

**NorZinc**  
A Premium Mine Developer

# PRAIRIE CREEK

Canada's Next High-Grade Silver-  
Zinc-Lead Mine, Path to Production

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TSX – NZC   OTCQB – NORZF

Corporate Presentation  
October 2021

# Forward Looking Statements



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## Cautionary Statement

For the full details of the 2017 Feasibility Study and further information with respect to the key assumptions, parameters, and risks associated with the results of the feasibility study, the mineral reserve and resource estimates included therein, and other technical information, please refer to the complete Technical Report filed on SEDAR on October 31, 2017. The EBITDA projections summarized in this presentation are not measures recognized under Canadian generally accepted accounting principles ("GAAP") and do not have any standardized meanings prescribed by GAAP.

## Forward Looking Statements

This presentation contains forward-looking statements that are made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and under Canadian securities laws that involve a number of risks and uncertainties. Such statements are based on the Canadian Zinc Corporation's (the "Company", the "Registrant", "NorZinc" or "NZC") current expectations, estimates and projections about the industry, management's beliefs and certain assumptions made by it. We use words such as "expect," "anticipate," "project," "believe," "plan," "intend," "seek," "should," "estimate," "future" and other similar expressions to identify forward-looking statements. The Company's actual results could differ materially and adversely from those expressed in any forward-looking statements as a result of various factors.

Statements about the Company's planned/proposed Prairie Creek Mine operations, which includes future mine grades and recoveries; the Company's plans for further exploration at the Prairie Creek Mine and other exploration properties; future cost estimates pertaining to further development of the Prairie Creek Mine and items such as long-term environmental reclamation obligations; financings and the expected use of proceeds thereof; the completion of financings and other transactions; the outlook for future prices of zinc, lead and silver; the impact to the Company of future accounting standards and discussion of risks and uncertainties around the Company's business are not guarantees of future performance and are subject to certain risks, uncertainties and assumptions that are difficult to predict. Therefore, the Company's actual results could differ materially and adversely from those expressed in any forward-looking statements as a result of various factors. You should not place undue reliance on these forward-looking statements.

Information relating to the magnitude or quality of mineral deposits is deemed to be forward-looking information. The reliability of such information is affected by, among other things, uncertainty involving geology of mineral deposits; uncertainty of estimates of their size or composition; uncertainty of projections relating to costs of production or estimates of market prices for the mineral; the possibility of delays in mining activities; changes in plans with respect to exploration, development projects or capital expenditures; and various other risks including those relating to health, safety and environmental matters.

The Company cautions that the list of factors set forth above is not exhaustive. Some of the risks, uncertainties and other factors which negatively affect the reliability of forward-looking information are discussed in the Company's public filings with the Canadian securities regulatory authorities, including its most recent Annual Report, quarterly reports, material change reports and press releases, and with the United States Securities and Exchange Commission (the "SEC"). In particular, your attention is directed to the risks detailed herein concerning some of the important risk factors that may affect its business, results of operations and financial conditions. You should carefully consider those risks, in addition to the other information in this Presentation and in the Company's other filings and the various public disclosures before making any business or investment decisions involving the Company and its securities.

The Company undertakes no obligation to revise or update any forward-looking statement, or any other information contained or referenced in this Presentation to reflect future events and circumstances for any reason, except as required by law. In addition, any forecasts or guidance provided by the Company are based on the beliefs, estimates and opinions of the Company's management as at the date of this Presentation and, accordingly, they involve a number of risks and uncertainties. Consequently, there can be no assurances that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Except as required by law, the Company undertakes no obligation to update such projections if management's beliefs, estimates or opinions, or other factors should change.

# Company Overview

A Premium Mine Developer



World-class long-life high-grade zinc-lead-silver project in safe jurisdiction of Northwest Territories, Canada



Strong economics: **US\$299M NPV** and avg **EBITDA US\$123M** over **20 year mine life** (per PEA October 2021)



Highly experienced management team and board  
Supportive major shareholder with additional technical expertise (RCF)



Shovel ready and fully permitted to original mine design of 1,600 tpd  
Updated permits in process for mine expansion to 2,400 tpd as per PEA  
Updated Feasibility Study underway

# Notable Recent Activities

New Management Appointed in Q2

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- ✓ Major permitting milestone achieved
  - 2,400 tpd expansion plan review to proceed without an Environmental Assessment required
- ✓ Final IBA signed with Lidlii Kue First Nation (Road Benefit Agreement)
- ✓ Marketed equity offering completed for C\$7.2M
- ✓ MOU signed with Parks Canada (valid for 5 years)
- ✓ Auramet appointed as Financial Advisor to assist in project financing initiatives
- ✓ C\$1 Million equity financing complete (Resource Capital Fund)
- ✓ MOU signed with Boliden to significantly increase zinc concentrate offtake
- ✓ Robust updated PEA results with a 2,400 tpd Mine Plan and NPV<sub>8%</sub> of US\$299M

