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26 September 2024

EXPLORATION UPDATE:

RED MOUNTAIN DRILLING CAMPAIGN (PHASE 3) ADVANCES WITH NEW 3D MODELLING AND TARGETING STRATEGY

Highlights

- **Red Mountain Drilling Campaign Advances:** Preparations for the upcoming drilling campaign at the Red Mountain Gold Project in Queensland are progressing well, following up on the successful drilling campaign in mid-2023 that returned highly significant results at depth (e.g. 118m @ 0.54g/t from 225m in ZRMDD052[1]), with a focus on testing highly prospective areas. The campaign will target zones identified through an updated 3D geological model and the reinterpretation of previously collected geophysical data (IP), helping to refine our understanding of the Red Mountain system, and better define potential target areas for drilling.
- **Updated 3D Geological Model and Re-interpreted Geophysics:** The 3D geological model has been updated, integrating drill data and newly re-interpreted geophysical surveys. This refined interpretation has not only generated additional high-potential targets, but also highlighted potential for gold mineralisation in previously underexplored zones, providing clearer insights into the structure and mineralisation trends at Red Mountain.
- **Expanded Sampling and Core Analysis Underway:** As part of the updated geological interpretation, additional core samples from previous drilling campaigns have been re-evaluated for their gold prospectivity and will be cut and sent to the lab in the coming weeks for assay. **A total of 454 metres of additional core has been selected for analysis**. Previously, 344m of the original 1,450m drilled in 2023 were selectively sampled and sent for analysis (361 samples, with intervals ranging from 0.3m-1.2m). With the refined 3D model and geophysical data, these newly submitted samples are expected to provide valuable insights into the extent and grade of mineralisation at depth and assist with vectoring based on alteration haloes from multi-element geochemistry, further enhancing exploration efforts.

Zenith Minerals Limited (ASX: ZNC) ("**Zenith**" or "**the Company**") is pleased to announce significant progress in its preparations for a new drilling campaign at the Red Mountain Gold Project ("**Red Mountain**" or "**the Project**") in Queensland. The upcoming campaign will focus on testing highly prospective targets identified through a comprehensive re-interpretation of existing drill data, geophysical analysis, and updated 3D geological modelling.

[1] ASX release: 29th Aug 2023: "Significant widths of gold and silver mineralisation intersected"

Zenith Minerals Limited (ASX:ZNC)
Level 2, 33 Ord Street, West Perth WA 6005
PO Box 1426, West Perth WA 6872
ABN: 96 119 397 938

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Figure 1: Photos from Red Mountain Drilling

Broader Strategy and Forward-Looking Plans

The Red Mountain Gold Project forms a key part of Zenith's broader strategy to transition from an exploration-focused company to a multi-asset gold producer. The Company is laying the groundwork for future drilling campaigns while advancing its other core gold projects, including Dulcie Far North **("DFN")** (located in WA), where preparations for an upcoming drilling campaign are also underway.

Managing Director, Andrew Smith, commented:

"We are thrilled to advance preparations for drilling at Red Mountain, a Project that, we believe, holds substantial potential. Our team has worked diligently to refine the geological model and generate high-priority targets that will guide our exploration efforts. The combination of 3D geological modelling, expanded core sampling, and re-interpreted geophysics gives us confidence in the potential for a significant discovery at Red Mountain. This Project is an essential part of our strategy to unlock considerable value from our gold portfolio while continuing to advance our lithium projects in Western Australia."

With preparations well underway, Zenith anticipates that drilling at Red Mountain will commence in November, following completion of planned drilling at DFN, depending on weather conditions and final permitting. Initial metallurgical test results indicate that a significant portion of the gold at Red Mountain is free-milling and non-refractory, recoverable through standard cyanide leaching without requiring complex or intensive processing[2]. Further updates will be provided as the Company progresses towards its goal of becoming a multi- asset gold producer.

[2] ZNC ASX release: 7th December, 2021; "High Gold Recoveries in Metallurgical Test work – Red Mountain".

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Detailed 3D Geological Modelling and Target Generation

The **Red Mountain Gold Project** is situated within the **Carboniferous Auburn Arc**, characterised by a granitic breccia pipe in contact with a flow-banded, mineralised rhyolite unit, hosted within the **Rawbelle Batholith** (locally known as the **Colodan Granodiorite**). This geological setting offers significant potential for gold mineralisation, and recent work has further refined the understanding of this system.

Recent re-analysis of existing data, along with updated **3D geological modelling**, has provided Zenith's technical team with fresh insights into the structure and extent of the mineralised zones at Red Mountain (Figure 2):

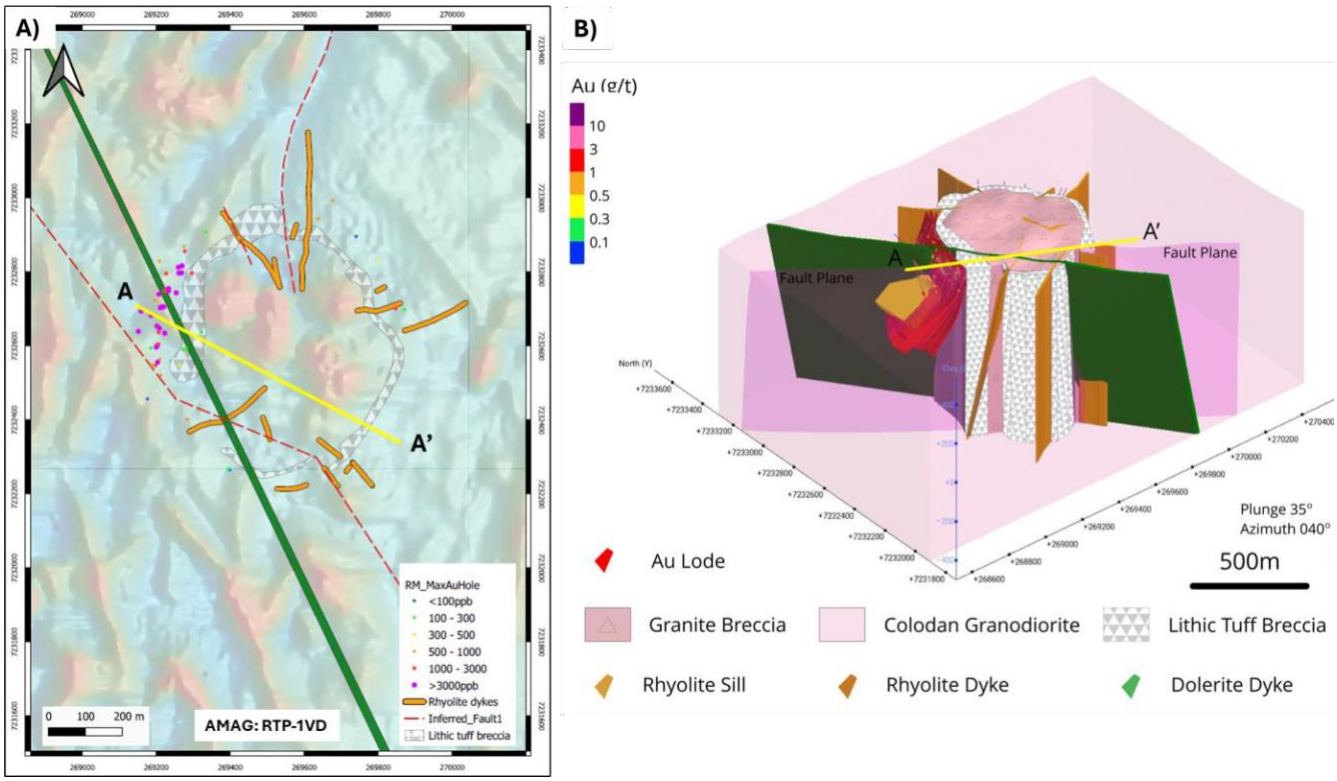

Figure 2: A) Aeromagnetic image with units mapped at outcrop, max gold (Au) in hole drill results, logged dolerite and inferred fault and B) 3D model (oblique view to the North East); the section labelled from A-A' refers to the cross section in Figure 4 per below

The re-interpreted 3D model has highlighted new high-priority targets for the upcoming drilling campaign, shedding light on areas that were previously underexplored or overlooked. **Geophysical data**, including drilling and previous **Induced Polarisation ("IP") surveys**, have been re-examined, indicating potential extensions to the known zones of mineralisation. These newly identified targets offer promising opportunities for additional gold-mineralised zones, particularly in areas where previous drilling indicated anomalous gold values but were not followed up with deeper or more extensive drilling. The **IP survey,** conducted between **April and May 2021**, played a critical role in generating these high-priority targets by mapping the subsurface chargeability anomalies associated with sulphides and potential gold mineralisation (Figure 3).

