

# ASX

## ANNOUNCEMENT



## TICK HILL TAILINGS REVEAL SIGNIFICANT GOLD GRADES

Diatreme Resources Limited is an Australian based diversified mineral explorer with significant projects in WA and QLD.

The Board and senior personnel exhibit wide experience, ranging through the exploration, development and financing phases of resource project management.

Australian Securities Exchange  
Codes: DRX, DRXO

Board of Directors - Non-executive:  
William Wang - Chairman  
Andrew Tsang  
Daniel Zhuang

Executive:  
Neil McIntyre – Chief Executive  
Tuan Do – CFO & Company Secretary  
Ian Reudavey – Chief Geologist

Key Projects:  
• Cyclone Zircon Project  
• Tick Hill Gold Project  
• Cape Bedford Silica/HMS Project  
• Clermont Copper Project

Postal Address:  
PO Box 10288  
Brisbane Adelaide Street  
QLD 4000

Registered Office:  
Level 2, 87 Wickham Terrace  
Spring Hill, QLD 4000

Ph: +61 (0)7 3832 5666  
Website: [www.diatreme.com.au](http://www.diatreme.com.au)  
Email: [manager@diatreme.com.au](mailto:manager@diatreme.com.au)

**10 August 2015**

### HIGHLIGHTS

- **Results show an overall average grade of 1.04 g/t Au for the tailings dam, with the eastern paddock averaging 1.42 g/t Au and the western paddock 0.73 g/t Au.**
- **24 aircore drill holes completed at 50m x 50m spacing for a total of 180m, with 173 samples submitted for analysis**
- **Tailings dam covers approx. 8 ha and could contain between 600,000-650,000t of tailings material, based on historical records**
- **Further work planned, including infill drilling and collection of samples for metallurgical test work, to assess options for gold processing and recovery.**

Prospects for a revival of gold mining at the former Tick Hill Gold Mine near Mount Isa, Qld have been boosted following positive reconnaissance drilling results, with Diatreme Resources Limited (ASX:DRX) confirming significant gold mineralization in the tailings dam.

Diatreme's CEO Mr Neil McIntyre said: "We are extremely encouraged by these initial results and will now undertake further drilling to better define this resource, as well as undertaking metallurgical studies to determine the best way to extract the gold contained within the tailings in a profitable fashion. These further studies will be prioritised so we can show shareholders the quickest path to potential revenue."

Last mined in the 1990s, the former open pit and underground mine was one of Australia's highest grade gold deposits.

## TICK HILL TAILINGS DAM EXPLORATION RESULTS

A reconnaissance drilling program was undertaken by Diatreme Resources at the Tick Hill Gold Project from Friday 17<sup>th</sup> July to Monday 20<sup>th</sup> July 2015. The work was undertaken as part of a Joint Venture arrangement with Superior Resources (ASX: SPQ) to evaluate surface gold opportunities within the Tick Hill Mine Leases. Drilling was completed by the company-owned and operated aircore drilling rig and included:

- 24 holes for 180m in the Tailings Dam, with 173 geochemical samples and 9 environmental samples collected.
- 8 holes for 18m in the Tailings Decant Pond, with 12 geochemical samples and 5 environmental samples collected.
- 15 holes for 26m over a soil geochemical anomaly in an area of alluvial sheet wash 400m NW of the pit, with 29 geochemical samples collected.



Tick Hill Tailings Dam, looking west over the water storage tank from the flank of Tick Hill. Drill rig on decant pond circled in red

The Tick Hill Gold Mine operated from August 1991 through to March 1995, with commissioning of the site processing plant in December 1991. The plant comprised crushing and milling circuits delivering a product with a p80 of 70 $\mu$ m to a CIL circuit. Tailings were discharged in to a tailings dam comprising two paddocks of a “turkeys nest” construction in which a perimeter embankment with a clay core retains tailings. Wall heights range from 6m to 10.5m. Since decommissioning the surface has been capped and both the surface and batters seeded, with good vegetation cover now present.

The total reported production for the Tick Hill Gold Mine was 705,000t at 22.6 g/t Au for 15,900kg Au at 97% gold recovery. Some high grade open pit ore was mined and transported to the Carpentaria Gold operations at Ravenswood to provide early cash flow to the project, this has been estimated at 20,000t based on the reported 19,000oz produced at Ravenswood in the 1991/1992 financial year (with head grades for that year of 30.2 g/t Au).



