

DIAMOND DRILLING COMMENCES

Red Mountain Gold Project – Central Queensland

Investment Highlights

- Drilling is commencing today at Zenith's 100% owned Red Mountain Gold Project in central Queensland.
- Four deep (5-600m each) diamond holes to scope the mineralised Intrusion Related Gold Breccia Pipe at 400m below surface are planned.
- Previous shallow high-grade gold intersections returned by Zenith at Red Mountain include: **13m @ 8.0 g/t Au, 15m @ 3.5 g/t Au, 12m @ 4.9 g/t Au and 5m @ 10.4 g/t Au**
- First assay results anticipated from the program in July 2023.

Zenith Minerals (ASX:ZNC) ("**Zenith**", or the "**Company**") is pleased to advise that a deep diamond drill program consisting of 4 holes for approximately 2,300m is commencing today at the Company's 100% owned Red Mountain Gold Project. Drilling is following up previous shallow high-grade gold intersections at Red Mountain (*Refer ZNC ASX Release 19-May-21), including:

- **13m @ 8.0 g/t Au from surface in ZRMRC001, incl 6m @ 16.7 g/t Au from surface,**
- **15m @ 3.5 g/t Au from 57m in ZRMRC019, incl 2m @ 22.4 g/t Au from 70m,**
- **12m @ 4.9 g/t Au from 102m in ZRMRC021, incl 6m @ 9.4 g/t Au from 103m,**
- **5m @ 10.4 g/t Au from 67m in ZRMRC023, incl 1m @ 49.9 g/t Au from 67m and**
- **7.7m @ 4.4 g/t Au from 63m in ZRMCD041, incl 1m @ 19.3 g/t Au from 63m**

Diamond drilling is scheduled to continue throughout May and June 2023.

Executive Chair David Ledger said: "We're looking forward to this drilling program with immense interest. We're planning to test the deeper portions of what we hope will be a classic vertically zoned, gold enriched, intrusion-related gold system in central Queensland, below our already spectacular shallow gold intersections."

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Background:

The Red Mountain Project is located 160km southwest of Bundaberg and 390km northwest of Brisbane in Queensland. It covers approximately 48km² and comprises a single Exploration Permit for Minerals (EPM 26384).

The Red Mountain Project is located within the Conners and Auburn Arc in central Queensland. The Arc plays host to the 1.5Moz Cracow gold mine, located 60km to the west which is defined as a low sulphidation epithermal vein array and stockwork gold system (www.aerisresources.com.au). Cracow is currently owned and mined by Aeris Resources (ASX:AIS). The Arc also hosts Evolution Mining's (ASX:EVN) Mount Rawdon gold mine, a plus 2Moz intrusion related gold (IRG) deposit located 80km southwest of Bundaberg (www.evolutionmining.com.au).

The geology at Red Mountain is interpreted to be comparable to Mount Rawdon and the deep underground Mt Wright gold mine, located to the east of Charters Towers in North Queensland. At Red Mountain a felsic diatreme brecciated IRG system offering considerable untested vertical extent has intruded into the Coldon Granodiorite of the Rawbelle Batholith.

Gold mineralisation is hosted within flow banded rhyolite, felsic tuff and volcanic breccia close to the contact with the granodiorite as well as in quartz healed stockwork developed within the granodiorite.

Induced Polarisation (IP) chargeability geophysical anomalies correlate with disseminated sulphides and clay alteration where drilling has been completed within 200m from surface. The IP chargeable anomaly extends for 1500m around the margins of the breccia pipe. Better intersections returned from Zenith's earlier drilling programs include:

- **13m @ 8.0 g/t Au from surface in ZRMC001**
- **15m @ 3.5 g/t Au from 70m in ZRMC019**
- **21m @ 1.9 g/t Au from 204m in ZRMDD042**

See Zenith's ASX Releases dated 3-Aug-20, 13-Oct-20, 9-Nov-20, 21-Jan-21 and 19-May-21 for details on the previous drilling. A IP chargeability geophysical anomaly remains untested at depth from 400m below surface, reflecting the likely westerly dip of the breccia pipe.

Zenith intends to complete deeper diamond core drilling into the untested IP anomaly to scope for a vertically zoned higher grade IRG system at depth. Zenith will also complete diamond drilling into the centre of the breccia system where a discrete magnetic high anomaly corresponds with surface outcrops and Zenith rock chips reporting up to 0.3% copper.

About Zenith Minerals

Zenith Minerals Limited (ASX:ZNC) is an Australian-based minerals exploration company leveraged to the increasing global demand for metals critical to the production processes of new energy industrial sectors.

The Company currently has three lithium projects all located in Western Australia. Two projects, Split Rocks and Waratah Well, are being explored under the terms of a joint venture between Zenith and EV Metals Group (EVM). Split Rocks covers landholdings of approximately 660km² in the Forrestania greenstone belt immediately north of the established Mt Holland lithium deposit. Waratah Well, located approximately 20km northwest of the regional town of Yalgoo in the Murchison Region holds a lithium pegmatite with ongoing exploration required.

More recently, Zenith secured an option to acquire 100% of the Hayes Hill lithium – nickel project, located in the Norseman – Widgiemooltha area of Western Australia.

In January 2022, Zenith entered into a joint venture with EV Metals Group (EVM), a global battery material and technology company with plans to develop an integrated Battery Chemicals Complex at Yanbu Industrial City on the western coast of Saudi Arabia. EVM can earn a 60% interest in the lithium rights on two lithium projects, Split Rocks and Waratah Well, with Zenith retaining a 40% project share. Under the terms of the agreement Zenith is fully funded by EVM through to a bankable feasibility on any project development, such a study must be completed by January 2024.

