

O3 Mining Delivers Maiden Mineral Resource Estimate for Malartic H

TSXV:OIII | OTCQX:OIIIIF – O3 Mining

Toronto, June 20, 2023 – O3 Mining Inc. (TSX.V: OIII; OTCQX: OIIIIF) ("O3 Mining" or the "Corporation") is pleased to announce the results of the maiden mineral resource estimate ("MRE") on our-100% owned Malartic H gold deposit at Marban, Val-d'Or Quebec, Canada: 342,000 ounces ("oz") grading 1.04 grams per tonne ("g/t") of gold ("Au") in the inferred mineral resource category.

Highlights:

- Open-pit inferred mineral resource estimate of **342,000 oz Au grading 1.04 g/t**. Malartic H is located within five kilometres of the proposed processing plant described in the Marban PFS (as defined herein)
- The MRE is based on approximately **29,000 metres of drilling in 103 holes**, including 8,036 metres in 25 holes completed by O3 Mining in March 2022 and from January to March 2023
- **Significant exploration potential** as Malartic H is located between the northwestern extensions of the Marbenite and Norbenite shears, which host most of the mineral resource estimate on the Marban Engineering Project described in the Marban PFS
- The Malartic H deposit remains partially open laterally and completely open at depth

O3 Mining President and Chief Executive Officer, Mr. José Vizquerra, commented: *"The positive results of this maiden MRE on Malartic H is an exciting milestone for O3 Mining, as it shows the potential for the Malartic H deposit to grow both laterally and at depth. We are excited about the results of our winter drilling campaign and remain hopeful that additional infill drilling could allow us to grow the deposit and demonstrate the robustness of the Marban Engineering Project."*

Table 1: Malartic H – Mineral Resource Estimate

Category	Deposit	Tonnage	Gold Grade	Gold Content
		kt	g/t	koz
Inferred	Malartic H – Open-Pit	10,203	1.04	342
	Total	10,203	1.04	342

Notes:

1. The MRE described above has been prepared in accordance with the CIM Standards (Canadian Institute of Mining, Metallurgy and Petroleum, 2014) and follow Best Practices outlined by the CIM (2019).
2. The "qualified person" (for purposes of National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101")) for this MRE is Christian Beaulieu, P.Geo., consultant for G Mining Services Inc. ("G Mining"). Mr. Beaulieu is a member of l'Ordre des géologues du Québec (#1072) and is considered to be "independent" of the Corporation within the meaning of Section 1.5 of NI 43-101.
3. The effective date of the MRE is June 7, 2023.
4. The lowest cut-off grade used to report open-pit mineral resources is 0.30 g/t Au.

5. This MRE on Malartic H has been classified as an inferred mineral resource estimate according to drilling spacing and confidence in the geological interpretation. No measured mineral resource or indicated mineral resources have been estimated on Malartic H.

6. The density in this MRE has been applied based on measurements taken on drill core and assigned in the block model by lithology.

7. A minimum thickness of 3 metres was used when interpreting the mineralized bodies.

8. This MRE is based on subblock models with a main block size of 5 metres x 5 metres x 5 metres, with subblocks of 2.5 metres x 2.5 metres x 2.5 metres, and has been reported inside an optimized pit shell using a gold price of US\$1,900/oz and claim boundaries held by O3 Mining

9. Tonnage has been expressed in the metric system, and gold metal content has been expressed in troy ounces.

10. The tonnages have been rounded to the nearest thousandth tonne and the metal content has been rounded to the nearest thousandth ounce. Totals may not sum due to rounding errors.

11. Mineral resources are not mineral reserves as they have not demonstrated economic viability. The quantity and grade of reported inferred mineral resources in this news release are uncertain in nature and there has been insufficient exploration to define these resources as indicated mineral resources or measured mineral resources. There is a reasonable basis for determining that inferred mineral resources could be upgraded to indicated mineral resources with continued exploration.

