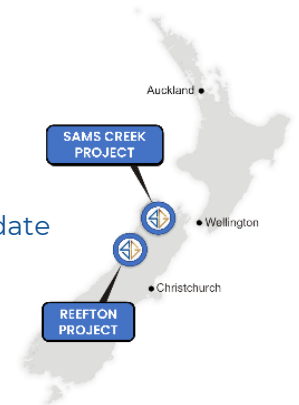


# Significant New Drill Target Identified at Sams Creek.

Siren Gold Limited (ASX: **SNG**) (Siren or the Company) is pleased to provide an update on its **Sams Creek Project**.



## Highlights

- Sams Creek is an **intrusion-related gold deposit (IRGD)** with mineralisation contained within a porphyry dyke.
- The Sams Creek porphyry dyke is over **7kms long, up to 60m thick**, and **extends down dip for at least 1km**. Only 15% of the Sams Creek porphyry dyke has been drilled to date.
- An **Ionic Leach** soil survey recently carried out has identified a second major **Au-As-Mo anomaly** at Anvil, similar to the Main Zone anomaly which contains a Mineral Resource Estimate (MRE) of **824koz at 2.8g/t Au\***.
- The Anvil anomaly extends for at least 1km from the mineralised outcrop with significant **rock chips recording up to 57g/t Au**.
- The Anvil anomaly might represent a NE plunging mineralised fold hinge **similar to the Main Zone** located 1km to the east.
- The orientation ionic leach soil survey detected known mineralisation 500m below the surface at Main Zone.
- Copper-Lead and Rare Earth Elements (REE) were also detected, and the **multi-element responses indicate potential for a large multi-metal, multi-phase mineral system** at Sams Creek.

## Executive Chairman Brian Rodan commented:

*"These results continue to demonstrate the significant potential for a multi-million-ounce project at Sams Creek. Ionic leach soil surveys have proven to be a strong indicator for economic gold mineralisation at Sams Creek. The Anvil anomaly has many characteristics to the Main Zone at Sams Creek, which hosts the high grade 824koz Resource. We believe we have only scratched the surface at Sams Creek."*

## Background

The Sams Creek Gold Project is located 140kms NE of Reefton and 100kms NE of Lyell (Figure 1). The Project comprises two exploration tenements: EP 54454, which is 100% held by Sams Creek Gold Limited (SCGL), a wholly owned subsidiary of Siren, and EP40338, which is 81.9% held by SCGL under a joint-venture agreement with New Zealand's largest gold miner, OceanaGold Limited (OGL), who own the remaining 18.1% interest.

\* Comprised of an Indicated Resource of 3.29 Mt at 2.9 g/t Au for 295.6koz and an Inferred Resource of 5.81 Mt at 2.83 g/t Au for 528.8koz.

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### Corporate

**Brian Rodan**  
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**Keith Murray**  
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**Victor Rajasooriar**  
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**Sebastian Andre**  
Company Secretary

### Projects

Sams Creek Project  
Reefton Project

### Capital Structure

Shares: 160,885,137  
Options: 29,973,085

Western New Zealand was originally part of Gondwana and lay adjacent to eastern Australia until around 80 Ma ago<sup>1</sup>. The NW of the South Island of New Zealand comprises an area of predominantly early Palaeozoic rocks in broad northerly trending belts which terminate at the Alpine Fault (Figure 1). The Palaeozoic sequence is divided into the Buller Terrane, Takaka Central and Takaka Eastern Belts. These belts are interpreted to correspond with the Western, Central and Eastern belts of the Lachlan Fold Belt<sup>1</sup>. The Buller and Western Lachlan belts contain the orogenic gold deposits like Bendigo, Ballarat and Fosterville in Australia and the Reefton and Lyell Goldfields in New Zealand.

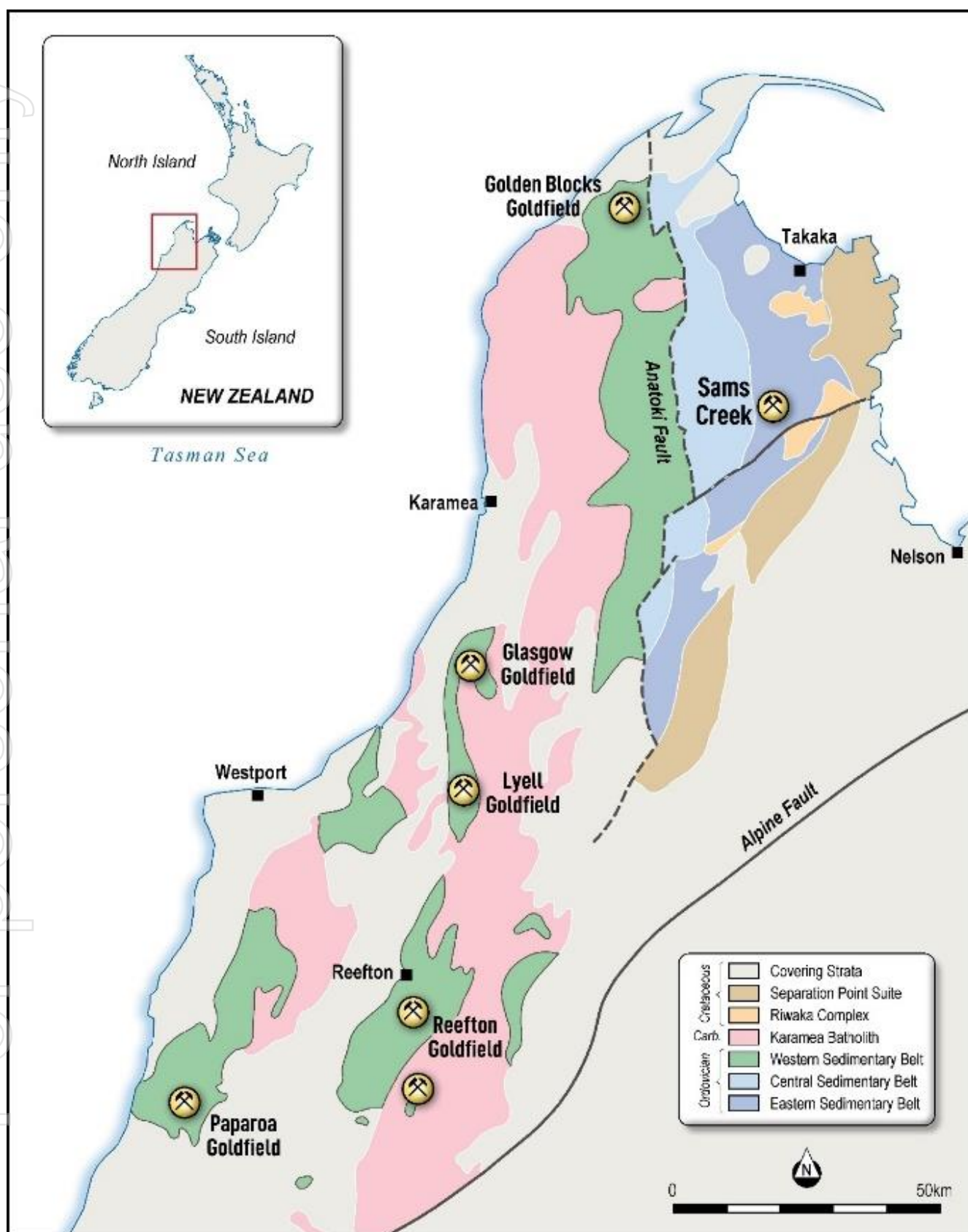
The mineralisation is contained within a hydrothermally altered peralkaline granite porphyry dyke<sup>2</sup> that intrudes the Early Palaeozoic metasediments. The Sams Creek dyke (SCD) is located in the Eastern Takaka Terrane, which is equivalent to the Eastern Lachlan belt that hosts porphyry copper-gold deposits like Cadia and Ridgeway.

The SCD is up to 60m thick and can be traced E-W for over 7kms along strike (Figure 2). The SCD generally dips steeply to the north (~60°), with gold mineralisation extending down dip for at least 1km and it is open at depth.

The SCD has been divided into a number of exploration prospects including Riordans, Western Outcrops, Doyles, SE Traverse, Carapace, Main Zone, Anvil and Barrons Flat. The dyke generally dips steeply to the north but dips more shallowly to the NW and SE between the Carapace and Western Outcrops where it intrudes argillite (Figure 2).

The geological and geochemical characteristics of the SCD indicate it is a member of the intrusion-related gold deposits (IRGDs). Globally, there are many examples of IRGDs containing multi-million-ounce resources, including Pogo (5Moz), Donlin Creek (10Moz) and Fort Knox (7Moz) in Alaska, Kidston (4Moz), Cadia (15Moz) in Australia and Vasilkovskoe (10Moz) in Kazakhstan (Lang & Baker 2001)<sup>3</sup>.

The Sams Creek porphyry dyke can best be described as a distal deposit (Figure 3) located in the host sediments outside the contact aureole of the source intrusion. These deposits typically have an Au-As-Sb-Hg Zn-Pb-Ag mineral association and may lie over 1km from the source (Figure 3). At structurally higher levels (500mRL to 800mRL) the SCD contains considerably more silver (up 90g/t) with Ag:Au ratios in the order of 30:1, whilst at lower levels (-200mRL to 500mRL) gold dominates silver, with ratios around 0.3:1. Base metals (Cu, Pb, and Zn) also increase at these lower levels. This may reflect increasing proximity to the source intrusion with the top of the dyke showing signs of epithermal style mineralisation.



**Figure 1. Top of the South Island, geology showing Palaeozoic rocks in green. Adapted from Cooper and Tulloch 1992<sup>1</sup>.**

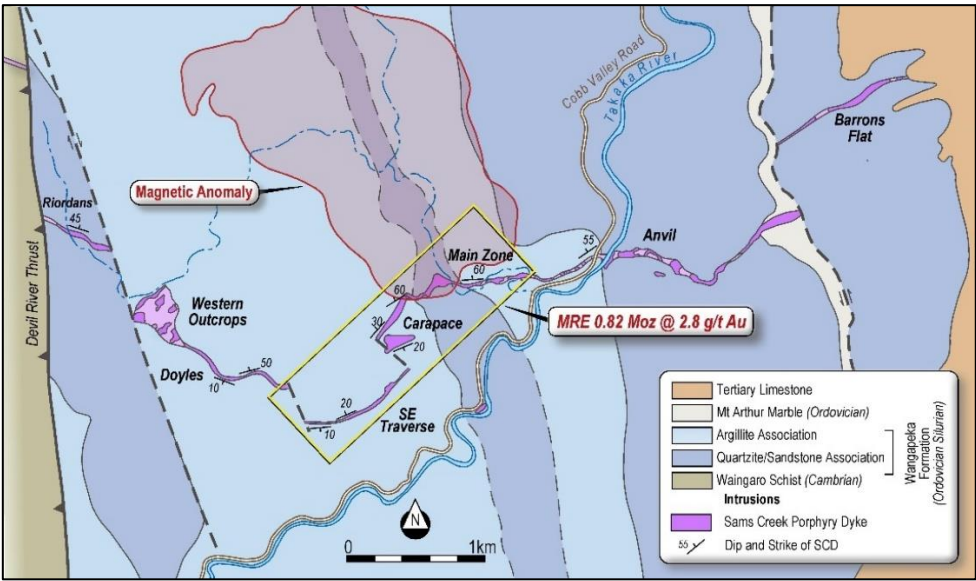


Figure 2. Geology of the Sams Creek deposit.

