BUILT FOR GROWTH

A PROVEN TEAM DRIVEN BY VALUE AND COMMITTED TO EXCELLENCE

TITAN

TSX: TI

TD SECURITIES MINING CONFERENCE JANUARY 16-17, 2019

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", "unique investment opportunity", "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 C1 cash costs and AISC; future financial or operating performance and condition of 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; costs, timing and results of future exploration and drilling; forecasted trends in the global zinc market, including in respect of the price of zinc; capital and operating cost estimates; economic analyses (including cash flow projections) from the Technical Report; the adequacy of the Company's financial resources; the estimation of mineral resources; the realization of mineral resource estimates; the probability of inferred mineral resources being converted into measured or indicated mineral resources; the production schedule for the Empire State Mines ("ESM") #4 mine; the timing of completion and results of drift rehabilitation and refurbishment of ESM #4 mine; production estimates for ESM #4 mine; the Company's plans for marketing of zinc concentrate produced at the Empire State Mine and mill; any updates to the mine plan for ESM #4 mine and continuation of the drill program at the Empire State Mine; timing, receipt and maintenance of approvals, consents and permits under applicable legislation; the Company's ability to re-negotiate expired leases and the timing thereof; environmental, permitting, legal, taxation, title, socio-economic, community relations or political issues that may adversely affect the Company's current and anticipated operations; the Company's expectations with respect to the payment of dividends; the Company's ability to make scheduled payments of the principal, or to pay interest on or refinance its indebtedness; the Company's expectations with respect to principal shareholders; and the Company's expectation that it will be able to continue to locate and retain employees and consultants with required skills and knowledge.

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 district; the accuracy in the Technical Report of the mine production schedule; the estimated time of completion of drift rehabilitation and refurbishment of ESM #4 mine; the production estimates; the geology and geophysical data of ESM; the accuracy of any mineral resource estimates; the successful integration of ESM into the Company's business; availability of labour; the accuracy of drill sample results at ESM; future currency 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 renewals for existing approvals, licenses and permits and obtaining all other required approvals, licenses and permits on favourable terms; sustained labour stability; stability in financial and capital goods markets; availability of equipment and the condition of existing equipment being as described in the Technical Report; the absence of any long-term liabilities created by the mining activity in the Balmat region beyond those described in the Technical Report; the accuracy of the Company's accounting estimates and judgments; the impact of adoption of new accounting policies; and the Company's ability to satisfy the terms and conditions of its indebtedness. There can be no assurance that such estimates and assumptions will prove to be correct. In addition, if any of the assumptions or estimates made by management prove to be incorrect, actual results and developments are likely to differ, and may differ materially, from those expressed or implied by the forward-looking information contained in this presentation. Accordingly, readers of this presentation are cautioned not to place undue reliance on such information.

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 and Uncertainties" in the Company's Management's Discussion and Analysis for the year ended December 31, 2017, available at www.sedar.com: limited operating history; dependence on ESM; refurbishment of the mine and mill; 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; production projections and cost estimates for ESM #4 mine may prove to be inaccurate; future requirements for additional capital; profitability of the Company; ability to attract and retain qualified management; title; 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; dependence on information technology systems; zinc hedging activities; conflicts of interest; risks inherent in the Company's indebtedness; risks inherent in acquisitions; integration of the mine assets; labour and employment retention/relations; anti-corruption and bribery regulation, including ESTMA reporting; infrastructure; enforceability of judgments; absence of a market for the common shares; fluctuations in price of the common shares; loss of entire investment; significant ownership by Richard W. Warke; future sales of common shares by Richard W. Warke and other directors and officers of the Company; use of proceeds; payment of dividends; currency exchange rate risks; pro forma financial information; public company status; financial reporting and other public company requirements; dilution; and securities analysts' research or reports could impact the price of the common shares. These factors and assumptions are not intended to represent a complete list of the factors and assumptions that could affect the Company. These factors and assumptions, however, should be considered carefully.

Donald Taylor, MSc., PG, Titan's Chief Executive Officer, is a Qualified Person under NI 43-101, and has reviewed and approved the technical contents of this presentation on behalf of Titan.



Overview

- 100%-owned Empire State Mine ("ESM") with excess capacity for near-term growth
- Main focus of the Augusta Group leaders in building long-term value
- Ramping up zinc production in historic mining district in New York State
- Growth fueled by excellence in exploration and development; driven by best-in-class leadership

Toronto Stock Exchange Symbol	ті
Shares Outstanding	102.0 million
Fully Diluted Shares Outstanding	111.9 million
Market Capitalization (as of 1/11/2019)	C\$107 million

Currency is in US dollars and tonnage is in short tons unless otherwise indicated



1/2019 **3**

Empire State Mine

New York

Investment Highlights

Best-in-Class Leadership	• Demonstrated track record. Executive Chair, Richard Warke, and the Augusta Group have generated extraordinary shareholder value through exploration and development excellence					
	 Award-winning. CEO Donald Taylor is the recipient of PDAC's 2018 Thayer Lindsley Award for the 2014 discovery of the world-class Taylor lead-zinc-silver deposit in Arizona 					
	Strong board. Experienced, well-rounded and connected directors					
Focus on Organic Cash	• New mine plan expected H1/19. Target 3,000 tpd / 150M lb Zn per year near-term – with ESM #4 mine and #2D zone					
Flow Growth	 Fill the mill. Target 5,000 tpd / 225M lb Zn per year medium-term – with existing mineral resources and near-mine resource additions 					
	Modernize the operation. Improve efficiencies and lower costs					
World-Class Exploration Potential	 Highly-prospective district. 100 years of historical data, many new untested ideas and a modern approach to exploration Potential for significant discoveries. Target new discoveries in the 15-30Mt range, grading 10% zinc 					



Our Strategy

Mission: To deliver extraordinary shareholder value through exploration, development and operational excellence

BEST-IN-CLASS LEADERSHIP

- Leverage experienced management and directors
- Remain aligned with shareholders – management/directors own 49% of Titan shares
- Attract and retain top talent

Leaders in building long-term value

PRUDENT GROWTH

- Maximize NAV per share through risk-adjusted returns
- Advance pipeline of low-risk, high-return organic projects
- Realize external opportunities to enhance our North American portfolio
- Maintain a conservative capital structure

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OPERATIONAL EXCELLENCE

- Deliver on expectations
- Innovate to capture efficiencies and lower costs
- Operate to high health, safety and environmental standards
- Invest in our workforce and support skill development for advancement and growth

SUSTAINABLE DEVELOPMENT

- Build relationships based on respect, trust and transparency
- Mitigate the impacts of our actions to ensure safety and environmental well-being
- Jointly create long-term positive legacies with our host communities

The Right People



 Consistent record of creating shareholder value at Augusta Group

25+ years of public

President of the

Augusta Group

company experience

in the mining sector



Executive Chairman





 Combined 40+ years of capital markets and corporate

Jerrold Annett SVP, Corporate Development



experience

 Focused on growing Titan into a North American-focused. multi-asset mining company





Naomi Johnson VP, Community Relations

• 15 years' experience in community relations and law

 Leading-edge approach to stakeholder risk and impact management







Donald Taylor





Michael McClelland CFO



Eric Strom VP, Projects and Innovation



Scott Burkett VP, Exploration

- 25+ years of mineral exploration experience
- Discovered world-class Taylor sulphide deposit winner of PDAC's 2018 Thayer Lindsley Award
- 15 years' experience with global mining companies
- Former CFO of Bisha Mining Share Company, a Nevsun Resources subsidiary

Combined 40+ years'

experience in mine building and

operations

innovation

Strong focus on

 Tasked with ESM ramp-up, expansion and modernization

safety, efficiency, cost control and



Kevin Torpy VP, Operations





 Instrumental in discovering world-class deposit at Arizona Mining's Hermosa project



Key directors

• John Boehner, Len Boggio, James Gowans William Mulrow, George Pataki, Robert Wares





The Augusta Group Track Record



La Bodega gold project (Colombia)

SOLD in 2011 for ~C\$1.6B

12,960% share price increase



Rosemont copper project (Arizona)

SOLD in 2014 for ~C\$666M

3,300% share price increase



Hermosa-Taylor zinc-lead-silver project (Arizona)

SOLD in 2018 for ~C\$2.1B

6,100% share price increase



Castle Mountain gold project (California)

