

# ASX and Media Release

Thursday, 12<sup>th</sup> August 2021

## Copper-rich massive sulphides identified at the Keevy VMS Trend - Alaska

**ASX Code: WRM**  
**OTCQX: WRMCF**

### Issued Securities

Shares: 89.5 million

Options: 1.9 million

**Cash on hand** (30 June 2021)  
\$15.8M

**Market Cap** (11 Aug 2021)  
\$34.4M at \$0.385 per share

### Directors & Management

Peter Lester  
Non-Executive Chairman

Matthew Gill  
Managing Director &  
Chief Executive Officer

Jeremy Gray  
Non-Executive Director

Shane Turner  
Company Secretary

Rohan Worland  
Exploration Manager

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### Highlights

- **Copper-rich massive sulphides identified at the Kiwi prospect, on the new Keevy VMS Trend, at the Red Mountain Project, Alaska.**
  - ✓ **Geophysics currently underway in preparation for drill testing.**
- **Drilling continues at the Dry Creek VMS deposit.**
  - ✓ **The most recent hole intersected four broad zones of sulphides indicating that the mineralised system does extend to depth.**

White Rock Minerals (ASX:WRM; OTCQX:WRMCF) (“White Rock” or “the Company”) is pleased to provide shareholders with an update of its ongoing activities at its 100% owned **Red Mountain Project**, located in central Alaska. The Company is exploring for Intrusion Related Gold System (IRGS) mineralisation and high-grade silver-zinc-gold-lead-copper volcanogenic massive sulphide (VMS) deposits at Red Mountain.

Recent reconnaissance exploration has identified chalcopyrite (copper)-rich massive sulphide float (Figure 1) at the Kiwi prospect on the Company’s recently identified **Keevy VMS Trend**. This massive sulphide float is proximal to an anomalous base metal soil trend. Electrical ground geophysics (CSAMT) is currently underway at the Kiwi Prospect prior to the Company commencing drill test planning.



**Figure 1:** Photo of the massive sulphide float (dominantly chalcopyrite with minor galena) from the Kiwi prospect.

At the silver-rich zinc – lead – gold VMS Dry Creek deposit, drilling continues to test the depth potential on 200 metre spaced step-outs. The most recent drill hole (DC21-102) intersected four broad zones of sulphide mineralisation dominated by pyrite with lesser sphalerite, galena and chalcopyrite indicating that the mineralised system does extend to depth in this position. Drill core from these four zones is being prepared to submit for assay.

