

## APOLLO HILL GOLD RESOURCE UPGRADED TO 1.47MOZ

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### HIGHLIGHTS

Apollo Hill Indicated and Inferred Mineral Resource of **76 Mt @ 0.60 g/t Au for 1,469,000 oz** reported above a cut-off grade of 0.23 g/t Au and reported within an optimised pit shell<sup>1</sup> (Figure 1).

- **A significant addition of 525,000 oz** from the previous Mineral Resource representing an **increase of 56% in ounces**.
- The robust Mineral Resource update is based on:
  - An additional 286 reverse circulation (RC) holes totalling 31,149 m completed by Saturn within the model area since the previous Mineral Resource in early 2021.
  - Results from a heap leach focussed metallurgical testing program which contributed to lowering the economic cut-off grade.
  - Consideration of low-cost bulk tonnage mining and heap leach processing scenarios<sup>2</sup>.
- Considering additional drilling, a total of 41 Mt @ 0.58 g/t Au for 760 koz is classified as Indicated Mineral Resource representing 52% of the total Mineral Resource (a **204 koz addition** to the Indicated category from the previous Mineral Resource).
- **Saturn has now added 964,000 oz** to the Apollo Hill Mineral Resource **in just over four years from listing** with 128,924 m of RC and diamond drilling. That is over 7.5 oz added for every metre drilled.
- Saturn's updated Mineral Resource has produced an **increase in tonnes, ounces, confidence and quality**.
- The Apollo Hill Resource is now of a scale to warrant full evaluation of Mining options and **Saturn is well funded** for the next phase of resource discovery and development with **cash of \$9.5M** at the end of the March Quarter 2022.
- **Strong potential to continue growing the resource, with mineralisation open along strike**.
- Drilling on the 6km Apollo Hill trend is only a small part of the exploration potential on Saturn's underexplored +1,000 km<sup>2</sup> 100% owned contiguous tenement package in the Western Australian Goldfields. Drilling continues across the Company's land package with several significant intersections returned at nearby discoveries including Bob's, Calypso, Hercules and Artemis.

<sup>1</sup> Preliminary Whittle pit optimizations using approximated regional mining and processing costs for multiple processing scenarios have been run on the resource model using a gold price of US\$1,800/oz to generate a range of pit shells and cut-off grades. A pit shell for a heap leach scenario representing a revenue factor of 1.2 was selected as a nominal constraint within which to report the Apollo Hill Mineral Resource, thereby satisfying the JORC Code requirement for a Mineral Resource to have reasonable prospects for eventual economic extraction. Other relevant information is described in the JORC Code Table 1 as appropriate.

<sup>2</sup> CPC Engineering, Perth. Preliminary Mineral Process Engineering Cost Study.

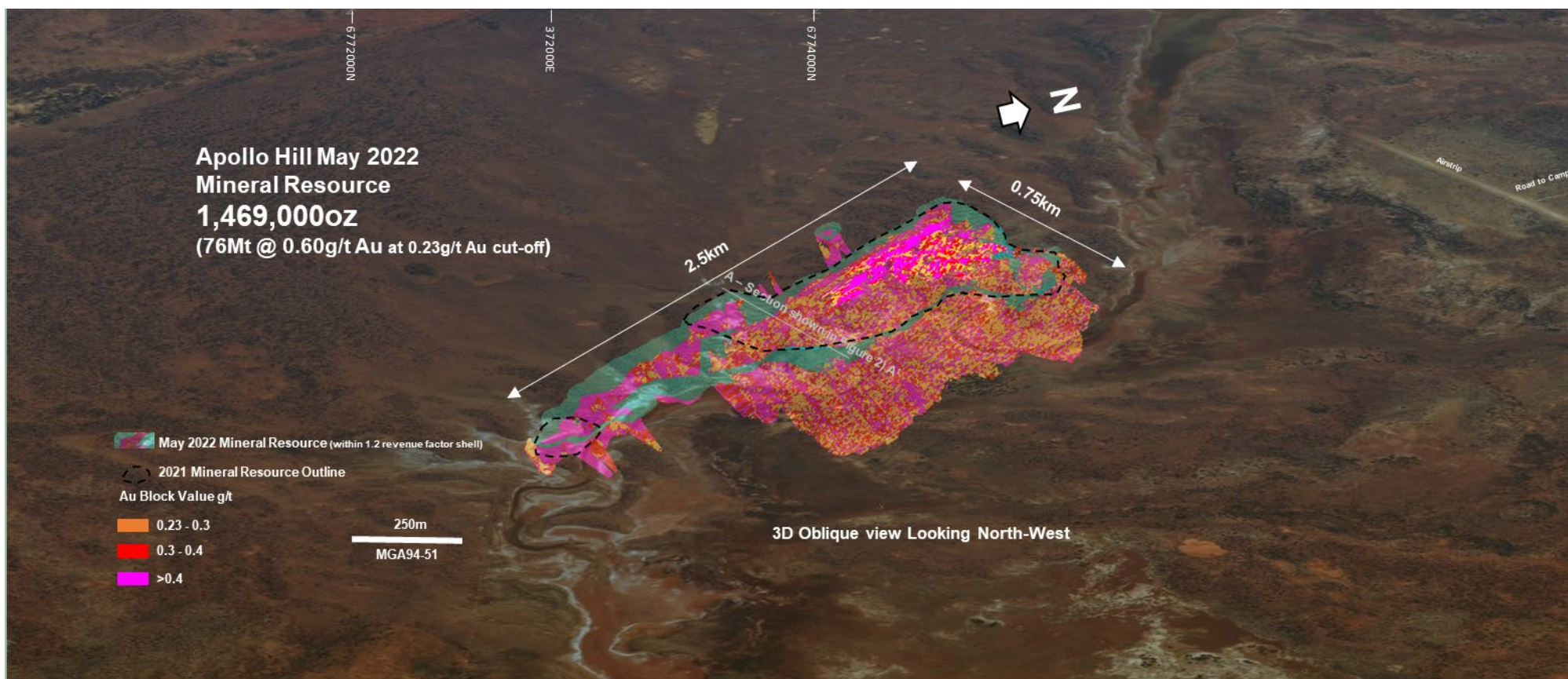


Figure 1 – Oblique view 3D Representations of the January 2021 Apollo Hill Mineral Resource model and selected pit optimisation with topography.



Commenting on the Mineral Resource upgrade, Saturn Managing Director Ian Bamborough said:

*“This resource upgrade is the fourth in as many years and is the most significant step forward for the Company and the Apollo Hill asset. Consistent improvements in the quality of the resource, its overall size, and to the Mineral Resource categories, through efficient drilling and testing continue to bode well for the advancement of our business.*

*The results of our 2021 metallurgical test program have demonstrated the potential to achieve higher gold recoveries and employ low unit cost bulk mining and processing methods, leading to a lower economic cut-off grade. This has enabled us to publish the Mineral Resource within a single, simple, ‘Whittle’ pit shell with an improved stripping ratio and deposit scalability, further enhancing the project through greater economies of scale.*

*Importantly, with the many inherent strengths as noted above, the Apollo Hill deposit has reached critical mass, and development and optimisation studies have commenced.*

*In addition, the geological understanding of the deposit is improving. The system is open along strike and the gold deposit is positioned for continued growth. Drilling continues at the deposit, camp, and district scales with two rigs on site testing for new mineralisation. In addition, the next stage of metallurgical test work has commenced towards searching for additional processing cost improvements.”*



Plate 1 – Aerial view of Apollo Hill and drilling (looking North); photograph taken on 16 July 2021

Saturn Metals Limited (ASX:STN) (“**Saturn**”, “**the Company**”) is pleased to announce that it has completed an updated Mineral Resource estimate for the Apollo Hill gold deposit at its 100%-owned Apollo Hill Gold Project near Leonora in the Western Australian Goldfields.

The upgraded Mineral Resource (Figure 1 and 2, and Table 1) totals 76 Mt at 0.60 g/t Au for 1,469,000 oz. This is a significant increase in contained ounces from the previously published resource. It incorporates the results of a highly successful 286-hole, 31149 m extensional and in-fill drilling campaign completed within the model area after the last Mineral Resource upgrade, which was published in late January 2021, and up until the end of August 2021, when a cut-off date for drilling related resource data was applied.

**Table 1 May 2022 Apollo Hill Mineral Resource – See also Table 1a for further details**

Lower Cut-off Grade Au g/t	Oxidation state	Measured			Indicated			Inferred			MII Total		
		Tonnes (Mtonnes)	Au (g/t)	Au Metal (KOzs)	Tonnes (Mtonnes)	Au (g/t)	Au Metal (KOzs)	Tonnes (Mtonnes)	Au (g/t)	Au Metal (KOzs)	Tonnes (Mtonnes)	Au (g/t)	Au Metal (KOzs)
0.23	Oxide	0	0	0	1.08	0.54	19	0.75	0.61	15	1.8	0.57	34
	Transitional	0	0	0	8.3	0.58	155	3.1	0.61	61	11	0.59	216
	Fresh	0	0	0	31	0.58	586	32	0.62	634	63	0.60	1,220
	Total	0	0	0	41	0.58	760	35	0.62	710	76	0.60	1,469

Preliminary Whittle pit optimizations using approximated regional mining and processing costs for multiple processing scenarios have been run on the resource model using a gold price of US\$1,800/oz to generate a range of pit shells and cut-off grades. A pit shell for a heap leach scenario representing a revenue factor of 1.2 was selected as a nominal constraint within which to report the Apollo Hill Mineral Resource, thereby satisfying the JORC Code requirement for a Mineral Resource to have reasonable prospects for eventual economic extraction. Other relevant information is described in the JORC Code Table 1 as appropriate. A nominal 0.23 g/t Au lower cut-off grade was selected for all material types. Classification is according to JORC Code Mineral Resource categories. Totals may vary due to rounded figures.

The growth in the Apollo Hill Mineral Resource over the past 15 months has been driven by:

- The discovery of additional shallower mineralisation in the Southern Apollo Hill corridor, extensional drilling beneath the previous resource shell, and infill drilling within the previous resource shell.
- The results of metallurgical testing on high quality diamond core which have demonstrated the clear potential to achieve low processing costs through simpler and scalable treatment options. These low unit operating costs have in turn lead to lower cut off grades which have brought additional mineralised material into the whittle pit shells, improved strip ratios and provided potential for more efficient mining considerations and economies of scale.
- Saturn’s improving knowledge of the geological controls at the deposit and refinements in the resource modelling techniques have continued to have a positive influence.

