

Phase 2 drilling program commenced at flagship Bottletree Cu-Au-Mo Porphyry Prospect

HIGHLIGHTS:

- Phase 2 Bottletree drilling program recently commenced with high-capacity diamond core drill rig
- Planned program comprises a total of 10 diamond core holes ranging from 350m to 500m total depths for a total of 4,250 metres
- Targeting a central interpreted intrusion centre of the large-scale Cu-Au-Mo porphyry alteration system discovered during the 2022 program and strike extensions to wall rock porphyry zone associated with the Discovery Outcrop area
- Specific program objectives:
 - Vector towards a porphyry core by targeting an interpreted intrusion centre 400 metres south of 2022 east-west line of drilling, considered likely to be a source of extensive copper and molybdenite mineralisation
 - Test for wall rock porphyry deposit potential by investigating the extent of wall rock Cu-Au-Mo mineralisation extending from surface and remaining open at 850m depth as identified during 2022 drilling
 - Test for a previously untested second potential wall rock porphyry zone to the southwest
- First hole (BTDD011) progressing well with familiar “Bottletree-style” wall rock chalcopyrite mineralisation in shallower parts of the hole drilled to date

Superior Resources Limited (**ASX:SPQ**) (**Superior**, the **Company**) is pleased to confirm the commencement of a Phase 2 drilling program at the Company’s flagship Bottletree Porphyry Cu-Au-Mo Project at its 100%-owned Greenvale Project, 210kms west of Townsville, Queensland (**Fig. 1**).

Drilling of a 2km x 2.5km soil copper anomaly during 2021 and 2022 resulted in the discovery of a large-scale copper mineralisation system with substantial molybdenum, which is associated with a large porphyry-style alteration system. The key hole that intersected a distal wall rock zone of mineralisation returned:

- **632m @ 0.21% Cu, 0.03g/t Au, 0.60ppm Ag, 18.0ppm Mo** from 5m below surface (BTDD004) (refer ASX announcement dated 2 June 2022), including;
 - **224m @ 0.40% Cu, 0.05g/t Au, 0.90ppm Ag, 3.5ppm Mo from 242m.**

Spectacularly high-grade molybdenum mineralisation with **up to 5.2% Mo** (BTDD010, 1m assay) was also intersected during 2022, which appears to be associated with late-stage tonalite porphyry intrusion (refer ASX announcement dated 12 April 2023).

The mineralisation identified to date is considered to be wall rock porphyry mineralisation located on the margins of the porphyry system. This 2023 program is targeting one of the interpreted porphyry intrusion centres, or a central potassic core of the system.

