EXCELLENT METALLURGICAL RESULTS – LOW COST, HEAP LEACH GOLD PROCESSING AT APOLLO HILL

Saturn Metals has recently conducted additional scaled up metallurgical test work via column leach tests to confirm the amenability of the Apollo Hill Mineral Resource (recently upgraded to 1.84 Moz[1]) to bulk tonnage gold mining and mineral processing via heap leaching.

Many of the world's large scale gold mining operations employ low-cost heap leach processing, with this method accounting for approximately 46% of global gold production[(a)]. The latest results firmly support Saturn's view that Apollo Hill has the potential to join this group.

HIGHLIGHTS

Excellent Recovery at Targeted Grade and Commercial Fresh Rock Crush Sizes

- Four Apollo Hill composite column samples (grading between 0.32 g/t Au and 1.34 g/t Au) derived from drill core of the deposit's dominant fresh basalt and dolerite rock types gave an **excellent** average **recovery of 79.1%** using closed-circuit high pressure grinding roll (HPGR) crushing to a P_{100} size of 8.0 mm. This recovery figure compares positively to a global heap leach recovery figures which can range between 55% and 79%[(a)].

Predictable Leach Curves and Results Lead to Efficiency in Development Studies

- Importantly, the HPGR 8 mm P_{100} size column leach recovery curves demonstrate a narrow spread of overall gold extraction results (Figure 1). This is interpreted to represent the low variability and high predictability of the leaching characteristics of Apollo Hill mineralisation. This facilitates simple and cost-efficient production scheduling in our current development studies.

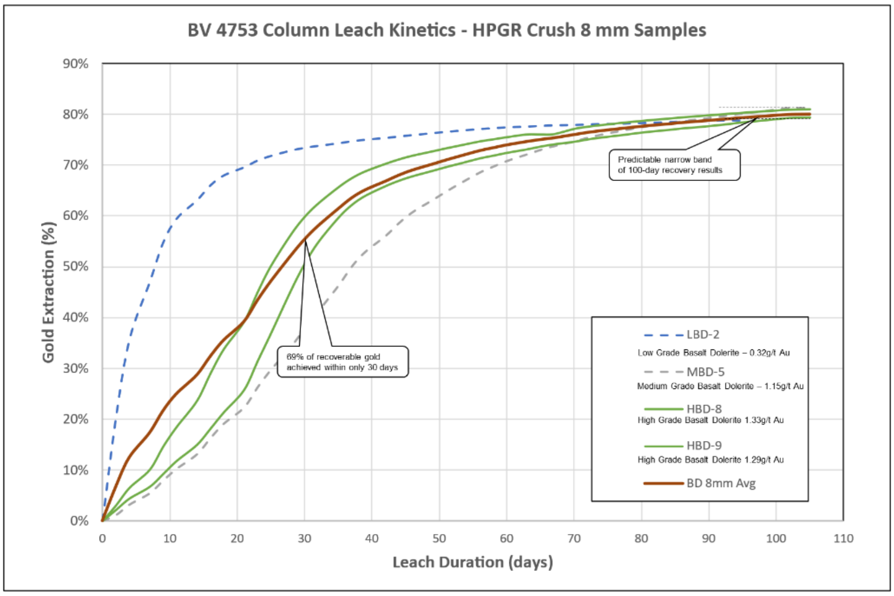

Figure 1 – Column Leach Recovery Test Curves 8mm HPGR – strong leach kinetics – a predictable narrow band of 100-day recovery results.

Validation of Previous Test Work

- These recovery results further validate the high recovery values reported from the 2022 column leach test work programmes where recovery under similar conditions was reported at between 74.5% and 85.0% (See ASX Announcement dated 1 August 2022).

Next Steps – Scale Up

- The metallurgical test work results have been utilised to derive important input information to help improve Saturn's recently upgraded Mineral Resource, inform its upcoming Preliminary Economic Assessment and will be the basis for our future Feasibility and associated scale up studies.

[1] Complete details of the Mineral Resource (105 Mt @ 0.54 g/t Au for 1,839,000 oz Au) and the associated Competent Persons Statement were published in the ASX Announcement dated 28 June 2023 titled "Apollo Hill Gold Resource Upgraded to 1.84Moz". Saturn reports that it is not aware of any new information or data that materially affects the information included in that Mineral Resource announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and there have been no adverse material changes.

(a) See Reference Table, Page 4.

Saturn Metals Limited (ASX:STN) ("Saturn", "the Company") is pleased to announce significant results from metallurgical test work on samples of diamond core from the Apollo Hill deposit within its 100%-owned Apollo Hill Gold Project, 60km south-east of Leonora in the Western Australian Goldfields.

