



Solitario Commences Drilling on its Golden Crest Gold Project

DENVER, CO – July 15, 2024 - Solitario Resources Corp. (“Solitario”) (NYSE American: XPL; TSX: SLR) is pleased to announce core drilling has begun on its 100%-owned Golden Crest gold project in South Dakota. Phase-One of the 2024 drilling program consists of drilling approximately 10-12 holes totaling 5,000 meters. The first area to be drill tested is the high-grade Downpour Zone where trenching and surface rock sampling has revealed high-grade gold at surface ([Trench and Surface Sample Assay Maps](#)). Assay highlights of the trenching program are as follows:

Downpour Trenching Results (Previously Released)

| Trench Number | Length (meters) | Avg. Gold Grade (grams/tonne) |
|----------------------|---------------------------|---|
| Tr-1 | 36 | 17.60 |
| Tr-2 | 60 | 8.55 |
| Tr-3 | 12 | 0.56 |
| Tr-4 | 15 | 2.18 |
| Tr-5 | 15.6 | 17.1 |

In addition to the high-grade trenching results, surface grab sampling of the area surrounding the trenches revealed significant gold values over a corridor of approximately 800 meters long and up to 500 meters wide. Within this zone, 37 select surface grab samples were collected and displayed the following gold-grade distributions (previously released results):

- 7 samples above 10 gpt gold
- 16 samples above 3 gpt gold
- 25 samples above 1 gpt gold

Chris Herald, President and CEO of Solitario, stated: *“With the drill now turning, we are beginning a new phase in the exploration of our Golden Crest project. It is remarkable that such a large well-endowed gold region has never been drill tested, especially one that is situated so close to one of America’s largest historic gold districts, the Homestake-Wharf mining complex. We are excited to begin drilling at Golden Crest and look forward to reporting our progress and results.”*

Sampling Methodology, Chain of Custody, Quality Control and Assurance

The collection of all trench and surface rock samples was supervised by project geologists, including chain of custody. Rock samples were reconnaissance select grab samples that display

alteration, usually silicification and hydrothermal brecciation. These samples were derived mainly from residually weathered rock fragments, sub-crop, and less commonly, outcrop. The significance of these samples is limited to determining whether gold, or trace elements usually associated with gold, are present within rocks affected by hydrothermal alteration fluids. 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.

Sandor Ringhoffer, CPG, SME RM, is a geologic consultant of Solitario and 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. Solitario's 100%-owned Golden Crest properties in South Dakota 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 is reported to contain another 30 million ounces in historical resources (not SK-1300 or NI-4301 compliant). The project area is located in a safe jurisdiction with highly developed infrastructure, an unbroken 150-year record of continuous gold mining, a skilled mining workforce, and a history of high-grade, underground mineable gold deposits.

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 9.1% (excluding options) of the Company's 81.4 million shares outstanding. Solitario's cash balance and marketable securities stand at approximately US\$9.3 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 conducting our business in a manner that supports positive environmental and social initiatives and responsible corporate governance. Importantly, we work with 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 of 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 pandemics or similar epidemics; 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.