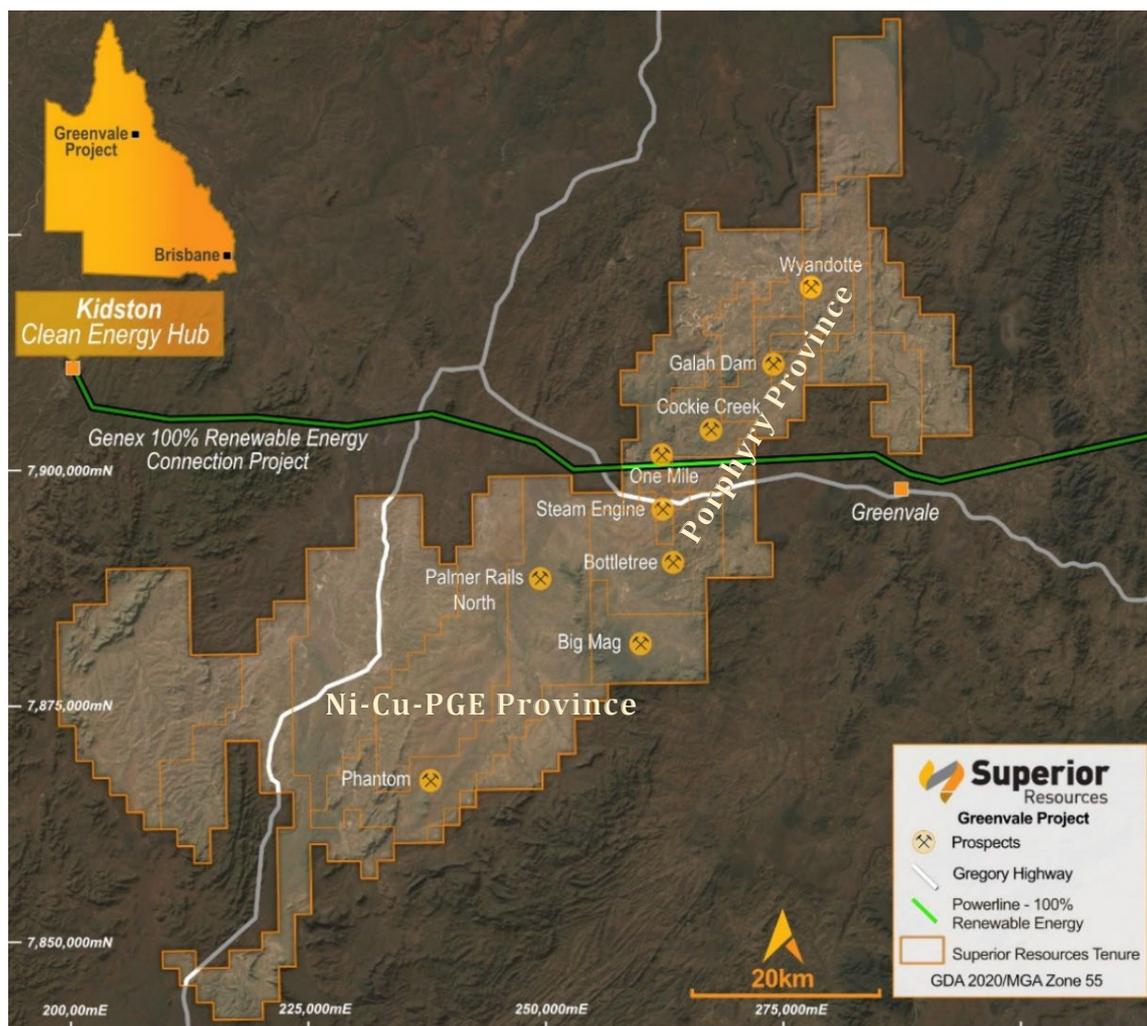


Figure 1. Map showing the locations of the Greenville Project tenements and select prospects. The Gregory Highway, Kidston Clean Energy Hub and associated power infrastructure corridor are also indicated.

Superior’s Managing Director, Peter Hwang commented:

“We are naturally, very excited to see the rig turning again at Bottletree and we have a program that takes us to the south of last year’s line of holes to target a high priority interpreted central porphyry core.

“In addition, we will also be defining the strike-extent of the significant wall rock mineralisation zone that extends from surface at the Discovery Outcrop to at least 850 metres down-dip depth with a thickness of at least 250 metres. With the zone open at depth and along strike, this represents a potentially sizeable wall rock copper deposit in its own right.

“The wall rock mineralised zone, including a potential second wall rock zone located along the south western boundary of the prospect, would separately lead to one or more source porphyry intrusion centres. However, under the current program we aim to test the wall rock zones that lie above 500 metres depth.

“Current reports from site are that the rig is progressing at a fast pace with the first hole, BTDD011, producing wall rock mineralisation that is characteristic of the Bottletree system. We will provide an update on the first hole when further and more complete information is available.”

Bottletree Phase 2 Drilling Program

The 2023 Bottletree Phase 2 Drilling Program, as planned, comprises 10 diamond core holes for a total of 4,250 metres (Figs. 2 to 5). The hole depths range from 350 metres to 500 metres.

The objectives of the program are summarised as follows:

1. Target a high priority interpreted potassic porphyry core

A large, intense and untested Cu-in-soil geochemical anomaly that is coincident with a Mo-in-soil anomaly, magnetically low, interpreted intrusion feature and an interpreted satellite feature. This is also the potential location of the source of hydrothermal fluids as interpreted on the basis of limited 3-dimensional modelling from porphyry pathfinder indicators identified from the 2022 drill holes.

A “fence” of 3 southeast-oriented holes (**BTP002, BTP003, and BTP009**), a deeper southeast-oriented hole and a northeast-oriented hole will target this zone;

2. Delineate extent of wall rock porphyry mineralisation associated with Discovery Outcrop

Based on 2022 drill holes, the wall rock porphyry zone extends from surface to at least 850m down dip depth, with a thickness of at least 250m. The strike extent of this zone has not yet been determined and remains open along strike and at depth.

Target “gaps” or areas lacking drill coverage in zones of best developed Cu mineralisation in the northeastern part of the prospect area. New holes (350-500m in length) are planned to expand the dimensions of this mineralised zone, with a focus on the shallower zones.

Two holes (**BTP014 and BTP004**) are planned to cover the intervening gap between SBTRD006 and BTDD004;

3. Second potential wall rock porphyry zone

Target the western extension of the east-west-trending Cu gossan in the southern part of the prospect area.

Short (60m), shallow, historical reverse-circulation drill holes have already demonstrated that the gossan zone is mineralized below well below surface. However, a large Cu-mineralised gossan exposed on surface to the west is completely untested at depth. This zone coincides with strong Cu and Au-in soil geochemical anomalies and a strong magnetic high.

Drillhole **BTP018** is oriented towards the southwest and will test the surface Cu gossan; and

4. Western copper anomaly

Targeting a very strong and extensive Cu-in-soils geochemical anomaly that coincides with a very prominent northwest-trending magnetic low feature (potential prospect-scale structure) and the western extension of the main east-west-trending Cu mineralised zone identified in the 2022 drilling program.

Drill hole **BTP016** is oriented to the southwest and will test this zone.