In addition to its battery metal assets Zenith owns a portfolio of gold and base metal projects that was intended for a demerger into a separate listed company in 2022. The Company decided to defer the strategy of a spin-out and instead advance these projects under Zenith's stewardship (ASX release 2-Dec-22).

To learn more, please visit www.zenithminerals.com.au

This ASX announcement has been authorised by the Board of Zenith Minerals Limited.

Competent Persons Statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Kevin Seymour, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith Minerals Limited. Mr Seymour 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 Seymour consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Material ASX Releases Previously Released

The Company has released all material information that relates to Exploration Results, Mineral Resources and Reserves, Economic Studies and Production for the Company's Projects on a continuous basis to the ASX and in compliance with JORC 2012. The Company confirms that it is not aware of any new information that materially affects the content of this ASX release and that the material assumptions and technical parameters remain unchanged.

Table 1: Diamond Drill Hole Collar Locations

Hole ID	Drill Type	GDA Easting (Zone-56)	GDA Northing (Zone-56)	RL	Az/ Dip	RC Precollar (m)	DDH Tail (m)	F/Depth (m)
TBD#1	RCD	269074	7232688	419	125/-60	100	500	600
TBD#2	RCD	269074	7232688	419	100/-70	100	500	600
TBD#3	RCD	269151	7232909	401	135/-60	100	500	600
TBD#4	RCD	269323	7232742	426	120/-60	100	400	500

RCD – Reverse Circulation Pre-collar and Diamond Tail



Figure 1: Red Mountain Location Diagram

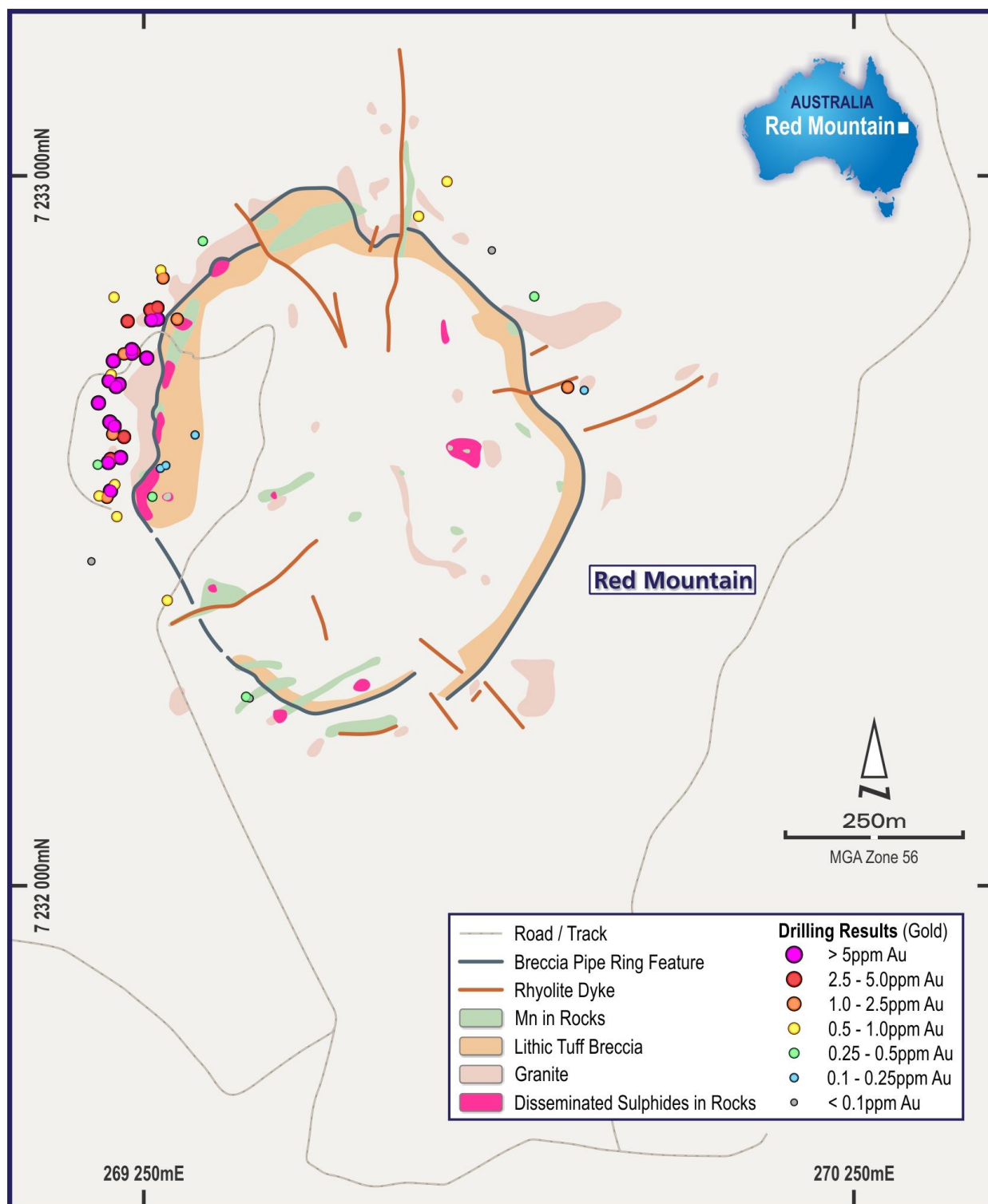


Figure 2: Maximum downhole gold intersections recorded along the north-western flank of the Red Mountain IRG Breccia Pipe