

BUILT FOR GROWTH

augustagroup

Investor Presentation

JANUARY 2025 | TSX: TI

INVESTOR PRESENTATION

FORWARD LOOKING INFORMATION

This presentation contains "forward-looking information" within the meaning of Canadian securities laws. In some cases, forward-looking information can be identified by the use of forward-looking terminology such as "plans", "targets", "expects", "is expected", "is positioned" or "assumes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would" or "will" occur or be achieved. In addition, any statements that refer to expectations, predictions, indications, projections or other characterizations of future events or circumstances contain forward-looking information. Statements containing forward-looking information are not historical facts, but instead represent management's expectations, estimates and projections regarding future events.

Forward-looking information includes, among other things, statements relating to: estimated future payable production of zinc, C1 cash costs, AISC, sustaining capital, and exploration capital; future financial or operating performance and condition of Titan Mining Corporation (the "Company"), including its ability to continue as a going concern, and its business, operations and properties; the Company's ability to implement its growth strategy to maximize the value of its property holdings; the Company's planned exploration and development activities at Empire State Mines; costs, timing and results of future exploration and drilling; forecasted trends in the global zinc and graphite market, including in respect of the price of such commodities; capital and operating cost estimates; economic analyses (including cash flow projections); the adequacy of the Company's financial resources; the realization of mineral resources being converted into measured or indicated mineral resources; the production estimates for ESM #4 mine; production of the drill program at the Empire State Mines; the Company's ability to make scheduled payments of the principal, or to pay interest on or refinance its indebtedness; potential and ability to add incremental production at low cost; the ability for Kilbourne to be fast-tracked into production; that Kilbourne ever goes into production at all; that ESM becomes the first commercial producer of US sourced and processed graphite, or a commercial of graphite at all; significant resources is protential ability to expand mineral resources; the ability to add incremental resources; the ability to add incremental resources; the ability to add incremental resources; the future development of a Kilbourne facility; production and cost guidance; production interruptions due to Storm Debbie are expected to be caught up by end of the year with guidance production on track; future exploration potential; when future LOM updates may be released; catalysts for Titan's business; timing of a PEA for Kilb

Forward-looking information is based on opinions, assumptions and estimates made by the Company in light of its experience and perception of historical trends, current conditions and expected future developments, as well as other factors that the Company believes are appropriate and reasonable in the circumstances, as of the date of this presentation, including, without limitation, assumptions about: equity and debt capital markets; the ability to raise any necessary additional capital on reasonable terms; future prices of zinc and other metals; the timing and results of exploration and drilling programs; the likelihood of discovering new mineral resources in the Balmat-Edwards distric; the accuracy in the Company's most recent technical report of the mine production schedule; the estimates; the accuracy of any mineral resource estimates; the successful integration of ESM #4 mine; the production estimates; the geology and geophysical data of ESM; metallurgical forecasts; the eccuracy exchange rates and interest rates; operating conditions being favourable; political and regulatory stability; the receipt of governmental and third party approvals, licenses and permits on favourable terms; obtaining required approvals, licenses and permits on favourable terms; sustained labour stability; in financial and capital goods markets; availability of equipment and the condition of existing equipment being as described in the Company's most recent technical report; the assence of any long-term liabilities created by the mining activity in the Balmat region beyond those described in the Company's most recent technical report; the assumptions or estimates and permits on favourable terms; sustained labour stability; in the Balmat region beyond those described in the Company's most recent technical report; the assence of any long-term liabilities created by the mining actisify the terms and conditions of is indeb

Forward-looking information is necessarily based on a number of the opinions, assumptions and estimates that, while considered reasonable by the Company as of the date such statements are made, are subject to known and unknown risks, uncertainties, assumptions and other factors that may cause the actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information, including but not limited to the following factors described in greater detail under the heading "Risks Factors" in the Company's most recent Annual Information Form available at www.sedarplus.com: limited operating history; dependence on ESM; limited supplies, supply chain disruptions, and inflation; requirements for additional capital in the future; financial leverage and restrictive covenants restricting our current and future operations; risks related to ramping up mining activities; inherent risks of mining; estimates of mineral resources; production decisions based on mineral resources; uncertainty in relation to inferred mineral resources; fluctuations in demand for, and prices of, zinc and graphite; production projections and cost estimates for ESM #4 mine may prove to be inaccurate; profitability of the Company; ability to attract and retain qualified management; tille; competition; governmental regulations; market events and general economic conditions; environmental laws and regulations; threat of legal proceedings; rights, concessions and permits; social and environmental activism; land reclamation requirements; Tailings Management Facility and environmental reclamation; insurance; undisclosed liabilities; health and safety; depredence on information technology systems; fixed zinc pricing arrangement; conflicts of interest; risks inherent in the Company's indebtedness; risks inherent in acquisitions; intergration of the mine asset; labour and brines; eluctuations in price of the common shares; loss of entire investment; significant ownership b

