



MAJOR ASSET WITHIN A JUNIOR COMPANY

| Tuvatu Alkaline Gold Project | Fiji Islands |

LIONONEMETALS.COM | TSXV: LIO | OTCQX: LOMLF

Investor Presentation, May 2025

Forward Looking Statements

DISCLAIMER

The information provided in this presentation is not intended to be a comprehensive review of all matters and developments concerning the Company and should be read in conjunction with all other disclosure documents of the Company. The information contained herein is not a substitute for detailed investigation or analysis. No securities commission or regulatory authority has reviewed the accuracy or adequacy of the information presented.

FORWARD-LOOKING STATEMENTS

This presentation contains statements and information that constitute forward-looking information within the meaning of Canadian securities legislation, referred to herein as "forward-looking statements", include statements regarding proposed exploration and development activities and their timing, resource estimates, exploration potential and the PEA. including estimates of capital and sustaining costs, anticipated internal rates of return, mine production, estimated recoveries, mine life, estimated payback period and net present values, opportunities to enhance the value of the Tuvatu Gold Project and other plans and objectives of the Company. In making the forward-looking statements herein, the Company has applied several material assumptions, including that (1) required approvals, permits and financing will be obtained; (2) the proposed exploration and development of the Company's properties will proceed as planned and that actual results will be consistent management's expectations;(3) with respect to mineral resource estimates, the key assumptions and parameters on which such estimates are based; (4) market fundamentals will result in sustained metals and minerals prices; and (5) with respect to the PEA, the assumptions underlying the PEA, that the proposed mine plan and recoveries will be achieved, that capital costs and sustaining costs will be as estimated and that no unforeseen accident, fire, ground instability, flooding, labor disruption, equipment failure, metallurgical, environmental or other events that could delay or increase the cost of development will occur.

Forward-looking statements are subject to a variety of known and unknown risks, uncertainties and other factors which could cause actual events or results to differ from those expressed or implied by the forward-looking statements, including: delays or inability to obtain required government or other regulatory approvals, permits or financing, the risk of unexpected variations in mineral resources, grade or recovery rates, of failure of plant, equipment or processes to operate as anticipated, of accidents, labor disputes, and unanticipated delays in completing exploration and development activities, the risk that estimated costs will be higher than anticipated and the risk that the proposed mine plan and recoveries will not be achieved, bad weather, exploration and development risks, actual results of exploration and/or development activities being materially different from those expected by management; uncertainties related to interpretation of drill results and geological tests, failure to meet expenditure and financing requirements, title matters, third party consents, operating hazards, metal prices, political and economic factors, competitive factors and general economic conditions. Actual results may vary from those implied or projected by forward-looking statements and therefore investors should not place undue reliance on such statements. The forward-looking statements herein are made as at the date of this presentation and the Company expressly disclaims any intention or obligation to update or revise any forward-looking statements except as required by applicable securities legislation.

TECHNICAL DISCLOSURE

The technical information in this presentation has been approved by Melvyn Levrel, MAIG., a Qualified Person as defined by National Instrument "NI" 43–101 Standards of Disclosure for Mineral Projects



Highlights



Top-Tier Asset

- High-grade narrow-vein Tuvatu alkaline gold deposit
- > >250 drill assays >100 g/t gold, average 0.5 m sample width
- Zone 500 feeder zone drilled 75.9 m of 20.86 g/t gold
- > 50% of current production is outside the defined resource
- Huge exploration potential in the Navilawa Caldera
- >30 high potential untested exploration drill targets



Ramping Up

- Current pilot plant operations at 300 TPD
- Mine ventilation upgrade complete Q1 2025
- New mine equipment arriving O2 2025
- Shrinkage stope production beginning Q2 2025
- Increasing recoveries to >90% in Q4 2025
- Doubling plant capacity to 600 TPD in 2026



Infrastructure

- > Fully permitted for mining, exploration, and expansion
- Full government support with>100 years of gold mining in Fiji
- Company-owned fully certified assay laboratory
- Company-owned fleet of diamond drill rigs
- <1hr drive from deepwater port and international airport
- Ramping up production as gold prices hit all-time highs



