

### **ASX ANNOUNCEMENT**

**27 SEPTEMBER 2016** 

### **INITIAL DRILLING RESULTS AT ZULEIKA**

## 1. Highlights

- ✓ Initial results received from the current RAB drilling program at Zuleika JV;
- ✓ Best intersection to date includes 12m @ 2.44g/t Au from 36m; and
- ✓ Drilling is continuing at Targets 18 and 19.

Torian Resources Limited (ASX:TNR) is pleased to announce the first results from the current RAB drilling program at Target 18 at the Zuleika JV.

The initial round of 30 holes were designed to test two historic targets (Targets 18 and 19) defined by historic wide spaced RAB and Aircore drilling dating back to the 1980s. Approximately 15,000m is planned with about 10% completed to date. Results have been received for the initial 10 holes at Target 18. Drilling is continuing as part of the Phase 1 program.

The balance of the drilling program is expected to be completed in October/November 2016.

### 2. Zuleika JV

The objectives of this drilling program are to:

- Follow up various historic RAB and Aircore intersections dating back to the 1980s and 1990s including:
  - o **5m @ 1.41g/t Au** (55-60m) BDRAB43;
  - o **2m @ 1.79g/t Au** (64-66m EOH) BDRAB43; and
  - o **2m @ 1.31g/t Au** (47-49m) CA-588.

This area contains a sheared package of mafics, ultramafics and felsic porphyries and lies north along strike from several significant gold deposits such as Bullant (9km), Wattle Bird (8km), Hawkins Find (6km) and Porphyry (5km). In many cases these deposits occur at or adjacent to sheared felsic porphyry units in contact with ultramafics. Evolution Mining Limited (ASX:EVN) are currently drilling at Johnsons Rest some 13km to the south. The structure at Targets 18 and 19 is associated with the Zuleika Shear and related cross cutting structures. The Zuleika Shear takes a prominent westerly bend in this area and this is considered favourable for gold deposits.

Previous drilling in this area dates back to the 1980s and 1990s and was shallow and wide-spaced, with holes typically 40-50m deep on lines spaced up to 1km apart, with holes often 50-80m apart.

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Field inspection of historic drill cuttings shows sheared felsic porphyry, ultramafic sans mafics below a thin (1-6m) veneer of transported cover.

Table 1 below lists the historic drill holes with values greater than 1g/t Au from Targets 18 and 19.

Hole	Zuleika N	Zuleika N	From	То	M	g/t Au
	North	East				
BDRAB43	10390	8400	55	60	5	1.41
		and	64	66*	2	1.79
BDRAB03	10400	8400	37	38	1	1.10
CA-389	9300	10475	31	32	1	1.55
CA-494	10000	9650	40	41	1	1.17
CA-588	9300	10465	47	49	2	1.31

Table 1: Table showing historic drill holes with values greater than 1g/t Au from Targets 18 and 19.

Note: \* means the hole ended in mineralisation.

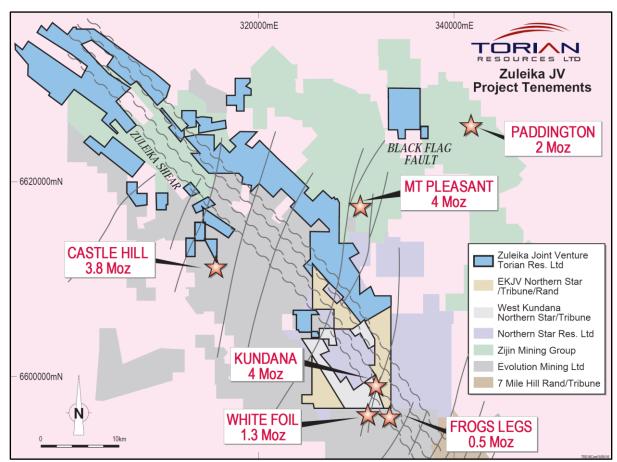


Figure 1: Map showing Torian's Zuleika JV Projects in relation to regional deposits and geology.

## 3. Drilling Program

As advised to Shareholders on 31<sup>st</sup> August 2016, Torian's drilling program for FY2017 will see Phase 1 exploration completed in several areas, with two priority areas (Targets 18 and 19) to receive approximately 15,000m of wide spaced (400m spaced lines) bedrock RAB drilling.



Only the first 10 holes have been assayed to date, with holes drilled at 60 degrees towards the northeast to blade refusal. There are no historic workings in this area due mainly to the presence of up to 20m of transported lake clays and sand deposits. Results greater than 1g/t Au, returned from the first batches submitted to the laboratory are shown in Table 2 and Figure 2 below.

Hole	E	N	Az	Dip	Depth	from	to	m	g/t Au
ZRB437	9517	18104	40	-60	69	36	48	12	2.44

Table 2: Results greater than 1g/t Au from initial RAB drilling at Target 18 and 19.

