RED HILL MINERALS Limited

ASX: RHI

20 July 2023

RC DRILLING INTERSECTS GOLD MINERALISATION AT THE DEREKS BORE, JUBILEE AND KENS BORE GOLD PROSPECTS

Highlights

Assays have been received from a 12 hole 1,710m RC drilling program at the Dereks Bore Gold, Kens Bore Gold, Jubilee and Barkley Prospects (Figure 1). Best results include:

Dereks Bore Gold

- **1m @ 1.0 g/t Au** from 38m and **2m @ 1.5 g/t Au** from 48m in 23DBRC001, and
- **2m @ 2.2 g/t Au** from 84m in 23DBRC002.

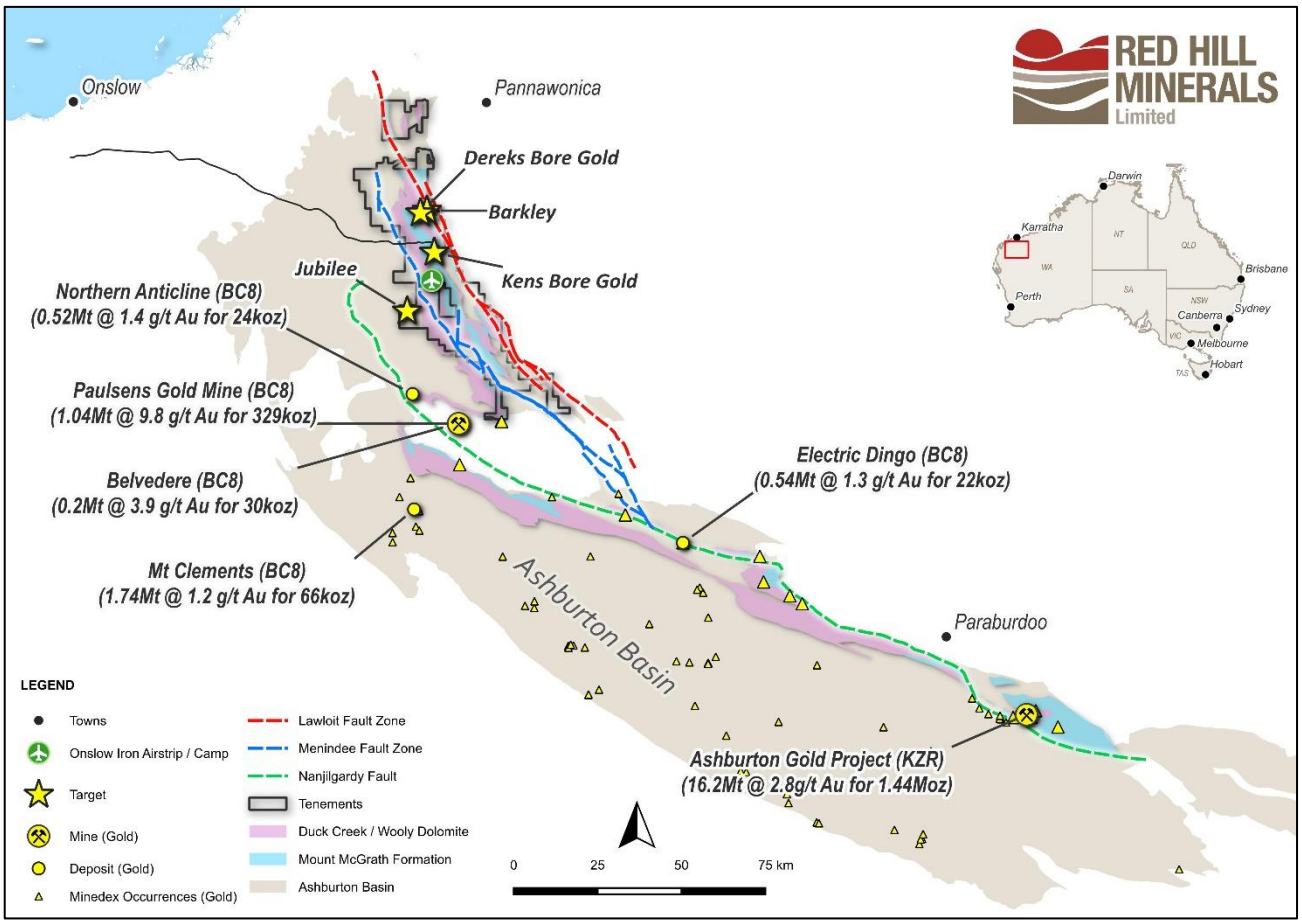
Kens Bore Gold

- **15m @ 0.45 g/t Au** from 20m in 23KNRC001.

