

## POSITIVE METALLURGICAL RESULTS FOR NICANDA HILL

## HIGHLIGHTS:

- Head assay results return high grade graphite of up to **19.5%** Total Graphitic Carbon (TGC) and  $V_2O_5$  of up to **0.35%**.
- 200kg bulk sample from Nicanda Hill was used in a metallurgical test work program.
- Initial mineralogical investigations have confirmed the substaintal presence of medium and coarse flake graphite of up to 1mm in length.
- Preliminary flotation test work has readily produced high grade graphite concentrate of up to **97.3%** TGC.
- Initial flotation test work has shown graphite recovery of up 95% at a relatively coarse primary grind of 500µm.
- The graphite flotation test work program is now focussed on optimising overall graphite recovery, concentrate grades and final concentrate product size distribution.
- More detailed metallurgical and mineralogical investigations are planned on a larger scale of samples from across the mineralisation zone.
- Vanadium recovery test work from graphite flotation tailing has been initiated.

**Triton Minerals Limited** (ASX: TON, "Triton", "the Company") is pleased to confirm receipt of the initial metallurgical and mineralogical results for the Nicanda Hill prospect.

Triton Minerals Managing Director Brad Boyle said "These preliminary metallurgical and mineralogical results are very encouraging for Triton, showing once again that a very high grade graphitic concentrate of up to 97.3% TGC is obtainable from straight forward flotation methods.

A more detailed metallurgical and mineralogical test work program is now being conducted from a wider range of locations from across the mineralisation footprint, to obtained a more accurate and representative sample of the graphitic ore and to obtain a better understanding of the physical characteristics of the graphitic material."



### METALLURGICAL RESULTS

The Company confirms the initial metallurgical test work has returned very promising results with the head assay results demonstrating an average graphite grade of up to **19.5%** TGC being obtained from the bulk sample of 200kgs. Also of note was the encouraging results in relation to the Vanadium within the graphitic mineralised material obtaining an average grade up to **0.35%** for the V<sub>2</sub>O<sub>5</sub>.

The bulk sample used in the initial metallurgical and mineralogical test work program was obtained from several locations on drill section N2 on the Nicanda Hill prospect.

The Company is currently focusing on the northern prospects of the footprint in regards to the ongoing drilling and metallurgical test work, due to the identification of strong graphitic mineralisation and flake graphite, in particular within the weathered zones.

Now that Triton has access to the northern prospects of the mineralisation footprint, which is showing a number of positive variations in the physical characteristics of the graphitic ore, further bulks samples are being obtained from the northern area of the footprint for comparison and create more detailed and representative understanding of the graphitic material found across the mineralisation footprint.

Triton also confirms the preliminary flotation test work has confirm that high grade graphitic concentrate of up **97.3%** TGC can be readily produced using the straight forward and proven extraction methods of crushing, grinding and flotation.

These initial results are very positive and demonstrates the graphitic material liberates well to obtain high grade graphite concentrate and the early stage flotation test work has also shown graphite concentrate of up **95%**, can be obtained at a relatively coarse primary grind of 500µm. Triton believes that these liberation characteristics are a significant development as previously the high grade concentrate from the Cobra Plains deposit was only achievable from a finer grind size.

Triton confirms the graphite flotation test work program is ongoing and is now focused on refining the flotation methods for optimising the overall graphite recovery, final graphite concentrate grades and product size distribution.

The Company verifies that more detailed metallurgical and mineralogical investigations will be completed over the coming months and Triton plans to complete further testing on a larger scale of samples that are representative of the entire mineralisation zone at the Nicanda Hill prospect.

Triton is also pleased to verify that vanadium recovery test work has been initiated on the graphite flotation tailings. Initial analysis of the graphitic material shows that the vanadium is present in a flake form which may lend itself to being beneficiated through the standard flotation methods.



