

Marathon Gold Announces Substantial Improvements in Updated PEA with 44% Increase in Recovered Gold, at the Valentine Lake Gold Camp, Newfoundland

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TORONTO, Oct. 30, 2018 - [Marathon Gold Corp.](#) ("Marathon" or the "Company") (TSX: MOZ) is pleased to announce the excellent results from an updated independent Preliminary Economic Assessment study ("PEA") on its 100% owned Valentine Lake Gold Camp that was led by John T. Boyd Company and Lycopodium Minerals Canada. The new PEA optimizes the development of the Valentine Lake Gold Camp mineral resource by open pit mining, and gold recovery by a combination of a milling circuit and heap leaching, incorporating gravity and flotation circuits with leaching of the concentrate and tails. The study is based on an initial 12-year mine life and produced an after- tax Net Present Value ("NPV") of \$493 million using a 5% discount rate. The financial model shows an after- tax Internal Rate of Return ("IRR") of 30% and a capital payback period of 2.5 years. All dollar figures are reported in US\$ and after-tax unless stated otherwise.

Valentine Lake Gold Camp Annual Gold Production

Production Schedule

NPV Sensitivity, Pre-Tax

IRR Sensitivity, Pre-Tax

Table 1 - PEA Summary

	October 2018	May 2018	Change
Preproduction Capital	\$355 Million	\$380 Million	-\$25 Million
Pre-Tax NPV (5%)	\$834 Million	\$ 597 Million	+\$ 237 Million
Pre-Tax IRR	44%	34%	+10%
After-Tax NPV (5%)	\$493 Million	\$367 Million	+\$126 Million
After- Tax IRR	30%	25%	+5%
Pre-Tax Payback Period	1.7 years	2.3 years	-0.6 years
After-Tax Payback Period	2.5 years	2.8 years	-0.3 years
Mine Life	12.2 years	10.2 years	+2 years
Recovered Gold Ounces	2,723,300	1,896,300	+827,000
Average Annual Production	225,100 ounces (12-year average)	188,500 ounces (10-year average)	+68,000 ounces (12 year average)
LOM Average Cash Cost	\$603 per ounce	\$557 per ounce	+\$46 per ounce
LOM Average AISC ‐ All in Sustaining Costs	\$666 per ounce	\$595 per ounce	+\$71 per ounce

Throughput (tonnes per day) – Mill and Heap Leach	9,000 tpd and 9,000 tpd	7,500 tpd and 9,000 tpd	+1,500 tpd to the mill
Mill Grade & Recovery	2.2 g/t / 95%	2.2 g/t / 95%	-
Heap Leach Grade & Recovery	0.5 g/t / 59%	0.5 g/t / 53%	+6% recovery
Initial Production	2022	2022	
Gold Price	\$1,250 / oz Au	\$1,250 / oz Au	
FX Rate (CDN\$/US\$)	\$0.769	\$0.787	-\$0.018

“This updated study has benefited from 20,000 meters of additional drilling since February 2018, 9,000 metallic screen assays on historical drill core since the last PEA resource, and an internal review of the project. For example, initial and sustaining capital costs have been cut by leasing the mining fleet instead of purchasing it. The very positive improvements in production and mine life are attributable to this year’s successful drilling program to extend the open pit resources at the Marathon Deposit, a major gold deposit that continues to grow thereby driving expansion of the project. Early near-surface higher grade resources with a low strip ratio at the Marathon Deposit enable high gold production in the early years of the operation and a fast payback of capital. The PEA has capitalized on several opportunities identified in the May 18, 2018 PEA, and there is still room for further improvements to the mine plan and economics for the 2019 Preliminary Feasibility Study.

“The metallurgical program to improve recoveries is in progress. 2018 Marathon Deposit drill results has substantiated a modeled extension of the open pit to the southwest, 2019 drilling will focus on drilling at both the Marathon and Sprite Deposits to attempt to expand the extended mineralization, and because of the short haul to the mill and heap leach pad. The Marathon Deposit has the potential to develop an underground mine but for now it is more cost effective to find open pit resources at \$10 per new ounce rather than more costly underground resources,” said Phillip Walford, President and CEO of Marathon.

Figure 1 - Valentine Lake Gold Camp Annual Gold Production

<http://www.globenewswire.com/NewsRoom/AttachmentNg/b1dab561-ed2e-4b11-9f2e-932ab6f07793>

Description of the Valentine Lake Project and PEA

The PEA was developed by a team of independent consultants, including Lycopodium Minerals Canada Ltd. (“Lycopodium”), John T Boyd Company (“Boyd”), Apex Geoscience Ltd. and Stantec Consulting Ltd (“Stantec”).