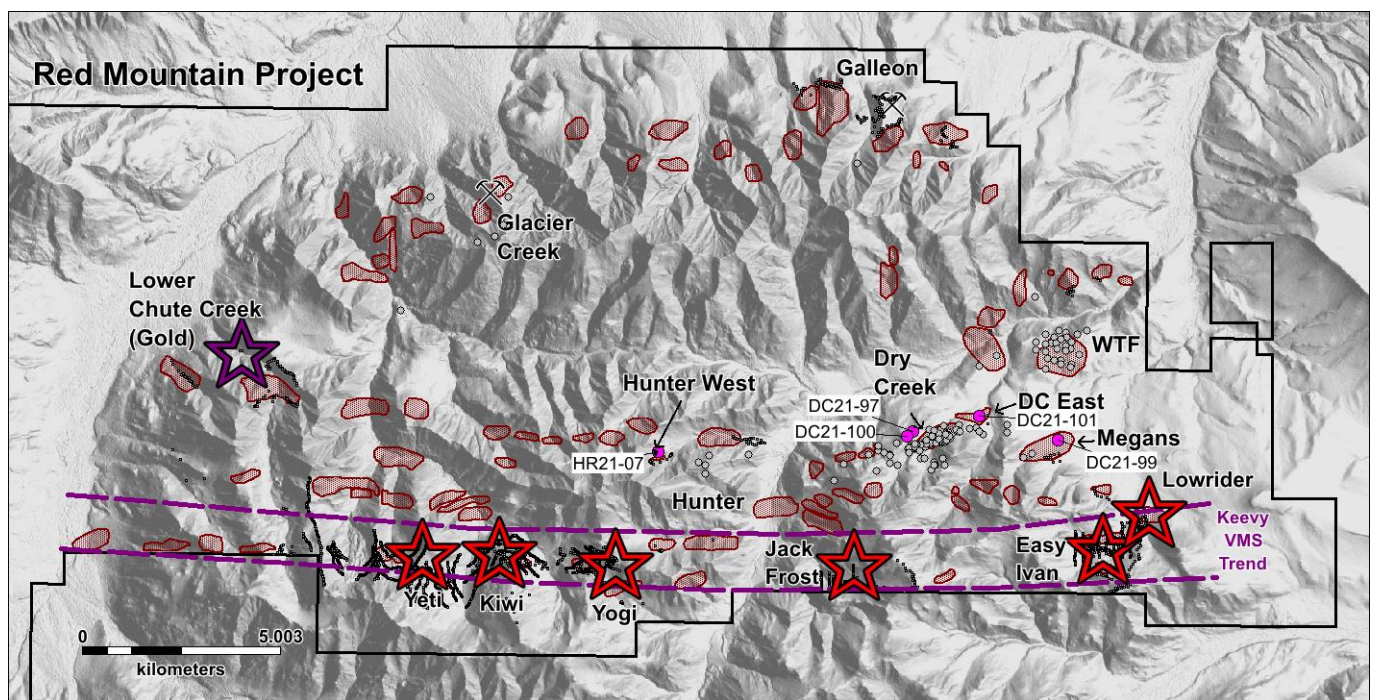
**White Rock’s Technical Advisor Dr Quinton Hennigh commented:** “White Rock’s exploration field crews continue to find evidence of high-grade massive sulphide mineralisation at surface in new areas of their very large district-scale tenement block (836km<sup>2</sup>) not yet drill tested. It is exciting to continue to drill test new targets, any one of which could be a game-changing discovery. Drilling continues at the Dry Creek deposit with the aim of encountering thick, high-grade massive sulphide that we know exists in this deposit. It is very encouraging that recent drilling demonstrates the mineralised horizon persists at depth. VMS deposits are typically lenticular in that they are known to pinch and swell in size. We hope that continued drilling on aggressive 200 metre step outs will find significant sulphide thicknesses in areas down-dip and along strike”.