2025 Augusta Group Companies⁽²⁾

ΛΤΙΤΛΝ

C\$41M

Market Cap

augustagroup

Track Record of Value Creation

Past Augusta Group Company Returns

EQUINOX **ARIZONA** MINING VENTANA GOLD CORP. GOLD AUGU[`]STA C\$105M Market Cap **X**augusta TSX: G 12,960% 3,300% 1,000% 6,100% **OTCQB: AUGG** Return Return Return Return SOLD for \$1.6B SOLD for \$667M \$1.6B Market Cap⁽¹⁾ SOLD for \$2.1B **C\$85M** Market Cap **HIGHLANDER SILVER** 2011 2014 2017 2018 **CSE:HSLV**

Notes (1) Co-Founded in 2017 (2) Information as of January 6, 2025

PROVEN SUCCESS

Mine development, Q operational excellence & innovation

Exploration R

Capital markets & ш́ **Mergers & Acquisitions**

Corporate social મ્બે responsibility

A Best-in-class **Leadership Team**

Richard Warke

EXECUTIVE CHAIRMAN

Consistent record of creating shareholder value at Augusta Group, with more than 35 years' experience in the international resource sector.

Donald Taylor CEO

30+ years of mineral exploration experience, Winner of 2018 Thayer Lindsley Award for Taylor discovery.

Rita Adiani PRESIDENT

18 years of experience in the mining industry and global capital markets, including energy transition. Has been involved in raising over \$10 billion in public equities.

Speaker John Boehner DIRECTOR

Served as the 53rd Speaker of the US House of Representatives from Ohio's 8th congressional district.



Governor of the State of NY:Co-Founder and Chairman of the Pataki-Cahill Group.



William Mulrow DIRECTOR

Senior Advisor at the Blackstone Group, an alternative asset manager, various roles at companies like Citigroup, Paladin Capital, GAMCO, Rothschild Inc. and others.



Corporate Director and former partner of PwC where he served for more than 30 years, he was Leader of the B.C. Mining Group of PwC.





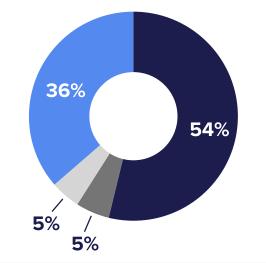
Capital Structure

- Optimizing cash flow and focused on deleveraging
- High insider ownership >

CAPITAL STRUCTURE

> Unique positioning: junior with steady-state cash flow, significant exploration upside and critical metals strategic positioning

ТΙ



Shareholder Distribution⁽³⁾⁽⁴⁾

RICHARD WARKE BLACKROCK **BOARD & MANAGEMENT** OTHERS

Toronto Stock Exchange Symbol Cash Position US\$9 M Third party short term debt US\$10 M Shares Outstanding⁽¹⁾ 136.3 M Fully Diluted Shares Outstanding⁽¹⁾ 152.6 M C\$41 M Market Capitalization⁽²⁾

All figures as at December 31, 2024 unless stated otherwise.

- 6M Warrants, 10M Options 1.
- Market capitalization as of January 6, 2025 2.
- As of November 19, 2024, Bloomberg 3.
- 4. Management excludes Mr. Warke and includes other members of the Titan board and management team



Investment Highlights

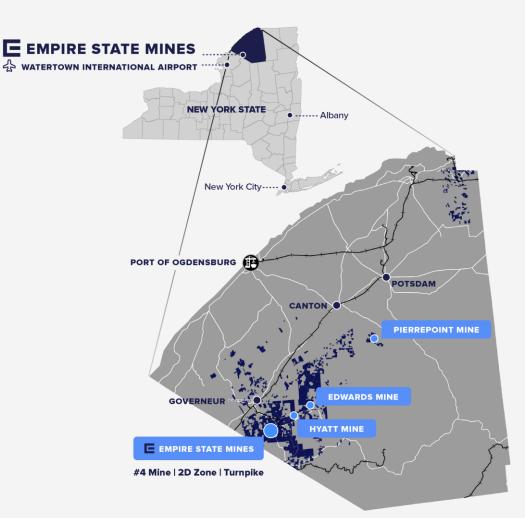
Solid foundations and building for growth

