

*Focused on High Quality Tier 1
Gold and Zinc Assets*

Solitario Resources Corp.

March-2025 Corporate Presentation

Forward Looking Statements



This presentation includes certain "Forward-Looking Statements" within the meaning of section 21E of the United States Securities Exchange Act of 1934, as amended. All statements, other than statements of historical fact, included herein, including without limitation, statements regarding potential mineralization and reserves, exploration results and future plans and objectives of Solitario, are forward-looking statements that involve various risks and uncertainties. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Solitario's Golden Crest land position does not cover any of the areas of historical gold production or historical unmined resources but are thought to be on trend with these known areas of mineralization. Certain historical information concerning exploration and gold production in the Black Hills region has been obtained through both public and private sources and are believed to be substantially factual, but Solitario can give no assurances of the accuracy of such information. Development of Solitario's properties are subject to the success of exploration, completion and implementation of an economically viable mining plan, obtaining the necessary permits and approvals from various regulatory authorities, compliance with operating parameters established by such authorities and political risks such as higher tax and royalty rates, foreign ownership controls and our ability to finance in countries that may become politically unstable. Important factors that could cause actual results to differ materially from Solitario's expectations are disclosed under the heading "Risks and Uncertainties" as well as the COVID-19 related risks as disclosed on Form 10-K for the year ended December 31, 2022, filed with the SEC and elsewhere in Solitario's documents filed from time to time with Canadian Securities Commissions, the United States Securities and Exchange Commission and other regulatory authorities.

This presentation contains estimates of mineralized material based upon measured, indicated and inferred mineral resource categories that are recognized and required by Canadian regulations, but the SEC does not recognize them and U.S. reporting companies are normally prohibited from including resource estimates in their U.S. filing. U.S. investors are cautioned not to assume that any part, or all, of mineralized material or mineral resources categories will ever be converted into reserves. The economic significance of Proven and Probable Reserves differ substantially from mineralized material and measured and indicated mineral resources. Furthermore, economic viability has yet to be established by a feasibility report for mineralized material and the Company has not yet determined that any part of the mineralized material can be legally mined. This presentation also contains information about adjacent properties on which we have no right to explore or mine. We advise U.S. investors that the SEC's mining guidelines strictly prohibit information of this type in documents filed with the SEC. U.S. investors are cautioned that mineral deposits on adjacent properties are not indicative of mineral deposits on our properties.

This presentation (including drill hole information and mineral reserve and resource numbers) has been reviewed for accuracy by Mr. Walt Hunt, former COO for Solitario Resources Corp., or Sandor Ringhoffer, CPG, SME RM, a geologic consultant to Solitario, both of whom are qualified persons as defined by National Instrument 43-101.

Value and Upside

Three Tier One Assets



➔ SIGNIFICANTLY UNDERVALUED
HIGH-GRADE ZINC ASSETS

Value
Zn



➔ EXCEPTIONAL POTENTIAL FOR MAJOR
GOLD DEPOSITS AT GOLDEN CREST

Upside
Au



Golden Crest Attracts US\$7.75 Million in Successful Financings in a Difficult Market

-  **Newmont**™ increases its ownership in Solitario to 8.7% with US\$2.5 million strategic investment at 10% premium to market (August 2, 2023) – no warrants
- US\$4.75 million private placement with institutional investors at market (October 16, 2023) – no warrants
- US\$0.5 million in Director/Officer option exercises (October 31, 2023)

Northern Black Hills, S. Dakota Prolific Gold Endowment



Wharf Mine (Coeur):
8.2 Moz Au



Homestake Mine (Barrick):
68 Moz Au



Gilt Edge (AgnicoEagle)
+4.0 Moz Au

Nearly a 90 Million Ounce Gold Endowment

Northern Black Hills: A Super Giant Gold Province



Golden Crest Project

33,000 acres 100%-owned

- One of the world's largest undrilled gold-bearing hydrothermal systems -
80 square kilometers
- Multiple high-quality gold targets, original discoveries -
never been drilled
- Adjacent to an 80-million-ounce gold endowment –
supergiant Homestake-Wharf deposit several miles east
- Widespread super high-grade gold values –
identified at surface in three stratigraphic horizons
- The two most prolific gold horizons in the historic district do not outcrop on the Golden Crest property –
but are only 250 to 400 meters below surface

High-Grade Gold Across Golden Crest Project



Sample 2589
126 g/t Au

Sample DW02

38.4 g/t Au



Sample 2859

43.0 g/t Au
113 g/t Ag



Sample 2587
52.3 g/t Au



Sample 2696
87.3 g/t Au



Sample 2863

94.2 g/t Au
86.7 g/t Ag



Sample 2687
121 g/t Au

Exceptional Maiden Drilling Results

- **35,000-acre property – never been drilled prior to Solitario**
- **Four of eight holes intersected significant gold mineralization**
- **Mineralization in three Upper Limestone units: high-grade surrounded by low-grade**
- **Mineralization in Lower Deadwood: high-grade surrounded by low-grade**
- **Mineralization open in all directions**