Figure 2 highlights the Mineral Resource block model grade distribution in a SW-NE cross sectional view of the 300 m wide mineralised corridor at the southern end of the deposit. In addition, the diagram shows both the January 2021 Mineral Resource Shell and the new May 2022 Mineral Resource Shell. The mineralised zones become thicker (above the revised lower cut-off grade), and the new Whittle pit shell drives deeper and takes additional mineralisation. Wider mineralised zones ultimately lead to a more efficient mining processes. Figure 2 also illustrates the pit optimisation currently bottoming at 90RL or 280 m below surface.

Importantly, a significant portion of the Apollo Hill resource – 41 Mt @ 0.58 g/t Au for 760 koz - across the shallow levels of the deposit and pit shell (Figure 3) has been declared in Indicated Mineral Resource category, representing 52% of the total Mineral Resource.

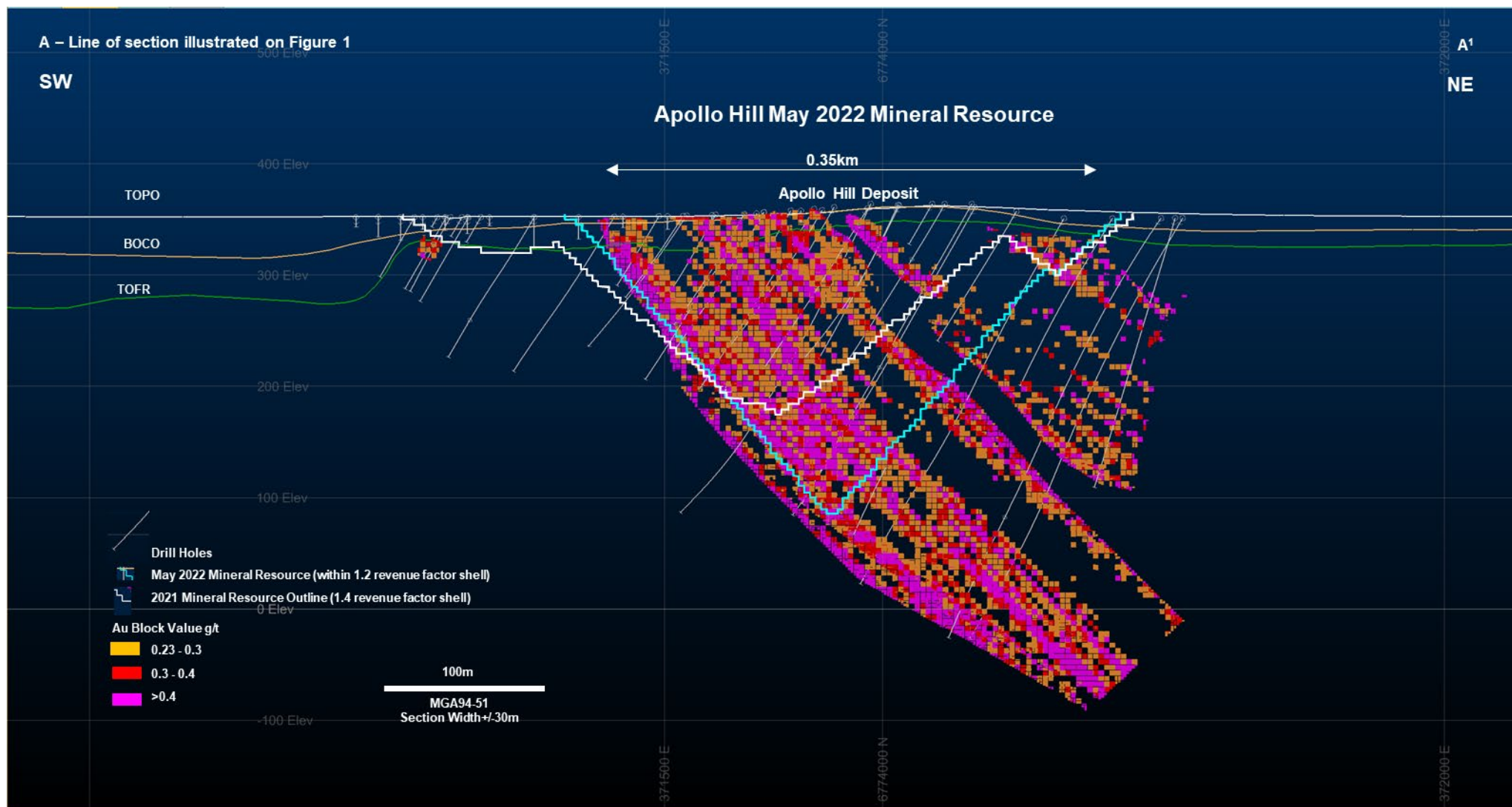


Figure 2 – Oblique block model cross-section (South West – North East, A-A<sup>1</sup> on Figure 1 3D diagram) +/-30 m showing gold grade and block locations.

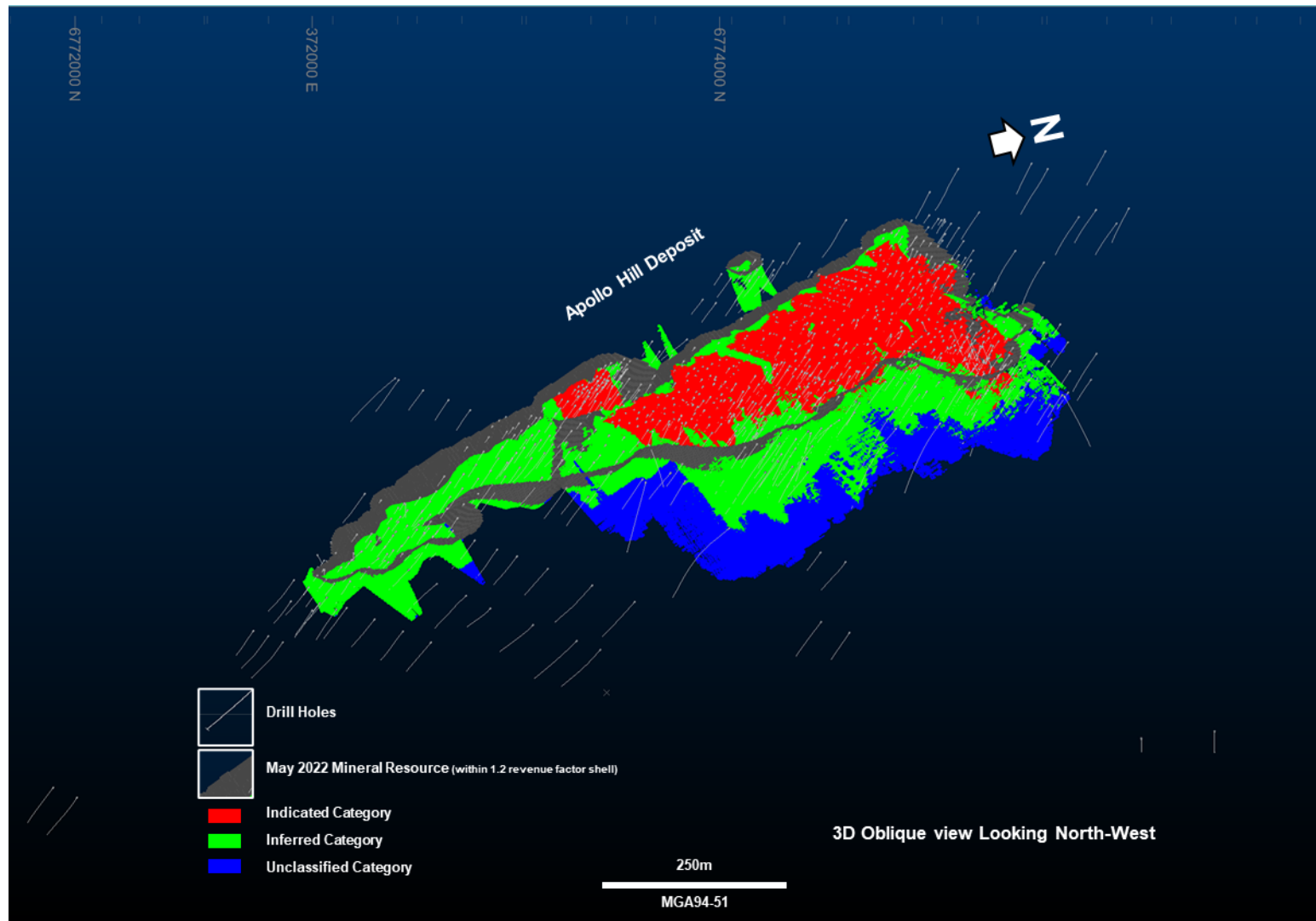


Figure 3 – Indicated Mineral Resource location relative to the selected open pit optimisation shell >0.23 g/t Au.



Figure 4 shows a grade-tonnage curve for the deposit.