One other hole intersected values between 0.5 and 1g/t Au.

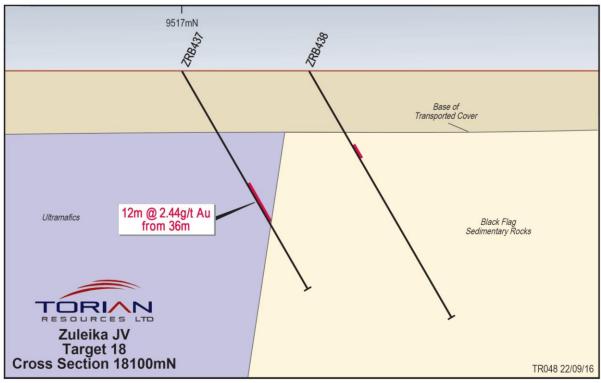


Figure 2: Section showing initial drill results from Target 18 at the Company's Zuleika JV project.

## 4. Interpretation

Based upon the assays received to date, Torian's preliminary interpretations are:

- The small number of holes completed to date have increased the Company's knowledge of the targets;
- The limited information received to date supports the Company's previous geological interpretation; and
- The results received to date are very encouraging and warrant further drilling.

## 5. Next Steps

Over the next two months Torian intends to complete the following works at the Zuleika JV:

• Complete Phase 1 of the RAB drilling program;



- Commence a limited phase 2 RAB drilling program to test continuity between any mineralised zones defined by Phase 1; and
- Carry out an interpretation of all results received and plan further work.

When drilling is complete at Zuleika, the rig will move to Mt Stirling to test an area north of Mt Stirling Well where limited drilling has taken place in the past.

## 6. Commentary

Torian's Managing Director, Matthew Sullivan comments:

"These results are very encouraging. Drilling is continuing at Targets 18 and 19 and these initial results demonstrate the potential of these targets. Further drilling will test the remainder of these targets over the coming period".

For further information, please contact Matthew Sullivan (Torian's MD) on (08) 6216 0424.

Yours sincerely,

Matthew Sullivan Managing Director



## **Appendix:**

Following the Company's announcement on 20 September 2016 titled "Mt Stirling Drilling Results", Torian is pleased to provide the following additional information.

As previously announced, Torian is currently completing a 5,000m infill and step out RC drilling program at Mt Stirling Well. The program is designed to determine if mineralisation continues along strike of historic intersections.

Figure 3 below shows historic drilling (black) and recent infill and step out drilling (red) at Mt Stirling Well. Infill drilling has been carried out on a 20m by 20m pattern while step out drilling has been completed on a 40m by 40m pattern.

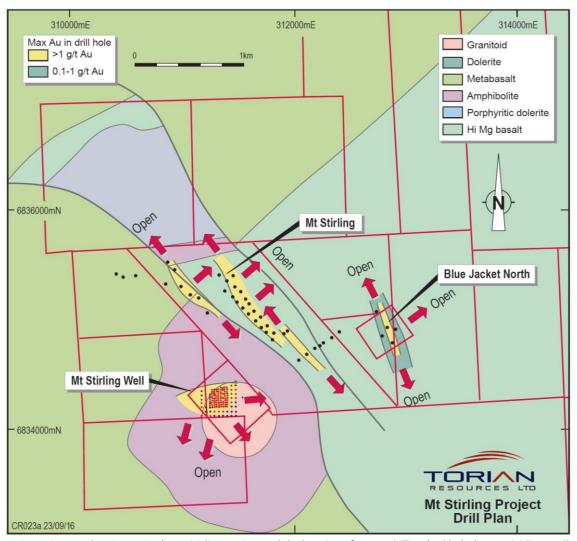


Figure 3: Map showing Torian's Mt Stirling Project and the location of recent drilling (red holes) at Mt Stirling Well.

As announced on the 20<sup>th</sup> September, the first results received from the current program are highly encouraging and have extended known mineralisation. Mineralisation remains open in all directions with only a small amount of results received to date.



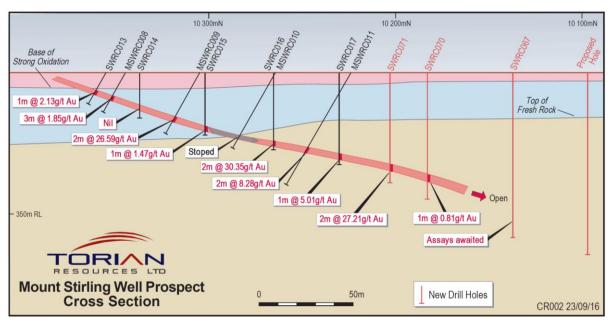


Figure 4: Section at Torian's Mt Stirling Well project showing recent step out drilling and proposed drill holes.