General Observations of Mineralization



Fractured limestone grades into monomict crackle breccia

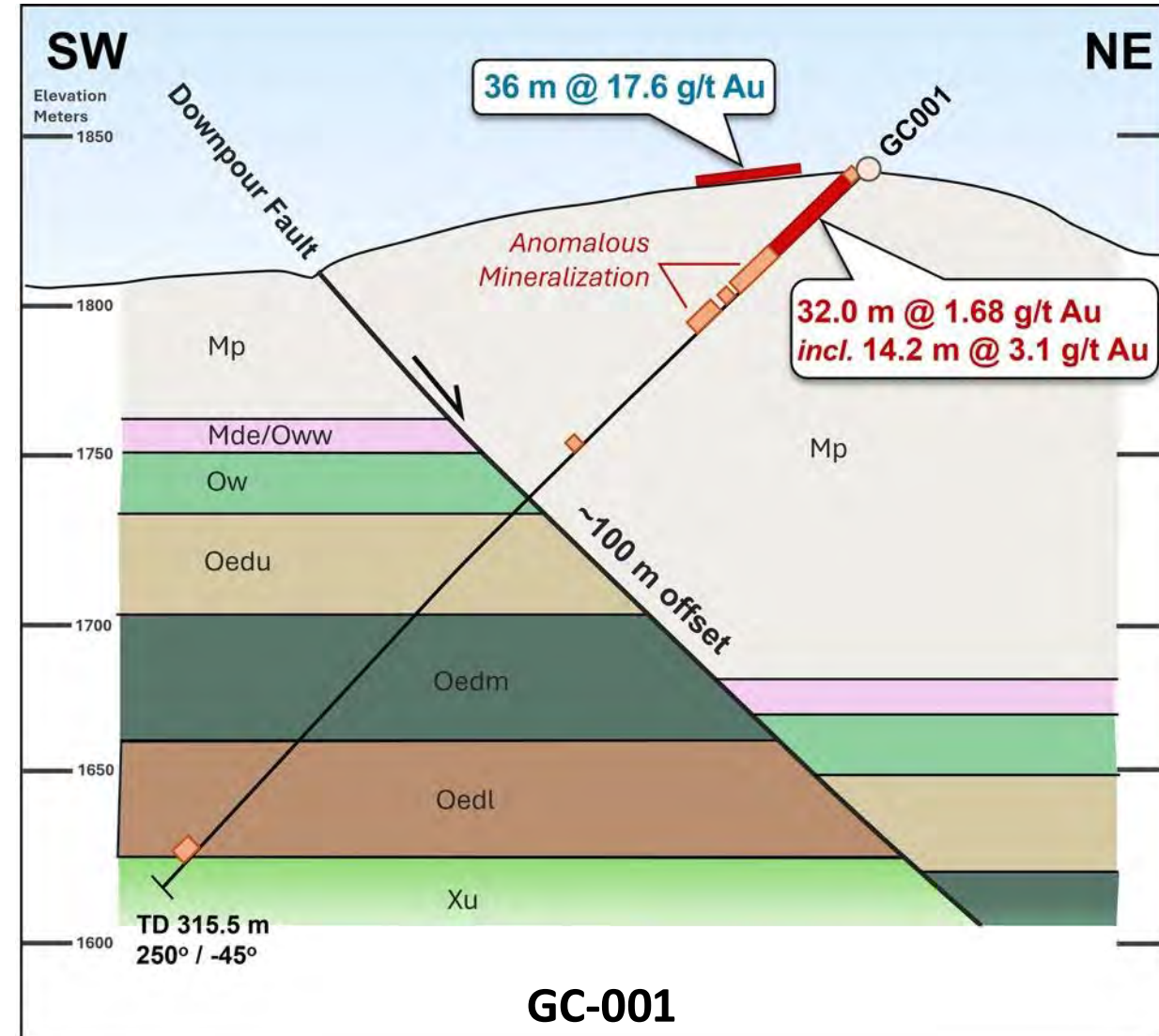
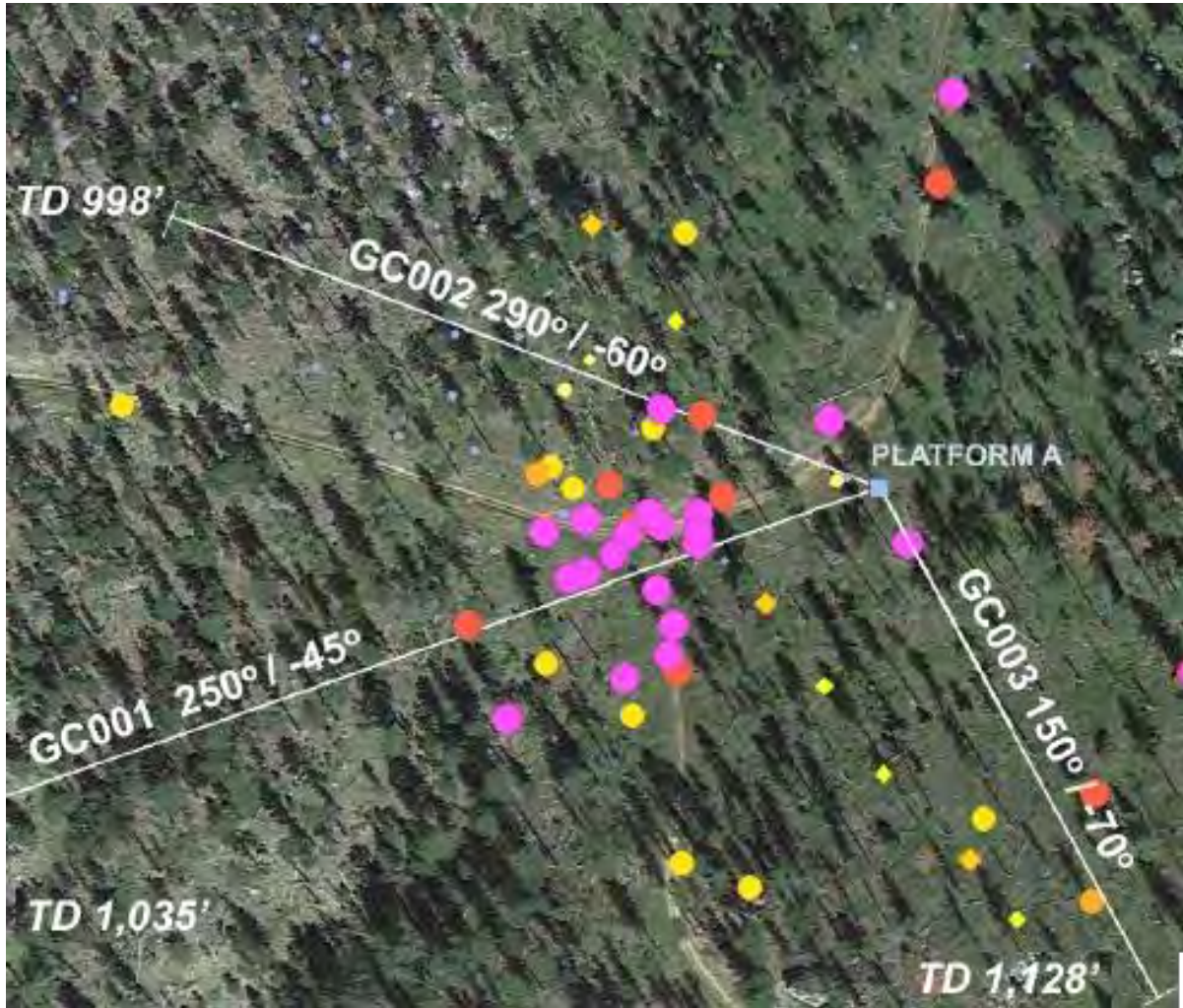


