CASSINI
RESOURCES LIMITED

ASX Release (CZI)
18 August 2015

SIGNIFICANT COPPER MINERALISATION AT ONE TREE HILL

HIGHLIGHTS

- **Encouraging copper mineralisation intersected from first hole (CZD0008) at One Tree Hill**
- **Positive indications of a second mineralised system in the Project area**
- **Mineralised strike across the project now exceeds 30km**
- **Follow-up hole (CZD0009) underway targeting near-surface conductor**

Cassini Resources Limited (ASX:CZI) ("Cassini" or the "Company") is pleased to provide an update on exploration activities at its 100% owned West Musgrave Project ("Project") in Western Australia.

Significant mineralisation intersected at One Tree Hill

Cassini has completed its first hole (CZD0008) at the One Tree Hill Prospect and intersected significant copper mineralisation over short intervals within a broad alteration zone (Figures 1 and 2). The hole targeted a number of poorly constrained surface and down hole EM anomalies that had not been fully tested by previous drilling.

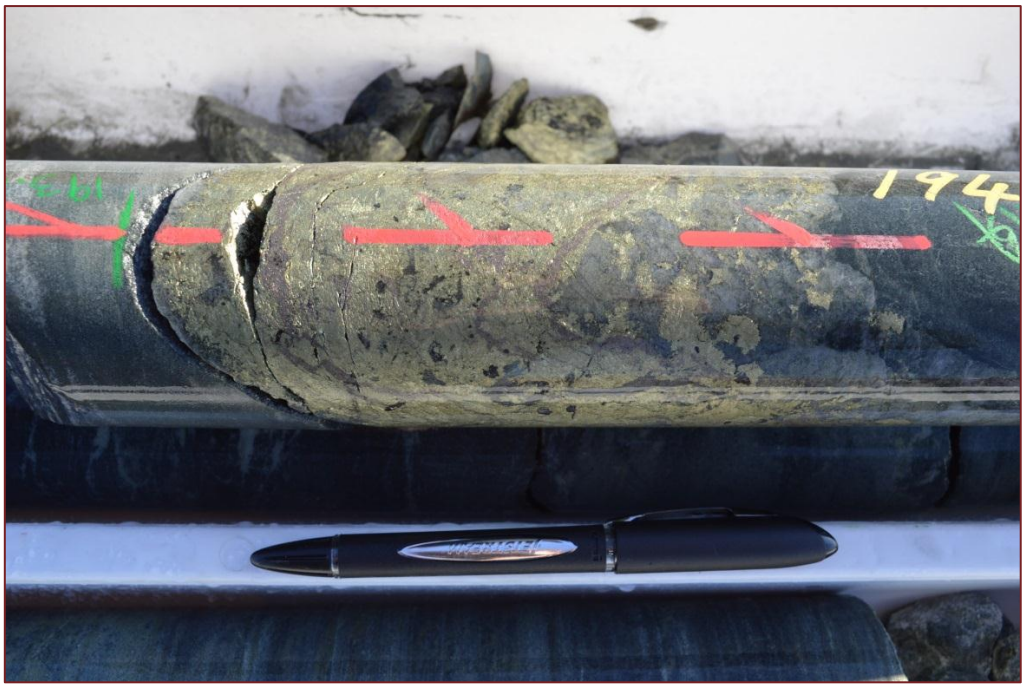

Figure 1. Massive chalcopyrite and pyrrhotite vein in mafic granulite at 194m.

Figure 2. Chalcopyrite mineralisation in quartz-carbonate veins at 251m.

Mineralisation occurs as discreet zones of approximately 20cm width at 194m and 251m downhole within a broad alteration envelope including pyrite – pyrrhotite with trace chalcopyrite. Mineralisation is hosted by mafic granulites and Giles-age gabbronorites, broadly analogous to Succoth Prospect host rocks. The alteration zone extends between 115m to 252m down hole. While mineralisation is quite narrow, the tenor of mineralisation and scale of alteration zones is a positive indication that the hole has drilled the periphery of a significant new mineralised system and highlights the prospectivity of the tenement package stretching now over 30km (Figure 3). Prospectivity of the One Tree Hill area is further augmented by the fact that most of the conductors targeted by CZD0008 were not detected by the historical surface EM surveys due to suboptimal orientation of the plates and masking cover sequence.

The hole is currently being logged and sampled with assay results expected in approximately 3 weeks. The hole will also be downhole EM surveyed at the completion of the program which will assist with further targeting.

