

05 December 2024

Solid Drilling Results at DFN

NEED TO KNOW

- Latest drilling round complete at Dulcie Far North – results confirm continued mineralisation, MRE upgrade in progress, further drilling planned
- Red Mountain drilling – progress continues
- Earahedy shows exciting metallurgical results

Latest round of drilling at Dulcie Far North (DFN) completed: Zenith Minerals (ZNC) has completed a drilling program at its DFN Gold Project in WA, comprising 17 reverse circulation (RC) holes totalling 2,268 metres (m).

Drilling results confirm continued mineralisation: Gold mineralisation has been confirmed in multiple holes, including 10m @ 2.00 g/t Au from 75m, 3m @ 5.51 g/t Au and 11m @ 1.30 g/t Au from 77m. This supports increased mineralisation within the known resource as well as confirming extensions for future resource expansion.

Upgrade of Mineral Resource Estimate (MRE) in progress: Results of drilling have been submitted for third-party evaluation with the target of upgrading the MRE, which we expect in 1QCY25.

Red Mountain (RM) drilling: ZNC's current drilling program at RM (QLD) targets high-priority zones over ~2000m and 10–12 holes. The program is building on significant results from the previous campaign.

Earahedy metallurgical testing shows positive results: Recoveries of 79% Zn were achieved, producing a high-grade, marketable bulk concentrate with the potential to support a simplified, low-capex/opex processing strategy.

Investment Thesis

Exploration drives ZNC; highly prospective portfolio; focus on gold: ZNC has exposure to highly prospective gold exploration projects in the Tier-1 jurisdictions of WA and QLD with high prospectivity, presenting the opportunity to increase resources and consolidation potential.

Exposure to lithium-ion battery and electric vehicle (EV) value chain provides long-term opportunity: The structural EV growth story places ZNC in a position to take advantage of this high-growth market and advance the lithium projects in the portfolio.

Extensive portfolio presents opportunity: ZNC has an extensive asset portfolio. In addition to the gold and lithium assets, the company's 25% ownership in the Earahedy Zinc and Lead Project in WA remains strategically important and presents ZNC with monetisation options.

Valuation: A\$0.29/share

Our valuation reflects the fact that ZNC's focus has pivoted to the gold assets. We see significant upside to our valuation through successful drilling results at DFN and RM.

Risks

Key risks include a lack of exploration success and continued cash burn.

Equity Research Australia

Materials

Michael Bentley, Senior Analyst
michael.bentley@mstaccess.com.au



Zenith Minerals is an Australian-based mining exploration company dedicated to supporting the increasing demand for metals critical to the global energy transition. The company maintains a diversified portfolio with a strategic focus on gold, lithium, and base metals projects.
www.zenithminerals.com.au

Valuation	A\$0.290 (unchanged)
Current price	A\$0.043
Market cap	A\$17m
Cash on hand	A\$1.39m (30 Sep 24)

Upcoming Catalysts / Next News

Period	
4QCY24	Red Mountain – drilling results
1QCY25	DFN – updated MRE
CY25	Further exploration DFN and RM
CY25	Earahedy – scoping study
CY25	Earahedy – strategic partners

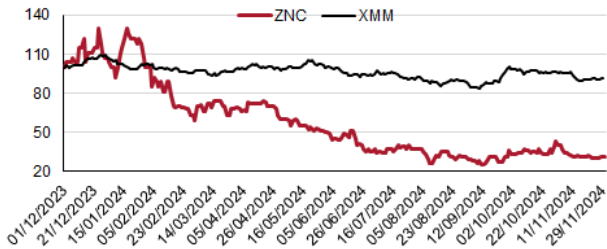
Share Price (A\$)



Source: FactSet, MST Access

Figure 1: Financial summary, ZNC (June year-end)

ZENITH MINERALS LIMITED							ZNC.AX
MARKET DATA							
Share Price	A\$/sh	0.043					
52 week high/low	A\$/sh	0.17- 0.04					
Valuation	A\$/sh	0.29					
Market Cap (A\$m)	A\$m	17					
Net Cash / (Debt) (A\$m)	A\$m	4					
Enterprise Value (A\$m)	A\$m	13					
Shares on Issue	m	405					
Options/Performance shares	m	10					
Other Equity	m	186					
Potential Diluted Shares on Issue	m	600					
INVESTMENT FUNDAMENTALS							
		FY23A	FY24A	FY25E	FY26E	FY27E	
Reported NPAT	A\$m	(9)	(4)	(7)	(5)	(2)	
Underlying NPAT	A\$m	(9)	(4)	(7)	(5)	(2)	
EPS Reported (undiluted)	¢ps	(2.6)	(1.2)	(2.0)	(1.4)	(0.6)	
EPS Underlying (undiluted)	¢ps	(2.6)	(1.2)	(2.0)	(1.4)	(0.6)	
Underlying EPS Growth	%	n/m	n/m	n/m	n/m	n/m	
P/E Reported (undiluted)	x	n/m	n/m	n/m	n/m	n/m	
P/E Underlying (undiluted)	x	n/m	n/m	n/m	n/m	n/m	
Operating Cash Flow / Share	A¢	(0.43)	(0.24)	(0.86)	(0.30)	(0.30)	
Price / Operating Cash Flow	x	n/m	n/m	n/m	n/m	n/m	
Free Cash Flow / Share	A¢	(1.68)	(0.32)	(1.99)	(1.15)	(0.62)	
Price / Free Cash Flow	x	n/m	(0.1)	(0.0)	(0.0)	(0.1)	
Free Cash Flow Yield	%	n/m	n/m	n/m	n/m	n/m	
Book Value / Share	A\$	0.05	0.04	0.05	0.06	0.06	
Price / Book	x	0.82	1.10	0.91	0.78	0.74	
NTA / Share	A\$	0.05	0.04	0.05	0.06	0.06	
Price / NTA	x	0.82	1.10	0.91	0.78	0.74	
Year End Shares	m	352	352	352	352	352	
Market Cap (spot)	A\$m	15	15	15	15	15	
Net Cash / (Debt)	A\$m	2	1	1	1	1	
Enterprise Value	A\$m	13	14	14	14	14	
EV / EBITDA	x	n/m	n/m	n/m	n/m	n/m	
Net Debt / Enterprise Value		(0.2)	(0.1)	(0.1)	(0.1)	(0.1)	
Dividend per share	A¢	0	0	0	0	0	