## Red Mountain Area – New VMS Targets

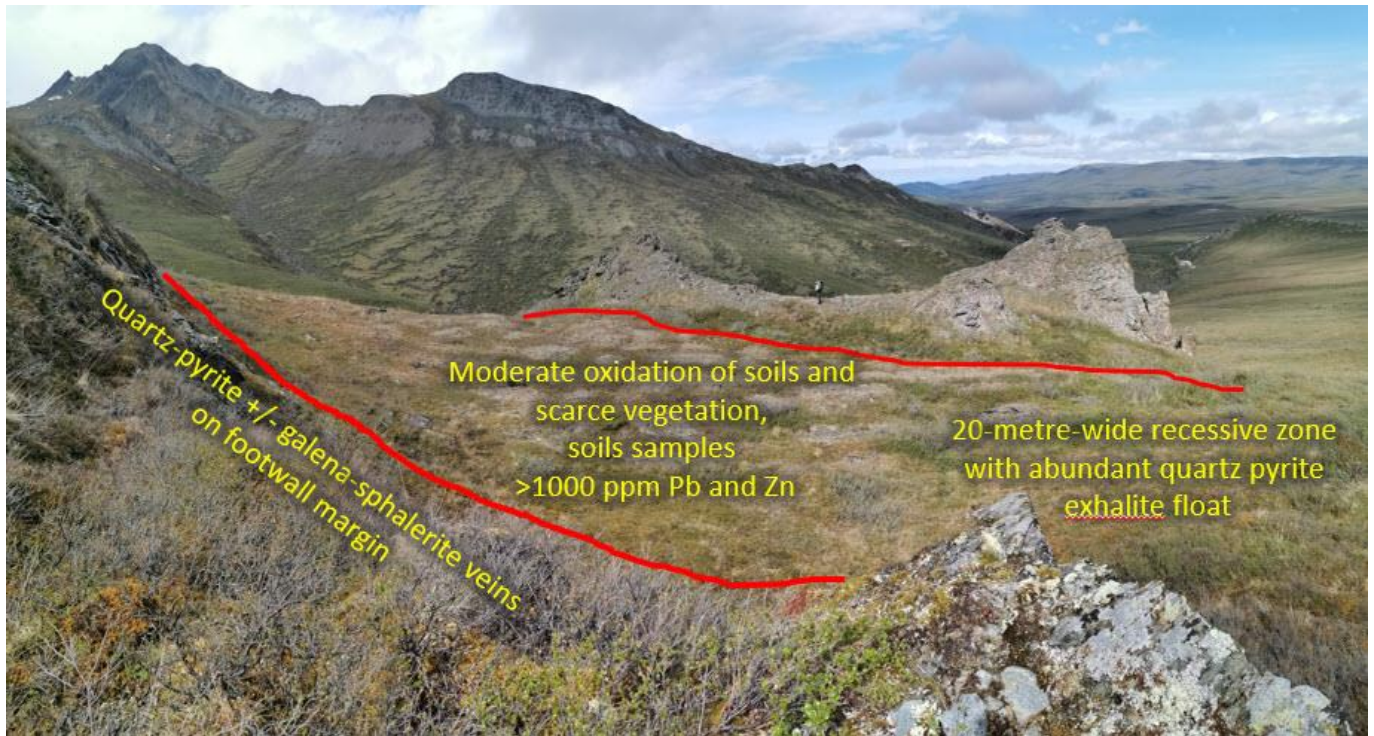
Field crews have identified chalcopyrite (copper)-rich massive sulphide float (Figure 1) at the Kiwi prospect on the Keevy VMS Trend (Figure 2). This newly identified VMS trend was the result of previous successful reconnaissance work by the White Rock team, following up targets identified pre-season that led to the subsequent pegging of this ground<sup>7</sup>. This massive chalcopyrite float is proximal to an anomalous base metal soil trend, within an altered package of quartz-sericite-pyrite schists that are footwall to a conductive package of carbonaceous schists. Surface electrical geophysics is currently underway to assist in defining targets for drill testing this field season.

The first drill hole (JF21-01) at the Jack Frost prospect on the Keevy VMS Trend (Figure 2) has been completed. Drilling targeted 75 metres down dip of massive sulphide float that was believed to be near its source and coincident with a trend of exhalite-type altered rock float and base metal soil anomalism<sup>7</sup>. JF21-01 intersected a weak zone of pyrite-sphalerite-galena associated with faulting. No massive sulphide mineralisation was intersected. Surface electrical geophysics and downhole EM data has been acquired, which is currently being processed. White Rock will review and interpret all data before planning any additional drilling.

At the Easy Ivan prospect (Figure 3) the first drill hole is ready to commence. At present, the second drill rig is idle since the contractor is unable to provide an experienced drill crew to operate the rig. As such, a third contractor has been identified, with their drill rig likely to mobilise to site late-August to commence drilling the highest priority new VMS targets at Red Mountain during the remainder of the field season that could extend into late-September.



**Figure 2:** Red Mountain Project showing the 90 airborne EM conductivity targets (brown polygons), the newly identified Keevy VMS Trend, with new prospect areas (red stars) that are the current focus of on ground field activities (location of soil sample coverage shown as black dots). Location of historic drill collars (grey dots) and 2021 drill collars (pink dots) are also shown.



