

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

Solitario Resources Corp.

September 14-17, 2025

37th Annual Mining Forum Americas – The Broadmoor

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" on Form 10-K for the year ended December 31, 2024, 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. U.S. and Canadian 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 its resources and the Company has not yet determined that any part of its reported resources 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



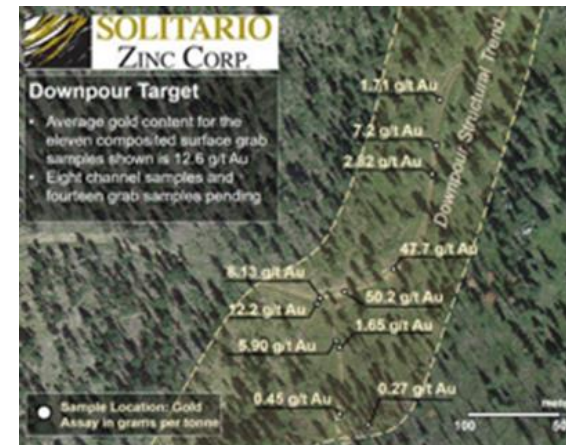
➔ SIGNIFICANTLY UNDERVALUED
HIGH-GRADE ZINC ASSETS

Value
Zn



➔ EXCEPTIONAL POTENTIAL FOR MAJOR
GOLD DEPOSITS AT GOLDEN CREST

Upside
Au



Northern Black Hills, S. Dakota Prolific Gold Endowment



Wharf Mine (Coeur):
9.34 Moz Au



Homestake Mine (Barrick):
68 Moz Au



Richmond Hill Mine
9.9 Moz Au



Gilt Edge Mine
+4.0 Moz Au

OVER 90 MILLION OUNCES OF GOLD IN A 200 KM² AREA
EQUIV. GOLD ENDOWMENT PER UNIT AREA AS THE CARLIN TREND

Golden Crest: High-Profile Domestic Gold Project Attracting Financing from Newmont & Institutions



- **Newmont** 8.5 million shares – 9.4%
- Edgepoint: 7.3 million shares – 8.1%
- Wexford Capital: 5.6 million shares – 6.2%
- Konwave AG/Gam: 2.9 million shares – 3.2%
- Other Institutions: 1.2 million shares – 1.3%

Adding to Existing Shareholder Base

- Management/Directors: 7.6 million shares – 8.4%
- Zebra Trust (Lundin Family): 3.8 million shares – 4.2%
- Long Focus: 1.4 million shares – 1.5%
- Other Institutions: 8.9 million shares – 9.9%
- High Net Worth Individuals: 8.0 million shares – 8.9%

Newmont Technical Support



Besides Newmont's \$3.5 million investment in Solitario during the past 2.5 years, Solitario and Newmont technical teams are collaborating on the following technical activities:

- Geophysical ground-based gravity survey and processing
- Geologic mapping
- More robust processing of Solitario's huge surface geochemical database

Northern Black Hills: A Super Giant Gold Province



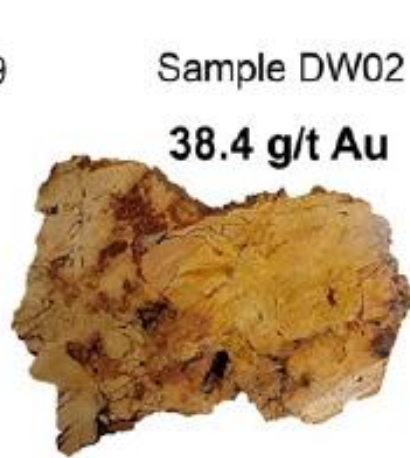
High-Grade Gold Across Golden Crest Project



Surface Rock Samples



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

Trenches



Downpour:

