



QUARTERLY ACTIVITY REPORT FOR THE PERIOD ENDING 31st DECEMBER 2020

Zenith has a vision to build a gold and base metals discovery 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.

Corporate Details as at 31st Dec 2020

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

Issued Shares	294.4M
Unlisted options	16.55M
Mkt. Cap. (\$0.13)	A\$38M
Cash (31 st Dec 20)	A\$3.85M
Debt	Nil

Directors

Peter Bird	Exec Chairman
Michael Clifford	CEO
Stan Macdonald	Non-Exec Director
Julian Goldsworthy	Non-Exec Director
Graham Riley	Non-Exec Director

Major Shareholders

Directors	~13%
HSBC Custody. Nom.	11%
J P Morgan	5.0%
Granich	4.6%
Citicorp Nom	4.3%

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EXPLORATION DELIVERS SUCCESS AT THREE CORE PROJECTS

- Diamond core drilling results from the most recent two holes at the Red Mountain Gold Project (ZNC 100%) in Queensland have extended the high-grade gold zone to 180 vertical metres. Gold mineralisation remains open at depth and will be the focus of further step-out drilling planned to recommence in February 2021.

The newly intersected gold mineralisation is associated with base metal stringer veins with 5 separate occurrences of visible gold now confirmed in one diamond drill hole.

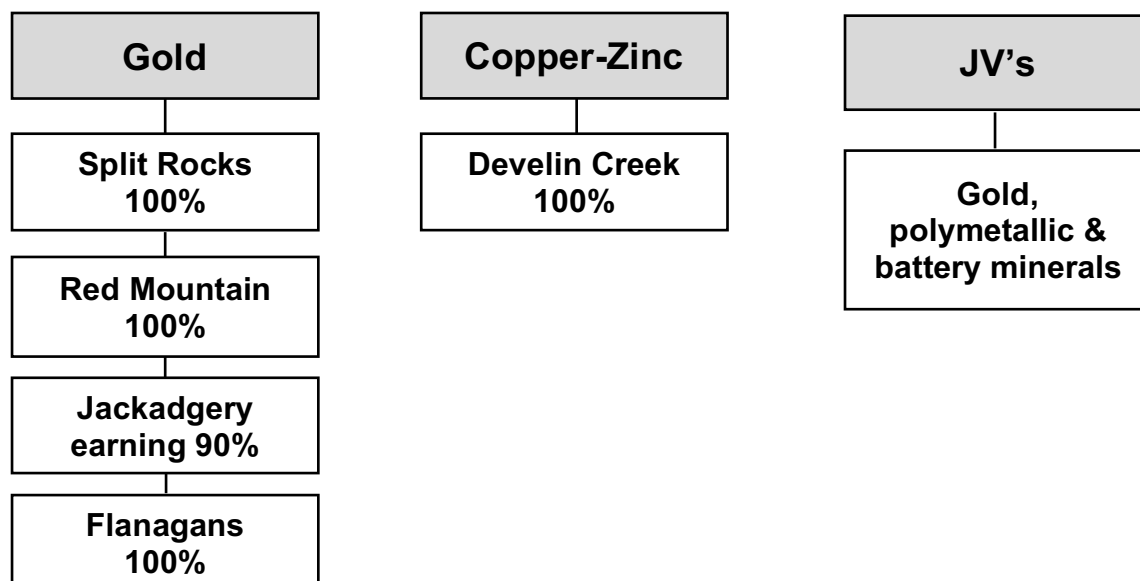
- Split Rocks Gold Project Western Australia (ZNC 100%). The large scale 2km long gold target defined at the Dulcie Laterite Pit continues to yield results from drilling with extensions announced throughout the quarter. The depth extent has yet to be defined. Drilling is set to continue in 2021 with the view to defining a resource.

- Develin Creek Copper-Zinc Project Queensland (ZNC 100%). The 7-hole maiden RC drill program has been completed at the new "greenfields" Snook copper prospect. This program tested only 200m of strike delivering very encouraging results, including 3m of massive and semi-massive sulphides at 20m depth in the northern most drill hole. Detailed field mapping is underway with follow up drilling planned.

CORPORATE

- The Company AGM was completed on 25 Nov 20 with all resolutions approved.
- The Company continues to manage its exploration activities based on COVID-19 advice from Federal and Government agencies.
- Sufficient cash reserves on hand to advance project portfolio via drilling and evaluation (\$3.85M at the end of the quarter – unaudited).

Zenith Minerals has an extensive project portfolio broadly subdivided as follows:



CORE PROJECTS - HIGHLIGHTS

Red Mountain Gold – QLD (ZNC 100%)

Ongoing exploration activity at the 100% owned Red Mountain gold project located in Queensland (see ASX release 21-Jan-2021) is continuing to provide highly encouraging high-grade gold drill assay results. Drilling to date has outlined a discrete sub-vertical high-grade gold zone (Western Zone) to a vertical depth of 180m, with the zone remaining open at depth. This zone will be the subject of ongoing drill testing.

New assay results from 2 diamond core holes completed late in CY2020 extended high-grade gold mineralisation to a depth of 180m below surface. High-grade gold was intersected in both holes (ZMRD038 and 040) with individual assays peaking at 34.2 g/t Au and 10.4 g/t Au respectively. Results were particularly strong in hole ZMRD040 with zones of high-grade gold intersected from 111m down hole to the end of hole at 201.7m. The mineralisation appears to be associated with a stockwork of base metal stringer veins in altered diorite, granodiorite and granite with the 5 separate occurrences of visible gold confirmed by assay results.

The confirmation of extensive visible gold and strong gold grades in what we believe to be the upper levels of a breccia pipe system will now lead us to push the drilling program to explore much deeper – that is below the 180 vertical metre level. As illustrated in Figure 2 we are potentially still only exposing the upper portion of a breccia pipe system if other similar well documented systems such as the Mt Wright gold mine are a proxy.

Planned Programs

Red Mountain is a maiden discovery by Zenith and is located within a very prospective and proven geological region. We anticipate that drilling campaigns at the Red Mountain Project will continue well into CY2021.

DD program intersected free gold and extends mineralisation to 180m vertical

Drilling to continue in CY 2021

Split Rocks Gold Project – WA (ZNC 100%)

18 high-quality gold targets defined

The large-scale gold bearing bedrock shear zone at the Dulcie Laterite Pit area has been confirmed to extend over 2km in strike and remains open down dip (at 30°) with a thickness ranging from 4 to 40m (refer to ASX 15-Jan-2021). The depth extent is yet to be fully defined.

2km long target zone still open at depth

Gold zones appear to also be locally stacked and open to the east, as well as down-dip to the west, requiring a second phase of RC drilling – this will commence early in CY2021.

The Dulcie Laterite Pit is one of 3 high priority targets being evaluated at Split Rocks, the other two are Dulcie North with intersections of 32m @ 9.4 g/t Au, incl 9m @ 31.4 g/t Au and Dulcie Far North with an intersection of 5m @ 5.6 g/t Au. Permitting for follow-up drilling of these two areas is in progress.

Plan to drill high-grade Dulcie North & Far North in first quarter 2021

Planned Programs

A further 8 of the originally 18 defined gold targets have yet to have first pass drill testing. This work will proceed in early 2021 in addition to the three key target zones.

Jackadgery Gold NSW (ZNC earning 90%)

Gold project in New South Wales secured by Zenith under option arrangement (ASX release 10-Sep-20). The Jackadgery gold project contains a “walk-up” drill target.

Historic trench results 160m @ 1.2 g/t Au

Historic surface trench sampling (1983-85) returned:

- 160m @ 1.2 g/t Au, with higher grade intervals, including:
- 5m @ 18.0 g/t Au and 5m @ 7.1 g/t Au.

No drilling to date

Geological mapping and ground magnetics has been completed by Zenith. There has been no prior drilling undertaken on the property.

Planned Programs

Drilling is planned to commence in early 2021 subject to land access and permitting.

Develin Creek Copper-Zinc QLD (ZNC 100%)

Snook drilled with good results

A 7-hole maiden RC drill program was undertaken at the new “greenfields” Snook copper prospect. This program tested only 200m of strike with very encouraging results, including 3m of massive and semi-massive sulphides at 20m depth in the northern most drill hole (refer to ASX release 7-Dec-20), results included:

- 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 12m @ 0.81% Cu, 0.56% Zn, 0.19% Pb, 22g/t Ag & 0.1 g/t Au

The Snook prospect is located 30km south of Zenith's current defined polymetallic JORC resources within the Company's wholly owned Develin Creek Project.

This new "greenfields" prospect result is the most significant massive sulphide intersection and best base metal interval recorded to date, within the project area, outside of the existing defined JORC resources.

Defined a VMS system

In addition to the northern drill intercept the southernmost drill holes intersected wide zones of strongly anomalous copper-zinc, gold & silver including 2m @ 0.4 g/t Au, 13 g/t Ag, 0.1% Cu & 0.2% Pb associated with strongly altered sedimentary rocks,

The Snook massive sulphide geochemistry signature confirms a typical volcanic hosted massive sulphide (VMS) system may well be present.

Planned Programs

Follow-up geophysical surveying and drilling is planned for early 2021 to better understand both the host rock and mineralisation orientations. Currently it would appear that the host sequence is potentially flat lying opening up a large-scale target to the north and east where massive sulphide copper-zinc mineralisation remains open and untested

Flanagans Gold – QLD (ZNC 100%)

Encouraging initial surface sampling results

Initial reconnaissance sampling by Zenith confirmed high-grade gold, silver and copper at surface at the Flanagans prospect and nearby Great Blackall copper prospect. Rock sample results included:

- Flanagans – gold to 5.3 g/t Au, silver to 100 g/t Ag & copper to 8.0% Cu
- Great Blackall – gold to 3.4 g/t Au, silver to 273 g/t Ag & copper to 13.9%

Surface sampling has confirmed the historically reported local high tenor of gold, silver and copper mineralisation at both the Flanagans and Great Blackall prospects but work to date has not yet defined a clear drill target.

Planned Programs

Follow-up sampling planned

Further work including additional sampling, geological mapping at additional targets identified within the Flanagans project area is required to determine the significance of the surface geochemical samples at Flanagans. Follow-up field work planned for 1st half CY2021.

