwide. Combining deep technical expertise with a 30-year track record, Ausenco delivers innovative, value-add consulting studies, project delivery, asset operations and maintenance solutions to the mining & metals, oil & gas and industrial sectors.

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To find out more information on [Marathon Gold Corp.](http://www.marathon-gold.com) and the Valentine Gold Project, please visit [www.marathon-gold.com](http://www.marathon-gold.com).

#### Cautionary Statement Regarding Forward-Looking Information

*Certain information contained in this news release, constitutes forward-looking information within the meaning of Canadian securities laws ("forward-looking statements"). All statements in this news release, other than statements of historical fact, which address events, results, outcomes or developments that Marathon expects to occur are forward-looking statements. Forward-looking statements include statements that are predictive in nature, depend upon or refer to future events or conditions, or include words such as "expects", "anticipates", "plans", "believes", "estimates", "considers", "intends", "targets", or negative versions thereof and other similar expressions, or future or conditional verbs such as "may", "will", "should", "would" and "could". We provide forward-looking statements for the purpose of conveying information about our current expectations and plans relating to the future, and readers are cautioned that such statements may not be appropriate for other purposes. More particularly and without restriction, this news release contains forward-looking statements and information about the FS and the results therefrom (including IRR, NPV<sub>5%</sub>, Capex, FCF, AISC and other financial metrics), the realization of mineral reserve and mineral resource estimates, the future financial or operating performance of the Company and the Project, capital and operating costs, the ability of the Company to obtain all government approvals, permits and third-party consents in connection with the Company's exploration, development and operating activities, the potential impact of COVID-19 on the Company, the Company's ability to successfully advance the Project and anticipated benefits thereof, economic analyses for the Valentine Gold Project, processing and recovery estimates and strategies, future exploration and mine plans, objectives and expectations and corporate planning of Marathon, future environmental impact statements and the timetable for completion and content thereof and statements as to management's expectations with respect to, among other things, the matters and activities contemplated in this news release.*

*Forward-looking statements involve known and unknown risks, uncertainties and assumptions and accordingly, actual results and future events could differ materially from those expressed or implied in such statements. You are hence cautioned not to place undue reliance on forward-looking statements. In respect of the forward-looking statements concerning the interpretation of exploration results and the impact on the Project's mineral resource estimate, the Company has provided such statements in reliance on certain assumptions it believes are reasonable at this time, including assumptions as to the continuity of mineralization between drill holes. A mineral resource that is classified as "inferred" or "indicated" has a great amount of uncertainty as to its existence and economic and legal feasibility. It cannot be assumed that any or part of an "indicated mineral resource" or "inferred mineral resource" will ever be upgraded to a higher category of mineral resource. Investors are cautioned not to assume that all or any part of mineral deposits in these categories will ever be converted into proven and probable mineral reserves.*

*By its nature, this information is subject to inherent risks and uncertainties that may be general or specific and which give rise to the possibility that expectations, forecasts, predictions, projections or conclusions will not prove to be accurate, that assumptions may not be correct and that objectives, strategic goals and priorities will not be achieved. Factors that could cause future results or events to differ materially from current expectations expressed or implied by the forward-looking statements include risks and uncertainties relating to the interpretation of drill results, the geology, grade and continuity of mineral deposits and conclusions of economic evaluations; uncertainty as to estimation of mineral resources; inaccurate geological and metallurgical assumptions (including with respect to the size, grade and recoverability of mineral resources); the potential for delays or changes in plans in exploration or development projects or capital expenditures, or the completion of feasibility studies due to changes in logistical, technical or other factors; the possibility that future exploration, development, construction or mining results will not be consistent with the Company's expectations; risks related to the ability of the current exploration program to identify and expand mineral resources; risks relating to possible variations in grade, planned mining dilution and ore loss, or recovery rates and changes in project parameters as plans continue to be refined; operational mining and development risks, including risks related to accidents, equipment breakdowns, labour disputes (including work stoppages and strikes) or other unanticipated difficulties with or interruptions in exploration and development; risks related to the inherent uncertainty of production and cost estimates and the potential for unexpected costs and expenses; risks related to commodity and power prices, foreign*

*exchange rate fluctuations and changes in interest rates; the uncertainty of profitability based upon the cyclical nature of the mining industry; risks related to failure to obtain adequate financing on a timely basis and on acceptable terms or delays in obtaining governmental or other stakeholder approvals or in the completion of development or construction activities; risks related to environmental regulation and liability, government regulation and permitting; risks relating to the Company's ability to attract and retain skilled staff; risks relating to the timing of the receipt of regulatory and governmental approvals for continued operations and future development projects; political and regulatory risks associated with mining and exploration; risks relating to the potential impacts of the COVID-19 pandemic on the Company and the mining industry; changes in general economic conditions or conditions in the financial markets; and other risks described in Marathon's documents filed with Canadian securities regulatory authorities, including the Annual Information Form for the year ended December 31, 2020.*

*You can find further information with respect to these and other risks in Marathon's Annual Information Form for the year ended December 31, 2020 and other filings made with Canadian securities regulatory authorities available at [www.sedar.com](http://www.sedar.com). Other than as specifically required by law, Marathon undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made, or to reflect the occurrence of unanticipated events, whether as a result of new information, future events or results otherwise.*

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