

ASX ANNOUNCEMENT

01 March 2022

COLLABORATIVE EXPLORATION INCENTIVE GRANT AWARDED IN QLD

Great Southern Mining Limited (ASX: GSN, “Great Southern”) has been awarded a Collaborative Exploration Initiative (“CEI”) grant from the Queensland Government for a proposed ‘Calculated Mineralogy – FTIR and XRF’ program over a number of targets at its 100% owned Edinburgh Park Project in north Queensland.

Highlights

- Grant awarded for up to \$100,000 of program costs.
- Proposed program includes analysis of rock, soil and historical drill core samples using FTIR (Fourier-Transform Infrared Spectroscopy) with XRF (X-Ray Fluorescence) with AI interpretation.
- Program covers 5 prospects delineated to date including Molongle, Fish Creek, Leichhardt Creek, Edinburgh Park and Mt Dillon.
- This complete analysis opens the district to new economy minerals not previously the focus of historical exploration.
- Target minerals include known anomalism existing at the nearby Mt Carlton Gold Mine.



Figure 1 – Photo from the field trip to the Fish Creek prospect.

GSN’s Executive Chairman, John Terpu, commented:

“The Company is looking to advance a number of highly prospective drill targets at its Queensland project to drill testing in 2022 and the grant funds will provide the Company the opportunity to further validate the targets identified from the significant field programs undertaken by the exploration teams in 2021. I would like to thank the Queensland Government for their support of the mining and exploration sector.”

Program background

The Company’s tenements cover a sequence of Early Permian Lizzie Creek Volcanics and Permo-Carboniferous intrusives within the northern end of the Permian Bowen Basin that are favourable for the discovery of:

- Low Sulfidation and High Sulfidation epithermal gold-silver-trace metal deposits within major persistent fault zones and suitable Permian-Triassic rhyolitic and andesitic volcanic host lithologies; and
- Intrusive Related (IRGS) and Porphyry-style deposits within the underlying basement granite, adamellite, syenite, and granodiorite.

At the target scale, the geological lithologies vary from very fine grained, almost aphanitic tuffs, grading upwards to coarse volcanic breccias. Some intrusive rhyolites exhibit layering, in some cases they are presenting parallel flow bands and other instances are a convoluted and contorted flow banding. Some porphyritic rhyolites also have been mapped in the area. All of these lithologies have been assigned to the Lizzie Creek Volcanics, a suit of acid to meso-silicic volcanic rocks. Syenite, monzonite, andesite and diorite dykes crosscut the entire volcanic sequence.