MERGED into EQX in 2017 for ~C\$200M

700% share price increase

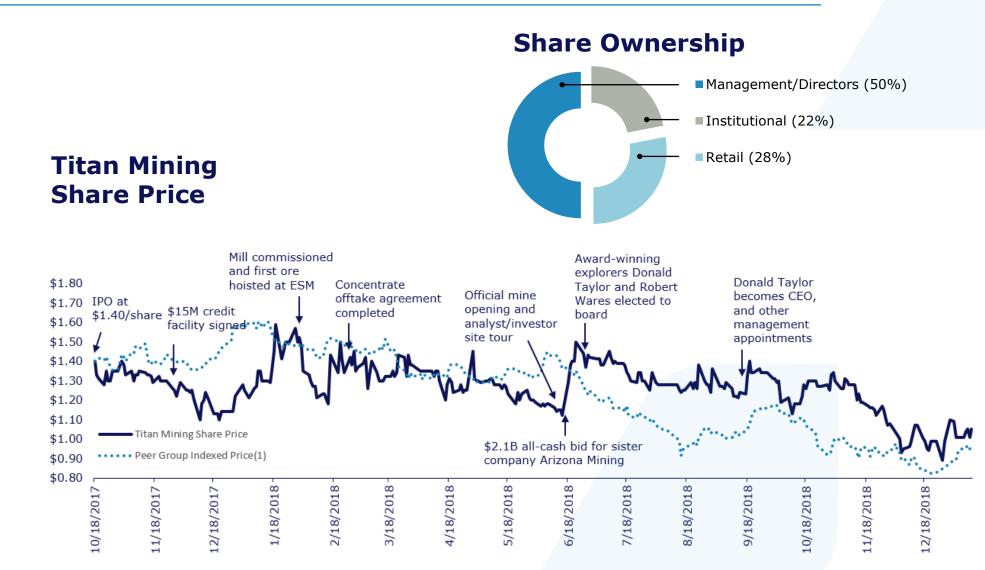
What's next? Main focus is Titan



Note: The results for Ventana Gold Corp., Augusta Resource Corp., NewCastle Gold Ltd. and Arizona Mining Inc. are independent of the results of Titan Mining ("the Company") and are no guarantee of the future performance of the Company. Undue reliance should not be placed thereon when considering an investment in Titan Mining.



Consistently Aligned with Shareholders



(1) Peer group includes Ascendant Resources, Capstone Mining, Copper Mountain Mining, Ero Copper, Hudbay Minerals, Imperial Metals, Nexa Resources, Sherritt International, Taseko Mines and Trevali Mining.



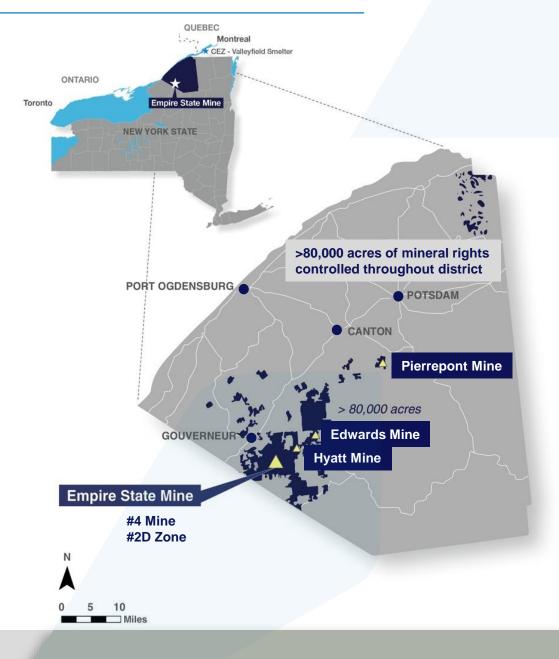
Empire State Mine: Focused on Exploration in a 100-Year-Old Zinc District

- In production, ramping up to 3,000 tpd; target 5,000 tpd to fill the mill
- Major employer with ~200 employees (over 80% local), benefiting St. Lawrence County in northern New York
- Long-term zinc concentrate offtake agreement with Glencore – transportation within North America
- Historic production 44M tons milled at average grade of 9.4% zinc from 7 mines within 30-mile radius of mill



Shipment of zinc concentrate leaving site

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Two Parallel Exploration Strategies – Filling The Mill and Finding Major New Deposits

- Filling the mill (5,000 tpd) with current mineral resources and near-mine resource additions
 - Current source is ESM #4 mine multiple zones; Mahler and Mud Pond zones in production, New Fold zone in development
 - New development frontier in #2 mine #2D zone to be incorporated in new mine plan in H1/19
 - Future discoveries expected through near-mine exploration
- Discovery of large, high-grade deposits (15 to 30+ Mt at 10% zinc) – new ideas and modern approach to exploration led by award-winning¹ team
- Exploration budget of \$9M in 2019



Underground crusher at 3,100 level

¹: Donald Taylor is the recipient of PDAC's 2018 Thayer Lindsley Award



Office building and 3,800 tpd shaft



5,000 tpd processing plant



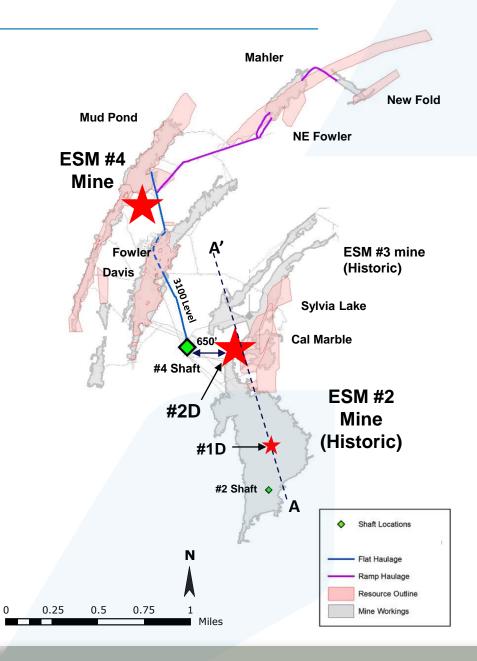
Fully equipped maintenance shop capable of servicing all equipment



Excellence in Exploration

Plan view of ESM #4 mine and #2D zone

- #4 mine drilling potential zone extensions and upgrading mineral resources
- #2D zone¹ major extension of zone mined in historic #2 mine; 650 feet east of #4 shaft; historic infrastructure in place; open downplunge and laterally
- #1D potential extension of historically-mined zone



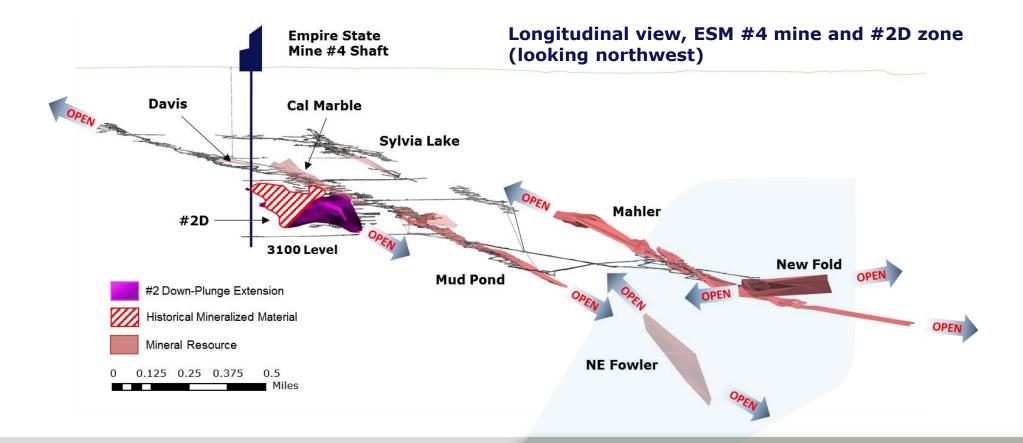
¹ New mine plan to incorporate #2D – expected H1 2019



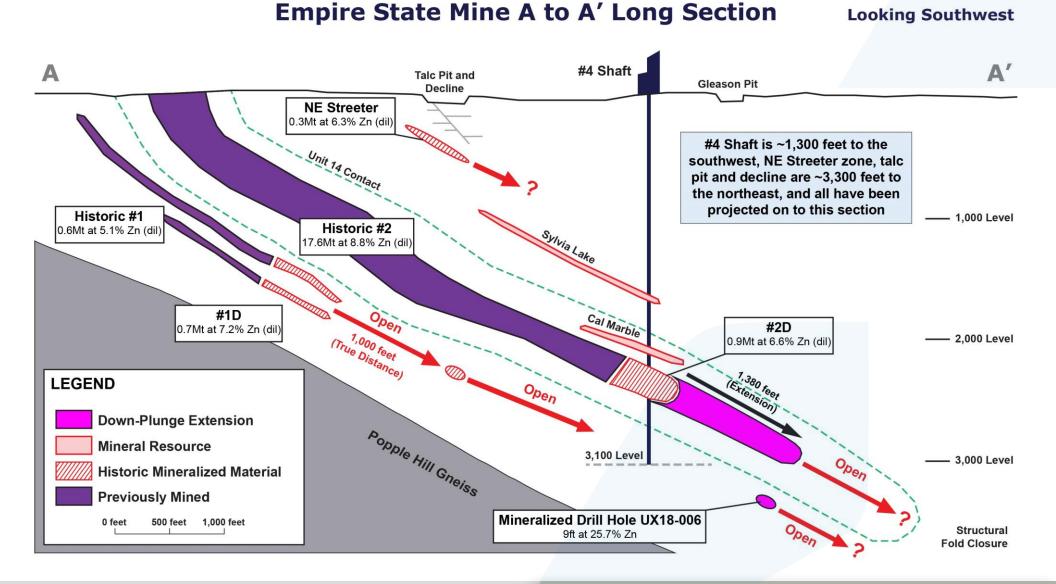
Realizing Mineral Resource Expansion Potential at ESM #4 Mine and #2D Zone

