

## ASX Announcement

13 June 2019

### **Drilling of High-Grade Hanging Wall Zone Commences at Apollo Hill**

#### **Highlights:**

- Drilling has recommenced at Apollo Hill primarily targeting the newly discovered high-grade, shallow hanging wall zones.
- Drilling is planned to aggressively follow up on recently returned high grade intersections including:
  - 13m @ 5.05g/t Au from 74m inc. 4m @ 9.8g/t Au - AHRC0136<sup>b</sup>;
  - 10m @ 5.78g/t Au from 46m inc. 5m @ 11g/t Au - AHRC0124<sup>b</sup>;
  - 6m @ 5.2g/t Au from 37m - AHRC0127<sup>b</sup>.
- Two rigs have been mobilised to site to accelerate exploration efforts and results flow.
- Major program of 100 holes for 10,000m planned with assays to follow (see Figure 1).
- Program aimed at further expanding the Project's existing JORC 2012 compliant 685,000-ounce Mineral Resource<sup>1</sup>.

Saturn Metals Limited (ASX: STN) ("Saturn" or "the Company") is pleased to announce the resumption of exploration drilling at its 100%-owned Apollo Hill Gold Project, near Leonora in the Western Australian goldfields.

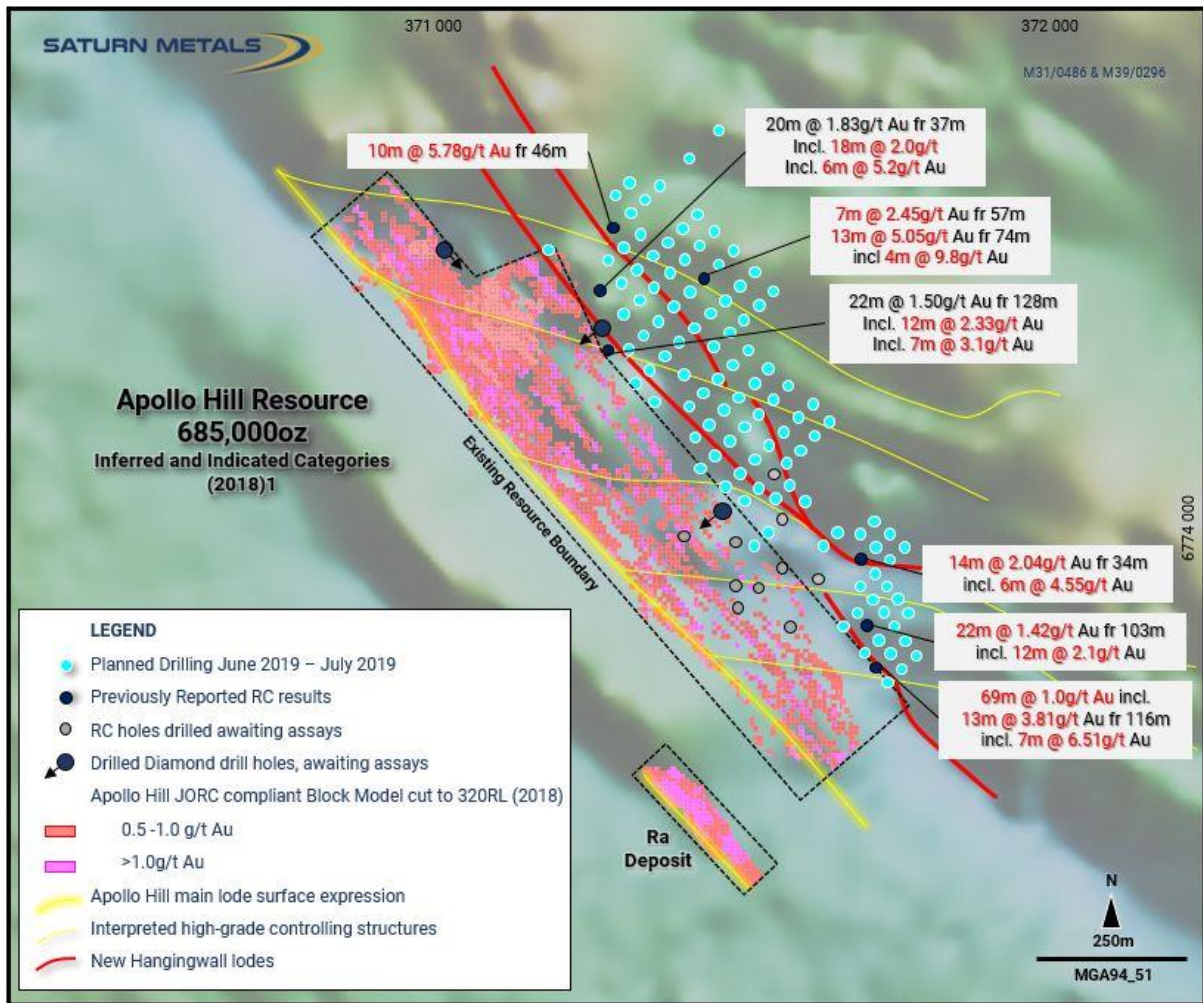
An aggressive program of up to 10,000 metres of reverse circulation (RC) drilling commenced at Apollo Hill yesterday as part of the Company's efforts to expand the newly discovered high-grade hanging wall zones at Apollo Hill and to rapidly grow the Project's Mineral Resource, which currently stands at 20.7 million tonnes grading 1.0 g/t gold for 685,000 ounces<sup>1</sup>. Planned drilling locations and program concept are illustrated in Figure 1.