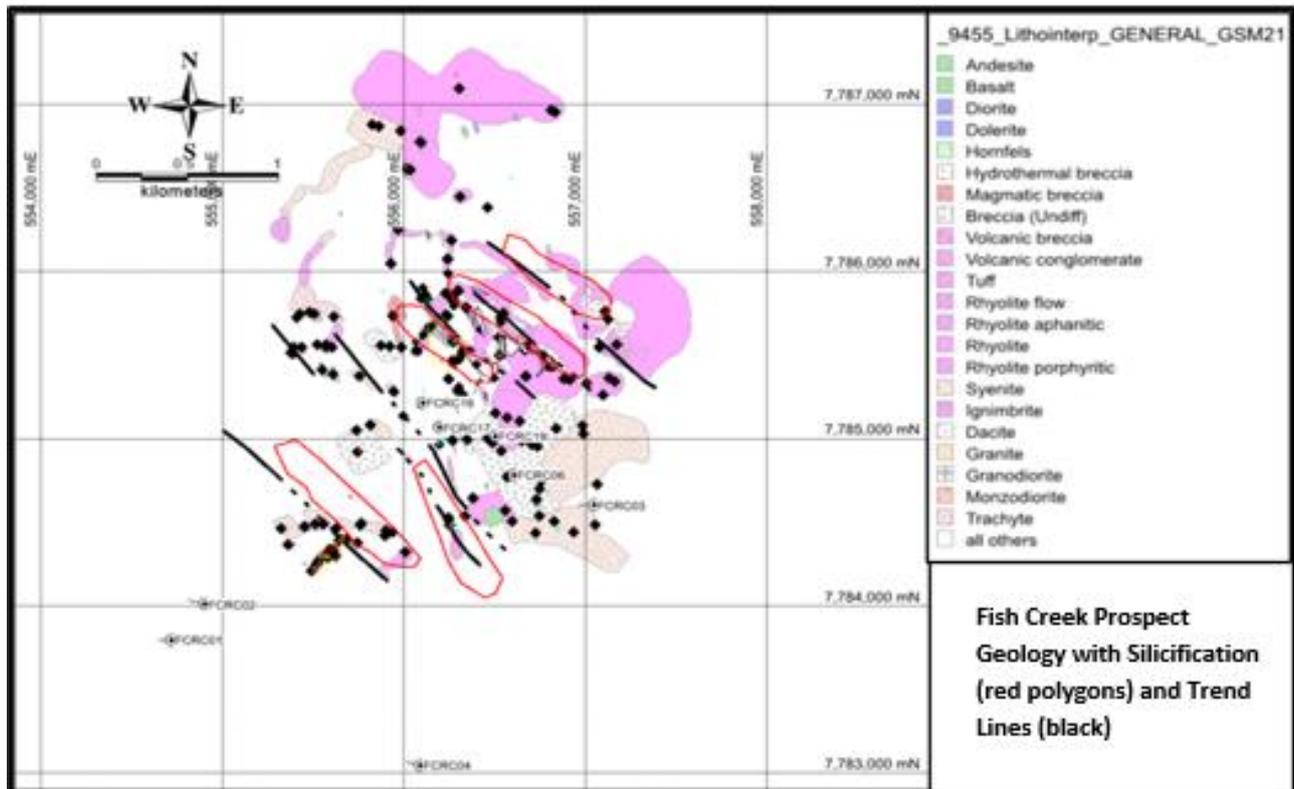


Figure 2: Fish Creek Prospect Geology as Mapped.

Figure 2 illustrates the mapped geology at the Fish Creek prospect. This mapping illustrates a series of northwest trending zones of silicification that have been identified. These are generally aligned with a regional suite of lineaments that correlate with a swarm of andesitic dikes. The zones of silicification within the volcanic sequences are generally considered to be a favourable alteration indicator for possible mineralization.

Alteration associated with epithermal deposits, such as Mt Carlton (owned by Navarre Minerals Limited (ASX: NML)), includes silicic cores with haloes of advanced argillic minerals, such as alunite, dickite, kaolinite, pyrophyllite, diaspore, and pyrite.

The Hyperspectral survey flown in 2019 and co-funded by Evolution Mining Limited was the first data set that recognised the advanced argillic alteration assemblage at Fish Creek. GSN has been using this association as target mineralogies for regional hyperspectral mapping, and local hand specimen spectral analysis as tools, along with geology and magnetics surveys, to assist identification and delineation of prospectivity for epithermal, high-sulphide epithermal, and porphyry styles of gold and copper mineralisation. Figure 3 illustrates the alteration spectra mapping that has been completed over the Fish Creek prospect geological mapping in that is displayed in Figure 2.