**Figure 3:** Photo of the Easy Ivan prospect looking to the northwest.

### **Dry Creek VMS Deposit – Extension Drilling**

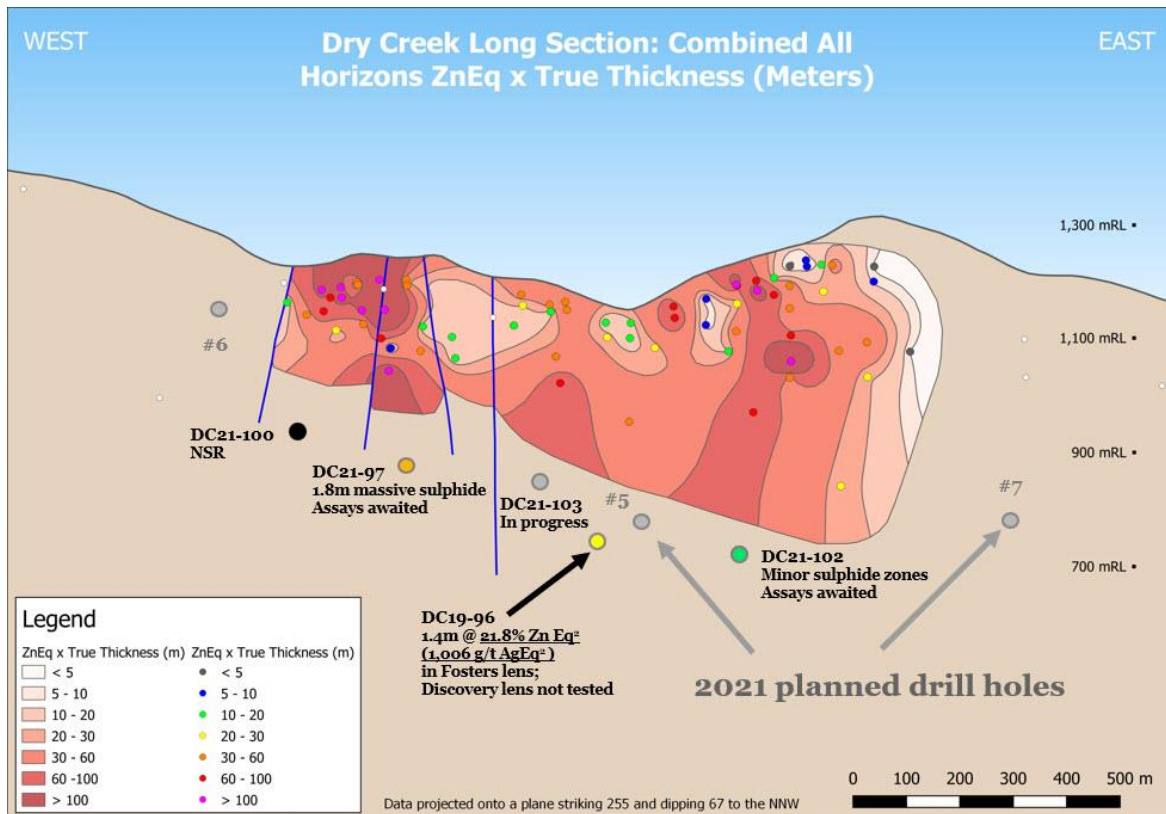
White Rock is testing for depth extensions to the Dry Creek VMS deposit on 200m step-outs along its strike extent (Figure 4).

The third drill hole (DC21-102) intersected a series of broad zones of sulphide mineralisation dominated by pyrite with lesser sphalerite, galena and chalcopyrite. There are four zones interpreted to correlate with the Upper Fosters, Fosters, Copper Zone and Discovery lenses of the main Dry Creek VMS deposit (Figure 5). No significant massive sulphide mineralisation was intersected.