A second hole (CZD0009) has commenced at One Tree Hill targeting a shallow, near surface EM conductor approximately 350m along strike from CZD0008.

The One Tree Hill prospect is located at the south western end of the project, about 13 km SW of Babel, and is associated with a major regional structural intersection. Only two historic holes had tested a surface EM anomaly identified by previous explorers with encouraging results of 0.4m @ 2.62% Cu from 152.6m. Importantly, significant PGE anomalism of 35m @ 0.11g/t Pt+Pd (including values up to 0.81 g/t Pt+Pd) has also been intersected.

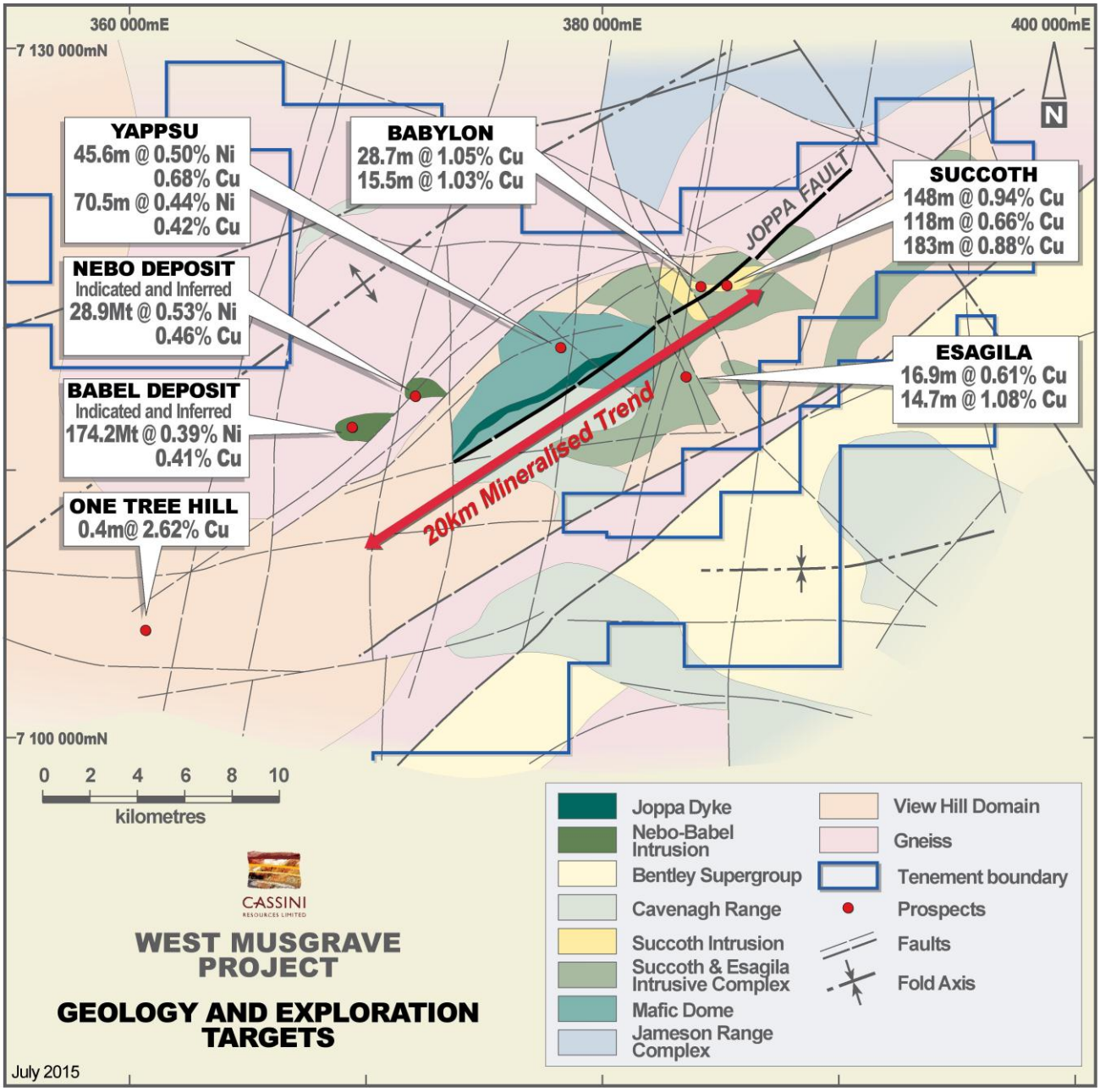

Figure 3. Regional targets and exploration highlights.

