

24<sup>th</sup> August 2020



#### Corporate Details

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

Issued Shares	294.4M
Unlisted options	9.6M
Mkt. Cap. (\$0.11)	A\$32M
Cash (30 <sup>th</sup> June 20)	A\$0.97M
Share Issue July 20 (before costs)	A\$5.1M
Debt	Nil

#### Directors

Mike Joyce	Non-Exec Chair
Michael Clifford	Managing Director
Stan Macdonald	Non-Exec Director
Julian Goldsworthy	Non-Exec Director
Graham Riley	Non-Exec Director
Peter Bird	Non-Exec Director
Melinda Nelmes	CFO & Co Sec

#### Major Shareholders

Directors	~13%
HSBC Custody. Nom.	10%
J P Morgan	5.0%
Miquilini	3.9%
Abingdon	3.5%

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## WIDE MINERALISED GOLD ZONE CONFIRMED - RED MOUNTAIN GOLD PROJECT

- New gold assay results from the first 7 follow up RC holes of an ongoing drill program, confirm near surface, wide, mineralised gold zone at Red Mountain Gold Project in Queensland, including:
  - 12m @ 2.2 g/t Au from surface, including 8m @ 3.1 g/t Au.
  - 5m @ 1.7 g/t Au from 25m, including 3m @ 2.6 g/t Au and 8m @ 1.4 g/t Au from 35m, including 4m @ 2.4 g/t Au.
- Results are in addition to previously reported results from the maiden drill program, including:
  - 13m @ 8.0 g/t Au & 3.2 g/t Ag from surface, including 6m @ 16.7 g/t Au & 5.3g/t Ag.
  - 5m @ 3.5 g/t Au & 54.3 g/t Ag from 64m, including 2m @ 8.0 g/t Au & 109.4 g/t Ag.
- High grade gold assays from drilling peak at 58.3 g/t Au whilst silver results peak at 160 g/t Ag.
- Gold zone is open along strike to north, south and at depth with step-out RC drilling recommencing again this week.

New results from a further 7 RC drill holes, completed on 3 x 50m spaced sections (testing only 100m of strike) from the ongoing drill program at the Company's 100% owned Red Mountain project in Queensland (Figure 1), have now been received. These new results outline a zone of high-grade near surface gold mineralisation in a steep easterly dipping zone hosted by altered granitoid rocks.

#### CEO COMMENTS

Commenting on Red Mountain, CEO Mick Clifford said: "Assay results from new drill holes confirm the presence of a 20 - 30m wide steep easterly dipping zone of gold mineralisation. The zone has now been extended to the south. Step out drilling to the north and south covering a strike extent of approximately 500m will now proceed with more confidence, and I look forward to providing further updates on this exciting program."

#### About the Current Drill Program

Following the very positive results returned in the maiden drill program a drill rig re-commenced work on site on a full-time basis and pending ongoing positive follow-up assay results the RC rig will work a continuous roster at Red Mountain over the coming months (ASX Releases 22 July 2020 and 3 August 2020).

One key objective of the most recent RC drilling was to establish the orientation of gold mineralisation. This has now been successfully achieved with the new results outlining a 20 - 30m wide steep easterly dipping zone of gold mineralisation at the southern end of the main Red Mountain soil anomaly (Figures 2 and 3a-d). Of the 7 new RC holes, 3 were drilled east of the main gold zone, whilst another 2 were drilled sub-parallel and west of the gold zone. Future drill holes will now be drilled east to west on 50m spaced sections,

stepping out north and south to provide approximately 500m of strike coverage (see next round of planned drill holes on Figure 2) This work can now target a much larger total target zone extending some 2.2 km around the rim of the breccia pipe (Figure 4). Step-out RC drilling is recommencing again this week.