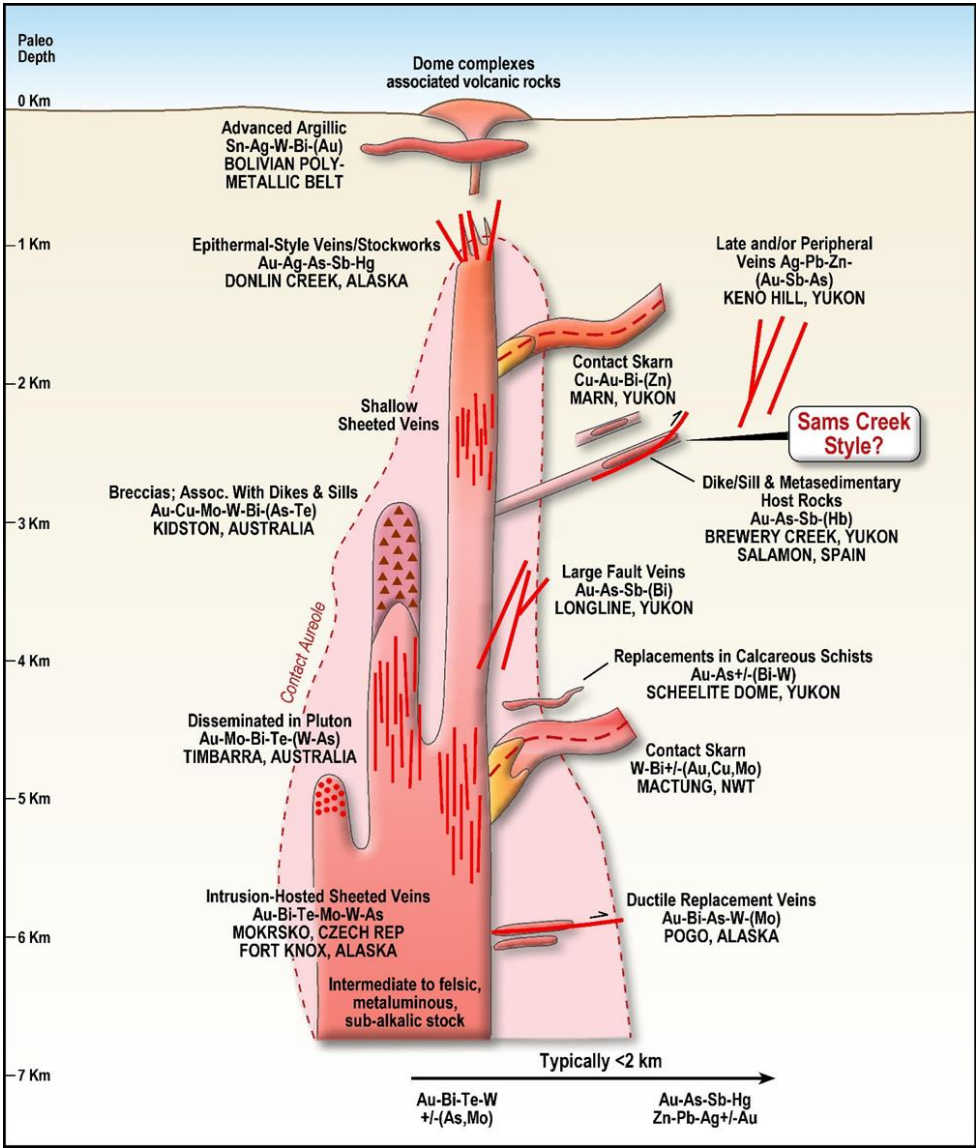


Figure 3. IRGD schematic from Lang & Baker (2001)<sup>3</sup>.



## Geology Model

The porphyry dyke is variably mineralised and has been modified by at least four alteration / mineralisation stages. The main gold mineralising event (Stage III) consists of gold-bearing arsenopyrite veins, which form sheeted and local stockwork vein complexes that generally dip to the SE. These veins are cut by later base metal veins (Stage IV) containing galena, sphalerite, chalcopyrite and pyrite. These veins dip steeply to the SW orthogonal to the Stage III auriferous veins. The vein orientation and mineralogy changes through Stages II to IV, indicating that the SCD is being rotated and fluid chemistry changing as the mineralisation progresses.

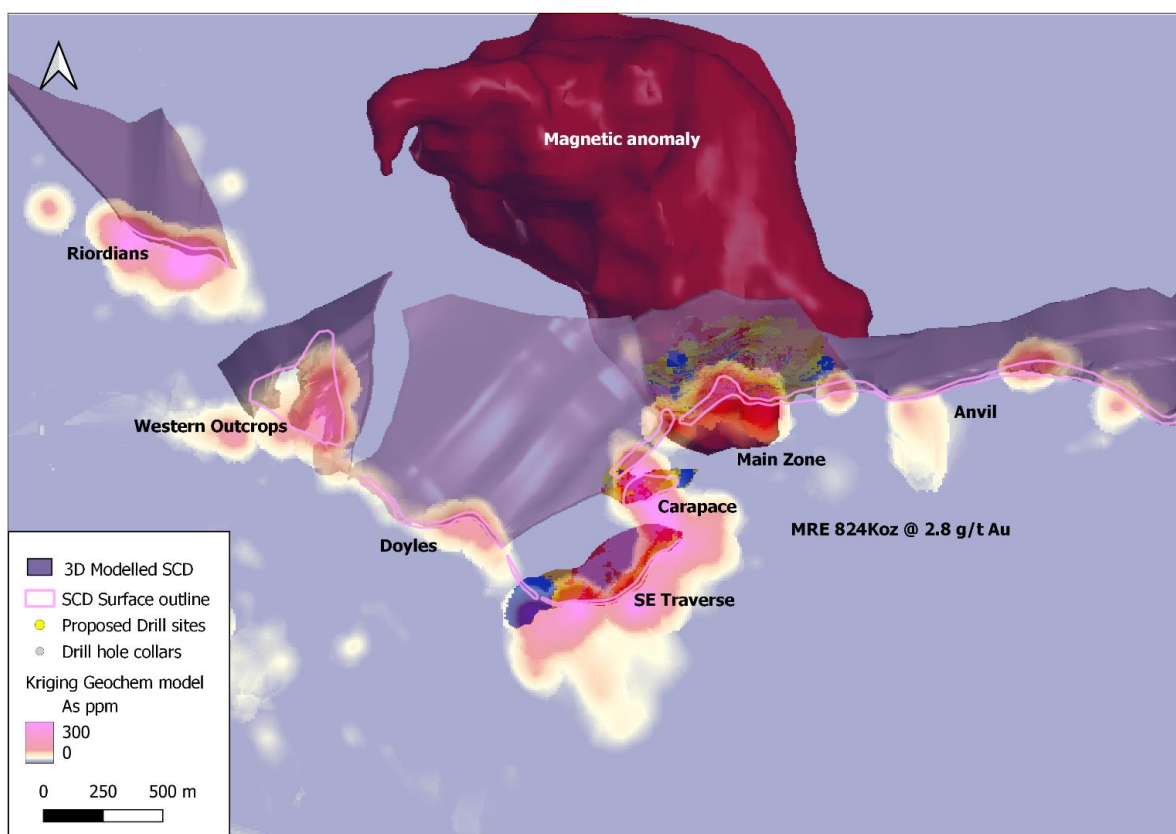
The SCD has been folded into gentle NE plunging folds, with the gold veins preferentially forming in the fold hinges, resulting in NE plunging mineralised shoots as shown in Figure 4. Three folds have been intersected in the Main Zone, with additional folds mapped on surface and indicated in the soil and rock chip sampling. These additional mineralised fold hinges have the potential to significantly increase the Sams Creek Mineral Resource Estimate (MRE) of 824koz @ 2.8g/t Au.

Southern Geoscience Consultants (SGC) in Perth completed 3D inversions of the Sams Creek Magnetic/Radiometric survey<sup>4</sup>. Due to the large regional gradients and prevalent remnant magnetism both an ASVI processed dataset and a residual TMI dataset were inverted. A feature of interest that was generated in both datasets was a deep (300m+) magnetic source that is located directly down dip from the mineralised Sams Creek dyke (Figures 5 and 6). This anomaly may represent a magmatic intrusion, which could be the source of the Sams Creek dyke. This would be consistent with the IRGD interpretation shown in Figure 3.

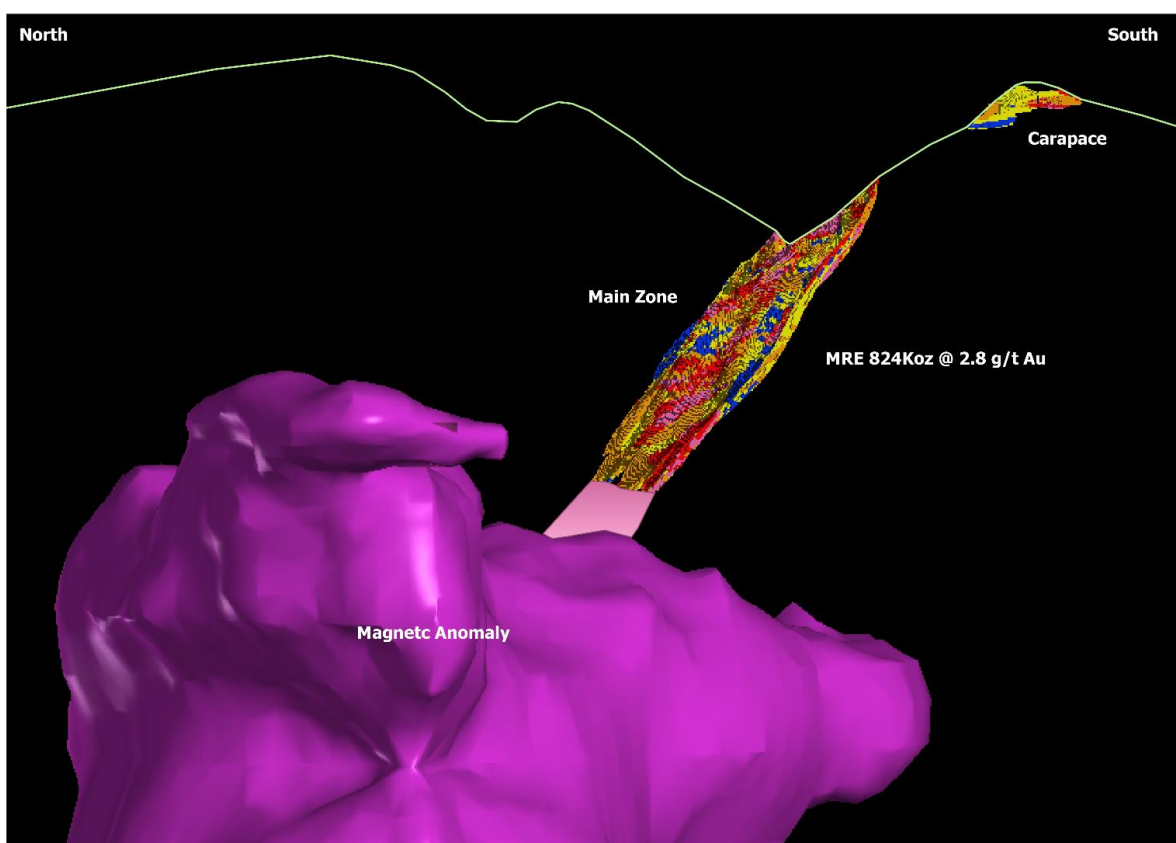
At deeper levels the SCD may intersect the modelled intrusion, with a potential increase in Bi, Te, W and Mo (Figure 3). Wolframite (Iron-manganese-tungsten oxide) is found in association with pyrite and arsenopyrite at 463.7m in DDHSC069. The wolframite occurs in relatively large grains (up to 1 mm). Wolframite is generally found as an early high-temperature, near-source mineral in granite-associated mineralised systems. Its presence indicates enrichment in tungsten in the hydrothermal fluids and suggests that scheelite may also be present in at Sams Creek<sup>5</sup>.

A molybdenite-mineralised granodiorite porphyry associated with a Cu skarn is located at Copperstain Creek 30kms to the NNW of Sams Creek<sup>6</sup> and could be a correlative of the Sams Creek intrusion.