12-Month Relative Performance vs S&P/ASX Metals & Mining						
						
Profit & Loss (A\$m)		FY23A	FY24A	FY25E	FY26E	FY27E
Revenue		2	2	2	-	-
Expenses		(11)	(6)	(9)	(5)	(2)
EBITDA		(9)	(4)	(7)	(5)	(2)
D&A		(0)	0	0	0	-
EBIT		(9)	(4)	(7)	(5)	(2)
Interest		0	0	0	0	0
Profit Before Tax		(10)	(5)	(7)	(5)	(2)
Tax		-	-	-	-	-
Underlying NPAT		(9)	(4)	(7)	(5)	(2)
Exceptionals		-	-	-	-	-
Reported Profit		(9)	(4)	(7)	(5)	(2)
Balance Sheet (A\$m)		FY23A	FY24A	FY25E	FY26E	FY27E
Cash		2	1	1	1	1
Receivables		0	2	0	0	0
Inventory		-	-	0	-	-
PP&E		0	0	4	7	8
Other		17	11	11	11	11
Assets		19	14	17	20	21
Creditors		1	0	0	0	0
Debt		-	-	-	-	-
Leases		-	-	-	-	-
Provisions		0	0	0	0	0
Other		-	-	-	-	-
Liabilities		1	1	0	0	0
Net Assets		18	14	17	19	20
Cashflow (A\$m)		FY23A	FY24A	FY25E	FY26E	FY27E
Cash From Operations		(2)	(1)	(3)	(1)	(1)
Interest		0	0	0	0	0
Tax		-	-	-	-	-
Net Cash From Operations		(2)	(1)	(3)	(1)	(1)
Capex		(0)	2	-	-	-
Exploration		(5)	(3)	(4)	(3)	(1)
Investments		0	-	-	-	-
Free Cash Flow		(6)	(1)	(7)	(4)	(2)
Equity		0	-	7	4	2
Borrowings		-	-	-	-	-
Dividend		-	-	-	-	-
Net Increase / (Decrease) in Cash		(6)	(1)	(0)	(0)	(0)

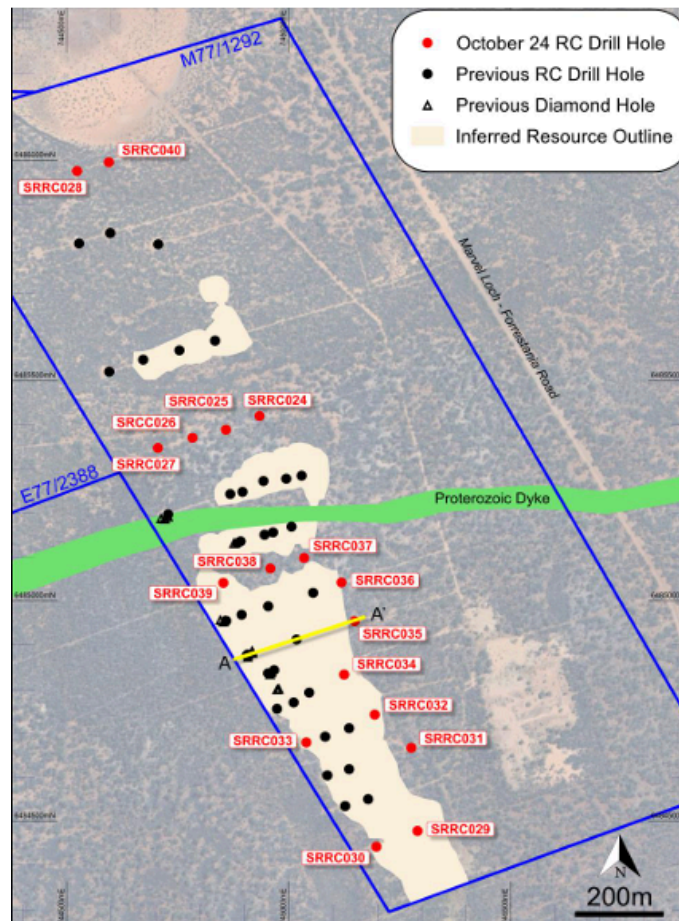
Source: MST estimates, ZNC.

Latest Round of Drilling Concludes at DFN – Key Milestone

ZNC has completed its latest round of drilling at its Dulcie Far North (DFN) Gold Project in Western Australia (WA). The program commenced in October, and comprised 17 reverse circulation (RC) holes totalling 2,268 metres(m). This brings ZNC's aggregate RC and diamond drilling to 9,142m.

Figure 2 shows the drilling completed at DFN, with previous drilling highlighted by black dots and triangles and the latest drilling with red dots. The shaded yellow area shows the current MRE.

Figure 2: DFN drilling highlighting the recent October 2024 RC drill holes in red



Source: ZNC.

What was the target of the campaign?

The drilling program set out to achieve two core objectives, both of which it met:

- infill drilling to support and increase confidence in the existing Inferred Mineral Resource estimate
- step-out drilling to extend known mineralised zones along strike and down-dip.

Both of these objectives were met.