Table 2: Malartic H – Mineral Resource Sensitivity to Cut-Off Grade

Category	Cut-off g/t	Tonnage Kt	Gold Grade g/t	Gold Content Koz
Inferred	0.25	11,096	0.98	349
	0.30	10,203	1.04	342
	0.40	8,568	1.17	323
	0.50	7,356	1.29	306

* Constrained by the optimized pit shell.

The tonnages and grades at differing cut-offs shown above are for comparison purposes only and do not constitute an official mineral resource estimate.

New In-Pit Resources in addition to the 2022 PFS Resources of Marban

The MRE on Malartic H shown in **Table 1** includes approximately 29,000 metres of drilling in 103 holes, including 8,036 metres in 25 holes completed by O3 Mining in March 2022 and from January to March 2023. The MRE was independently prepared by G Mining in accordance with NI 43-101, with an effective date of June 7, 2023, and using a database current as of May 31, 2023.

The Malartic H deposit is a separate asset from our Marban Engineering Project. To that end, the Corporation does not consider Malartic H to be a material project of O3 Mining for purposes of NI 43-101 and, consequently, the Corporation will not be publishing a technical report in respect of the MRE on Malartic H in accordance with NI 43-101.

The mineral reserve estimate on the Marban Engineering Project, as summarized in the **Table 3**, remains current in accordance with the technical report entitled "NI 43-101 Pre-feasibility Study of the Marban Engineering Project" and dated October 7, 2022 (with an effective date of August 17, 2022), prepared for O3 Mining by Ausenco Engineering Canada Inc. with the assistance of G Mining and WSP Canada (the "Marban PFS"). The mineral reserve estimate for the Marban Engineering Project is included within the mineral resource estimate for the Marban Engineering Project, with such mineral resource estimate for the Marban Engineering Project summarized in the **Table 4**, which also includes the results of the MRE on Malartic H described in this news release.

Table 3: Marban Engineering Project – Mineral Reserve Estimate

Category	Tonnage (kt)	Grade (Au g/t)	Contained Gold (Koz)
Proven	-	-	-
Probable	56,437	0.91	1,647
Proven and Probable	56,437	0.91	1,647

Notes:

1. The mineral reserve estimate described above has been prepared in accordance with the CIM Standards (Canadian Institute of Mining, Metallurgy and Petroleum, 2014) and follow Best Practices outlined by the CIM (2019).
2. The "qualified person" (for purposes of NI 43-101) for this mineral reserve estimate is Mr. Carl Michaud, Eng. M.B.A., Vice President of Mining Engineering for GMS. Mr. Michaud is considered to be "independent" of the Corporation within the meaning of Section 1.5 of NI 43-101.
3. The effective date for the Marban PFS is August 17, 2022.
4. Mineral reserve estimate calculated using a long-term gold price of US\$ 1,600/oz.
5. Mineral reserve estimate calculated using a cut-off grade is 0.3 g Au/t for all materials.
6. A dilution skin width of 1 metre was considered resulting in an average mining dilution of 5.4%.
7. The average strip ratio is 5.07:1.
8. Numbers may not sum due to rounding.
9. The mineral reserve estimate is included within the mineral resource estimate.

Table 4: Updated Mineral Resource Estimate by Deposit

DEPOSIT	INDICATED			INFERRED		
	Tonnes (kt)	Gold (g/t)	Ounces (koz)	Tonnes (kt)	Gold (g/t)	Ounces (koz)
Marban – Open-Pit ^(*)	52,437	1.03	1,736	1,038	0.97	32
Kierens-Norlartic – Open-Pit ^(*)	14,795	1.22	582	1,068	1.42	49
Malartic H Open-Pit ^(**)	0	-	0	10,203	1.04	342
Total Open-Pit	67,232	1.07	2,318	12,309	1.07	422
Marban – UG ^(*)	162	4.47	23	860	4.43	123
Kierens-Norlartic – UG ^(*)	297	3.36	32	182	3.36	20
Total – UG	460	3.75	55	1,043	4.25	142
Total – Open-Pit and UG	67,692	1.09	2,374	13,352	1.56	565

The tonnages have been rounded to the nearest thousandth tonne and the metal content has been rounded to the nearest thousandth ounce.

