

# SUPERIOR LAKE

R E S O U R C E S

DEVELOPING CANADA'S HIGHEST GRADE ZINC PROJECT

MARCH 2019

ASX: SUP

# Important Notices

## Disclaimer and Forward Looking Statements

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## Mineral resources

The information in this Presentation that relates to in situ Mineral Resources for the Superior Lake Project was announced on 3 July 2018. The Company confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 3 July 2018 and that all material assumptions and technical parameters underpinning the estimates in the announcement of 3 July 2018 continue to apply and have not materially changed.

## Forecast financial information

The forecast financial information (and the production target on which such forecast financial information is based) in this Presentation was announced on 10 October 2018. All material assumptions underpinning the forecast financial information (and the production target on which such forecast financial information is based) in the announcement of 10 October 2018 continue to apply and have not materially changed.

## Exploration results

The information in this Presentation that relates to exploration results was announced on 18 December 2018 and 30 January 2019. Superior Lake confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 18 December 2018 and 30 January 2019.

# Developing Canada's highest grade zinc project

Superior Lake is one of the highest grade zinc projects globally which drives the low forecasted operating costs into the lowest cost quartile

*JORC (2012) Resource  
2.15 Mt at 17.7% Zn, 0.9% Cu<sup>1</sup>*

*AISC (US\$0.51 / lb) vs.  
Current zinc price (\$1.25/lb)<sup>2</sup>*

**Existing infrastructure** at and around the project allows for a quick and low capital cost pathway to production (Restart Study - US\$75m capex)<sup>2</sup>

**Clean concentrate** with no deleterious elements – strong interest from offtakers

**First exploration program in +20 years** has identified multiple near mine targets

**Zinc market** - Strong demand with limited new supply - stronger long term pricing

**Preliminary discussion regarding project financing commenced** Strong interest from banks, private equity as well as potential offtake partners

**DFS** on track for completion – mid-2019

# Corporate Overview

## CAPITAL STRUCTURE

### ASX TICKER

**SUP**

### SHARES ON ISSUE

**856.9M**

(current)

### OPTIONS

**92M**

(Unlisted - average exercise price  
\$0.06/share)

### MARKET CAPITALISATION

**~\$22 M**

(current at \$0.026)

### CASH

**~A\$4.2 M**

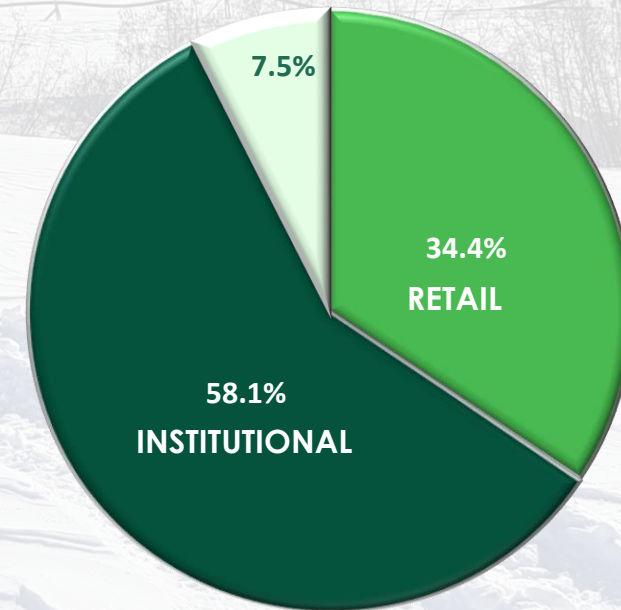
(as at December 31 2018)