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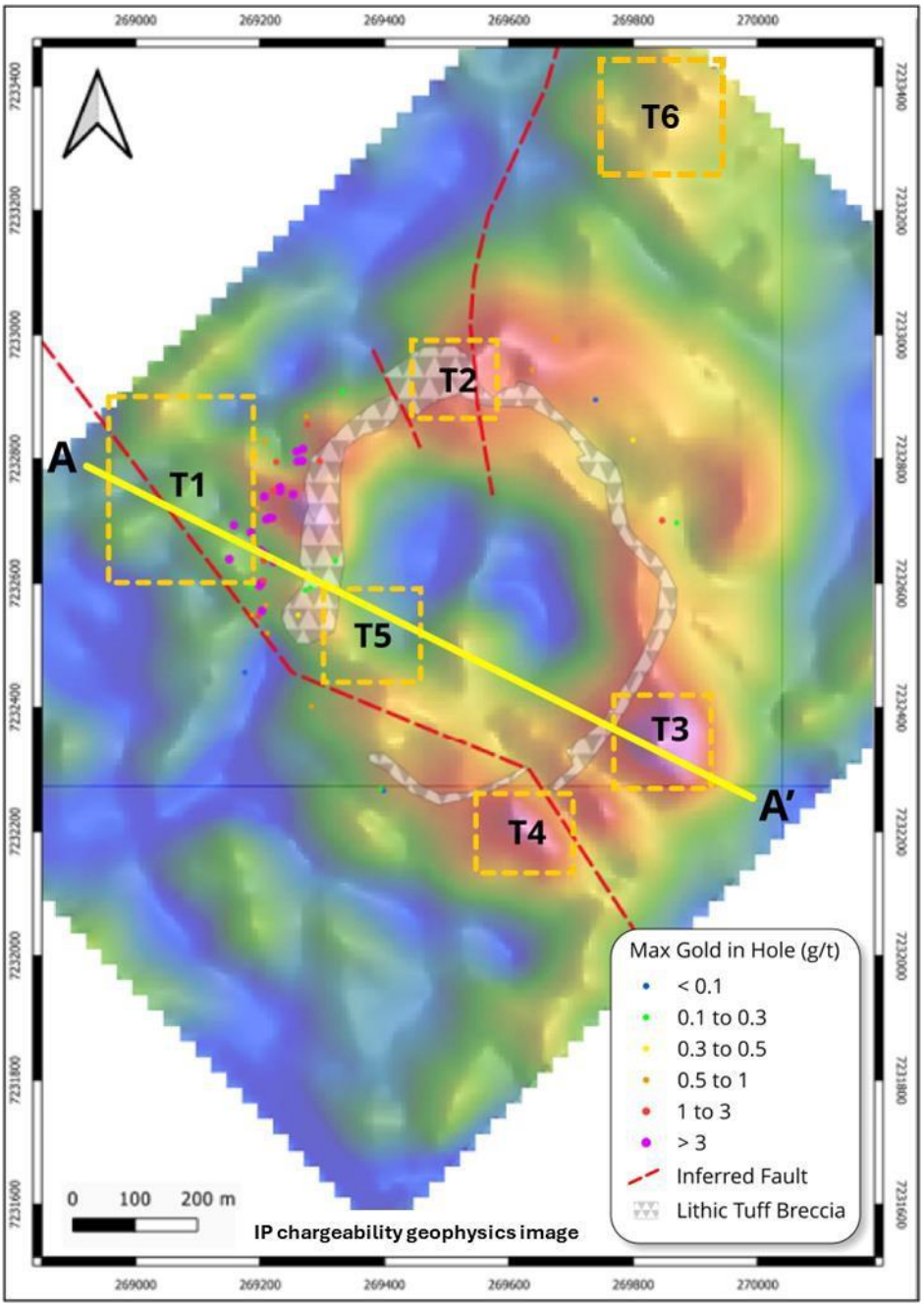

Figure 3: IP Targets at Red Mountain

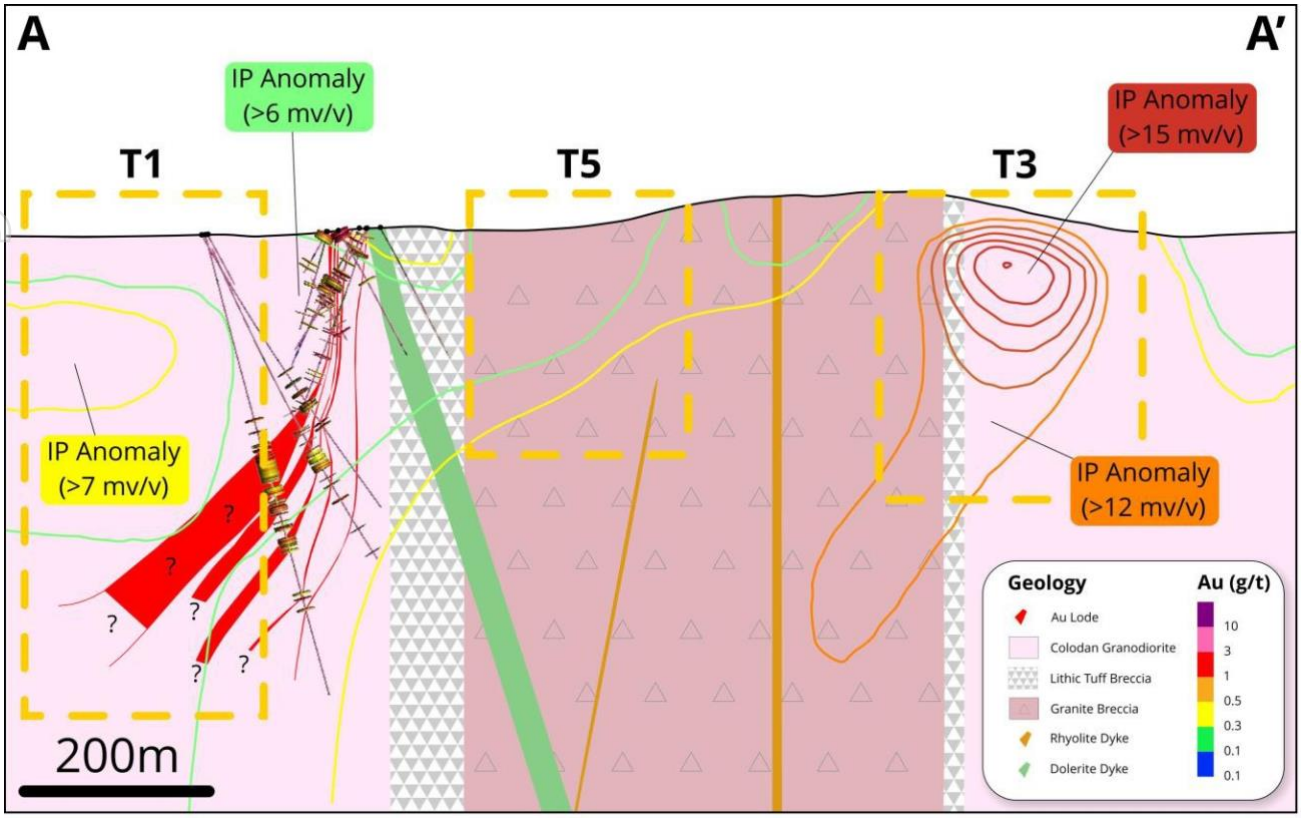

Figure 4: Cross Section (A-A' from Figure 2) showing drill targets, generated by drilling and geophysics

Additional Core Sampling

During previous drilling campaigns at Red Mountain, core sampling efforts were primarily focused on sections of strongly altered lithology, believed to be the most prospective for hosting gold mineralisation. As a result, only **344m** of the total **1,450m drilled (361 samples)** were submitted for assay. However, with the benefit of a refined 3D geological model and the re-interpretation of geophysical data, **454m** of additional core samples are now in the process of being cut and submitted for analysis. These newly targeted sections are expected to provide valuable insights into the extent and grade of the mineralisation, particularly at depth, and will help to further guide future exploration efforts.

This new information, combined with the refined geological model, will guide Zenith's exploration efforts as the team targets high-grade zones within the Red Mountain breccia pipe system.

Zenith's Promising Portfolio of Assets

Zenith's portfolio is **well-positioned** to benefit from both **gold and lithium market dynamics** (see Figure 6). The Company is advancing several projects across Western Australia and Queensland, including **Dulcie Far North (gold) and Red Mountain (gold)**, as well as its lithium-focused assets at Split Rocks and Waratah Well. Dulcie Far North continues to demonstrate high-grade gold potential, while the Split Rocks Lithium Project holds significant upside, with over **80 identified targets** providing a robust pipeline for exploration. **Waratah Well** also offers strong lithium potential, with recent surface sampling completed and **drill-ready targets** identified.