Samples from hole CZD0007 at Succoth have been received at the laboratory and are currently being processed. The Company will provide further updates as drilling progresses.

For further information, please contact:

Richard Bevan
Managing Director
Cassini Resources Limited
Telephone: +61 8 6164 8900
E-mail: admin@cassiniresources.com.au

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled or reviewed by Mr Greg Miles, who is an employee of the company. Mr Miles is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Miles consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The Company is not aware of any new information or data, other than that disclosed in this report, that materially affects the information included in this report and that all material assumptions and parameters underpinning Mineral Resource Estimates and Exploration Results as reported in the market announcements dated 13 and 15 April 2015, continue to apply and have not materially changed.

ANNEXURE 1:

The following Tables are provided to ensure compliance with the JORC Code (2012) edition requirements for the reporting of the Exploration Results at the One Tree Hill Prospect.

Section 1: Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	*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.*	The diamond drill hole will be sampled on nominal 1m intervals. The hole was angled towards grid northwest (022 mag) at 70 degrees to optimally intersect the EM conductors.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The drill hole location will be picked up by survey contractors at the completion of the drilling, they are currently surveyed by handheld GPS units. . Sampling will be carried out under Cassini protocols and QAQC procedures as per industry best practice.
	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 (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.	Diamond drilling was used to obtain approximately 1m samples from which 3 kg will be pulverised (total prep) to produce a sub sample for analysis by four acid digest with an ICP/AES or ICP/MS finish (0.25 gram) for base metals or a FA/AAS finish (40 gram) for Au, Pt and Pd.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic etc) and details (e.g. core diameter, triple of standard tube, depth of diamond tails, face-sampling bit or other type, whether core is orientated and if so, by what method, etc).*	Diamond drilling accounts for 100% of the drilling completed by Cassini and comprises NQ to PQ diameter core sample. Hole depth is approximately 438m.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Overall recoveries are >95% and there has been no significant sample recovery problems.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Samples are routinely checked for recovery,.
	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.	No assay data available to determine if a relationship exists.
Logging	*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.*	All core will be geologically logged and the level of understanding of these variables increases with the maturity of the prospect.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging at One Tree Hill recorded lithology, mineralogy, mineralisation, weathering, colour and other relevant features of the samples. Logging of core is both qualitative (eg. colour) and quantitative (eg. mineral percentages).
	The total length and percentage of the relevant intersections logged.	All drilling will be logged in full.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Half core will be sampled. .
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Not applicable as half core will be sampled.
	For all sample types, the nature, quality and appropriateness of the sample preparation	The sample preparation of diamond samples at One Tree Hill follows industry best practice in

Criteria	JORC Code explanation	Commentary
	technique.	sample preparation involving oven drying, followed by pulverisation of the entire sample (total prep) using Essa LM5 grinding mills to a grind size of 90% passing 75 micron.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field QC procedures involves the use of certified reference material (CRM) as assay standards, along with blanks and duplicates. The insertion rate of these averaged 1:15 with an increased rate in mineralised zones.
	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.	Quarter core duplicate sampling will be 1-2% of total sampling.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate for the rock type, style of mineralisation (massive sulphides), the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements at One Tree Hill.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	The analytical techniques used a four acid digest multi element suite with ICP/AES or ICP/MS finish (25 gram) for base metals and a FA/AAS for previous metals. The acids used are hydrofluoric, nitric, perchloric and hydrochloric acids, suitable for silica based samples. Total sulphur is assayed by combustion furnace. These methods approach total dissolution of most minerals.
	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.	Hand held assay devices have not been reported.
	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.	Sample preparation for fineness were carried by the laboratory as part of their internal procedures to ensure the grind size of 90% passing 75 micron was being attained. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in-house procedures. Certified reference materials, having a good range of values, were inserted blindly and randomly. Results highlight that sample assay values are accurate and that contamination has been contained. Repeat or duplicate analysis for samples reveals that precision of samples is within acceptable limits.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Both the Exploration Manager and the Technical Director of Cassini have viewed photographs of core samples.
	The use of twinned holes.	To date Cassini has not twinned any drill holes.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data was collected for One Tree Hill using a set of standard Field Marshal templates on laptop computers using lookup codes. The information was sent to Geobase Australia for validation and compilation into a SQL database server.
	Discuss any adjustment to assay data.	No adjustments or calibrations were made to any assay data
Location of data points	*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.*	Holes drilled to date by Cassini have been located with a Garmin hand-held GPS and are assumed to be accurate to ±5m. This is considered appropriate for the drill hole spacing. At the completion of the drill program, survey contractors will be employed to complete differential GPS surveying.