### DEBT

**Nil**

## SHAREHOLDER BREAKDOWN

### DIRECTORS / MANAGEMENT



# Zinc: Long-term demand remains strong

## CONSUMPTION BY COUNTRY



Pick Lake & Winston Lake Projects

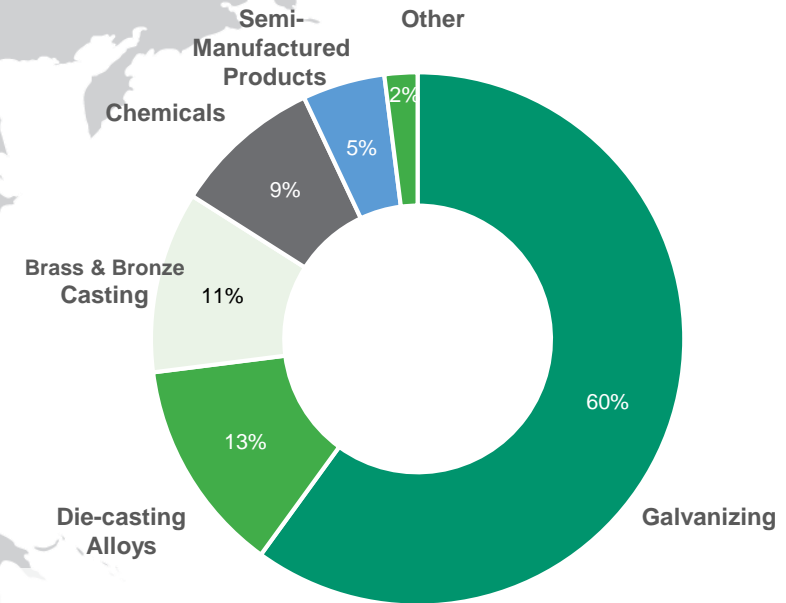
USA  
7%

Other (<5%)  
39%

India  
5%

China  
48%

## CONSUMPTION BY USE



## NORTH AMERICAN ZINC MARKET

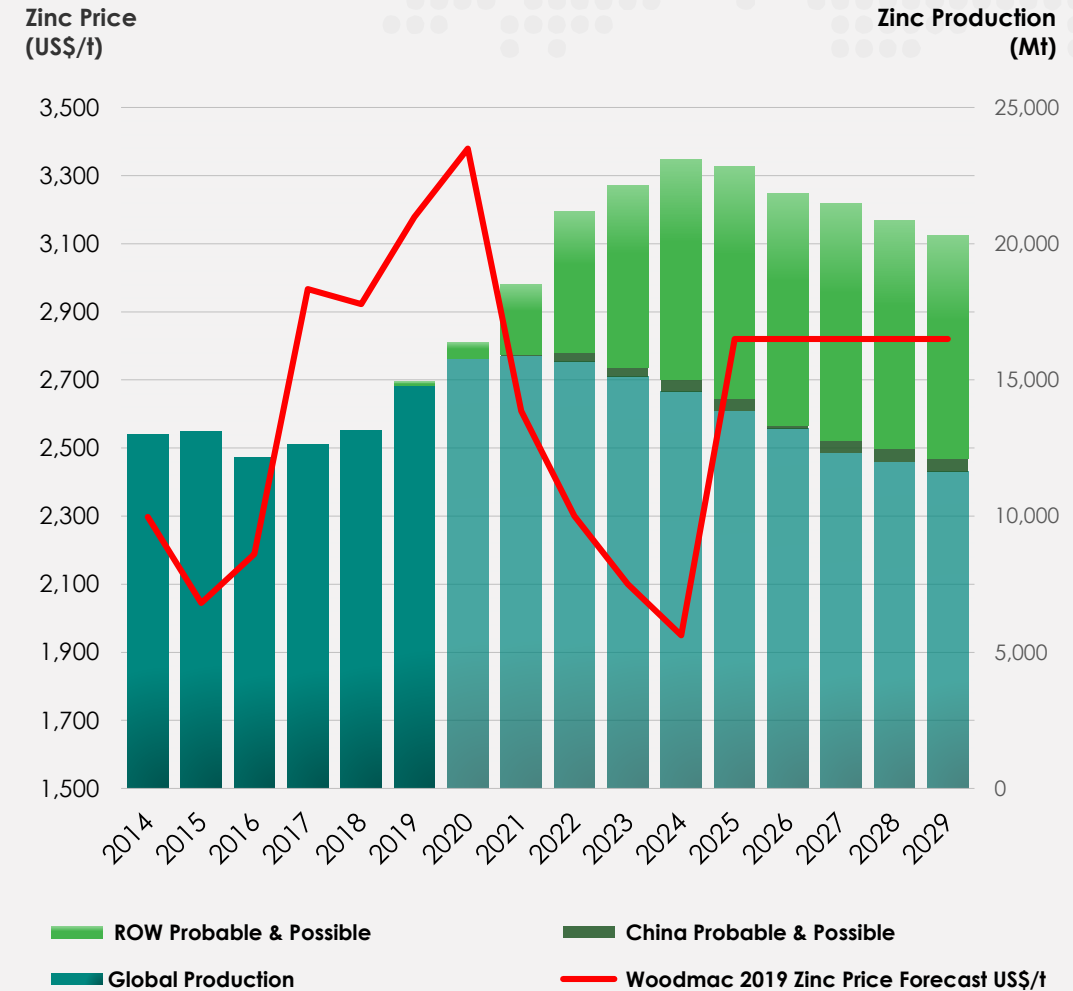
- Continued tightening of mine production with 2018 showing a reduction in zinc production of 23kt and 10kt in Canada and US respectively
- Only 3 advanced projects in the development pipeline