Ideally Positioned in the Pacific Ring Of Fire



Prolific geological & tectonic setting



Host to several major gold & copper-gold systems

One of the only large alkaline gold systems not owned by a major





Analog Alkaline Gold Systems

PORGERA, PNG BARRICK LIHIR, PNG NEWMONT VATUKOULA, FIJI ZHONGRUN SSR (ex-NEWMONT)





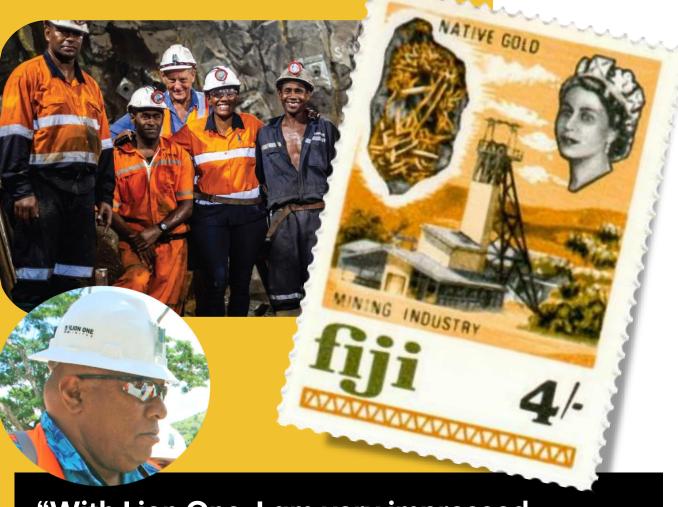




"...alkaline magmas...carry a lot of gold... usually, they turn out to be big."

Dr Quinton Hennigh





"With Lion One, I am very impressed ... Lion One sets the bar for those that follow"

- Ratu Wiliame Katonivere, President of Fiji

Fiji Mining

- ★ +100-year gold mining industry
- Stable democracy & regulatory system
- Skilled mining workforce
- Supportive government
- 2023 Fraser Ranking #31, between New South Wales #30, and Colorado #32



Location & Infrastructure



20km

NADI INTERNATIONAL AIRPORT

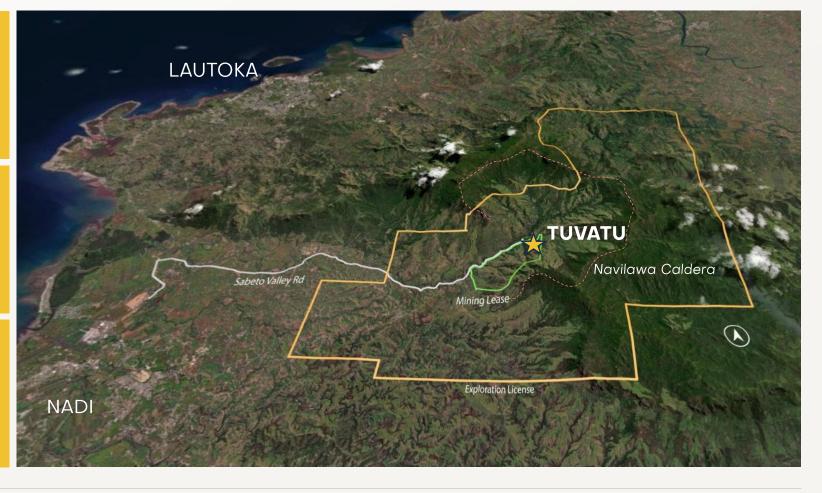


35km

LAUTOKA DEEPWATER PORT



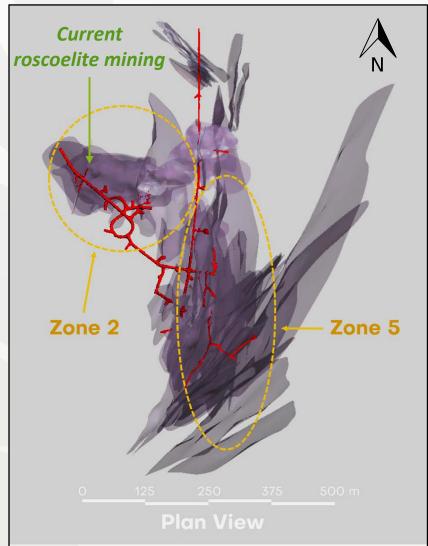
<1 hour</p>
URBAN CENTERS OF
NADI & LAUTOKA

