STAVELY MINERALS
ASX Code: SVY

ASX ANNOUNCEMENT **3 October 2023**

Stavely Copper-Gold Project – Exploration Update

Compelling New Regional Porphyry Targets Identified as Deep Diamond Hole Provides Further Insights

Independent review of previous field season and historic geochemical data identifies several compelling new regional porphyry targets

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- **A review of 2022 field season soil auger and reconnaissance air-core geochemistry has identified additional compelling regional porphyry targets.**
- **These new targets will be progressed to the diamond drilling stage by additional low-cost soil auger sampling and air-core drilling as part of the current field season.**
- **Recently completed deep porphyry drill hole SMD188 has intersected broad intervals of intense multi-phase porphyry quartz veining, albeit with modest sulphide abundances.**
- **An abundance of wormy 'A-type' porphyry veins, aplite vein/dykes and limited intervals of tennantite-tetrahedrite intermediate-sulphidation copper mineralisation indicates that SMD188 is in the upper portions of, or above a porphyry system.**
- **This drill hole will be reviewed by Dr Greg Corbett in two weeks' time as he was booked to visit site to review the S41 breccia drill core and the other deep porphyry drill holes.**

Further to its announcement of 22 June 2023, Stavely Minerals Limited (ASX Code: **SVY** – "Stavely Minerals") is pleased to advise that it has completed drilling the deep porphyry target at the Thursday's Gossan prospect at its 100%-owned **Stavely Copper-Gold Project** in western Victoria (Figure 1).

In addition, the Company has received the results of an independent review of the geochemical sampling, both from soil auger and air-core 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.

Stavely Minerals Executive Chair and Managing Director, Mr Chris Cairns, said: "*The new regional porphyry targets generated by Dr Dan Core using our regional soil auger and air-core geochemical data look very credible. The process used to identify these targets is derived from the work completed by Dr Scott Halley, et al*[1] *using the vertical distribution of various geochemical elements above known porphyry systems. The targets are particularly robust given they are supported by similar gravity signatures to those at the Toora West and Thursday's Gossan porphyry centres."*

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[1] Halley, S., Dilles, J.H., and Tosdal, R.M., 2015, Footprints: Hydrothermal alteration and geochemical dispersion around porphyry copper deposits. SEG Newsletter, no. 100, pp 1 and 12-17.

"We look forward to progressing these exciting targets with air-core drilling in the upcoming spring/summer field season, which is scheduled to commence shortly."

"The recently completed deep porphyry drill hole at the Drysdale Prospect is enigmatic as it appears to demonstrate abundant multi-phase quartz veining with vein textures that imply that they formed at the top of, or above, a porphyry intrusion. Additionally, while the quartz veining is not well mineralised with sulphides for most of the drill hole, the more abundant sulphides are associated with a phyllic alteration overprint over an interval of approximately 200m."

"The most notable sulphide veins include some of the tennantite-tetrahedrite family of arsenic/antimony copper sulphides normally found in intermediate epithermal settings, which again suggests being above – or a cooler overprint on – the porphyry-style stockwork quartz veining."

"We will review this drill hole with the assistance of our consulting porphyry experts."

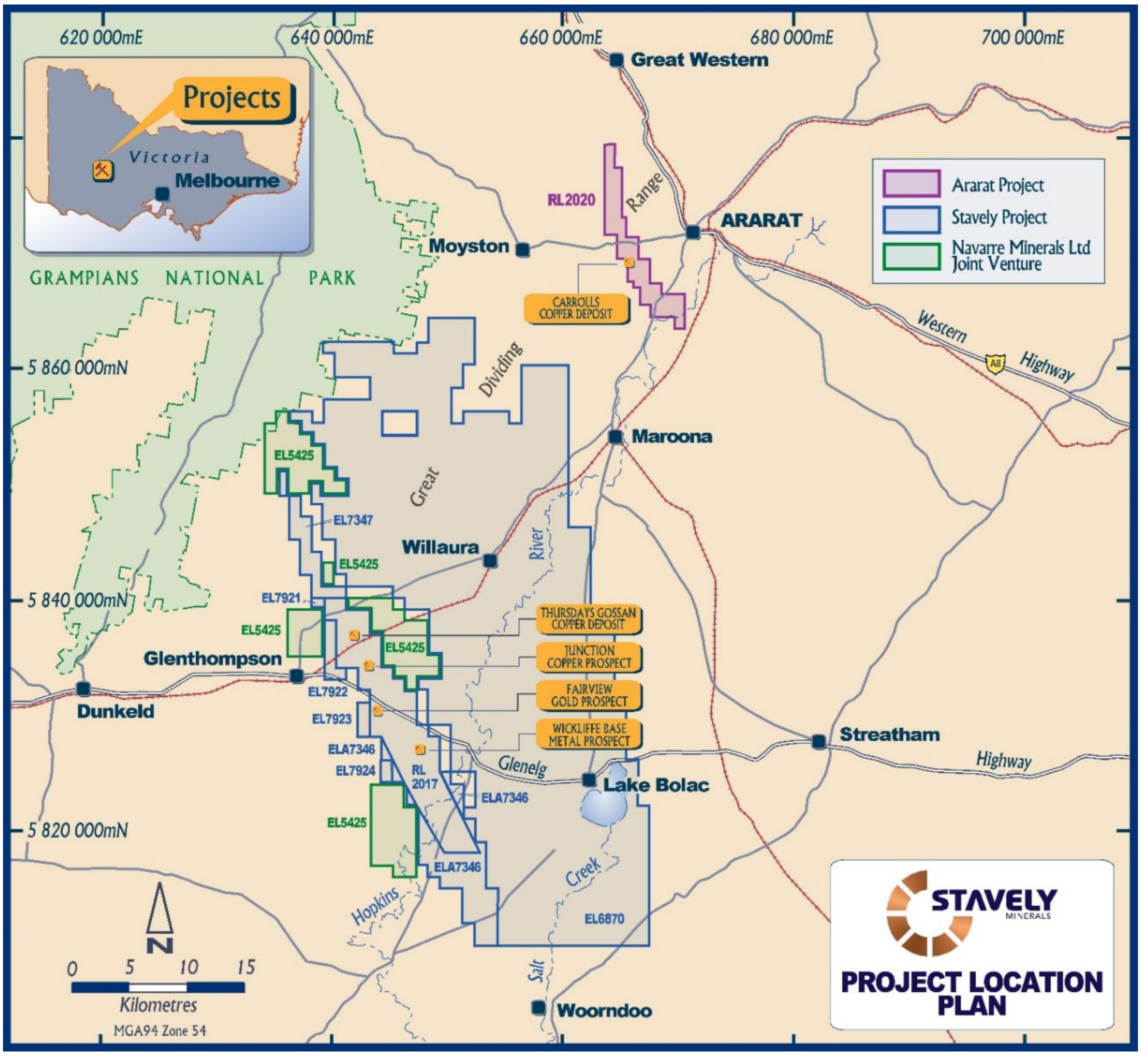

Figure 1. Stavely Project location map.

New Regional Porphyry Targets

At the suggestion of Dr Steve Garwin, Stavely Minerals engaged Fathom Geophysics to complete an analysis of the Company's large regional geochemical database, including geochemical analysis from both soil auger sampling and air-core drilling.

Dr Dan Core from Fathom 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 2).

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).

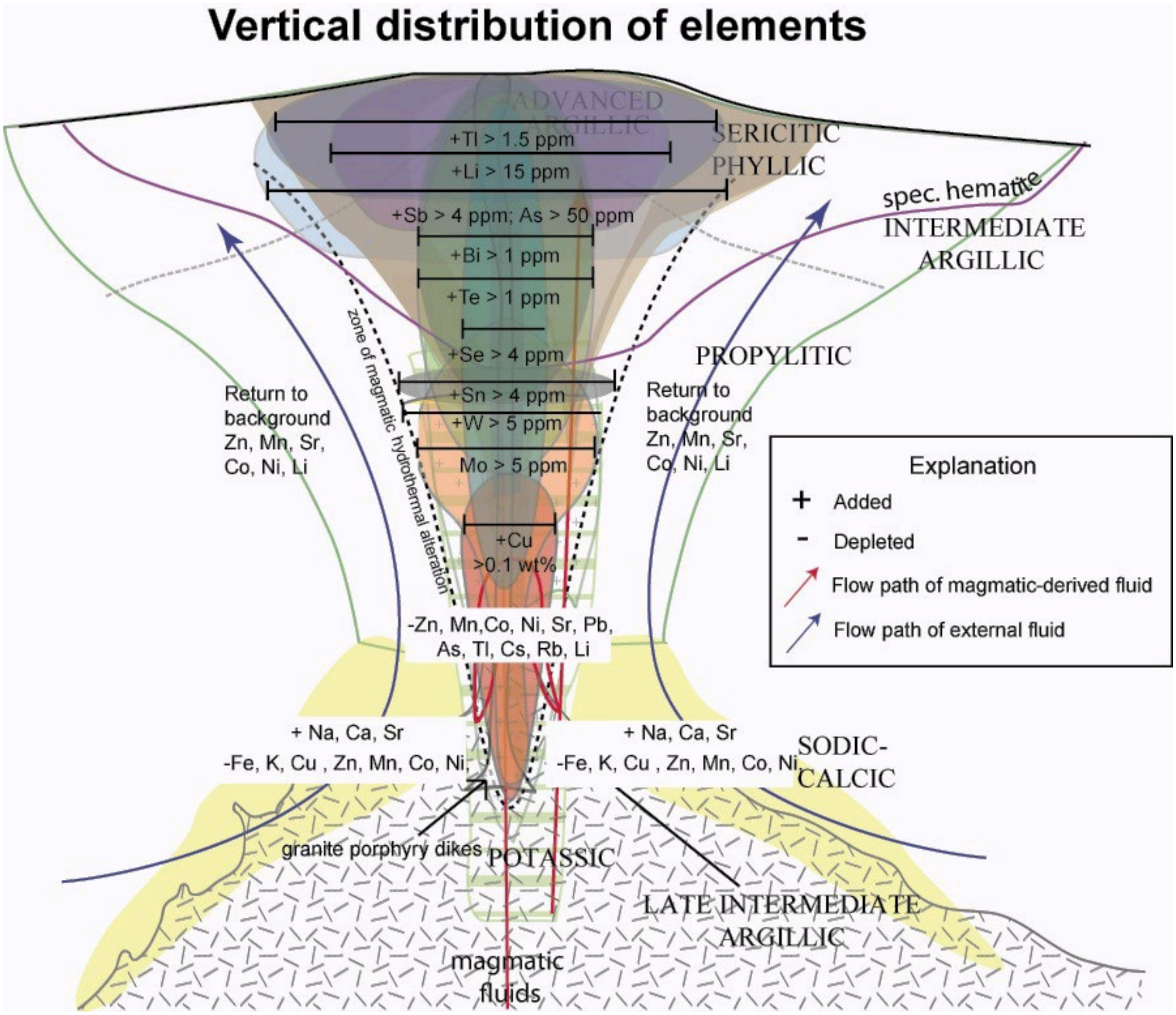

Figure 2. A summary diagram of the Mineral Deposit Research Unit – University of British Columbia generalised model of geochemical and alteration zonation around a porphyry copper-gold deposit (after Cohen, 2011 and Halley et al., 2015). The column of alteration and geochemical zonation depicted may be in the order of 5 kilometres vertically.

The air-core 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 air-core geochemical data. Confidence in the veracity of the targets is provided by the highest-ranking air-core 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 3). 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 air-core 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.

Table 1. Fathom soil auger and air-core 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 aircore 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 aircore 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.

Of particular interest are the S-2 and S-3 porphyry targets (Figures 4 and 5). Both prospects show a spatial association with gravity lows and are both at least partially covered by transported alluvium or duricrust. The planned air-core drilling over the S-2 and S-3 targets will be completed as soon as access permission is granted and an air-core rig is available, with initial indications being early November. 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 air-core drilling geochemical results are integrated into the model.

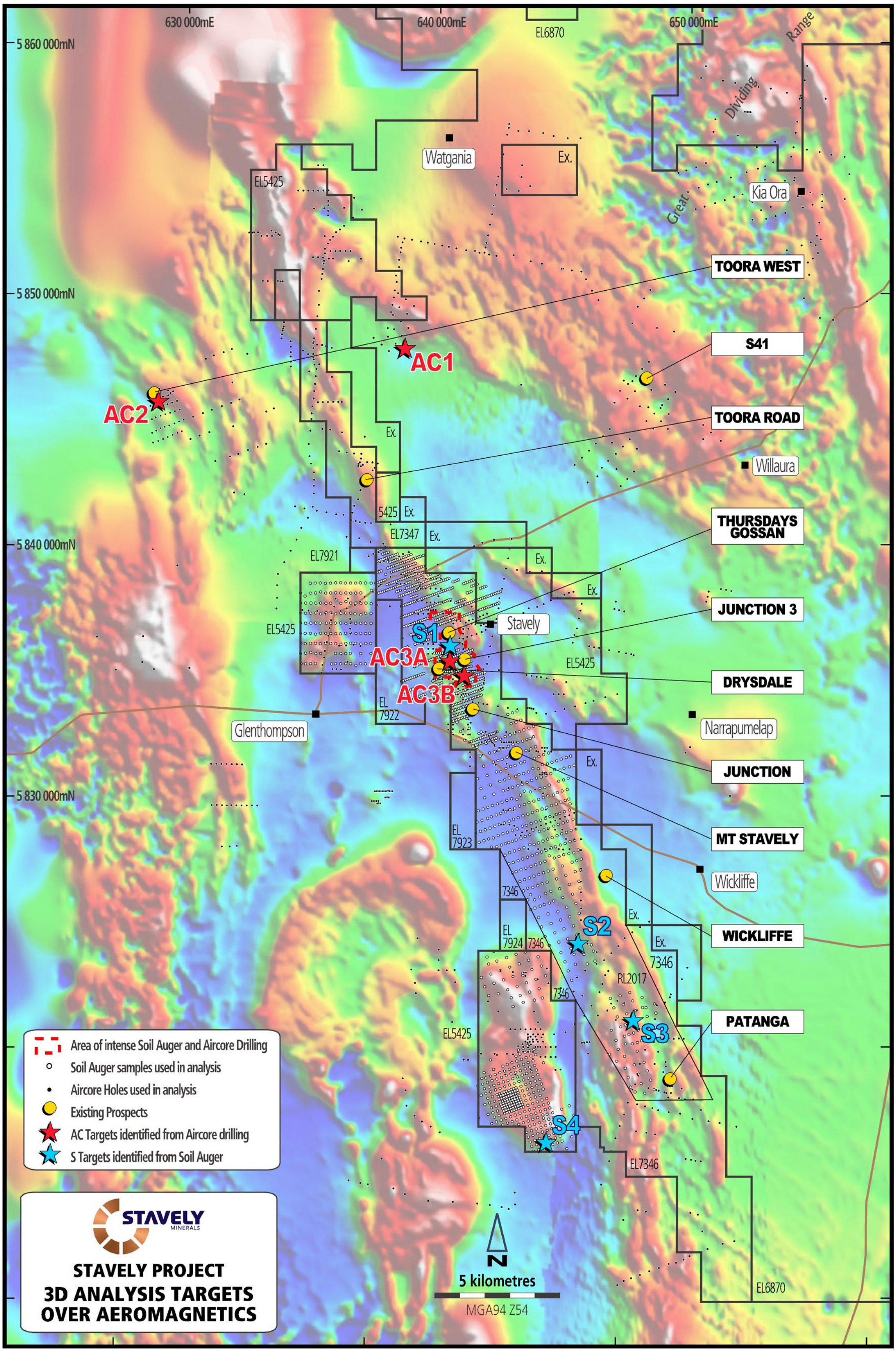

Figure 3. Fathom porphyry targets overlaid on aeromagnetic image with tenement outlines and existing prospects.