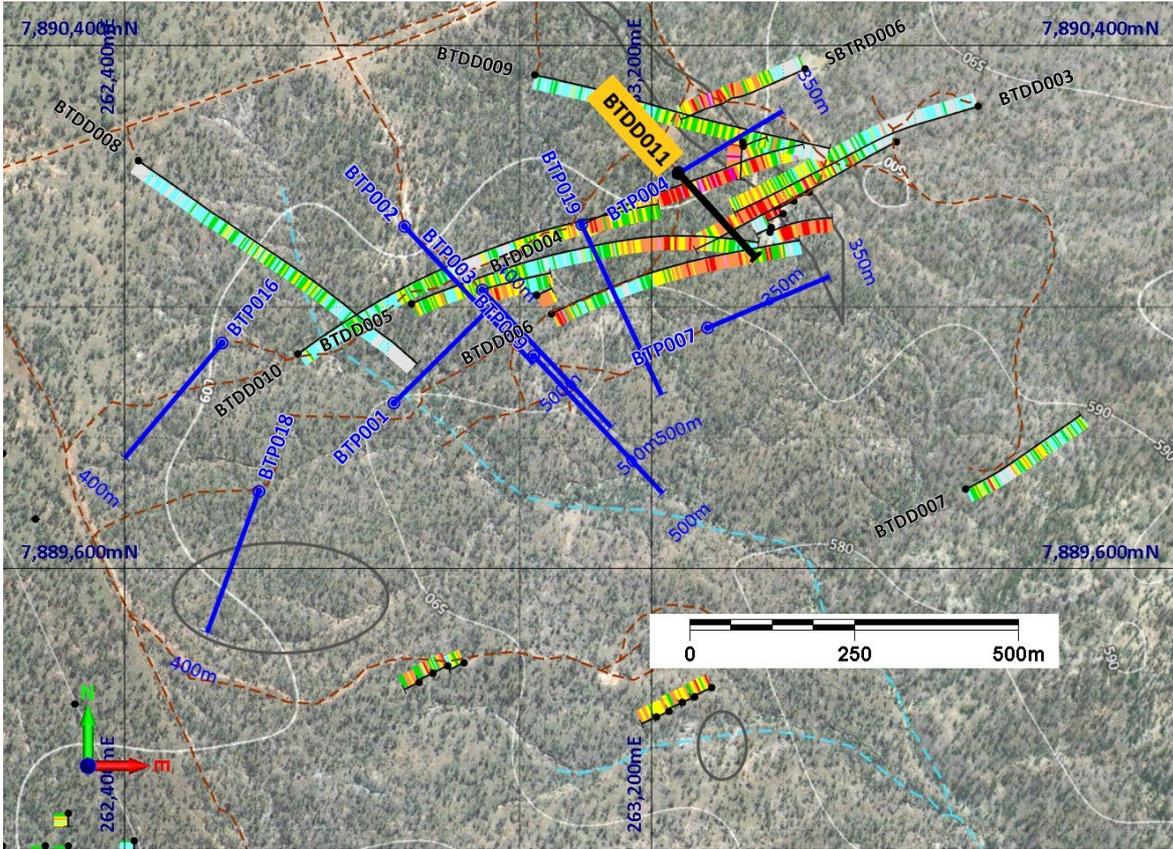


Figure 2. Satellite plan view of Bottletree Prospect area showing planned 2023 program holes (prefix BTP), current hole BTDD011 and 2021 and 2022 drill holes with Cu grade categories indicated as histograms along drill hole traces.