The Company notes that these initial vanadium tests found the high grade vanadium concentrate was being recovered from a full range of vanadium flake sizes. Triton plans to undertake a detailed vanadium test work program focused on testing the flotation and other methods for optimising the overall vanadium recovery from the graphite tailings and the final vanadium concentrate grades.

## **GRAPHITE FLAKE DISTRIBUTION**

Initial mineralogical investigations of the samples obtained from the Nicanda Hill prospect have confirmed the substantial presence of medium and coarse flake graphite of up to 1mm in length on the Nicanda Hill prospect.

Triton confirms mineralogical tests from in situ samples obtained from the mineralisation footprint, verify a range of graphite flake sizes from fines through to jumbo flake.

The Company confirms from these preliminary test results, they show on average the graphite flake size distribution in these samples are as follows; 36.8% of the flakes in the samples are 150µm or larger, 32.2% are greater than 75µm and 31% are less than 75µm in size. These initial results are outlined below in Table 1.

Graphite Flake Length	Flake Distribution
+150µm	36.8%
+75µm	32.2%
-75µm	31%

**Table 1.** Mineralogical Flake size distribution of the graphite as obtained from samples at Nicanda Hill.

The Company notes the ratio of graphite flake sizes is unlikely to remain constant and this is just an indicative representation of the sizing, based on the limited samples obtained to date. Triton advises that as a result of the processing during the metallurgical test work phases or during real world processing conditions, it is likely the graphite flake sizes will be changed. However, the additional metallurgical test work is focusing on refining the graphite flotation methods and will be looking for ways to maximise the overall recovery and conservation of the graphite flakes.

Triton also notes that the graphite flotation test work program is ongoing and is looking to refine the graphite flotation and recovery methods, in order to produce the highest quality graphite concentrate. Triton's research with potential end users has found that obtaining a graphite concentrate between 94% and 97% purity is the key requirement for these possible customers, over and above the issue of graphite flake sizing.





Triton finds these preliminary in situ flake size distribution results are very promising and is keen through further test work to obtain a better understanding of the physical characteristics graphitic material throughout the mineralisation footprint in order to identify the most prospective areas for future mining activities taking into account graphite grades and flake sizing.

Triton notes that these very encouraging graphite and vanadium concentrate results and the overall graphite flake size distributions are based on initial limited samples obtained by the Company prior to the identification of the higher grade near-surface graphitic material located in the northern prospects of the mineralisaton footprint. Since then the mineralisation footprint has grown to 6.2km long and more representative metallurgical and mineralogical test work program is warranted in order to determine true physical characteristics of the overall graphitic ore body.

Triton feels an expanded metallurgical and mineralogical work program focused on testing the near-surface oxidised graphitic material could potentially provide the Company with better overall graphitic grades and larger flake recovery.

Based on initial observations, the graphitic material in the northern prospects of the mineralisation footprint appears to host better graphite flake and grade within the weathered zone. Triton feels that if the metallurgical and mineralogical test work confirms these observations then the weathered zone in the northern prospects could possibly become the primary focus for Triton in the first 2-5 years of proposed graphite production.

Finally, these strong vanadium assay results increase Triton's confidence in the Nicanda Hill prospect, as a very large multi-element project and these results also underscore the potential importance of vanadium with respect to the overall future economics of the project when in production.

## **CONCLUSIONS**

These positive initial metallurgical and mineralogical results with high grades obtained in the head assays for both the graphite and vanadium, combined with the identification of medium and large flake graphite is a very encouraging start for Triton.

Further the recovery of the very high grade graphitic concentrates of up to 97.3%, extracted through standard and straight forward flotation methods demonstrates the world class quality of the Nicanda Hill prospect.

The Company remains extremely confident that the Balama North project will host one of largest high-grade graphite and vanadium projects in the world.



Triton is optimistic continued exploration success and looks forward to providing further exploration updates to the market as the information becomes available.

