



Solitario Discovers Major New Area with Multi-Gram Gold; Wild Rose Zone Open in All Directions

DENVER, CO – February 27, 2024 - Solitario Resources Corp. (“Solitario”) (NYSE American: XPL; TSX: SLR) is pleased to report that it has discovered a major new area of high-grade gold mineralization, named Wild Rose, on its Golden Crest Project in South Dakota. Surface reconnaissance rock sampling has yielded gold values up to 52.9 grams per tonne (“gpt”) gold. The Wild Rose gold zone has been traced over a length of at least 1.6 kilometers, is up to 300 meters wide and is open in all directions. Wild Rose is interpreted to be the continuation of the previously reported high-grade Downpour gold trend situated approximately 1.2 kilometers to the southwest ([see Figure 1](#)). Combined, the Downpour-Wild Rose corridor is approximately four kilometers long.

Wild Rose is defined by 101 reconnaissance surface grab samples of float and subcrop mineralization. Remarkably, 34 of these samples contained gold values in excess of 1.0 gpt gold. Sampling to date has defined two areas of intense mineralization ([see Figure 2](#)). The southern zone of Wild Rose has a greater density of sampling and is consequently better defined. The southern gold zone measures approximately 480 meters long, trending in a northeasterly direction, and is up to 320 meters wide. The northern zone, which is sparsely sampled, shows a higher-grade zone in excess of 200 meters in length. The table below lists the ten highest grade samples:

Top Ten Wild Rose Surface Grab Samples

Sample Number	Gold Grade		Sample Number	Gold Grade
	grams/tonne			grams/tonne
5397	52.9		5641	15.9
5643	34.4		5567	12.8
5637	31.5		5564	11.4
5569	30.2		5640	10.3
5638	20.1		5644	6.9

Chris Herald, President and CEO of Solitario, stated: *“Wild Rose is an important new high-grade gold discovery. Wild Rose, combined with the Downpour zone to the southwest, represents a four-kilometer-long structural corridor with significant alteration and high-grade gold values at surface. Similar to other previously discovered Golden Crest mineralized areas, Wild Rose was first recognized by the presence of altered carbonate float rock in the tracks of an existing jeep road. Detailed follow-up work during the later part of the 2023 field season delineated its current surface footprint. We anticipate that additional work between Downpour and Wild Rose will demonstrate these two zones are one in the same.”*

Chris Herald, President and CEO of Solitario, will give a special presentation at the PDAC conference in Toronto, Canada, focusing on the Golden Crest Project on Wednesday, March 6, starting at 10:42 am (Level 800 / Hall E). The presentation will not be webcast, but all conference attendees may attend.

Golden Crest Drill Hole Permitting and Project Overview

In December 2023, the USFS issued its final Environmental Assessment (“EA”) and Draft Decision and Finding of No Significant Impact (FONSI) on Solitario’s proposed Golden Crest drilling program. As a result of this decision, no additional environmental studies beyond USFS’s comprehensive EA is required. Following this decision, a 45-day period ensued allowing for interested parties that commented on the original draft EA to object to the FONSI decision. The objection period has ended and currently the USFS is preparing responses to the objections.

Solitario’s 100%-owned South Dakota properties collectively total over 33,000 acres and constitute strategic land holdings along the western and southwestern extensions of the Homestake-Wharf mining district that has produced approximately 52 million ounces of gold and contains another 30 million ounces in historical resources. The project area is in a safe jurisdiction with highly developed infrastructure, an unbroken 145-year record of continuous gold mining, a skilled mining workforce, and a history of high-grade, underground mineable gold deposits.

Sample Type, Sampling Methodology, Chain of Custody, Quality Control and Assurance

The reported Wild Rose rock assays are all surface rock grab/float samples consisting of near-bedrock float samples, and to a lesser extent, bedrock composite samples. All float samples are thought to be derived from the underlying bedrock within the immediate sampled area. All sampling reported in this release was supervised by project geologists, including chain of custody. Rock samples are reconnaissance select grab samples that display alteration, usually silicification and hydrothermal brecciation.