The Valentine Lake Project (“The Project”) is composed of four deposits: Marathon, Leprechaun, Victory and Sprite. The mineral resource estimate was updated on October 9th, 2018 and the results are shown in Table 8. The Sprite Deposit was excluded from mine development planning until additional exploration drilling has increased the resource. For the Marathon, Leprechaun and Victory deposits, standard surface mining techniques will be utilized to develop three open pit mining areas.

The ultimate pit designs developed for the Valentine Lake Project are based on the results of Whittle pit optimization work. The three mining areas will be developed using a total of 17 distinct mining phases designed to approximate the optimal extraction sequence. Pit design parameters, such as wall slope angles and bench dimensions, were provided by Stantec. A mine production schedule for the entire complex was prepared by Boyd using Maptek’s Chronos scheduling software.

The Valentine Lake Project consists of two gold recovery operations: A Milling/Flotation/Carbon in Leach plant (“Mill”) and a Heap Leach plant. The Mill will process 3.0 Mtpa of high-grade mineralized material. The plant will consist of crushing, milling, gravity recovery, flotation of gravity tails, flotation concentrate regrind, cyanidation leaching of both flotation concentrate and flotation tailings via a CIL circuit, carbon elution and gold recovery circuit. CIL tails will be treated for cyanide destruction and disposed of as tails in the tailings storage facility.

The Heap Leach pad will process 3.0 Mtpa of low-grade mineralized material from open pit operations and will consist of crushing, heap leaching and carbon-in-column gold adsorption. The loaded carbon from the Heap Leach facility will be sent to the Mill facility for gold recovery.

Table 2 – Production Schedule

<http://www.globenewswire.com/NewsRoom/AttachmentNg/f75203ee-de89-4d96-93b1-5550417e4e5d>

Cashflow Analysis

The results of the discounted cash flow analysis are presented in Tables 3 and 4 below. NPV, IRR and payback values for the Project are estimated on a pre-tax and after-tax basis. The base case scenario assumes a long-term gold price of US\$1,250 per ounce and a discount rate of 5%. The gold price sensitivity on a pre-tax and after-tax basis demonstrates the significant potential increase in the NPV and IRR of the Project should the gold price trade in a range of US\$1,300 to US\$1,350 per ounce.

Table 3 – Pre-tax Cashflow and NPV Gold Price Sensitivity

			October 2018 PEA	May 2018 PEA	Improvement
Life of Mine	Years		12.2	10.2	
AISC – All in Sustaining Costs	\$/oz.		\$666	\$595	
Pre-tax Pay-back & Cashflow	Pay-back Years		Cashflow US\$ Million	Cashflow US\$ Million	Change US\$ Million
Gold Price	\$1,200 1.9		\$1,116.5	\$774.6	\$341.9
Gold Price	\$1,250 1.7		\$1,252.7	\$869.4	\$383.2
Gold Price	\$1,300 1.5		\$1,388.8	\$964.3	\$424.6
Gold Price	\$1,350 1.4		\$1,525.0	\$1,059.1	\$465.9
Pre-tax IRR & NPV @ 5%	IRR		NPV @ 5% US\$	NPV @ 5% CDN\$	Change US\$ Million
Gold Price	\$1,200 39%		\$731.4	\$522.3	\$209.1
Gold Price	\$1,250 44%		\$833.7	\$596.8	\$236.9
Gold Price	\$1,300 49%		\$936.1	\$671.3	\$264.8
Gold Price	\$1,350 54%		\$1,038.4	\$745.8	\$292.6

Table 4 – After-tax Cashflow and NPV Gold Price Sensitivity

			October 2018 PEA Improvement
After-tax Pay-back & Cashflow	Pay-back Years		Cashflow US\$ Million
Gold Price	\$1,200 2.8		\$807.0
Gold Price	\$1,250 2.5		\$760.8
Gold Price	\$1,300 2.2		\$656.0
Gold Price	\$1,350 2.0		\$605.0
Post-tax IRR & NPV @ 5%	IRR		NPV @ 5% US\$ Million
Gold Price	\$1,200 27%		\$ 292.2
Gold Price	\$1,250 30%		\$ 306.2
Gold Price	\$1,300 33%		\$ 508.0
Gold Price	\$1,350 36%		\$ 652.0

After-tax cash flows reflect the impact of the Newfoundland Mining Tax, calculated based on 15% of net income from mine operations and a combined Federal and Provincial income tax rate of 30%.

Operating Cost

The PEA estimates that the Project will produce approximately 2,723,000 ounces of gold during the life of the Project, or an average of 225,100 ounces per year for years 1 to 12.

