Zenith Commences Lithium Drilling

Drilling Commenced at Mt Ida North Lithium Project in WA

Investment Highlights

• A maiden reverse circulation (RC) drilling program has commenced to test lithium pegmatite targets at Mt Ida North.

Key attributes of the Mt Ida North Project, include:

- Geological setting like that of a recent lithium pegmatite discovery at Mt Ida by ASX listed Red Dirt Metals Ltd (ASX:RDT), located approximately 15km along strike to the south, near the contact of the Copperfield granite.
- Numerous outcropping pegmatite dykes up to 20m thick, over 1km x 1km area.
- Pegmatite geochemistry indicative of lithium, caesium, tantalum (LCT) fertile pegmatites.
- Lithium & rubidium soil geochemical anomalies extending along a 3.5km trend.
- Initial 10 to 12-hole RC drill program is anticipated to take 2 weeks to complete with assays some 3 weeks thereafter.

Zenith Minerals Limited (ASX:ZNC) ("Zenith" or "the Company") is pleased to announce that drilling has commenced at the Mt Ida North Lithium Project in Western Australia. The project is part of the Australian Lithium Alliance (ALA) with EV Metals Group, a separate arrangement to the existing Zenith Lithium Joint Venture that includes Split Rocks and Waratah Well.

Mt Ida North - One of Three Active Lithium Projects

The Mt Ida North Lithium Project (as first detailed in ASX release 23-May-22) is one of three lithium projects under active assessment by Zenith. The Company is pleased to advise that following completion of the permitting process, drilling has now commenced to below the numerous, widespread outcropping pegmatite dykes that are considered prospective for lithium.

Zenith's Managing Director Michael Clifford said: "I am very pleased to advise that drilling has commenced at Mt Ida North. The project is one of three that have very active ongoing exploration programs in Western Australia. Once the rig is finished drilling at Mt Ida North it will mobilise back to the Waratah Well Lithium Project to follow-up on the recent drilling success we had there. In addition, we have two drill rigs, one RC and one diamond, running at the Rio Prospect part of our Split Rocks Lithium Project."

Technical Details

The Mt Ida North Project is located approximately 95km west of the regional town of Leonora in the Goldfields Region of Western Australia.

The geological setting of Mt Ida North is like that of a recent lithium pegmatite discovery at Mt Ida by ASX listed Red Dirt, located approximately 15km along strike to the south (Figure 1). The generally sub-vertical pegmatites dykes are up to 20m thick and lie close to the Greenstone - Copperfield granite contact.

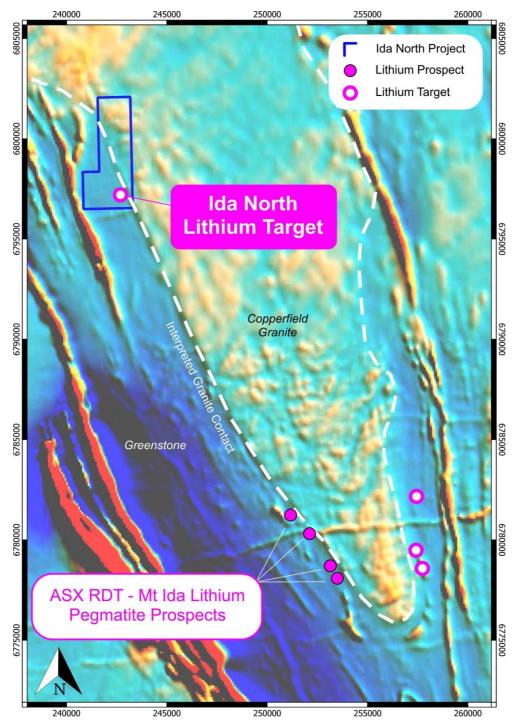


Figure 1: Mt Ida North Lithium Target Location and Regional Lithium Prospects (background image is aeromagnetics)

The key lithium target is to drill for blind lithium spodumene mineralisation beneath the tantalum bearing dykes, a geological architecture like that under investigation at the Company's Waratah Well project and noted at the Bald Hills lithium mine (formerly owned by ASX:TAW). A similar picture is also noted at Liontown's (ASX:LTR) Kathleen Valley lithium project whereby relatively narrow surface pegmatite dykes merge at depth to form a thick flat lying lithium spodumene rich sill (refer to ZNC ASX Release 24-Jan-22 for further details).

Reconnaissance mapping and sampling by Zenith's technical team have identified a zone of high rubidium and tantalum bearing pegmatite dykes that crop out over a 1km x 1km area with a cluster with very high density focused in an area 1km x 500m in the southeast of the project area.