**Table 1: Tailings Dam Drill Hole Information**

Hole ID	Easting	Northing	RL	Hole Depth	Dip	Azimuth	Significant Intersection			
							From	To	Interval	Au g/t
THT001	388746	7605591	350	8.7	-90°	0°	0.5	8.7	8.2	1.20
THT002	388748	7605542	350	7.7	-90°	0°	0.6	7.6	7.0	1.34
THT003	388748	7605489	350	7.6	-90°	0°	0.6	7.6	7.0	1.35
THT004	388693	7605592	350	8.1	-90°	0°	0.6	8.1	7.5	1.06
THT005	388694	7605545	350	7.1	-90°	0°	0.6	7.1	6.5	1.54
THT006	388697	7605491	350	6.7	-90°	0°	0.5	6.7	6.2	1.85
THT007	388702	7605442	350	6.6	-90°	0°	0.6	6.6	6.0	1.58
THT008	388650	7605593	350	6.2	-90°	0°	0.6	6.2	5.6	1.15
THT009	388646	7605543	350	6.3	-90°	0°	0.6	6.3	5.7	1.61
THT010	388647	7605493	350	6.1	-90°	0°	0.6	6.1	5.5	1.27
THT011	388649	7605443	350	5.7	-90°	0°	0.6	5.6	5.0	1.82
THT012	388648	7605398	350	4.5	-90°	0°	0.6	4.5	3.9	1.51
THT013	388550	7605590	352	6.6	-90°	0°	0.6	5.6	5.0	0.66
THT014	388545	7605544	352	7.6	-90°	0°	0.6	6.6	6.0	0.48
THT015	388546	7605493	352	8.6	-90°	0°	0.6	8.6	8.0	0.85
THT016	388549	7605444	352	8.3	-90°	0°	0.6	8.3	7.7	0.80
THT017	388549	7605391	352	8.6	-90°	0°	0.6	8.6	8.0	1.08
THT018	388499	7605591	352	7.6	-90°	0°	0.6	7.6	7.0	0.62
THT019	388497	7605543	352	8.8	-90°	0°	0.6	8.8	8.2	0.58
THT020	388495	7605493	352	9.1	-90°	0°	0.6	9.1	8.5	0.82
THT021	388495	7605446	352	9.1	-90°	0°	0.6	9.1	8.5	0.74
THT022	388449	7605593	352	6.8	-90°	0°	0.8	6.8	6.0	0.46
THT023	388446	7605537	352	8.8	-90°	0°	0.8	8.8	8.0	0.64
THT024	388447	7605493	352	8.7	-90°	0°	0.8	8.7	7.9	0.83

**Table 1 Notes**

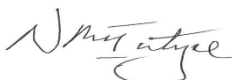
- Coordinates are UTM, Zone 54, GDA94 from handheld GPS
- Hole Depth and Intervals in metres
- RL assigned from regional DTM

Encouraging results were returned from the Tailings Dam, with an overall average grade of 1.04 g/t Au. Minor variability was seen in the assays, but all tailings material is mineralised within a range of 0.24 g/t Au to 3.96 g/t Au. The eastern tailings paddock returned an average grade of 1.42 g/t Au from 78 samples, whilst the western tailings dam which has been filled to a slightly higher elevation, returned 0.73 g/t Au from 91 samples.

Tailings material from the decant pond was also mineralised, with an average of 0.46 g/t Au returned from the 7 holes sampled (11 samples).

Results from the reconnaissance drilling of a historical soil gold geochemical anomaly NW of the open pit to assess the alluvial/eluvial potential were generally disappointing, with only one significant assay returned from the upper section of one hole. Weathered bedrock was encountered at generally shallow depths (between 1m and 2m) and it appears that there is insufficient mineralisation and volume of alluvium to warrant further investigation in this area.

Diatreme's Mr McIntyre said: "These initial results have shown Tick Hill's potential to deliver early cashflow to our company. Diatreme has an attractive portfolio of mining projects, including our flagship Cyclone Zircon Project, and is focused on extracting maximum value for shareholders."



**Neil McIntyre**  
CEO

Figure 1 shows the Tick Hill Mining Leases held by Diatreme Resources and the location of all exploration drill holes, Figure 2 shows the drilling operations on the Tailings Dam, and Figure 3 shows the drill hole collars over the Tailings Dam and Decant Pond areas.

