

2nd Sep 2021



Corporate Details

Zenith Minerals Limited (ASX:ZNC)
ABN: 96 119 397 938

Issued Shares	322.3M
Unlisted options	17.3M
Mkt. Cap. (\$0.205)	A\$64.5M
Cash (5-Aug-21)	A\$7.5M
Debt	Nil

Directors

Peter Bird	Exec Chair
Michael Clifford	Director-CEO
Stan Macdonald	Non-Exec Director
Julian Goldsworthy	Non-Exec Director
Graham Riley	Non-Exec Director
Nicholas Ong	Co Sec
Nick Bishop	CFO

Major Shareholders

Directors	6.3%
HSBC Custody. Nom.	9.8%
Citicorp Nom	7.6%
BNP Paribas. Nom.	6.5%
Granich	3.8%

Our Vision

Zenith has a vision to build a gold and base metals business with a team of proven project finders.

Focus is on 100% owned Zenith projects, whilst partners progress multiple additional opportunities using partner funds.

Contact Us

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MULTI RIG DRILLING OF MASSIVE SULPHIDE-COPPER TARGETS AT DEVELIN CREEK PROJECT

- A three-drill rig program has kicked off at the Develin Creek copper-zinc massive sulphide project in Queensland. A total of eight copper-zinc targets are to be drill tested at Develin Creek. These include:
 - Four targets at Snook and Wilsons prospects, and
 - Four additional targets located close to the existing Sulphide City JORC massive copper-zinc sulphide deposits (refer to ASX Release 28-Jun-21 for further details on these targets).
- This current initiative is part of a larger drill program of approximately 40 holes that in addition to the testing of the 8 new targets will assess the Sulphide City resource area where recent drilling returned strong massive copper-zinc sulphides in a twin hole program including (ASX Release 5-Jul-21).
 - 34m @ 3.5% Cu+Zn, incl 10m @ 6.0% Cu+Zn, and
 - 29m @ 3.5% Cu+Zn, incl 12.3m @ 6.7% Cu+Zn
- This drilling is part of a broader plan to build upon the existing JORC resource and add potential tonnage to the Develin Creek copper-zinc volcanogenic massive sulphide (VMS) inventory.

Commenting on the Develin Creek drill program Chairman Peter Bird said:
"We are really excited to report that the Develin Creek follow-up drilling is now underway with one RC drill rig, shortly to be joined by a second RC rig and a diamond drill rig."

As most investors would be aware, copper rich VMS systems often occur in swarms or clusters. At Develin Creek we already have an established JORC Compliant resources and 8 additional high priority targets to assess, which is suggesting the potential for a typical cluster of VMS deposits. Additional success would add real value to the business!

We remain very positive in relation to the outlook for copper demand and the co-incident lack of supply elasticity. Copper remains the ultimate "green" metal in the context of a more sustainable global future".

The Planned Drill Program and Estimated Timeline:

A total of eight copper-zinc targets and Sulphide City to be drill tested:

- Sulphide City – 4 targets (T1 – T4)
- Snook – 2 targets (S1 – S2)
- Wilsons – 2 targets (W1 – W2)
- Sulphide City – resource drilling

Drilling of the total program is anticipated to take approximately 5 weeks, with assay results available some 3 - 4 weeks thereafter.

Develin Creek Project Background and Drill Targets

The Develin Creek project contains a VMS copper-zinc deposit with an Inferred Mineral Resource (JORC 2012) of: 2.57Mt @ 1.76% Cu, 2.01% Zn, 0.24g/t Au and 9.6g/t Ag (2.62% CuEq) released to ASX on 15-Feb-2015.

A recent program of 3 diamond drill holes at the Sulphide City resource area by the Company confirmed high-grade copper and zinc zones (Figure 1) with associated gold and silver in massive sulphides (ASX Release 5-Jul-21). Results include:

- ZDCDD002 - 29m @ 2.3% Cu, 1.2% Zn, 0.3 g/t Au & 4.2 g/t Ag
- incl. 12.3m @ 4.2% Cu, 2.5% Zn, 0.6 g/t Au & 7.3 g/t Ag
- ZDCDD003 - 34m @ 2.0% Cu, 1.5% Zn, 0.2 g/t Au & 4.9 g/t Ag
- incl. 10m @ 3.9% Cu, 0.4% Zn, 0.3 g/t Au & 6.9 g/t Au.