Mine operating costs were calculated from first principles using vendor-supplied estimates and Boyd's experience with similar mining operations. Fuel costs were calculated based on vendor-provided fuel consumption and a vendor quote for diesel of US\$0.94/l. Over the life of the Project, overall mining operating costs, excluding rehandle, are estimated to be US\$2.10/tonne of waste plus processed mineralized material or \$14.45 per tonne of processed mineralized material. Mine operating costs increased by 27% compared to the May 2018 PEA due to increase in haul distance and an additional allowance for winter hauling conditions.

The process plant operating costs were developed by Lycopodium based on a design processing rate of 3.0 Mtpa of material for the milling circuit and 3.0 Mtpa of material for the heap leach circuit. Both circuits will normally operate 24 hours/day, and 365 days/year with 75% (6,570 hours/year) crushing plant availability and 91.3% plant utilization (nominal 8,000 hours/year operation). The process operating costs for the Project have been developed in detail according to typical industry standards applicable to gold ore processing plants.

The operating cost estimates are expressed in US\$ in Q3 2018 terms and have an overall accuracy of +/-25%.

Contingency

No contingency was specified for the operating cost estimate as most costs were derived from first principles, based on metallurgical test work, reagent and consumable pricing, and industry standards.

Details of the estimated operating costs and other charges are presented in Table 5 below.

Table 5 – Operating Cost

Cost Centre	Total Operating Cost Proportion of US\$/tonne of Material
Plant: Milling ⁽¹⁾	
Operating Consumables ⁽³⁾	\$2,368,000
Plant Maintenance	\$1,539,000
Power ⁽⁴⁾	\$1,844,000
Laboratory	\$820,000
Labour (O & M)	\$1,144,000
Subtotal Milling	\$3,502,000
Plant: Heap Leach ⁽²⁾	
Operating Consumables	\$1,236,000
Plant Maintenance	\$725,000
Power	\$692,000
Laboratory	\$220,000
Labour (O & M)	\$1,199,000
Subtotal Heap Leach	\$2,036,000
Common	
Labour (G & A)	\$700,000
G&A - Expenses	\$492,000
Plant Maintenance	\$331,000
Permanent Camp Catering	\$230,000
Permanent Camp Power	\$92,000
Subtotal Common Plant	\$502,000
Subtotal Plant Operating Cost	\$7,070,000

Mining	
Average of years 1 to 12	\$10,263,000
Subtotal Mine Operating Section Cost	\$10,263,000
Water Treatment Plant	
Plant Maintenance	\$100,000
Labour (O & M)	\$234,000
Power	\$0,000
Others including power and Consumables	\$722,000
Subtotal Water Treatment Plant	\$1,056,000
Grand Total Operating Cost	\$20,494,000

Notes:

1. \$/t is based on mill throughput of 3.0 Mtpa.
2. \$/t is based on heap leach throughput of 3.0 Mtpa.
3. Includes consumables for common elution, carbon regeneration & gold room areas.
4. Includes power for elution and carbon regeneration of carbon from heap leach and mill, gold room, and mine surface loads
5. Figures are rounded, and totals may not add correctly

Capital Cost

The capital cost estimate was based on an engineering, procurement and construction management (“EPCM”) implementation approach and typical construction contract packaging.

Equipment pricing was based on quotations and actual equipment costs from recent similar Lycopodium projects considered representative of the Project.

All costs are expressed in US\$ unless otherwise stated and are based on the Q3 2018 pricing. The estimate is deemed to have an accuracy of +/- 35%. The capital cost estimate conforms to AACEI (Association for the Advancement of Cost Engineering International) Class 4 estimate standards as prescribed in recommended practice 47R11.

Contingency

Contingencies were applied to the capital cost estimate on a line-by-line basis as an allowance by assessing the level of confidence in the engineering, estimate basis and vendor or contractor information. The contingencies do not cover scope changes, design growth, or the listed qualifications and exclusions. The resultant contingency for the capital estimate is 15% before taxes and duties.

Table 6 &ndash; Capital Estimate Summary by Area

Area	Total Inc. Project Contingency USD
Construction Indirects	\$ 21,257,000
Treatment Plant Costs - Heap Leach Circuit	\$ 47,626,000
Treatment Plant Costs - Milling Circuit	\$ 92,739,000
Reagents & Plant Services - Heap Leach Circuit	\$ 4,030,000
Reagents & Plant Services - Milling Circuit	\$ 21,355,000
Infrastructure	\$ 73,192,000
Mining Equipment (Leased) and Facilities	\$ 39,108,000
Mining Preproduction	\$ 17,123,000
Management Costs	\$ 22,434,000

Owners Project Costs	\$ 16,440,000
Total Capex	\$ 355,303,000

Sensitivities

As indicated in Figures 2 and 3 and Table 7, project cashflow and NPV are particularly sensitive to changes in the price of gold and operating costs, while relatively less sensitive to changes in recovery and capital expenditures. The table below shows the effect on the pre-tax economics of the Project increasing or decreasing the price of gold, closure costs and mill and heap leach recovery estimates by up to +/- 10%. Capital and operating costs were varied by +/-35%.