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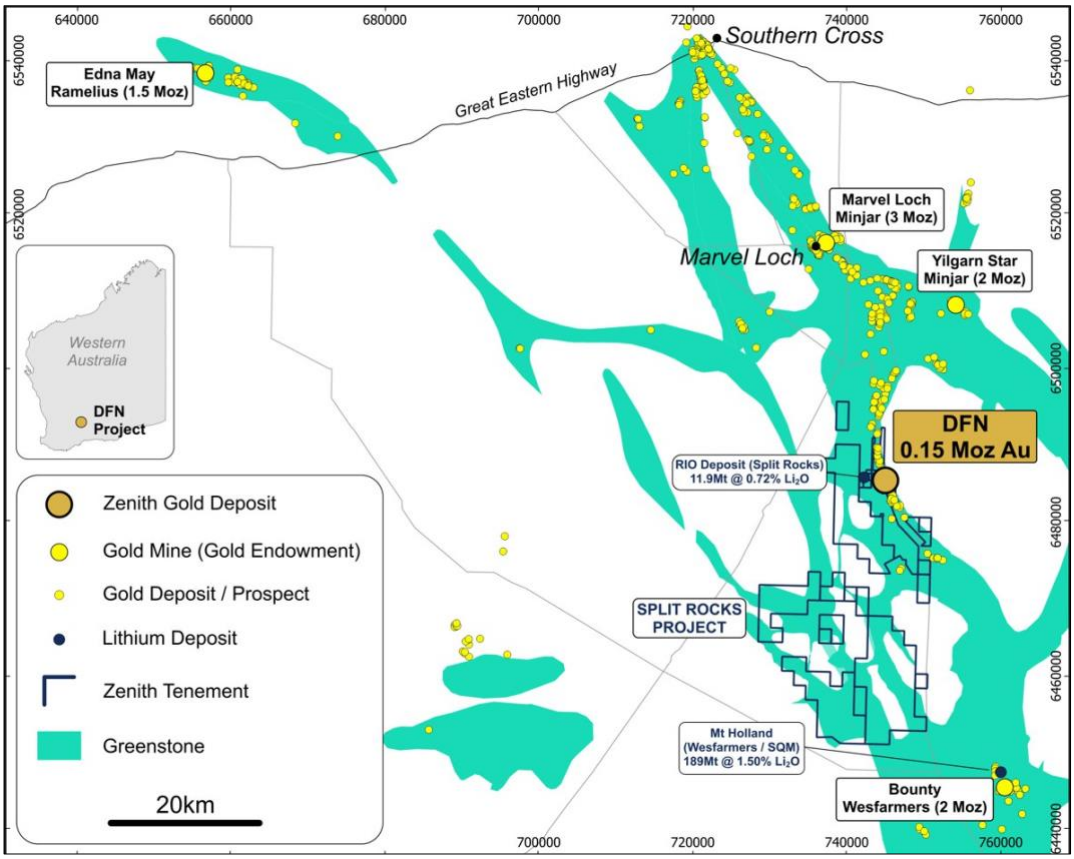

Figure 5: Zenith Minerals' Split Rock Tenure

Figure 6: Zenith Minerals' Project Locations

(Earaheedy Zinc JV -25% Free carry with Rumble Resources)

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Red Mountain Project Overview

Red Mountain is a gold project, 100% owned by Zenith Minerals, located in Queensland, within the historically significant Auburn Arc — a region known for its rich geology and proven mineralisation. Discovered by Zenith in 2017, Red Mountain was a virgin discovery and remains significantly underexplored, offering substantial blue-sky potential for further resource expansion. The confirmed gold mineralisation positions the Project as a key asset in Zenith's broader strategy to expand its gold portfolio alongside its lithium assets, offering significant value to shareholders through in-house development and resource growth.

Zenith's full ownership of Red Mountain ensures complete control over exploration and development, enabling the Company to fully capitalise on any discoveries without the complexities of joint ventures or external agreements. This structure aligns with Zenith's goal of transitioning from exploration to gold production, with Red Mountain playing a central role in the Company's future as a multi-asset gold producer.

Drilling and geological studies have already confirmed the presence of high-grade gold mineralisation at Red Mountain, making it an attractive development opportunity. The Project's favourable location in central Queensland benefits from existing infrastructure and proximity to other notable gold projects in the region (see Figure 7), providing logistical advantages and cost efficiencies for future operations. Metallurgical test work has also delivered positive results, demonstrating that much of the gold at Red Mountain is free-milling and non-refractory, allowing for efficient recovery through standard cyanide leaching processes[3].

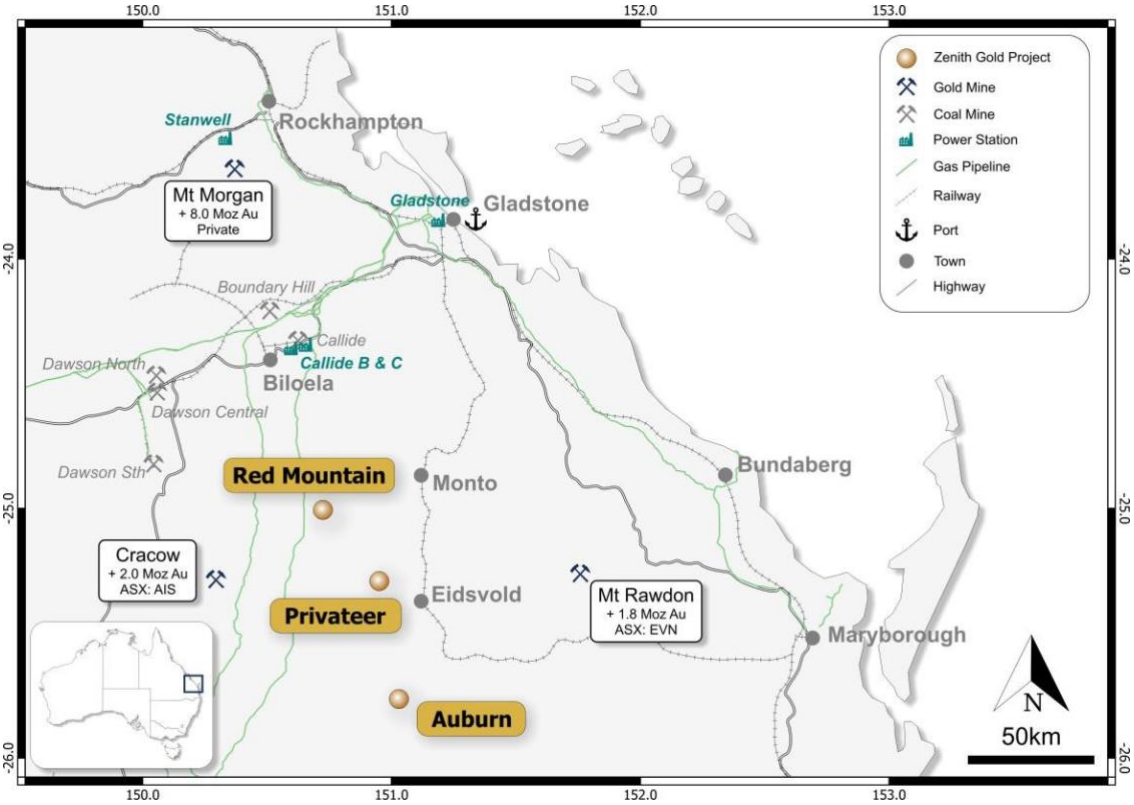

Figure 7: Strategic Red Mountain Location Map

[3] ZNC ASX release: 7th December, 2021; "High Gold Recoveries in Metallurgical Test work – Red Mountain".

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Red Mountain Geology Overview

The Red Mountain Project's geology is defined by a large, intrusive-related breccia pipe system, a typical feature of highly productive gold deposits such as Mt Wright, Mt Leyshon and Mt Rawdon. The mineralisation encountered to date at Red Mountain is predominantly hosted along the western flank of a granite-breccia pipe, which is in contact with a flow-banded rhyolite unit, and all within the broader Rawbelle Granodiorite. This granodiorite is of Permian-Triassic age and provides a favourable geological setting for gold deposition.

The Red Mountain system is believed to be part of a class of deposits know as Intrusion-Related Gold Systems ("**IRGS**") and it shares similar intrusive-related and alteration related characteristics with known gold deposits (e.g. Mt Wright, Mt Rawdon, etc.), offering strong potential for large-scale mineralisation.

The breccia pipe at Red Mountain was formed by volcanic activity, during which magma and hydrothermal fluids forced their way through the surrounding rocks, creating a zone of fractured and brecciated material. These breccias, together with the adjacent rhyolite, host the primary gold and silver mineralisation, along with minor amounts of base metals such as copper, zinc, and lead. The breccia-pipe system is sub-vertical and as such, offers substantial exploration potential at depth.

Key gold mineralisation occurs near the contact between the rhyolite unit and the surrounding granodiorite and adjacent granite-breccia, where structural conditions were favourable for hydrothermal fluid flow and subsequent gold deposition (refer to Figure 2B).

Complicating factors are 1) a distinct off-set in the southern area of Red Mountain that was first identified in outcrop mapping, and 2) a cross-cutting dolerite dyke logged in RC and DD drilling, and correlating well with NNW-SSE linear magnetic-high feature in aeromagnetic imagery (see Figure 9).

Previous Exploration

Since the discovery of the **Red Mountain Gold Project** in 2017, **Zenith Minerals** has completed a total of **51 drill holes**, comprising **38 Reverse Circulation (RC) holes** and **13 Diamond drill holes**, for a cumulative total of **9,163.7 metres** of drilling. These efforts have provided critical data, helping to refine the geological model and identify further exploration targets.

For more details on the drilling programs, please refer to **Appendix 1**, which includes a table of completed drill holes.