This test work is a key part of the Company's ongoing strategy to progress the Apollo Hill Mineral Resource towards an efficient production scenario through our ongoing studies. Results, as outlined in the 'Highlights' section of this report, demonstrate the clear potential to achieve low processing costs through simple and scalable treatment options. Low unit processing costs and strong recovery across the deposits' full grade range leads to lower cut off grades which in turn allows for the processing of additional mineralised material, improving deposit continuity, strip ratios, mining efficiency and economies of scale.

Appendixes 1, 2 and 3 provide relevant summary results in data table and chart format for the column leach tests completed by Bureau Veritas in Perth using project site water.

In addition to the 'Highlights' on page 1, the recent test work demonstrated:

First Rate Recovery of Lower Grades - A Pathway to Economies of Scale

- Importantly, a strong recovery of 79% was obtained in one column composite (LBD#2 HPGR 8 mm P_{100}) at the deposit's lower grade range (0.33 g/t Au) confirming that gold recovery is viable from material which would normally be considered marginal if not for Apollo Hill's amenability to low unit cost heap leach processing (the alternative being a higher unit cost Mill and CIL scenario). This validates Saturn's use of lower cut off grades which has helped to bulk up the Mineral Resource. Larger continuous mineralised zones in turn lead to improved economics through greater resource utilisation, yielding low waste to ore stripping ratios and subsequent application of low-cost bulk mining scenarios through big selective mining units to capture and efficiently process Apollo Hill's gold distribution.

Efficient and Timely Extraction of Gold - Leach Kinetics

- Test work showed that HPGR crushing provides for strong column leach gold extraction kinetics with approximately 69% of the ultimate extraction achieved within only 30 days, with maximum test extraction reached at around 100 days.

Other Rock Types - Limited Variability

- Ra Zone Dolerite and Mafic Schist – Test work from an Apollo Hill Ra Zone Transition composite column sample 'HPGRC' (grading 0.45 g/t Au) derived from drill core from the deposit's southern extension gave a strong recovery of 76.9% using HPGR crushing to a P_{100} size of 8 mm.
- Mafic Schist – Test work from an Apollo Hill composite column sample (Column MGS#10 grading 0.29 g/t Au) derived from drill core of the deposits other dominant rock type, fresh mafic schist, gave a strong recovery of 72.6% using HPGR crushing to a P_{100} size of 6.3 mm.

Room for Further Optimisation

- Test work was also completed for duplicate samples using the HPGR crushing route to a P_{100} size of 6.3 mm. Results from this test work indicated that this finer crush did not provide any uplift in gold recovery (basalt/dolerite average of 76.6%). The particle size distributions under the 8 mm P_{100} and 6.3 mm P_{100} HPGR closed-circuit crush procedures were very similar as exhibited by P_{80} sizes of 4.6 mm and 4.1 mm, respectively. Saturn recognises the statistical relevance of the more limited in number finer crush size tests to date. The coarser 8 mm P_{100} size crush size is considered as the most cost-effective solution at this stage of project development given current test work results. However, with cognisance of the fact that increased crushing generally leads to increased liberation of gold grains, a trade-off study, including supporting test work, is underway to assess gold recovery, capital cost and operating cost at 4 mm P_{100} crush sizes.

Low Reagent Use

- Cyanide consumption was very low throughout the HPGR focussed test work at an average of only 0.82 kg/t. Lime addition was minimal at an average rate of only 0.20 kg/t. The optimised average cement addition for the agglomeration with site water of all HPGR crushed samples was only 2.3 kg/t. These values highlight the clean nature of the tested material types and site water and support an expectation of low reagent costs when in operation.
- Multi element assays of both head and residue samples showed a very inert material leading to a low risk of cyanide complex formation (cyanide complex formation can sometimes negatively impact gold recovery).

Very Strong Percolation after Improved Agglomeration Process

- Percolation testing on basalt, dolerite and mafic schist rock types crushed by HPGR to between 6.3 mm P_{100} and 8.0 mm P_{100} crush sizes returned strong percolation rates at between 18,200 L/m^2/hr and 37,800 L/m^2/hr (at only 5.1% average 'tapped' slump). This is a significant improvement on previous results of 10,994 L/m^2/hr percolation (at 4.3% slump) (refer Saturn ASX Announcement dated 1 August 2022) and well above the industry acceptable rate of 10,000 L/m^2/hr, and where full-scale requirements can be substantially lower again. Strong percolation results for these relatively fine crushed samples bode well for heap leach performance and reflect the ability of the HPGR prepared ore to allow free flow of the gold dissolving cyanide solution for efficient gold collection.

Comminution Testing

- In addition, comminution test work on the composite column samples across Apollo Hill's major fresh rock types gave an average impact crush work index of 12.9 kWh/t (moderate), a Bond abrasion work index of 0.117 (moderate), and a standard SMC Mih derived parameter (a measure of HPGR crushing work index) of 17.5 kWh/t. These figures highlight that there are no issues with the crushability of the Apollo Hill ore types.