Having finished the March 2019 quarter with \$2.8 million in cash, and after successfully raising \$1.5 million through a share placement in May, Saturn is well funded to accelerate drilling activity at Apollo Hill and has brought a second rig to site for that purpose.

Saturn Managing Director Ian Bamborough said: *"We have been highly encouraged by the results we have seen to date from the newly discovered hanging wall zones and as a result we are ramping up exploration efforts. This new program of drilling will further test the potential of those zones and could deliver a step change in the size and grade of the Apollo Hill Mineral Resource."*

The Company will provide further information from the exploration and resource drilling at Apollo Hill as results are received and analysed.

<sup>1</sup>Details of the Mineral Resource breakdown by category are presented in Table 1 (page 5 of this document) along with the associated Competent Persons statement and details of the original ASX report that this information was originally published in.



**Figure 1 Planned exploration and resource extension drilling locations relative to the published resource. Drilling seeks to develop mineralisation primarily in the shallow hanging wall splays where recent higher grades have been returned. Magnetic data collected in 2018 is providing a new targeting tool for our planned drilling.**

<sup>b</sup>Drilling results depicted 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.



**Figure 2 RC drilling underway at Apollo Hill – 12 June 2019.**

A handwritten signature in black ink, appearing to read 'I. Bamborough', is written on a white background.

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Apollo Hill is located ~60km south-east of Leonora in the heart of WA's goldfields region (Figure 3). The Project is surrounded by excellent infrastructure and several significant gold deposits and operations.

