



ASX Announcement – 11 February 2019

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New Breccia-hosted gold target identified at Edinburgh Park Project, Queensland

Outstanding discovery opportunity as a result of reconnaissance geological mapping and rock chip sampling.

HIGHLIGHTS

- Exciting new gold exploration opportunity identified at GSN's 100%-owned Edinburgh Park Project at a prospect known as 'Rocky Ponds' breccia.
- Recent geological mapping and geochemical sampling indicate high-level breccia-hosted intrusive-related gold system (IRGS).
- Notable IRGS breccia-hosted gold deposits in north-east Queensland include Kidston (5 Moz), Mount Leyshon (3.5 Moz), Mt Wright (1.0 Moz) and Welcome (0.21 Moz).
- The exposed dimensions of the pipe are similar to that of the high-grade Welcome breccia pipe located 40 km to the west, owned by Resolute Mining Limited (ASX:RSG).
- Preliminary rock chip samples at surface returned up to **0.38 g/t gold** and **6.9 g/t Ag silver** confirming associated gold and silver mineralisation.
- Approvals and consents for Reverse Circulation (RC) and diamond drill testing of this exciting discovery opportunity are currently being fast-tracked.

GSN's Executive Chairman, John Terpu, commented:

"The Rocky Ponds breccia prospect is an exciting near-term discovery opportunity for the Company and reaffirms our opinion that we have secured a large area of highly prospective and underexplored tenure. This breccia is one of a number of prospects we are targeting and we will be updating the market in the coming months as our exploration programs continue. The breccia is shaping up technically as a genuine intrusive related gold system, with size, an abundance of gossanous infill and evidence of gold grade. It has analogues elsewhere in the region that are economic and for these reasons we have decided to move quickly to undertake drilling on the target."

The breccia pipes along with the large porphyry system announced 6 February 2019 provides the Company with significant growth potential and discovery opportunities in North Queensland."

For more information:

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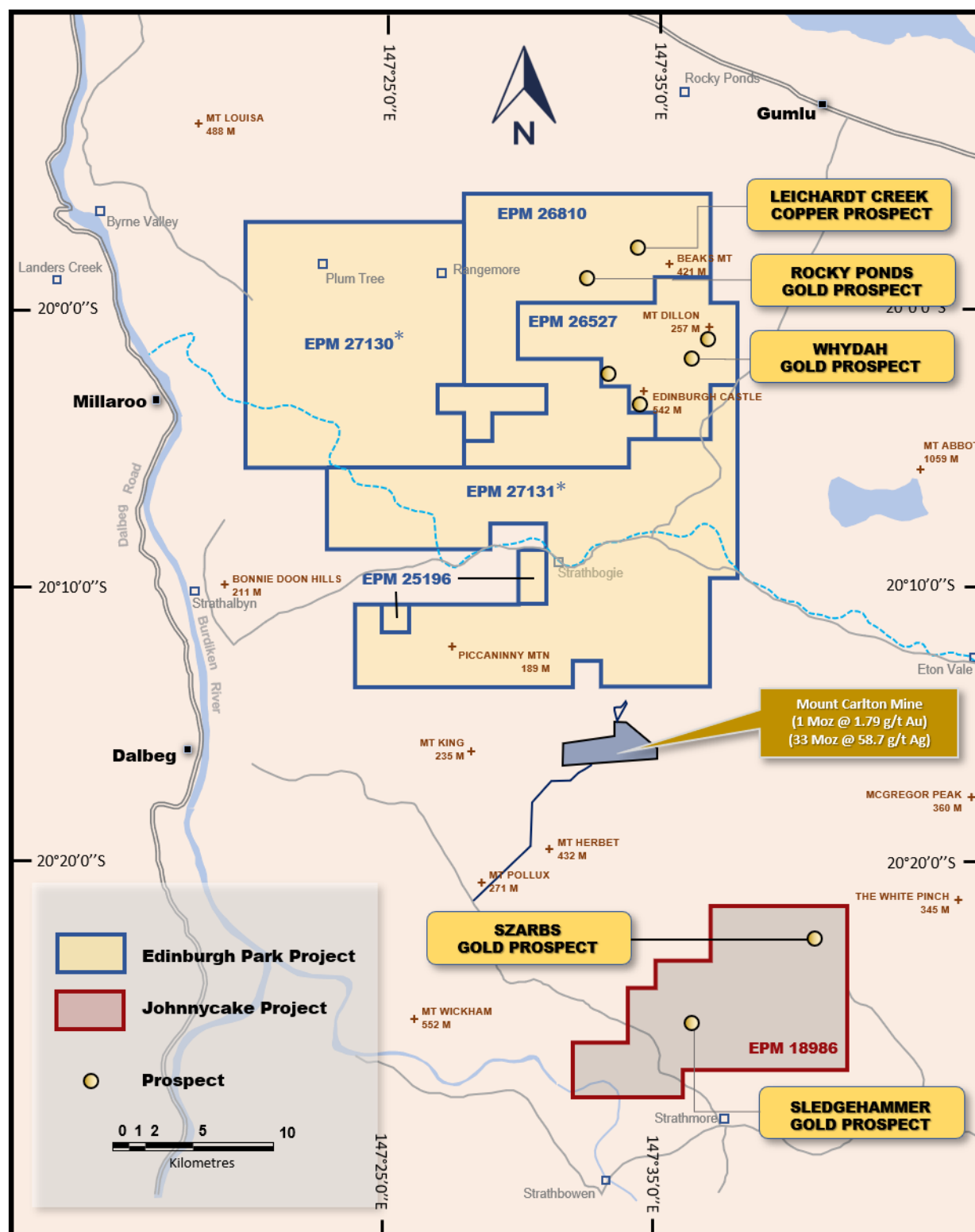