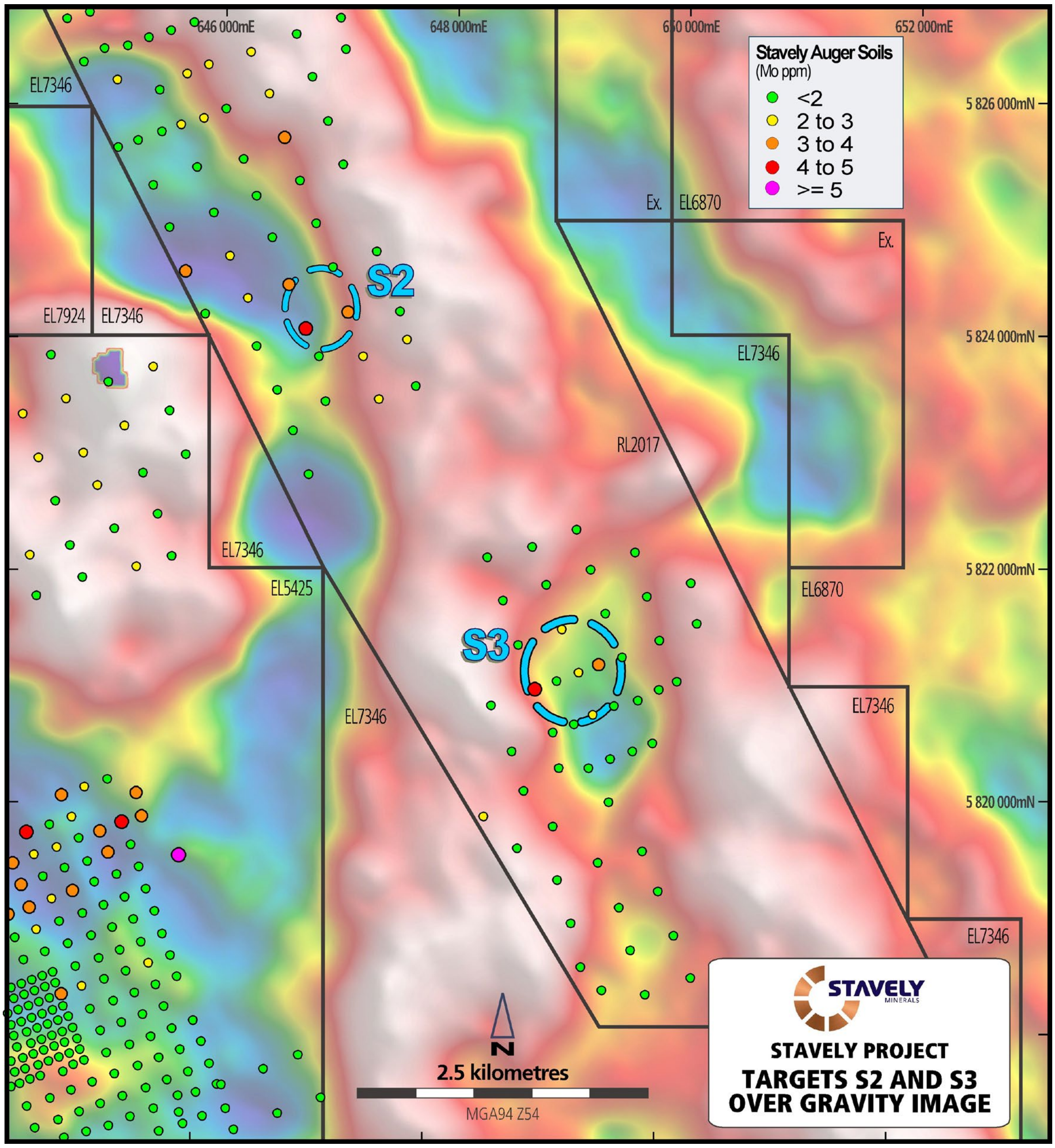

Figure 4. Fathom porphyry targets S-2 and S-3 overlaid on Falcon© gravity image with tenement outlines. Note the close spatial association with gravity lows potentially a product of intense hydrothermal clay alteration typical of that above porphyry systems.

Enhancing the potential for discovery is the close association of the S-2 and, especially, the S-3 porphyry targets and the fact that they are closely related 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 6). 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.

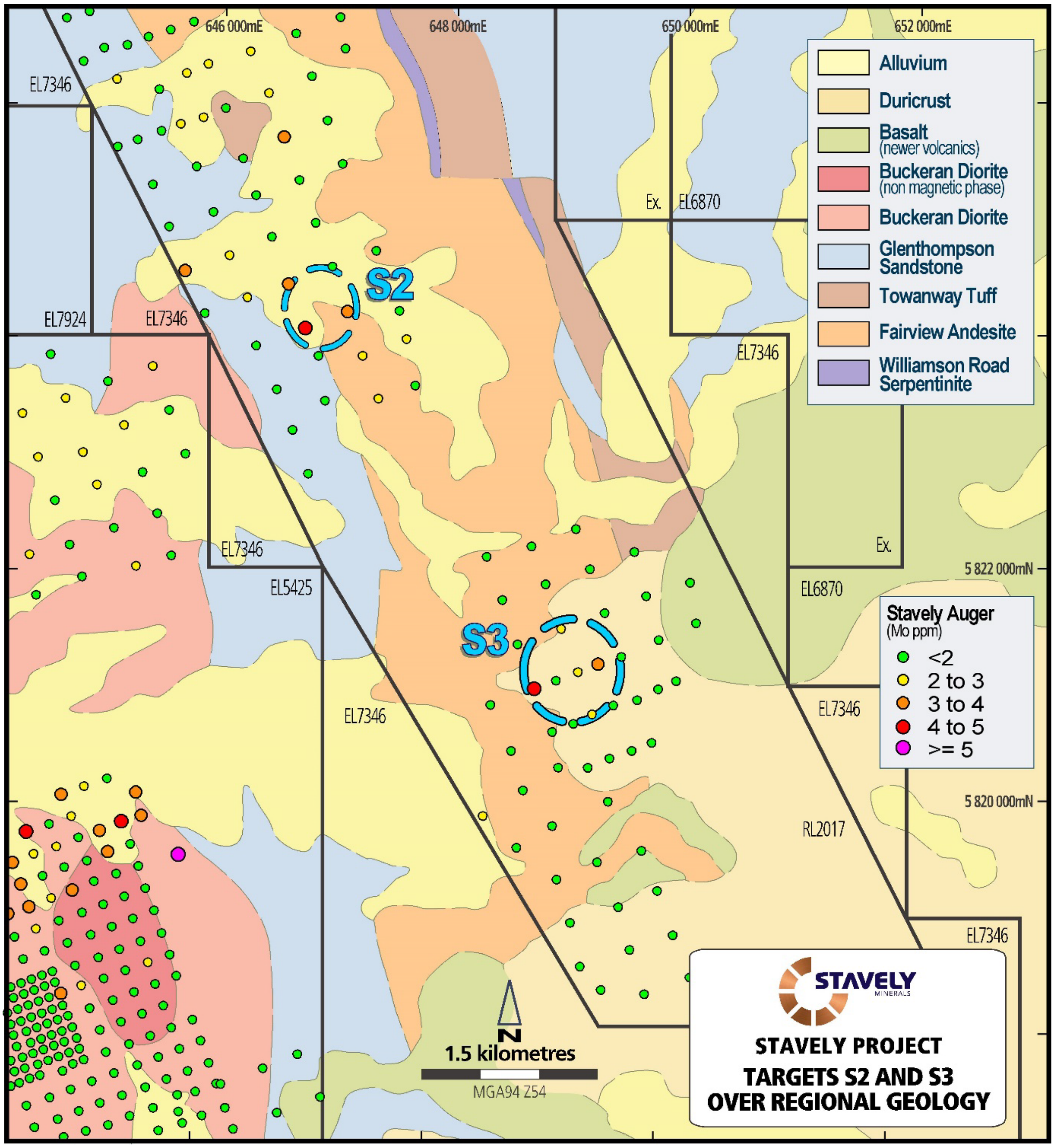

Figure 5. Fathom porphyry targets overlaid on regional geology with tenement outlines. Note that both targets are at least partially covered by transported alluvium or duricrust. The planned air-core drilling will easily penetrate these cover sequences.

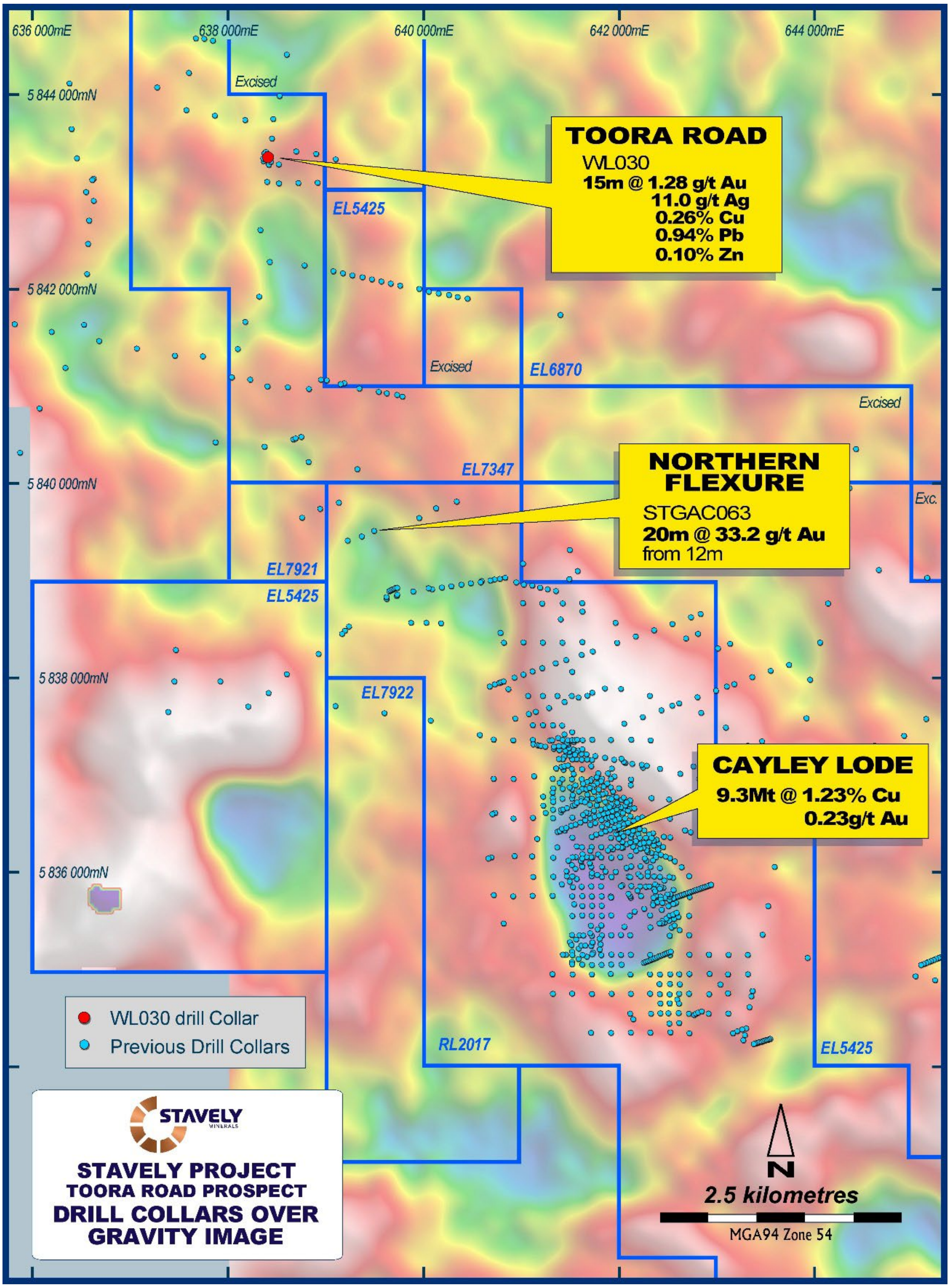

Figure 6. Thursday's Gossan (Cayley Lode), Northern Flexure and Toora Road prospects are associated with distinct gravity lows interpreted to be related to hydrothermal clay alteration which is less dense that the unaltered host rocks.

Deep Porphyry Drilling

Assay results for deep porphyry drill holes have been received for the 'fence' of drill holes completed from January to May earlier this year. The program was characterised by extremely challenging drilling conditions, especially in the south-east, where drill holes SMD184, SMD184W1, SMD186 and SMD186W1 all failed to reach target depth (Figure 7).

Only narrow intervals of lode mineralisation were encountered while there were broad intervals of low-grade copper and locally stronger zinc mineralisation (Figures 8 to 11). Sphalerite (zinc sulphide) mineralisation is interpreted as lower-temperature and has often been noted as occurring below the plunge of the hotter, high-grade copper-gold mineralised Cayley Lode which hosts an initial Mineral Resource Estimate (MRE) of 9.3Mt at 1.23%Cu, 0.23g/t Au and 7g/t Ag (Table 2).

Table 2. Cayley Lode initial Mineral Resource Estimate (see ASX announcement 14 June 2022).

Resource Material	Resource Category	Cut-off (Cu %)	Tonnes (Mt)	Grade (Cu %)	Cont. Metal (Mlbs Cu)	Grade (Au g/t)	Cont. Metal (oz Au)	Grade (Ag g/t)	Cont. Metal (oz Ag)
Primary Mineralisation (OP)	**Indicated**	0.2	5.87	1.04	134.4	0.23	43,407	7	1,321,074
	Inferred	0.2	1.7	1.3	49	0.2	11,000	9	500,000
Sub-Total Primary OP			*7.6*	*1.1*	*183*	*0.2*	54,338	*7.4*	1,808,158
Primary Mineralisation (UG)	**Indicated**	1.0	-	-	-	-		-	
	Inferred	1.0	1.7	1.8	69	0.2	11,000	6	330,000
Sub-Total Primary UG			*1.7*	*1.8*	*69*	*0.2*	11,000	*6*	330,000
Total Cayley Lode			***9.3***	***1.2***	***252***	***0.2***	***65,000***	***7.1***	***2,100,000***

Drill hole intercepts include:

SMD183

- 90m at 0.20% Cu from 379m, including:
  - 1m at 1.10% Cu from 441m
- 1.1m at 1.30% Cu from 555.9m

SMD184W1

- 6m at 0.27% Cu from 366m

SMD185

- 18m at 0.26% Cu from 426m, including:
  - 1m at 1.48% Cu from 443
- 44m at 0.27% Zn from 772m, including:
  - 1m at 1.95% Zn from 775m; and including:
  - 1m at 1.38% Zn from 801m; and including:
  - 1m at 1.72% Zn from 810m

SMD187

- 3m at 1.04% Cu from 610m, including:
  - 1m at 2.14% Cu from 611m

Drill sections are shown in the Figures below.

Recent drill hole SMD188 was completed at the Drysdale prospect to test beneath a near-surface chalcocite blanket secondary-enrichment and a number of deeper structural offsets that may have hosted an offset of the causative deep porphyry.

SMD188 was not successful in identifying significant porphyry-style sulphide mineralisation, despite the drill core demonstrating very dense porphyry quartz veining with several generations of over-printing veins evident (Photo 1).

In addition, abundant porphyry-style 'A' veins (Photo 2), unidirectional solidification textures (UST, Photo 3) and aplite vein/dykes in intrusive phases and host unit sandstones, all indicate that the drill hole may have drilled the top, or above, a porphyry system.

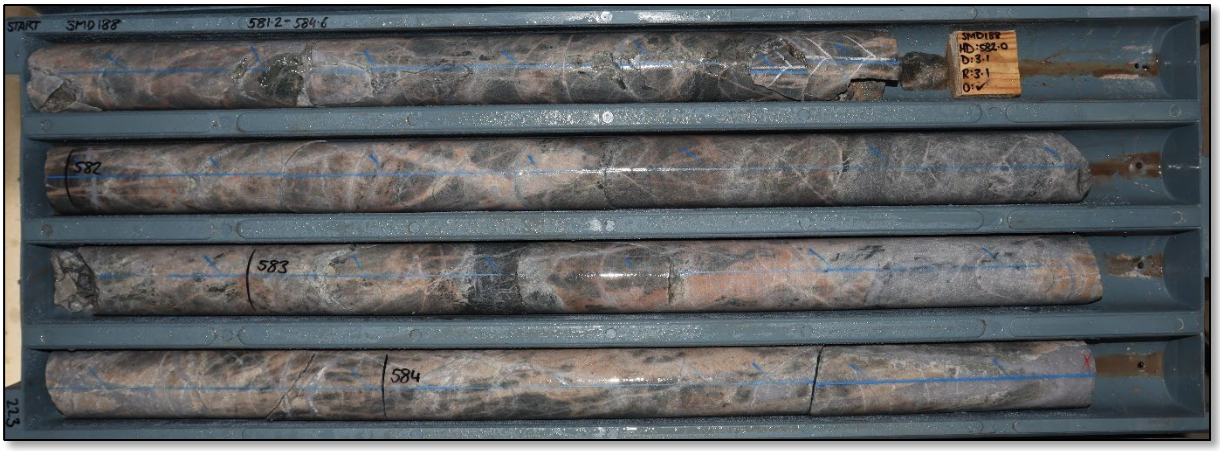

Photo 1. Drill core tray from 581.2m to 584.6m drill depth in SMD188 showing intense over-printing quartz and aplite veins/vein dykes.