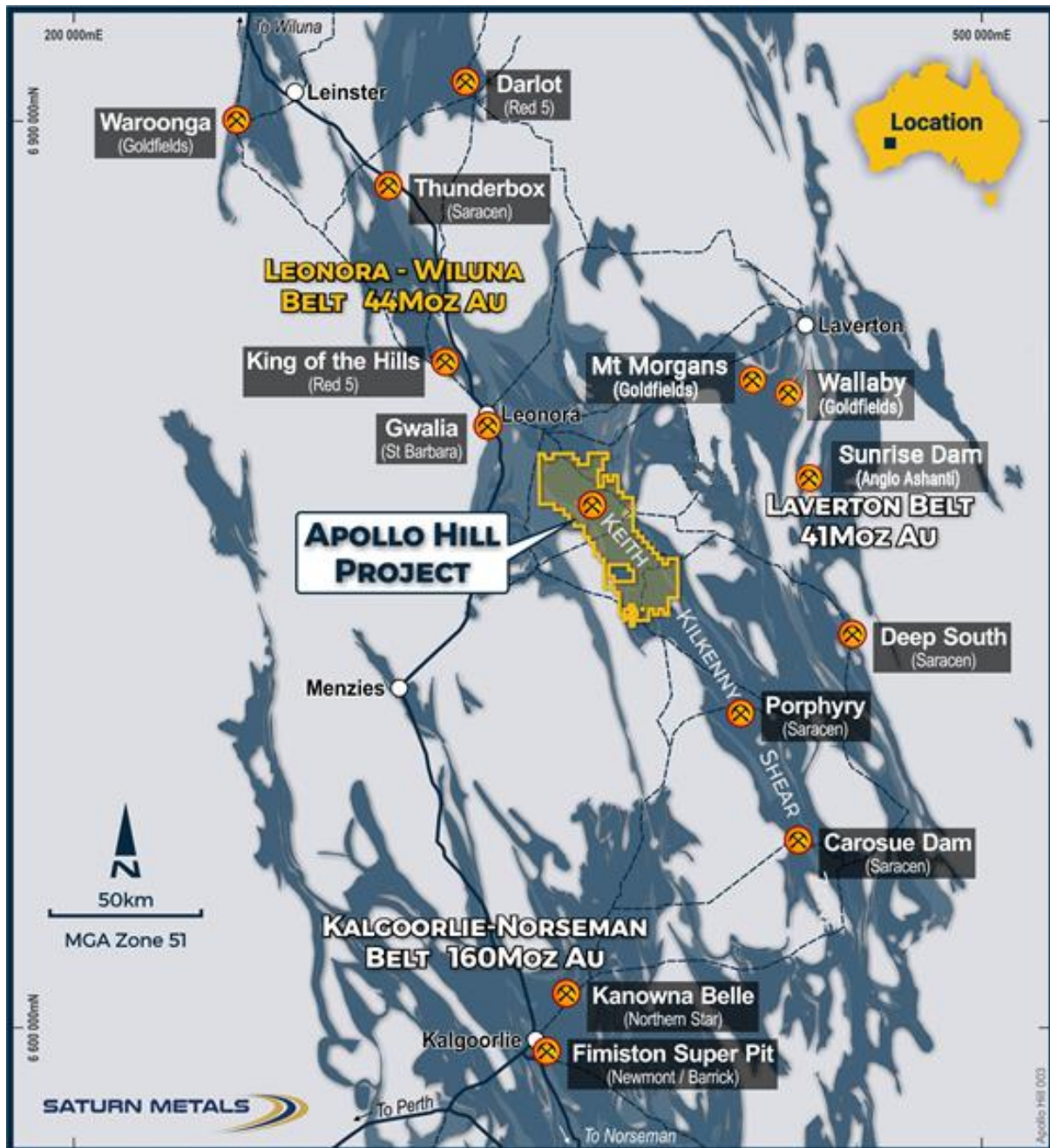


Figure 3 Apollo Hill location, Saturn Metals' tenements and surrounding gold deposits, gold endowment and infrastructure.

## Competent Persons Statement Resource

<sup>1</sup>The information for the Mineral Resource included in this report is extracted from the report entitled (Apollo Hill Gold Resource Jumps 36% to 685,000oz) created on 19 November 2018 and is available to view on the Saturn Metals Limited website. Saturn Metals Limited confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Saturn Metals Ltd confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Lower cut-off grade (Au g/t)	Oxidation State	Measured			Indicated			Inferred			Mill Total		
		Tonnes (Mtonnes)	Au (g/t)	Au metal (K ozs)	Tonnes (Mtonnes)	Au (g/t)	Au metal (K ozs)	Tonnes (Mtonnes)	Au (g/t)	Au metal (K ozs)	Tonnes (Mtonnes)	Au (g/t)	Au metal (K ozs)
0.5	Oxide	0	0	0	0.1	0.9	4	0.4	0.9	12	0.6	0.9	17
	Transitional	0	0	0	1.1	1.0	37	1.2	0.9	36	2.3	1.0	73
	Fresh	0	0	0	2.1	1.1	75	15.8	1.0	520	17.9	1.0	595
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3.3</b>	<b>1.1</b>	<b>116</b>	<b>17.4</b>	<b>1.0</b>	<b>569</b>	<b>20.7</b>	<b>1.0</b>	<b>685</b>

<sup>1</sup>The models are reported above nominal RLs (190 mRL - approximately 180 metres below surface (mbs) for Apollo Hill northwest, 210 mRL approximately 150mbs for Apollo Hill southeast and 260 mRL, 90mbs for Ra deposit) and nominal 0.5 g/t Au lower cut-off grade for all material types. Classification is according to JORC Code Mineral Resource categories. Totals may vary due to rounded figures.

**Table 1a November 2018 Apollo Hill Mineral Resource.**

## Competent Persons Statement Exploration

The information in this report that relates to exploration targets and exploration results is based on information compiled by Ian Bamborough, a Competent Person who is a Member of The Australian Institute of Geoscientists. Ian Bamborough is a fulltime employee and Director of the Company, in addition to being 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 his information in the form and context in which it appears.

<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, 19 November 2018, 16 April 2019, 29 April 2019, 2 May 2019 and 5 June 2019.