T-1: 36 meters @ 17.6 gpt gold
T-2: 60 meters @ 8.5 gpt gold

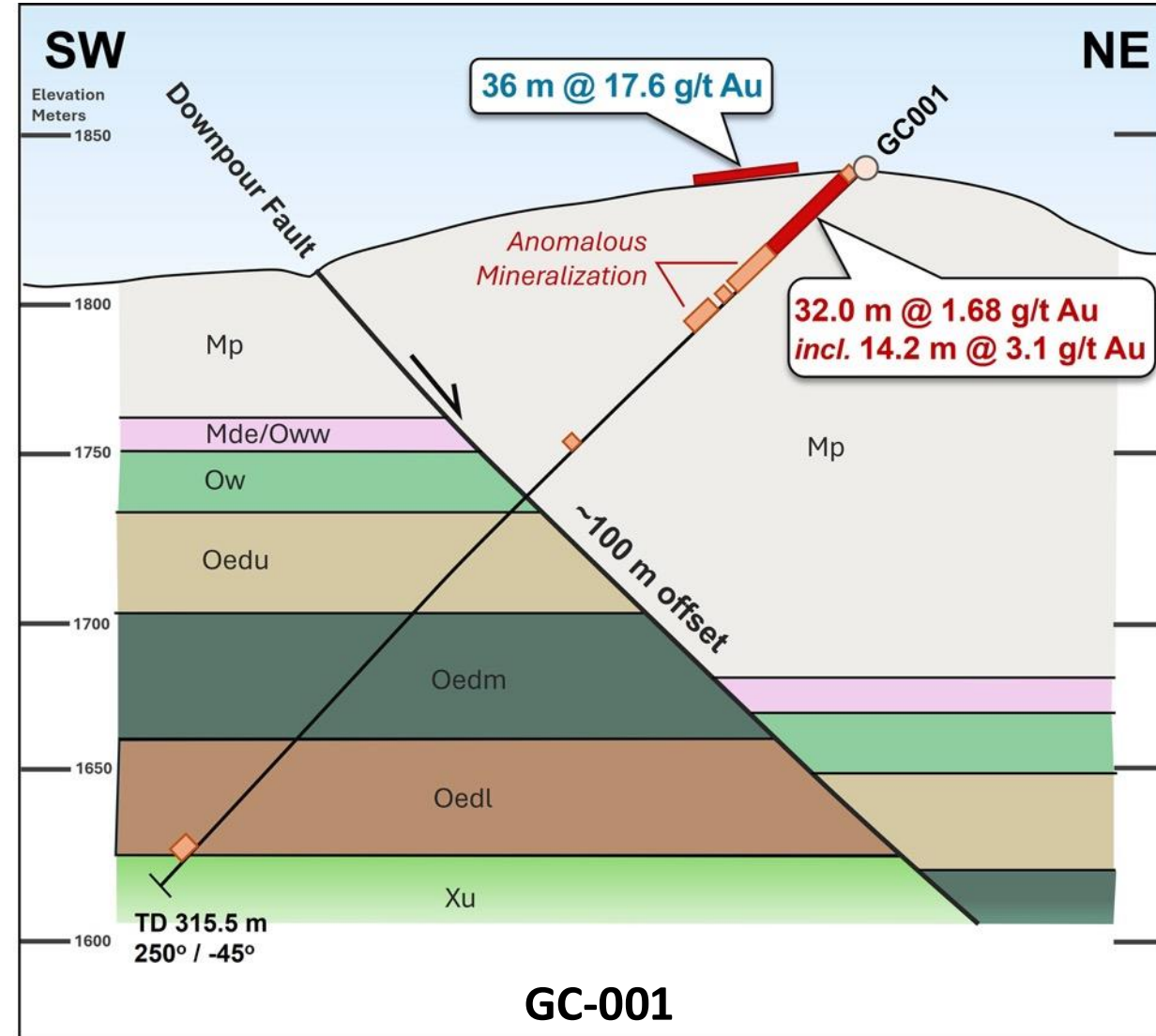
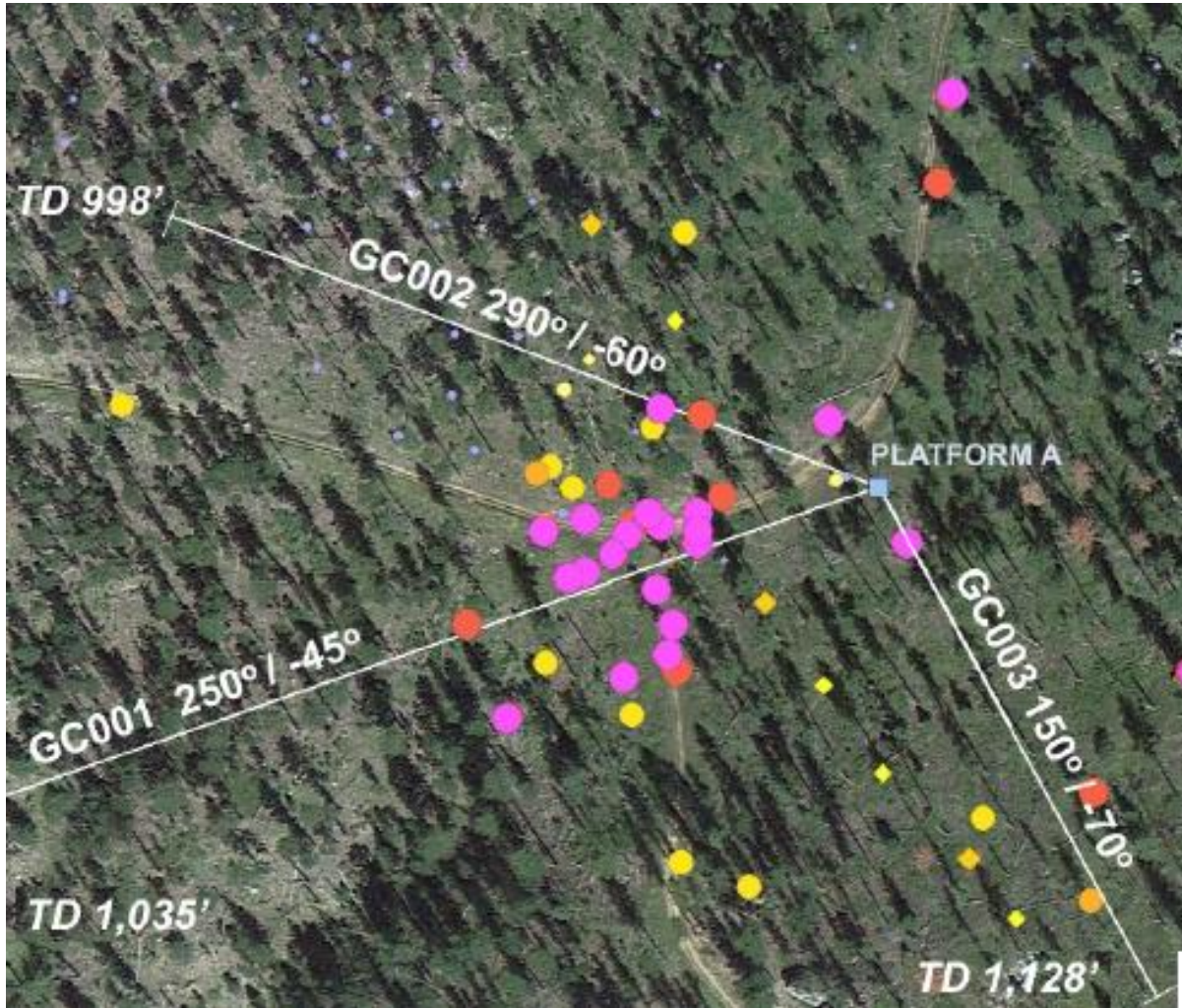
Geyser:

