

TSX.V: OIII OTCQX:OIIIF

O3 Mining

AN OSISKO GROUP COMPANY

Marban Engineering Pre-Feasibility Study

September 2022



Cautionary Statement



This presentation (the "Presentation") contains "forward-looking information" and "forward-looking statements" (collectively, "forward-looking statements") within the meaning of the applicable Canadian securities legislation. All statements, other than statements of historical fact, are forward-looking statements and are based on expectations, estimates and projections as at the date of this Presentation. Any statement that involves discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, future events or performance (often but not always using phrases such as "expects", or "does not expect", "is expected", "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 statements.

In this Presentation, forward-looking statements relate, among other things: the pre-feasibility study for the Marban project (the "PFS"); the numerous assumptions underlying the PFS, including the mine plan and economic model; the after-tax internal rate of return and net present value modeling of the Marban project; the capex, life-of-mine and production modeling of the Marban project; the potential for brownfield value creation; grade estimates; the speculative geology of inferred mineral resources; gold prices; project scope, including mining methodology and infrastructure; processing methodology; the ability, if any, to achieve the project economics described in this Presentation; the mining and processing strategy; the projected infrastructure; the ability, if any, to construct the required infrastructure; the ability, if any, to obtain the required economic and restoration approvals and permits; the current drill program on the Marban project and the significance of new drill results; potential mineralization; the ability to realize upon any mineralization in a manner that is economic; the ability to complete any proposed exploration activities and the results of such activities, including the continuity or extension of any mineralization; and any other information herein that is not a historical fact may be "forward-looking information".

This "forward-looking information" involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of O3 Mining to be materially different from any future results, performance or achievements expressed or implied by

such "forward-looking information". Such factors include, among others, risks relating to the ability of exploration activities (including drill results) to accurately predict mineralization; fluctuations in spot and forward prices of gold, silver, base metals or certain other commodities; fluctuations in currency markets (such as the Canadian dollar to United States dollar exchange rate); change in international, national and local government, legislation, taxation, controls, regulations and political or economic developments; relationships with and claims by local communities and indigenous populations; availability of increasing costs associated with mining inputs and labour; the speculative nature of mineral exploration and development (including the risks of obtaining necessary licenses, permits and approvals from government authorities); access to capital; errors in management's geological modelling; the ability of O3 Mining to complete further exploration activities, including drilling; property interests in the Marban project; the ability of O3 Mining to obtain required approvals and complete transactions on terms announced; the results of exploration activities; risks relating to mining activities; the global economic climate; metal prices; exchange rates; dilution; environmental risks; and community and non-governmental actions.

Although the "forward-looking information" contained in this Presentation is based upon what management believes, or believed at the time, to be reasonable assumptions, O3 Mining cannot assure shareholders and prospective purchasers of securities of O3 Mining 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 O3 Mining nor any other person assumes responsibility for the accuracy and completeness of any such "forward-looking information".

O3 Mining does not undertake, and assumes no obligation, to update or revise any such "forward-looking information" contained herein to reflect new events or circumstances, except as may be required by law.

Risks and uncertainties about O3 Mining's business are more fully discussed in the disclosure materials filed with the securities regulatory authorities in Canada, which are available on SEDAR (www.sedar.com) under O3 Mining's issuer profile. Readers are urged to read these materials and should not place undue reliance on any forward-looking statement and information contained in this Presentation.

Pre-Feasibility Study

The PFS is based on the mineral resource estimate described in in this Presentation, which has been prepared in accordance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101") and will be available on SEDAR (www.sedar.com) under O3 Mining's issuer profile within 45 days. Please refer to the full text of the PFS for details regarding the key assumptions, parameters and methods associated with the foregoing.

The PFS is preliminary in nature and has made numerous assumptions about the Marban project referenced herein, including in relation to the mine plan and economic models of the project. In addition, the PFS includes indicated mineral resources which have economic considerations applied to them that would enable them to be categorized as mineral reserves.

Mineral Resources

This Presentation contains information regarding mineral resources estimated at the projects referenced herein. Mineral resources are not mineral reserves and 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. In particular, the quantity and grade of reported inferred mineral resources in the estimates referenced in this Presentation are uncertain in nature and there is insufficient exploration to define these inferred mineral resources as an indicated or measured mineral resource in all cases. It is uncertain in all cases whether further exploration will result in upgrading the inferred mineral resources to an indicated or measured mineral resource category.

Qualified Person

The scientific and technical information contained in this Presentation has been reviewed, prepared and approved by Mr. Louis Gariépy, P. Geo (OIQ #107538), Vice President Exploration of O3 Mining, who is a "qualified person" within the meaning of NI 43-101.

Unless otherwise noted, this Presentation has been prepared based on information available as September 5, 2022.

References in this Presentation to "O3 Mining" includes O3 Mining Inc. and its subsidiaries.

Developing The Next Gold Mine in Québec



Mission

To be a premier gold exploration and mine development company by delivering superior returns to our shareholders and long-term benefits to our stakeholders.

Vision

To become a best-in-class gold producer.

Quality Assets

Marban



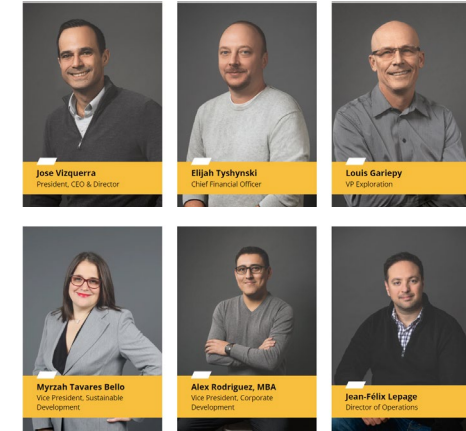
Project Development
2.6 Moz Au

Alpha



Advanced Exploration
0.9 Moz Au

Strong Management



Financial Strength

C\$95.2M
Market Capitalization¹

C\$29.0M
Cash²

C\$66.2M
Investments³

ESG Commitment

- Protecting the environment and reducing our impact
- Bringing long-term benefits to our stakeholders
- Integrating leading edge practices of corporate governance



1/ As of September 2, 2022
2/ Cash balance as of June 30, 2022 + C\$18.7M FT Financing (August 24, 2022)
3/ Marketable Securities as of June 30, 2022 + Investment in Moneta Gold (valued as of September 2, 2022)

Pre-Feasibility Study Highlights

C\$463M

Post-tax NPV_{5%}
US\$ 1,700 /oz Au

23.2%

Unlevered
Post-Tax IRR

161Koz

Avg. Annual
Gold Production

US\$882

LOM AISC
(US\$/oz Au)

6.0Mt

Annual Mill
Throughput

C\$435M

Initial
CAPEX

1,552Koz

LOM Gold
Production

3.5 years

Post-tax
Payback

**Increased production profile compared to 2020 PEA
with improved project economics**

Gold Price Sensitivity Analysis

PFS Base Case

Gold Price	US\$/oz	\$1,700	\$1,850	\$2,000
Pre-tax	NPV (5%)	C\$775M	C\$996M	C\$1,218M
	IRR	30.2%	36.4%	42.4%
	Payback	2.8 yrs	2.4 yrs	2.1 yrs
Post-tax	NPV (5%)	C\$463M	C\$595M	C\$726 M
	IRR	23.2%	27.9%	32.3%
	Payback	3.5 yrs	2.7 yrs	2.4 yrs

