

2nd Aug 2018

Tate River Gold Project - Update

- New gold targets defined at North East and Far North Prospects;
- North East rock sample results to 2.1g/t gold in association with high arsenic & antimony in quartz veins and quartz breccia hosted by rhyolite and schist, whilst broad spaced soil sampling returned gold results up to 0.2g/t gold;
- Far North rock sample results to 1.7g/t gold with strong arsenic & antimony association in quartz veins;
- Single rock sample of quartz vein returned 1.17g/t gold in association with strong bismuth & tellurium from 1.3km west of the Guppy Strike Prospect where Zenith's 2017 trenching returned up to 5m @ 3.92g/t gold;
- Infill sampling planned to be completed this month.

Zenith Minerals Limited ("Zenith" or "the Company") is pleased to advise that results have been received from the first phase of a large ongoing geochemical sampling campaign at the Tate River gold project in north Queensland.

Systematic soil sampling (700 samples) and rock samples (16 samples taken by the soil sampling crew) in this first round of work in the north east of the project area have confirmed the presence of gold bearing quartz veins and vein breccia.

At the North East prospect rock sample results returned up to 2.1g/t gold with associated high arsenic and antimony in colloform banded quartz veins and quartz breccia hosted by rhyolite, and schist whilst wide spaced (400m x 100m) soil sampling returned high-order gold results up to 0.2g/t gold. In addition rock samples taken at the Far North prospect returned up to 1.7g/t gold also with strong arsenic & antimony hosted in quartz veins, whilst a single rock sample of a quartz vein in an area of soil cover 1.3km west of the Guppy Strike Prospect returned 1.17g/t gold in association with strong bismuth & tellurium.

Next Steps

Infill soil sampling is planned to be completed at the North East and Far North prospects this month. Additional area of untested and open ended gold-bismuth-tellurium-copper soil anomalies to the southwest of the Guppy Strike prospect will also be sampled.

Background on the Tate River Gold Project

As previously announced (ASX Release 2nd August 2017) a wholly owned subsidiary of Zenith, Caldera Metals Pty Ltd signed a Farm-In agreement with private company Jumani Pty Ltd, whereby Caldera may earn up to 70% interest in The Tate River gold project.

The Tate River gold project is located close to two known intrusion related gold deposits, it is 50km southwest of the Mungana/Red Dome gold deposit with total endowment of 3.2Moz gold and 11km southwest of the Mountain Maid gold deposit with resources of 72Mt @ 0.23 g/t gold (0.5Moz gold) – AVQ ASX Release 10th Dec 2010.

The project contains several gold and gold-silver prospects that are considered to be epithermal or intrusion related gold systems that have been subject to previous exploration (Figure 1) with Zenith's focus on the newly discovered Guppy Strike prospect and the large highly prospective land holding away from those known prospects.

As previously announced to the ASX (21st September 2017) a program undertaken by Zenith of continuous, horizontal channel sampling of 13 trenches dug by excavator has

Corporate Details

ASX: ZNC

| | |
|--------------------------------|----------|
| Issued Shares (ZNC) | 212.8M |
| Unlisted options | 2.5M |
| Mkt. Cap. (\$0.17) | A\$36M |
| Cash (30 th Jun 18) | A\$2.5 M |
| Debt | Nil |

Directors

Michael Clifford:
Managing Director

Mike Joyce:
Non Exec Chairman

Stan Macdonald:
Non Exec Director

Julian Goldsworthy:
Non Exec Director

Graham Riley:
Non Exec Director

Major Shareholders

| | |
|--------------------|-------|
| HSBC Custody. Nom. | 12.8% |
| Nada Granich | 5.4% |
| Miquilini | 4.3% |
| J P Morgan | 4.1 |
| Abingdon | 4.1% |

Contact Details

Level 2/33 Ord Street
West Perth, WA, 6005

Mail: PO Box 1426
West Perth, WA, 6872
T: +61 8 9226 1110
E: info@zenithminerals.com.au
W: www.zenithminerals.com.au





confirmed widespread bedrock gold mineralisation over an area 450m x 300m at the Guppy Strike Prospect. Results included: 5m @ 3.92g/t Au from mica schist, whilst ferruginous quartz vein zones hosted in amphibolite tested by 3 separate trenches returned: 3m @ 1.72 g/t Au, 3m @ 1.09 g/t Au and 2m @ 0.82g/t Au over a strike length of 150m. Widespread strongly anomalous gold zones such as in Trench GT12 (entire length averaging 166m @ 0.14g/t Au) in the southwest of the prospect area are associated with a felsic and pegmatite dyke swarm. The rock samples at Guppy Strike have a typical intrusion related gold deposit signature containing elevated levels of gold-bismuth-tellurium.