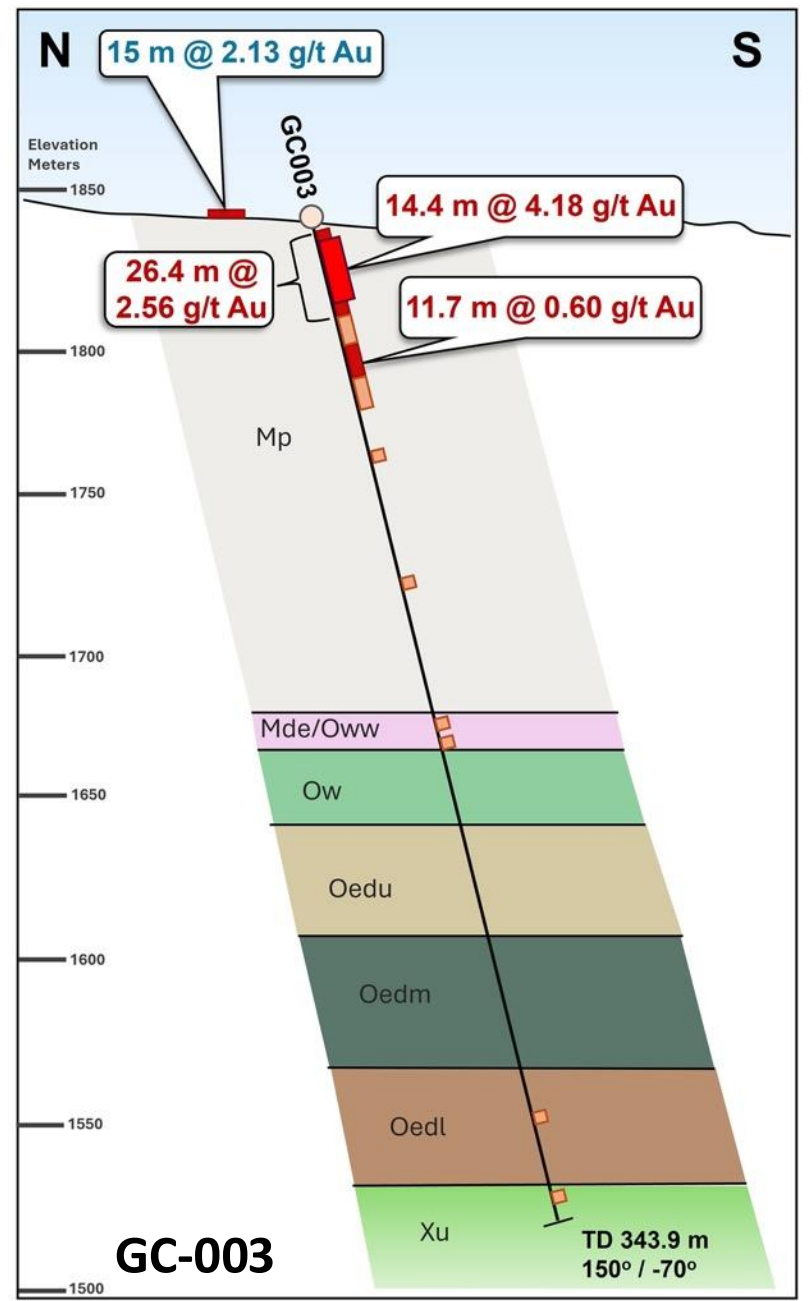
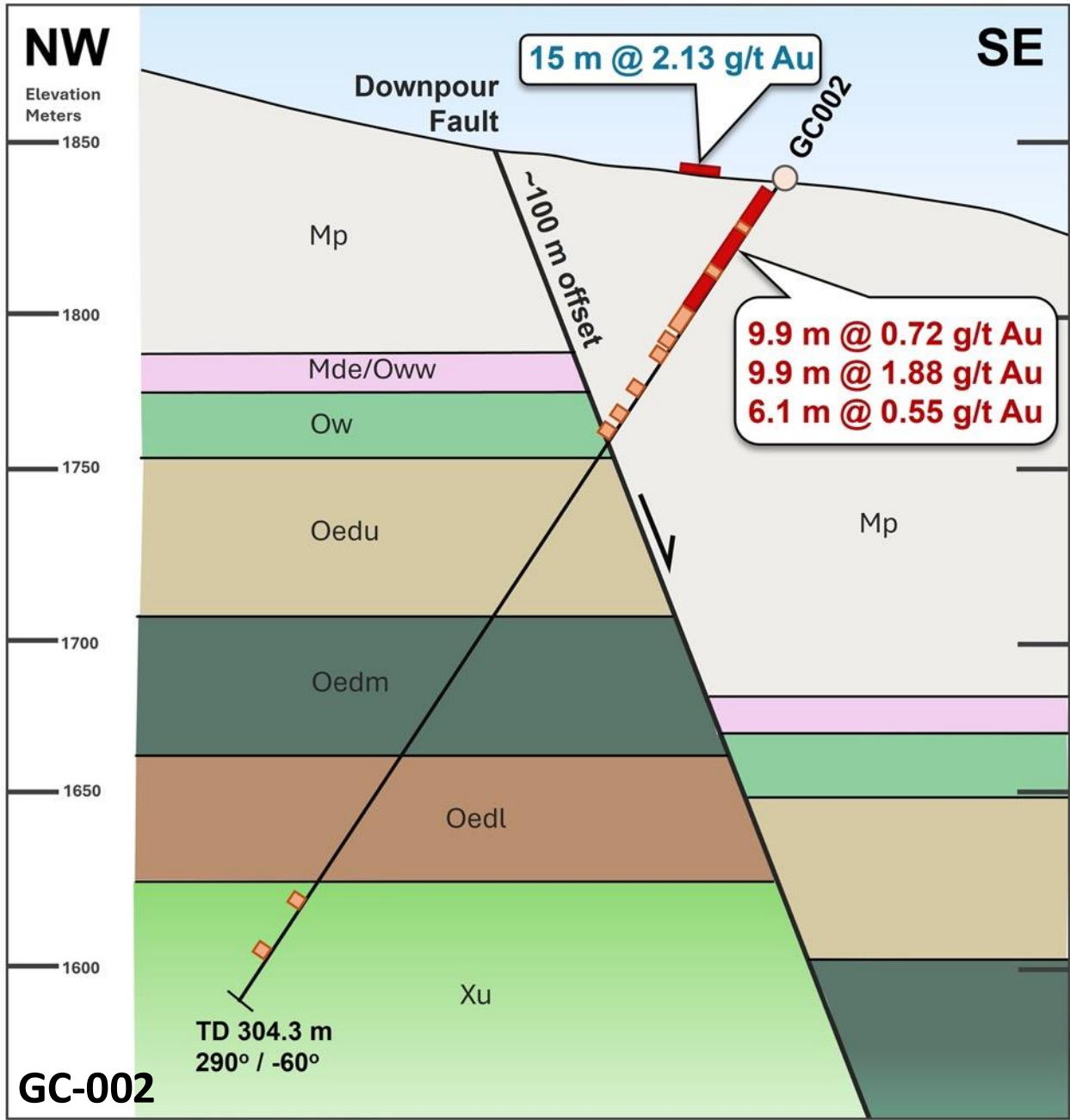
T-1: 234 meters @ 0.82 gpt gold
T-3: 27 meters @ 3.22 gpt gold