CORPORATE

Project Generation

The Company continues to actively assess potential new projects to add to the existing strong pipeline. The focus remains on gold and base metals particularly copper. Non-core projects will be rationalised based on

- Commodity type
- Relative merit
- Geographical location (especially considering cost effectiveness over the coming 18 – 24 months due to COVID related travel restrictions)

To extract as much value as possible some projects are outsourced to dedicated third party management teams.

Capital

At the close of the Quarter cash and liquid assets were \$3.85m (unaudited).

Other Items

At section 6.1 of the Appendix 5B, the payments to Directors of the Company for the quarter ended 30-Jun-2020 were for gross wages, fees and superannuation.

COVID-19

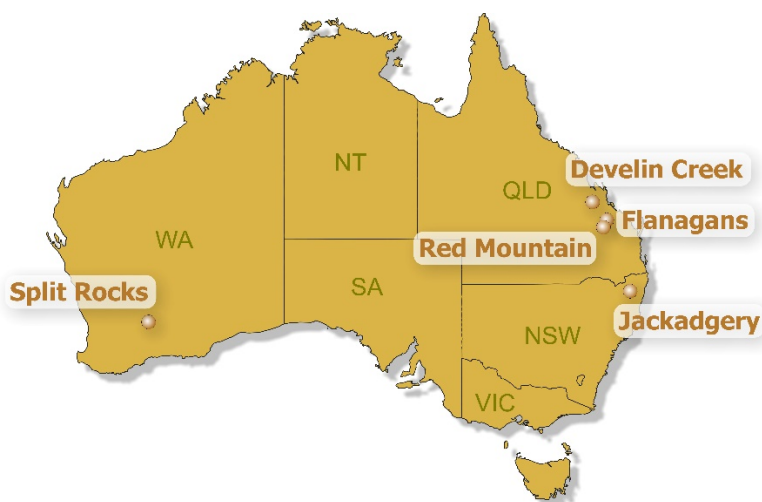
In relation to COVID-19 Zenith's Board is mindful of the significant impact the virus is having on the community and is continuing to assess the potential risks associated with its activities. Zenith's projects are in remote country areas or on grazing properties where Zenith's crew are geographically isolated.

The Company continues to act on advice provided by the Federal and State Governments with the health and safety of Zenith's crew, contractors, and local stakeholders a priority. Zenith has in place a COVID-19 site health management plan and requires that all its field crews comply with the requirements of that plan. In addition, the Company is managing projects across state borders and is ensuring it complies with both Federal and State based travel and border restrictions by employing, where available local staff and using locally based contractors, consultants.

BACKGROUND ON CORE PROJECTS

The Company is focused on exploration & evaluation of 4 gold projects and 1 copper-zinc project, in Australia.

Project highlights and activities for the quarter for these 5 projects are included in the preceding section of this report.



RED MOUNTAIN GOLD-SILVER PROJECT – Queensland (Zenith 100%)

Background on Red Mountain Gold Project

A zone of surface gold and silver mineralisation was discovered by Zenith at Red Mountain in SE Queensland (Figure 1), in a previously unrecognised felsic volcanic breccia complex comprising rhyolite radial dykes, rhyolite ring breccia as well as granite and gabbro breccias, first identified by Zenith's field team.

Highly encouraging gold and silver rock chip sample results up to 2.01 g/t gold and 52.5 g/t silver are supported by systematic geochemical sampling that outlined a large 2km by 1.5km zoned soil anomaly with peak soil gold result of 2.2 g/t Au, refer to ZNC ASX release 24-Sep-2019.

A geophysical survey completed at Red Mountain defined multiple medium strength chargeability (10mv/v) anomalies, likely to be caused by the presence of sub-surface disseminated sulphides or clay alteration zones, coincident with the margins of the felsic volcanic breccia complex as announced to the ASX on 25-Oct-2019.

Ongoing exploration activity at the 100% owned Red Mountain gold project located in Queensland (See ASX release 21-Jan-2021) is continuing to provide highly encouraging high-grade gold drill assay results (Figures 2 – 4).

Geological Vectors

The Red Mountain project is located between two gold mines Cracow (Aeris Resources Limited (ASX:AUR) and Mount Rawdon (ASX:EVN) (Figure 1). Cracow is a low-sulphidation epithermal gold deposit whilst Mount Rawdon is described in the literature as an epizonal intrusion-related gold deposit.

Mineralisation at Red Mountain is considered by Zenith to be analogous to known gold deposits in Queensland. Evidence includes a zoned system with geochemistry like that documented at third party owned Queensland gold deposits such as Mt Wright which is located 65km east of Charters Towers and the nearby Mount Rawdon Gold Mine. The Mt Wright gold deposit was exploited by Resolute Mining Limited as an underground operation, with mineralisation having a strike length of only 200m but vertical extent of over 1.2km (Figure 2).

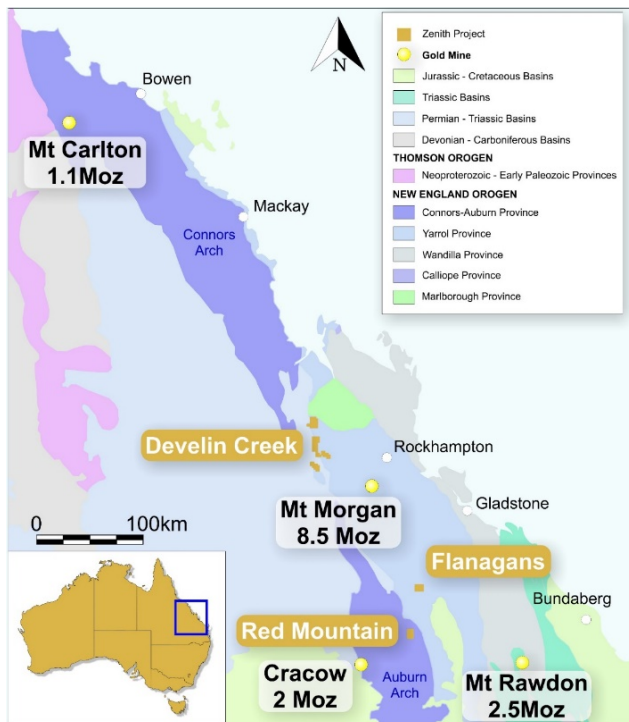
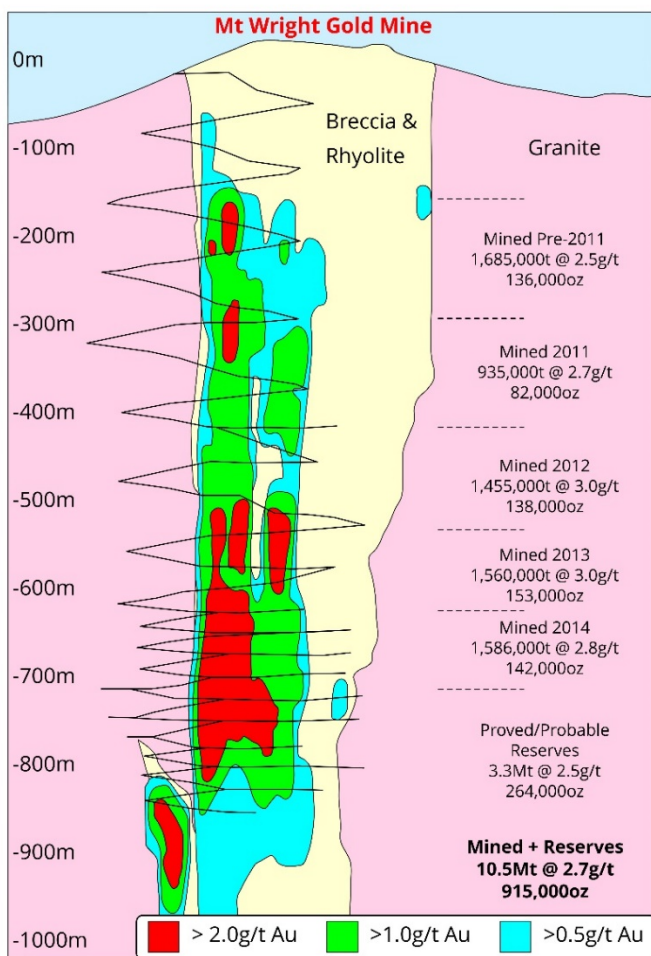


Figure 1: Red Mountain Project – Location Map



Modified from Resolute Mining Ltd 2014 Annual Report & Mt Wright Information Poster, June 2014

Figure 2: Comparative Cross Sections – Mt Wright Gold Mine (not an asset of the Company) and Red Mountain Gold Project with Location of New Diamond Drill Results

