



Quarterly Report December 2023

HIGHLIGHTS

Exploration

Stavely Project, western Victoria

- The Junction 1 prospect, and the porphyry signature S2 and S3 soil auger geochemical anomalies are attractive targets for low-cost, high-impact exploration along strike from the Thursday's Gossan and Cayley Lode copper-gold deposit.
- The S41 gold breccia remains prospective with only 1 diamond hole having been drilled into a 2km by 750m system and there remains the opportunity to map out the margins of the system and potentially locate the better developed sphalerite-associated gold mineralisation.

Hawkstone Project, western Kimberley, Western Australia

- Following the recent successful Falcon® gravity gradiometer and magnetic survey over the Hawkstone Project, located in the emerging magmatic nickel province in the West Kimberley, Stavely Minerals has entered into an agreement with the WA Government for co-funding (up to \$220,000) of a proposed 800m deep diamond drill-hole.
- During the Quarter, IGO and Buxton Resources announced high-grade Ni-Cu-Co assays from the initial drill hole into the Dogleg Ni-Cu-Co discovery¹, including:
 - **13.85m @ 4.35% Ni, 0.34% Cu and 0.15% Co** from 177.34m, incl.
 - **5.86m @ 7.47% Ni, 0.31% Cu and 0.25% Co**

A follow-up hole targeted 65m down dip of the discovery hole returning 2.85m of semi-massive sulphide (assays pending).

- A regionally significant gravity high has been identified in the recently acquired Falcon® gravity gradiometer survey over the Hawkstone Ni-Cu-Co Project that may represent a deeper mafic magma chamber, potentially an analogue to the Eastern Deeps intrusion at the world-class Voisey's Bay deposit in Canada.
- The Hawkstone Project represents a relatively under-explored opportunity for a significant discovery in an emerging mineral field where the prospectivity and fertility of the Ruins Dolerite has already been demonstrated by the Merlin and recent Dogleg (Buxton Resources/IGO Joint Venture) discoveries.

¹ See ASX: BUX announcement 6 November 2023

ASX Code: SVY

Shares on issue: 382M
Market capitalisation: \$12.6M
Cash (31 December 2023): \$1.38M
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Corporate

- Stavely Minerals had a total of \$1.38M cash on hand at the end of the December 2023 Quarter.

OVERVIEW

During the Quarter exploration efforts were focussed on the Hawkstone Project in preparation for the upcoming field season. Reprocessing of existing airborne and ground electromagnetic data has been completed. Planning of a new moving loop electromagnetic (MLEM) survey over the regionally significant gravity feature identified by the recent Falcon gravity gradiometer survey is in the process of being finalised.

A WA government EIS (Exploration Incentive Program) application was submitted to diamond drill test a magma chamber which has been interpreted from the recently acquired gravity at the Hawkstone Project. The application was successful and the WA Government will co-fund an 800m deep diamond drill for a maximum amount of \$220,000, to test for magmatic nickel sulphides.

The West Kimberley is an emerging magmatic-nickel province with two recent high-grade discoveries within separate IGO/Buxton JV's – the Merlin Ni-Cu-Co discovery in 2015 and the very recent Dogleg Ni-Cu-Co discovery (2023). Both of these discoveries are located directly along strike from Stavely Minerals' Hawkstone Ni-Cu-Co Project.

While market and investor sentiment towards nickel projects has very rapidly turned negative, based on the impact of increasing production from Indonesian laterite nickel projects, the unreported reality is that a high-quality nickel sulphide deposit can produce profits throughout the price cycle. For example, in 2020, IGO reported a \$155m NPAT² when nickel prices were lower than the current price, largely driven by production from the Nova-Bolinger (magmatic) Nickel Mine. Notwithstanding this fact, it will be challenging to achieve market support for major nickel exploration programmes in this environment.

At the Stavely Project, discovery opportunities include the S41 gold breccia system and several copper-gold porphyry and intrusive-related discovery opportunities along strike of the Thursday's Gossan and Cayley Lode copper-gold deposit.

The S41 breccia remains prospective with only 1 diamond hole having been drilled into a 2km by 750m system, that has been demonstrated to host gold mineralisation, and there is opportunity to map out the margins of the system and potentially locate better developed sphalerite-associated gold mineralisation.

The priority along-strike copper-gold discovery opportunities include the Junction 1 Prospect (continuing efforts to gain access), and the S2 and S3 porphyry soil geochemistry targets (Figure 1).

A review of exploration priorities is in-progress with a view to reducing costs and executing focussed, low-cost and high-impact on-ground programmes while conserving cash in current market conditions.

As previously mentioned³, corporate transactions that have the potential to unlock significant value from the high-grade and quality of the Cayley Lode Mineral Resource continue to be discussed and evaluated but remain at an early stage with no certainty of an outcome. Other possible corporate

² IGO 2020 annual report, pages 7 and 44.

³ Corporate section in the Stavely Minerals June 2023 Quarterly Report

EXPLORATION

Thursday's Gossan & Drysdale Prospects

Dr Greg Corbett spent a few days at the Stavely Project during the Quarter and inspected drill core from Drysdale (SMD188), S41 (STDD001) and Thursday's Gossan (SMD114, SMD046, SMD173 and SMD185).

Dr Corbett concluded that the origin of the tennantite-chalcopyrite D veins (545 to 560m) in SMD188 remained unknown and that there remained some potential in investigating the source of the Cu-bearing veins in the upper portion of the drill hole.

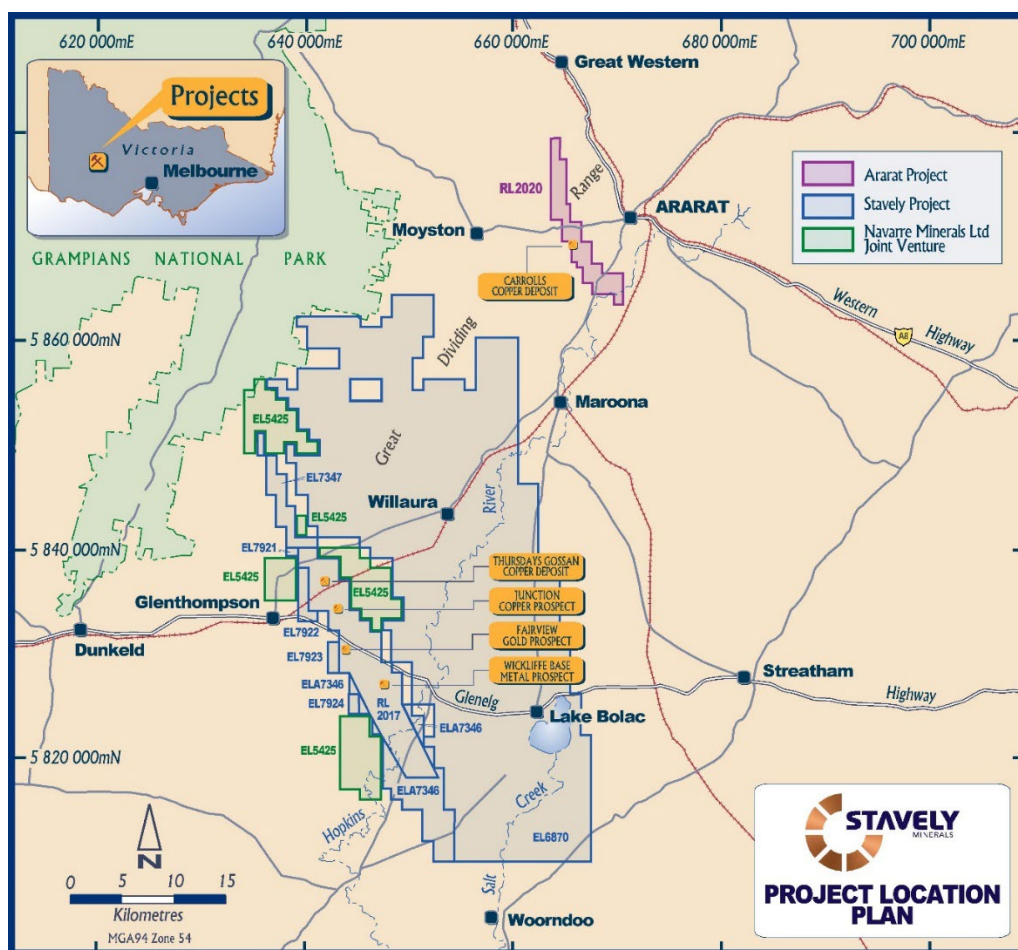


Figure 1. Western Victoria Project location plan.