- > U.S production base in upstate New York
 - Existing infrastructure includes
 5,000 tpd mill, skilled
 workforce of 135 employees,
 rail, port and air access
 - > Cash flow positive zinc mine
- > Existing permitted operations with state level permitting only
- > 80,000 acres of mineral rights controlled throughput the district,
- Regional district scale and near mine exploration potential and ability to add incremental production at low cost

- Significant graphite discovery at Empire State Mine's (ESM)'s property
 - The Kilbourne Graphite Project is a near surface discovery within 1 mile of the ESM mill
- Unique advantage of existing operating base creating pathway for co-production
- Disciplined approach to fasttracking Kilbourne's potential development to production
- Target to be the first commercial producer of US sourced and processed graphite

>80,000 acre con the

acres of mineral rights controlled throughout the district



2024 ZINC GUIDANCE- PRODUCTION AND COST

Payable Production Zinc	56-60 Million lbs
C1 Cash Cost ⁽¹⁾	0.98 - 1.02 per lb
AISC ⁽¹⁾	1.04 - 1.10 per lb
Sustaining Capital	US\$3 - US5\$ Million
Exploration Capital	US\$2 - US3\$ Million

2023 ZINC HIGHLIGHTS	2023 UNITS US\$/Ib	2022 UNITS US\$/Ib
Average Zinc Price	1.19	1.55
Operating Expenses (site cost)	0.75	0.83
C1 Cash Cost ⁽¹⁾	1.05	1.11
AISC ⁽¹⁾	1.08	1.16
Earnings	(0.07)	(0.01)

 C1 Cash Cost and AISC are non-GAAP measures. Accordingly, these financial measures are not standardized financial measures under IFRS and might not be comparable to similar financial measures disclosed by other issuers. Information explaining these non-GAAP measures is set out in the Company's most recent MD&A under the section titled, "Non-GAAP Financial Measures" which disclosure is incorporated by reference herein. The Company's most recent MD&A can be found on SEDAR+ at www.sedarplus.com

Zinc

- > Exceeded 2023 guidance of 54-58M lbs
- > 61M lbs zinc produced in 2023, up 16% YoY
- > US\$38m in revenue in the first nine months of 2024
- Estimating 56-60 M lbs of payable zinc for 2024 at or below forecast AISC

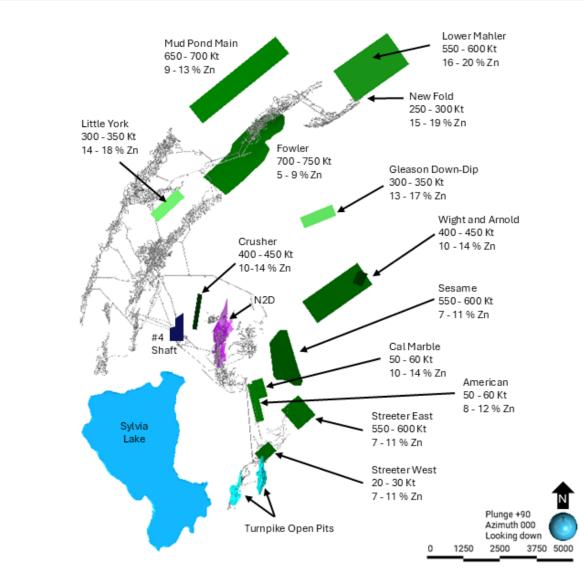






Existing 5,000 tpd mill

ESM #4 Mine, N2D and Turnpike



Zinc

Near term resource expansion and opportunities to increase production

#4 Mine – mineralized zones generally plunge to northeast; potential to extend zones up and down-plunge - Underground exploration drilling following up on intercepted mineralization between Mahler and New Fold and expanding Mud Pond Main