Photo 2. Drill core (HQ diameter) from 545m drill depth in SMD188 showing 'wormy' quartz aplite A-type porphyry vein.

Photo 3. Wide laminated quartz vein with UST, 405.65m in SMD188.

The abundance of sulphides was generally low in SMD188 despite the intensity of multiple generations of quartz veins. An interval of approximately 200m from ~500m to ~700m did host higher sulphides, mainly pyrite associated with a phyllic (pyrite-sericite) alteration with some indications of sericite replacing 'shreddy' biotite, which could indicate an earlier pro-grade potassic alteration assemblage (Figure 12).

These observations will be assessed when Dr Greg Corbett visits site in mid-October. The Daily Drill Log is attached as Appendix 1 for those interested in the detailed geological observations and visual sulphide abundance estimates.

Narrow intervals of tennantite-tetrahedrite copper arsenic/antimony sulphide were noted but are not considered of economic significance (Photo 4). However, tennantite-tetrahedrite is considered an intermediate-sulphidation sulphide that typically forms at temperatures below those of porphyry-style copper mineralisation. Either this indicates that these sulphides formed in cooler environs above a hotter porphyry system or they are a cooler over-print.

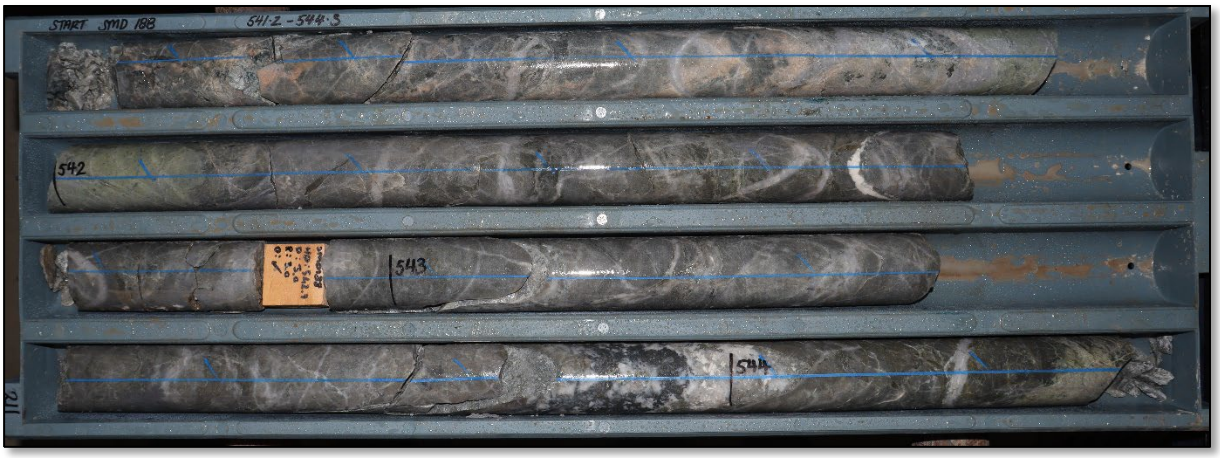

Photo 4. Tennantite-tetrahedrite vein at 543.9m in SMD188.

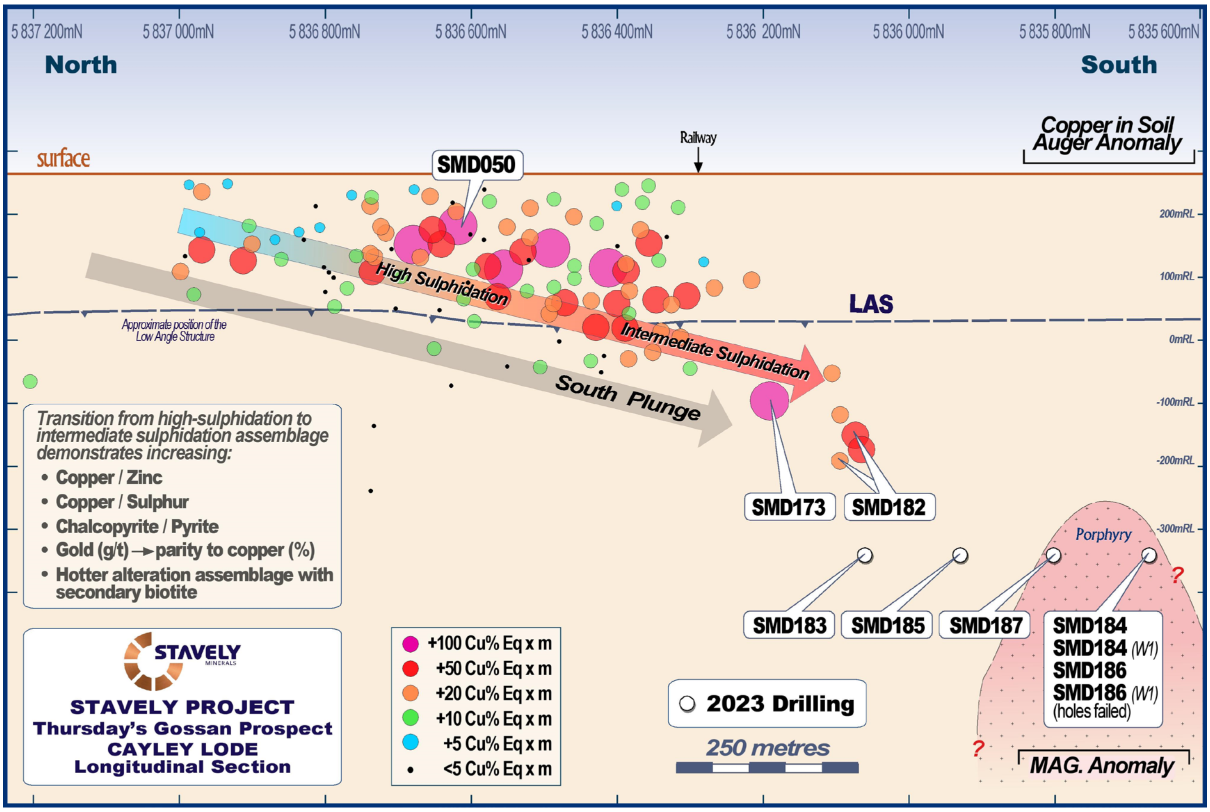

Figure 7. Long section showing the notional pierce points for the early 2023 deep porphyry drilling campaign.

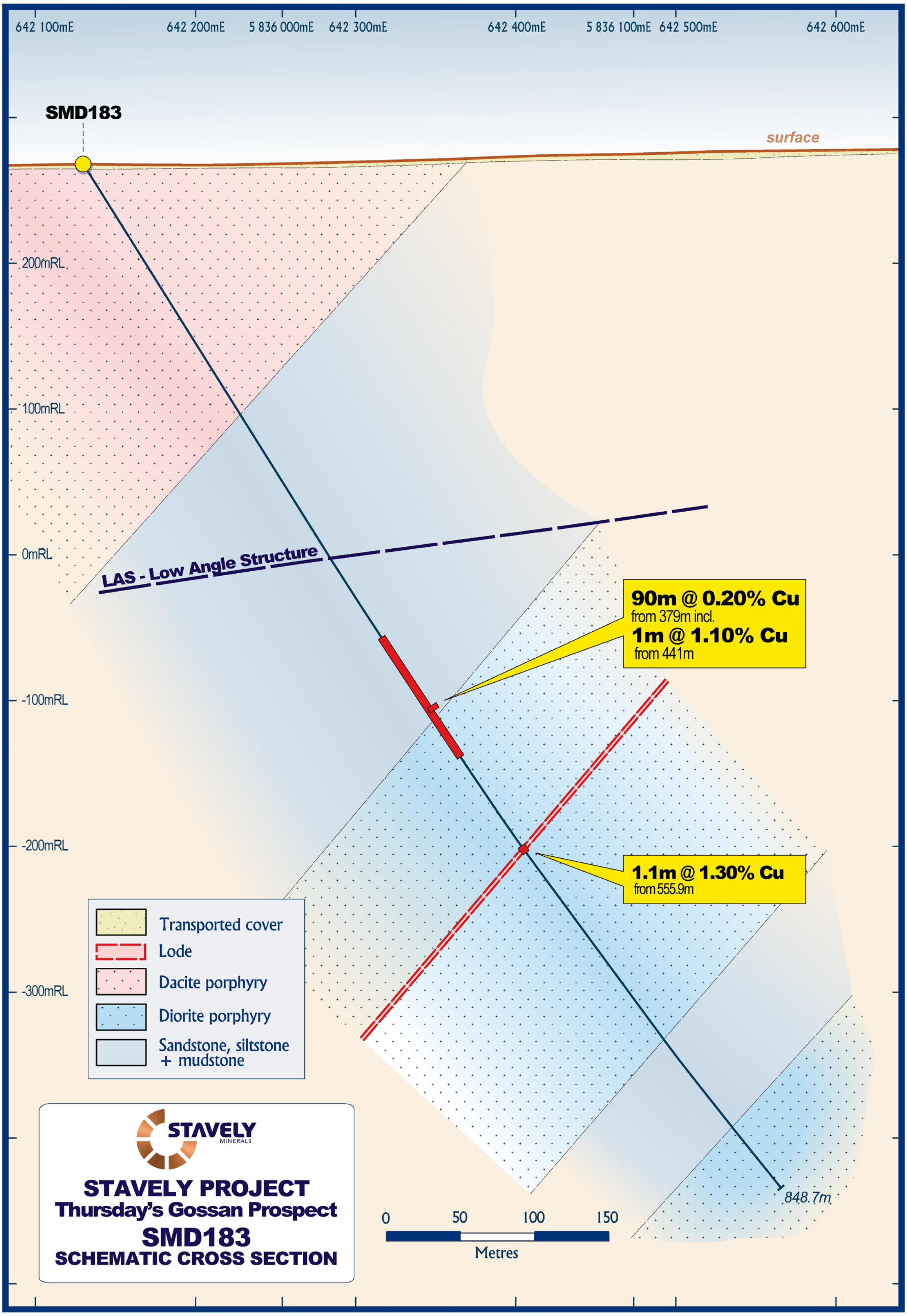

Figure 8. Drill section for drill hole SMD183.

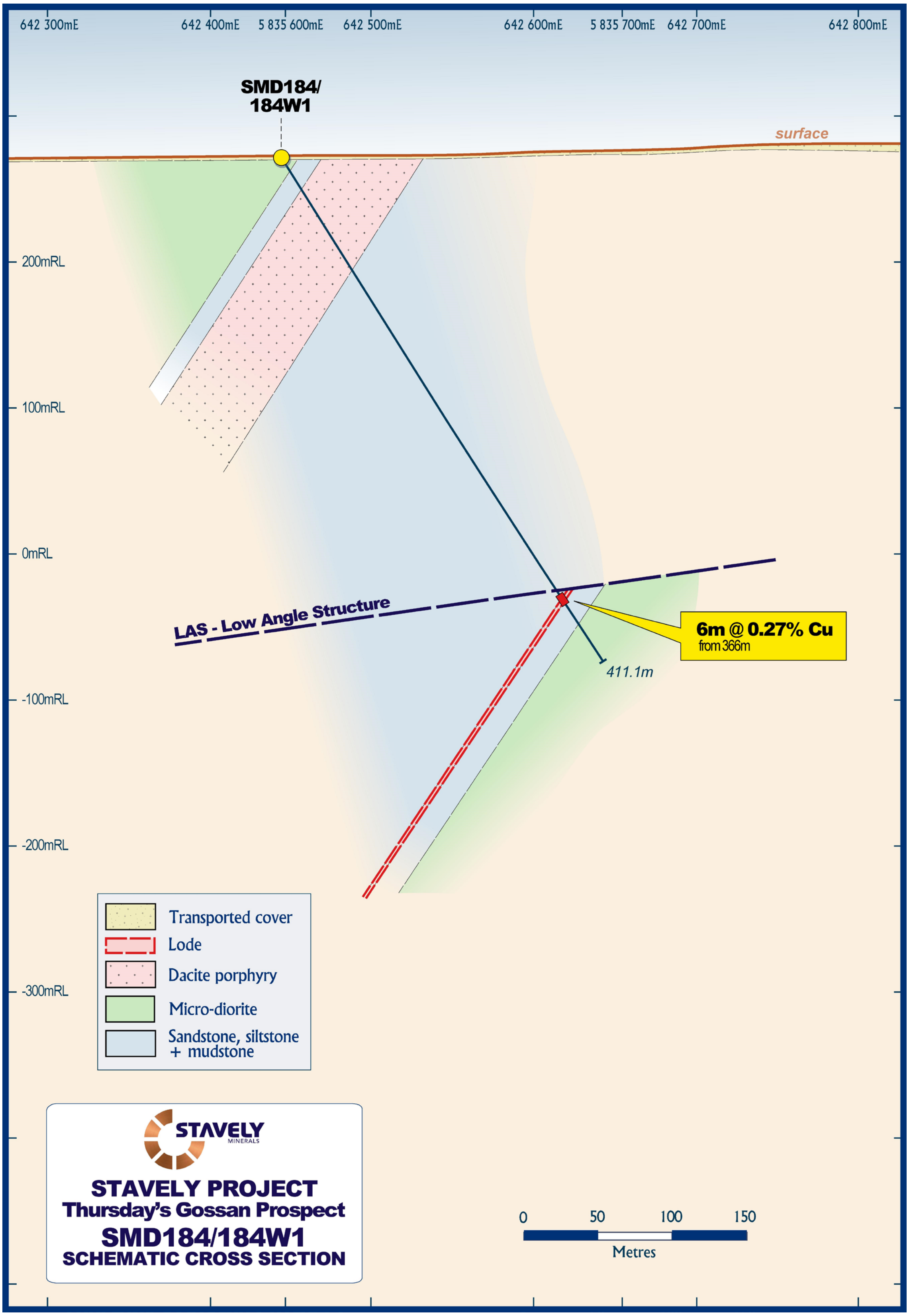

Figure 9. Drill section for drill hole SMD184W1 (failed to reach target depth).

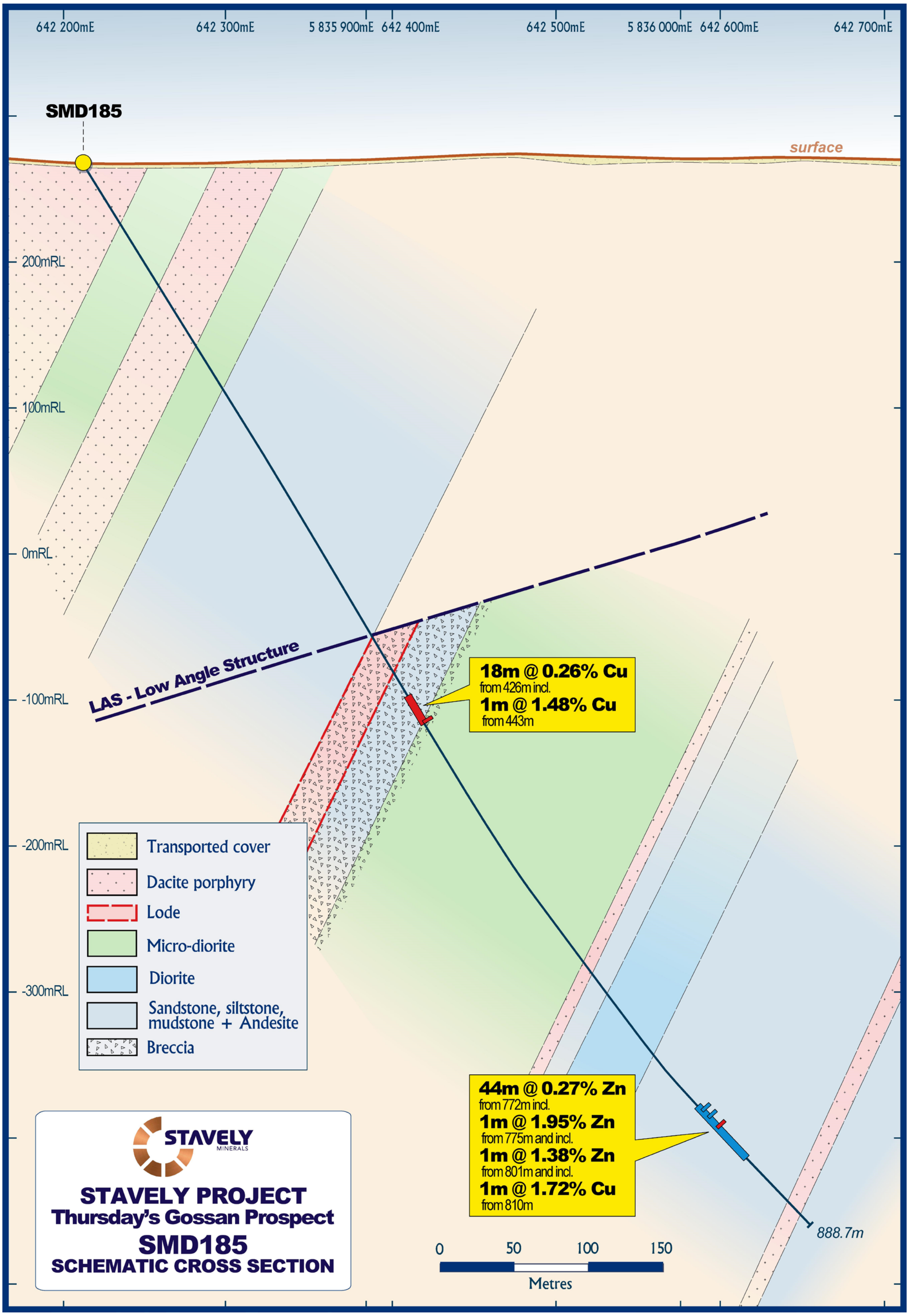

Figure 10. Drill section for drill hole SMD185.