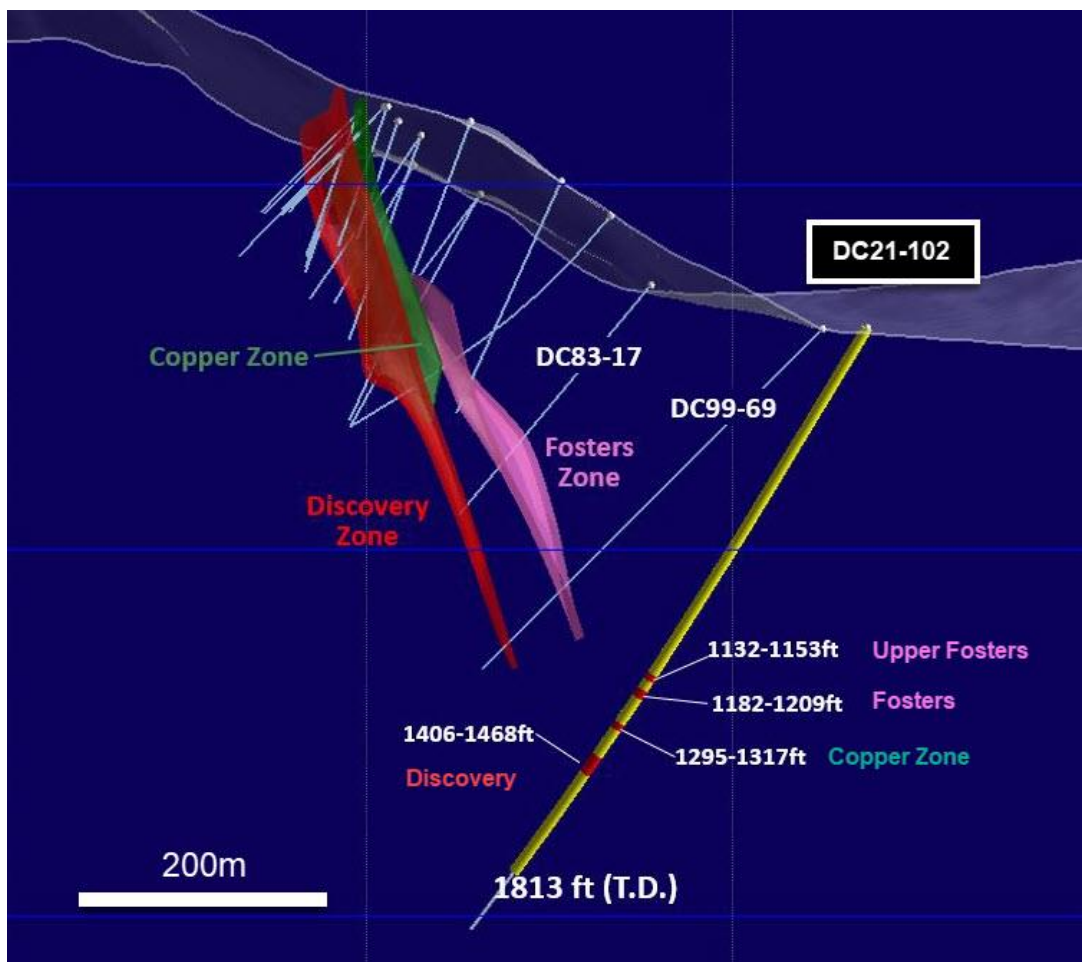
Overall, the more intense sulphide mineralisation is banded to laminated with up to 30% pyrite and <5% sphalerite (zinc), <2% galena (lead) and <2% chalcopyrite (copper). The main Fosters horizon shows a few 10-30cm zones of semi-massive sulphide. DC21-102 is interpreted to have intersected each of the horizons associated with massive sulphide, in a position distal to the main massive sulphide accumulation up dip. The continuity of the horizon does not preclude additional massive sulphide accumulations further down-dip and along strike as can be typical of VMS deposits.