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- #4 mine mineralized zones generally plunge to northeast; potential to extend zones upand down-plunge
- #2D zone More than 2,000 feet of strike length and open down-plunge and laterally; connected by historic infrastructure on 2500 level to the #4 shaft



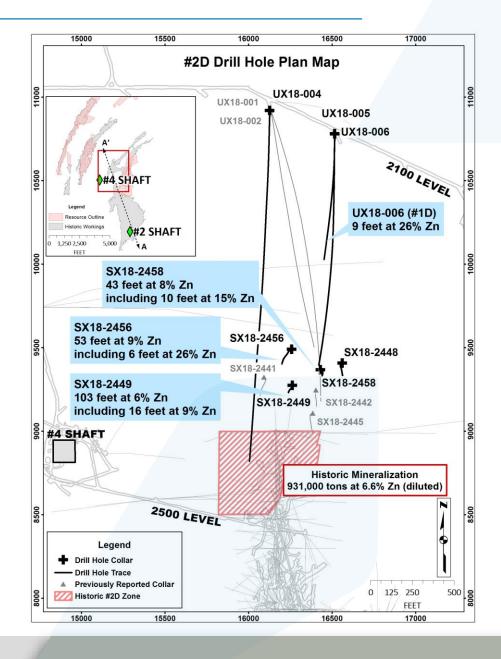
Major Down-Plunge Extension of #2D Zone (Longitudinal View)



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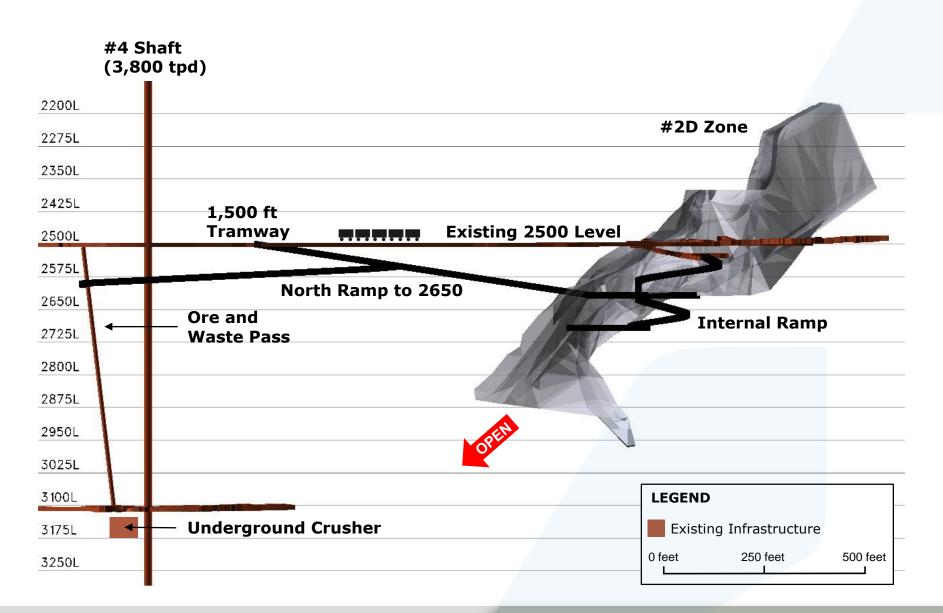
#2D Zone – Focus on Near-Term Expansion and Development

- Mineralization remains open in several directions – step-out and definition drilling in Q4 2018
- Bulk-minable area of thicker, high-grade mineralization extends down-plunge and may be associated with a fold hinge
- Preliminary engineering design
 underway



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#2D Zone – Longitudinal View Looking Northeast





#2D Zone – Existing Infrastructure Connected to #4 Shaft



Locomotive and rail cars on 1,500-ft tramway on 2500 level



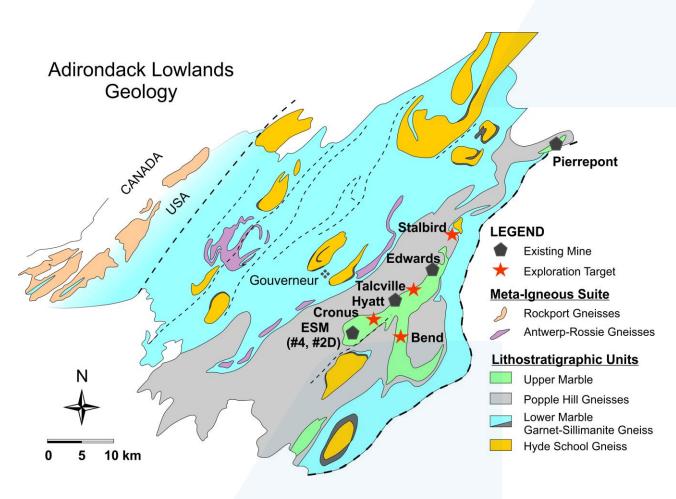
Rehab underway at #2D zone



New Ideas for a Prolific Zinc District

Exploration targets throughout district

- Targeting large, high-grade deposits in the 15 to 30+ Mt range
- Multiple targets identified along trend northeast of ESM and south of Hyatt
- Target areas exhibit favourable host rocks, prospective structures and surface expressions of zinc mineralization
- Untested geophysical targets generated from 2008 VTEM survey
- Drill site selection from ongoing compilation and review of existing data within target areas

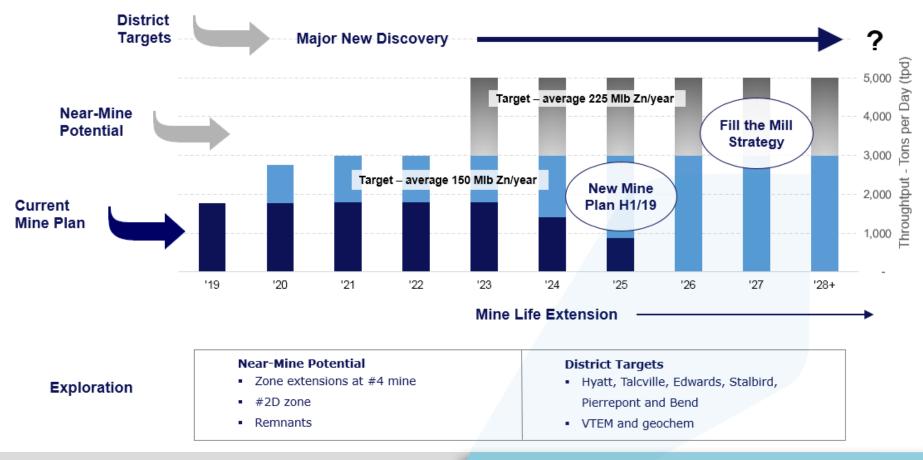




Focus on Organic Cash Flow Growth

- New mine plan expected H1/19 target 3,000 tpd / 150M lb Zn per year near-term, with ESM #4 mine and #2D zone
- Fill the mill target 5,000 tpd / 225M lb Zn per year medium-term, with existing mineral resources and near-mine resource additions
- Modernize the operation improve efficiencies and lower costs

Leveraging Excess Capacity through Exploration Success



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Our Catalyst-Rich Path

~	Recommissioning (Q4 2017)	 Refurbishment of existing infrastructure and equipment Reconditioning and restarting the mobile equipment fleet General rehabilitation of the underground workings 					
✓	First ore skipped (January 2018)	Development of new ramps, drifts and stopes concurrent with capitalized pre-commercial production					
~	Concentrate offtake agreement	 Long-term contract with Glencore Concentrate to be transported within North America – simple, low-risk logistics 					
✓	Mineral resource update (Q1 2018)	 Mineral resource expansion completed in Q1 and announced early April Updated PEA filed in May⁽¹⁾ 					
~	2018 exploration program (Q1 2018)	 \$5M budget for regional exploration, including 40,000 feet of diamond core drilling Success-based budget – potential to add drills 					
1	Exploration results (Q4 2018)	Ongoing drill program and review of historical data					
	Updated LOM plan (H1 2019)	Economic analysis to include #2D zone					
	Exploration updates	• Ongoing					

(1) Technical report "NI 43-101 Preliminary Economic Assessment Updated Technical Report, Empire State Mines, Gouverneur, New York, USA", dated May 24, 2018.