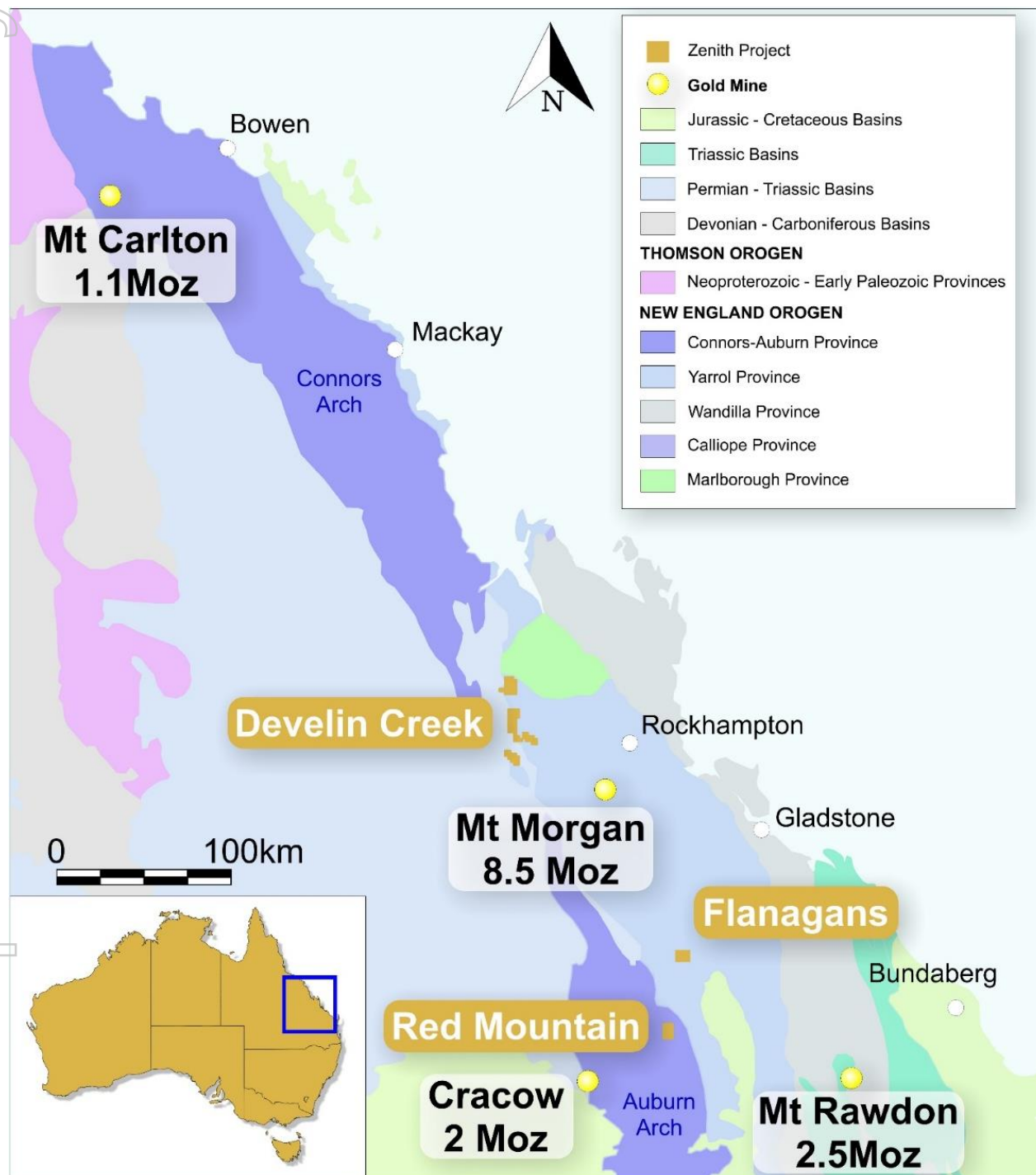


Figure 1: Red Mountain Project – Location Map