# Preliminary Economic Assessment for Prairie Creek



Robust Results based on 2,400 tpd throughput rate

After-Tax Net Present Value ("NPV") (Discount Rate 8%)	\$299M
After-Tax Internal Rate of Return ("IRR")	17.7%
After-Tax Payback Period	4.8 Years
Pre-Production Capex	\$368M
Sustaining Capex and Closure Costs	\$332M
Average Annual Payable Silver	2,551 koz
Average Annual Payable Zinc	122 Mlbs
Average Annual Payable Lead	101 Mlbs
Life of Mine ("LOM")	20.3 Years
Total Resource Mined	17.2 Mt
Average ZnEq Diluted Grade of Mineral Resources Mined	17.10%
Gross Revenue After Royalty (LOM)	\$6,274M
After-Tax Free Cash Flow (LOM)	\$1,121M
Average Annual EBITDA	\$123M
C1 Costs over LOM (By-Product)	\$0.19/lb Zn
C3 Costs over LOM (By-Product)	\$0.60/lb Zn
C1 Costs over LOM (Co-Product)	\$0.73/lb ZnEq
C3 Costs over LOM (Co-Product)	\$0.92/lb ZnEq
Zinc Price - Flat (LOM)	\$1.20/lb
Lead Price - Flat (LOM)	\$1.05/lb
Silver Price - Flat (LOM)	\$24.00/oz
FX Rate (CAD:USD)	1.25

- PEA provides economic assessment for an underground mine development based on 2,400 tonnes per day
- High-grade updated Mineral Resource Estimate:
  - 9.8 Mt of Measured & Indicated Resources at 22.7% ZnEq
  - 6.4 Mt of Inferred Resources at 24.1% ZnEq
- At recent zinc spot price of approximately \$1.50/lb zinc, after-tax NPV8% increases to \$479 and IRR increases to 22.8%
- Low LOM C1 and C3 by-product costs of \$0.19/lb Zn and \$0.60/lb Zn place Prairie Creek in the lowest third of zinc mines once in operation
- Significant opportunity to improve initial costs through cost optimization

All figures in USD throughout unless otherwise stated

# ESG

Committed to Responsible and Sustainable Development



*NorZinc is committed to building strong relationships and respect with the Indigenous Peoples whose land we work on by ensuring benefits to Northern residents and local businesses through our sustainable development.*

## Environment

- Minimal footprint– no tailings, 100% paste and backfill
- Permits issued for mine and road
  - Currently amending permits for increased production
- 100% water recycling in plant design
- Use of alternative energy

## Social Responsibility and Social License

- Strong local Indigenous Support
  - Naha Dehé (Nahanni Butte) Dene Band (NDDDB/NBDB) IBA signed
  - Liidlii Kue First Nation (LKFN) IBA signed
  - Acho Dene Koe First Nation (ADK) Benefit agreements in negotiation
- Long mine life providing long-term economic benefits