The Company utilises the professional services of independent metallurgical consultants Mr. Gary Jobson of Macromet and Mr Randall Pyper of Kappes Cassiday and Associates Australia (KCAA) to assist with its test work and planning schedules.

Saturn Managing Director Ian Bamborough said: *"These strong results from a comprehensive Apollo Hill sample set provide a decisive weight of evidence for the application of simple cost-effective heap leach processing at Apollo Hill.*

The successful replication of production representative results from across the deposit's geography and major material types is an important step for the development of Apollo Hill. It gives us a great deal of confidence to progress our studies towards production.

The metallurgy of Apollo Hill is a great differentiator, it provides an economic head start and an opportunity to shift the magnitude of the deposit's development.

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

IAN BAMBOROUGH
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Competent Persons Statements

The information in this report that relates to exploration targets, exploration and metallurgical 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.

[a] 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 referred to include but are not limited to: 01/08/2022, 29/03/2022.

References:

(a) Sorting through the Heap, Source: – Canadian Mining Journal, Web Article, 1 September 2020 on Costmine Publication *2020 Gold Heap Leach Cost Estimating Guide, available at www.costmine.com; "Gold recovery is only usually about 55% to 79%".*

Appendix 1-3 Data, Results and Charts:

SATURN METALS LIMITED - APOLLO HILL GOLD PROJECT

JULY 2023 ASX ANNOUNCEMENT SUMMARY

Appendix 1 - HPGR Crushed Column Leach Test Results Summary

Parameter	Unit	Sample Code								Average	
		LBD#2	LBD#3	MBD#5	MBD#6	HBD#8	HBD#9	MGS#10	HPGRC	All Tests	8.0 mm P_{100}
Ore Type	-	Basalt-Dolerite		Basalt-Dolerite		Basalt-Dolerite		Mafic Schist	Ra-Tefnut Transition	**All**	**Basalt-Dolerite**
Grade Target	-	Low Grade		Medium Grade		High Grade		Low Grade	Med Grade		
Column Number	#	2	3	5	6	8	9	10	11		
P_{100} Size[(1)]	mm	8.0	6.3	8.0	6.3	8.0	8.0	6.3	8.0		
P_{80} Size[(2)]	**mm**	**4.6**	**4.1**	**4.2**	**4.0**	**4.9**	**4.6**	**2.8**	**4.2**	**4.2**	**4.6**
Cement Addition	kg/t	2.0	3.0	2.0	3.0	2.0	3.0	3.0	2.5	**2.6**	**2.3**
Agglomeration Moisture	%	6.0	6.5	6.0	6.5	6.0	6.0	8.3	6.5	**6.5**	**6.0**
Flooded Slump	%	0.7	0.6	1.1	0.9	1.1	2.4	1.1	1.4	**1.2**	**1.3**
Cumulative Irrigation Ratio	m^3/t	3.20	3.29	3.48	3.32	3.20	3.33	3.72	3.23	**3.3**	**3.3**
NaCN Consumption	kg/t	0.69	0.65	0.99	1.02	0.92	1.02	0.68	0.61	**0.82**	**0.91**
Lime Addition	kg/t	0.11	0.10	0.30	0.29	0.28	0.30	0.06	0.16	**0.20**	**0.25**
Au Grade Extracted to Solution	g/t	0.249	0.242	0.899	0.757	1.123	1.026	0.210	0.348		
Residue Au Grade (SFA)[(2)]	g/t	0.070	0.069	0.286	0.278	0.311	0.291	0.077	0.115		
Residue Au Grade (SxSA)[(3)]	g/t	0.065	0.079	0.140	0.178	0.222	0.244	0.083	0.095		
Residue Au Grade (Average)	**g/t**	**0.068**	**0.074**	**0.213**	**0.228**	**0.267**	**0.268**	**0.080**	**0.105**		
Calc Head Au Grade (SFA)	g/t	0.319	0.311	1.185	1.035	1.434	1.317	0.287	0.463		
Calc Head Au Grade (SxSA)	g/t	0.314	0.321	1.039	0.935	1.345	1.270	0.293	0.443		
Calc Head Au Grade (Carbon)[(4)]	g/t	0.343	0.294	1.240	1.144	1.234	1.282	0.284	N/A		
Calc Head Au Grade (Average)	**g/t**	**0.325**	**0.309**	**1.155**	**1.038**	**1.338**	**1.290**	**0.288**	**0.453**	**0.77**	**1.03**
Au Recovery (SFA)	%	78.1	77.8	75.9	73.1	78.3	77.9	73.2	75.2	**76.2**	**77.5**
Au Recovery (SxSA)	%	79.3	75.4	86.5	81.0	83.5	80.8	71.7	78.6	**79.6**	**82.5**
Au Recovery (Carbon)[(4)]	%	79.6	76.5	76.9	75.7	74.8	77.3	72.9	N/A	**76.2**	**77.2**
Au Recovery (Average)	**%**	**79.0**	**76.6**	**79.8**	**76.6**	**78.9**	**78.7**	**72.6**	**76.9**	**77.4**	**79.1**

Notes:
1) All samples prepared by closed-circuit HPGR crushing and screening at stated P_{100} sizes.
2) P_{80} size from column residue size-by-size assay analysis.
2) 'Residue Au Grade (SFA)' refers to average of triplicates assays on column residue quartile samples (x12 each column).
3) 'Residue Au Grade (SxSA)'refers to calculated head Au grade of column residue size-by-size assays testing (residue composite from quartile samples).
4) 'Carbon' values based on gold contents of solutions, sum of loaded carbon samples and residue (SFA).