These drilling campaigns have returned several high-grade gold intercepts, including:

- 13m @ 8.0 g/t Au from surface
- 15m @ 3.5 g/t Au from 57m
- 12m @ 4.9 g/t Au from 102m
- 5m @ 10.4 g/t Au from 67m[2]

More recently, deeper drilling has confirmed the continuity of mineralisation, including:

- 118m @ 0.54 g/t Au + 11.9 g/t Ag from 225m, including 12m @ 1.36 g/t Au, and 9m @ 1.24 g/t Au[4].

These results demonstrate both the near-surface and deeper potential for gold and silver mineralisation at Red Mountain, making it a prime candidate for deeper exploration. For reference, see Zenith's ASX Releases dated 03-Aug-20, 13-Oct-20, 09-Nov-20, 21-Jan-21 and 19-May-21 and 29-Aug-23 for details on the previous drilling.

Multi-element geochemistry analysis was completed at the same time as Au assay, utilizing the four acid ICP-MS method (ALS: ME-MS61). The Zenith team has conducted a thorough review of this geochemical data set (>3,000 samples to date) using the ioGAS software package, with significant abundances of key IRGS related pathfinders identified (see Table 1)

Table 1: Maximum values (ppm) for Au, Ag and a range of IRGS associated pathfinders from drill data to date[5]

Red Mountain Pathfinders	Mo_ppm	W_ppm	Bi_ppm	Te_ppm	Au_ppm	Ag_ppm	As_ppm
Maximum values (drilling)	72.2	96.1	1,880	32.2	58.3	300	5,170

Sb_ppm	Cu_ppm	Pb_ppm	Zn_ppm	S_ppm	Mn_ppm	In_ppm
995	4,370	4,600	35,700	57,300	18,650	5.67

Future Exploration Plans at Red Mountain

Zenith is preparing for a major drilling campaign later this year to test these newly identified high-priority targets. The Company will continue its geophysical re-interpretation and update its geological models as new data become available. This next phase of exploration is designed to better define the mineralisation and potentially expand the Project's resource base, positioning Red Mountain as a key contributor to Zenith's future growth as a multi-asset gold producer.

[4] See Zenith's ASX Releases dated: 03-Aug-20, 13-Oct-20, 09-Nov-20, 21-Jan-21 and 19-May-21 and 29 Aug 2023 for details on the previous drilling.
[5] Refer to Appendix B for further details

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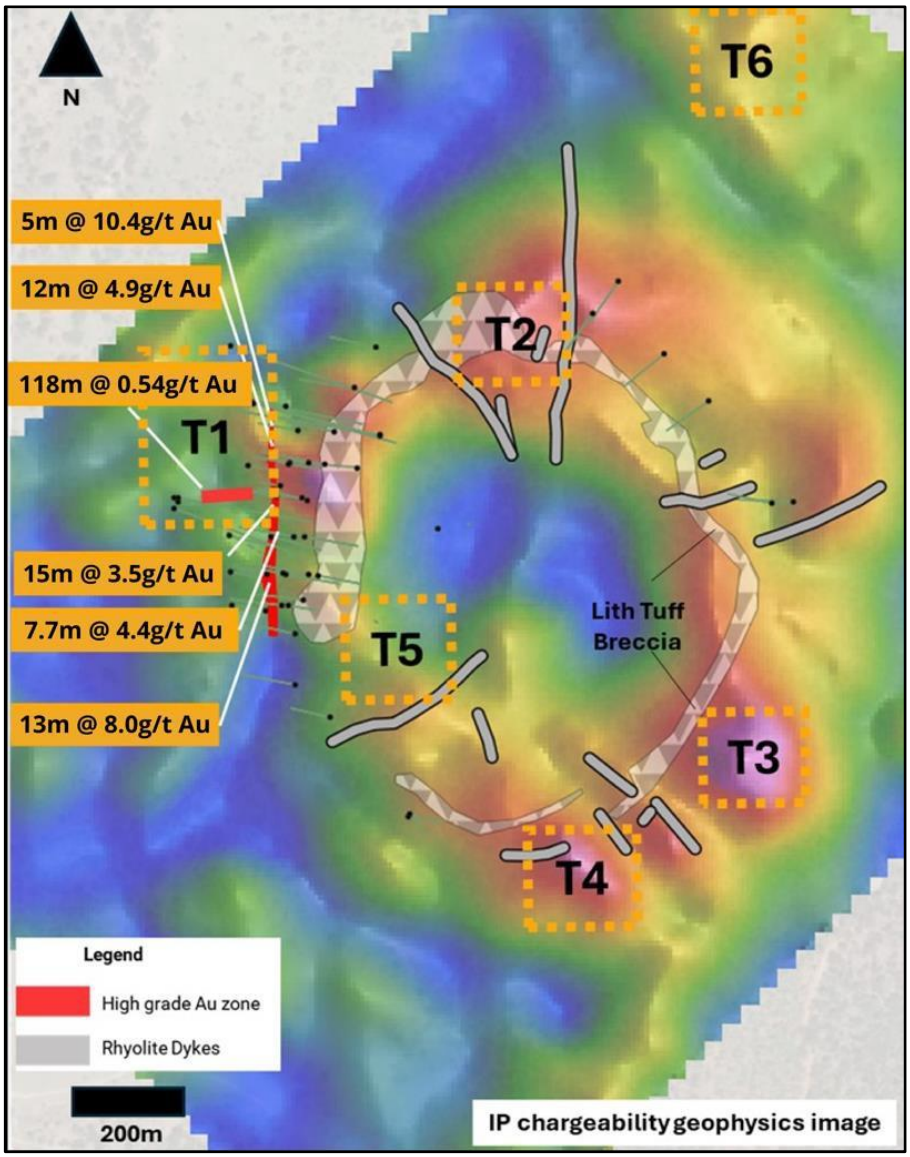

Figure 8: Drill Targets to be tested in next round of drilling

Analogues of Major Gold Deposits

The **Red Mountain Gold Project** shares geological similarities with several well-known and highly productive gold deposits in Australia, including **Mt Wright**, **Mt Leyshon**, and **Mt Rawdon**. These analogues, characterised by breccia complexes and subvolcanic rhyolite intrusions, have produced millions of ounces of gold, providing a valuable framework for understanding the exploration potential at Red Mountain.

- **Mt Wright**: A breccia complex with a subvolcanic rhyolite intrusion, which serves as the primary host for gold mineralisation. The complex extends to a depth of 1.2 km, with total production reaching **1.1Moz of gold**.
- **Mt Leyshon**: A subvolcanic porphyry-breccia complex, with dimensions of 2 km by 1.5 km and a vertical extent of 650m. It was one of Australia's largest gold producers at its peak.
- **Mount Rawdon**: Hosted within dacitic to rhyolite polymictic volcaniclastic breccia, this deposit has produced over **1.55Moz of gold**, with mineralisation attributed to magmatic fluid mixing.

Extending the analogy with **Mt Wright**, Zenith has identified multiple significant intercepts from surface at Red Mountain along its western flank that appear to be narrow sub-vertical lodes, consistent over a strike of approximately **320m (see Figure 9).** Zenith believe this is analogous to the "Mother Lode" at

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Mt Wright, where records indicate small scale mining occurring from surface between 1927 and 1942, producing 1,550 ounces of contained gold. In 1992, **Carpentaria Gold** defined a small resource at the Mt Wright Mother-Lode that, when mined to a depth of ~80m, produced 105,000t at 5g/t for 17koz Au of contained gold.[6; 7]