As seen in Figure 4 above, recent RC drilling (red holes) at Mt Stirling Well has extended known mineralisation. The Company is still awaiting a significant amount of results. These samples are in the lab and results are expected soon.



## **About Torian:**

Torian Resources Ltd (ASX:TNR) is a highly active Australian gold company that is focused on developing the gold mines of tomorrow. The Company has four advanced projects located in the Goldfields region of Western Australia.

Torian's flagship Project, the Zuleika JV, lies north and partly along strike of several major gold mines including Northern Star (ASX:NST), Tribune Resources (ASX:TBR) and Rand Mining's (ASX:RND) 7Moz East Kundana Joint Venture and Evolution's (ASX:EVN) Frogs Legs and White Foil operations.

Since May 2015, Torian has increased its landholding at the Zuleika Project by approximately 86% via eight separate acquisitions. Torian is now the second largest landholder in this highly sought after region and is focused on fast tracking its development.

Torian has commenced a large, 4 Phase, exploration program that is targeting the Zuleika Shear and intends to further consolidate ground in this region.

Torian is also developing the high grade Mt Stirling Project which has an outcropping inferred resource located 40km northwest of Leonora. Following a successful infill drilling program in December, Torian is currently completing an internal economic study on the project to assess it as a standalone mining operation.

Torian's exploration team has an enviable track record of discovering and developing a number of multi-million ounce gold mines in this region. Torian is commencing an exciting phase in its development and we look forward to updating the market as things progress.

Hole	Zuleika	Zuleika	Depth	Dip	Az
	Local E	Local N			
ZRB429	9546	17910	77	-60	40
ZRB430	9585	17916	60	-60	40
ZRB431	9608	17921	19	-60	40
ZRB432	9617	17920	18.4	-60	40
ZRB433	9624	17919	74	-60	40
ZRB434	9664	17917	69	-60	40
ZRB435	9696	17926	73	-60	40
ZRB436	9735	17937	70.5	-60	40
ZRB437	9517	18104	69	-60	40
ZRB438	9551	18106	78	-60	40
ZRB439	8451	18352	63	-60	40
ZRB440	8480	18357	66	-60	35
ZRB441	8506	18360	49	-60	42
ZRB442	8535	18363	47	-60	38
ZRB443	8558	18368	42	-60	42
ZRB444	8580	18370	36	-60	39
ZRB445	8599	18372	39	-60	38
ZRB446	8616	18375	35	-60	40
ZRB447	8637	18380	43	-60	39
ZRB448	8660	18385	33	-60	41
ZRB449	8675	18386	27	-60	40
ZRB450	8652	18354	27	-60	39
ZRB451	8701	18387	26	-60	39
ZRB452	8712	18392	27	-60	40



ZRB453	8727	18396	46	-60	40
ZRB454	8752	18401	68	-60	40
ZRB455	8421	18546	72	-60	40
ZRB456	8458	18547	80	-60	40
ZRB457	8499	18551	80	-60	40
ZRB458	8535	18558	24	-60	37

Table 3: Collar details of all holes drilled to date in the current programme.



# Appendix 2 Zuleika JV Project

# JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>All data and results referred to in this report are historic or new, and date from the late 1980s to the present day. This data has been judged to be reliable following independent research, including discussions with previous operators and explorers in person.</li> <li>Samples were collected via Rotary Air Blast (RAB) and Reverse Circulation (RC) drill chips.</li> <li>All drilling yielded samples on a metre basis. RAB drilling samples were commonly composited into intervals of 4 or 5m, with selected individual or 2m resamples collected. Reverse Circulation (RC) drilling is utilised to obtain 1 m samples which are cone split, from which approx. 2-3 kg is pulverised to produce a 40 g charge for fire assay.</li> <li>Sample preparation method is total material dried and pulverized to nominally 85% passing 75 µm particle size. Gold analysis method is generally by 40g Fire Assay, with Atomic Absorption Spectrometry (AAS) finish (DL 0.01 – UL 50 ppm Au). Samples exceeding the upper limit of the method were automatically re-assayed utilizing a high grade gravimetric method.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	<ul> <li>RAB holes were typically 100mm in diameter, RC drilling usually 155mm in diameter.</li> <li>RC drilling was via a face sampling hammer.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Recoveries were logged onto paper logs during drilling. Recoveries were visually assessed.</li> <li>Sample recoveries were maximised in RAB and RC drilling via collecting the samples in a cyclone prior to sub sampling. RAB drillholes were stopped if significant water flows were encountered.</li> <li>No relationship appears from the data between sample recovery and grade of the samples.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies</li> </ul>	<ul> <li>All drillholes were geologically logged. This logging appears to be of high quality and suitable for use in further studies.</li> </ul>