Jubilee

- **1m @ 1.0 g/t Au** from 12m in 23JBRC001.

Figure 1 – Red Hill Minerals Location Plan (ASX: BC8[1] and ASX: KZR[2])



Address
Level 2, 9 Havelock Street
West Perth WA 6005

Postal Address
PO Box 689
West Perth WA 6872

P (08) 9481 8627
E redhillinfo@redhillminerals.com.au
W www.redhillminerals.com.au
ABN 44 114 553 392

Dereks Bore (Gold): The Dereks Bore prospect has an approximate 1.3km strike length and is defined by a series of >10ppb Au soil anomalies, at or near a faulted/sheared contact between the Duck Creek Dolomite and the Mt McGrath Formation. Historical anomalous gold intercepts along this contact (>1m thick @ 0.5g/t Au) in previous drilling include[3]:

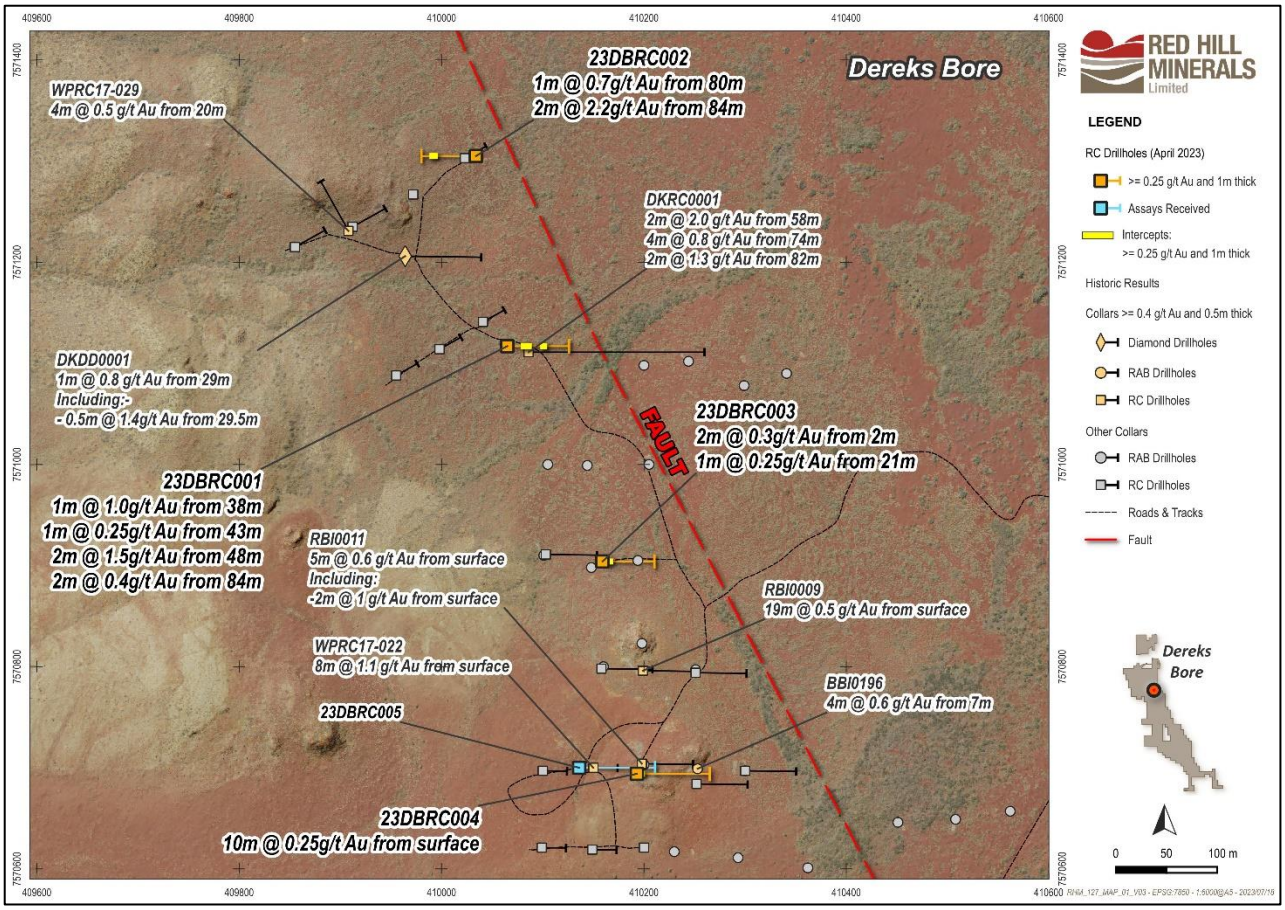
- 8m @ 1.1 g/t Au from surface in WPRC17-022,
- 4m @ 0.5 g/t Au from 20m in WPRC17-029,
- 19m @ 0.5 g/t Au from surface in RBI0009,
- 5m @ 0.6 g/t Au from surface including 2m @ 1 g/t Au from surface in RBI0011,
- 4m @ 0.6 g/t Au from 7m in BBI0196,
- 1m @ 0.8 g/t Au from 29m in DKDD0001 including 0.5m @ 1.4g/t Au from 29.5m, and
- 2m @ 2.0 g/t Au from 58m, 4m @ 0.8 g/t Au from 74m and 2m @ 1.3 g/t Au from 82m in DKRC0001.