Regards

Brad Boyle CEO & Managing Director Triton Minerals Ltd

For further information, please contact:

Brad Boyle CEO & Managing Director Tel: + 61 8 6489 2555 Email: bboyle@tritonmineralsltd.com.au Michael Brady General Counsel & Company Secretary Tel: + 61 8 6489 2555 Email: mbrady@tritonmineralsltd.com.au

#### **Competent Person's Statement**

The information in this report that relates to Exploration Results on Balama North project is based on, and fairly represents, information and supporting documentation prepared by Mr. Alfred Gillman, who is a Fellow of Australian Institute of Mining and Metallurgy (CP Geol). Mr. Gillman is a Non-Executive Director of the Company. Mr. Gillman 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 Mineral Resources and Ore Reserves (the JORC Code)'. Mr. Gillman consents to the inclusion in this report the exploration results and the supporting information in the form and context as it appears.

The information in this announcement that relates to Exploration Results on Balama North project is extracted from the reports entitled ASX Release "Nicanda Hill Mineralised Footprint Defined Over 6,200m Strike Length" created 11 August 2014 and is available to view on www.tritonmineralsltd.com.au The reports were issued in accordance with the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

#### **Forward-Looking Statements**

This document may include forward-looking statements. Forward-looking statements include, but are not necessarily limited to, statements concerning Triton Minerals Limited's planned exploration program and other statements that are not historic facts. When used in this document, the words such as "could", "plan", "estimate" "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements. Although Triton Minerals Limited believes that its expectations reflected in these are reasonable, such statements involve risks and uncertainties, and no assurance can be given that actual results will be consistent with these forward-looking statements.



# **Appendix 1**

Balama North Project (Licence 5966 & 5365) Operated under Agreement between Triton Minerals and Grafex Lda. Information pertaining to drill data.

J(	ORC Table 1 -	Section	1 Samp	oling Tech	hniques	and Data
----	---------------	---------	--------	------------	---------	----------

Criteria	JORC Code explanation	Commentary
Sampling techniques	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.	The Nicanda Hill prospect is located on the Balama North Project. The new drill results included in this report were obtained from Reverse Circulation (RC) and Diamond drilling. The nominal hole spacing of the current program is 100m x 400m. Diamond drill holes will be interspersed within the planned drill grid to provide qualitative information on structure and physical properties of the mineralisation. Holes were drilled -60 degrees towards UTM south east to optimally intersect the mineralised zones.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Drillhole locations were picked up by differential GPS (with nominal error of +- 0.5 metres) and reported using the World Geodetic System (1984 Spheroid and Datum; Zone 37 South). Downhole surveys of the RC and Diamond holes were measured using a Reflex single shot downhole survey tool. The collar surveys were validated with the use of a compass and inclinometer. RC samples have been collected using a riffle splitter to obtain a 1/8 <sup>th</sup> sample, which is split and combined to produce 2m composite samples. Efforts are taken to keep the RC drill sample material dry during drilling to avoid any bias. Wet samples are dried before riffle splitting and recorded to monitored results for bias.
	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	Reverse circulation drilling was used to obtain 1m samples collected in a large bag and passed through a 3-tier riffle splitter to generate 1/8 <sup>th</sup> samples (approximately 3kg) contained in a labelled calico bag and the residual 7/8 <sup>th</sup> is retained at the drill site in the large bag. Where wet samples are encountered, the 3kg sample is allowed to dry before passing through the second stage (50:50) riffle splitter described below. The 3kg RC samples are split using a 50:50 splitter with one half combined with the half split of the next consecutive 1m sample to produce a 2m composite sample. This sample will be pulverised (total prep) by the lab to produce a sub sample for assaying. In addition, select RC samples will be submitted for multi-element analysis (55 elements) by sodium peroxide fusion with an ICP-AES finish. The diamond drill core samples are prepared as quarter core using diamond impregnated blade core saw. Samples generally are defined on the basis of geological contacts and range in drill hole intersections of 1.5 to 3m, with most approximately 2m.
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 or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).	The reverse circulation drill rig uses a 5.5 inch size hammer. Hole depths range up to a maximum depth of 222m (rig capability limit). The diamond drill holes are drilled with a PQ core size collar (typically around 30m deep) and HQ3 (61.1mm diameter) core size to the end of hole. Core is oriented using the Reflex ACTII tool.