The significance of these results is limited to determining whether gold, or trace elements usually associated with gold, are present within rocks affected by hydrothermal alteration fluids and assay results may not be representative of, nor verify economically mineable mineralization. Samples were analyzed by ALS Laboratories in Reno, NV, a laboratory accredited in accordance with the standards of ISO 17025:2017. The samples were crushed and pulverized, and sample pulps were analyzed using industry standard fire assay methods. A certified reference sample or duplicate was inserted at least every 20th sample.

Walter Hunt, COO of Solitario, is a qualified person as defined by NI 43-101, Standards of Disclosure for Mineral Projects, responsible for approving the scientific and technical information contained in this news release.

About Solitario

Solitario is a natural resource exploration company focused on high-quality Tier-1 gold and zinc exploration projects. The Company is traded on the NYSE American (“XPL”) and on the Toronto Stock Exchange (“SLR”). In addition to its South Dakota property holdings, Solitario holds a 50% joint venture interest (Teck Resources 50%) in the high-grade Lik zinc deposit in Alaska and a 39% joint venture interest (Nexa Resources 61%) on the high-grade Florida Canyon zinc project in Peru. At Florida Canyon, Solitario is carried to production through its joint venture arrangement with Nexa. Solitario’s Management and Directors hold approximately 9.3% (excluding options) of the Company’s 79.1 million shares outstanding. Solitario’s cash balance and marketable securities stand at approximately US\$8.9 million. Additional information about Solitario is available online at www.solitarioresources.com.

Solitario has a long history of committed Environmental, Social and Responsible Governance (“ESG”) of its business. We realize ESG issues are also important to investors, employees, and all stakeholders, including communities in which we work. We are committed to conduct our business in a manner that supports positive environmental and social initiatives and responsible corporate governance. Importantly, we select joint venture partners that not only value the importance of ESG issues in the conduct of their business on our joint venture projects but are leaders in the industry in this important segment of our business.

For More Information Please Contact:

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Cautionary Statement Regarding Forward Looking Information

This press release contains forward-looking statements within the meaning of the U.S. Securities Act of 1933 and the U.S. Securities Exchange Act of 1934, and as defined in the United States Private Securities Litigation Reform Act of 1995 (and the equivalent under Canadian securities laws), that are intended to be covered by the safe harbor created by such sections. Forward-looking statements are statements that are not historical facts. They are based on the beliefs, estimates and opinions of the Company's management on the date the statements are made and address activities, events or developments that Solitario expects or anticipates will or may occur in the future, and are based on current expectations and assumptions. Forward-looking statements involve numerous 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. Solitario's Golden Crest land position does not cover any of the areas of historical gold production or historical unmined resources. 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. The existence of historic mines and resources adjacent to Solitario's land position do not necessarily support the existence economic mineral deposits on Solitario's land position. Such forward-looking statements include, without limitation, statements regarding the Company's expectation of the projected timing and outcome of engineering studies; expectations regarding the receipt of all necessary permits and approvals to implement a mining plan, if any, at any of its mineral properties. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, among others, risks relating to risks that Solitario's and its joint venture partners' exploration and property advancement efforts will not be successful; risks relating to fluctuations in the price of zinc, gold, lead and silver; the inherently hazardous nature of mining-related activities; uncertainties concerning reserve and resource estimates; availability of outside contractors, and other

activities; uncertainties relating to obtaining approvals and permits from governmental regulatory authorities; the possibility that environmental laws and regulations will change over time and become even more restrictive; and availability and timing of capital for financing the Company's exploration and development activities, including uncertainty of being able to raise capital on favorable terms or at all; risks relating to the impacts of Covid-19 or similar variants; as well as those factors discussed in Solitario's filings with the U.S. Securities and Exchange Commission (the "SEC") including Solitario's latest Annual Report on Form 10-K and its other SEC filings (and Canadian filings) including, without limitation, its latest Quarterly Report on Form 10-Q. The Company does not intend to publicly update any forward-looking statements, whether as a result of new information, future events, or otherwise, except as may be required under applicable securities laws.