Our Approach to Sustainibility

Guiding Approach

- Our employees are governed by a commitment to integrity, trust, community involvement as well as environment and social stewardship
- Our projects are developed with the goal of delivering long-term mutual economic benefits for employees, communities, local governments and shareholders
- We strive to minimize the environmental, social and safety impacts of our activities through innovation and the use of technology
- A key measure of a successful project is defined by direct engagement and transparent discussions by our company with the surrounding communities which we impact

INTEGRITY AND TRUST

- We listen, communicate and respond to community stakeholders in an open, respectful and timely manner
- We build and reinforce our relationships through transparency
- We back up our commitments with action
- We comply with both the letter and spirit of laws, regulations and permits

COMMUNITY INVOLVEMENT

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

ENVIRONMENTAL AND SOCIAL STEWARDSHIP

- We mitigate the impacts of our actions to ensure the safety and environmental, well-being of the areas in which we operate
- We work jointly with communities to create positive, long-term legacies that benefit future generations
- We carefully manage the natural resources of our projects, and minimize our environmental footprint through sound business decisions
- We promote local economic development by hiring and buying locally
- We partner and invest in workforce training so workers have the skills for future advancement and growth
- We use our projects as a catalyst to expand economic development and community investment for the benefit of local residents, community organizations and local governments



Our Approach to Sustainability... In Practice

Integrity and Trust

We build relationships based on integrity and trust - positive feedback from our partners

"With the help of the Governor and NYPA, we are capitalizing one resource, our hydropower assets, to support and develop another resource, our workforce. As a result, Empire State Mines, LLC is creating a significant number of jobs and bringing substantial positive economic impact to the region." **Patrick A. Kelly** *CEO*, *St. Lawrence County Industrial Development Agency*

Community Involvement

- Hired a workforce of ~200 people, approximately 80% from the local area
- Partnered with NYPA and the Workforce Development Institute to develop a \$1.2 million training program – qualifying up to 60 local workers as trained underground miners
- Focused recruiting efforts on veterans and soldiers from neighbouring Fort Drum military base
- Purchase goods and services from nearby businesses that directly boost the local economy

Environmental and Social Stewardship

- Partnership with NYPA includes a 4-megawatt allocation of low-cost, clean hydropower for ESM, coming from the St. Lawrence–Franklin D. Roosevelt Power Project in Massena, NY
- Supporting the Gouverneur Hospital and local fire department, and sponsorship of educational events
- Laying the foundation for effectively managing and preserving natural resources through modern and innovative stewardship practices







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APPENDIX



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Opportunities to enhance economics relative to PEA Dilution control Zinc market Analyst coverage Valuation upside

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Empire State Mine historic production, ore types and exploration

Mineral resources

Historic mineralized material write-downs

Management, directors and advisors

Technical report Qualified Persons

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Opportunities to Enhance Economics Relative to the PEA

	Explanation	Potential Benefit
Plant Feed Sorting	Use sorting technology to reject waste rock mixed with mineralized mill feed	Lower rate of dilution and increased head grade entering the mill
Rail-veyor	Use Rail-veyor technology for hauling material in the mine	Simpler materials handling and reduction of mine operating costs by eliminating or reducing the need for truck haulage of mill feed
Drill Core Sampling	Resample core from holes that were excluded from the study due to lack of verification data	Potential to enhance the tonnage, grade and classification of mineral resources within the PEA mine plan, without additional drilling
Metallurgical Testing	Investigate retention times in cleaner flotation stages and forced air type cells in rougher stage, as locked cycle test proved concentrate grades of 60%, higher than budget of 56%	Potential to increase concentrate grade
Modernizing the Mine	Operate loaders from surface, drill/muck between shifts, leaky feeder monitoring/vent controls, real time scheduling/execution	Reduce operating costs by utilizing between- shift "dead" hours and improving efficiency

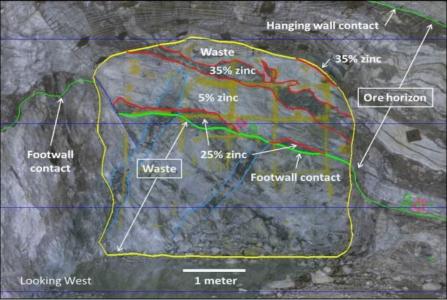


Dilution Control

Rigorous grade control is key

- On-shift grade control geologist
- Disciplined approach to sourcing incremental zinc mineralization
- Implementation of optical ore/waste sorting technology
- Tighter stope design

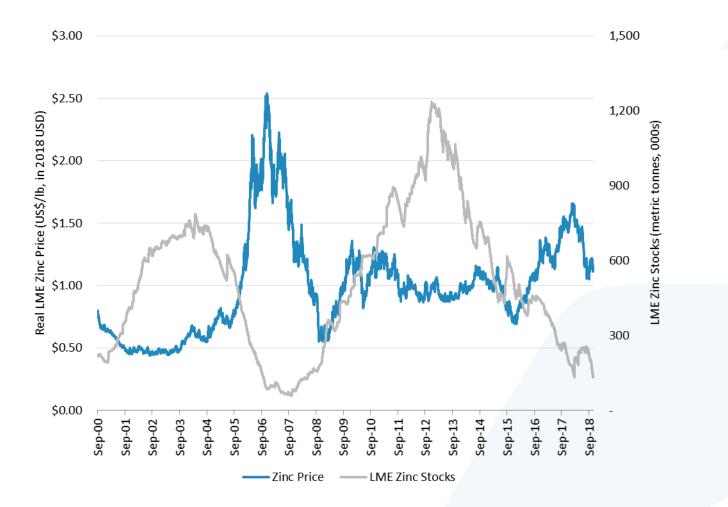






Outlook for Zinc Prices Remains Positive

As a pure zinc producer, Titan benefits from elevated zinc prices supported by low inventories



Source: LME and U.S. Federal Reserve



Zinc Market Balance

Zinc Supply/Demand Forecast (`000 Tonnes)