(*) Notes about the Marban and Kierens-Norlartic resources:

1. The mineral resource estimates described above have been prepared in accordance with the CIM Standards (Canadian Institute of Mining, Metallurgy and Petroleum, 2014) and follow Best Practices outlined by the CIM (2019).
2. The "qualified person" (for purposes of NI 43-101) for this mineral resource estimate is James Purchase, P. Geo of G Mining. Mr. Purchase is a member of L'Ordre des Géologues du Québec (#2082) and is considered to be "independent" of the Corporation within the meaning of Section 1.5 of NI 43-101.
3. The effective date of the mineral resource estimate is February 27, 2022.

4. *The lowest cut-off grade used to report open-pit mineral resources is 0.30 g/t Au. Underground mineral resources have been reported using a 3.0 g/t lower cut-off at Marban, and a 2.5 g/t lower cut-off at Kierens-Norlartic.*
5. *The Marban and Kierens-Norlartic deposits have indicated mineral resources and inferred mineral resources, but no measured mineral resources have been estimated in respect of such deposits. Underground mineral resources have been categorized manually to remove isolated areas and have been reported using a 3 metre minimum thickness.*
6. *Known underground work has been incorporated into the block model, and zero density has been assigned to the blocks located within the voids.*
7. *The density has been applied based on measurements taken on drill core and assigned in the block model by lithology.*
8. *In general, a minimum thickness of 3 metres was used when interpreting the mineralized bodies.*
9. *The MRE is based on subblock models with a main block size of 5 metres x 5 metres x 5 metres, with subblocks of 2.5 metres x 2.5 metres x 2.5 metres.*
10. *Tonnage have been expressed in the metric system, and gold metal content has been expressed in troy ounces.*

() Notes about the Malartic H resources:**

1. *Please refer to the notes under the Table 1: Malartic H Deposit Mineral Resource Estimate for the Malartic H resources.*

A significant portion of the MRE on Malartic H (approximately 80%) is contained in eight stacked zones within a 225-meter-wide corridor starting at surface and covering an area of approximately 240 meters vertical by 500 meters wide. These zones have a true thickness from 3 to 6 meters in average, and locally up to 10 meters.

The qualified person for the MRE on Malartic H is not aware of any factors or issues that could materially affect such MRE other than normal risks faced by mining projects in the province in terms of environmental, permitting, taxation, socio-economic, marketing, and political factors, and additional risk factors regarding inferred resources.

The mineral resource was prepared using assays sourced from diamond drilling samples with interval lengths varying between 0.5 metres to 1.5 metres. Wireframes representing mineralization were produced using a nominal cut-off of 0.3 g/t, with a minimum thickness of 3 metres. Assay capping thresholds were chosen based on cumulative probability plots, coefficient of variations and 3D inspection of high-grades. Cut-off grades were applied by zone and vary between 6 g/t Au and 15 g/t Au. The block model was constructed using 5 metre x 5 metre x 5 metre parent blocks, with 2.5 metre x 2.5 metre x 2.5 metre subblocks. Gold grades were interpolated with 1.5 metre composites using Inverse Distance Cubed (ID3) using a three-pass strategy. Where warranted, an additional capping of 4 g/t Au or 5 g/t Au was applied during the interpolation of later estimation passes to restrict the influence of high grades (high-grade restraining). The block model was classified as Inferred category based on the distance to drilling and confidence in the geological model. The block model was reported within an optimized pit shell using a gold price of US\$1,900/oz. **Table 2** presents the MRE on Malartic H at different cut-off grades.