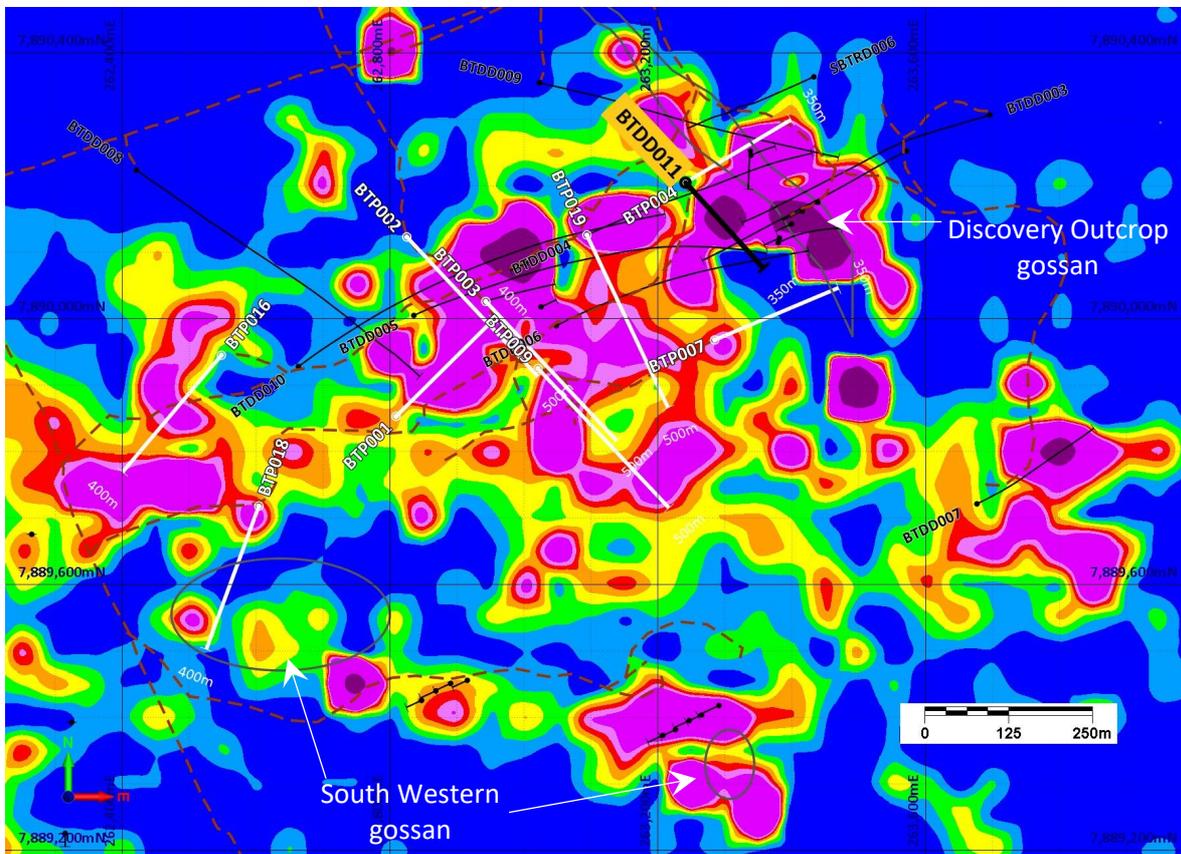


Figure 3. Plan view of Bottletree Prospect area showing gridded Cu soil geochemistry, planned 2023 program holes (prefix BTP), current hole BTDD011 and 2021 and 2022 drill holes.

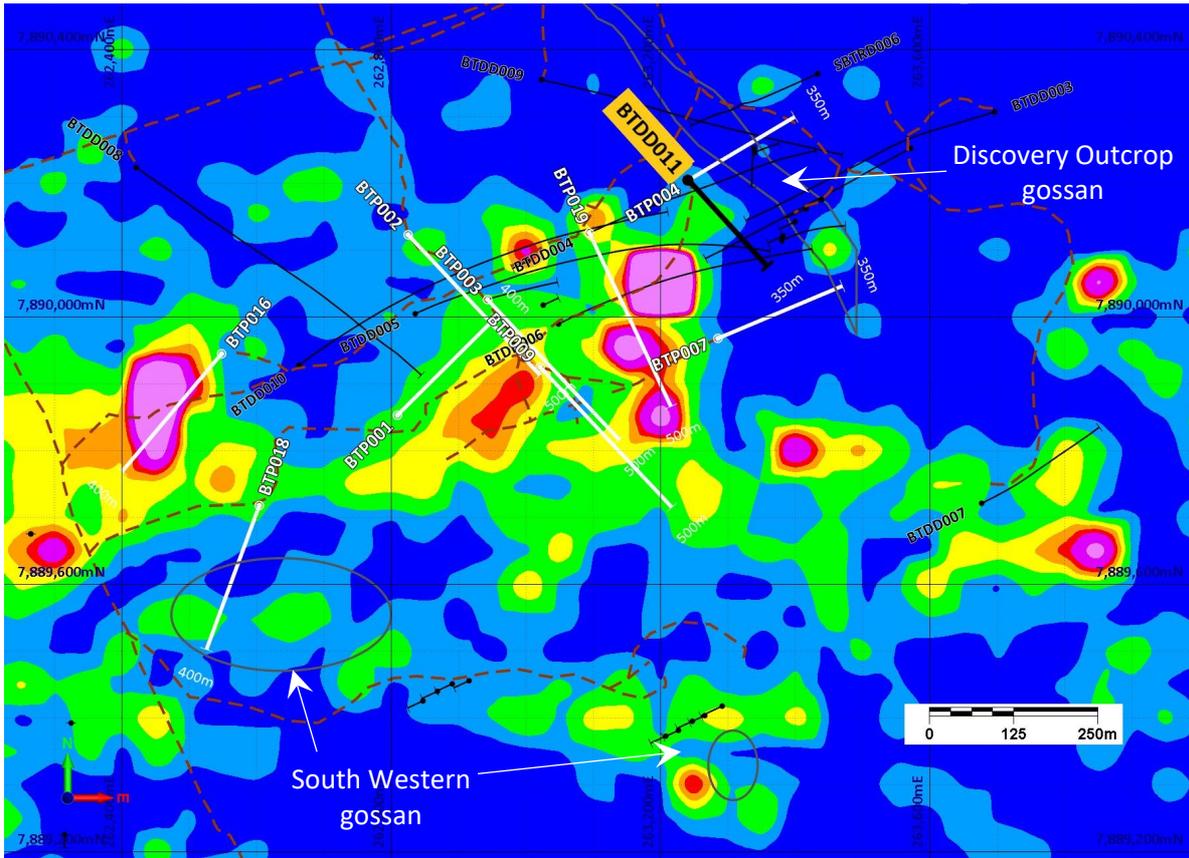


Figure 4. Plan view of Bottletree Prospect area showing gridded Mo soil geochemistry, planned 2023 program holes (prefix BTP), current hole BTDD011 and 2021 and 2022 drill holes.