16 September 2014

Criteria	JORC Code explanation	Commentary
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	The condition and a qualitative estimate of RC sample recovery was determined through visual inspection of the 1m sample bags and recorded at the time of sampling. A hard copy and digital copy of the sampling log is maintained for data verification. Generally drill core recovery is above 95% below the base of oxidation. Core recovery is measured and compared directly with drill depths to determine sample recoveries.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers. RC samples were visually checked for recovery, moisture and contamination. Water entrainment into the sample is minimized through the use of additional high pressure air supply down hole. Wet samples are recorded as these generally have lower sample 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.	Comparisons of RC and Diamond drill sample material on the neighbouring Cobra Plains deposit showed no statistically significant bias associated with the RC drill technique. Extensive diamond drilling will be carried out as part of this program to confirm the QAQC paramters of the sample material. Similar statitistical assessments of the sample result bias will be undertaken for the current drill program.
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.	Geological logging is carried out on holes for the full mineral assemblage that can be identified in hand specimen, in addition to texture, structure and estimates of graphite flake content and size. Geotechnical logging is carried out on all diamond drillholes for recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of the database. The mineralogy, textures and structures are recorded by the geologist into a digital data file at the drill site, which are regularly submitted to the Perth office for compilation and validation.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of RC and Diamond drill holes includes recording lithology, mineralogy, mineralisation, weathering, colour and other features of the samples. RC Chip trays and diamond core trays are photographed. Geological descriptions of the mineral volume abundances and assemblages are semi-quantitative.
	The total length and percentage of the relevant intersections logged	All drillholes are logged in full.
Sub-sampling techniques and sample preparation	lf core, whether cut or sawn and whether quarter, half or all core taken.	Diamond core (HQ3) will be cut into quarter core onsite using a diamond impregnated blade on a brick saw. Quarter core samples generally 2 metres or less in core length will be submitted to the lab labelled with a single sample name. Each approximately 2m sample will be crushed and a 300g split will be taken. For pulverisation. Samples are generally defined according to geological unit boundaries. A batch of duplicate samples to sampled quartered core will be submitted to the same lab to investigate if any statistical bias is associated with the quarter compared to half core. The results of this study will be used to determine the appropriate sample methodology for future drill holes.

16 September 2014

Criteria	JORC Code explanation	Commentary
	lf non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples are collected on the rig using two riffle splitters. The majority of samples are dry. Two metre composite samples are generated by taking the 1m samples from the drill cyclone into a large bag and passing this material through a 3- tier riffle splitter to generate 1/8 <sup>th</sup> samples (approximately 3kg) contained in a labelled calico bag and the residual 7/8 <sup>th</sup> is retained at the drill site in the large bag. The 3kg RC samples will be split using a 50:50 splitter to and one half is to be combined with the half split of the consecutive 1m sample, producing a 2m composite sample. were generated for drilled intersections with visible graphite (>0.5% graphite). Where wet samples are encountered, the 3kg sample produced from the 1/8 <sup>th</sup> splitter is left to dry before passing through the 50:50 splitter. The typical composite sample size is 3 to 4kg.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation of the diamond core samples follows industry best practice in sample preparation involving oven drying (105°C), coarse crushing of the diamond core sample down to ~2 mm, split (500g) and pulverizing to a grind size of 85% passing 75 micron. The sample preparation for RC samples is identical, without the coarse crush stage.
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	Field QC procedures involve the use of two certified reference material assay standards, along with certified blanks, and insertion of field duplicates. Certified standards are inserted at a rate of 1 in 25 (DD, RC and rock chip samples), duplicates were inserted at a rate of 1 in 20 and blanks are inserted at a rate of 1 in 50. QAQC samples are submitted with the rock chip samples.
	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.	Field duplicates are taken on 2m composites for RC, using a riffle splitter. Field duplicates are taken as quarter core splits for diamond core.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The drill sample sizes are considered to be appropriate to correctly represent mineralisation at the Balama North project based on the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements.
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 to be used to analyse all samples for Graphitic Carbon, Total Sulphur, and Total Carbon on a Leco Combustion Infrared Detection instrument. Detection limits for these analyses are considered appropriate for the reported assay grades. In addition, selected drill samples will be analysed for multi- element abundances using a fused disc digested in a four acid digest with ICP/OES or ICP/MS finish The acids used are hydrofluoric, nitric, perchloric and hydrochloric acids, suitable for silica based samples. The method approaches 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.	No geophysical tools were used to determine any element concentrations.