5 RC holes for 696m **(23DBRC001-005)** tested approximately 600m of strike around the existing intercepts along a steep gravity gradient that defines the interpreted NNW fault (Figure 2). Drilling intersected chert, shales and basalt with encouraging silicification and vein related pyrite observed throughout. Anomalous gold intercepts (≥1m thick @ 0.25g/t Au) from this round of drilling include:

- **1m @ 1.0 g/t Au from 38m**, 1m @ 0.25 g/t Au from 43m, **2m @ 1.5 g/t Au from 48m** and 2m @ 0.4 g/t Au from 84m **in 23DBRC001**,
- 1m @ 0.7 g/t Au from 80m and **2m @ 2.2 g/t Au from 84m in 23DBRC002**, and
- 2m @ 0.3 g/t Au from 2m and 1m @ 0.25g/t Au from 21m in 23DBRC003,
- 10m @ 0.25g/t Au from surface in 23DBRC004

Existing Au in soil anomalism, gravity anomalism and structural interpretation indicates the NNW fault remains untested to the NW along strike for approximately 600m. Heritage surveys are scheduled to allow follow up drilling.

Figure 2 – RC Drilling Results at the Dereks Bore Gold Prospect.



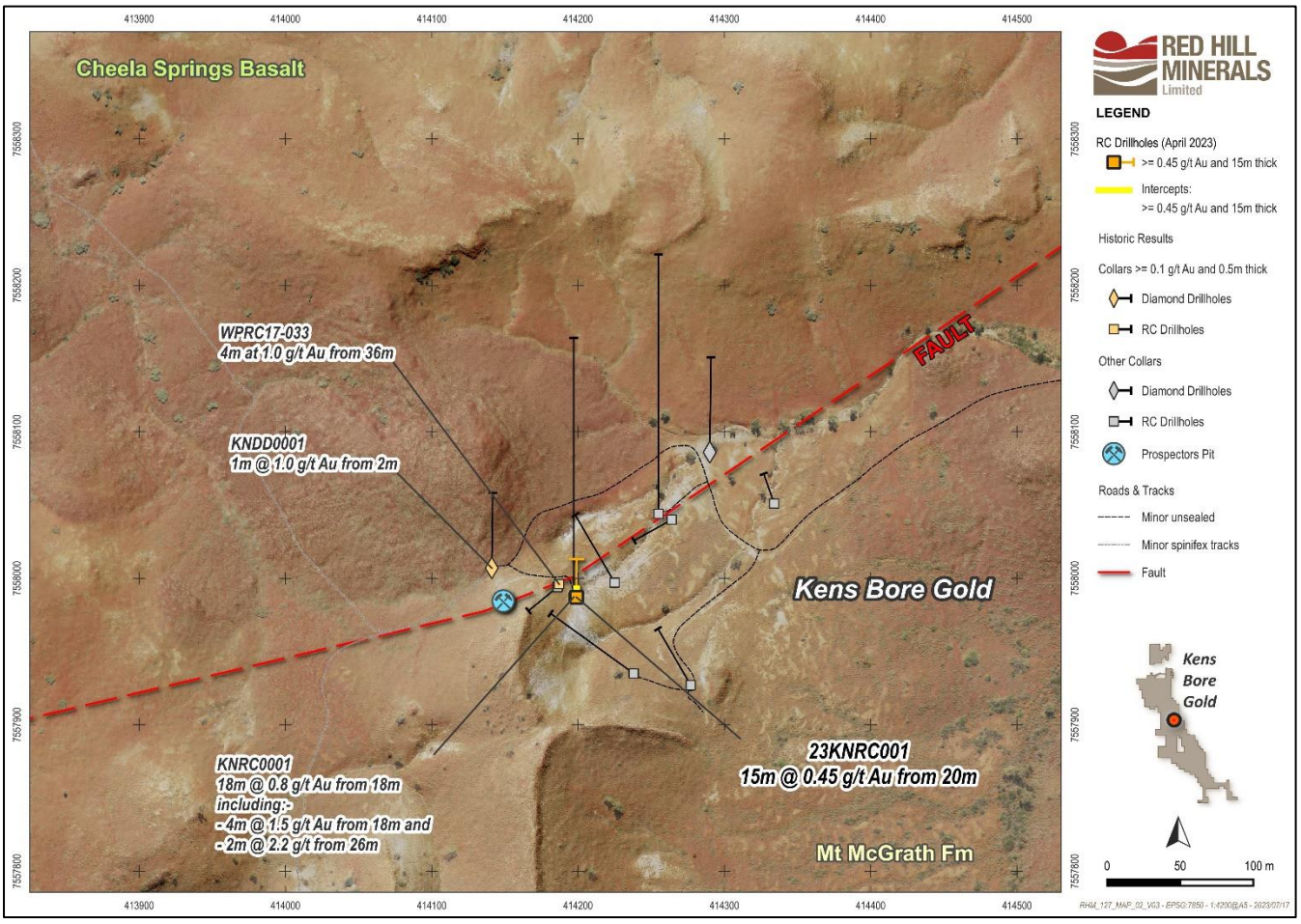
