



PRAIRIE CREEK

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

TSX – NZC OTCQB – NORZF



Rohan Hazelton, President & CEO

Corporate Presentation
September 20, 2021

Forward Looking Statements



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 project in Northwest Territories:
long life, high returns, mitigated risks



Largest reserves/highest-grade Ag-Zn-Pb mine in Canada



Highly experienced Management Team and Board
Supportive major shareholder with additional technical expertise (RCF)



Shovel ready and permitted to feasibility design (1,600 tpd) and access road

Notable Recent Activities

New Management Appointed in Q2



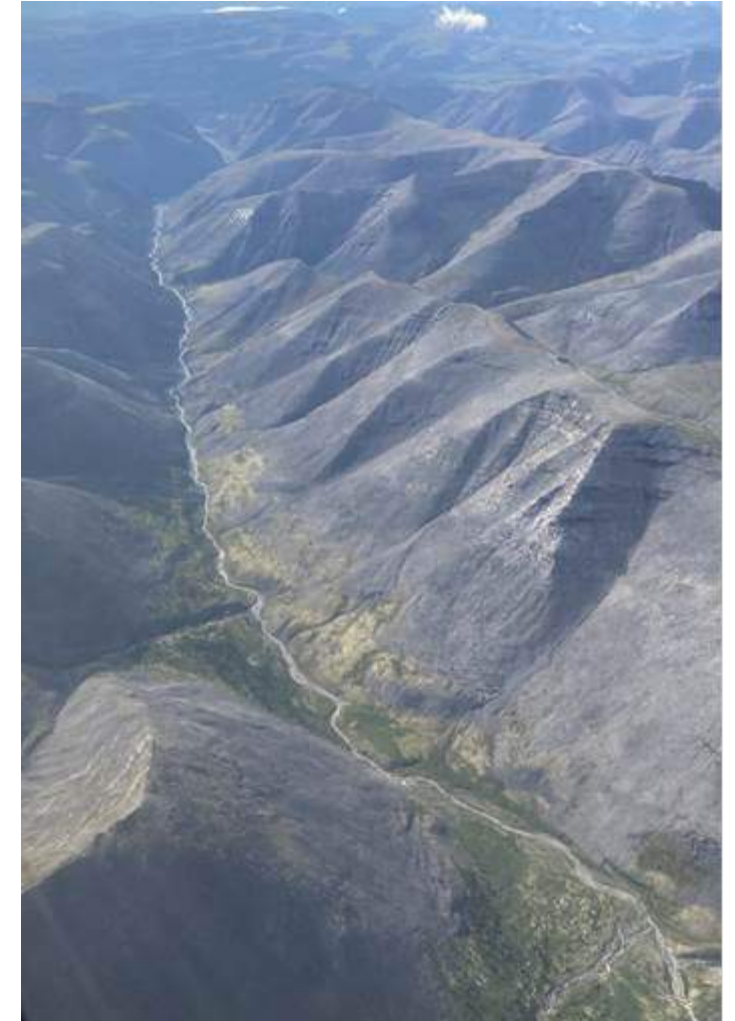
- ✓ PEA Launched on 2,400 tpd Mine Plan
- ✓ Major permitting milestone achieved
 - 2,400 tpd expansion plan review to proceed without an Environmental Assessment required
- ✓ Final IBA signed with Lidlii Kue First Nation (Road Benefit Agreement)
- ✓ MOU signed with Parks Canada (valid for 5 years)
- ✓ Marketed equity offering completed for \$7.2M
- ✓ Auramet appointed as Financial Advisor to assist in project financing initiatives
- ✓ \$1 Million equity financing complete (Resource Capital Fund)
- ✓ Strong cash position of ~\$5M

Prairie Creek Mine

Canada's Highest-Grade Silver-Zinc-Lead Opportunity

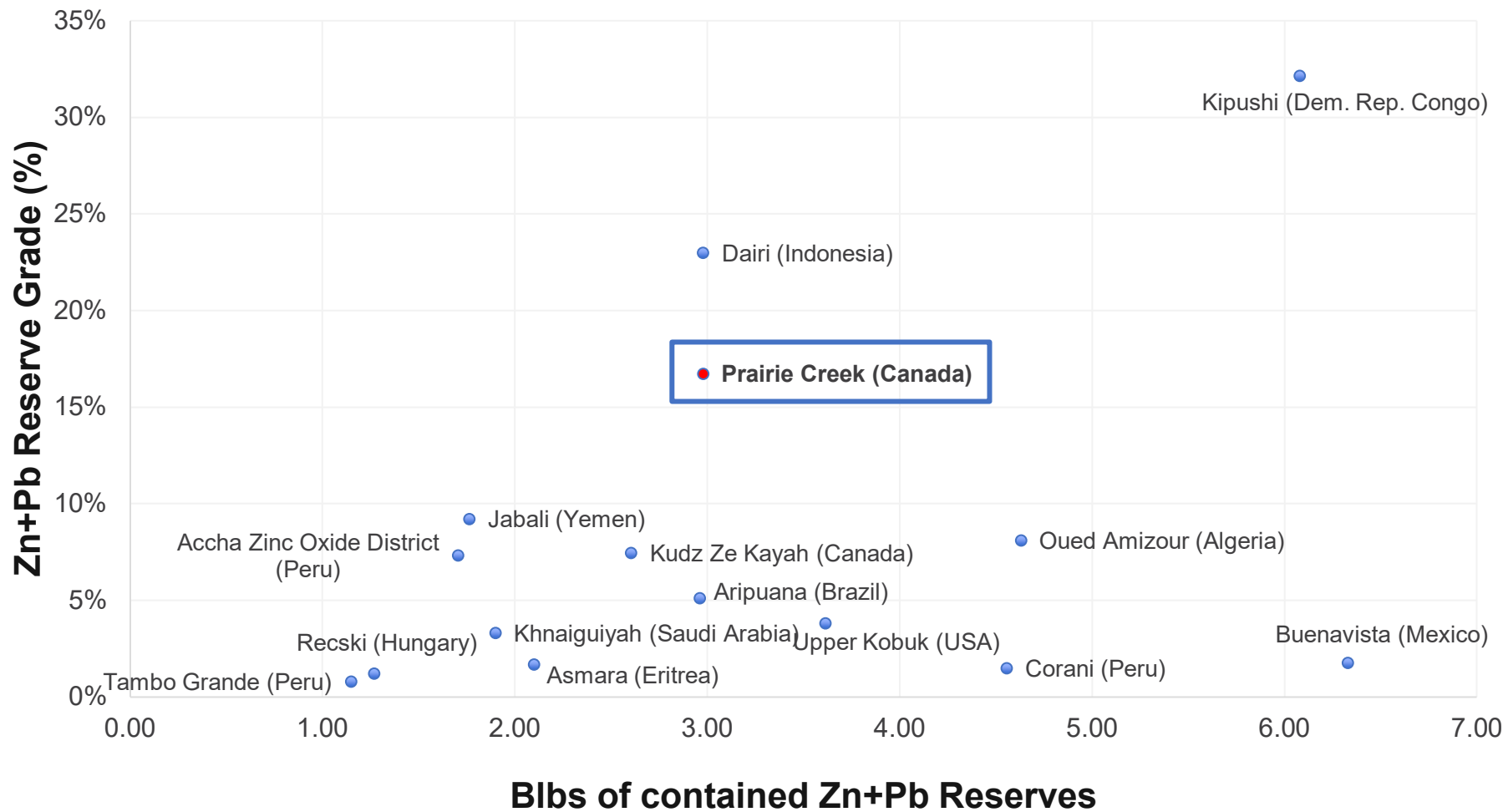


- One of world's **largest** Zinc-Lead deposits
 - Reserves >500,000t Zinc
- **Seventh largest** in size
 - 3.0 Billion lbs (1.4 Million tonnes) contained zinc/lead reserves
 - > 6 Billion lbs contained zinc/lead in total resources
 - 32 Million oz contained silver reserves
 - > 75 Million oz contained silver in total resources
- Third highest reserve grade
 - Zinc + Lead 16.7%; ZnEq 23% incl. Silver
- Historic Cadillac Silver Mine
 - Existing infrastructure (C\$64M in 1980 dollars)
 - Complete 1,000 tpd mill installed
- Readily saleable concentrate
 - Memorandum of Understanding (MOU) signed with Boliden and Korea Zinc
 - Silver-rich lead concentrate
 - Economically saleable zinc concentrate despite higher mercury



Peer Grade and Reserve Comparison

Prairie Creek Mine



Third highest grade

Seventh largest reserve ^{1,2}

1. Source SNL Market Intelligence: Global primary zinc/lead development deposits, excluding China and Russia with greater than 500,000t of contained zinc
2. Does not include silver (Prairie Creek reserve silver grade of 3.6 oz/ton)

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.