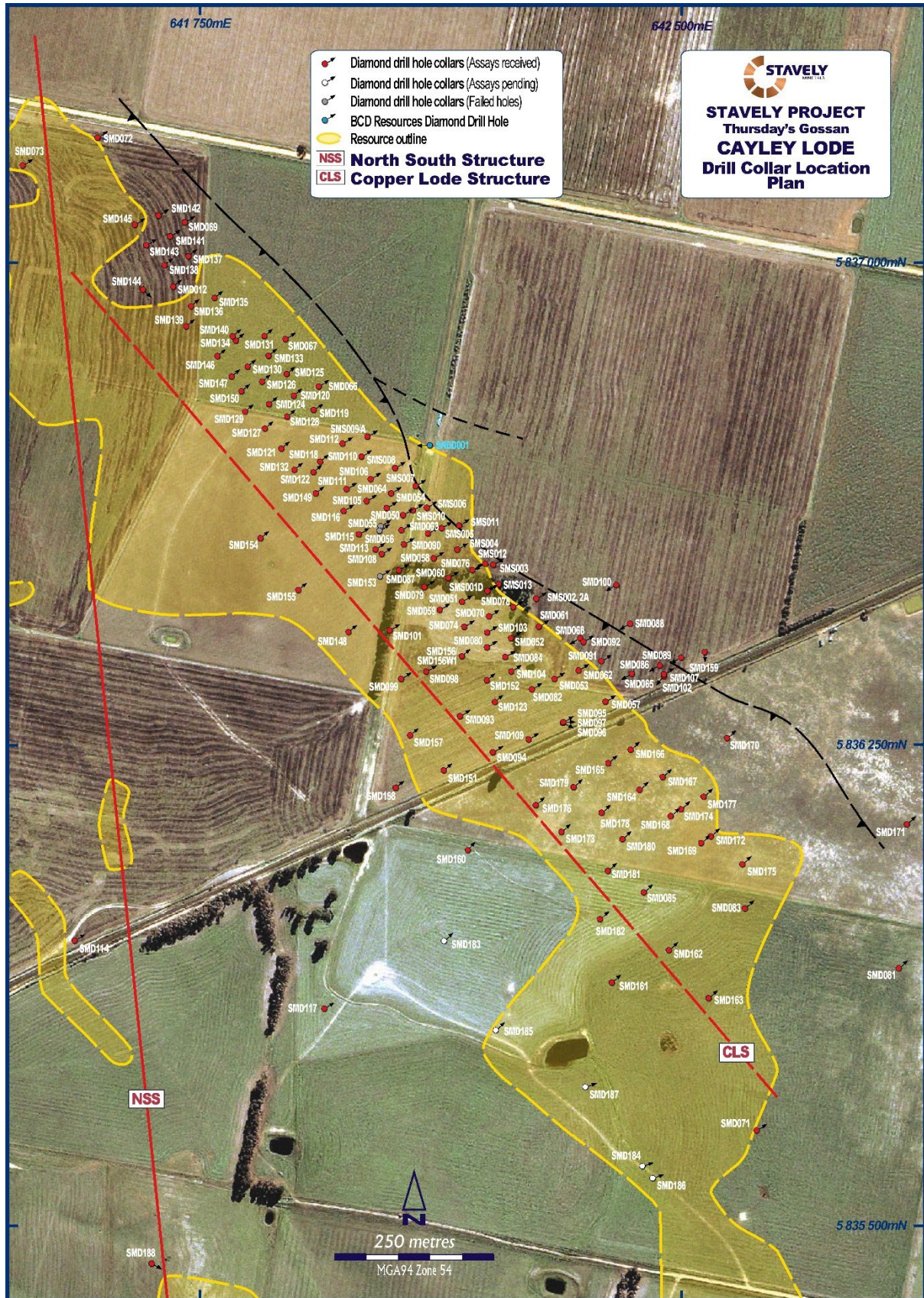


Figure 2. Drill Hole Location Plan on aerial photo.

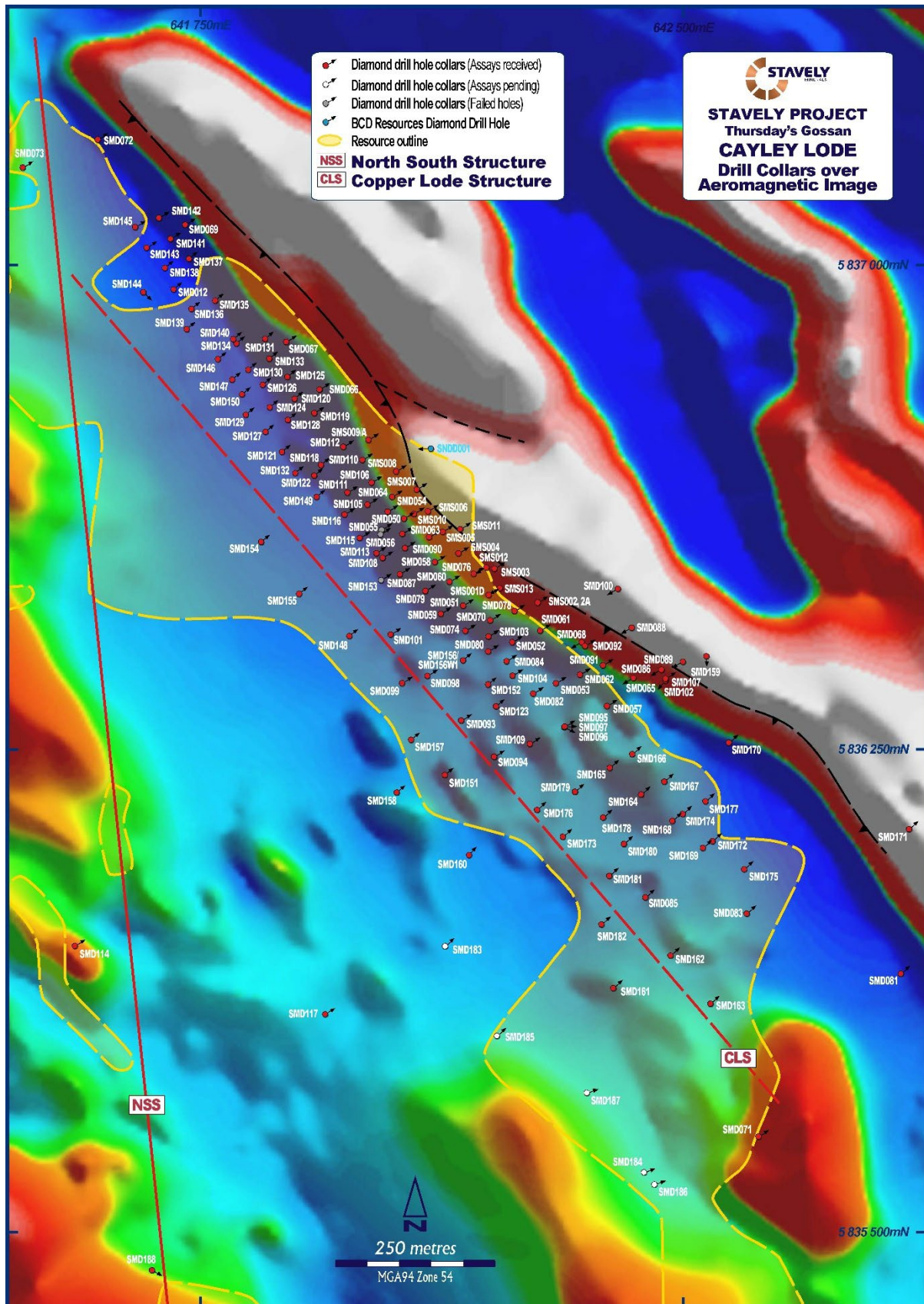


Figure 3. Drill Hole Location Plan on aerial photo.

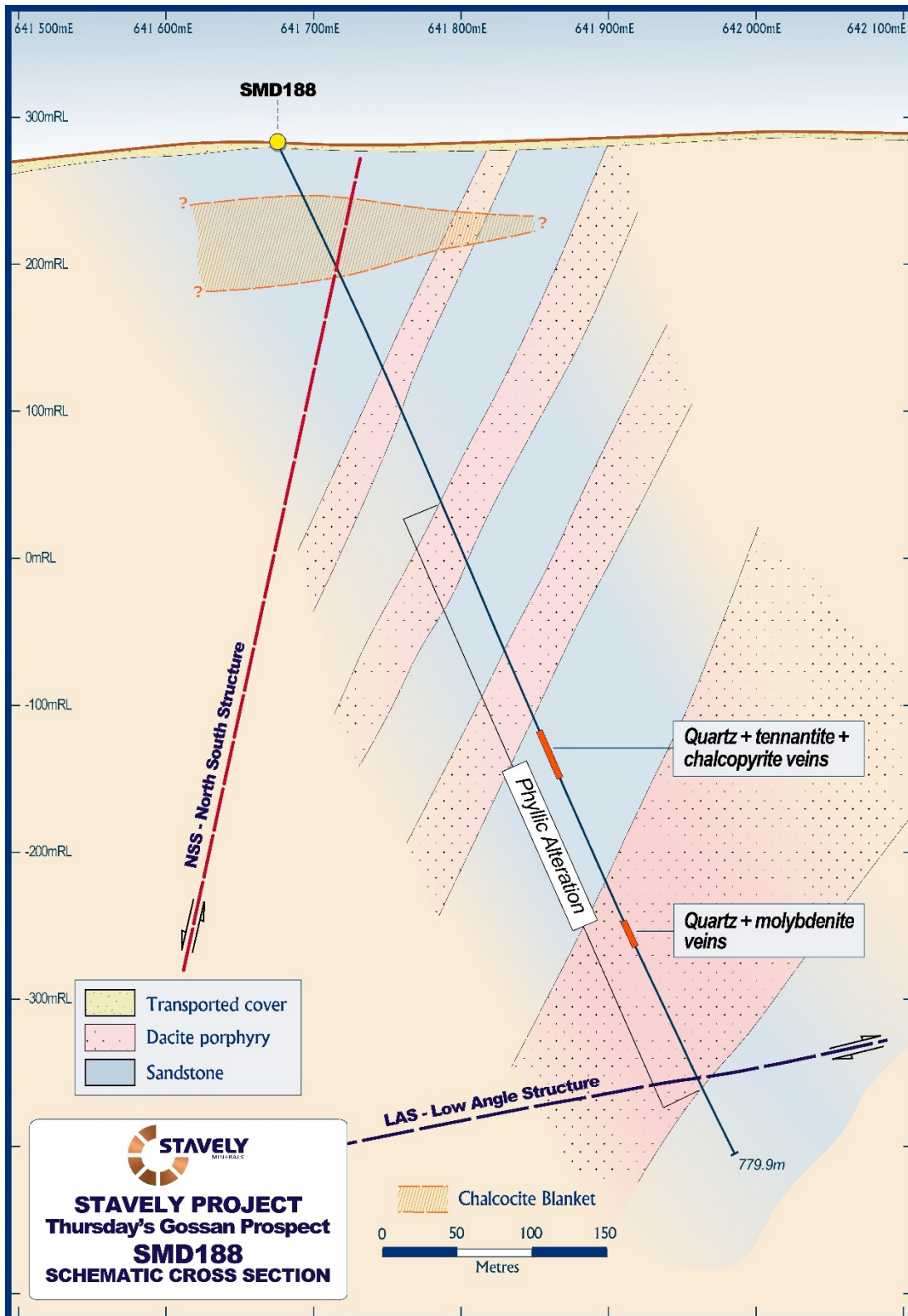


Figure 4. Schematic cross section for SMD188.

