



## GREATER FOSTERVILLE UPDATE

### Key Points

- **Terms agreed with the Dja Dja Wurrung traditional owners (DJAARA) for exploration activities to proceed over the Greater Fosterville Exploration Licence Application (ELA) under a Land Use Activity Agreement, of which 93% of the ELA area falls within DJAARA lands**
- **Negotiations underway with the Taungurung traditional owners for the remaining 7% of the ELA that falls within their lands**
- **Reprocessing of inherited induced polarisation (IP) geophysical data highlights its potential as a vector for gold mineralisation at Fosterville and the presence of several such anomalies on S2's ELA**

S2 Resources Ltd ("S2" or the "Company") advises that it is progressing its Greater Fosterville Exploration Licence application (ELA), through advancement of negotiations relating to key agreements with Traditional Owners, and is also enhancing its exploration capability through the reprocessing of inherited geophysical data, which has identified Induced Polarisation (IP) geophysics as a key method for identifying the signature of gold mineralised settings.

### Traditional Owner Agreements

The Company is progressing agreements with traditional owners that are a pre-requisite for the grant of the Greater Fosterville ELA.

S2 and the Dja Dja Wurrung Clans Aboriginal Corporation (DJAARA) have agreed terms required under their Land Use Activity Agreement (LUAA) for exploration activities on DJARRA lands, which cover the majority (93%) of the ELA, with the Company's initial exploration plans focused on targets within this area.

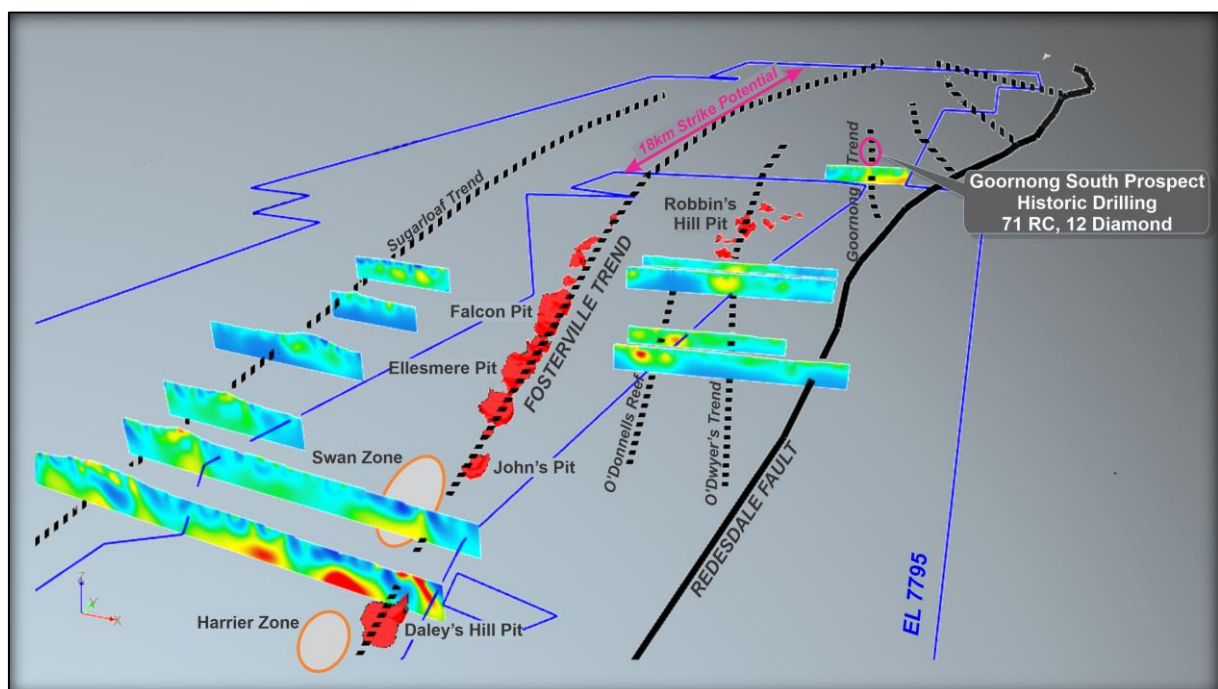
Negotiations with the Taungurung Land and Waters Council Aboriginal Corporation (TLaWC) are also underway with respect to a similar agreement over the 7% of the ELA that falls on Taungurung lands.