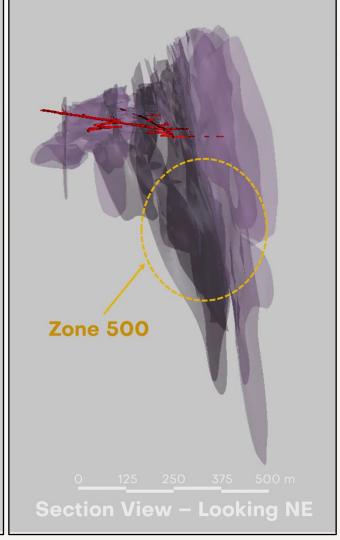




Tuvatu Deposit

- Steeply dipping high-grade gold lodes trending N-S and NE-SW
- Surface footprint 500 m x 900 m
- Extends to >1000 m depth
- 10 Open at depth and along strike
- Zone 2 and Zone 5 near surface
- N Zone 500 feeder zone







Roscoelite

- Characteristic of large high-grade alkaline gold systems, including Porgera, Lihir, Cripple Creek
- Nare green-black alteration mineral
- Directly related to high grade gold
- Widely observed at Tuvatu, including in the ultra high-grade Zone 500

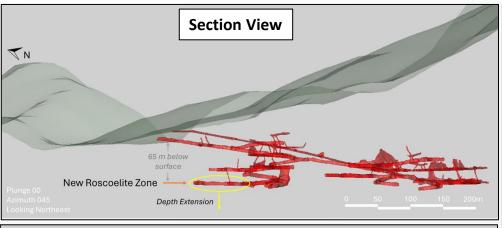
Porgera
Near-Surface Tuvatu
Zone 500
Tom
Tom
Tom

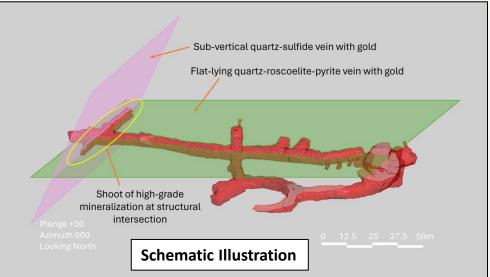


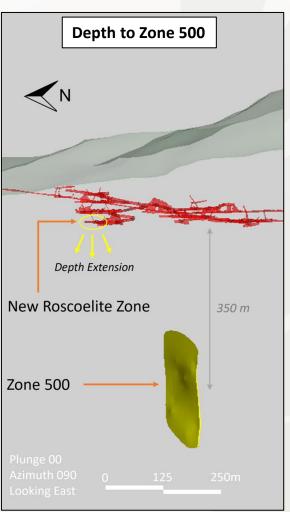
"The highest gold grades... ubiquitously occur with roscoelite, a vanadium-rich mica."

D. Schmidt, 2023 Thesis, Colorado School of Mines









Near Surface Roscoelite Zone

- 65m below surface, >100 m exposed underground
- 11.6 g/t Au from 816 t bulk sample
- Blow-out zones at the intersection of structures
- Already in production

High-grade gold shoots occur at the intersection of sulfide veins with roscoelite veins, as seen at Porgera



EXAMPLE DRILL RESULTS

INTERVAL

(meters)

FROM

(meters)