REGIONAL EXPLORATION

S41 Prospect

During the Quarter Stavely Minerals received the results from RSC Mining & Mineral Exploration whom were engaged to conduct scanning electron microscope (SEM) characterisation on a number of carbonate samples from STDD001 (Figure 5). The purpose of the SEM characterisation is to identify the composition of carbonate mineralogy in the breccia matrix of the S41 prospect. Carbonate mineralogy is an important temperature indicator for mineralisation, and can help to vector to a more productive Au-mineralised portion of the breccia and hydrothermal system.

The results from SEM are ambiguous, in that the occurrence of marcasite and the textures present in the pyrite would suggest low temperatures. However, calcite was found to be the dominate carbonate mineral which would suggest a deeper/ hotter environment. This could be due to the fact that there appears to be earlier mineralisation in clasts brought from depth.

The S41 breccia remains prospective with only 1 diamond hole having been drilled into a 2km by 750m system and there remains the opportunity to map out the margins of the system and potentially locate better developed sphalerite-associated gold mineralisation. Diamond drill hole STDD001 (Figure 6) did intercept anomalous gold mineralisation including:

- 1m at 2.16g/t Au from 282m drill depth, and
- 37 m at 0.10 g/t Au and 4.8g/t Ag from 320 m

During Dr Greg Corbett's visit to the Stavely Project in the December Quarter, he had a look at the core from drill hole STDD001. STDD001 was drilled to test a coincident magnetic and gravity low with anomalous geochemistry which Dr Corbett considered to be consistent with shallow level low sulphidation epithermal gold mineralisation. Dr Corbett described the hole as passing through a series of variably milled and altered magmatic hydrothermal breccias and later intense illite-pyrite altered phreatomagmatic milled matrix breccia. Rhyolite dykes and ragged juvenile intrusion breccia clasts attest to the felsic magmatic driver for brecciation, alteration and mineralisation. Low sulphidation epithermal gold mineralisation evolves from early quartz-sulphide Au $\pm$ Cu style characterised by low grade gold (0.1 g/t Au) within pyrite, to later carbonate-base metal gold characterised by higher gold grade (up to 2 g/t Au) associated with low temperature, pale zinc-rich sphalerite and rhodochrosite. These ore systems typically host better gold grades at lower temperatures and are commonly associated with phreatomagmatic (diatreme) matrix pipes. The low temperature of ore (occurrence of sphalerite) and alteration (illite) minerals, provide potential for continuation of the system at depth.

Dr Corbett has commented that the planned IP survey may contribute towards the identification of exploration targets in association with elevated chargeability from pyrite, coincident with magnetic lows from the illite alteration.

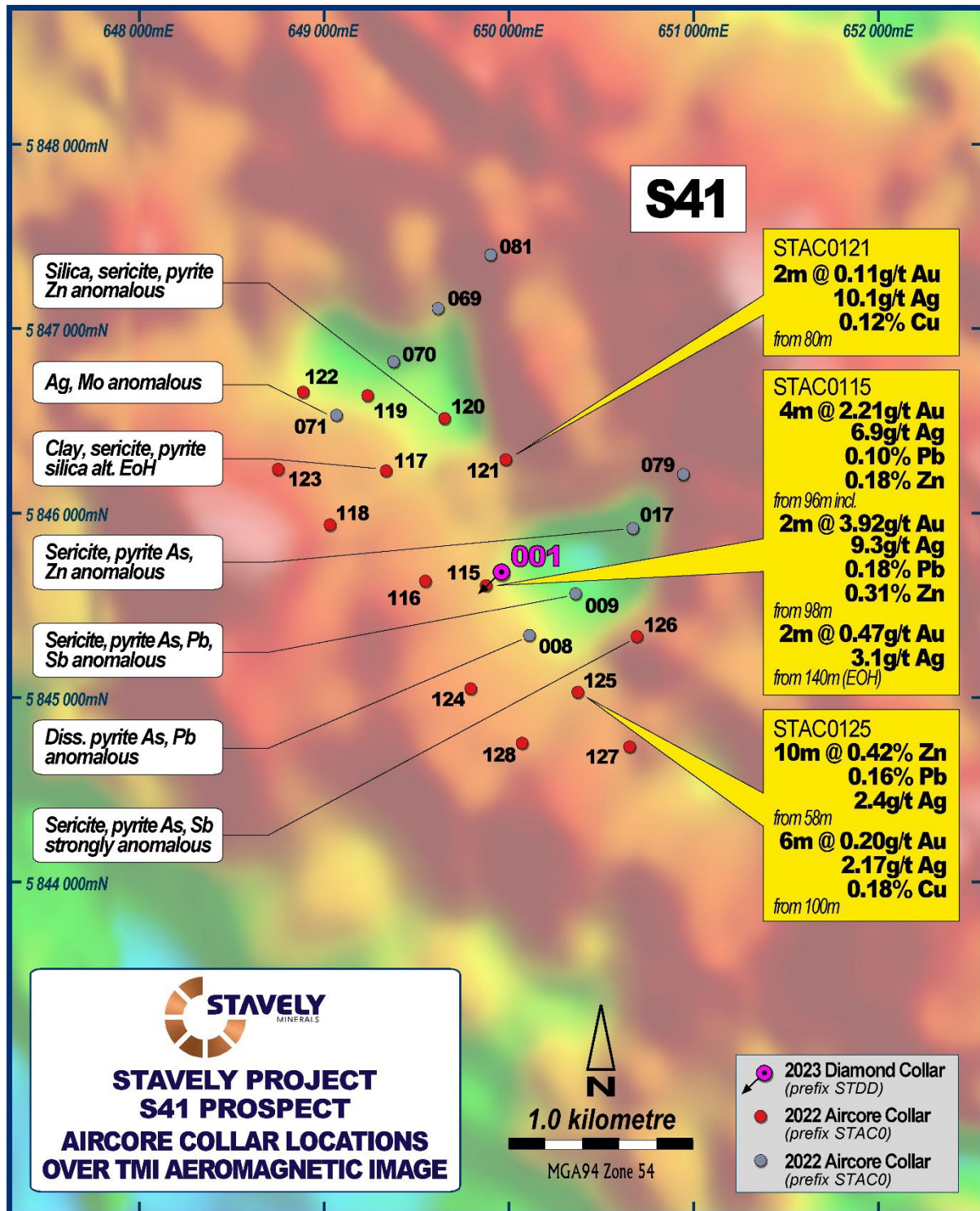


Figure 5. S41 prospect magnetic image with aircore and diamond drill-hole collar locations. The distance between STAC125 and STAC071 is 2km and open along strike NW and SE.