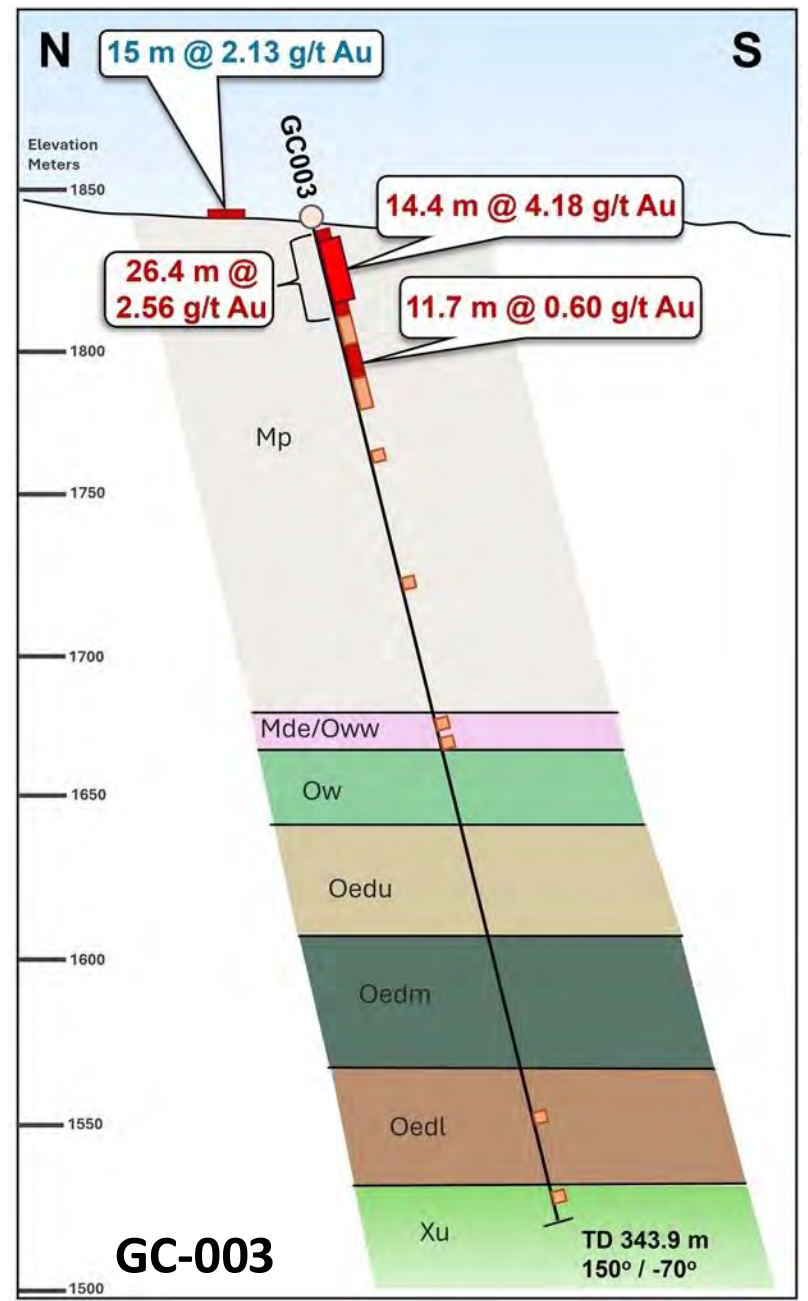
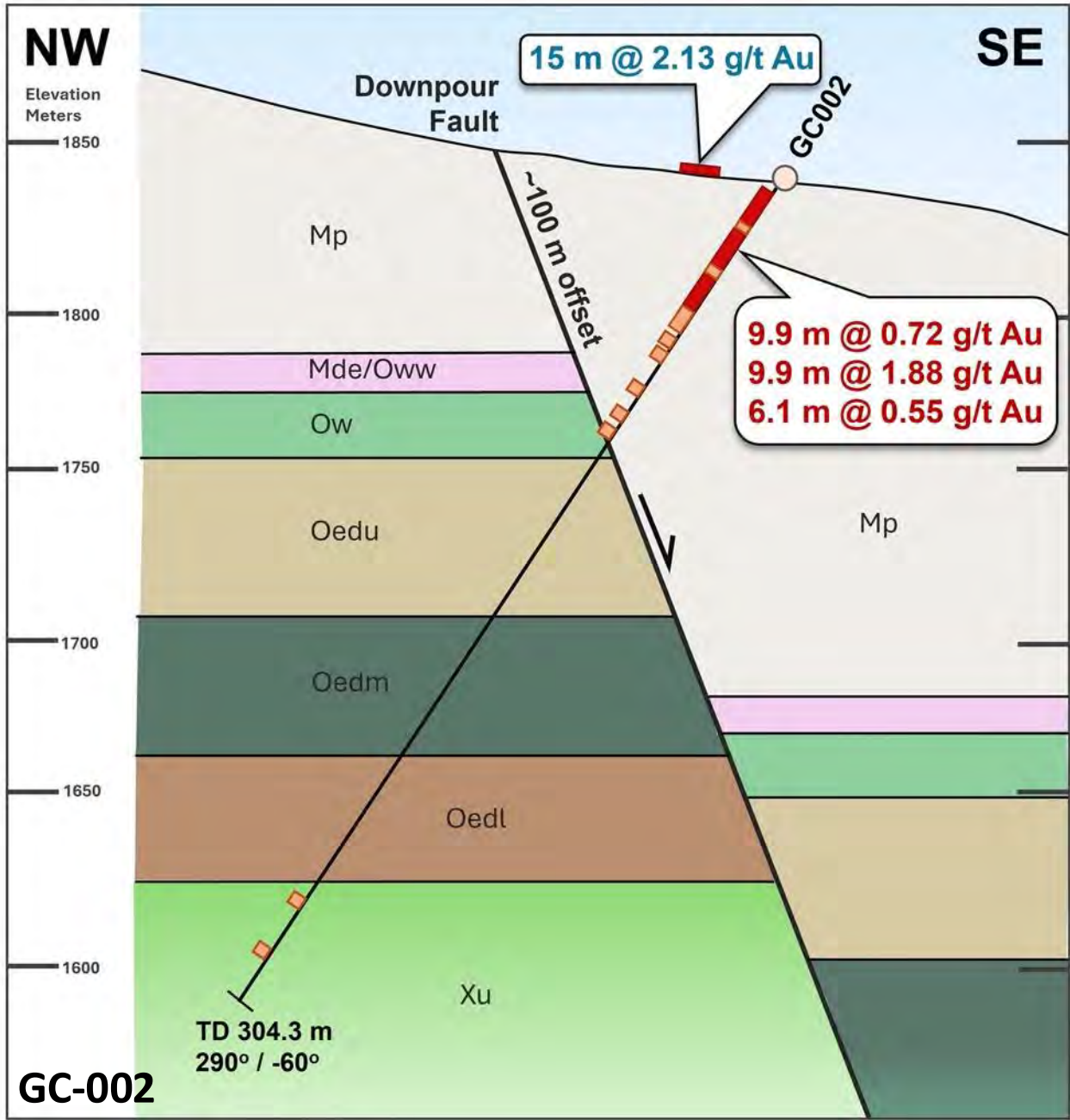
True paleokarst solution breccia characterized by matrix-supported chert-bearing ferruginous breccia



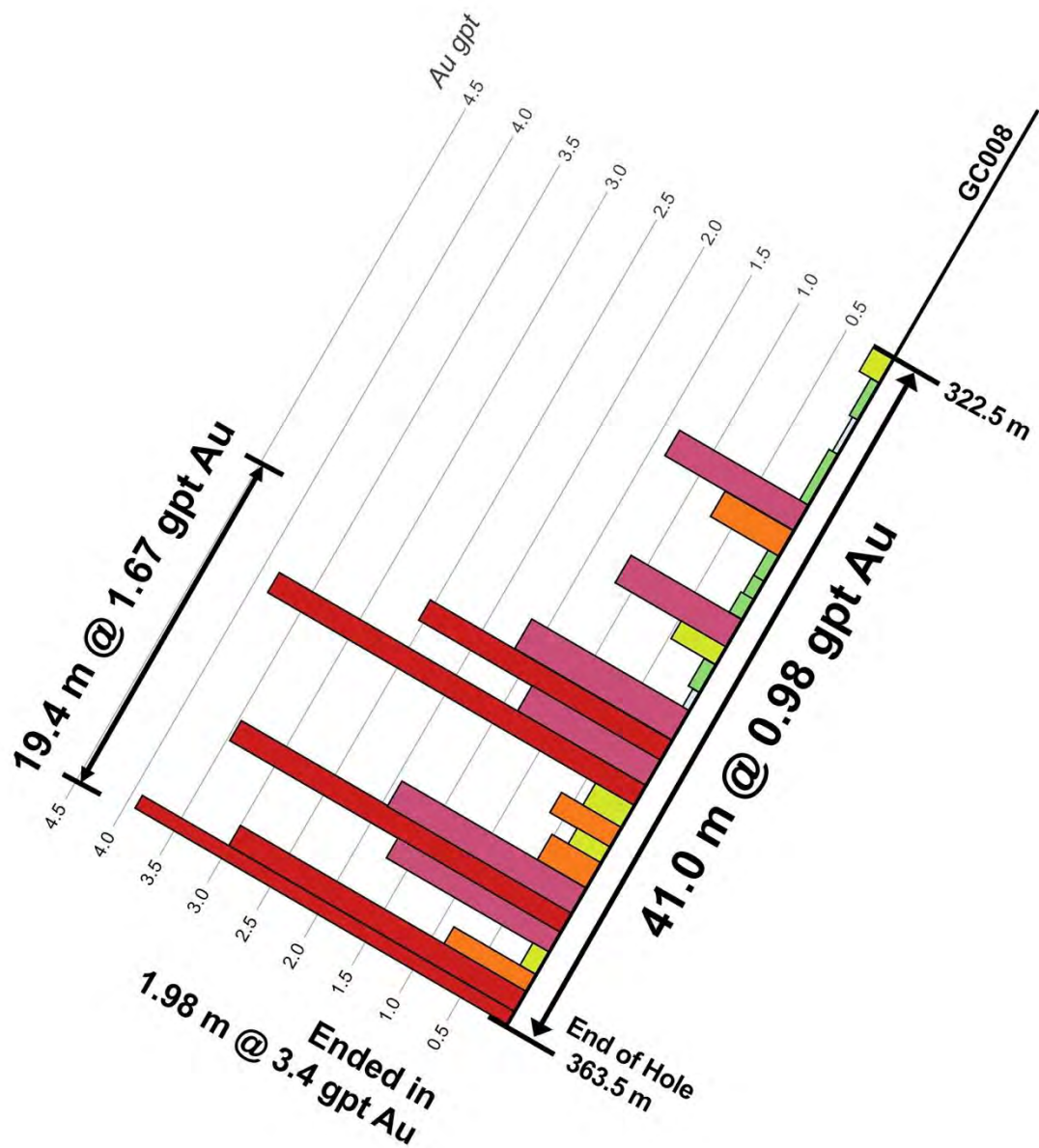
Underlying breccias are cherty and clast-supported and grade downward into crackle breccia and eventually into unfractured limestone