**Figure 5. Plan view of arsenic soil geochemistry, SCD wireframe (grey), MRE block model and Magnetic anomaly**



**Figure 6. 3D Image of the SCD MRE and magnetic anomaly.**



## Ionic Leach Geochemistry

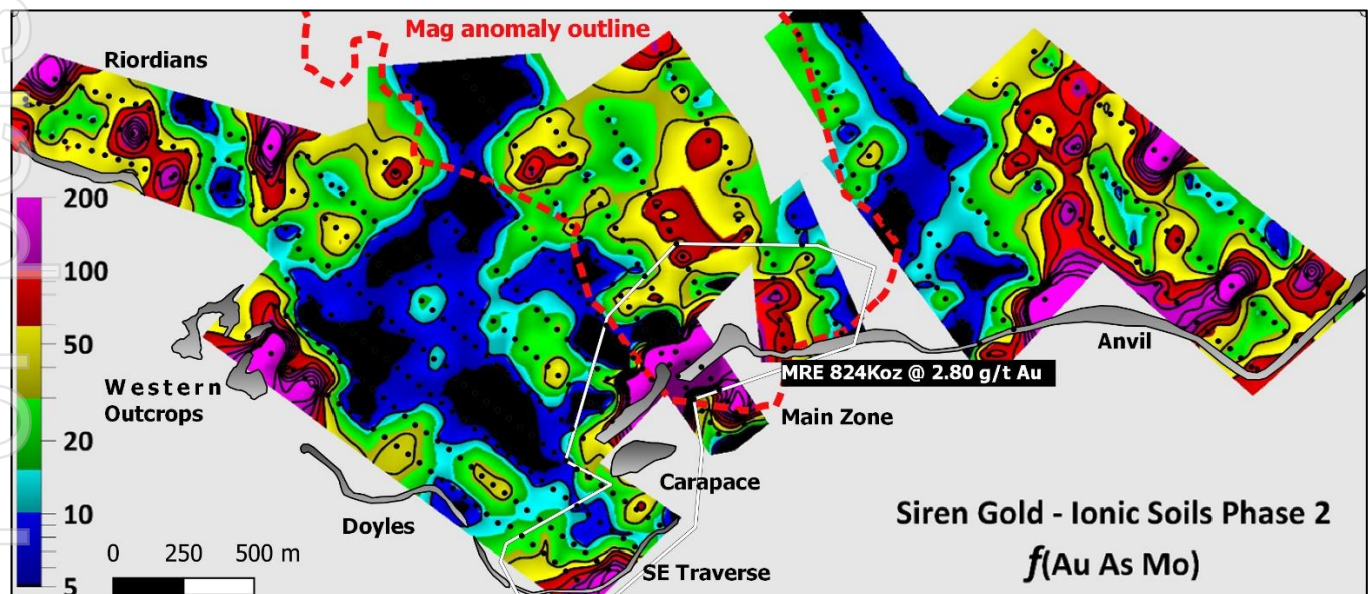
Ionic leach geochemistry (IL) is a proprietary partial leach soil assay technique available from ALS Geochemistry. The method has a deep sensing capability that can be used to identify buried or blind mineral systems that host metal deposits, using their fingerprints at surface to complement other techniques (ie geophysics), allowing better drill hole positioning.

Following a successful IL orientation survey at the Main Zone where mineralisation was detected 500m below the surface (see ASX Announcement dated 22 June 2023), a more extensive survey was completed covering 5kms of the SCD strike and a further 1km to the north to assess the down dip extension of the dyke and the potential buried intrusion. A total of 571 samples were analysed at ALS laboratory in Ireland, and the results were reviewed by Globex Solutions Pty Limited. The data are presented as multi-element indices designed to reflect metal associations, alteration packages, structures and geology. Key element associations are shown in figures below.

The strongest element association is **Gold-Arsenic-Molybdenum** (Figure 7). The SE Traverse - Main Zone MRE area is shown by the white polygon. The gaps in the sampling around the main zone are due to steep rocky bluffs which could not be sampled. There is a strong Au-As-Mo anomaly associated with the MRE area, which is very encouraging. The gold and arsenic are consistent with Au bearing arsenopyrite veins that define the deposit. The molybdenum contribution may reflect the source intrusion similar to a molybdenum-copper porphyry that outcrops 30kms to the NNW.

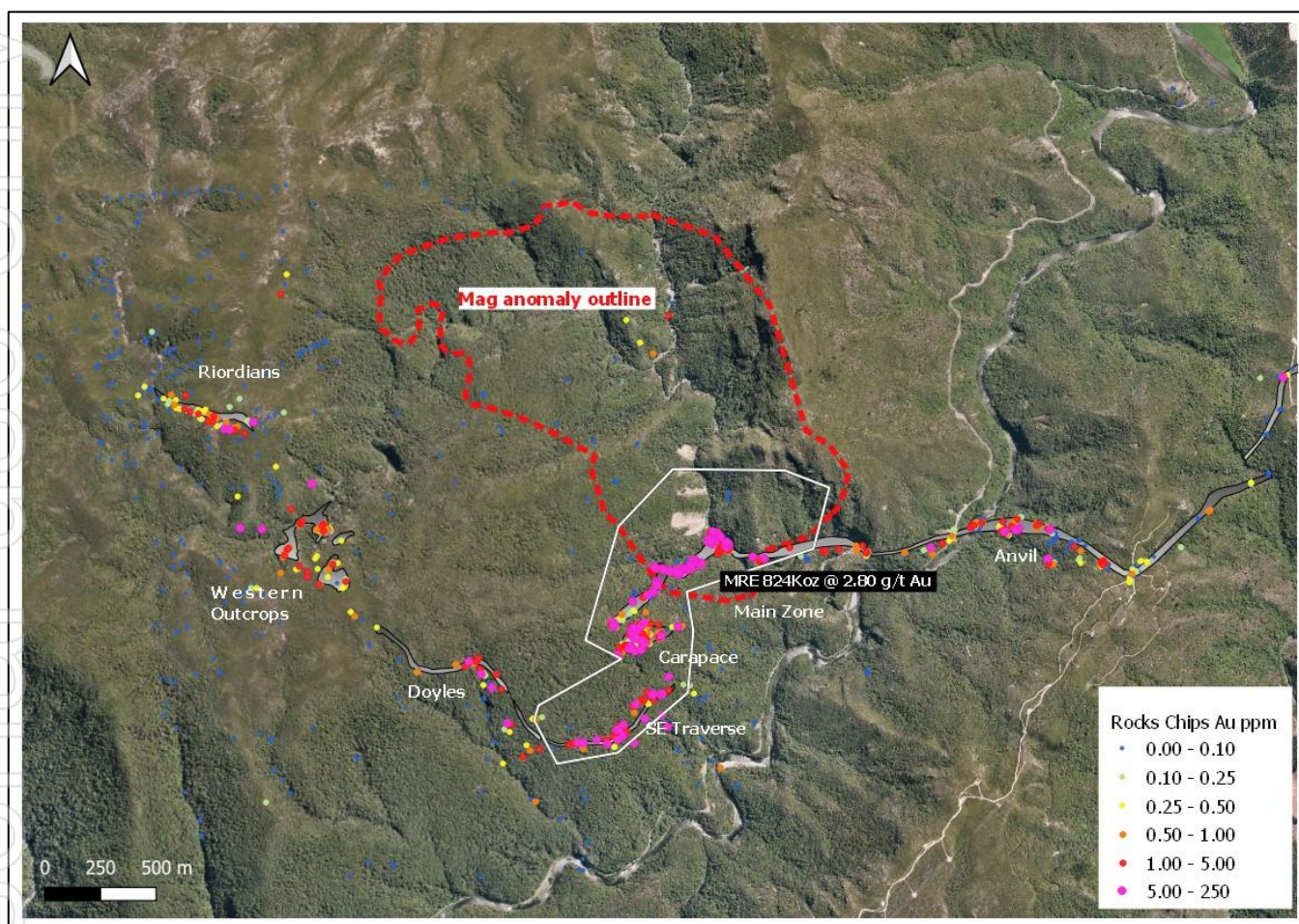
A second major anomaly occurs at the Anvil prospect to the east. The anomaly extends from the mineralised outcrop, with significant rock chips up to 57g/t Au (Figure 8). There appears to be two discrete anomalies, which is consistent with rock chip results. These anomalies have a NE-NNE trend and extend for over 1km and may represent NE plunging mineralised shoot similar to the Main Zone (MRE of 824koz @ 2.8g/t Au).

Other Au-As-Mo anomalies that occur at Western Outcrops and Riordans to the west of the Main Zone (Figure 7) are also coincident with elevated gold in rock chips (Figure 8).



**Figure 7. Gold, Arsenic, Molybdenum element association.**



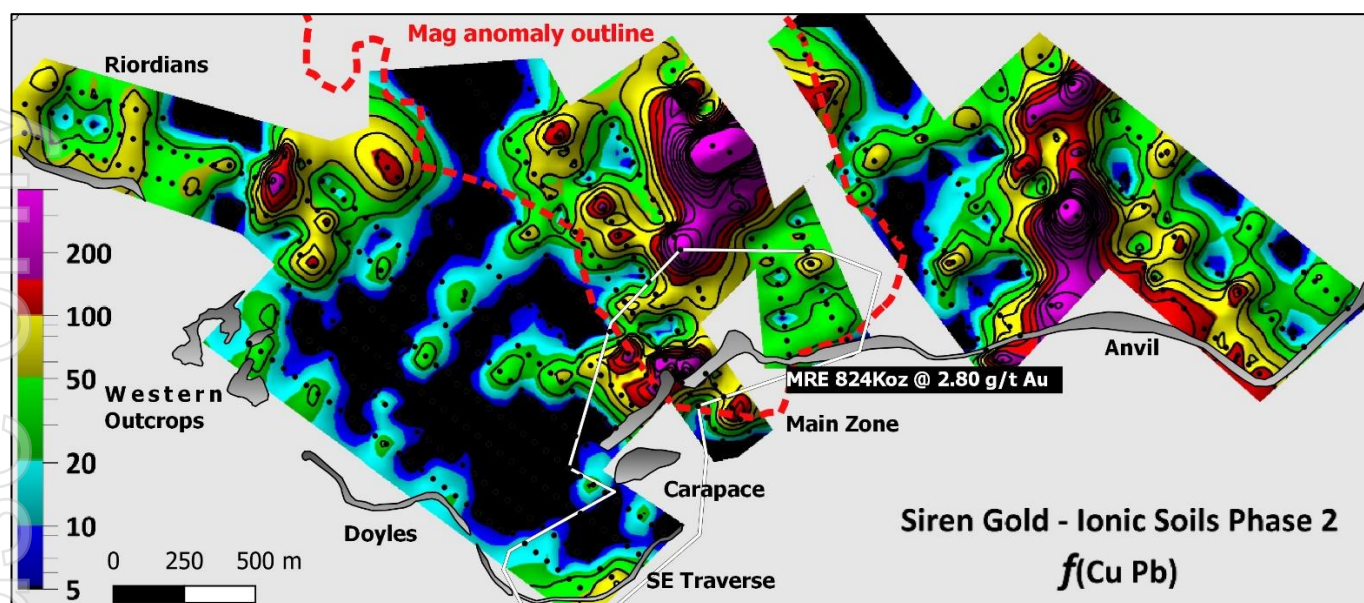


**Figure 8. SCD gold rock chips.**

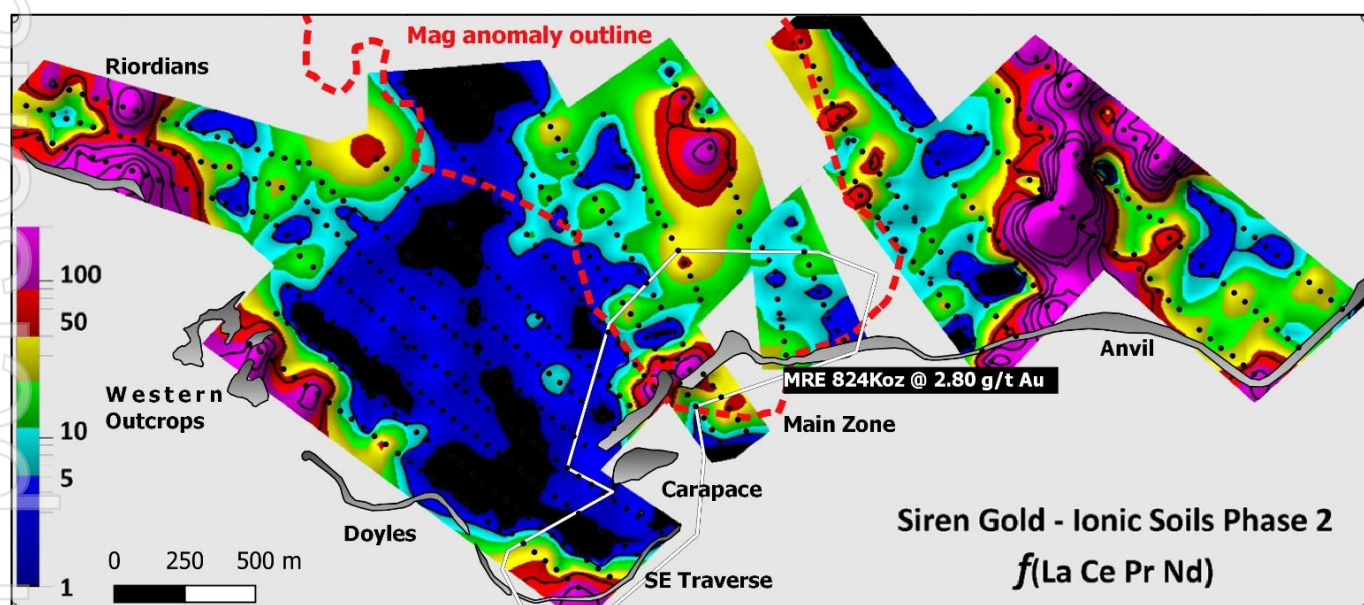
Figure 9 presents the **Copper-Lead** elemental association, where these elements again reflect the strong anomalous NNE trending zone at Anvil, similar to Au-As-Mo and most probably related to chalcopyrite and galena in the Au-arsenopyrite and base metal veins. There is also a strongly anomalous zone north of the Main Zone. This area is also elevated in Au-As-Mo (Figure 7).