Kens Bore (Gold): The Kens Bore Gold prospect (Figure 3) is defined by two East-West oriented >10ppb Au soil anomalies associated with the unconformity between the Cheela Springs Basalt and the overlying sediments within the Mt McGrath Formation. Nearby historic drilling results[4] at Kens Bore include (>1m thick @ 0.5g/t):

- 4m at 1 g/t Au from 36m in WPRC17-033 (EOH), and
- 1m at 1 g/t Au from 2m in KNDD0001.
- 18m @ 0.8 g/t Au from 18m in KNRC0001 including 4m @ 1.5 g/t Au from 18m and 2m @ 2.2 g/t from 26m.

23KNRC0001 was designed to follow up the down dip extension of KNRC0001 with results confirming consistent mineralisation related to a stratabound zone of silica-sericite alteration within fine grained sediments of the Mt McGrath Formation, with associated anomalous As-Sb.

The best result was **15m @ 0.45g/t Au from 20m in 23KNRC001**. Mineralisation remains open down-dip and along strike to the south.

Figure 3 – RC Drilling Results at the Kens Bore Gold Prospect.



Jubilee (Gold): The Jubilee Prospect is defined by low level (>5ppb) gold in soil results associated with a major NW fault within the June Hill Volcanics and the Ashburton Formation (Figure 4).