About the Malartic H deposit

The Malartic H deposit has a recognized strike length of 950 metres, 300 metres wide and down to a vertical depth of 500 metres. The mineralized system is partially open laterally and completely open at depth. It is located about 1 kilometre to the north of the Malartic Hygrade former mine, near the hinge of a regional Z-shaped fold. More importantly the Malartic H deposit is also located between the northwestern extensions of the Marbenite and Norbenite shears, which host most of the resources of the Marban Engineering Project. At Malartic H, the two shears are northwest-trending and dipping

around 70 degrees to the northeast. The deposit is hosted by an alternance of mafic and ultramafic volcanic sequence of the Jacola formation. Similar to the Hygrade area, numerous intermediate to felsic dyke systems are injected in the volcanic sequence. The mineralization occurs as disseminated pyrite with local visible gold in quartz veins and veinlets and disseminated in the host rock. Zones are spatially correlated shears within mafic volcanic units or with the intermediate to felsic dykes. All zones are roughly subparallel.

Environmental and metallurgical test work

O3 Mining is doing environmental testing on the Marlartic H deposit. These tests aim to characterize the Marlartic H waste rocks for acid rock drainage (ARD) and metal leaching (ML) upon exposure to ambient conditions and thus, the risk associated with the waste material and subsequent mine waste management practices. These tests aim to simulate weathering under accelerated conditions to verify their respective acidogenic potential and the quality of their drainage in the short, medium, or long term, as well as to assess the potential for the generation of any contaminated drainage. Further environmental tests on mineralized material and metallurgical tests will be performed in the coming months.