Criteria	JORC Code explanation	Commentary
		Downhole surveys were completed every 5m using north-seeking gyroscopes after hole completion. Stated accuracy is ± 0.25° in azimuth and ± 0.05° in inclination.
	Specification of the grid system used.	The grid system for West Musgrave Project is MGA_GDA95, Zone 52.
	Quality and adequacy of topographic control.	The tenement package exhibits subdued relief with undulating hills and topographic representation is sufficiently controlled.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Drill hole spacing is currently too variable to define.
	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.	Not applicable as drill hole spacing is currently too variable to define.
	Whether sample compositing has been applied.	No sample compositing has been applied.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The drill hole is drilled towards local grid northwest at 70° to intersect the mineralised zones at a close to perpendicular relationship for the bulk of the conductor.
	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.	To date, mineralisation orientation has been favourable for perpendicular drilling and sample widths are not considered to have added a sampling bias.
Sample security	*The measures taken to ensure sample security.*	Sample chain of custody is managed by Cassini. Samples for the West Musgrave Project are stored on site and delivered to Perth by recognised freight service and then to the assay laboratory by a Perth-based courier service. Whilst in storage the samples are kept in a locked yard. Tracking sheets tracks the progress of batches of samples.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No reviews to date.

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.*	One Tree Hill is located wholly within Exploration Lease E69/1530. Cassini entered into an agreement to acquire 100% of the leases comprising the West Musgrave Project (M69/0072, M69/0073, M69/0074, M69/0075, E69/1505, E69/1530, E69/2201, E69/2069, E69/2070, E69/2313, E69/2338), over which the previous operator retains a 2% NSR. The tenement sits within Crown Reserve 17614.
	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 in good standing and have existing Aboriginal Heritage Access Agreements in place. No mining Agreement has been negotiated.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Previous exploration has been conducted by BHP Billiton, WMC and Cassini. The work completed by BHP Billiton and WMC is considered by Cassini to be of a high standard.

Geology	*Deposit type, geological setting and style of mineralisation.*	The project lies within the West Musgrave Province of Western Australia, which is part of an extensive Mesoproterozoic orogenic belt. The Nebo-Babel and Succoth deposits lie within mafic intrusions of the Giles Complex (1068Ma) that has intruded into amphibolite facies orthogneiss country rock. Mineralisation is hosted within tubular chonolithic gabbronorite bodies and are expressed primarily as a Type 2 deposit with broad zones of disseminated sulphide and comagmatic or potentially remobilised accumulations of more rich, matrix to massive sulphides.
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:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.*	The drill hole is located at 360370E | 7102705N | 481RL Full information regarding hole details will be disclosed on release of assay results. Preliminary hole details were previously reported in ASX release dated 21 July 2015. A summary of this information is not material to the announcement titled "Significant Copper Mineralisation At One Tree Hill" and does not detract from the understanding of the announcement due to information previously provided and the early stage nature of the exploration results reported.
	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.	A summary of this information is not material to the announcement titled "Significant Copper Mineralisation At One Tree Hill" and does not detract from the understanding of the announcement due to information previously provided and the early stage nature of the exploration results reported.
Data aggregation methods	*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.*	Not applicable as no assay results are currently available nor being reported .
	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.	Not applicable as no assay results are being reported.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable a no metal equivalent values are being stated.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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').*	Mineralisation at One Tree Hill is poorly defined and orientations are approximate. Mineralisation is generally intersected obliquely to true-width and approximations have been made based on geological interpretations.. Refer to Annexure 1 and Figures in body of text.
Diagrams	*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.*	Refer to Figures in body of announcement .
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.*	Not applicable as no assays have been reported.

Other substantive exploration data	*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.*	Only preliminary exploration data is currently available and other exploration date is not meaningful nor material. More comprehensive data will be released with assay results as they become available.
Further work	*The nature and scale of planned further work (eg. tests for lateral extensions or depth extensions or large-scale step-out drilling).* *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Cassini aims to test the continuity of known higher grade zones of mineralisation at One Tree Hill with the aim of finding new mineralised lodes and to define a JORC compliant Indicated Resource. Figures have been included in body of announcement.