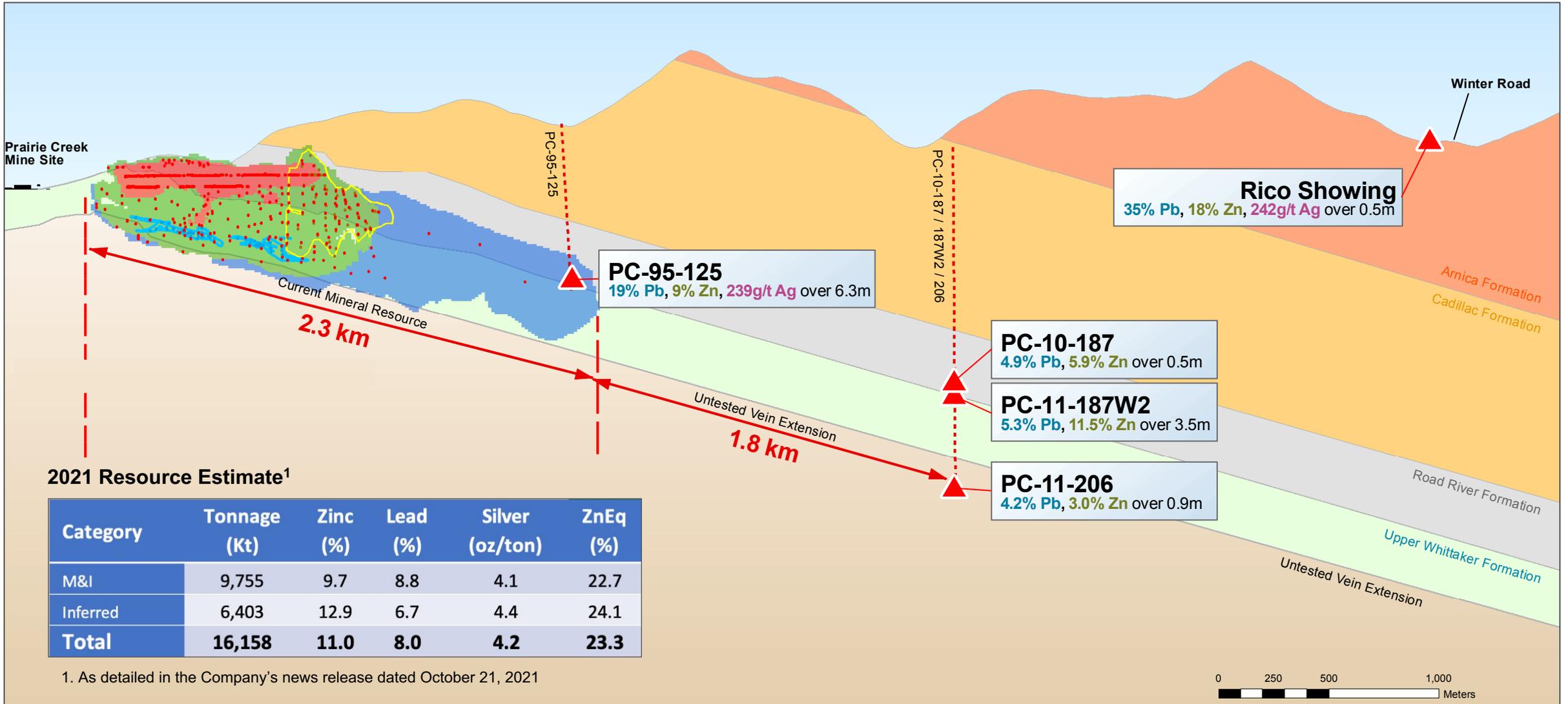
## Governance

- Socio-Economic Agreement signed with the GNWT to provide benefits to the Dehcho Region
- Indigenous decision makers alongside governments (co-management)