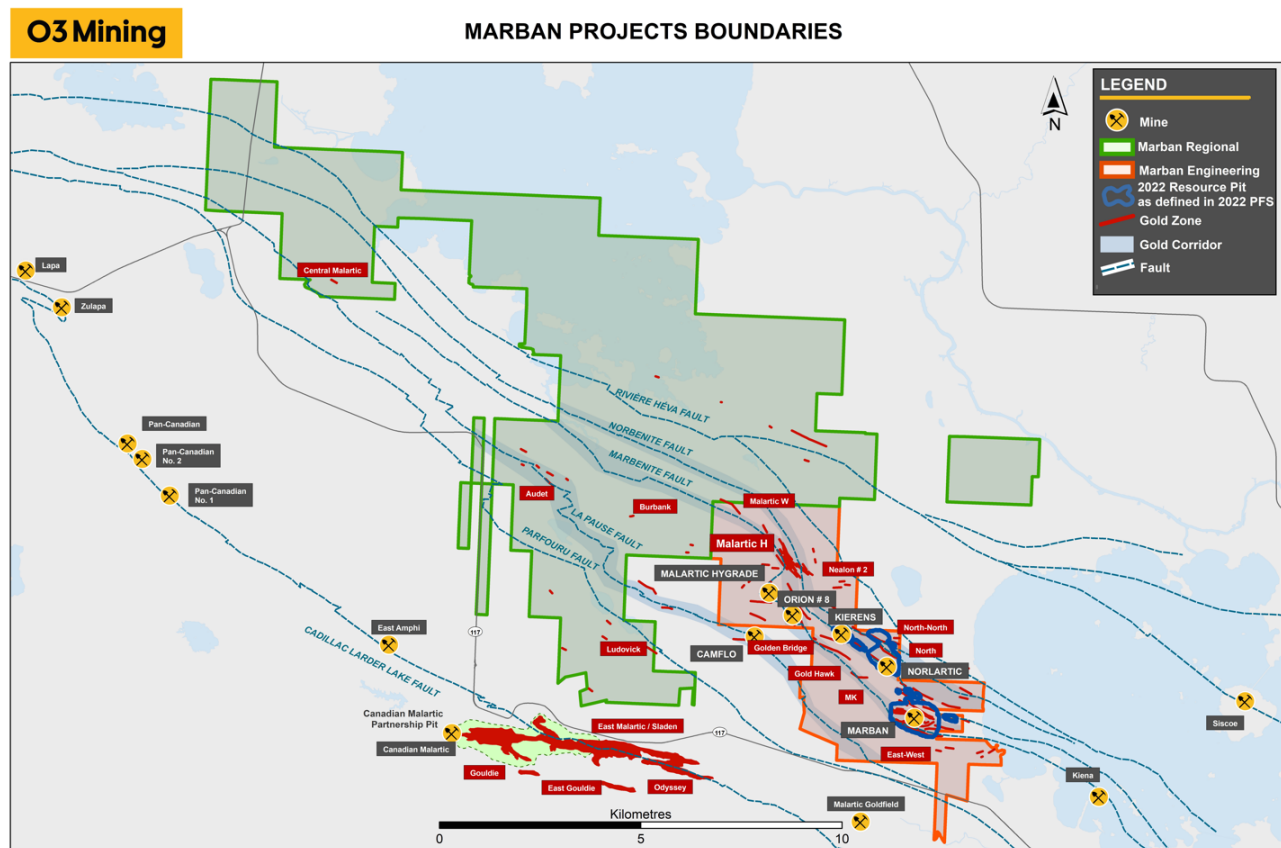


Figure 1: Marban Property Map

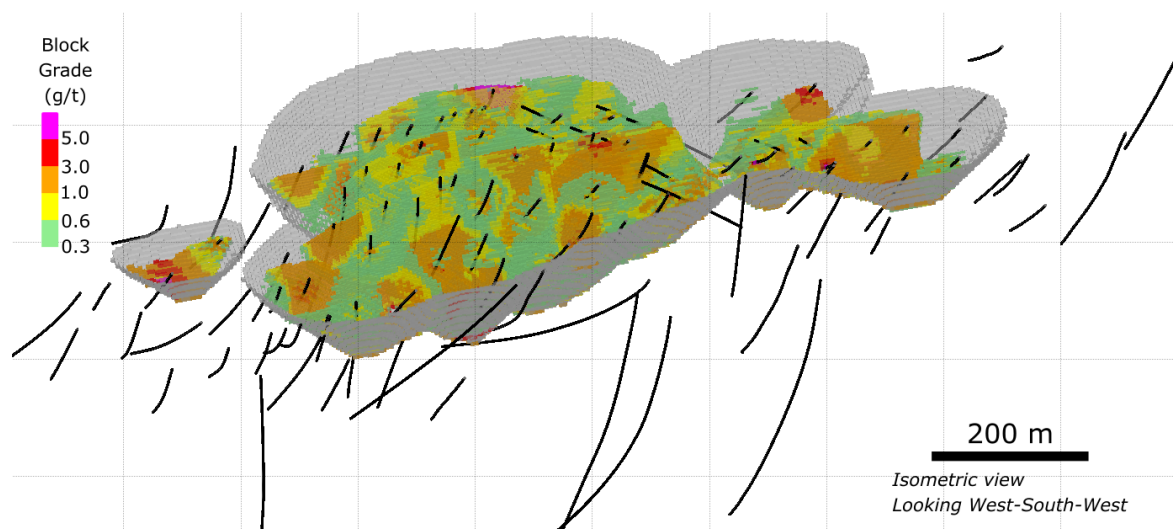


Figure 2: Isometric View of the Malartic H Deposit

Qualified Person

The scientific and technical information in this news release relating to the MRE on Malartic H has been reviewed and approved by Mr. Christian Beaulieu, P. Geo. (OGQ #1072), consultant for G Mining, and a "qualified person" within the meaning of NI 43-101 and "independent" of the Corporation pursuant to Section 1.5 of NI 43-101.

All other scientific and technical content in this news release has been reviewed and approved by Mr. Sébastien Vigneau, P. Geo. (OGQ #993), Principal Geologist of O3 Mining, who is a "qualified person" within the meaning of NI 43-101.

Quality Assurance/Quality Control

G Mining reviewed all available QA/QC reports, downhole deviations and dips, collar location, original logs and available laboratory certificates. Following that exercise, G Mining opted to discard two drilling campaigns from the MRE database because of imprecise gold assays, high lower detection limits, and/or locally lack of nearby recent drill hole as support. G Mining individually inspected all historic drill holes and the majority of mineralized intervals could be validated in drill holes from O3 Mining and/or from other campaigns.