The light and heavy **Rare Earth Elements** (REE) shown in Figures 10-13 are considered significant, very anomalous and show a clear association with Au and other metals. REE's are found mainly in primary deposits associated with alkaline igneous intrusions and associated veins, dykes and pegmatites. The Sams Creek peralkaline porphyry intrusion has previously been identified as a potential source of REE's<sup>1,7,8</sup>. However, REE's can also act as pathfinders for significant alteration haloes accompanying major mineral systems. The partitioning of the individual REE's into the distinct groups shown in Figures 10-13 elsewhere have reflected discrete alteration pulses that can be linked to distinct mineralization events. Further work is required to confirm and assess the economic significance of these individual mineralising events, given the SCD remains un-tested for REE potential.





*Figure 9. Copper and Lead element association.*



*Figure 10. Light REE association (Lanthanum, Caesium, Praseodymium and Neodymium)*

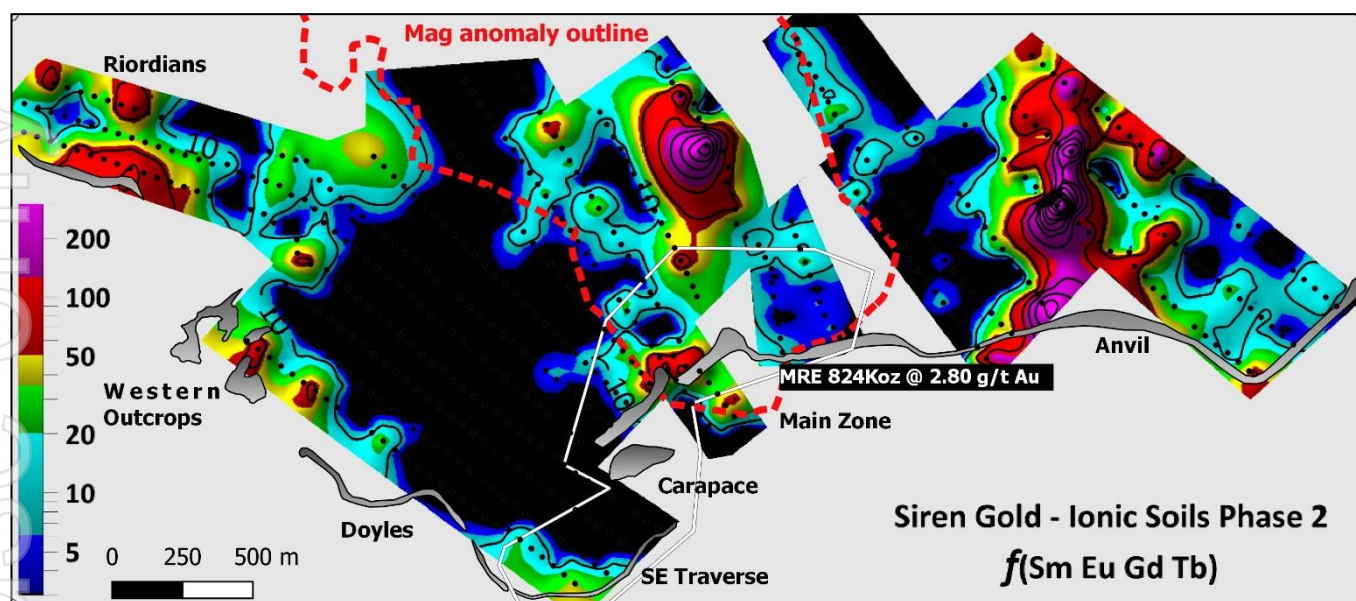


Figure 11. Light REE association (Samarium, Europium, Gadolinium and Terbium)

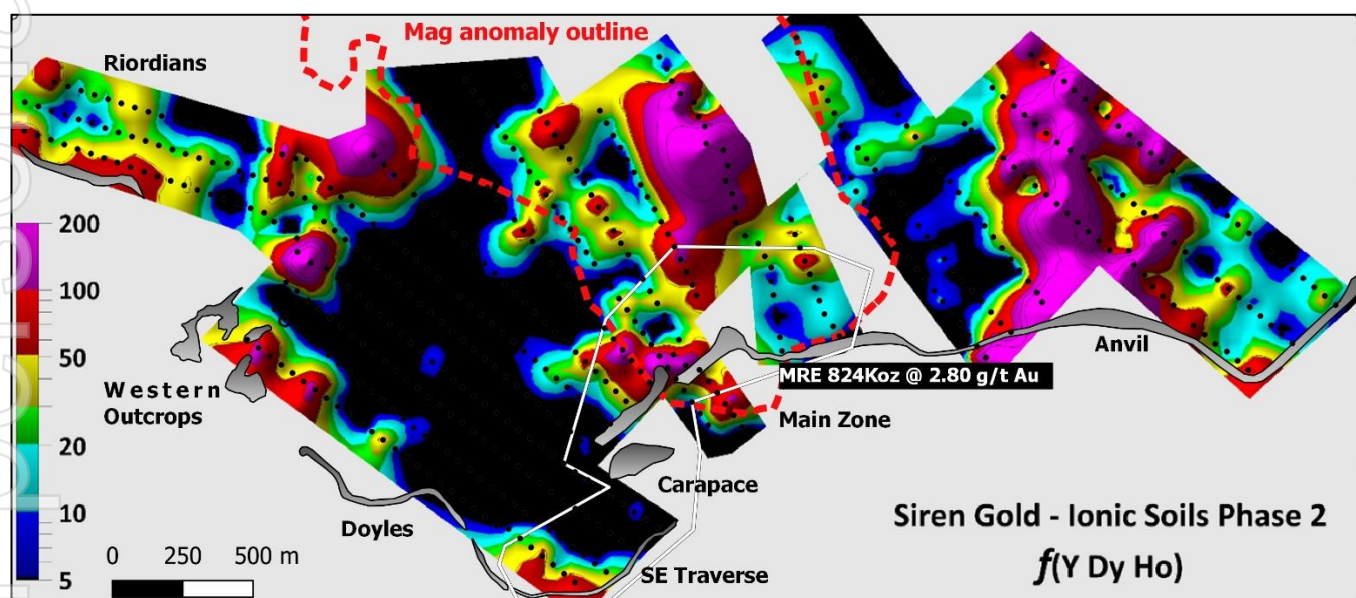
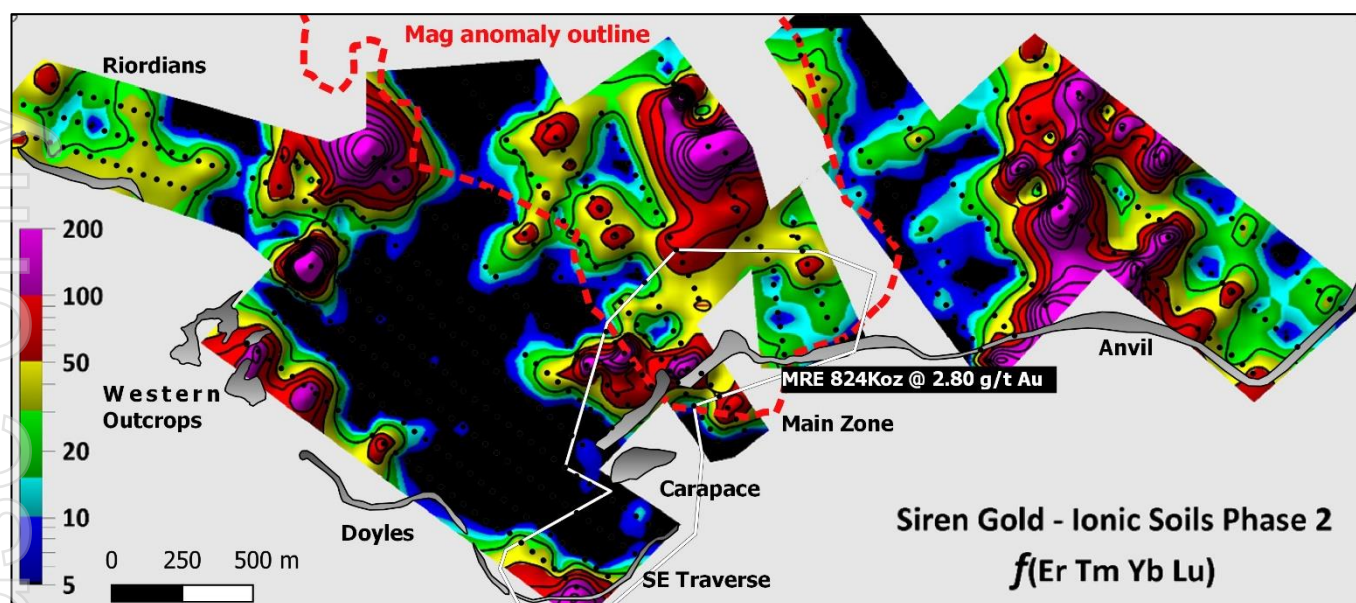


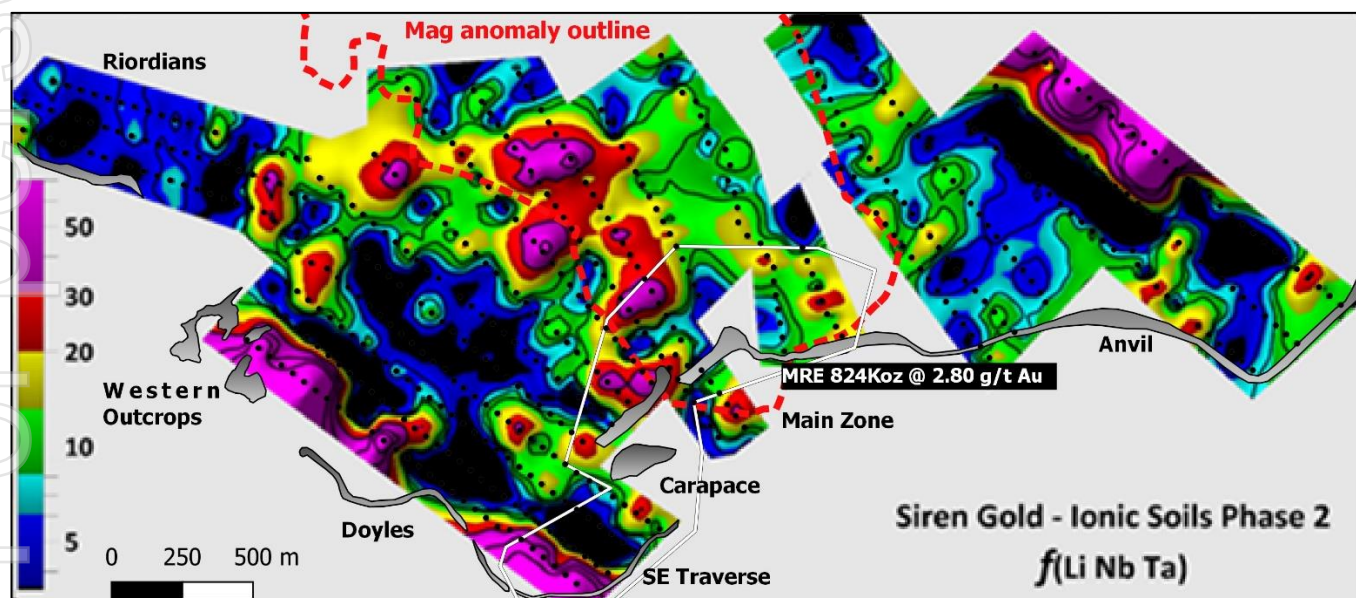
Figure 12. Heavy REE association (Yttrium, Dysprosium, and Holmium)





**Figure 13. Heavy REE association (Erbium, Thulium, and Lutetium)**

Figure 14 shows the Lithium-Niobium-Tantalum response, an element association typical of a pegmatite rock, often a source of critical metals. However, these elements can also reflect metal styles and possible positions within precious and base metal emplacement within large metal systems, including mineralized IRGD and large porphyry systems. These elements can also reflect the position of deep-seated intrusions that can be the source of the metal occurrences above.