## GLOBAL ZINC MARKET

- Stockpiles at record lows and expected to remain until 2021
- Zinc mine output in China has dragged world output down 5% to 3.84Mt.
  - Ex-China mine output grew by 2%
- Global refined zinc stocks predicted to remain low

# Zinc: Supply to keep up with demand?

FORECAST 'PROBABLE' >100KTPA ZINC OPERATIONS	LOCATION	EST. START DATE	FULL PRODUCTION	EST. CAPEX	PROJECT PERMITTED?
Kipushi (Ivanhoe Mines)	DRC	2020	225ktpa	US\$400M	No
Mehdiabad (Mobin Mining)	Iran	2021	300ktpa	US\$1,000M	Yes
Dairi (NFC)	Indonesia	2021	125ktpa	US\$175M	Yes
Citronen (Ironbark Zinc)	Greenland	2021	200ktpa	US\$500M	Yes
Aznalcollar (Grupo Mexico)	Spain	2022	100ktpa	US\$300M	No
Huoshayun (Xinjiang Zinc)	China	2022	350ktpa	US\$1,500M	Yes
Pavlovskoye (Rosatom)	Russia	2023	150ktpa	US\$400M	Yes
Ozernoe (Metropol)	Russia	2024	300ktpa	US\$1,500M	No
Selwyn (Chihong Zinc)	Canada	2024	450ktpa	US\$1,900M	No