Results point towards a potential increase in copper grade within the higher-grade portions of the existing Inferred Mineral Resource, although additional drilling is required to see if this trend can be extrapolated throughout the deposit. These new diamond drill holes also defined discrete zones of high-grade zinc within the copper rich intervals noted above. These zones were not identified in the historic resource drilling, and include:

- ZDCDD002 - 4m @ 4.7% Cu, 6.1% Zn, 1.2 g/t Au & 9.8 g/t Ag
- ZDCDD003 - 10m @ 1.8% Cu, 4.2% Zn, 0.2 g/t Au & 5.4 g/t Ag

This drilling is part of a broader plan to build upon this JORC resource and add others to the Develin Creek copper-zinc volcanogenic massive sulphide (VMS) inventory.

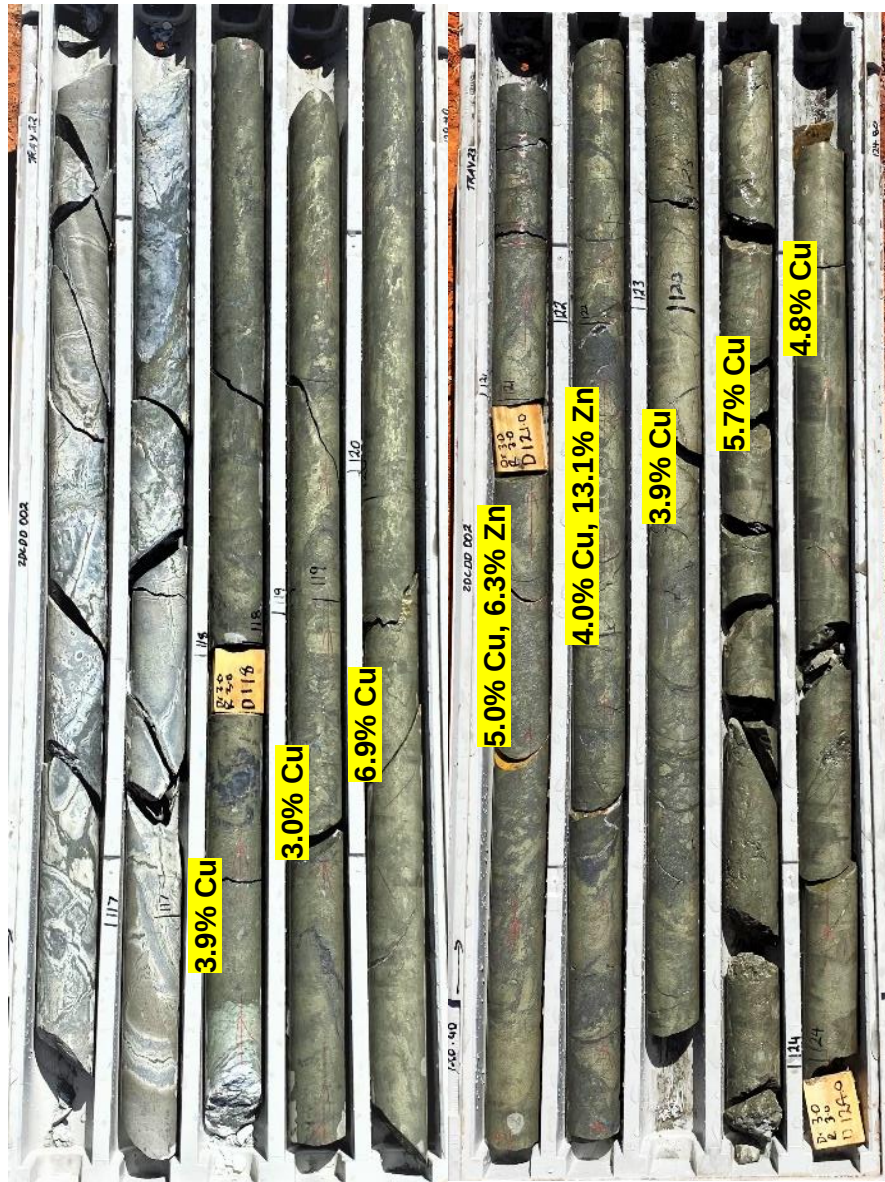


Figure 1: Develin Creek –Zenith Diamond Drill Hole ZDCDD002 Example of Results Showing Consistent High-grade Copper values (116m – 124.8m) – refer ASX Release 5-Jul-21 for further details).

