



May 15, 2019

**SOLITARIO ANNOUNCES MAJOR DRILLING PROGRAM
HAS BEGUN ON ITS FLORIDA CANYON ZINC PROJECT, PERU**

Denver, Colorado: Solitario Zinc Corp. (“Solitario”) NYSE American: **XPL**; TSX: **SLR**) is pleased to announce that Nexa Resources (“Nexa”) (NYSE: NEXA; TSX: NEXA) has begun the 2019 phase of the most aggressive surface drilling program in the history of the Florida Canyon zinc project. Three core rigs with helicopter support will be utilized for the 2019 program. The Florida Canyon Project in northern Peru is held in a joint venture between Solitario (39%) and Nexa (61%), the world’s fourth largest zinc miner.

The 2019 program consists of drilling about 35 core holes totaling approximately 15,000 meters (49,000 feet). Proposed drilling is designed to test highly prospective resource expansion opportunities and is focused on near-vertical zinc-lead replacement bodies and significant gaps and offsets within nearly horizontal manto-style mineralization. All targets are within and around the currently defined high-grade zinc-sulfide resource. In addition to drilling, Nexa is funding a significant road building program that will upgrade 31 kilometers of previously constructed road, add another 10 kilometers that will complete access to mineralized areas, and construct first-ever road access to important community centers within the project area. Nexa is the manager of the project.

Significant progress in interpreting Florida Canyon mineralization was made in 2018 with the relogging of all previously drilled core totaling 117,000 meters in 487 core holes. An informative video found [here](#) describes the conceptual drilling program and the local and property-wide exploration potential.

Chris Herald, President and CEO of Solitario, commented, “This aggressive and highly prospective drilling program has the potential to increase the size of the deposit as well as enhance the confidence level of the resource. We look forward to a steady stream of positive results throughout much of 2019. This program is the culmination of an intensive 18-month effort to better understand the geometry of existing mineralization and expand the potential scale of the project, which we believe is significantly larger than is currently defined. We are excited about the impact this drilling could have on project economics. We are very pleased with the cooperation and support that the local communities have confirmed with the signing of a new long-term community agreement.”

Mr. Walt Hunt, COO for Solitario Zinc Corp., who is a qualified person as defined by National Instrument 43-101, has reviewed the technical information contained within this release.

Terms of the Florida Canyon Joint Venture

The Florida Canyon Project is held in a joint venture between Solitario (39%) and Nexa Resources (61%) (“Nexa”) NYSE: NEXA; TSX: NEXA), the world’s fourth largest zinc miner. Nexa can earn a 70% interest in the Florida Canyon project by continuing to fund all project expenditures and committing to place the project into production based upon a positive feasibility study. After earning 70%, and at the request of Solitario, Nexa has further agreed to finance Solitario's 30% participating interest for construction through a project loan. Solitario will repay the loan facility through 50% of its net cash flow distributions from production. To accelerate the development of the Florida Canyon project, Solitario

and Nexa have agreed to jointly fund, 30%-70% respectively, the cost for the 2018/2019 drilling program. Funding that Solitario contributes towards this drilling program will be fully credited towards repayment of the construction loan facility that Nexa provides to Solitario for project construction.

About Solitario

Solitario is an emerging zinc exploration and development company traded on the NYSE American (“XPL”) and on the Toronto Stock Exchange (“SLR”). Besides Solitario’s joint venture with Nexa Resources on its high-grade Florida Canyon zinc project in Peru, Solitario also holds a 50% joint venture interest (Teck Resources Ltd. holds the other 50% interest) in the high-grade, open pitable Lik zinc deposit in Alaska, and 11.0 million shares (7.5% equity interest) of Vendetta Mining. Solitario’s Management and Directors hold approximately 9.5% (excluding options) of the Company’s 58.1 million shares outstanding. Solitario’s cash balance and marketable securities stand at approximately US\$11.0 million. Additional information about Solitario is available online at www.solitariozinc.com.

FOR MORE INFORMATION 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 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 exploration or mining plans, if any; 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 could be lower than estimated for establishing the cutoff grade; and other statements that are not historical facts could vary significantly from assumptions made herein. 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 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; uncertainties relating to obtaining approvals and permits from governmental regulatory authorities and country risks of operations, both inside and outside of the United States; 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.