

PORPHYRY TARGETS IDENTIFIED AT EDINBURGH PARK, NORTH QUEENSLAND.

Great Southern Mining (ASX: GSN) (the “Company” or “GSN”) is pleased to provide an update on exploration activities at the Company’s 100%-owned Edinburgh Park Project in north Queensland, following additional recent interpretation of hyperspectral imagery data obtained from the survey flown in October 2019, co-funded by Evolution Mining Limited (ASX:EVN).

KEY POINTS

- **Nineteen (19) illumination targets consistent with porphyry mineralisation alteration systems were identified from the second phase of the hyperspectral processing.**
- **Three (3) are considered to be high priority targets and a further ten (10) are secondary targets.**
- **A large geochemical soil program at Leichhardt Creek prospect has commenced.**
- **Additional extensive surface geochemical programs are being planned over the Edinburgh Castle Area prospects; all exhibiting large geological alteration footprints consistent with Mt Carlton-style high-sulphidation epithermal mineralization.**
- **Reconnaissance on-ground mapping campaigns over other priority targets to commence in June.**
- **Successful application for additional tenure, immediately adjacent to Evolution Mining Limited’s Mt Carlton gold mine.**

GSN’s COO Mark Major commented:

“Exploration has significantly progressed the understanding of the Edinburgh Park indicating potential for a Tier-1 deposit. Multiple large-scale epithermal systems have been identified along with new IRGS and porphyry mineralisation. Our attention is now focused on getting on the ground to follow up these targets.

“The company’s philosophy has been to employ modern ‘smarter’ exploration techniques to screen the whole project and allow a focus on the key targets, reducing time and expenditure.

“We have close to 15 priority targets, several of which are at the Leichhardt Creek area, where our initial soil geochemical program is being undertaken. We look forward to seeing the assay results over this extensive porphyry stockwork system which has never been sampled for gold or silver.

“Additional geochemical and mapping programs are being planned over the other high priority areas following the Leichhardt Creek geochemical program. We are looking forward to staffing up and getting the boots on the ground to explore these exciting targets.”

ASX ANNOUNCEMENT 27 May 2020

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Non-Executive Director
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CAPITAL STRUCTURE

Share Price (26/5/20) \$0.094

Shares on Issue 402,962,438

Market Cap \$37.8mil
(@ \$0.094)