New ESG Leadership Appointment: February 2021, Claudine Lee Appointed VP Corporate Social Responsibility

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**
 - Liidlíi Kue First Nation (LKFN) **IBA signed**
 - Acho Dene Koe First Nation (ADK) **Benefit agreements in negotiation**
- Long mine life providing long-term economic benefits

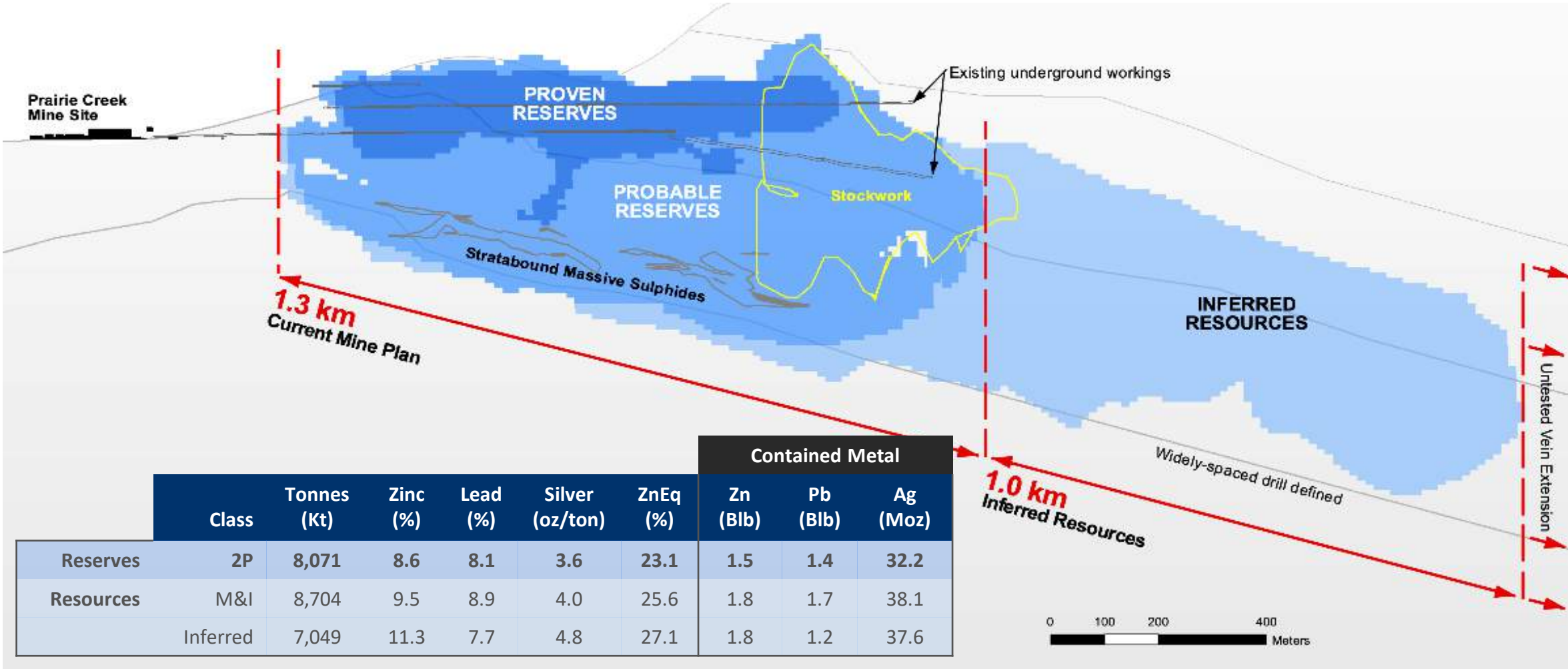
Governance:

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



Mineral Reserves and Resources

World-Class Geology

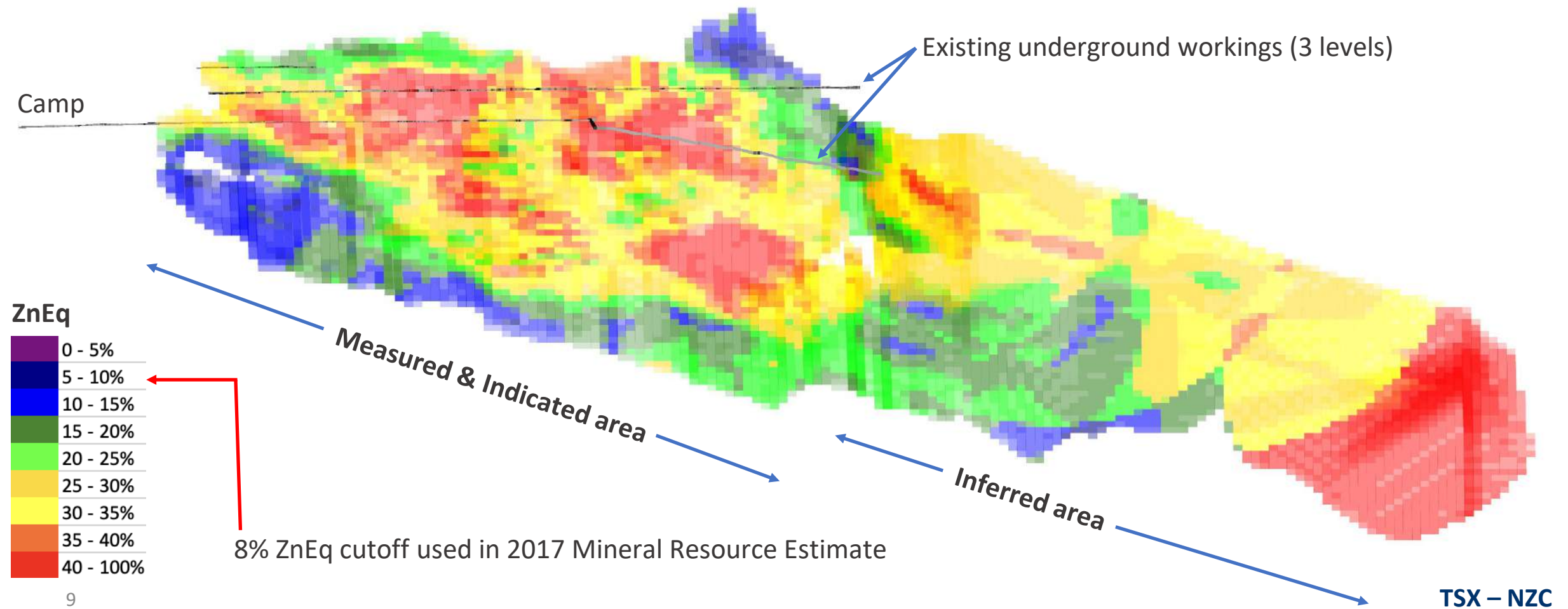


See appendix for full reserve and resource classifications. Stated mineral reserves and resources are from 2017 NI 43-101 Feasibility Study, available on SEDAR and at NorZinc.com

Mineral Reserves and Resources

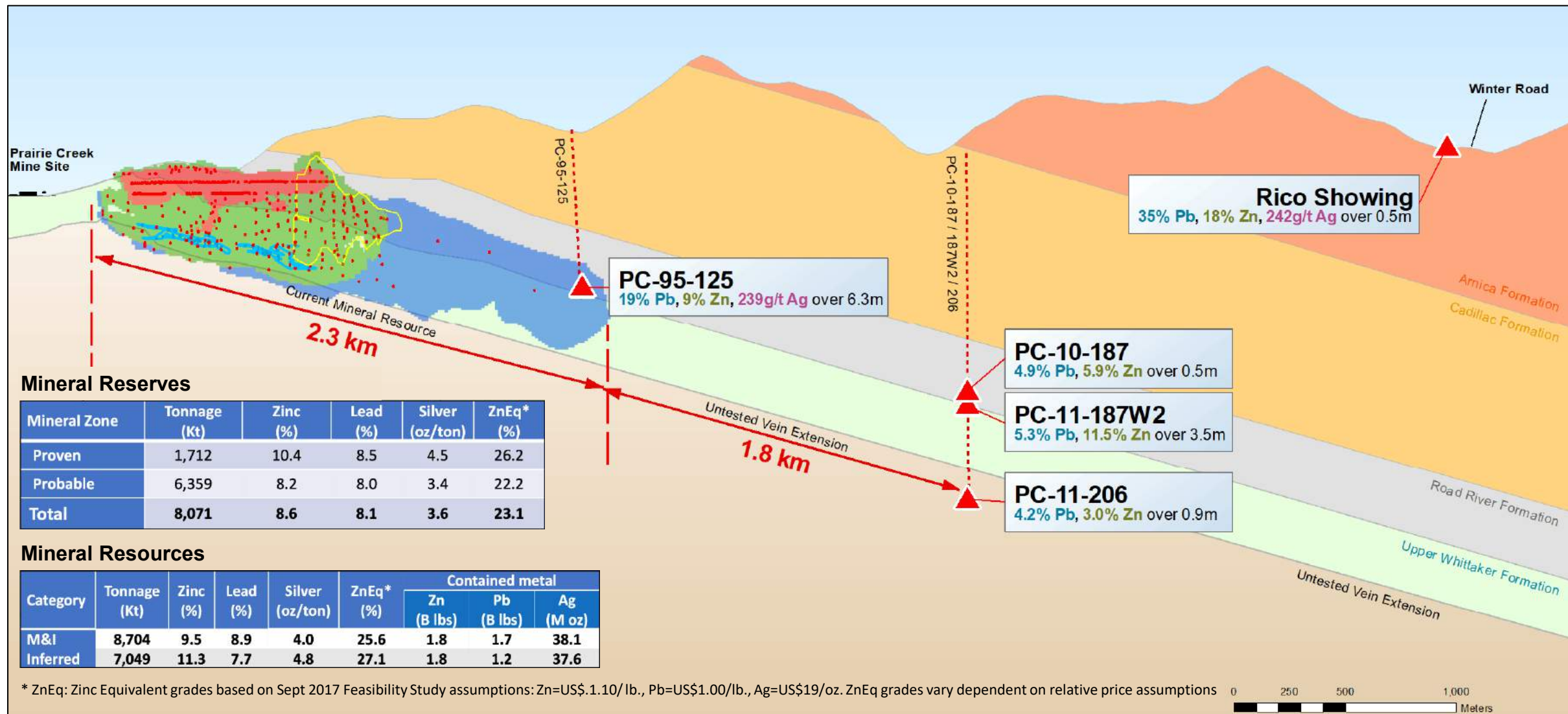
World-Class Geology

Zinc Equivalency Block Model Heatmap (MQV Measured, Indicated and Inferred Resources)