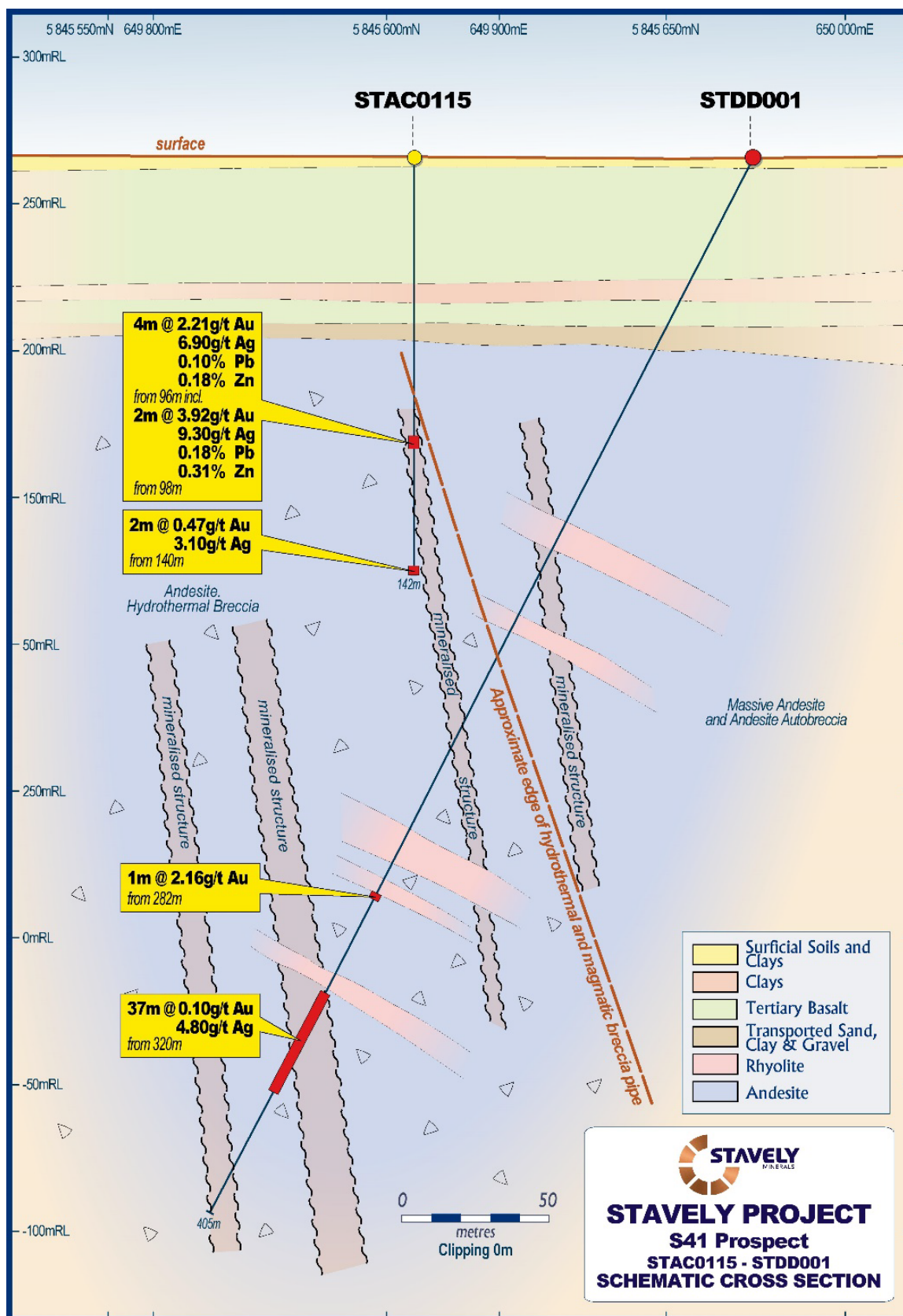


Figure 6. STDD001 drill hole section.

Porphyry Signature Soil Auger Geochemistry Targets S2 and S3

In the September Quarter, the Company received the results of an independent review of the geochemical sampling, both from soil auger and aircore drilling, completed last field season in conjunction with historic data. This review, which was completed by Dr Dan Core of Fathom Geophysics (Fathom), has identified a number of compelling new regional porphyry targets.

Dr Core had developed interpretive algorithms based on the vertical geochemical zonations above known porphyry copper deposits. This vertical geochemical zonation model has been based on a study of the Ann Mason porphyry copper deposit by Dr Scott Halley, Dr John Dilles, researchers from Oregon State University and the Mineral Deposit Research Unit at the University of British Columbia (Figure 7).

The algorithms recognise the multi-element 'signal' of a porphyry deposit and can, in a fashion, indicate the expected depth to the porphyry-style copper mineralisation. This allows prioritisation of targets based on both the target score and the expected depth of the target copper mineralised zone (Table 1).

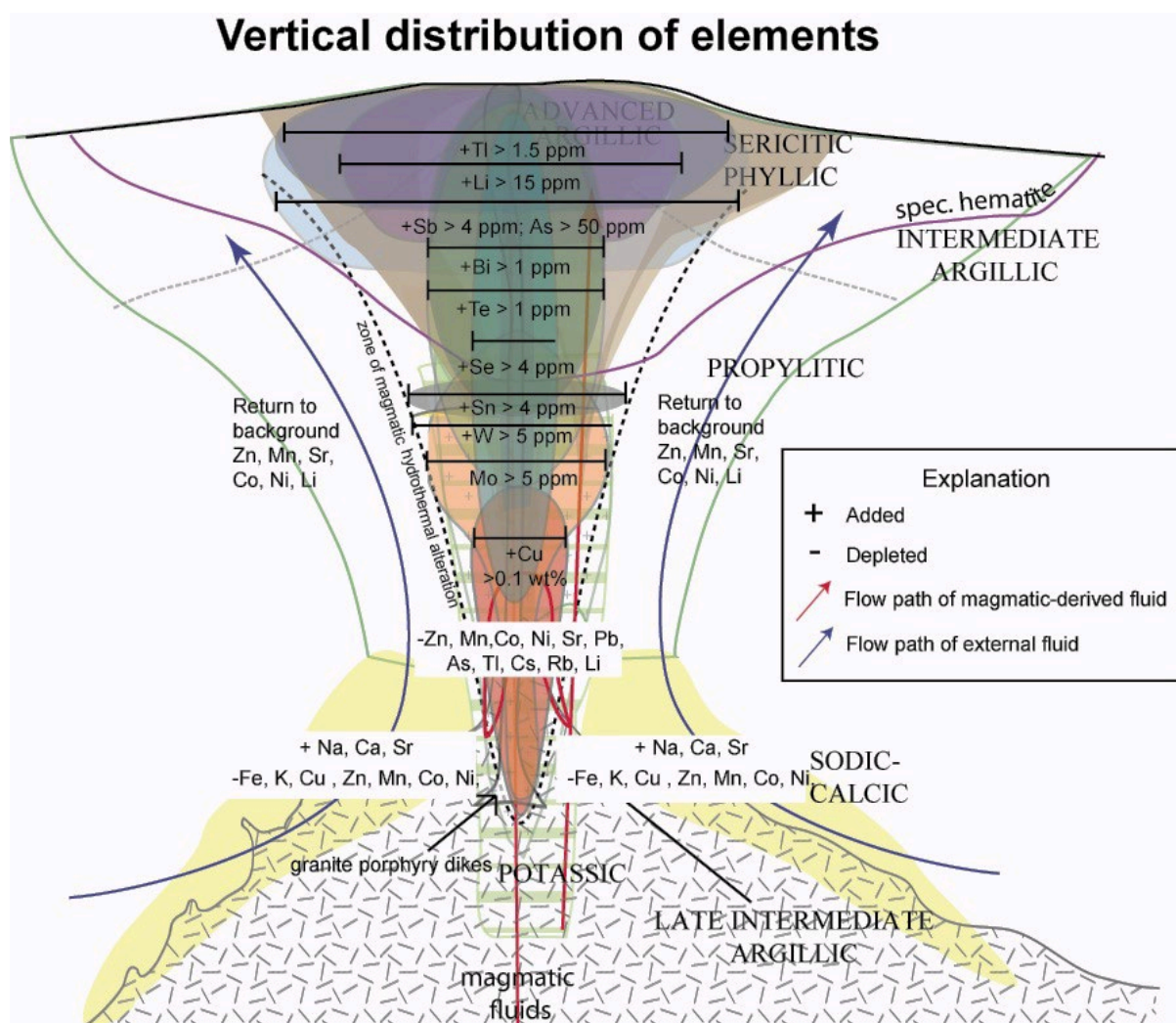


Figure 7. A summary diagram of the Mineral Deposit Research Unit – University of British Columbia generalised model of geochemical and alteration zonation around a porphyry copper-gold deposit (after Cohen, 2011 and Halley et al., 2015). The column of alteration and geochemical zonation depicted may be in the order of 5 kilometres vertically.

Table 1. Fathom soil auger and aircore geochemistry review porphyry targets, predicted depths, scores and comments.

Target	X	Y	RL	DEM	Depth	Score	Comments
FG-Stavely-S-1	641940	5836030	-46	270	316	0.11	Coincident with target AC-3A. Relatively low scoring target, but coincidence with the AC results means it is probably worth following up.
FG-Stavely-S-2	647070	5824260	-800	240	1040	0.18	Target is relatively high scoring but is quite deep.
FG-Stavely-S-3	649270	5821230	-300	210	510	0.2	High scoring target at explorable depth. Aircore should be completed over this target.
FG-Stavely-S-4	645790	5816430	-350	220	570	0.11	Target score is similar to target S-1. It appears to be around the same depth as S-3. Follow-up should be completed if any other data support the area as a target.
FG-Stavely-AC-1	640150	5847930	-320	270	590	0.25	Reasonably high scoring but poorly constrained target at the edge of the sampling. Additional <u>aircore</u> samples are required to better constrain the target location and depth.
FG-Stavely-AC-2	630300	5845980	-380	250	630	0.31	Highest scoring AC target. Better constrained than AC-1, but it could still use better sample density to optimize drill targeting. The target is worth following up.
FG-Stavely-AC-3A	641950	5835540	130	280	150	0.12	Poorly constrained at the edge of sampling. The score is relatively low, but that may because samples were not taken directly over the soils target (S-1) that is nearby. Aircore should probably be extended over the soils target.
FG-Stavely-AC-3B	642500	5834930	110	280	170	0.2	Relatively high-scoring target on the edge of sampling. Soils in this area did not highlight a target. They highlighted S-1 to the NNW of AC-3B. Extending <u>aircore</u> coverage to the west to cover the highest scoring part of this target and north to cover the soils target would help with constraining drill targets in this area.
FG-Stavely-S-Epi1	643830	5818120	-1750	220	1970	0.1	Very deep target that may be more likely to be an epithermal system. The target scores relatively low, but the area has significant metal enrichment and is probably worth following up.

The aircore and soil datasets were processed separately. A total of five targets were generated from the regional soil geochemistry data and four targets were generated from the aircore geochemical data. Confidence in the veracity of the targets is provided by the highest-ranking aircore target (AC-2), having a target score of 0.31 and being associated with the 'blind' Toora West porphyry discovered by Stavely Minerals in 2021 (Figure 8). The tenure over Toora West was relinquished as it was considered to host only one phase of porphyry-style mineralisation and typical 'economic' porphyry systems will typically host three or more phases of over-printing mineralisation required to produce the grades needed to be economic. Notwithstanding that, the Fathom Geophysics algorithms have successfully identified the Toora West prospect in what can be considered a blind test.

Other porphyry targets identified in the Fathom review included aircore targets AC-3A and AC-3B and soil target S-1, all located in the vicinity of the Thursday Gossan Prospect and the Cayley Lode deposit.