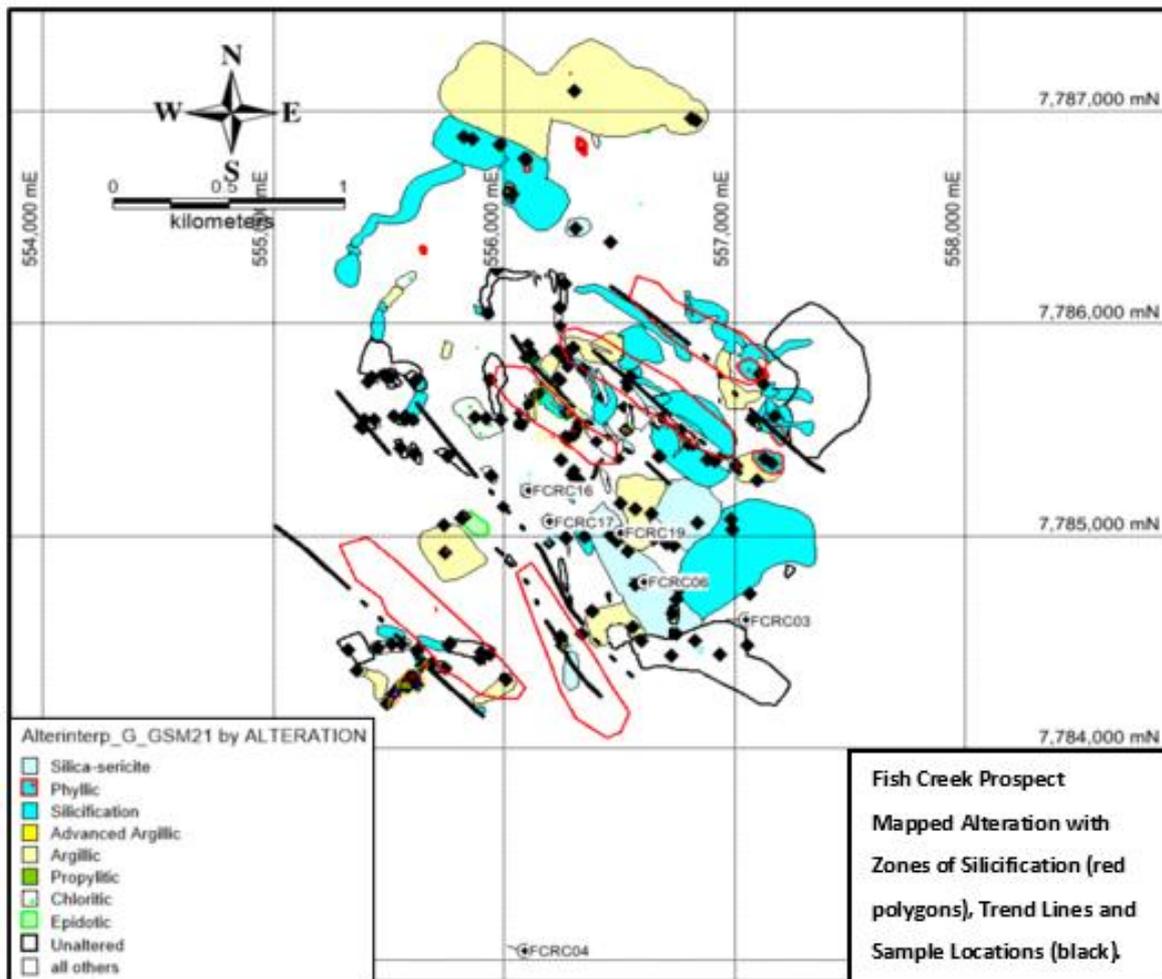


Figure 3 - Fish Creek Prospect SWIR Alteration Mapping

Similar spectra associations have also been identified at additional targets delineated from the Hyperspectral survey at Molongle, Mt Dillon, Leichhardt Creek and Edinburgh Castle prospects shown in Figure 4.

The CEI funding of \$100,000 shall support the collection and analysis of rock chip, soil, and drill core samples for detailed Short Wave Infra-Red (SWIR) analyses to assist the further delineation and persistence of these alteration mineralogies from both surface and sub-surface sampling programs. A drill proposal has been prepared for the Fish Creek prospect to complement the previous drilling proposal for the Molongle prospect. These are now presently subject to peer review

This announcement is authorised by the Executive Chairman on behalf of the Board of GSN.

For Further Information Contact:

John Terpu, Executive Chairman

+61 8 9240 4111

About the Edinburgh Park Project in Queensland

The Edinburgh Park project comprises 6 Exploration Permits for Minerals (EPM's) 26810, 26527, 27130, 27131, 25196, and 27506 covering 1,062 square kilometers (Figure 4). The project is a greenfields exploration project in the target generational phase, considered prospective for porphyry copper-molybdenum, Intrusive related gold systems (IRGS) deposits and epithermal gold-silver deposits. The area is considered under-explored with only minor exploration activities over the past fifteen year since the discovery in 2005 of the Mt Carlton multi-million-ounce gold deposit, which is located adjacent the project tenure (Figure 4).