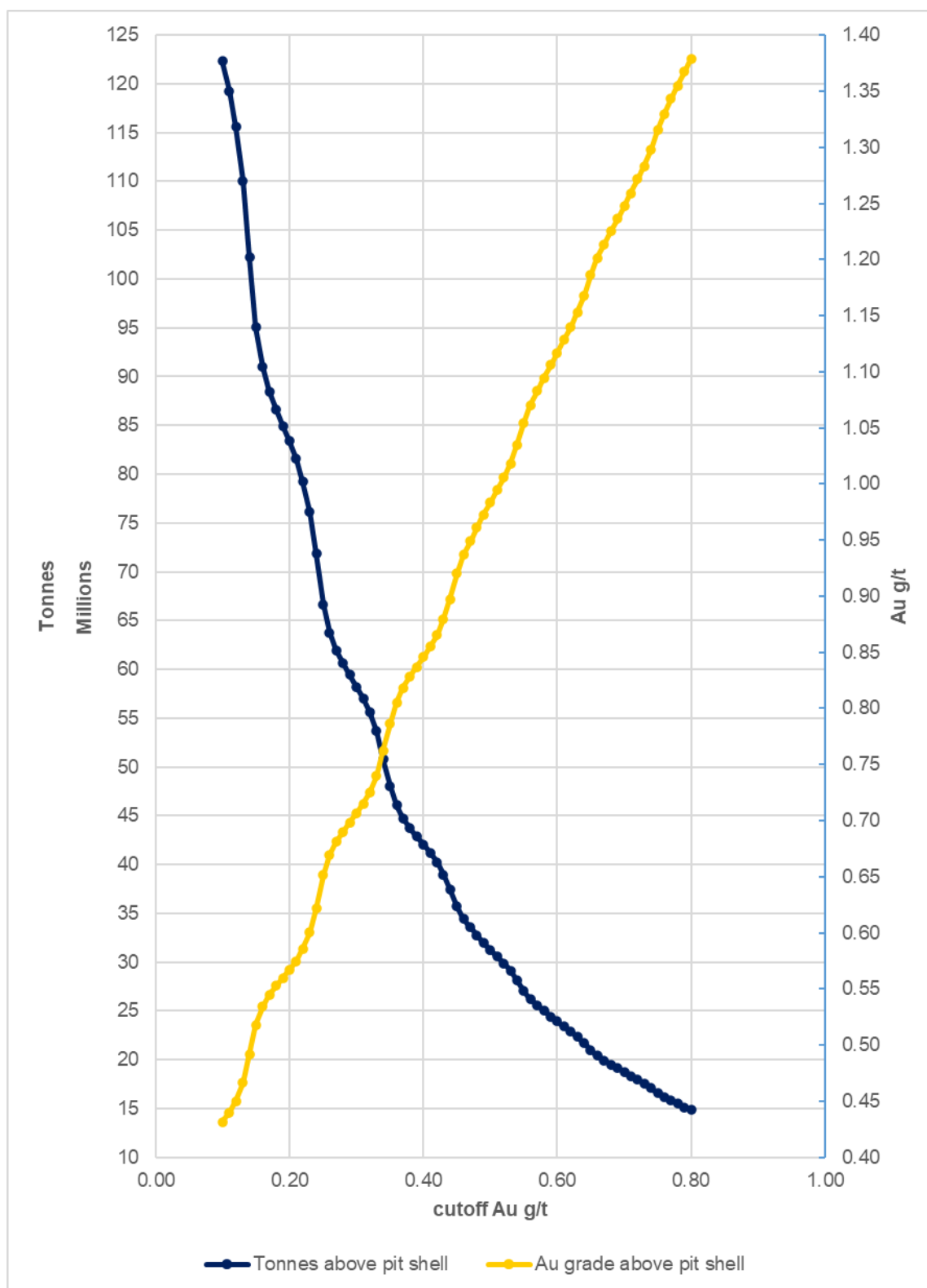
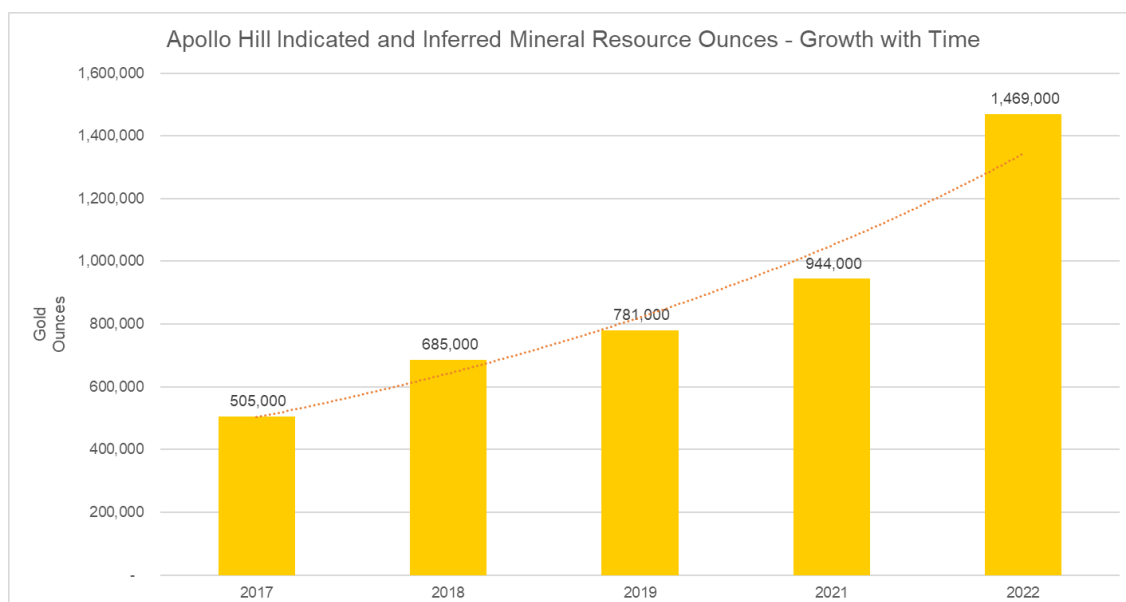
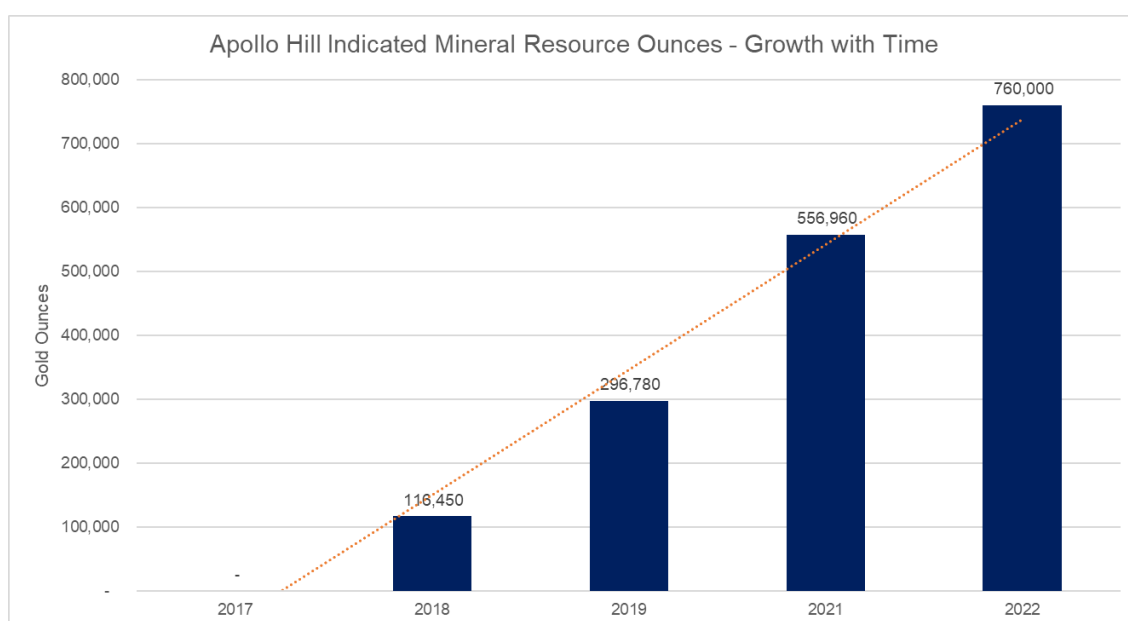


Figure 4 – Grade-Tonnage Curve Apollo Hill May 2022 Mineral Resource.

Resource additions and classification improvements since Saturn listed on the ASX in March 2018 have been made at a rate of 7.5 gold ounces for every metre drilled. Figure 5(a) shows the steady growth achieved in the total Apollo Hill Mineral Resource since the Company was incorporated in mid-2017. Figure 5(b) highlighting the strong growth in the Indicated Mineral Resource.



**Figure 5a – Apollo Hill Indicated and Inferred Mineral Resource growth in ounces since Saturn’s incorporation in 2017.**



**Figure 5b – Apollo Hill Indicated Mineral Resource growth in ounces since Saturn’s incorporation in 2017.**

(See Saturn Metals Limited Prospectus available on our website for details of the initial/2017 Inferred Mineral Resource 17.8 Mt @ 0.9 g/t Au for 505,000 oz reported above a cut-off grade of 0.5 g/t Au<sup>(b)</sup>).

(See Saturn ASX Announcements dated 19 November 2018 for details of the 2018 Indicated and Inferred Mineral Resource of 20.7 Mt @ 1.0 g/t Au for 685,000 oz reported above a cut-off grade of 0.5 g/t Au<sup>(b)</sup>).

(See Saturn ASX announcement dated 14 October 2019 for details of the 2019 Indicated and Inferred Mineral Resource of 24.5 Mt @ 1.0 g/t Au for 781,000 oz reported above a cut-off grade of 0.5 g/t Au<sup>(b)</sup>).

(See Saturn ASX announcement dated 28 January 2021 for details of the 2020-2021 Indicated and Inferred Mineral Resource of 34.9 Mt @ 0.8 g/t Au for 944,000 oz reported above a cut-off grade of 0.4 g/t Au<sup>(b)</sup>).



The Company's **exploration strategy** moving forward is to target further expansion of the Apollo Hill gold deposit and look for new deposits across its regional land package.

The tactics Saturn will employ within this strategy are as follows:

1. Test for and demonstrate the size potential of the Apollo Hill Gold system by undertaking further step-out and exploratory drilling along and across the greater geological corridor.

Drilling has recommenced at Apollo Hill with a primary focus of following the mineralised corridor along strike to the north where shallow exploration targets have been identified (Figure 5). Drilling is being undertaken to follow up on recent significant intersections including:

- 7 m @ 11.18 g/t Au from 172 m – AHRC0813<sup>(b)</sup> north of the mineral resource; and
- 25m @ 0.66 g/t Au from 11 m – AHRC0821<sup>(b)</sup> in the north of the mineral resource.

(See Saturn ASX Quarterly Reports dated 29 October 2021 and 31 January 2022 respectively).

2. Continue to increase the drill density within the current Inferred Mineral Resource area to convert material into the higher confidence Indicated Mineral Resource category.
3. Explore for new styles of mineralisation and opportunities within the larger Apollo Hill gold system by targeting interpreted geological structures.
4. Maintain a concerted exploration effort within Saturn's +1,000 km<sup>2</sup> 100% owned contiguous regional tenement package aimed at making and developing new satellite discoveries with the ultimate goal of sustaining long life mining operations (drilling planned throughout 2022).

The Company's **development strategy** is to progress the Apollo Hill asset towards production by commencing pre-feasibility level studies and collect data to progress social, environmental, economic, metallurgical, geotechnical and engineering matters in these studies.

The tactics Saturn will employ within this strategy are as follows:

1. Continued metallurgical testing focussing on process optimisation and variability studies.
2. Geotechnical studies on already completed drill holes.
3. Water exploration across Saturn's 800 km<sup>2</sup> Water Exploration Licence portfolio adjacent to Apollo Hill.
4. Process design including consideration and proof of concept with pilot scale tests.
5. Mining efficiency and optimisation studies.
6. Progress permitting, tenure and social matters.

## Listing Rule 5.8.1

Pursuant to ASX listing rule 5.8.1, and in addition to the information contained in the attached JORC Code "Tables 1" sections 1 to 3, the Company provides the following details in respect of the Apollo Hill Mineral Resource.

### Mineral Resource Statement Overview

AMC Consultants Pty Ltd (AMC) was employed to update the Mineral Resource estimate for the Saturn Metals Ltd Apollo Hill gold project for reporting in accordance with the JORC Code. The Mineral Resource estimate used all current and appropriate exploration and metallurgical data and information collected up to 29 March 2022 for the project.

At this stage, there are no completed mining studies for the project.