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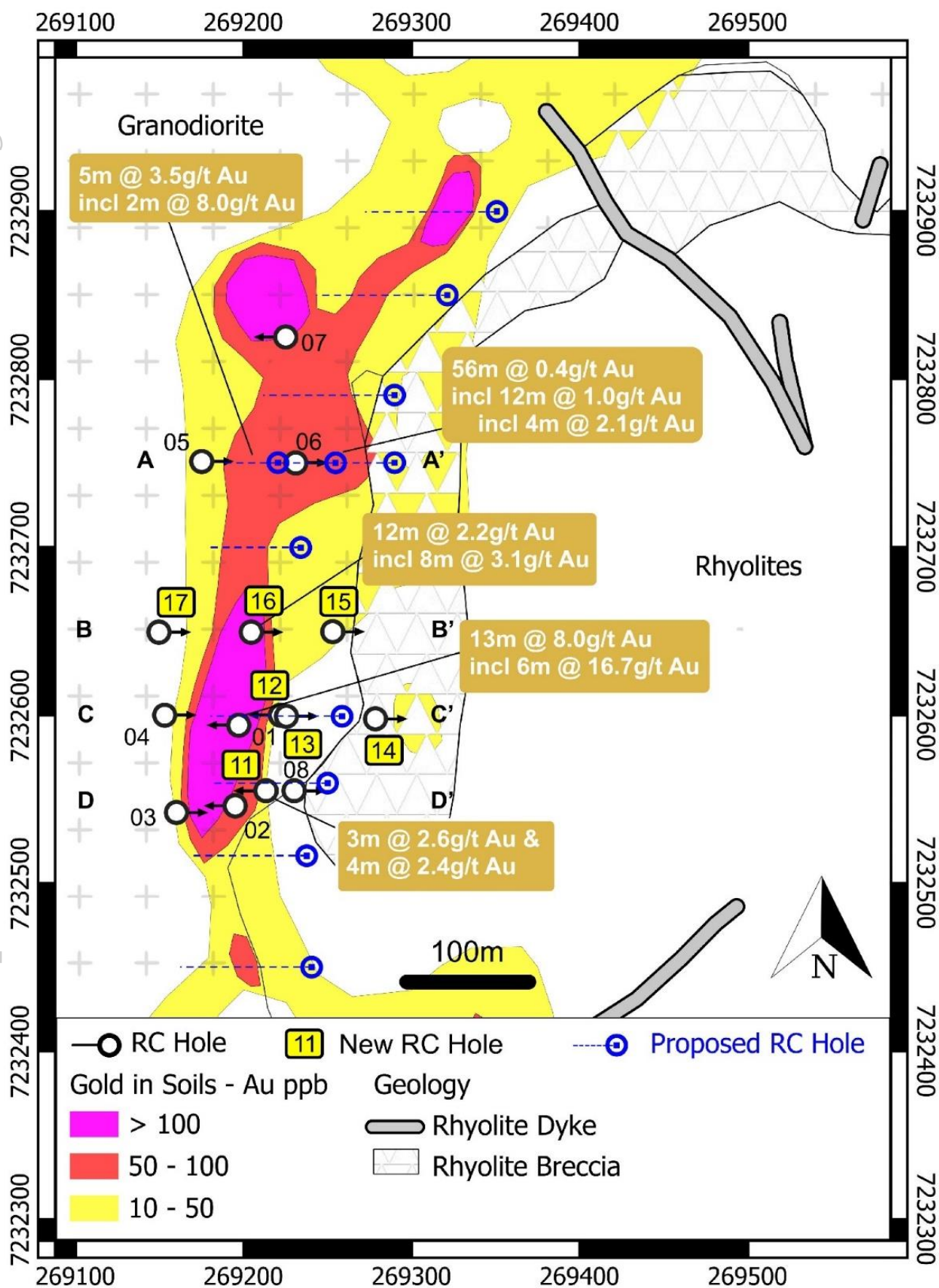


