

Solitario Amends Technical Report and Clarifies Technical Disclosure For Its Florida Canyon Zinc Project

DENVER, CO – May 28, 2021 - **Solitario Zinc Corp**. ("Solitario" or the "Company") (NYSE American: **XPL**; TSX: **SLR**) announces that, as a result of a review by staff of the Ontario Securities Commission, the Company is issuing the following news release regarding its technical disclosures made with respect to the Florida Canyon Project in Peru.

On April 7, 2021, the Company filed on Sedar "NI 43-101 Technical Report on Resources Florida Canyon Project, Amazonas Department, Peru ("2021 Technical Report")." Subsequent to that filing, the Company referred to technical information contained in its previously issued 2017 "NI 43-101 Technical Report Preliminary Economic Assessment Florida Canyon Zinc Project Amazonas Department, Peru ("2017 PEA")" in a news release dated April 7, 2021., on its website related to the Florida Canyon project and a corporate presentation (PDAC Virtual Conference) made on March 8, 2021. The 2021 Technical Report did not incorporate certain required disclosure information from the 2017 PEA to allow the Company to refer to the 2017 PEA. The Company has amended the 2021 Technical Report to include all such information required from the 2017 PEA to allow the Company to refer to information contained in the 2017 PEA on its website and in corporate presentations. The resource estimates from the 2021 Technical Report did not change as a result of this amendment.

In addition, the Company posted a video on its website on March 6, 2021 and information on slide 7 in a corporate presentation (PDAC Virtual Conference) made March 8, 2021, that contained information from an internal analysis concerning mine life and cash flows that are not supported by a technical report and should not be relied upon. For this reason, the Company is retracting all references to this internal study.

Information contained within this release is approved by Mr. Walt Hunt, COO for Solitario Zinc Corp., who is a qualified person as defined by National Instrument 43-101.

About Solitario

Solitario is an emerging zinc exploration and development company traded on the NYSE American ("XPL") and on the Toronto Stock Exchange ("SLR"). Solitario holds 50% joint venture interest 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 recently acquired the early-stage Gold Coin property in Arizona that has potential to host gold mineralization. Solitario's Management and Directors hold approximately 9.6% (excluding options) of the Company's 58.4 million shares outstanding. Solitario's cash balance and marketable securities stand at approximately US\$7.6 million. 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. 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 Lik or Florida Canyon; the potential for confirming, upgrading and expanding zinc, lead and silver mineralized material; future operating and capital cost estimates may indicate that the stated resources may not be economic; estimates of zinc, lead and silver grades of resources provided are predicted and actual mining grade could be substantially lower; estimates of recovery rates for could be lower than estimated for establishing the cutoff grade; and other statements that are not historical facts could vary significantly from assumptions made in the Resources Estimate. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. Although Solitario management believes that its expectations are based on reasonable assumptions, it can give no assurance that these expectations will prove correct. 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 miningrelated 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-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.