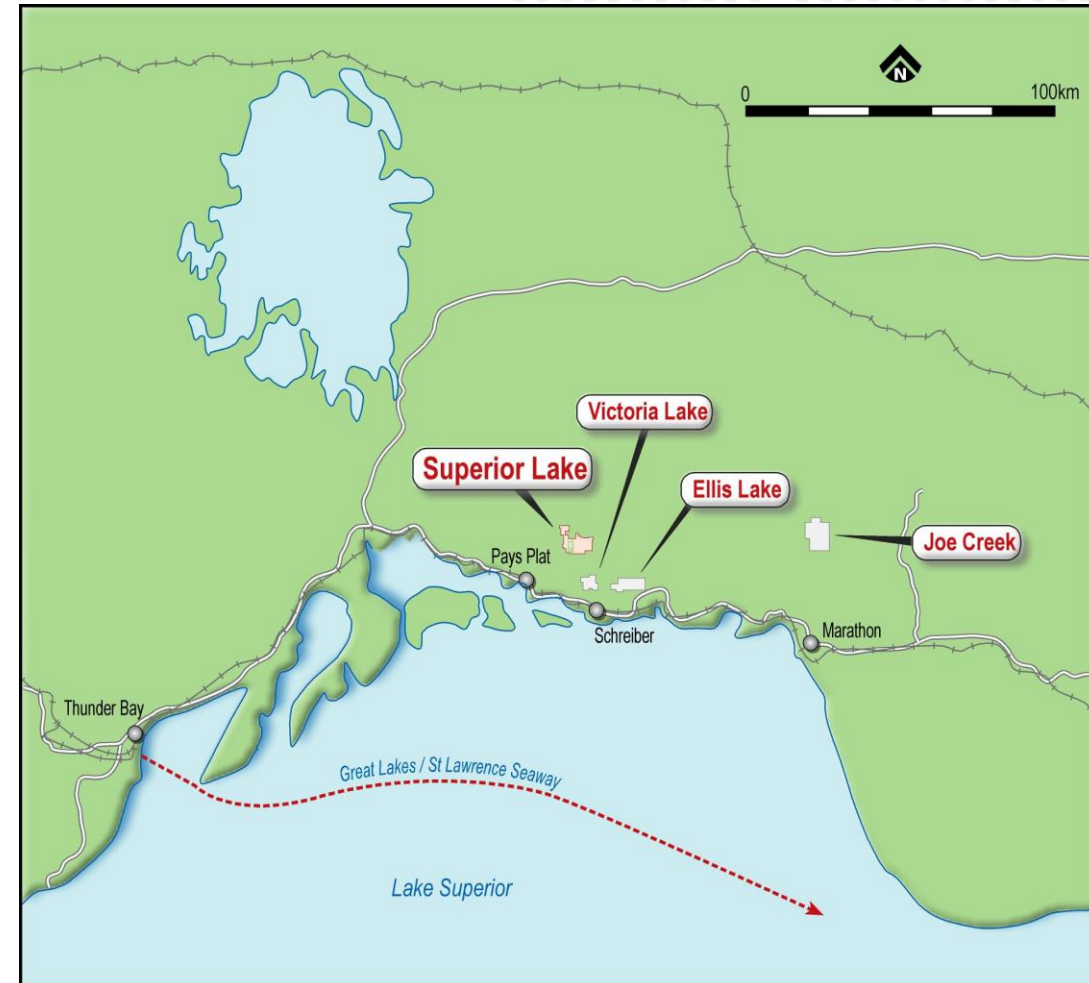
# Superior Lake Zinc Project

The highest grade zinc operation in Canada for a decade prior to its closure in 1998 due to a sustained period of low prices