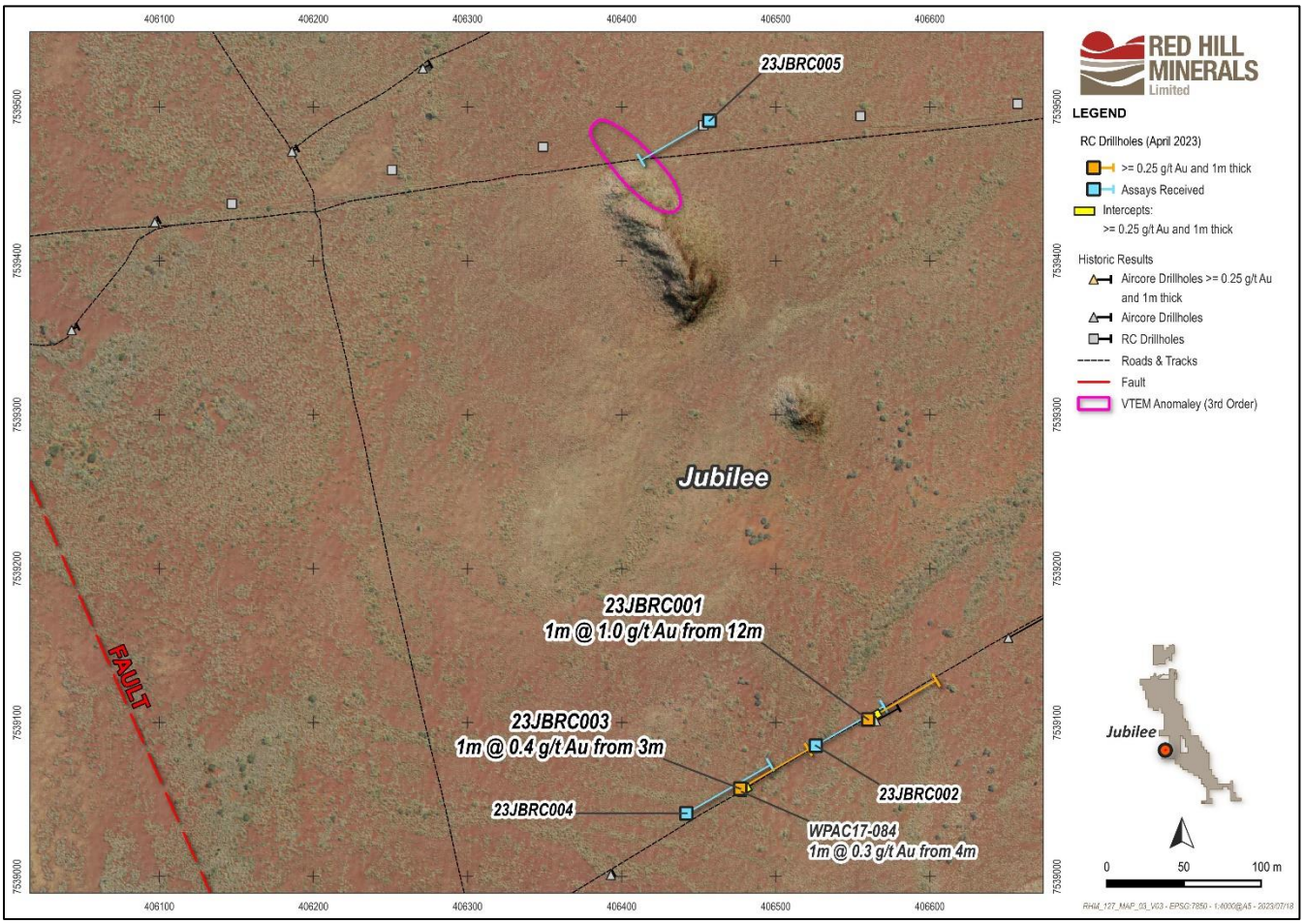
5 RC holes for 582m **(23JBRC001-005)** were drilled to follow up a VTEM target and anomalous Au-As results from historic shallow Air Core (AC) drilling[5] that included 1m @ 0.3 g/t Au from 4m in WPAC17-084.

The RC drillholes intersected faulted chert breccia and volcanics with assays returning anomalous Au-As-Sb extending the anomalous zone previously identified in AC drilling. Anomalous gold intercepts from this round of drilling include (≥1m thick @ 0.25g/t Au):

- **1m @ 1.0 g/t Au from 12m in 23JBRC001,** and
- 1m @ 0.4 g/t Au from 3m in 23JBRC003.