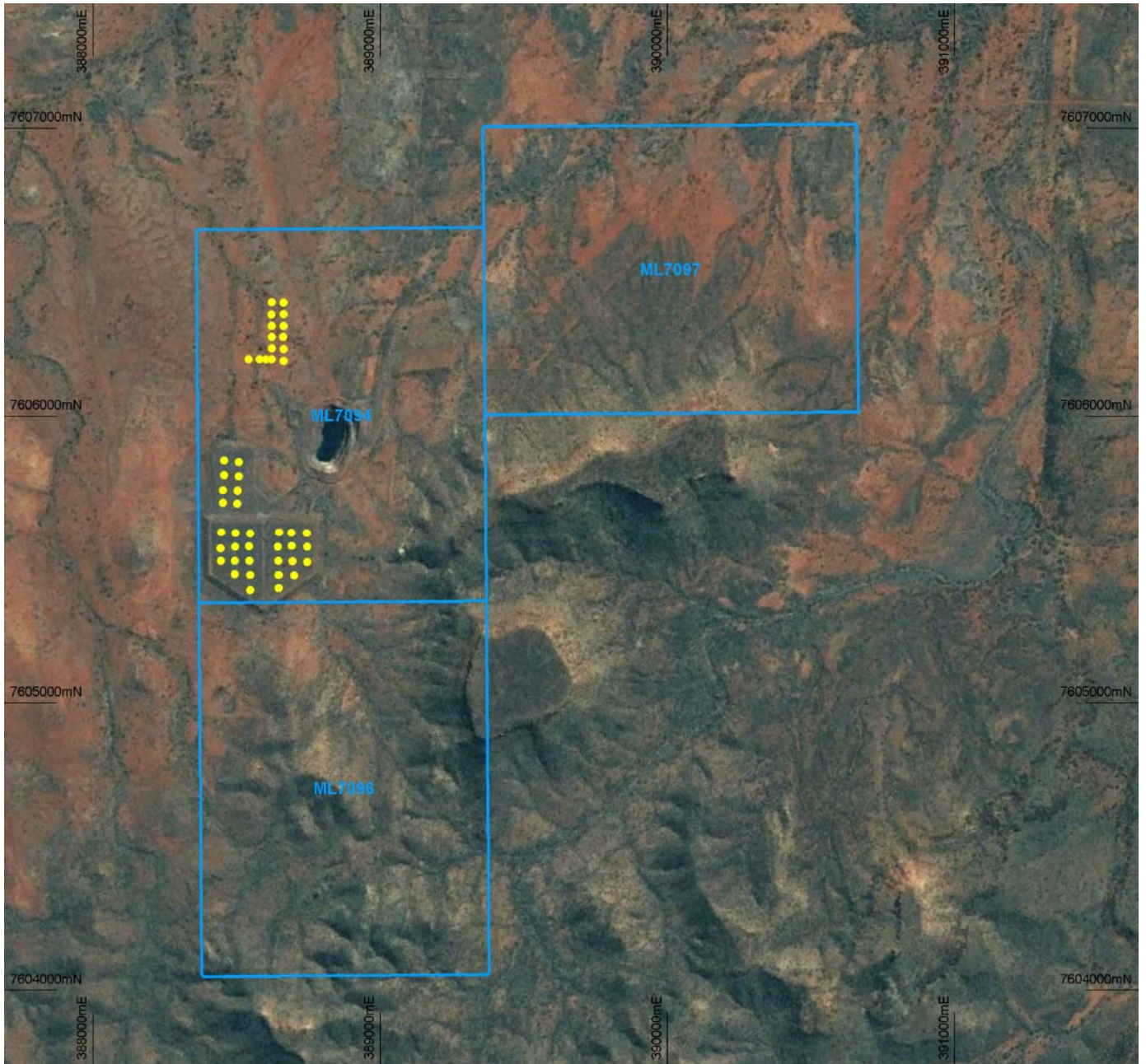
Technical details concerning the deposit, exploration drilling program and the exploration results are presented in Appendix 1 (JORC Table 1).

---

**Competent Person Statement**

*The information in this report, insofar as it relates to Exploration Results is based on information compiled by Mr Ian Reudavey, who is a full time employee of Diatreme Resources Limited and a Member of the Australian Institute of Geoscientists. Mr Reudavey has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken 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 Reudavey consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.*





**Figure 1: Location Plan Tick Hill Gold Project – 2015 Exploration drill holes**



**Figure 2: Tick Hill Gold Project – Drilling on Tailings Dam**





Figure 3: Location Map Tick Hill Gold Project – Tailings Dam drill holes on Google Earth

## 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
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Air core drilling was used to obtain 1m samples from which ~3kg was pulverized to produce a 50g charge for fire assay</li> <li>• Samples are 1m down hole intervals of air-core drill cuttings collected from rig-mounted cyclone, the entire sample was collected and submitted to the laboratory, with riffle splitting of those samples &gt;3.2kg in weight prior to pulverising</li> <li>• 1m intervals are considered appropriate for first pass drilling of mineralised tailings</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>• <i>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).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Vertical NQ air-core drilling utilizing blade bit, 3m drill runs</li> <li>• Drilling technique was continually adjusted to suit the prevailing drilling conditions (e.g. dry, moist, wet with variable clay content)</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Field assessment and logging of sample recovery and sample quality</li> <li>• Sample weight from laboratory used to assess sample recovery</li> <li>• Clearance of drill string after every 1m drill interval</li> <li>• Sample chute cleaned between samples and regular cleaning of cyclone to prevent sample contamination</li> <li>• No relationship is evident between sample recovery and grade</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Geological logging of the total hole by field geologist, with retention of sample in chip trays to allow subsequent re-logging / re-interpretation of data</li> <li>• Tailings dam is capped by ~0.6m rock and topsoil, with a clay base – both were readily identifiable from the tailings material</li> <li>• Qualitative logging includes material lithology and colour</li> <li>• Logging data stored in both hardcopy and digital format</li> </ul>