Figure 1: Location of EPM 26810, the Rocky Ponds Prospect.

* During the period to 31 December 2018 the Company lodged applications to acquire 2 additional tenements in North Queensland. EPM 27130 and EPM 27131. The Directors are not aware of any reason that would result in the tenements not being granted to the Company.

Great Southern Mining Limited (ASX Code: GSN) is pleased to advise that it has identified an exceptional gold target at the Company's 100%-owned Edinburgh Park Project located 20 km north of Mount Carlton gold mine near Townsville in north-east Queensland (Figure 1).

The breccia pipe was identified as a result of recent reconnaissance geological mapping and rock chip sampling programmes carried out by GSN's geological team. Regional to prospect scale geochemical programs are ongoing, however, based on the quality of the exploration target the Company has decided to fast-track a Reverse Circulation (RC) and diamond drilling programme which is planned to commence in late Q1 2019 following receipt of appropriate regulatory approvals.

The Rocky Ponds breccia is interpreted to be a sub-volcanic breccia pipe of broadly 100 x 60m surface expression, of likely significant vertical extent, and connected to a porphyry intrusive at depth.

Magmatic hydrothermal breccia pipes are formed in response to volatile hydrofracturing of rocks by highly pressured hydrothermal fluids derived from, and physically connected to, the carapace of commonly unseen magmatic sources at depth, e.g., Cu-Au-Mo porphyry's (Figure 2). Interpreted injection to collapse brecciation is commonly followed by later mineralisation events within the formed breccia pipe.

In north-east Queensland, similar style breccia pipes are important hosts to significant intrusive related gold systems (IRGS) mineralisation where a cluster of deposits are linked to Early Carboniferous to mid-Permian (345- 260 Ma) age intrusive events. Notable breccia-hosted IRGS gold deposits in north-east Queensland include, Kidston (5.0 Moz), Mt Leyshon (3.5 Moz), Mt Wright (1.3 Moz) and Welcome (0.21 Moz).