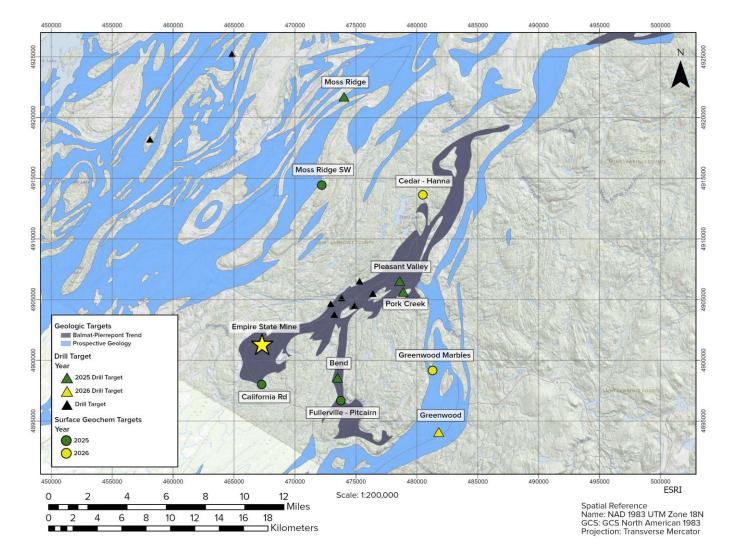
N2D – accelerating production from N2D has the potential to increase near term production, cash flows and project NPV over the life of the zone

Turnpike – commencing open pit production has the potential to increase project NPV over the life of the zone

Total near mine targets for further exploration target range are estimated to contain between 4.8mt-5.3mt of mineralized material at average zinc grades of 10-14%, containing 935 mlbs to 1,470 mlbs of contained zinc

The potential quantity and grade of these exploration targets are based on historic production figures from geologically similar horizons. The potential quantity and grade is conceptual in nature and there has been insufficient exploration to define a mineral resource at these targets. It is uncertain if further exploration will result in these targets being delineated as a mineral resource.

INVESTOR PRESENTATION



Multiple Drill Targets Within the Historic Balmat – Pierrepont Trend

Regional Surface Exploration - Planning

- Drilling Targeting undertested historic Zn mineralization, productive geologic units, and untested Zn anomalies in soil and rock
 - Prioritization of targets within proximity to existing ESM infrastructure
 - Goal of +31,000 ft of surface drilling in 2025
- Surface Geochemical Sampling Phased approach to evaluating ESM's mineral tenure through the collection of soil, rock, and water samples
 - Goal of +2,000 soil samples in 2025
- Continued review of historic data, airborne geophysics, and geology for target generation and land acquisition







UNDERGROUND AS OF JULY 16, 2024

Category	Tons (000's US short tons)	Zn (%)	Contained Pounds (M Lbs)
Measured	295	17.1	101
Indicated	1,158	15.7	364
Measured and Indicated	1,453	16.0	465
Inferred	4,327	12.1	1,049

Notes: Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that any part of the Mineral Resources estimated will be converted into a Mineral Reserves estimate. Mineral Resources stated as in-situ grade at a Zinc price of \$1.30/lb, with an assumed zinc recovery of 96.4% Resources are reported using a 5.3% Zinc cut-off grade, based on actual break-even mining, processing, and G&A costs from the ESM operation. Numbers in the table have been rounded to reflect the accuracy or the estimate and may not sum due to rounding.

Zinc

Consistent Resource Replacement and Expansion

Continued Growth by the Drill Bit

Titan expects to expand its mineral resources and production through infill drilling at Mahler, New Fold and Mud Pond

Increased Mine Life

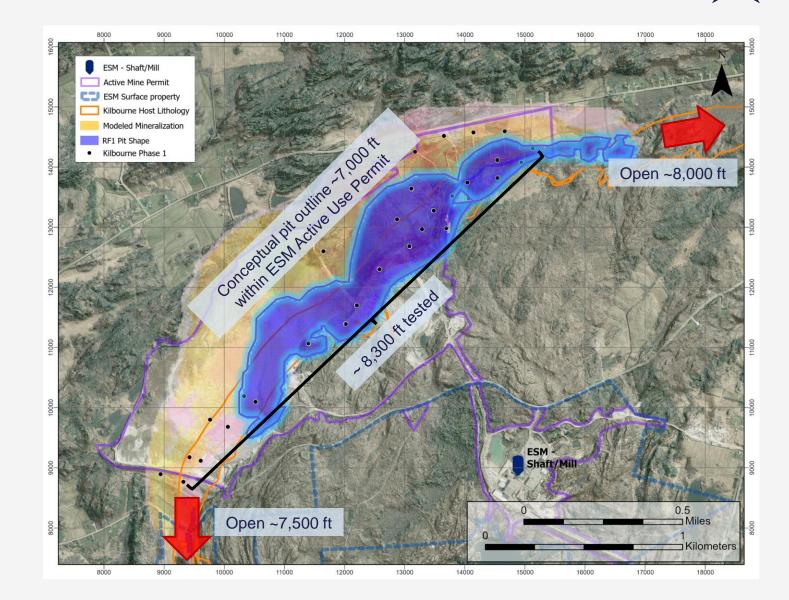
Contained zinc in 2024 MRE (M&I): 465mlbs and Inferred: 1,049mlbs Mineralized material, Processed in latest Zinc LOM Plan: 663mlbs