GRADE

High-Grade Gold Results

ZONE 2 and ZONE 5

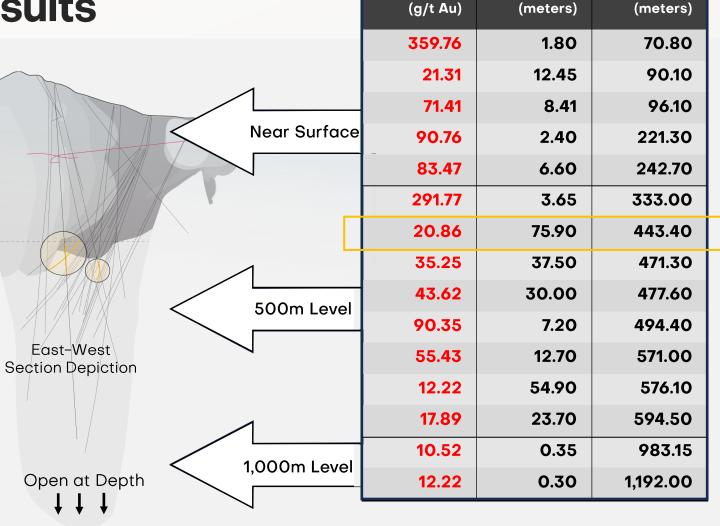
In Production at 300 TPD

ZONE 500

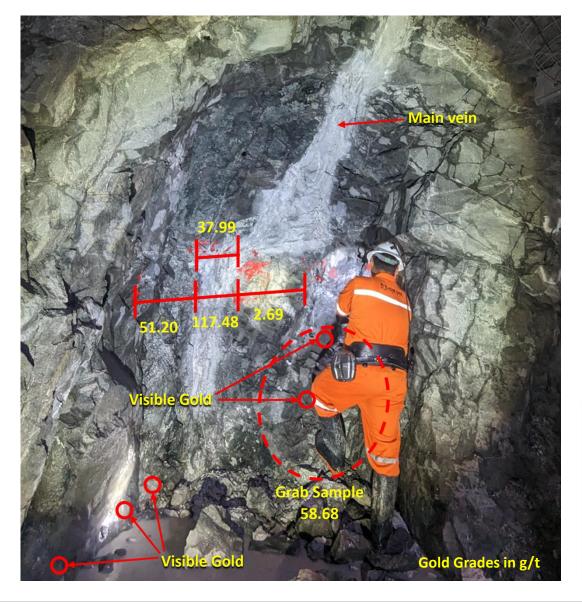
Targeted Production at 600 TPD

DEEP FEEDER ZONE

Exploration, Development Drilling







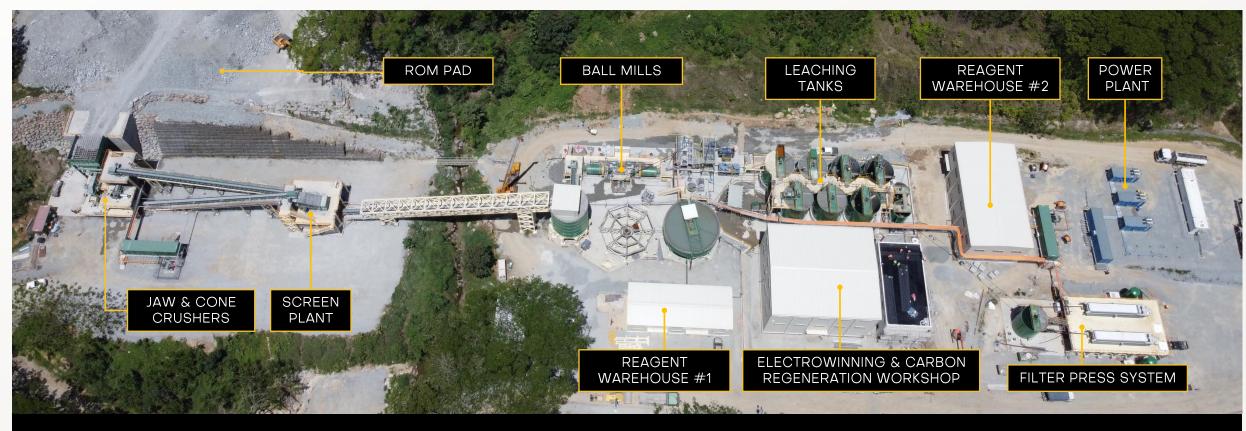
Mining Methods

- High-grade narrow vein gold
- Flexible use of conventional and mechanized mining to maximize production & minimize dilution
- First shrinkage stope currently under development; 80 m long, 35 m tall, 1.5 m wide
- New mine equipment arriving Q2 2025 to accelerate development and open new headings