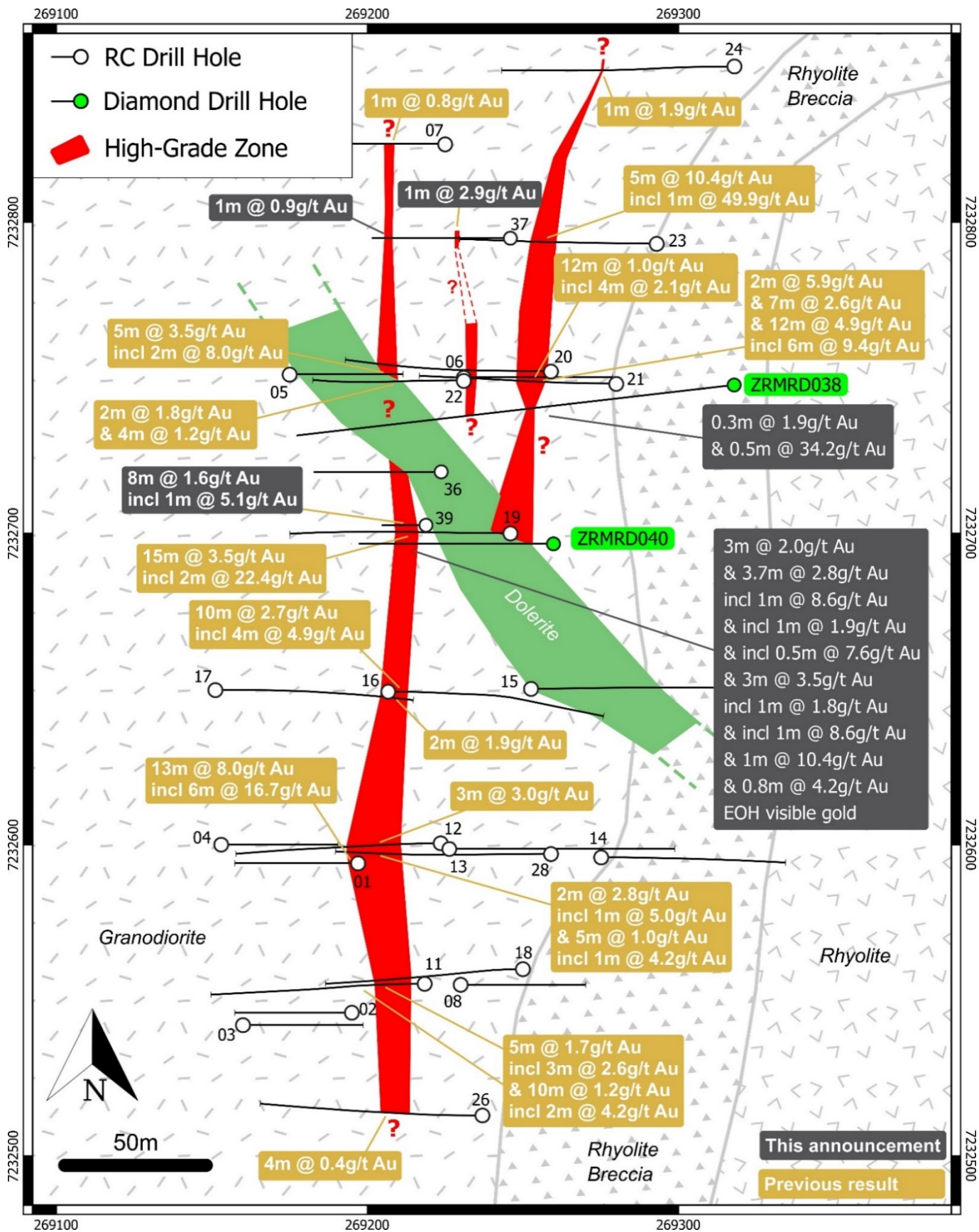


Figure 3: Red Mountain Plan Showing High-Grade Gold Zone

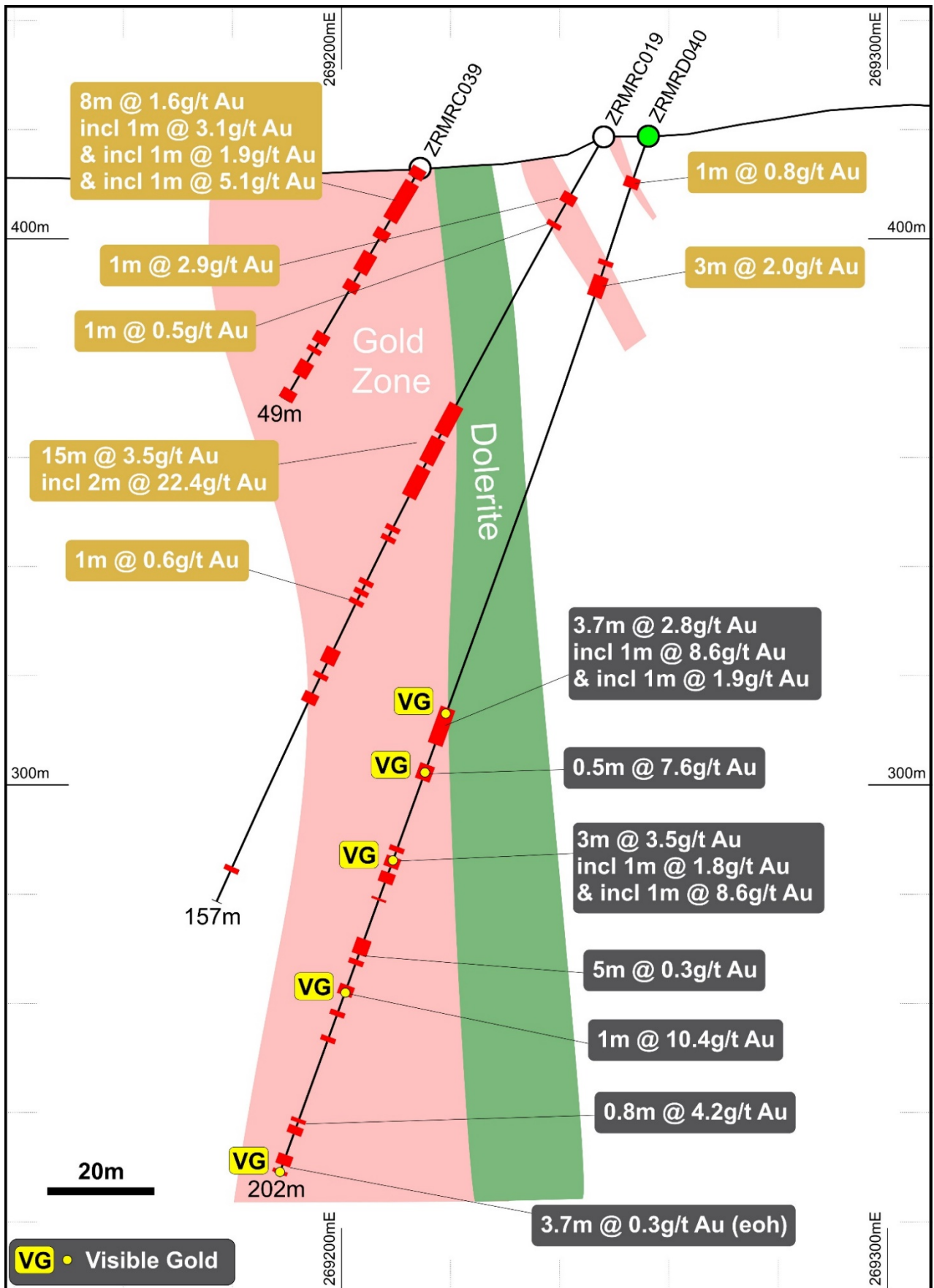


Figure 4: Cross Section - Red Mountain Western Zone High-Grade Gold Zone with New Diamond Core Results

SPLIT ROCKS GOLD PROJECT – Western Australia (Zenith 100%)

Background on Split Rocks Project - Gold

Zenith's Split Rocks project is located within the Southern Cross region in the Forrestania greenstone belt, approximately halfway between Perth and Kalgoorlie. Several very large current and formerly operated gold mines located north and south along strike from Zenith's project area attest to the regional gold endowment of this area.

A major targeting exercise by the Company's geological team identified 18 high-quality gold drill targets in the north eastern sector of the Company's 100% owned Split Rocks project (Figures 5 & 6). First pass testing of 10 of those 18 targets has been completed to date. During the quarter, a total of 27 RC drill holes (3,026m) were completed at the Dulcie Laterite Pit returning further strong gold results (Figure 6 - 9).

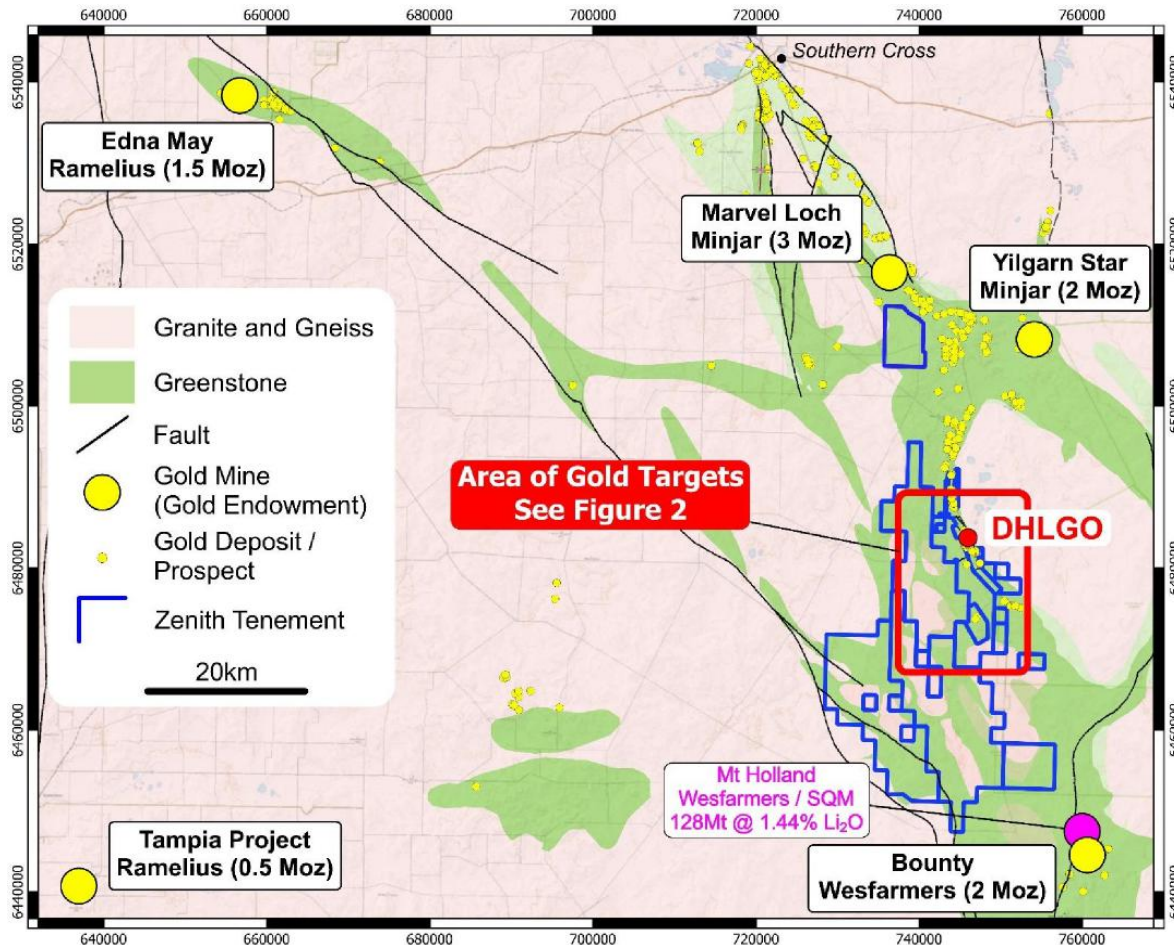


Figure 5- Split Rocks Project Location Map Showing Zenith tenements, DHLGO Prospect and Regional Gold Endowment