A summary of the updated May 2022 Apollo Hill Mineral Resource is provided in Table 1(a) below:

**Table 1 (a). May 2022 Mineral Resource Statement; 0.23 g/t Au cut-off by oxidation domain within a 1.2 revenue factor pit shell to represent reasonable prospects for eventual economic extraction.**

Lower Cut-off Grade Au g/t	Oxidation state	Measured			Indicated			Inferred			MII Total		
		Tonnes (Mtonnes)	Au (g/t)	Au Metal (KOzs)	Tonnes (Mtonnes)	Au (g/t)	Au Metal (KOzs)	Tonnes (Mtonnes)	Au (g/t)	Au Metal (KOzs)	Tonnes (Mtonnes)	Au (g/t)	Au Metal (KOzs)
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	Total	0	0	0	41	0.58	760	35	0.62	710	76	0.60	1,469

The model is reported above the 2022 nominal RF1.2 pit optimization shell (AH8A\_2 MII HL) for RPEEE and 0.23 g/t Au lower cut-off grade for all material types. There is no known depletion by mining within the model area. Estimation is by LMIK for Apollo Hill ZONECODE=100 and 300 while Ra ZONECODE=200 and Tefnut (ZONECODE=400, 402) were estimated using ROK due to limited data. Grade field AU\_FIN1. The model currently assumes a 5mE x 12.5mN x 5mRL SMU for selective open pit mining. Selectivity may vary with changed mining and processing scenarios. The final models are SMU models and incorporate internal dilution to the scale of the SMU. The models do not account for mining related edge dilution and ore loss. These parameters should be considered during the mining study as being dependent on grade control, equipment and mining configurations including drilling and blasting. Classification is according to JORC Code Mineral Resource categories. Totals may vary due to rounded figures.

## Location

Apollo Hill (29.15°S and 121.68°E) is located approximately 60 km south-east of Leonora in the heart of WA's goldfields region (Figure 6). The deposit and the Apollo Hill project are 100% owned by Saturn Metals and are surrounded by good infrastructure and several significant gold deposits.

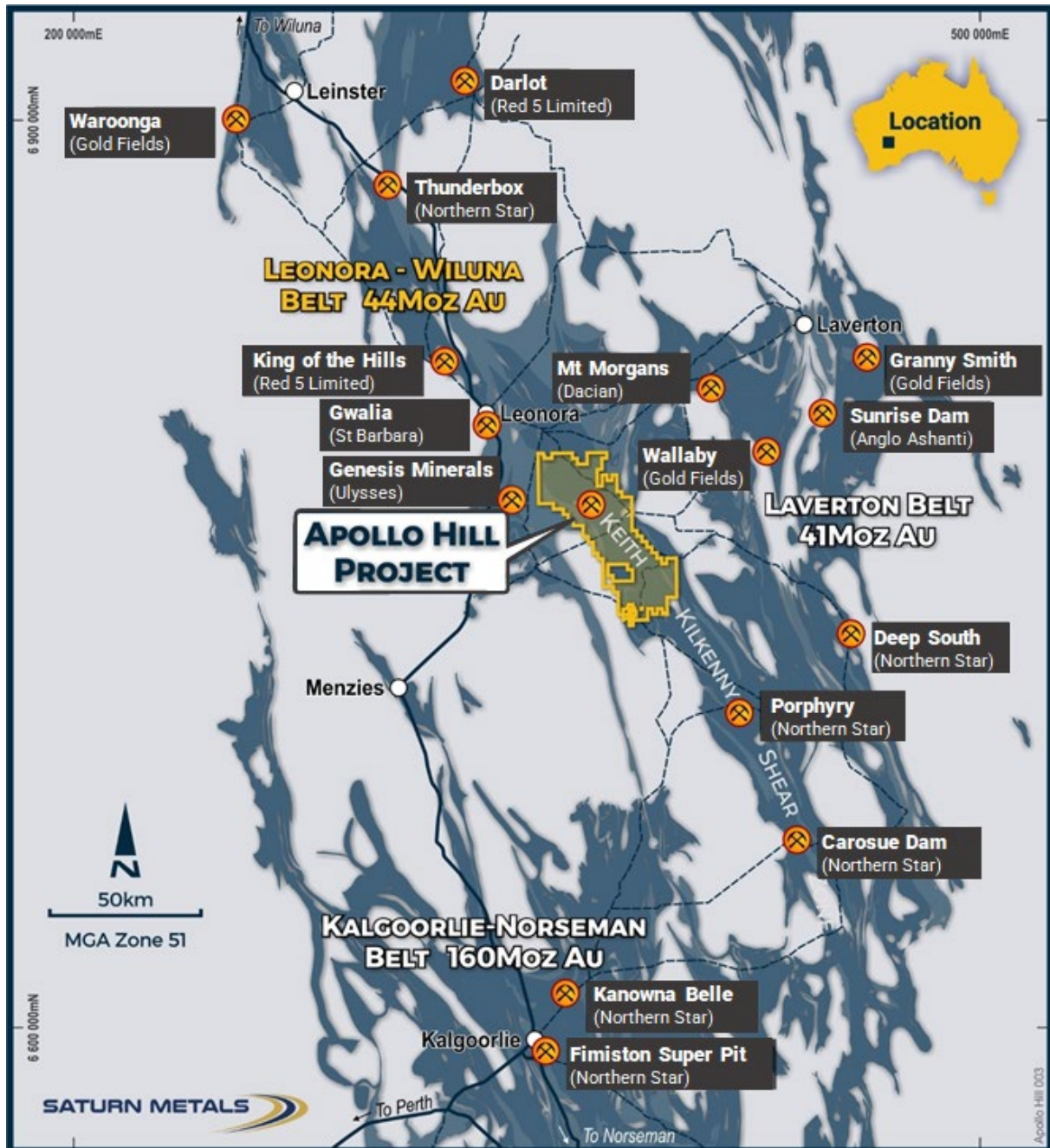


Figure 6 – Apollo Hill location, Saturn Metals' tenements and surrounding gold deposits and infrastructure.

## District Geology

The Apollo Hill deposit occurs in the Archean Wiluna-Norseman greenstone belt in a mineralised structure parallel and adjacent to the district scale Keith-Kilkenny Fault system. The tenement holdings are dissected by this district scale lineament, which is a complex system of northwest oriented shearing and faulting. This lineament is known to be associated with gold deposits in the region including St Barbara's Sons of Gwalia Mine some 40-50 km to the northwest, and Northern Star's Carosue Dam Operation approximately 130 km to the south-east (Figure 6).

## Deposit Geology and Geological Interpretation

### Lithology

Mineralised rock types include strongly deformed mafic volcanoclastic and schistose rocks to the west (footwall) with relatively undeformed pillow basalt and dolerite to the east (hanging wall). Rock units generally strike north-west and dip at 60° towards the northeast. Gold mineralisation cross cuts lithological units in quartz veins but is also found at the contacts of basalts and dolerites. Inter-flow meta-sedimentary rocks, dominantly chert, occur in outcrops commonly less than 5 m thick and 200 m strike length throughout the hanging-wall sequence (Figure 7). In addition, gold occurs in a footwall dolerite within the footwall mafic schists.

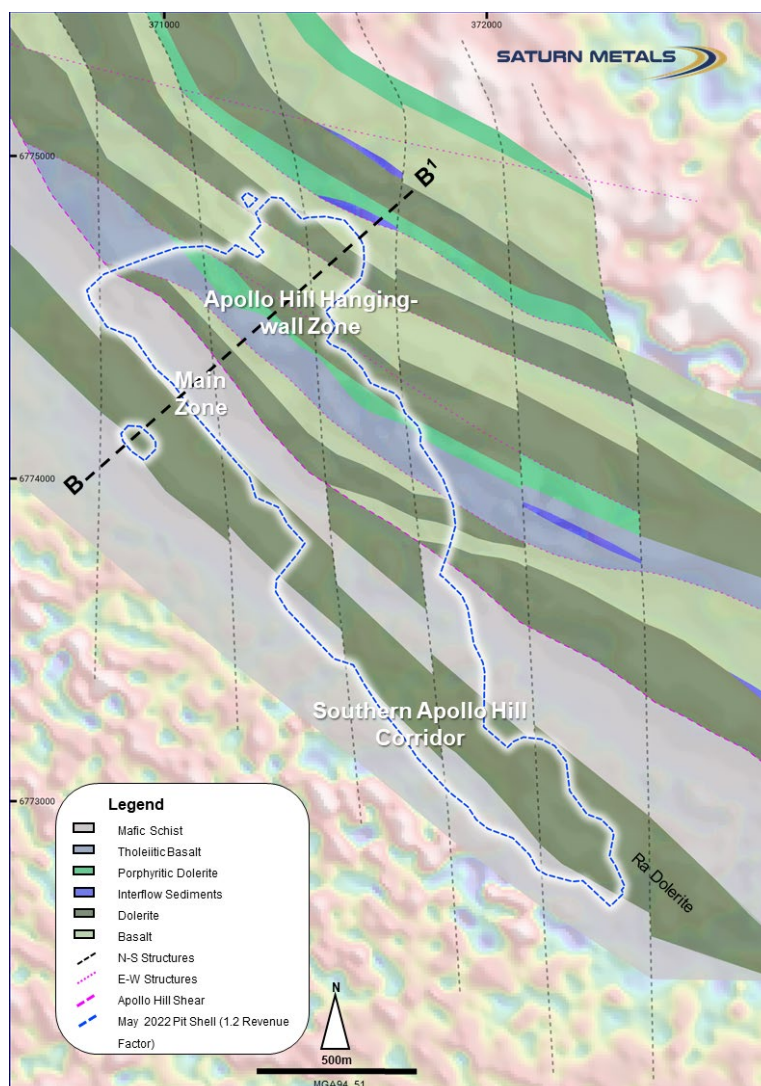
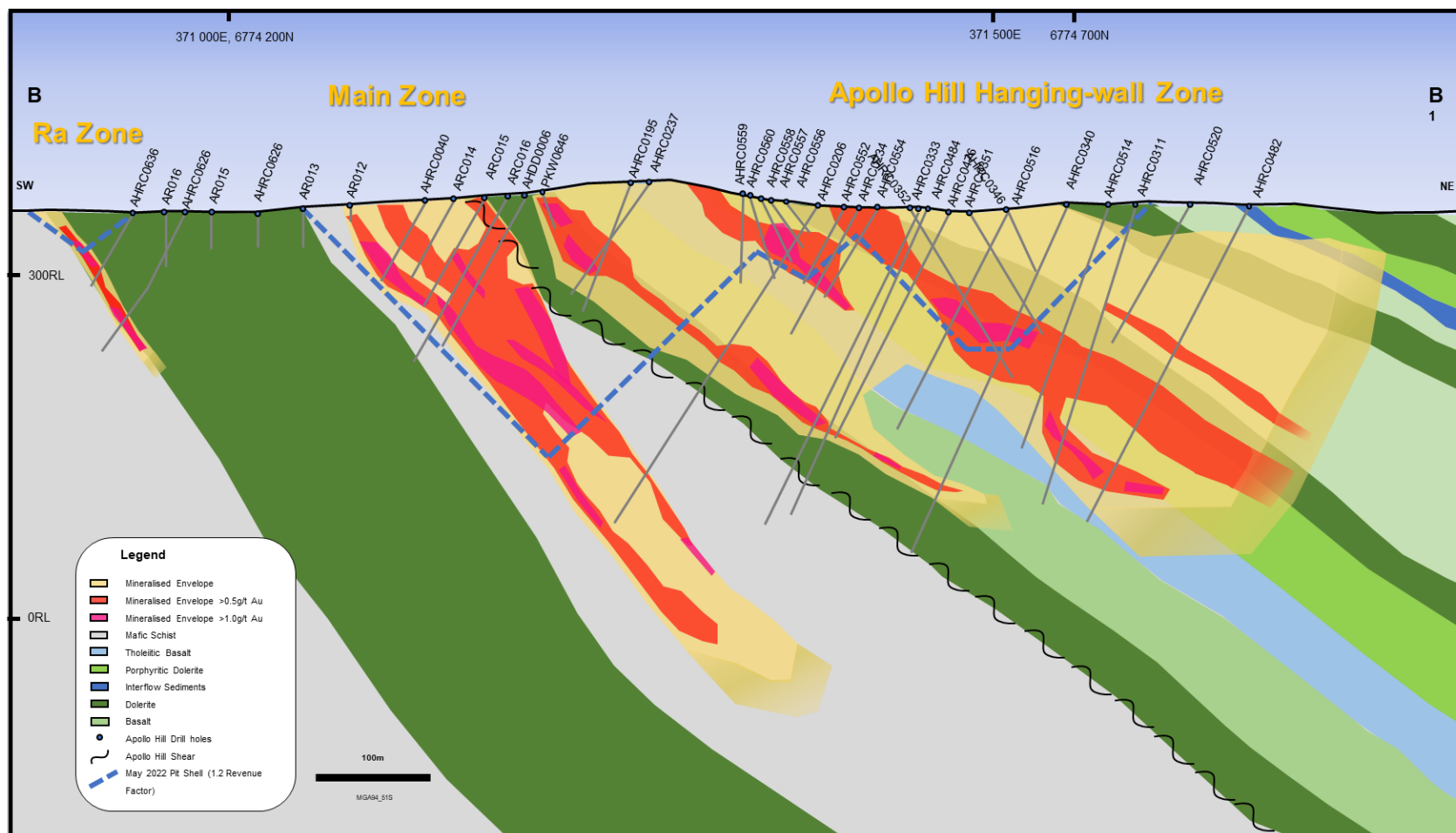