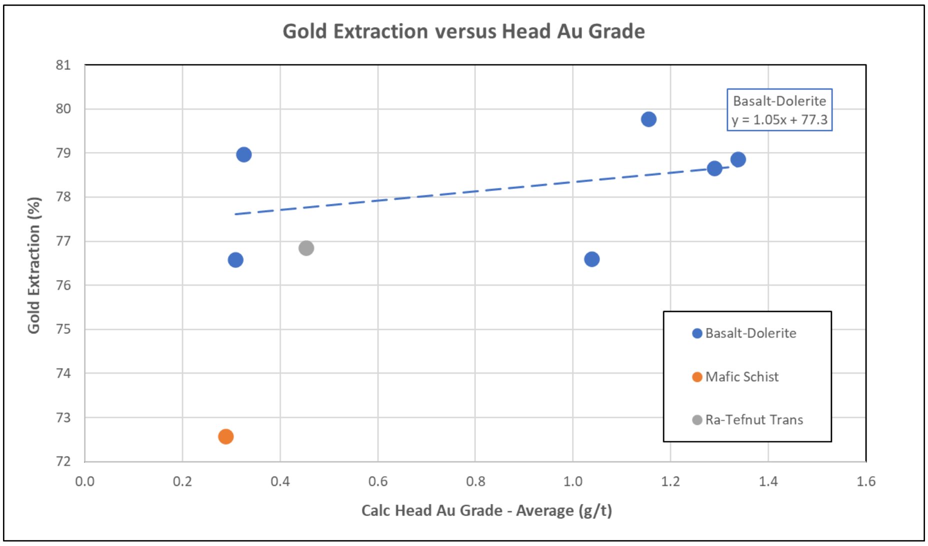
Appendix 2 - HPGR Crushed Percolation Testwork Results Summary

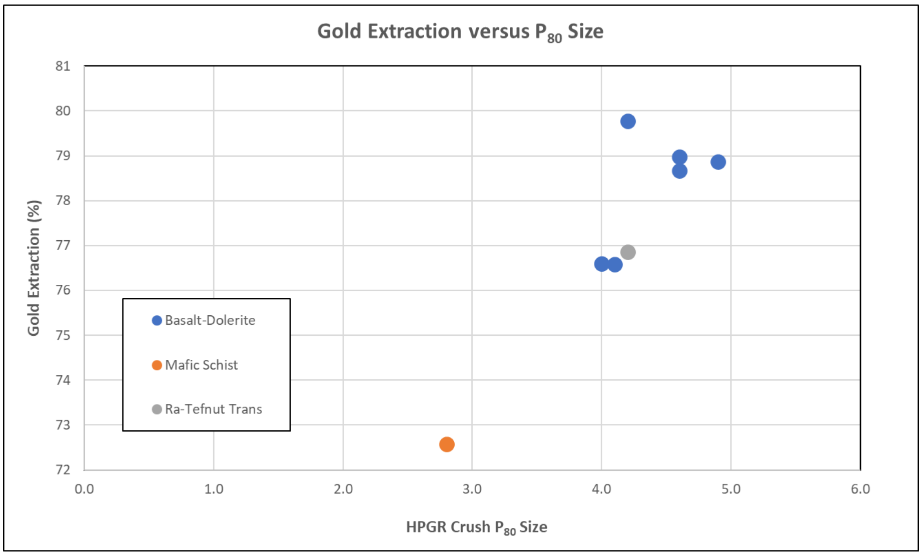
Sample Description	Basis	Cement Addition (kg/t)	Moisture Content		% Slump		Percolation Rate[(2)] ($L/hr/m^2$)	Pellt Break (%)	Dry Bulk Density		pH of 1st Solution (#)
			Crushed (%)	Agglom (%)	Auto (%)	Tapped[(1)] (%)			Settled (t/m^3)	Tapped (t/m^3)	
HBD #9 Basalt-Dolerite 8.0 mm P_{100} HPGR Crushed	Test #1	2.0	0.2	6.3	2.0	5.5	36,000	<5	1.58	1.67	11.1
	Test #2	5.0	0.2	7.2	0.3	5.1	37,800	<5	1.52	1.60	12.3
	Selected	**3.0**		**6.0**		**5.3**	**36,900**				
MGS #10 Mafic Schist 6.3 mm P100 HPGR Crushed	Test #1	2.0	0.2	8.2	0.2	4.6	18,200	<5	1.38	1.44	10.9
	Test #2	5.0	0.2	8.8	0.0	5.2	20,500	<5	1.35	1.42	12.1
	Selected	**3.0**		**8.3**		**4.9**	**19,350**				