The key drilling results

All assay results have been received, and significant gold mineralisation has been confirmed across a number of holes. Key intersections include:

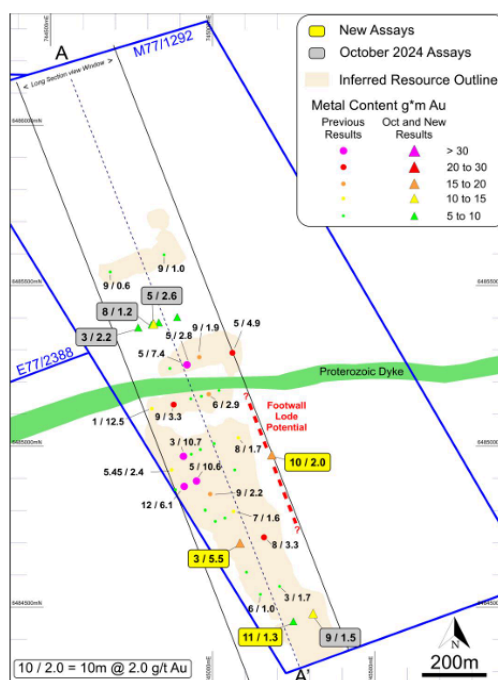
- 10m @ 2.00 g/t Au from 75m, including **4m @ 4.58 g/t Au** from 78m
- 3m @ 5.51 g/t Au from 104m, including **2m @ 8.07 g/t Au** from 105m
- 11m @ 1.30 g/t Au from 77m.

What do the results tell us?

This is a key milestone for ZNC. The results confirm:

- the continuity of gold mineralisation within the project, successfully testing extensions along strike and identified new mineralisation zones
- that there is potential for resource expansion
- that mineralisation remains open in multiple directions
- that further drilling will be required to validate and extend the discoveries.

Figure 3: Assay results of new drilling campaign highlighted in grey and yellow, with previous results included (current MRE shaded)



Source: ZNC.

What's next?

ZNC plans to integrate the results from the recently completed drilling campaign at DFN into an updated geological and resource model, the aim of which is to expand and increase confidence in the existing MRE. As a result the company will:

- update the MRE as a result of the just-completed drilling program, we expect this in Q1 2025
- conduct further drilling to demonstrate additional upside to the mineralisation, potentially enabling a further increase in the resource beyond the updated MRE
- conduct a tightly spaced drilling campaign targeting key areas within the expanded Inferred MRE to upgrade a significant portion of the resource to the Indicated category to be positioned to complete pit optimisations and report an Ore Reserve, if warranted.

What's the potential increase to the MRE?

This campaign has successfully tested extensions along strike and identified new footwall mineralisation zones, demonstrating the project's potential for substantial resource expansion. Our observation of the recent drilling lead us to consider that an increase to the MRE of ~30% may be achievable.

Red Mountain drilling - assays pending

ZNC has a drilling program at its other key gold asset, Red Mountain (RM) in Queensland (QLD). The program targeting high-priority zones over ~2,000m of drilling across 10–12 holes. The program builds on significant results from the previous campaign and will refine and expand understanding of the mineralisation.

A recent update to the 3D geological model, combined with reinterpreted geophysical data, has identified high-priority targets, especially in under-explored zones. This refined interpretation enhances ZNC's focus on areas with the greatest resource potential.

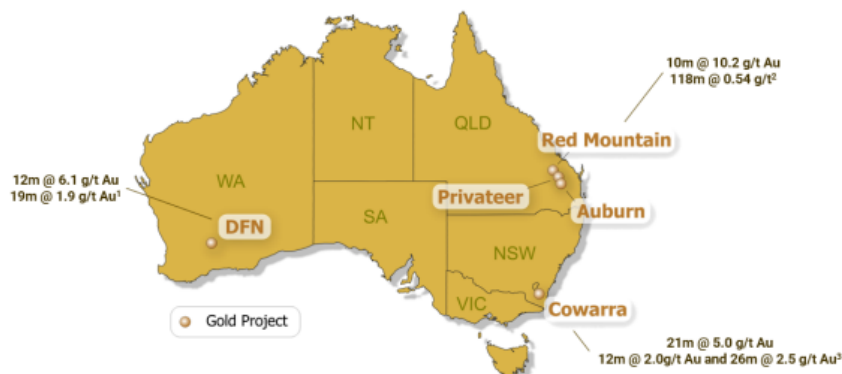
The program builds on significant results from the previous campaign. The aim of this phase to drill-test shallow IP anomalies, refine the understanding of the mineralisation and expand on prior findings. This is a pivotal step in advancing the asset. This program tested several shallow geophysical anomalies with RC as a prelude to deeper diamond drilling in 2025. Assays are pending at this time.

Recap on the ZNC Gold Projects – Key Immediate Focus

ZNC's immediate focus is on advancing its gold projects, with particular regard to the **100%-owned DFN and RM gold projects**. Both these assets provide near-term potential and offer leverage to the high gold price.

Gold exploration continues to be a priority for the company, with both projects located in regions known for their large gold endowments.

Figure 4: Location of ZNC's key gold assets



Source: ZNC.

Dulcie Far North(WA): existing resource of 150koz; strong potential

DFN is situated within the Southern Cross–Forrestania Greenstone Belt, approximately 400km east of Perth, WA, a well-known region for multi-million-ounce gold projects. The Southern Cross region boasts a rich history of gold mining, with a cumulative estimated gold endowment exceeding 10 million ounces (Moz), making it one of the most prolific gold-producing regions in the state.

Existing resource and granted mining lease

DFN has an existing Inferred Mineral Resource of 3.3Mt @ 1.4 g/t Au for 150koz of gold.