Mineral Resource and Potential Extension

Long Section View (Facing West)



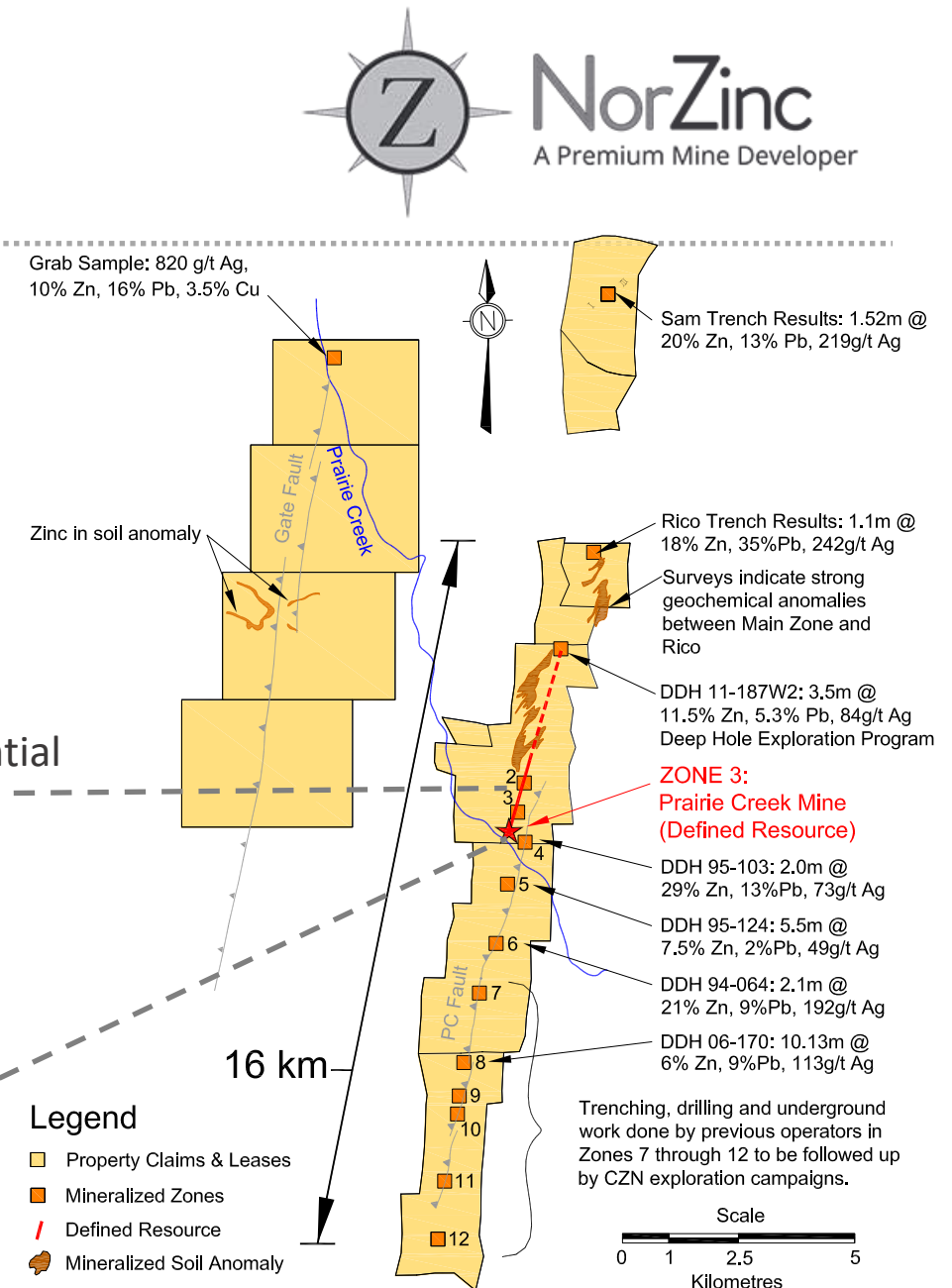
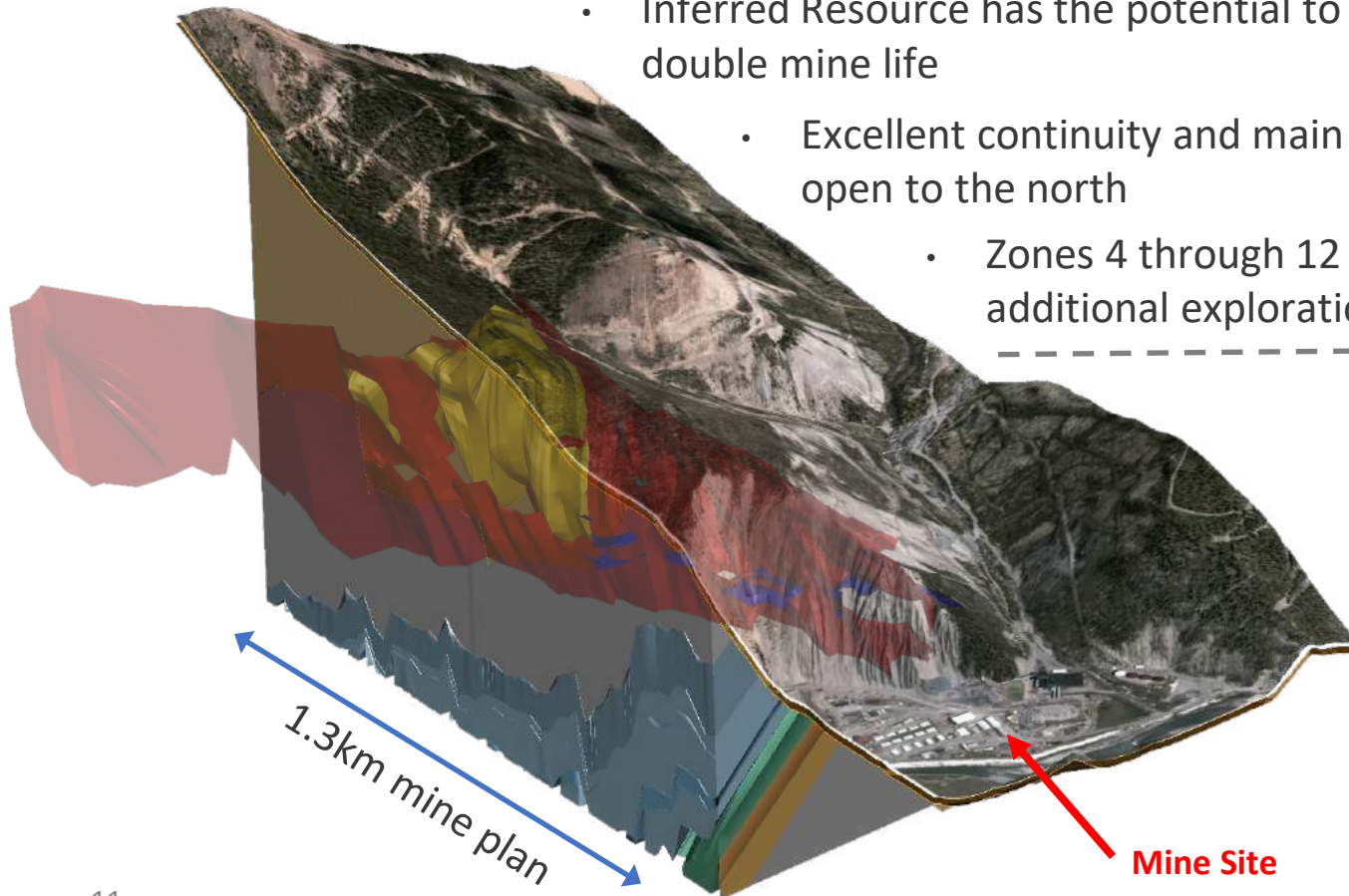
Geology

World-Class Geology

Mine life of **15 years**

Mine plan represents **1.3km** of the total **16km** MQV strike length

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



Main Quartz Vein – World Class Geology

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



Feasibility Study Sept 2017

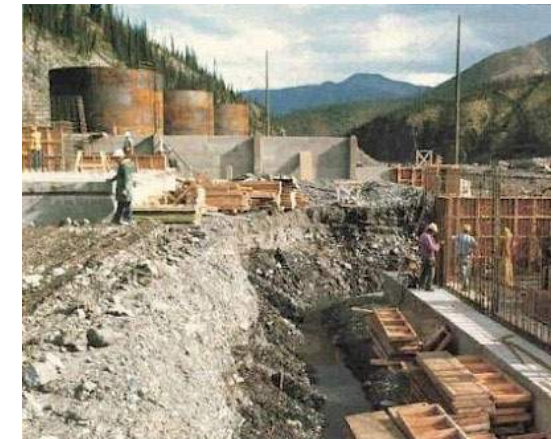
Highlights of the 2017 FS prepared by Ausenco & AMC



Strong economics:

- Metal prices significantly lower than spot (\$1.10/lb Zn; \$19/oz Ag)
- Average annual prodn:
 - 95M lb Zn
 - 105M lb Pb
 - 2.1M oz Ag
- C1 Cash costs \$0.47/lb ZnEq
- IRR 23.8% pre-tax and 18.4% post-tax
- NPV C\$344M pre-tax; C\$188M post-tax