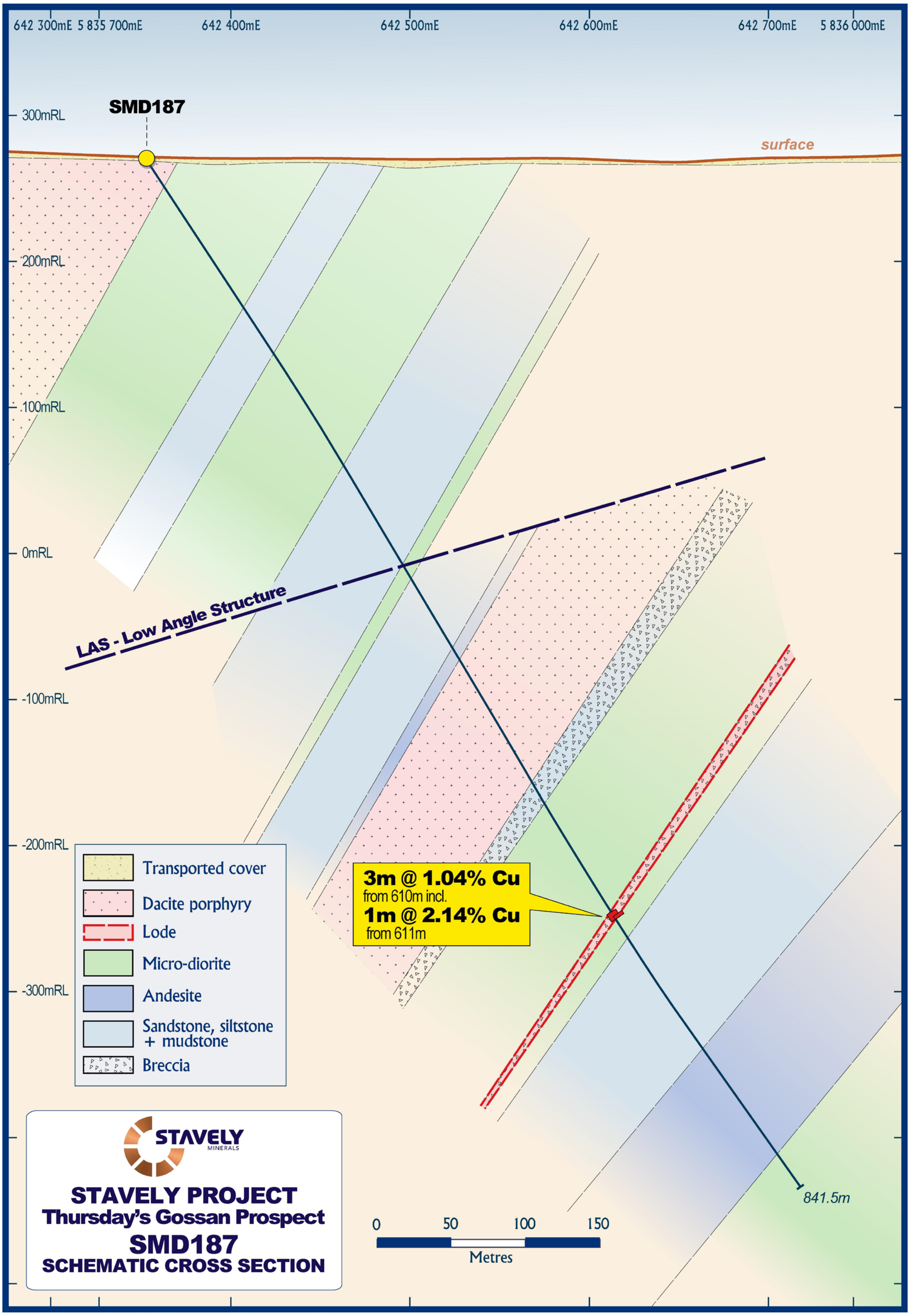

Figure 11. Drill section for drill hole SMD187.

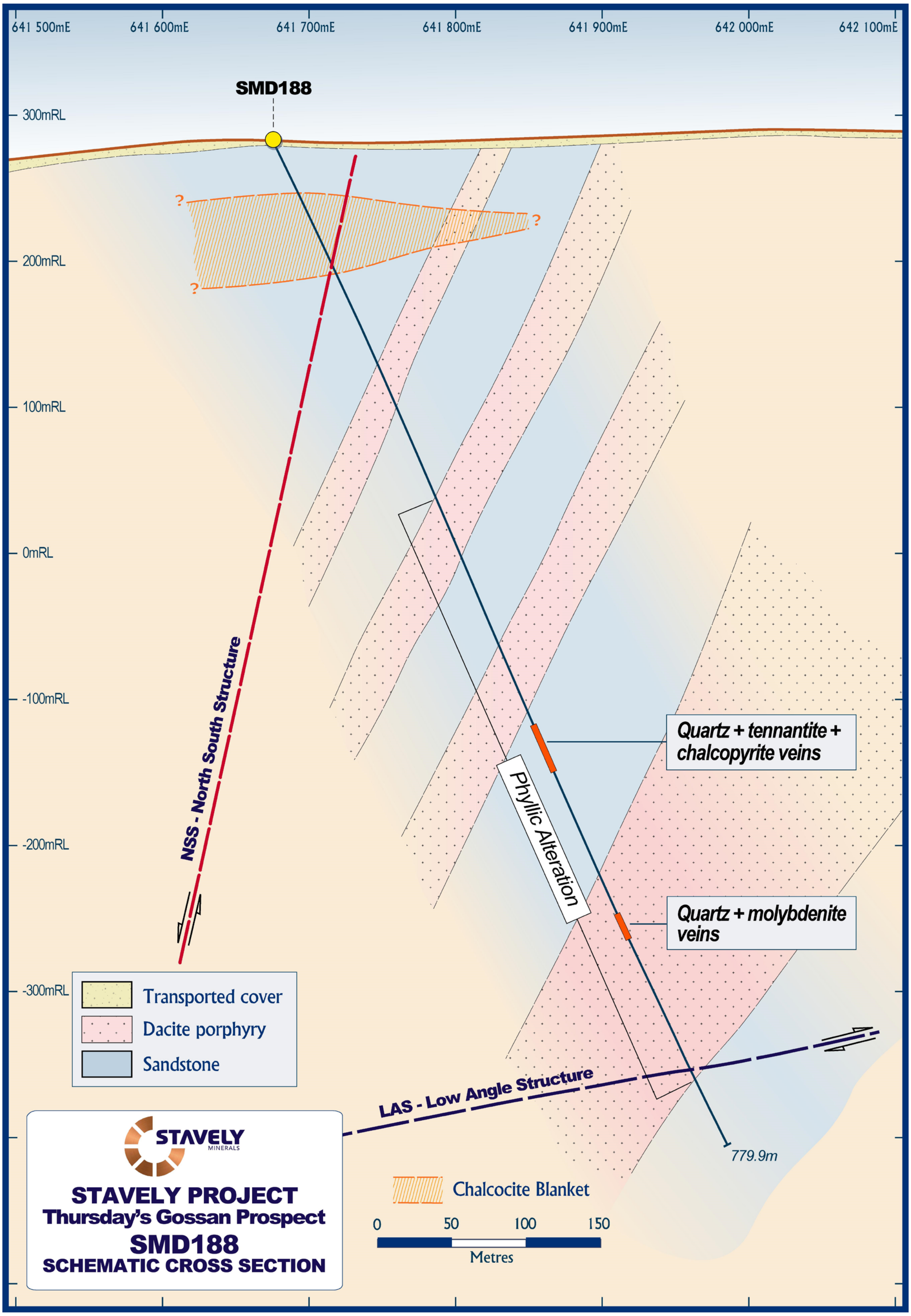

Figure 12. Drill section for drill hole SMD188.

Yours sincerely,

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 Fellow of the Australian Institute of Geoscientists and a Fellow of the Australasian Institute of Mining and Metallurgy. 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 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 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.

For Further Information, please contact:

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Thursday's Gossan Prospect – Cayley Lode Collar Table

		MGA 94 zone 54					
Hole id	**Hole Type**	**East**	**North**	**Dip/ Azimuth**	**RL (m)**	**Total Depth (m)**	**Comments**
SMD183	DD	642131	5835945	-57/60	266	848.7	
SMD184	DD	642443	5835597	-58/62	274	354.3	
SMD184W1	DD	642443	5835597	-58/62	274	411.1	Wedge
SMD185	DD	642211	5835811	-57/63	268	888.7	
SMD186	DD	642459	5835578	-58/65	274	531.2	
SMD187	DD	642352	5835719	-54/68	270	841.5	
SMD188	DD	641675	5835442	-60/120	283	779.9	

Thursday's Gossan Prospect – Cayley Lode Intercept Table

		MGA 94 zone 54					Intercept						
Hole id	**Hole Type**	**East**	**North**	**Dip/ Azimuth**	**RL (m)**	**Total Depth (m)**	**From (m)**	**To (m)**	**Width (m)**	**Cu (%)**	**Au (g/t)**	**Ag (g/t)**	**Zn (%)**
SMD183	DD	642131	5835945	-57/60	266	848.7	379	469	90	0.20			
							555.9	557	1.1	1.30			
SMD184	DD	642443	5835597	-58/62	274	354.3	Not Sampled						
SMD184W1	DD	642443	5835597	-58/62	274	411.1	366	372	6	0.27			
SMD185	DD	642211	5835811	-57/63	268	888.7	426	444	18	0.26			
						Incl.	443	444	1	1.48			
							772	816	44				0.27
						Incl.	775	776	1				1.95
						and	801	802	1				1.38
						and	810	811	1				1.72
SMD186	DD	642459	5835578	-58/65	274	531.2	Not Sampled						
SMD187	DD	642352	5835719	-54/68	270	841.5	610	613	3	1.04			
						Incl.	611	612	1	2.14			
SMD188	DD	641675	5835442	-60/120	283	779.9	Assays pending						

Note: Only selected intervals were sampled.

Intervals sampled:-

SMD183 -	*375m – 475m*
	545m – 575m
SMD184W1-	*365m – 385m*
SMD185-	*400m – 520m*
	640m – 683.7m
	770m - 840m
SMD187 -	*600m – 640m*

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (eg 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.*	The Cayley deposit has been predominately evaluated using diamond drilling with a minor component of reverse circulation and sonic drilling. The Thursday's Gossan Chalcocite blanket has been evaluated predominately using diamond and aircore drilling with a minor component of reverse circulation drilling. For diamond holes drilled by Stavely Minerals, the entire hole has been sampled. PQ quarter core and HQ half core is submitted for analysis. Pre drill hole SMD069 the sample intervals were based on lithology but in general were 1m. No intervals were less than 0.4m or greater than 1.2m. For diamond holes post drill hole SMD069, the maximum sample size is 1.2m and the minimum sample size is 0.6m, unless it is between core-loss. In zones of significant core-loss, sampling of all available core will be taken and a record of lost core will be made. There is no minimum sample size in these zones. Samples are taken every 1m on metre marks except in high grade lodes and massive sulphide within the Cayley Lode. Within the Cayley Lode, the sampling boundaries will reflect the high-grade contacts at beginning and within high grade lodes and massive sulphide within the Cayley Lode whilst honouring the minimum and maximum sample sizes. For diamond drill holes SMD183 to SMD188, which were drilled to test the porphyry target at Thursday's Gossan, only selected intervals were sampled. For historical diamond drill holes, sub-sampling is not well documented. Holes drilled by BCD, Newcrest, North Limited and CRAE the majority of the hole was sampled in 1-2m intervals, all drill core was ½ core sampled. For Pennzoil holes, samples were only selected where mineralisation was observed, it is unknown whether these were half or full core intervals. For the Sonic drilling the entire hole was sampled for analysis. The sample intervals were generally 1m. Sampling of the Sonic core is undertaken by cutting the soft clay material into quarters and bagging the sample. In competent samples, large pieces of core are cut into quarters and sampled along with small pieces to approximate one quarter of the sample present in the interval. For reverse circulation holes drilled by Stavely Minerals, a representative 1m split samples (~12.5% or nominally 3kg) were collected using a rotary cone splitter mounted on the cyclone and placed in a calico bag, the 1m samples for the entire hole were submitted for analysis. For BCD reverse circulation holes TGRC126-138, 1-2m composite samples were collected through regolith and

Criteria	JORC Code explanation	Commentary
		bedrock except within mineralisation and / or zones of interest where 1m samples were collected from the bulk sample using a riffle splitter to collect a representative sample (of unknown proportion). BCD predominantly used Air Core drilling to define the secondary chalcocite resource. For TGAC002-TGAC013 the entire hole was sampled with average 3m length composite samples, the sample collection method is unknown. For TGAC014-TGAC045 often, approximately the top 20-30m of each hole was not sampled. Sampling then occurred every 1m except in oxide zones where 2m composites were taken. For TGAC047-TGAC073, TGAC091-TGAC106, and TGAC112-TGAC125 approximately the top 15 metres were not sampled. Sampling included taking 1-2m composites through regolith and bedrock except within mineralisation and/or zones of interest where 1m samples were requested. For SAC029-SAC031, 1m samples were collected for the entire hole. For TGAC126-TGAC159, 3m composite samples were collected.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Sample representivity was ensured by a combination of Company Procedures regarding quality control (QC) and quality assurance/ testing (QA). Certified standards and blanks were inserted into the assay batches.
	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 (eg '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 (eg submarine nodules) may	**Diamond Drilling** Stavely Minerals drill sampling techniques are considered industry standard for the Stavely work program. For Stavely Minerals diamond, sonic and reverse circulation drill samples were crush to 70% < 2mm, riffle/rotary split off 1kg, pulverize to >85% passing 75 microns to produce a 30g charge for gold analysis and 0.25g charge for multi-element analysis.