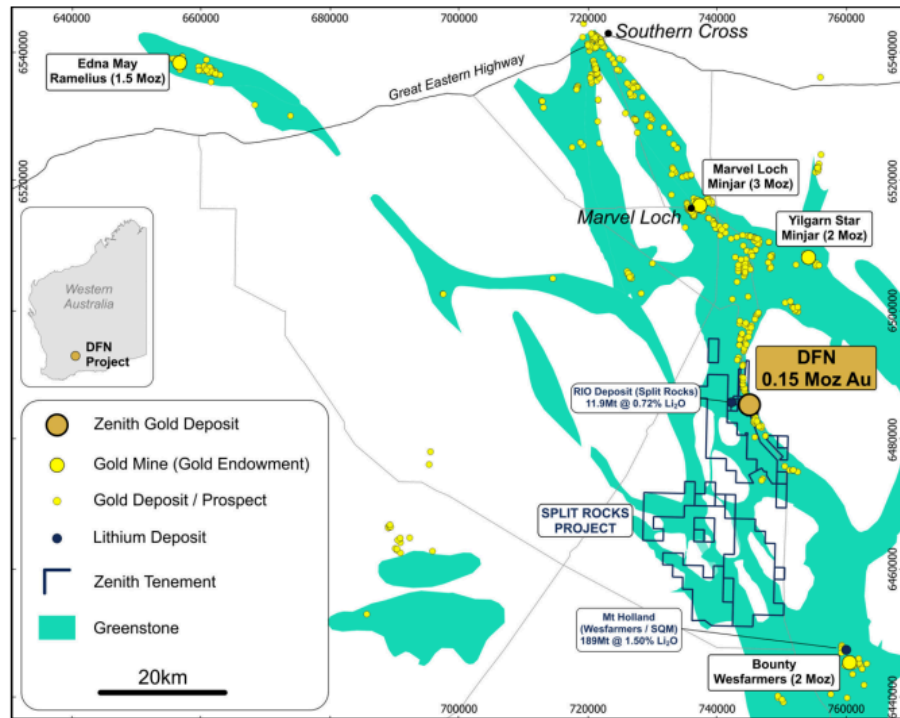
The DFN project is located on a granted mining lease and benefits from excellent infrastructure, including proximity to underutilised gold processing facilities just 35km to the north, offering opportunities for toll treatment.

Previous drilling results drive the resource

Previous drilling has confirmed high-grade gold intersections including:

- 12m @ 6.1 g/t Au from 108m, including 5m @ 10.5 g/t Au from 113m
- 5m @ 10.6 g/t Au from 91m
- 5m @ 7.4 g/t Au from 47m
- 3m @ 10.7 g/t Au from 103m.

Figure 5: Location of DFN – nearby infrastructure and large gold projects



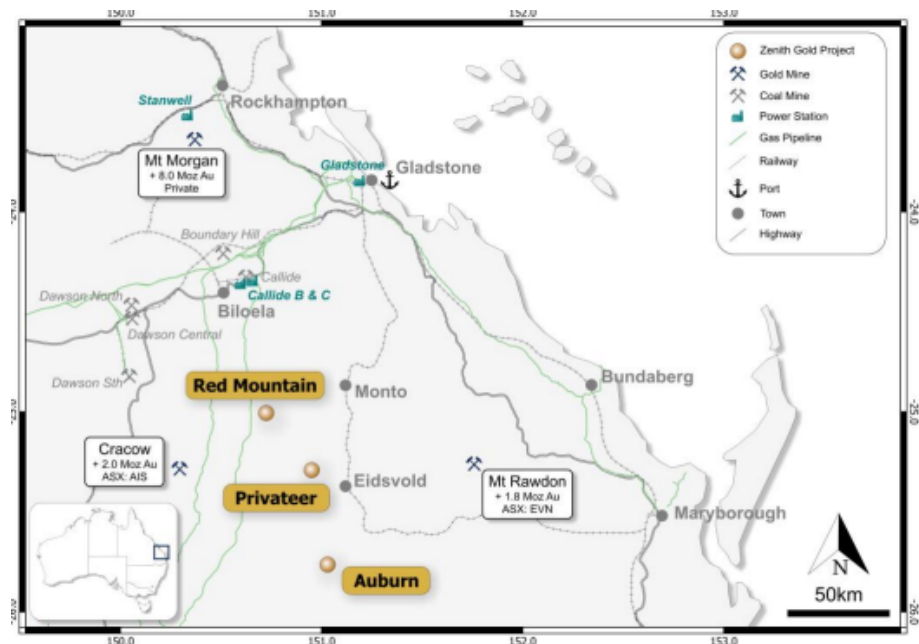
Source: ZNC.

Red Mountain (QLD): nearology and potential

RM is located in QLD, within 100km of significant deposits such as Mt Morgan (8.0Moz), Cracow (2Moz) and Mt Rawdon (1.8Moz). The project benefits from favourable terrain and access to infrastructure.

An intrusion-related gold system (IRGS) has been identified at the project. IRGS deposits, such as those at the nearby Mt Rawdon, Kidston (north-west of Townsville) and Mt Wright (south of Townsville), are renowned for large-scale mineralisation.

Figure 6: Red Mountain location and nearby gold deposits and projects



Source: ZNC.

Previous drilling results and review of data – a strong base to work off

Historical drilling – 2020 and 2021: shallow high grades present

During 2020 and 2021, RM had shallow drill testing completed, demonstrating high grades from surface to ~100m. These included:

- 13m @ 8.0 g/t Au from surface, including 6m @ 16.7 g/t Au from surface
- 15m @ 3.5 g/t Au from 57m, including 2m @ 22.4 g/t Au from 70m
- 12m @ 4.9 g/t Au from 102m, including 6m @ 9.4 g/t Au from 103m
- 5m @ 10.4 g/t Au from 67m, including 1m @ 49.9 g/t Au from 67m
- 7.7m @ 4.4 g/t Au from 63m, including 1m @ 19.3 g/t Au from 63m.