Potential to add to near term production and increase in mine life through drilling of exploration targets

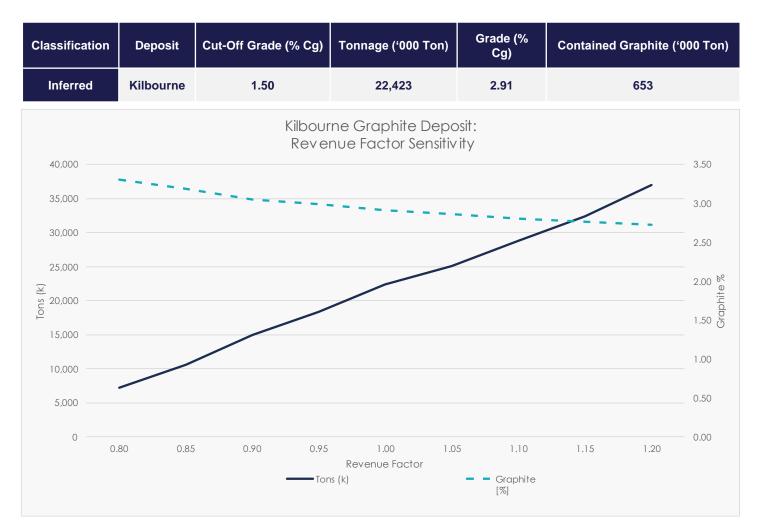
Kilbourne Graphite Maiden Resource

Strengthening the domestic critical minerals supply chain

- Open-pit constrained inferred resource of 22 million tons at an average grade of 2.91% Cg (based on a cut off grade of 1.50%)
- > 653 kt of contained graphite within inferred resource estimate
- 8,300 ft of strike length tested of a total strike length of 25,000 ft
- > 7,000 ft of conceptual pit is within ESM active use permit
- > Only 30% of the Kilbourne trend has been tested
- > Potential for expansion along strike and down dip
- Nearly all of the existing resource is within active mine use permit – only permits required to bring to production are state level permits
- > Existing plant and infrastructure allows Kilbourne to be potentially fast-tracked into production
- > Targeting to be the first commercial producer of US sourced and processed graphite



Graphite Mineral Resource Estimate



Potential Long-life Open Pit Resource

- Based on 45 surface diamond drill holes
- Mining cost of \$4.60/t for mineralized rock, \$3.50/t for unmineralized rock,
 \$2.00/t for overburden and tailings
- > Processing cost of \$14/t
- > 91% recovery and concentrate grade of 95%
- Assumed selling price of \$1,090/t of concentrate and transportation cost of \$50/ton
- > Resource reported in terms of a pitconstrained cut off value of 1.50% Cg



Price Sensitivities and Kilbourne Graphite Product Segments

- Assumed selling price of \$1090/t of concentrate providing 22mt of mill feed @2.91% Cg
- Selling price based on conservative/lowcase target market of industrial and lubricant use with no value-add products considered
- Significant resource upside from minimal pricing increase from sales to engineered products, energy storage and battery products segments
- > Further resource expansion through drilling the remaining resource area
- The Kilbourne Facility is targeted to de-risk commercialization through (i) product qualification for higher value segments and (ii) establishing base line US domestic customers within traditional markets