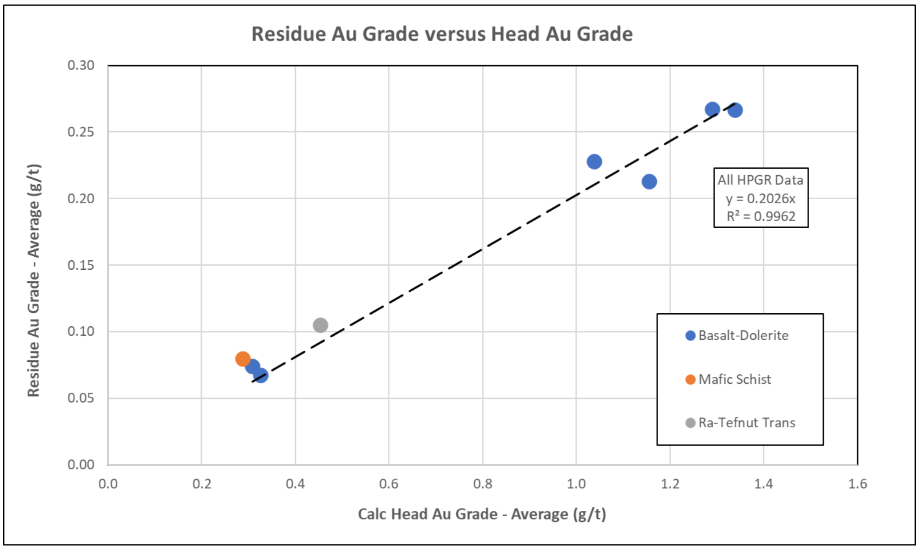
Notes:
1) Target Tapped Slump is <10% for all ores.
2) Target Minimum Percolation Rate is 10,000 $L/h/m^2$ for high clay ores; 1,000 $L/h/m^2$ for low clay ores.
3) Selected results calculated and used for final agglomerated bulk sample preparation

Appendix 3 - Comminution Testwork Results Summary

Parameter	Unit	Sample Description				Comments
		BC	DC	ROM	CTC	
General						
Ore Type	-	Basalt	Dolerite	Mafic Schist	Ra Tefnut Trans	
Sample Type	-	HQ Core	HQ Core	PQ Core	PQ Core	
Unconfined Compressive Strength (UCS)						
Number of Samples	#	7	7	6	6	Fracture modes incude Intact, Shear on Structure and Shear on Bedding
Average Bulk Density	t/m^3	2.95	2.94	2.76	2.86	
Average UCS	MPa	155	212	53	112	
Impact Crush Work Index (ICWi)						
Sample Type	-	Cut Core (non-standard)			Not Tested	
Minimum ICWi	kWh/t	9.5	7.5	2.0		
Average ICWi	kWh/t	14.9	17.1	6.8		
Maximum ICWi	kWh/t	22.7	25.9	14.9		
SMC Testing						
Mia	kWh/t	25.8	27.8	14.2	21.5	Coarse specifc energy
Mih	kWh/t	20.9	22.9	9.8	16.5	HPGR specifc energy
Mic	kWh/t	10.8	11.9	5.0	8.5	Crusher specifc energy
Bond Abrasion Index (Ai)						
Bond Abrasion Index (Ai)	-	0.123	0.128	0.117	0.099	Moderate


Gold Extraction versus Head Au Grade
Basalt-Dolerite
y = 1.05x + 77.3
Basalt-Dolerite
Mafic Schist
Ra-Tefnut Trans
Gold Extraction (%)
Calc Head Au Grade - Average (g/t)
81
80
79
78
77
76
75
74
73
72
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6


Gold Extraction versus P80 Size
Basalt-Dolerite
Mafic Schist
Ra-Tefnut Trans
Gold Extraction (%)
HPGR Crush P80 Size
81
80
79
78
77
76
75
74
73
72
0.0
1.0
2.0
3.0
4.0
5.0
6.0


Residue Au Grade versus Head Au Grade
All HPGR Data
y = 0.2026x
R² = 0.9962
Basalt-Dolerite
Mafic Schist
Ra-Tefnut Trans
Residue Au Grade - Average (g/t)
Calc Head Au Grade - Average (g/t)
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6

Appendix 4:

Saturn Metals Project Areas

Apollo Hill (29.15°S and 121.68°E) is located approximately 60km south-east of Leonora in the heart of WA's goldfields region (Figure 2). The deposit and the Apollo Hill project are 100% owned by Saturn and are surrounded by good infrastructure and several significant gold deposits. The Apollo Hill Project has the potential to become a large tonnage, simple metallurgy, low strip open pit mining operation.