**The Company has an exclusive right to explore the DHLGO project for bedrock gold mineralisation beneath the large laterite rich gold cap currently being mined and treated on leases located contiguous with Zenith's Split Rocks project licences, located in the Forrestania greenstone belt, Western Australia.*

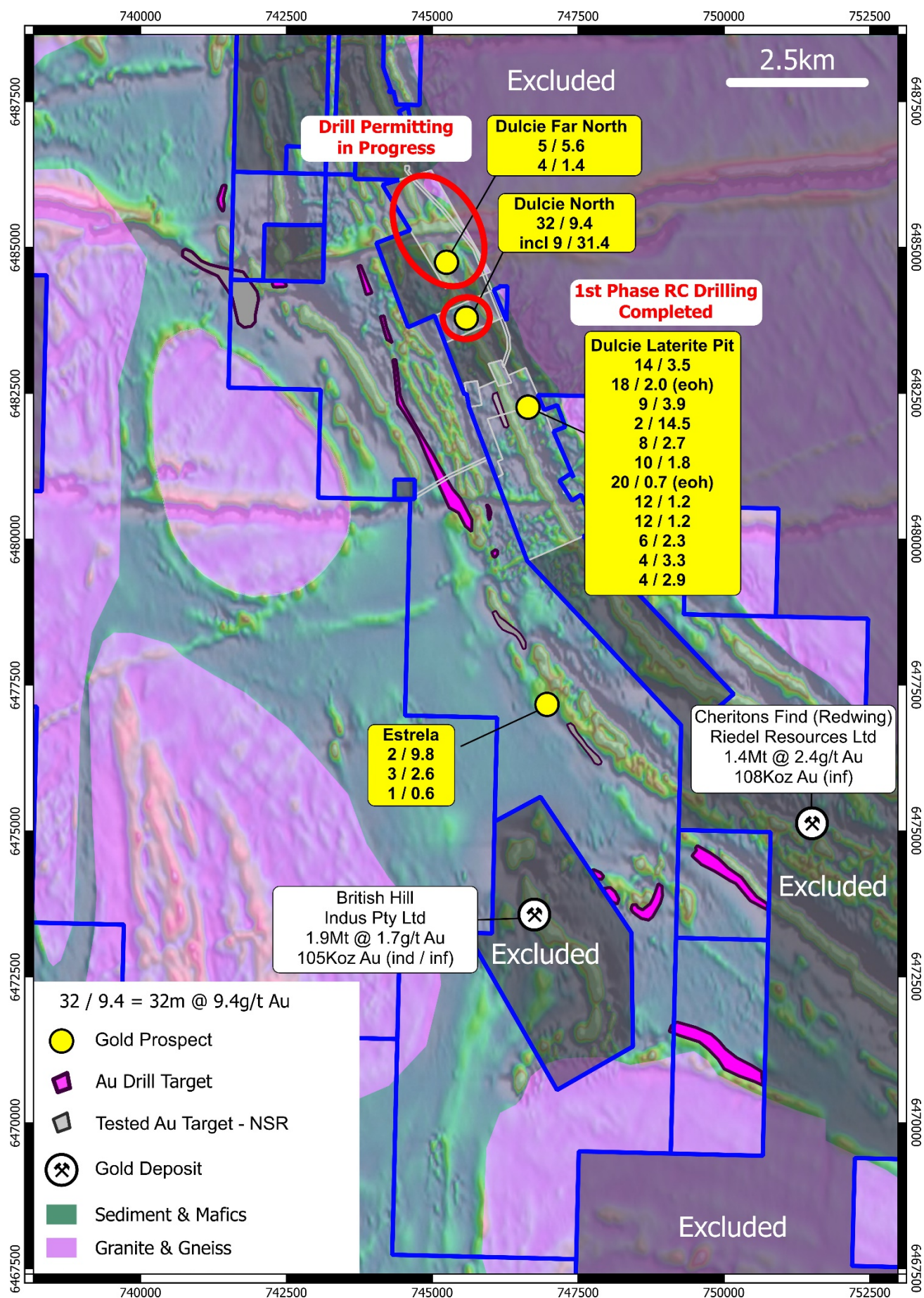
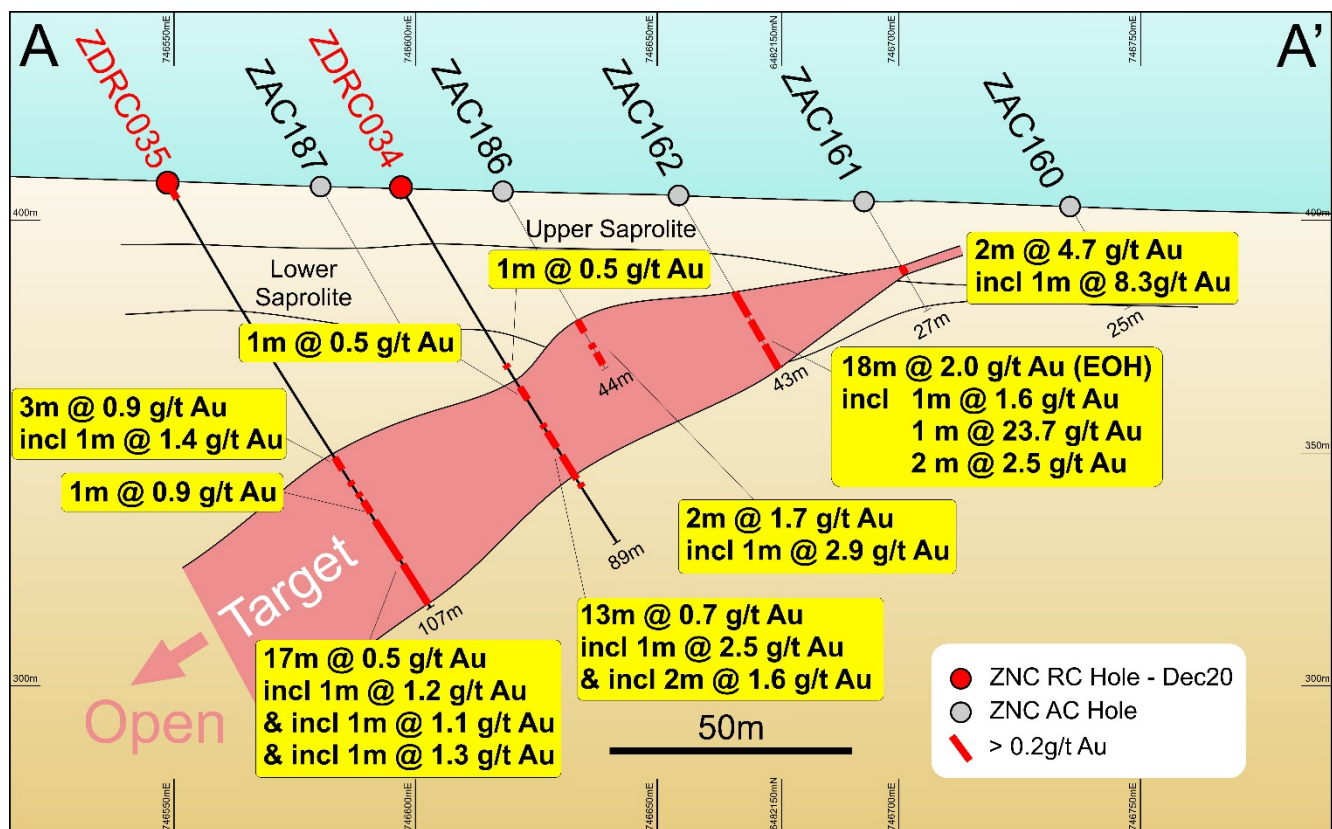
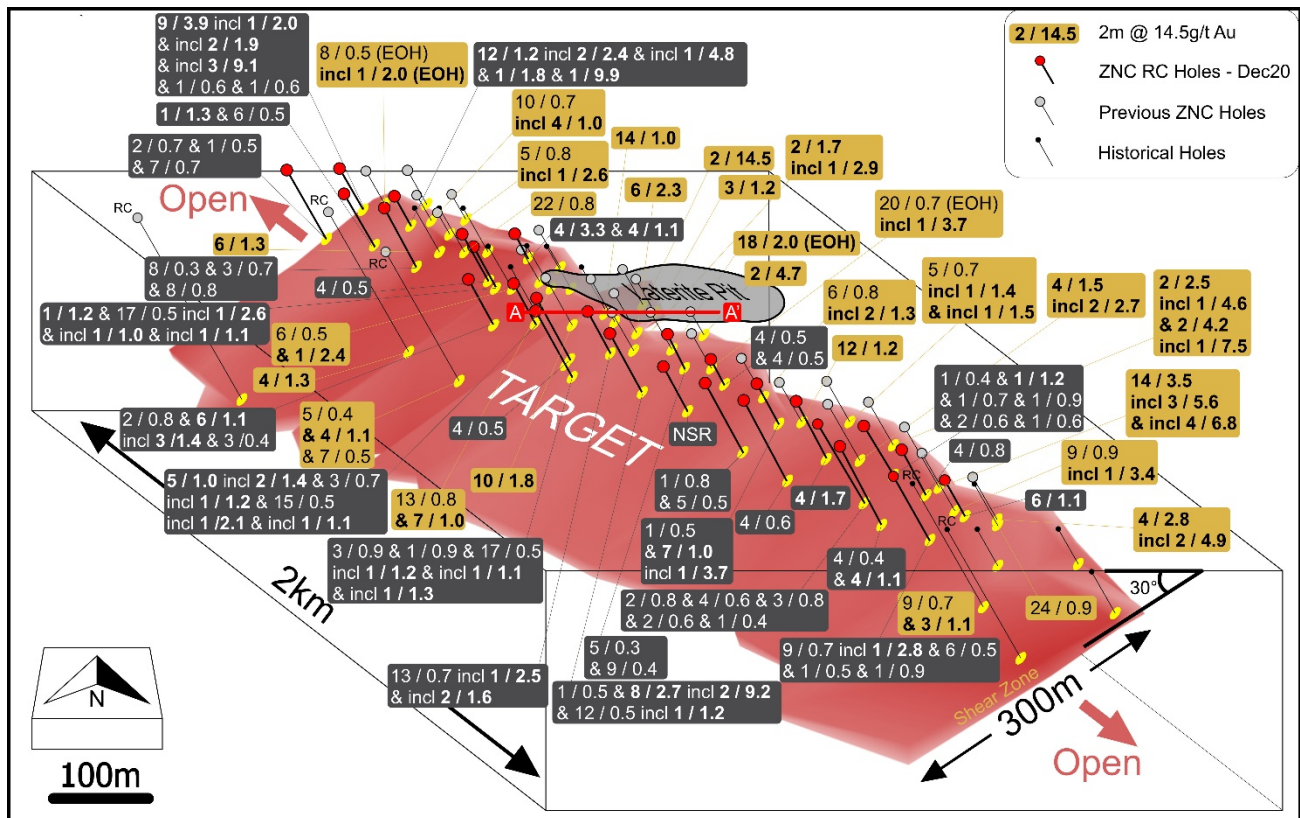