Assays results and geological logging from 23JBRC0005 did not explain the VTEM anomaly.

Figure 4 – RC Drilling Results at the Jubilee Gold Prospect.



Barkley (Gold and Base Metals): The Barkley VTEM anomaly was tested by hole 23BKRC0001 and was explained by significant thicknesses of graphitic shales intersected at the target depth and no significant gold or base metal results were returned. Further drilling is planned at the Barkley Prospect to test coincident gravity and EM anomalies and gold anomalies in historical drilling.

Authorised by the Board.

Michael Wall
CHIEF EXECUTIVE OFFICER

References

(1) Refer Black Cat Syndicate Limited ASX Release "Robust Restart Plan for Paulsens" Announcement dated 10 July 2023.
(2) Refer Kalamazoo Resources Limited ASX Release "Independent Mineral Resource Estimate Ashburton Gold Project" Announcement dated 07 February 2023.
(3) Refer Red Hill Minerals ASX Release "Base and Precious Metals Exploration Drilling Results" Announcement dated 20 October 2022.
(4) Refer Red Hill Minerals ASX Release "RC Drilling Intersects Mineralisation at the Kens Bore Gold Prospect" Announcement dated 31 March 2023.
(5) Refer WAMEX A115918. CGM (WA) Pty Ltd (Chalice Gold) Co-Funded Drilling Report. West Pilbara EIS. 20 February 2018.

Competent Person Statement

The information in this report that relates to exploration activities is based on information compiled by Mr Michael Wall, Chief Executive Officer, Red Hill Minerals Limited who is a Member of the Australian Institute of Mining and Metallurgy. Mr Wall is a full-time employee of Red Hill Minerals Limited. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined by the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Wall consents to the report being issued in the form and context in which it appears.

Table 1: Summary of RC Drill Hole Collars

HoleID	Prospect	Easting	Northing	RL (mAHD)	Dip	Azimuth	Total Depth (m)
23BKRC001	Barkley	412046	7571731	182	-60	70	282
23DBRC001	Dereks Bore	410065	7571117	177	-65	90	144
23DBRC002	Dereks Bore	410034	7571305	177	-60	270	108
23DBRC003	Dereks Bore	410159	7570904	178	-70	90	150
23DBRC004	Dereks Bore	410193	7570694	177	-60	90	144
23DBRC005	Dereks Bore	410136	7570700	173	-60	90	150
23JBRC001	Jubilee	406560	7539102	179	-60	60	102
23JBRC002	Jubilee	406526	7539085	180	-60	60	102
23JBRC003	Jubilee	406477	7539057	180	-60	60	102
23JBRC004	Jubilee	406442	7539041	179	-60	60	126
23JBRC005	Jubilee	406457	7539491	177	-70	240	150
23KNRC001	Kens Bore	414199	7557987	232	-80	360	150

Table 2: Summary of RC Drill Hole Assay Intersections (Au ≥ 0.25 g/t)