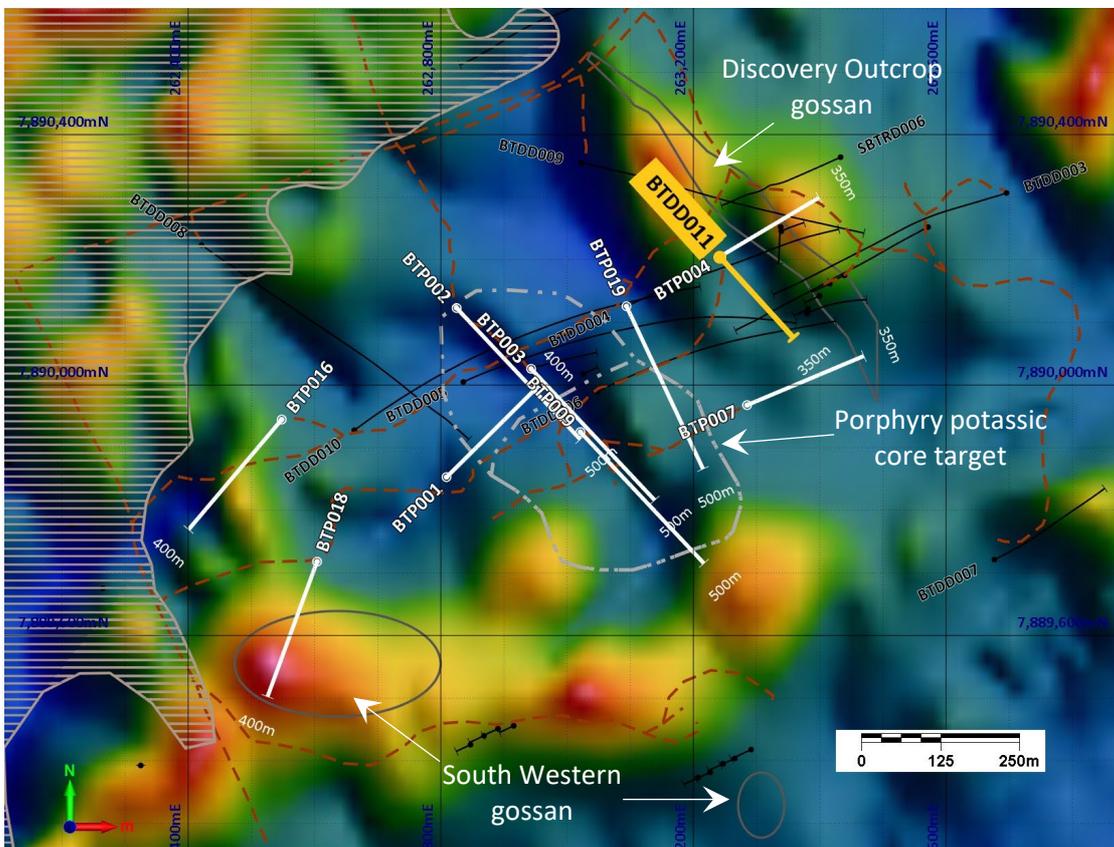
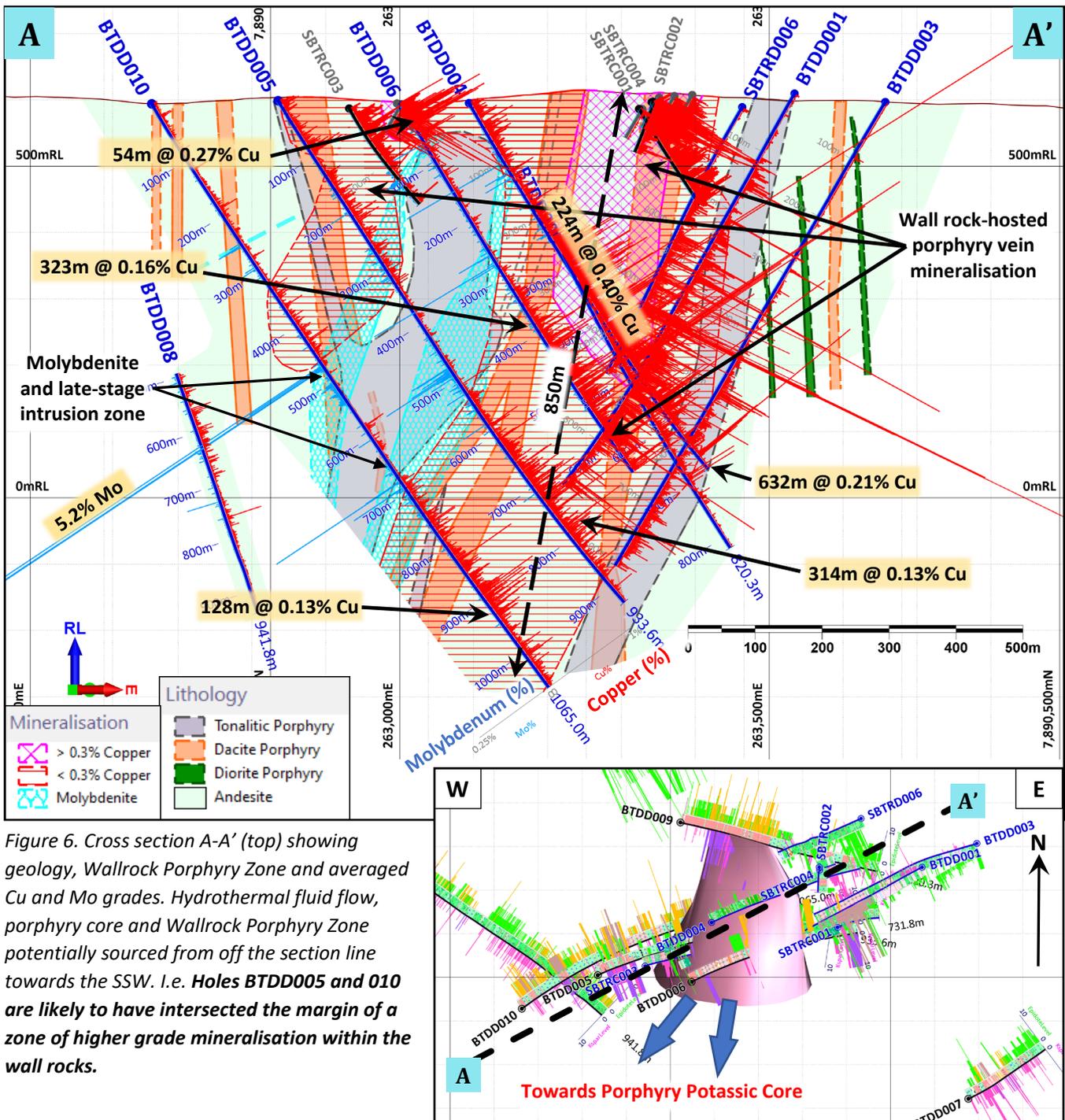