# Mineral Resource & Potential Extension

Long Section View Facing West



# District Geology

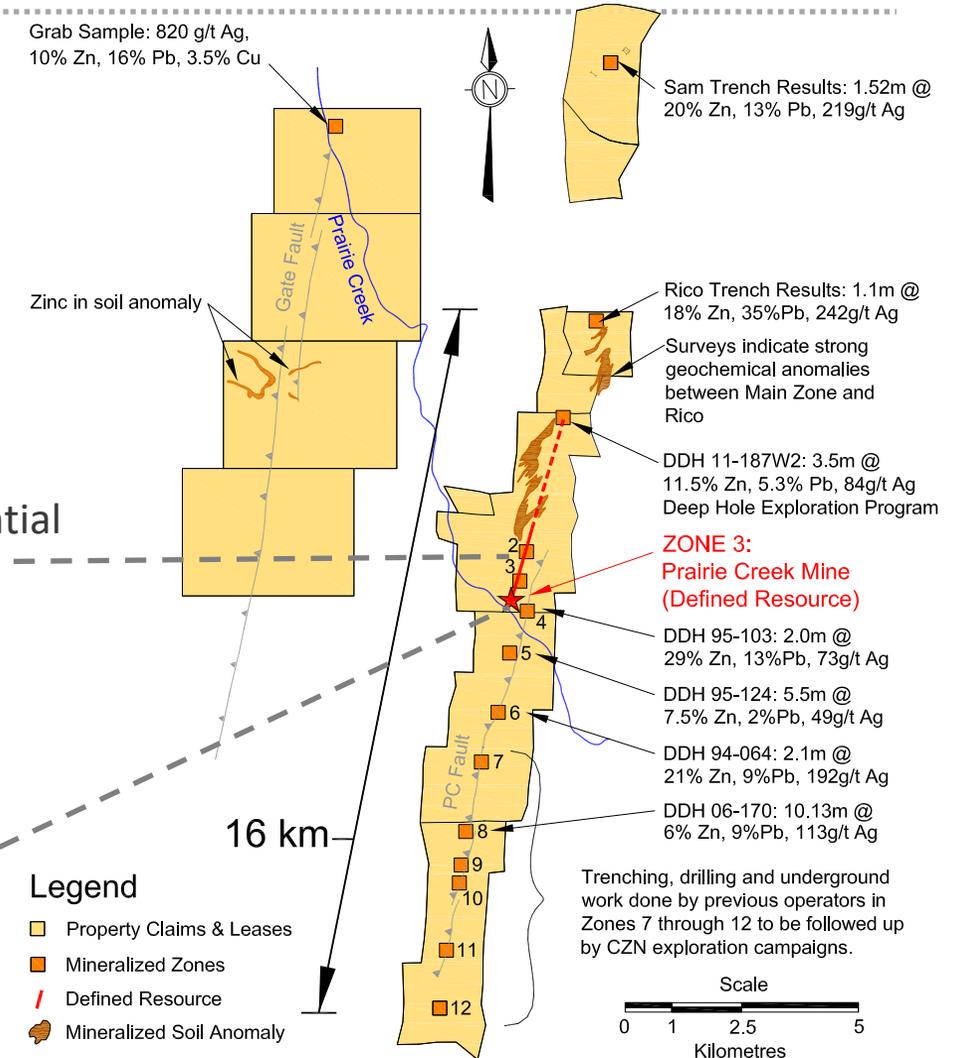
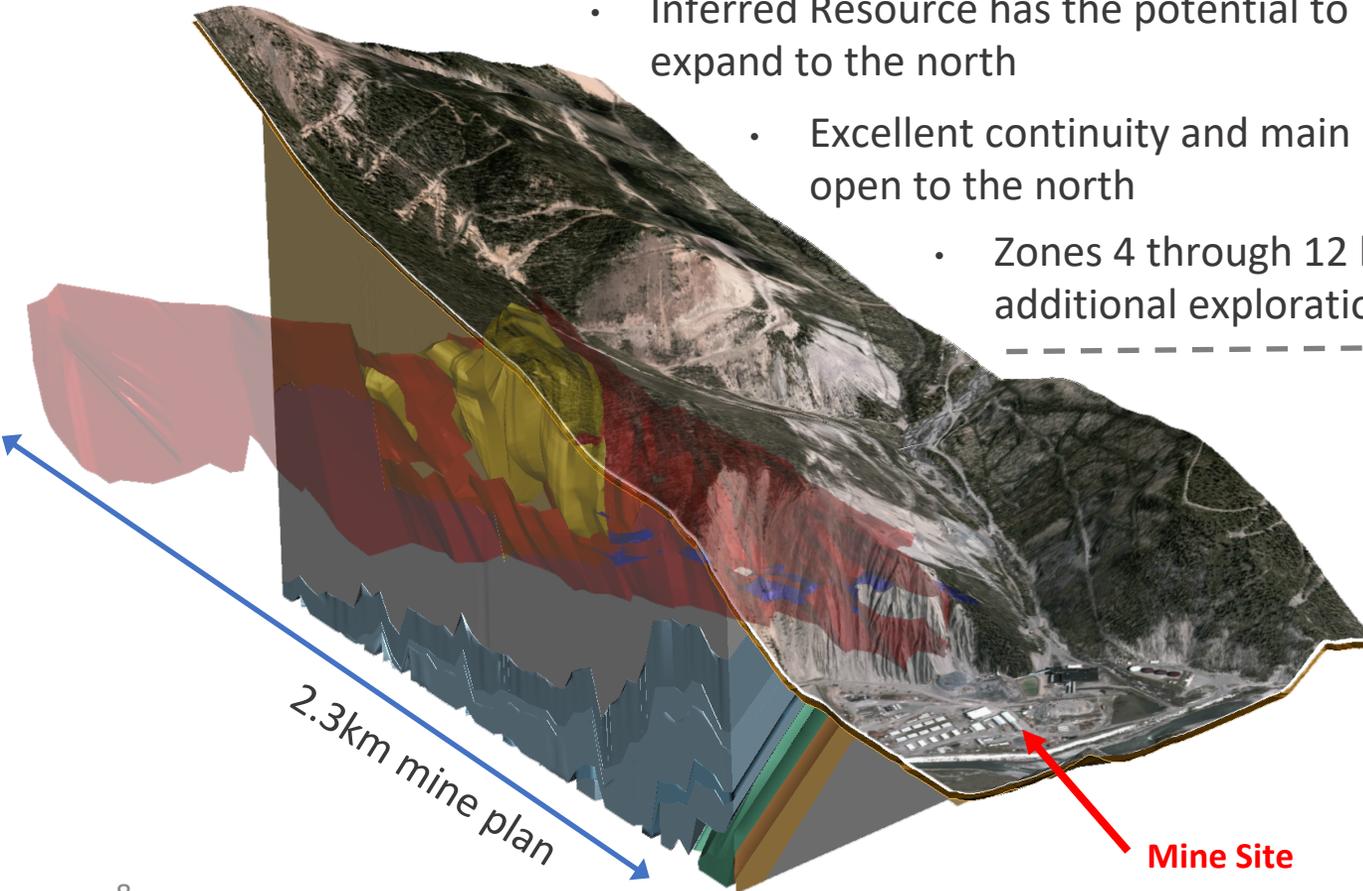
World-Class Geology