1.1x

Post-tax NPV/CAPEX

C\$1,971M

LOM EBITDA

C\$760M

LOM Post-tax
Free Cash Flow

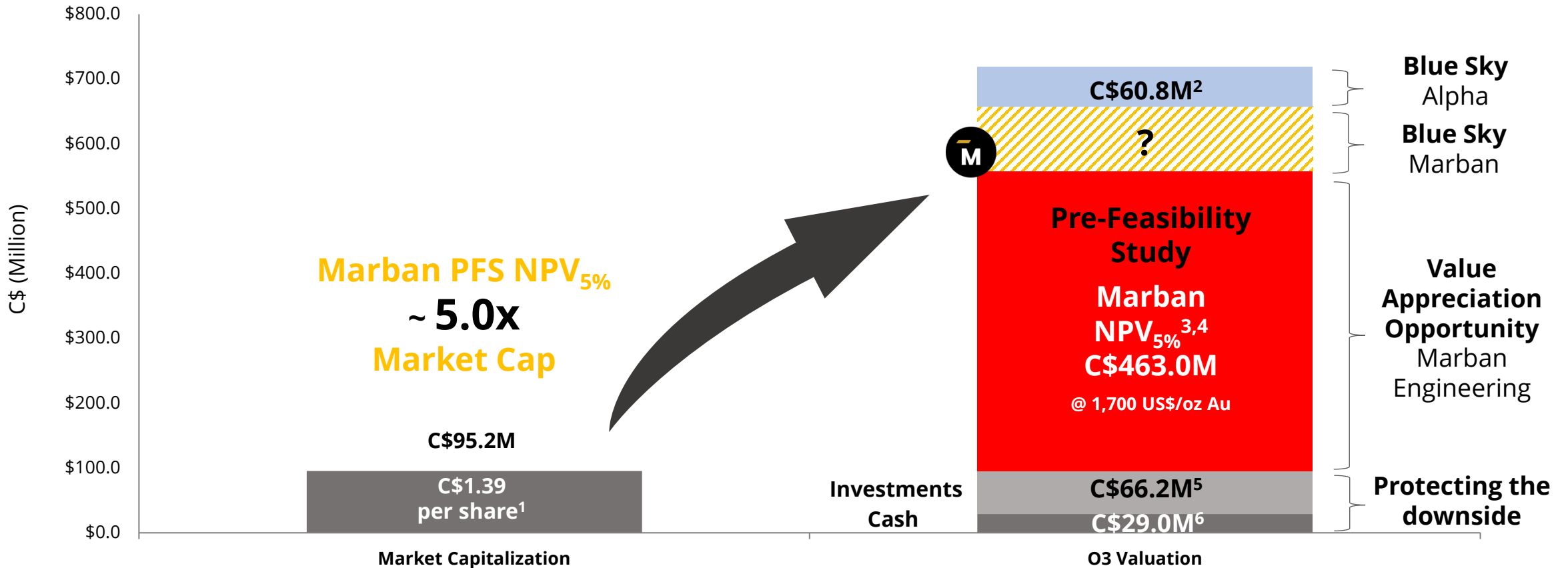
Marban Post-tax NPV using a US\$ 1,850/oz Gold Consensus Price 2022 is C\$595M with 27.9% unlevered post-tax IRR

Creating Shareholder Value



Market Capitalization

O3 Value Proposition C\$9.00 per share



1/ As of September 2, 2022

2/ Alpha hosts 0.9Moz - Implied value uses an EV/oz multiple of US\$50/oz - FX Rate (\$C:\$US): 0.7614

3/ At \$1,700 US\$/oz Au

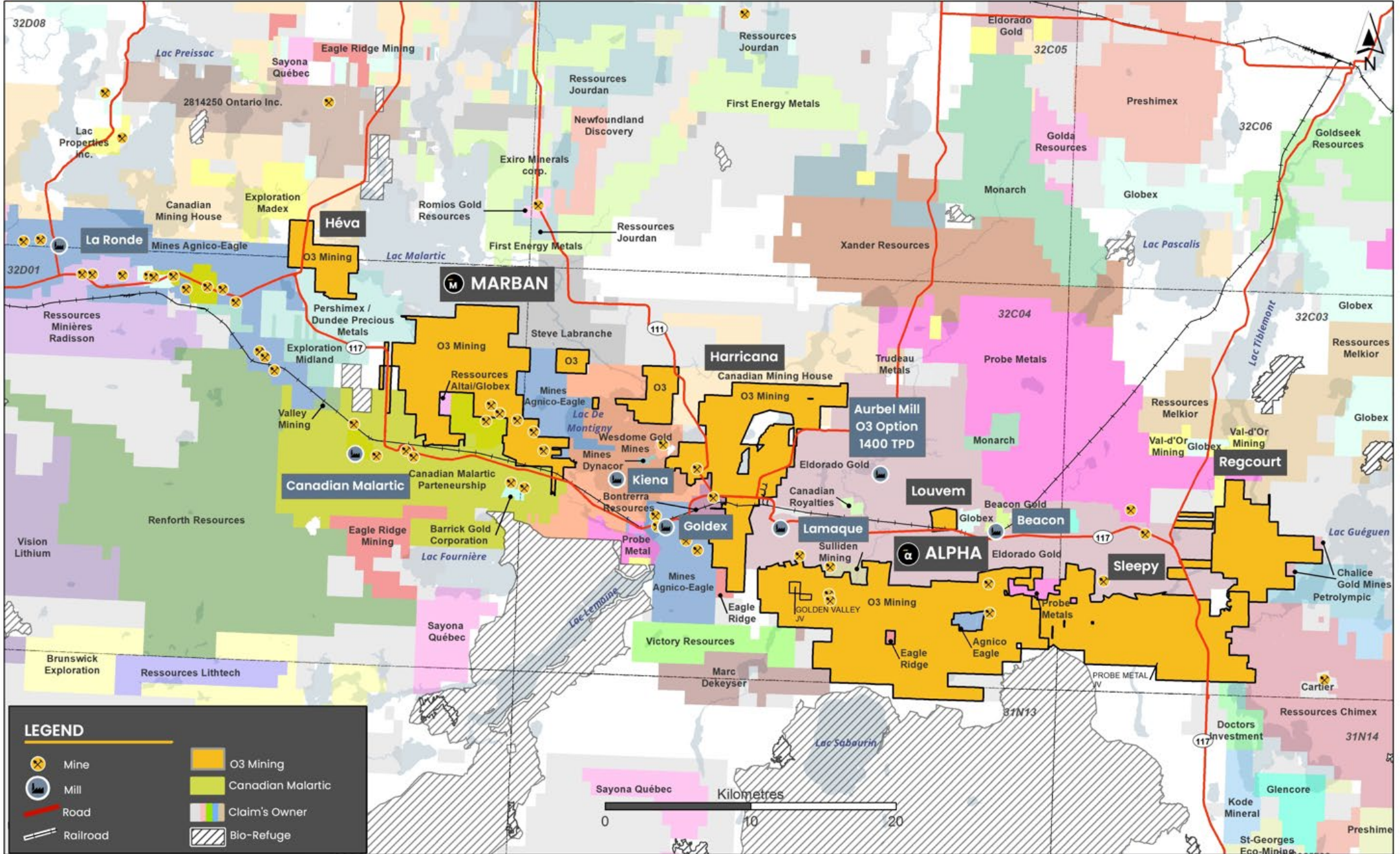
4/ Marban PFS September 2022 | Post-tax net present value (NPV_{5%}) of C\$463M & CAPEX of C\$435M