Figure 5. Plan view of Bottletree Prospect area showing planned 2023 program holes (prefix BTP), current hole BTDD011 and 2021 and 2022 drill holes against aerial magnetic (RTP) processed image.

Bottletree Background

Exploration at Bottletree is at an early stage with only four holes targeting a porphyry core having been completed. Extensive wall rock-hosted mineralisation within a large porphyry-style alteration shell has been intersected (Fig. 6):

- BTDD004: 632m @ 0.21% Cu, incl. 224m @ 0.40% Cu (refer ASX announcement dated 2 June 2022);
- BTDD005: 314m @ 0.13% Cu (refer ASX announcement dated 12 April 2023);
- BTDD010: 73m @ 1,229.5ppm Mo, incl. 14m @ 6,000ppm Mo and 6m @ 13,900ppm Mo; and
- SBTRD006: 292m @ 0.22% Cu (refer ASX announcement dated 25 October 2018).



Each of the 2022 holes were drilled along one east-west aligned line with the same hole directional parameters, which limits the amount of 3D vector interpretation available at this stage. However, from other structural information, it appears that **the main copper-mineralising fluid flow pathways are likely to be moving off the section line A-A' (as defined by holes BTDD004, 005 and 010) towards either a north-westerly or south-westerly direction (Fig. 6)**. In other words, BTDD010 and possibly BTDD005 may have intersected the northern margin of the higher-grade wall rock-hosted copper zones and overall potassic alteration zone (**Figs. 6 and 7**).

The Company considers that the latest drilling has reached a point that is potentially within “close” proximity to either a source potassic core zone of a mineralised porphyry system or large zones of mineralisation related to one or more of the porphyry intrusions that have been identified during the 2022 program.

Importantly, uranium-lead radiometric dating of zircon and rhenium-osmium radiometric dating of molybdenite will be obtained in order to determine the age of the mineralisation system, which is currently considered to be Ordovician (485-444Ma). Such a date would correlate the intrusive system with the Ordovician Macquarie Arc, which hosts the Cadia-Ridgeway mine.