Diamond drilling 2023: showed depth continuity

Diamond drilling in 2023 confirmed the depth continuity of gold and silver mineralisation. Results included:

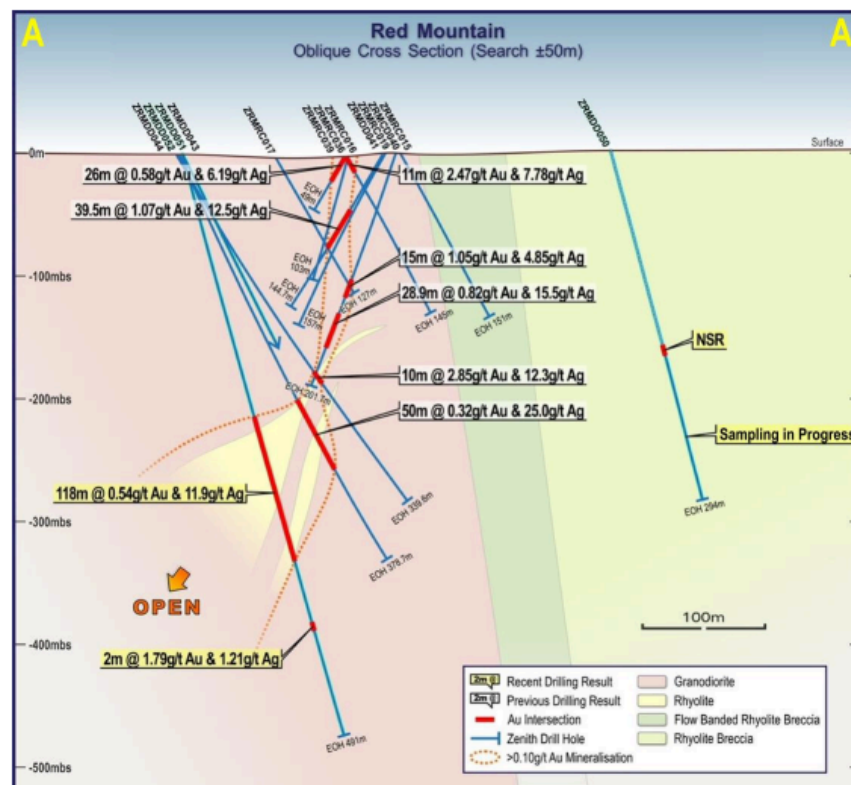
- 118m @ 0.54 g/t Au + 11.9 g/t Ag from 225m, including 12m @ 1.36 g/t Au + 4.93 g/t Ag from 288m and 9m @ 1.24 g/t Au + 6.30 g/t Ag from 323m
- 11m @ 0.45 g/t Au + 4.54 g/t Ag from 183m,
- 11m @ 1.16 g/t Au + 1.08 g/t Ag from 224m.

Review of data: identifying further targets and analysing core samples

ZNC has refined the 3D geological model and reinterpreted IP data, which has helped identify new high-priority drill targets. Additionally, 454m of core samples not previously analysed are being prepared for assay, which could provide further insights into the mineralisation.

Metallurgical tests from 2021 confirmed that the gold mineralisation is free-milling and non-refractory, with average gold recovery rates of 83.3%, including 95.8% for low-arsenic samples. This highlights the processing potential of the deposit through conventional cyanide leaching techniques.

Figure 7: Cross section of Red Mountain results to date



Source: ZNC.

Earaheedy – Metallurgical Testing Delivers

ZNC has a 25% stake in the Earaheedy zinc–lead–silver project in WA. ZNC's JV partner at Earaheedy, Rumble Resources (ASX: RTR), has reported an initial Mineral Resource Estimate (MRE) of 94Mt @ 3.1% Zn+ Pb and 4.1g/t Ag. Earaheedy is seen as by RTR as 'one of the largest zinc sulphide discoveries globally in the last decade'.

ZNC's share is free carried up until the completion of a bankable feasibility study. Earaheedy provides several options for ZNC, including a potential sale of the asset.

Metallurgical testing – highlights development potential

RTR recently completed metallurgical testing for Earaheedy.

The testing produced strong results with recoveries of 79% Zn achieved into a high-grade, 61% Zn + Pb, marketable bulk concentrate suitable for the imperial smelting process (ISP), using a coarse primary grind, which should lead to significant energy savings in the plant.

HydroFloat™ technology – adding efficiency

The HydroFloat™ is an aerated fluidised-bed separator that combines the advantages of density separation with the selectivity of flotation to deliver numerous potential capital and operating cost benefits. These include:

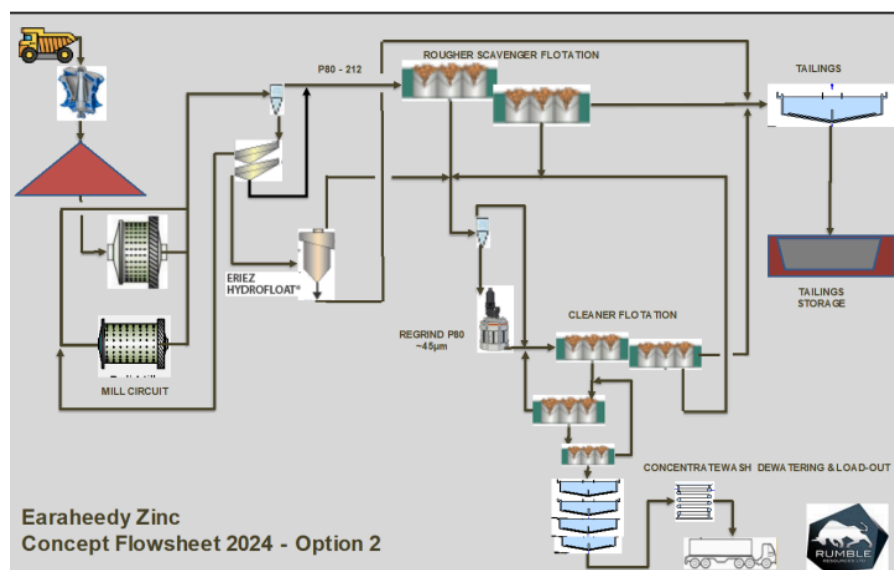
- increased plant profitability – potential to increase plant throughput by 10–35%, significantly reducing capex and opex (e.g., substantially reduced power costs)
- improved environmental sustainability – increases in water recovery by 85% lead to major energy consumption reductions and coarser tailings for safer tailing disposal and management
- improved project economics – higher production rates from either a material reduction in plant footprint or an increase in overall plant capacity
- increased metallurgical efficiency – the process removes over 30% of total gangue in early stages of the process and allowing the processing of hard and lower-grade ores at coarser fractions.