HoleID	Prospect	SampleID	Depth From (m)	Depth To (m)	Au (g/t)	Intercept Au (g/t)
23BKRC001	Barkley				NSI	
23DBRC001	Dereks Bore	RHM100040	38	39	1.02	**1m @ 1.0 g/t Au from 38m**
		RHM100045	43	44	0.26	1m @ 0.25 g/t Au from 43m
		RHM100051	48	49	2.50	**2m @ 1.5 g/t Au from 48m**
		RHM100052	49	50	0.50	
		RHM100088	84	85	0.59	2m @ 0.4 g/t Au from 84m
		RHM100089	85	86	0.34	
23DBRC002	Dereks Bore	RHM100235	81	82	0.66	1m @ 0.7 g/t Au from 80m
		RHM100238	84	85	2.95	**2m @ 2.2 g/t Au from 84m**
		RHM100239	85	86	1.52	
23DBRC003	Dereks Bore	RHM100265	2	3	0.25	2m @ 0.3 g/t Au from 2m
		RHM100266	3	4	0.33	
		RHM100285	21	22	0.25	1m @ 0.25 g/t Au from 21m
23DBRC004	Dereks Bore	RHM100419	0	1	0.36	10m @ 0.25g/t Au from surface
		RHM100420	1	2	0.37	
		RHM100421	2	3	0.21	
		RHM100422	3	4	0.28	
		RHM100423	4	5	0.15	
		RHM100424	5	6	0.18	
		RHM100426	6	7	0.41	
		RHM100427	7	8	0.10	
		RHM100428	8	9	0.12	
		RHM100429	9	10	0.32	
23DBRC005	Dereks Bore				NSI	
23JBRC001	Jubilee	RHM101188	12	13	1.01	**1m @ 1.0 g/t Au from 12m**
23JBRC002	Jubilee				NSI	
23JBRC003	Jubilee	RHM101391	3	4	0.43	1m @ 0.4 g/t Au from 3m
23JBRC004	Jubilee				NSI	
23JBRC005	Jubilee				NSI	
23KNRC001	Kens Bore	RHM101040	20	21	0.72	**15m @ 0.45 g/t Au from 20m**
		RHM101041	21	22	0.30	
		RHM101042	22	23	0.27	
		RHM101043	23	24	0.03	
		RHM101044	24	25	0.35	
		RHM101045	25	26	0.10	
		RHM101046	26	27	0.75	
		RHM101047	27	28	0.78	
		RHM101048	28	29	0.47	
		RHM101049	29	30	0.21	
		RHM101051	30	31	0.20	
		RHM101052	31	32	0.39	
		RHM101053	32	33	0.80	
		RHM101054	33	34	0.87	
		RHM101055	34	35	0.36	

Notes: g/t (grams per tonne), NSI (No Significant Intercept)

JORC Code, 2012 Edition – Table 1 Report

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	RC assays in this report were sampled at 1m intervals using a using a cone splitter from which a 3-4kg sample was obtained. Sample weight, quality, collection method and condition are logged at the time of collection and reported with the available data. Gold and base metal analyses were done using a four-acid digest and either mass spectrometry, optical emission spectrometry or atomic emission spectrometry. Field duplicates and certified reference material (CRM) data is available.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, 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).*	RC holes were drilled using a 5¾ inch face sampling hammer.
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.*	Sample recovery was recorded by Geologists during logging. The cyclone used in the RC program was cleaned at the end of each 6m completed rod, and in between drill holes to minimise sample contamination. No association between lessened core/chip recovery and mineralised zones has been established at this time.
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.*	Chip samples were geologically logged for the entire length of the drillhole. Logging is both qualitative or semi-quantitative in nature. No Mineral Resource estimate being reported. Sample spoil piles, chip trays and rock chip samples were photographed.
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 samples were collected in pre-labelled calico bags via a cone splitter mounted directly below the cyclone on the rig (at 1m intervals). Wet and dry samples were collected via the same technique. Samples were stored on site prior to being transported to the laboratory. Wet samples were allowed to dry before being processed. All samples were appropriate for the grain size of the material being collected. Samples were sorted, dried and weighed at the laboratory where they were then crushed and riffle split to obtain a sub-fraction for pulverisation. Field duplicates and certified reference material (CRM) were utilised.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Gold analysis was done using either 500g Photon Assay technique, or a 30g Fire Assay and ICP-AES finish. Base metal analyses were done using a four-acid digest and either mass spectrometry, optical emission spectrometry or atomic emission spectrometry. Analytes assayed for varies based on the geology and may include: Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr (4 acid digest with ICP-MS and AES finish); Al2O3, As, Ba, CaO, Cl, Co, Cr2O3, Cu, Fe, K2O, MgO, Mn, Na2O, Ni, P, Pb, S, SiO2, Sn, Sr, TiO2, V, Zn, Zr (4 acid digest with XRF finish); LOI371 and LOI1000 (Gravimetric). Laboratory QAQC data is requested by the company as part of QAQC processes. Field duplicates were collected and certified reference material (CRM) data submitted with drill samples. These were done at an approximate rate of one in 50 samples each.