Mine and mill parameters		Concentrates			
		Type	10 yr W. Avg. Tonnes	Average grade	Payability
Total ore mined (million tonnes)	8.07	Zinc concentrate	64,800	Zinc: 59%	Zinc: 85%
Mining rate (tonnes / day)	1,600			Silver: 136 g/t ³	Silver: 70%
Milling rate (tonnes / day) post-DMS	1,200	Lead concentrate	71,600	Lead: 62%	Lead: 95%
LOM (years)	15			Silver: 800 g/t	Silver: 95%
Mine and mill statistics					
Metal	10 yr ore grade (weighted average)	Ore grade LOM (weighted average)		Mill recoveries LOM (weighted)	10 yr average annual contained metal
Zinc	8.50%	8.70%		83%	95M lbs ⁴
Lead	9.30%	8.10%		88%	105M lbs ⁴
Silver	139 g/t	124 g/t		87%	2.1M oz ⁴
Project assumptions base case					
Zinc price	US\$1.10/lb	Treatment charges		Exchange rate	C\$1.25:US\$1.00
Lead price	US\$1.00/lb	US\$172/tonne Zn Con		Discount rate	8%
Silver price	US\$19.00/oz	US\$130/tonne Pb Con			
Operating and capital costs					
Operating costs ²	LOM \$/t ore mined	Capital costs			\$M
Mining	58	Pre-production capital			253
Processing	47	Contingency			26
Site services	19	Total pre-production capital			279
G&A	30	Sustaining capital			117
Total on-site costs	154	Working capital			36
Transportation ¹	69				
Total operating costs ²	223				
¹ Includes truck, rail, handling and ocean shipping		³ Subject to a deduction of 3 oz. per tonne of concentrate			
² Does not include treatment, refining charges, royalty		⁴ Total metal contained in both lead and zinc concentrates			
Economic results (LOM)				Pre-tax	Post-tax
Cash flow undiscounted (\$M)				899	562
NPV @ 8% (\$M)				344	188
NPV @ 5% (\$M)				497	291
IRR (%)				23.8	18.4
Payback period (years from first revenue)				4.4	4.6
Average annual EBITDA (\$M)				81	



Updated Study Objectives

Review and Optimization 2021-2022



Current Objectives:

- Reviewing capex and opex assumptions
- Improving economics while maintaining the 15-year mine life
 - Evaluating increases in:
 - Production throughput to 2,400 tpd
 - Mine reserves
 - All Season Road design
 - Mining development
 - Contractor vs owner mining
 - Equipment procurement strategies

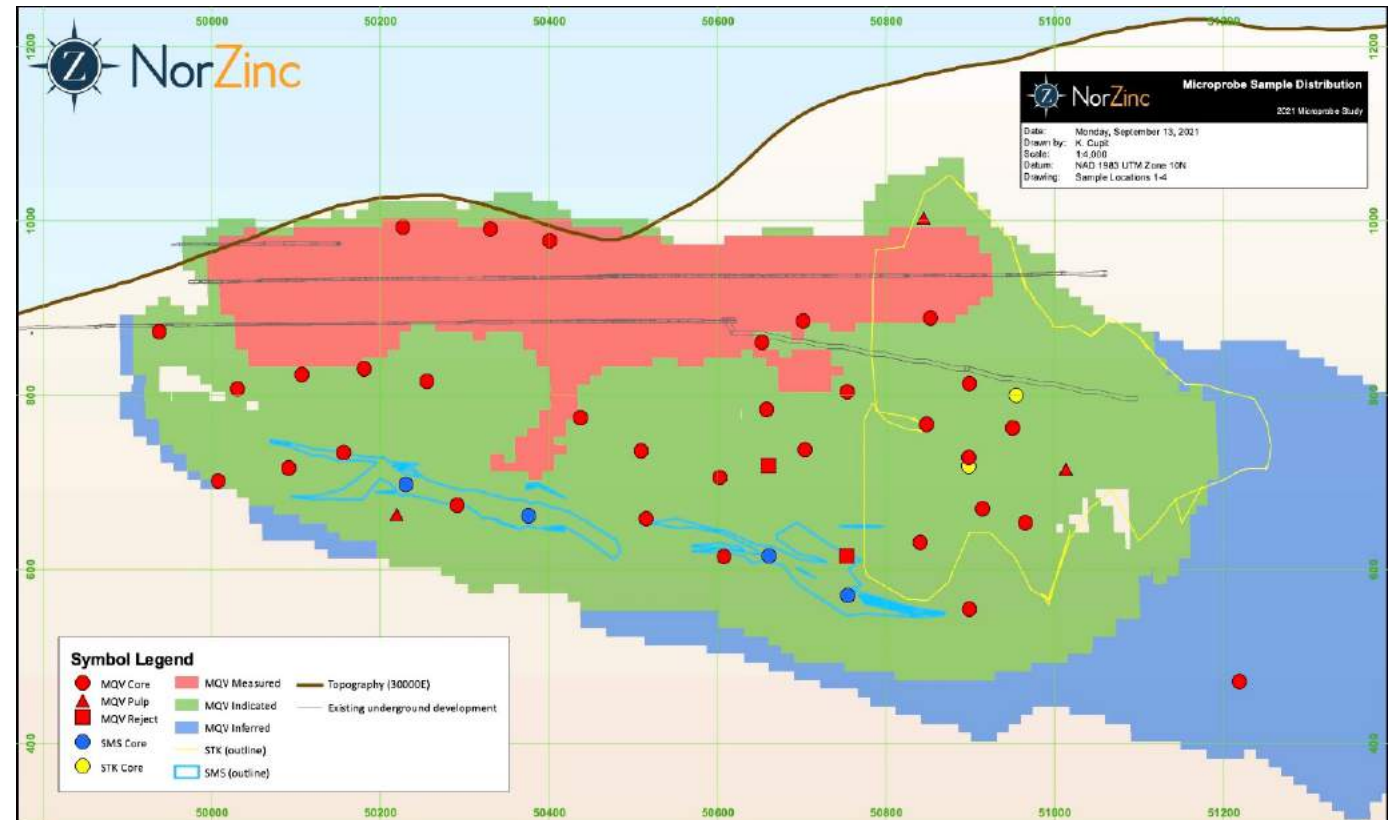


Metallurgical Testing

Detailed Metallurgical Microprobe Study Initiated with SGS (Lakefield)



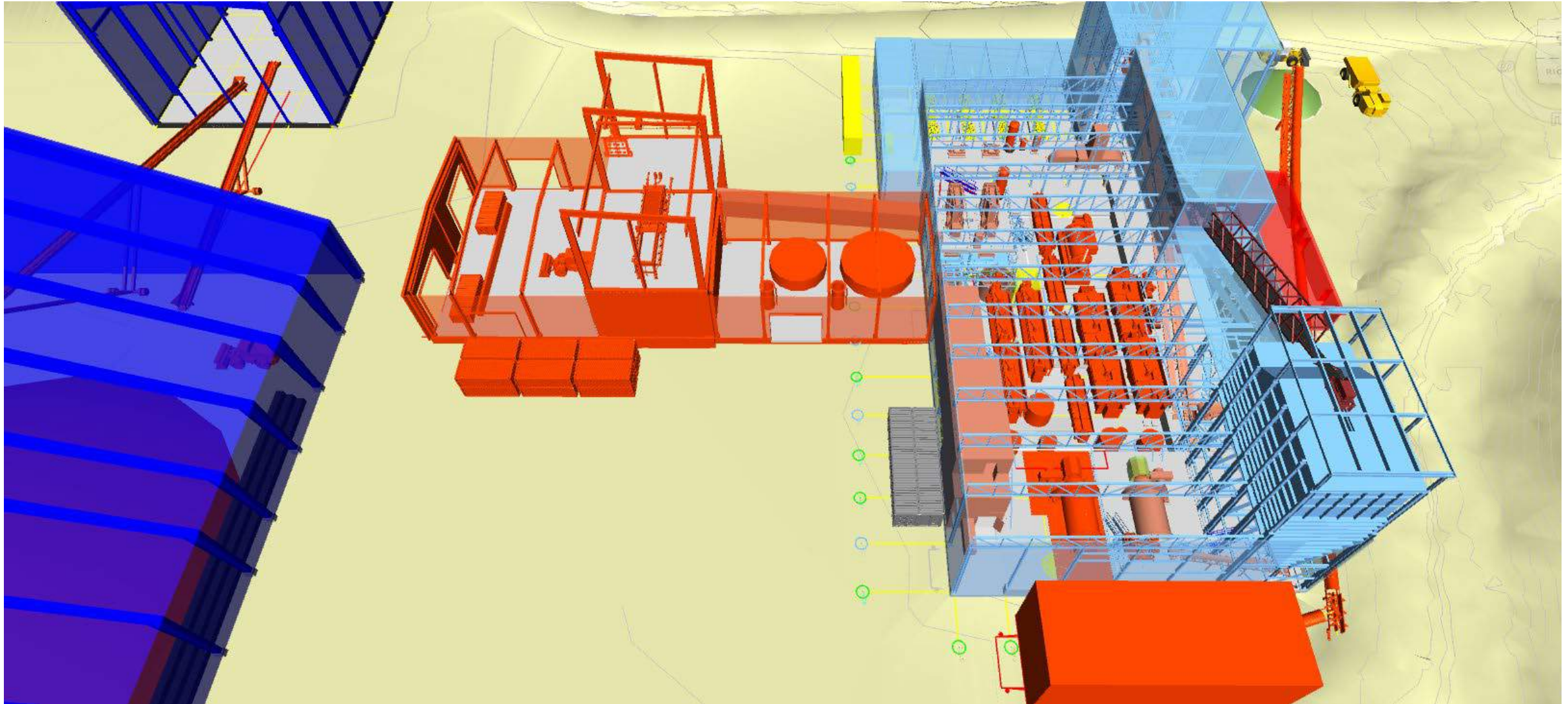
- Discussions with potential offtakers for the sale of future zinc and lead concentrates continue to advance
- 2021 Metallurgical Microprobe Study examining the variability of mercury that could be expected throughout the mine life
- Samples for this study selected from existing drill core, assay pulps and assay rejects
- Process expected to be complete early Q4 21
- Objective of study is to better inform metallurgical models in order to help define the mercury variability expected throughout the life of the mine
- Results to advance definitive offtake arrangements



Locations and types of samples for Metallurgical Microprobe Study, as shown on longitudinal vertical section, looking west, Prairie Creek. MQV samples are noted in red, STK in yellow, and SMS in blue.