Assay results for DC21-97, the first Dry Creek hole in this season's campaign, are still awaited with laboratories experiencing unprecedented delays. At present, the samples for DC21-97 have been at a Fairbanks laboratory preparation facility for almost two months, without yet having sample preparation undertaken prior to being dispatched for analysis in Reno and Vancouver. White Rock is now utilising a second laboratory in an attempt to speed up the process on receiving timely results, with projected turnaround times of 4-6 weeks. Samples from the DC21-102 drill hole will be submitted this week.

Currently the drill rig has commenced drilling DC21-103, another 500 metre long hole, targeting a 200 metre down-dip extension of the Fosters and Discovery lenses in the centre of the deposit.



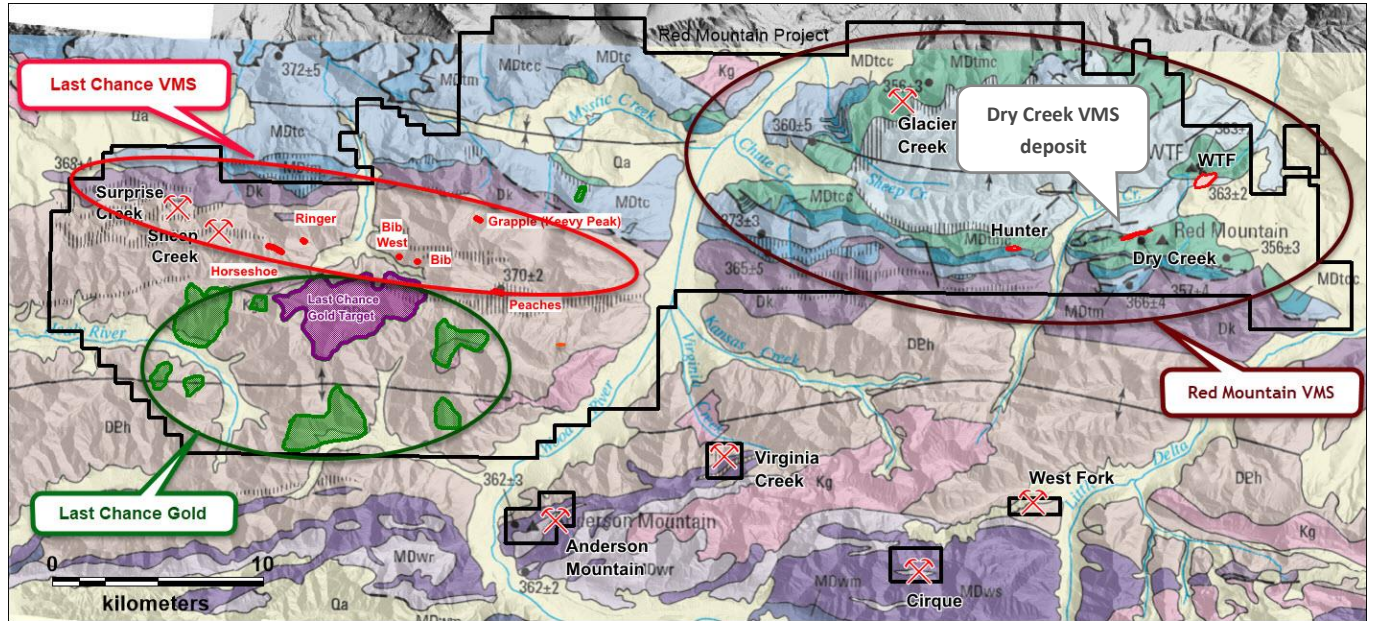
**Figure 4:** Long section view towards the north showing the true-width grade thickness of the combined massive sulphide lenses that make up the known VMS Dry Creek deposit projected onto an inclined plane, highlighting the growth potential for the deposit at depth and the planned drill hole pierce points at a nominal 200m spacing, including DC21-97 (completed), DC21-100 (completed), DC21-102 (completed) and DC21-103 (in progress).



**Figure 5:** Cross-section at Dry Creek showing the recently completed DC21-102 hole and the working interpretation of the four zones of sulphide mineralisation intersected. Assay results are awaited.