5/ Marketable Securities as of June 30, 2022 + Investment in Moneta Gold (valued as of September 2, 2022)

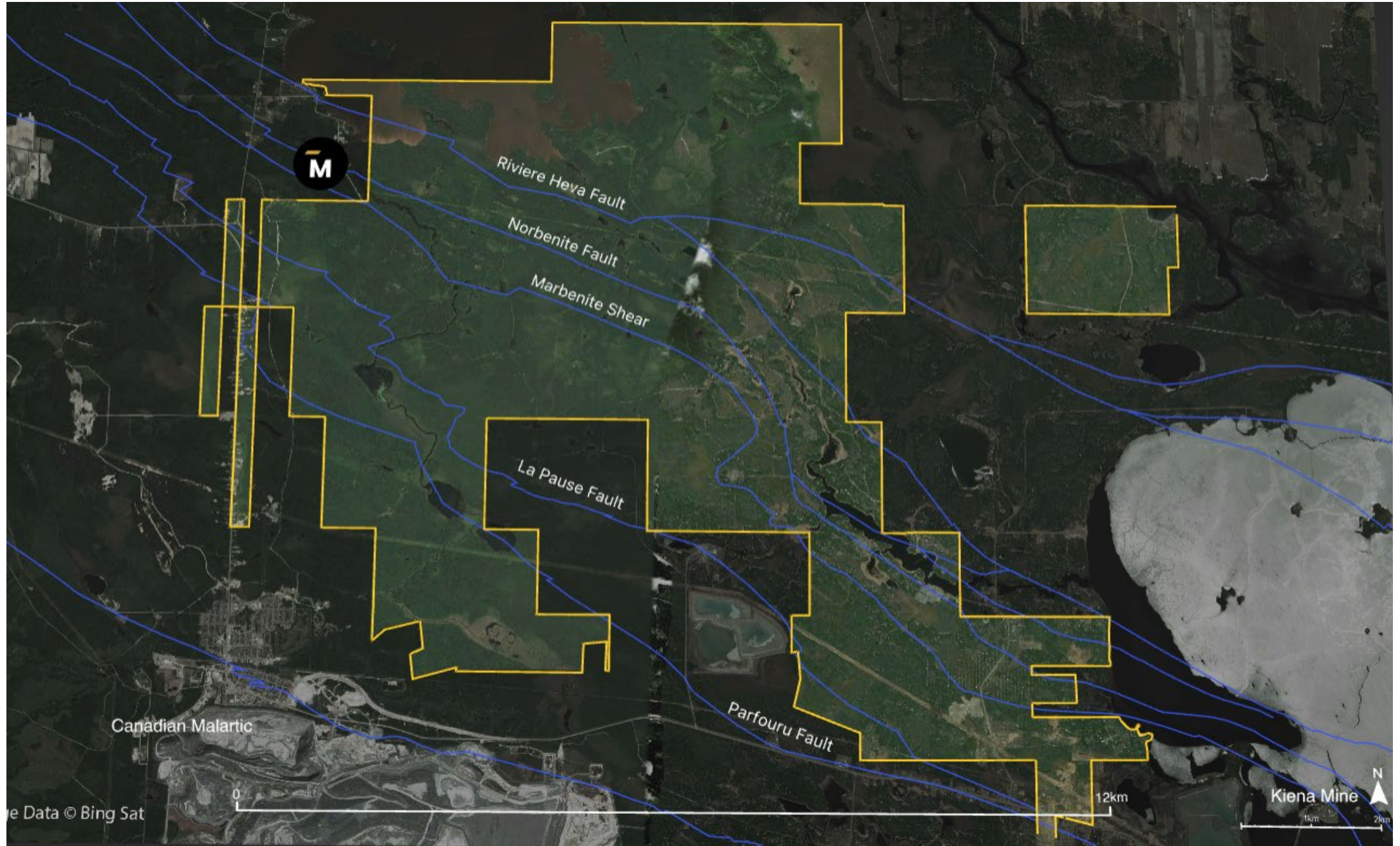
6/ Cash balance as of March 31, 2022 + C\$18.7M FT Financing (August 24, 2022)