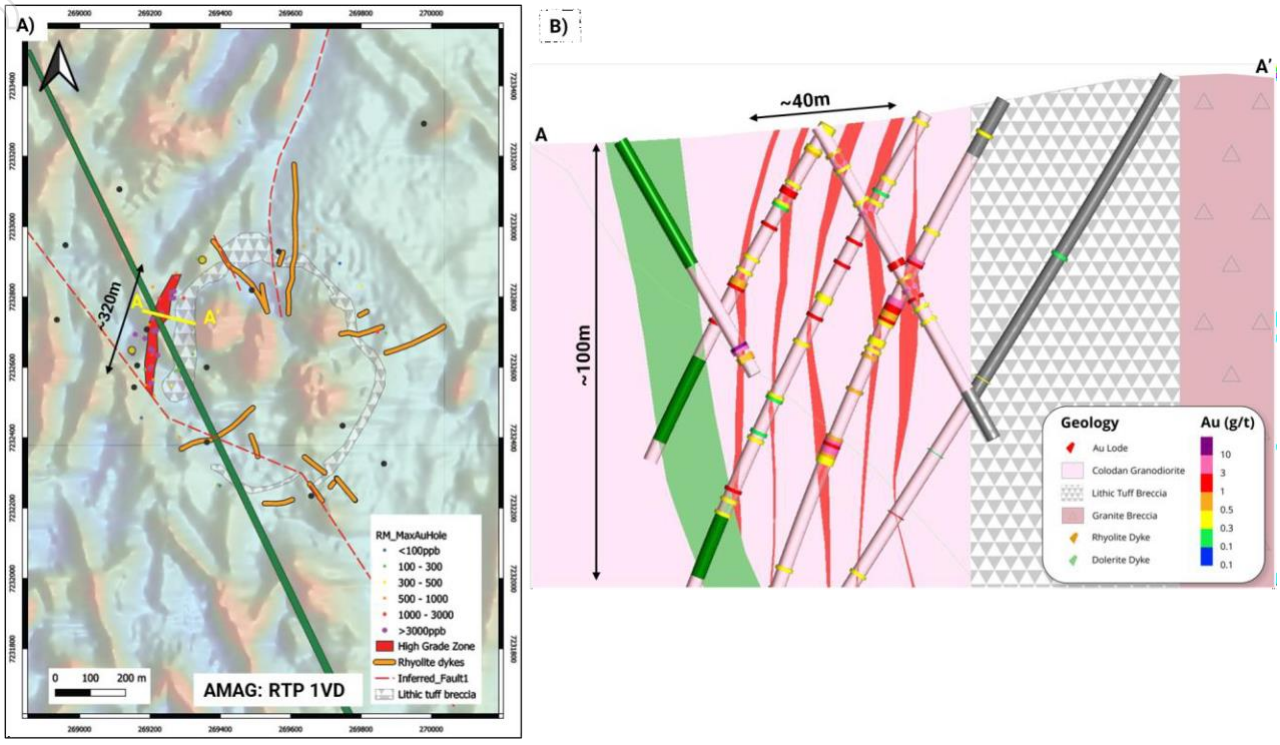

Figure 9: A) Plan view of modelled gold zones on western flank of prospect and b) cross-section indicating 5 stacked "lodes" using Au values >0.3ppm; no more than 2 m internal dilution

A resource geologist will be engaged to assess the possibility of generating a small resource over the modelled "lodes" in the area of mineralisation on the western flank of Red Mountain; results of this assessment will be communicated in future updates.

Gold Recoveries at Red Mountain

Metallurgical test work on core samples from Red Mountain has returned highly positive results, indicating that much of the gold is free-milling and non-refractory. The test work was conducted on two composite samples of diamond drill core from the high-grade western gold zone, representing the two main styles of mineralisation. One sample (Composite-1) contained gold with low arsenic levels (<500ppm As) and achieved a standout recovery of 95.8%, while the other (Composite-2), with higher arsenic levels (>500ppm As), achieved a more moderate recovery of 70.7%. On average, the two composites returned a gold recovery of 83.3%. These results suggest that gold is recoverable through standard cyanide leaching without requiring complex or intensive processing typically associated with refractory ores. Additionally, high gravity gold recovery (61.2%) was observed in Composite-1, along with low cyanide and lime consumption, indicating cost-efficient and fast leach kinetics. However, further variability test work across the deposit is necessary to confirm recovery potential in areas with

[6] Source: ASX release -Resolute Mining Ltd; 6th March 2014; JORC Table 1, section 2, page 10 "Exploration done by other parties"
[7] AusIMM Monograph 32 (2017); Lisowiec, N et al: "Ravenswood and Mount Wright gold deposits"; p709

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different mineralisation styles and arsenic content. See Zenith Minerals ASX Release dated 7th December 2021 for details on the metallurgical test results.

Dulcie Far North – Gold (WA)

In addition to Red Mountain, Zenith is progressing with further infill and exploration drilling at its 100% owned Dulcie Far North ("**DFN**") Gold Prospect. Located within a multi-million-ounce gold district of Western Australia, DFN continues to demonstrate significant potential. The Project, which benefits from excellent infrastructure and access, holds a **Maiden Inferred Mineral Resource of 3.3 million tonnes @ 1.4 g/t Au**[8], equating to **150,000 ounces of gold**. Drilling has confirmed high-grade gold intersections, including:

- **12m @ 6.1 g/t Au**
- **5m @ 10.6 g/t Au**
- **12m @ 2.9 g/t Au**
- **3m @ 10.7 g/t Au**

As demonstrated on the DFN long section in Figure 10, there are multiple untested drill targets, with significant upside potential. Key targets include:

- **T1a & T1b**: Mineralised zones not yet classified due to wide-spaced drilling.
- **T2**: Footwall remains untested, with indications of additional lodes beneath existing drilling.
- **T3**: Potential northern strike extension.
- **T4**: High-grade plunging shoots.

These zones provide promising opportunities for resource expansion. Zenith aims to grow DFN into a standalone gold operation or combine it with other nearby resources. Additionally, the Project's proximity to underutilised gold processing infrastructure, located just 35 km to the north, offers potential for toll-treatment of ore.

The Company remains committed to advancing DFN through ongoing drilling campaigns, targeting infill and step-out drilling to fully define the Project's resource potential, with a focus on positioning DFN as a key contributor to Zenith's multi-project gold strategy.

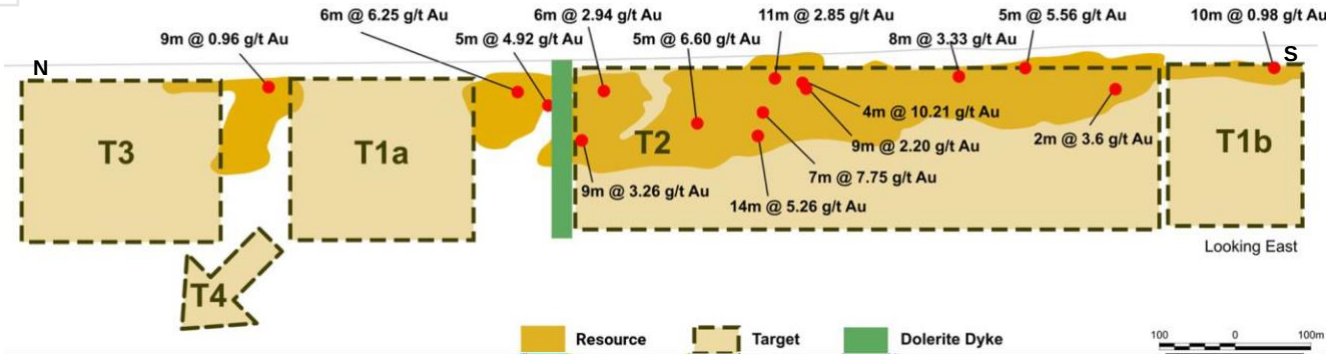

Figure 10: DFN long section orientated North-South; view to the east.

[8] ASX: ZNC. Maiden Mineral Resource Dulcie Far North – Split Rocks WA; 11 July 2023

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Cowarra Project

Zenith Minerals Limited holds a 26% interest in **Oxley Resources Limited**, which owns the **Cowarra Gold Project**, located southeast of Cooma, New South Wales, see Figure 11. The Project is strategically positioned in a mining-designated area with no native title claims, streamlining the permitting process. The Project's location provides excellent access to infrastructure, with nearby roads, power, and mining services, making it well-suited for future exploration and development.

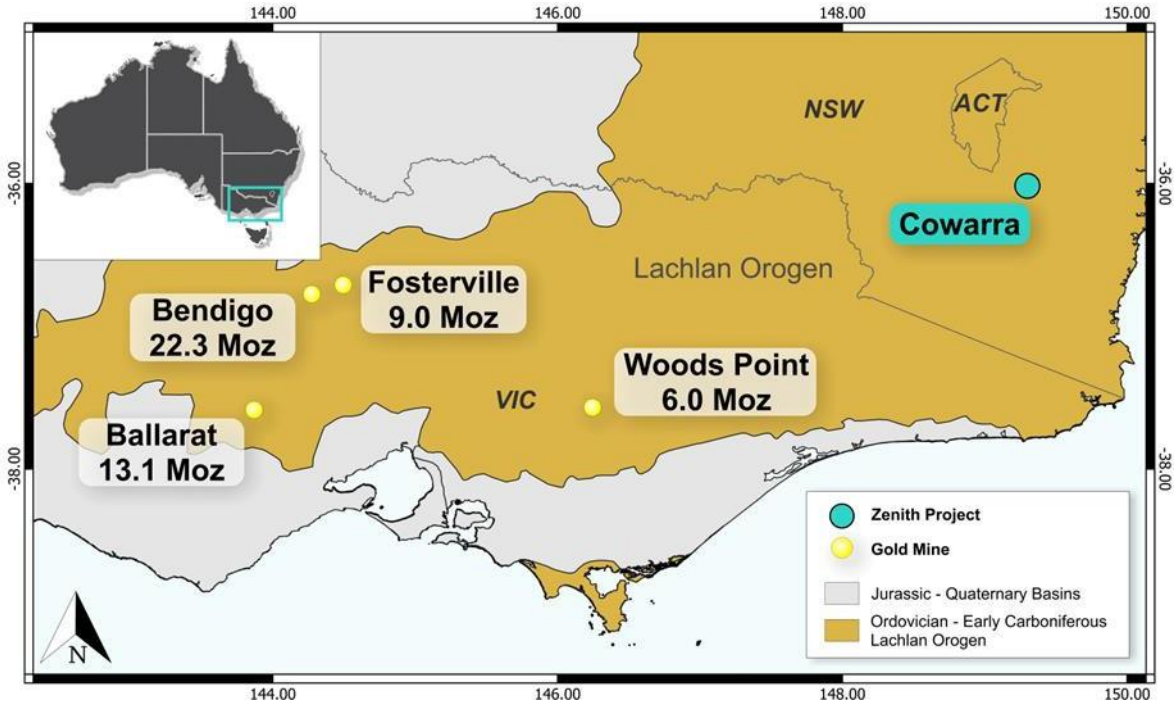

Figure 11: Location of Oxley's Cowarra Gold Project with Respect to Major Gold Deposits of Similar Age in the Lachlan Orogen