Mill Expansion to 2,400 TPD

Conceptual Drawings



Mill Expansion to 2,400 TPD

Existing 1,000 tpd Mill to be Refurbished



Existing Infrastructure and Construction

Prairie Creek Mine



Planned Construction Schedule

- To be completed in 2 phases over 3 years

PHASE 1

Winter road and early works at plant and mine site.

PHASE 2



All season road, major site construction and UG development to be completed.

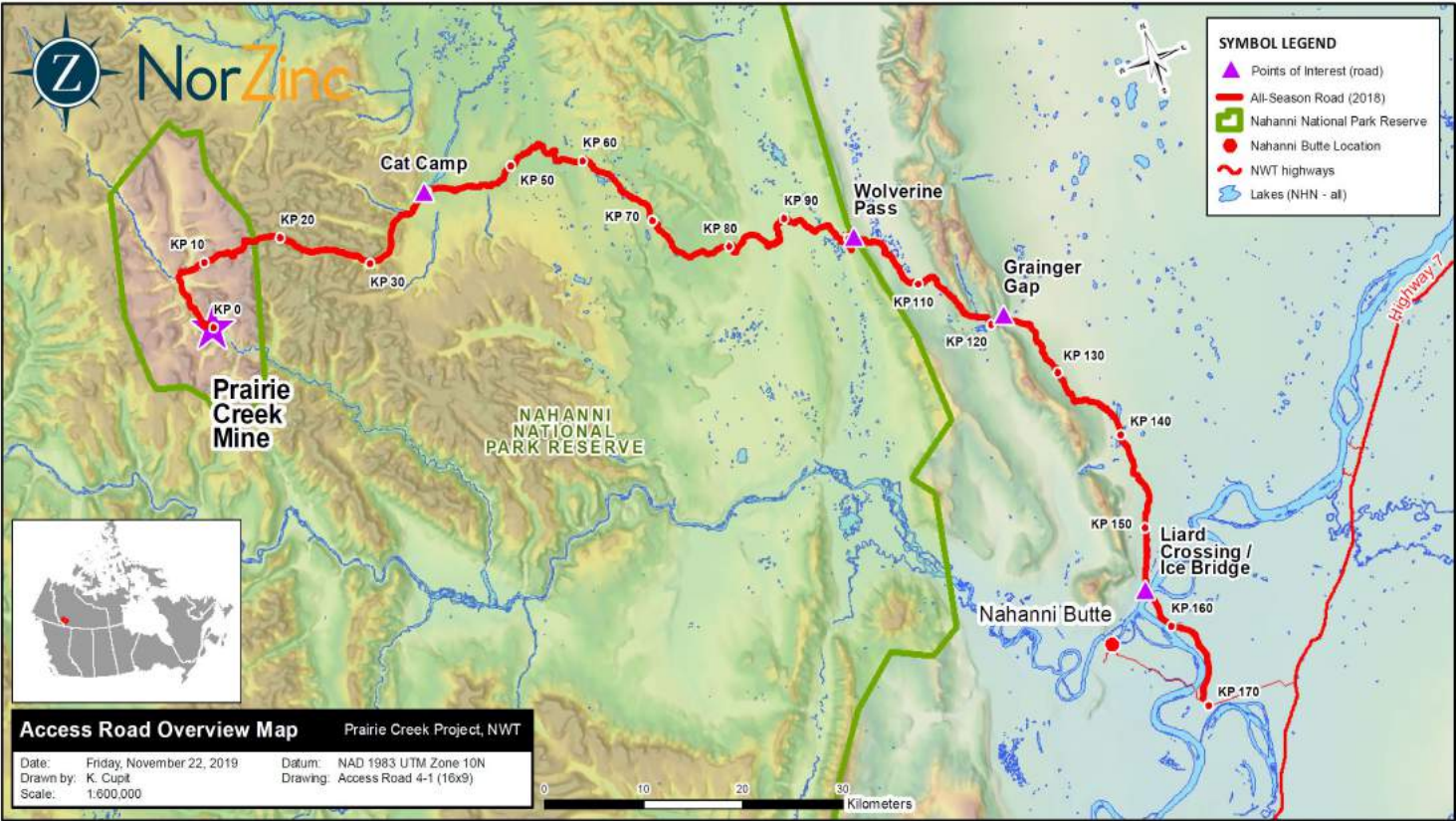
- Start of ore mining and initial production of concentrates planned for late 2024



All Season Road

184 KM Access Road

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



Access Road

Road Ribboning

- 10 Day ASR centerline confirmation and re-ribboning investigation successfully completed
- Site and ground conditions confirmed along the ASR
- ASR has recently undergone alignment adjustments to improve road geometry, reduce earthwork quantities, and improve constructability



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 FS Design
- 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%



TSX:NZC	OTCQB - NORZF
Shares Outstanding	684,517,082
Warrants Outstanding	61,285,022
Market Cap	C\$45M
Share Price (Sep 17)	C\$0.065/sh
Largest Shareholder (RCF)	44%

CONTACT

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APPENDIX

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Appendix

Mineral Reserves and Resources



Table ES.1.3 August 2017 Mineral Reserves Prairie Creek Mine

Mineral zone	Classification	Tonnes (t)	Silver (g/t)	Lead (%)	Zinc (%)	ZnEq (%)
Main quartz vein (MQV)	Proven	1,524,171	161.43	8.90	10.22	26.84
	Probable	4,190,187	144.76	9.96	8.20	25.70
	Total	5,714,358	149.21	9.67	8.74	26.00
Stockwork (STK)	Proven	188,173	108.19	4.84	11.56	21.22
	Probable	1,188,366	63.81	3.54	6.86	13.46
	Total	1,376,539	69.88	3.72	7.50	14.52
Stratabound (SMS)	Proven	-	-	-	-	-
	Probable	980,566	54.90	5.06	9.64	17.97
	Total	980,566	54.90	5.06	9.64	17.97
Total	Proven	1,712,344	155.58	8.45	10.36	26.22
	Probable	6,359,119	115.78	8.00	8.17	22.22
	Total	8,071,463	124.22	8.10	8.64	23.07

The Mineral Reserves are as of 2 August 2017, and based on a design cut-off grade of 11% ZnEq for longhole open stope ("LHOS"), 11% ZnEq for mechanized drift-and-fill ("DAF"), an incremental stoping cut-off grade of 10% ZnEq, and 6% ZnEq cut-off grade for development ore. Cut-off grades are based on a zinc metal price of US\$1.00/lb, recovery of 75% and payable of 85%; a lead metal price of US\$1.00/lb, recovery of 88% and payable of 95%; and a silver metal price of US\$18/oz, recovery of 92% and payable of 81%. Exchange rate used is C\$1.25=US\$1.00. Average planned dilution, unplanned dilution and mining recovery factors of 13%, 11% and 95%, respectively, for LHOS; and 18%, 6% and 98%, respectively, for DAF are assumed.

Table ES.1.2 September 2015 Mineral Resources Prairie Creek Mine

Mineral zone	Classification	Tonnes (t)	Silver (g/t)	Lead (%)	Zinc (%)
Main quartz vein (MQV)	Measured	1,313,000	211	11.5	13.2
	Indicated	4,227,000	168	11.6	9.2
	Measured & Indicated	5,540,000	178	11.6	10.2
	Inferred	5,269,000	199	8.7	12.9
Stockwork (STK)	Measured	169,000	116	5.3	12.6
	Indicated	1,953,000	61	3.5	6.6
	Measured & Indicated	2,122,000	66	3.6	7.1
	Inferred	1,610,000	70	4.6	6.2
Stratabound (SMS)	Indicated	1,042,000	54	5.2	10.8
	Measured & Indicated	1,042,000	54	5.2	10.8
	Inferred	170,000	60	6.3	11.2
	Measured	1,482,000	200	10.8	13.2
Total	Indicated	7,222,000	123	8.5	8.7
	Measured & Indicated	8,704,000	136	8.9	9.5
	Inferred	7,049,000	166	7.7	11.3

Mineral Resources are stated as of 10 September 2015.

Mineral Resources include those Resources converted to Mineral Reserves.

Stated at a cut-off grade of 8% ZnEq based on prices of US\$1.00/lb for both zinc and lead and US\$20/oz for silver.

Average processing recovery factors of 78% for zinc, 89% for lead, and 93% for silver.

Average payables of 85% for zinc, 95% for lead, and 81% for silver.

ZnEq = (grade of Zn in %) + [(grade of lead in % * price of lead in US\$/lb * 22.046 * recovery of lead in % * payable lead in %) + (grade of silver in g/t * (price of silver in US\$/Troy oz / 31.10348) * recovery of silver in % * payable silver in %)] / (price of zinc in US\$/lb * 22.046 * recovery of zinc in % * payable zinc in %).

\$ Exchange rate = 1 C/US.

Numbers may not compute exactly due to rounding.