Strong 2024/2025 Drilling Results

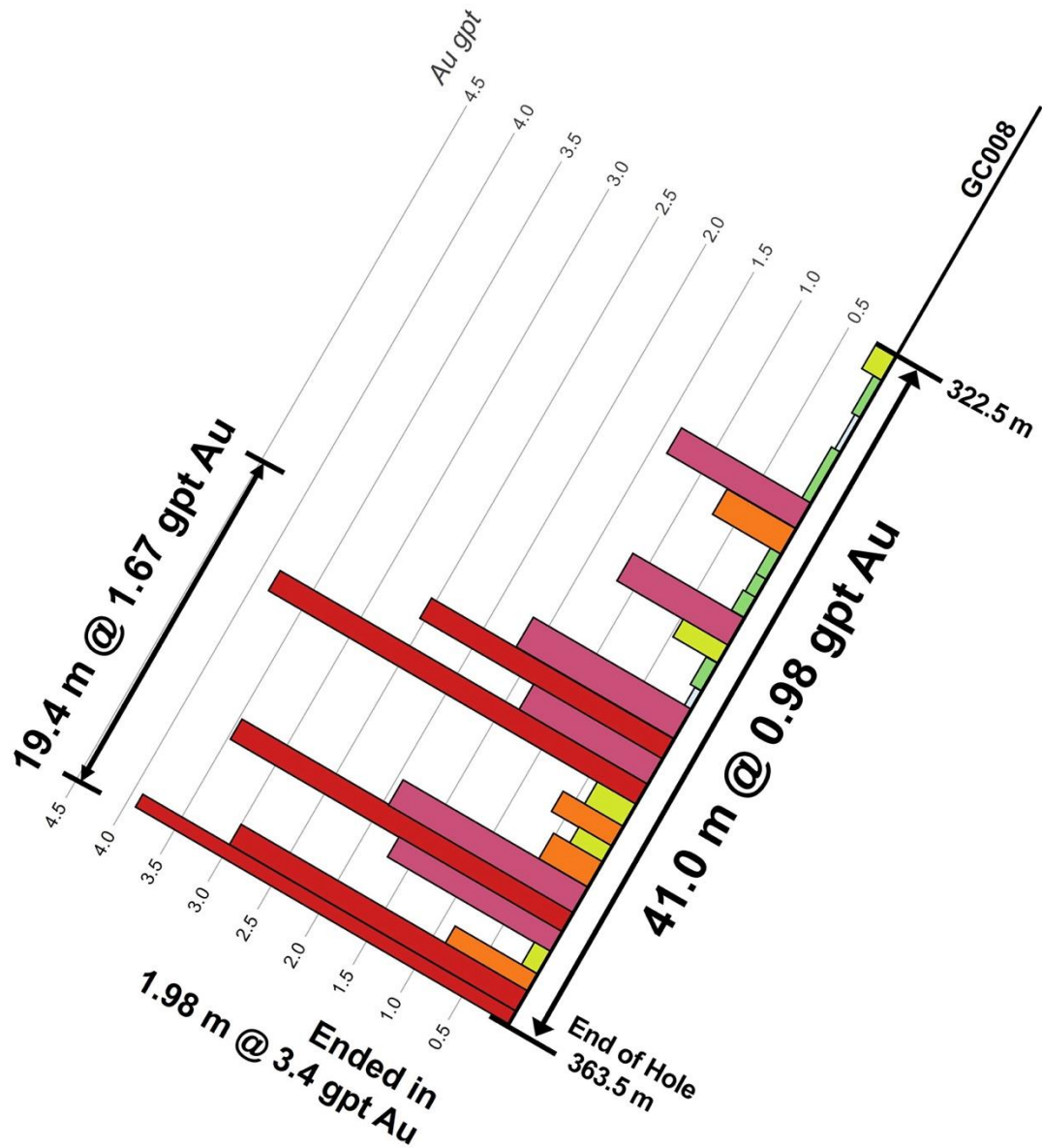
- **31,500-acre property – never been drilled prior to Solitario**
- **Seven of 15 holes intersected significant gold mineralization**
- **Mineralization in three Upper Limestone units: high-grade surrounded by low-grade**
- **Mineralization in Lower Deadwood: high-grade surrounded by low-grade**
- **High-grade gold mineralization (+11 gpt gold) in paleo-placer on top of Precambrian**
- **High-grade silver mineralization in clay-altered Winnipeg formation**

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.