Three Drill Holes Completed to Date at Downpour





GC-008 – New Wharf-Style Gold Discovery



- Wharf mining complex produced over three million ounces of 15-50 gpt high-grade gold
- Last Two Meters of Drill Hole GC-008 intersected 3.4 GPT Gold in Lower Deadwood Formation
- First ever gold discovered in Lower Deadwood outside of the historic district

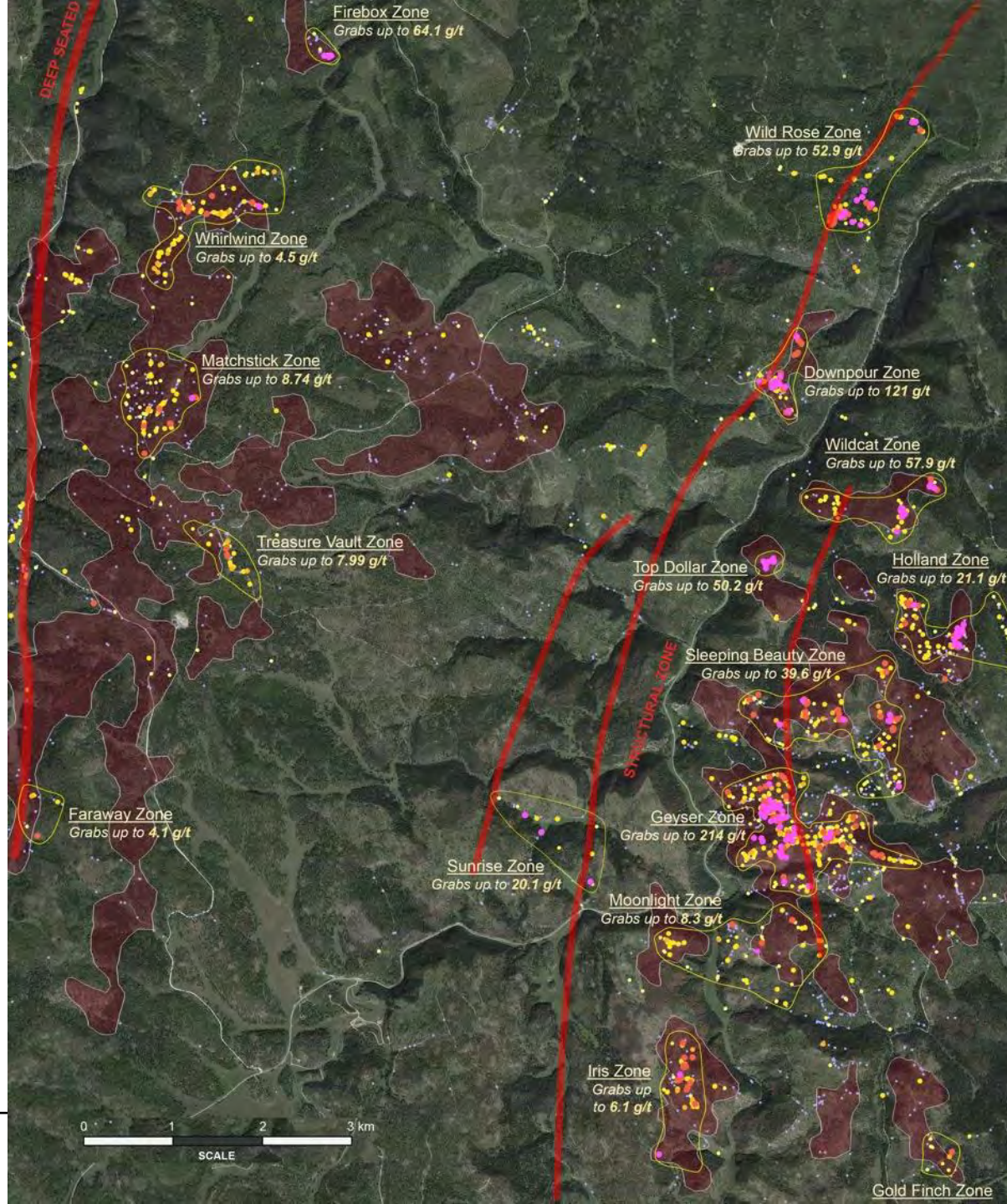
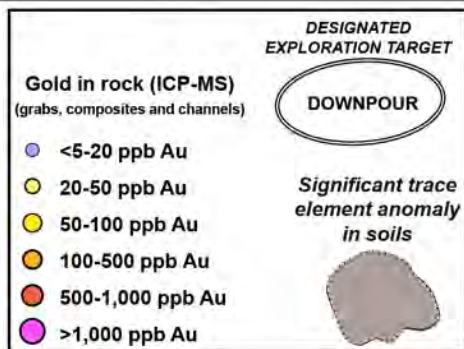
DDH Hole	Interval	Thickness* ²	Gold Grade
GC-008* ¹	(meters)	(meters)	(grams/tonne)
	322.5 to 363.5	41.0	1.0
Including	344.2 to 363.5	19.4	1.7
Including	344.2 to 349.9	5.7	2.2
Including	355.1 to 363.5	8.4	2.1
Including* ³	361.5 to 363.5	2.0	3.4

*¹ 280° azimuth -65° inclination

*² True thickness cannot be estimated based on this single drill hole.

*³ Last two intervals in hole – hole ended at 363.5 meters.

The Best Is Yet to Come



Permitting Still at Early Stage for Priority Targets



Top 10 Targets	Year Discovered	Size (acres)	# Samples +1 g/t Au	# Samples +5 g/t Au	Permitted on Golden Crest POO	Permitting in Progress on Ponderosa POO	Remains to be Permitted
Geyser	2022	280	102	45		✓	
Downpour	2021	20	46	25	✓		
Sleeping Beauty	2023	260	30	7		✓	
Holland	2023	197	22	10		✓	
Wildcat	2023	95	12	10		✓	
Top Dollar	2023/24	15	7	6			✓
Wild Rose	2023	140	34	11			✓
Eleventh Hour	2021	45	63	20	✓		
Iris	2024	178	22	2			✓
Moonlight	2024	337	4	1			✓