Stated mineral reserves and resources are from 2017 NI 43-101 Feasibility Study, available on SEDAR and at NorZinc.com

Geology

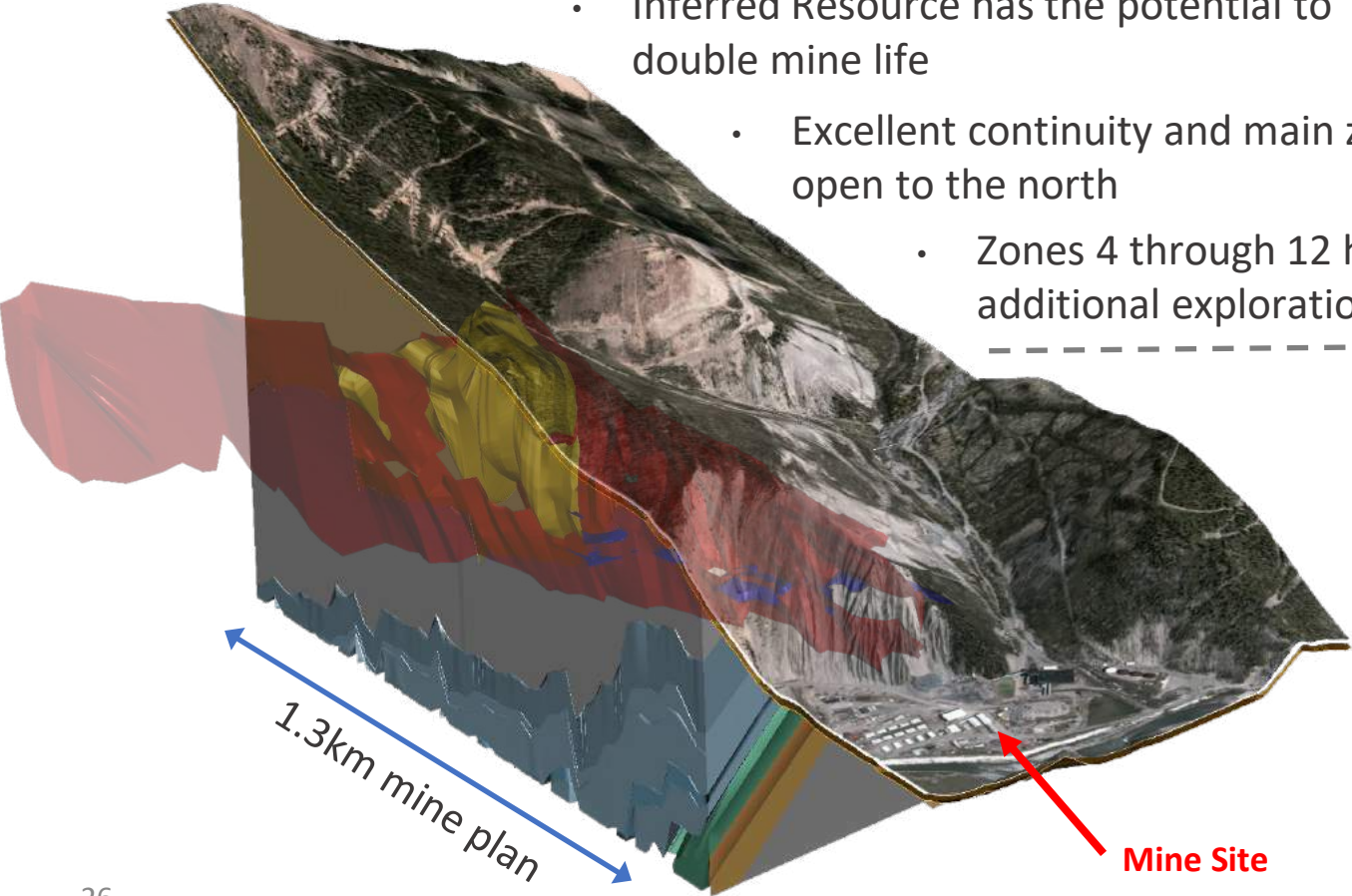
World-Class Geology



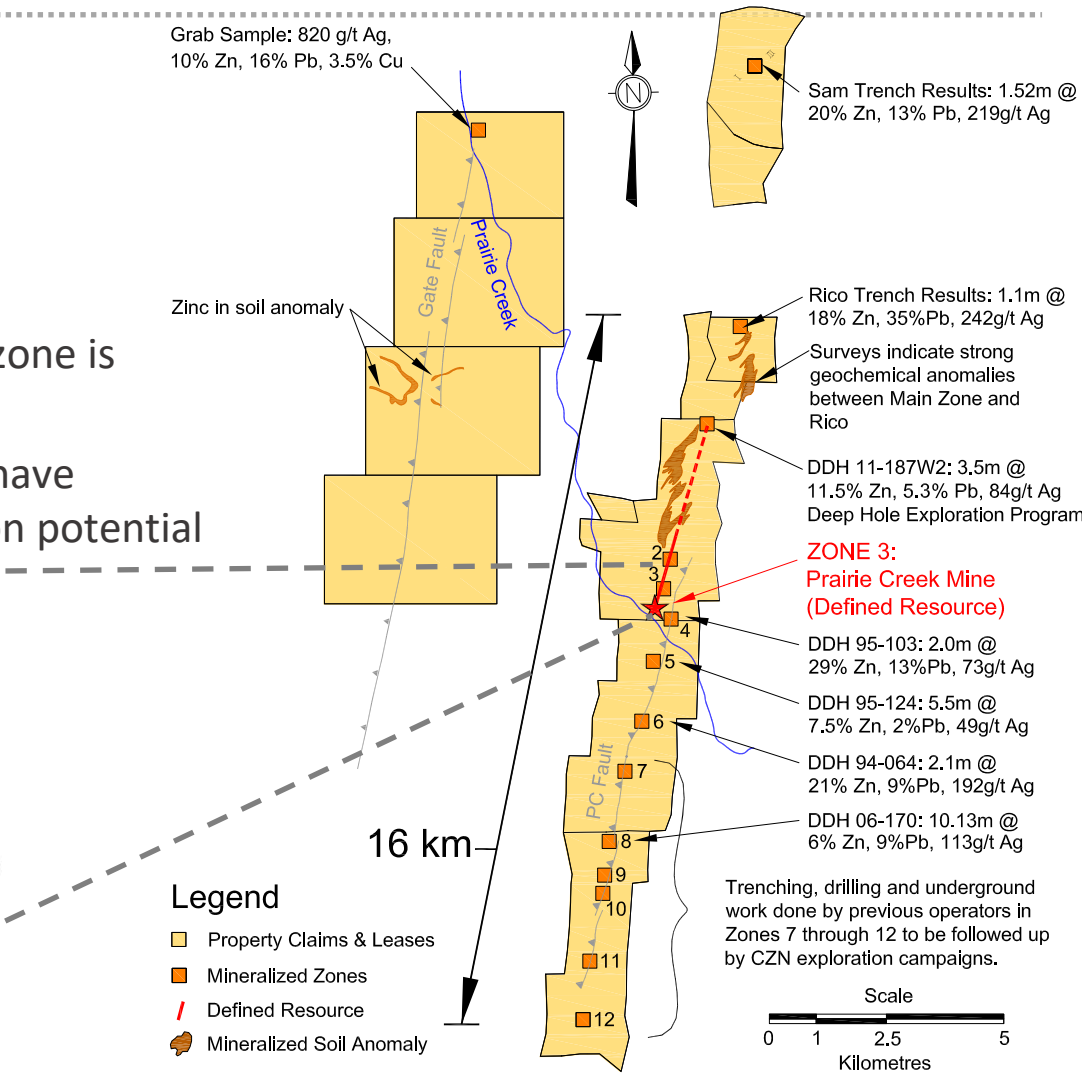
Mine life of **15 years**

Mine plan represents **1.3km** of the total **16km** MQV strike length

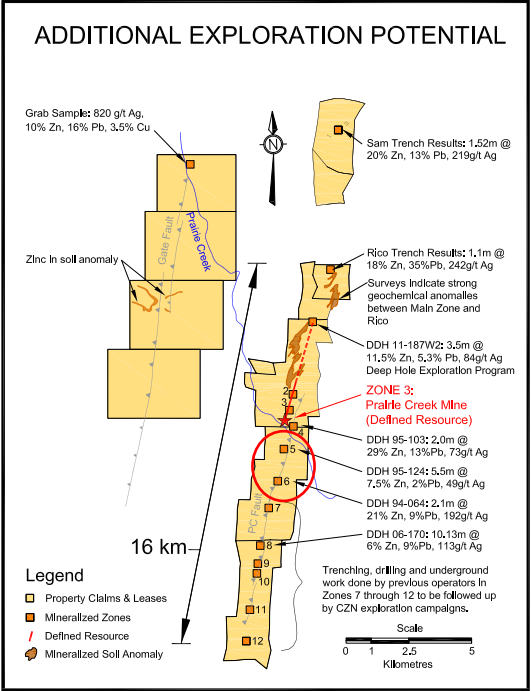
- Inferred Resource has the potential to double mine life
- Excellent continuity and main zone is open to the north
- Zones 4 through 12 have additional exploration potential