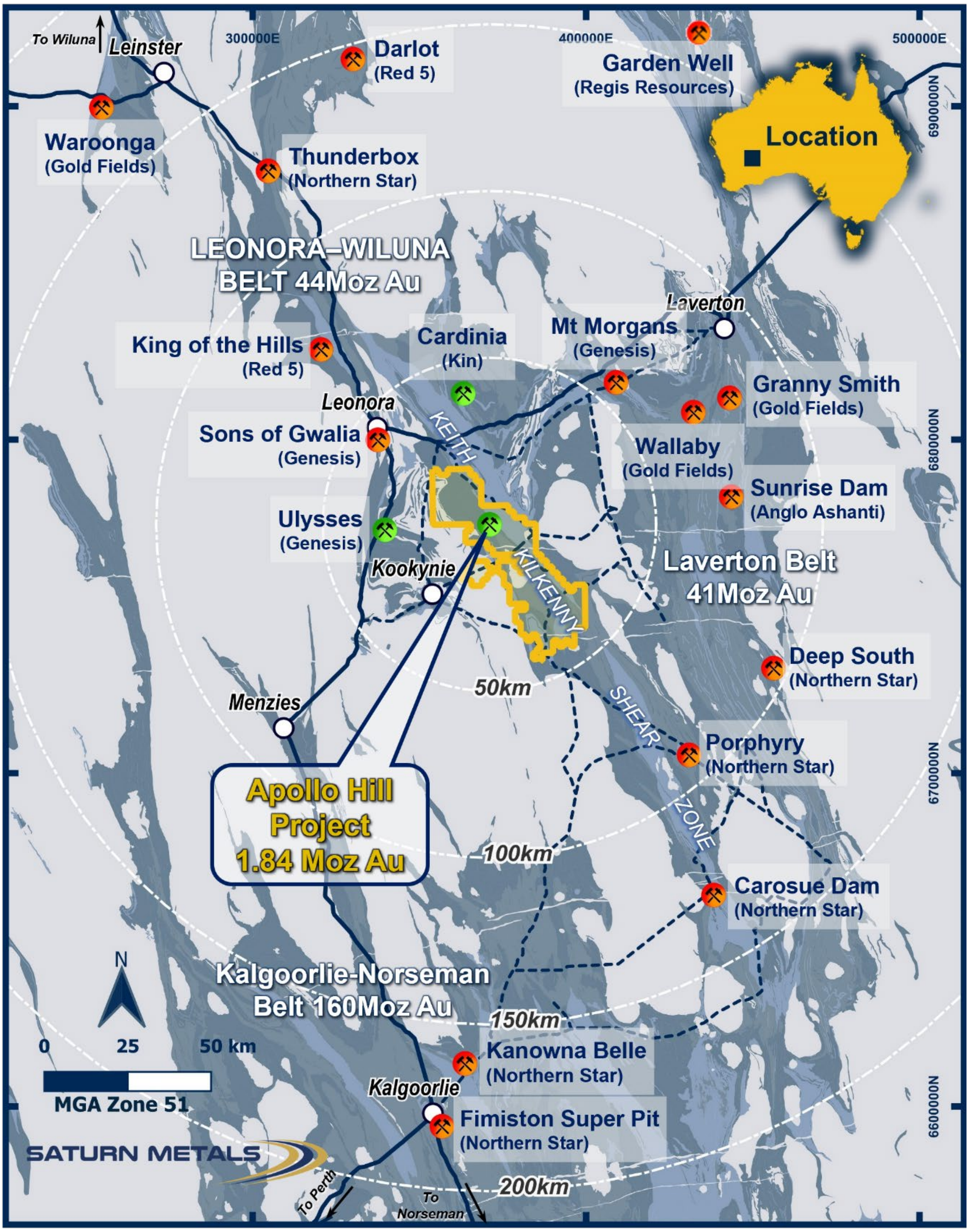


Figure 2 – Apollo Hill location, Saturn Metals' tenements and surrounding gold deposits, gold endowment and infrastructure.

In addition, Saturn has a second quality gold exploration project in Australia. The Company has an option to earn an 85% joint venture interest in the West Wyalong Project (Figure 3), which represents a high-grade vein opportunity on the highly gold prospective Gilmore suture within the famous Lachlan Fold belt of NSW.