Figure 1: Downpour - Wild Rose Trend

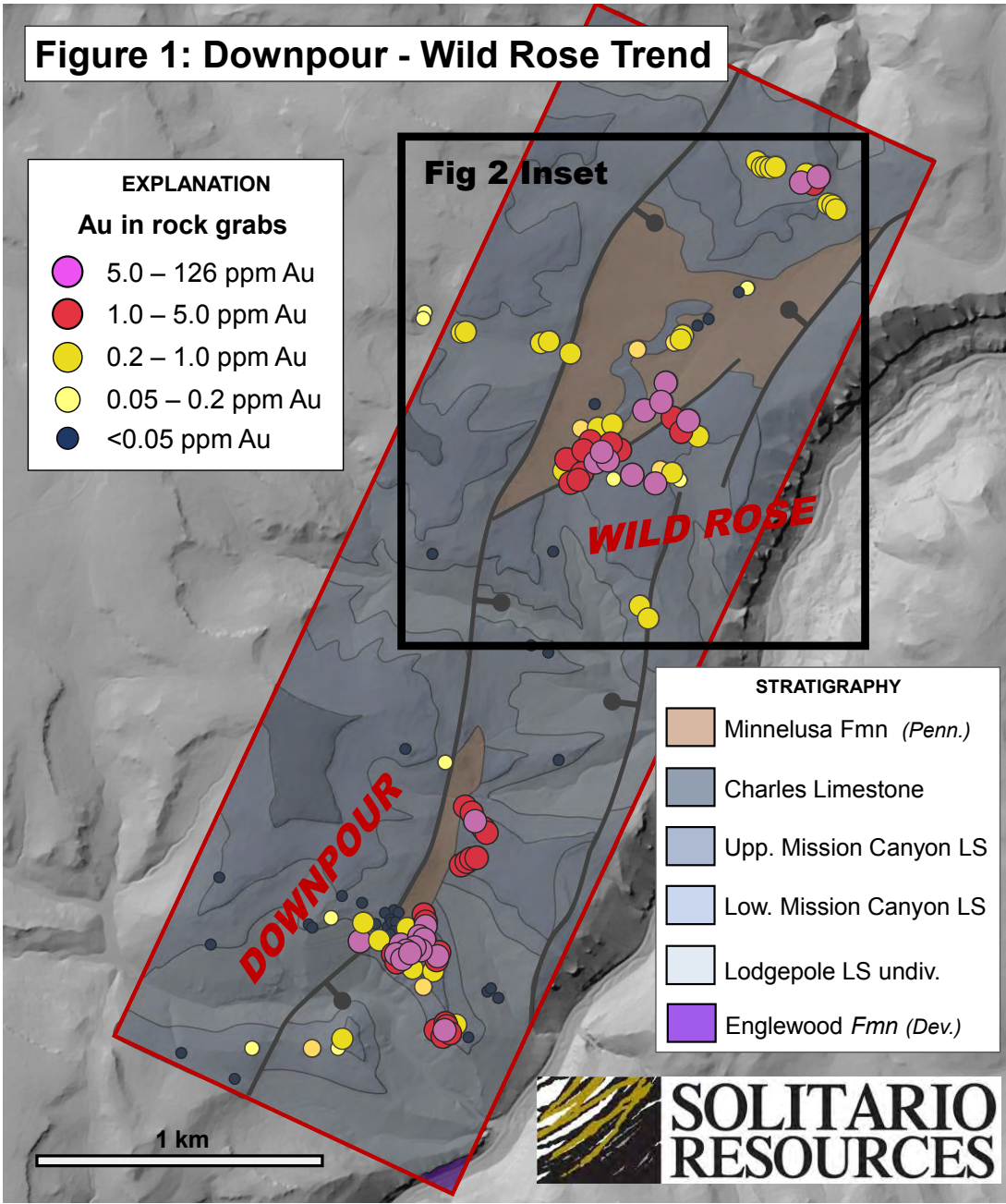
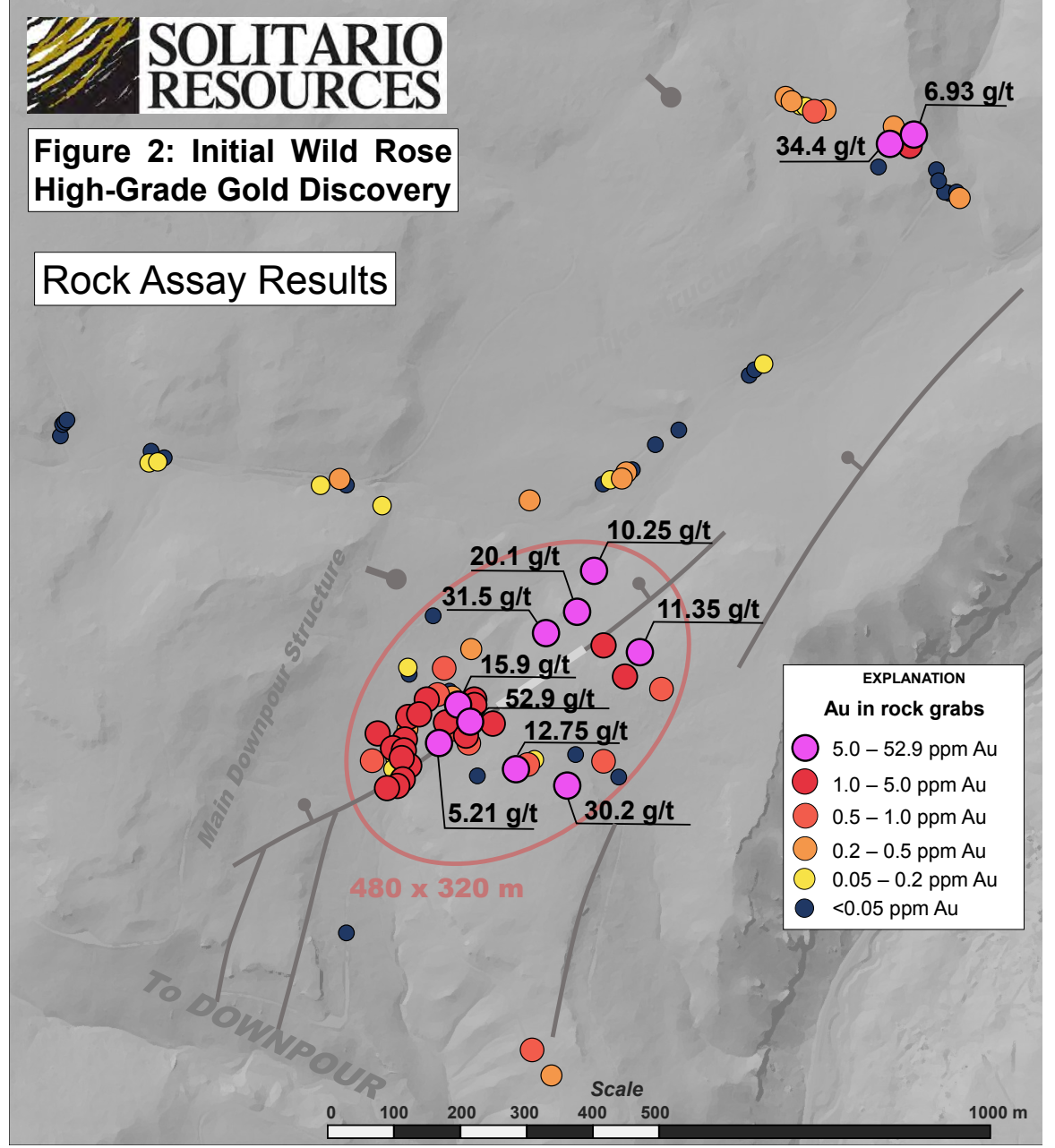
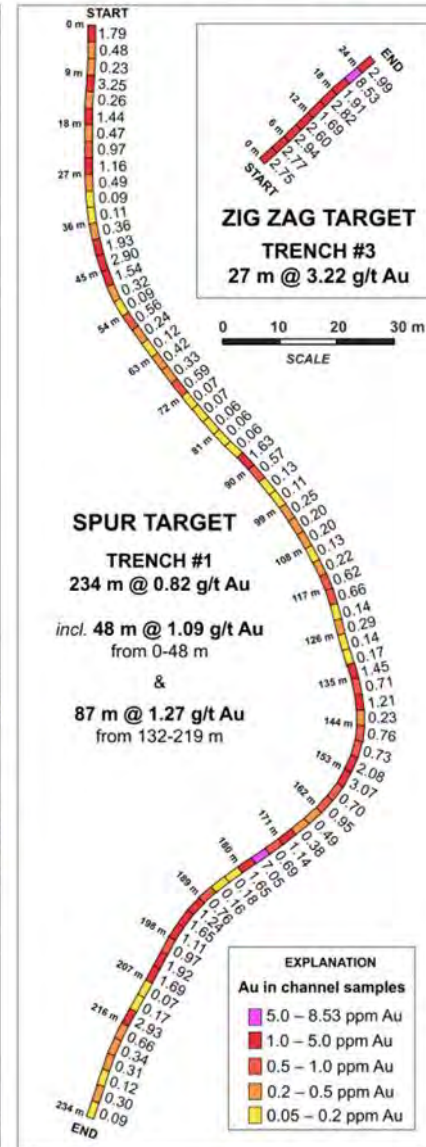
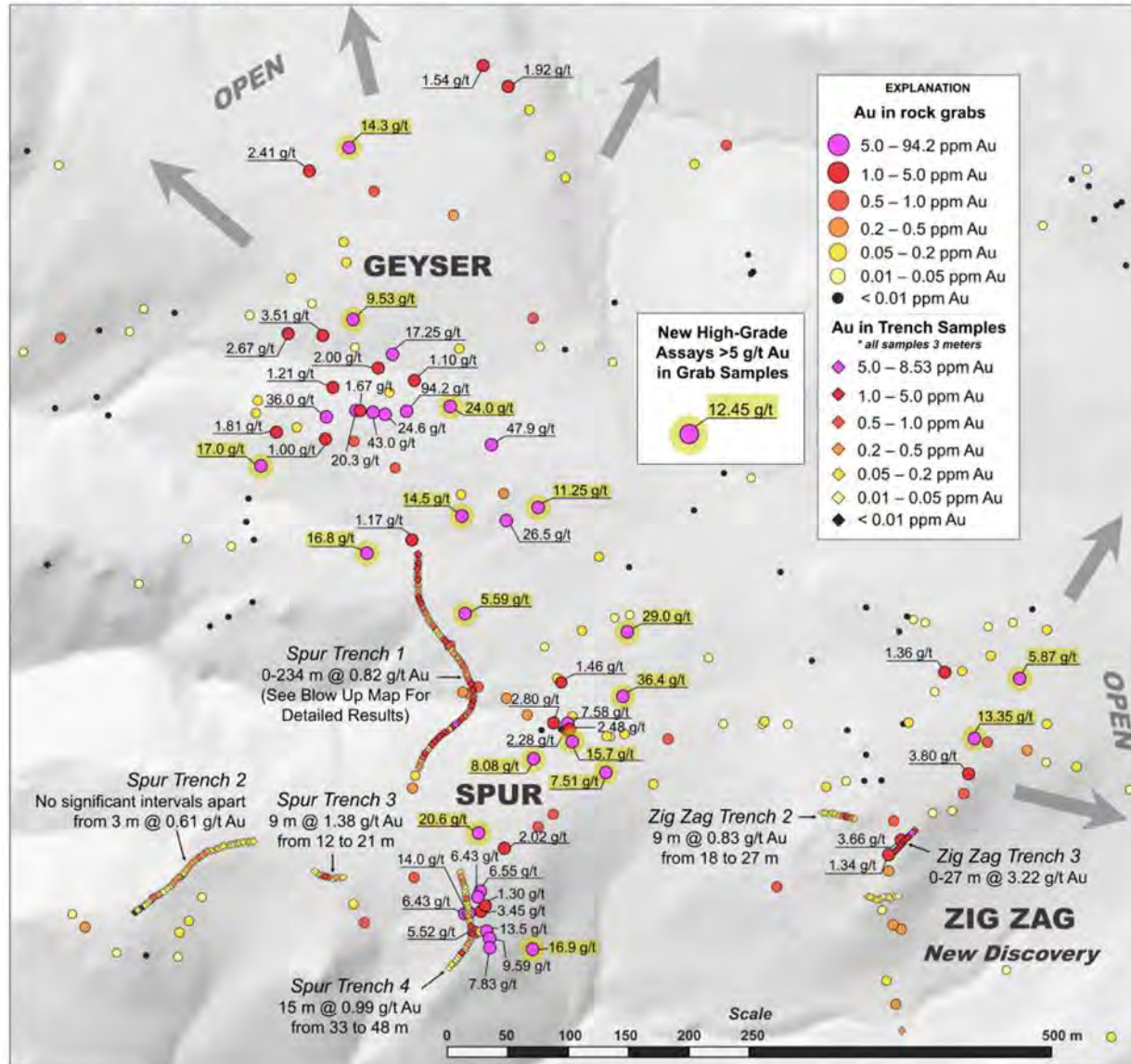