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td>warrant disclosure of detailed information.</td><td></td></tr>
<tr><td>Drilling techniques</td><td>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</td><td>
A summary of drilling by Company is given below.
<table>
<tr><th>Company</th><th>Drill hole type</th><th>Number of holes</th><th>Total metres</th></tr>
<tr><td rowspan="3">Stavely Minerals</td><td>DD</td><td>188</td><td>75,832</td></tr>
<tr><td>Sonic</td><td>12</td><td>961</td></tr>
<tr><td>RC</td><td>20</td><td>2,905</td></tr>
<tr><td rowspan="3">BCD</td><td>DD</td><td>5</td><td>1,277</td></tr>
<tr><td>RC</td><td>14</td><td>688</td></tr>
<tr><td>AC</td><td>138</td><td>8,209</td></tr>
<tr><td rowspan="2">Newcrest</td><td>DD</td><td>5</td><td>2,089</td></tr>
<tr><td>AC</td><td>43</td><td>1,871</td></tr>
<tr><td>CRAE</td><td>DD</td><td>2</td><td>601</td></tr>
<tr><td rowspan="2">North Limited</td><td>DD</td><td>3</td><td>856</td></tr>
<tr><td>AC</td><td>62</td><td>3,677</td></tr>
<tr><td>Pennzoil</td><td>DD</td><td>2</td><td>181</td></tr>
</table>
Diamond core drilled by Titeline Drilling Pty Ltd for Stavely Minerals (SMD prefix holes) was drilled utilising standard wireline drilling mostly using PQ bits but also with some HQ drilling to produce oriented core. Triple tube core barrels were routinely used to maximise drill core recovery. Core diameter is mostly PQ (85mm) or HQ3 (63.5mm). For diamond tails to RC drilling, HQ diameter core is produced.
Sonic drilling was conducted by Groundwave Drilling Services for Stavely Minerals. Sonic rigs drill by vibrating the rod string and drill bit to produce high frequency resonant energy at the bit face, which is able to liquefy clay, push through sand, and pulverise solid lithologies. External casing is advanced at the same rate as the drill string in order to stop any material from collapsing into the open hole. The core barrel is retrieved from the drill hole using the conventional method of pulling all of the rods out of the drill hole. The sample is vibrated out of the barrel into metre long plastic bags after removing the drill bit.
The Stavely Minerals RC holes were drilled by Budd Exploration Drilling P/L. The RC percussion drilling was conducted using a UDR 1000 truck mounted rig with onboard air. A Sullair 350/1150 auxiliary compressor was used. 4” RC rods were used and $5^{1}/_{4}$” to $5^{3}/_{4}$” drill bits. A Reflex Digital Ezy-Trac survey camera was used.
Historic North Ltd diamond holes VICT1D1 and VICT1D2 were drilled in 1993 by contractor Luhrs Holding using an "Edsom 3000 Rig". Diamond hole VICTD4 was drilling in 1993 by Silver City Drilling using a "Warman 1000 Rig". Holes were precollared to the base of weathering at about 50m depth, then HQ and then NQ at about 140-170m depth.
Historic diamond holes DD96WL010 and DD96WL011 were drilled for CRAE in 1996 by drill contractor Australian Diamond Drilling Pty Ltd using a UDR650 rig. The holes
</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		were pre-collared to 3-5m, then drilled HQ to around 200m, then cased off to NQ. Historic diamond holes VSTD001 - VSTD004 and VSTD006 were drilled for Newcrest in 2002-2003 by Silver City Drilling with a modified UDR600 (? multipurpose) rig. Historic diamond holes SNDD001-SNDD005 were drilled for BCD during 2008-2009 by Silver City Drilling using a Wallis Mantis 700 Rig for SNDD001-004 and Titeline Drilling for SNDD005. Holes were collared HQ and cased off to NQ when drill conditions were favourable. Historical aircore holes TGAC002 to TGAC125 were drilled vertically by Beaconsfield Gold Mines Pty Ltd in 2008 and 2009 by Wallis Drilling. Historical aircore holes with the prefix SAC were drilled by BCD in 2009. The holes were drilled vertically by Blacklaws Drilling Services. Historical reverse circulation holes TGRC082 to TGRC143 were drilled by BCD in 2009. Drilling was conducted by Budd Exploration Drilling P/L using a Universal drill rig. TGRC138 was oriented at -60^{o} towards magnetic azimuth 55^{o}. Historical aircore holes TGAC126 to TGAC159 were drilled by BCD in 2012. The holes were drilled vertically by Broken Hill Exploration using a 700psi/300cfm aircore rig.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Diamond core recoveries for Stavely Minerals holes were logged and recorded in the database. Unless specifically mentioned, the core recovery for all diamond holes was on average greater than 90%. Core recovery for SMD050 averaged 82% with an average recovery of 76% in the mineralised zone between 79m and 93m. Core recovery for SMD051 averaged 86%. For the mineralised zone between 97m and 182m recovery averaged 76%, however between 98m and 127.7m the recovery only averaged 55%. Core recovery for SMD053 was on average 87%, however the in the final metre of the mineralised zone there was only 46% recovery. Core recovery for SMD054 averaged 87%. Core recovery for SMD060 averaged 85%. However, core recovery between 104m and 116m was very poor at less than 50% and between 119.9m and 126.2m there was 100% core loss. Core recovery for SMD074 averaged 93%, but a portion of the mineralised zone between 181.6m and 195.7m only averaged 76%. While the overall recovery for SMD093 and SMD094 was 94% and 96%, respectively, there was core loss through the Cayley Lode and hence a wedge – SMD093W1 and SMD094W1 was drilled for each hole. There was still some core loss in the Cayley Lode in the wedges.

Criteria	JORC Code explanation	Commentary
		Core recovery for SMD096 averaged 90%, however for the Cayley Lode recovery was 99%, but 0.3m of core was lost from the bottom of the mineralised zone. Core recovery for SMD104 averaged 89%, however in the high-grade zone the core recovery averaged 96%. Core recovery for SMD106 averaged 89%. Overall core recovery for SMD108 averaged 88%, however within the Cayley Lode it dropped to an average of 76%. Overall core recovery for SMD134 averaged 92%, however there was 4.6m core loss in the Cayley Lode. Overall core recovery for SMD135 averaged 95%, however there was 0.5m core loss in the Cayley Lode. Overall core recovery for SMD156 averaged 90%, however core recovery was only 46% in the Cayley Lode between 262.4m to 269.4m. Overall core recovery for SMD156W1 averaged 91%, however core recovery was only 87% in the Cayley Lode between 246m to 270m. Overall core recovery for SMD184W1 averaged 86%. Recoveries for BCD diamond holes (SNDD001-SNDD004) averaged 85%, with a high degree of core loss in the weathered profile, serpentinite and through zones of high sulphide content. North Ltd holes VICTD1 and VICTD2 averaged 87% recovery and Newcrest hole VSTD averaged 93%. Recoveries were not documented for Pennzoil holes, Newcrest holes VSTD001-004 or BCD hole SNDD005. Sonic core recoveries were logged and recorded in the database. Core recovery for SMS001D averaged 97%. Core recovery for SMS002AD averaged 78%. Core recovery for SMS003 to SMS011 averaged between 89% and 98%. Core recovery for SMS012 averaged 86%. Core recovery for SMS013 averaged 84%. RC sample recovery for holes drilled by Stavely Minerals was good. Booster air pressure was used to keep the samples dry despite the hole producing a significant quantity of water. RC sample recovery was visually checked during drilling for moisture or contamination. For BCD percussion drilling, wet drilling and sampling conditions is often mentioned and is likely to have affected all drill holes. However, data and information is not available.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Stavely Minerals diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the driller. Triple tube core barrels were routinely used to maximise drill core recovery.

Criteria	JORC Code explanation	Commentary
		Sonic drilling was used by Stavely Minerals in difficult ground conditions, due to its ability to drill a wide range of material types and recover the sample. A wide variety of drill bits and barrels are available for use in different types of ground on the Sonic drill rig. The RC samples for drilling conducted by Stavely Minerals was collected by plastic bag directly from the rig-mounted cyclone and laid directly on the ground in rows of 10. The drill cyclone and sample buckets are cleaned between rod-changes and after each hole to minimise down-hole and/or cross contamination. Booster air pressure was used to keep the samples dry despite the hole producing a significant quantity of water. When samples could no longer be kept dry, RC drilling stopped and diamond tails were drilled. RC sample recovery was visually checked during drilling for moisture or contamination. No details are available for the historical drill holes.
	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.	There are some issues with Stavely Minerals diamond core sample recovery within the mineralised zone. This includes the loss of material which is likely to have carried grade. For the RC drilling by Stavely Minerals, no analysis has been undertaken as yet regarding whether sample bias may have occurred due to preferential loss/gain of fine/coarse material and is not considered to have a material effect given the good sample recovery. For BCD drilling, wet drilling and sampling conditions is often mentioned and is likely to have affected all drill holes. However, data and information is not available for assessing the effect these conditions have on grade. No details are available for the other historical drill holes.
Logging	*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.*	For Stavely Minerals drilling geological logging of samples followed Company and industry common practice. Qualitative logging of samples including, but not limited to, lithology, mineralogy, alteration, veining and weathering. Diamond core logging included additional fields such as structure and geotechnical parameters. Magnetic Susceptibility measurements were taken for each 1m diamond core interval. All historical drill holes were geologically logged.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	For all diamond and sonic drilling by Stavely Minerals, logging is quantitative, based on visual field estimates. Systematic photography of the core in the wet and dry form was completed. For all RC drilling by Stavely Minerals, logging is quantitative, based on visual field estimates. Chip trays with representative 1m RC samples were collected and photographed then stored for future reference. For all historic drilling logging is quantitative, based on visual field estimates.
	The total length and percentage of the relevant intersections logged.	For Stavely Minerals diamond and Sonic Drilling, detailed core logging, with digital capture, was conducted for 100% of the core by Stavely Minerals' on-site geologist at the Company's core shed near Glenthompson.

Criteria	JORC Code explanation	Commentary
		For Stavely Minerals RC drilling, all chip samples were geologically logged by Stavely Minerals' on-site geologist on a 1m basis, with digital capture in the field. Historical holes have been logged in their entirety.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	For Stavely Minerals diamond drilling quarter core for the PQ diameter diamond core and half core for the HQ diameter core was sampled on site using a core saw. Sampling of the Sonic core is undertaken by cutting the soft clay material into quarters and bagging the sample. In competent samples, large pieces of core will be cut into quarters and sampled along with small pieces to approximate one quarter of the sample present in the interval. Mining Plus have confirmed that this sampling procedure is acceptable. For historical holes, sub-sampling is not well documented. Holes drilled by BCD, Newcrest, North Limited and CRAE the majority of the hole was sampled in 1-2m intervals, all drill core was ½ core sampled. For Pennzoil holes, samples were only selected where mineralisation was observed, it is unknown whether these were half or full core intervals.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Splitting of samples for RC drilling conducted by Stavely Minerals occurred via a rotary cone splitter by the RC drill rig operators. Cone splitting of RC drill samples occurred regardless of whether the sample was wet or dry. For BCD holes TGRC126-138, 1-2m composite samples were collected through regolith and bedrock except within mineralisation and / or zones of interest where 1m samples were collected from the bulk sample using a riffle splitter to collect a representative sample (of unknown proportion). In the 2006 program (TGRC001) it was noted that the rig did not have the capacity to keep the sample dry, a 3m composite was collected for each 3m rod run with the rods flushed at the end of each run to limit contamination, the sample collection method was not recorded.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Company procedures were followed to ensure sub-sampling adequacy and consistency. These included, but were not limited to, daily work place inspections of sampling equipment and practices. The sampling practices followed for the diamond drilling were audited by Mining Plus in December 2019 and found to be appropriate. In February 2020, Cube Consulting conducted a site visit and audit of sampling procedures. Recommendations made have been implemented. No details of sample preparation are given for the historical drilling.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	For diamond, Sonic and RC drilling by Stavely Minerals, blanks and certified reference materials are submitted with the samples to the laboratory as part of the quality control procedures. Blanks were inserted – 1 per 40 samples outside the strongly mineralised zone and 1 in 10 samples within the strongly mineralised zone. Standards were inserted – 1 per 20 samples outside the strongly mineralised zone and 1 in 10 samples within the strongly mineralised zone. For historical holes, only BCD AC holes TGAC126-TGAC159 had any field QA/QC with roughly one duplicate

Criteria	JORC Code explanation	Commentary
		was speared for each hole and one standard inserted for each hole. These do not included analysis for gold.
	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.	For diamond drilling by Stavely Minerals, quarter core sampling of the diamond PQ core and Sonic core is conducted to provide a field duplicate from hole SMD067 to SMD097 and all Sonic holes.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered to be appropriate to correctly represent the sought mineralisation.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Stavely Minerals core and 1m RC split samples were analysed by multielement ICPAES Analysis - Method ME-ICP61. A 0.25g sample is pre-digested for 10-15 minutes in a mixture of nitric and perchloric acids, then hydrofluoric acid is added and the mixture is evaporated to dense fumes of perchloric (incipient dryness). The residue is leached in a mixture of nitric and hydrochloric acids, the solution is then cooled and diluted to a final volume of 12.5mls. Elemental concentrations are measured simultaneously by ICP Atomic Emission Spectrometry. This technique approaches total dissolution of most minerals and is considered an appropriate assay method for porphyry copper-gold systems. This technique is a four- acid digest with ICP-AES or AAS finish. The drill core and 1m grab splits were also analysed for gold using Method Au-AA23. Up to a 30g sample is fused at approximately 1,100^{o}C with alkaline fluxes including lead oxide. During the fusion process lead oxide is reduced to molten lead which acts as a collector for gold. When the fused mass is cooled the lead separates from the impurities (slag) and is placed in a cupel in a furnace at approximately 900^{o}C. The lead oxidizes to lead oxide, being absorbed by the cupel, leaving a bead (prill) of gold, silver (which is added as a collector) and other precious metals. The prill is dissolved in aqua regia with a reduced final volume. Gold content is determined by flame AAS using matrix matched standards. For samples which are difficult to fuse a reduced charge may be used to yield full recovery of gold. This technique approaches total dissolution of most minerals and is considered an appropriate assay method for detecting gold mineralisation. Information on assaying details for historic holes are not well documented, the following information was gathered from previous annual technical reports: • Pennzoil: A base metal suite was assayed via AAS (digestion not specified) and Au was assayed via fire assay. • North, CRAE and Newcrest: A base metal suite was assayed via Mixed Acid digest, AAS detection (ICP-OES for CRAE) and Au was assayed via fire assay.

Criteria	JORC Code explanation	Commentary
		• BCN: A base metal suite by aqua regia digest ICP-OES methods and repeated assays for samples returning greater than 5000ppm Cu by Mixed Acid Digest ICP-OES detection. Au was assayed via fire assay.
	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.	Not applicable to this report.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Laboratory QAQC for Stavely Minerals drilling involved insertion of CRM (Certified Reference Materials), duplicates and blanks. The analytical laboratory provides their own routine quality controls within their own practices. The results from their own validations were provided to Stavely Minerals. Results from the CRM standards and the blanks gives confidence in the accuracy and precision of the assay data returned from ALS. For historical holes, only BCD AC holes TGAC126-TGAC159 had any field QA/QC with roughly one duplicate was speared for each hole and one standard inserted for each hole. These do not include analysis for gold.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Stavely Minerals' Managing Director or the Technical Director have visually verified significant intersections in the diamond core and percussion chips.
	The use of twinned holes.	No twinned holes have been drilled.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	For Stavely Minerals drilling primary data was collected for drill holes using the OCRIS logging template on Panasonic Toughbook laptop computers using lookup codes. The information was sent to a database consultant for validation and compilation into a SQL database. All primary assay data is received from the laboratory as electronic data files that are imported into the sampling database with verification procedures in place. Digital copies of Certificates of Analysis are stored on the server which is backed up daily. Data is also verified on import into mining related software. No details are available for historical drilling.
	Discuss any adjustment to assay data.	No adjustments or calibrations were made to any assay data used in this report.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other*	The drill collar location was pegged before drilling and surveyed using Garmin handheld GPS to accuracy of +/- 3m. Collar surveying was performed by Stavely Minerals' personnel. Subsequent to drilling, the collar locations have been surveyed using a DGPS.