Figure 6: Split Rocks Project Gold Targets and Significant Aircore Drill Results (yellow captions) showing gold drill targets, and areas of Planned Drilling



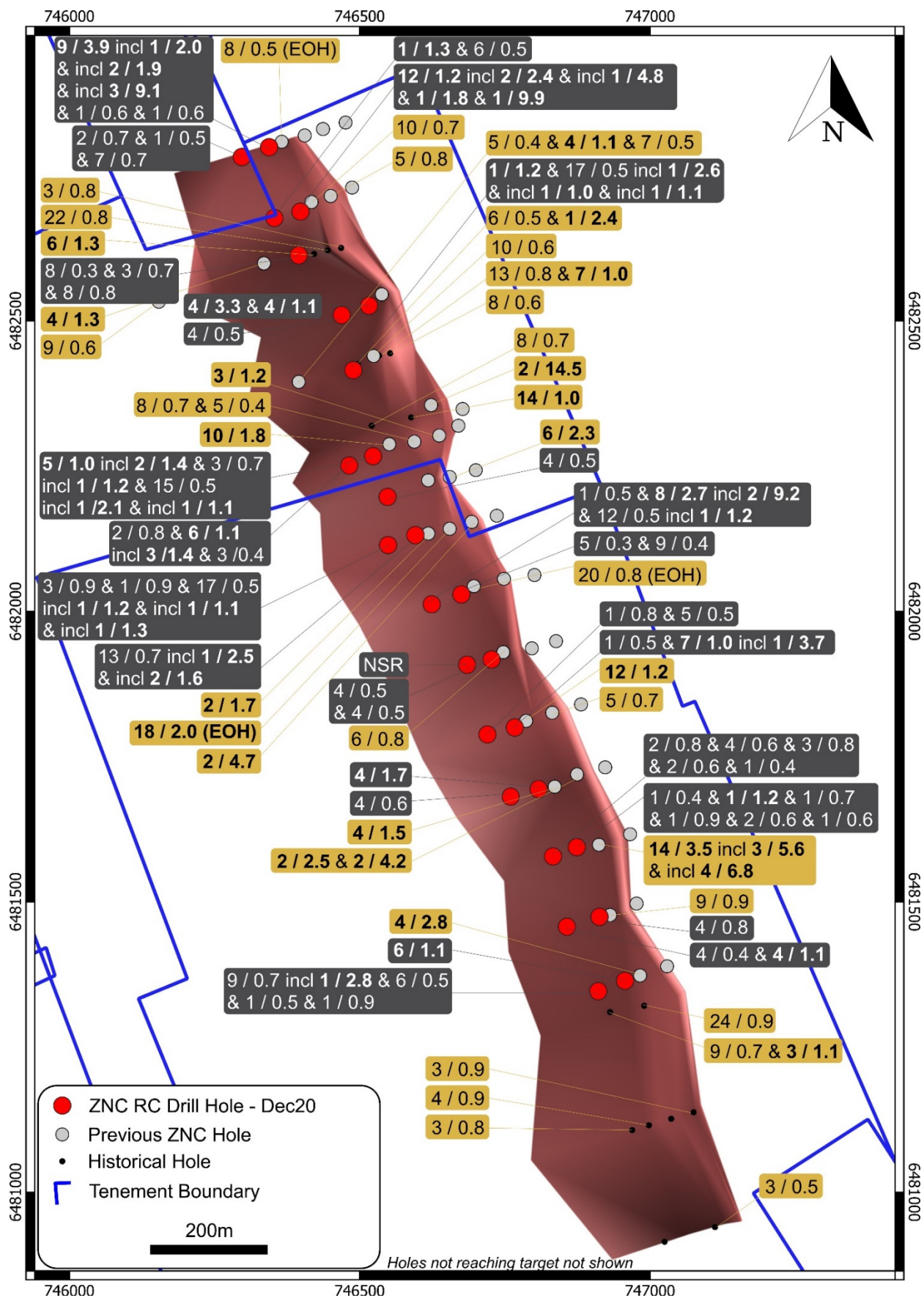


Figure 9: Split Rocks Project – Dulcie Laterite Pit Plan with Significant Drill Results and Bedrock Gold Drill Target (0.2 g/t Au minimum cut-off, maximum 8m internal dilution).

Background on Split Rocks Project - Lithium

In addition to the gold targeting exercise, Zenith has also been systematically exploring its 100% owned Split Rocks project with landholdings of approximately 600 sqkm in the Forrestania greenstone belt for lithium. This emerging lithium district is host to SQM-Kidman's Mt Holland/Earl Grey lithium deposit containing 189Mt @ 1.5% Li₂O (KDR:ASX Release 19-Mar-2018).

JACKADGERY GOLD PROJECT – New South Wales (Zenith earning 90%)

Jackadgery Prospect Background

The privately owned Jackadgery gold project is located east of Glen Innes in northern New South Wales (Figure 10).

Historic workings at Jackadgery comprise several shallow shafts sunk in the 1870's and two later, large areas of surface gold sluicing. These historic gold workings occur in a sequence of Carboniferous-Permian greywacke and siltstone intruded by small intermediate sub-volcanic trachyte to micro-monzonite of likely Permian or Triassic age.

Quartz veining at surface is relatively widespread with veins dipping generally eastward at 400 to 600. Sulphides comprise almost entirely pyrite-arsenopyrite +/- pyrrhotite.

The last significant exploration activity was carried out in 1983-85 by Kennecott and Southern Goldfields Ltd. Activity included a 220m long backhoe trench into weathered quartz veined bedrock across the main (northern) area of alluvial gold sluicing, which averaged 1.2 g/t Au across the interval 0-160m (with 5m composite assay intervals ranging up to 18.0 g/t and 7.1 g/t Au) (Figure 11). Sample assay repeats of higher-grade zones indicate some degree of variability in results which is commonly associated with the presence of coarse gold.

In addition, chip channel samples taken across individual quartz veins in an area (20m x 20m) immediately north west of the trench returned an average of 5.6 g/t Au from 6 samples, whilst sampling of veins in a second area (40m x 50m) south east of the trench averaged 0.8 g/t Au from 8 samples.

More recent exploration activity by the vendors included an induced polarisation (IP) geophysical survey (3 lines) over the trench area that defined a sub-surface chargeability high – resistivity high zone coincident with the area of alluvial gold workings and gold rich quartz stockwork veins identified in the trench.

From the available data the style of gold mineralisation is consistent with intrusion related gold systems. An existing drill permit will be revised to allow for an initial fence of drill holes to effectively test beneath the wide zone of near surface gold mineralisation outlined by the historic backhoe trench and the surface rock chip channel samples. This drill program is anticipated to commence in the 4th calendar quarter this year.