S2 is also collaborating with the traditional owners to reach agreement on special licence conditions, which will ensure greater involvement of traditional owners in identifying and protecting sites of heritage significance. These are not a prerequisite for the grant of the ELA but are required prior to work commencing.

S2's Executive Chairman, Mark Bennett commented that "We take great pride working with the traditional owners of the land to enable exploration to proceed in a respectful, cooperative and sustainable manner. Working together with both the Dja Dja Wurrung and the Taungurung people from the outset allows us to build strong relationships and contribute beneficially to traditional owner ambitions and for the prosperity of the broader community. S2 have always taken a view that it is important to build strong foundations at the start of relationships to ensure success for all. We look forward to working with both the Dja Dja Wurrung and the Taungurung people throughout the exploration process given the cooperative intent being fostered by all participants."

### Induced Polarisation (IP) Chargeability Anomalies Provide Vectors Towards Gold Mineralisation

Detailed evaluation of the extensive dataset inherited from the Victorian Government tender process has highlighted the success of IP chargeability ground geophysics as a tool for identifying anomalies related to alteration proximal to gold mineralisation. The historic dipole-dipole IP-resistivity data, which is publicly available on the Geological Survey of Victoria discovery Portal, includes 13 lines located on the ELA that traverse a number of mineralised trends and which in places extend across Agnico Eagle's mine lease where they highlight the high grade Swan Zone and the down plunge position of the Curie Zone currently being drilled out by Agnico Eagle from underground (Figure 1).



**Figure 1.** 3D view looking NNW showing mineralised trends at the Fosterville Gold Mine that extend into S2's ELA (EL7795) and the chargeability inversion models that highlight anomalies associated with alteration associated with known gold mineralisation on the Fosterville mine lease, and as yet undrilled positions on, or trending into, S2's ELA, such as the Sugarloaf trend, the Goornong trend, and the extensions of the O'Donnell's trend and O'Dwyer's trend, which hosts the Robbins Hill/Curie gold zone currently being mined by Agnico. Anything coloured yellow or hotter is anomalous.

Inversion modelling shows chargeability anomalism coincident with a number of known mineralised structures, including the Sugarloaf, Fosterville, O'Donnell's, O'Dwyer's and Goornong trends. Most anomalous chargeability responses are broad and extend close to surface. Possible sources for these chargeability responses include hydrothermal sulphide alteration associated with favourable

structures (such as hinge structures and limb thrusts) which often localise quartz veining and gold mineralisation, or stratigraphic responses localised around hinge zones, proximal to gold mineralisation. In combination with analysis and interpretation of historic drilling and surface geochemistry the chargeability surveys appear to provide a primary response related to mineralisation that can be used to prioritise and vector towards gold mineralisation at specific locations along these known trends.

S2 plans to use this data to guide drill testing once the licence is granted and once it has secured land access agreements. New chargeability surveys will also be undertaken as a district-scale tool that could rapidly highlight priority target areas along the 55 strike kilometres of prospective structures within the main gold corridor north and south of Agnico's Fosterville gold mine (Figure 2), that can then be drill tested, in addition to the already identified walk-up targets.

