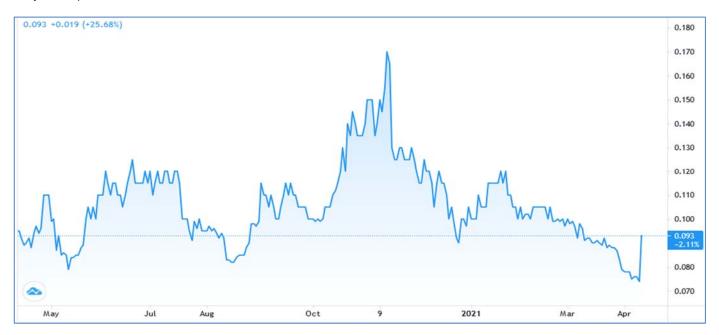


# RESOURCE BULLETIN by Gavin Wendt

Wednesday 14th April, 2021

#### **Portfolio Stock Developments**

**St George Mining** - (ASX: SGQ, Share Price: \$0.093, Market Cap: \$47m, coverage initiated @ \$0.175 in May 2016)



### **Key Catalyst**

New discovery of high-grade nickel-copper sulphides at Mt Alexander Project in WA, with 10.96m of nickel-copper sulphides intersected in hole MAD199, which tested a strong EM conductor.

SGQ has figured prominently in our coverage universe since initiation in May 2016, based on the company's strongly commitment to regional exploration at its Mt Alexander project in Western Australia's goldfields region. SGQ set the market alight during late 2017 on the back of exciting high-grade drilling results that intersected nickel-copper-cobalt-PGE sulphides. The composition of the mineralisation within the Cathedrals Belt, comprising an elevated copper-nickel ratio, cobalt and PGE values and basalt host rocks, is more akin to an intrusive mineral system – like Raglan, Voiseys Bay and Norilsk - rather than typical Kambalda-style extrusive deposits. The company is looking to recapture some of the sharemarket momentum that has been lost since August 2019, when the stock traded intra-day as high as \$0.255. SGQ is currently in the midst of a comprehensive diamond/RC drilling program at its Mt Alexander project.



#### **Latest Activity**

#### Mt Alexander Exploration Update

SGQ has provided an update with respect to exploration activities at its flagship Mt Alexander Project in Western Australia's north-eastern goldfields. SGQ's share price closed up 26% on the back of today's release.

#### Overview

SGQ has announced a new discovery of high-grade nickel-copper sulphides at its flagship Mt Alexander Project in WA. Diamond hole MAD199 was drilled to a downhole depth of 378.8m to test EM conductor MAD195\_p1.

The conductor is modelled with an EM plate having a length of 12m and depth extent of 45m, together with very strong conductivity of 19,320 Siemens. A 10.96m interval of nickel-copper sulphides was intersected from 333.6m downhole, confirming the conductor as high-grade nickel-copper sulphides. Assay results from the laboratory are awaited with keen interest.

An additional two EM conductors are located proximal to MAD195\_p1 and are also interpreted to have a massive sulphide source. MAD195\_p2 is modelled with an EM plate having dimensions of 20m x 5m and conductivity of 22,950 Siemens. MAD195\_p3 is modelled with an EM plate having dimensions of 9m x 6m and conductivity of 16,850 Siemens.

The combined strike length of these conductors suggests the presence of a significant volume of high-grade mineralisation in this location. Significantly, the EM plate drilled by MAD199 has a depth extent of 45m in the down-dip direction of the intrusive host unit. This is very favourable for the potential continuity of the mineralisation at depth.



**Figure 1**: fresh drill core from the massive sulphide interval of MAD199 between 342.12m to 343.4m, which delivered average XRF readings of 7.34% Ni and 2.94% Cu (laboratory assays pending).



#### Details

The nickel-copper sulphides in MAD199 are preserved, suggesting they may be associated with a larger proximal body of mineralisation, rather than having been remobilised from a very distant source.