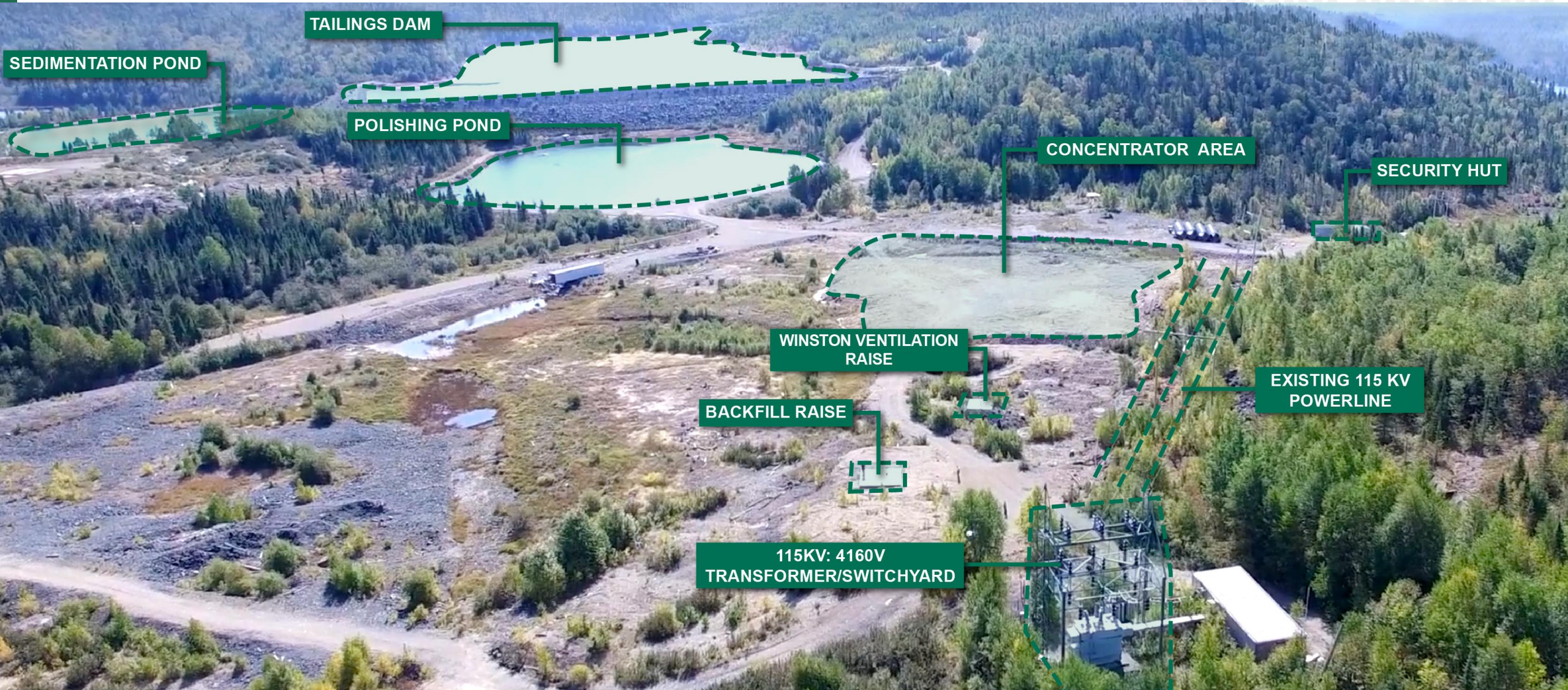
Zinc price: 1998 (\$0.45/ lb) vs today (\$1.20/lb)

- Since closure, the Project's ownership has been fragmented, resulting in limited work being completed
- Infrastructure at site remains in good condition as well as world class support infrastructure (rail, roads, power, etc)
- SUP is the first group to consolidate the projects ownership since closure and advanced its development through numerous milestones:
  - Maiden JORC resource – 2.15 Mt at 17.7% Zn, 0.9% Cu, 0.5 g/t Au and 33.4 g/t Ag<sup>1</sup>
  - Positive Restart Study<sup>2</sup>
  - Commenced first exploration program in +20 years

**DFS remains on track for mid-2019**



# Significant infrastructure already at site





# World class supporting infrastructure



**RAIL TERMINAL**  
30km from site

**TRANS-CANADIAN HWY**  
20km from site



**SKILLED WORKFORCE**  
in proximity

**GLOBAL SMELTER NETWORK**  
via existing rail & port



# Restart Study outlines low capital, high-margin operation

Positive Restart Study outlines lowest cost quartile zinc producer driven by exceptionally high-grade ore

**AISC \$0.51 / lb vs. current zinc price US\$1.25/lb<sup>1</sup>**

## Low capital cost leveraging from significant onsite and nearby infrastructure

- Initial capital cost – US\$75m<sup>1</sup>
- Highly desirable and proven concentrates attracting interest from multiple potential global offtake partners
- Progressing permitting and licensing
- DFS on track for completion by mid-2019

DESCRIPTION <sup>1</sup>	VALUE (APPROX.) <sup>1</sup>
Mining Tonnage (LOM – Mt)	2 Mt
Plant Throughput (tpd)	1,000
Zn – head grade (%)	14.1%
Cu – head grade (%)	0.66%
Annual production (Zn Metal – tpa)	46,640
Annual production (Cu Metal – tpa)	1,740
Initial Capital cost	US\$ 75M
Average EBITDA	A\$ 80M (US\$60M)
NPV at 10% - pre-tax	A\$220 M (US\$165M)
NPV at 10% - post tax	A\$159M (US\$119M)
IRR (post tax)	48% (pre tax – 56%)