**Figure 14. Lithium, Niobium and Tantalum association**

Siren Gold remains focussed on expanding its gold inventory at Sams Creek. The IL soil geochemistry data shows cohesive, spatially related, multi-element anomalies and trends, clearly reflecting the already known attributes of the metal system currently being explored. The response from numerous commodity and pathfinder elements in surface soils within the survey area may also be suggesting that other styles of metal deposits could exist, possibly at depth. The multi-element responses indicate a large multi-metal, multi-phase mineral system at Sams Creek. Continued exploration work will remain cognisant of such possibilities, i.e. the discovery of a Cu-Mo porphyry system buried at depth.

## Next Steps

The next steps include;

- structural mapping to identify location and orientation of the anticline hinge/s around Anvil;
- extending the ionic leach sample grid further to the NE at Anvil and collect some additional samples to fill in some of the data gaps between Main Zone and Anvil;
- test the Sams Creek core for REE; and
- drill test the near surface mineralisation at Anvil to confirm the rock chip sampling and IL anomaly.

## References

1. Cooper, R.A., Tullock, A.J., Early Palaeozoic terranes in New Zealand and their relationship to the Lachlan Fold Belt, Tectonophysics Volume 214, Issues 1–4, 30 November 1992, Pages 129-144.
2. Tulloch, A.J. 1992. Petrology of the Sams Creek peralkaline granite dike, Takaka, New Zealand. New Zealand Journal of Geology & Geophysics, 1992, Vol 35: 193-200.
3. Lang, J.R. and Baker, T. 2001. Intrusion-related gold systems: the present level of understanding. Mineralium Deposita, 2001, Vol 36: 477-489.
4. Southern Geoscience Limited Consultants memorandum dated 26 June 2012.
5. Brathwaite, R.L. 2012. Petrographic Examination and Report on Alteration and Mineralisation in Deep Drill Holes at the Sams Creek Project, Northwest Nelson. GNS Consultancy Report 2012/292, November 2012.
6. Wodzicki, A, 1972. Mineralogy, geochemistry and origin of hydrothermal alteration and sulphide mineralisation in the disseminated molybdenite and skarn type copper sulphides deposit at Copperstain Creek, Takaka, New Zealand. New Zealand Journal of Geology and Geophysics, 15:599-631.
7. Christie, T, Brathewaite, B and Tullock, A. Mineral Commodity Report 17 – Rare Earths and related Elements. GNS Science.
8. Morgenstern et al, 2018. REE mineral potential in New Zealand – mineral systems approach. GNS Science.

This announcement has been authorised by the Board of Siren Gold Limited

## Enquiries

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## Competent Person Statement

The information in this announcement that relates to exploration results, and exploration targets, is based on, and fairly represents, information and supporting documentation prepared by Mr Paul Angus, a competent person who is a member of the Australasian Institute of Mining and Metallurgy. Mr Angus has a minimum of five years' experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a competent person as defined in the 2012 Edition of the Joint Ore Reserves Committee Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Angus is a related party of the Company, being the Technical Director, and holds securities in the Company. Mr Angus has consented to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

In respect to estimates of mineral resources, released on 21 August 2023, Company confirms that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.



## APPENDIX 1

The following Table and Sections are provided to ensure compliance with the JORC Code (2012 Edition)

### Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li><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></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>CRA Exploration (CRAE), OceanaGold Corporation (OGC), MOD Resources (MOD) and Sandfire Resources (SFR) have all used similar sampling techniques.</li> <li>Diamond drilling core (DD) drilling was logged to obtain for geological and geotechnical data and samples for assaying and rock strength (unconfined compressive strength - UCS) and density.</li> <li>Downhole geophysical logging wasn't undertaken.</li> <li>DD drilling was used to obtain core samples. Mineralised core was cut in half with diamond saw at 1 m intervals unless determined by lithology e.g. dyke contact areas. Sample length ranged from 0.2 m to 2.9 m. The core sampling included at least 5 m into the hanging wall and footwall waste.</li> <li>CRAE, OGC, MOD and SFR core samples were pulverised to &gt;95% passing 75 µm to produce a 30 g charge for fire assay for Au. Various multi-element analyses were also undertaken from the DD with at least As, Ag and S analysed.</li> <li>SFR rolled DD into plastic splits from the triple tube spilt at the drill rig and then placed into the core trays. This provided a far better-quality core presentation with the preservation of structures and broken core with less handling of the core.</li> <li>Field and core duplicates, pulp, and repeat analysis were completed by OGC, MOD &amp; SFR as well as checks on older CRAE data to test and ensure sample representativity.</li> <li>CRAE and MOD completed trenching and channel sampling of exposed dyke outcrops taking rockchip or handsaw samples based on 1m basis.</li> <li>CRAE and MOD completed C horizon soil sampling using hand augers or spades.</li> <li>Siren Gold Limited (SNG) completed Ionic Leach Geochemistry program using trowel to collect 150g of material 10-15 cm underneath the surface.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>All DD drilling was helicopter supported.</li> <li>DD diameters included PQ (96mm) and HQ (63mm), using a triple tube. NQ was a mixture of NQ (47.6mm) and NQ3 (45.1mm). Most of the drilling was HQ with PQ collars generally limited to depths less than 50m.</li> <li>Earlier CRAE drilling was completed HQ and NQ sizes.</li> <li>MOD used man-portable rig with drillhole ID's SCMDH**** which were drilled using NQ size core.</li> <li>A 15-hole RC drilling program at Barrons Flat was using an 80mm (3.5 inch) face sampling hammer with 1m samples collected.</li> </ul>

Criteria	Explanation	Commentary
		<ul style="list-style-type: none"> <li>OGC has limited success with orientation spear system. MOD oriented their core using Coretell Ori Shot CNH100 - a digital core orientation system. SFR used Longyear True Core tool.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>OGC, MOD &amp; SFR sample recovery was recorded by measuring the length of recovered core and comparing this with the drilled interval.</li> <li>OGC re-logged all the CRAE core and recorded recoveries.</li> <li>The core recovery for the Main Zone and Bobby Dazzler, historically, is approximately 96.6%.</li> <li>The Carapace had higher rates of core loss with the average of 76% recovered. These appears to have no material impact on the results.</li> <li>Increased core loss is observed in the weathered mineralised dyke.</li> <li>SE Traverse recoveries are 83 % in the dyke.</li> </ul>
Logging	<ul style="list-style-type: none"> <li><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></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>All drilling has been logged for lithology, weathering, bedding, structure, alteration, mineralisation, and colour using a standard set of in-house logging codes. The logging method is quantitative.</li> <li>MOD and SFR DD was oriented. Structural measurements were recorded during logging.</li> <li>OGC relogged all the CRAE core.</li> <li>Deeper interval has been logged for magnetic susceptibility (MS) using hand-held MS meters.</li> <li>Logging intervals are based on geological boundaries or assigned a nominal length of one metre.</li> <li>Mineralised zones were logged for type, alteration intensity, vein thickness, frequency, angle to long core axis, and mineralogy.</li> <li>Summary geotechnical information was recorded.</li> <li>All core trays were photographed prior to core being sampled.</li> <li>All core is stored in core shed and containers on site in Takaka or in OGC core shed in Reefton, NZ.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>OGC, MOD &amp; SFR DD sample intervals were physically marked on the core, which was sawn in half lengthways with a diamond core-cutting saw. The core cutting plane was randomly selected, not based on core orientation line or other factors. Where core was too broken to be cut, the broken core was split longways into two equal amounts from the core tray. The resulting half core was taken for the laboratory sample and the remaining core was archived.</li> <li>OGC and MOD completed 5 m grind samples into the hanging wall and footwall to test for mineralisation and waste rock characterisation.</li> <li>The field duplicates, laboratory duplicates and laboratory repeats were collected and assayed with laboratory duplicates. Repeats were found acceptable in comparison with regular laboratory samples. No major issues identified.</li> </ul>

Criteria	Explanation	Commentary
	<ul style="list-style-type: none"> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>MOD &amp; SFR took field duplicates and are routinely submitted as half core. Field duplicates were originally DD quarter cuts. This practice caused an issue with repeatability due to the smaller sample size and vein orientation. To address this issue, the remaining quarter core was sampled and the results for the two quarter cuts were average for comparison with the routine sample.</li> <li>The DD (2-3 kg) and channel (1-2 kg) sample sizes are considered appropriate to the grain and particle size for representative sampling.</li> <li>C horizon geochemistry samples were 300-400g while Ionic Leach samples size are 150g. Field duplicated are taken on range of 1:40 to 1:25.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><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></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>CRAE - DD samples were sent to Service Laboratories in Nelson and AAS analysis was carried out. OGC completed fire assay re-checks on drillholes DDH82SC09 and DDH82SC11 resulting in an average of 10% upgrade in the Au grades. No adjustment was undertaken for CRAE results. For CRAE drilling, the laboratories and methods used are insufficiently recorded in the logs, assay results and reporting. It is unknown if any assay or sampling quality control procedures were consistently undertaken by CRAE. No evidence of standards or blanks is available.</li> <li>OGC DD samples were fire assayed and analysed by Aqua Regia digest for Au and LECO digest for sulphur by Amdel Ltd (Amdel) at their Macraes Flat Laboratory, New Zealand. A multielement suite comprising of Ag, As, Bi, Cu, Pb, Zn &amp; Mo was subsequently assayed by ICP-MS and AAS by Amdel in Adelaide, Australia. Grind samples were prepared and assayed at Amdel Macraes Flat. These were assayed for Au &amp; As only. OGC used standards, blanks, laboratory repeats which were recorded in their last drilling programme.</li> <li>MOD &amp; SFR DD samples were sent to SGS Waihi, New Zealand, where they were assayed by 30g fire assay with AAS finish. MOD DD multielement analysis was completed by SGS up to SCDDH078. After SCDDH078, multi-element analysis was undertaken by ALS Townsville where a 48-element suite was determined via ICP-MS. ALS has a full QAQC program. SGS laboratories carry a full QAQC program and are ISO 19011 certified. Sample preparation of geological samples by SGS comprises of drying, crushing, splitting (if required) and pulverising to obtain an analytical sample of 250 g with &gt;95% passing 75 µm. Any over limit arsenic samples (&gt;5000ppm) were then tested by XRF method. Drill holes SCDDH056 and SCDDH057 weren't tested for over limited As and recorded as 5000ppm.</li> <li>No independent laboratory inspections were carried out during these phases of drilling, sampling and analysis.</li> <li>For each MOD and SFR drill hole QA/QC included: <ul style="list-style-type: none"> <li>At least 2 Au certified Rocklab standards (CRM).</li> <li>Two blanks.</li> <li>At least one core duplicate (quarter core) and laboratory duplicate per drill hole or every 25 samples.</li> <li>Lab repeats are recorded.</li> </ul> </li> <li>Standards, duplicates and blanks are checked after receiving the results. The QA/QC results have been deemed acceptable.</li> <li>The same process for MOD channel and rock chip samples was used.</li> </ul>