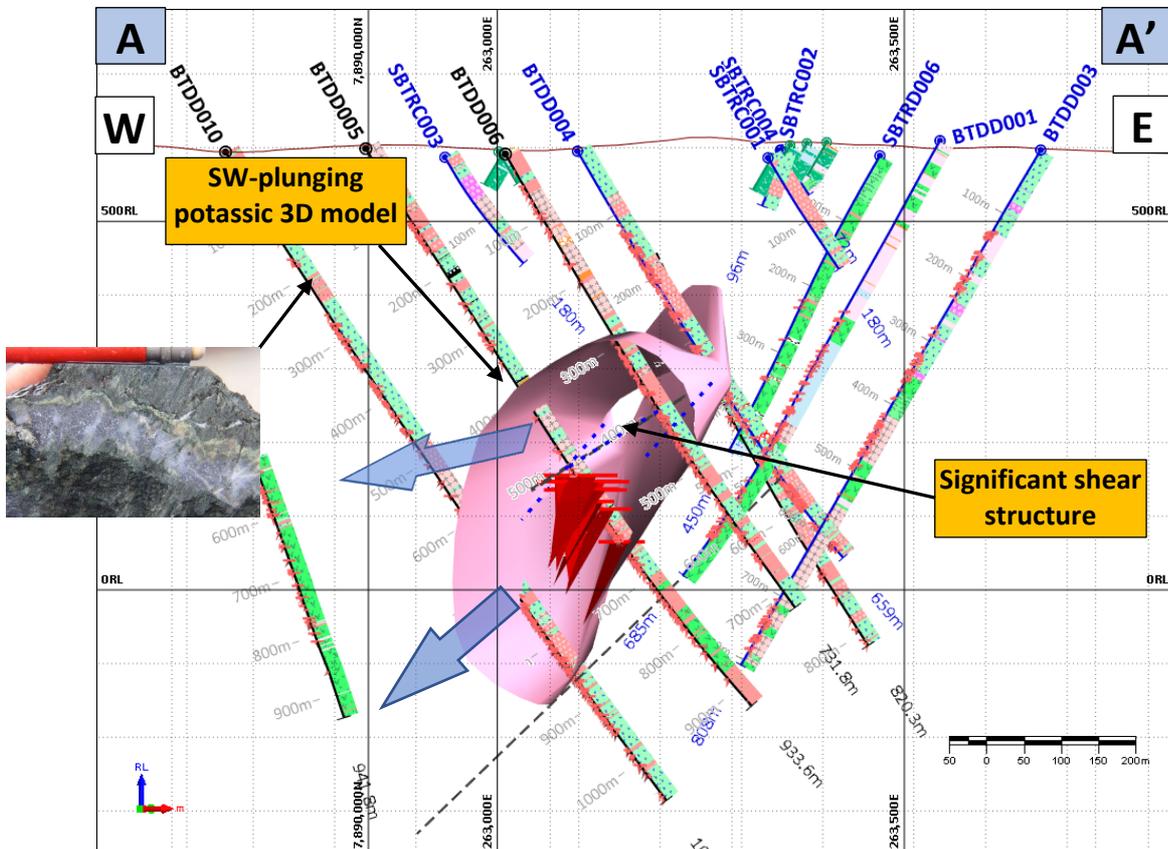
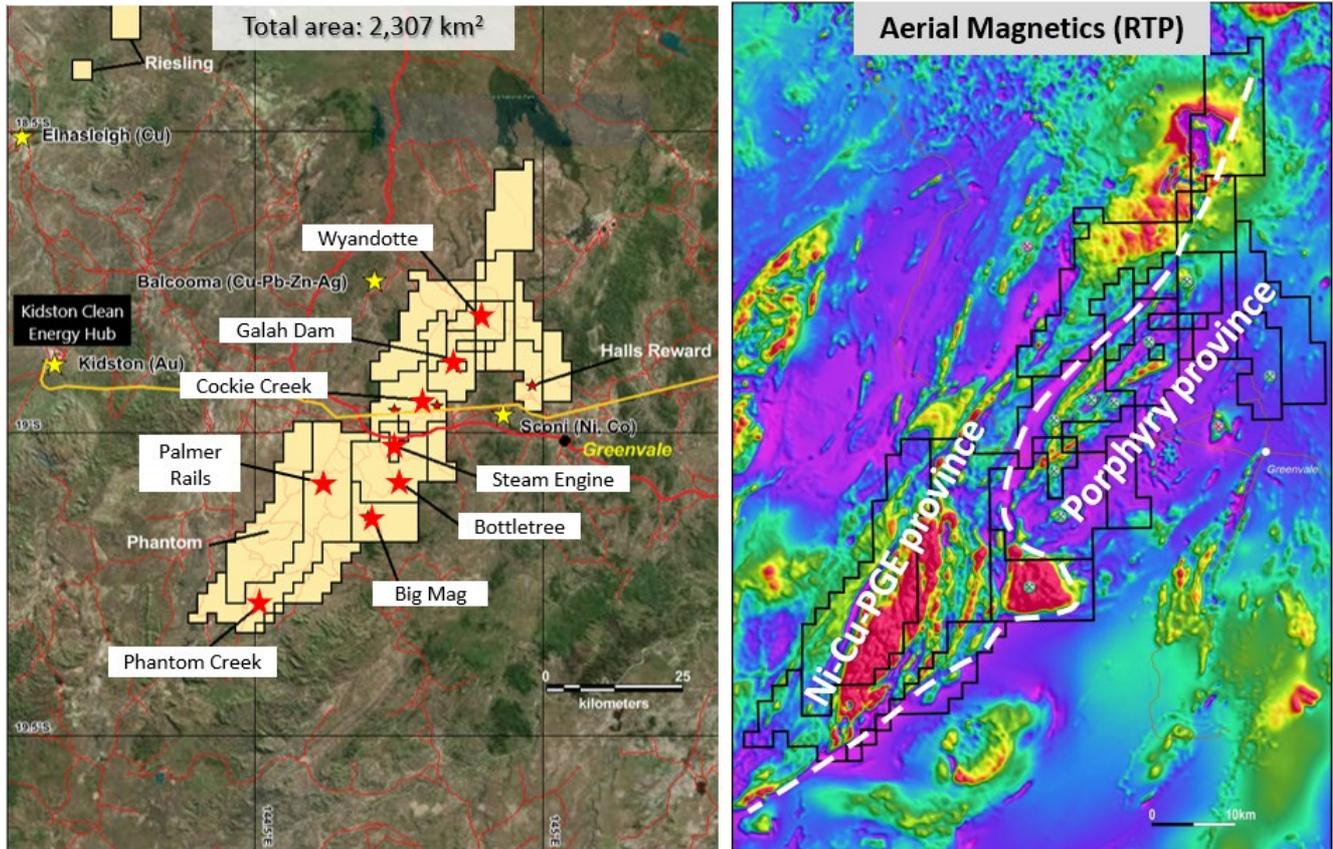