# Highly desirable zinc concentrate with global distribution potential

Historical operation produced two concentrates<sup>1</sup>

ZINC – 52% to 53.5% Zn

COPPER – 22% to 25% Cu, 11g/t Au, 310g/t Ag

- No deleterious elements in either concentrates
- 4 zinc smelters in Canada all accessible via existing rail networks
- Rail terminal (Scriber) 30km from site - provides national & global access (ports)

## Financing

- Preliminary project financing discussions underway
- Strong interest from global banks, private equity & offtakers
- Opportunity to link offtake with funding



# Exploration overview – Untouched in 20 years

- VMS style mineralisation
- Typically occur in clusters - only two significant deposits discovered to date
- Limited to no exploration throughout the total project are in more than 20 years, no modern exploration ever completed<sup>1</sup>

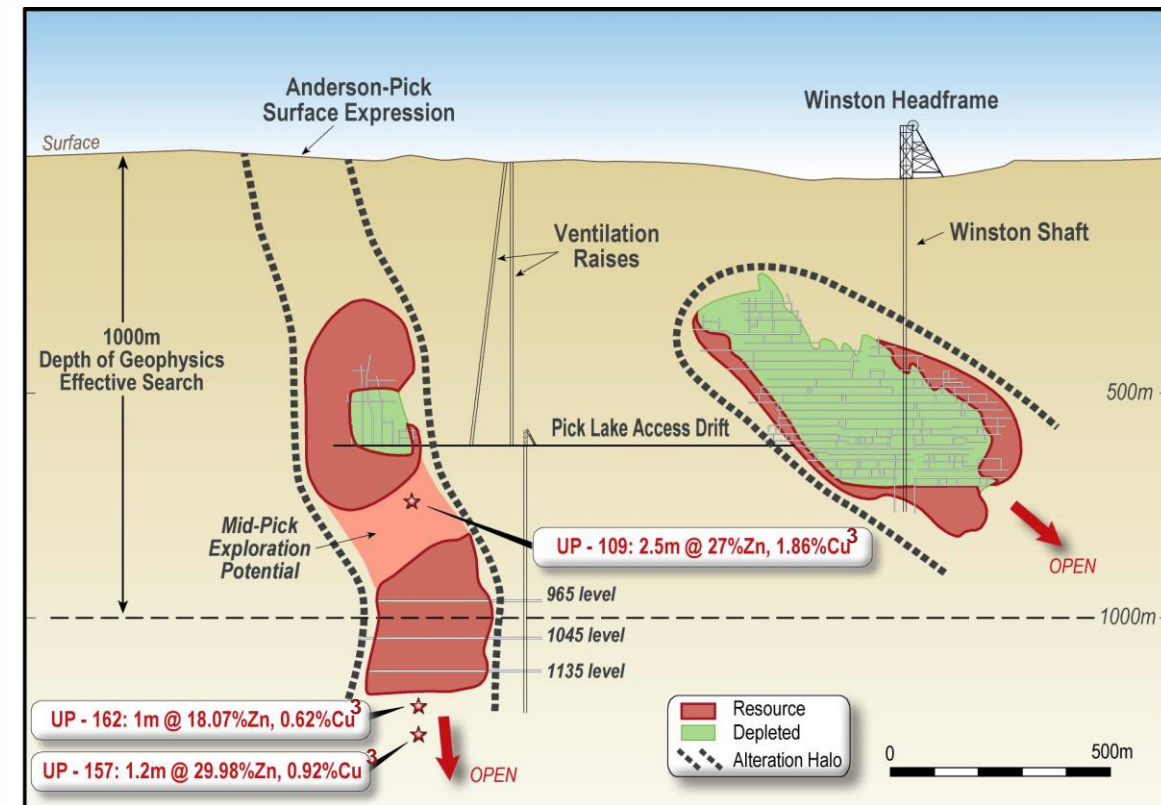
Superior Lake has outlined an exploration strategy that targets