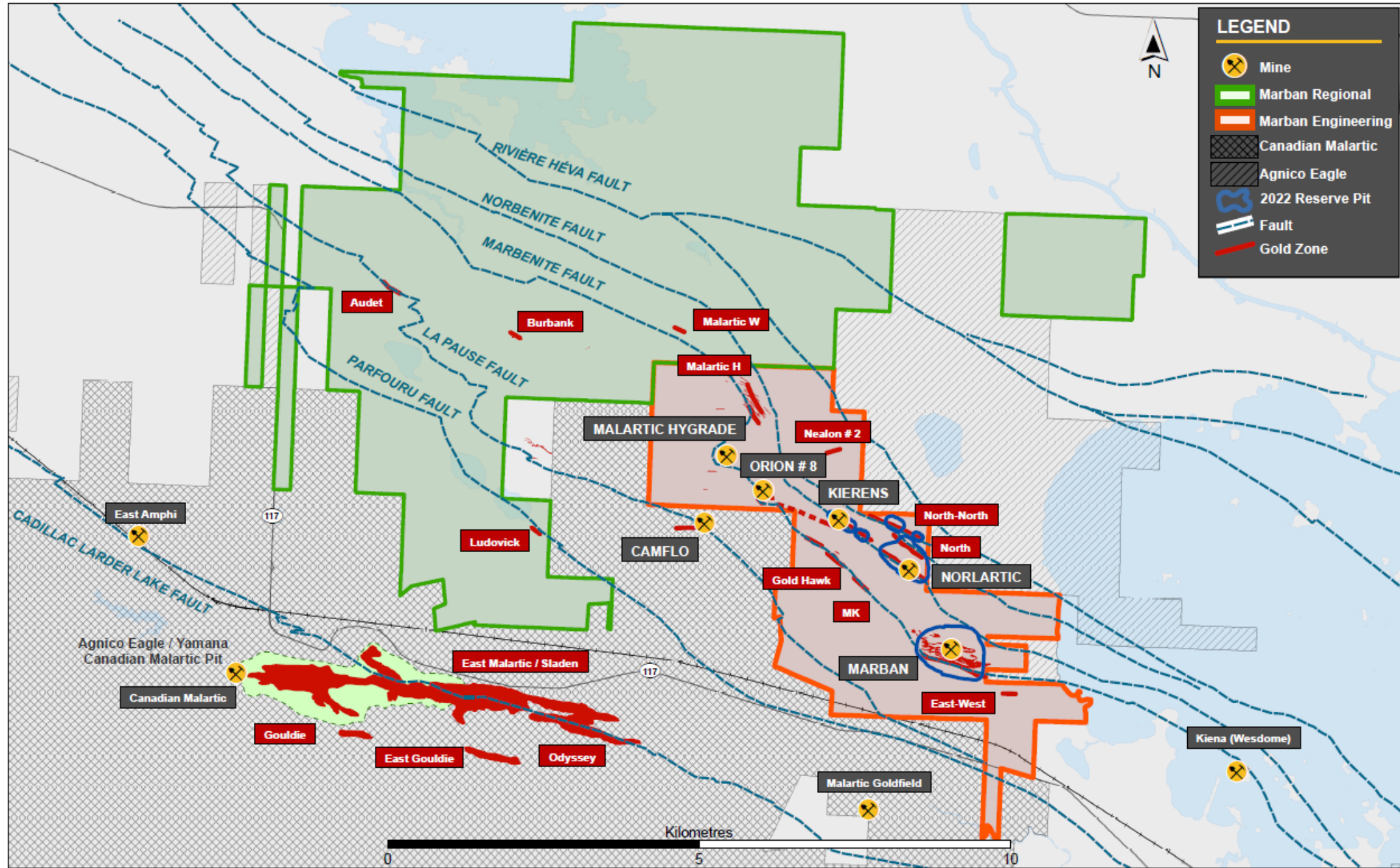
O3 Mining

O3 MINING - ABITIBI MINING DISTRICT

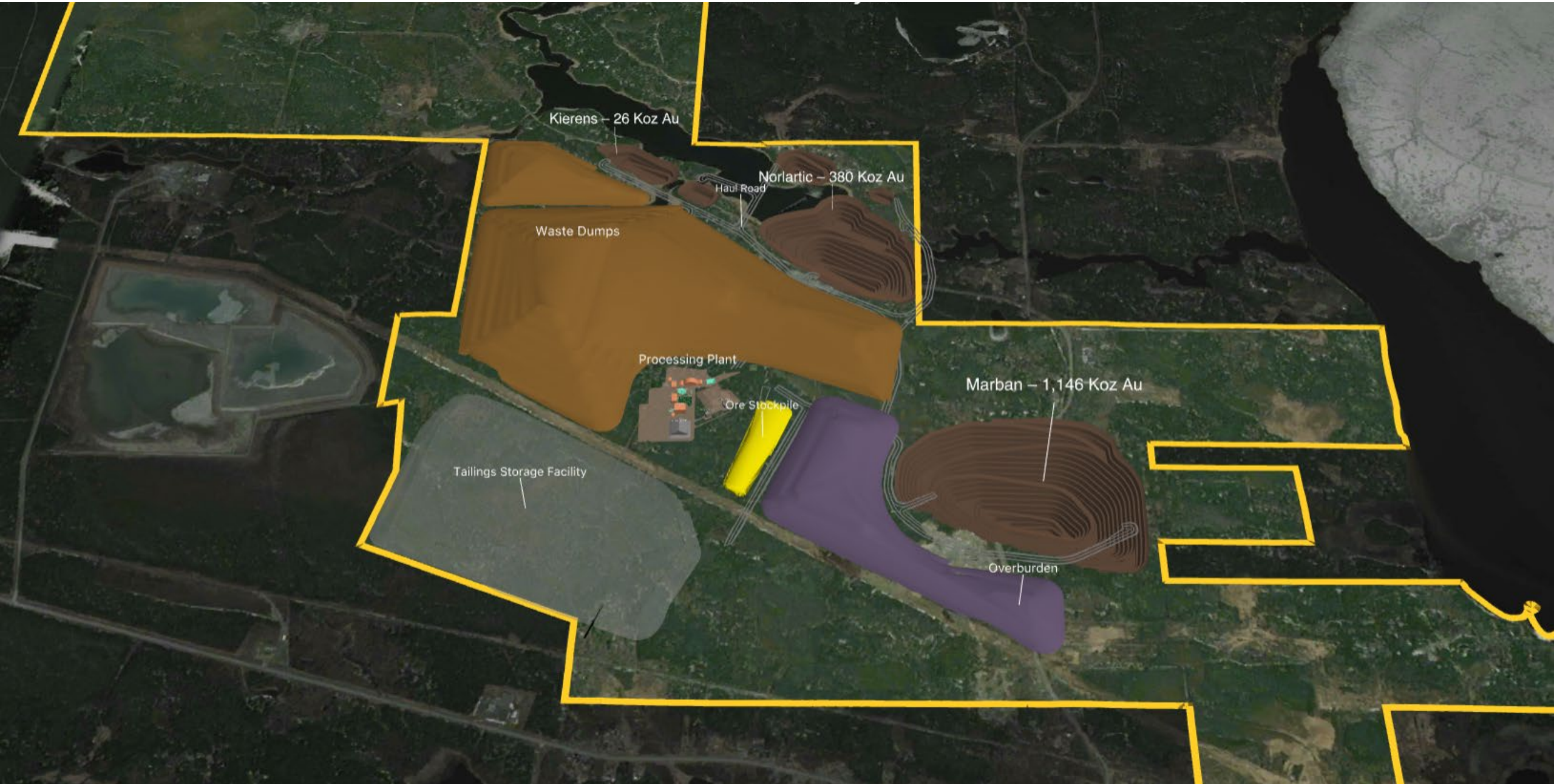


Marban Project





General Layout