Figure 7 – Apollo Hill geology plan on magnetic image background (also see cross section B-B' in Figure 8).



## Structure

The Apollo Hill mineralised shear zone is 5 km long and +500 m wide. The shear zone generally dips at 60° to the north-east and approximates to the contact between the mafic hanging-wall and mafic schist/volcanoclastic footwall sequences (Figure 7). Figure 8 illustrates the schematic structure and geology in cross section.



**Figure 8 – Apollo Hill Shear Zone and gold mineralisation in southwest-northeast cross section B-B' location illustrated in plan view Figure 7).**

<sup>(b)</sup> This diagram contains exploration results and historic exploration results as originally reported in fuller context in Saturn Metals Limited ASX Announcements and Quarterly Activity Reports - as published on the Company's website. Saturn Metals Limited confirms that it is not aware of any new information or data that materially affects the information on results noted.

## Veining

Discontinuous sheeted and/or stockwork veins associated with the gold and hosted by all rock-types dip at approximately 53° degrees towards 054° (north-east) and also towards 134° (southeast). Veins vary between a few millimetres and a few centimetres thick. In the mineralised areas, vein density ranges between 2 per metre to 20 per metre. Gold grade is seen to increase with vein density. Flatter lying structural zones occur within the deposit and dip at approximately 40° to the east and generally plunge to the north. These zones, which are up to 5 m in true thickness, are developed across the sequence where they act as a stronger focus for mineralisation (Figure 8). Figure 9 shows a recent mineralised RC intercept where veining and mineral alteration are visible. Ladder veining between sheeted vein sets is often associated with the highest-grade intercepts. All veins have been deformed to some extent.

## Mineralisation

Relatively coarse gold is noted within the quartz veins at Apollo Hill. Gold mineralisation can be broadly focused along the contact between hangingwall and footwall rock-types. The vein systems define several broad mineralised zones (Apollo, Southern Apollo Hill Corridor (including gold mineralisation in Ra Dolerite), and the Apollo Hill Hanging-walls). Mineralisation contacts appear to be relatively gradational on most sections. Studies suggest a complex gold forming history for Apollo Hill with multiple generations of quartz veins and associated mineralisation. Figure 9 shows a 2021 mineralised RC intercept.

40-41m	41-42m	42-43m	43-44m	44-45m	45-46m	46-47m	47-48m	48-49m	49-50m	50-51m	51-52m	52-53m	53-54m	54-55m	55-56m	56-57m	57-58m	58-59m	59-60m
AHRC0618 – 54m @ 3.72g/t Au																			
0.08	0.09	0.19	0.32	0.17	0.51	0.18	0.36	0.58	7.43	3.29	0.89	1.14	0.74	0.37	2.61	1.39	3.17	7.98	3.02
60-61m	61-62m	62-63m	63-64m	64-65m	65-66m	66-67m	67-68m	68-69m	69-70m	70-71m	71-72m	72-73m	73-74m	74-75m	75-76m	76-77m	77-78m	78-79m	79-80m
0.61	0.12	9.25	0.43	0.86	0.21	0.13	3.85	0.09	0.29	0.1	2.3	0.06	0.57	5.32	9.59	0.44	0.09	2.03	0.21
80-81m	81-82m	82-83m	83-84m	84-85m	85-86m	86-87m	87-88m	88-89m	89-90m	90-91m	91-92m	92-93m	93-94m	94-95m	95-96m	96-97m	97-98m	98-99m	99-100m
120	2.68	0.6	0.24	0.34	0.22	0.76	0.46	0.37	0.67	0.45	0.24	2.18	0.05	0.38	0.23	0.29	0.1	0.04	<0.01

**Figure 9 Recent RC chips from Apollo Hill, showing rock types, veining, structure, alteration and assayed grade in Au g/t; AHRC0618 – 43 m to 97 m – 54 m @ 3.72 g/t Au highlighted; quartz veining in dolerites and basalts.** <sup>(b)</sup> This diagram contains exploration results and historic exploration results as originally reported in fuller context in Saturn Metals Limited ASX Announcements and Quarterly Activity Reports - as published on the Company's website. Saturn Metals Limited confirms that it is not aware of any new information or data that materially affects the information on results noted.

## Alteration

Gold mineralisation associated with the broader Apollo Shear zone is characterised by a silica sericite pyrite alteration assemblage particularly proximal (50 m) to the Apollo Shear. Gold is noted in association with ankerite around some quartz veins. Epidote is noted around higher grades. An outer alteration zone of chlorite-carbonate  $\pm$  magnetite is noted. Leucoxene formation is developed in Dolerites along much of the Apollo Shear. Figure 9 depicts a recent RC intersection showing alteration around mineralised veins in pillow basalts and dolerites.

## Weathering and Regolith

At Apollo Hill, the depth of the weathering profile is relatively shallow. Where deeper weathering is noted, it is related to structure-induced permeability. The base of complete oxidation ranges between 2 m to 30 m but is typically 10 m to 20 m. The depth to the top of fresh rock ranges from 8 m to 70 m but is typically 20 m to 30 m. There is little evidence for supergene gold enrichment in what is left of the eroded weathering profile. Young alluvial and aeolian sediments on-lap onto the variously stripped profile at Apollo Hill. Where cover sequences occur, bedrock is covered by a maximum of 20 m of transported alluvium. Fresh rock is known to outcrop at Apollo Hill in many locations.

## Drilling and Drilling Techniques

Since discovery in 1986, several companies have completed drilling on the project including Fimiston Mining NL, Battle Mountain (Australia) Ltd, Homestake Gold of Australia Ltd, Mining Project Investors Ltd (MPI), Hampton Hill Mining NL, Apex Minerals NL, Peel Mining Ltd, and Saturn Metals Ltd. Most of the critical RC and DD holes completed at Apollo Hill can be divided into several main periods: 1988 to 1989, 2003, 2011 and 2018-2021.

All holes used directly for the Mineral Resource estimation at Apollo Hill are reverse circulation (RC) or diamond drill (DD) holes completed by Saturn or its predecessor companies since 1986. Drilling at Apollo Hill tends to be on 30 m to 60 m spaced northeast-southwest fences with drilling along the fences ranging from 20 m to 50 m intervals. Two small areas have been tested by 12.5 m spaced RC drilling to determine short-scale variability in grades. Drill spacing is less dense towards the margins of the deposits. Mineralisation is not closed off along strike or at depth.

The Apollo Hill Mineral Resource estimate has used 1,106 diamond and RC drillholes for a total of 158,692 m drilled. The holes have been surveyed (collar locations), downhole surveyed, logged, sampled, and recent core has been photographed. The location of the diamond and RC drillholes used in the Mineral Resource estimate are shown in Figures 2, and 3. The drillholes are surveyed using the GDA94 datum and MGA zone 51 coordinates.

## Data Review

Drillholes are predominantly sampled over the full length of the holes with sample intervals generally 1 m in length, with core sampling considering geological boundaries.

The drillhole data, assay data and quality assurance/quality control (QAQC) data have been compiled since 1986. Since that time, several different laboratories have been used, with a corresponding range of sample preparation, assaying, and QAQC protocols.

Analysis of QAQC data since 1986 did not highlight any matters for concern.

## Sampling and Sub-sampling Techniques

Measures taken to ensure the representivity of RC sampling include close supervision by geologists, use of appropriate sub-sampling methods, routine cleaning of splitters and cyclones, and RC rigs with enough capacity to provide generally dry, reasonable recovery

samples. Information available to demonstrate sample representivity includes RC sample weights, sample recovery, sample consistency, field duplicates, standards and blanks. RC holes were sampled over 1 m intervals by a cone-splitter mounted to the RC drill rig.