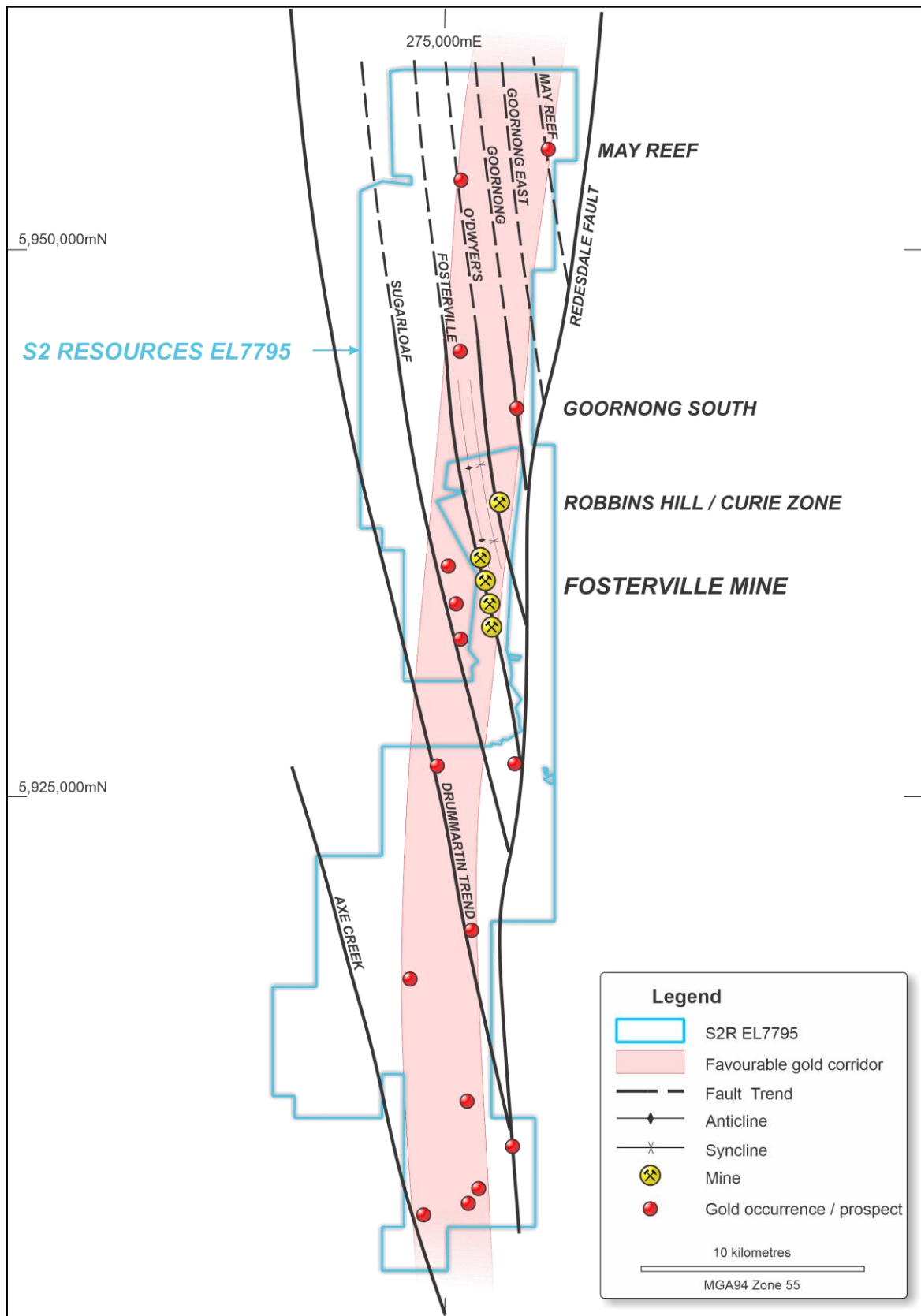
To leverage the use of chargeability as an exploration tool, S2 has recently contracted leading structural geology consultants PGN Geoscience to complete a litho-structural interpretation of the Greater Fosterville licence area using the vast bank of data inherited from the Victorian Government tender process. This data includes modern sophisticated airborne geophysics including airborne gravity, airborne electromagnetics and ground seismic surveys using proprietary processing techniques developed for mineral exploration. Together this new data will be integrated with historic airborne magnetics and ground gravity surveys to provide an unrivalled set of data with which to build a detailed litho-structural interpretation of the Greater Fosterville area.