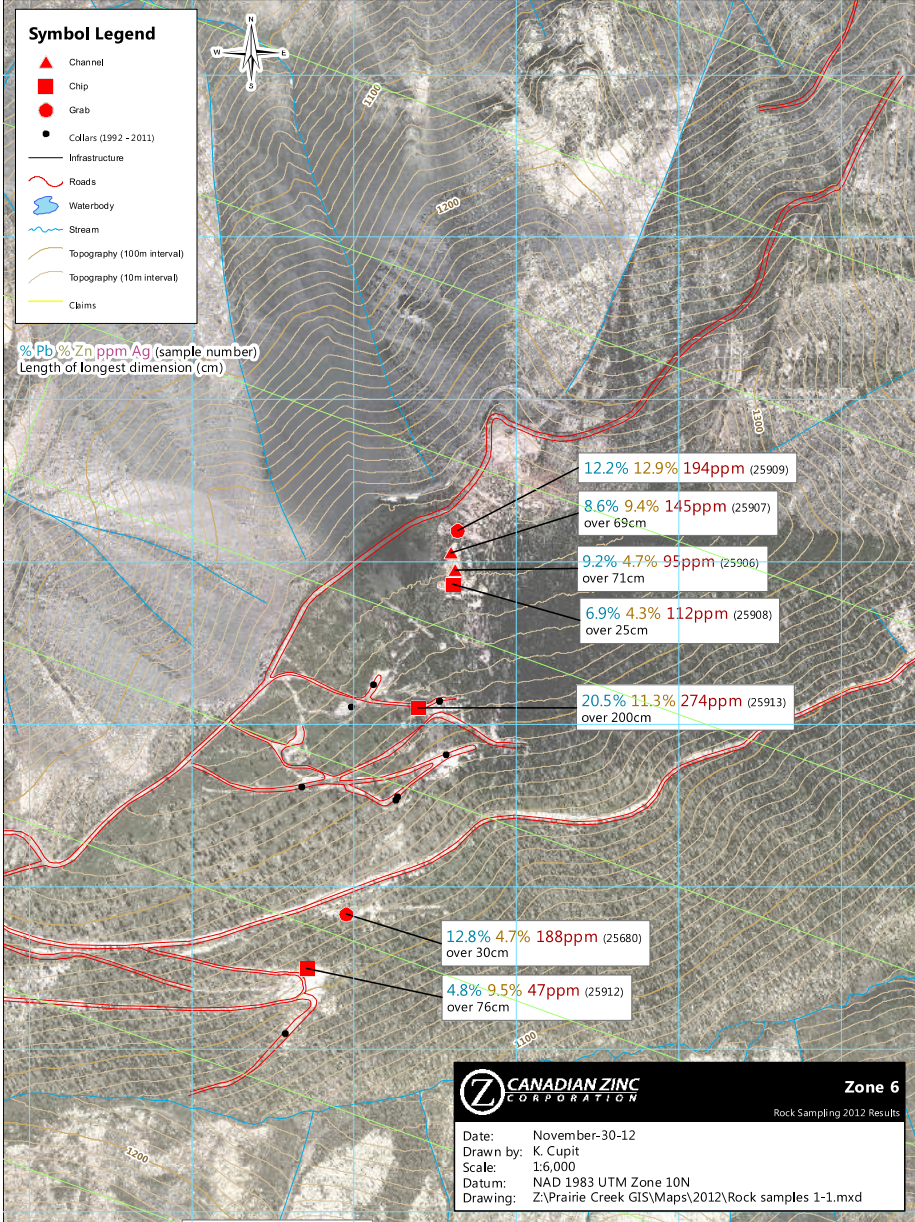
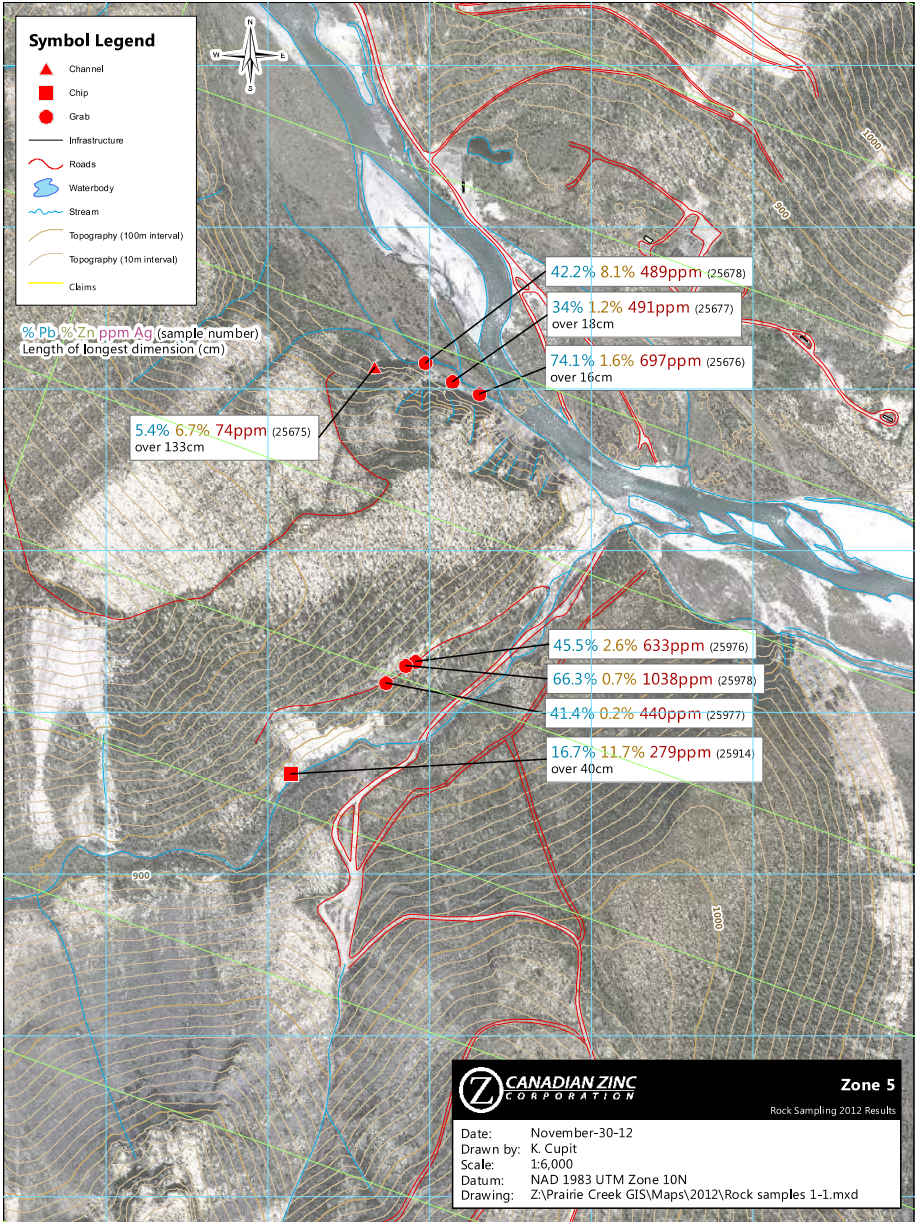
Mine Site