Diamond core was drilled HQ3 and NQ2 dependant on weathering profile and ground conditions. Core was generally cut in half although some full core sampling (10 holes) has been utilised in 2018 and 2019 to help account for nuggety coarse gold noted in logging. Sample sizes range in size, but generally 1 m intervals were used adhering to geological boundaries where appropriate (minimum 0.3 m to maximum 1.2 m). Sampling was undertaken using QAQC procedures in line with industry best practice. This includes the submission of standards, blanks and duplicates at regular intervals within each submission, for RC and Diamond samples.

Reverse Circulation (RC) drilling was conducted with either a 4.5 inch or 5.5 inch face-sampling bit.

All Saturn core was oriented using a Reflex orientation tool which was recorded at the drill site. All core was pieced back together and orientated at the Saturn Core yard at Apollo Hill.

### **Sample Analysis Method**

Recent Saturn drilling samples were analysed at ALS in Kalgoorlie and Perth and by SGS in Kalgoorlie. At the laboratories the samples were oven dried and crushed to 90% passing 2 mm, and pulverised to 95% passing 106 microns, with analysis by 50 g fire assay.

Detailed review of the Saturn QAQC data determined that the results were satisfactory, and that the drilling database was suitable for resource estimation.

The Saturn in-fill drilling supports the previous drill hole data suggesting that there is no problem with the spatial location and tenor of mineralisation defined in the historic drilling.

### **Estimation Methodology**

Mineralization envelopes were constructed on south-west to north-east sections parallel to drilling fences, using a nominal 0.3 g/t Au mineralization boundary on the raw grade data to define the edges of mineralized zones. Definition of parameters for internal dilution material and minimum thickness are generally not relevant to the estimation method. Strings were snapped to drillholes and used for developing wireframes of the mineralization for the Apollo Hill, Southern Apollo Hill Corridor (including gold mineralisation in Ra Dolerite) and Apollo Hill Hanging-wall mineralised zones.

Wireframe interpretations for secondary weathering related oxidation and top of fresh rock were incorporated into the model.

Raw sample/assay files were flagged/coded for the interpreted mineralisation zones, oxidation profile and rock-types using the relevant wireframes and then composited to a regular 2 m downhole composite length as a means of achieving a uniform sample support.

Bulk density was generated from a set of 553 Archimedean determinations using billets of core. Densities have been assigned based on oxidation state. At Apollo Hill, assigned densities range from 2.1 t/m<sup>3</sup> (alluvial/soil) to 2.9 t/m<sup>3</sup> (fresh mafic rocks).

Grade estimation has been completed using localised multiple indicator kriging (LMIK) for the major Apollo Hill mineralised zone and the Apollo Hill Hanging-wall mineralised zone given their mixed host-rock types, variable grades, complex local geometries and mixed orientations. The smaller Ra and Tefnut mineralised zones have relatively limited data for narrow mineralised zones, and therefore restricted ordinary kriging (ROK) was used for gold grade estimation.



The flagged composites were used for estimation of panels with initial rotated parent block dimensions of 20 m by 25 m by 10 m RL. Indicator thresholds were selected based on the geostatistical characteristics of the major mineralized zones and were selected to discretise the profiles at slope changes and key grade thresholds. The indicator estimates were modified with a change of support correction to emulate a selective mining unit (SMU) scale mining block. The resultant MIK estimates were localised into an SMU model having rotated block dimensions of 5 m by 12.5 m by 5 m RL and combined with the remaining ROK estimates for the minor mineralised zones.

## **Mineral Resource Classification**

A combination of Indicated and Inferred Mineral Resources has been defined, considering a range of parameters including the robustness of the input data, the confidence in the geological interpretation (the predictability of both structures and grades within the mineralised zones), distance from data, and amount of data available for block estimates within the mineralised zones.

## **Reporting**

In 2021, STN has completed further infill and extensional RC drilling on the deposits and will report the resource within a nominal pit shell. Preliminary Whittle pit optimizations using approximated regional mining and processing costs for multiple processing scenarios have been run on the resource model using a gold price of US\$1,800/oz to generate a range of pit shells and cut-off grades. A pit shell for a heap leach scenario representing a revenue factor of 1.2 was selected as a nominal constraint within which to report the Apollo Hill Mineral Resource, thereby satisfying the JORC Code requirement for a Mineral Resource to have reasonable prospects for eventual economic extraction. Other relevant information is described in the JORC Code Table 1 as appropriate. The Mineral Resource was reported using a 0.23 g/t Au cut-off grade in line with preliminary economic analyses and other similar projects in the region. The Apollo Hill Mineral Resource estimate was developed with a view to open pit mining on 5 m benches. For the purpose of calculating Whittle pit optimizations a re-blocking exercise was undertaken in Whittle to 10 m wide by 12.5 m long by 5 m bench height to test dilution and ore loss related to mining.

Changes from the 2021 Apollo Hill Mineral Resource relate to:

- Additional drilling along strike, across strike, down-dip, and at new areas like the southern Apollo Hill corridor resulting in a larger model area.
- Changes to the interpreted geology and revisions to mineralization.
- Changes to resource classification with infill drilling.
- Two small RC grade control drilling test areas to test the short range variability of mineralisation and general consistency of the mineralisation within the interpreted zones.
- Improved model parameters.
- Lowering of the cut-off grade from 0.4 g/t Au to 0.23 g/t Au and constraint of the Mineral Resource by a new nominal pit shell.

## **Metallurgy**

Metallurgical test work has been carried out for typical mineralised material at Apollo Hill confirming that the ore is amenable to conventional recovery by gravity and cyanide leaching methods and by conventional heap leach methods. Ongoing test work by Saturn has confirmed gold recoveries from primary ore to be approximately 92% to 98% in a milling scenario and 69% to 77% in a heap leach scenario. Further test work is ongoing.

This Announcement has been approved for release by the Board of Directors of Saturn Metals Limited.



**IAN BAMBOROUGH**  
Managing Director

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***Competent Persons Statements***

The information in this report that relates to exploration targets, geology, and exploration results and data compilation is based on information compiled by Ian Bamborough (IB), a Competent Person who is a Member of The Australian Institute of Geoscientists. Ian Bamborough is a fulltime employee (Managing Director) of the Company and a shareholder in the Company. Ian Bamborough 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'. Ian Bamborough consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

The information in this announcement that relates to the Apollo Hill Mineral Resource estimate (gold) is based on information compiled and generated by Ingvar Kirchner (IK), an employee of AMC Consultants. Mr Kirchner consents to the inclusion, form and context of the relevant information herein as derived from the original resource reports. Mr Kirchner has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

<sup>(b)</sup> This document contains exploration results and historic exploration results as originally reported in fuller context in Saturn Metals Limited ASX Announcements, Quarterly Reports and Prospectus - as published on the Company's website. Saturn Metals Limited confirms that it is not aware of any new information or data that materially affects the information on results noted. Announcement dates to refer to include but are not limited to 29/03/22, 31/01/22, 29/10/21, 28/10/21, 19/08/21, 30/07/21, 12/07/21, 08/06/21, 26/05/21, 28/04/21, 14/04/21, 30/03/21, 22/03/21, 04/02/21, 28/01/21, 25/01/21, 22/12/20.

The following extract from the JORC Code Table 1 is provided for compliance with the Code requirements for the reporting of Mineral Resources:

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to the Apollo Hill, Apollo Hill Hanging-wall and Ra and Tefnut exploration areas all succeeding sections).

**Table II Extract of JORC Code 2012 Table 1**

Criteria	JORC Code Explanation	Commentary	Competent Person
Sampling techniques	<p>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialized 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.</p> <p>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</p> <p>Aspects of the determination of mineralization that are Material to the Public Report.</p> <p>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverized 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 mineralization types (e.g. submarine nodules) may warrant disclosure of detailed information.</p>	<p>Measures taken to ensure the representivity of RC sampling include close supervision by geologists, use of appropriate sub-sampling methods, routine cleaning of splitters and cyclones, and RC rigs with sufficient capacity to provide generally dry, reasonable recovery samples. Information available to demonstrate sample representivity includes RC sample weights, sample recovery, sample consistency, field duplicates, standards and blanks.</p> <p>RC holes were sampled over 1 m intervals using a cone-splitter mounted to the RC drill rig. RC samples were analyzed ALS in both Kalgoorlie and Perth and SGS in Kalgoorlie. At the laboratories the samples were oven dried and crushed to 90% passing 2 mm, and pulverized to 95% passing 106 microns, with analysis by 50 g fire assay.</p> <p>RC samples were generally taken at 1 m interval but if composited were composited to 4 m to produce a 3 kg representative sample to be submitted to the laboratory. If the 4 m composite sample was anomalous (Au&gt;0.16 g/t), the original 1 m samples were retrieved and submitted to the laboratory. In general, the expected mineralized zones are all sampled using 1 m intervals.</p> <p>Diamond core was drilled HQ3 and NQ2 dependent on weathering profile and ground conditions. The core was cut in half using a Corewise diamond saw at the ALS laboratory in Perth, where both half and full core were submitted for analysis.</p> <p>Half and full core samples were taken with a diamond saw, generally on 1 m intervals, dependent on geological boundaries where appropriate (lengths ranging from a minimum 0.3 m to a maximum of 1.2 m). Whole core samples were taken within the zones of mineralization to account for coarse grained nature of the gold.</p> <p>Sampling was undertaken using STN sampling and QAQC procedures in line with industry best practice, which includes the submission of standards, blanks and duplicates at regular intervals within each submission, for RC and Diamond samples.</p>	IB
Drilling techniques	<p>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</p>	<p>Reverse Circulation (RC) drilling used either a 4.5 inch or 5.5 inch face-sampling bit. Diamond core was HQ3 or NQ2 diameter core. All RC drillholes were surveyed by Gyro, every 30 m down hole.</p> <p>All core was oriented using a Reflex orientation tool, which was recorded at the drill site, and all core pieced back together and orientated at the STN core yard at Apollo Hill.</p>	IB
Drill sample recovery	<p>Method of recording and assessing core and chip sample recoveries and results assessed.</p> <p>Measures taken to maximise sample recovery and ensure representative nature of the samples.</p> <p>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.</p>	<p>RC sample recovery was visually estimated by volume for each 1 m bulk sample bag and recorded digitally in the sample database. Very little variation was observed.</p> <p>Measures taken to maximize recovery for RC drilling included use of face sampling bits and drilling rigs of sufficient capacity to provide generally dry, high recovery samples. RC sample weights indicate an average recovery of 85% to 95% and were dry.</p> <p>The cone splitter was regularly cleaned with compressed air at the completion of each rod.</p>	IB