Pegmatite geochemistry is indicative of lithium, caesium, tantalum (LCT) fertile pegmatites with strongly anomalous indicator elements such as rubidium (up to 2307 ppm Rb) and tantalum (up to 98ppm Ta).

Lithium and rubidium soil geochemical anomalies, based on recent Zenith sampling (332 samples), are coincident with pegmatite outcrop and extending along a 3.5km trend to the north.

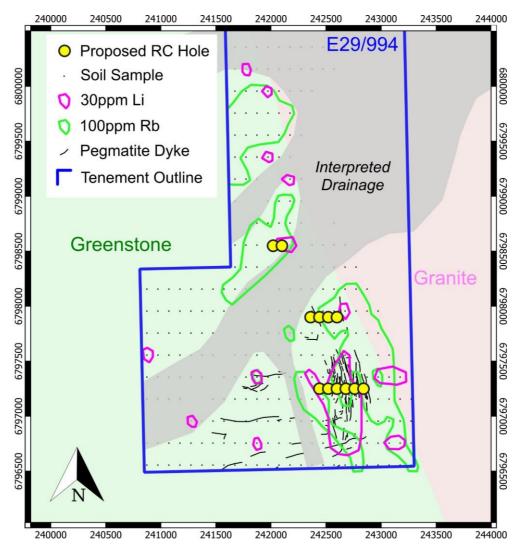


Figure 2: Mt Ida North Lithium Target with Proposed Drilling

Mt Ida North Option Agreement

The Mt Ida North project is subject to an option to purchase agreement with Mr Mark Selga an individual unrelated to Zenith or EVM Group (as detailed in ASX Release 23-May-22). The option to acquire 100% of the Mt Ida North project can be met by paying a further \$100,000 before a renegotiated date of 7-Feb-23, with subsequent milestone-based payments of \$250,000 within 5 Business Days of the grant of a Mining Lease and a further payment of \$500,000 within 5 Business Days of commissioning of a lithium plant.

Australian Lithium Alliance (ALA)

Zenith and EV Metals Group have agreed to work together on a non-exclusive basis to assess lithium opportunities in Australia under a strategic initiative - the ALA. Zenith and EV Metals Group will each fund their respective share of costs on assessing, exploring and any future development capital on a 40% - 60% basis respectively, with EV Metals Group owning marketing rights to any offtake. Each party will bring to the arrangement their respective technical, financial and management skills to assess lithium opportunities. The Mt Ida North option agreement is being pursued under the ALA partnership.

The ALA is a separate arrangement to the existing Zenith Lithium Joint Venture with EV Metals Group that is detailed below and in ZNC ASX Release dated 13-Jan-22, that encompasses the Split Rocks and Waratah Well lithium projects.

Competent Persons Statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Michael Clifford, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith Minerals Limited. Mr Clifford 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 Clifford 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.

For further information, please contact:

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About Zenith Minerals

Zenith Minerals Limited (ASX:ZNC) is an Australian-based battery minerals explorer 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. Split Rocks, located within the Southern Cross region mid-way between Perth and Kalgoorlie, is now being systematically explored under the terms of the joint venture between Zenith and EV Metals Group (EVM). It 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-caesium-tantalum pegmatite target with ongoing exploration. More recently, Zenith acquired a third lithium prospect, the Mt Ida North Project, located approximately 95km west of the regional town of Leonora in WA's Goldfields Region.

In January 2022, Zenith entered into a joint venture with EVM, a global battery materials and technology company focussed on the production of high purity chemicals and battery materials required in rechargeable batteries for electric vehicles and renewable energy storage. EVM can earn a 60% interest in the lithium rights in these projects, with Zenith retaining a 40% project share, under terms that sees Zenith funded through to bankable feasibility on any of the project developments. Any lithium concentrate produced from these projects will provide critical raw material supply for EVM's Battery Chemical Complex in Yanbu, Saudi Arabia, as part of an integrated global supply chain currently being developed by EVM. This will contribute to meeting the growing demand for stable, long-term supplies of critical raw materials, high purity chemicals and cathode active materials. The number of Australian-based lithium/battery metal projects currently in the JV could be further expanded over time if appropriate acquisition opportunities present themselves.

Zenith Minerals also holds an extensive portfolio of gold and base metal projects that includes 100% interest in Split Rocks Gold adjacent to the lithium site, 100% of the Develin Creek copper/zinc project in northern Queensland, 100% of the Red Mountain gold project in Queensland and a 25% interest in the Earaheedy zinc/lead project in Western Australia. It is proposed that these assets will be transferred into a separate ASX-listed company called Mackerel Metals Ltd.

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

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