GC-012 Intersected New Style of High-Grade Silver Mineralization

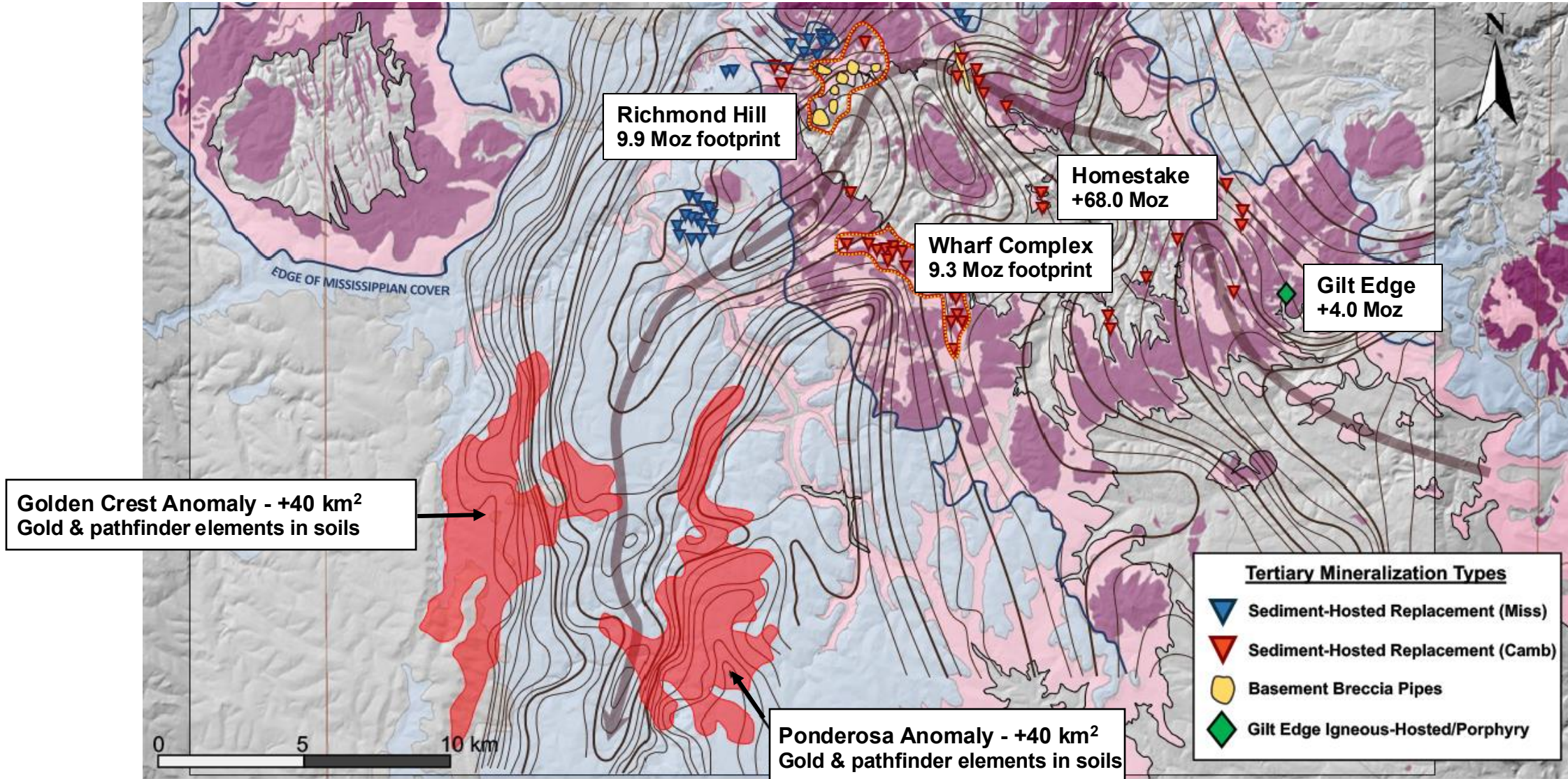


Mineralized Interval:

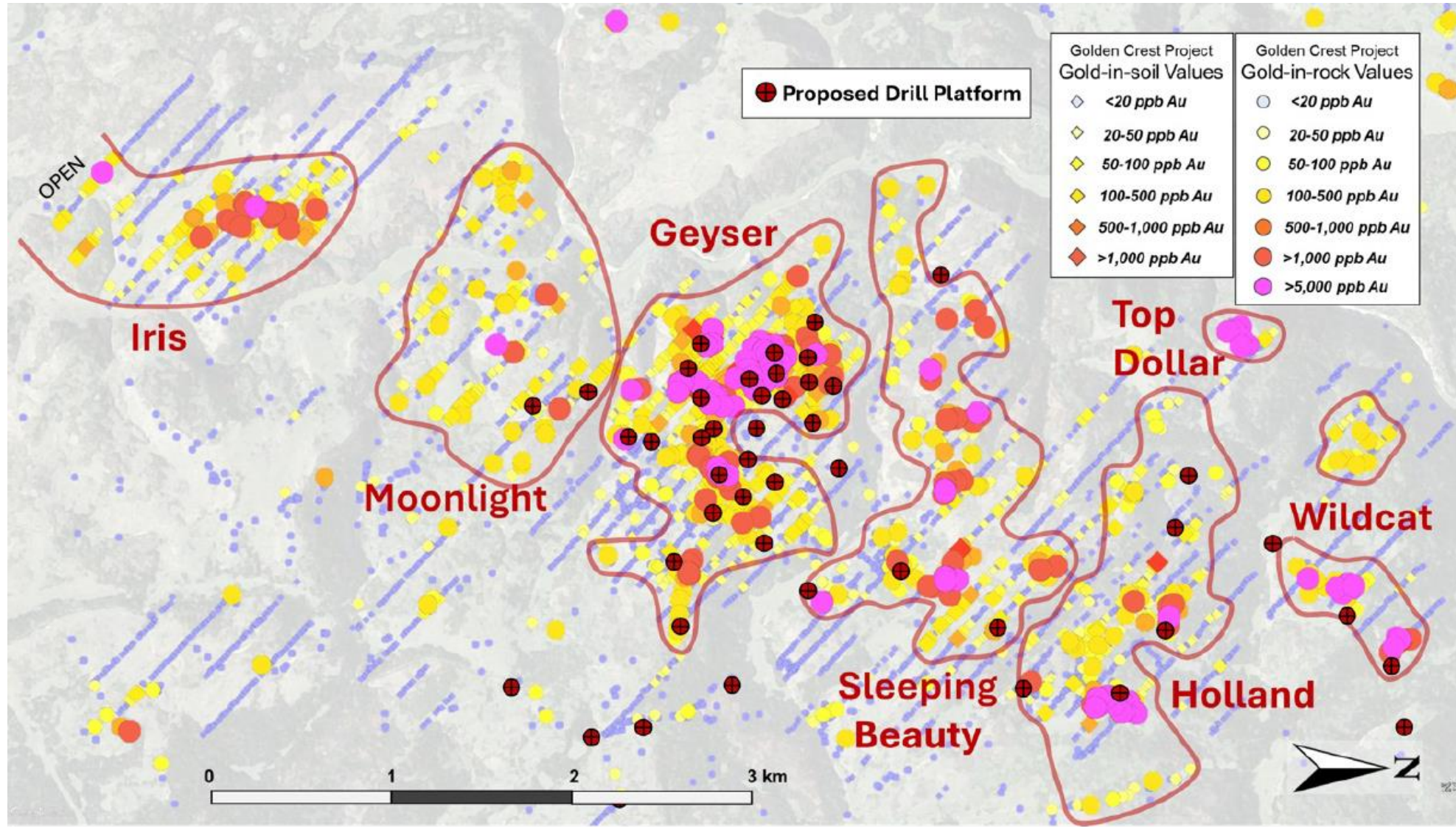
- Thickness: *4.0 feet*
(1.2 meters)
- Grade: *1,445 g/t Silver*
- From: *538 to 542 feet*
(164.0 to 165.2 meters)



Basement Gravity Suggests District Controls



Ponderosa Gold Anomaly



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

2024/2025 Nexa completed an exhaustive top-to-bottom resource review supporting significant new resource potential



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.