To date, over 70 commercial HydroFloat™ units have been installed around the world.

Simplified and cost-efficient flowsheet

Testwork confirmed Earaheedy ore is amenable to semi-autogenous milling, with coarse grinds delivering excellent metal recoveries. This should support a simplified, low-capex/opex processing strategy that adapts to variable feed grades while producing a high-value ISP concentrate.

Figure 8: Simplified flowsheet using HydroFloat™ technology*



Source: RTR. *Note: Option 1 was proposed in 2022 using a conventional flowsheet.

ISP smelting – a quick overview

As noted above, the testing produced a concentrate suitable for ISP. ISP is a widely used method for producing zinc and lead.

Usage

ISP is responsible for 8–10% of the world's primary zinc production. It is a common smelting technology as it can smelt zinc and lead at the same time.

Process

ISP is a vertical furnace process that uses a mix of lead and zinc concentrates as raw material. The process involves charging solid sinter and heated coke into the top of the furnace, then blowing preheated air into the bottom. Zinc vapour and sulphides leave through the top and are condensed, while slag and lead collect at the bottom.

Location

ISP furnaces are currently in operation in China, India, Japan, South Korea and Poland.

Next step – internal scoping study

RTR has stated that an internal scoping study will commence shortly to assess the economic viability and marketing opportunities for the bulk high-grade ISP concentrate from Earraheedy, with results expected in 2025.

RTR has noted that 'the application of the HydroFloat™ technology has confirmed coarse particle rejection is achievable which should lead to capital and operating cost reductions in processing that could lower the cut-off grades, thereby significantly enhancing the project's resources and economics'.

Valuation – Sum of the Parts: A\$0.29

Valuation overview: 3 key value drivers, with a focus on gold

Our base-case valuation for ZNC is A\$0.29/share.

The company has 3 key value drivers:

- gold – Dulcie Far North (DFN) and Red Mountain (RM)
- lithium – Split Rocks and Waratah Well
- zinc and base metals – Earraheedy.

Our sum-of-the-parts valuation has a contribution from each of these three key value drivers. We recently reset our valuation, focusing more on the gold assets than previously, in line with the company's strategic pivot.

Our valuation is based on a fully diluted equity base. We have assumed that ZNC will need to raise equity capital going forward to fund its exploration drilling and potential development of assets, particularly in gold. We have assumed capital raisings of A\$7m in FY25, A\$4m in FY26 and A\$2m in FY27. Given that we consider there will be some significant catalysts for share price appreciation from the drilling at DFN and RM, we have assumed the capital is raised at A\$0.07 per share.

Figure 9: ZNC valuation summary

PROJECT VALUATION	A\$M	EQUITY VALUE A\$/SHARE FULLY DILUTED	Valuation Methodology
Gold - Dulcie Far North	36	0.06	EV / Resource - Comparables
Gold - Red Mountain	10	0.02	MST Estimate
Sub Total Gold Assets	46	0.08	
Lithium - Split Rocks	32	0.05	EV / Resource - Comparables
Lithium - Waratah Well	15	0.02	MST Estimate
Sub Total Lithium Assets	47	0.07	
Zinc and Base Metals - Earraheedy	84	0.14	Risk Project NPV
ENTERPRISE NPV	84	0.29	
Add: Cash and Investments	4	0.02	At 30 September 24
EQUITY VALUE PRE SG&A	88	0.31	
SG&A	(10)	(0.02)	NPV of Corporate Costs
EQUITY VALUE	78	0.29	

Source: MST.

Breakdown: elements of our sum-of-the-parts valuation

Gold – Dulcie Far North and Red Mountain

The new CEO has prioritised gold as ZNC's key focus, given the strength of the gold price and the potential for near-term value realisation of both the assets.

Dulcie Far North: EV/Resource

DFN has an existing 150,000oz resource, allowing us to apply a 'peer' EV/Resource to the project. Given the company's focus on the project and its significant potential, we have assumed some significant drilling success in our valuation and have allocated an increase to the resource to a total of 500koz, and valued that on an EV/Resource basis.

Figure 10: Valuation of Dulcie Far North – EV/Resource

Code	Company	EV A\$m	Resource moz	EV/Resource \$/oz
RXL	Rox Resources	70	2.5	28
BGD	Barton Gold	49	1.7	30
AUN	Aurumin	29	1.0	30
STN	Saturn Metals	65	1.8	35
AUC	Ausgold	159	3.0	52
A1M	AIC Mines	132	2.1	63
MEK	Meeka Metals	172	2.0	87
AAR	Astral Resources	145	1.5	97
BTR	Brightstar Resources	160	1.5	110
BCN	Beacon Minerals	85	0.7	122
BC8	Black Cat Syndicate	340	2.6	129
	Average			71
	Dulcie Far North Resource			150,000
	Valuation of Dulcie Far North Existing 150koz Resource A\$m			\$11
	Valuation Dulcie Far North Potential 500koz Resource A\$m			\$36

Source: Company reports, Goldnerds, MST.

Red Mountain: early stage – MST estimate

RM is another asset on which ZNC is focused, given its strong exploration results to date, gold potential and the regional geology and infrastructure. The asset does not contain a resource, but is undergoing a drill program currently. We see strong potential for this asset and opportunities to consolidate in the region. Given its current status, it is too early to apply a potential EV/Resource valuation to the asset, but we are comfortable in attributing a A\$10m initial valuation to it.