In addition a soil geochemical survey was completed over the Guppy Strike discovery area in order to assist in determining the extents of the gold mineralised system. Assay results from the soils program show a 550m long x 400m wide gold-bismuth-tellurium-copper-zinc soil anomaly coincident with and open to the south of the Guppy Strike gold zones.

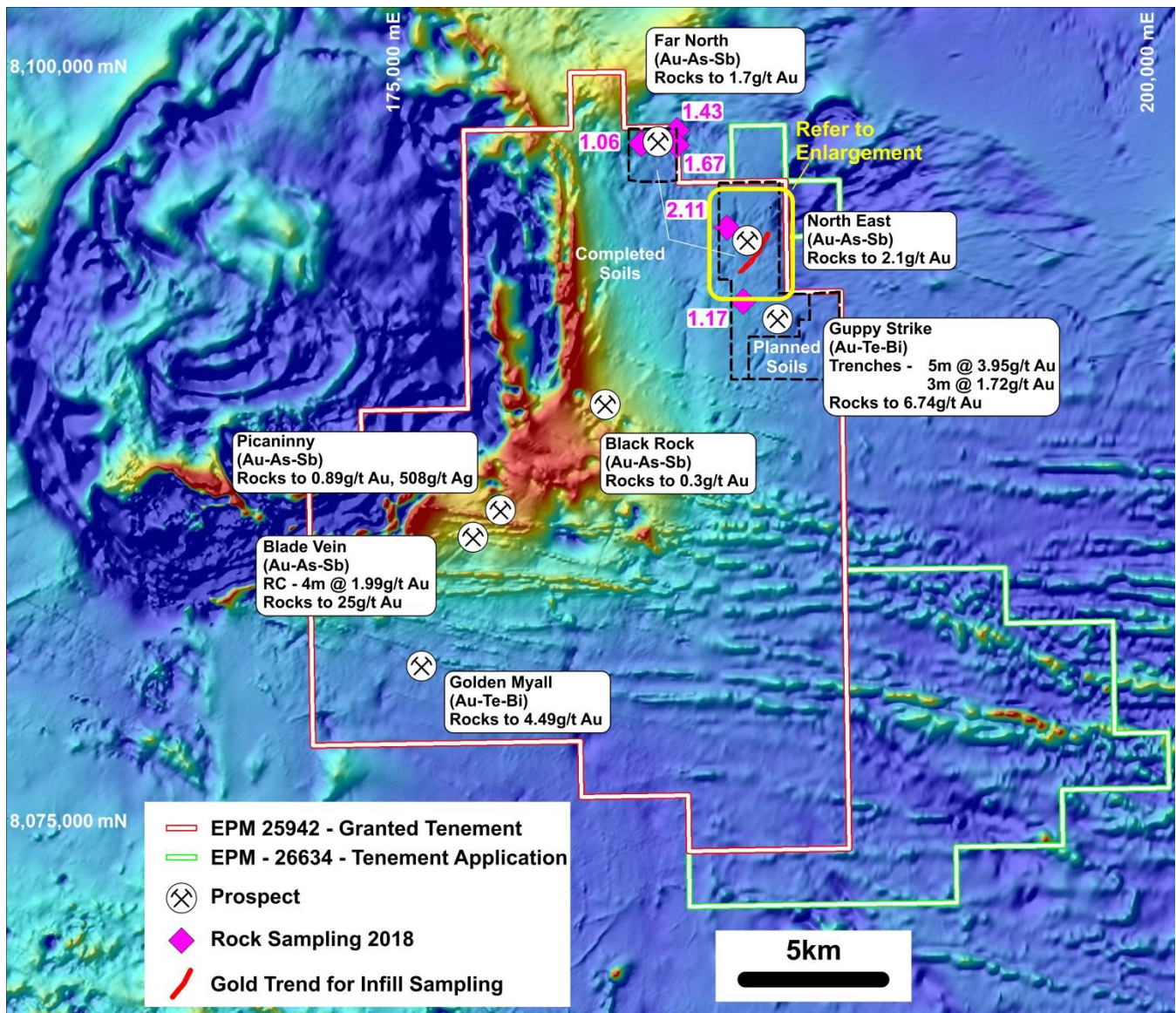


Figure 1: Tate River Project – Prospect Summary with New Gold Rock Chip Sample Results at Far North & North East Prospects - Refer to Figure 2 for Details of the Enlargement (Background is Aeromagnetic Image). Large circular feature to the north east is the Permian Reamba Caldera

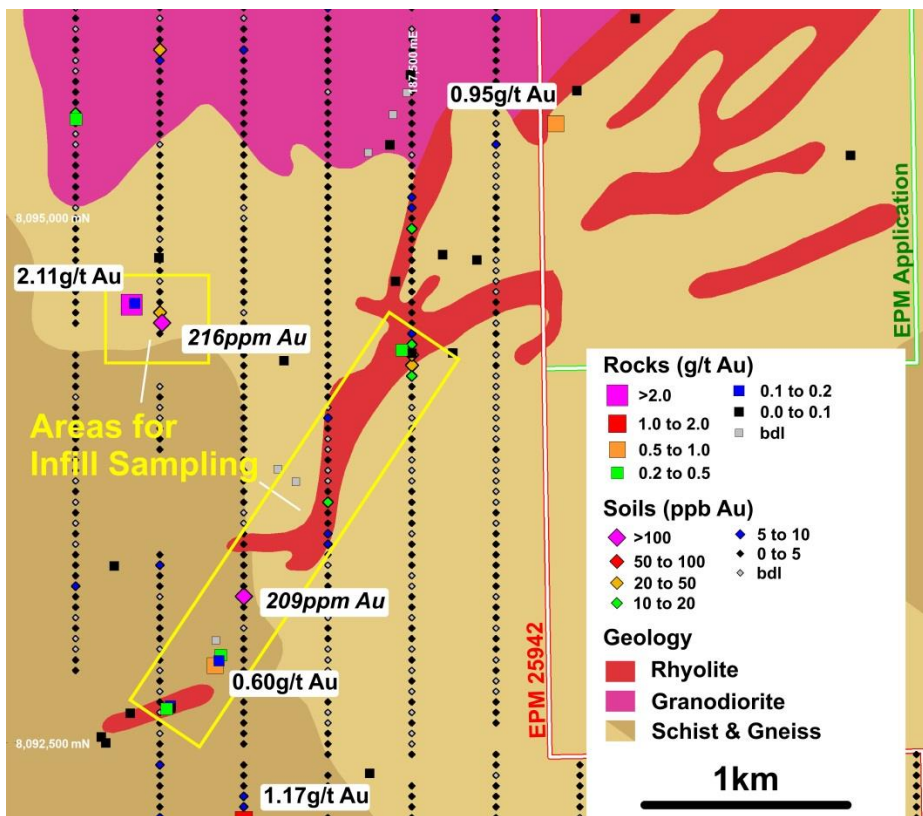


Figure 2: North East Prospect Gold Geochemical Results - Showing Area of Proposed Infill Sampling (refer to Figure 1 for location)



Figure 3: Breccia vein 2m wide with colloform-coxcomb textures – rock chip results to 2.11 g/t gold (Au-As-Sb association)



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.

2nd August 2018

For further information contact:

Zenith Minerals Limited

Directors Michael Clifford or Mike Joyce

E: mick@zenithminerals.com.au

Phone +61 8 9226 1110

Media and Broker Enquiries

Andrew Rowell

E: arowell@canningspurple.com.au

Phone +61 8 6314 6300



Zenith is advancing its project portfolio of high-quality, gold, lithium and base metal projects:

Kavaklitepe Gold Project, Turkey (ZNC 30%, Teck 70%)

- Recent (2013) grass roots gold discovery in Tethyan Belt. Continuous rock chip sampling to: 54m @ 3.33g/t gold, incl 21.5m @ 7.2 g/t gold. Initial 2016 drill results include: 9 m @ 5.2 g/t Au from surface, 7.8 m @ 7.3 g/t Au from 3.3 m & 16.4m @ 4.7 g/t Au from 82.1m depth (ASX Release 5th Oct 2016). Follow-up drilling planned 2018.