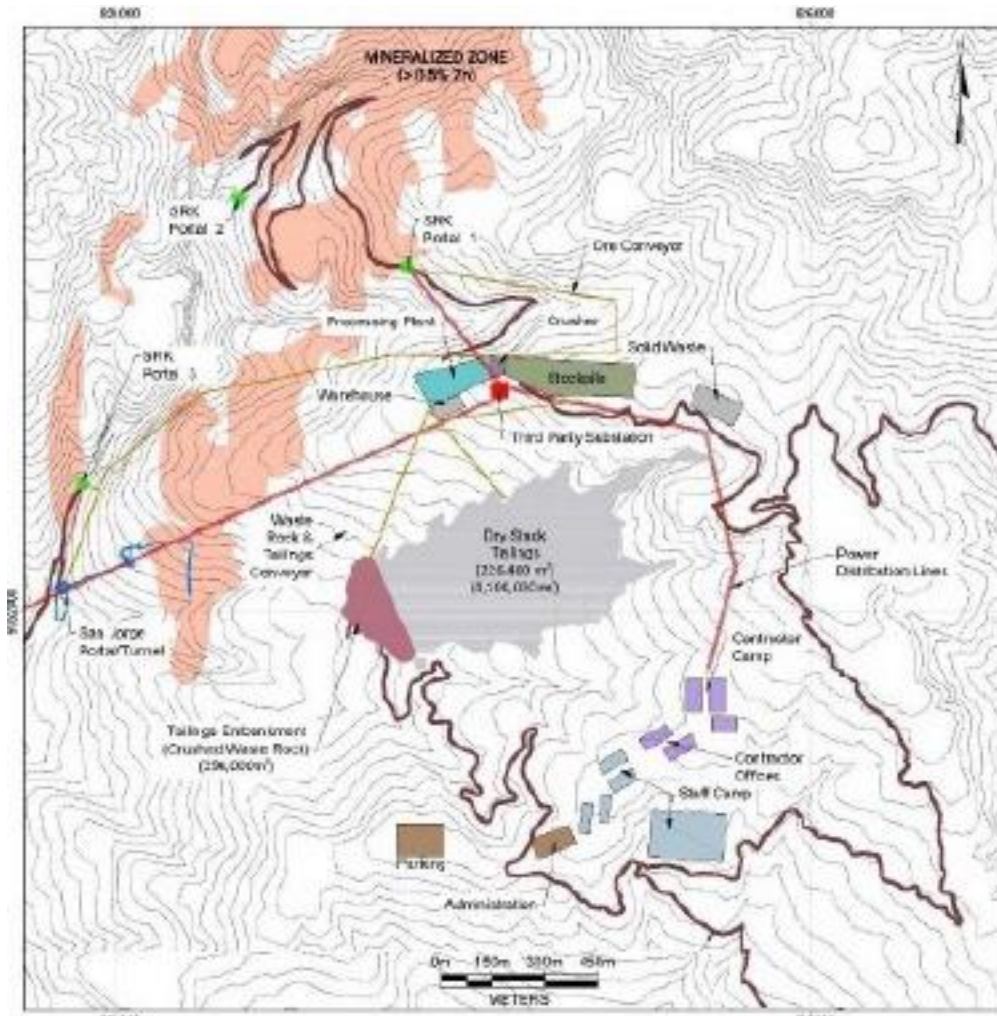
Solitario achieves production without capital risk or equity dilution!