The Company holds exploration permits that cover the highly prospective host rocks over 50km north – south (Figure 2). Zenith’s technical team outlined the Snook target located 30km south of the existing JORC resources. An initial maiden drill test of 7 shallow RC holes has been a success, with hole ZSRC001 intersecting 3m of massive and semi-massive sulphides close to surface, at a depth of only 20m downhole. This zone returned: 3m @ 1.57% Cu, 1.07% Zn, 0.37% Pb, 43 g/t Ag and 0.2g/t Au, including 2m of massive sulphide grading: 1.95% Cu, 1.34% Zn, 0.48% Pb, 55 g/t Ag and 0.3g/t Au, within a broader interval of disseminated and stockwork sulphides assaying 12m @ 0.81% Cu, 0.56% Zn, 0.19% Pb, 22g/t Ag & 0.1 g/t Au (refer to ASX Release 7-Dec-20).

A recently completed IP survey show a small coincident chargeability high associated with the Snook massive sulphide zone with a deeper much stronger IP target lying beneath the current drilling and another strong target to the east (refer to ASX Release 28-Jun-21). The latter, targets S1 & S2 are now ready for drill testing as part of the planned expanded drill program.

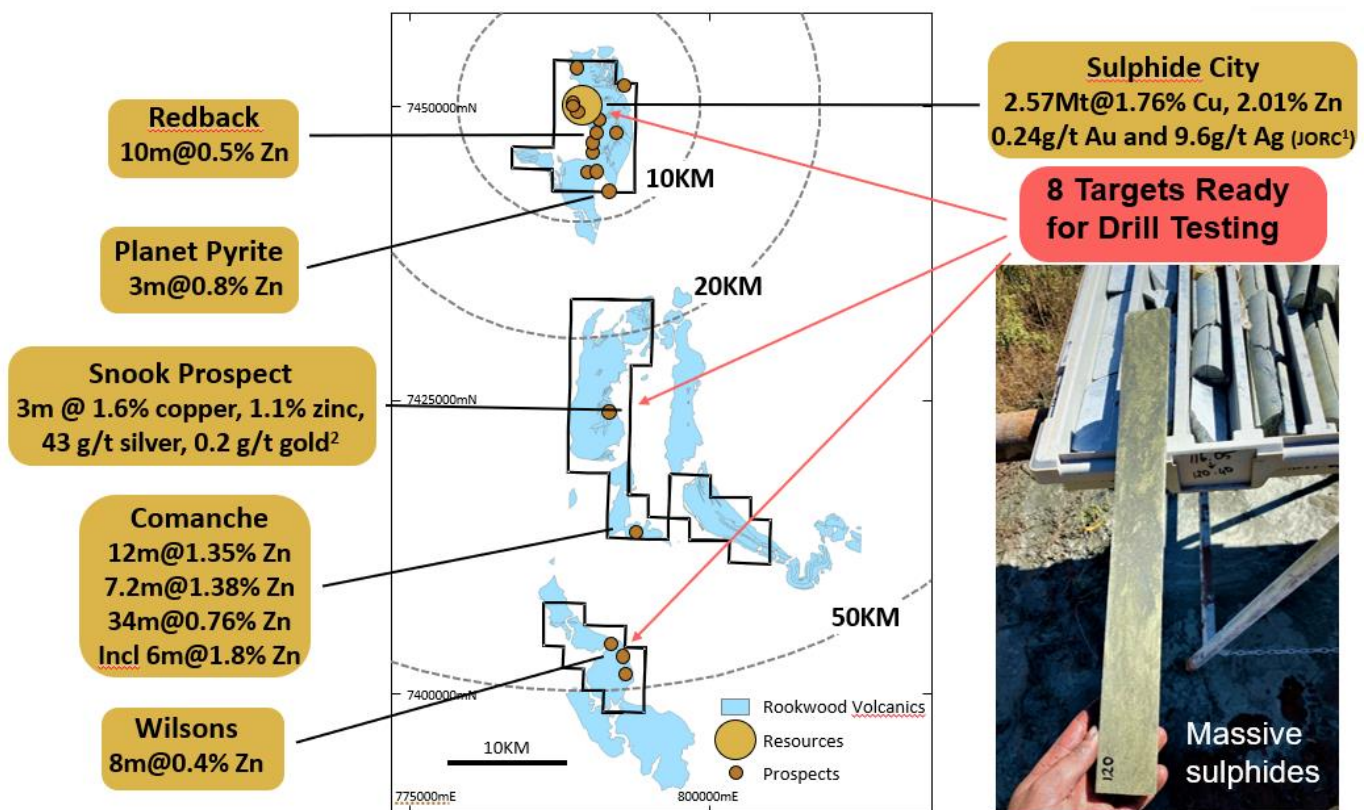


Figure 2: Develin Creek Prospects and Geochemical Anomalies

Snook Drill Targets

A dipole-dipole IP survey (DDIP) consisting of 3 trial survey lines at Snook was completed with the aim of identifying zones of disseminated sulphide mineralisation that typically form as a halo or “feeder zones” beneath volcanic hosted massive copper-zinc sulphide deposits.

The survey was successful in identifying several strong chargeability anomalies up to 40mv/V in areas of high resistivity consistent with disseminated sulphides within the basalt host rock target sequence below a sedimentary unit (zone of low resistivity) – refer to Figures 3 – 4. These targets (S1 & S2) lie below the existing drill holes that contained strongly anomalous copper-lead-zinc and precious metals and will be tested by a series of up to 7 drill holes. The IP anomaly remains open to the south (Figure 3) providing further upside.