Mining History

Gold was first discovered at Cowarra in the **1860s**, with bedrock mining commencing in **1891**. From **1935 to 1942**, **BHP Ltd** explored and developed the mine over four levels, producing approximately **14,400 oz of gold** at an average grade of **8.4 g/t Au**. Mining was halted during World War II due to labour shortages. The mine was later reopened by **Horizon Pacific** between **1985 and 1989**, during which an additional **19,035 oz of gold** was produced at an average grade of **6.74 g/t Au.**

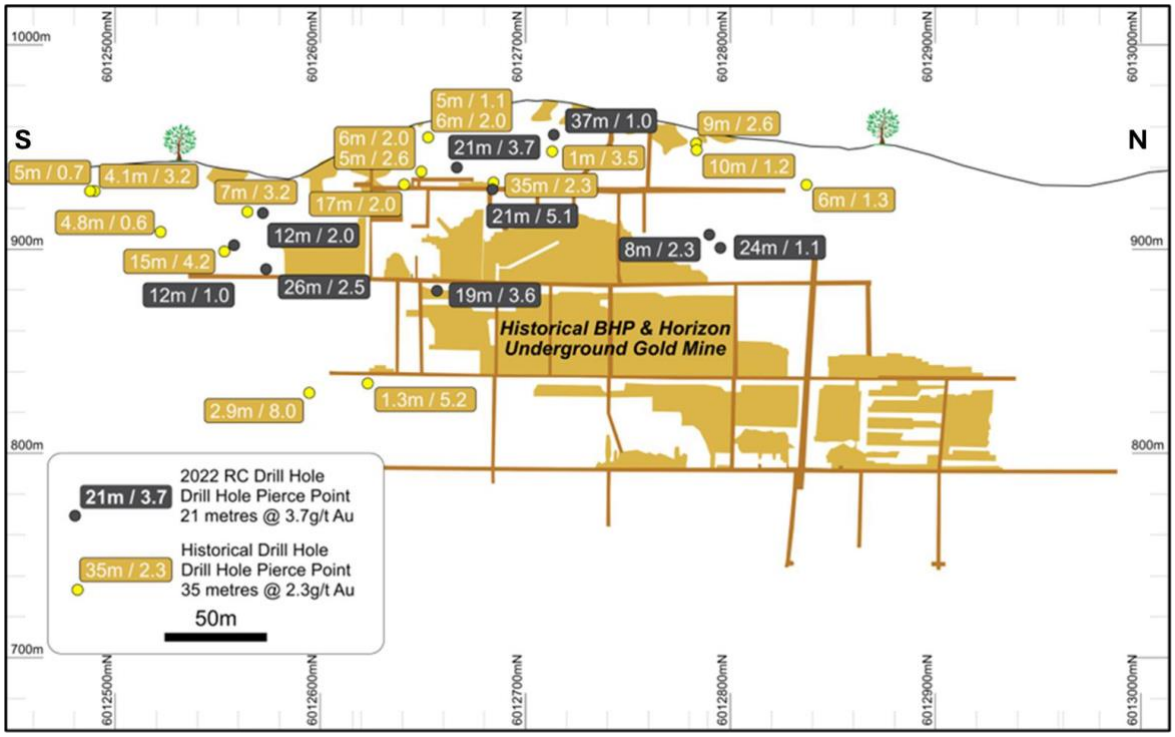

Figure 12: Long Section of the Cowarra Gold Mine / Victoria Gold Mine with New Drill Results.

Geology and Exploration Potential

The Cowarra Gold Project shares geological similarities with the upper portions of the world-class **Fosterville Gold Mine**, one of Australia's highest-grade gold deposits. Gold mineralisation at Cowarra is hosted in **pyritic-arsenopyrite shear zones** within sedimentary rocks, with non-refractory ore and a strong **pyrrhotite-arsenopyrite association**. This combination suggests favourable conditions for gold recovery, making Cowarra a high-priority exploration target.

Initial geophysical work, including **IP surveys** carried out by Oxley Resources in conjunction with Fender Geophysics, has identified potential gold-mineralised shear zones. Further drilling is planned to test these IP targets, and if successful, a comprehensive **3D IP survey** will be considered to map out the sulphides associated with gold mineralisation. Additionally, **a ground-magnetic survey** is being considered to help detect the gold-pyrrhotite zones over key prospects.

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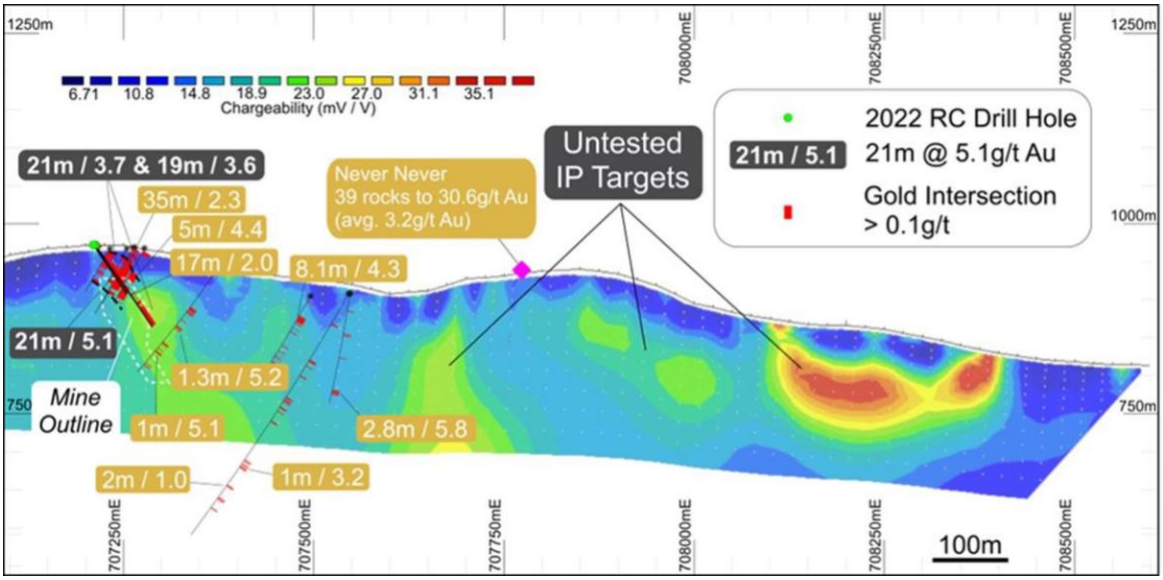

Figure 13: Significant Gold Drill Results and Location of Untested IP Geophysical Targets

Drilling and Exploration (Reference: ASX Announcement 5 October 2022)

Drilling by Zenith at Cowarra has confirmed **wide high-grade gold intersections**, further validating the potential for significant gold mineralisation. Key highlights from the campaign included:

- **37m @ 1.0 g/t Au** (OCRC004)
- **21m @ 5.0 g/t Au** (OCRC006)
- **26m @ 2.5 g/t Au** (OCRC007)
- **21m @ 3.7 g/t Au** and **19m @ 3.6 g/t Au** (OCRC005)

These impressive intersections were achieved at the **Victoria**, **King**, and **Democrat** prospects, where 10 RC drill holes were completed for **1,207m** of drilling. The results underscore the project's substantial potential within the **Lachlan Orogen**. Additionally, a soil geochemical program has outlined new target areas that extend more than **2km** along strike from the current drilling areas.

Forward Exploration and Development Strategy

Zenith and Oxley are mutually exploring various options to advance the Cowarra Gold Project, including potential joint ventures, acquisition deals, or an IPO. Both companies are committed to unlocking the full value of the project, which remains significantly underexplored. With high-priority IP geophysical targets already identified, follow-up drilling is planned to further test these zones.

Should the results continue to support gold mineralisation, a comprehensive **3D IP survey** may be initiated, providing a robust targeting tool for future exploration. Additionally, a **ground magnetic survey** is being considered to map out the gold-pyrrhotite association across the prospects.

The Cowarra Project spans an **8km strike** and is underexplored in many areas, offering substantial upside potential for further discoveries. The Project benefits from its proximity to key infrastructure, which will facilitate future development. With gold prices remaining strong, both Zenith and Oxley see the Cowarra Gold Project as a highly attractive asset that could provide significant value to shareholders.