	2009	2010	2011	2012	2013	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	2018E	2019E	2020E	2021E	2022E	2023E
GROSS TOTAL MINE PRODUCTION	11,292	12,121	12,529	12,831	12,903	12,988	13,123	12,148	12,635	13,197	14,423	14,852	15,154	15,313	15,248
LESS: DISRUPTION ALLOWANCE @ 4.0%										(53)	(577)	(594)	(606)	(613)	(610)
NET TOTAL MINE PRODUCTION	11,292	12,121	12,529	12,831	12,903	12,988	13,123	12,148	12,635	13,144	13,846	14,257	14,548	14,701	14,638
Mined Zn production growth %	-2.2%	7.3%	3.4%	2.4%	0.6%	0.7%	1.0%	-7.4%	4.0%	4.0%	5.3%	3.0%	2.0%	1.1%	-0.4%
CONCENTRATE SURPLUS/(DEFICIT)	248	-380	-217	734	418	141	-170	-884	-270	0	0	0	0	0	0
REFINED ZINC PRODUCTION	44.475	10 715	12,969	10.450	12.025	13.233	10 718	13,582	10 500	12 750	14 407	14.055	45 171	15 244	15 201
	11,175 -2.7%	12,715 13.8%	2.0%	12,453 -4.0%	12,935 3,9%	2.3%	13,716 3.6%	-1.0%	13,520 -0.5%	13,759 1.8%	14,407 4,7%	14,855 3,1%	15,171 2,1%	15,344 1,1%	15,301 -0.3%
Refined Zn production growth %	-2.770	13.070	2.070	-4.070	3.370	2.370	3.070	-1.070	-0.076	1.070	4./70	3.170	2.170	1.170	-0.376
CONSUMPTION	10,102	11.626	12.390	12.645	13.029	13.534	13.670	13,974	14.232	14.321	14,435	14.633	14.879	15,146	15.413
Global consumption growth %	-9.8%	15.1%	6.6%	2.1%	3.0%	3.9%	1.0%	2.2%	1.8%	0.6%	0.8%	1.4%	1.7%	1.8%	1.8%
NET SURPLUS/(DEFICIT)	1,073	1,089	579	(192)	(94)	(301)	46	(392)	(712)	(562)	(28)	222	291	198	(112)
Total exchange inventories (LME/SHFE/Bonded)	660	1,012	1,186	1,554	1,210	885	747	741	401	201	173	394	686	884	771
Days of forw ard consumption	24	32	35	45	34	24	20	19	10	5	4	10	17	21	18
Total inventories (exchange + non-exchange)	2,448	3,683	4,334	4,141	4,048	3,746	3,793	3,399	2,684	2,122	2,094	2,315	2,606	2,804	2,692
Days of forw ard consumption	88	116	128	120	113	101	101	89	69	54	53	58	64	68	64
LME spot price (USD/Ib)	\$0.74	\$0.98	\$1.00	\$0.88	\$0.87	\$0.98	\$0.88	\$0.95	\$1.31	\$1.33	\$1.20	\$1.20	\$1.15	\$1.10	\$1.05
Chinese Zn mine production	3,189	3,720	4.227	4,588	4,738	4,901	4,768	4,720	4.735	4.650	4.857	4,908	4.981	5.054	5,132
Chinese Zn mine production grow th %	1.5%	16.6%	13.6%	8.6%	3.3%	3.4%	-2.7%	-1.0%	0.3%	-1.8%	4.4%	1.0%	1.5%	1.5%	1.5%
Chinese Zn mine production as a % total	28.2%	30.7%	33.7%	35.8%	36.7%	37.7%	36.3%	38.9%	37.5%	35.2%	33.7%	33.0%	32.9%	33.0%	33.7%
Consumption Growth by Region %															
China	8.0%	14.8%	10.0%	6.5%	6.9%	5.7%	3.1%	3.9%	2.3%	1.2%	1.0%	1.5%	1.8%	2.0%	1.9%
Rest of Asia (Ex China)	-15.8%	19.5%	2.4%	1.1%	3.5%	3.4%	-2.3%	3.6%	3.8%	-1.1%	0.2%	1.7%	2.6%	2.7%	2.8%
Europe	-27.1%	20.4%	5.4%	-6.7%	-1.0%	1.9%	2.3%	-0.3%	2.3%	1.7%	0.9%	0.9%	0.9%	0.9%	0.9%
North America	-9.7%	1.9%	5.6%	6.9%	-1.3%	4.7%	-3.5%	3.2%	-4.0%	-0.1%	-0.1%	0.4%	0.5%	0.5%	0.5%
Latin America	-20.5%	11.6%	3.4%	2.8%	-1.5%	-1.4%	-5.9%	0.5%	-0.5%	3.8%	2.0%	2.0%	2.0%	2.0%	2.1%
Rest of world	-12.7%	13.8%	5.1%	-6.6%	-5.5%	0.4%	3.9%	-8.9%	0.6%	-3.6%	1.5%	1.7%	1.6%	1.6%	1.6%
Consumption Mix by Country/Region:															
China	40.6%	40.4%	41.7%	43.6%	45.3%	46.1%	47.0%	47.7%	48.0%	48.2%	48.3%	48.4%	48.4%	48.5%	48.6%
Rest of Asia (Ex China)	18.9%	19.6%	18.8%	18.7%	18.8%	18.7%	18.1%	18.3%	40.0%	40.2%	40.3%	18.3%	18.5%	18.6%	18.8%
Europe	18.6%	19.5%	19.3%	17.6%	16.9%	16.6%	16.8%	16.3%	16.7%	16.3%	16.2%	16.6%	16.5%	16.3%	16.2%
North America	10.0%	8.9%	8.9%	9.3%	8.9%	9.0%	8.6%	8.7%	8.2%	8.1%	8.0%	8.0%	7.9%	7.8%	7.7%
Latin America	5.3%	5.1%	5.0%	5.0%	4.8%	4.5%	4.2%	4.2%	4.1%	4.2%	4.2%	4.3%	4.3%	4.3%	4.3%
Rest of world	6.5%	6.4%	6.3%	5.8%	5.3%	5.1%	5.3%	4.7%	4.7%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
	0.070	0.470	0.070	0.070	0.070	0.170	0.070	4.7 /0	4.170	4.070	4.070	4.070	4.070	4.070	1.0.10

Source: Wood Mackenzie, Scotiabank GBM estimates – January 14, 2019



Western World Mine Closures vs Forecast New Supply

Western Mine Closures vs Chinese Growth, New Projects and Mine Restarts ('000 Tonnes)

	·										
Major Mine Closures/Depletions	2014A	2015A	2016A	2017A	2018E	2019E	2020E	2021E	2022E	2023E	
Brunswick	-	-	-	-	-	-	-	-	-	-	
Century	466	393	17	-	-	-	-	-	-	-	
Lisheen	133	103	-	-	-	-	-	-	-	-	
Perseverance	-	-	-	-	-	-	-	-	-	-	
Skorpion	130	80	99	81	59	97	115	60	-	-	
Total	729	576	116	81	59	97	115	60	-	-	
YoY Change	(140)	(153)	(460)	(35)	(22)	38	18	(55)	(60)	-	
Total Chinese Production	4,901	4,768	4,720	4,735	4,650	4,857	4,908	4,981	5,054	5,132	
YoY Change	163	(133)	(48)	15	(85)	207	51	73	73	78	
Non-Chinese Zn Production Growth											
Antamina	211	229	198	372	417	421	416	404	344	344	
Bisha	-	-	41	95	115	121	136	126	76	-	
Castellanos	-	-	-	5	45	70	70	70	70	70	
Century Tailings	-	-	-	-	34	120	225	270	270	270	
Dugald River	-	-	-	12	130	170	170	170	170	170	
Gamsberg	-	-	-	-	35	200	250	250	250	250	
Kipushi						-	-	50	150	200	
Neves Corvo	67	62	70	71	75	74	125	159	154	176	
Penasquito	176	208	140	161	232	245	229	200	229	262	
Shalkiya	-	-	-	-	-	-	6	60	80	100	
Taylor						-	-	11	126	216	
Zhairem	-	-	-	-	-	-	85	130	160	160	
Total	454	499	448	717	1,083	1,421	1,712	1,900	2,079	2,218	
YoY Change	(8)	45	(50)	269	366	338	290	188	180	138	
Restarts of Idled Capacity											
Aljustrel	-	-	-	-	75	100	80	80	80	80	
Balmat-Empire State	-	-	-	-	16	34	54	60	53	60	
Middle Tennessee	47	47	-	22	44	65	70	70	70	70	
scaycruz	84	77	-	-	-	-	-	40	80	80	
McArthur River	74	118	12	15	34	115	120	120	120	120	
Mount Isa Pb/Zn (Lady Loretta)	437	478	288	226	280	430	450	450	450	450	
Total Restarts	642	720	300	263	449	744	774	820	853	860	
YoY Change	67	78	(420)	(37)	186	296	30	45	33	7	
All other mines	6,269	6,556	6,567	6,818	6,955	7,304	7,343	7,394	7,328	7,039	
YoY Change	2	287	11	251	137	349	39	51	(66)	(289)	
TOTAL	12,995	13,119	12,152	12,615	13,197	14,423	14,852	15,154	15,313	15,248	I
YoY Change		124	(968)	463	582	1,227	428	302	159	(65)	ç
Cumulative Additions(Deletions)		124	(843)	(381)	201	1,428	1,856	2,159	2,318	2,253	3

Note: Analysis is before supply disruption

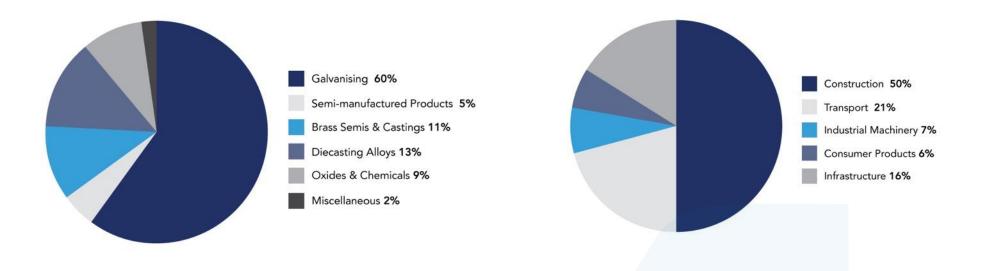
Source: Wood Mackenzie, Scotiabank GBM estimates – January 14, 2019



Zinc Uses

2016 Global Zinc Consumption by First Use

2016 Global Zinc Consumption by End Use



Source: Wood Mackenzie and RBC Capital Markets



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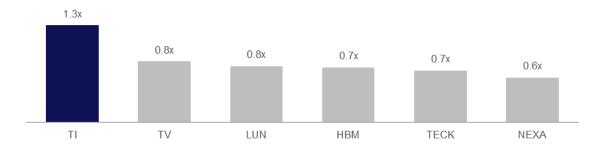
Analyst	Company
Dalton Baretto	Canaccord Genuity
Shane Nagle	National Bank Financial
Orest Wowkodaw	Scotiabank
Daniel Earle	TD Securities