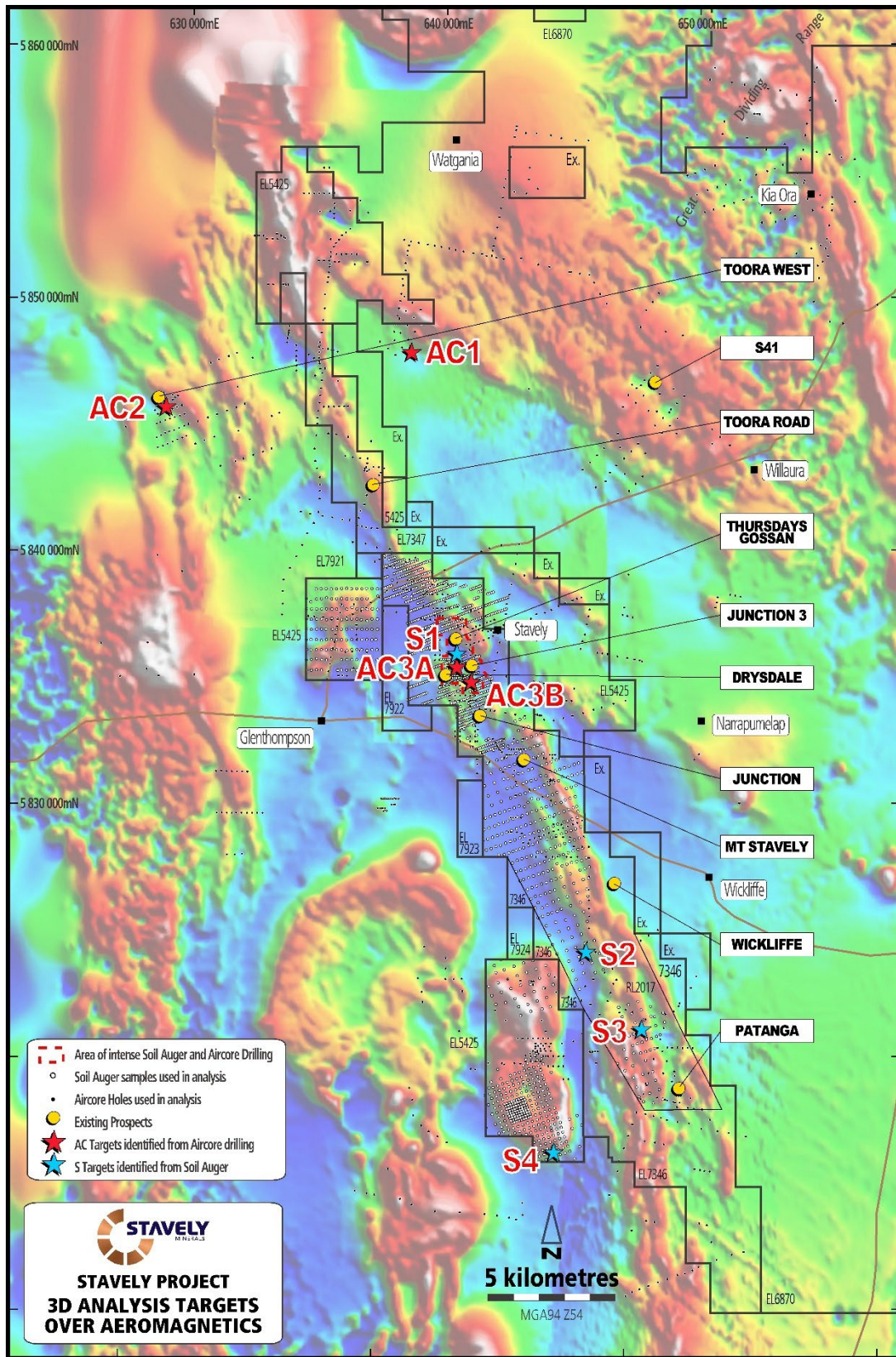


Figure 8. Fathom porphyry targets overlaid on aeromagnetic image with tenement outlines and existing prospects.

Of particular interest are the S-2 and S-3 porphyry targets (Figures 9 and 10). Both prospects show a spatial association with gravity lows and are both at least partially covered by transported alluvium or duricrust. The planned aircore drilling over the S-2 and S-3 targets will be completed in the current field season to the end of April. The predicted depth to target for S-3 is estimated at 510m. It should be noted that these depth estimates are quite imprecise and can be better constrained once the planned aircore drilling geochemical results are integrated into the model.

Enhancing the potential for discovery is the close association of the S-2 and, especially, the S-3 porphyry targets to distinct gravity lows within the Falcon gravity gradiometer survey.

Confidence is drawn from the clear association of known prospects including the Toora West Porphyry, Toora Road, Thursday's Gossan and the Northern Flexure being associated with gravity lows (Figure 9). These gravity lows are interpreted to be related to intense hydrothermal clay alteration associated with the ascending hot mineralising fluids. The clay alteration results in centres of lower density compared to the surrounding unaltered host rocks.

These regional porphyry targets represent genuine opportunities to add to the high-grade Cayley Lode copper-gold discovery utilising much more cost-effective exploration and drilling methods as opposed to the deep porphyry target at Thursday's Gossan.

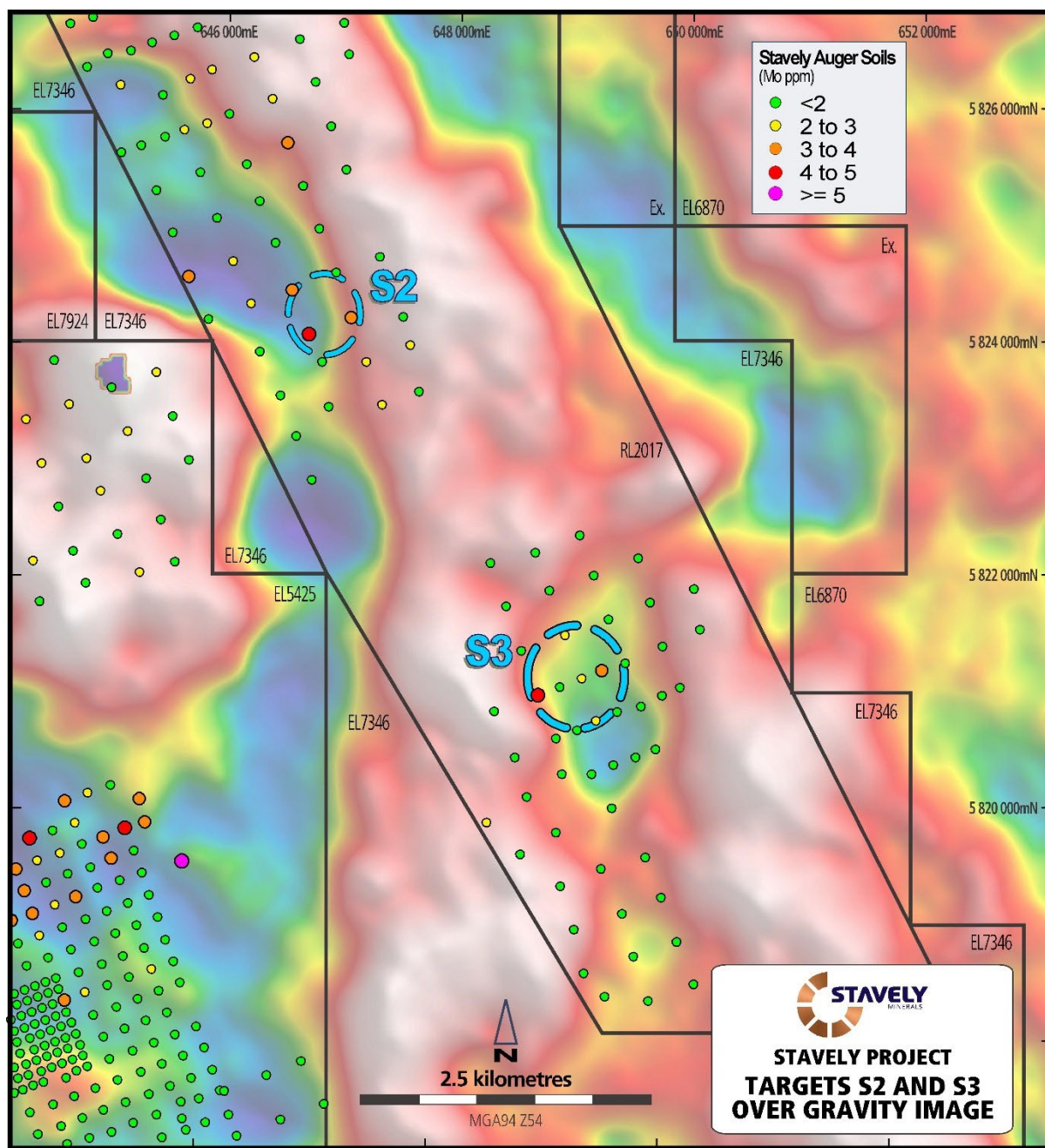


Figure 9. Fathom porphyry targets S-2 and S-3 overlaid on Falcon© gravity image with tenement outlines. Note the close spatial association with gravity lows potentially a product of intense hydrothermal clay alteration typical of that above porphyry systems.