Criteria	JORC Code explanation	Commentary
	locations used in Mineral Resource estimation.	There is no location metadata for historic Pennzoil, North Ltd, CRAE or Newcrest holes.
	Specification of the grid system used.	The grid system used is GDA94, zone 54.
	Quality and adequacy of topographic control.	For Stavely Minerals' exploration, the RL was recorded for each drill hole location from the DGPS. Accuracy of the DGPS is considered to be within 1m.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The drill hole spacing is predominantly 40m by 40m but in places is 60m by 60m. The data spacing is deemed to be sufficient in reporting a Mineral Resource.
	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.	The drill hole spacing has been shown to be appropriate by variography.
	Whether sample compositing has been applied.	For Stavely Minerals diamond and sonic core the entire hole is sampled. For diamond core PQ quarter core and HQ half core was submitted for analysis. Sample intervals were based on lithology but in general were 1m. No intervals were less than 0.4m or greater than 1.2m. For Stavely Minerals RC, percussion drilling was used to produce a 1m bulk sample (~25kg) which was collected in plastic bags and representative 1m split samples (12.5% or nominally 3kg) were collected using a cone splitter and placed in a calico bag. The cyclone was cleaned out with compressed air at the end of each hole and periodically during the drilling. The 1m split samples were submitted for analysis. Historical diamond hole PEND1T was drilled by Pennzoil of Australia and only portions of the hole were sampled, with composite samples varying from 1 to 8m. Historical RAB drill holes with the prefix PENR were drilled by Pennzoil of Australia and alternate two metre composite samples were assayed for Ag, Cu, Pb and Zn. Historical aircore drill holes with the prefix STAVRA were drilled by North Limited and three metre composite samples were assayed for Au, Cu, Pb and Zn. Historical diamond holes VICT1D2 and VICT1D4 were drilled by North Limited. For VICT1D2 the top 28 metres was not sampled, there after one metre or two metre composite samples were assayed for Au, Ag, Co and Mo. For VICT1D4 the top 27m was not sampled, there after one metre samples were assayed for Au, As, Cu, Mo, Pb and Zn. For historical aircore holes TGAC002 to TGAC125 approximately the top 15 to 16 metres was not sampled,

Criteria	JORC Code explanation	Commentary
		after that one metre intervals samples were taken for the remainder of the holes. For aircore holes TGAC126 to TGAC159 no samples were taken for the top 9 metres, after which three metre composite samples were collected for the remainder of the holes. For aircore holes SAC001 to SAC031 the top approximately 5 to 30m were not sampled, after which three metre composite samples were assayed for Au, Ag, As, Bi, Cu, Hg, Pb, S and Zn. For historical holes with the prefix TGRC one metre samples were assayed for Au, Ag, As, Co, Cu, Fe, Ni, Pb, S and Zn.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	As best as practicable, drill holes are designed to intercept targets and structures at a high angle.
	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.	The majority of the drilling has intersected the Cayley Lode mineralisation approximately perpendicularly except where limitations relating to surface access has resulted in the Cayley Lode mineralisation being intersected sub optimally.
Sample security	*The measures taken to ensure sample security.*	Drill samples in closed poly-weave bags are delivered by Stavely personnel to Ballarat from where the samples are couriered by a reputable transport company to ALS Laboratory in Adelaide, SA. At the laboratory, samples are stored in a locked yard before being processed and tracked through sample preparation and analysis.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	An audit of the sampling techniques, QAQC and the database was conducted by Mining Plus in November 2019 and by Cube Consulting in February 2020. The majority of the recommendations of the audit have been implemented. In particular there were slight adjustments to the sampling interval, frequency of QAQC samples and a minor update to the database.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*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.*	**Stavely Project** The Stavely Project comprises RL2017, EL6870, EL7347, EL7921, EL7922, EL7923 and EL7924. Stavely Minerals hold 100% ownership of the Stavely Project tenements. The mineralisation at Thursday's Gossan is situated within retention licence RL2017. EL4556, which was largely replaced by RL2017 was purchased by Stavely Minerals (formerly Northern Platinum) from BCD Resources Limited in May 2013. RL2017 was granted on the 8th May 2020 and expires on the 7th May 2030. A Section 31 Deed and a Project Consent Deed has been signed between Stavely Minerals Limited and the Eastern Maar Native Title Claim Group for RL2017. EL6870 was granted on the 30 August 2021 and expires on the 29 August 2026. A Section 31 Deed and a Project Consent Deed has been signed between Stavely Minerals Limited and the Eastern Maar Native Title Claim Group for EL6870. EL7347 was granted on the 17th June 2022 for a period of 5 years. EL7921 was granted on the 15th September 2022 for a period of 5 years. EL7922, EL7923 and EL7924 were granted on the 29th September 2022 for a period of 5 years. These 5 tenements do not cover crown land and are not subject to Native Title. **Black Range Joint Venture** The Black Range Joint Venture comprises exploration licence 5425 and is an earn-in and joint venture agreement with Navarre Minerals Limited. Stavely Minerals earned 83% equity in EL5425 in December 2022. EL5425 was granted on 18 December 2021 and expires on the 17 December 2027.
	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.	All the exploration licences and the retention licence are in good standing and no known impediments exist.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	**Stavely Project & Black Range Joint Venture** The Mt Stavely belt has been explored since the late 1960's, including programmes undertaken by mineral exploration companies including WMC, Duval, CRA Exploration, BHP, and North. Exploration activity became focused on Thursday's Gossan and the Junction prospects following their discovery by Pennzoil of Australia Ltd in the late 1970s. North Limited continued to focus on Thursday's Gossan in the 1990s. North's best drill result at Thursday's Gossan came from VICT1D1 which gave 161m of 0.26% Cu from 43m,

Criteria	JORC Code explanation	Commentary
		including 10m of 0.74% Cu from 43m from a supergene-enriched zone containing chalcocite. The tenement was optioned to CRA Exploration between 1995 and 1997. CRAE drilled several deep diamond drill holes into Thursday's Gossan, including DD96WL10, which intersected 186m from 41m of 0.15% Cu and DD96WL11, which intersected 261.7m from 38.3m of 0.13% Cu. EL4556 was further explored by Newcrest Operations Limited under option from New Challenge Resources Ltd between 2002 and 2004. Their main focus was Thursday's Gossan in order to assess its potential as a porphyry copper deposit. One of their better intersections came from drill hole VSTD01 on the northern edge of the deposit which gave 32m at 0.41 g/t Au and 0.73% Cu from 22m in supergene-enriched material. The Stavely Project was optioned to Beaconsfield Gold Mines Pty Ltd in 2006 who flew an airborne survey and undertook an extensive drilling programme focused on several prospects including Thursday's Gossan. One of their diamond drill holes at Thursday's Gossan, SNDD001, encountered zones with quartz- sulphide veins assaying 7.7m at 1.08 g/t Au and 4.14% Cu from 95.3m and 9.5m at 0.44 g/t Au and 2.93% Cu from 154.6m along silicified and sheared contacts between serpentinite and porphyritic intrusive rocks. Once Beaconsfield Gold Mines Pty Ltd had fulfilled their option requirements, title of EL4556 passed to their subsidiary company, BCD Metals Pty Ltd, who undertook a gravity survey and extensive drilling at prospects including Thursday's Gossan. They also commissioned a maiden Mineral Resource estimate for Thursday's Gossan. All work conducted by previous operators at Thursday's Gossan is considered to be of a reasonably high quality.
Geology	*Deposit type, geological setting and style of mineralisation.*	**Stavely Project & Black Range Joint Venture** The Stavely Project and Black Range JV are located in the Mount Stavely Volcanic Complex (MSVC). Intrusion of volcanic arc rocks, such at the Mount Stavely Volcanic Complex, by shallow level porphyries can lead to the formation of porphyry copper ± gold ± molybdenum deposits. EL6870 is interpreted by Cayley et al. (2017) to host structurally dislocated and rotated segments of both the Stavely Belt and the Bunnugal Belt. **Stavely Project** **Thursday's Gossan Prospect** The Thursday's Gossan prospect is located in the Mount Stavely Volcanic Complex (MSVC). Intrusion of volcanic arc rocks, such at the Mount Stavely Volcanic Complex, by shallow level porphyries can lead to the formation of porphyry copper ± gold ± molybdenum deposits. The Thursday's Gossan Chalcocite deposit (TGC) is considered to be a supergene enrichment of primary porphyry-style copper mineralisation. Mineralisation is characterised by chalcopyrite, covellite and chalcocite copper sulphide mineralisation within a sericite, illite and

Criteria	JORC Code explanation	Commentary
		kaolin clay alteration assemblage. Copper mineralisation is within a flat lying enriched 'blanket' of overall dimensions of 4 kilometres north-south by up to 1.5 kilometres east-west by up to 60 metres thick with an average thickness of approximately 20 metres commencing at an average depth below surface of approximately 30 metres. The majority (circa 60%) of the Mineral Resources reside within a higher-grade zone of approximate dimensions of 1 kilometre x 300 metres by 35 metres thick. The mineralisation at the Cayley Lode at the Thursday's Gossan prospect is associated with high-grade, structurally controlled copper-gold-silver mineralisation along the ultramafic contact fault. The Thursday's Gossan area hosts a major hydrothermal alteration system with copper-gold mineralisation over a 10 kilometre long corridor. The Junction porphyry target is defined by a coincident magnetic high, strong soil copper geochemistry, RAB drilling copper anomalism. Stavely Minerals believes the technical evidence indicates there is significant porphyry copper-gold mineralisation potential at depth at Thursday's Gossan.
Drill hole Information	*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:* *easting and northing of the drill hole collar* *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *dip and azimuth of the hole* *down hole length and interception depth* *hole length.*	All exploration results used in the Mineral Resource estimate have previously been reported.
	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.	No material drill hole information has been excluded.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*	High-grade mineralisation exploration all copper and/or gold intervals considered to be significant have been reported with subjective discretion. No top-cutting of high-grade assay results have been applied, nor was it deemed necessary for the reporting of significant intersections.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	In reporting exploration results, length weighted averages are used for any non-uniform intersection sample lengths. Length weighted average is (sum product of interval x corresponding interval grade %) divided by sum of interval length.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Assumptions used for reporting of metal equivalent values are clearly stated.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*	**Stavely Project** **Thursday's Gossan Prospect** The vast majority of the diamond drill holes used in the resource estimation were oriented to intercept the steeply dipping mineralisation at a high angle. As a rule, drill holes had a -60 degree dip to azimuth 070 and the mineralisation averaged a dip of -80 degrees to azimuth 250. The average angle of interception was 40 degrees and the true width is ~65% of the intercept length. In a small percentage of holes due to constraints on drill hole location the holes were oriented oblique to known mineralisation orientations and therefore the intercepts are considered greater than the true widths of mineralisation.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	
Diagrams	*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.*	Cross sections and a plan of collar locations were included with previously reported exploration results. Relevant diagrams have been included within the Mineral Resource report main body of text.

Criteria	JORC Code explanation	Commentary
Balanced reporting	*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.*	All copper and gold values considered to be significant for structurally controlled mineralisation have been reported. Some subjective judgement has been used.
Other substantive exploration data	*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.*	All relevant exploration data is shown on figures and discussed in the text.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	**Stavely Project** **Thursday's Gossan Deposit** 3D modelling of aircore and soil auger assays was conducted by Fathom Geophysics on the Stavely Project. Two of the targets identified in the soil data – targets S2 & S3 have been selected for follow-up aircore drilling.

Appendix 1.

DAILY DRILLING REPORT

SUMMARY

Rig	Hole ID	Planned Hole ID	Prospect	Easting	Northing	Dip	Azimuth (True)	Planned EOH depth (m)	Current Depth (m)
16	**SMD188**	**PSMD401**	Drysdale	641675	5835442	**-60**	**120**	**600**	**779.9 EOH**

Staff Present: Michael Agnew, Rebecca Hope, Jack Shelton

SMD188 DRYSDALE

Targeting 1) beneath a supergene chalcocite blanket delineated by aircore drilling, 2) quartz+ hematite veins in the paddock and 3) the intersection between a possible NW-trending fault and the North South Structure.

0-0.4	Brown surface soil and clay.
0.4--1.5	Saprock. Ferrugenous. Intense pervasive hematite + limonite/goethite.
1.5-8.5	Saprolite (sandstone). Intense pervasive clay + limonite/goethite.
8.5-30.0	Saprolite. Intense pervasive clay + limonite – mottled cream, brown, orange + purple clay. Rare quartz+hematite veins.
30.0-46.0	Upper saprolite (sandstone). 1-5% hematite+quartz veins, up to 2.5cm wide, some with boxwork texture. Base of Complete Oxidation ~ 43.6m. Base of Partial Oxidation ~46m.
46.0-83	Lower saprolite / intense pervasive grey/cream kaolinite clay (sandstone). Mixed zone of both pyrite and chalcocite fractures, also chalcocite-coated pyrite 0.5-3% (total sulphide).
83-88.8	Sandstone, minor siltstone and mineralised breccia. Strong pervasive cream clay. Pyrite and chalcocite in fractures and veins, also chalcocite-coated pyrite 0.5-3% (total sulphide). Rare chalcocite beyond 89m.
88.8-92.6	Breccia intervals in sandstone. Irregular wispy sandstone clasts in dark grey matrix with pyrite+clay. Locally sheared and foliated. Trace to 0.5% pyrite veins and fracture coatings.
92.6-94.75	Sandstone, minor siltstone. Strong pervasive clay.
94.75-96.1	Breccia intervals in sandstone as above.

96.1-97.95	Fault zone (North South Structure). Fault pug and breccia. Intense pervasive grey and cream clay. Broken friable core.
97.95-98.2	Microgabbro. Flow-banded. Strong pervasive clay.
98.2-98.4	Lamprophyre. Irregular intrusive contacts. Trace carbonate stringers. Strong pervasive clay.
98.4-101.75	Fault zone (North South Structure). Breccia intervals. Strong pervasive grey clay. 0.5-2% pyrite veins and fracture coatings with sericite selvedges. Broken friable core.
101.75-103.6	Microgabbro. Flow-banded at the downhole margin. Strong pervasive clay.
103.6-125.0	Sandstone, fine to medium grained, massive. Strong, decreasing to medium pervasive chlorite+clay. 0.5-1% pyrite veins with sericite selvedges, becoming less abundant beyond 110.5m. Rare chalcopyrite in veins. Rare epidote and rare hematite on fractures.
125.0-137.0	Sandstone. Moderate pervasive chlorite+clay, trace epidote. ~0.2% magnetite and quartz+magnetite veins with pink, possible kfeldspar selvedges. Rare chalcopyrite. 0.2-0.5% pyrite veins with sericite selvedges. Overall < 0.5% sulphide.
137.0-152.0	Sandstone, minor siltstone. Moderate pervasive chlorite+clay, trace epidote. 0.2-2% magnetite and quartz+magnetite±chalcopyrite±pyrite veins with pink, possible kfeldspar, grading out to chlorite selvedges. Note, the veins contain very coarse-grained sugary quartz, flaky magnetite, coarse sulphide blebs and possibly magnetite replacing biotite laths. Overall <0.5% sulphide.
152.0-175.9	Sandstone, minor siltstone. Moderate pervasive chlorite+clay. 0.2-0.5% quartz+chalcopyrite and magnetite+quartz veins and stringers.
175.9-177.45	Dacite porphyry. Very coarsely plagioclase and quartz phyric. Includes 1-5% 1-4mm resorbed quartz phenocrysts. Moderate to strong pervasive sericite replacement of feldspars. Trace hematite and chlorite veinlets.
177.45-246.4	Sandstone. Volcaniclastic. Fine grained. Locally sheared. Weak patchy sericite over weak to moderate pervasive chlorite+sericite+clay, transitioning to moderate pervasive chlorite and moderate patchy magnetite ~200m. Trace quartz and hematite+quartz+muscovite veinlets with sericite selvedges, quartz-magnetite>>hematite veins more prevalent from 198m. Trace quartz-magnetite-chlorite veins with pink (?)albite selvages. Trace-0.5% quartz-pyrite-chalcopyrite veins ± sericite-pyrite selvages. Case off PQ to HQ at 227.5m.
246.4-254.6	Dacite porphyry. Porphyritic. Very coarse plagioclase and quartz phenocrysts. Moderate pervasive chlorite alteration overprinted by sericite as vein selvage. Weak (2-3%) quartz ± pyrite+(trace)chalcopyrite veins with sericite selvages.