Lithium: long-term value

The lithium assets still play an integral part in the long-term value of ZNC, particularly given their location in WA. The assets have strategic value, and Split Rocks contains one of the few resources for a non-operating lithium project in WA.

Split Rocks – EV/Resource

Split Rocks has an existing resource, allowing us to apply a 'peer' EV/Resource to the project.

We have applied the average of the EV/Resource values for the lithium assets of developers Liontown, Global Lithium and Delta Lithium. The details are in Figure 11.

The maiden resource for Split Rocks is 85,860 tonnes of contained lithium. Applying the average multiple for peers of A\$370/t of contained lithium, we attain a value for Split Rocks of A\$31.7m.

Figure 11: EV/Resource – lithium comparables – valuation basis for Split Rocks

General Information		Project Information	Resource (Indicated + Inferred)	EV/Contained Li2O
Company	EV (A\$m)	Project	Li2O kt	X
Liontown	2,146	Kathleen Valley	2100	955.7
Liontown	2,146	Anna	145	
Global Lithium	23	Manna	514	32.6
Global Lithium	23	Marble Bar	180	
Delta Lithium	52	Yinnetharra - Lithium -WA	246	122.1
Delta Lithium	52	Mt Ida- Lithium -WA	180	
				370.1

Source: Company reports, FactSet.

Waratah Well: less advanced, but option value – MST estimate

Waratah Well is less advanced than Split Rocks, but with potential. We apply an estimated value for this asset, electing to use a valuation of ~30% of Split Rocks.

Zinc and base metals: Earraheedy – large project; strategic value

Earraheedy is a large zinc-rich deposit with potential to be developed.

- Earraheedy makes up the majority of our ZNC valuation due to its large size, and our NPV valuation of the asset being over A\$1b on a 100% unrisks basis.
- ZNC's 25% share represents a strategic stake in the asset, operated and owned by Rumble Resources (RTR: ASX – covered by MST with a valuation of A\$0.17/share).
- In our analysis of RTR, we value Earraheedy on a risked NPV basis. Our unrisks valuation for 100% of Earraheedy is A\$1.017bn. Given the minority stake that ZNC holds, we see it as higher risk than for RTR (which we risk at 50%) and therefore allocate a 33% probability risk weighting on ZNC's 25% share, attaining a valuation of A\$84m for ZNC. The details of our NPV valuation are discussed in the next section.
- The asset has significant strategic value and may attract the interest of large strategic investors.

Key assumptions for Earraheedy DCF valuation

A lack of listed zinc development/exploration peers which are even broadly comparable with RTR means we have a relatively limited number of comparable peers from which to ascertain an appropriate EV/Resource target multiple. As a result, we have looked at an NPV valuation estimate of Earraheedy.

We highlight that our assumptions are based on high-level MST estimates with reference to the size of the current resource. The actual operational parameters under any future feasibility study may turn out to be significantly different to those assumed.

Our base-case DCF valuation is built upon a mine plan based on our assumptions which are highly conceptual in nature given the project's early stage. We have assumed the following:

- construction to take place in FY27, with the first full year of production in FY28
- 5Mtpa throughput capacity
- A\$700m capex
- 10-year mine life
- AISC of A\$1,250/t (life-of-mine)
- 10% discount rate, 0.68 AUD/USD, zinc price of US\$3,500/t and lead price of US\$2,000/t.

Our unrisks valuation of Earraheedy is A\$1.017b. In our valuation of ZNC, we have applied a 33% probability weighting to the Earraheedy Project and then allocated ZNC its 25% ownership share, yielding a valuation of A\$84m.

Positive catalysts for the share price and valuation

We believe that ZNC has significant potential for further valuation upside and highlight a number of key milestones/catalysts which may deliver this over the near term.

Key near-term catalysts – gold assets

Further successful gold drilling results – Dulcie Far North and Red Mountain

With the switch in focus to the gold portfolio, ZNC's key catalysts are continued successful drilling results at DFN and RM.

Upgraded resource – DFN

The successful drilling campaign will lead to an increase in resource for DFN. We expect to see this update early in CY25.

Consolidation – gold assets

ZNC is looking for consolidation opportunities for its gold assets. Any consolidation which would lead to higher potential resources and accelerated route to production would be positive for the stock.

Lithium catalysts

Successful lithium exploration results

Further exploration success at Split Rocks in particular, as well as at Waratah Well – would accelerate the potential to develop the projects and provide further optionality, as well as potentially improve the valuation if exploration results support the advancement of an economic feasibility study and/or corporate interest. Further exploration success at the other lithium assets would be positive for the stock as well.

Earaheedy catalysts – strategic developments

There are a number of potential positive developments at Earraheedy.

Securing a partner at Earraheedy

Earraheedy is a large-scale project, and RTR has flagged that it will seek to develop it in partnership with a larger partner who can provide secure funding as well as other support. Any potential agreement with a credible partner would be a significant de-risking milestone for the project.

Commencement of scoping study at Earraheedy

An internal scoping study is planned for Earraheedy once the final metallurgical results are received. This study would provide much more detail about the scope and timing of the project as well as preliminary economic assumptions. A positive scoping study would represent a significant potential catalyst for the stock, due to both the improved confidence it would provide on the project, as well as the ability to commence negotiations with potential partners.

Beneficiation studies at Earraheedy

The operator of the project, RTR, has noted beneficiation as a significant potential value-additive initiative at Earraheedy in order to unlock the substantial resource inventory at lower cut-off grades. These studies are planned in parallel with the scoping study, and a positive outcome would potentially add a substantial amount of material to the mine plan, providing for longer-life operations or higher-grade mill feed.

Corporate activity

The lithium sector in WA is proving to be of interest to both domestic and international operators, with consolidation in the gold sector occurring as well.

Risks

Key near-term risk – disappointing gold drilling results

The key short-term catalysts for ZNC are the drilling programs at DFN and RM. Any disappointment in results would be a risk to the share price.