Figure 7. Cross section A-A' showing 3D model of the general zone of main potassic alteration which, based on alteration and structural information, plunges with a range of dips towards the south-southwest. Large blue arrows indicate possible vector directions towards a porphyry potassic core. An early-stage quartz-chalcopyrite vein is also shown.

Greenvale – Juxtaposed porphyry and magmatic Ni-Cu-PGE sulphide provinces

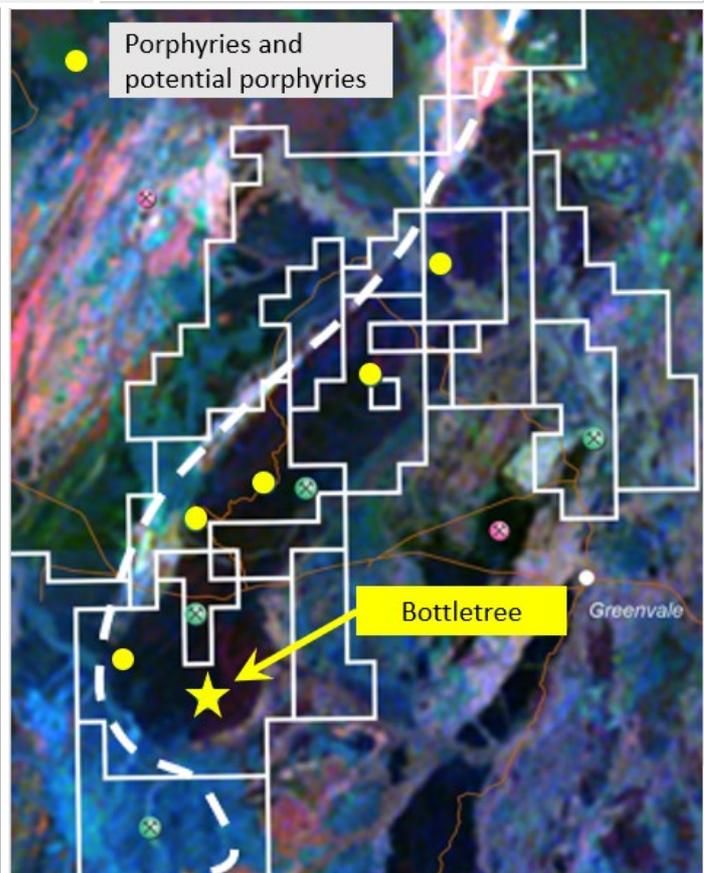


Superior has long recognised the copper potential within the Lucky Creek Corridor. However, recent exploration drilling at Bottletree, coupled with regional geological investigations over several years has enabled the characterisation of the Lucky Creek Corridor as a fossil island arc porphyry province, hosting numerous porphyry and potential porphyry systems recurring along a 50 km zone.

Superior is taking the lead with Tier-1 potential copper-gold porphyry exploration in this part of Australia.

Juxtaposed against the Greenvale Porphyry Province is a second province formed by a completely different geological genesis model. Originally formed at a much deeper crustal level, the Greenvale Magmatic Nickel-Copper-PGE Sulphide Province has been technically proven in terms of the presence of such mineralising systems. However, the province remains practically unexplored.

Superior enjoys a first mover advantage over the entire province, which presents as one of the best sulphide Ni-Cu-PGE propositions in Australia.



About Superior Resources

Superior Resources Limited (ASX:SPQ) is an Australian public company exploring for large lead-zinc-silver, copper, gold and nickel-copper-cobalt-PGE deposits in northern Queensland which have the potential to return maximum value growth for shareholders. The Company is focused on multiple Tier-1 equivalent exploration targets and has a dominant position within the Carpentaria Zinc Province in NW Qld and Ordovician rock belts in NE Qld considered to be equivalents of the NSW Macquarie Arc. For more information, please visit our website at www.superiorresources.com.au.

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