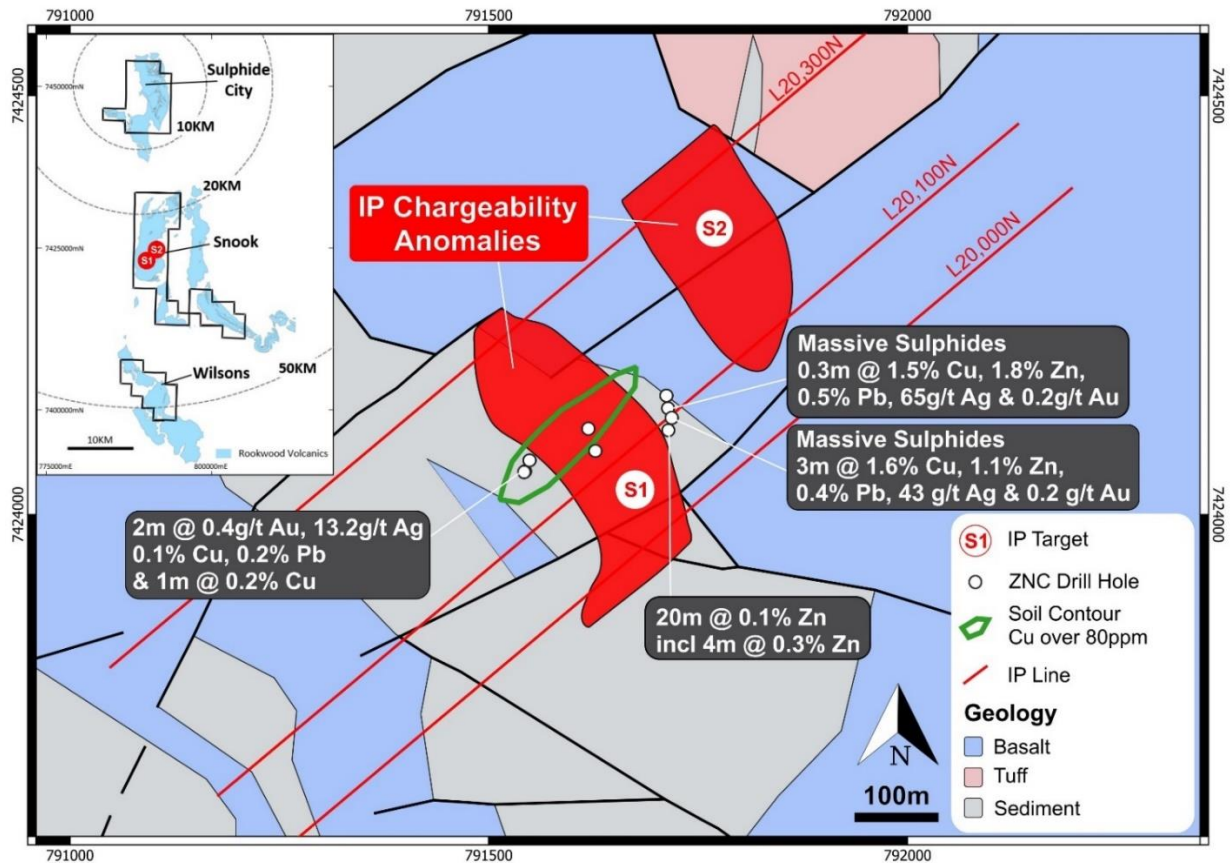


Figure 3: Plan of Snook Prospect with Geology, IP Targets and Planned Drilling

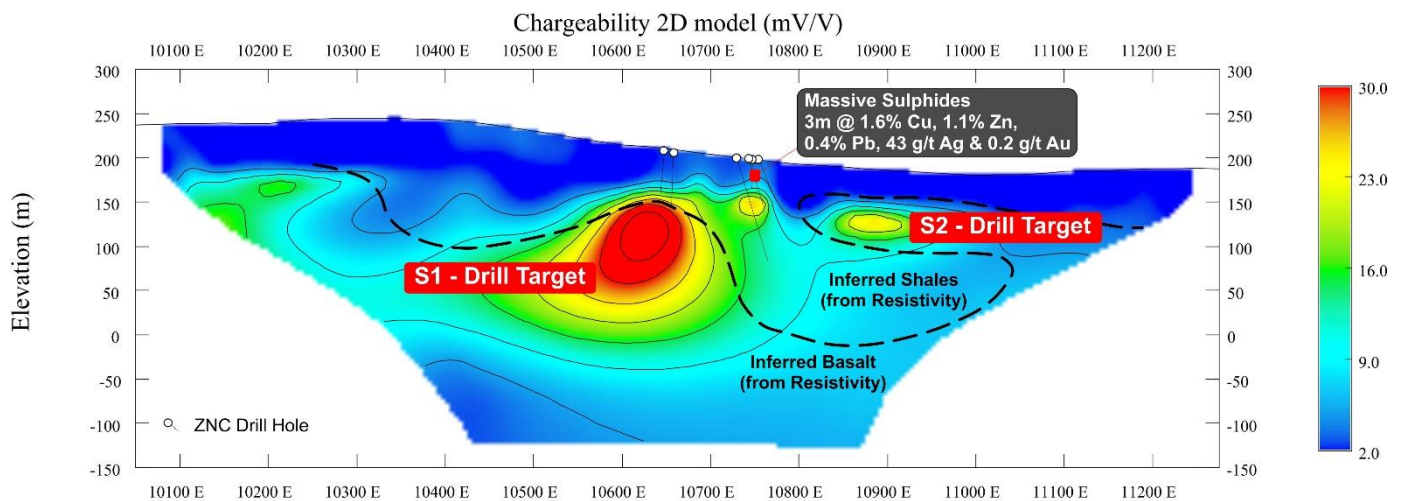


Figure 4: Snook Prospect IP Pseudosection L20,100N Showing Existing Shallow RC & DD Holes that do not reach the S1 Drill Target

Wilsons Drill Targets

In addition, a DDIP survey consisting of 7 survey lines was completed at the Wilsons prospect extending north. A strong chargeable anomaly coincident with a resistive high (inferred basalt host sequence) was defined beneath the target area that is obscured by soil. Like Snook, the Wilsons drill targets (W1 & W2) are consistent with a zone of sub-surface disseminated sulphides that typically form as a halo or “feeder zones” beneath volcanic hosted massive copper-zinc sulphide deposits (Figures 5 – 6). Two to three drill holes are planned to test the Wilsons IP targets.