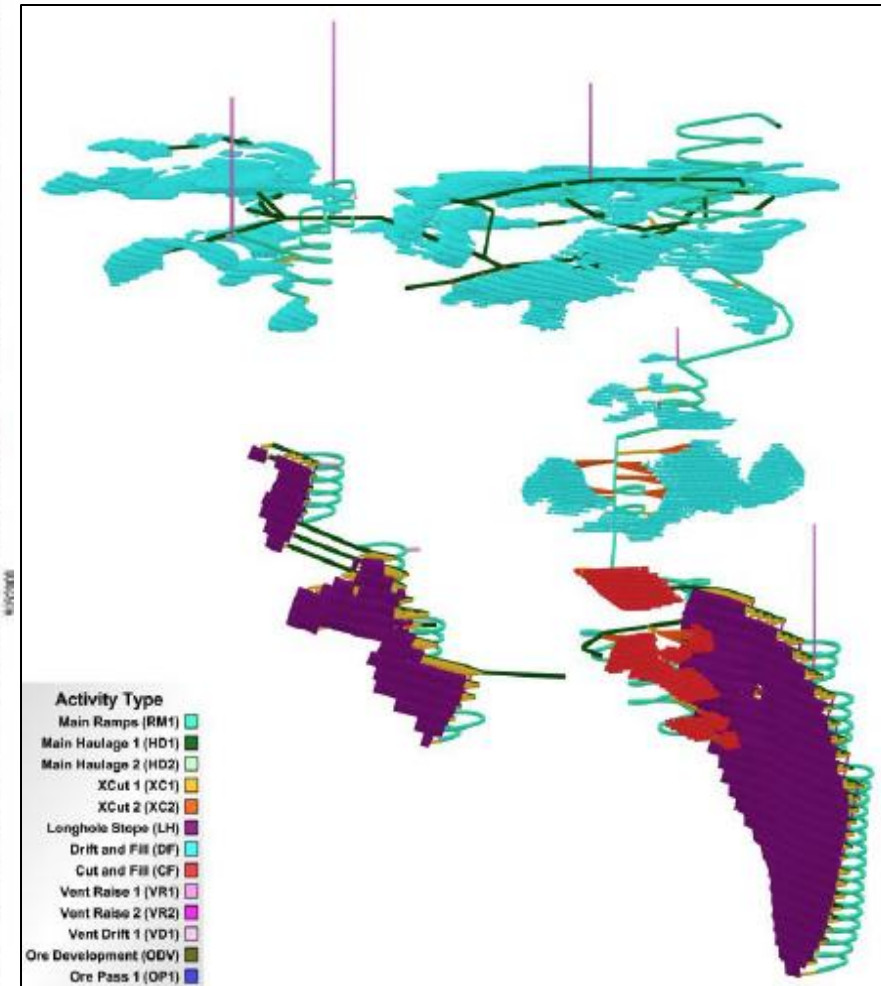
Florida Canyon Zn Project



Preliminary Infrastructure Layout



Mine Plan – Oblique View



Florida Canyon's Resource Grade is Significantly Higher than Nexa's Operating Zinc Mines in Peru



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.

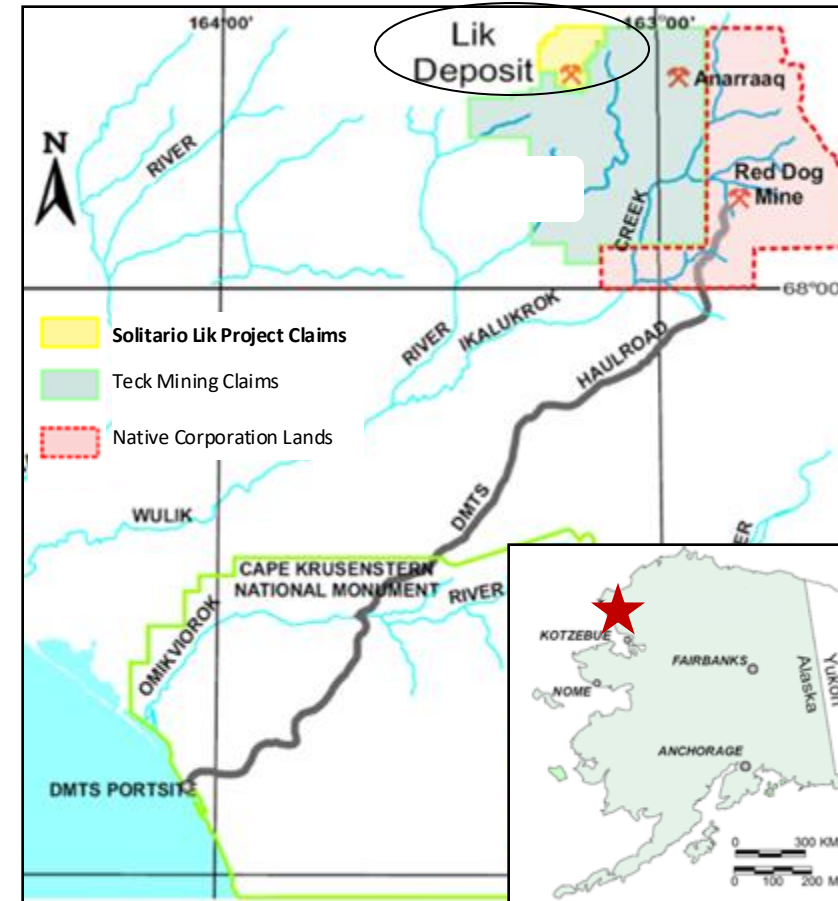
Nexa Resources Acquires Karmin

- Nexa Resources acquired its joint venture partner's (Karmin Exploration) 30% interest in the Aripuana zinc project in Brazil in 2019.
- Nexa paid Karmin USD\$70 million in cash, representing a nearly a 30% premium to the previous days market cap.

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
- Focused on developing a new drill target northwest of existing Lik deposit



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\$1.07	Cash and Securities	≈\$8.0 Mil
Shares Outstanding	90.2 Mil	Annual G&A	US\$1.4 Mil
Options	4.3 Mil	Debt	None
Warrants	None	Analysts	Heiko Ihle, H.C. Wainwright XPL target price US\$1.20
Fully Diluted	94.5 Mil		Mike Niehuser, Roth Capital XPL target price US\$1.80
52-Week High	US\$0.87/C\$1.16		
52-Week Low	US\$0.54/C\$0.72		
Market Cap	US\$72Mil/C\$97Mil	Major Shareholders	Newmont: 8.5 Mil (9.4%) Mgmt/Directors: 7.6 Mil (8.4%) Edgepoint: 7.3 Mil (8.1%) Wexford: 5.6 Mil (6.2%) Lundin Group: 3.8 Mil (4.2%) (Zebra)
Market Liquidity (daily volume)	NYSE-Am 124,000 TSX 19,000		

Value and Upside



→ SIGNIFICANTLY UNDERVALUED
HIGH-GRADE ZINC ASSETS

Value

Zn



→ EXCEPTIONAL POTENTIAL FOR MAJOR
GOLD DEPOSITS AT GOLDEN CREST

Upside

Au



2025/2026 Catalysts

- *Drilling high-quality target-rich 5 x 1.5 km Ponderosa area at Golden Crest with at least two drill rigs**
- *Completion of Nexa's reinterpretation of resource model at Florida Canyon*
- *New target identification at Lik*