**Last Chance Gold Target – Drill Testing**

As previously reported (refer ASX Announcement from 27 July 2021) the first drill hole at Last Chance testing the Breccia Blowout “BB” target was abandoned before reaching the footwall position where the silica hydrothermal breccia target is interpreted. Subsequently, the contracted third drill rig has not been able to be supported with an experienced drill crew for the remainder of the season. As a consequence, the third drill rig has now been demobilised. No further drilling is planned at either the Last Chance Gold Target or any new Last Chance VMS targets (Figure 6) for the remainder of the 2021 season.



**Figure 6:** White Rock’s Red Mountain – Last Chance project showing the four areas of focus for drilling: Dry Creek deposit, the Red Mountain VMS “camp”, the Last Chance “VMS” “camp” and the Last Chance IRGS gold targets.

## About White Rock

White Rock Minerals Ltd (**ASX:WRM**, **OTCQX:WRMCF**) is an Australian minerals exploration and development company with activities focussed on two projects: Red Mountain and Mt Carrington.

The 100% owned **Red Mountain Project**, covering 836km<sup>2</sup>, is located in the Bonfield District of central Alaska. The Company is exploring for Intrusion Related Gold System (IRGS) mineralisation and high-grade zinc-silver-gold-lead-copper volcanogenic massive sulphide (VMS) deposits.

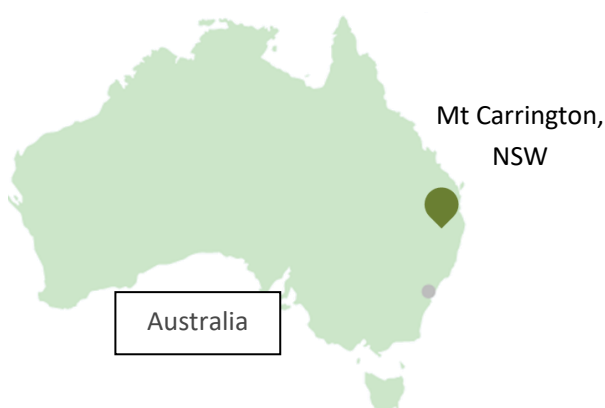
IRGS exploration is focussed on the Last Chance gold target located within the Tintina Gold Province, host to giant gold deposits including Donlin Creek (45 Moz Au<sup>1</sup>), Fort Knox (13.5 Moz Au<sup>2</sup>) and Pogo (10 Moz Au<sup>3</sup>), which are all Cretaceous aged IRGS deposits.

VMS exploration is focussed in the East Bonfield District within the Yukon-Tanana Terrane. There are already two high-grade zinc-silver rich deposits with an Inferred Mineral Resource<sup>4</sup> of **9.1 million tonnes @ 157g/t silver, 5.8% zinc and 0.9g/t gold for a grade of 13.2% ZnEq<sup>5</sup>**, alternatively, **for a grade of 609g/t AgEq<sup>6</sup>**.

**Mt Carrington** is a 100% owned advanced gold-silver epithermal project located in the southern New England Fold Belt, northern NSW, Australia. A 2020 Pre-Feasibility Study (PFS)<sup>8</sup> Update into the “Gold First” development stage declared an **Ore Reserve of 4.1 million tonnes at 1.3g/t gold for 174,000 ounces gold from within an overall Mineral Resource of 352,000 ounces gold**. There is also a **Silver Mineral Resource estimate totalling 23 million ounces**. The gold pits are pre-stripped and there is considerable existing infrastructure including a tailings storage facility, freshwater dam, granted Mining Leases, access to State grid power and site office. The PFS financial metrics for this project are robust, especially in this strong gold price environment. Using a conservative A\$2,300 per ounce, the 2020 Gold First PFS financial metrics demonstrate **a capital payback of just 14 months, an IRR greater than 80% and with free cash flow generated from the gold over its first 5 years of greater than A\$120M**.