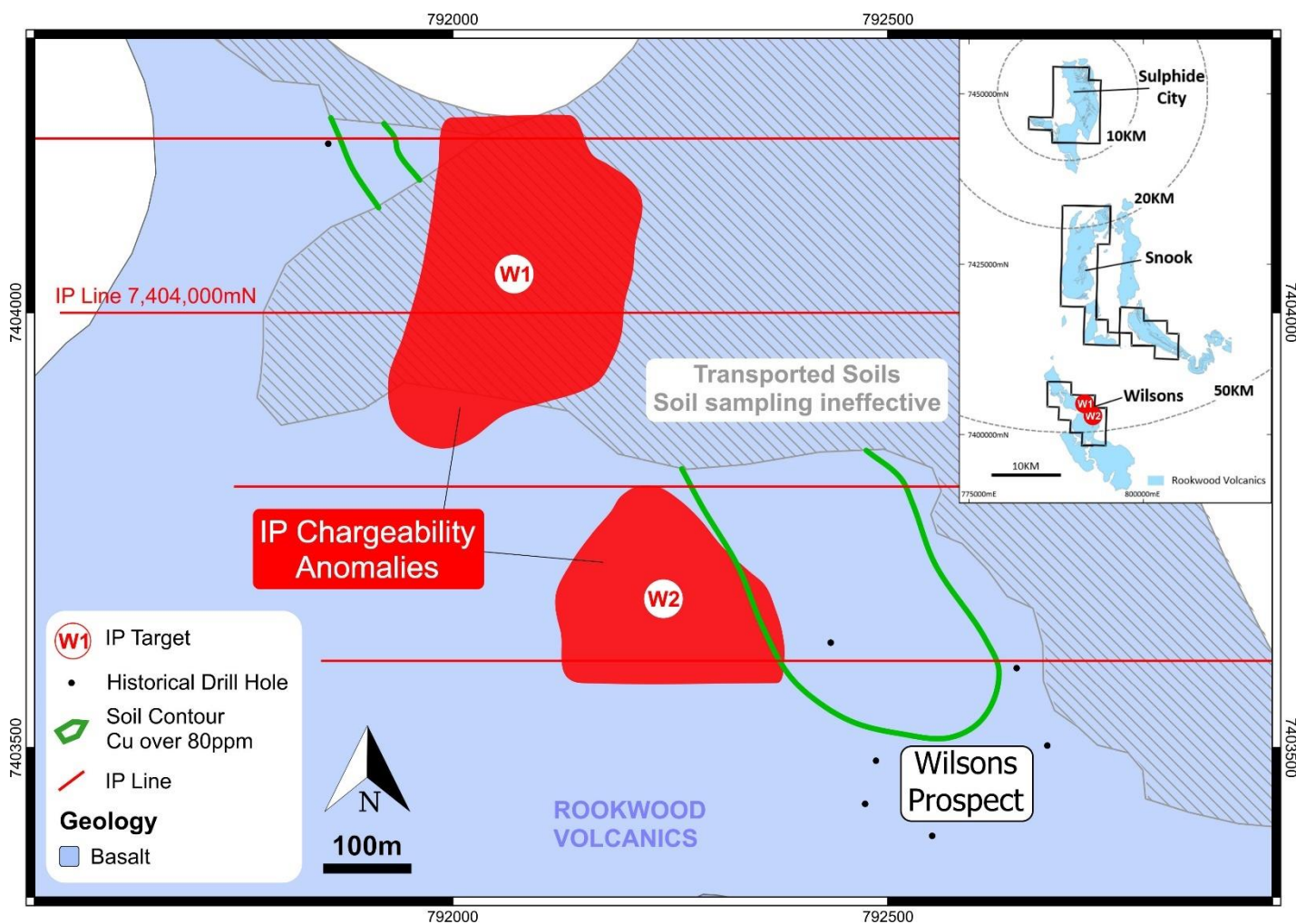


Figure 5: Plan of Wilsons Prospect with Geology, IP Targets and Planned Drilling

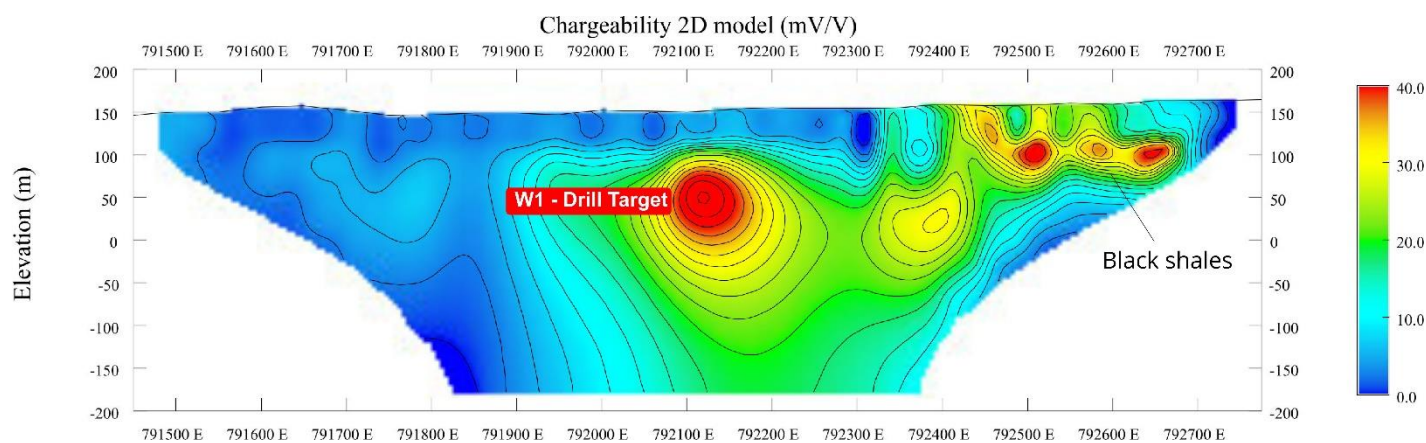


Figure 6: Wilsons Prospect IP Pseudosection 7,404,000mN Showing W1 Drill Target

Sulphide City Resource Area Drill Targets

Four additional targets (T1 to T4) located close to the existing Sulphide City JORC massive copper-zinc sulphide deposits were defined by a reinterpretation of geology, geochemical and airborne electromagnetic survey (EM) data (Figure 7).