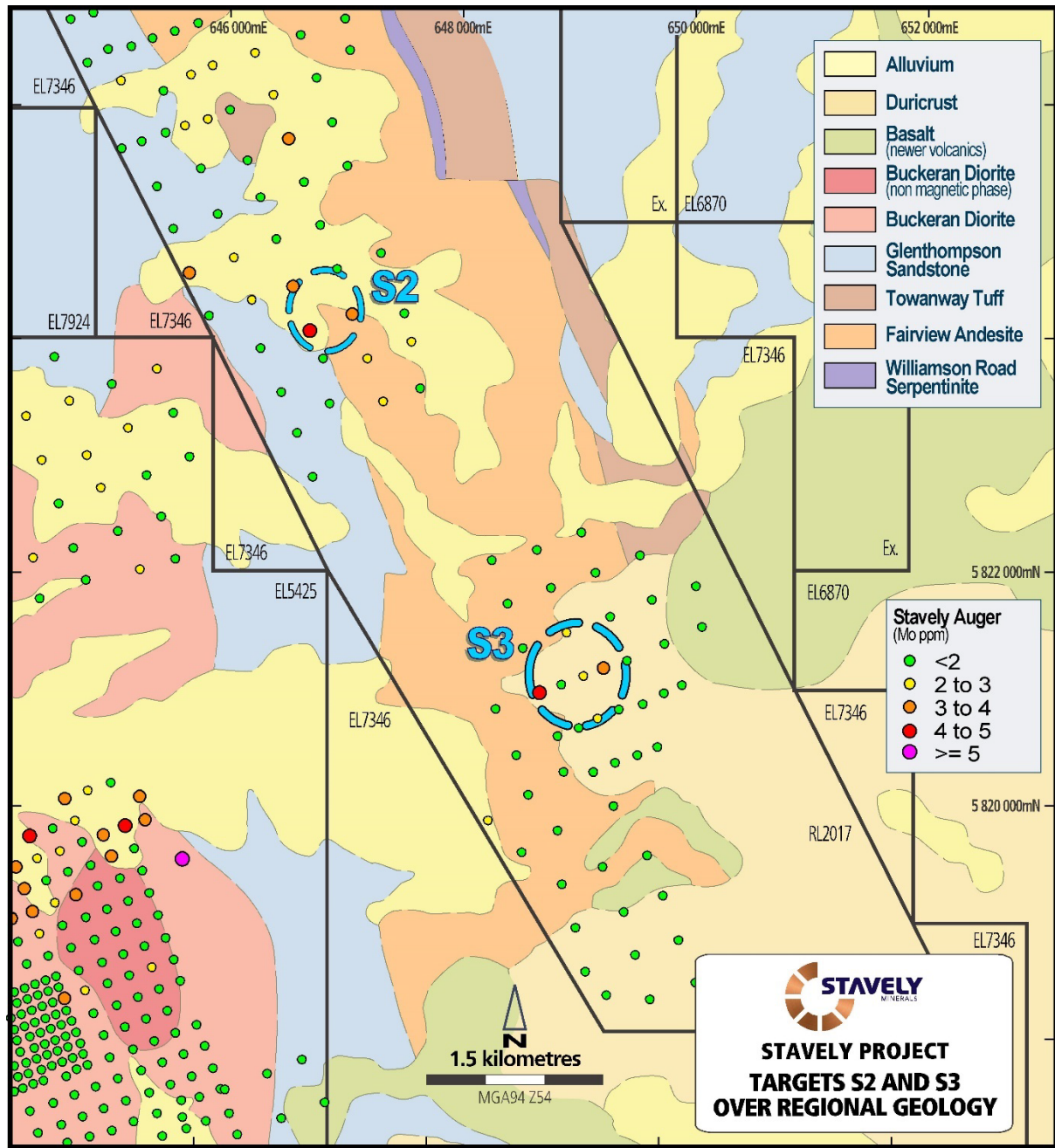


Figure 10. Fathom porphyry targets overlaid on regional geology with tenement outlines. Note that both targets are at least partially covered by transported alluvium or duricrust. The planned aircore drilling will easily penetrate these cover sequences.

Black Range Joint Venture Project (EL5425)

No exploration activities were conducted on the Black Range JV Project during the Quarter.

Ararat Project (RL2020)

No exploration activities were conducted on the Ararat Project during the Quarter.

Hawkstone Project (E04/1169, E04/2299, E04/2325, E04/2563, E04/2405 & E04/2784, E04/2871)

The Company has entered into agreement with the WA Government, through the Exploration Incentive Scheme (EIS), for co-funding of an 800m deep diamond drill-hole at the Hawkstone Nickel-Copper-Cobalt Project to a maximum amount of \$220,000 of co-funding.

The West Kimberley is an emerging magmatic-nickel province with two recent discoveries within separate IGO/Buxton JV's – the Merlin Ni-Cu-Co discovery in 2015 and the very recent Dogleg Ni-Cu-Co discovery (2023). Both of these discoveries are located directly along strike from Stavely Minerals' Hawkstone Ni-Cu-Co Project (Figures 11 - 13).

The Hawkstone Project is located approximately 1km along strike from the Buxton Resources/IGO Joint Venture at the Double Magic Project, as shown in Figure 12. The recent Dogleg Ni-Cu-Co discovery is located a further 13km north-west of Merlin. Both discoveries are hosted in the Ruins Dolerite, which continues along strike for some 30 kilometres through the Hawkstone Project (Figure 14).

In October 2023 IGO drill tested a 15,000 Siemens MLEM conductor at the Dogleg prospect and intersected **13.85m @ 4.35% Ni, 0.34% Cu and 0.15% Co** from 177.34m, including **5.86m @ 7.47% Ni, 0.31% Cu and 0.25% Co⁴** in diamond drill hole 23WKDD003.

A follow-up drill hole, 23WKDD004, drilled 65m down-dip of the initial intercept was reported as having intercepted 2.85m of semi-massive sulphides with assays pending⁵.

A key outcome of the Falcon gravity gradiometer survey which was completed in the previous quarter is the recognition of a large (~20km long) interpreted mafic magma chamber located beneath the Hawkstone Project (Figure 15).

The significance of this mafic magma chamber is that the bulk of the nickel-copper-cobalt mineralisation at both the Nova Bollinger and Voisey's Bay mines is located at or near the base of mafic magma chambers.

Newexco Exploration have been engaged to reprocess the SkyTEM and Excite airborne electromagnetic surveys conducted previously by Chalice Mining over the Hawkstone project as well as the moving loop electro-magnetic (MLEM) ground geophysical survey. Planning of an extensive new MLEM survey based on the interpretations from the Falcon gravity gradiometer survey is underway.

⁴ Buxton Resources ASX announcement dated 6 November 11, 2023

⁵ Buxton Resources ASX announcement dated 19 October 2023

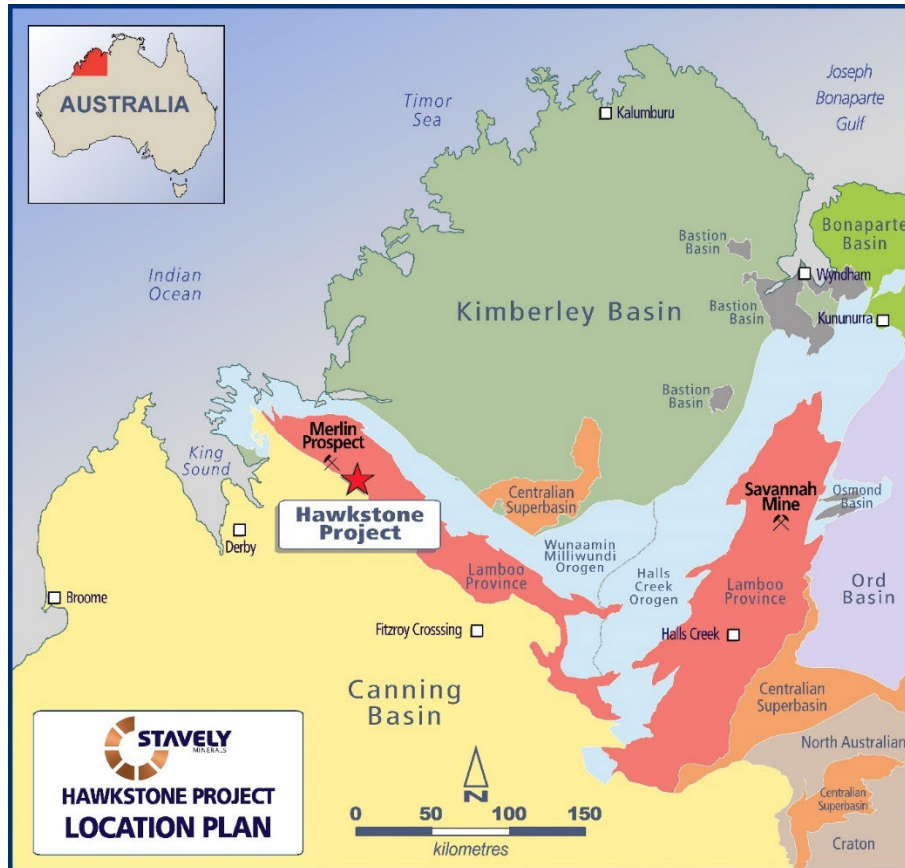


Figure 11. Hawkstone Project Location map.