PRICING SENSITIVITIES – KILBOURNE MINERAL RESOURCE

\$USD per Ton Concentrate	RF	Graphite [%]	Mill Feed [k Ton]	Contained Graphite [k Ton]	Waste [k Ton]	Overburden [k Ton]
872.00	0.80	3.30	7,198	238	4,810	3,532
926.50	0.85	3.19	10,627	339	9,247	5,763
981.00	0.90	3.05	14,987	457	13,578	9,261
1035.50	0.95	2.99	18,303	547	18,824	11,072
1090.00	1.00	2.91	22,423	653	25,278	13,425
1144.50	1.05	2.86	25,109	719	29,871	14,557
1199.00	1.10	2.81	28,790	808	36,399	16,528
1253.50	1.15	2.76	32,401	895	44,365	18,400
1308.00	1.20	2.73	36,959	1,009	56,969	21,433

NORTH AMERICAN DOMESTIC MARKET GROUPS



Phase III-SGS⁽¹⁾

	As	says (%)
Composite	C(t)	C(g)
Master	3.48	3.14
North Shallow	3.38	3.21
South Shallow	3.51	3.28
North Deep	2.87	2.68
South deep	3.57	3.25

Concentrate Size Fraction- Master Composite	Mass %	Assays % C(t) ⁽²⁾
+100 mesh	8.2%	98.1%
+150 mesh	11.7%	98.9%
+200 mesh	26.0%	99.1%
-200 mesh	54.1%	99.2%
Total Concentrate	100%	99.1%

1. SFA analysis from Phase III metallurgy at SGS.

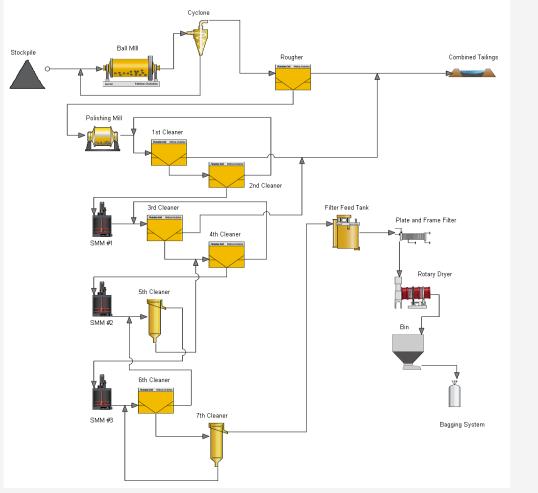
2. SGS has reported concentrate assay results in total carbon (C(t)), the inference is that this represents graphitic carbon in a high-grade concentrate.

Metallurgy

- Process Optimization completed at SGS Lakefield for Master
 Composites and Variability Composites
- > Master & Variability Composite Head Grades
 - > 118 mineralized intervals from 4 drill holes- 4 variability samples
 - Sub-samples of all 118 drill core intervals were combined to produce a Master composite
 - Final master composite test produced final concentrate of 98.8% C(t) and open circuit graphite recovery of 87.3%, 90-91% closed circuit recovery projected

> Flow sheet and size fraction analysis

- Simplified flow sheet developed based on process optimization. Concentrate grades range between 97.6% C(t) for the North Shallow and 99.3% C(t) for the South Deep Composite
- Size fraction analysis demonstrates saleable product and key product group applications with US domestic customer base





Natural Flake Graphite Processing Facility (the "Facility")

> Facility key objectives

- > **Product Qualification**
- > Path to full scale commercialization

> Operating Parameters

- 60,000 tons per annum throughput @ 2.91% Cg grade
- > 85% assumed recoveries (accounting for ramp up), 75% availability
- Concentrate grade 90%+
- > 1,000-2000 tpa concentrate production with modular expansion capability to targeted 40,000tpa

Key Customer Segments and Forward Planning

- Strategic introduction timelines will be coordinated with the production ramp up and customer qualifications
- Micronized STD Purity (95.0% LOI MIN) products planned to expand progressive qualifications and add to revenues and margins
- Future high purity (99.9% LOI MIN) micronized graphite products are anticipated to further enhance both revenues and margins to the company targeting primary and secondary batteries, medical device, military specifications ("MIL-SPEC") and nuclear grade graphite
- Targeted operating margins at 40,000 tpa of 40-45%. Assumed average selling price of US\$2,350/t (includes micronized and HP products)