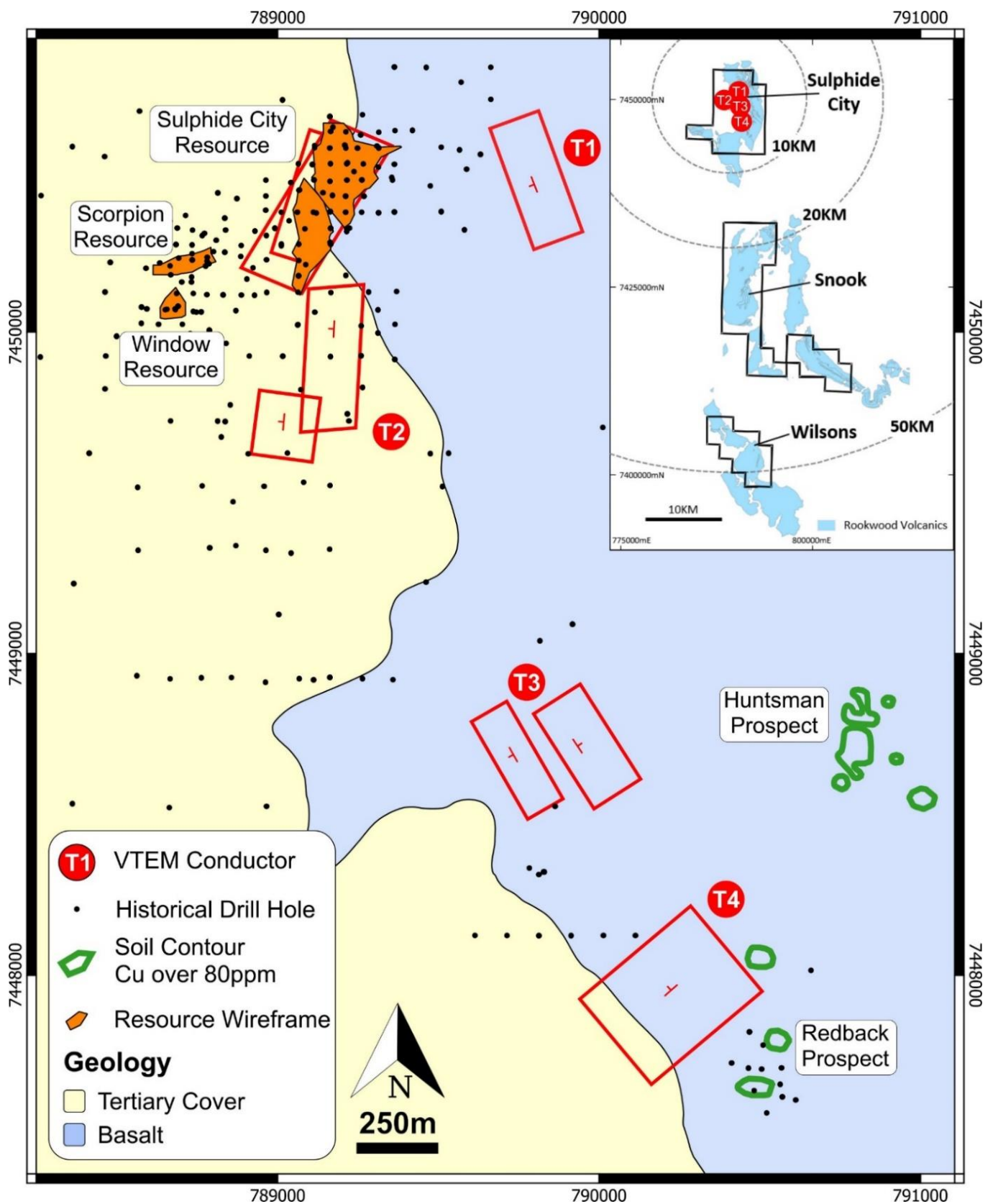


Figure 7: Plan of Sulphide City Prospect Area with Geology and EM Targets (T1 to T4)

For further information please refer to the Company's website or contact the Company directly.

Authorised for release by the Zenith Minerals Limited Board of Directors – 2nd Sep 2021

For further information contact Zenith Minerals Limited:

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Phone +61 8 9226 1110



First drill rig on site – Drilling Commenced

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Michael Clifford, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith Minerals Limited. Mr Clifford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Clifford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Material ASX Releases Previously Released

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

About Zenith

Zenith has a vision to build a gold and base metals business with a team of proven project finders. Focus is on 100% owned Zenith projects, whilst partners progress multiple additional opportunities using third party funds.

Zenith is continuing to focus on its core Australian gold and copper projects including:

- 🚩 **Red Mountain Gold Project** in Queensland (100% owned) where ongoing drilling is following-up the high-grade near surface gold and silver intersected in the maiden & subsequent drill programs (ASX Releases 3-Aug-20 & 13-Oct-20, 9-Nov-20, 21-Jan-21), including:
 - 13m @ 8.0 g/t Au & 3.2 g/t Ag from surface
 - 15m @ 3.5 g/t Au, incl. 2m @ 22.4 g/t Au