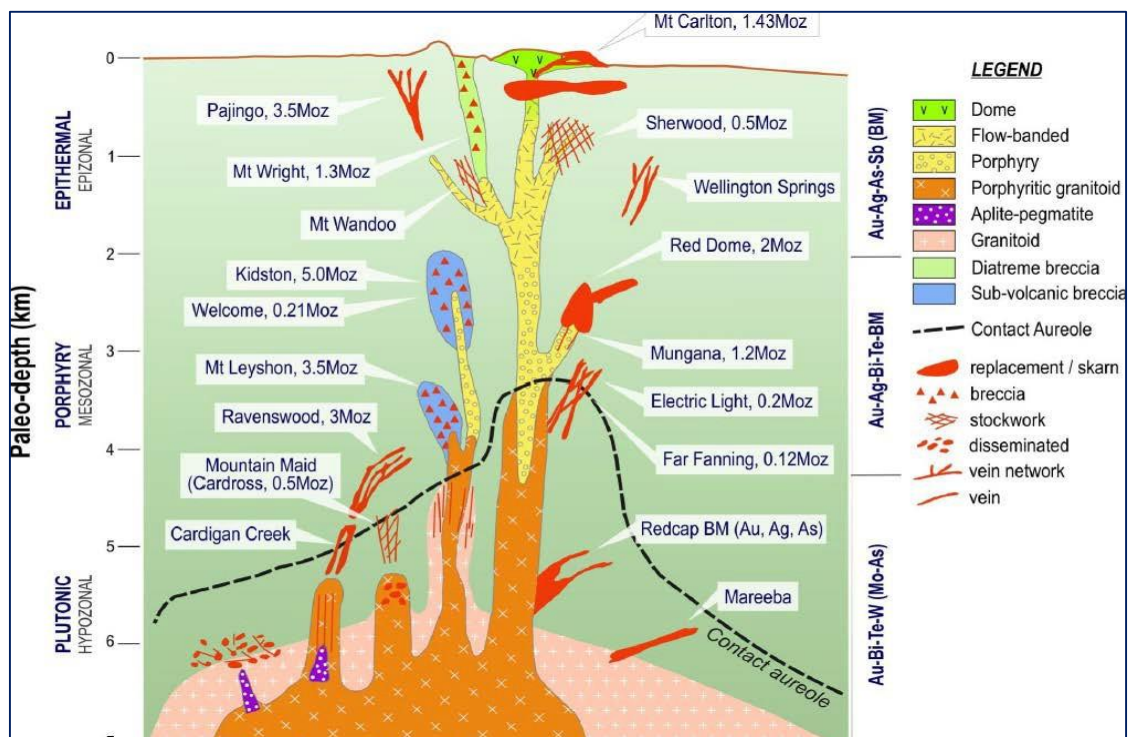


Figure 2: Intrusion Related Gold System (IRGS) Model with north-Queensland examples.

Source: Morrison, G., 2017. Intrusion-Related Gold Deposits in North Queensland. GSQ Project final meeting December 07, 2017

The Rocky Ponds breccia is located in granted EPM 26810 which together with EPM 26527 forms the Edinburgh Park project. GSN also has a number of additional EPM applications that significantly expand the project footprint (refer Figure 1). The project is located approximately 40 km east of Mt Wright and Welcome gold deposits and 20 km north of the Mt Carlton gold deposit at the northern end of the Bowen Basin, at the margin between the Carboniferous basement and the overlying Permian Volcanics (Lizzie Creek Volcanics). In the east of the EPM, the majority of the areas mapped are underlain by granitoids that are interpreted to be part of Carboniferous-Permian Coast Range Igneous Province. A few outliers of intermediate to acid pyroclastic and volcanoclastic rocks (Permo-Triassic Lizzie Creek Volcanics) overlie the granitoids.

The breccia system at Rocky Ponds encompass two low hills that sit prominently alongside a station track (Figure 3). The southern outcrop exposures are highly weathered, oxidised and potentially geochemically leached of metal content.

At the surface, the main pipe is an oval shape with a long axis of approximately 100 metres to the north-northwest. The host rock is a dacite feldspar porphyry. The breccia is clast supported and polymict, with clasts typically 0.1 – 0.5 metres diameter. It is extensively brecciated with fine to coarse comb quartz and abundant gossan infill with strong phyllic alteration (Figure 4).

There is evidence of multiple phases of brecciation, quartz veining and sulphide mineralisation, both as disseminations and comb quartz cavity infills (Figure 4). Peripheral sheeted and stockworked quartz veining with abundant iron oxide after sulphide are noted in several localities marginal to the breccia pipe and extending up to 100 metres from the breccia pipe itself.

Preliminary rock chip sampling confirms gold and silver anomalism with the Rocky Ponds breccia returning up to **0.38 g/t Au** and **6.9 g/t Ag** and associated elevated levels of indicator elements such as Bi. The low-level surface gold anomalism is consistent with the Mount Wright and Welcome breccia systems where surface geochemical Au was low in assay returned on rock chip samples.

Gold was discovered at Mount Wright in 1917 and some production occurred before 1942 from nearby. Drilling in the 1980s found a small lode which was mined in the 1990s. The main deposit was discovered in 1992 by deep conceptual drilling of a poorly mineralised hydrothermal breccia, with Au significant mineralisation occurring from 150 metres depth and continuing to about 850 metres (mined depth by 2016).