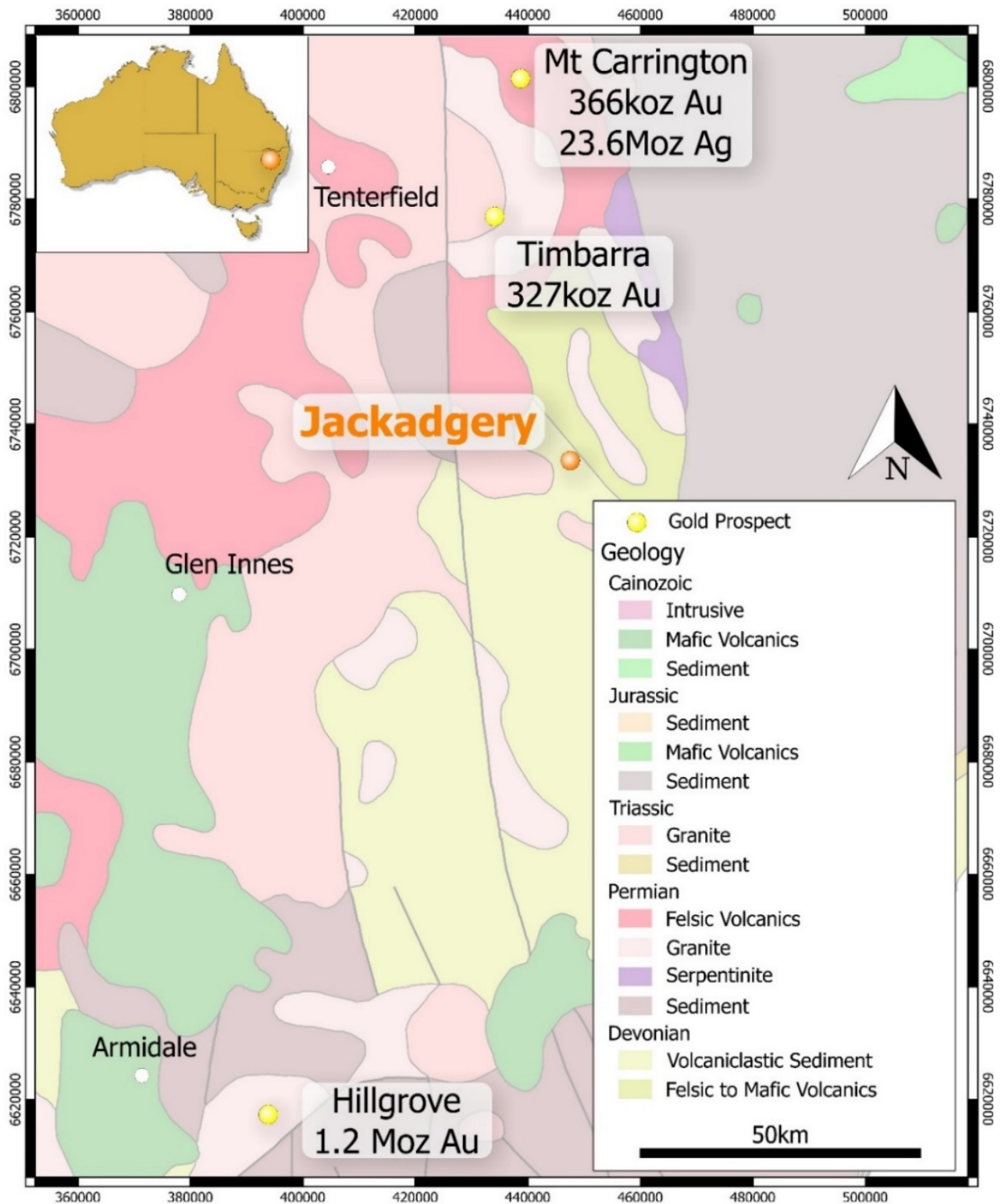


Figure 10: Jackadgery Location Map, Geology Base & Regional Gold Endowment

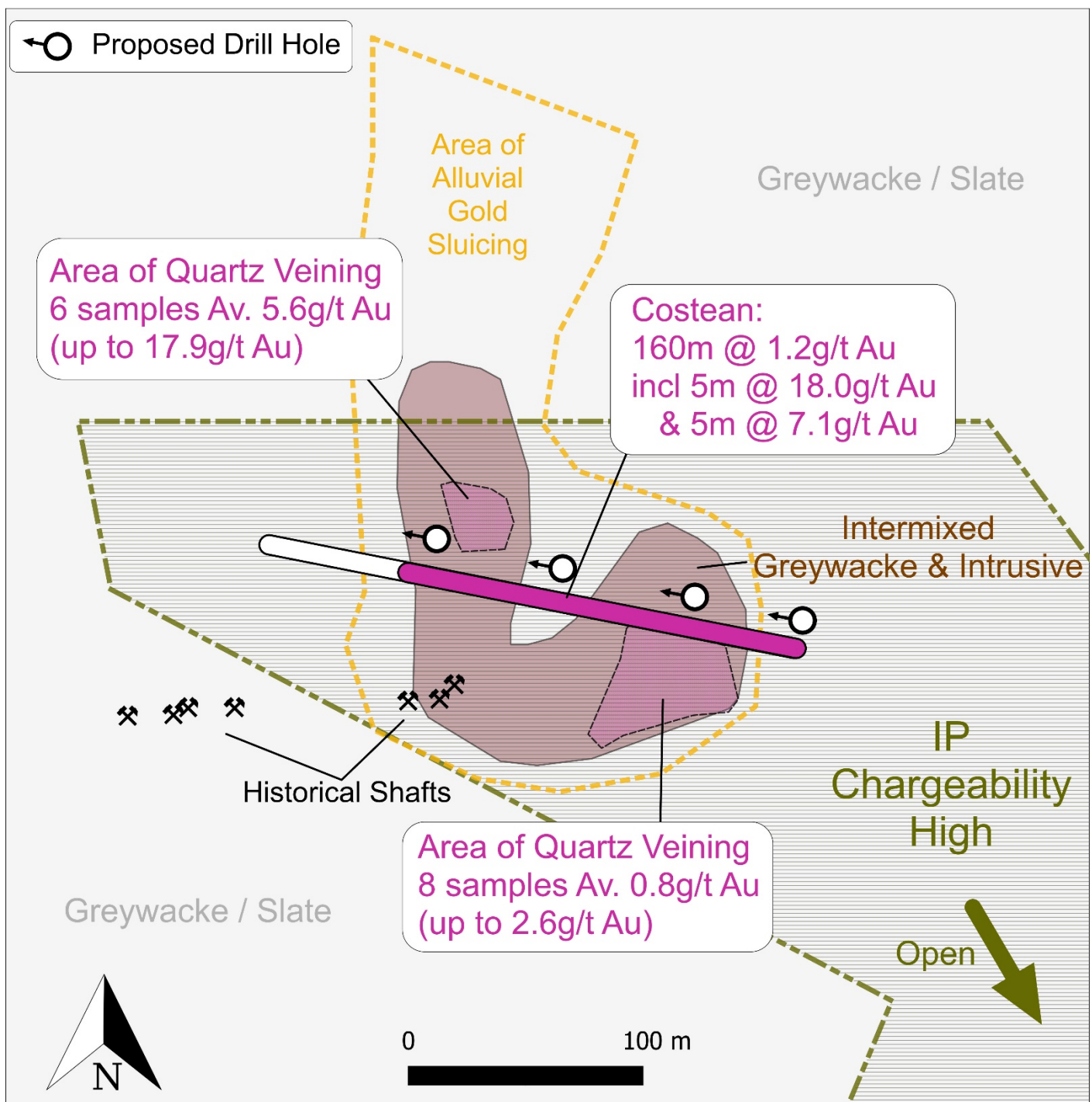


Figure 11: Jackadgery Project – Target Summary
(Zenith planned drill hole locations are subject to final design, access & permitting)

DEVELIN CREEK COPPER-ZINC PROJECT – Queensland (Zenith 100%)

Develin Creek Project Background

The Develin Creek project contains a VMS copper-zinc deposit with an Inferred Mineral Resource (JORC 2012) of: 2.57Mt @ 1.76% copper, 2.01% zinc, 0.24g/t gold and 9.6g/t silver (2.62% CuEq) released to ASX on 15-Feb-2015. Upside to resource grades are considered likely with Zenith RC hole twinning previous 1993 percussion hole returning significantly higher copper, zinc, gold and silver grades (300% to 700% higher). Initial metallurgical testwork results

show positive first stage “rougher” recoveries of 90%. The Company holds exploration permits that cover the highly prospective host rocks over 50km north – south.

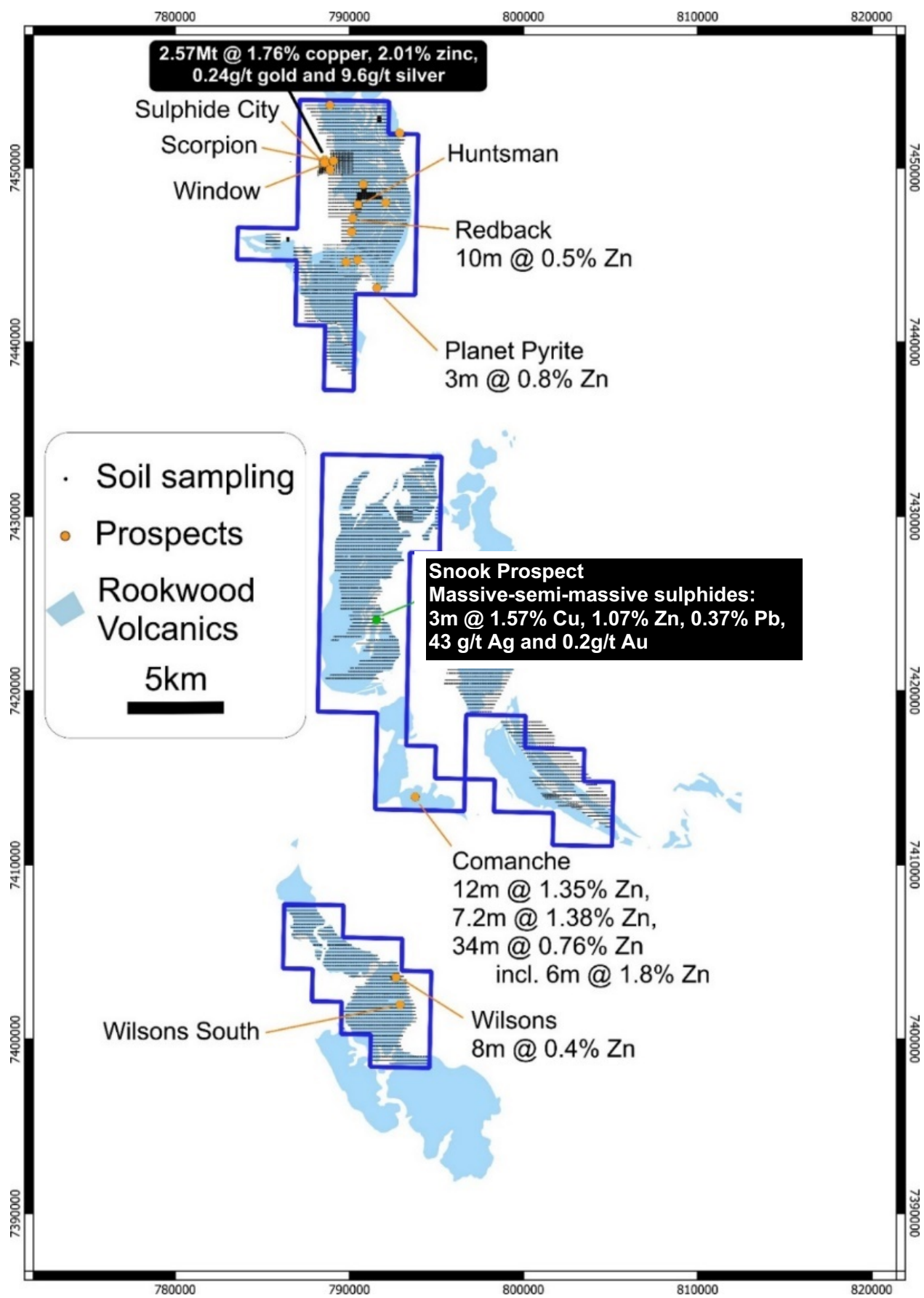


Figure 12: Develin Creek Prospects and Geochemical Anomalies

Geological reconnaissance mapping and soil sampling by Zenith's technical team earlier this year outlined a 25m wide zone of gossanous sedimentary (bleached and sheared) rocks over 150m of strike that occur as discrete units enclosed within basalt that are part of the prospective Rookwood Volcanics host sequence, at the Snook target located 30km south of the existing JORC resources.