Graphite Development Plan and Indicative Timeline

	• Year 0	• Year 1	• Year 2 & 3 (Scale Up) ⁽¹⁾	
Technical	 Resource declaration (Q4 2024) Metallurgy Phase III Facility Design & Engineering/Equipment Orders 	 Infill drilling of resource to measured & indicated status Commencement of mine permitting, only state level required, for Kilbourne Graphite Facility Start of Production- Customer deliveries	 FEED/Detailed engineering Equipment orders Construction/installation Permits issued 	Production
Commercial	> Preliminary product segmentation	 Preliminary Economic Assessment for 2 phase commercial facility – Phase I – 20,000t and Phase II - 40,000t Product qualification and offtakes 	> Offtake/product placement	Expansion
Financial	> Financed from internal resources	 Drilling cost Metallurgical Test-work Facility capex (including working capital) Study costs Permitting 	 Construction and Phase I start up cost Debt Financing process 	

(1) Note: Commercial production decision to be based on positive results through the Company's development plan, board approval, and financing

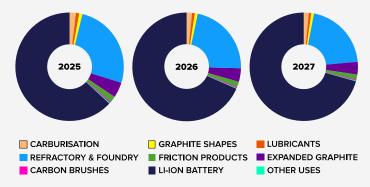


Graphite - Demand by Type and Region

NATURAL FLAKE GRAPHITE DEMAND BY GEOGRAPHY (MILLION MT)



GRAPHITE MARKET DEMAND FORECAST BY APPLICATION

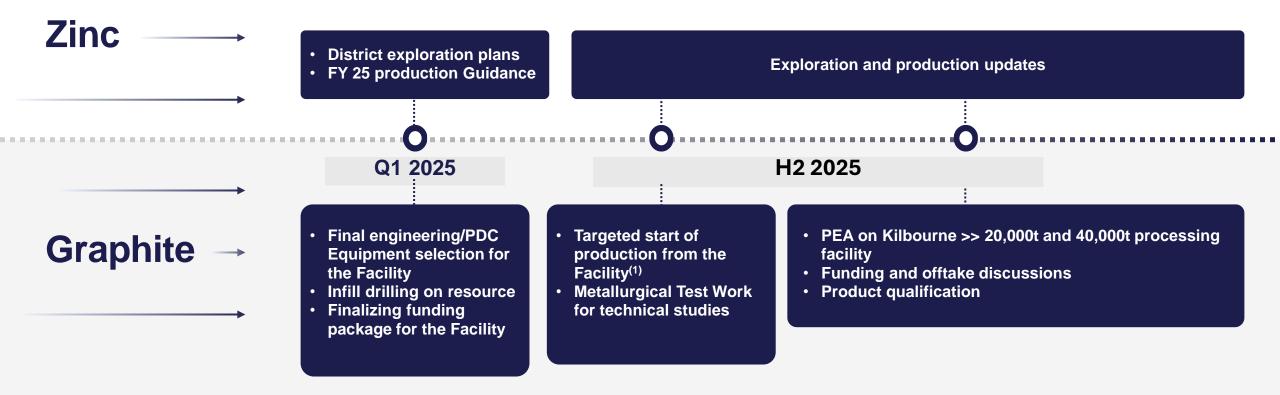


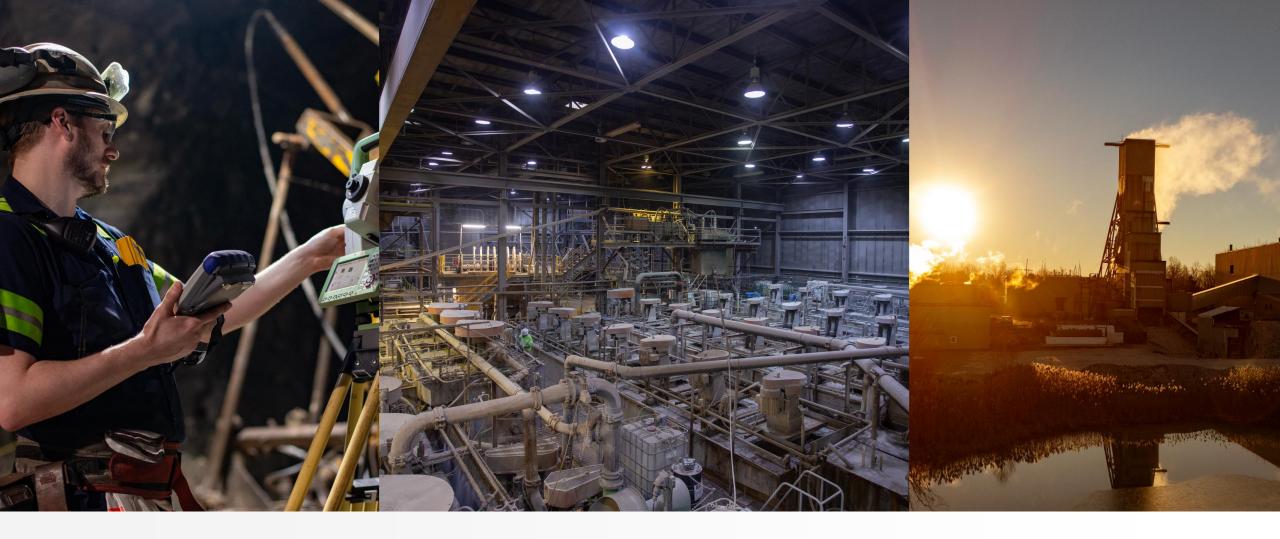
- > No domestic commercial producers of natural flake graphite in the U.S
- North American demand projected to grow at CAGR of 15% p.a. Li-On batteries are key driver of demand growth driven by EV growth
- China is expected to control 82% of total supply of graphite by 2030 with other key suppliers being Mozambique and Madagascar
- Graphite forms part of the critical minerals agenda for the US DoD, DOE and USGS
- The US imports 100% of the current graphite requirement creating a unique opportunity for Titan to play a key role in delivering to US domestic needs