Mine life of **20 years**

Mine plan represents **2.3km** of the total **16km** MQV strike length

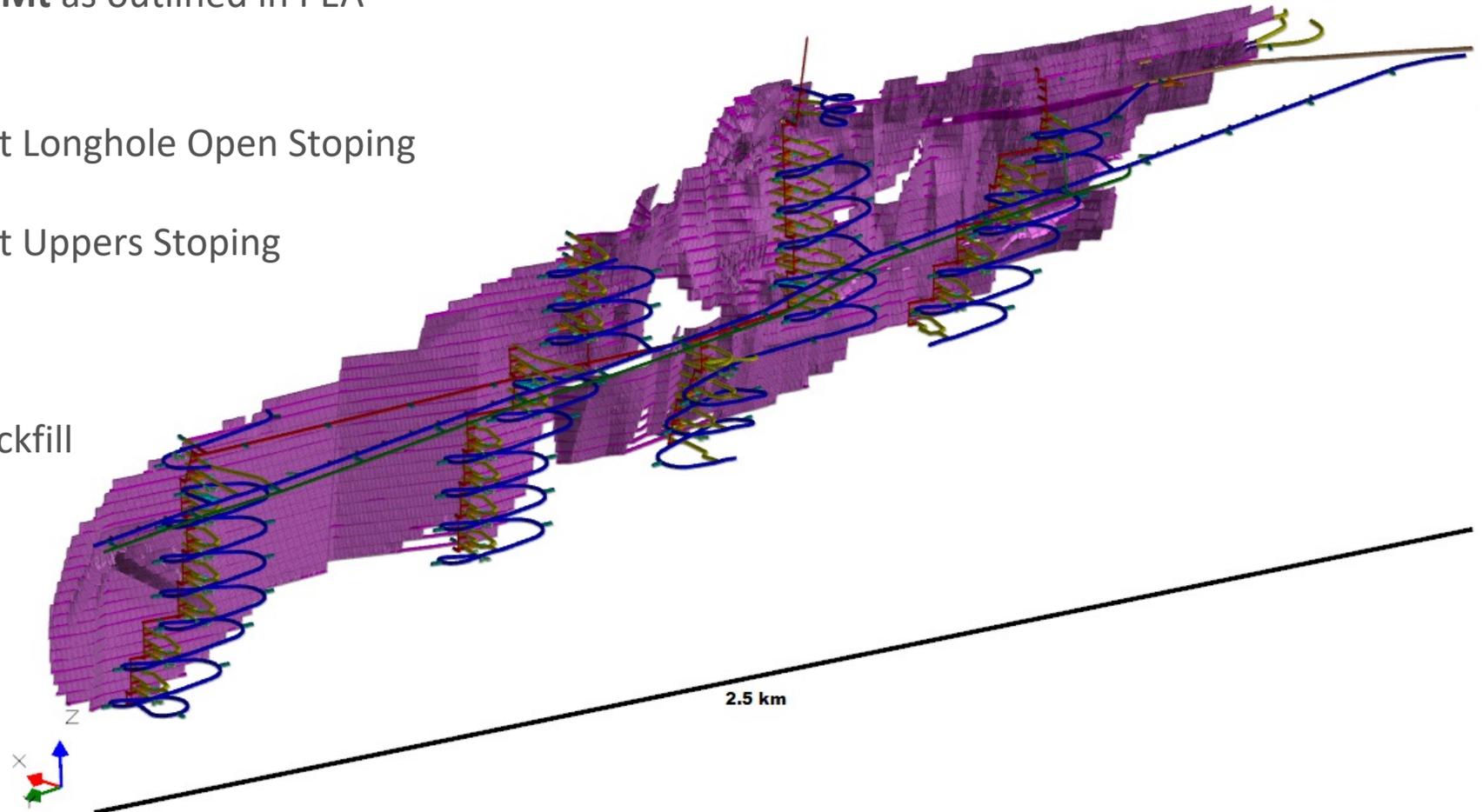
- Inferred Resource has the potential to expand to the north
- Excellent continuity and main zone is open to the north
- Zones 4 through 12 have additional exploration potential