American Lithium Projects (Bradda Head earning initial 55%)

Zacatecas Lithium Brine Project, Mexico

- Lithium brines to 2.1% lithium reported in sampling conducted by the Mexican Government from solar evaporation ponds for salt production (10km west of Zenith's new tenure) - Compelling geophysical targets – permitting for drilling in progress.

San Domingo Lithium, Arizona USA

- 9km x 1.5km lithium pegmatite field, initial surface sampling returned: 5m @ 1.97%Li₂O including 2.4m @ 2.49% Li₂O (ASX Release 18th Oct 2017) - Drill permits received.

Spencer & Wilson Salt Flat Lithium Brine Projects, Nevada USA

- Two lithium brine targets in producing lithium region - Geophysical surveys & infill sampling prior to drilling

Burro Creek Lithium, Arizona USA (ZNC option to acquire)

- Drilling completed returning widespread near surface lithium rich clay beds, preparation for resource estimate commenced (ASX Release 19th Jun 2018). Follow-up metallurgical testwork in progress.

Australian Projects

Develin Creek Copper-Zinc-Silver-Gold, QLD (ZNC 100%)

- 3 known VHMS massive sulphide deposits - JORC resources, 50km of strike of host rocks.
- 2011 drilling: 13.2m @ 3.3% copper, 4.0% zinc, 30g/t silver & 0.4g/t gold - Drilling planned to extend known deposits, geophysics, geochemistry to detect new targets (ASX Release 15th Feb 2015).

Split Rocks Lithium, Nickel-Cobalt & Gold, WA (ZNC 100%)

- 100% owned exploration licences covering 500km² in emerging Forresteria lithium district.

Tate River Gold QLD (ZNC earning up to 70%)

- Trenching returned 5m @ 3.9g/t Au as well as widespread strongly anomalous gold zones such as 166m @ 0.14g/t Au (ASX Release 21st Sep 2017). New targets identified at Far East and Far North prospects.

Red Mountain Gold-Silver Project QLD (ZNC 100%)

- Initial reconnaissance rock chip sampling results up to 114 g/t silver and 0.69 g/t gold, associated with strong, open ended silver soil anomaly (ASX Release 25th July 2017). Follow-up sampling planned

Waratah Well Lithium -Tantalum Project WA (ZNC 100%)

- Extensive outcropping pegmatites (3km x 2km) encouraging lithium rock chip sample results up to 1.75% Li₂O as well as widespread, high-grade tantalum up to 1166ppm Ta₂O₅ (ASX Release 29th Jul 2017 & 27th Apr 2018).

Earaheedy Manganese Project, WA (ZNC 100%) - Manganese province discovered by ZNC, potential DSO drill intersections (+40%Mn)

Mt Alexander Iron Ore, WA (ZNC 100%) - JORC magnetite Resource 566 Mt @ 30.0% Fe close to West Pilbara coast, 50% of target untested (ASX Release June Qtly 2015)- Seeking development partner/ buyer for iron project.

The Company has released all material information that relates to Exploration Results, Mineral Resources and Reserves, Economic Studies and Production for its 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.



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> | Systematic grid based soil (400m x 100m spacing) & selective rock chip samples were collected by an experienced field technician. |
| | <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> | -2mm sieved soil samples are believed to be representative of the zone sampled. Orientation sampling program was previously conducted over the Guppy Strike prospect to assess various sample size fractions applicable to test for gold mineralisation. |
| | <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> | Soil samples were sieved in the field to -2mm and then pulverised in the laboratory before analysis. Rock samples of 1-2kg were broken using a hammer from the outcrop. Samples were crushed in the laboratory and then pulverised before analysis. |
| 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> | No Drilling |
| Drill sample recovery | <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> | No Drilling |
| | <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> | No Drilling |
| | <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 Drilling |