Criteria	JORC Code Explanation	Commentary	Competent Person
		<p>The RC Drilling was completed using auxiliary compressors and boosters to keep the hole dry and ensure the sample was lifted to the sampling equipment as efficiently as possible. The cyclone and cone splitter were kept dry and clean, with the cyclone cleaned after each drillhole and the splitter cleaned after each rod to minimize down-hole or cross-hole contamination. The 3 kg calico bag samples representing 1 m were taken directly from the cyclone and packaged for freight to Kalgoorlie. The calico represents both fine and coarse material from the drill rig.</p> <p>Diamond core recovery was measured and recorded for each drill run. The core was physically measured by tape and recorded for each run. Core recovery was recorded as percentage recovered. All data was loaded into the STN database.</p> <p>Diamond drilling utilized drilling additives and muds to ensure the hole was conditioned to maximize recoveries and sample quality.</p> <p>There was no observable relationship between recovery and grade, or preferential bias between hole-types observed at this stage.</p> <p>There was no significant loss of core reported in the mineralized parts of the diamond drillholes to date.</p>	
Logging	<p>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.</p> <p>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</p> <p>The total length and percentage of the relevant intersections logged.</p>	<p>Drillholes were geologically logged by industry standard methods, including depth, colour, lithology, alteration, sulphide and visible gold mineralization and weathering. RC Chip trays and Diamond Core trays were photographed.</p> <p>The logging is qualitative in nature and of sufficient detail to support the current interpretation.</p>	IB
Sub-sampling techniques and sample preparation	<p>If core, whether cut or sawn and whether quarter, half or all core taken.</p> <p>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</p> <p>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</p> <p>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</p> <p>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.</p> <p>Whether sample sizes are appropriate to the grain size of the material being sampled.</p>	<p>RC holes were sampled over 1 m intervals by cone-splitting. RC sampling was closely supervised by field geologists and included appropriate sampling methods, routine cleaning of splitters and cyclones, and rigs with sufficient capacity to provide generally dry, high recovery RC samples. Sample quality monitoring included weighing RC samples and field duplicates.</p> <p>Whole core was sent for assay in logged mineralized zones. Half core was submitted in unmineralized surrounding country rock.</p> <p>Assay samples were crushed to 90% passing 2 mm, and pulverized to 95% passing 75 microns, with fire assay of 50 g sub-samples. Assay quality monitoring included reference standards and inter-laboratory checks assays.</p> <p>Duplicate samples were collected every 20 samples, and certified reference material and blank material was inserted every 40 samples.</p> <p>The project is at an early stage of evaluation and the suitability of sub-sampling methods and sub- sample sizes for all sampling groups has not been comprehensively established. The available data suggests that sampling procedures provide sufficiently representative sub-samples for the current interpretation.</p>	IB
Quality of assay data and laboratory tests	<p>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</p> <p>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.</p>	<p>Sampling included field duplicates, blind reference standards, field blanks and inter-laboratory checks to confirm assay precision and accuracy with sufficient confidence for the current results, at a rate of 5%.</p> <p>Samples were submitted to ALS in Kalgoorlie and Perth, Nagrom in Perth, and SGS in Kalgoorlie where they were prepared, processed and analyzed via 50 g charge fire assay.</p>	IB



Criteria	JORC Code Explanation	Commentary	Competent Person
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.		
Verification of sampling and assaying	<p>The verification of significant intersections by either independent or alternative company personnel.</p> <p>The use of twinned holes.</p> <p>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</p> <p>Discuss any adjustment to assay data.</p>	<p>No independent geologists were engaged to verify results. STN project geologists were supervised by the company's Exploration Manager. No adjustments were made to any assays of data.</p> <p>Logs were recorded by field geologists on hard copy sampling sheets which were entered into spreadsheets for merging into a central SQL database.</p> <p>Laboratory assay files were merged directly into the database. The project geologists routinely validate data when loading into the database.</p>	IB
Location of data points	<p>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</p> <p>Specification of the grid system used.</p> <p>Quality and adequacy of topographic control.</p>	<p>Collars are initially surveyed by hand-held GPS, utilizing GDA94, Zone 51.</p> <p>Final drillhole collars are all surveyed by DGPS by ABIMS &amp; Goldfield Surveyors.</p> <p>All RC and diamond holes were down-hole surveyed using a gyroscopic survey tool.</p> <p>A topographic triangulation was generated from drillhole collar surveys and the close-spaced (50 m) aeromagnetic data.</p>	IB
Data spacing and distribution	<p>Data spacing for reporting of Exploration Results.</p> <p>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.</p> <p>Whether sample compositing has been applied.</p>	<p>Apollo Hill mineralization has been tested by generally 30 m spaced traverses of south- westerly inclined drillholes towards 225°. Across strike spacing is variable. Material within approximately 50 m of surface has been generally tested by 2 m to 30 m spaced holes, with deeper drilling ranging from locally 20 m to greater than 6 m spacing.</p> <p>The data spacing is sufficient to establish geological and grade continuity.</p>	IB
Orientation of data in relation to geological structure	<p>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</p> <p>If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</p>	<p>Mineralized zones dip at an average of around 30° to 60° towards the northeast. Detailed orientations of all short-scale mineralized features have not yet been confidently established. The majority of the drillholes were inclined at around 60° to the southwest.</p>	IB
Sample security	The measures taken to ensure sample security.	<p>Apollo Hill is in an isolated area, with little access by the general public. STN's field sampling was supervised by STN geologists. Sub-samples selected for assaying were collected in heavy-duty poly-woven bags which were immediately sealed. These bags were delivered to the assay laboratory by independent couriers, STN employees or contractors.</p> <p>Results of field duplicates, blanks and reference material, and the general consistency of results between sampling phases provide confidence in the general reliability of the drilling data.</p>	IB
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	The Competent Person independently reviewed STN sample quality information and database validity. These reviews included consistency checks within and between database tables and comparison of assay entries with original source records for STN's drilling. These reviews showed no material discrepancies. The Competent Person considers that the Apollo Hill drilling data has been sufficiently verified to provide an adequate basis for the current reporting of exploration results.	IB

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code Explanation	Commentary	Competent Person
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. 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.	The Apollo Hill Project lies within Exploration License E39/1198, M31/486 and M39/296. These tenements are wholly-owned by Saturn Metals Limited. These tenements, along with certain other tenure, are the subject of a 5% gross over-riding royalty (payable to HHM) on Apollo Hill gold production exceeding 1 Moz. M39/296 is the subject of a \$1/t royalty (payable to a group of parties) on any production. The tenements are in good standing and no known impediments exist.	IB
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	RC and diamond drilling by previous tenement holders provides around 19% of the estimation dataset. The data is primarily from RC and diamond drilling by Battle Mountain, Apex Minerals, Fimiston Mining, Hampton Hill, Homestake, MPI and Peel Mining.	IB
Geology	Deposit type, geological setting and style of mineralization.	The Apollo Hill project comprises two deposits/trends: the main Apollo Hill deposit in the northwest of the project area, and the smaller Ra-Tefnut Deposits in the south. Gold mineralization is associated with quartz veins and carbonate-pyrite alteration along a steeply north-east dipping contact between felsic rocks to the west, and mafic dominated rocks to the east. The combined mineralized zones extend over a strike length of approximately 2.5 km and have been intersected by drilling to approximately 350 m vertical depth. The depth of complete oxidation averages around 4 m with depth to fresh rock averaging around 21 m.	IB
Drillhole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: easting and northing of the drillhole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar dip and azimuth of the hole down hole length and interception depth hole length 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.	Any relevant information material to the understanding of exploration results has been included within the body of the announcement or as appendices. No information has been excluded.	IB
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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated.	For exploration data, no top-cuts have been applied. All reported RC and diamond drill assay results have been length weighted (arithmetic length weighting). No metal equivalent values are used for reporting exploration results.	IB
Relationship between	These relationships are particularly important in the reporting of Exploration Results.	All drillhole intercepts are measured in downhole meters, with true widths estimated to be about 60% of the down-hole width.	IB

Criteria	JORC Code Explanation	Commentary	Competent Person
mineralization widths and intercept lengths	If the geometry of the mineralization with respect to the drillhole angle is known, its nature should be reported. 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').	The orientation of the drilling has the potential to introduce some sampling bias (positive or negative).	
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 drillhole collar locations and appropriate sectional views.	Refer to Figures and Tables within the body of the text.	IB
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.	For any exploration results, all results are reported, no lower cut-off or top-cuts have been applied.	IB
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.	There is no other substantive exploration data.	IB
Further work	The nature and scale of planned further work (e.g. 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.	Although not yet planned by STN in detail, it is anticipated that further work will include infill and step out drilling. This work will be designed to improve confidence in and test potential extensions to the current resource estimates. Refer to Figures and diagrams within the body of the text.	IB

### Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code Explanation	Commentary	Competent Person
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.	Geological data is stored centrally in a relational SQL database using Aveza software. STN employs a Contract Database Administrator who is responsible for the integrity of the data. All geological and field data is entered into Microsoft Excel spreadsheets using lookup tables, fixed formatting and validation rules, to promote data integrity and prevent errors within the database. Assay data is received from the laboratory as a direct export and imported into the SQL in its entirety without edits. The database is continually validated by STN employed geologists who validate and audit the data. During the import of data within the Aveza database, a series of validation procedures occur. The database references established lookup tables and triggers validation procedures to ensure that data is valid before being uploaded into the relevant tables. A comparison of all data planned and what is in the database is made, to ensure all logging, collars, surveys, assays and collar pickups check against the actual collar locations. All data was checked visually in 3D to check all collar locations and surveys were correct.	IB
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	The Competent Person for the drillhole data, QAQC and geology has been to site frequently during 2018, 2019 and 2020. The Competent Person for the Mineral Resource has not been to site, with a site visit still to be organized when appropriate. Surface geology was inspected, as well as drilling, logging, sampling and assaying.	IB, IK
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.	The use of revised mineralization envelopes for use in LMIK modelling of the main zone and the two small trial grade control drilling patterns improves the confidence in the interpretation of the deposit. The lithology contact between mafic and felsic rocks were interpreted and modelled based on simplified summary geology data provided. The interpretations are based on good quality core and RC drilling, good quality assay data, and satisfactory logging. On a local scale, the mineralization is not highly structured. The veinlet type stockwork structures related to the mineralization are not likely to be continuous relative to the scale of the drilling. Alteration and association with the Apollo Shear and mafic/felsic contact are material but not limiting to the definition of mineralization. Mineralization occurs both along the shear and contact and within surrounding mafic and felsic host rock-types. On a broad scale, the mineralized zones are wide and relatively persistent along strike and down dip, but with erratic local grades and complex structure within the zones.	IK