Figure 2: Red Mountain Plan Showing Significant Results and Planned Follow up Drill Holes



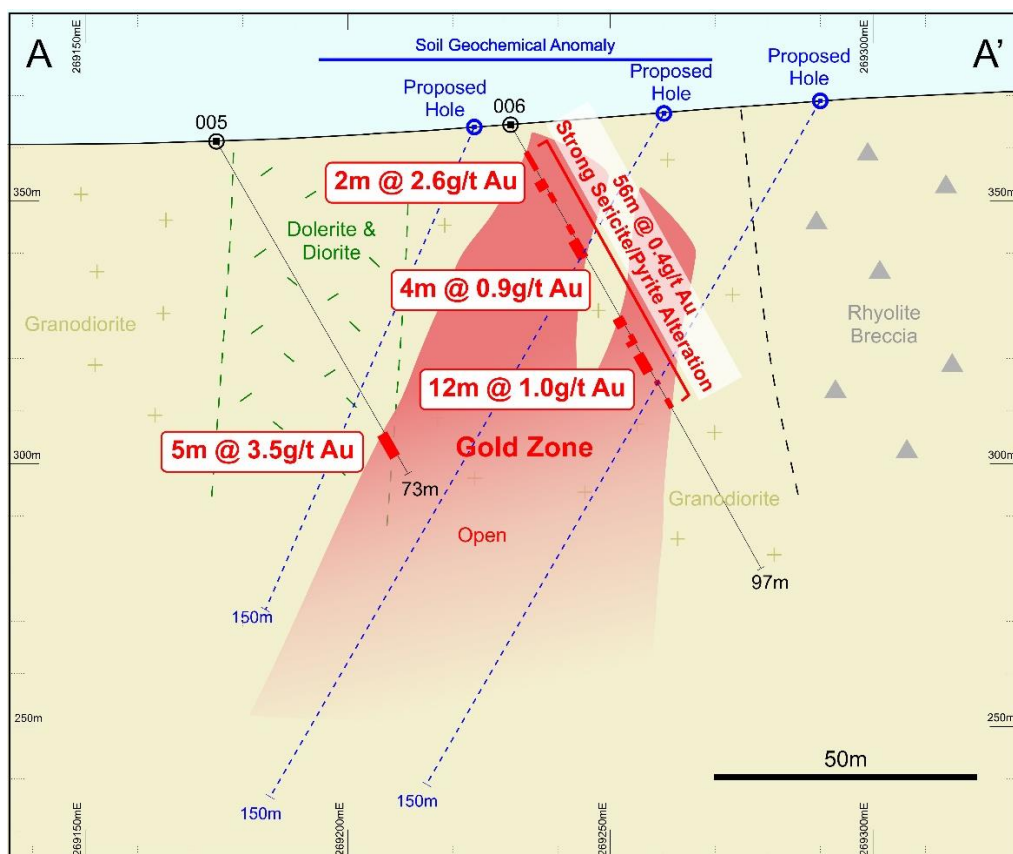


Figure 3a: Red Mountain Cross Section A-A' Showing Significant Results

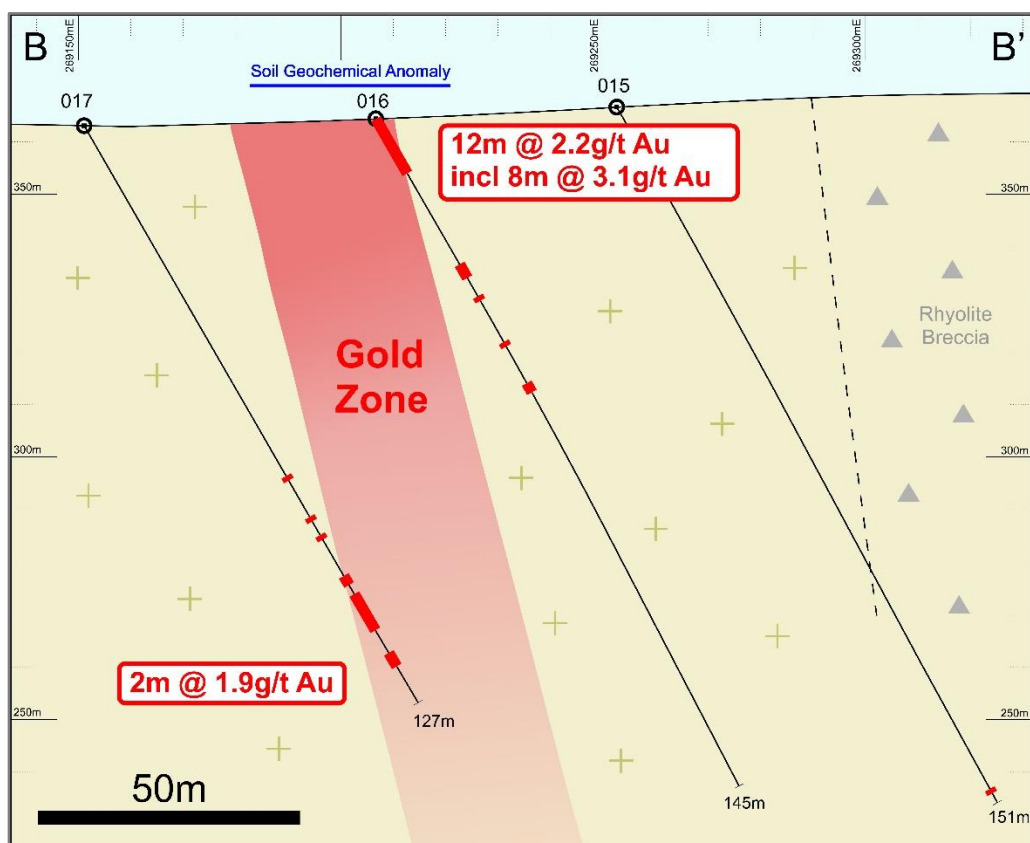


Figure 3b: Red Mountain Cross Section B-B' Showing Significant Results

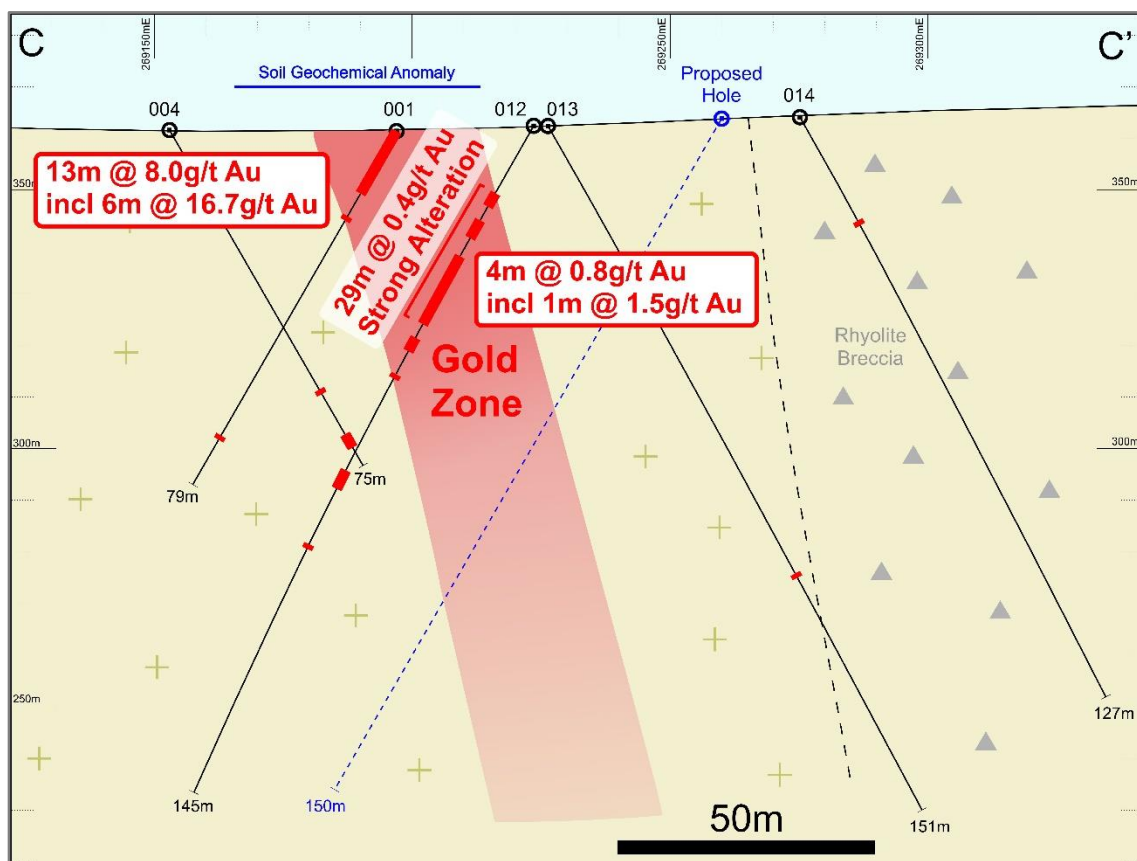


Figure 3c: Red Mountain Cross Section C-C' Showing Significant Results