Criteria	Explanation	Commentary
		<ul style="list-style-type: none"> <li>- SNG Ionic samples are analysed by ALS, Ireland by method ME-MS23 by ICP-MS.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data</i></li> </ul>	<ul style="list-style-type: none"> <li>- CRAE drillhole SCDDH017 was twinned by MOD. The results for the two holes were similar suggesting that the CRAE Au results are acceptable.</li> <li>- During MOD and SFR drill programs mineralisation intersection data was inspected and verified independently by the project manager or senior project geologist. The project manager visited the deposit on average weekly in support of the exploration program.</li> <li>- All laboratory assay results were received and stored in both CSV and laboratory signed PDF formats.</li> <li>- Data is stored in Microsoft Excel, Leapfrog and Vulcan.</li> <li>- Data storage system protocols are basic but robust.</li> <li>- All data is stored in a Data room as well as back up on Drop box.</li> <li>- The data and future work should be stored and managed on a commercial relational database with inbuilt validation protocols in the future.</li> <li>- Quarter core cuts are added together to get the same sample weights per sample interval.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>- The drillhole collar coordinate (X, Y, Z) are referenced to New Zealand Transverse Mercator 2000 (NZTM). All holes up to SCDDH096 have been picked up by GPS methods and post processed by Golden Bay Surveyors to 0.1m accuracy.</li> <li>- SFR drilling from SCDDH097 to SCDDH103 have been picked by handheld GPS Garmin 64. SFR drillholes in the Main Zone are collared within 1m of previous drilling from the same drill pad.</li> <li>- A digital terrain model (DTM) was constructed based on LiDAR that was flown by NZ Aerial Surveys in 2011. All drill collars elevations were reconciled with the LiDAR.</li> <li>- Downhole surveys are not available for 19 out of 50 CRAE holes and one abandoned OGC hole SCDDH046. Except for one drillhole (DDH84SC16), all the unsurveyed drillholes are less than 120m deep. Hellman report (2007) noted that no significant deviation in azimuth and dip takes place in the first 120m of the surveyed holes. It was therefore considered reasonable to assume that these unsurveyed holes follow the collar Azimuth and dip orientation.</li> <li>- The correction used between magnetic north and true north (magnetic declination) was 22° East.</li> <li>- MOD and SFR surveyed on average every 30m using a digital downhole tool. SFR used Longyear true shot camera for down hole surveys.</li> <li>- Soil and Ionic samples sites are located by handheld Garmin GPS.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <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></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>- Drilling in the Main Zone has generally been completed on a 75m spacing with ranges between 50m to 150m.</li> <li>- The drill spacing was suggested by drill hole density analysis (Golder, 2012) down to the 50mRL in the Main Zone.</li> <li>- Drilling in Bobby Dazzler has spacing with ranging from very closely spaced (5-10 m) where holes are collared in the outcropping dyke up to spacings of between 75-125 m.</li> </ul>

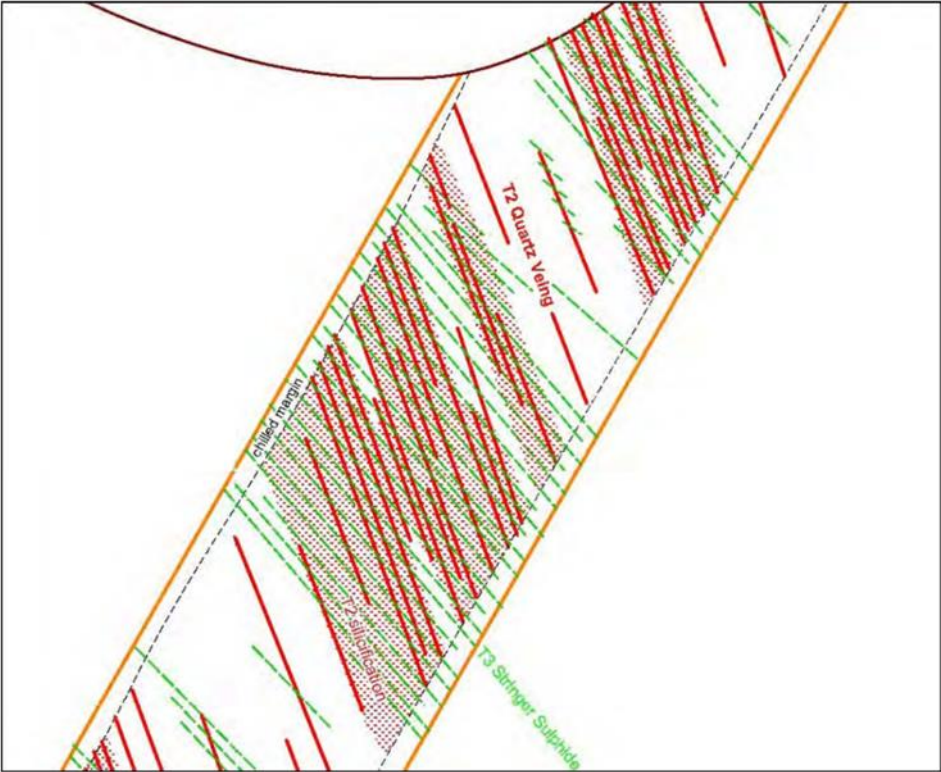
Criteria	Explanation	Commentary
		<ul style="list-style-type: none"> <li>- Drilling directions and distances in the Main Zone and Bobby Dazzler are variable because of the terrain, orientation of the target dyke and the orientation of the mineralisation within the dyke. Multiple drilling orientations have been fanned off single drill pads to make most of pad sites due to access agreement restrictions and the steep and challenging terrain.</li> <li>- The Carapace, with a much flatter terrain was drilled on 50m spacing with vertical holes.</li> <li>- SE Traverse spacing is approximately 100m.</li> <li>- Sample compositing was to 1m which is the dominant sample length.</li> <li>- CRAE and MOD soil sample pattern is on 100 x 20m pattern. Ionic sample spacing along the lines is 50m. Line spacing is various.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>- Many drill holes are collared in the hanging wall to the dyke and are drilled at high angles to the north dipping dyke. These drill holes are better for assessing the Sams Creek porphyry contact and true thickness, however, the holes are often drilled at low angle or sub-parallel to the mineralised sulphide veins that dip to the SE. Therefore, these intersections are sub-optimal for resource grade estimation. These drill holes provide more precise estimates of tonnage but do appear to introduce a grade bias due to the angle intersection with the mineralisation zones.</li> <li>- Most drill holes intercept at a low angle to the host porphyry and therefore drill down the porphyry but at a higher angle to the general orientation of the mineralisation. These holes appear to be more optimal to delineate grade and possible grade domains. However, with often poorly intact porphyry contacts recovered in the core. These holes are sub-optimal for delineating the geometry of the porphyry. These holes are drilled from both hanging wall footwall of the dyke.</li> <li>- This relationship between drillhole orientation and expected benefits has been taken into consideration during drill hole design and implementation.</li> <li>- CRAE and MOD Soil lines cut mineralisation at high angles. Ionic Leach intercepts the projected down plunge of the folds which host the high grade shoots at a high angle.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>- Drill samples were securely packaged on site and transported by a courier or by staff with "chain of custody" documentation. Samples were stored in a locked coreshed until despatch.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>- Golder completed an audit as part of the 2013 Mineral Resource Estimation (MRE). Hellman Scofield previously carried out an independent review of the sampling techniques and data. The results were satisfactory.</li> </ul>

## Section 2 - Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sams Creek project is situated mostly in the Northwest Nelson Conservation Park which lies on the eastern edge of the Kahurangi National Park in northwest Nelson area.</li> <li>The Exploration Permit EP 40338 expires on the 26 March 2025 and is subject to a joint venture with OGC with Siren Gold Ltd (SNG) owning 82%.</li> <li>The eastern neighbouring permit EP 54454 expires on the 25 September 2026. This covers the eastern areas of the Sams Creek Dyke over Barron's Flat into the Waitui catchment. SGL is the sole permit holder of EP 54454.</li> <li>A 1% Crown royalty would apply to EP 40338 and 2% Crown royalty to EP 54454. applicable for any gold or silver production once the Sams Creek permits are converted to mining permits.</li> <li>The Sams Creek permit EP 40338 is also subject to an agreement between Royalco Resources Limited (Royalco) and OGC. Under this agreement, a royalty of 1% of gold produced is deliverable by OGC to Royalco.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>All exploration results in drill holes up to SCDDH103 were produced by: CRAE (1980-1987), OGC (1996-2005), MOD (2010- 2017) and SFR (2019 to 2021).</li> <li>CRAE completed trenching and soil sampling programs where MOD resources completed the CRAE soil sample pattern over Sams Creek and Barrons Flat.</li> <li>OGC completed desk top studies of prospectivity and ore controls.</li> <li>MOD completed structural mapping program over Main Zone, Carapace, SE Traverse and Doyles as well channel sampling.</li> <li>MOD completed a heli magnetic &amp; radiometrics geophysics survey in 2011 with processing and interpretation completed by Southern Geoscience in 2012.</li> </ul>
Geology	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sams Creek mineralisation is contained within a hydrothermally altered peralkaline granite porphyry dyke that intrudes Early Palaeozoic metasediments. The dyke is up to 60m thick and can be traced east-west along strike for over 7km. The dyke generally dips steeply to the north (-60°), including within the Main Zone and Bobby Dazzler, with gold mineralisation extending down dip for at least 1 km and is open at depth. The geological and geochemical characteristics of the Sams Creek granite dyke indicate it is a member of the intrusion-related gold deposits (IRGD). Within the Carapace and SE Traverse areas the dyke is flat or only gently dipping. The relative position and geometry of the SE Traverse deposit is thought to have been affected by movement along landslip planes which has displaced the dyke to the south-east by ~250m.</li> <li>Gold mineralisation is largely contained within thin (1-15 mm) sheeted quartz-sulphide (T3) veins that crosscut the dyke which strike to the NE and dip predominantly to the SE at around 50°.</li> </ul>



Criteria	Explanation	Commentary
		 <p><b>NW-SE section of the Main Zone of Sams Creek Porphyry Dyke showing T2 quartz veining, T3 sulphide veins (GOD 2010). The majority of the gold mineralisation is contained in the T3 veins.</b></p> <ul style="list-style-type: none"> <li>- The Sams Creek dyke was deformed by a D3 event which resulted in gentle upright F3 folds plunging to the NE-ESE. A model is proposed whereby gold-bearing sulphide veins formed along F3 fold hinges and parallel boudin necks of extending fold limbs, perpendicular to the maximum shortening direction. The higher concentrations of veining in these two areas, results in NE plunging mineralised shoots up to 35 m wide and 100 m high separated by zones of lower grade gold mineralisation.</li> </ul>

Drill hole Information	<ul style="list-style-type: none"> <li>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:</li> <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> <li>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</li> </ul>	Hole ID	Prospect	TD	mE NZTM	mN NZTM	RL	Collar Dip	Collar Azimuth
		DDH82SC01	Carapace	84.10	1579751.76	5454047.29	561.80	-45	121
		DDH82SC02	Carapace	117.25	1579745.88	5454046.20	562.99	-45	301
		DDH82SC04	Carapace	19.50	1579805.43	5454054.39	555.60	-45	066
		DDH82SC05	Carapace	8.35	1579803.67	5454053.63	555.90	-45	261
		SCDDH086	Carapace	15.40	1579983.75	5454350.66	329.18	-90	000
		SCMDH001	Carapace	8.80	1580030.78	5454375.62	289.54	-90	022
		SCMDH002	Carapace	9.70	1580062.49	5454313.14	336.10	-90	022
		SCMDH003	Carapace	20.10	1580142.15	5454430.99	244.39	-90	022
		SCMDH004	Carapace	20.20	1580142.15	5454430.99	244.39	-90	022
		SCMDH005	Carapace	21.14	1580142.15	5454430.99	244.39	-90	022
		SCMDH007	Carapace	20.00	1580142.15	5454430.99	244.39	-90	022
		SCMDH008	Carapace	57.40	1580066.92	5454350.72	311.20	-90	022
		SCMDH010	Carapace	12.50	1580120.96	5454360.59	287.89	-90	022
		SCMDH011	Carapace	22.90	1579861.26	5454417.15	398.50	-90	022
		SCMDH012	Carapace	25.00	1579947.31	5454269.16	399.11	-90	022
		SCMDH013	Carapace	25.90	1579947.56	5454268.69	399.10	-90	022
		SCMDH014	Carapace	19.80	1580102.56	5454509.75	231.69	-90	022
		SCMDH015	Carapace	15.00	1579492.30	5453580.20	495.70	-90	022
		SCMDH016	Carapace	17.70	1579702.20	5453605.20	461.00	-90	022
		SCMDH017	Carapace	14.10	1580144.52	5454430.15	244.05	-90	022
		SCMDH018	Carapace	18.40	1580144.52	5454430.15	244.05	-90	022
		SCMDH019	Carapace	14.00	1580328.24	5454452.07	326.99	-90	022
		SCMDH020	Carapace	23.00	1580333.01	5454451.76	326.86	-90	022
		SCMDH021	Carapace	26.00	1580548.95	5454370.76	226.23	-90	022
		SCMDH022	Carapace	28.10	1580103.91	5454507.11	232.01	-90	022
		SCMDH025	Carapace	22.60	1580102.81	5454510.59	231.08	-90	022
		SCMDH026	Carapace	25.00	1580331.48	5454451.19	327.58	-90	022
		SCMDH027	Carapace	30.30	1580145.59	5454649.07	244.64	-90	022
		DDH82SC11	Main Zone	98.30	1580145.24	5454649.52	244.40	-50	121
		DDH83SC12	Main Zone	42.00	1580145.07	5454649.86	244.34	-50	151
		DDH83SC13	Main Zone	119.60	1579981.74	5454350.20	330.92	-53	331