Criteria	JORC Code Explanation	Commentary	Competent Person
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<p>Apollo Hill mineralization has an approximate north-west to south-east strike length of 1.5 km, variable width of up to 400 m (including the similar Hangingwall Zone), and down dip extent of more than 600 m.</p> <p>Ra mineralization is fragmented along a north-west to south-east strike length of 2.1 km, variable width of up to 25 m, and down dip extent of up to 300 m.</p> <p>Tefnut mineralization is variable with some evidence of an <i>en echelon</i> arrangement and appears to have a north-west to south-east strike length of 500 m, variable widths of up to 20 m, and down dip extent of up to 250 m.</p> <p>Mineralization extends to near-surface, truncated in some area by a thin layer of barren transported cover sediments. The mineralization is not closed-off by the resource definition drilling either along strike, across strike to the north-east or down-dip, although decreasing grade trend along strike at the current limits is observed.</p>	IK
Estimation modelling techniques	<p>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</p> <p>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</p> <p>The assumptions made regarding recovery of by-products.</p> <p>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</p> <p>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</p> <p>Any assumptions behind modelling of selective mining units.</p> <p>Any assumptions about correlation between variables.</p> <p>Description of how the geological interpretation was used to control the resource estimates.</p> <p>Discussion of basis for using or not using grade cutting or capping.</p> <p>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</p>	<p>Localized Multiple Indicator Kriging estimation was used to estimate a SMU scale model which is an appropriate technique for a gold deposit with highly variable grade, and uncertain continuity. It allows the estimation of the local metal distribution into mining blocks that can reasonably be mined.</p> <p>Data was domained according to deposit areas. Extents were strongly guided by geology and grades.</p> <p>Datamine Studio RM and ISATIS 2018 were used for modelling, variography and estimation.</p> <p>Previous estimates exist and have been considered during modelling. The new model incorporates significant new infill and extension drilling.</p> <p>There is no previous mining at Apollo Hill.</p> <p>There is insufficient data to estimate any deleterious elements or by-products. Sulphide content is low.</p> <p>There are two block sizes. The panel estimate used for the MIK estimate is based on 315° rotated 20 m by 25 m by 10 m parent blocks and is based on the nominal drill fence spacing and two mining benches or mining bench and two fitches. The SMU block size into which the MIK estimate is localized is based on 315° rotated 5 m by 12.5 m by 5 m blocks and is considered a reasonable SMU for the scale of the deposit and proposed medium scale open pit mining method. The SMU size may be reviewed should the proposed mining scenario change.</p> <p>Estimation parameters and search parameters were selected to best estimate the model without creating undue conditional bias or regression effects. Parameters and estimation results were validated via appropriate check methods. Parameters are described in the report.</p> <p>The resource estimate was constrained within the modelled mineralization envelopes for domains to limit extrapolation of grade. The mineralization envelopes considered available geological data during construction.</p> <p>High grade cutting is not used directly for the MIK/LMIK estimation method. However, there are similar material decisions affecting the MIK/LMIK estimation process, such as:</p> <ul style="list-style-type: none"> <li>• Values applied for the top indicator bin grades.</li> <li>• Choice of variance adjustment factors utilized for the indirect lognormal change of support process.</li> </ul>	IK

Criteria	JORC Code Explanation	Commentary	Competent Person
		<ul style="list-style-type: none"> <li>Choice of SMU dimension.</li> </ul> <p>Restricted ordinary kriging was used for the subordinate mineralized zones at Ra and Tefnut to allow incorporation into the predominantly LMIK model. A high-grade cut of 20 g/t Au was applied to Ra Au composite data. As there were no obvious outliers in the small amount of Tefnut Au composite data, no high-grade cut was applied.</p> <p>Validation was completed using the comparison of the LMIK results to the theoretical grade tonnage curves derived from global estimates (discrete Gaussian change of support model) as well as review of the MIK derived E-type means, the panel OK estimates and the restricted OK ranking estimates. Further validation using modified swath plots and visual review of grade mapping between the models and the drilling data was conducted.</p> <p>Only gold was estimated.</p> <p>No assumptions are made regarding recovery of by-products.</p> <p>Previous Mineral Resources reported for Apollo Hill were generated by AMC in 2018, 2019 and 2020.</p>	
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages are estimated using dry bulk density values.	IK
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	<p>The 2022 Mineral Resource estimate for Apollo Hill has been reported at a cut-off of 0.23 g/t Au for all material types, based on economic parameter checks, pit optimization analysis and similar cut-offs for other projects with this style of mineralization. Preliminary Whittle pit optimizations using approximated regional mining and processing costs for multiple processing scenarios have been run on the resource model using a gold price of US\$1,800/oz to generate a range of pit shells and cut-off grades. The selected revenue factor of 1.2 nominal constraining pit shell currently represents a heap leach scenario.</p> <p>The project is at an early stage. No mining studies have been completed. It is probable that the cut-off grade, SMU selection and reporting parameters may be revised in the future.</p>	IK
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<p>The mining method is assumed to be by open pit method, using medium scale equipment and excavators. Production rate is currently unspecified as the project is at an early exploration stage and no mining study has been completed.</p> <p>Mining is assumed to be on 5 m benches with a minimum selective mining unit (SMU) dimension of 5 m by 12.5 m by 5 m based on RC grade control or similar. This is assumed based on other projects having a similar style of mineralization.</p> <p>Preliminary Whittle pit optimizations using approximated regional mining and processing costs for multiple processing scenarios have been run on the resource model using a gold price of US\$1,800/oz to generate a range of pit shells and cut-off grades. A pit shell for a heap leach scenario representing a revenue factor of 1.2 was selected as a nominal constraint within which to report the Apollo Hill Mineral Resource, thereby satisfying the JORC Code requirement for a Mineral Resource to have reasonable prospects for eventual economic extraction.</p> <p>The project is at an early stage. No mining studies have been completed. It is probable that the cut-off grade, SMU selection and reporting parameters may be revised in the future.</p>	IK

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Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	No mining has been conducted at the project. Metallurgical assumptions for all material types are based on existing test-work that indicate high recoveries (94%) in a typical CIL processing scenario and moderate recoveries (73%) for a heap leach scenario as advised by STN. Test-work is on-going. Further analytical work and modelling may be required to differentiate ore types.	IK
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	No assumptions have been made regarding possible waste and process residue options. The project is at an early exploration stage and no mining studies have been completed. Typical open pit mining and CIL/heap leach processing scenarios would require generation of waste dumps and tailings dams or leach pads. The potential for heap leaching as a treatment option of ore may modify the overall environmental factors.	IK
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Dry bulk densities are based on 561 analyses of Apollo Hill core billets. It is possible that additional data will modify the averaged density values that were applied to the model as below. Bulk densities were determined using Archimedean methods on dried, unsealed core. STN concur that the following rounded density values are appropriate: <ul style="list-style-type: none"> <li>• Soil/alluvium=2.1 t/m3</li> <li>• Mafic rock-types=2.8 t/m3 (oxide), 2.9 t/m3 (transitional and fresh)</li> <li>• Felsic rock-types=2.4 t/m3 (oxide), 2.5 t/m3 (transitional), 2.8 t/m3 (fresh)</li> <li>• Dolerite rock-types=2.8 t/m3 (oxide), 2.9 t/m3 (transitional), 2.9 t/m3 (fresh)</li> </ul>	IK
Classification	The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit.	The classification of the resource estimate is limited to a maximum classification of Indicated Mineral Resource. The classification considers: <ul style="list-style-type: none"> <li>• Use of good quality diamond core and RC data for data used in the resource estimate.</li> <li>• The complex structural continuity of both geology and mineralization, and consistency of grade data in all directions.</li> <li>• Drillhole data spacing in all directions.</li> <li>• Data quality, variability, and analytical data.</li> <li>• Bulk density data and representivity for rock-types and the style of mineralization. The use of average densities based on the oxidation and summary rock-type divisions.</li> <li>• Variography.</li> <li>• Estimation statistics (number of samples used, distance to data, and estimation pass).</li> <li>• Confidence in the interpretations.</li> </ul> Some areas of the deposit are moderately to well drilled for a gold deposit, but the mineralization is not highly structured nor visual. Drilling fences are usually on 25-	IK

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		<p>30 m to 50-60 m intervals with similar spaced drilling along the fences. Two RC grade control drilling test areas have been completed at approximately 12.5m spacings. There are gaps in the drilling in some key areas.</p> <p>The mineralization interpretation to a limited distance past the bottom of drilling — usually no more than 50 m to 100 m. Most of the extrapolated areas tend to be left as unclassified in the models.</p> <p>The estimate has been classified as Indicated Resource in the core of the mineralization demonstrating coherent zones of mineralization with relatively close spaced drilling. The estimate is classified as Inferred Resource at the edges of the mineralization.</p> <p>Background and waste portions of the model have not been classified.</p>	
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	The Mineral Resource has not been externally audited or reviewed.	IK
Discussion of relative accuracy/confidence	<p>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</p> <p>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</p> <p>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</p>	<p>The Mineral Resource assumes that medium scale open cut mining methods will be applied.</p> <p>The Mineral Resource assumes an SMU dimension of 5 m by 12.5 m by 5 m.</p> <p>The LMIK SMU model is deemed appropriate for this style of deposit and is a global estimate.</p> <p>Factors affecting the confidence and relative accuracy of the Resource are primarily:</p> <ul style="list-style-type: none"> <li>• Good quality drilling samples.</li> <li>• Need for improved geological and metallurgical understanding of the mineralization. Geology and domains are likely to be more complex than assumed by the current resource model. The relation of the mineralization to alteration and structural domains is considered potentially significant.</li> <li>• Increased drilling density may result in variations of the model results in local areas. Additional infill drilling is warranted in some areas. Some further close spaced drilling and deliberate twinning of holes would be beneficial to improve understanding of the short-range variability of the mineralization.</li> <li>• The data appears to have a relatively high nugget variance (60% to 70% for the gold variograms) which correlates with the erratic nature of the mineralization and possible precision issues associated with repeat or duplicate samples.</li> <li>• Accuracy of averaged bulk density data and porosity/moisture assumptions. Mineralization and lithology may prove to be more variable than the current scale of drilling and limited density data suggest.</li> <li>• The variance adjustment factor applied for the LMIK SMU model may vary in future estimates according to the amount of data available within the domains being modelled.</li> <li>• Selectivity and cut-off grades may vary in future according to mining studies.</li> <li>• There has been no statistical or geostatistical determination of relative accuracy or confidence due to the lack of stationarity in the data and moderate quality variability in some directions.</li> </ul>	IK



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		<p>The resource classification is considered reasonable based on validation through multiple processes, including visual and graphical review of the estimates.</p> <p>The mineralized area is drilled at a semi-regular spacing and while local variance to the estimate may occur, there is a moderate-to-high degree of confidence in the overall estimate supported by the 2021 RC grade control drilling test areas.</p> <p>The primary mineralized zones are moderately defined by drilling, constrained to an interpretation that reflects the broad geological control on grade, and appropriately estimated.</p> <p>The project has no production history for comparison of the model results.</p>	