Figure 1 below shows the drill core tray for MAD199 with the interval from 339.6m to 345.5m. Coarse-grained pentlandite and chalcopyrite are clearly evident in the massive sulphide core. Laboratory assays will confirm the grades of nickel and copper in the MAD199 interval, as well as the values of cobalt and platinum group metals which are also typically present at high-grades in the Cathedrals Belt mineralisation.



Figure 2: Drill core tray from MAD199 with the thick interval of nickel-copper sulphides.

#### **Technical Significance**

The initial results from hole MAD199 indicate another high-grade discovery, with the strong intersection of nickel-copper sulphides potentially indicative of the presence of a large accumulation of mineralisation. At more than 300m below surface, this is the deepest intercept of massive nickel-copper sulphides in the Cathedrals Belt and confirms the company's interpretation that the large intrusive mineral system at the Cathedrals Belt can host significant mineralisation at depth.

Importantly, there are multiple other EM conductors proximal to the MAD199 intersection – both up-dip and down-dip – which are yet to be tested. The result in MAD199 provides confidence that these additional conductors are also mineralised, and that SGQ may have discovered a very fertile section of the Cathedrals intrusive unit. There is also potential for the discovery of further high-grade mineralisation in other underexplored areas of the Cathedrals Belt.



#### **Project Overview**

The Mt Alexander Project is located 120km south-southwest of the Agnew-Wiluna belt, which hosts numerous world class nickel deposits. The project comprises five granted exploration licences – E29/638, E29/962, E29/954 and E29/972.

The Cathedrals, Stricklands and Investigators nickel-copper discoveries are located on E29/638, which is held in joint venture by Western Areas (ASX: WSA) (25%) and SGQ (75%). SGQ is the Manager of the Project, with WSA retaining a 25% non-contributing project interest in E29/638 only, until there is a decision to mine. The other four granted exploration licences are owned 100% by SGQ.

Drilling to date has confirmed that the nickel-copper sulphides discovered within the Cathedrals Belt are part of a large mineralised intrusive system. The intrusive host unit is known to extend for an east-west strike of more than 6.5km from Radar in the east to West End in the west, and to a depth of at least 600m below surface.

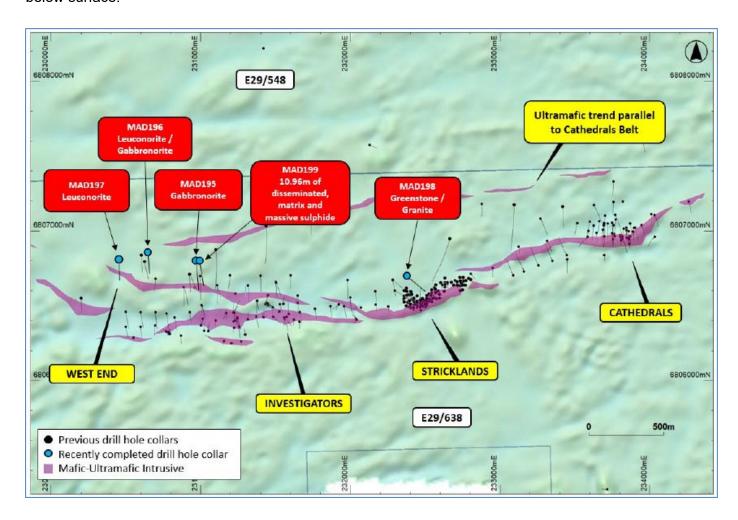


Figure 3: Map (against magnetic RTP 1VD data) showing drilling along the Cathedrals Belt and highlighting the most recently completed drill holes.



There is considerable scope to discover further mineralization, as the unit remains open to the east and west, as well as in the down-dip direction – particularly in the north-west part of the Belt where drilling is currently underway at West End.

The high-grade intersection in MAD199 is the deepest occurrence of massive nickel-copper sulphides drilled in the Belt and also the western-most occurrence. The result in MAD199 is significant in confirming the prospectivity of unexplored and underexplored areas of the Cathedrals Belt for further high-grade mineralisation, particularly at depth and to the west:

**At depth:** Surface EM surveys have limited effectiveness beyond 250m/300m below surface, meaning any significant deposits below this level have yet to be identified. The thick mineralized intersection in MAD199 confirms this interpretation and supports the prospectivity for further significant mineralisation to be present in deeper parts of the intrusive unit.