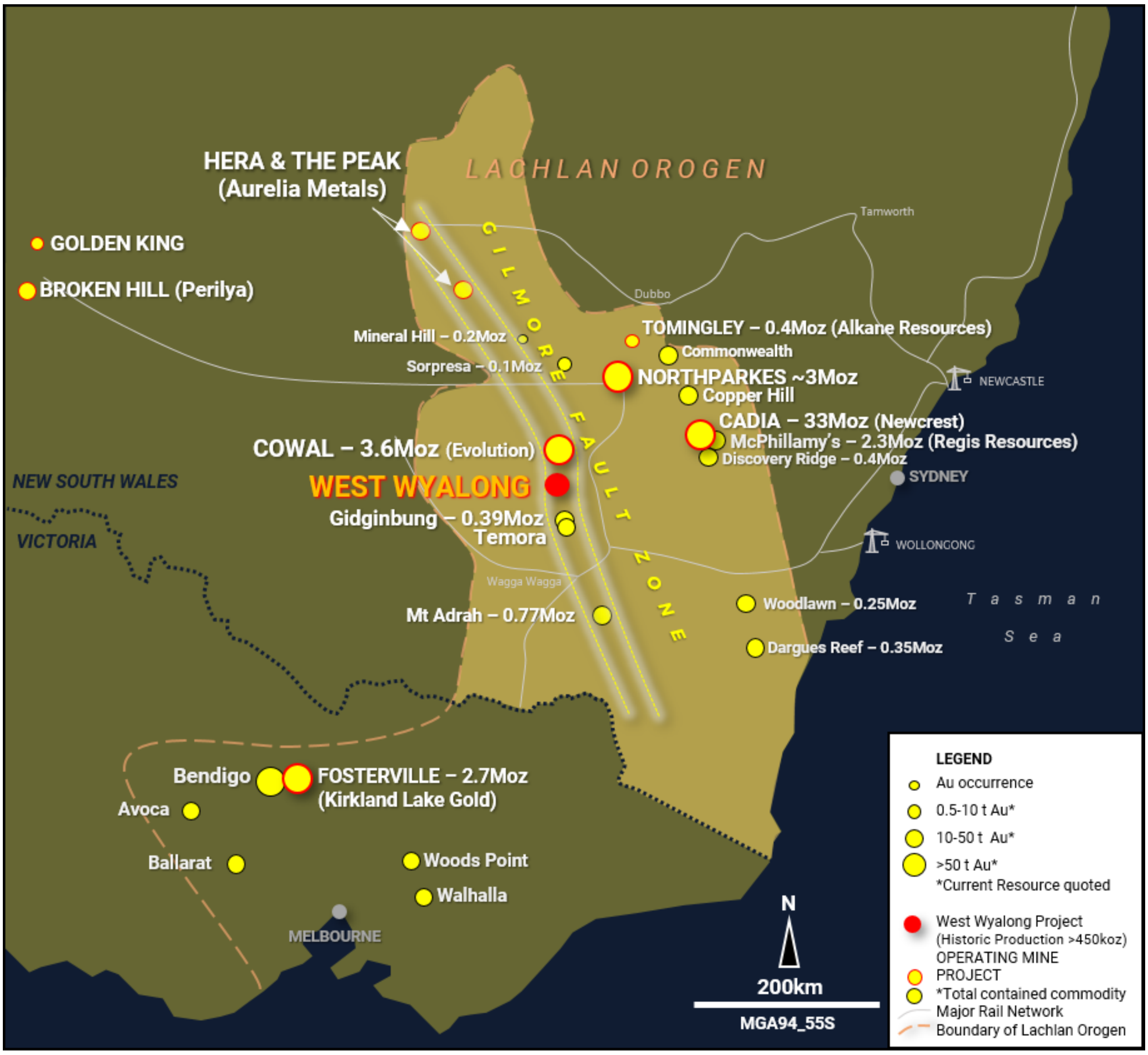


Figure 3 – Regional setting and location of the West Wyalong Gold Project in relation to other gold projects in New South Wales and Victoria (map taken from Saturn ASX announcement on 28 April 2020 where full references are provided).

Appendix 5:

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, Apollo Hill Hanging-wall and Ra and Tefnut exploration and metallurgical sampling areas in all succeeding sections).

Table II Extract of JORC Code 2012 Table 1

Criteria	JORC Code Explanation	Commentary
Sampling techniques	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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralization that are Material to the Public Report. 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.	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. 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. 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>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. Diamond core was drilled PQ, HQ3 and NQ2 dependent on weathering profile and ground conditions. Where sampled, 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. 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. 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. Collection of metallurgical samples from RC samples was undertaken by compositing into appropriate and representative geological, grade range and weathering characteristics across Apollo Hill's geography. Samples were collected from plastic bags and mixed at appropriate weights by grade to achieve the desired sample composition. All samples were riffle split and thoroughly mixed in the field prior to transport to Bureau Veritas in Perth. Collection of metallurgical samples from Diamond drilling was undertaken by compositing of hole core into appropriate and representative geological, grade range and weathering characteristics across Apollo Hill's geography. Diamond core was either composited on site or in some instances at after to transport to Bureau Veritas in Perth.
Drilling techniques	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.).	Reverse Circulation (RC) drilling used either a 4.5 inch or 5.5 inch face-sampling bit. Diamond core was PQ, HQ3 of NQ2 diameter core. All RC and diamond drillholes were surveyed by Gyro, at least every 30 m down hole. 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.