		DDH84SC16	Main Zone	211.70	1580413.69	5454471.91	279.00	-55	331
		DDH84SC16A	Main Zone	32.90	1580411.80	5454472.91	279.00	-45	311
		DDH84SC17	Main Zone	26.70	1580411.68	5454473.38	279.00	-90	061
		DDH84SC17A	Main Zone	28.90	1580212.74	5454526.24	293.65	-70	331
		DDH84SC18	Main Zone	62.40	1580212.60	5454525.94	293.65	-60	321
		DDH84SC19	Main Zone	239.10	1579992.18	5454407.17	321.67	-45	331
		DDH84SC21	Main Zone	200.40	1579992.05	5454407.57	321.93	-65	151
		DDH84SC23	Main Zone	166.50	1579861.26	5454417.15	398.50	-60	331
		DDH84SC25	Main Zone	250.15	1579992.00	5454408.00	322.13	-47.5	331
		DDH85SC26	Main Zone	200.20	1579991.00	5454407.00	322.75	-90	061
		DDH86SC35	Main Zone	16.80	1580304.83	5454606.87	394.88	-45	151
		DDH86SC36	Main Zone	203.00	1580305.81	5454607.14	394.71	-45	151
		DDH87SC40	Main Zone	195.80	1580411.65	5454473.39	281.12	-65	242
		DDH87SC41	Main Zone	206.00	1580412.41	5454472.57	280.17	-67	152
		DDH87SC42	Main Zone	288.00	1580327.38	5454517.53	360.77	-50	332
		SCDDH044	Main Zone	329.30	1580216.03	5454526.78	292.77	-73	331
		SCDDH045	Main Zone	148.85	1580324.51	5454519.41	361.02	-60	091
		SCDDH048	Main Zone	248.70	1580413.06	5454473.04	279.80	-75	312
		SCDDH049	Main Zone	352.65	1580411.29	5454472.18	281.18	-60	151
		SCDDH050	Main Zone	316.70	1580449.57	5454445.29	239.09	-65	111
		SCDDH054	Main Zone	410.85	1580411.28	5454471.66	281.06	-90	022
		SCDDH056	Main Zone	173.75	1580258.40	5454468.30	289.25	-63	321
		SCDDH057	Main Zone	155.70	1580331.90	5454453.30	328.05	-66	171
		SCDDH058	Main Zone	274.30	1580142.40	5454432.20	244.00	-80	330
		SCDDH059	Main Zone	344.00	1580331.70	5454450.70	327.50	-65	337
		SCDDH060	Main Zone	289.60	1580105.80	5454507.40	230.55	-75	010
		SCDDH061	Main Zone	203.00	1580204.10	5454416.20	211.50	-90	010
		SCDDH062	Main Zone	155.00	1579815.10	5453977.90	537.10	-85	333
		SCDDH063	Main Zone	338.30	1580103.80	5454505.30	232.30	-70	343
		SCDDH064	Main Zone	305.00	1579863.00	5454418.00	398.35	-80	351
		SCDDH065	Main Zone	315.30	1580106.00	5454503.00	230.50	-70	005
		SCDDH066	Main Zone	110.50	1580105.50	5454502.50	231.50	-65	126
		SCDDH068	Main Zone	596.00	1579859.00	5453759.00	462.90	-84	344

		SCDDH069	Main Zone	542.15	1579799.00	5453635.00	430.38	-79	046
		SCDDH070	Main Zone	385.50	1579574.00	5453562.00	481.85	-68	020
		SCDDH071	Main Zone	241.45	1579384.00	5453560.00	487.00	-90	000
		SCDDH072	Main Zone	353.10	1579837.00	5453799.00	494.00	-84	020
		SCDDH073	Main Zone	238.00	1580105.50	5454502.50	231.50	-78	079
		SCDDH074	Main Zone	328.30	1580105.50	5454502.50	231.50	-83	300
		SCDDH075	Main Zone	280.00	1580105.50	5454502.50	231.50	-77	027
		SCDDH076	Main Zone	287.40	1579782.00	5453730.00	483.00	-73	322
		SCDDH077	Main Zone	253.10	1579715.00	5453665.00	481.00	-67	000
		SCDDH078	Main Zone	203.20	1579620.00	5453630.00	493.00	-68	263
		SCDDH079	Main Zone	170.60	1579520.00	5453625.00	506.00	-83	309
		SCDDH080	Main Zone	299.20	1579766.67	5454045.66	559.24	-78	000
		SCDDH081	Main Zone	49.40	1579854.36	5454071.29	543.58	-90	089
		SCDDH082	Main Zone	126.40	1579965.34	5454056.71	509.17	-55	200
		SCDDH083	Main Zone	308.00	1579864.92	5454005.83	536.78	-75	015
		SCDDH084	Main Zone	21.00	1579748.53	5453972.24	551.46	-75	050
		SCDDH088	Main Zone	278.30	1579724.23	5454045.42	567.53	-66	285
		SCDDH089	Main Zone	326.00	1579704.12	5454080.48	579.09	-77	042
		SCDDH090	Main Zone	391.70	1579762.60	5454015.29	559.03	-69	335
		SCDDH091	Main Zone	734.40	1579718.72	5454012.05	566.97	-63	325
		SCDDH097	Main Zone	171.30	1579814.31	5453979.10	537.50	-72	070
		SCDDH098	Main Zone	165.80	1579898.58	5454029.57	533.86	-75	050
		SCDDH099	Main Zone	201.70	1579816.30	5454069.46	551.60	-76	033
		SCMDH028	Main Zone	53.80	1579882.48	5454067.22	530.23	-90	022
		SCMDH029	Main Zone	93.60	1579719.86	5453957.02	554.00	-65	045
		SCMDH030	Main Zone	45.20	1579774.60	5453980.71	547.66	-65	045
		SCMDH031	Main Zone	91.00	1579821.33	5454028.89	544.74	-90	022
		DDH86SC32	SE Traverse	91.20	1579922.45	5454037.28	525.88	-45	151
		DDH86SC33	SE Traverse	118.20	1579730.39	5454066.94	567.04	-70	151
		SCDDH092	SE Traverse	35.00	1579692.10	5454028.36	575.46	-80	150
		SCDDH093	SE Traverse	19.00	1579705.06	5453989.10	566.42	-80	150
		SCDDH094	SE Traverse	35.00	1579870.32	5454025.44	540.59	-80	150
		SCDDH095	SE Traverse	40.10	1579684.70	5454050.00	579.20	-80	150



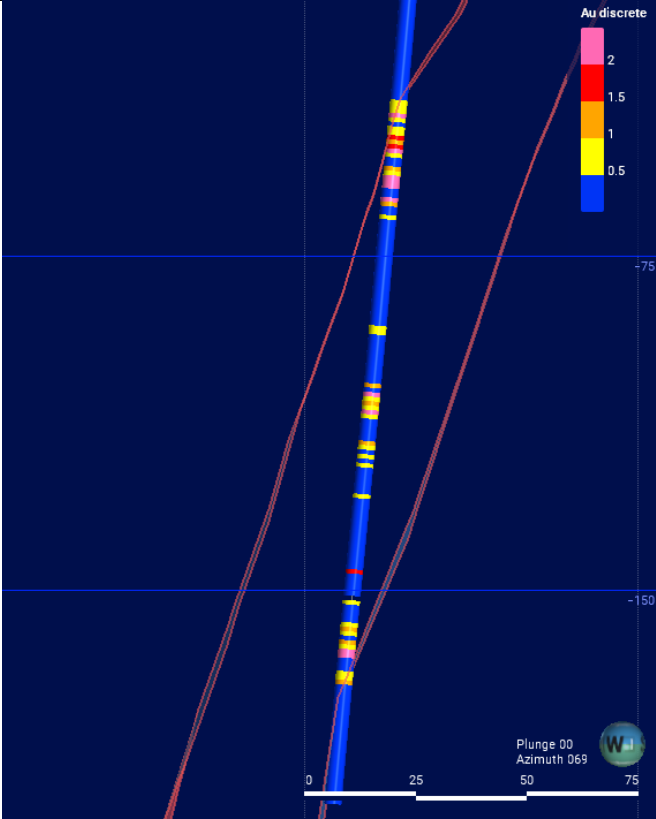


Criteria	Explanation	Commentary
Relationship between mineralisation widths and intercept length	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <ul style="list-style-type: none"> <li>• <i>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').</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- All drill hole results are report as downhole intercepts.</li> <li>- In the Main Zone and Bobby Dazzler with steep dipping dyke and drilling in steep terrain the drilling was designed to either intercept mineralisation at higher angle which mean some holes intercepted the dyke's contacts at a low angle or intercept the dyke at high angle and potential mineralisation at low angle.</li> <li>- Drilling into the flatter lying Carapace and SE Traverse with vertical holes appeared to intercept both the dyke contacts at high angles and the mineralisation to both delineate dyke's geometry and mineralisation.</li> <li>- True thicknesses have estimated from Leapfrog or Vulcan geology model which was updated as drilling progresses during MOD and SFR programmes.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>- Relevant diagrams have been included within the main body of the announcement.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>- N/A</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>- N/A</li> </ul>
Further work	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>- Recommendations for further work are included in the Sams Creek Mineral Estimate Resource report.</li> </ul>

### Section 3 - Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Explanation	Commentary
Database integrity	<ul style="list-style-type: none"><li>• <i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></li><li>• <i>Data validation procedures used.</i></li></ul>	<ul style="list-style-type: none"><li>- Database is stored Microsoft Excel which has been validated by Measured Group using software (Leapfrog Geo). Random spot checks were completed between database and hard copies.</li></ul>
Site visits	<ul style="list-style-type: none"><li>• <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li><li>• <i>If no site visits have been undertaken indicate why this is the case.</i></li></ul>	<ul style="list-style-type: none"><li>- Due to complications resulting from the Covid pandemic, the Competent Person was unable to visit the site in person. However, two MG geologists, including the lead technical director, visited the site in October 2022. The site visit included reviewing SNG core that was available on site as well as the ground over the mineral resource area which, involved spot checks on collar survey details and observations of mineralisation in the field. Core from known ore grade intercepts was inspected to confirm mineralisation style as well as inspected host rock material. Extensive notes were prepared</li></ul>
Geological interpretation	<ul style="list-style-type: none"><li>• <i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></li><li>• <i>Nature of the data used and of any assumptions made.</i></li><li>• <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li><li>• <i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li><li>• <i>The factors affecting continuity both of grade and geology.</i></li></ul>	<ul style="list-style-type: none"><li>- Geological interpretation based on available field mapping data, structural mapping, drillhole lithology and grade data. Modelling was completed using Leapfrog Geo modelling software. Wireframing and geological modelling was carried out by Measured Group and reviewed by SNG.</li><li>- Mineralisation is contained exclusively within the porphyry dyke, however there are extensive zones, particularly in the steeply dipping fold limbs of Main Zone, where extensive very low grade material is present within some drillholes that has previously been included within the modelled wireframe due to the modelling process employed (hanging wall and footwall snapped to first occurrence of an assay sample &gt;0.1 g/t Au).</li></ul>

Criteria	Explanation	Commentary
		<div></div> <p><b>Golder 2021 MRE Main Zone wireframe showing extensive low grade Au intervals included</b></p> <ul style="list-style-type: none"><li>- Due to a focus on optimisation for potential underground mining in the Main Zone, the wireframe modelling process worked on excluding some of the large zones of low grade Au compared to the 2021 MRE wireframe with the intention of increasing the overall grade of the resource estimate. Composite intervals of 0.75 g/t Au were used as a guide for the interval selection process, however in some areas where mineralisation was particularly patchy within drillholes, the modelling geologists discretion was applied in excluding or including certain intervals in the wireframe based on geological understanding and ore body continuity.</li></ul>