Lithium risks

Disappointing lithium exploration results

Any disappointment in further lithium exploration results would undermine the economic viability of the projects and reduce the likelihood of an economic project proceeding into development and construction.

Continued weakness in lithium prices

The lithium market has been weak for the last 12 months as concerns around supply and China have prevailed. Continued weakness in the lithium price adds risk to ZNC's strategy of engaging strategic partners and lithium exploration.

Earaheedy key risk – lack of progress

Lack of progress at Earraheedy with regards to strategic partners and project development would be detrimental to the potential value of the project.

Macro risk – changes in regulatory framework

Regulatory changes such as royalty rates or changes to permitting requirements may alter the risk profile of the company and would potentially be detrimental to the stock price.

Personal disclosures

Michael Bentley received assistance from the subject company or companies in preparing this research report. The company provided them with communication with senior management and information on the company and industry. As part of due diligence, they have independently and critically reviewed the assistance and information provided by the company to form the opinions expressed in this report. They have taken care to maintain honest and fair objectivity in writing this report and making the recommendation. Where MST Financial Services or its affiliates has been commissioned to prepare content and receives fees for its preparation, please note that NO part of the fee, compensation or employee remuneration paid has, or will, directly or indirectly impact the content provided in this report.

Company disclosures

The companies and securities mentioned in this report, include:

Zenith Minerals (ZNC.AX) | Price A\$0.043 | Valuation A\$0.290;

Price and valuation as at 05 December 2024 (* not covered)

Additional disclosures

This report has been prepared and issued by the named analyst of MST Access in consideration of a fee payable by: Zenith Minerals (ZNC.AX)

Other disclosures, disclaimers and certificates

Methodology & Disclosures

MST Access is a registered business name of MST Financial Services Limited (ABN 617 475 180 "MST Financial Services"), which is a limited liability company incorporated in Australia on 10 April 2017 and holds an Australian Financial Services Licence (AFSL 500 557). This research is issued in Australia through MST Access, which is the research division of MST Financial Services. The research and any access to it, is intended only for "wholesale clients" within the meaning of the Corporations Act 2001 of Australia. Any advice given by MST Access is general advice only and does not take into account your personal circumstances, needs or objectives. You should, before acting on this advice, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs. If our advice relates to the acquisition, or possible acquisition, of a financial product you should read any relevant Product Disclosure Statement or like instrument.

ECM and corporate advisory services: MST Financial Services provides equity capital markets ("ECM") and corporate advisory services through its capital markets division, MST Capital Markets ("MST Capital"). MST Capital provides these services to a range of companies including clients of MST Access. As such, MST Capital may in the future provide ECM and/or corporate advisory services and, accordingly, may receive fees from providing such services. However, MST Financial Services has measures in place to ensure the independence of its research division is maintained, including information barriers between its Capital Markets and Research teams. In addition, neither MST Access, nor any of its research analysts, receive any financial benefit that is based on the revenues generated by MST Capital or any other division of MST Financial Services.

Accuracy of content: All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report and have not sought for this information to be independently certified. Opinions contained in this report represent those of MST Access at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results and estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations.

Exclusion of liability: To the fullest extent allowed by law, MST Access shall not be liable for any direct, indirect or consequential losses, loss of profits, damages, costs or expenses incurred or suffered by you arising out of or in connection with the access to, use of or reliance on any information contained in this report. No guarantees or warranties regarding accuracy, completeness or fitness for purpose are provided by MST Access, and under no circumstances will any of MST Financial Services' officers, representatives, associates or agents be liable for any loss or damage, whether direct, incidental or consequential, caused by reliance on or use of the content.

General Advice Warning

MST Access Research may not be construed as personal advice or recommendation. MST Access encourages investors to seek independent financial advice regarding the suitability of investments for their individual circumstances and recommends that investments be independently evaluated. Investments involve risks and the value of any investment or income may go down as well as up. Investors may not get back the full amount invested. Past performance is not indicative of future performance. Estimates of future performance are based on assumptions that may not be realised. If provided, and unless otherwise stated, the closing price provided is that of the primary exchange for the issuer's securities or investments. The information contained within MST Access Research is published solely for information purposes and is not a solicitation or offer to buy or sell any financial instrument or participate in any trading or investment strategy. Analysis contained within MST Access Research publications is based upon publicly available information and may include numerous assumptions. Investors should be aware that different assumptions can and do result in materially different results.

MST Access Research is distributed only as may be permitted by law. It is not intended for distribution or use by any person or entity located in a jurisdiction where distribution, publication, availability or use would be prohibited. MST makes no claim that MST Access Research content may be lawfully viewed or accessed outside of Australia. Access to MST Access Research content may not be legal for certain persons and in certain jurisdictions. If you access this service or content from outside of Australia, you are responsible for compliance with the laws of your jurisdiction and/or the jurisdiction of the third party receiving such content. MST Access Research is provided to our clients through our proprietary research portal and distributed electronically by MST Financial Services to its MST Access clients. Some MST Access Research products may also be made available to its clients via third party vendors or distributed through alternative electronic means as a convenience. Such alternative distribution methods are at MST Financial Services' discretion.

Access & Use

Any access to or use of MST Access Research is subject to the [Terms and Conditions](#) of MST Access Research. By accessing or using MST Access Research you hereby agree to be bound by our Terms and Conditions and hereby consent to MST Financial Services collecting and using your personal data (including cookies) in accordance with our [Privacy Policy](#), including for the purpose of a) setting your preferences and b) collecting readership data so we may deliver an improved and personalised service to you. If you do not agree to our Terms and Conditions and/or if you do not wish to consent to MST Financial Services' use of your personal data, please do not access this service.

Copyright of the information contained within MST Access Research (including trademarks and service marks) are the property of their respective owners. MST Access Research, video interviews and other materials, or any portion thereof, may not be reprinted, reproduced, sold or redistributed without the prior written consent of MST Financial Services.