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For further information, please contact:

Zenith Minerals Limited

Andrew Smith
Managing Director
P: +61 8 9226 1110
E: info@zenithminerals.com.au

Media & Investor Enquiries

Jane Morgan
Jane Morgan Management
M: +61 405 555 618
E: jm@janemorganmanagement.com.au

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. In addition to the projects mentioned, the Company currently has two 100% owned lithium projects, both located in Western Australia:

Split Rocks Lithium Project

- Split Rocks Lithium Project (covering ~376km²) is located in the Forrestania greenstone belt 30km north of the established Mt Holland Lithium Deposit (Covalent Lithium).
- Maiden Inferred Mineral Resource for the Rio Lithium Pegmatite Deposit at Split Rocks of **11.9Mt at 0.72% Li_2O** (ASX Release 28-Sep-23).
- 83 advanced lithium targets identified in December 2023.
- **Split Rocks is 1 of only 6 lithium deposits with a JORC mineral resource in Western Australia, outside existing lithium mining operations.**

Waratah Well Lithium Project

- Waratah Well Project (covering ~123km^2) located approximately 20km northwest of the regional town of Yalgoo in the Murchison Region holds an advanced lithium exploration target.
- Multiple drill intersections at Waratah Well **>10m @ 1.0%Li_2O** (ASX Release 24-Jan-23).
- Permits are in place to commence a drilling program to further test these targets, which remain open in all directions.

In addition to its battery metal assets Zenith owns a portfolio of gold and base metal projects. It retains a 25% free carried interest (to end bankable feasibility study) on the Earaheedy Zinc discovery, in Western Australia, with Rumble Resources Limited (ASX: RTR) and two main gold projects – Red Mountain in Queensland and (DFN) Split Rocks in Western Australia.

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

Competent Persons Statement

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

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Appendix A: Table of Previous Drill Holes at Red Mountain

HOLE ID	hole type	EOH depth	GDA94 MGA z56 Easting	GDA94 MGA z56 northing	RL (m)	survey method	avg dip	avg azimuth
ZRMCD038	RCD	272.2	269323	7232743	376	DGPS	-58.4	275.3
ZRMCD040	RCD	201.7	269256	7232698	369	DGPS	-70.1	283.2
ZRMDD041	DD	144.7	269237	7232649	367	DGPS	-58.7	279.2
ZRMDD042	DD	351.9	269355	7232787	374	DGPS	-56.0	279.6
ZRMDD043	DD	339.6	269075	7232702	366	DGPS	-56.2	100.2
ZRMDD044	DD	378.7	269075	7232687	366	DGPS	-61.7	110.8
ZRMDD045	DD	351.9	269355	7232785	375	DGPS	-67.6	284.8
ZRMDD047	DD	294.6	269183	7232830	357	DGPS	-47.2	105.6
ZRMDD048	DD	303.9	269180	7232832	356	DGPS	-59.7	101.3
ZRMDD049	DD	384.5	269151	7232909	352	DGPS	-52.7	109.4
ZRMDD050	DD	294	269433	7232659	369	GPS	-75.1	81.3
ZRMDD051	DD	665	269079	7232695	366	GPS	-60.2	121.0
ZRMDD052	DD	491	269080	7232701	366	GPS	-74.5	85.9
ZRMRC001	RC	79	269200	7232597	361	DGPS	-60.0	279.8
ZRMRC002	RC	75	269198	7232548	355	DGPS	-60.0	279.8
ZRMRC003	RC	75	269153	7232555	359	DGPS	-59.0	99.8
ZRMRC004	RC	75	269151	7232600	362	DGPS	-60.0	99.8
ZRMRC005	RC	73	269175	7232745	359	DGPS	-60.0	99.8
ZRMRC006	RC	97	269229	7232748	364	DGPS	-60.5	99.8
ZRMRC007	RC	73	269227	7232827	360	DGPS	-59.3	279.8
ZRMRC008	RC	79	269229	7232555	357	DGPS	-59.5	99.8
ZRMRC009	RC	64	269395	7232270	363	DGPS	-58.5	139.8
ZRMRC010	RC	90	269394	7232267	363	DGPS	-59.0	99.8
ZRMRC011	RC	151	269221	7232555	357	DGPS	-62.3	277.1
ZRMRC012	RC	145	269223	7232600	363	DGPS	-62.6	277.0
ZRMRC013	RC	151	269226	7232597	362	DGPS	-61.0	99.8
ZRMRC014	RC	127	269270	7232596	364	DGPS	-61.7	101.1
ZRMRC015	RC	151	269252	7232648	368	DGPS	-61.0	99.8
ZRMRC016	RC	145	269207	7232649	365	DGPS	-61.0	105.4
ZRMRC017	RC	127	269149	7232649	363	DGPS	-59.8	102.7
ZRMRC018	RC	139	269249	7232562	359	DGPS	-62.2	276.8
ZRMRC019	RC	157	269248	7232701	368	DGPS	-63.0	279.3
ZRMRC020	RC	151	269258	7232749	369	DGPS	-64.0	283.3
ZRMRC021	RC	151	269279	7232747	369	DGPS	-65.3	281.8
ZRMRC022	RC	103	269232	7232748	364	DGPS	-61.7	280.8
ZRMRC023	RC	151	269293	7232792	369	DGPS	-65.0	281.0
ZRMRC024	RC	157	269319	7232851	361	DGPS	-61.5	279.0
ZRMRC025	RC	151	269349	7232906	354	DGPS	-64.8	283.0
ZRMRC026	RC	157	269239	7232516	355	DGPS	-62.8	282.8
ZRMRC027	RC	157	269238	7232447	352	DGPS	-62.5	280.8
ZRMRC028	RC	151	269258	7232597	364	DGPS	-62.8	280.8
ZRMRC029	RC	109	269286	7232402	357	DGPS	-60.3	283.4

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ZRMRC030	RC	151	269644	7232953	361	DGPS	-65.5	215.3
ZRMRC031	RC	157	269679	7232996	355	DGPS	-66.0	214.8
ZRMRC032	RC	157	269741	7232897	364	DGPS	-63.5	230.8
ZRMRC033	RC	151	269802	7232833	360	DGPS	-62.8	235.0
ZRMRC034	RC	151	269888	7232694	374	DGPS	-66.1	282.3
ZRMRC035	RC	151	269918	7232696	367	DGPS	-59.6	271.9
ZRMRC036	RC	103	269219	7232717	64	DGPS	-74.0	282.8
ZRMRC037	RC	109	269242	7232794	363	DGPS	-60.3	280.1
ZRMRC039	RC	49	269214	7232703	365	DGPS	-59.8	279.8

Appendix B: Details of Au and pathfinder intercepts listed in Table 1

Hole ID	from (m)	to (m)	Mo_ppm	W_ppm	Bi_ppm	Te_ppm	Au_ppm	Ag_ppm	As_ppm	Sb_ppm	Cu_ppm	Pb_ppm	Zn_ppm	S_ppm	Mn_ppm	In_ppm
ZRMDD043	209.7	210	72.2	11.2	13.5	0.76	1.47	14.6	1150	24.3	220	266	2350	12300	1820	0.78
ZRMRC026	66	67	0.75	96.1	2.8	1.1	0.92	3.4	122	2.32	101	221	260	9800	2620	0.13
ZRMDD044	84.7	85	3.35	4.8	1880	4.87	3.49	270	383	48.1	1250	397	159	14300	791	0.86
ZRMRC035	132	136	2.62	6,2	62.4	32.2	0.04	7.57	37	1.87	88.2	171	1610	4200	1940	0.66
ZRMRC001	1	2	1	10	71	BDL	58.3	14.2	2380	39	229	746	216	100	314	BDL
ZRMDD042	239	240	2.75	8.1	829	10.9	1.49	300	146	7.59	83.9	857	143	57300	3010	1.3
ZRMDD052	139.35	139.65	1.13	1.8	0.57	0.06	2.14	3,24	5170	28.5	50.7	274	133	3800	1250	0.29
ZRMDD039	259	260	0.68	6.5	205	2.29	0.73	152	388	995	1795	2060	561	17700	1280	0.98
ZRMDD044	244.5	245	12.75	29.5	681	8.46	0.23	242	590	288	4370	2260	170	12300	4380	1.08
ZRMDD052	398	399	0.69	8	1.81	0.27	0.08	5.31	81.3	5.12	130	4600	2480	4800	998	0.14
ZRMCD040	123.22	123.74	1.54	22.4	4.34	0.35	6.67	13.3	3960	22.2	425	470	35700	32500	1220	5.35
ZRMDD042	239	240	2.75	8.1	829	10.9	1.49	300	146	7.59	83.9	857	143	57300	3010	1.3
ZRMRC010	0	1	3	BDL	BDL	BDL	0.26	5.7	22	BDL	177	515	494	200	18650	BDL
ZRMDD042	184	184.75	1.22	11.2	41.3	0.42	0.3	38	187	21	806	973	5210	11800	4050	5.66

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Appendix 1: Red Mountain Project - JORC Table 1 - EPM26384

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.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised 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 mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• At Red Mountain gold + silver mineralised RC intervals are systematically sampled using industry standard 1m intervals and 4m composites collected from reverse circulation (RC) drill holes. Diamond holes may be sampled along sub 1m geological contacts, otherwise 1m intervals are the default. • Drill hole locations were designed to allow for spatial spread across the interpreted mineralised zone. All RC samples are collected, and cone/riffle split to 1-2kg samples on 1m metre intervals, then 4m composites are speared from the bulk residue bags before despatching the laboratory. Diamond core is half cut along downhole orientation lines. Much of the rhyolite host rock was broken, preventing orientation lines to be drawn. Half core was sent to the laboratory for analysis and the other half is retained for future reference. • Standard fire assaying was employed using a 50g charge with an AAS finish for all Diamond and RC chip samples. Trace element determination when undertaken uses a multi (4) acid digest and ICP-AES or MS finish.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka,*	• Drilling is completed using best practice HQ + NQ diamond core, 5 ¾" face sampling RC drilling hammers for all RC drill holes.