## Near mine resource expansion

- Drilling – First drill program completed at the project in +20year - Mid-Pick
- Results confirmed high-grade zinc mineralization inline with expectations – resource upgrade imminent<sup>2</sup>
- Other near mine targets – Lower Pick and Winston

## Greenfields targets

- Identify potential new structures / deposits through modern exploration techniques



# Greenfield exploration – First program in + 20years

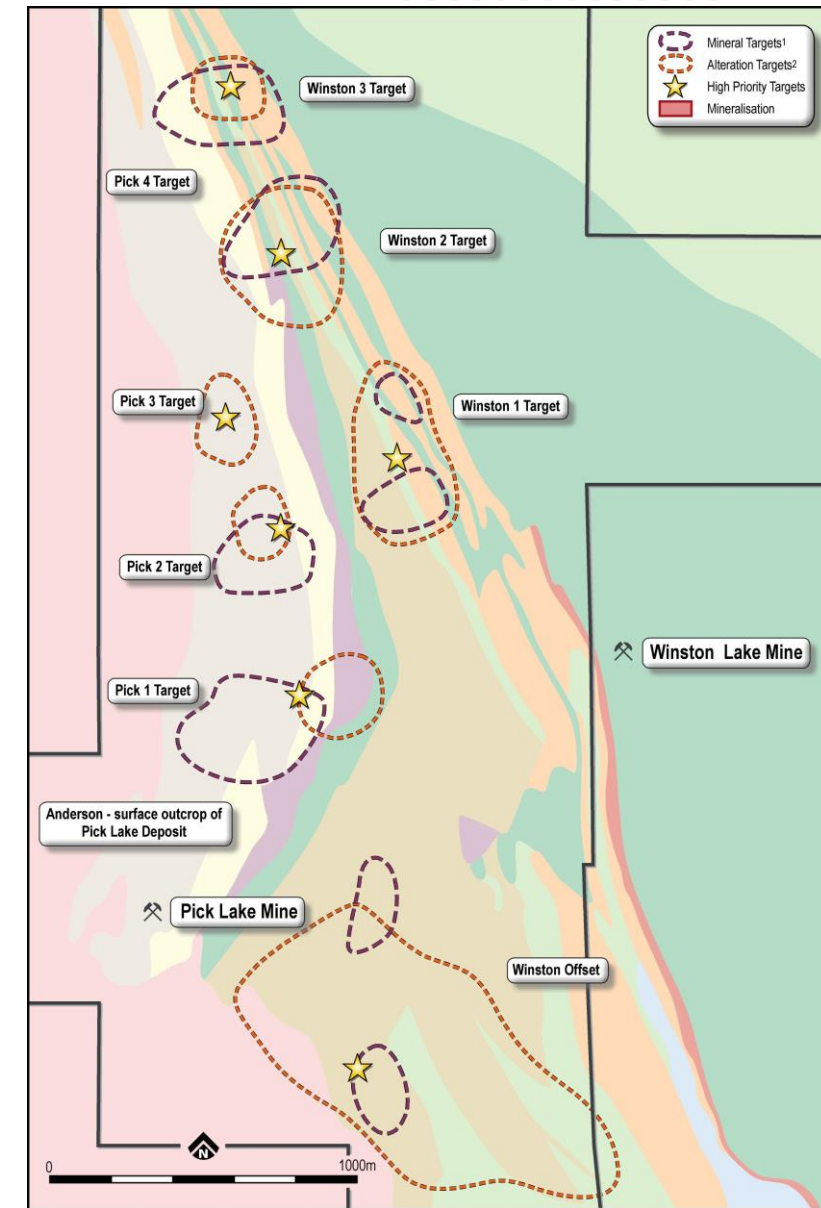
- Limited Greenfields exploration ever completed
- First significant campaign underway using multiple modern exploration techniques that have strong success at VMS deposits

## Structural and litho-geochemistry **COMPLETED**

- Applied across the Project area
- Identified seven high priority targets to be followed up with geophysics