ASX: GSN

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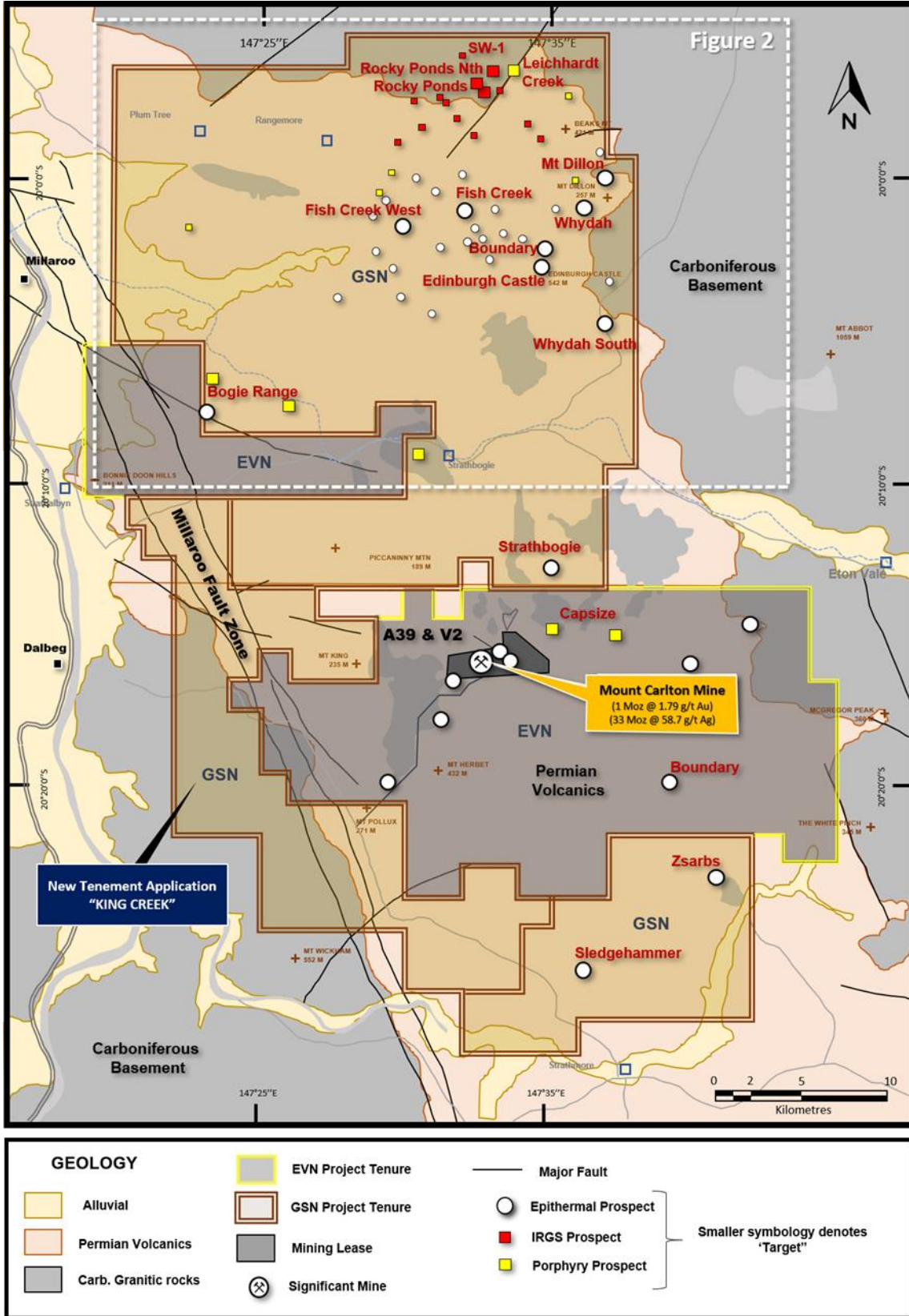


Figure 1: Project location highlighting regional geology, project tenure and location of prospects.

Hyperspectral Interpretation Results

This phase of the hyperspectral interpretation was focused on identifying porphyry and intrusive related (IRGS) mineralized alteration footprints to enhance the initial interpretation which identified many significant high-sulphidation hydrothermal centers or 'hot spots'.

The newly identified porphyry targets support the potential for multiple mineralized deposit discoveries within similar NE-trending structural corridors within the Permian volcanics (Figure 1 to Figure 3) and Carboniferous to Permian basement terranes which are exposed between or around the margins of the Permian volcanics. Mineral mapping and hyperspectral images for several of these prospects are presented in Figure 2 and are identified through strong chlorite-white mica alteration mineralogy.

Three (3) prospects are considered high priority targets due to the scale of the alteration zones evident in the hyperspectral data which can extend up to ~2 km and the evidence of alteration zonation. A number of secondary targets show smaller scale scattered or 'diffuse' target alteration which may reflect limited outcrop or the effects of vegetation masking.

Geochemical Programs

The Company has commenced geochemical survey work over the prospective porphyry and IRGS area in the projects north and also high and low-sulphidation epithermal targets centered around Edinburgh Castle. The geochemical mapping programs will also be the first systematic gold focused exploration program undertaken over highly prospective targets, identified from interpretation of hyperspectral data with geological mapping and geophysics.

Leichhardt Creek Area.

GSN is currently completing its initial geochemical survey of soil samples and selective rock chip sampling over a 10 km² area covering the porphyry stockwork north of Beaks Mountain within the Leichhardt Creek area (Figure 3). This survey is designed to test for gold in association with the molybdenum and copper bearing stockworks in addition to sheeted vein or disseminated IRGS style mineralization (ASX Release dated 6 February, 2019). Porphyry mineralization at Leichhardt Creek is associated with multiple intrusions and porphyritic dykes of diorite to quartz monzonite composition with associated stockwork sulphide and quartz-sulphide vein development and fracture fill. Multiple breccia occurrences (e.g., Rocky Ponds) are present along the margins of the stockwork zones, and are associated with Au-Ag-Cu mineralisation (ASX Release dated 4 July, 2019).