Figure 2 – NPV Sensitivity, Pre-Tax

<http://www.globenewswire.com/NewsRoom/AttachmentNg/d411e0c4-d254-4b9f-bdb0-46725bbb4f92>

Figure 3 – IRR Sensitivity, Pre-Tax

<http://www.globenewswire.com/NewsRoom/AttachmentNg/6d0c861a-52aa-45d9-bbaf-a505e79541db>

Table 7 – Sensitivities, Pre-Tax

Gold Price		NPV	IRR	Payback (Years)
-10	%	\$ 577,820,000	32 %	2.40
0	%	\$ 833,706,000	44 %	1.68
10	%	\$ 1,089,591,000	56 %	1.34
CAPEX		NPV	IRR	Payback (Years)
-35	%	\$ 996,492,000	80 %	0.92
0	%	\$ 833,706,000	44 %	1.68
35	%	\$ 670,920,000	28 %	3.00
OPEX		NPV	IRR	Payback (Years)
-35	%	\$ 1,267,486,000	64 %	1.24
0	%	\$ 833,706,000	44 %	1.68
35	%	\$ 399,925,000	24 %	3.27
Mill Recovery		NPV	IRR	Payback (Years)
-2	%	\$ 788,963,000	42 %	1.76
0	%	\$ 833,706,000	44 %	1.68
2	%	\$ 878,449,000	46 %	1.61
Heap Leach Recovery		NPV	IRR	Payback (Years)
-10	%	\$ 801,905,000	43 %	1.72
0	%	\$ 833,706,000	44 %	1.68
10	%	\$ 865,506,000	45 %	1.65
Closure Costs		NPV	IRR	Payback (Years)
-10	%	\$ 835,773,000	44 %	1.68
0	%	\$ 833,706,000	44 %	1.68
10	%	\$ 831,639,000	44 %	1.69

Opportunities for Project Enhancement

The PEA identified several areas where additional work will advance the Project and reduce risk. The major

focus of the work planned for 2019 is summarized below:

- The drilling program at the Marathon Deposit will involve step-out drilling to expand open pit resource along strike to the southwest and infill drilling to reduce inferred resources in the pit shell. Exploration drilling at the Sprite Deposit will continue to extend the mineralized zone northeast towards the Marathon Deposit.
- The underground resource has not been utilized in the PEA. Infill drilling will improve the continuity of the underground mineralization. This could contribute an additional ounces to be extracted using underground mining methods.
- Additional hydrogeological and geotechnical work will enable better open pit and underground designs.
- Extensive metallurgical testing for the mill and the heap leach started in September 2018 at SGS-Lakefield. Early results from crushed ore bottle roll (COBR) and column tests are encouraging and confirm results of test work conducted by Thibault & Associates in 2015 and 2016. The results of the test work by SGS may improve recoveries and will be included in the pre-feasibility study scheduled for 2019.
- Options such as high-pressure grinding rolls ("HPGR") ahead of the heap leach and a coarser grind in the mill could also have the potential to reduce operating costs.
- Ongoing engineering studies and permitting will continue to de-risk the Project in the future. A Pre-Feasibility is scheduled to be completed in 2019. This work will include a detailed permitting plan which includes environmental work for an Environmental Assessment study.

Mineral Resource Estimate October 30, 2018

The project resources have increased from the previous PEA, May 18, 2019 as a result of 20,000 m of additional drilling and as a result of the addition of 9,000 metallic screen assays that are used for better measurement of coarse gold which is common on the property. Overall, all classes of resource increased significantly.

The Measured and Indicated resource tonnes increased by 35% to 45,146,000 tonnes, the grade declined by 7% to 1.854 grams per tonne and the total contained ounces Au increased by 26% to 2,691,400 ounces Au. The Inferred resource tonnes increased by 55 % to 26,856,000 tonnes, the grade decreased by 11% to 1.774 and the contained ounces Au increased by 30% to 1,531,600 ounces Au.

The slight decline in grade is not attributed to any one factor. There is a slight decrease in the bottom cut for heap leach material, there is slight reduction in the variography of the higher-grade material and we are adding slight lower grade material on the fringes of the Marathon deposit.