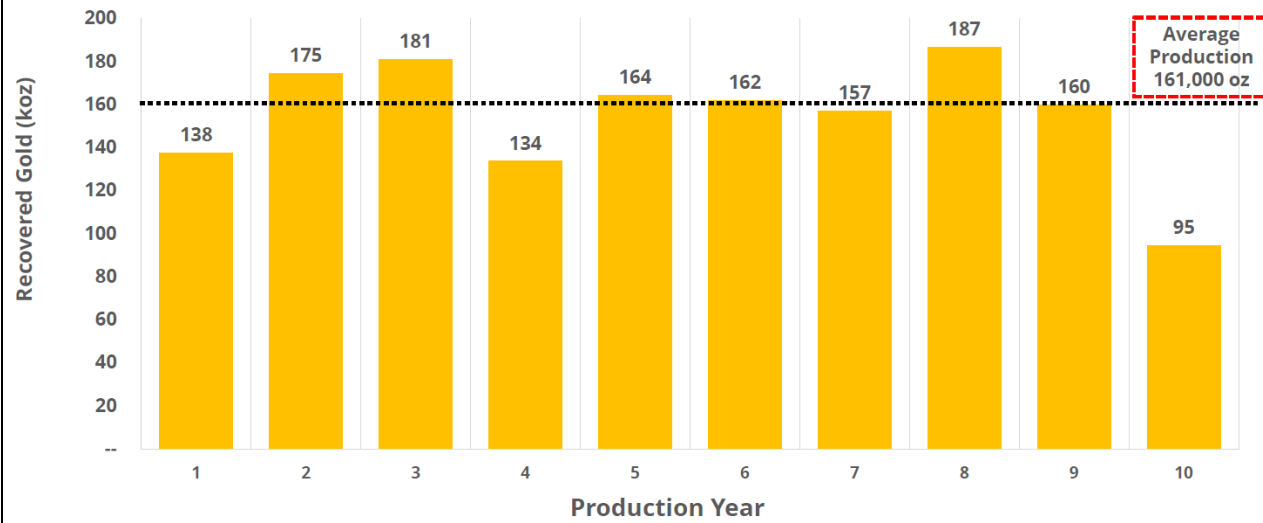
Production Profile

Kierens – 26 Koz Au

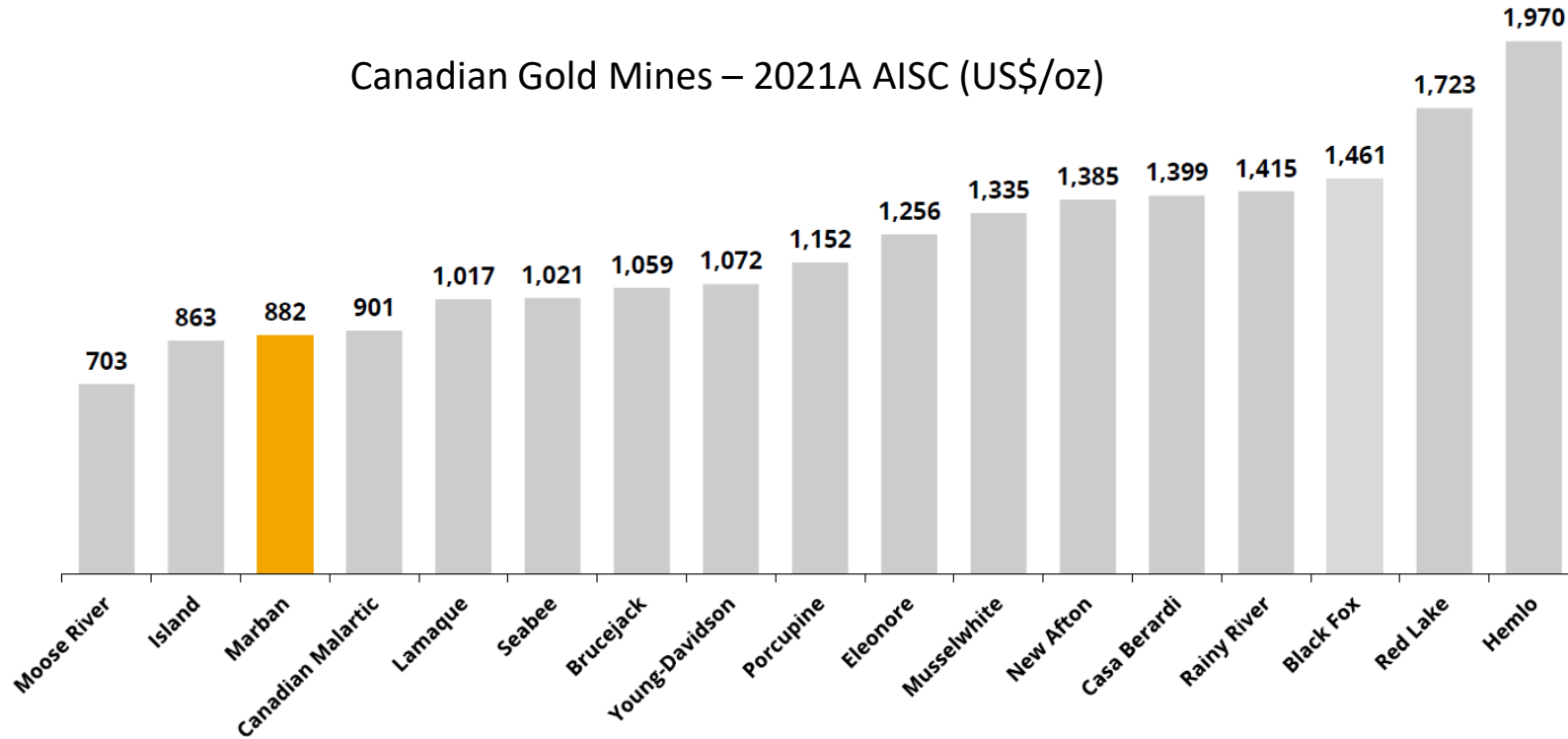
Norlartic – 380 Koz Au

Marban – 1,146 Koz Au

Annual Gold Production (koz)