254.6-255.1	Sandstone/Dacite porphyry irregular contact. Moderate chlorite alteration. Trace hematite-epidote in fractures.
255.1-258.4	Dacite porphyry. Porphyritic. Very coarse plagioclase and quartz phenocrysts. Moderate pervasive chlorite alteration with weak patchy sericite. ~1% quartz veins.
258.4-258.6	Fault Zone. Fractured, clay altered Quartz Diorite Porphyry.
258.6-260.8	Dacite porphyry > Sandstone (irregular contact close to core axis). Fractured. Very coarse plagioclase and quartz phenocrysts, porphyritic-sparsely porphyritic in part. Weak chlorite-sericite alteration with sandstone weak chlorite-magnetite alteration. Trace (<0.5%) quartz veins.
260.8-262.8	Sandstone. Volcaniclastic. Bedded. Fractured. Weak chlorite-magnetite alteration. 0.5% Quartz-magnetite veins with 'pinking' in selvage. Trace quartz veins with sericite selvage.
262.8-262.9	Fault Zone. Sandstone. Strong clay alteration.
262.9-265.4	Sandstone. Volcaniclastic. Fractured. Weak chlorite-magnetite alteration. Trace (<0.5%) quartz-magnetite±(very trace)chalcopyrite veins. Trace (~0.1%) quartz-pyrite veins.
265.4-265.6	Dacite porphyry > sandstone, irregular contacts. Very coarse plagioclase and quartz phenocrysts, porphyritic-sparsely porphyritic in part. Weak 'pink wash', trace chlorite alteration.
265.6-266.0	Sandstone. Volcaniclastic. Fractured. Weak chlorite-magnetite alteration. Trace (<0.5%) quartz-magnetite±(very trace)chalcopyrite veins. Trace (~0.1%) quartz-pyrite veins.
266.0-266.9	Dacite porphyry > sandstone, irregular contacts. Fractured. Very coarse plagioclase and quartz phenocrysts, porphyritic-sparsely porphyritic in part. Weak 'pink wash', trace chlorite alteration.
266.9-270.8	Sandstone. Volcaniclastic. Fractured. Trace chlorite-magnetite alteration. Trace (<0.5%) quartz-magnetite±(very trace)chalcopyrite veins with sericite selvages. Trace (~0.1%) quartz veins with 'pinking' in selvage.
270.8-272.1	Dacite porphyry. Very coarse (up to 15mm) plagioclase phenocrysts, coarse quartz phenocrysts. Moderate chlorite-sericite alteration. 2-3% Quartz veins.
272.1-272.5	Sandstone. Faulted contact. Fractured. Moderate chlorite-sericite alteration. Trace carbonate as fracture infill. Sheared bottom contact with increase sericite alteration.
272.5-287.4	Dacite porphyry. Very coarse (up to 15mm) plagioclase phenocrysts, coarse grained quartz eyes, minor chlorite altered hornblende. Minor xenoliths of

	chlorite altered sandstone and possible mafic rock. Trace chlorite-sericite alteration with patchy hematite 'dusting' of plagioclase phenocrysts. ~2% quartz-carbonate-chlorite-epidote±hematite veins with hematite selvage. 1% quartz veins ± pink ?hematite selvage.
287.4-289.8	Intensely hematite altered rock with ~30% carbonate, ~1% magnetite and 2-3% chlorite altered hornblende. Massive texture. Faulted upper and lower contacts.
289.8-292.5	Sandstone. Fractured upper contact. Minor crystal lithic zones with 2-3mm sized altered feldspar grains. Trace pervasive chlorite alteration with trace patchy magnetite. ~5% quartz veins ± trace muscovite ± pink alteration selvages. 0.5% quartz±pyrite±veins with sericite alteration selvages.
292.5-293.1	Dacite porphyry. Coarse grained plagioclase phenocrysts and quartz eyes, minor chlorite altered hornblende. Trace chlorite-sericite alteration with patchy hematite 'dusting' of plagioclase phenocrysts. ~0.5% quartz-carbonate-chlorite-epidote±hematite veins with hematite selvage. 0.5% quartz veins ± pink ?hematite selvage.
293.1-293.8	Sandstone. Trace pervasive chlorite alteration with trace patchy magnetite. ~5% quartz veins ± pink alteration selvages. 0.1% quartz±pyrite±veins with sericite alteration selvages. Trace hematite-epidote in fractures.
293.8-294.2	Dacite porphyry. As above.
294.2-294.9	Sandstone. As above.
294.9-296.6	Dacite porphyry. As above.
296.6-297.2	Sandstone. As above with trace clay filled fractures.
297.2-297.5	Dacite porphyry. As above.
297.5-303.1	Sandstone. Fine-medium grained. Trace pervasive chlorite alteration with weak patchy magnetite. Trace quartz-magnetite veins. ~1% quartz±hematite veins. Trace (<0.5%) quartz+pyrite±chalcopyrite veins with sericite-pyrite selvages.
303.1-313.5	Sandstone. Massive texture with zones of 2-3mm sized chlorite altered feldspar crystals. Faulted upper contact. Trace-weak pervasive chlorite alteration with weak patchy magnetite. Zone of shearing with sericite alteration at 306.7-307.7m. Weak (4-5%) quartz-epidote-chlorite veins with pink (?hematite) selvages. Trace (<0.5%) quartz-magnetite±chalcopyrite veins.
313.5-316.1	Sandstone. Moderate to strong pervasive chlorite+sericite+clay. Sheared in part. 1-5% quartz veins and stringers. Minor magnetite. Rare pyrite and chalcopyrite.

316.1-316.5	Dacite porphyry.
316.1-320	Sandstone. Moderate to strong pervasive chlorite+sericite+clay. Sheared in part. 1-5% quartz veins and stringers. Minor magnetite. Rare pyrite and chalcopyrite.
320-387.1	Sandstone, minor siltstone. Moderate pervasive chlorite+sericite. Weak patchy hematised albite; within veins, adjacent to veins and as patches. 1-5% quartz veins increasing to 5-6%. Trace magnetite. Fault zones at 353.3-356.2m and 361.1-366.1m characterised by friable core and strong to intense pervasive sericite+clay.
387.1-388.3	Dacite porphyry.
388.3-395.7	Sandstone. Weak patchy sericite+albite+chlorite. 5-7% quartz veins.
395.7-396.4	Dacite porphyry.
396.4-398.9	Sandstone.
398.9-410.35	Dacite porphyry. Very coarse grained. 30% 5-10mm plagioclase phenocrysts, 5% 4-6mm quartz eyes, <0.5% hornblende. Weak patchy sericite+albite+chlorite. Trace epidote and trace disseminated magnetite. 1-7% massive and laminated milky white quartz veins, some with USTs, rarely with pyrite.
410.35-416.8	Sandstone. Weak to moderate patchy sericite+albite+hematite+chlorite. 5-6% quartz veins.
416.8-437.2	Dacite porphyry. Very coarse grained. Weak to moderate patchy sericite+albite+hematite+chlorite. Trace clay+sericite selvedges on some quartz veins. Trace pyrite and possibly molybdenite in the veins. 5% to locally 25% stockwork quartz veins.
437.2-450.4	Sandstone. Weak patchy albite+hematite over weak to moderate pervasive chlorite. 1-5% stockwork quartz veins. Rare pyrite.
450.4-451.85	Microgranite / tonalite dyke. Pink. Fine to medium grained phaneritic. 0.5-2% stockwork quartz veins cut across the contacts.
451.85-453.55	Sandstone. Weak to moderate patchy albite+hematite over pervasive chlorite+sericite. 0.5-1% quartz veins.
453.55-465	Dacite porphyry, epithermal overprint. Medium to coarse grained plagioclase phyric. Moderate to strong pervasive sericite+clay. 1-5% quartz veins, locally brecciated. Rare pyrite veins. Trace patchy pyrite. Fault and fracture zone.
465-467.9	Dacite porphyry. Medium to coarse grained plagioclase phyric. Moderate patchy clay. Weak to moderate patchy albite+hematite as vein selvedges. 5-6% stockwork quartz veins. Fault and fracture zone.

467.9-468.6	Sandstone. Weak patchy albite+hematite over pervasive chlorite+sericite. 0.5-2% stockwork quartz veins.
468.6-469	Dacite porphyry. Medium grained plagioclase phyric. Weak patchy albite+hematite. 0.5-2% stockwork quartz veins.
469-470.2	Sandstone. Weak patchy albite+hematite over pervasive chlorite+sericite. 0.5-2% stockwork quartz veins.
470.2-475.0	Dacite porphyry. Very coarse grained. Moderate pervasive sericite, decreasing to weak patchy sericite. 0.5-1% stockwork quartz veins.
475.0-477.1	Microgranite. Fine to medium grained, sparsely quartz phyric. 1-5% stockwork quartz veins.
477.1-483.8	Sandstone. Weak to moderate pervasive albite+hematite. 5-7% stockwork quartz veins.
483.8-484.0	Microgranite. 1-5% stockwork quartz veins.
484.0-485.1	Sandstone. Weak to moderate pervasive albite+hematite. 1-5% stockwork quartz veins.
485.1-485.75	Microgranite. 1-2% stockwork quartz veins.
485.75-492.45	Sandstone and minor blebs of coarse to very coarse grained dacite porphyry. Weak patchy sericite and albite+hematite
492.45-493.15	Microgranite. Medium grained. Minor sandstone xenoliths. 0.5-2% stockwork veins.
493.15-497.0	Sandstone. Very weak patchy albite+hematite. 0.5-2% quartz veins.
497.0-497.9	Microgranite + pegmatite. Medium grained. Abundant sandstone xenoliths. 0.5-1% quartz veins.
497.9-500.15	Sandstone. Very weak patchy albite+hematite. 0.5-1% quartz veins.
500.15-500.3	Microgranite. 0.5-1% quartz veins.
500.3-510.05	Sandstone. Moderate patchy albite+hematite overprinted by weak patchy sericite. 0.5-2% stockwork quartz veins. Trace molybdenite+pyrite on fractures with sericite selvedges.
510.05-519.8	Dacite porphyry. Very coarse grained. Moderate to locally strong patchy sericite+clay+quartz+pyrite over weak to moderate pervasive sericite+chlorite. 1-3% quartz veins. 0.5-1% pyrite veins. Rare molybdenite.
519.8-539.22	Dacite porphyry. Weak to moderate pervasive sericite+chlorite. 0.5-1% quartz veins increasing to 5-7% quartz veins, downhole toward downhole contact. Rare pyrite.

539.22-565.1	Sandstone and siltstone. Very weak patchy albite+hematite increasing to moderate to strong pervasive quartz+sericite±clay. 1-2% quartz veins increasing downhole to 15% quartz veins to ~545m, then 5-7% quartz veins (early wavey veins with albite-hematite selvage overprinted by later quartz ± trace pyrite veins). Large quartz+tennantite + chalcopyrite + pyrite vein at 543.7m. Silica alteration and vein intensity increasing (to ~15%) towards end of interval. About 0.5-1% Quartz+pyrite veins occur, mostly close to core axis. Rare, 2-5cm wide, overprinting quartz+pyrite+tennantite-tetrahedrite+chalcopyrite veins.
565.1-566.0	Microgranite/Tonalite. Porphyritic, ~5% coarse plagioclase and ~3% quartz eyes in fine-medium grained quartz-feldspar matrix. Mushroom pink. 5% quartz stockwork veins. Quartz+pyrite vein running up core axis with distinct sericite selvage.
566.0-566.3	Sandstone. Strongly siliceous. 20-30% quartz stockworks with late 5cm wide quartz+pyrite vein along core axis.
566.3-566.6	Microgranite. As above. 30mm wide quartz+tennantite-tetrahedrite+pyrite vein on upper contact with strong sericite selvage.
566.6-567.0	Dacite Porphyry. Moderate sericite-silica alteration. %5 late quartz+tennantite-tetrahedrite+pyrite veins.
567.0-567.7	Microgranite. As above. 10mm wide quartz+pyrite vein running up core axis with strong sericite selvage.
567.7-567.8	Sandstone. Weak chlorite+sericite alteration. 10% quartz stockwork veins with albite selvages.
567.8-568.7	Dacite Porphyry. Weak sericite alteration. 10% quartz stockwork veins with albite selvages. Patchy albite 'dusting' of plagioclase phenocrysts.
568.7-570.1	Microgranite. As above. 5% quartz stockwork veins. Trace quartz+pyrite veins.
570.1-572.1	Dacite Porphyry. Weak sericite-chlorite alteration overprinted by zones of strong sericite-silica-clay alteration. 5-10% quartz stockwork veins. Trace quartz+pyrite veins.
572.1-573.0	Sandstone. Weak pervasive chlorite alteration overprinted by patches of moderate sericite-silica alteration. 10% quartz stockwork veins ± weak albite alteration selvages.
573.0-573.4	Dacite Porphyry. Weak sericite±clay alteration. 10% quartz stockwork veins ± weak albite alteration selvages. Trace quartz+pyrite veins.
573.4-574.8	Sandstone. Weak pervasive chlorite alteration overprinted by patches of moderate sericite-silica alteration. 10% quartz stockwork veins ± weak albite alteration selvages.

574.8-580.3	Dacite Porphyry. Moderate pervasive sericite+silica alteration with patchy clay. Moderate pink wash. 5-20% quartz stockwork ± with strong albite selvages increasing down hole. 2-3% quartz+pyrite veins. Fault at 578.4-578.6m with strong clay+carbonate alteration, then strong sericite+silica+clay alteration to end of interval with 20% quartz stockwork veins overprinted by 1% quartz+(trace)pyrite veins along core axis.
580.3-591.1	Sandstone. Weak chlorite+(patchy) magnetite alteration overprinted by moderate patchy sericite+silica+clay alteration. Quartz vein, ~5-10mm thick along core axis at 584.6-585.3m with intense sericite+silica+clay alteration selvage. 20-40% quartz stockwork veins. 0.5-1% quartz+(trace)pyrite veins along core axis.
591.1-592.8	Microdiorite. Porphyritic, medium grained plagioclase phyric, ~5-7% hornblende. Strong pervasive sericite+clay alteration. Weak chlorite in fractures. 20% quartz veins ± albite selvages. 0.5% quartz+(trace) pyrite vines. 1-2% late quartz-carbonate veins.
592.8-593.95	Dacite Porphyry. Very coarse-grained plagioclase phyric, very coarse-grained quartz eyes. Strong pervasive sericite+silica+clay alteration. 20-30% quartz ± (very trace) pyrite veins.
593.95-598.4	Microdiorite. Moderate sericite+clay+chlorite alteration. 20% quartz ± very trace) pyrite veins ± albite selvages.
598.4-598.7	Dacite Porphyry. Very coarse-grained plagioclase phyric, very coarse-grained quartz eyes. Moderate sericite+silica+clay alteration. 20% quartz±(very trace)pyrite veins.
598.7-601.0	Microdiorite. Moderate sericite+clay+chlorite alteration. 20-30% quartz±(trace) pyrite veins.
601.0-605.7	Sandstone. Weak chlorite alteration with magnetite stringers overprinted by patches of moderate sericite+silica alteration. 15% quartz veins ± trace albite selvages. 0.5% quartz+pyrite veins up core axis.
605.7-606.1	Dacite Porphyry. Very coarse-grained plagioclase phyric, very coarse-grained quartz eyes. Moderate pervasive sericite+silica+clay alteration. Weak pink dusting of plagioclase phenocrysts. 10% quartz±(trace)pyrite veins.
606.1-606.7	Sandstone. Weak chlorite alteration with magnetite stringers overprinted by patches of moderate sericite+silica alteration. 10% quartz ± (trace)pyrite veins ± trace albite selvages.
606.7-608.5	Dacite Porphyry. Very coarse-grained plagioclase phyric, very coarse-grained quartz eyes. Moderate pervasive sericite+silica+clay alteration. Weak pink dusting of plagioclase phenocrysts. 10% quartz±(trace)pyrite veins.

608.5-610.0	Sandstone. Weak chlorite alteration with magnetite stringers overprinted by patches of moderate sericite+silica alteration. 10% quartz ± (trace)pyrite veins ± trace albite selvages.
610.0-617.6	Dacite Porphyry. Very coarse-grained plagioclase phyric, very coarse-grained quartz eyes. Moderate pervasive sericite+silica+clay alteration with patches of strong clay. Weak pink dusting of plagioclase phenocrysts. 15% quartz±(trace)pyrite veins. 1-2% quartz+pyrite veins oriented along core axis.
617.6-619.8	Sandstone. Weak chlorite alteration with magnetite stringers overprinted by patches of moderate sericite+silica alteration. 15% quartz ± (trace)pyrite veins ± trace albite selvages. 1% quartz+pyrite veins oriented along core axis. Includes narrow (~5cm) Dacite porphyry intrusion oriented close to core axis.
619.8-620.8	Dacite Porphyry. Very coarse-grained plagioclase phyric, very coarse-grained quartz eyes. Strong sericite+silica+clay alteration. 10% quartz±(trace)pyrite veins. Minor (hornfels) sandstone xenoliths.
620.8-621.05	Sandstone. Weak chlorite alteration with magnetite stringers overprinted by patches of moderate sericite+silica alteration. 10% quartz ± (trace)pyrite veins ± trace albite selvages
621.05-642.3	Dacite Porphyry/(?)Quartz Diorite Porphyry. Porphyritic, coarse-grained plagioclase phyric, ~10% quartz eyes with ~5% mafics (biotite, chlorite and epidote altered hornblende). Moderate pervasive sericite+silica+clay alteration becoming strong-intense from 628m. Zones of shearing+intense clay alteration 631.5-636m. 20% quartz±(trace)pyrite veins overprinted by 10% (within 5-6 veins) 5-60cm wide quartz+pyrite±(trace) molybdenite veins.
642.3-642.9	Microgabbro dyke
642.9-649.2	Dacite Porphyry/(?)Quartz Diorite Porphyry. Porphyritic, coarse-grained plagioclase phyric, ~10% quartz eyes with ~5% mafics (biotite, chlorite and epidote altered hornblende). Strong, reducing to medium pervasive sericite+silica+clay alteration. 5% quartz veins overprinted by 1% quartz+pyrite veins (running down core axis) and 5% wide (5-30cm) overprinting quartz+pyrite±molybdenite veins.
649.2-649.3	Microgranite/Microtonalite dyke. Equigranular, medium grained quartz-feldspar intrusion, <1% hornblende.
649.3-649.6	Dacite Porphyry/(?)Quartz Diorite Porphyry. As above. Medium pervasive sericite+silica+clay alteration. 5% quartz veins overprinted by 1% quartz+pyrite veins (running down core axis).
649.6-649.7	Microgranite/Microtonalite dyke. Equigranular, medium grained quartz-feldspar intrusion, <1% hornblende. Quartz+pyrite vein running down core axis.

