

Solitario Closes \$1,550,000 Non-Brokered Private Placement

DENVER, CO – December 6th, 2021 - Solitario Zinc Corp. ("Solitario" or the "Company") (NYSE American: XPL; TSX: SLR) is pleased to announce that it has entered into agreements with investors for the purchase and sale of an aggregate of 3,100,000 shares of common stock of the Company (the "Shares"), at a price of \$0.50 per share (the "Offering"). The Company did not engage an underwriter or placement agent for the Offering, and therefore there were no underwriter discounts or commissions or placement agent fees. No shares purchase warrants were issued in connection with the Offering. The net proceeds of the Offering will be used for additional working capital and general corporate purposes.

The sale of the Shares was made through a subscription agreement between the Company and each respective investor. The Shares were offered and sold pursuant to the Company's existing shelf registration statement on Form S-3 (File No. 333-249129), which was initially filed with the Securities and Exchange Commission (the "SEC") on September 29, 2020 and declared effective by the SEC on October 8, 2020. The Company filed a prospectus supplement, dated December 1, 2021, with the SEC in connection with the sale of the securities in the Offering.

The three executive officers of the Company participated in the Offering, purchasing 50,000 Shares each, on the same terms as the other investors. The Offering was unanimously approved by the Company's Board of Directors and the insider participation was also unanimously approved by the Audit Committee of the Board of Directors.

Chris Herald, President and CEO of Solitario, stated: "This financing was done to enhance our existing cash and marketable equity securities balance, which is now approximately \$7.0 million, as well as to demonstrate the confidence we have in our projects, especially at our Golden Crest Project, where we have collected and reported multi-gram gold samples in the shadow of a +70-million-ounce gold district. Solitario intends to move forward with more advanced exploration efforts at Golden Crest, including a drill program for 2022, pending completion of permitting. We firmly believe that the Golden Crest project could emerge into one of the most important greenfield exploration projects in North America."

About Solitario

Solitario is an emerging zinc and gold exploration and development company traded on the NYSE American ("XPL") and on the Toronto Stock Exchange ("SLR"). In addition to its Golden Crest project, Solitario holds 50% joint venture interest (Teck Resources 50%) in the high-grade, open-pittable Lik zinc deposit in Alaska and a 39% joint venture interest (Nexa Resources holds the remaining 61% interest) on the high-grade Florida Canyon zinc project in Peru. Solitario's Management and Directors hold approximately 9.2% (excluding options) of the Company's 62.0 million shares outstanding. Additional information about Solitario is available online at www.solitariozinc.com.

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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 fact. 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 a number of 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. 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, 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; 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-O. 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.