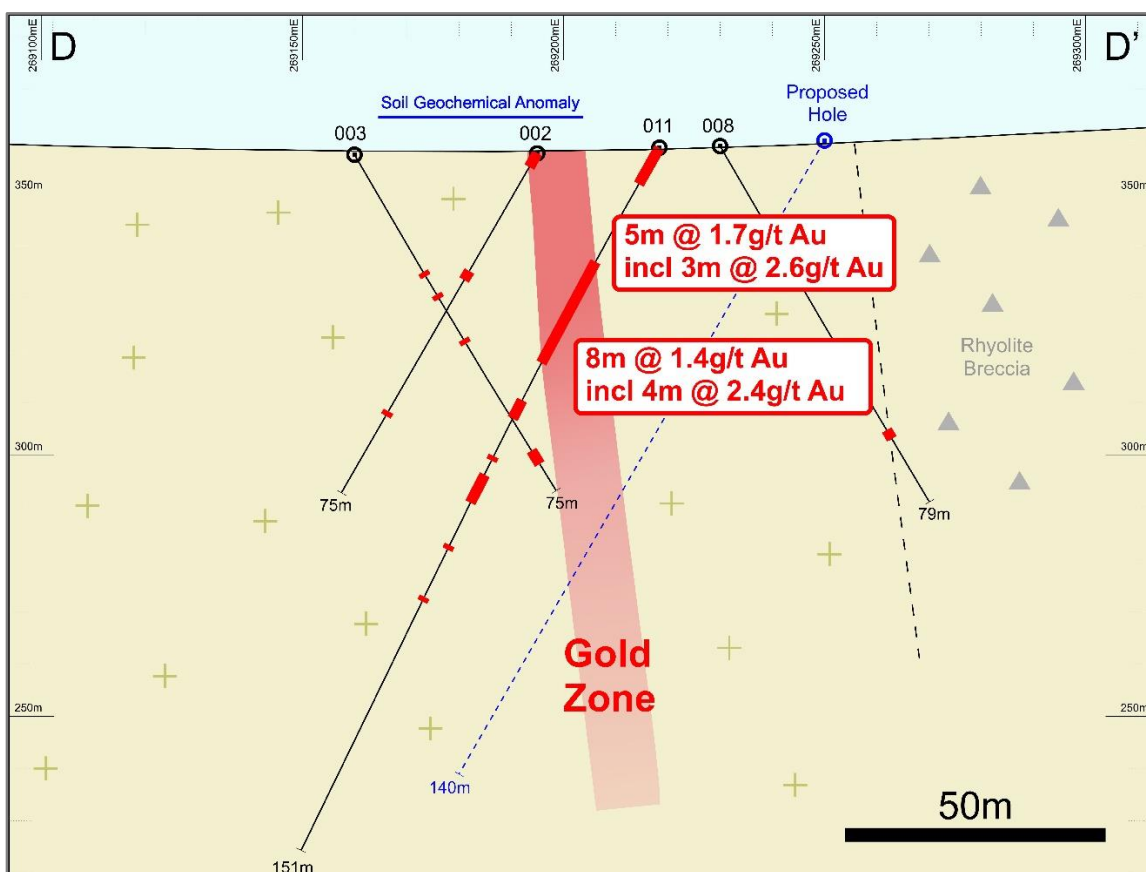


Figure 3d: Red Mountain Cross Section D-D' Showing Significant Results

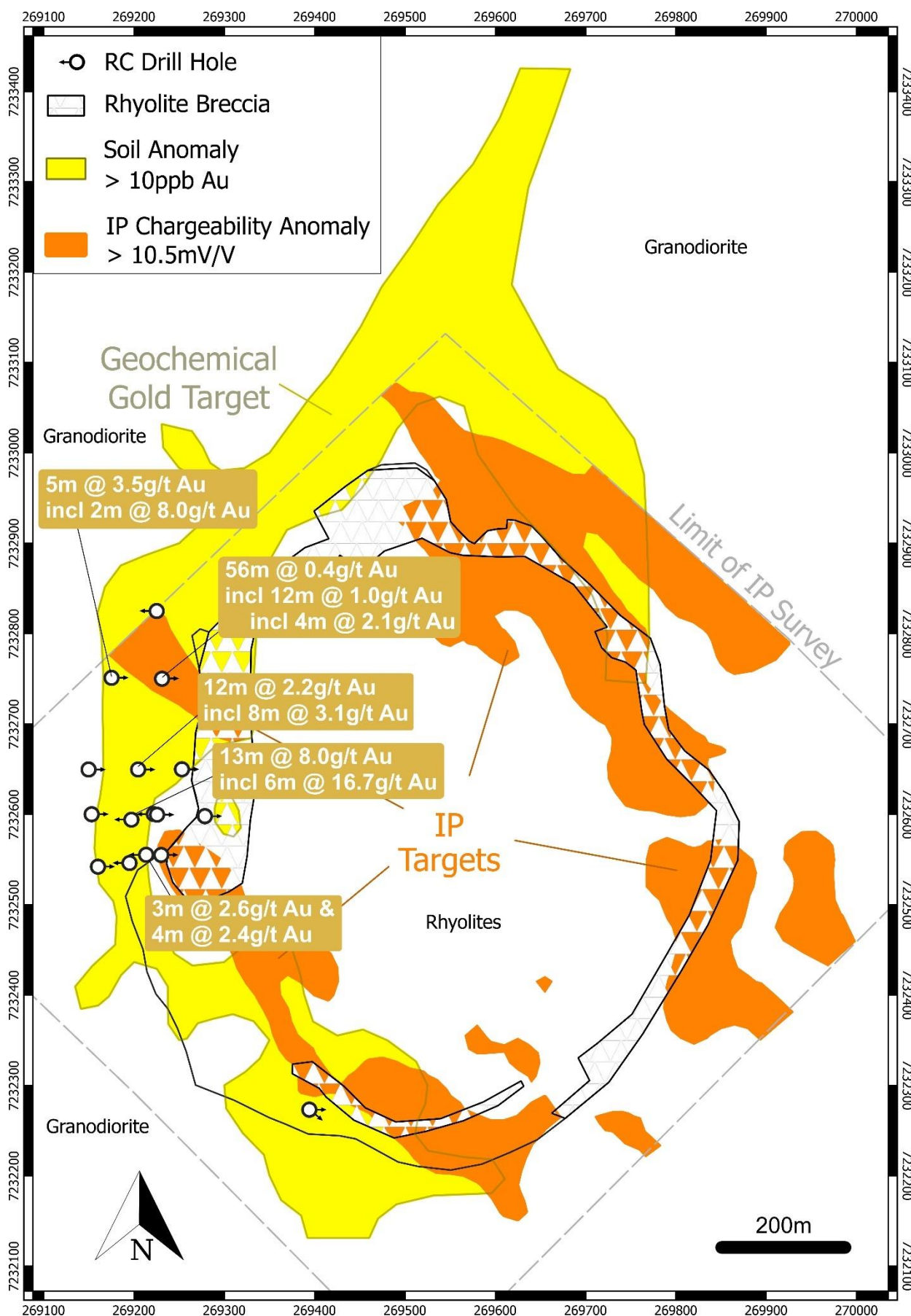


Figure 4: Red Mountain Plan Showing Drill Targets for Testing

## Details of New Results

Sampling from the current drill campaign was completed on a routine 4m composite basis with selected 1m sampling based on visual estimates of alteration, sulphides and other geological criteria. Assaying of 1m samples for gold mineralised 4m composites will now be completed. Results for the initial samples from the holes ZRMRC011 to 017 are included along with previously reported results (3<sup>rd</sup> August 2020) in Table 1 & Table 2 below. Mineralised composite samples will now be resubmitted at 1m intervals for analysis of gold and silver.