The increase in Inferred resource is coming from infill holes at the Marathon Deposit and step out holes to the southwest of the Marathon Deposit which are extending the resource towards the Sprite Deposit.

Additional drilling in 2019 will focus on extending the higher-grade zones in the pit shells as well as infilling open material to move Inferred resources into Indicated and Measured resources.

Table 8 - Mineral Resource Estimate

Material/
Category

Leprechaun Deposit

Measured

Indicated

M+I

Inferred

Sprite Deposit
Measured
Indicated
M+I
Inferred
Marathon Deposit
Measured
Indicated
M+I
Inferred
Victory Deposit
Measured
Indicated
M+I
Inferred
All Deposits
Measured
Indicated
M+I
Inferred

Notes:

1. The effective date for this mineral resource estimate for Sprite, and Victory is November 27, 2017 and is reported on

1. Mineral Resources are calculated at a gold price of US\$1,250 per troy ounce.

1. The open pit mineral resources presented above use an economic pit shell to determine material available for op

1. Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of r

1. The mineral resources presented here were estimated using a block model with a block size of 6 m by 6 m by 6 m

1. The mineral resources presented here were estimated using the Canadian Institute of Mining, Metallurgy and Pe

1. Figures are rounded, and totals may not add correctly.

Report Filing

The technical report prepared in accordance with National Instrument 43-101 will be filed on SEDAR and the Company's website within two weeks of this news release.

Qualified Persons

This news release has been reviewed and approved by the Qualified Persons noted below. The Qualified

Persons have reviewed or verified all information for which they are individually responsible, including sampling, analytical, and test results underlying the information or opinions contained herein.

- Neil Lincoln, P.Eng. - Lycopodium Minerals Canada Ltd.: processing, infrastructure, capital and operating cost estimates, economic evaluation and report compilation.
- Robert Farmer, P.Eng. - John T Boyd Company: mineral resource estimates, mining methods, mining capital and mining operating costs.
- Roy Eccles, P.Geo. - Apex Geoscience Ltd.: geology, exploration, drilling, sample preparation and data verification.
- Paul Deering, P.Eng. - Stantec Consulting Ltd. & environmental & social studies, geotechnical, tailings storage facility and heap leach pad design.

Cautionary Statement

The PEA was prepared in accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101"). Readers are cautioned that the PEA is preliminary in nature. It includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

Conference Call Details

Marathon Gold is hosting a Management Information Call on Tuesday, October 30, 2018 at 10:00 am Eastern time (11:30 pm Newfoundland time and 7:00 am Pacific time) with the Marathon Gold executive team to discuss the results of the PEA and the way forward.

Participants:

Toll-free dial-in number (Canada/US): 1-800-952-5114

Local dial-in number: 416-641-6104

International dial-in numbers: <https://www.conf solutions.ca/ILT?oss=7P1R8009525114>

Participant passcode: 3598476#

About Marathon

Marathon is a Toronto based gold exploration company rapidly advancing its 100% owned Valentine Lake Gold Camp located in Newfoundland, one of the top mining jurisdictions in the world. The Valentine Lake Gold Camp currently hosts four near-surface, mainly pit-shell constrained, deposits with measured and indicated resources totaling 2,691,400 oz. of gold at 1.85 g/t and inferred resources totaling 1,531,600 oz. of gold at 1.77 g/t. The majority of the resources occur in the Marathon and Leprechaun deposits, which also have resources below the pit shell. Both deposits are open to depth and on strike. Gold mineralization has been traced down over 350 metres vertically at Leprechaun and almost a kilometer at Marathon. The four deposits outlined to date occur over a 20-kilometer system of gold bearing veins, with much of the 24,000-hectare property having had little detailed exploration activity to date.

The Valentine Lake Gold Camp is accessible by year-round road and is located in close proximity to Newfoundland's electrical grid. Marathon maintains a 50-person all-season camp at the property. Recent metallurgical tests have demonstrated 93% to 98% recoveries via conventional milling and 50% to 70% recoveries via low cost heap leaching at both the Leprechaun and Marathon Deposits.

To find out more information on the Valentine Lake Gold Camp please visit www.marathon-gold.com.

For more information, please contact:

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

Except for statements of historical fact relating to [Marathon Gold Corp.](#), certain information contained herein constitutes "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", "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. 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. These risks and uncertainties include but are not limited to those identified and reported in [Marathon Gold Corp.](#)'s public filings, which may be accessed at www.sedar.com. Other than as specifically required by law, we undertake 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, results or otherwise.

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