The magnetotelluric/audio-magnetotelluric surveys completed at the Cathedrals Belt during 2020 indicated that the intrusive unit has a depth extent in some areas in excess of 1.5km, indicating a large intrusive system and deep magmatic structures that have the potential to host significant mineralisation below the penetration of surface EM surveys.

**To the west:** MAD197 was recently drilled at West End, approximately 500m to the west of MAD199 and in an area that has never been drilled. The hole intersected the intrusive unit, confirming the prospectivity of West End for nickel-copper sulphides. The success of MAD199 – as the western most occurrence of massive sulphides – further elevates the prospectivity for West End by confirming that the strike of high-grade mineralisation is open to the west.

The DHEM survey of hole MAD196 identified three strong off-hole conductors that are interpreted to have a massive sulphide source. The conductors are modelled with conductivity of 69,926 Siemens, 27,000 Siemens and 32,235 Siemens, respectively – conductivity that is notably higher than those EM conductors detected by MAD195.

The modelled plates for these EM conductors are relatively small, but are situated within the southern portion of the large SQUID MLEM anomaly identified by a surface survey completed over the area in 2019. That survey identified a broad, single-component EM anomaly in this location. The anomaly was identified in the late-time Channel 28 component BZ, which is known to have identified nickel-copper sulphides elsewhere at Investigators.

The broad SQUID MLEM anomaly may represent an EM signal from one or more strong conductors down-dip of the current drilling and below the discrete conductors identified from MAD196. The potential of this down-dip area to host significant mineralisation is being tested by hole MAD200, which is planned to a depth of 600m.

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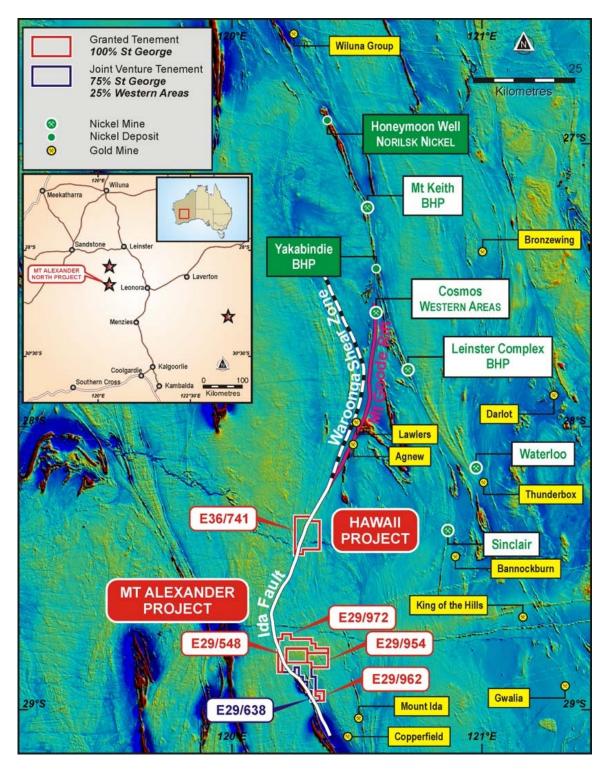


Figure 4: Mt Alexander project location.

## **Summary**

The company's systematic exploration efforts at Mt Alexander have already yielded four highgrade nickel-copper sulphide discoveries across a 5.5km strike length. The success in the latest hole MAD199 has extended the strike length and is important in terms of the company's efforts to identify further mineralisation along the Cathedrals Belt. The style of mineralisation at Mt



Alexander is very rare – as the combination of high-grade nickel, copper, cobalt and platinum group metals is not seen anywhere else in Australia.

We look forward to further results, with downhole EM surveys in progress and drilling continuing 24/7. With multiple intersections of high grade nickel-copper sulphides over a broad area and favourable project economics, Mt Alexander is emerging as a major new nickel sulphide camp in Western Australia. Accordingly, SGQ remains held within our coverage Portfolio.

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