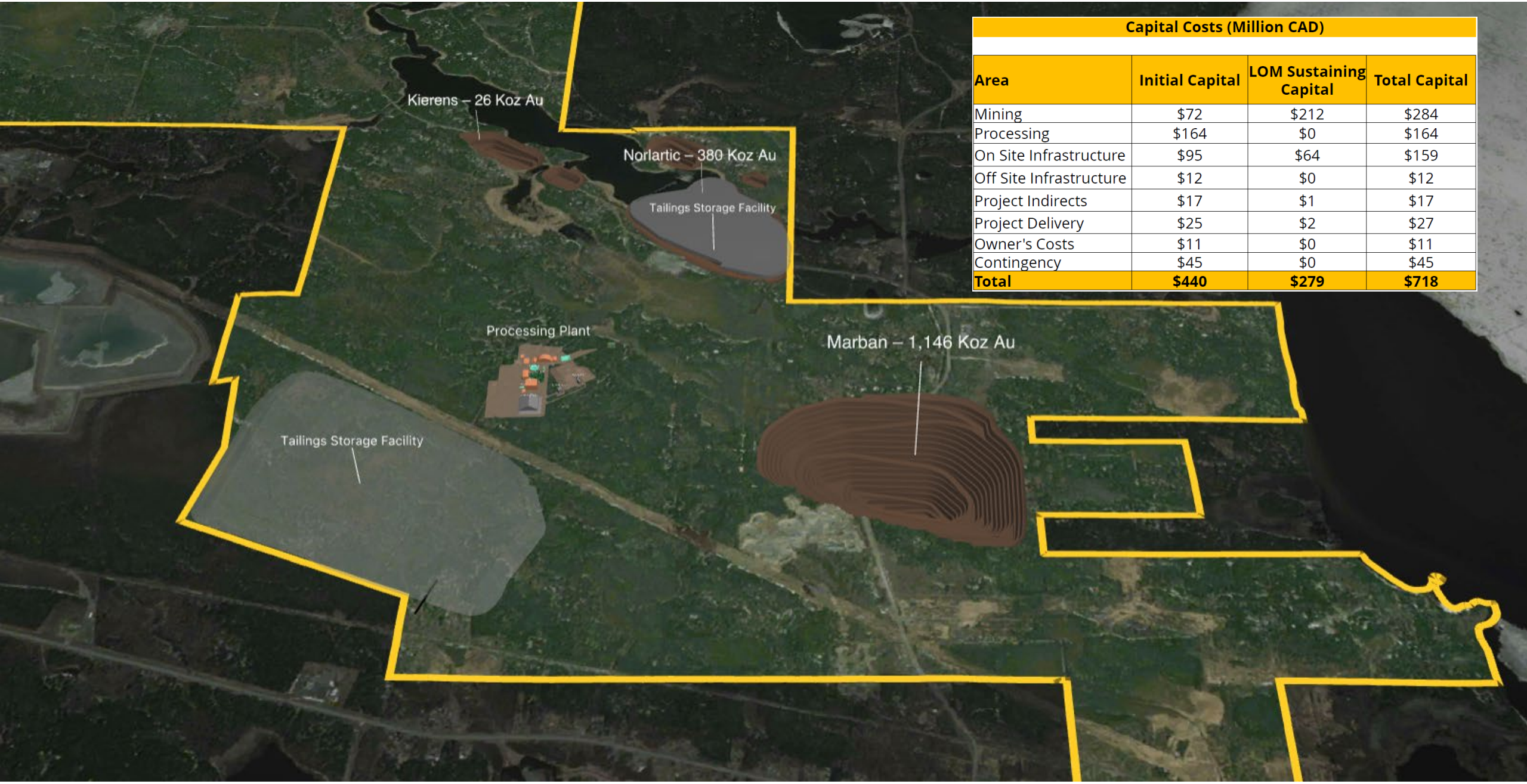


Cost Profile



Operating Costs		LOM Total / Avg.
Mining Cost	C\$/t Mined	\$2.6
Mining Cost	C\$/t Milled	\$15.9
Processing Cost	C\$/t Milled	\$7.8
G&A Cost	C\$/t Milled	\$1.4
Total Operating Costs	C\$/t Milled	\$25.1
Refining & Transport Cost	C\$/oz	\$2.5
Cash Costs	US\$/oz	\$723
AISC	US\$/oz	\$882

Processing Plant & Tailings



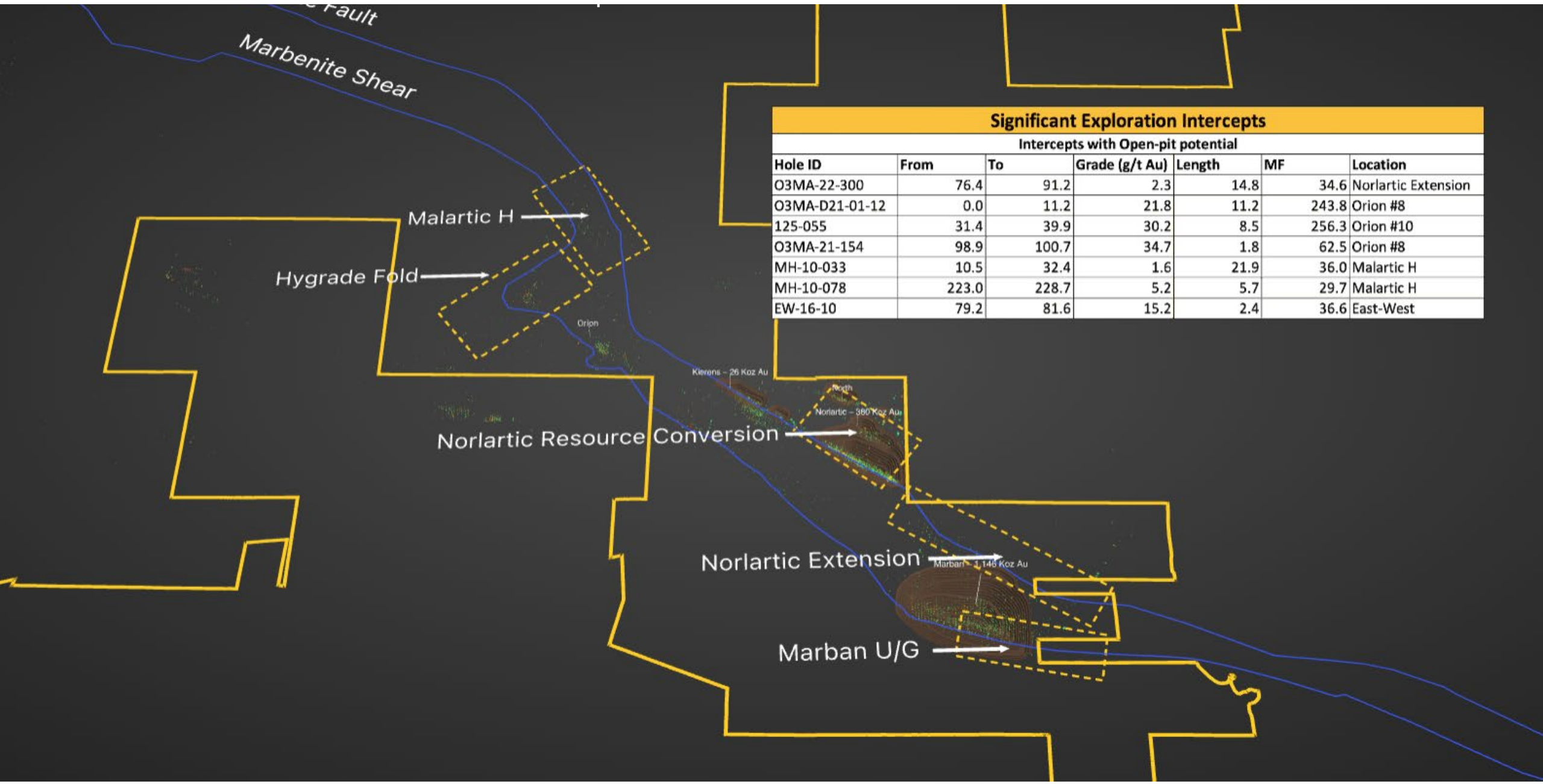
Capital Costs (Million CAD)			
Area	Initial Capital	LOM Sustaining Capital	Total Capital
Mining	\$72	\$212	\$284
Processing	\$164	\$0	\$164
On Site Infrastructure	\$95	\$64	\$159
Off Site Infrastructure	\$12	\$0	\$12
Project Indirects	\$17	\$1	\$17
Project Delivery	\$25	\$2	\$27
Owner's Costs	\$11	\$0	\$11
Contingency	\$45	\$0	\$45
Total	\$440	\$279	\$718

Processing Plant & Recovery

Pits	Head Grade (g/t Au)	Leach Extraction	Soluble and other Losses	Net Recovery
Marban	0.87	95.4%	0.5	94.9%
Kierens	1.09	95.4%	0.5	94.9%
Norlartic	1.01	Variable	0.5	92.0%
Total	0.91		0.5	94.2%