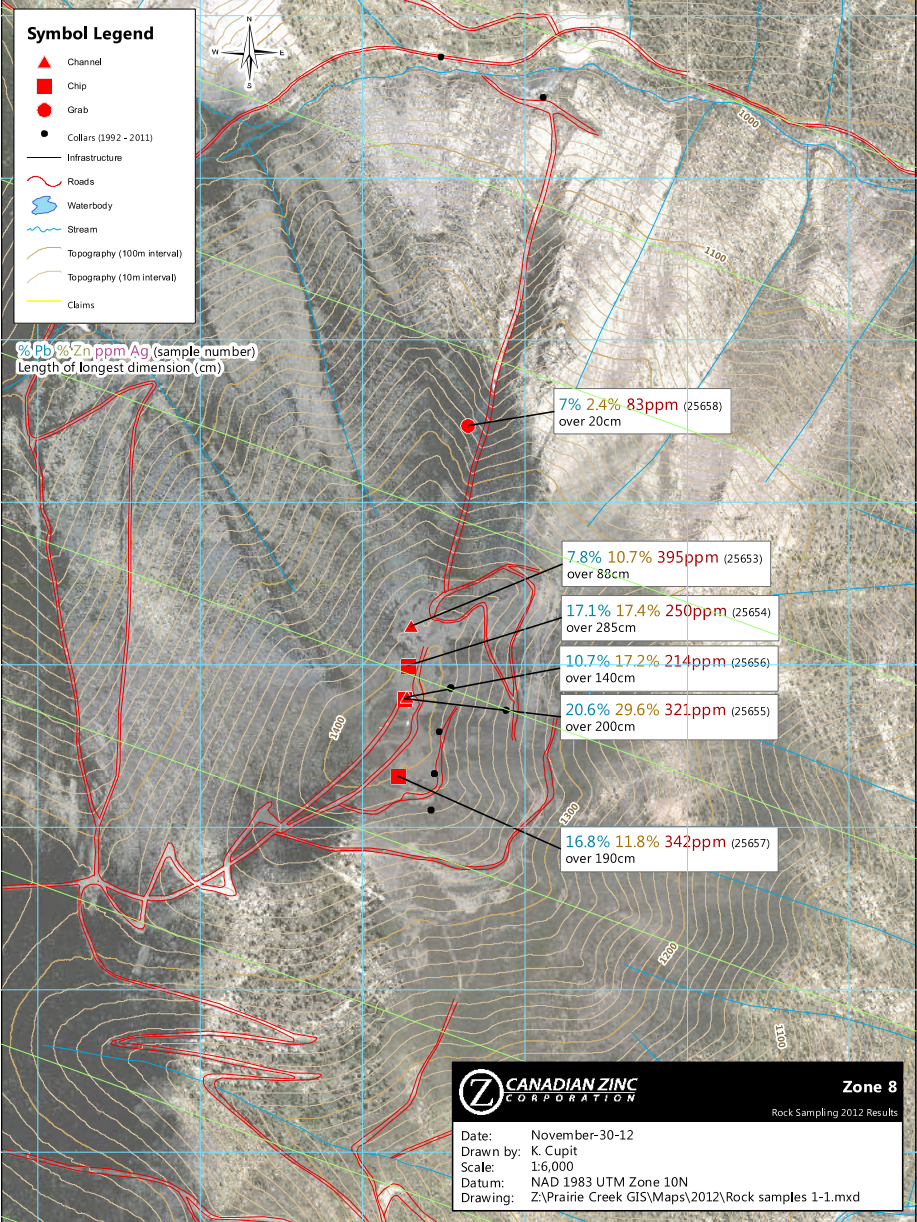
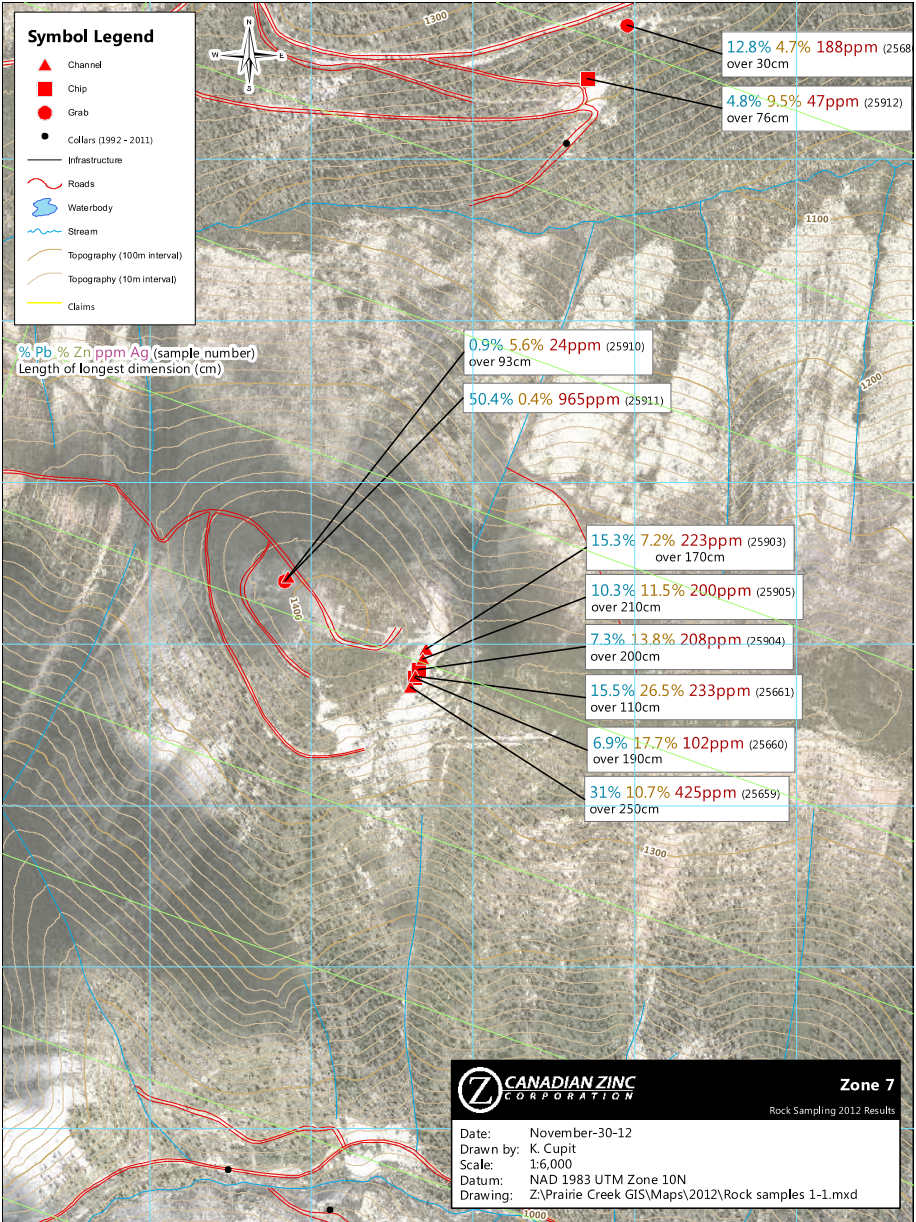
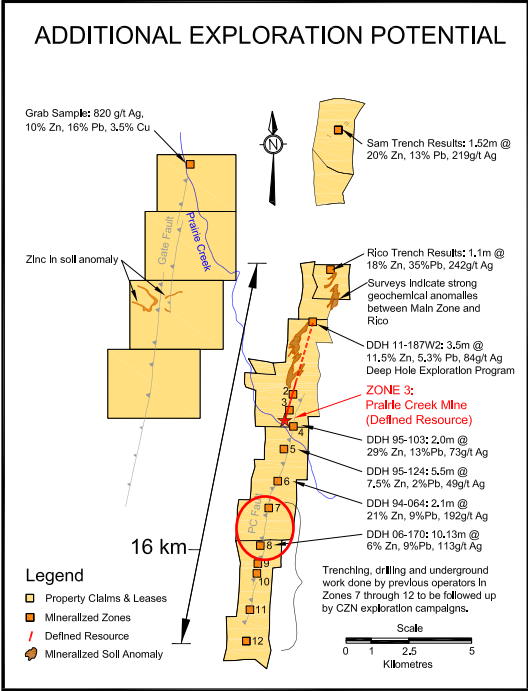
Exploration Potential



Zones 5 & 6



Exploration Potential

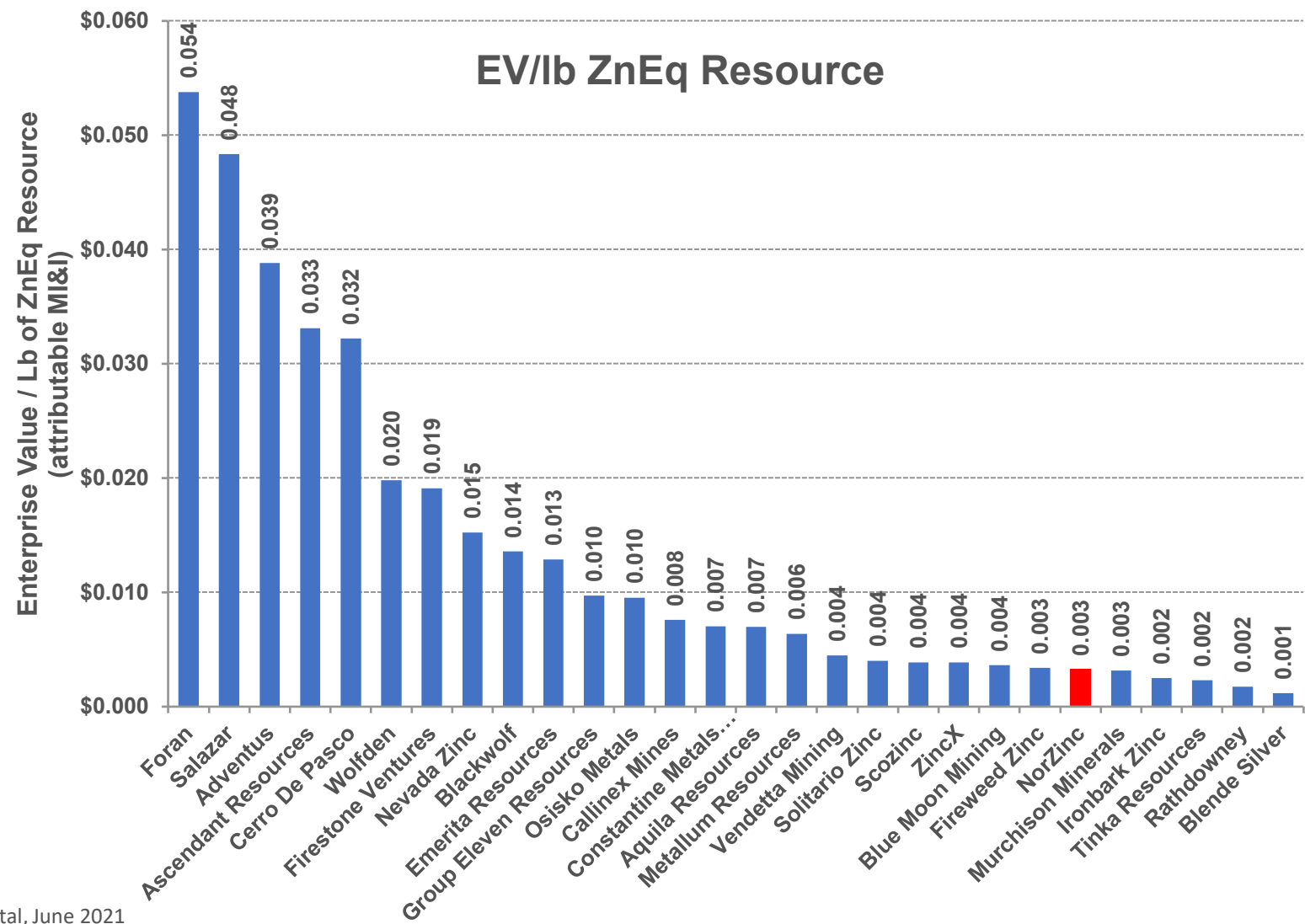


Zones 7 & 8

Previous owner had a **historical** mineral reserve in zones 7 & 8 but was abandoned when the Main Zone was discovered. This reserve contained 326K tonnes at 182 g/t Ag, 12.3% Zn and 12.4% Pb (not NI 43-101 compliant)

Valuation

Enterprise Value Comparables on Zinc Equivalent Resource



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 and has spent the last 12 years 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.

Management Team

An Experienced Team of Mine Builders and Operators



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



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.

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.

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.

Board of Directors

An Experienced and Supportive Board



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.

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 (Ontario) 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 previously 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.