



July 24, 2023

SOLITARIO UPDATES PROGRESS ON ITS FLORIDA CANYON AND LIK ZINC PROJECTS WITH DRILLING ON BOTH PROJECTS

Denver, Colorado: Solitario Resources Corp. (“Solitario”) NYSE American: **XPL**; TSX: **SLR**) is pleased to announce the commencement of the 2023 work programs on its Florida Canyon zinc project in Peru and Lik zinc project in Alaska. Highlights of the planned 2023 program include drilling on both the Florida Canyon and Lik projects, and a new multi-year community agreement at Florida Canyon to support continued exploration.

Florida Canyon is held in a joint venture between Solitario (39%) and Nexa Resources (61%), the fifth largest zinc producer in the world (NYSE: NEXA) (“Nexa”). The Lik project is held in a joint venture between Solitario (50%) and Teck American Incorporated (50%), a wholly owned subsidiary of Teck Resources Limited, the world’s third largest zinc producer (TSX: TECK.A and TECK.B, NYSE: TECK) (“Teck”).

Florida Canyon

Drilling is expected to begin at Florida Canyon by mid-August. Approximately 4,000 meters of core drilling is planned with the initial exploration targets being extensions of the high-grade Florida Canyon zinc deposit to the south. Additional drilling may be conducted in other areas in and around the Florida Canyon deposit.

Importantly, Nexa recently signed a community agreement that allows for continued exploration on the property to the end of 2025 and paves the way for the completion of an access road to local communities and active project areas. Several communities currently do not have road access and this agreement will significantly improve community safety and provide new opportunities for sustainable commerce in the future.

Permitting is nearly complete to significantly expand the area for drilling in 2024 and beyond. The new application will enlarge the area permitted for drilling by approximately 500 percent where over 80 new drill sites are proposed in areas to the south, east and southeast of the Florida Canyon deposit. Multiple drill holes can be completed from each site. Two multi-kilometer trends identified over the last two years of field work have undrilled high-grade zinc mineralization at surface comparable to the surface mineralization at Florida Canyon.

Chris Herald, President and CEO of Solitario, commented, “It is important to once again be advancing the Florida Canyon project after the significant impacts that Covid had on our work programs during the past several years. Completion of the access road to local communities that currently have no road access demonstrates the social commitment Nexa and Solitario have to improving the social conditions in the areas we work.”

Lik Zinc Project

Drilling is anticipated to start at Lik in mid-August. Two step-out core holes are planned totaling over 700 meters (2,350 ft.). These two holes test for extensions of previously defined mineralization on the northeastern margin of the currently known resource footprint.

In addition, 120 line-kilometers of helicopter-borne ZTEM geophysical surveys will measure conductive features at depth. Flight-lines traversing the entire Lik property position will be spaced every 200 meters. ZTEM is an efficient and cost-effective geophysical method to define deep mineralization and will contribute to a better understanding of the down-dip continuation of the Lik deposit and other potential deeper mineralization below the Kelly River thrust plate.

Terms of the Florida Canyon

Solitario owns a 39% interest in the Florida Canyon project with Nexa owning a 61% interest. Nexa can earn a 70% interest in the Florida Canyon project by continuing to independently 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 for production on Florida Canyon joint venture properties.

About Solitario

Solitario is a natural resource exploration company focused on high-quality Tier-1 gold and zinc projects. The Company is traded on the NYSE American (“XPL”) and on the Toronto Stock Exchange (“SLR”). In addition to its Florida Canyon and Lik joint venture projects, Solitario owns a 100% interest in the 33,000-acre Golden Crest gold project in South Dakota. At Golden Crest, Solitario has discovered over fifteen areas with significant gold mineralization at surface and is currently permitting a drilling program to test for gold in the sub-surface. Solitario’s Management and Directors hold approximately 9.2% (excluding options) of the Company’s 65 million shares outstanding. Additional information about Solitario is available online at www.solitariozinc.com.

Solitario has a long history of commitment to the Environmental, Social and Responsible Governance (“ESG”) segments of our business. We realize ESG issues are important to investors, employees, and all stakeholders, including the culturally diverse communities in which we work. We are pledged to conduct our business in a manner that is both environmentally and socially constructive. Importantly, we selected 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 the industry in this important aspect of our business.

Walter Hunt, COO of Solitario, is a qualified person as defined by NI 43-101, Standards of Disclosure for Mineral Projects, responsible for approving the scientific and technical information contained in this news release.

For More Information Please Contact:

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 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 a mining 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.