** Pending permitting*



Lik Zinc Project, Alaska

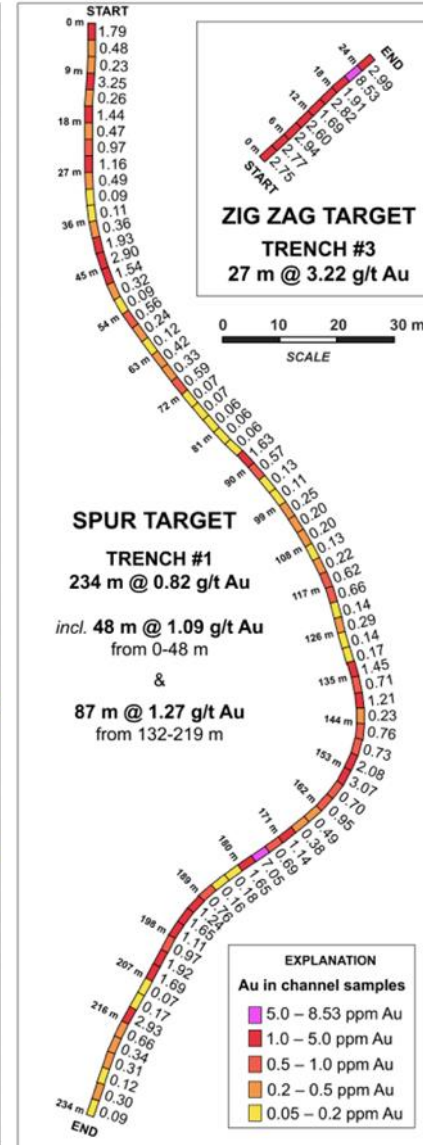
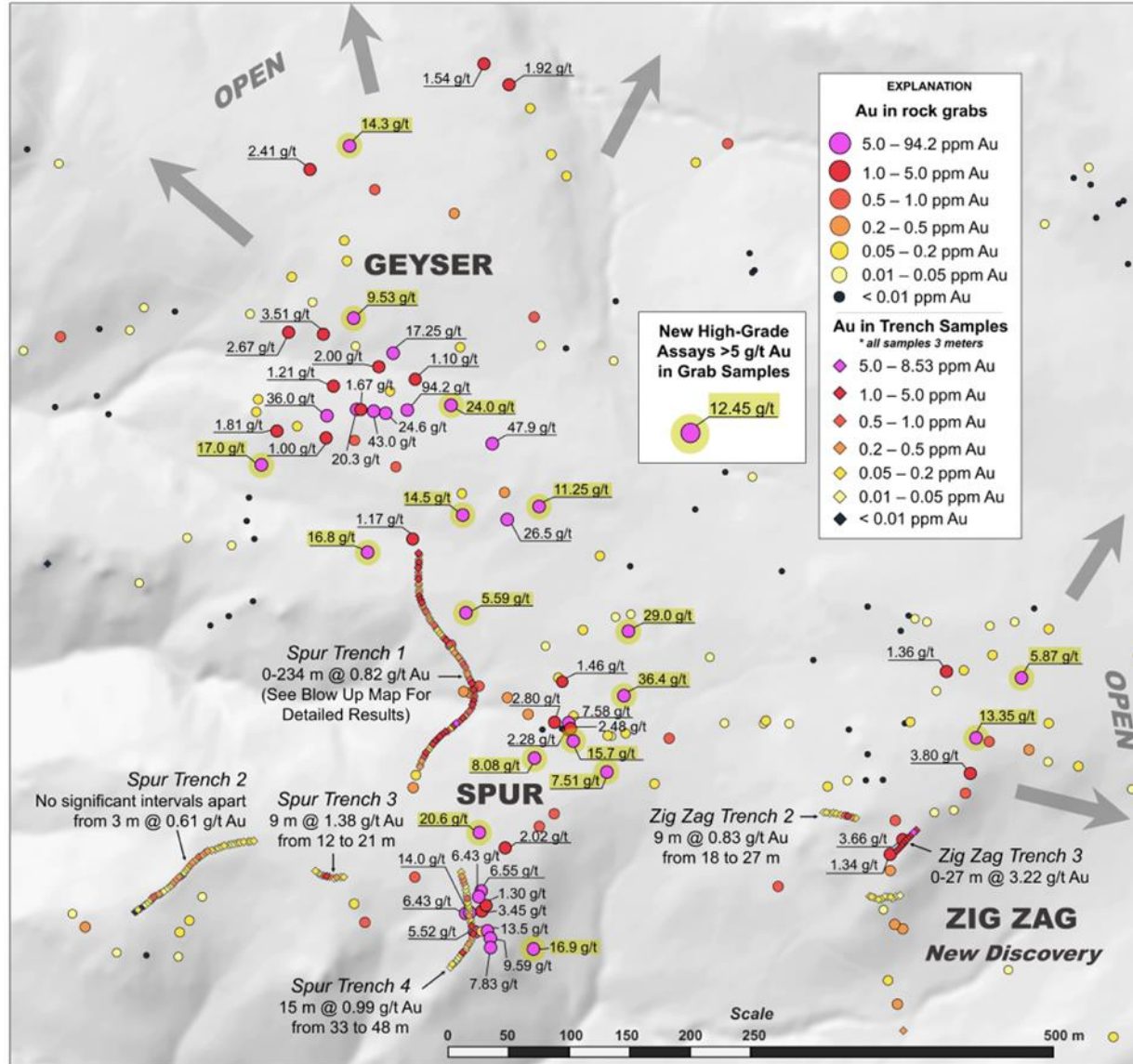
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Florida Canyon Zinc Project, Peru

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Mirror Image of the Homestake-Wharf System



Target Type	Homestake-Wharf Deposit Types	Size of Gold Endowment* ¹	Intersected In 2024/2025 Hole	Drill Hole Number	Intercept (meters) Gold Grade (g/t)
1	Carbonate Replacement in Paleozoic Rocks	500,000	✓	GC-001 GC-002 GC-003 and	32.0 m @ 1.68 g/t 25.9 m @ 1.12 g/t* ² 26.4 m @ 2.56 g/t 11.7 m @ 0.60 g/t
2	Mineralized Structures In Paleozoic Rocks	50,000	✓	GC-011	2.7 m @ 4.69 g/t
3	Wharf-Style Mineralization Lower Deadwood Fm.	10.140,000	✓	GC-008 including	41.0 m @ 0.98 g/t 19.4 m @ 1.67 g/t
4	Paleo-placer Top of Precambrian	+2,000,000	✓	GC-010	0.5 m @ 11.33 g/t
5	Precambrian/Igneous Breccia Hosted Tertiary Mineralization	14,540,000	✓ (Indirectly)	GC-010	0.4 m @ 2.45 g/t
6	Precambrian Homestake Mineralization in Homestake Fm.	68,000,000	✓ (Indirectly)	GC-009 GC-010	Mineralization in these holes support the presence of Homestake-style gold
7	Clay Alteration in Carbonate	Not Found @ Wharf	✓	GC-12	1.2m @ 1,445 g/t Ag