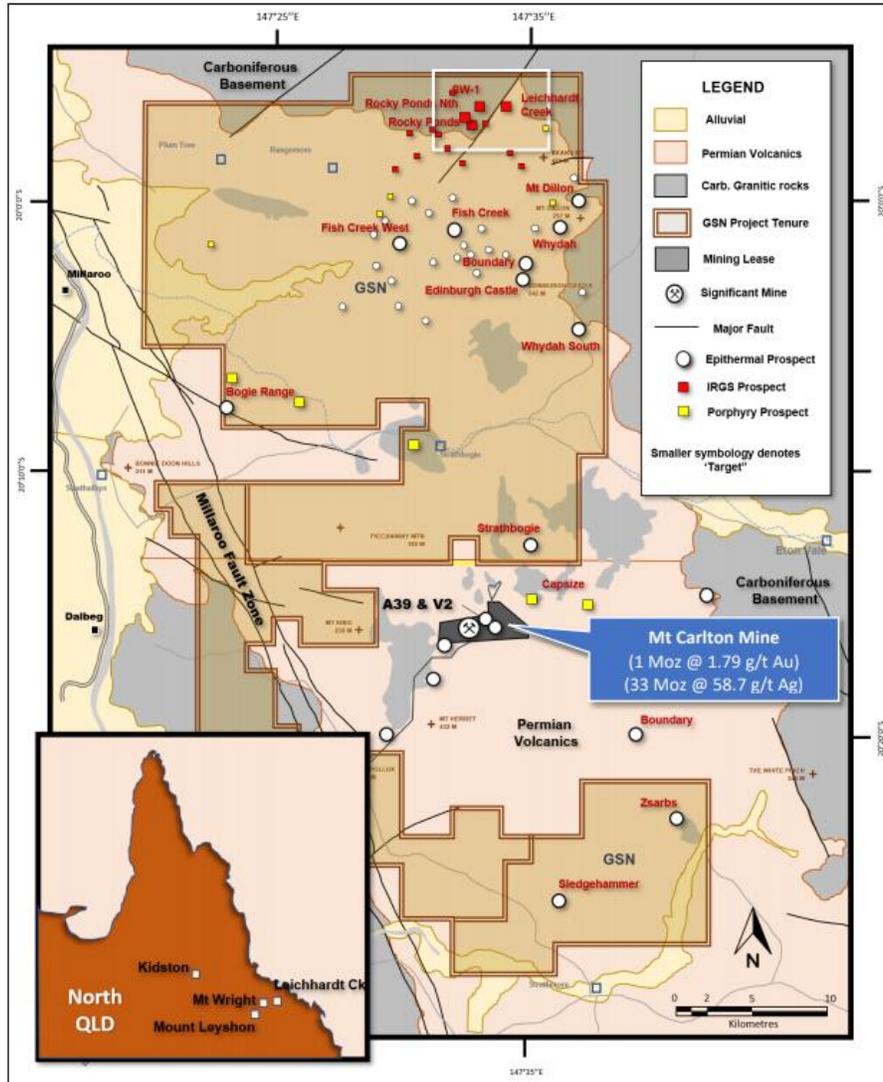


Figure 4 - Location and geology of GSN's Edinburgh Park Project



About Great Southern Mining

Great Southern Mining Limited is a leading Australian listed exploration company. With significant land holdings in the world-renowned mining districts of Laverton in Western Australia and Mt Carlton in North Queensland, all projects are located within 25km of operating mills and major operations.

The Company's focus is on creating shareholder wealth through efficient exploration programs and strategic acquisitions of projects that complement the Company's existing portfolio of quality assets.

For further information regarding Great Southern Mining Limited please visit the ASX platform (ASX:GSN) or the Company's website www.gsml.com.au.

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