# Conceptualized Mine Design

Based on increased throughput of 2,400tpd

- Mining inventory of **17.2 Mt** as outlined in PEA
- Mining rate of **2,400 tpd**:
  - Longitudinal Retreat Longhole Open Stopping for MQV, STK
  - Longitudinal Retreat Uppers Stopping for SMS
- 100% of tailings returned underground as paste backfill

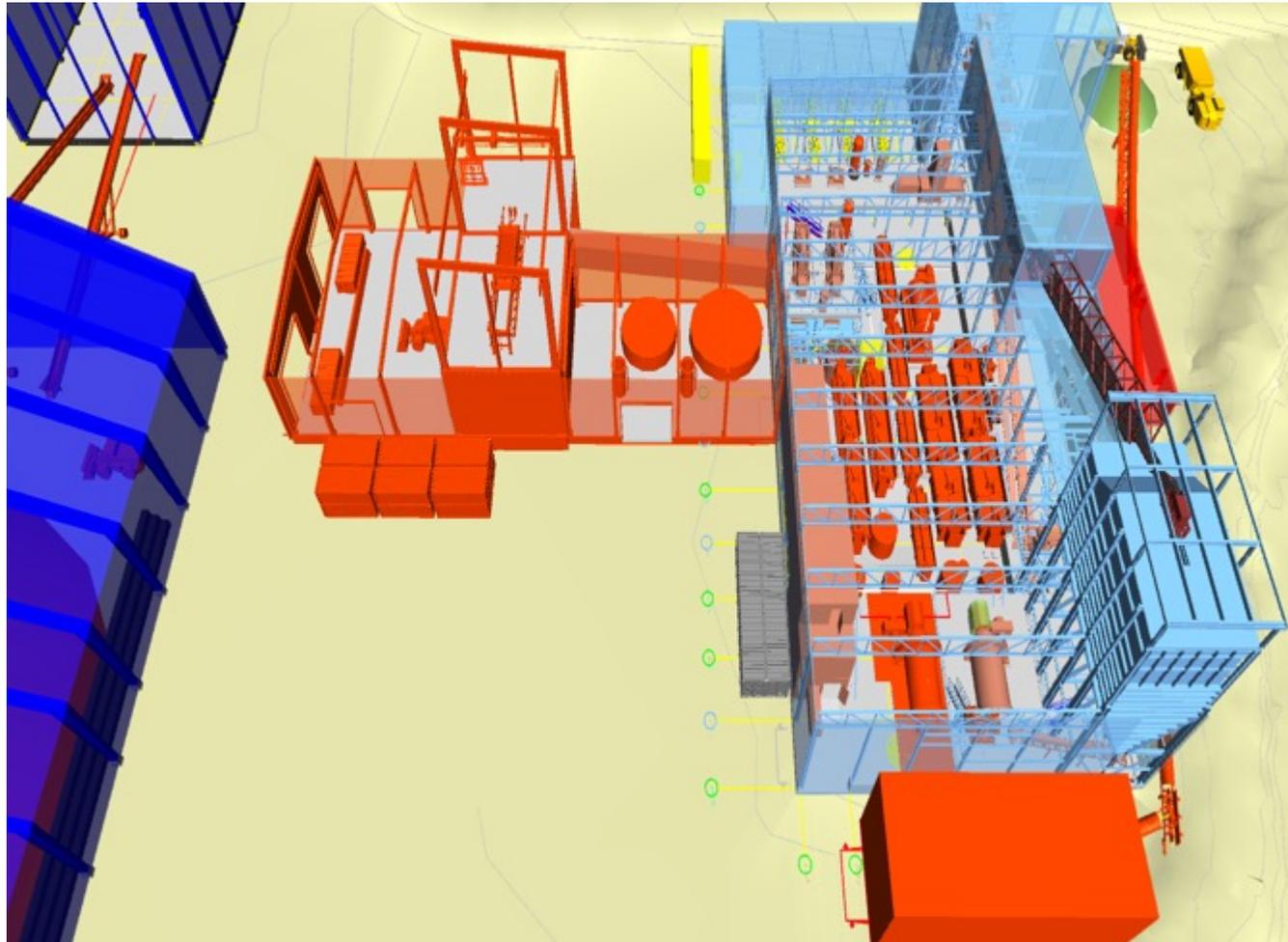


# Mill Expansion to 2,400 TPD

Existing Plant Capacity of 1,000 tpd



Conceptual Drawings of Plant Expansion Plans



Existing Mill to be Refurbished



# All Season Road – 170 km

Access Road Key Milestone for Mine Construction Timeline



	2021			2022			2023			2024		
Access Road				PWR Construction								
				Geotech			WR Construction	◆	All Season Road Construction	WR Construction	◆	All Season Road Construction
								* 700 Loads			* 700 Loads	



# Timeline

## Prairie Creek Mine



# Wrap-Up

## Prairie Creek – A High Grade Mine



- ⦿ World Class Asset - One of the Highest-Grade Deposits in the World, Leverage to Silver
- ⦿ Highly Experienced New Leadership Delivering on Key Priorities:  
Project Optimization & Readiness  
Concentrate Offtake and Metallurgical Testing  
Comprehensive Project Financing
- ⦿ Fully Permitted to 1,600 tpd Design; Upgrading to 2,400 tpd
- ⦿ Robust Plan-to-Production, Existing Infrastructure
- ⦿ ESG Vision and Strategy, Strong Community and Government Support
- ⦿ Well-Capitalized and Supportive Shareholder:  
**Resource Capital Funds (44%)**
- ⦿ Royalty Holders in Place:  
**RCF 1%, Sandstorm 1.2%**



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Shares Outstanding	684,517,082
Warrants Outstanding	61,285,022
Market Cap	C\$41M
Share Price (Oct 22)	C\$0.06/sh
Largest Shareholder (RCF)	44%

An aerial photograph of a mining facility situated in a snowy mountain valley. The facility consists of several large, interconnected industrial buildings with flat roofs, some of which are illuminated from within, casting a warm glow. A long, narrow conveyor belt structure extends from one of the buildings. The surrounding landscape is covered in snow, with evergreen trees on the slopes. In the background, more snow-capped mountains are visible under a clear sky. The word "APPENDIX" is overlaid in large, white, bold letters in the center of the image.

# APPENDIX

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# Updated Mineral Resource Estimate

Effective October 15, 2021



Domain	Classification	Tonnes	ZnEq %	Ag ppm	Pb %	Zn %
<b>Main Quartz Zone (MQV)</b>	Measured	903,000	30.3	206	11.2	12.9
	Indicated	5,248,000	27.7	181	12.0	10.3
	M & I	6,152,000	28.0	184	11.9	10.7
	Inferred	3,849,000	31.4	207	8.4	16.7
<b>Stockwork (STK)</b>	Measured	128,000	17.4	97	4.1	10.3
	Indicated	2,754,000	12.6	63	3.2	7.6
	M & I	2,883,000	12.8	65	3.2	7.7
	Inferred	2,187,000	12.7	67	4.0	6.7
<b>Stratabound Massive Sulphides (SMS)</b>	Indicated	722,000	16.4	53	5.1	9.7
	Inferred	367,000	15.4	47	4.4	9.6
<b>TOTAL</b>	Measured	1,031,000	28.7	193	10.3	12.6
	Indicated	8,724,000	22.0	133	8.6	9.4
	<b>M &amp; I</b>	<b>9,755,000</b>	<b>22.7</b>	<b>139</b>	<b>8.8</b>	<b>9.7</b>
	<b>Inferred</b>	<b>6,403,000</b>	<b>24.1</b>	<b>150</b>	<b>6.7</b>	<b>12.9</b>

Updated Prairie Creek Resource Estimate September 2021					Previous Resource Estimate September 2015			
MQV+STK+SMS	Tonnes	Ag ppm	Pb %	Zn %	Tonnes	Ag ppm	Pb %	Zn %
Measured	1,031,000	193	10.3	12.6	1,482,000	200	10.8	13.2
Indicated	8,724,000	133	8.6	9.4	7,222,000	123	8.5	8.7
Measured & Indicated	9,755,000	139	8.8	9.7	8,704,000	136	8.9	8.9
Inferred	6,403,000	150	6.7	12.9	7,049,000	166	7.7	11.3

1. Stated at a cut-off grade of 8% ZnEq based on prices of Zn = \$1.15 USD/lb, Pb = \$1.00 USD/lb, Ag = \$20.00 USD/troy oz. 2. Average overall processing recovery factors for the purposes of the resource estimate for Zn, Pb and Ag are 81.5%, 84.3%, and 95.1% respectively, with payables similarly as 85.0%, 94.8%, and 85.0%. Numbers may not compute exactly due to rounding. 3. ZnEq% = (Grade of Zn in %) + [(Grade of Pb in % \* Price of Pb in \$/lb \* 22.046 \* Recovery of Pb in % \* Payable Pb in %) + (Grade of Ag in g/t\* (Price of Ag in US\$/Troy oz/ 31.10348) \* Recovery of Ag in % \* Payable Ag in %)]/(Price of Zn in US\$/lb\*22.046 \* Recovery of Zn in % \* Payable Zn in %). For the purposes of the stated mineral resource estimate, prices used are Zn = \$1.15 USD/lb, Pb = \$1.00 USD/lb, Ag = \$20.00 USD/troy oz, overall average LOM recoveries for Zn, Pb and Ag are 81.5%, 84.3%, and 95.1% respectively, with payables similarly as 85.0%, 94.8%, and 85.0%. For the purposes of the modelled mine physicals, prices used are Zn = \$1.20 USD/lb, Pb = \$1.05 USD/lb, Ag = \$24.00 USD/troy oz.