**Table 1: Significant Gold Intersections from Red Mountain**

Hole	Original 1-4m Samples				1m Re-samples					Comments
	From (m)	To (m)	Interval (m)	Original Au Grade (g/t)	From (m)	To (m)	Interval (m)	Au Grade (g/t)	Ag Grade (g/t)	
ZRMRC001	0	14	14	5.5	0	13	13	8.0	3.2	Previously reported
incl	0	6	6	12.3	0	6	6	16.7	5.3	
ZRMRC002	0	6	6	0.6	0	3	3	0.7	0.2	
incl					1	2	1	1.2	0.5	
and	26	30	4	0.7				NSR		
ZRMRC003	67	68	1	0.8	67	68	1	0.8	10.2	
ZRMRC004				NSR						
ZRMRC005	64	69	5	3.5	64	69	5	3.5	54.3	
incl	64	66	2	8.0	64	66	2	8.0	109.4	
ZRMRC006	12	14	2	2.6	12	14	2	2.6	7.8	
and	25	29	4	0.9	26	27	1	3.1	13.6	
and	42	54	12	1.0	42	54	12	1.0	9.8	
incl	42	44	2	1.2	42	44	2	1.2	17.7	
and incl	47	48	1	0.6	47	48	1	0.6	13.5	
and incl	50	54	4	2.1	50	54	4	2.1	14.2	
incl	50	51	1	6.0	50	51	1	6.0	20.2	
and incl	53	54	1	2.0	53	54	1	2.0	26.5	
ZRMRC007	36	37	1	0.8	36	37	1	0.8	45.0	
ZRMRC008	64	65	1	0.4	64	65	1	0.4	65.1	
ZRMRC009				NSR				NSR		
ZRMRC010				NSR	43	44	1	0.0	51.6	
ZRMRC011	25	30	5	1.7						New results
incl	25	28	3	2.6						
and	35	43	8	1.4						
incl	35	39	4	2.4						
ZRMRC012	15	16	1	0.4						
and	29	33	4	0.8						
incl	32	33	1	1.5						
and	39	44	5	0.9						
incl	39	43	4	1.1						
and	77	80	3	0.5						
ZRMRC013				NSR						
ZRMRC014				NSR						
ZRMRC015				NSR						



ZRMRC016	0	12	12	2.2						New results
incl	0	8	8	3.1						
ZRMRC017	77	78	1	1.0						
and	86	87	1	0.7						
and	99	101	2	0.9						
and	116	118	2	1.9						

High-grade intersections are length weighted average grades with minimum cut -off grade of 1.0g/t Au and no internal dilution, whilst lower grade intersections are length weighted average grades with minimum cut-off grade of 0.4g/t Au and maximum internal dilution of 3m. High-grade silver with low gold reported above 30 g/t Ag cut-off grade.

**Table 2 Red Mountain Drill Collars**

Hole_ID	Hole_Type	Easting	Northing	RL	Depth (m)	Azimuth	Dip
ZRMRC001	RC	269197	7232594	360	79	270	-60
ZRMRC002	RC	269195	7232546	360	75	270	-60
ZRMRC003	RC	269160	7232542	360	75	90	-60
ZRMRC004	RC	269153	7232600	360	75	90	-60
ZRMRC005	RC	269175	7232751	360	73	90	-60
ZRMRC006	RC	269231	7232750	360	97	90	-60
ZRMRC007	RC	269225	7232825	360	73	270	-60
ZRMRC008	RC	269230	7232555	360	79	90	-60
ZRMRC009	RC	269394	7232273	360	64	130	-60
ZRMRC010	RC	269394	7232273	360	90	90	-60
ZRMRC011	RC	269218	7232555	359	151	270	-60
ZRMRC012	RC	269224	7232600	362	145	270	-60
ZRMRC013	RC	269226	7232599	363	151	90	-60
ZRMRC014	RC	269275	7232596	364	127	90	-60
ZRMRC015	RC	269253	7232650	366	151	90	-60
ZRMRC016	RC	269207	7232649	364	145	90	-60
ZRMRC017	RC	269151	7232650	363	127	90	-60

### 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.*



Authorised for release by the Zenith Minerals Limited Board of Directors – 24<sup>th</sup> August 2020

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#### About Zenith

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.

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 drill program (ASX Release 3<sup>rd</sup> August 2020), including:
  - 13m @ 8.0 g/t Au & 3.2 g/t Ag from surface, incl. 6m @ 16.7 g/t Au & 5.3g/t Ag
  - 5m @ 3.5 g/t Au & 54.3 g/t Ag from 64m, incl. 2m @ 8.0 g/t Au & 109.4 g/t Ag
- **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<sup>th</sup> August 2020), including:
  - Dulcie North - 16m @ 6.3 g/t Au, incl 4m @ 17.0 g/t Au
  - Dulcie Laterite Pit - 8m @ 4.1 g/t Au, 19m @ 1.4 g/t Au (EOH) incl. 8m @ 2.7 g/t Au & 4m @ 3.2 g/t Au (open to north, south, and down dip to west)
  - Estrela Prospect – 8m @ 1.2 g/t Au and 4m @ 2.9 g/t Au (open to north, south & west), and
  - Dulcie Far North – 4m @ 4.5 g/t Au and 4m @ 1.6 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 planned for October 2020.
- **Flanagans Gold & Copper Project** in Queensland (100% owned) - further sampling required to define a drill target.