The geochemical mapping and sampling program are in progress and includes 700 soil samples. It is envisaged the field program will be completed by end of June with assays expected to be received within 3 weeks of submission.

Additional rock chip samples will be taken from featured outcrops for multi-element analysis and alteration mineralogy determination (ASD mineral mapping). These samples will help calibrate and support/extend interpretations of the hyperspectral data.

Other recently defined epithermal targets.

The recent acquisition of hyperspectral data has accelerated the exploration program to pinpoint multiple, large epithermal gold targets highlighting the more prospective areas of GSN's tenure and concentrate GSN's discovery efforts and field exploration funds (ASX Release dated 15 April, 2020).

At completion of the Leichhardt Creek program, GSN will commence priority geochemical sampling program centered around the Edinburgh castle prospect that will cover an area of approximately 75km² with an estimated 2,000 samples to be collected along the prominent structural corridor with multiple high and low sulphidation targets (including the high priority Fish Creek, Mt Dillon prospects) identified through hyperspectral alteration mapping.

The sample grid is still to be defined, pending follow-up field investigations on multiple targets.

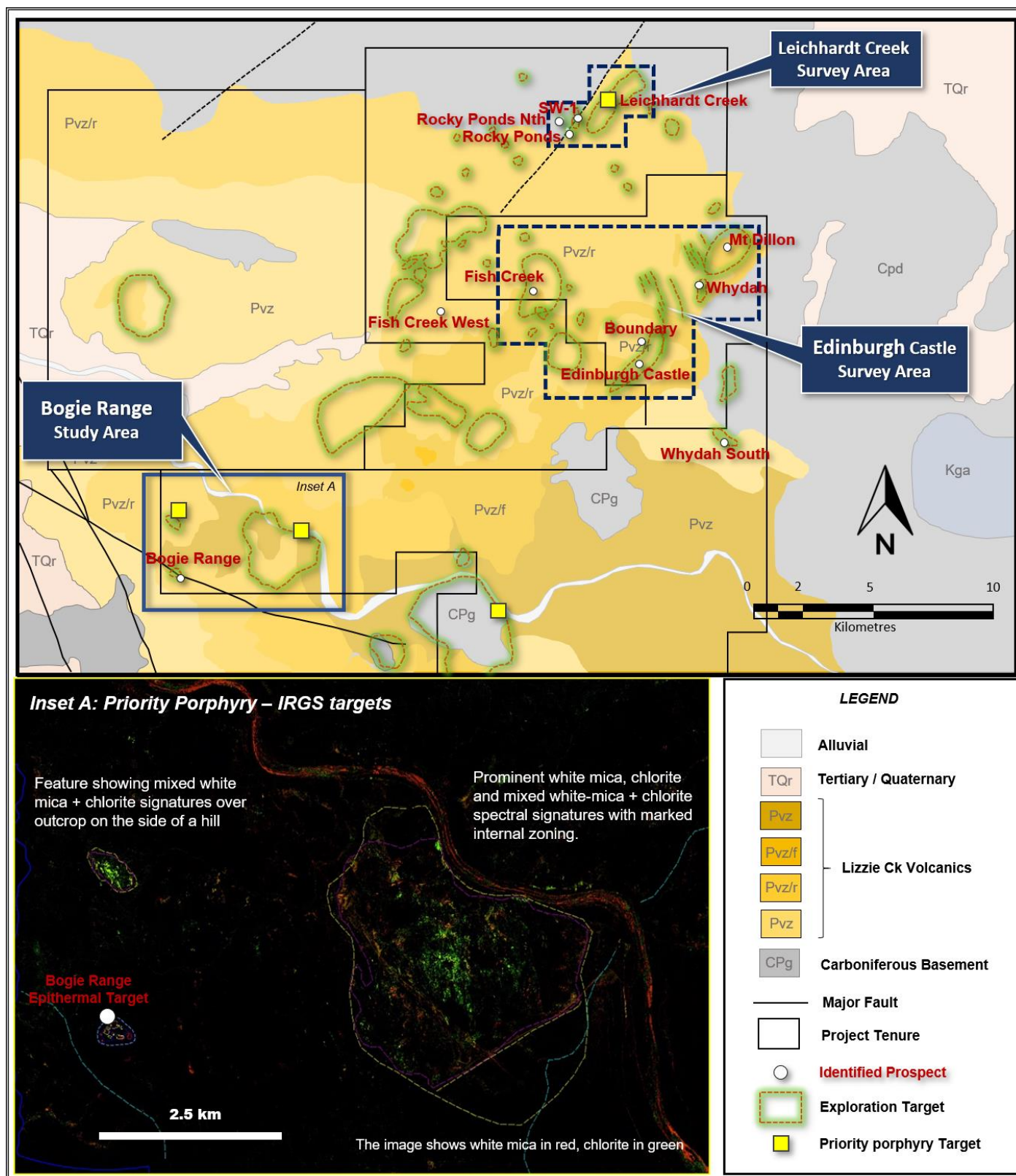


Figure 2. (above) Geology and exploration targets with location of key prospects and extent of geochemical mapping programs; (below) Example of white mica-chlorite targets north and east of Bogie Range prospect identified in the hyperspectral imaging.

New tenement acquisition

On the 1st April 2020 Great Southern Mining made an application for a further exploration license (EPM 27506) covering 229.4km² increasing its Edinburgh project tenement holding in the region to more than 1200 km² in this highly prospective area (Figure 1).

The King Creek Permit EPM 27506 is located to the east of Evolution Mining Limited's (ASX: EVN) Mt Carlton Gold Project where gold prospectivity along a prominent NNE-trending structural trend has emerged, a structural zone which projects through the King Creek Application area.