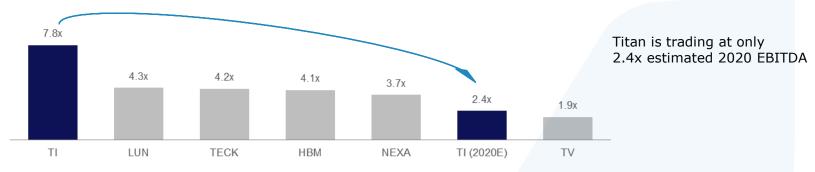
Trading at a Discount – The Valuation Upside

Executing to a premium valuation

Price to Net Asset Value



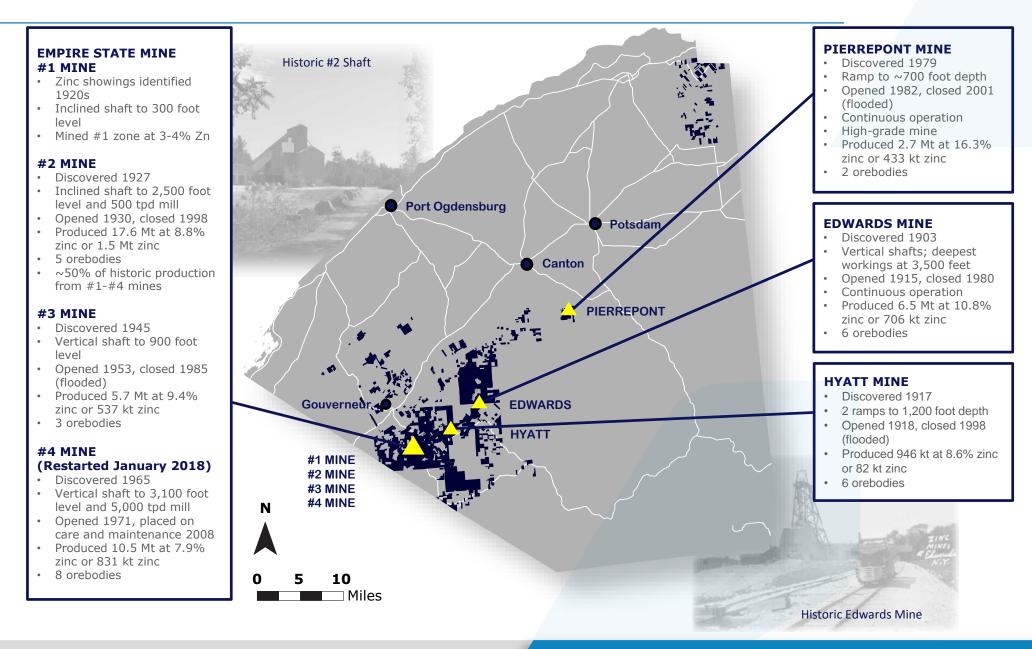
Enterprise Value to EBITDA (2019E)



Source: Scotiabank, January 14, 2019; NAV calculated at discount rate of 8% and long-term zinc price of \$1.00/lb from 2024; EBITDA based on zinc price of \$1.20/lb in 2019 and 2020.



Empire State Mine: Historic Production



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Empire State Mine – Types of Mineralization

Primary (parent) mineralization

- Conformable lenses (175m x 750m)
- Sphalerite with pyrite and minor galena
- ~1.0-3.0 Mt @ 11.5-14.5% Zn

Remobilized (daughter) mineralization

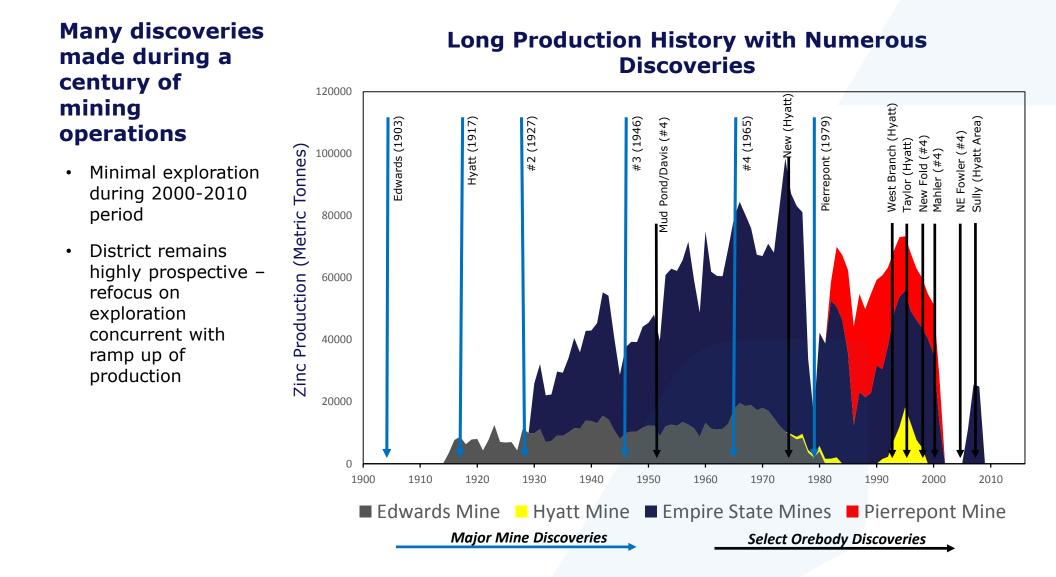
- Cross-cutting, elongate trends (125m x ~2000m)
- Sphalerite with minor pyrite
- ~1.5-4.5 Mt @ 8% Zn







History of Exploration Success Plus Potential for Additional Discoveries

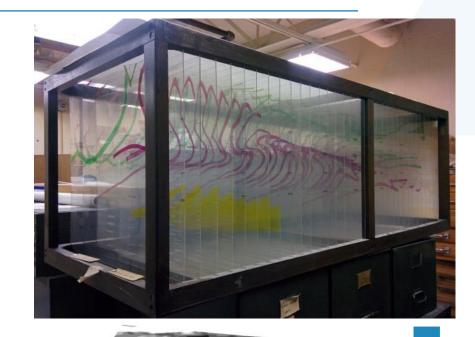




First Priority – Mining Historical Data

Compiling, digitizing and modelling existing data

- 100 years of historical exploration ~800 kilometers of available drill data
- Consolidating and assessing exploration data from multiple programs and operators
- Previous (re)discoveries based on examination of historical data
 - Red Lake-Dickenson (Goldcorp)
 - Sigma-Lamaque (Integra Gold)
 - Horne 5 Project (Falco)



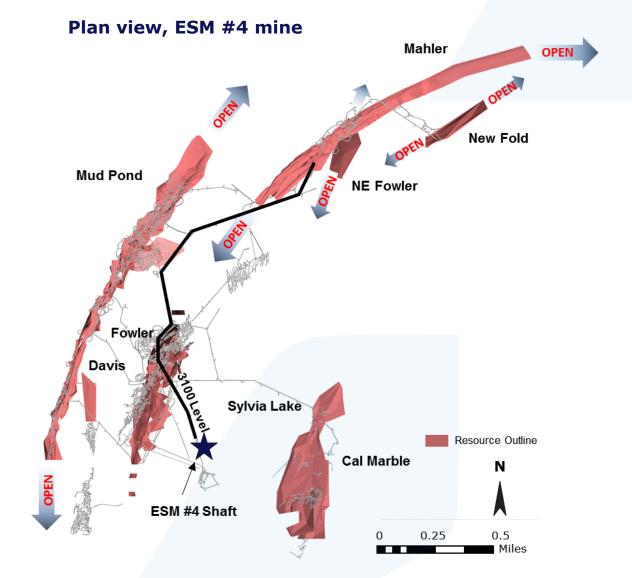
- Re-interpreted
 magnetic data
- Inversion of airborne VTEM
- High precision LIDAR topo
- Digitization and synthesis of geological mapping
- Transition to modern core logging scheme
- 3D modelling of geology, ore shells and mine workings



Expanding and Upgrading the Mineral Resources at #4 Mine

Potential to increase production and extend mine life

- Mineral resources in eight mineralized zones – with excellent potential for zone extension
- Underground drilling targeting up-plunge extensions and upgrading inferred mineral resources at New Fold and NE Fowler (commenced Q2 2018)