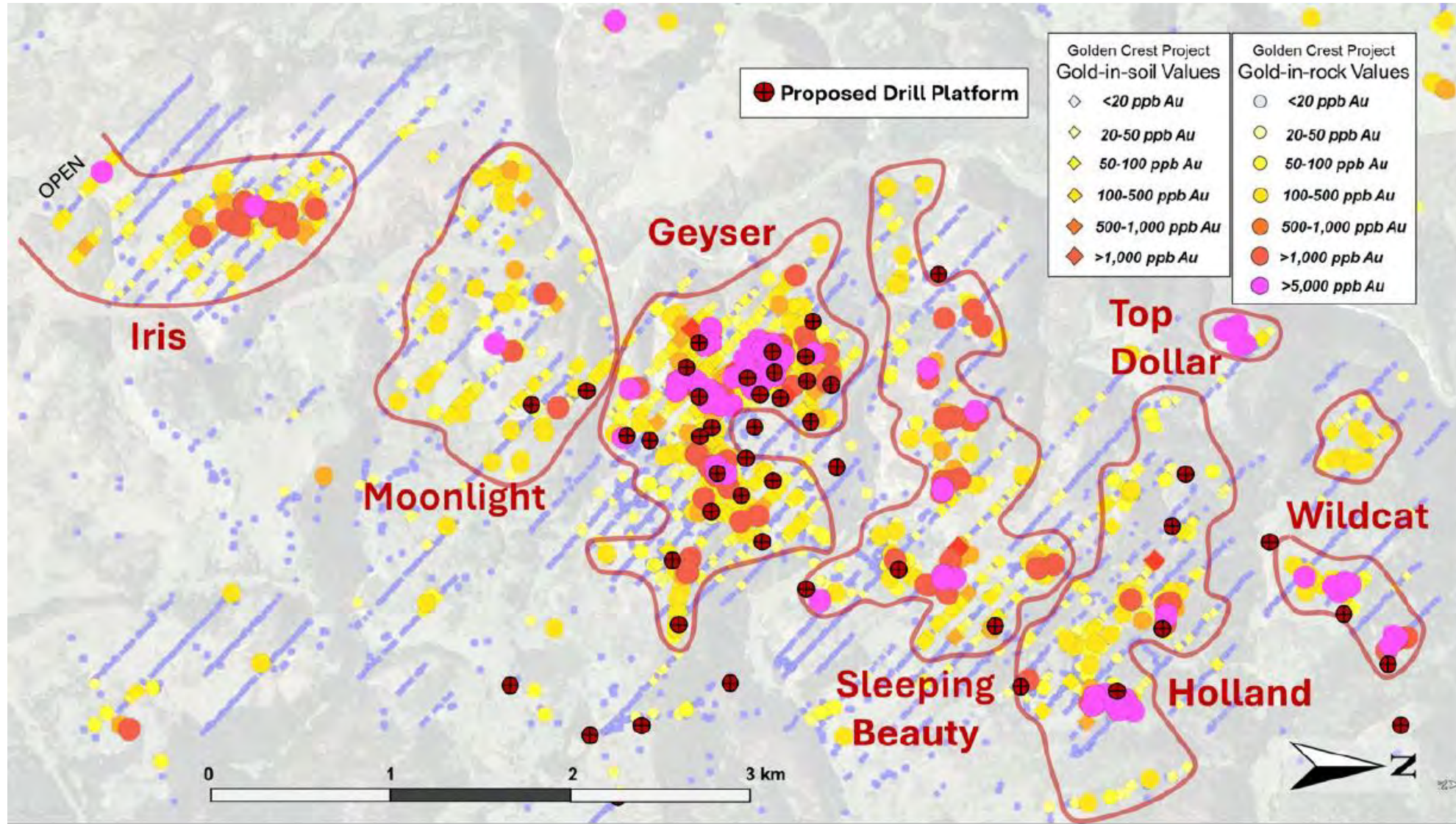
Figure 2: Initial Wild Rose High-Grade Gold Discovery

Rock Assay Results





Ponderosa Gold Anomaly Now Covers ~15 km²



World Class Partners



Partnering with well funded, leading zinc producers reduces costs, risk and capital requirements

Florida Canyon Zinc Project held jointly with Nexa Resources S.A., 5th largest zinc producer with three underground zinc mines and large zinc smelter in Peru.