About O3 Mining Inc.

O3 Mining Inc. is a gold explorer and mine developer on the road to produce from its highly prospective gold camps in Québec, Canada. O3 Mining benefits from the support and expertise of a team of industry leaders as it grows towards being a gold producer with several multi-million-ounce deposits in Québec.

O3 Mining is well-capitalized and owns a 100% interest in all its properties (62,000 hectares) in Québec. O3 Mining trades on the TSX Venture Exchange (TSXV: OIII) and OTC Markets (OTCQX: OIIIIF). The Corporation is focused on delivering superior returns to its shareholders and long-term benefits to its stakeholders. Further information can be found on our website at <https://o3mining.com>

About G Mining Services Inc.

G Mining is a specialized mining consultancy firm based in Canada. G Mining is an entrepreneurial minded and multidisciplinary company that offers a wide range of services to both underground and open pit mining projects from greenfield to operating mines. It possesses the rare capabilities to develop a resource from the exploration phase, to development, into construction, commissioning and then operations.

Cautionary Statement Regarding Disclosure of Mineral Reserve and Mineral Resource Estimates

This news release uses the terms measured, indicated and inferred mineral resources as a relative measure of the level of confidence in the resource estimate. Readers are cautioned that mineral resources are not economic mineral reserves and that the economic viability of mineral resources that are not mineral reserves has not been demonstrated. The estimate of mineral resources may be materially affected by geology, environmental, permitting, legal, title, sociopolitical, marketing, or other relevant issues. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to an indicated or measured mineral resource category. The mineral resource estimate is in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards on Mineral Resources and Mineral Reserves" incorporated by reference into NI 43-101. Under Canadian rules, estimates of inferred mineral resources may not form the basis of feasibility or pre-feasibility studies or economic studies except for a preliminary economic assessment as defined under NI 43-101. Readers are cautioned not to assume that further work on the stated resources will lead to mineral reserves that can be mined economically.

Cautionary Statement Regarding Forward-Looking Information

This news release contains "forward-looking information" within the meaning of the applicable Canadian securities legislation that is based on expectations, estimates, projections, and interpretations as at the date of this news release. Any statement that involves discussions with respect to predictions, expectations, interpretations, beliefs, plans, projections, objectives, assumptions, future events or performance (often but not always using phrases such as "expects", or "does not expect", "is expected", "interpreted", "management's view", "anticipates" or "does not anticipate", "plans", "budget", "scheduled", "forecasts", "estimates", "believes" or "intends" or variations of such words and phrases or stating that certain actions, events or results "may" or "could", "would", "might" or "will" be taken to occur or be achieved) are not statements of historical fact and may be forward-looking information and are intended to identify forward-looking information. This forward-looking information is based on reasonable assumptions and estimates of management of the Corporation, at the time it was made, involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the companies to be materially different from any future results, performance or achievements expressed or implied by such forward-looking information. For additional information with respect to these and other factors and assumptions underlying the forward-looking statements in this news release concerning O3 Mining, please refer to the public disclosure record of O3 Mining, including the annual information form of O3 Mining for the year ended December 31, 2022, and the most recent annual and interim financial statements and related management's

discussion and analysis of O3 Mining, which are available on SEDAR (www.sedar.com) under O3 Mining's issuer profile. Although the forward-looking information contained in this news release is based upon what management believes, or believed at the time, to be reasonable assumptions, the parties cannot assure shareholders and prospective purchasers of securities that actual results will be consistent with such forward-looking information, as there may be other factors that cause results not to be as anticipated, estimated or intended, and neither the Corporation nor any other person assumes responsibility for the accuracy and completeness of any such forward-looking information. The Corporation does not undertake, and assumes no obligation, to update or revise any such forward-looking statements or forward-looking information contained herein to reflect new events or circumstances, except as may be required by law.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this news release. No stock exchange, securities commission or other regulatory authority has approved or disapproved the information contained herein.

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