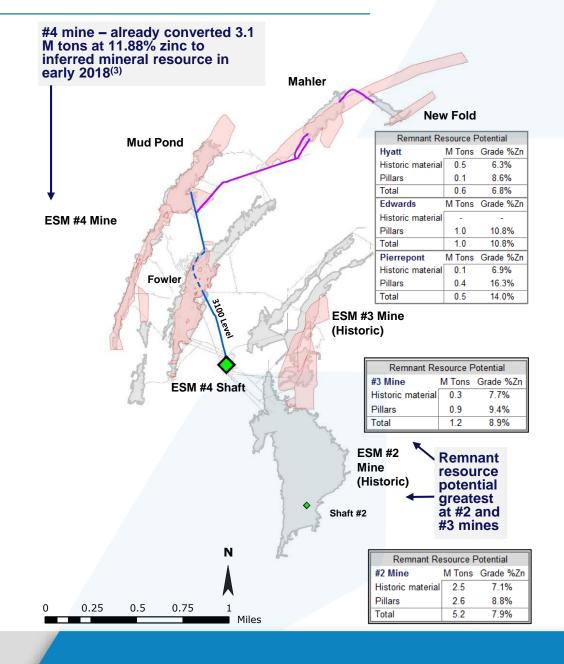


Filling the Shaft (3,000 tpd) – Focus on Converting More Remnants to Mineral Resources

- Historic mineralized material writedowns of ~4 million tons at Empire State Mines⁽¹⁾
- Pillars historic mining left significant tonnage in place for structural support
- Remnant resource potential from historic mineralized material and pillars at Empire State Mines: ~9-10 million tons⁽²⁾; further upside potential from zone extensions

- Refer to slide entitled "Historic Mineralized Material Write-Downs". Historical mineralized material is not equivalent to proven and probable mineral reserves as classified by NI 43-101.
- (2) Assumes that remnant resource potential in pillars at Empire State Mine is 15% of the tonnage at the average grade of historic production at each historic mine.
- (3) Refer to news release dated April 10, 2018, for mineral resources at ESM #4 mine as at January 31, 2018.





Mineral Resources

Mineral Resources at Empire State Mine #4 Mine as at January 31, 2018

	Меа	sured	Indicated		Measured	& Indicated	Inferred		
Mineralized Zones	`000 Tons	Grade (% Zn)							
Mud Pond	337.0	10.40%	285.2	10.87%	622.2	10.61%	1,390.5	10.68%	
New Fold	68.0	12.75%	249.6	11.72%	317.6	11.94%	539.4	13.97%	
Mahler	400.5	15.89%	700.9	15.27%	1,101.4	15.50%	516.6	15.59%	
Other Mineralization	44.9	10.73%	83.5	10.16%	128.4	10.36%	2,969.6	12.55%	
Total	850.4	13.19%	1,319.2	13.33%	2,169.6	13.27%	5,416.1	12.50%	

Notes:

(1) Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all, or any part, of the mineral resources estimated will be converted into mineral reserves.

(2) The underground mining economics used operating costs of \$70/t, and a zinc price of \$1.00/pound at 96% recovery.

(3) Tonnage is reported to the nearest 100 tons, and grades are rounded to the nearest two decimal places.

(4) Rounding as required by reporting guidelines may result in apparent summation differences between tons, and grade.

(5) Mineral resources were completed by Allan Reeves, P.Geo., President of Tuun Consulting Inc.



Historic Mineralized Material Write-Downs^{(1),(2)}

			Proven O	re		Probable Ore		Proven	Ore and Proba	able Ore		Inferred Ore	
Year	Area	Tons	Zinc Grade	Contained Zinc									
1985	Balmat (No. 2 and No.4)	824,225	7.11%	58,602	860,620	7.41%	63,772	1,684,845	7.26%	122,374	1,096,800	6.84%	75,021
1985	Balmat No. 2 Mine - Shaft Pillar	-	-	-	222,700	7.63%	16,992	222,700	7.63%	16,992	-	-	-
1992	Balmat Mine – Low Grade Reserves	-	-	-	130,162	7.60%	9,895	130,162	7.60%	9,895	-	-	-
2001	Mud Pond Pillars	105,000	10.30 %	10,815	-	-	-	105,000	10.30%	10,815	-	-	-
1976	Balmat No.3 Mine – Upper Gleason Pillars	20,000	12.00 %	2,400	-	-	-	20,000	12.00%	2,400	-	-	-
1985	Pierrepont	6,800	6.00%	408	123,100	6.97%	8,575	129,900	6.92%	8,983	-	-	-
1998	Hyatt Mine	79,246	7.78%	6,166	101,533	4.75%	4,818	180,779	6.08%	10,984	315,969	6.37%	20,124
Total		1,035,271	7.57%	78,391	1,438,115	7.24%	104,052	2,473,386	7.38%	182,443	1,412,769	6.73%	95,145

(1) Contained zinc is expressed in tons.

(2) Refer to Table 6.5 in technical report entitled "NI 43-101 Preliminary Economic Assessment Technical Report on the Empire State Mines, Gouverneur, New York, USA", dated September 19, 2017. The Company's objective is to evaluate potential exploration targets consisting of the historical probable and proven ores and remnants at the Empire State Mines. The Company does not treat the historical estimates as a current mineral resource or mineral reserve. A Qualified Person has not done sufficient work to classify these historical estimates as a current mineral resource. The Company believes that this historic proven ore, historic probable ore and historic inferred ore are relevant to its prospects to extract additional mineralized material at the Empire State Mines, however, the Company is not basing its production decision on the historical estimates.



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Experienced Management

Donald Taylor *Chief Executive Officer*

Purni Parikh President

Michael McClelland Chief Financial Officer

Donald Taylor has 30 years of mineral exploration experience with precious and base metals on five continents, taking projects from exploration to mine development. He is the recipient of the Prospectors and Developers Association of Canada's 2018 Thayer Lindsley Award for the 2014 discovery of the Taylor lead-zinc-silver deposit in Arizona. Mr. Taylor has worked extensively for large and small cap companies, including Arizona Mining, BHP Minerals, Bear Creek Mining, American Copper and Nickel, Doe Run Resources and Westmont Mining Company. He is a Licensed Professional Geologist in several eastern and western states and a qualified person as defined by National Instrument 43-101. Mr. Taylor has a Bachelor of Science degree in Geology from Southeast Missouri State University and a Master of Science degree from the University of Missouri at Rolla.

Purni Parikh has more than 25 years of public company experience in the mining sector including corporate affairs and finance, legal and regulatory administration, and governance. She is President of the Augusta Group of Companies, and was previously Senior Vice President. Corporate Affairs and Corporate Secretary of Arizona Mining Inc. and Vice President, Corporate Secretary of Newcastle Gold Ltd., Augusta Resource Corporation and Ventana Gold Corp. prior to their acquisition. Ms. Parikh obtained a Certificate in Business from the University of Toronto and a Gemology degree. Ms. Parikh is also an Accredited Director, and has worked extensively with boards.

Michael McClelland is a Chartered Accountant and was formerly the Chief Financial Officer of Bisha Mining Share Company, an operating subsidiary of Nevsun Resources. He previously worked for Goldcorp as the Mine General Manager at Wharf Resources (now owned by Coeur Mining), and prior to that was Director of Finance, Canada and USA. Mr. McClelland started his career at KPMG LLP as a Senior Accountant with the mining group.

Jerrold Annett *SVP, Corporate Development*

Jerrold Annett has over 11 years of experience with Teck Resources Limited and Falconbridge Ltd. and an additional 10 years in capital markets, most recently with Scotiabank, Mr. Annett was formerly Senior Vice President, Corporate Development, of Arizona Mining Inc. He worked for Cominco Ltd. as a metallurgist at the lead-zinc Polaris Mine, Sullivan lead-zinc mine, and the Quebrada Blanca mine. He was ranked a Brendan Woods Top Gun Super League Sales Professional during the last two surveys in 2015 and 2012.



Experienced Management, cont'd

Jacqueline Allison

VP, Investor Relations & Strategic Analysis

Jacqueline Allison is a Chartered Financial Analyst with a PhD in Mineral Economics, and has 20 years of capital markets and corporate experience. Prior to joining Titan, she was Vice President, Investor Relations for Dominion Diamond Corp., and Director, Investor Relations for Hudbay Minerals. Previously, Ms. Allison served as Vice President and Research Director, Fundamental Equities for BMO Asset Management, and Vice President, Canadian Equities for Natcan Investment Management.