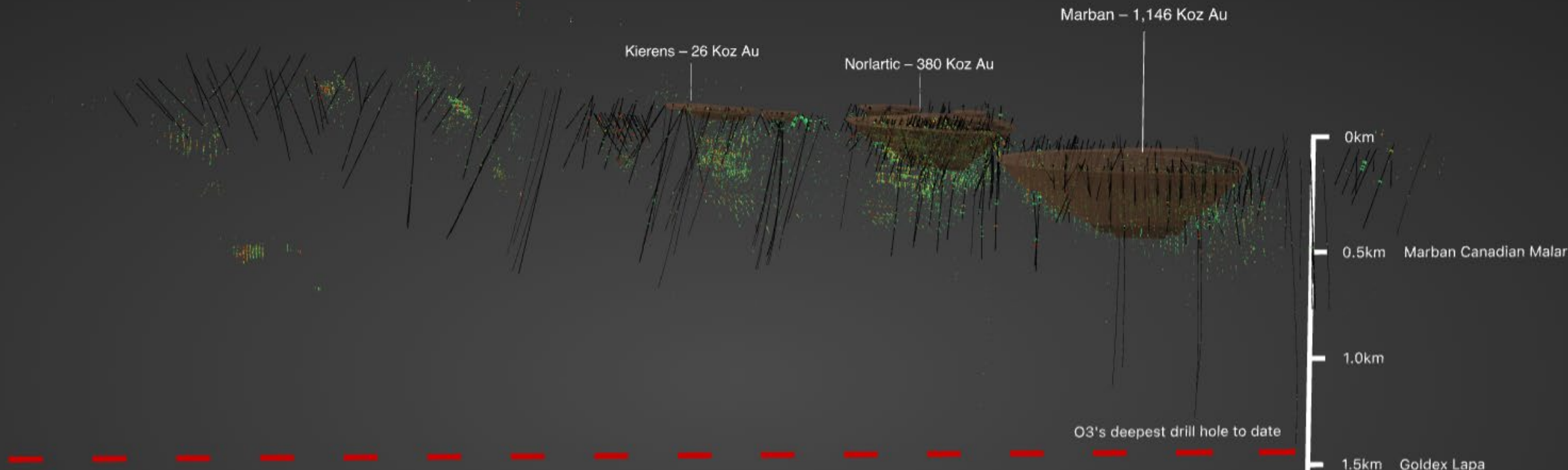
Exploration Potential



Significant Exploration Intercepts

Intercepts with Open-pit potential						
Hole ID	From	To	Grade (g/t Au)	Length	MF	Location
O3MA-22-300	76.4	91.2	2.3	14.8	34.6	Norlartic Extension
O3MA-D21-01-12	0.0	11.2	21.8	11.2	243.8	Orion #8
125-055	31.4	39.9	30.2	8.5	256.3	Orion #10
O3MA-21-154	98.9	100.7	34.7	1.8	62.5	Orion #8
MH-10-033	10.5	32.4	1.6	21.9	36.0	Malartic H
MH-10-078	223.0	228.7	5.2	5.7	29.7	Malartic H
EW-16-10	79.2	81.6	15.2	2.4	36.6	East-West

Comparable Depths Potential



Estimated Historical Gold Production from the Marban Property (1959-1992)

Mine	Company	Years	Tonnes	Gold (g/t)	oz Au
Marban	Marban Gold Mines	1961-1974	1,983,000	5.3	330,000
Norlartic and North North	Norlartic Mines	1959-1966	1,544,000	4.2	209,000
	Aur Resources	1990-1992			
Kierens and Gold Hawk	Norlartic Mines	1965-1966	251,000	6.3	51,000
	Aur Resources	1988-1992			
Malartic Hygrade	Malartic Hygrade	1962-1963	28,000	19.6	18,000
Camflo (on Marban Property)	Barrick	1981-1992	1,435,000	5.3	243,000
Orion No. 8	Malartic Hygrade	1987-1990	131,000	5.3	22,000
Totals			5,372,000	5.1	873,000

Marban Engineering Path Forward

Accomplishments

September 2020: Preliminary Economic Assessment – C\$423 Post-tax NPV_{5%} | Unlevered IRR 25.2%

March 2022: Increased M&I Open-Pit Resource by 29%

September 2022: Pre-Feasibility Study – C\$463 Post-tax NPV_{5%} | Unlevered IRR 23.2%

Next Steps

Filing of **Initial project description** to Environmental agencies in 2022

Initiate **optimization trade-off** studies towards completion of **Feasibility Study** in 2023

Evaluate **financing options** including traditional and non-traditional debt

Continue **49,000 metres** near-surface and resource expansion drilling

Initiate **Marban underground** drilling - **6,000 metres** planned until the end of 2022

Pre-Feasibility Study Highlights

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Production

3.5 years

Post-tax
Payback

**Increased production profile compared to 2020 PEA
with improved project economics**

O3 Mining

AN OSISKO GROUP COMPANY

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**We are explorers.
We are miners.
We are the new generation of
gold mining in Canada.**

Connect with us:



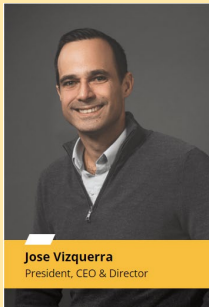


Appendix

Experienced Management & Board of Directors

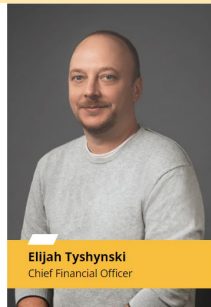


Management Team



Jose Vizquerra
President, CEO & Director

Former EVP of
Osisko Mining Inc.



Elijah Tyshynski
Chief Financial Officer

Former Director of
Strategic Development
of Osisko Mining Inc.



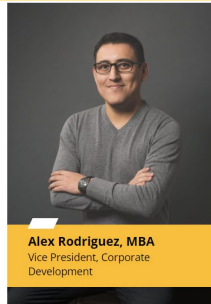
Louis Garlepy
VP Exploration

Former Exploration
Manager for Anglo
American Plc.



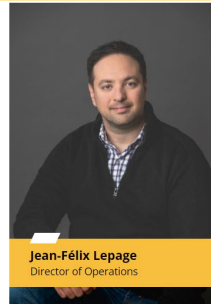
Myrzah Tavares Bello
Vice President, Sustainable
Development

Former Director at
SNC Lavalin



Alex Rodriguez, MBA
Vice President, Corporate
Development

Former Head of
Business Development
at Volcan Compania
Minera (Glencore Plc)



Jean-Félix Lepage
Director of Operations

Former Superintendent
of Mining Operations at
Newmont Corporation

Board of Directors



John Burzynski
Chairman

Founder of the
Osisko Group & CEO
of Osisko Mining Inc.



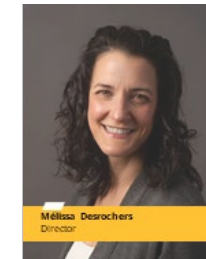
Keith McKay
Director

CFO for Dalradian
Resources Inc.



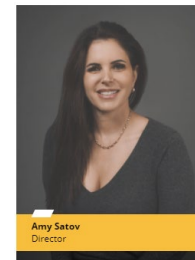
Patrick Anderson
Director

Founder & CEO for
Dalradian Resources
Inc.



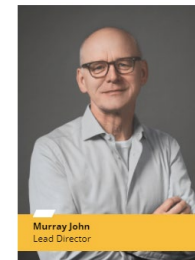
Melissa Desrochers
Director

Former Director
Government Relations
and External
Communications for
Agnico Eagle Mines Ltd.



Amy Satov
Director

General Counsel, Balcan
Plastics Inc.



Murray John
Lead Director

Former President &
CEO of Dundee
Resources Ltd.



Bernardo Alvarez Calderon
Director

CEO of Analytica
Mineral Services

Board of Directors



John Burzynski

Chairman

Mr. Burzynski is a Director and Chairman of the Board of O3 Mining Inc. He currently serves as Executive Chairman, Chief Executive Officer and Director of Osisko Mining Inc., having served in those capacities since August 2015, and has been a director of Osisko Mining Inc. (formerly Oban Mining Corporation) since incorporation in February 2010. Mr. Burzynski is currently a director of Osisko Gold Royalties Ltd. and, from June 2014 to August 2016, also served as the Senior Vice President, New Business Development. Mr. Burzynski holds a Bachelor of Science (Honours) degree in Geology from Mount Allison University and a Master of Science in exploration and mineral economics (MINEX) from Queen's University. He is a registered P.Geo. in the province of Québec, and has over 30 years of experience as a professional geologist on international mining and development projects.