# Geology

World-Class Geology



3 sulphide mineralization styles at Prairie Creek

## MQV (Main Quartz Vein)

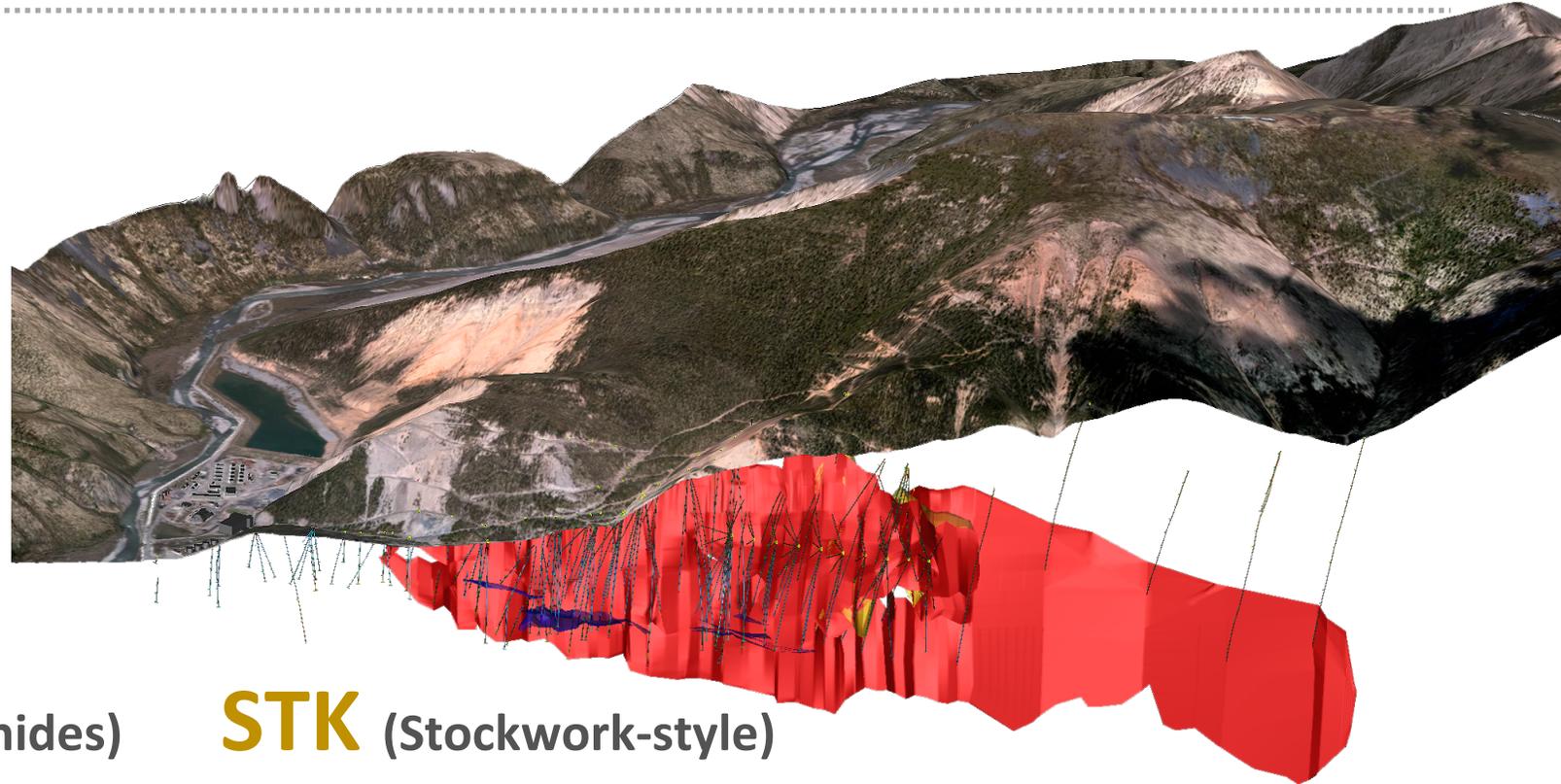
Steeply dipping 3-5m wide fault infilled with quartz carbonate dolomite, with abundant galena and sphalerite, with lesser pyrite and tennantite-tetrahedrite.

## SMS (Stratabound Massive Sulphides)

Occurs as stratabound semi-massive sphalerite-galena-pyrite replacement, with typically half the lead and a third of the silver grades, and predates the MQV and STK.

## STK (Stockwork-style)

Occurs as parallel vertical high-grade galena and sphalerite veins up to 60cm wide, but spaced far enough apart that in bulk, grades less than the MQV and SMS.