Welcome Breccia had some historical mining and exploration to about 40 metres depth. It is a vertical granodiorite breccia pipe. Drilling exploration from 2010 by Resolute has identified a gold resource of 208 Koz, mostly within 300 – 500 metres depth below surface but the mineralisation continues to at least about 800 metres.

Breccia pipe occurrences typically show a strong vertical metal zonation at the deposit scale through the pipe. The weak gold and silver content at surface in leached and heavily weathered outcrop samples is highly encouraging for the potential development of economic gold grades within the pipe at depth within a better developed 'ore zone'. The planned drilling will test this exploration concept.

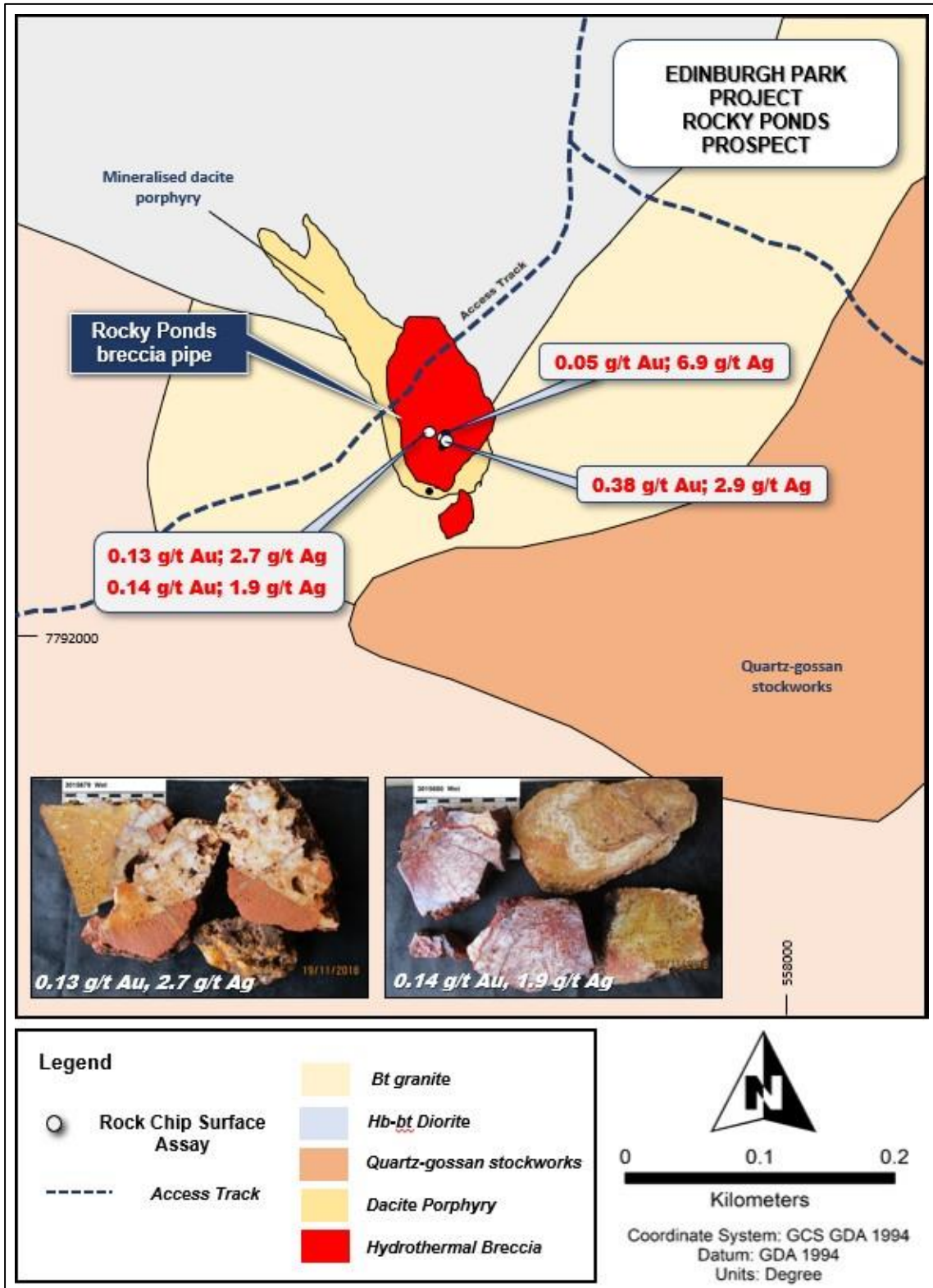


Figure 3: Geological Mapping and sampling at the Rocky Ponds Prospect

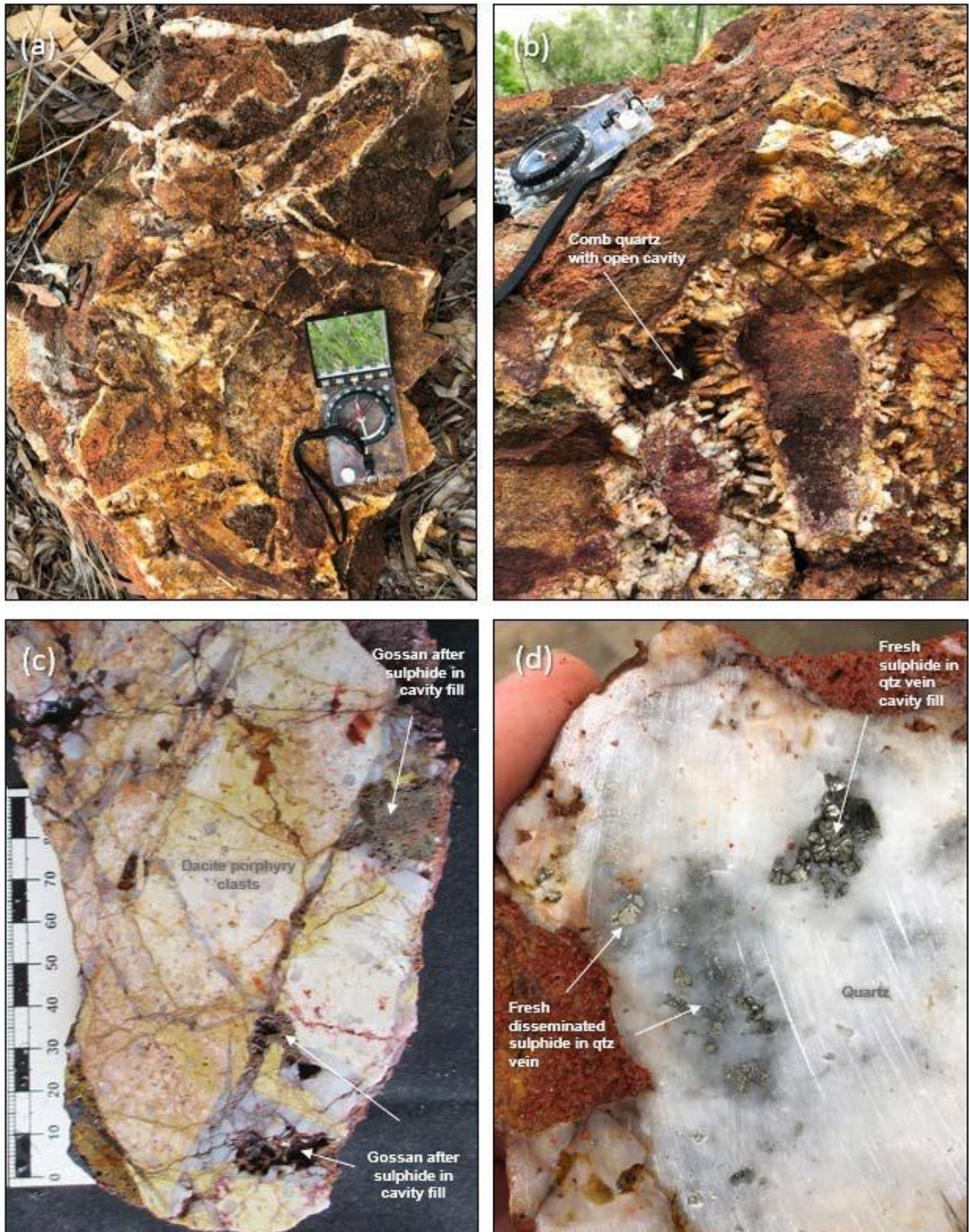


Figure 4: Examples of brecciation and mineralisation in outcrop and rock chip samples from the Rocky Ponds Prospect

Competent Person's Statement

The information in this report that relates to exploration targets and exploration results on EPM 26527 and EPM 26810 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 mineralisation and type of deposit under consideration. Dr Healy is a Member of the Australasian 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.