Criteria	JORC Code Explanation	Commentary
		For the purpose of this announcement metallurgical samples were collected from largely whole core diamond samples (drilling as described above).
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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.	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. 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. The cone splitter was regularly cleaned with compressed air at the completion of each rod. 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. 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. Diamond drilling utilized drilling additives and muds to ensure the hole was conditioned to maximize recoveries and sample quality. There was no observable relationship between recovery and grade, or preferential bias between hole-types observed at this stage. There was no significant loss of core reported in the mineralized parts of the diamond drillholes to date. For metallurgical sampling - whole samples were taken across the fines to coarse material size.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	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. The logging is qualitative in nature and of sufficient detail to support the current interpretation.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled.	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. Whole core was sent for assay in logged mineralized zones. Half core was submitted in unmineralized surrounding country rock. 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. Duplicate samples were collected every 20 samples, and certified reference material and blank material was inserted every 40 samples. 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.

Criteria	JORC Code Explanation	Commentary
		For the Metallurgical program discussed in this report, approximately 600m of NQ, HQ and PQ core was composited by weathering profile, geology ore grade from largely hwjhole core samples to maximise the weight of material available for testing and composites were further riffle split down to appropriate sizes for test work – 5kg, 10kg, 15kg, 20kg, 50kg as required.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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.	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%. 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. Metallurgical samples were submitted to Bureau Veritas in Perth for assay by Bulk Leach Extractable Gold, screen fire assay, fire assay and Head and Tail Assay verification by fire assay, size by size fire assay, and screen fire assay. Check Photon assays were completed by MinAnalytical in Perth – part of the ALS group.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	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. Logs were recorded by field geologists on hard copy sampling sheets which were entered into spreadsheets for merging into a central SQL database. Laboratory assay files were merged directly into the database. The project geologists routinely validate data when loading into the database. The Consultant validated data prior to interpretation and if required asked for check processes to be undertaken.
Location of data points	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. Specification of the grid system used. Quality and adequacy of topographic control.	Collars are initially surveyed by hand-held GPS, utilizing GDA94, Zone 51. Final drillhole collars are all surveyed by DGPS by ABIMS & Goldfield Surveyors. All RC and diamond holes were down-hole surveyed using a gyroscopic survey tool. A topographic triangulation was generated from drillhole collar surveys and the close-spaced (50 m) aeromagnetic data.
Data spacing and distribution	Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied.	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. The data spacing is sufficient to establish geological and grade continuity. With respect to metallurgical sampling; composites were taken across five distinct geographical areas, five different rock types and three weathering horizons and are thought representative of the greater Apollo Hill gold deposit.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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.	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.
Sample security	The measures taken to ensure sample security.	Apollo Hill is in an isolated area, with little access by the general public. STN's field and core sampling was supervised by STN geologists and bureau veritas laboratory staff. Sub-samples selected for assaying were collected from core trays into in suitabley labelled drums or bags.. These samples were delivered to the metallurgy laboratory by independent couriers, STN employees or contractors.

Criteria	JORC Code Explanation	Commentary
		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.
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. The Competent Person has independently reviewed the Metallurgical data and notes no material errors, misrepresentations or discrepancies. The Competent Person considers that the Apollo Hill Metallurgical data as represented in this report has been sufficiently verified to provide an adequate basis for the current reporting of metallurgical results.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. 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.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Aircore, RC and diamond drilling by previous tenement holders provides around 44% of the estimation dataset. The data is primarily from RC and diamond drilling by Battle Mountain, Apex Minerals, Fimiston Mining, Hampton Hill,1 Homestake, MPI and Peel Mining. This metallurgical test work follows on from pervious test work completed by Peel Mining, the former owner of the Project. The findings of the work are broadly consistent with Peel Mining's findings.
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 2.4 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.
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.

Criteria	JORC Code Explanation	Commentary
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. 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.
Relationship between mineralization widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. 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').	All drillhole intercepts are measured in downhole meters, with true widths estimated to be about 60% of the down-hole width. The orientation of the drilling has the potential 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 and in Appendix 1.
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 toavoid misleading reporting of Exploration Results.	For any exploration results, all results are reported, no lower cut-off or top-cuts have been applied. All summary metallurgical data is represented in Tables and Graphs in Appendix 1.
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.
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. Further metallurgical work is discussed in the main body of the report but will also include additional/repeat column leach testwork on other mnor material types within the Apollo Hill Mineral Resource. Larger scale mettalurgical testwork including large diameter columns and trial heap leach pads are being considered.