# Main Quartz Vein

Consistent Ore Body Ideal for Long-Hole Open Stopping



**MQV** in the underground workings  
(930 Level XC9)

Intercept > **50% ZnEq:**  
5.9% Pb, 39.4% Zn and  
177g/t Ag over 1.9m



# Management Team

An Experienced Team of Mine Builders and Operators



## **Rohan Hazelton, President, CEO & Director**

Mr. Hazelton is a Chartered Professional Accountant (CPA, CA) with more than 25 years of international finance experience, 20 of those years dedicated to the mining industry. He was previously the CFO of Cerrado Gold and Ascendant Resources and also Co-founder and CEO of KORE Mining. He was one of the founding members of Goldcorp (Wheaton River) with 15 years of progressively senior positions including VP Finance, CFO Mexican Operations and VP Strategy and contributed to 5 mine builds. He was also a founding member of Wheaton Precious Minerals (Silver Wheaton). He is a graduate of Harvard University in Applied Math and Economics.

## **Scott Fulton, VP, Project Development**

Mr. Fulton has 25 years of multi-industry experience with the last 12 years spent in mine construction and development as a Project Manager for Wood (formerly Amec Foster Wheeler), where he executed a number of new mine builds in Canada and the US, including New Afton, Kitsault, Mount Emmons, Brucejack, Rainy River and Carlsbad East. Prior to that, he worked on significant industrial projects at Hatch. Mr. Fulton is a P.Eng. and has an honours degree in Mechanical Engineering.

## **Peter Portka, CFO**

Mr. Portka is a mining financial professional with extensive metals and mining experience in corporate finance, corporate development, public accounting and M&A advisory. He was most recently the VP Finance of Quintana Resources Capital, a US-based mining investment company and prior to that held senior positions at Sandstorm Gold and Sandstorm Metals & Energy. Mr. Portka holds Chartered Professional Accountant and Chartered Financial Analyst designations and has a Bachelor of Commerce degree from the University of British Columbia.

## **Claudine Lee, VP, CSR**

Ms. Lee joined NorZinc in February 2021 as the VP of Corporate Social Responsibility. She was most recently Head of Health, Safety, Environment Communities and Training at Dominion Diamond Mines. In this position, she was responsible for the implementation and maintenance of Dominion's Health, Safety, Risk and Hygiene and Environment programs and policies ensuring compliance with all federal and territorial regulations. Ms. Lee holds a MSc in Geology/Environmental Geochemistry from Queen's University and an Honours BSc in Geology and Environmental Science. She started her career as an Exploration Geologist.

## **David Harpley, VP Permitting**

David Harpley is currently VP Permitting, has been with NorZinc since 2004, and was responsible for obtaining permits for the Mine and all-season Road. He is an environmental specialist with 42 years' experience. In addition to permitting, he has undertaken and managed baseline studies, impact assessments, reclamation and closure plan developments and site assessments. David has a B.Sc. in Geology and an M.Sc. in Mining and Mineral Exploration.

## **Joseph Lanzon, VP Corporate Affairs**

Mr. Lanzon has over 20 years of executive management experience in Mining, government regulatory approaches and in developing community partnerships with Indigenous, Federal, and Provincial governments. Mr. Lanzon previously worked for the Government of Canada, assisting on two Royal Commissions. He holds both a Bachelor and master's degree in Public Administration (BPA)(MPA) and has completed the Executive Leadership Program ELP (2001) an Executive Business program at McGill university.

# Board of Directors

## An Experienced and Supportive Board

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### **John Warwick, Chairman of the Board**

Mr. Warwick is a corporate director. Prior to 2015, he was the Managing Director, Investment Banking, founding partner and Head of Corporate Finance of Paradigm Capital Corporation where he advised and assisted companies on financing and capital structure matters.

### **Gary Sugar, Director**

Mr. Sugar has an extensive career in the investment banking industry, serving more than 30 years with RBC Capital Markets including 24 years as a Managing Director. Gary recently served as a director of Osisko Mining Corporation, Stillwater Mining Company and Romarco Minerals Inc., and serves as a director of Seabridge Gold Inc. Gary holds a BSc in Geology and an MBA, both from the University of Toronto.

### **Shelley Brown, Director**

Ms. Brown has a distinguished 40-year career in accounting and more than 25 years of board experience serving on not-for-profit, association, and for-profit corporate boards, including Deloitte Canada and the Accounting Standards Board Oversight Council. She is a recognized leader in diversity and inclusion, having been listed on Canada's Top 100 Most Powerful Women for four years.

### **Stephen Flewelling, Director**

Mr. Flewelling has more than 30 years experience in exploration, feasibility planning, project development, construction and operations. He is currently Chief Development Officer at Noront Resources. Stephen is a graduate of the Engineering program at Queen's University.

### **Anita Perry, Director**

Ms. Perry is a senior executive skilled in reputation and issues management, government affairs and stakeholder relations in Calgary. She recently retired from BP Canada after 14 years where she led all external relations and interface strategies for BP in Canada as Vice President of Communications and External Affairs. She obtained her Bachelor of Arts at the University of Regina majoring in Political Science.

### **Ian Ward, Director**

Mr. Ward is a Professional Engineer and metallurgist with extensive experience in the processing of gold and base metal ores, industrial minerals, and with grinding systems and effluent treatment. From 2010 to 2015 he was Senior Advisor and VP of Metallurgy and Processing for Kinross Gold Corporation, and prior thereto Senior VP, Project Development for Mustang Minerals Corp. and President and Principal Metallurgist with Micon International Limited. He is a Qualified Person and co-author for a number of NI 43-101 compliant Technical Reports.



# CONTACT

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