Tuvatu Processing Plant

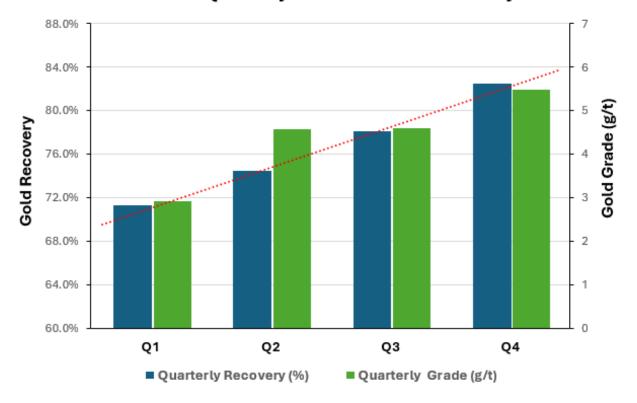


300 TPD PILOT PLANT IN OPERATION

Flotation circuit targeted for Q4 2025; Expansion to 600 TPD targeted for 2026; Fully permitted



2024 Quarterly Gold Grade and Recovery



Record C\$18.0M of quarterly revenue in Q4 CY2024

Production Start-up

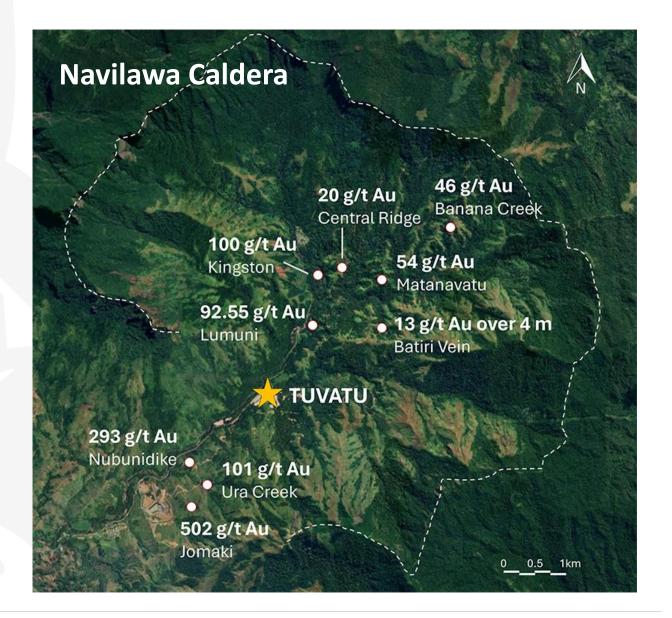
- Plant commissioning complete, January 2024
- Increased mill throughput, March 2024
- Start of mechanized production, May 2024
- Consistent increase in production each quarter