Criteria	JORC Code explanation	Commentary
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.*	Some verification of significant intersections and sampling/assaying has occurred with re-assaying of 6m composites at 1m intervals. Twinned holes are not required at this early stage. Assay data results is sent electronically in csv and pdf format from the laboratory to the company.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Drillhole collar position accuracy across the project area is varied. All drill holes are initially surveyed by handheld GPS. Drill hole collar coordinates were verified in GIS utilising aerial photography and track file data as part of QA/QC procedures. Downhole surveys were not completed and not considered appropriate for the stage of the project. All rock chip sample locations were marked using hand held GPS. Topographic coverage of all RHI ground and the majority of ground has been covered by aerial survey (LIDAR) with a vertical accuracy of ±0.15 m. Drillhole collars/rock chip samples only picked up with GPS accuracy have been draped onto the topo which is considered more accurate for RL; the eastings and northings were not changed. Collars surveyed by DGPS methods have not been draped onto topography. RHI projects fall within the MGA Zone 50 (GDA 2020 based) for horizontal data and AHD for vertical data. No Mineral Resource estimate is being reported.
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.*	Drilling has been completed on variable spacing. Drilling is considered early stage and spacing is variable due to the first pass assessment of the area being reported. Drill data spacing and distribution is not sufficient to establish a Mineral Resource estimate. Drill hole compositing has not been applied to results reported.
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 mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	Drill holes were attempted to be oriented across strike where known, however in areas of cover, strike orientations were assumed. Initial exploratory holes are drilled perpendicular to mineralisation if known, otherwise holes were drilled vertical or at varying angles to determine stratigraphy and mineralisation.
Sample security	• *The measures taken to ensure sample security.*	Samples were kept onsite until either taken to transport depot for dispatch to the lab. A consignment number was used and the samples delivered directly to an analytical lab.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	No audits or reviews have been completed on sampling techniques.

Section 2 Reporting of Exploration Results

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 drillholes reported in this announcement are located on Red Hill Iron Ore Joint Venture (RHIOJV) tenure of which RHI owns 100% of all minerals other than iron ore. Iron ore rights are held by the RHIOJV. No royalties are payable (other than WA Government). No other known impediments exist to operate in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Gold and Base metal mineral exploration has been conducted in the area since late last century resulting in the discovery and extraction of small scattered high grade copper occurrences near Red Hill, Rundle Hill and lead near Urandy Bore. More recently, Allied Minerals, BP-Seltrust, Sipa Resources, MIM, Pasminco, Western Mining, Aberfoyle, Goldfields, Poseidon, and Mines Resources Australia and Chalice Gold conducted reconnaissance exploration for gold and base metals over extensive tracts of the lower Wyloo Group. Valiant Consolidated and CRA explored for manganese. Limited drilling for gold and base metals was conducted in several areas, but no economic intersections for the time resulted from this exploration.
Geology	• *Deposit type, geological setting and style of mineralisation.*	The project area lies along the western margin of the Hamersley Basin. It is dominated by the Proterozoic Ashburton Basin, consisting of the sedimentary succession belonging to the Mt Minnie Beds, the Ashburton Formation, and the volcano – sedimentary successions comprising the lower Wyloo Group which unconformably overlies the Hamersley Basin sequences. The area has potential for economic concentrations of gold and base metals. The lower Wyloo Group and the contact zone between the Ashburton and Hamersley Basins comprise the Paraburdoo Hinge Zone, which contains numerous base metal occurrences in the Ashburton Basin some of which is associated with the deep seated, mantle tapping faulting / fault splays associated with the Nanjilgardy Fault system. It is believed these deep-seated faults / splays transect the project area as identified from RHI interpretation work and GSWA datasets. Much of the area is under cover and deep weathering, acid leaching and silicification has caused geochemical deletion/suppression of the surface geochemistry.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *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.*
		All relevant drillhole information can be found in Section 1 – "Sampling techniques", "Drilling techniques", "Drill Sample Recovery" and the significant intercepts table.

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.*	Reported intercepts for the targets discussed in this report are based on the following: ≥1m thick @ >0.25 g/t Au. No upper cuts have been applied. No metal equivalent values are used. Intervals are weighted based on their downhole length.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	Quoted mineralised intercepts are downhole lengths, true widths are not known.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Location maps of reported intercepts are included in the report.
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.*	The accompanying document is considered to be a balanced report with a suitable cautionary note.
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.*	No other material information or data to report.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Further drilling is planned after completion of heritage surveys to assess lateral and depth extensions.