With successful implementation of the Stage One gold development the Company expects to investigate a Stage Two operation to develop the silver deposits and remaining gold deposits. The Mt Carrington Mining Leases are enveloped by an Exploration Licence (183km<sup>2</sup>) with demonstrated potential for epithermal and intrusion-related gold, silver and copper mineralisation. White Rock has generated and refined an extensive exploration target portfolio at Mt Carrington since 2010.

Mt Carrington is currently subject to a binding 3 stage Earn-In and Option to Joint Venture Agreement with ASX-listed Thomson Resources Ltd.



<sup>1</sup> Total Reserve and Resource gold ounces; NovaGold Resources Inc., NI43-101 Report, Updated Feasibility Study (amended) 20 January 2012

<sup>2</sup> Combined production and remaining Resource gold ounces for Fort Knox – True North; Production figures from Special Report 74, State of Alaska’s Mineral Industry 2018, DNR, DGGG; Resource figures from Kinross Gold Corporation 2018 Mineral Resource Statement inclusive of Reserves, News Release dated 13 February 2019.

<sup>3</sup> Combined production and remaining Resource gold ounces; Production figures from Special Report 74, State of Alaska’s Mineral Industry 2018, DNR, DGGG; Resource figures from Northern Star Resources Limited June 2019 Mineral Resource Statement inclusive of Reserves, 2019 Annual Report.

<sup>4</sup> Refer ASX Announcement 26<sup>th</sup> April 2017 “Maiden JORC Mineral Resource, Red Mountain”.

<sup>5</sup> Zinc equivalent grades are estimated using S&P Global forecasts for the 2020 to 2030 period as at 2 November 2020 adjusted for recoveries derived from historical metallurgical testing work and calculated with the formula:  $ZnEq = [(Zn\% \times 2,425 \times 0.9) + (Pb\% \times 2,072 \times 0.75) + (Cu\% \times 6,614 \times 0.70) + (Ag \text{ g/t} \times (21.00/31.1035) \times 0.70) + (Au \text{ g/t} \times (1,732/31.1035) \times 0.80)] / (2,425 \times 0.9)$ . White Rock is of the opinion that all elements included in the metal equivalent calculation have reasonable potential to be recovered and sold.

<sup>6</sup> Silver equivalent grades are estimated using S&P Global forecast for the 200 to 2030 period as at 2 November 2020 adjusted for recoveries derived from historical metallurgical testing work and calculated with the formula:  $AgEq = 100 \times [(Zn\% \times 2,425 \times 0.9) + (Pb\% \times 2,072 \times 0.75) + (Cu\% \times 6,614 \times 0.70) + (Ag \text{ g/t} \times (21.00/31.1035) \times 0.70) + (Au \text{ g/t} \times (1,732/31.1035) \times 0.80)] / (21.00/31.1035 \times 0.70)$ . White Rock is of the opinion that all elements included in the metal equivalent calculation have reasonable potential to be recovered and sold. WRM has chosen to report AgEq grades in addition to ZnEq grades as although individually zinc is the dominant metal by value, the precious metals (Ag+Au) are of similar contribution by value (44% for zinc and 40% for silver+gold respectively) and will be recovered and sold separately to the zinc.

<sup>7</sup> Refer ASX Announcement dated 20<sup>th</sup> July 2021 “Tenement Expansion Over New VMS Prospects at Red Mountain”

<sup>8</sup> Refer ASX Announcement dated 19<sup>th</sup> August 2020 “Exceptional Updated Gold Pre-Feasibility Study Results”.

This release is authorised by the Board of White Rock Minerals Ltd.

### **Competent Persons Statement**

The information in this report that relates to exploration results is based on information compiled by Mr Rohan Worland who is a Member of the Australian Institute of Geoscientists and is a consultant to White Rock Minerals Ltd. Mr Worland has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr Worland consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

### **No New Information or Data**

This announcement contains references to exploration results and Mineral Resource estimates, all of which have been cross-referenced to previous market announcements by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.