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <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 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 style="list-style-type: none"> <li>• No sub-sampling on site, entire sample submitted to ALS laboratory in Townsville for sample preparation</li> <li>• Sample was dried, weighed, riffle split if &gt;3.2kg, and pulverised</li> <li>• 50g sub-sample for assay is riffle split from homogenized pulverised sample</li> <li>• No field duplicates were submitted from this exploration program</li> <li>• Sample size is considered appropriate for the material sampled</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Analysis undertaken by ALS Townsville utilizing AA26 (50g Fire Assay), with a 0.01 ppm Au detection limit</li> <li>• Assaying and laboratory procedures are considered appropriate for gold, technique is considered a total analysis</li> <li>• The first 50 samples of the batch were assayed in duplicate to establish accuracy of the assay method (refer diagram attached)</li> <li>• No external quality control procedures have been adopted at this time</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Significant intersections have been verified by company personnel from both Diatreme Resources and Superior Resources</li> <li>• No twinned holes have been drilled at this time</li> <li>• Geological data captured on paper and stored in electronic format, assay data stored in electronic format</li> <li>• No adjustment to assay data</li> </ul>
Location of data points	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Handheld GPS survey of drill hole collars, accurate to within 5m</li> <li>• UTM coordinates, Zone 54, GDA94 datum</li> <li>• No topographic control at this time, but all drilling confined to relatively level surface of rehabilitated tailings dam</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Drill holes spaced at 50m x 50m</li> <li>• Drill spacing and distribution is sufficient to allow reporting of exploration results</li> <li>• Downhole sample compositing has been applied for reporting of exploration results as a total hole intersection</li> </ul>
Orientation	<ul style="list-style-type: none"> <li>• Whether the orientation of sampling achieves unbiased sampling of</li> </ul>	<ul style="list-style-type: none"> <li>• Vertical drill holes are considered appropriate for unbiased sampling of</li> </ul>



Criteria	JORC Code explanation	Commentary
<i>of data in relation to geological structure</i>	<p><i>possible structures and the extent to which this is known, considering the deposit type.</i></p> <ul style="list-style-type: none"> <li><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></li> </ul>	<p>the target mineralisation</p> <ul style="list-style-type: none"> <li>Exploration drilling has been completed on a regular 50m x 50m within each paddock of the tailings dam</li> <li>The dam was filled from the southern end, with tailings and water flowing north along the natural slope of the ground surface</li> <li>There are no comprehensive records of the utilisation of the tailings dam</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sample collection and transport from the field was undertaken by company personnel, with samples delivered directly to the laboratory</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews of the sampling techniques and data have been undertaken at this time</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li><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></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>The Tick Hill tailings dam occurs within ML7094 and ML7096 in Queensland, adjoining mining leases held by Diatreme Resources</li> <li>The Tick Hill Gold Project (incorporating ML's 7094, 7096, 7097) is operated as a Joint Venture between Diatreme Resources Ltd and Superior Resources Ltd</li> <li>Exploration was conducted under an approved Plan of Operations for exploration and rehabilitation activity</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>No exploration of the tailings dam has been undertaken by other parties</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Tick Hill tailings dam comprises tailings material from the Tick Hill Gold Mine CIL processing plant, which operated from 1992 to 1995</li> <li>Mineralisation occurs within silt and clay tailings material</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li><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> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><i>If the exclusion of this information is justified on the basis that the</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill hole collar table with significant intersections attached</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>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>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Exploration results are reported as a length weighted average of the total hole intercept, as the basal sample was truncated at the intersection of the clay base and is typically &lt;1m</li> <li>No minimum or maximum grade truncations have been applied</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>As the mineralization is associated with tailings fill a maximum beaching slope of 2° can be assumed.</li> <li>All drilling is vertical, hence the drill intersection is essentially equivalent to the true width of mineralization</li> <li>However, the geometry and controls of grade distribution within the tailings are unknown at this time</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>A map of the drill collar locations and the tailings dam is attached</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, all results have been reported</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Geological observations suggest an increase in clay content down the tailings profile and towards the northern end of the tailings dam</li> <li>No bulk density measurements have been undertaken</li> <li>Water was encountered at the base of the tailings on the northern margin of the tailings dam and some holes could not be completed</li> <li>No metallurgical testwork has been undertaken at this time</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Infill drilling to determine mineralisation variability and continuity is planned</li> <li>Samples for metallurgical assessment will be collected from infill drilling</li> </ul>