Regional Exploration

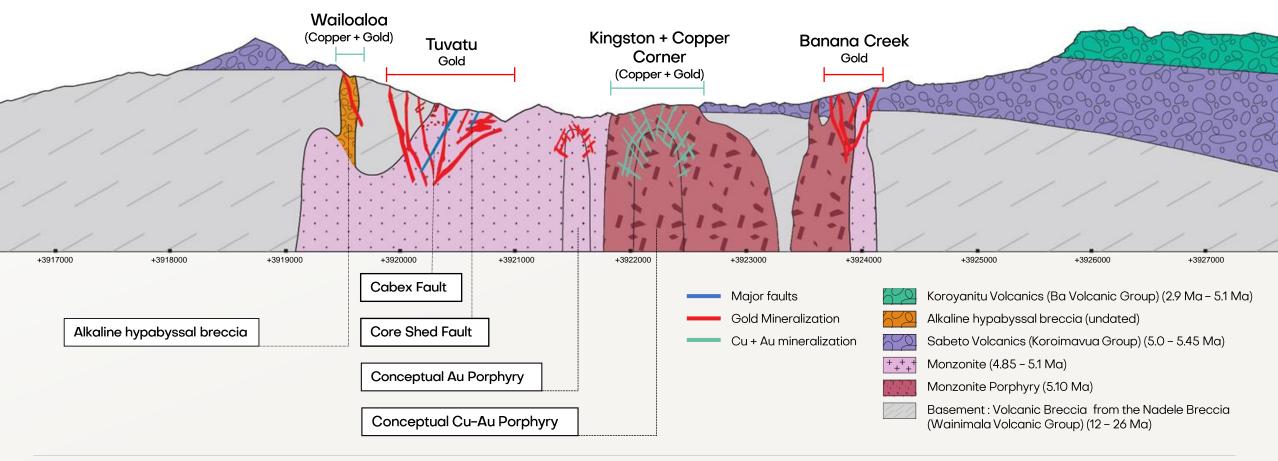
- 7 km wide caldera with very limited modern exploration
- Multiple deep feeder systems possible throughout the caldera
- Numerous bonanza grade gold results from surface sampling
- >30 high-potential untested drill targets already identified
- No modern systematic exploration for copper



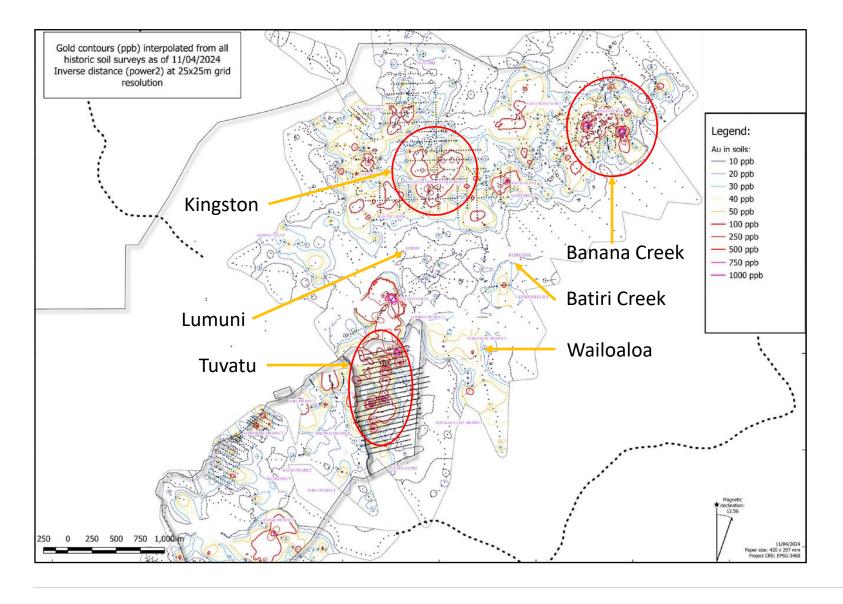


Cross-Section of Navilawa Caldera

CONCEPTUAL ILLUSTRATION OF DIFFERENT DEPOSIT TARGETS







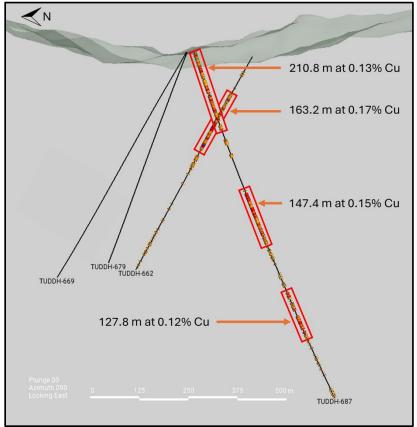
Historical Gold in Soil Results

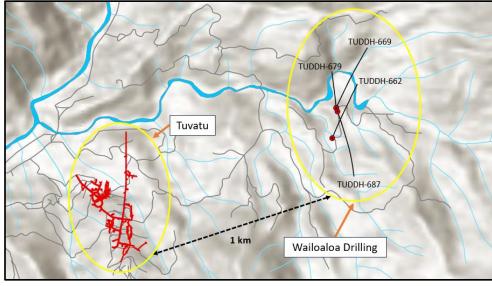
- Extensive gold anomalies from historical soil surveys
- Limited advanced exploration conducted outside Tuvatu
- District scale exploration upside
- Future exploration to be funded by cash flow from Tuvatu