649.7-657.0	Dacite Porphyry/(?)Quartz Diorite Porphyry. As above. Variably medium-strong pervasive sericite+silica+clay alteration. 5% quartz veins. 1-2% quartz+pyrite veins. Narrow clay filled fractures.
657.0-660.25	Sandstone. Fine to coarse grained. Minor intervals of Dacite Porphyry with sandstone xenoliths. Trace chlorite±magnetite alteration overprinted by patchy weak sericite+silica alteration. 5% quartz veins ± albite selvages. 1% quartz+pyrite veins.
660.25-660.9	Microgranite/Microtonalite dyke. Equigranular, medium grained quartz-feldspar intrusion, <1% hornblende. Light pink wash. 5% quartz veins.
660.9-663.05	Sandstone with narrow 1-2cm dykes of dacite porphyry. Trace chlorite±magnetite alteration overprinted by patchy weak sericite+silica alteration. 5% quartz veins ± albite selvages. 1-2% quartz+pyrite veins.
663.05-667.1	Dacite Porphyry. Sparsely porphyritic with ~10% coarse grained plagioclase and ~2% quartz eyes in fine-medium grained quartz-feldspar groundmass. Minor sandstone xenoliths. Weak to moderate sericite+silica alteration. 3-5% quartz veins ± albite selvages.
667.1-668.0	Shear Zone. Intensely sheared Dacite Porphyry. High clay alteration. Thick, sheared quartz+pyrite vein close to core axis.
668.0-675.0	Dacite Porphyry. Coarse grained. Strong-intense sericite+clay+silica alteration decreasing downhole. 10% quartz±(trace) pyrite veins. 10cm sub-vertical quartz+pyrite+molybdenite vein on bottom contact.
675.0-684.1	Sandstone. Weak-moderate sericite+silica+clay alteration. 5% quartz±(trace) pyrite veins ± albite selvages. 2% quartz+pyrite+molybdenite veins.
684.1-684.2	Microgranite/Microtonalite dyke. Equigranular, medium grained quartz-feldspar intrusion, <1% hornblende.
684.2-684.7	Sandstone. As above.
684.7-684.8	Microgranite/Microtonalite dyke. Equigranular, medium grained quartz-feldspar intrusion, <1% hornblende.
684.8-685.5	Sandstone. As above, with increasing sericite+clay alteration.
685.5-690.7	Dacite Porphyry. Intensely sheared with high clay alteration and carbonate veins for the first 40cm, strong clay alteration to 687.5m, then weak to moderate sericite+clay alteration. 5% quartz ±(trace) pyrite veins.
690.7-691.6	Lamprophyre Dyke.
691.6-703.95	Dacite Porphyry, microgranite patch at 703m. Coarse grained. Moderate pervasive sericite+cilica+clay alteration. 5% quartz ±(trace) pyrite veins,

	stockworks and finely sheeted. Fine fractures with carbonate infill. Rare anhydrite. Rare patches of very coarse-grained muscovite.
703.95-704.95	Sandstone, minor siltstone/mudstone laminations. 5-6% quartz veins.
704.95-710.7	Dacite porphyry. Weak to moderate pervasive sericite+clay. 5-6% quartz veins. Rare pyrite in quartz veins.
710.7-711.7	Intermixed sandstone and dacite.
711.7-714.5	Dacite porphyry. Weak to moderate pervasive sericite. 5-6% quartz veins. Trace anhydrite.
714.5-719.0	Intermixed dacite and microgranite. Strong to intense pervasive sericite+clay+quartz. 5-15% quartz veins. Rare anhydrite.
719.0-721.5	Low Ange Structure. Strongly sheared and foliated dacite porphyry. Strong to intense pervasive sericite+clay. 4-5% boudinaged quartz veins, many parallel to the shear foliation.
721.5-722.5	Dacite porphyry. Strong pervasive sericite+clay. 1-2% quartz veins.
722.5-725.7	Sandstone. Moderate to strong pervasive sericite+clay over albite+hematite and chlorite. 5-6% boudinaged stockwork quartz veins.
725.5-726.45	Dacite porphyry. Strong pervasive sercitie+clay. <0.5 quartz veins.
726.45-779.9	Sandstone, minor siltstone. Fine grained, massive. Moderate patchy sericite, weakening downhole. Weak patchy chlorite and albite+hematite, mostly vein selvedges, cut by quartz veins. Trace patchy magnetite. 5% quartz veins, including 20cm thick laminated vein at 728.9m, decreasing to 1-5% stockwork quartz ± carbonate veins. Some of the veins are sutured, with centre seams of host rock. Trace to 1% carbonate veins and crackle breccia. Moderately to highly fractured core.
	Hole ended. Vein paragenesis: 1. Albite+hematite ± quartz ± chlorite veins and patches. 2. Quartz veins without selvedges. 3. Carbonate veins and crackle breccia.

Large hematite+quartz vein in kaolinite-altered sandstone. Probably was a D vein. 30.9m.

Chalcocite stockwork veins in clay-altered sandstone. 58.4m.

Pyrite D vein in clay-altered sandstone. 86.75m.

Pyrite + muscovite + nontronite on broken core surface. 89.25m.

Breccia. Wispy sandstone clasts in dark grey pyritic matrix. 90.6m.

Microgabbro (left) and lamprophyre (right) dykes. Clear cross-cutting relationship showing the lamprophyre, on the right intruded the microgabbro. 98.3m.

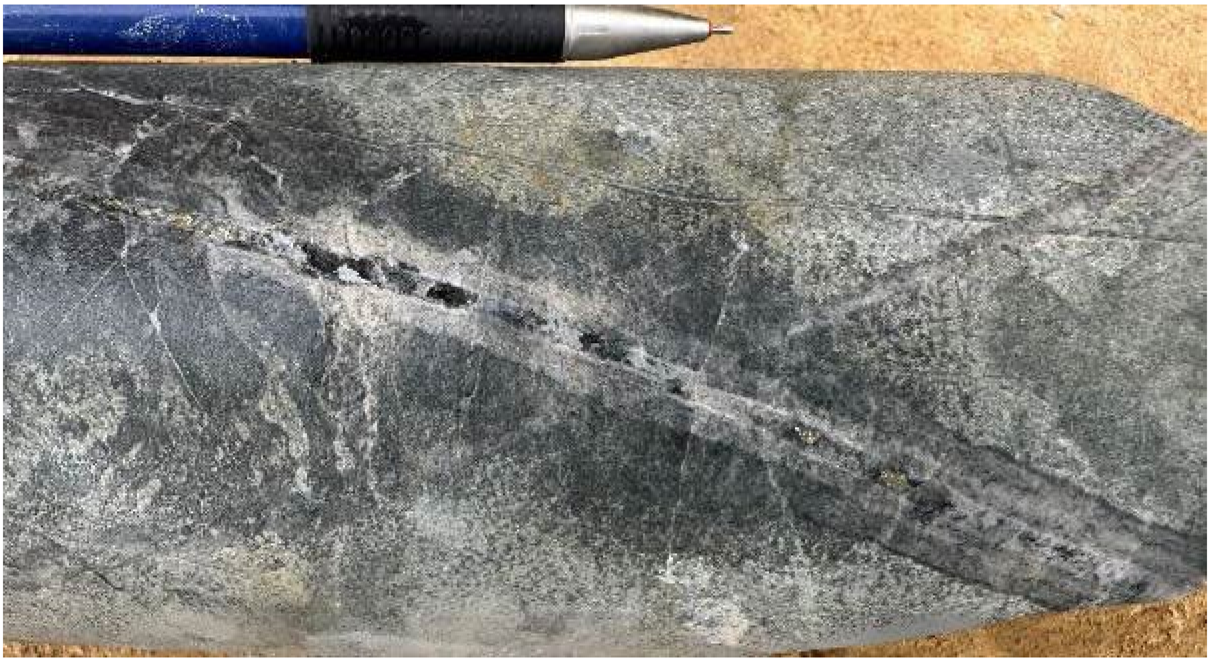
Breccia. Sandstone clasts in dark grey pyrite+clay-rich matrix. 99.3m.

Downhole contact of microgabbro dyke with sandstone. 103.6m.

Magnetite vein in sandstone. 125m.

Chalcopyrite+quartz on fracture surface. 131.7m.

10mm wide quartz+magnetite+?biotite vein. Very coarse grained and sugary quartz and flaky magnetite. 139.35m.



3mm wide quartz+magnetite+chalcopyrite+pyrite vein. Possible kfeldspar grading out to chlorite selvedge. 144.65m.

Dacite porphyry with moderate to strong pervasive sericite. Cut by chlorite and hematite veinlets with sericite selvedges. 176.7m.

Sheared, sericite-altered sandstone cut by hematite and chlorite veins. 182.1m.

Quartz-magnetite-hematite vein (left) and fine quartz-chalcopyrite-chlorite veins in sandstone at 198.8m.

Quartz-magnetite-chlorite veins with trace albite and weak sericite-pyrite selvages and quartz vein in sandstone at 205.8m.

Quartz-magnetite vein with sericite-fine grained pyrite selvage and trace 'pinking' in sandstone at 236.7m.

Quartz veinlets with sericite-(?)albite selvages in chlorite altered dacite porphyry at 249.3m.

Dacite porphyry and minor sandstone (irregular contacts) at 265.5m.

Intensely chlorite altered sandstone xenolith in coarse grained dacite at 279.1m.

Hematite-carbonate-magnetite-hornblende rock at 287.7m.

Quartz+pyrite+chalcopyrite vein with sericite selvage in sandstone at 299.1m.

Quartz+carbonate+pyrite vein with rare chalcopyrite. 323.1m.

Quartz±carbonate veins and chlorite stringers with patchy hematite and/or sericite selvedges. 374.6m.

Vein Breccia with stockwork quartz veins with albite and chlorite-sericite patches. 393.8m.

Quartz vein with large pyrite aggregate. 404.4m.

Wide laminated quartz vein with UST, oriented 72/005. 405.65m.

Stockwork quartz veins in dacite porphyry, with patchy albite+hematite. 430.5-431.5m.

Uphole contact of tonalite / microgranite dyke, cut by younger quartz veins. 450.35m.

Dacite porphyry. Strong pervasive sericite, cut by brecciated quartz veins (older) and quartz+pyrite veins (younger). 458.1m.

Microgranite dyke (left) in sandstone (right) with sandstone xenoliths, all cut by stockwork quartz veins. 498m.

Molybdenite+pyrite on fracture with sericite selvedge (bottom row). 507.7m.

Pyrite vein in sericite-altered dacite porphyry. 516.4m.

Quartz+sericite+clay+pyrite veins in very coarse grained dacite porphyry. 518.5-519.6m.

Large quartz+tennantite+chalcopyrite+pyrite vein. 543.7m. pXRF showed Fe, Cu, Zn and As>>Sb.

Early wavey quartz vein stockwork with albite-hematite selvages overprinted by later quartz veins in sandstone at 546.3m.

Quartz+pyrite+tennantite-tetrahedrite+chalcopyrite vein in sericite-silica altered sandstone at 559.7m.

Quartz+pyrite vein close to core axis with strong sericite alteration selvage in microgranite at 565.3m

Microgranite/Dacite porphyry contact at 570.1m showing termination of earlier quartz vein hosted in Dacite Porphyry by microgranite intrusion.

Quartz veins+pyrite centre seams overprinting earlier quartz stockwork veins in strongly sericite+silica+clay altered Dacite porphyry at 579.0m.

Intense sericite+silica+clay+pyrite alteration selvage to quartz+pyrite vein in sandstone at 584.3m

Quartz+pyrite±molybdenite veins overprinting earlier quartz vein in sericite+silica+clay altered Dacite porphyry at 624-624.4m.

Quartz+pyrite+(trace) molybdenite veins in sericite+silica+clay altered Dacite porphyry from 628-631.1m.

Quartz+pyrite vein cutting across microgranite/microtonalite dyke in dacite porphyry at 649.7m.

Narrow Dacite Porphyry dykes in sandstone at 661.8m.

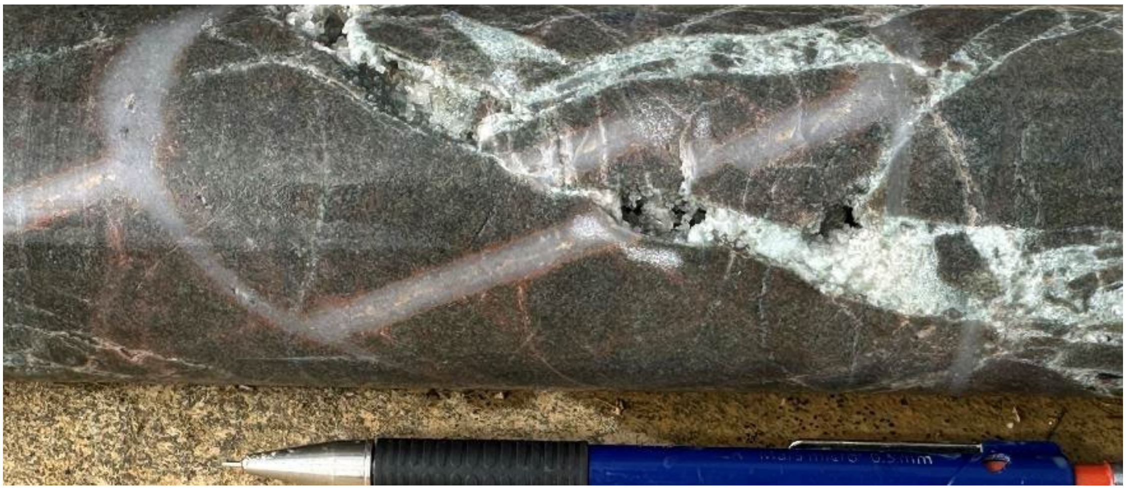
Sheared quartz+pyrite vein at 667.5m.

Dacite porphyry. Sub-millimetre sheeted quartz veins (left), a chlorite+muscovite+carbonate+anhydrite patch (centre; screen of host sedimentary rock) and thicker sheeted quartz veins (right). 698.5-698.8m.

Quartz vein with anhydrite centre seam (centre of photo) in strong to intensely sericite-altered dacite porphyry. 714.6m.

Contact between microgranite (left) and sericite-altered dacite porphyry (right) in the immediate hangingwall of the Low Angle Structure. 716.0m.

Low Angle Structure. Strongly sheared and sericite+clay-altered dacite. 719.2m.



Quartz veins cut by carbonate crackle breccia and fracture-fill. 777.0m.

Chlorite+albite+hematite patches cut by quartz vein without selvedge. 779.6m.

Depth	Dip	Azimuth (true)
30	-60.9	120.33
60	-61.5	120.38
90	-61.84	120.75
120	-62.29	120.30
150	-62.62	119.9
180	-63.09	120.33
196.7	-63.27	119.0
210	-63.36	120.18
240	-63.36	120.18
270	-63.58	120.27
300	-63.5	120.85
330	-63.17	120.89
360	-62.93	121.99

390	-62.84	123.02
420	-62.38	123.47
450	-62.15	123.89
480	-61.59	124.37
510	-61.34	125.72
540	-60.81	125.61
570	-61.08	125.03
600	-60.40	126.12
630	-60.05	127.05
660	-59.74	126.97
690	-59.4	126.61
720	-59.03	126.11
750	**-58.73**	**127.17**