Lik Zinc Project in partnership with Teck Resources, 3rd largest zinc producer with worlds largest zinc mine (Red Dog) situated just 11 miles from Solitario's Lik deposit.



Florida Canyon Zinc Project, Peru

Joint ventured with Nexa Resources S.A.
- Funded to Production

Advanced exploration project with nearly \$90 million in partner investments (526 drill holes; 134,416 meters)

Preliminary Economic Assessment demonstrates robust economics

Significant resource increase announced February 16th, 2021

Outstanding metallurgy confirmed 2023

Two core holes completed in late-2023



Florida Canyon PEA Economic Highlights (100% Basis)



PEA Results @ \$1.20 Zinc Price (Pb @ \$1.00 & Ag @ \$17.50)		PEA Metal Inventory		2022 Revised Resource		Incr./Decr.
NPV@8%-Disc. Rate (after tax)	\$198 million	Category	Billions	Category	Billions	Billions
Operating Margin (EBITDA)	\$958 million		ZnEq lbs.		ZnEq lbs.	ZnEq lbs.
IRR / Payback (after tax)	24.7% / 2.6 years	Meas.+ Ind.	0.806	Meas.+ Ind.	0.650	-0.156
Initial / Sustaining Capital	\$214 million / \$83 million	Inferred	1.570	Inferred	3.570	+2.000
Mine Life / Operating Rate	12.5 years / 2,500 tpd					
Avg. Annual Payable Metal Prod.	Zinc: 111.7 million lbs.					
	Lead: 12.6 million lbs.					
	Silver: 160 thousand oz.					
Direct + Indirect Cash Costs	\$64.15/t or \$0.51/ZnEq. lbs.					
All-in-Cost	\$90.64/t or \$0.73/ZnEq. lbs.					

(Metal Price Assumptions: Zn=\$1.20/lb; Pb=\$1.00/lb; Ag=\$16.50/oz)

Zinc Price Sensitivity										
Zn Price	\$1.00		\$1.10		\$1.20		\$1.30		\$1.40	
	Pre-tax	After-tax	Pre-tax	After-tax	Pre-tax	After Tax	Pre-tax	After Tax	Pre-tax	After Tax
FCF (\$millions)	408	267	535	352	662	437	788	521	914	605
NPV 8% (\$millions)	187	96	263	147	339	198	414	248	490	298
IRR	24.5%	17.0%	29.7%	21.0%	34.5%	24.7%	38.9%	28.1%	43.0%	31.3%

Pb: \$1.00; Ag: \$16.50

Funded to Production



All future costs - drilling, PEA updates, pre-feasibility costs, community relations, environmental expenses, metallurgical studies, engineering & feasibility - will be funded by Nexa to earn its 70%-interest in the project.

- ✓ Solitario will not pay back any of these costs.

After feasibility, Nexa will fund Solitario's 30% participating interest through a loan to Solitario.

- ✓ Interest rate will be at Nexa's cost of funds – currently about 5%.

Solitario will fund loan repayment to Nexa through 50% of the net cash flow from its 30% participating interest.

- ✓ Allows for significant cash flow to be achieved early.

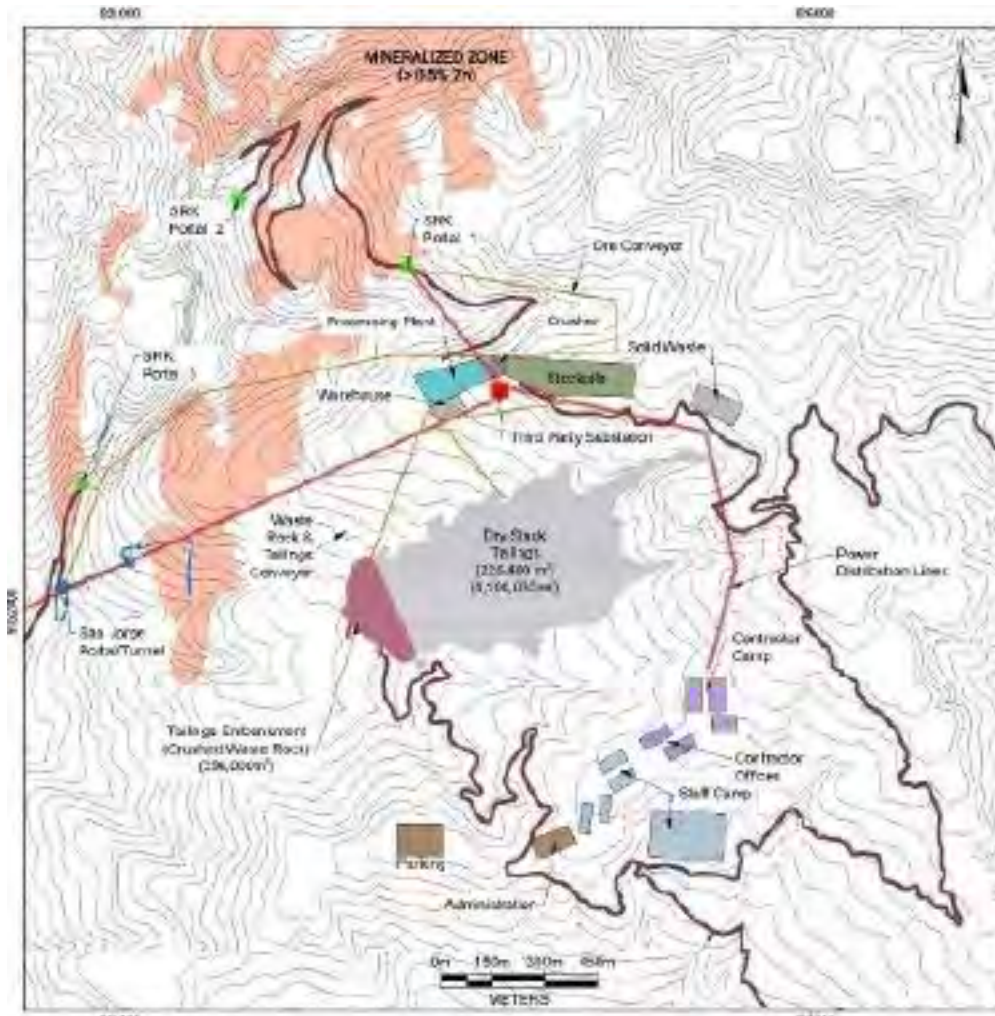
Solitario achieves production without capital risk or equity dilution!