An initial program of 7 shallow RC holes was completed to test 200m of strike of the Snook copper-zinc target (see ASX release 7-Dec-20).

This maiden program has been a success, with the first hole drilled, 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** (Figures 13 & 14).

The second hole ZSRC002 drilled below hole ZSRC001 was designed to test for a sub-vertical zone of sulphides, but intersected a similar near surface broad zone of zinc mineralisation from 20 to 40m depth including 20m @ 0.11 % Zn (incl 4m @ 0.3% Zn) observations suggesting a near surface, flat lying zone of mineralisation is present. This is further supported by the initial interpretation that the sedimentary host sequence is most likely flat lying.

Drill holes ZSRC003 through to ZSRC007 all intersected anomalous levels of copper, zinc and lead as well as precious metals and trace elements, **including 1m @ 0.63 g/t Au, 21 g/t Ag, 0.08% Cu, 0.34% Pb, 0.01% Zn in ZSRC005 from 3m below surface**. The geology of these holes also appears to indicate that the host rock sequence is flat lying, and that further drilling is required to properly test the Snook target area and confirm these initial geological observations.

Follow-up geophysical surveying and further drilling is planned for early 2021.

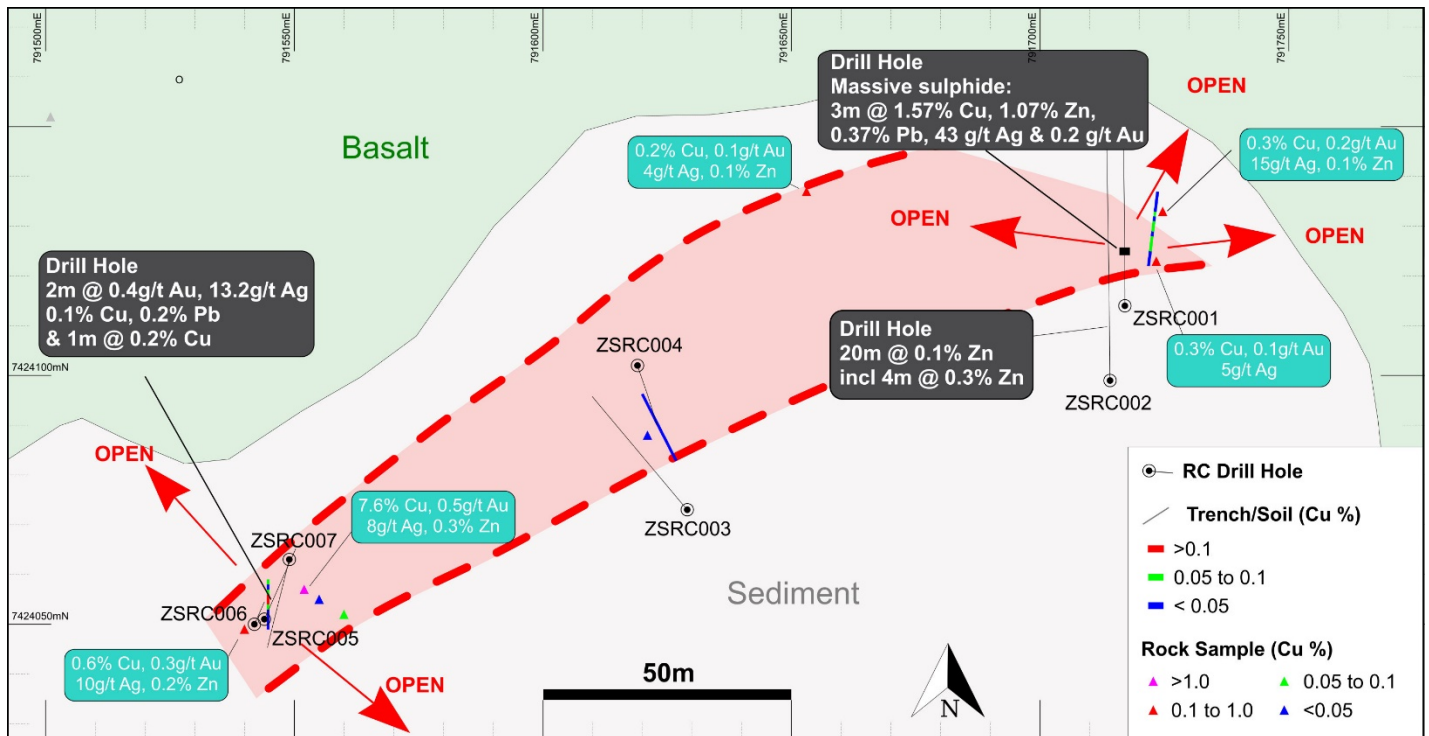


Figure 13: Plan of Snook Prospect with Drill Hole Locations and Geology

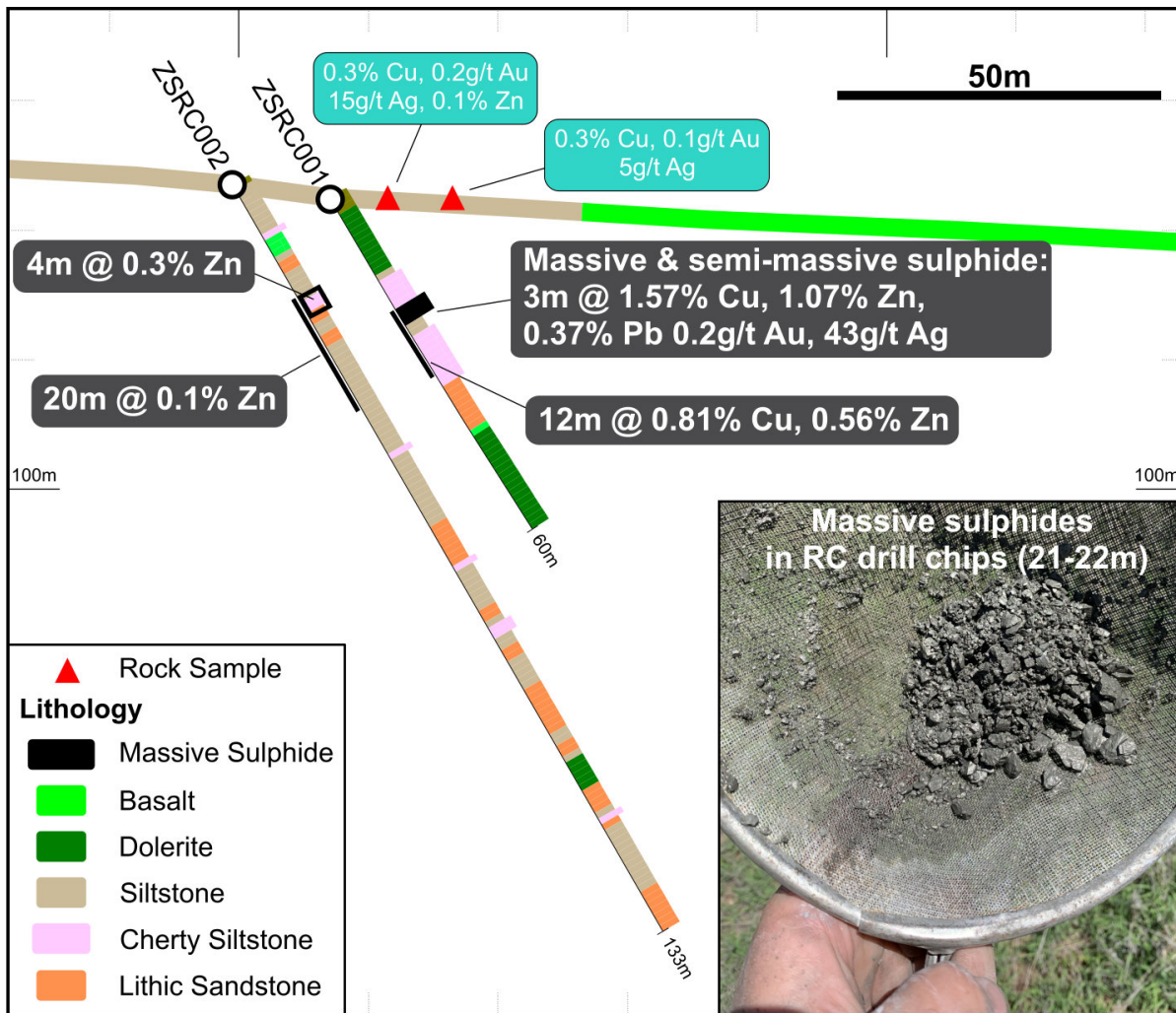


Figure 14: Cross Section of Snook Prospect Drill Hole ZSRC001 & 2

FLANAGANS GOLD PROJECT – Queensland (Zenith 100%)

Flanagans Prospect Background

Based on historical exploration activity the target is defined as a poorly exposed 1.5km long by 180m wide zone of sporadic quartz veining hosted in diorite. Individual quartz veins range in size from 1cm to 1m in width with common goethite boxwork after sulphides. The quartz veins have been mapped in outcrop and in 6 shallow trenches and described as flat lying to shallow NE dipping providing potential for a vertically stacked quartz vein hosted gold mineralised system. Within this overall zone is a smaller area of historic copper workings.

Previous sampling reported strong gold in rock chips results including: 20 g/t Au, 12.0 g/t Au, 11.5 g/t Au, 5.25 g/t Au, 3.3 g/t Au, 3.2 g/t Au, 2.6 g/t Au and silver to 70 g/t Ag (QLD Mines Department open file reports cr12556, cr17773 & cr30978).

Rock sampling by Zenith confirms the previously reported presence of high levels of gold-silver and copper in quartz veins at surface with gold results up to 5.3 g/t Au, silver to 100 g/t Ag and copper to 8.0% Cu hosted within diorite. Mapping showed sporadic outcrop of individual quartz veins at surface whilst veins observed in a poorly exposed historic 1m deep prospecting pit appear as a carbonate-quartz stockwork returning 1.15 g/t Au. The previously recorded shallow trenches dug in the 1980s were not located.