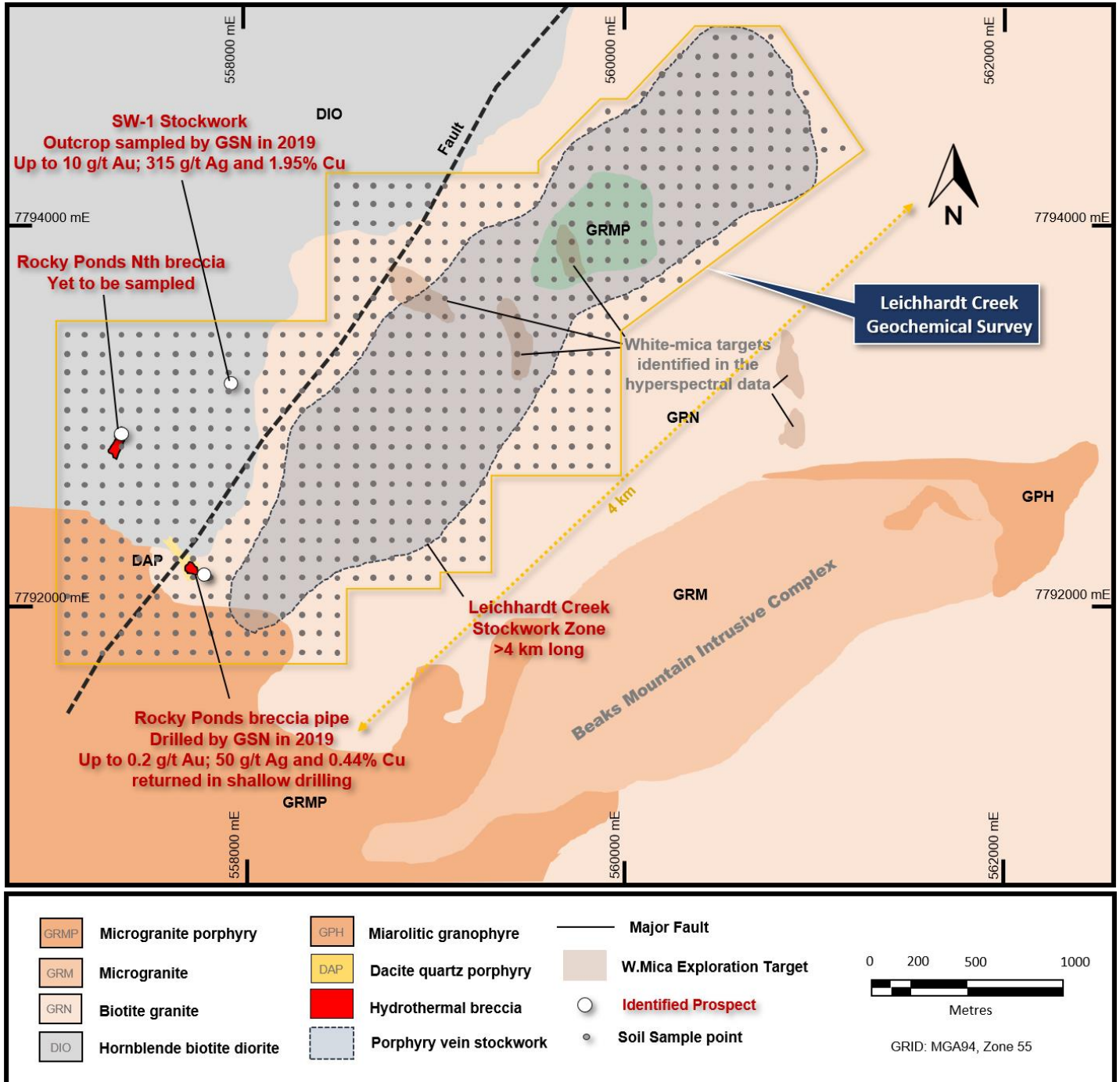


Figure 3. Geology and exploration targets at Leichhardt Creek showing the planned geochemical survey



Background

The Edinburgh Park project comprises six (6) Exploration Permits for Minerals (EPM's) 26810, 26527, 27130, 27131, 25196, and 27506 covering 1006 square kilometers (Figure 1). 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 years since the discovery of the Mt Carlton multi-million-ounce gold deposit in 2005 which is located adjacent the project tenure (Figure 1).

In late 2019, GSN, in partnership with Evolution Mining Ltd (see ASX Release date 9 October 2019), commissioned US-based contractor SPECTIR International to acquire project wide airborne hyperspectral data over the Edinburgh Park project covering some 1,000 square kilometers. The processed data was received in late March 2020. GSN then engaged hyperspectral specialists, to process and interpret the data, with preliminary mineral maps targeting epithermal minerals systems being recently made available to the GSN exploration team for review (see ASX Release date 15 April 2020).

Further announcements in relation to the Edinburgh Park Project can be found below:

Date	Announcement
15-04-20	Hyperspectral Survey identifies large gold target at Edinburgh Park
08-11-19	GSN to partner with Evolution Mining on Hyperspectral Survey
05-07-19	Reconnaissance drilling update - Rocky Ponds Breccia
14-02-19	High grade rock chips returned at Edinburgh Park Project
11-02-19	Edinburgh Park Project - Rocky Ponds Breccia
06-02-19	Porphyry system identified at Edinburgh Park Project

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The release of this ASX announcement was authorised by the Executive Chairman of the Company.

ABOUT GREAT SOUTHERN MINING LIMITED

Great Southern Mining Limited is a Western Australian based Company listed on the ASX. Its aim is to become a leading gold exploration Company in Australia. With significant land holdings in the world-renowned gold districts of Laverton in Western Australia and the Mt Carlton Region of North Queensland, all projects are located within 25km of operating gold mills and major gold operations.

The Company's focus is on creating and capturing 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.

Competent Person's Statement

The information in this report that relates to exploration targets and exploration results on EPM's 26810, 26527, 27130, 27131, 25196, and EPMA 27506 is based on, and fairly represents, information and supporting documentation compiled by Dr Bryce Healy. Dr Healy is an employee of Noventum Group Pty Ltd (ACN 624 875 323) and has been engaged by Great Southern Mining Limited as Head of Exploration. He has sufficient experience relevant to the style of mineralization and type of deposit under consideration. Dr Healy is a Member of the Australian Institute of Geoscientists and as such, is a Competent Person for the Reporting of Exploration Results, Mineral Resources and Ore Reserves under the JORC Code (2012). Dr Healy consents to the inclusion in the report of the matters based on his information in the form and context in which they occur.

Forward Looking Statements

Forward- looking statements are only predictions and are not guaranteed. They are subject to known and unknown risks, uncertainties and assumptions, some of which are outside the control of the Company. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. The occurrence of events in the future are subject to risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements to differ from those referred to in this announcement. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward- looking statements in this announcement speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and the ASX Listing Rules, the Company, its directors, officers, employees and agents do not give any assurance or guarantee that the occurrence of the events referred to in this announcement will occur as contemplate.