## Major geophysics program **UNDERWAY**

- First time used at the Project
- Major ground-based moving loop electromagnetic program
- 3km x 3km spacing targeting to depth of 1,000m
- Results expected – 1Q19
- Confirmation of targets to be tested with drilling later this year



# Canada's next zinc producer

One of the **highest grade zinc** projects in the world

Restart Study highlights **Low Opex** (US\$ 0.51/lb), **Low Capital** (\$US75 m) zinc operation<sup>1</sup>

**Highly desirable, clean concentrate** with existing infrastructure access to global zinc smelters

**Significant exploration upside** to grown mine life +10 years

**Strong interest** from numerous global banks and offtake parties regarding project financing

## 2018 COMPLETED

- Project acquisition
- Maiden JORC resource
- Restart Study
- First drill program in 20 years commenced

## 2019 TARGETS UNDERWAY

- Permitting process **UNDERWAY**
- Project financing **UNDERWAY** (target completion – 3Q19)
- Offtake negotiations **UNDERWAY**
- Brownfield exploration campaign **1Q19**
- Resource upgrade **1Q19**
- Definitive feasibility study **Mid 2019**



For further information

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# Board of Directors

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**Keong Chan**  
Non Executive Chair

Provides advice to a number of companies on corporate matters in relation to capital raisings, IPOs, back door listings, mergers and acquisitions, takeovers/divestments and has sat on or acted as an advisor to a number of ASX listed boards.

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**Grant Davey**  
Executive Director

A mining engineer with over 25 years of senior management and operational experience in the construction and operation of gold, platinum and coal mines in Africa, Australia, South America and Russia. More recently, he has been involved in venture capital investments in several exploration and mining projects and he has been instrumental in developing the Panda Hill niobium project as well as the Honeymoon uranium project. His focus is in securing first class mining projects in world class mining jurisdictions.

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**Peter Williams**  
Non-Executive Director

A geologist was formerly Chief Geophysicist and Manager of Geoscience Technology for WMC Resources. He was one of the founding members of Independence Group Limited and developed high powered 3 component 3D TEM applications that lead to the discovery of over 75,000t of nickel at the Victor Long Nickel Mine in Kambalda. Peter has extensive experience in West Africa where he was the vendor of Gryphon Minerals' Banfora Gold Project, was involved in the project generation of Papillion's Mali projects and was a founding director of Ampella Mining Ltd. Peter was a co-founder of the International Resource Sector Intelligence company, Intierra, and was a co-founder of the first dedicated hard rock mineral seismic company in the world, HiSeis.

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# Management

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**David Woodall –**  
Chief Executive Officer

A mining engineer with + 30 years of international mining experience in corporate executive and senior operational leadership roles involving project evaluation, project execution, and operational leadership in a wide range of commodities and processes.

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**Keith Bowes –**  
Project Director

A process engineer with +20 years experience in metallurgy, project management and mine and plant operations internationally covering a wide range of commodities and processes.

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**Alf Gillman –**  
Geology Manager

A geologist with +35 years of international exploration experience in senior management and Board roles across gold, base metals, uranium and industrial mineral exploration.

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**Adam Kiley –**  
Corporate Development

+15 years experience in the mining sector with a depth of experience in providing corporate and financial advisory services to ASX listed companies in both Australia and the United Kingdom.

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# Updated JORC (2012) Mineral Resource<sup>1</sup>

Superior Lake Project	Tonnes	Zn %	Cu %	Au g/t	Ag g/t
Indicated – 3% cut-off grade	1,992,000	17.8	0.9	0.4	33.7
Inferred – 3% cut-off grade	150,000	15.4	0.9	0.4	31.2
Indicated – 6% cut-off grade	1,880,000	18.7	0.9	0.4	35.3
Inferred – 6% cut-off grade	130,000	16.9	0.9	0.4	33.2
Total – 3% cut-off grade	2,145,000	17.7	0.9	0.4	33.5
Total – 6% cut-off grade	2,010,000	18.5	0.9	0.4	25.1