		RESOURCES LID
Criteria	JORC Code explanation	Commentary
	<ul> <li>and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Logging is qualitative in nature.</li> <li>All samples / intersections are logged. 100% of relevant length intersections are logged.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise</li> </ul>	<ul> <li>Non-core RC drill chip sample material is riffle split, where sample is dry. In case of wet sample a representative 'grab' sample method is utilized.</li> <li>The sample preparation technique is total material dried and pulverized to nominally 85% passing 75 µm particle size, from which a 40g charge was representatively riffle split off, for assay.</li> <li>Standard check (known value) sample were not used in all cases. Where used the</li> </ul>
	<ul> <li>representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>known values correspond closely with the expected values. A duplicate (same sample duplicated) were commonly inserted for every 20 or 30 samples taken.</li> <li>There is a significant amount of coarse gold at Mt Stirling Well. This is reflected in the poor repeatability of some samples and also was noted on the drill logs.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Various independent laboratories have assayed samples from the project over the years. In general they were internationally accredited for QAQC in mineral analysis.</li> <li>No geophysical tools have been used to date.</li> <li>The laboratories inserted blank and check samples for each batch of samples analysed and reports these accordingly with all results.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Selected significant intersections were resampled from original remnant sample material and analysed again.</li> <li>No twinned holes have been used to date.</li> <li>Documentation of primary data is field log sheets (hand written). Primary data is entered into application specific data base. The data base is subjected to data verification program, erroneous data is corrected. Data storage is retention of physical log sheet, two electronic backup storage devices and primary electronic database.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Survey control used is hand held GPS for historic holes and differential GPS for the new holes. No down hole surveys were completed to date. As these areas contain drillholes to no more than 100m significant deviations are not expected.</li> <li>Grid systems are various local grid converted to MGA coordinates.</li> <li>Topographic control is accurate to +/- 0.5 m for the historic holes and 0.1m for the new holes.</li> </ul>



Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The drill spacing of the historic drilling is variable but generally no greater than 1000m by 40m, with some areas infilled to 400m by 40m. The new drilling is 400m by 10-30m spaced.</li> <li>The areas do not yet have drilling density sufficient for JORC Inferred category. Further infill will be required for other categories.</li> <li>Sample compositing has been used in areas where mineralisation is not expected to be intersected. If results return indicate mineralisation, 1m split samples will be submitted for analysis.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Apart from some reconnaissance RAB drilling, the orientation of the drilling is approximately at right angles to the known mineralisation and so gives a fair representation of the mineralisation intersected.</li> <li>No sampling bias is believed to occur due to the orientation of the drilling.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were delivered to the laboratory in batches at regular intervals. These are temporarily stored in a secure facility after drilling and before delivery</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>The company engages independent consultants who regularly audit the data for inconsistencies and other issues. None have been reported to date.</li> </ul>

# **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	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The Zuleika JV Project is contained with a large number of tenements. These are generally Prospecting Licences but some Mining Leases are also art of the tenement package. The details of the tenements have been released in previous announcements to the market. This is beneficially held under a Joint Venture with Cascade Resources Ltd whereby the company has the right to earn a 49%interest by spending \$5m over 4 years. An initial 12.5% interest has been earned.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	All work relating to previous exploration contained within this report was completed by other parties. Details are included in the references.
Geology	Deposit type, geological setting and style of mineralisation.	Details of the geology are found elsewhere in this report.
Drill hole Information	<ul> <li>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:</li> <li>easting and northing of the drill hole collar</li> </ul>	<ul> <li>Details of the drilling, etc are found within the various tables and diagrams elsewhere in this report.</li> <li>No material information, results or data have been excluded.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>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.</li> </ul>	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly</li> </ul>	<ul> <li>Weighted averages were calculated by a simple weighting of from and to distances down each hole. Most samples are 1 metre samples. No top cuts were applied. Lower cut-offs used were – 1.0g/t Au.</li> <li>The nature of the mineralisation means that little low grade material has been included in the intersection table.</li> </ul>
	stated.	No metal equivalent values are used
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Details of geology, and selected cross sections are given elsewhere in this report</li> <li>The geometry of the mineralisation is not fully understood due to the early stage of exploration.</li> </ul> The tables above show drill widths not true widths.
Diagrams	<ul> <li>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.</li> </ul>	Details of geology, and selected cross sections are given elsewhere in this report.
Balanced reporting	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.	Details of the results, drilling, etc are reported elsewhere in this report.
Other substantive exploration data	<ul> <li>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.</li> </ul>	Details of geology, and selected cross sections are given elsewhere in this report.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Proposed work included drilling of additional RAB drilling to complete testing of the Targets.</li> <li>In addition a significant number of additional prospects are known to exist within the projects as defined by previous RAB and RC drilling intersections. These will form the next phase of exploration.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>Various maps and diagrams are presented elsewhere in this report to highlight</li> </ul>
		possible extensions and new targets.