Amy Satov

Director

Ms. Satov, B.A., LL.B., M.B.A., currently serves as a Director of O3 Mining Inc., Director of Osisko Mining Inc., Director of Osisko Metals Inc., and as a Director of Brunswick Exploration Incorporated. Ms. Satov is Senior Legal Counsel of Nuvei Technologies Corp. since April 2020. Formerly, Ms. Satov served as Chief Executive Officer of BL Solutions Inc., a national lighting distributor, from November 2019 to March 2020, a director and chair of the audit committee of Cannara Biotech Inc. up to January 2020, and Chief Executive Officer of Litron Distributors Ltd. up to April 2020. Prior to 2012, Ms. Satov was the Executive Vice President of Legal, Compliance and Distribution and Corporate Secretary of DundeeWealth Inc., a wealth management company with \$80 billion of assets under management that was acquired by The Bank of Nova Scotia in 2011. Ms. Satov oversaw all legal and compliance matters, was actively involved in DundeeWealth's expansion into Europe and the U.S. and sat on various subsidiary boards. Ms. Satov advised on all M&A activities as well as securities, regulatory and other corporate commercial matters. In 2010, Ms. Satov was recognized by Strathmore's "Who's Who" for excellence and achievement in her profession.

Jose Vizquerra

President, CEO & Director

Mr. Vizquerra is President and Chief Executive Officer, and a director of O3 Mining Inc. ("O3 Mining"). Prior to his appointment at O3 Mining, Mr. Vizquerra was Executive Vice President of Strategic Development for Osisko Mining Inc. ("Osisko Mining"). Mr. Vizquerra joined Osisko Mining from Oban Mining Corporation ("Oban"), where, as President and Chief Executive Officer, he played a leading role in the combination of Oban, Corona Gold Corporation, Eagle Hill Exploration Corporation, and Ryan Gold Corporation to form Osisko Mining. Through ambitious drilling and prudent capital raising, Osisko Mining has become the highly valued proponent of the world-class Windfall gold project. Before that, Mr. Vizquerra was Head of Business Development for Compañía de Minas Buenaventura. Previously, he was a production and exploration geologist at the Red Lake gold mine in Ontario.

Mr. Vizquerra currently serves as a director of Osisko Mining, and Sierra Metals Inc., and as an advisor to the boards of Discovery Metals Corporation and Palamina Resources. The Young Mining Professionals recognized Mr. Vizquerra as one of their Young Mining Professionals of the year with the 2019 Peter Munk Award.

Mr. Vizquerra is an alumni of the General Management Program at the Wharton School of Business. He holds an MSc in Mineral Exploration from Queens University and a B.Sc in Civil Engineering from UPC Universidad Peruana de Ciencias Aplicadas. Mr. Vizquerra is a Qualified Person pursuant to National Instrument 43-101.

Murray John

Director

Mr. John currently serves as a Lead Director of O3 Mining Inc., Chair of the Board of Discovery Metals Corp., Chairman and Director of Prime Mining Corp. and as a Director of Osisko Gold Royalties Ltd. Mr. John is also a former director of Osisko Mining Inc. from August 2015 to June 2018. Prior to his retirement in December 2015, Mr. John was the President and Chief Executive Officer of Dundee Resources Limited, a private resource-focused investment company, and Managing Director and a Portfolio Manager with Goodman & Company, Investment Counsel Inc. Mr. John was also the former President and Chief Executive Officer of Corona Gold Corporation and Ryan Gold Corporation up to 2015. He has been involved with the resource investment industry since 1992 and has worked as an investment banker, buy-side mining analyst, sell-side mining analyst, and portfolio manager. Mr. John graduated from the Camborne School of Mines in 1980. He also received a Master of Business Administration from the University of Toronto in 1993.

Board of Directors



Mélissa Desrochers

Director

Mélissa Desrochers currently serves as director of O3 Mining Inc and is a Public Affairs, Communications and Stakeholders Engagement Consultant for a Québec company. She is an experienced consultant with a background in strategic communications and stakeholder engagement for major and complex projects within the mining industry. Her expertise lies in communications, government relations and enhancing companies Environmental, Social and Governance (ESG) activities. Her previous work experience includes Director of Government Relations and External Communication for Agnico Eagle Mines Limited, Communications and Community Relations Manager for Canadian Malartic Mine, and formerly co-owning a communications firm for several years in which she worked closely with stakeholders from the natural resources sector. Ms. Desrochers studied communications, indigenous affairs, management and holds a Graduate degree in Project Management from the Université du Québec en Abitibi-Témiscamingue.

Keith McKay

Director

Mr. McKay currently serves as a director of O3 Mining Inc. and has been a director of Osisko Mining Inc. since August 2012. His current principal occupation is Chief Financial Officer of Dalradian Resources Inc. since June 2010. Mr. McKay is a Chartered Professional Accountant with extensive experience in the mining industry, including public company reporting requirements, financing, and merger and acquisition transactions. Mr. McKay received his C.A. designation in 1981 with Coopers & Lybrand (now PricewaterhouseCoopers LLP) and holds a Bachelor of Arts Degree from Western University.

Patrick Anderson

Director

Mr. Anderson currently serves as a director of O3 Mining Inc. He was appointed as a director of Osisko Mining Inc. in August 2012. He founded Dalradian Resources Inc. and has served as its Chief Executive Officer from October 2009 to present. Mr. Anderson is an exploration geologist, entrepreneur, and business executive with over 20 years of experience working in the resource sector. Previously, Mr. Anderson was a director, President, Chief Executive Officer and co-founder of Aurelian Resources Inc.

Bernardo Alvarez Calderon

Director

Mr. Calderon currently serves as a director of O3 Mining Inc, and is also a director of Osisko Mining Inc., since April 2014. He is also the Chief Executive Officer of Analytica Mineral Services, having served in that role since January 2005. Mr. Alvarez Calderon has taken the Owners/President Management Program at the Harvard Business School and holds a Bachelor of Science in geological engineering from the Colorado School of Mines.

O3 Mining Mineral Inventory



Project	Tonnage (M)	Gold (M oz)	Au Grade (g/t)
M&I Resources			
Marban (1)	67.7	2.37	1.09
Orenada (2)	3.8	0.20	1.61
Akasaba (3)	3.7	0.25	2.16
Simkar (4)	0.2	0.04	5.52
Total	75.3	2.86	1.18
Inferred Resources			
Marban (1)	3.1	0.22	2.21
Orenada(2)	2.1	0.13	1.89
Akasaba (3)	1.8	0.29	4.92
Simkar (4)	0.1	0.02	6.36
Sleepy (5)	0.8	0.11	4.70
Total	7.9	0.77	3.04

Notes:

(1) See Marban Technical Report 2022 (2) See Orenada Technical Report 2018 (3) See Akasaba Technical Report 2014 (4) See Simkar Gold Technical Report 2015 (5) See Sleepy Technical Report 2014