## JORC Code, 2012 Edition - Table 1 - Apollo Hill Exploration Area

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to the Apollo Hill and Ra exploration area and all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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 warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Measures taken to ensure the representivity 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.</li> <li>RC holes were sampled over 1m intervals by cone-splitting. RC samples were analysed by NAGROM in Kelmscott. At Kelmscott samples were oven dried and crushed to 90% passing 2mm, and pulverised to 95% passing 106 microns, with analysis by 50g fire assay.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>Reverse Circulation (RC)</li> <li>RC drilling used generally 5.5 " face- sampling bits.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Sample recovery was visually estimated by volume for each 1m bulk sample bag, and recorded digitally in the sample database. Very little variation was observed.</li> <li>Measures taken to maximise 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 85-95% and were dry.</li> <li>The cone splitter was regularly cleaned with compressed air at the completion of each rod.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Drill holes were geologically logged by industry standard methods, including lithology, alteration, mineralisation and weathering.</li> <li>RC Chip trays were photographed.</li> <li>The logging is qualitative in nature and of sufficient detail to support the current interpretation.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material</li> </ul>	<ul style="list-style-type: none"> <li>RC holes were sampled over 1m 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 representivity monitoring included weighing RC samples and field duplicates.</li> <li>Assay samples were crushed to 90% passing 2mm, and pulverised to 95% passing 75 microns, with fire assay of 50g sub-samples. Assay quality monitoring included</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p>collected, including for instance results for field duplicate/second-half sampling.</p> <ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>reference standards and inter-laboratory checks assays.</p> <ul style="list-style-type: none"> <li>Duplicate and blank samples were collected every 20 samples.</li> <li>Certified reference material samples were submitted to the laboratory every 100 samples.</li> <li>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.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Sampling included field duplicates, blind reference standards, field blanks and inter-laboratory checks confirm assay precision and accuracy with sufficient confidence for the current results.</li> <li>Samples were submitted to ALS Laboratories in Kalgoorlie, where they were prepared, processed and analysed via fire assay.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No independent geologists were engaged to verify results. Saturn Metals project geologists were supervised by the company's Exploration Manager. No adjustments were made to any assays of data.</li> <li>Logs were recorded by field geologists on hard copy sampling sheets which were entered into spreadsheets for merging into a central SQL database.</li> <li>Laboratory assay files were merged directly into the database. The project geologists routinely validate data when loading into the database.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Collars are surveyed by hand held GPS, utilising GDA94, Zone 51.</li> <li>All RC holes were down-hole surveyed, by Gyro.</li> <li>A topographic triangulation was generated from drill hole collar surveys.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Apollo Hill mineralisation has been tested by generally 30m spaced traverses of south-westerly inclined drill holes towards 225°. Across strike spacing is variable. The upper approximately 50m has been generally tested by 20-30m spaced holes, with deeper drilling ranging from locally 20m to commonly greater than 60m spacing.</li> <li>The data spacing is sufficient to establish geological and grade and continuity.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Mineralised zones dip at an average of around 50° to the northeast. Detailed orientations of all short-scale mineralised features have not yet been confidently established. The majority of the drill holes were inclined at around 60° to the southwest. All hole details for reported results are noted in Table 2 of this announcement.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Apollo Hill is in an isolated area, with little access by general public. Saturn's field sampling was supervised by Saturn geologists. Sub-samples selected for assaying were collected in heavy-duty polywoven plastic bags which were immediately sealed. These bags were delivered to the assay laboratory by independent couriers, Saturn employees or contractors.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>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.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>The competent person independently reviewed Saturn's 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 Saturn'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.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The results are from the Saturn Metals Limited's Apollo Hill Project which lies within Exploration Licence 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 million ounces. M39/296 is the subject of a \$1/t royalty (payable to a group of parties) on any production.</li> <li>The tenements are in good standing and no known impediments exist.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Aircore, RC and diamond drilling by previous tenement holders provides around 82% of the estimation dataset. The data is primarily from RC and diamond drilling by Battle Mountain (33%), Apex Minerals (18%), Fimiston Mining (13%), Hampton Hill (12%). Homestake and MPI holes provide 5% and 1%, respectively.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Apollo Hill project comprises two deposits: The main Apollo Hill deposit in the north-west of the project area, and the smaller Ra Deposit in the south. Gold mineralisation 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 mineralised zones extend over a strike length of approximately 1.4km and have been intersected by drilling to approximately 350m depth.</li> <li>The depth of complete oxidation averages around 4m with depth to fresh rock averaging around 21m.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>All relevant information material to the understanding of exploration results has been included within the body of the announcement or as appendices.</li> <li>No information has been excluded.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>○ hole length.</li> <li>● 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.</li> </ul>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>● 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.</li> <li>● 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.</li> <li>● The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>● No top-cuts have been applied.</li> <li>● No metal equivalent values are used for reporting exploration results.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>● These relationships are particularly important in the reporting of Exploration Results.</li> <li>● If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>● 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').</li> </ul>	<ul style="list-style-type: none"> <li>● True widths are generally estimated to be about 60% of the down-hole width.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>● 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.</li> </ul>	<ul style="list-style-type: none"> <li>● See diagrams included.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>● 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.</li> </ul>	<ul style="list-style-type: none"> <li>● All results are reported.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>● 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.</li> </ul>	<ul style="list-style-type: none"> <li>● See release details.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>● The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>● Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>● Although not yet planned in detail, it is anticipated that further work will include infill, step out and twin-hole drilling. This work will be designed to improve confidence in, and test potential extensions to the current resource estimates.</li> </ul>