Much of the available geophysics data was acquired in surveys undertaken slightly before the tender process began with no previous explorer having fully processed and integrated each dataset to fully interpret the district scale structural architecture and utilise its full potential in identifying favourable structural sites for gold mineralisation. The litho-structural interpretation will provide a base map of more detailed structural targets that can then be prioritised for exploration using chargeability and surface geochemistry prior to drill testing new targets.

### **Project background**

S2's 100% owned subsidiary, Southern Star Exploration Pty Ltd, was the winner in the highly competitive tender for the sole right to apply for Exploration Licence EL7795, covering an area of 394 square kilometres, extending 55 kilometres north to south, and abutting and surrounding Agnico Eagle's world class Fosterville Gold Mine. The tender process followed the world class high-grade discovery of the Swan Zone that had an initial Mineral Ore Reserve of 2.34Moz of gold at a grade of 49.6g/t (refer to the NI 43-101 Report dated 31 December 2018). Subsequent mining of the Swan Zone is ongoing with the most recent published production at Fosterville being for 509,601 ounces of gold at 23.7g/t during 2021 (refer to Agnico Eagle 2021 Annual Report).

During the tender process S2 inherited a substantial amount of data acquired by previous explorers over the area, including the relatively recent exploration work undertaken by Kirkland Lake Gold (now acquired by Agnico Eagle) on the tenement before it expired. This includes prior drilling, which although widely spaced and/or shallow and/or highly localised, has identified gold mineralisation in several locations. In addition to historic drill data, the Company has inherited a comprehensive set of extensive and high quality geophysical and geochemical surveys including gravity, IP, electromagnetics, seismics, magnetics and LIDAR.



**Figure 2.** Map of EL7795 showing gold deposits/occurrences/prospects, key structures and the favourable corridor for gold mineralisation running 1.5 to 5 kilometres west of the Redesdale Fault.



*This announcement has been provided to the ASX under the authorisation of the S2 Board.*

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Past Exploration results reported in this announcement have been previously prepared and disclosed by S2 Resources Ltd in accordance with JORC 2012. The Company confirms that it is not aware of any new information or data that materially affects the information included in these market announcements. The Company confirms that the form and content in which the Competent Person's findings are presented here have not been materially modified from the original market announcement. Refer to [www.s2resources.com.au](http://www.s2resources.com.au) for details on past exploration results.

**Competent Persons statements**

The information in this report that relates to Exploration Results from Australia is based on information compiled by Rohan Worland, who is an employee and shareholder of the Company. Mr Worland is a member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the style of mineralization and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Worland consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The following Tables are provided to ensure compliance with the JORC code (2012) edition requirements for the reporting of exploration results.

**SECTION 1: SAMPLING TECHNIQUES AND DATA**

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<i>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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	Not applicable as no new assay results are being reported.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</i>	

Criteria	JORC Code explanation	Commentary
	<i>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</i>	
<b>Drilling techniques</b>	<i>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).</i>	Not applicable as no new drill results are being reported.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed</i>	Not applicable as no new drill results are being reported.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples</i>	
	<i>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.</i>	
<b>Logging</b>	<i>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.</i>	Not applicable as no new drill results are being reported.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	
	<i>The total length and percentage of the relevant intersections logged</i>	
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Not applicable as no new assay results are being reported.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	
	<i>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.</i>	
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	



Criteria	JORC Code explanation	Commentary
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Not applicable as no new assay results are being reported.
	<i>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.</i>	No geophysical tools were used to determine any element concentrations.
	<i>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.</i>	Not applicable as no new assay results are being reported.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Not applicable as no new assay results are being reported.
	<i>The use of twinned holes.</i>	
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	
	<i>Discuss any adjustment to assay data.</i>	
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	
	<i>Specification of the grid system used.</i>	The grid system is MGA_GDA94 (zone 55). Local easting and northing are in MGA.
	<i>Quality and adequacy of topographic control.</i>	Topographic control is provided by a high resolution LiDAR survey DEM. The accuracy of the DEM is +/-1m.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	Not applicable as no new drill results are being reported.
	<i>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.</i>	
	<i>Whether sample compositing has been applied.</i>	
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Not applicable as no new drill results are being reported.
	<i>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.</i>	
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Not applicable as no new drill results are being reported.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	Not applicable as no new drill results are being reported.

## SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	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.	<p>The Greater Fosterville Project consists of four exploration licence applications (ELA's) in the State of Victoria, including the key block surrounding the Fosterville gold mine, EL7795. The tenements are wholly owned by Southern Star Exploration Pty Ltd (SSE), a wholly owned subsidiary of S2 Resources Ltd.</p> <p>The Greater Fosterville Project is located within Recognition and Settlement Agreement Areas held by the Dja Dja Wurrung Clans Aboriginal Corporation (DJAARA) and the Taungurung Land and Waters Council Aboriginal Corporation (TLaWC) under s 4 of the Traditional Owner Settlement Act 2010 (Vic).</p> <p>EL7795 is also subject to special conditions which have to be agreed prior to commencing work.</p> <p>The area covered by the ELA's is a mix of freehold land, crown land and state forest. Land access agreements are required ahead of undertaking work.</p>
	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.	<p>All of the Exploration Licences are applications that are subject to negotiations with DJAARA and TLaWC prior to a final assessment by the government ahead of grant.</p> <p>SSE won the tender for the sole right to apply for EL7795.</p> <p>EL8074, EL8166 &amp; EL8167 are competing applications, subject to a competitive assessment prior to the government selecting a preferred applicant for each area.</p>
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	The Greater Fosterville Project has had significant exploration conducted by Planet Mining Company Pty Ltd, Lone Star Exploration NL, Noranda Australia Ltd, Brunswick NL, Bendigo Gold Associates, BHP Minerals Ltd, BHP Gold Ltd, Western Mining Corporation Limited, Perseverance Exploration Pty Ltd, Northgate Minerals, AuRicoGold, Crocodile Gold, Newmarket Gold Inc. and Kirkland Lake Gold, plus a number of smaller prospecting companies.
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	<p>The deposit style sought is orogenic gold mineralisation located in the Bendigo Zone of the Victorian Gold Province.</p> <p>The Fosterville Goldfield is hosted by Lower Ordovician turbidites within the Castlemaine Group rocks. The sequence is metamorphosed to sub-greenschist facies.</p> <p>Gold mineralisation is typically hosted by quartz reefs located in fold and fault structures related to multiple compression events that formed upright chevron style fold geometry.</p>



Criteria	JORC Code explanation	Commentary
<b>Drill hole Information</b>	<p>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</p> <ul style="list-style-type: none"> <li>• easting and northing of the drill hole collar</li> <li>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>• dip and azimuth of the hole</li> <li>• down hole length and interception depth</li> <li>• hole length.</li> </ul>	Not applicable as no new drill results are being reported.
<b>Data aggregation methods</b>	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	Not applicable as no new drill results are being reported.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Not applicable as no new drill results are being reported.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable as no new drill results are being reported.
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</p>	Not applicable as no new drill results are being reported.
<b>Diagram</b>	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 drill hole collar locations and appropriate sectional views.	Refer to Figures in body of text.
<b>Balanced reporting</b>	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.	No assay data reported.
<b>Other substantive exploration data</b>	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.	This report refers to results of historic dipole-dipole IP-resistivity surveys that have been reprocessed by Newexco to produce 2D inversion models of resistivity and chargeability IP using UBC's DCIP2D. The original survey was collected by Search Exploration in 2010 with variable "A" spacings of 50 metres and 100 metres.

Criteria	JORC Code explanation	Commentary
<b>Further work</b>	<p>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</p> <p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive</p>	<p>Planning of drill holes to test targets defined by historical data is in progress. Broader surface exploration activities including IP-resistivity and soil geochemical surveys are also being planned to generate new targets for drill testing.</p> <p>Drilling and surface exploration activities are planned to commence once the licence is granted and landholder access agreements are negotiated.</p>