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	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).	
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.*	• All diamond core is jigsawed to ensure any core loss, if present is fully accounted for. Bulk RC drill hole samples are visually inspected by the supervising geologist to ensure adequate clean sample recoveries are achieved. Any wet, contaminated or poor sample returns are flagged and recorded in the database to ensure no sampling bias is introduced. • Zones of poor sample return in RC are recorded in the database and cross checked once assay results are received from the laboratory to ensure no misrepresentation of sampling intervals has occurred. Zero sample recovery is achieved while navi drilling. The navi lengths are kept to a minimum and avoided when close to potentially mineralised units.
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.*	• All drill samples are geologically logged on site by professional geologists. Details on the host lithologies, deformation, dominant minerals including sulphide species and alteration minerals plus veining are recorded relationally (separately) so the logging is interactive and not biased to lithology. • Drill hole logging is qualitative on visual recordings of rock-forming minerals and quantitative on estimates of mineral abundance. • The entire length of each drill hole is geologically logged.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• Duplicate samples are collected every 25th sample from the RC chips as well as quarter core from the diamond holes. Further, with selected drill-outs additional

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	• *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.*	duplicates will be planned by ensuring there is an adequate spread of duplicate samples (25%) taken from predicted ore positions when ore zones are projected from adjacent drill holes. • Dry RC 1m samples are riffle split to 1-2kg as drilled and dispatched to the laboratory. Any wet samples are recorded in the database as such and allowed to dry before splitting and dispatching to the laboratory. • All core and RC chips are pulverized prior to splitting in the laboratory to ensure homogenous samples with >85% passing 75um. 200g is extracted by spatula that is used for the 50g charge on standard fire assays. • All samples submitted to the laboratory are sorted and reconciled against the submission documents. In addition to duplicates a high-grade or low-grade standard is included every 50th sample, a controlled blank is inserted every 100th sample. The laboratory uses barren flushes to clean their pulveriser and their own internal standards and duplicates to ensure industry best practice quality control is maintained. • The sample size is considered appropriate for the type, style, thickness and consistency of mineralisation.
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.*	• The fire assay method is designed to measure the total gold in the diamond core and RC samples. The technique involves standard fire assays using a 50g sample charge with a lead flux (decomposed in the furnace). The prill is totally digested by HCl and HNO_3 acids before measurement of the gold determination with AAS finishes to give a lower limit of detection of 0.005 g/t Au. Aqua regia digest is considered adequate for surface soil sampling. • No field analyses of gold grades are completed. Quantitative analysis of the gold content and trace elements is undertaken in a controlled laboratory environment.

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	• *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.*	• Industry best practice is employed with the inclusion of duplicates and standards as discussed above and used by Zenith as well as the laboratory. All Zenith standards and blanks are interrogated to ensure they lie within acceptable tolerances. Additionally, sample size, grind size and field duplicates are examined to ensure no bias to gold grades exists.
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.*	• Alternative Zenith personnel must inspect the diamond core and RC chips in the field to verify the correlation of mineralised zones between assay results and lithology, alteration and mineralisation. • All holes are digitally logged in the field and all primary data is forwarded to Zenith's Database Administrator (DBA) where it is imported into Expedio, a commercially available and industry accepted database software package. Assay data is electronically merged when received from the laboratory. The responsible project geologist reviews the data in the database to ensure that it is correct and has merged properly and that all the drill data collected in the field has been captured and entered the database correctly. • The responsible geologist makes the DBA aware of any errors and/or omissions to the database and the corrections (if required) are made in the database immediately. • No adjustments or calibrations are made to any of the assay data recorded in the database.
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.*	• All drill hole collars are picked up using accurate DGPS survey control. All down hole surveys are collected using north-seeking gyro survey tools. • All holes are picked up in MGA94 – Zone 56 grid coordinates. Magnetic declination at 9.75degrees is also taken into account. • DGPS RL measurements captured the collar surveys of the drill holes prior to the resource estimation work.

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.*	• The core drilling and RC drilling is generally completed orthogonal to the interpreted strike of the target horizon(s).
Sample security	• *The measures taken to ensure sample security.*	• Sample security is integral to Zenith's sampling procedures. All bagged samples are delivered directly from the field to the assay laboratory in Townsville whereupon the laboratory checks the physically received samples against Zenith's sample submission/dispatch notes.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sampling techniques and procedures are reviewed prior to the commencement of new work programmes to ensure adequate procedures are in place to maximize the sample collection and sample quality on new projects. No external audits have been completed to date.

Part 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*	• The Red Mountain Tenement (EPM26384) is owned 100% by Zenith through its wholly owned subsidiary Black Dragon Energy (Aus) Pty Ltd. Heritage surveys were completed as required prior to any ground disturbing activities in accordance with Zenith's responsibilities under the Aboriginal Heritage Act in Australia. • Currently the Tenement is in good standing. There are no known impediments to obtaining licences to operate in the area.

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	to obtaining a licence to operate in the area.	
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Exploration and mining by other parties has been reviewed and is used as a guide to Zenith's exploration activities. There was no previous exploration drilling before Zenith's.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The targeted mineralisation is typical of Permo-Carboniferous Intrusion-Related Gold Systems (IRGS) found elsewhere throughout central and northern Queensland. In all instances the mineralisation is controlled by anastomosing shear zones/fault breccias passing through competent rock units, brittle fracture and stockwork mineralisation is common within the granodiorite and rhyolite host rocks.
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*	• All drill holes reported by Zenith must have the following parameters applied. All drill holes completed, including holes with no significant results (as defined in the Attachments) are reported in this announcement. • Easting and northing are given in MGA94 coordinates as defined in the Attachments. • RL is AHD. • Dip is the inclination of the hole from the horizontal. Azimuth is reported in magnetic degrees as the direction the hole is drilled. MGA94 and magnetic degrees vary by 9.75° in the project area. All reported azimuths are corrected for magnetic declinations. • Down hole length is the distance measured along the drill hole trace. Intersection length is the thickness of an anomalous gold intersection measured along the drill hole trace. • Hole length is the distance from the surface to the end of the hole measured along the drill hole trace. • No results currently available from the exploration drilling are excluded from this report. Gold grade intersections >0.3 g/t Au within single metre RC or diamond samples (with up to 5m of internal dilution, where geological continuity

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	explain why this is the case.	is inferred) are considered significant in the broader mineralised host rocks. Diamond core samples are generally cut along geological contacts or up to 1m maximum. • Gold grades greater than 0.1 g/t Au are highlighted where there is good continuity of higher-grade mineralisation.
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.*	• The first gold assay result received from each sample reported by the laboratory is tabled in the list of significant assays. Subsequent repeat analyses when performed by the laboratory are checked against the original to ensure repeatability of the assay results. • Weighted average techniques are applied to determine the grade of the anomalous interval when geological intervals less than 1m have been sampled. • Exploration drilling results are generally reported using a 0.1 g/t Au lower cut-off for RC or diamond drilling (as described above and reported in the Attachments) and may include up to 5m of internal dilution. • All assay results are reported to 3 significant figures in line with the analytical precision of the laboratory techniques employed. • No metal equivalent reporting is used or applied.
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').*	• The intersection length is measured down the length of the hole and is not usually the true width. When sufficient knowledge on the thickness of the intersection is known an estimate of the true thickness is provided.
Diagrams	• *Appropriate maps and sections (with scales)*	• Detailed drill hole sections and plans for each prospect must be

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	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.	plotted and interpreted as part of the internal QAQC process. Field sections must be compared with Micromine/Leapfrog plots to ensure no errors or omissions creep into the database. • The field geologist will interpret/plot their geological observations onto cross sections while logging the hole in the field before validating and transferring the digital data to the DBA. • Errors and/or discrepancies with lithological logs must be rectified and forwarded to Perth before the assay results are received. • Final cross sections displaying corrected geology and assays are plotted and interpreted. Depending on the target, 3-D wireframes may require construction too. At the very least cross- sectional data must be translated into plan view and the relevant scaled (1:2,500 or 1:25,000) geological interpretation be updated and integrated in QGIS. The project geologist will draft any changes/modifications required as directed by the relevant project geologist / EM.
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.*	• Significant widths are defined in the body of the report, detailing cut-off values employed, any internal dilution and from/to intervals. • NSR refer to all other intersections that don't meet the criteria described.
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,*	• All known exploration data has been reported in this release and/or referenced from previous announcements and/or historical exploration company reports where appropriate.

	geotechnical and rock characteristics; potential deleterious or contaminating substances.	
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.*	• Details of proposed future work programmes with appropriate plans and cross sections are either reported in the body of this announcement or will be released separately.

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