

Solitario Completes US\$4.75 Million Private Placement

DENVER, CO – October 16, 2023 - Solitario Resources Corp. ("Solitario" or the "Company") (NYSE American: XPL; TSX: SLR) is pleased to announce that on October 13, 2023, it completed a private placement of 8,631,818 shares of common stock of the Company (the "Shares"), at a price of US\$0.55 per share for total net proceeds of US\$4,747,500 (the "Offering"). The Offering involved qualified non-US investors and was pursuant to one or more exemptions from registration under U.S., Canadian and other applicable law.

The Company did not engage an underwriter or placement agent for the Offering, and there were no underwriter discounts or commissions or placement agent fees, and no warrants were issued. The net proceeds of the Offering will be used to advance the Company's exploration activities at its core projects and for general corporate purposes.

Chris Herald, President and CEO of Solitario, stated: "This financing significantly enhances our existing cash and marketable securities balance to approximately US\$9.5 million and allows us to more rapidly advance and fund our core exploration projects in 2024."

Additional information regarding the private placement will be included in one or more reports to be filed by the Company with the Securities and Exchange Commission, and this press release is subject to the further detail provided in such reports.

The offer and sale of the foregoing securities were made in a transaction not involving a public offering and the securities have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), or applicable Canadian and state securities laws. Accordingly, the securities may not be reoffered or resold in the United States except pursuant to an effective registration statement or an applicable exemption from the registration requirements of the Securities Act and such applicable Canadian and state securities laws.

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 advanced Florida Canyon and Lik joint venture zinc projects, Solitario owns a 100% interest in the 33,000-acre Golden Crest gold project in South Dakota. Additional information about Solitario is available online at www.solitarioxr.com.

Solitario has a long history of responsible Environmental, Social and Corporate 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 an ESG responsible manner. 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 this important industry segment.

This press release does not constitute an offer to sell or the solicitation of an offer to buy the securities, nor shall there be any sale of the securities in any state in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of such state.

For More Information Please Contact:

Chris Herald, President and CEO Solitario Resources Corp. Tel. 303-534-1030 ext. 14

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. 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 an exploration 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.