



February 19, 2019

Solitario Announces 2019 Lik Zinc Exploration Program and Provides Corporate Update

Denver, Colorado: Solitario Zinc Corp. (“Solitario”) (NYSE American: **XPL**; TSX: **SLR**) is pleased to provide an update on its Lik zinc project, a review of the sale of its non-core royalty properties in 2018/2019, its corporate G & A cost reduction initiative for 2019, and a brief status report on its Florida Canyon drilling program.

Lik Project, Alaska

The Lik high-grade zinc project located in northwestern Alaska is an advanced exploration project joint ventured with Teck American Incorporated (“Teck”), a wholly owned subsidiary of Teck Resources Limited (TSX: TECK.A and TECK.B, NYSE: TECK), the world’s third largest zinc miner. Solitario recently received results for the 2018 Lik exploration program conducted by Teck, and planning is nearly complete for a jointly funded 2019 exploration program.

The 2018 Lik exploration program consisted of:

- Geologic mapping and geochemical sampling over the deposit and potential extensions to the northeast,
- A ground gravity geophysical survey over prospective stratigraphy, mainly on the eastern half of the property; and,
- Nineteen previously drilled core holes were selected and recovered for geologic logging for 2019.

Approximately 1.5 kilometers north-northeast of Lik, reconnaissance geologic mapping and geochemical sampling in 2018 identified a geochemically anomalous area within stratigraphic rock units that host Red Dog district mineralization with the presence of pyritic shales at surface. Although a gravity high is coincident with this area, the high could also be associated with overlying carbonate rocks or complicated by topographic effects. This potential new target, informally called “North Area Prospect,” will be one of the primary work areas for 2019.

Objectives for the 2019 Lik exploration program include:

- Follow-up geologic mapping and geochemical sampling in the newly identified North Area Prospect.
- Multi-element continuous scan of historic core with state-of-the-art X-ray fluorescence scanning technology to further define the Lik deposit’s geochemical signature and characterize its distal geochemical halo to potentially vector in on new drill targets.
- Complete selective relogging of historic drill core from the Lik deposit to better understand its geologic characteristics.

The 2019 Lik exploration program will be jointly funded by Teck and Solitario and is expected to begin in April and be completed by the end of September. Teck will manage the 2019 program. Teck and Solitario anticipate signing an extension to the 2018 Exploration Agreement to facilitate the 2019 program within the next 90 days.

Review of Sale of Non-Core Royalty Properties

Solitario sold all four of its non-producing royalties during the past 12 months in two separate transactions. Combined, Solitario received approximately US\$686,000 in cash and a convertible note valued at approximately US\$262,000, for a total of \$948,000.

In April 2018, Solitario sold its royalty interest in the non-producing Yanacocha property (the “Yanacocha Royalty”) to a wholly owned subsidiary of Newmont Mining Corporation (“Newmont”) for approximately \$502,000 in cash. The Yanacocha Royalty covered 43 concessions totaling 36,052 hectares. Newmont owns the underlying mineral concessions covered by the Yanacocha Royalty. None of the concessions covered by the Yanacocha Royalty have any reported reserves or resources.

In January 2019 Solitario sold two royalties and an option to purchase a third royalty to SilverStream SEZC (“SilverStream”), a private Cayman Island royalty and streaming company. Solitario received CDN \$250,000 in cash (US\$184,625) and CDN \$350,000 (US\$262,500) in a one-year 5% convertible note as payment for the royalties and option. The note is convertible into SilverStream stock should SilverStream complete an IPO before the end of the one-year term. The royalties cover the 125,000-acre polymetallic Pedra Branca palladium, platinum, gold, nickel, cobalt and chrome project in Brazil and Solitario’s 3,880-acre Mexico royalty portfolio. The purchase option covers Solitario’s 16,500-acre Montana royalty portfolio.

G & A Cost Reduction Initiative

During the fourth quarter of 2018, management of Solitario undertook an initiative to identify General and Administrative expenditures that could be reduced or eliminated. Over US\$250,000 in annual cost reductions were identified. These ranged from salary and benefit reductions for all Officers and employees, to elimination of certain corporate functions and recurring corporate costs such as outside consulting and lease costs. These cost reductions were implemented at the first of the year.

Chris Herald commented, “Even though Solitario has ample financial resources in the Company with nearly US\$12 million in cash and marketable securities, we undertook this effort because of the depressed state of the junior mining industry and the resultant share performance of the industry, including Solitario, during 2018. This is what responsible management does when their interests are directly aligned with shareholders through significant equity positions in their company.”

Florida Canyon Drilling

Drilling at Florida Canyon will resume in April when the rainy season typically ends. Up to four core rigs are scheduled to complete the 41-hole, 17,000-meter drilling program. Assays for the first four core holes are expected to be received within the next couple of weeks.

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-pitabile 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 also holds a 7.6% equity interest in Vendetta Mining. Solitario’s Management and Directors hold approximately 9.2% (excluding options) of the Company’s 58.4 million shares outstanding. Solitario’s cash balance and marketable securities stand at approximately US\$12.0 million. Additional information about Solitario is available online at www.solitariozinc.com

FOR MORE INFORMATION ABOUT SOLITARIO, CONTACT:

Valerie Kimball Director – Investor Relations (800) 229-6827	Christopher E. Herald President & CEO (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 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 PEA. 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 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-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.