Criteria	Explanation	Commentary
		<div data-bbox="1146 212 1906 1032"> </div> <p><b>MG 2022 MRE Main Zone wireframe. Red intervals are 0.75 g/t Au composites</b></p> <ul style="list-style-type: none"> <li>- The Main Zone deposit was separated into 2 geological domains prior to estimation, East and West, cut by a pseudo-fault surface,</li> <li>- The western extent of the Main Zone wireframe is controlled by the Bobby Dazzler fault which was modelled and provided to MG by SNG. The deposit is open at depth and along strike to the east.</li> <li>- Within the Carapace and SE Traverse areas, the mineralised intervals with the dyke are generally thinner than Main Zone and include much less internal waste, so interval selection for wireframing was reasonably simple. For Carapace, due to it being an open-cut target, composite intervals of 0.25 g/t and in SE Traverse composite intervals of 0.75 g/t were used to guide interval selection, however the modelling geologists discretion was again applied in excluding or including certain intervals in based on geological understanding and ore body continuity.</li> </ul>

Criteria	Explanation	Commentary															
		<ul style="list-style-type: none"> <li>- The Carapace deposit is truncated to the north, east and south by topography. The dyke is thought to continue along strike to the west leading into the Bobby Dazzler and Doyles prospect areas.</li> <li>- SE Traverse wireframe outcrops against topography to the south and is otherwise truncated by the SE Traverse slip plane on all other sides, This has been modelled based on drillhole intercepts and field mapping data.</li> <li>- Bobby Dazzler is located west of the Bobby Dazzler fault from the Main Zone and has a similar geometry in that it is dipping to the north although less steeply than Main Zone. The deposit is open at depth and along strike to the west leading into the Doyles and Western Outcrops areas. The modelled mineralised wireframe is contiguous with the Carapace to the south where the dyke enters a fold anticline. A dummy fault surface was used to define the boundary between the Bobby Dazzler and Carapace deposit areas.</li> <li>- The drill spacing provided confidence in the interpretation and continuity of grade and geology.</li> </ul>															
Dimensions	<ul style="list-style-type: none"> <li>• <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> </ul>	<ul style="list-style-type: none"> <li>- The mineral resource is split into 3 areas; Main Zone, Carapace and SE Traverse. The relative wireframe dimensions and variability in terms of continuity of each deposit is characterised in the table below:</li> </ul> <table border="1"> <thead> <tr> <th>Prospect</th><th>Dimensions (LxWxD expressed in metres)</th><th>Comments on variability</th></tr> </thead> <tbody> <tr> <td>Main Zone</td><td>950x590x80 striking 089° and dipping 55° to 359°</td><td>Open at depth and to the east</td></tr> <tr> <td>Carapace</td><td>425x100x10 striking 012° and dipping 14° to 102°</td><td>Outcrops at surface. Deposit truncated by topography to north, east and south. Continues at depth to west.</td></tr> <tr> <td>SE Traverse</td><td>830x240x10 striking 070° and dipping 5° to 340°</td><td>Displaced slumped landslip block. Dyke truncated by slip plane and topography.</td></tr> <tr> <td>Bobby Dazzler</td><td>450x200x10 striking 095° and dipping 35° to 005°</td><td>Open at depth and to the west</td></tr> </tbody> </table>	Prospect	Dimensions (LxWxD expressed in metres)	Comments on variability	Main Zone	950x590x80 striking 089° and dipping 55° to 359°	Open at depth and to the east	Carapace	425x100x10 striking 012° and dipping 14° to 102°	Outcrops at surface. Deposit truncated by topography to north, east and south. Continues at depth to west.	SE Traverse	830x240x10 striking 070° and dipping 5° to 340°	Displaced slumped landslip block. Dyke truncated by slip plane and topography.	Bobby Dazzler	450x200x10 striking 095° and dipping 35° to 005°	Open at depth and to the west
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Estimation and modelling techniques	<ul style="list-style-type: none"> <li>• <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li> <li>• <i>The availability of check estimates, previous estimates and/or mine production records and</i></li> </ul>	<ul style="list-style-type: none"> <li>- For this resource estimate, MG has completed the following: <ul style="list-style-type: none"> <li>• <i>Geological interpretation and wireframing in Leapfrog Geo</i></li> <li>• <i>Hard boundary compositing in Leapfrog - Edge Module (Leapfrog Edge);</i></li> <li>• <i>Variography and Ordinary Kriging in Leapfrog Edge; and</i></li> <li>• <i>Block Model Estimation in Leapfrog.</i></li> </ul> </li> <li>- Composites were based on 1 m composites.</li> </ul>															

Criteria	Explanation	Commentary
	<p><i>whether the Mineral Resource estimate takes appropriate account of such data.</i></p> <ul style="list-style-type: none"> <li><i>The assumptions made regarding recovery of by-products.</i></li> <li><i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i></li> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<ul style="list-style-type: none"> <li>- Outlier grades were assessed by reviewing composite histograms of gold grade for each individual wireframe. Extreme outlier grades weren't identified, and it was determined that no top-cut was required</li> <li>- Estimation domains were created for each deposit area. The Main Zone deposit was split into two domain areas, East and West. The two Main Zone domains were set to have a soft boundary between the dyke in the two domains but hard boundary for the contact with the host rock. Carapace and SE Traverse were treated as hard boundary domains as they were picked from drilling assays. The Bobby Dazzler domain was set to have a soft boundary with the contiguous Carapace deposit with a 20 m range but a hard boundary for the contact with the host rock.</li> <li>- Individual domain search distances, number of passes, minimum and maximum sample numbers are outlined in the Sams Creek Mineral Estimate Report.</li> <li>- Previous mineral resource estimates have been conducted on the Sams Creek project including 2013 and 2021 estimates carried out by Golder Associates. These block models have been made available to MG during the resource estimate work. Previous resource estimates have used ordinary kriging estimation. To confirm the appropriateness of this technique both inverse distance and nearest neighbour were estimated as comparison. Comparing these through Leapfrog's Swath Plots function it was determined that the Ordinary Kriging showed the most representative estimator for the underlying composited data. Swath plots for each area are shown in the final Mineral Estimate Report. Block model validation included block statistics review, swath plots, visual inspection of grade distribution against composites, as well as sensitivities to block size and estimation variable changes were undertaken.</li> <li>- Test work completed to date indicates that recoveries from 80 to 90% are achievable from Sams Creek material. The work completed at this stage is preliminary. Further test work is required.</li> <li>- Arsenic is shown to be weakly to moderately positively correlated with gold grades and typical of refractory gold-pyrite-arsenopyrite mineralisation. No considerations were made for the estimation of deleterious elements at this stage until SNG has completed its recovery test work.</li> <li>- Block sizes for each of the model areas are: <i>10m x 10m x 5m with a subblock down to 1.25m x 1.25m x 0.625m</i></li> <li>- Each block model has no rotation or dip applied. Each of the estimation parameters for each wireframe within the deposits was applied to the parent block of that block model. A detailed summary of block model variables and dimensions is outlined in the Sams Creek Mineral Estimate Report.</li> <li>- As only gold is estimated in this mineral resource, no variables are correlatable.</li> <li>- The geological modelling of the dyke for each deposit were used as sub-block triggers within the block model to ensure the block model estimation was representing the 3D wireframes.</li> </ul>



Criteria	Explanation	Commentary
Moisture	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>All tonnages are based on dry bulk density measures. The median of the bulk density measures was assigned to the block by mineralisation and weathering domains.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>The resource model is constrained by assumptions about economic cut-off grades.</li> <li>The Main Zone, SE Traverse resources are based on a 1.85 g/t Au cut-off grade.</li> <li>Bobby Dazzler resources are reported at cut-off grades between 1.0 and 2.0 g/t Au</li> <li>Carapace resource is based on a 0.5 g/t cut-off grade.</li> </ul>
Mining factors or assumptions	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>The resource has been estimated based on an assumption of underground mining for the Main Zone, Bobby Dazzler (sub-level open stoping or cut and fill) and SE Traverse (room and pillar) prospect areas.</li> <li>Carapace is thought to potentially be a target for small scale open-cut extraction and resource estimation has been conducted based on that assumption.</li> </ul>
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>Cyanidation testwork completed on six oxide bulk samples by CRAE resulted in Au recoveries of 85-95%.</li> <li>Testwork was completed on fresh sulphide mineralisation at the start of 2004 by OGC to characterise the metallurgical behaviour of Sams Creek sulphide mineralisation.</li> <li>The recoveries from this testwork are summarised as: <ul style="list-style-type: none"> <li><i>Direct Leach: 79-87% gold recovery</i></li> <li><i>Float and then leach: 73-86% gold recovery</i></li> <li><i>Float and acid leach: 83-91% gold recovery.</i></li> </ul> </li> <li>Testwork completed to date indicates that recoveries from 80 to 90% are achievable from Sams Creek material. The work completed at this stage is preliminary. Further test work is required.</li> </ul>
Environmental factors or assumptions	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where</i></li> </ul>	<ul style="list-style-type: none"> <li>The Sams Creek project predominantly lies within the NW Nelson Forest Park administered by the Department of Conservation (DoC). The Reefton open cut gold mine 100 km to the SW, which has been successfully operated by OGC between 2007 and 2016 is also contained within a Forest Park administered by DoC. The area is generally covered with beech forest with native scrub and sub-alpine grasslands. Some of the beech forest has been logged, with other areas burned and grazed. The current plan is to mine by underground methods with decline access from private land at Barrons Flat. Disturbance to the DoC estate would be limited to a small open pit at Carapace and vent raises which require a cleared area similar to a drill pad (10mx10m).</li> </ul>

Criteria	Explanation	Commentary
	<i>these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i>	<ul style="list-style-type: none"> <li>- SNG has an Access Agreement with DoC which allows for 100 drill pads and several camps and helicopter landing sites.</li> </ul>
Bulk density	<ul style="list-style-type: none"> <li>• <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></li> <li>• <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</i></li> <li>• <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<ul style="list-style-type: none"> <li>- The dry bulk density values used in the resource model were assigned using the median values of the available data. The bulk density data was separated into the porphyry that hosts the mineralisation and other waste rock. These density values were then divided by oxide and fresh rock. A median of 2.70 t/m<sup>3</sup> and 2.59 t/m<sup>3</sup> were used for fresh and oxide porphyry respectively.</li> <li>- Sams Creek density assignment is based on a density assessment completed in 2011-2013. Density samples are routinely collected during logging of diamond drill core. Specific Gravity (SG) is calculated using the following formula: Weight in Air (Weight in Air - Weight in water) = SG.</li> </ul>
Classification	<ul style="list-style-type: none"> <li>• <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li>• <i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>- The resource classification accounts for all relevant factors. Two methods were used to determine the optimal drill spacing between boreholes for resource classification at the Sams Creek Project. These were: <ul style="list-style-type: none"> <li>- Variogram methodology which analyses the different proportions of the sill;</li> <li>- An estimation variance methodology.</li> </ul> </li> <li>- The data spacing and distribution is sufficient to establish geological and grade continuity appropriate for Mineral Resource estimation and classification and the results appropriately reflect the Competent Person's view of the deposit.</li> <li>-</li> </ul>
Audits or reviews.	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>- Internal audits by MG and company audits were completed</li> </ul>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <li>• <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></li> <li>• <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation</i></li> </ul>	<ul style="list-style-type: none"> <li>- The estimates made in this report are global estimates.</li> <li>- Local block model estimates, or grade control estimates, whose block grades are to be relied upon for selection of ore from waste at the time of mining will require additional drilling and sampling of blast holes.</li> <li>- Confidence in the relative accuracy of the estimates is reflected in the classification of estimates as Indicated and Inferred.</li> <li>- Variography was completed for Gold and used to influence the resource classification. The variogram models were interpreted as being isotropic along the plane of vein mineralisation, with shorter ranges perpendicular to this plane of maximum continuity.</li> <li>- Validation checks have been completed on raw data, composited data, model data and Resource estimates.</li> <li>- The model validations checked to ensure data honouring. The validated data consists of no obvious anomalies which are not geologically sound.</li> </ul>

Criteria	Explanation	Commentary
	<p><i>should include assumptions made and the procedures used.</i></p> <ul style="list-style-type: none"> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>- The mineralised zones are based on actual intersections. These intersections are checked against the drill hole data. Field geologist selections, and the Competent Person has independently checked laboratory sample data. The selections are sound and suitable to be used in the modelling and estimation process.</li> <li>- Where the drill hole data showed that no Gold existed, the mineralised zone was not created in these areas.</li> <li>- Further drilling needs to be completed to improve Resource classification of the Inferred Resource.</li> </ul>