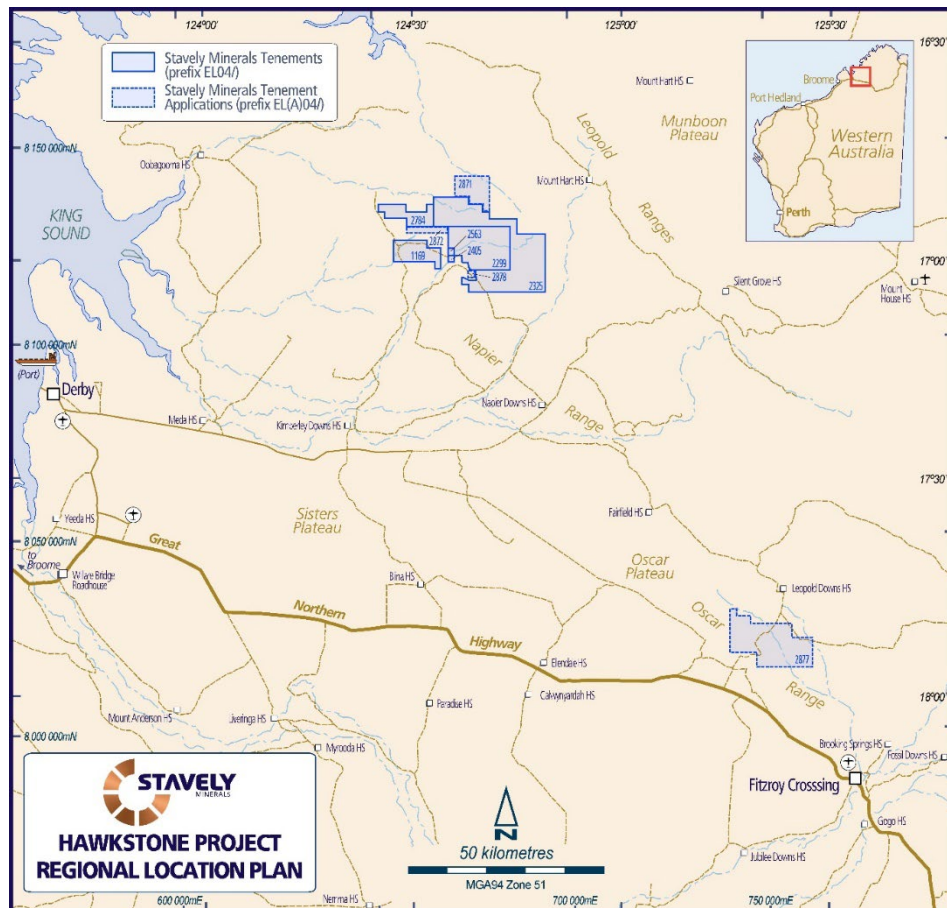


Figure 12. Hawkstone Project tenement map.

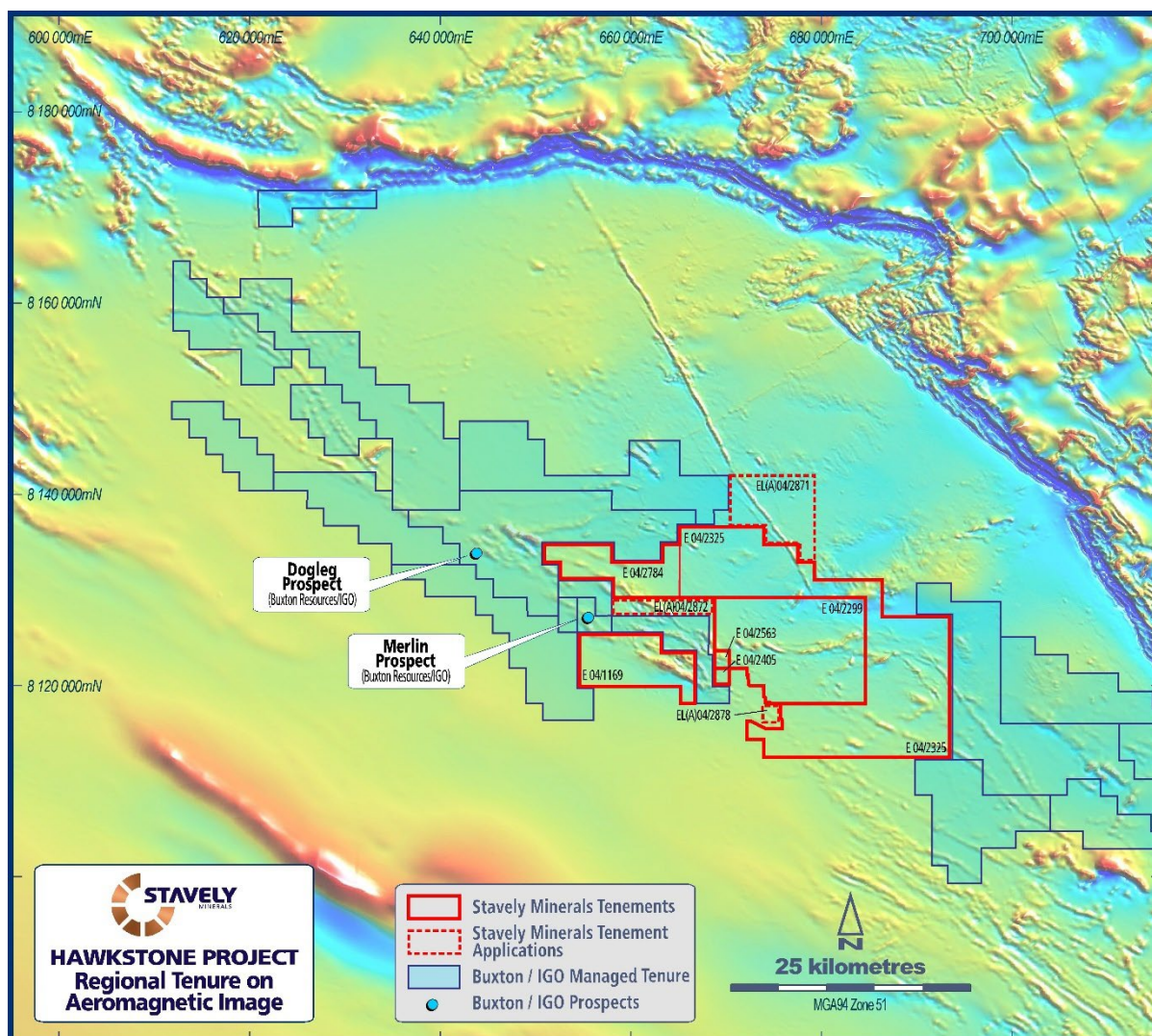


Figure 13. Hawkstone Project location map relative to IGO-controlled tenure and the Merlin (2015) and Dogleg (2023) nickel-sulphide discoveries overlaid on aeromagnetics.

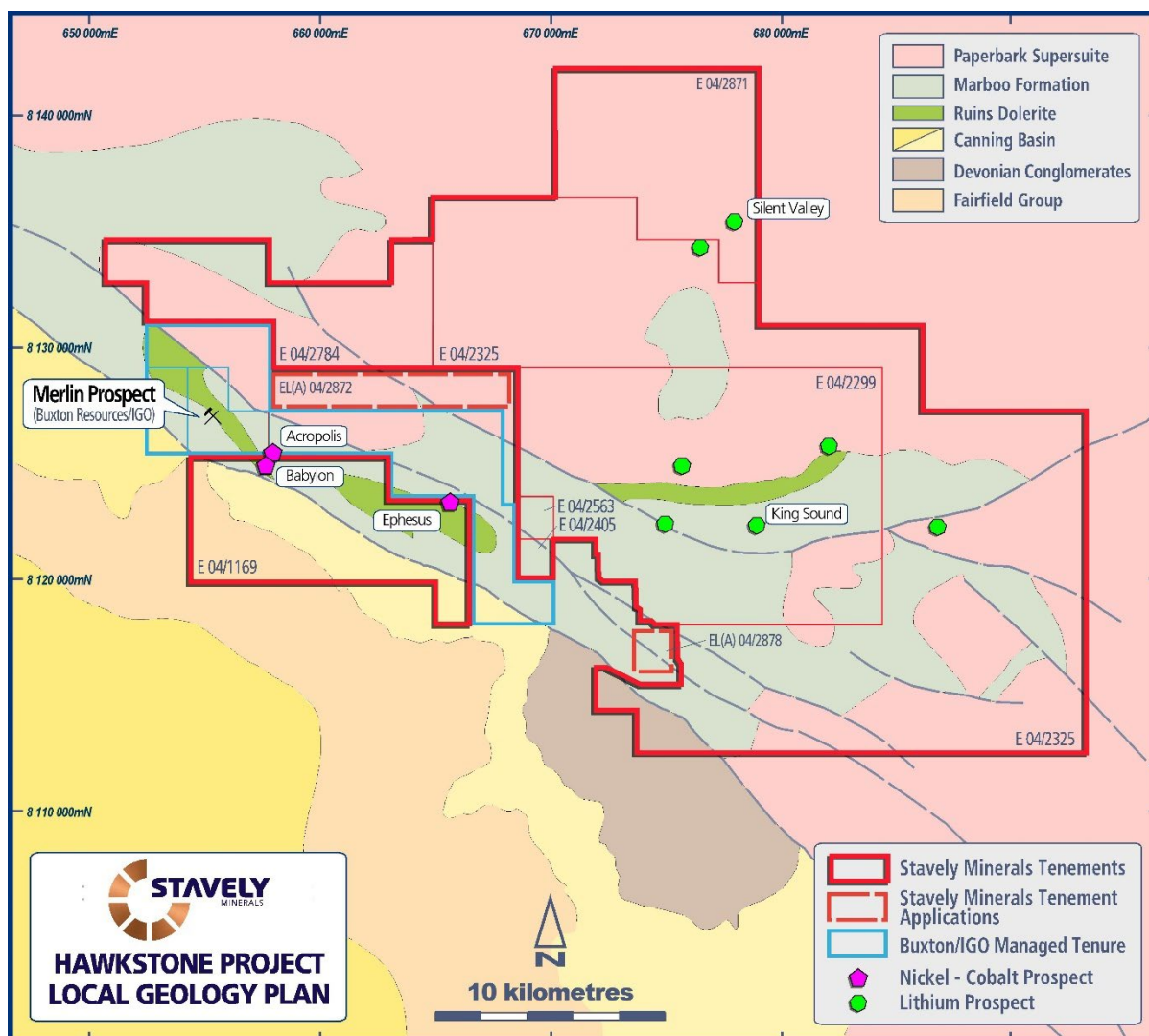


Figure 14. Hawkstone Project and the Buxton / IGO JV tenements, the location of the Merlin Ni-Cu-Co mineralisation with the distribution of the prospective host Ruins Dolerite.