 - 5m @ 10.4 g/t Au, and
 - 12m @ 4.9 g/t Au

- 🚩 **Split Rocks Gold Project** in Western Australia (100% owned), where recent drilling returned, high-grade near surface gold mineralisation at multiple targets (ASX Release 5-Aug-20, 2-Sep-20, 19-Oct-20, 28-Oct-20, 15-Jan-21, 11-Mar-21, 21-Apr-21, 24-Jun-21), including:
 - Dulcie North: 32m @ 9.4 g/t Au, incl 9m @ 31.4 g/t Au.
 - Dulcie Laterite Pit:
 - 2m @ 14.5 g/t Au, incl. 1m @ 20.8 g/t Au,
 - 18m @ 2.0 g/t Au (EOH) incl. 1m @ 23.7 g/t Au &
 - 14m @ 3.5 g/t Au
 - Estrela Prospect: 2m @ 9.8 g/t Au (open to north & south)
 - Dulcie Far North: 5m @ 5.6 g/t Au incl. 4m @ 6.8 g/t Au, 3m @ 70 g/t Au
 - Water Bore: 3m @ 6.6 g/t Au

- 🚩 **Develin Creek Copper-Zinc Project** in Queensland (100% owned) – maiden drill test of the new Snook copper target located 30km south of Zenith's JORC resources discovers massive copper-zinc sulphides (ASX Release 17-Dec-20). Drill results from Sulphide City include: 29m @ 2.3% Cu, 1.2% Zn, 0.3g/t Au, 4.2 g/t Ag (ASX Release 5-Jul-21).

- 🚩 **Jackadgery Gold Project** in New South Wales (option to earn initial 90%), historic trenching returned 160m @ 1.2 g/t Au. No drilling to date. Zenith planning maiden drill test (ASX Release 10-Sep-20).

- 🚩 **Earaheedy Zinc Project** in Western Australia (25% free carry to end BFS). New major zinc discovery to be fast tracked with extensive accelerated exploration program underpinned by a recent \$40M capital raising by partner Rumble Resources Limited (ASX:RTR) (ASX Releases 28-Apr-21, 2-Jun-21, 8-Jun-21).