Scott Burkett VP, Exploration

Scott Burkett has over 10

exploration, ore control,

estimation and database

management. Mr. Burkett

the University of Idaho, and

of base and precious metal

exploration. Prior to joining

Titan Mining, he worked for

Arizona Mining Inc. where he

served as Chief Geologist for

instrumental in designing

also brings experience in

Gold, Inc.

exploration and ore control

from previous roles at Metal Mining Consultants Inc., First Solar, Hycroft Resources & Development, Inc. (Allied Nevada Gold) and Yamana

programs which resulted in

significant expansion of the

the Hermosa Project, and was

mineral resources. Mr. Burkett

stages, ranging from

grassroots to advanced

years of experience in mineral

earned his BSc in Geology from

has since worked on a number

exploration projects at various

geologic modeling, resource

Naomi Johnson *VP, Community Relations*

Naomi Johnson is a global community relations executive, international development specialist and lawyer. She has 15 years of management experience in leadership positions across the private, public and not for profit sectors. Ms. Johnson was most recently a Partner and Senior Director of Community Relations at Barrick Gold. She has previously worked for Hatch, War Child Canada and the United Nations High Commissioner for Refugees. She lends a diverse and broad perspective to developing sustainable and leading-edge approaches to stakeholder impact and risk management.

Eric Strom *VP, Projects and Innovation*

Eric Strom is a mining engineer with over 20 years of industry experience in precious and base metals mine development and operations in Canada and Australia. He was most recently Director of underground mining for New Gold Inc., and has previously worked for Placer Dome, Goldcorp, Rio Tinto and China Molvbdenum, Mr. Strom led the implementation of the world's first fully automated underground hard rock mine at Northparkes Mines, Australia, and has experience in optimizing operations across a spectrum of mining methods including narrow vein handheld, longhole stoping and autonomous block caving.



Experienced Management, cont'd, & Directors

Management

Directors

Richard Warke

Executive Chairman

Kevin Torpy

VP, Operations

Kevin Torpy joined Titan in September 2018. He is a mining engineer with over 20 years of experience developing underground mines, primarily in remote northern locations. He was previously General Manager at Pretium Resources' Bruceiack Mine and Project Mine Engineer with Silver Standard Resources. Mr. Torpy has also worked as Technical Services Superintendent at Coeur d'Alene Mines' Kensington Project, Operations Engineer at Teck's Pogo Mine and Project Engineer for JS Redpath.

Richard Warke is a Vancouver-based mining

executive with more than 25 years of experience in the mining industry. He is the founder and Executive Chairman of Titan Mining, part of the Augusta Group of Companies which he founded in 2005. The Augusta Group previously included Ventana Gold Corp., which sold for \sim C\$1.6 billion in 2011, Augusta Resource Corporation, which sold for ~C\$666 million in 2014, and Arizona Mining Inc. which sold for ~C\$2.1 billion in 2018. In addition, Mr. Warke acquired control of Newcastle Gold Ltd. in 2016 and was Executive Chairman until its merger to form Equinox Gold in December 2017.

John Boehner Director

John Boehner served as the 53rd Speaker of the United States House of Representatives from 2011 to 2015. A member of the Republican Party, Mr. Boehner was the U.S. Representative from Ohio's 8th congressional district, serving from 1991 to 2015. He previously served as the House Minority Leader from 2007 until 2011, and House Majority Leader from 2006 until 2007. Following his career in government service, Mr. Boehner joined Squire Patton Boggs, a global law and public policy firm. He earned a Bachelor of Arts in business administration from Xavier University.

Lenard Boggio Director

Len Boggio was formerly a partner of PricewaterhouseCoopers LLP (PwC) where he served for more than 30 years until his retirement in May 2012. During that time, he was Leader of the B.C. Mining Group of PwC, a senior member of PwC's Global Mining Industry Practice and an auditor of Canadian, U.S. U.K. and other internationallylisted mineral resource and energy clients. Mr. Boggio is a Fellow of the Chartered Professional Accountants of Canada (FCPA, FCA) and has served as president of the British Columbia Institute of Chartered Accountants and chairman of the Canadian Institute of Chartered Accountants.



Directors, cont'd

Gregory Clark Director

James Gowans Director

William Mulrow Director

Purni Parikh Director

Greg Clark has been retired since 2013, prior to which he was a Licensed Aircraft Technician in the Heavy Maintenance Department at Canadian Airlines and, subsequently, Air Canada. James Gowans has more than 30 years' experience in mineral exploration, feasibility studies, construction and operations, including at the Red Dog and Polaris mines. Mr. Gowans was formerly President and CEO of Arizona Mining Inc., and Co-President and EVP & COO of Barrick Gold. Prior roles include Managing Director of Debswana Diamond Company (Pty) Ltd., President & CEO of De Beers Canada Inc., COO & SVP of International Nickel Indonesia tbk PT, and EVP of Placer Dome Inc.

William Mulrow is a Senior Advisor at the Blackstone Group, an alternative asset manager. Previously, he was Director of Global Capital Markets at Citigroup, Inc., Managing Director of Paladin Capital Group, Senior Vice President and Head of New Product Development at Gabelli Asset Management (now GAMCO Investors), Managing Director in Corporate Finance for Rothschild Inc., and Managing Director and Head of Public Finance Banking for Donaldson, Lufkin and Jenrette Securities Corporation. He is a graduate of the Kennedy School of Government at Harvard University and of Yale College where he graduated Cum Laude and was a Rhodes Scholar finalist.

Purni Parikh has more than 25 years of public company experience in the mining sector including corporate affairs and finance, legal and regulatory administration, and governance. She is President of the Augusta Group of Companies, and was previously Senior Vice President, Corporate Affairs and Corporate Secretary of Arizona Mining Inc. and Vice President, Corporate Secretary of Newcastle Gold Ltd., Augusta Resource Corporation and Ventana Gold Corp. prior to their acquisition. Ms. Parikh obtained a Certificate in Business from the University of Toronto and a Gemology degree, Ms. Parikh is also an Accredited Director, and has worked extensively with boards.

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Directors, cont'd, & Advisor

Directors

George Pataki Director

George E. Pataki is the cofounder and Chairman of the Pataki-Cahill Group, a specialized development firm, and serves as Senior Counsel to the international law firm Norton Rose Fullbright. Previously, he served three terms as the 53rd Governor of the State of New York from 1995 to 2006, being elected after serving consecutively as the mayor of Peekskill, an assemblyman in the New York State Legislature, and as a senator in the New York State Senate, Mr. Pataki has vast experience serving on the boards of international conglomerates, private equity firms, and venture capital funds.

Donald Taylor Director

Donald Taylor has 30 years of mineral exploration experience with precious and base metals on five continents, taking projects from exploration to mine development. He is the recipient of the Prospectors and Developers Association of Canada's 2018 Thayer Lindsley Award for the 2014 discovery of the Taylor lead-zinc-silver deposit in Arizona. Mr. Taylor has worked extensively for large and small cap companies, including Arizona Mining, BHP Minerals, Bear Creek Mining, American Copper and Nickel, Doe Run Resources and Westmont Mining Company, He is a Licensed Professional Geologist in several eastern and western states and a qualified person as defined by National Instrument 43-101. Mr. Taylor has a Bachelor of Science degree in Geology from Southeast Missouri State University and a Master of Science dearee from the University of Missouri at Rolla.

Robert Wares

Robert Wares is the Executive Vice President of Exploration and Resource Development for Osisko Mining Inc. and cowinner of the PDAC's 2007 "Prospector of the Year Award" for the discovery of the Canadian Malartic gold deposit in Quebec. He has 35 years of experience in mineral exploration and research, and was previously President and Chief Executive Officer of NioGold Mining Corporation, Director of Arizona Mining Inc. and Director and Audit Committee member of Augusta Resource Corporation, Mr. Wares is a Professional Geologist and has a Bachelor of Science degree and an Honorary Doctorate in Earth Sciences from McGill University.

Advisor

R. Stuart Angus *Advisor*

Stuart Angus is an independent business advisor to the mining industry and was formerly Head of the Global Mining Group for Fasken Martineau, Mr. Angus was formerly the Chairman and a director of Nevsun Resources Ltd. Mr. Angus was previously Chairman of the Board of BC Sugar Refinery Limited, a Director of First Ouantum Minerals until June 2005, a Director of Canico Resources Corporation until its takeover by CVRD in 2005, a Director of Bema Gold until its takeover by Kinross Gold in 2007, a Director of Ventana Gold until its takeover by AUX Canada Acquisition in 2011 and a Director of Plutonic Power until its merger with Magma Energy in 2011.

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Qualified Person	Company	Professional Designation
Mike Makarenko	JDS Energy & Mining Inc.	P.Eng.
Matt Moss	JDS Energy & Mining Inc.	P.Eng.
Indi Gopinathan	JDS Energy & Mining Inc.	P.Eng.
Allan Reeves	Tuun Consulting Inc.	P.Geo.
Robert Raponi	TR Raponi Consulting Ltd.	P.Eng.



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TSX: TI