Wailoaloa Discovery

- Alkalic copper-gold discovery
- 1 km northeast of Tuvatu
- Strong surface copper anomaly
- Drilled four test holes, the first hole hit 163.2 m of 0.17% copper
- Potassic alteration and veining intensity increasing with depth

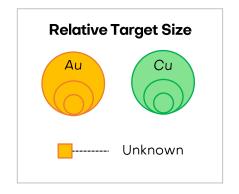




May have intersected the periphery of a large Cu system – significant potential for discovery



Exploration and Discovery Pipeline





Operating Mine



State of the Art Lab On-Site

- Provides critical support for 7 companyowned drill rigs
- Rapid assay turnaround
- Fire assay, ICP, and Metallurgical Testing
- Facilitates real-time optimization of mining and drilling activities
- Production capacity of over 10,000 samples per month









Compelling Value Proposition



High-grade gold resource



Mining-friendly jurisdiction



Strong proven leadership



Highly experienced operations team



300 TPD pilot plant in operation



600 TPD plant expansion in 2026

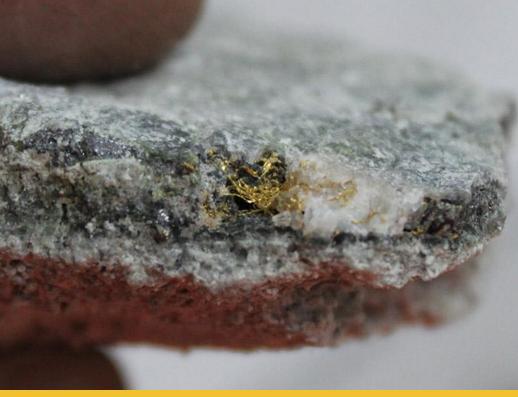


Multiple near-mine exploration targets



District-scale high-grade gold exploration upside

One of the only large alkaline gold systems not already owned by a major mining company







SUCCESS STORIES

Northern Orion sold to Yamana in 2007 for \$1.1B

Miramar Mining sold to Newmont in 2008 for \$1.5B

La Mancha sold in 2012 for \$600M

Emperor Gold Mines Fiji Gold Assets (Vatukoula & Tuvatu) purchased in 2008

Lion One Metals Limited created in 2011

Leadership Team

THE LION ONE METALS TEAM

OFFICERS

Ian Berzins, CEO
Tony Young, CPA, CA, CFO
Patrick Hickey, COO
Hamish Greig, VP, Corp. Secretary

TECHNICAL TEAM

Ivan Maldonado, P. Geo Melvyn Levrel, MAIG Sergio Cattalani, P.Geo Darren Holder, P.Geo Kevin Li, P.Eng

DIRECTORS

Walter Berukoff, Chairman Richard Meli Casey Spreeuw







Corporate Snapshot

CAPITALIZATION

SHARE CAPITAL	As of May 8, 2025
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Common Shares	297.75 M
Options	13.18 M
Compensation Warrants	8.24 M
Warrants	126.12 M
Shares Fully Diluted	445.29 M
Market Capitalization	CAD \$85 M

LIO: \$0.28 | 52wk: \$0.60 **\$0.22 | Avg. vol:** 380K

MAJOR INVESTORS

Lion One Management and Insiders (10%)
Arbiter Partners
Franklin Precious Metals Fund
Nebari Gold Fund
Delbrook Capital Advisors
US Global Investors
MMCAP

TSX-V: LIO TSX-V: LIO.WT OTCQX: LOMLF