In addition, systematic soil sampling grids were completed at both the Flanagans and nearby Blackall copper prospect areas, with samples returning a maximum value of 1.5 g/t Au (1500ppb Au) at Flanagans and 0.4g/t Au (404ppb Au) at Blackall.

Zenith's surface geochemical sampling to date is yet to define a robust drill target. Additional gold and copper prospect areas within the tenement area require assessment.

PARTNERED PROJECTS

The Company has continued to implement its strategy of being an exploration project generator. Projects are either advanced by the Company's experienced team applying innovative exploration techniques or by partners which have the technical and financial capability, depending on how the Board believes shareholders' best interests are served.

During the quarter the Company has sold the Wyoming REE to American Rare Earths Limited, ASX:ARR) (refer to announcement dated 22 December 2020.

Current joint ventures where partners are funding exploration include:

- Earaaheedy Zinc – Australia (Rumble ASX:RTR)
- Kavaklitepe Gold - Turkey (Teck affiliate)
- American Lithium (Bradda Head Ltd)

Increased Spending
Increasing Chance of Success
Sharing Risk



EARAAHEEDY ZINC PROJECT – WA (Zenith 25% free carry to a BFS, ASX: RTR 75%)

Activities During the Quarter

Petrographic and minerographic (microscope) studies of drill samples were completed during the quarter confirming the geological model used for targeting Earaaheedy zinc-lead mineralisation.

Planned Activities

Follow-up drilling by RTR planned to commence in March 2021.

Background on Earaaheedy Zinc Project

Zenith Minerals (ASX: ZNC) joint venture partner Rumble Resources (ASX: RTR) completed RC drilling on the Earaaheedy Project to follow-up a large-scale (large tonnage), flat lying, shallow sandstone hosted Zn–Pb discovery (refer to ZNC & RTR announcements dated 14 Apr-2020 and 4 May-2020).

RC drilling has confirmed continuity of width and higher-grade Zn–Pb with Ag at the Chinook and Magazine prospects. Results included: 4m @ 7.36% Zn + Pb at Magazine and 4m @ 5.44% Zn +Pb at Chinook. Magazine and Chinook are 10.5km apart with the Zn-Pb-Ag mineralisation completely open.

Zenith holds a 25% interest in the Earaaheedy Joint Venture with Rumble, with Zenith's interest free carried until completion of a Bankable Feasibility Study. In addition, Zenith currently retains a total of 4.1M RTR shares received as part consideration from Rumble.

Rumble outlined a shallow Exploration Target[^] at the Earaaheedy Project of 40Mt to 100Mt at 3.5% Zn-Pb to 4.5% Zn-Pb based on recent drilling results, geological understanding of the mineralisation geometry, continuity of mineralisation and regional geology, highlighting the potential for Earaaheedy to be a world class Tier 1 base metal province.

[^]The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. Refer to further details on page 6 of the ZNC-RTR announcement dated 23rd January 2020.

LARAMIE RARE EARTH PROJECT – WYOMING USA (Zenith 100%)

Activities During the Quarter

Zenith's 100% owned Laramie REE Project was divested to dedicated American REE explorer American Rare Earths Limited (ASX:ARR) (ASX release 6-Aug-20). A revised partial settlement was completed during the quarter resulting in the payment of \$50,000 and issue 1,250,000 ARR ordinary shares to ZNC (ARR:ASX release 22-Dec-20).

Background on Laramie REE Project

As announced to the ASX (17-Oct-2019), initial rock grab sampling and mapping by Zenith in three key areas 2 to 3km apart returned up to 0.60% total rare earth oxides (TREO). Follow-up sampling included nine systematic rock chip sample traverses returned consistent, strong REE mineralisation along their entire lengths (ASX Release 11th Nov 2019), including: 80m @ 0.40% TREO, 60m @ 0.39% TREO, 60m @ 0.37% TREO, 137m @ 0.37% TREO, 332m @ 0.26% TREO.

KAVAKLITEPE GOLD PROJECT – TURKEY (ZENITH ~20%)

Activities During the Quarter

A program of 5 widely spaced diamond drill holes of approximately 300m depth each was completed to test for the potential of gold mineralization between the known gold prospects. Results are anticipated to be reported shortly.

Planned Activities

Future program design pending diamond drill results.

Background on Kavaklitepe Gold Project

Exploration and evaluation of the Kavaklitepe gold project is managed by Teck Anadolu Madencilik Sanayi v. Ticaret A.S. ("Teck"), a Turkish affiliate of Teck Resources Limited. Drilling to date on two prospect areas has returned encouraging results. Kuzey Zone drill intersections include:

- 20m @ 15.6 g/t Au,
- 16m @ 4.7 g/t Au,
- 21m @ 3.29 g/t Au,
- 14m @ 6.09 g/t Au,
- 16m @ 4.7 g/t,
- 9m @ 5.2g/t and
- 7.8m @ 7.3g/t gold,

whilst continuous surface rock chip results include:

- 54.0m @ 3.33 g/t gold,
- 10m @ 12.2 g/t Au,
- 44m @ 3.37 g/t Au,
- 15m @ 10.10 g/t Au and 6.5m @ 5.18 g/t Au.

In addition, Discovery Zone drill results include: 8.0m @ 0.74 g/t Au, 8.0m @ 1.20 g/t Au and 8.0m @ 1.26 g/t Au.

AMERICAN LITHIUM JOINT VENTURE

Activities During the Quarter

No field activities this quarter.

Background on American Lithium JV

The American Lithium JV includes 5 separate projects of varying styles including 1 x pegmatite, 2 salt lake brine targets, 1 x lithium clay JORC resource and an oilfield lithium brine play.

VIVASH GORGE IRON PROJECT – WA (ZENITH 100%)

Activities during the quarter

Zenith has reviewed technical data on the project which indicates several remaining iron ore targets. The Company is now seeking a partner to progress this project.

Background on Vivash Gorge Iron Project

The Vivash Gorge Iron Project (exploration licence E47/3071) is situated approximately 80km west of Tom Price in the Pilbara region of Western Australia. The project covers approximately 8km of strike of prospective Brockman and Marra Mamba iron formations along trend of Rio Tinto Iron Ore's Brockman 4 operating iron ore mine.

WARATAH WELL LITHIUM-TANTALUM PROJECT – WA (Zenith 100%)

Activities During the Quarter

Native title heritage negotiations on hold due to COVID-19.

Planned Activities

The Company is considering a transaction with a 3rd party partner to progress the evaluation and potential development of this lithium-tantalum opportunity.

Background on Waratah Well

The Waratah Well project located in the mid-west of Western Australia contains a lithium-tantalum rich pegmatite swarm extending over an area of approximately 3km x 2km. Zenith sampling has returned lithium up to 1.92% Li₂O and tantalum up to 1165ppm Ta₂O₅. Drilling is required to test subsurface potential.

SUMMARY OF EXPLORATION EXPENDITURE

In accordance with Listing Rule 5.3.1, the Company reports that there was \$798k exploration expenditure incurred during the December quarter.

NEW OPPORTUNITIES

The Company advises that it is currently in ongoing and incomplete negotiations in connection with several potential project acquisitions and disposals. This remains an essential generative value process. Project generation is a core skill of the Company.

This work has included:

- Assessment of various 3rd party gold and base metal properties in Australia and overseas.
- the renegotiation of its American Lithium JV in the USA.
- additionally, new tenure applications have recently been lodged in Queensland.

The Company will provide appropriate disclosure should negotiations and agreements be completed, and new tenure granted.

TENEMENT INTERESTS

Changes in tenements	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	All - Wyoming federal lode mineral claims held for REE's, divested to ASX:ARR	100%	100%	0%
Interests in mining tenements and petroleum tenements acquired or increased	nil		nil	

COMPETENT PERSONS STATEMENTS

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

The information in this Report that relates to in-situ Mineral Resources at the Develin Creek project is based on information compiled by Ms Fleur Muller an employee of Geostat Services Pty Ltd. Ms Muller takes overall responsibility for the Report. She is a Member of the AusIMM and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity she is undertaking, to qualify as a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 Edition)'. Ms Muller consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

Authorised for release by the Zenith Minerals Limited Board of Directors

29th January 2020

For further information contact:

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Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Zenith Minerals Limited

ABN

96 119 397 938

Quarter ended ("current quarter")

31 December 2020

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	18	55
1.2	Payments for		
	(a) exploration & evaluation (see Note to 1.2(a))	(798)	(1,284)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(235)	(462)
	(e) administration and corporate costs	(214)	(428)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	2	3
1.5	Interest and other costs of finance paid	-	(1)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	58	131
1.8	Other (GST)	11	11
1.9	Net cash from / (used in) operating activities	(1,158)	(1,975)

Note to 1.2(a) – For the quarter ended 31 December 2020, \$798 (rounded \$A'000) of the exploration & evaluation expenditure at 1.2(a) has been capitalised and its inclusion at 1.2(a) is to maintain consistency with Zenith Minerals Limited reporting in its Financial Report pursuant to the Australian Accounting Standard AASB 6 and AASB 107.

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	(1)
	(c) property, plant and equipment	(7)	(7)
	(d) exploration & evaluation	-	-
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	33	33
	(c) property, plant and equipment	-	-
	(d) investments	-	44
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	26	43

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	5,100
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(291)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other – Repayment of lease liability	-	(19)
3.10	Net cash from / (used in) financing activities	-	4,790

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	4,984	968
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,158)	(1,975)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	26	69
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	4,790

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	3,852	3,852

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	3,837	4,968
5.2	Call deposits	15	16
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	3,852	4,984

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	150
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
<p><i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i></p> <p><i>Director fees and salaries \$150,458</i></p>		

7.	Financing facilities <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	15	-
7.4	Total financing facilities	15	-
7.5	Unused financing facilities available at quarter end		15
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well. Credit Card Facility (interest rate on purchases 20.24% p.a.) with ANZ Bank which is secured by a term deposit with a right of set off to the total limit of the credit card facility.		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(1,158)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	0
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(1,158)
8.4	Cash and cash equivalents at quarter end (item 4.6)	3,852
8.5	Unused finance facilities available at quarter end (item 7.5)	15
8.6	Total available funding (item 8.4 + item 8.5)	3,867
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	3.3
	<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
	8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
	Answer: N/A	
	8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
	Answer: N/A	

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: N/A

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 29 January 2021.....

Authorised by: **By the Board**.....
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.