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| 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> | Rock & soil sample sites were geologically described in including lithology, alteration, weathering, veining, structural measurements were made of the orientations of veins. |
| | <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i> | Qualitative logging only |
| | <i>The total length and percentage of the relevant intersections logged.</i> | All samples were logged |
| Sub-sampling techniques and sample preparation | <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> | No Drilling |
| | <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i> | No Drilling |
| | <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> | Samples were analysed at ALS Laboratories in Townsville, the samples were crushed, pulverised and assayed for gold using fire assay |
| | <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> | ~2kg of rock was crushed and pulverised and a sub-sample was taken in the laboratory and sent for analysis. |
| 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> | Soil samples were taken systematically and are believed to be representative of the zones they come from, for each trench two duplicate field samples were taken. Rock samples were selective and may or may not be representative of the outcrops as a whole. |
| | <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> | Each rock sample was 1kg to 2kg in weight which is appropriate to test for the grain size of material. 200g of sieved soil was taken from -20cm at each soil sample site. |
| 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 by fire assay for gold (30g) with AA finish, selected samples were also analysed for 48 trace elements using 4 acid, ICP-MS |
| | <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 XRF or geophysical tools used |
| | <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> | Approximately 1 certified reference standard and one blank were submitted for per 50 samples. Standards and blanks returning appropriate levels. |
| Verification of sampling and assaying | <i>The verification of significant intersections by either independent or alternative company personnel.</i> | No significant intersections reported. |
| | <i>The use of twinned holes.</i> | No drilling |
| | <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> | Field data were all recorded on paper log sheets and sample sheets and then entered into a digital company database |



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| | <i>Discuss any adjustment to assay data.</i> | No adjustments were made. |
| <i>Location of data points</i> | <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 55 |
| <i>Location of data points - continued</i> | <i>Quality and adequacy of topographic control.</i> | Topography control is +/- 5m. |
| <i>Data spacing and distribution</i> | <i>Data spacing for reporting of Exploration Results.</i> | All rock samples greater than 1g/t Au are shown on figure 1. |
| | <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> | No compositing applied. |
| <i>Orientation of data in relation to geological structure</i> | <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> | Soil sampling lines were orientated approximately perpendicular to the assumed strike of mineralisation. |
| | <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> | No drilling. |
| <i>Sample security</i> | <i>The measures taken to ensure sample security.</i> | Samples were kept in numbered bags until delivered to the laboratory |
| <i>Audits or reviews</i> | <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 | Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. | The Tate River Project is located within the 100% Jumani Pty Ltd owned exploration permit for minerals EPM 25942. Zenith Minerals Limited via a Farm-In agreement signed 1/08/17 may earn up to 70% equity by spending \$800,000, with a minimum commitment before withdrawal of \$150,000. The project is located within private grazing properties. |
| | 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. | All tenements are 100% held by Jumani and are in good standing with no known impediment to future granting of a mining lease. |
| Exploration done by other parties | Acknowledgment and appraisal of exploration by other parties. | Jumani Pty Ltd discovered gold rich ferruginous quartz veins/stockwork at the Guppy Strike prospect with assays up to 6.74 g/t Au (refer to Figure 2 in body of this report). Sovereign Resources previously reported 2 rock chip sample results in the SW of the Guppy Strike prospect area returning 0.93 g/t Au and 2.73 g/t Au. No other known exploration work has been conducted on this prospect area. Refer also to ZNC ASX Release 2 nd August 2017. |
| Geology | Deposit type, geological setting and style of mineralisation. | Based on the initial site visit and preliminary evidence the geological setting and geochemical association at Guppy Strike is indicative of an intrusion related gold system. |
| Drill hole Information | A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: | No drilling |
| | o easting and northing of the drill hole collar | |
| | o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar | |
| | o dip and azimuth of the hole | |
| | o down hole length and interception depth | |
| | o hole length. | |
| Data aggregation methods | 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. | |
| | 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. | No compositing applied. |
| | Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. | Refer above |



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| <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> | |
| | <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> | No drilling. |
| | <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> | No drilling. |
| <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> | Results reported on Figures 1 & 2. |
| <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> | Further infill & extension surface geochemical sampling to define the limits of the open gold soil anomalies is planned. Multi-element analyses are awaited. |
| | <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. |