Sources: Benchmark Minerals, Silverado Policy Accelerator, USGS, DOE and Department of Defense (DLA)



Near Term Catalysts





Appendix

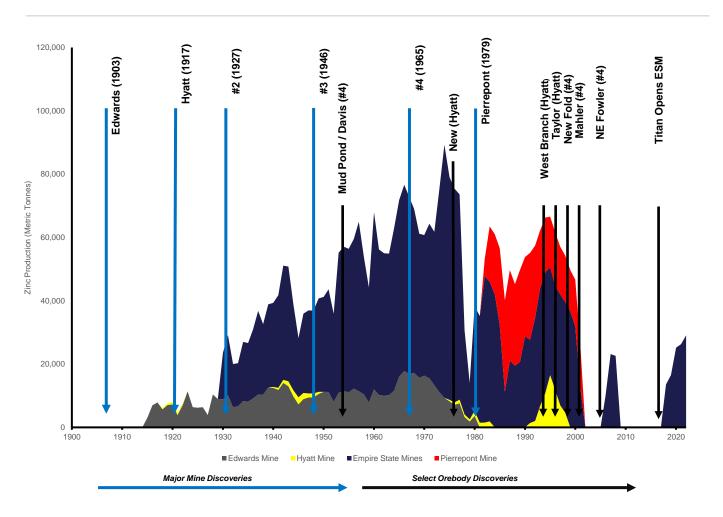
History of exploration success

Potential for additional discoveries

Many discoveries made during a century of mining operations

- > Minimal exploration during 2000-2010 period
- District remains highly prospective refocus on exploration concurrent with production

Long production history with numerous discoveries





Our Approach to Sustainability

- Employees uphold integrity, trust, and commitment to community as well as environmental and social stewardship
- Projects deliver long-term mutual economic value to employees, communities, governments, and shareholders
- > We minimize environmental, social, and safety impacts through innovative technology
- A key measure of a success is defined by direct engagement and transparent discussions with the surrounding communities

Committed to localization and building partnerships that deliver long-term mutual benefits



SCIENTIFIC AND TECHNICAL INFORMATION

The scientific and technical information contained in this presentation relating to the Empire State Mines Zinc operations was based upon the technical report titled "Empire State Mines 2024 NI 43-101 Technical Report Update Gouverneur, New York, USA" (the "ESM Technical Report") which has an effective date of December 3, 2024, and was approved by the following qualified persons: Donald R. Taylor, MSc., PG, Todd McCracken, P. Geo., Deepak Malhotra, P. Eng., and Oliver Peters, MSc, P. Eng., MBA. Mr. Taylor is the Chief Executive Officer of the Company. Messrs McCracken, Malhotra, and Peters are independent of the Company.

The scientific and technical information contained in this presentation relating to the Empire State Mines Kilbourne Project was based upon: 1. the ESM Technical Report; and 2. the Company's press release titled "Titan Mining Announces Phase III Metallurgy Results and Outlines Plans for Natural Flake Graphite Processing Facility in New York State", dated January 16, 2025, which was approved by Oliver Peters of Metpro Management Inc. Mr. Peters is a Qualified Person as defined by National Instrument 43-101 and is independent of Titan.

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