Table 1: Rock chip assay results

Sample Number	Easting	Northing	Au	Ag	Cu	Mo	Zn	Pb	Bi
	(MGA94)	(MGA94)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
3017281	557707	7792164	0.05	6.9	29	4	16	6	<2
3017282	557710	7792163	0.38	2.9	14	11	6	6	2
3015678	557705	7792170	<0.01	0.5	15	7	29	67	4
3015679	557705	7792170	0.13	2.7	45	9	29	19	5
3015680	557705	7792170	0.14	1.9	44	8	24	20	3
3015681	557718	7792165	0.08	1.8	44	34	58	38	4
3015682	557718	7792165	0.03	2	15	17	20	11	4
3015683	557701	7792128	<0.01	0.5	112	2	46	29	2

ANNEXURE 2 - JORC Code, 2012 Edition – Table 1 Report

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where ‘industry standard’ work has been done, this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> <i>Rock chip samples are grab samples collected from specific geological features of interest. 1-2 kg of sample was collected which was crushed, pulverized and split to produce charge for Fire assay and four acid digest.</i>
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	<ul style="list-style-type: none"> <i>Not Applicable</i>
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> <i>Not Applicable</i>
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> <i>Geological logging has primarily been quantitative and the database contains the lithological data for all rock chips</i>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> <i>1-2 kg samples were collected from exposed outcrop and transported to ALS laboratories in Townsville for preparation and assay. All samples were crushed to >70% - 6mm and pulverized</i>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> <i>6 rock chip samples were submitted to ALS Minerals laboratories, Townsville for the determination of Au by fire assay (AA26) and a 33 element suite (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W, Zn) by four acid ICP - AES.</i> <i>Samples were sorted, dried, crushed, splitting 1-2 kg and pulverizing >70% passing -75 micron.</i> <i>No geophysical tools were used.</i> <i>Inclusion of 1 standards was used by GSN as well as the laboratory.</i>

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> <i>All samples and locations are digitally logged in the field and all primary data is forwarded to GSN database in Perth. Assay data is electronically merged when received from the laboratory and made available to the project geologist to verify against the samples in the field.</i> <i>No adjustments or calibrations are made to any of the assay data recorded in the database.</i>
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> <i>Rock chip samples were recorded using a hand held GPS with $\pm 3m$ accuracy.</i>
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> <i>Data distribution is based on availability of relevant outcrop</i>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> <i>Rock chip sampling is based on outcrop distribution. A link between outcrop distribution and geological structure has not been established at this stage</i>

Criteria	JORC Code explanation	Commentary
Sample security	<ul style="list-style-type: none">The measures taken to ensure sample security.	<ul style="list-style-type: none"><i>Samples for geochemical analysis were transported directly from site to ALS in Townsville in the custody of the field team where upon receipt the samples are officially checked in and appropriate chain of custody documentation received.</i><i>All sample information is kept in paper and digital form. Digital data is backed up onto the Company server regularly and then externally backed up daily.</i>
Audits or reviews	<ul style="list-style-type: none">The results of any audits or reviews of sampling techniques and data.	<ul style="list-style-type: none"><i>No external audits have been completed to date</i>

JORC Code, 2012 Edition – Table 1

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> <i>GSN has a 100% interest in EPM 26810. An Exploration Agreement has been signed with the relevant Native Title Claim Group.</i> <i>The tenement is in good standing and there are no known impediments to exploration in the area.</i>
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> <i>No exploration by other parties has been reviewed that relates to GSNs' exploration target.</i> <i>This report concerns exploration results generated by GSN.</i>
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> <i>The mineralisation at Rocky Ponds is typical of Intrusive Related Gold Systems hosted within a Carboniferous to Permian age intrusives/volcanic sequences near the margin of the Bowen basin. The target mineralization controls on the system is breccia pipe hosted and future drilling will test the pipe dimensions and orientation.</i> <i>A summary of the geology is outlined in the body of this report</i>
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul style="list-style-type: none"> easting and northing of the drillhole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar dip and azimuth of the hole downhole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> <i>No drilling was undertaken</i>

Criteria	JORC Code explanation	
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> <i>No relevant program was undertaken</i>
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> <i>Appropriate diagrams, Figures 2 and 3, show the spatial distribution in plan view of the results relevant to this report</i>
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> <i>The competent person believes this report to be a balanced representation of exploration undertaken</i>
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> <i>No substantial exploration has been undertaken on the Rocky Ponds breccia.</i>
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> <i>The results will be further evaluated with a view to commencing a drilling program to target a number of hydrothermal breccias that have been mapped.</i>