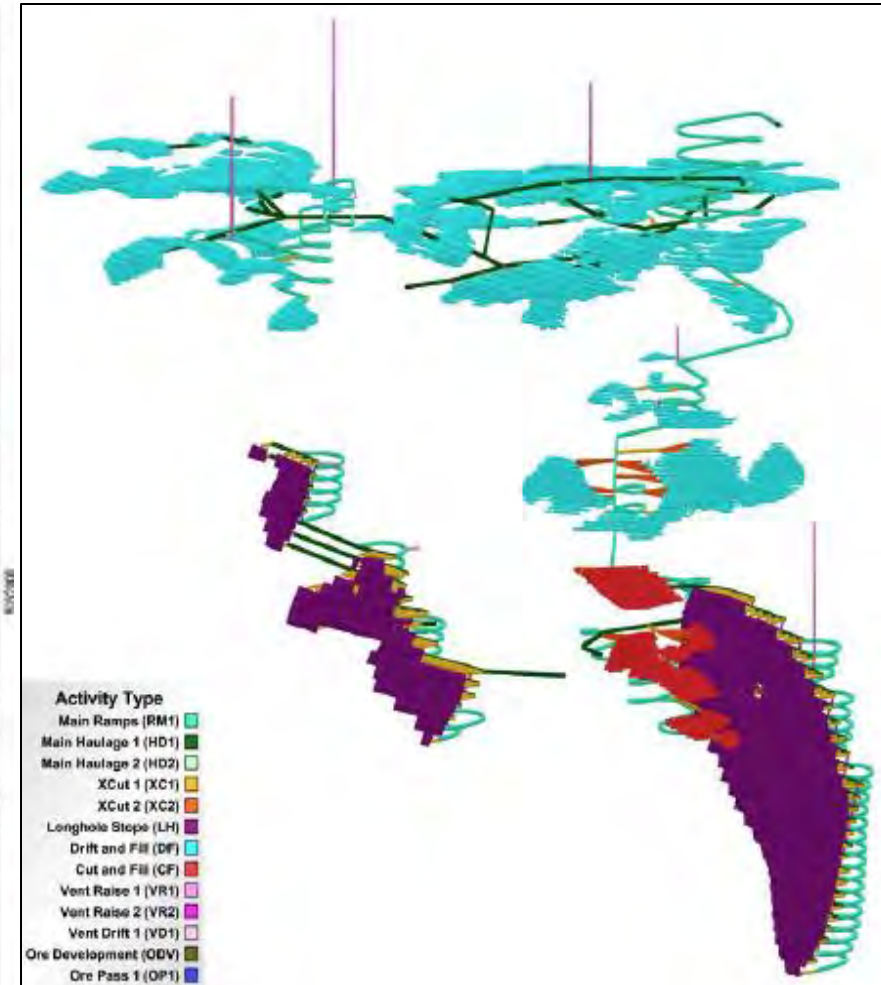
Florida Canyon Zn Project



Preliminary Infrastructure Layout



Mine Plan – Oblique View



Grade Comparison



Between Florida Canyon and Nexa's Current Peruvian Operations

Florida Canyon's Mineable PEA Resource Grade: 10% Zn Eq	
Nexa's Peruvian Operations Grade ⁽¹⁾ :	5.0% Zn Eq

⁽¹⁾Average blended reserve/resource grade for Milpo's three underground Peruvian zinc mines.

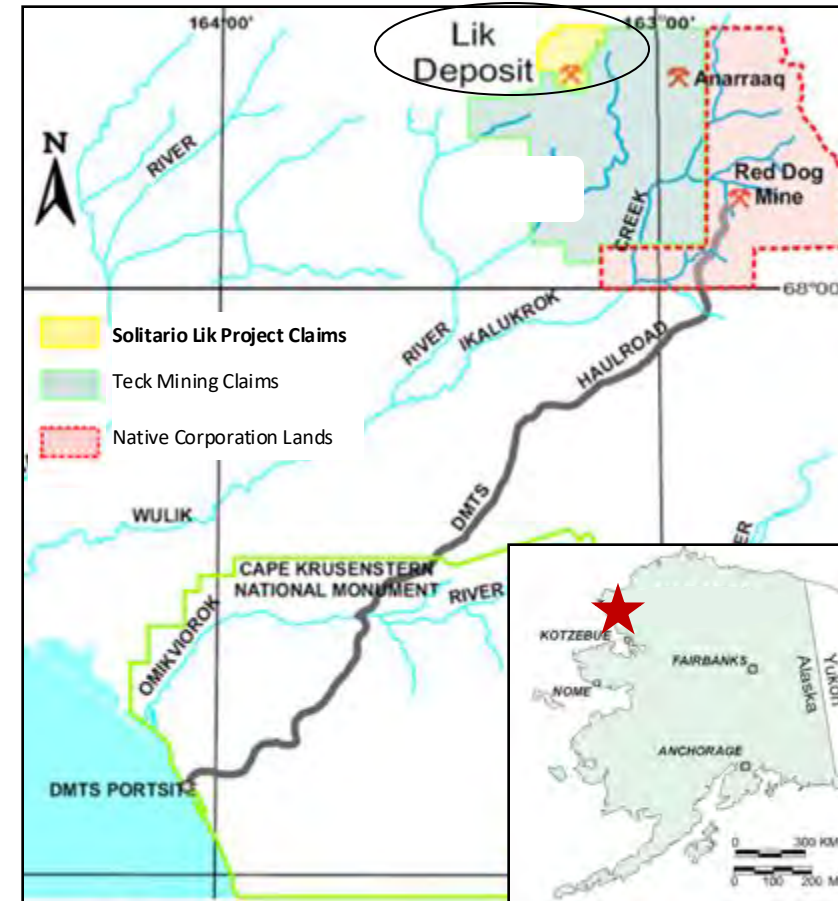
Florida Canyon's resource grade is significantly higher than Nexa's current average operational grade.

Lik Zinc Project, Alaska



50/50 Joint venture with **Teck**

- Mining claims covering 6,075 acres located 11 miles from Teck's Red Dog Mine, in mining friendly jurisdiction
- Large tonnage, high-grade, potentially open-pittable resource, with significant underground expansion potential
- Clean metallurgy
- Drilling conducted 2022 and 2023



Lik Regional Map

Lik Zinc Project, Alaska



Proximity to Red Dog Mine



Lik Project

Resources

100% Basis

Indicated

**4.54 B Lbs.
11.37% ZnEq**

Inferred

**1.37 B Lbs.
11.66% ZnEq**

Capital Structure



Current Price	US\$0.76/C\$1.03	Cash and Securities	≈\$5.8 Mil
Shares Outstanding	81.7 Mil	Annual G&A	US\$1.4 Mil
Options	5.3 Mil	Analysts	Heiko Ihle, H.C. Wainwright XPL target price US\$1.20
Warrants	None		Mike Niehuser, Roth Capital XPL target price US\$2.00
Fully Diluted	87.0 Mil	Major Shareholders	Mgmt/Directors: 6.9 Mil (8.4%) Edgepoint: 7.3 Mil (9.2%) Newmont: 6.7 Mil (8.5%) Zebra Trust: 3.8 Mil (4.8%) (Lundin family)
52-Week High	US\$0.98/C\$1.30		
52-Week Low	US\$0.43/C\$0.65		
Market Cap	US\$50Mil/C\$71Mil		
Market Liquidity (daily volume)	NYSE-Am 53,000 TSX 10,000		

Value and Upside



SIGNIFICANTLY UNDERVALUED
HIGH-GRADE ZINC ASSETS

Value

Zn



EXCEPTIONAL POTENTIAL FOR MAJOR
GOLD DEPOSITS AT GOLDEN CREST

Upside

Au



2025 Catalysts

- *Drilling* four new high-quality drill targets at Ponderosa - Golden Crest*
- *Offset drilling of GC-008 - lower Deadwood mineralization and GC-010; high-grade paleo-placer gold mineralization*
- *Reinterpretation of resource model at Florida Canyon*
- *New target identification at Lik*

** Pending permitting*



Lik Zinc Project, Alaska

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