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i>	17 reverse circulation drill holes totalling 1,777m.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	1m drill samples collected via a cyclone were split through riffle splitter. Routine sampling on 4m composites via spear sampling of the 1m riffle split samples. Selected 1m intervals were assayed as 1m samples based on visual logging of alteration and sulphide content.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	Reverse circulation drilling was used to obtain 1 m to 4m samples from which 2 to 3 kg was pulverised to produce a 30 g charge for fire assay
Drilling techniques	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i>	Reverse circulation
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Drill chips were sieved and logged by a qualified geologist on site, data recorded in field on paper logs and transferred to digital database
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Drilling produced generally dry samples with excellent recoveries, all 1m samples were riffle split on site and selected interval were 4m composite sampled using a spear from the 1m riffle splits to ensure a representative sample was collected for assay
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	No indications of sample bias based on results to date

Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	Drill chips were sieved and logged by a qualified geologist on site. No reporting of resources.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	Drill chips logging is qualitative. Representative chip samples collected and stored in 20 compartment plastic chip trays and photographed.
	<i>The total length and percentage of the relevant intersections logged.</i>	All intervals logged and sampled
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No core
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	Samples riffle split
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Samples were analysed at ALS Laboratories in Brisbane, the samples were crushed, pulverised and assayed by gold using fire assay and silver by ICP-AES.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	~2 to 3kg of drill sample was crushed and pulverised and a sub-sample was taken in the laboratory and analysed.
Sub-sampling techniques and sample preparation - continued	<i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i>	1m resampling of selected mineralised 2 and 4m composites to be completed
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Each sample was 2kg to 3kg in weight which is appropriate to test for the grain size of material.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	The samples were crushed and assayed for gold using fire assay, which is considered a near total technique
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	No geophysical tools used this sampling program
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	Certified reference material and blanks was included in each sample batch and appropriate levels of precision and accuracy.  In addition, a barren feldspar flush was run before and after each 1m resample analysis.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Company personnel have observed the assayed samples
	<i>The use of twinned holes.</i>	No twinning

	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Field data were all recorded in field note books and sample record books and then entered into a database
	<i>Discuss any adjustment to assay data.</i>	No adjustments were made.
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	Sample location is based on GPS coordinates +/-5m accuracy
	<i>Specification of the grid system used.</i>	The grid system used to compile data was MGA94 Zone 56
Location of data points - continued	<i>Quality and adequacy of topographic control.</i>	Topography control is +/- 10m.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Drill holes shown in Figures 2 to 3 and in Figures and Tables included in ASX Release 22 <sup>nd</sup> July 2020.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	The data alone will not be used to estimate mineral resource or ore reserve
	<i>Whether sample compositing has been applied.</i>	Results are reported as length weighted average composites at a minimum cut-off grade of 0.4 g/t Au or if silver only 30g/t Ag (refer to Table 1). Over range >100g/t Ag re-assayed using a 4 acid digest ICP-AES.
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Orientation of mineralisation is unsure at this stage and therefore true widths are uncertain, however drill holes were designed and orientated to intersect geological contacts, mapped veins and structures and IP geophysical chargeability anomalies normal to strike and therefore are more likely than not to represent near true widths
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	As above
Sample security	<i>The measures taken to ensure sample security.</i>	Samples were kept in numbered and secured bags until delivered to the laboratory
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	Sampling techniques are consistent with industry standards



## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	The Red Mountain Project is located within the 100% Zenith owned exploration permit for minerals EPM 26384.  The project is located within private grazing properties.
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	All tenements are 100% held by Zenith and are in good standing with no known impediment to future granting of a mining lease.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	South Pine Mines Pty Ltd undertook regional scale reconnaissance rock chip sampling and a systematic stream sediment sampling program focused around the Rossmore silver occurrence from 1981 to 1982. Several companies held the ground in the following decades focusing on the porphyry copper / epithermal potential of the area with Archer Resources Limited the only company to have reported on ground exploration activity on the area of interest being reported herewith by Zenith. Anomalous silver and gold in soils was reported by Archer Resources Limited which has subsequently been confirmed by Zenith.
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	Based on the initial site visit and preliminary evidence the geological setting and geochemical association at Red Mountain is indicative of an epizonal intrusion related gold deposit like the Mt Rawdon gold mine.
Drill hole Information	<i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i>	Refer to Tables 1 & 2
	<i>o easting and northing of the drill hole collar</i>	
	<i>o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i>	
	<i>o dip and azimuth of the hole</i>	
	<i>o down hole length and interception depth</i>	
	<i>o hole length.</i>	
	<i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i>	
Data aggregation methods	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	No high-grade cutting
	<i>Where aggregate intercepts incorporate short lengths of high grade results and long lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of</i>	High-grade intersections are length weighted average grades with minimum cut -off grade of 1.0g/t Au and no internal dilution, whilst lower grade intersections are length weighted average grades

	<i>such aggregations should be shown in detail.</i>	with minimum cut-off grade of 0.4g/t Au and maximum internal dilution of 3m.
<i>Data aggregation methods - continued</i>	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalents used.
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	Refer below
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	The intersections except holes ZRMRC005 & 006 are down hole lengths. The orientation of mineralisation is interpreted as steep easterly dipping.
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	As above
<i>Diagrams</i>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Refer to descriptions and diagrams in body of text
<i>Balanced reporting</i>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Refer to descriptions and diagrams in body of text
<i>Other substantive exploration data</i>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	No other meaningful or material exploration data to be reported at this stage
<i>Further work</i>	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	Follow-up drill planning in progress.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Refer to figures in body of report.