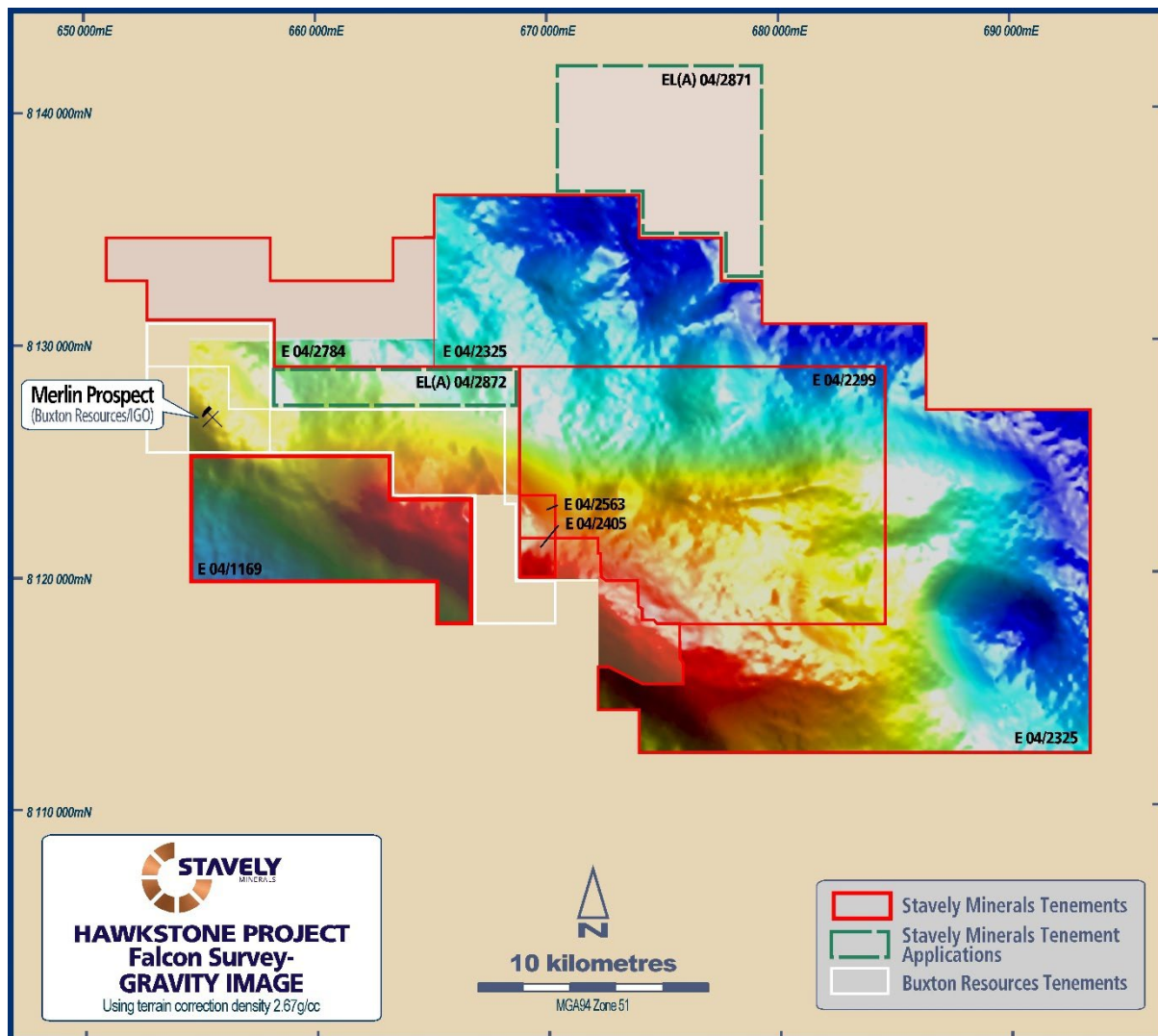


Figure 15. Hawkstone gravity image with tenement outlines and the location of the Merlin Ni-Cu-Co discovery. The large gravity feature is interpreted to reflect a mafic magma chamber at depth.

Planned Exploration

Stavely Project (RL2017, EL6870, EL7347, EL7921, EL7922, EL7923 & EL7924)

Diamond drilling by Stavely Minerals at the Thursday's Gossan Project was primarily conducted for Mineral Resource definition and was assayed by ALS methods AA23 (fire assay) for gold and ME-ICP61 (33 element by four acid digest ICP-OES). The detection limit of key elements, including Mo, Bi and Te were not sufficiently low for this multi-element technique to be used in the porphyry geochemical modelling by Dr Dan Core of Fathom Geophysics. Dr Core from Fathom has developed interpretive algorithms based on the vertical geochemical zonations above known porphyry copper deposits.

During the next quarter preparations will be made to re-assay selected samples using the ultra-trace method ME-MS61. 1 pulp sample per 10 meters will be selected from the stored sample pulps. A small proportion (<5%) of drill core sampling in portions of drill holes not previously sampled or assayed will need to be cut.

A total of 205 holes for 85,000m at the Stavely Project will be re-assayed. The chalcocite blanket and Cayley Lode will be excluded from this re-assaying program. The mineralised zones have been excluded as the objective is to obtain a signal from the broader alteration zonation.

Aircore drilling of the S2, S3 and, subject to access permission, the Junction 1 prospects is being planned.

Hawkstone Project (E04/1169, E04/2299, E04/2325, E04/2563, E04/2405 & E04/2784)

Planning of a new MLEM survey over the gravity feature will be finalised by Newexco Exploration.

Logistics and planning for the exploration season which commences in April in the Kimberley will be progressed.

CORPORATE

Stavely Minerals had a total of \$1.379M cash on hand at the end of the December 2023 Quarter.

Stavely Mineral's 524-acre property in the Thursday's Gossan area remains on the market for sale.

Additional ASX Information

- Exploration and Evaluation Expenditure during the Quarter was \$941,000 (excluding staff costs). Full details of exploration activity during the Quarter are included in this Quarterly Activities Report.
- There were no substantive mining production and development activities during the Quarter.
- Payments to related parties of the Company and their associates during the Quarter was \$220,000. The Company advises that this relates to executive directors' salaries, non-executive directors' fees and superannuation.

ANNOUNCEMENTS

Investors are directed to the following announcements (available at www.stavely.com.au) made by Stavely Minerals during and subsequent to the December 2023 Quarter for full details of the information summarised in the Quarterly Report.

3/10/2023	Compelling New Regional Porphyry Targets Identified as Deep Diamond Hole Provides Further Insights
5/10/2023	Outstanding Nickel-Copper Prospectivity Outlined at Hawkstone Project by Falcon Gravity Gradiometer
14/11/2023	Successful WA Government Drilling Co-Funding Application for 800m Deep Nickel Drill-Hole

During the Quarter, Stavely Minerals participated in the following conferences and investor meetings:

31/10 - 2/11/2023	IMARC, Sydney
20/11 – 21/11/2023	121 London
23/11/2023	Frankfurt Investor Presentation
28/11 – 30/11/2023	Resourcing Tomorrow, London

Tenement Portfolio

The tenements held by Stavely Minerals as at 31 December 2023 are as follows:

Area Name	Tenement	Grant Date/ (Application Date)	Size (Km ²)
VICTORIA			
Black Range JV*	EL 5425	18 December 2012	100
Ararat	RL 2020	8 May 2020	28
Stavely	RL 2017	8 May 2020	81
Stavely	EL 6870	30 August 2021	865
Stavely	EL 7347	17 June 2022	17
Stavely	ELA7346	(5 May 2021)	39
Stavely	EL 7921	15 September 2021	1
Stavely	EL 7922	29 September 2021	6
Stavely	EL 7923	29 September 2021	3
Stavely	EL 7924	29 September 2021	2
WESTERN AUSTRALIA			
Hawkstone**	E04/1169	24 April 2024	66
Hawkstone**	E04/2405	7 January 2016	3
Hawkstone**	E04/2563	3 February 2020	3
Hawkstone	E04/2299	15 August 2018	157
Hawkstone	E04/2325	15 August 2018	297
Hawkstone	E04/2784	5 December 2022	53
Hawkstone	E04/2871	10 November 2023	62
Hawkstone	E04/2872	(25 May 2023)	20
Hawkstone	E04/2877	(21 September 2023)	203
Hawkstone	E04/2878	(21 September 2023)	3

* 84.33% held by Stavely Minerals Limited, 15.88% by Black Range Metals Pty Ltd, a fully owned subsidiary of Navarre Minerals Limited. Black Range Metals Pty Ltd is being diluted.

** Hardrock rights only.

During the Quarter Hawkstone tenement, E04/2871 was granted.

**Chris Cairns****Executive Chair and Managing Director**

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Chris Cairns, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Cairns is a full-time employee of the Company. Mr Cairns is Executive Chair and Managing Director of Stavely Minerals Limited and is a shareholder and an option holder of the Company. Mr Cairns has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Cairns consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Previously Reported Information: *The information in this report that references previously reported exploration results and mineral resources is extracted from the Company's ASX market announcements released on the date noted in the body of the text where that reference appears. The previous market announcements are available to view on the Company's website or on the ASX website (www.asx.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.*

Authorised for lodgement by Chris Cairns, Executive Chair and Managing Director.

25 January 2024