FRITON MINERALS LTD

16 September 2014

Criteria	JORC Code explanation	Commentary
	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.	The RC and diamond core samples are submitted to the lab with blind certified standards (4 per 100 samples), blanks (2 per 100 samples) and field duplicates (5 per 100 samples). These QAQC samples represent 11% of the unknown samples analysed. Twinned RC and diamond holes provided a means of evaluating any bias associated with sampling and drill technique. From the Cobra Plains drilling, field duplicate datasets showed strong correlation coefficients (0.92 for the diamond samples and 0.98 for RC samples), indicating good repeatability of grades between paired samples. Sample preparation checks for fineness will be carried out by the laboratory as part of their internal procedures to ensure the grind size of 85% passing 75 micron was being attained. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, and repeats as part of their in house procedures. Repeat analysis for samples reveals that precision of samples is within acceptable limits. A selection of the 1/8th riffle split samples will be submitted for umpire assays to SGS and an independent laboratory as independent checks of the assay results. Umpire laboratory campaigns using other laboratories is yet to be undertaken.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Carl Young of Model Earth Geological Global Services, a consultant for Triton, has visually verified the geological observations of most of the reported RC and Diamond drill holes. The geological of all drill chips and core is undertaken b by trained geological staff on site.
	The use of twinned holes.	Three RC holes were twinned with diamond holes at the neighbouring Cobra Plains deposit to investigate sample bias related to the RC drill and sampling methods. The mineralisation zones within the holes show a reasonable correlation. Though the grade graphs suggest that the diamond holes are reporting higher graphitic carbon grades than the RC holes.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Sample information is recorded at the time of sampling in electronic and hard copy form. Assay data is received from SGS in electronic form and compiled into the Company's digit database. Secured electronic print files have been provided t the Company for verification purposes.
	Discuss any adjustment to assay data.	No adjustments or calibrations are made to any assay data.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Collar locations for all GNBC and GBND holes were surveyed with a differential GPS. The drillholes with the prefix TMB (drilled in 2013) were surveyed by hand-held GPS (nominal error of 5 metres). Drill holes were oriented at the collar using sighting pegs installed with the use of a magnetic compass and GPS. The dip of all Ru holes is recorded for the collar only and no downhole surveys were taken. The dip and azimuth of all DD holes is measured by the drll company using a Reflex singleshot downhole survey tool. Readings were taken at the completion of the hole at an interval spacing of 30 m on the diamond holes, and at the collar and end of hole on the RC holes. Stated accuracy of the tool is is +-1 <sup>0</sup> . Downhole survey measurements considered to be poor qualit are coded as 'Priority 2' and are e excluded from the drill location calcuations.
	Specification of the grid system used.	The grid system for Balama North Project area is World Geodetic System (1984 Spheroid and Datum; Zone 37 South).

FRITON MINERALS LTD



Criteria	JORC Code explanation	Commentary	
	Quality and adequacy of topographic control.	Topographic surface for drill section is based on the differential GPS coordinates for the drill holes.	
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The nominal drillhole spacing is 100 m on drill lines spaced 400m apart. The drill lines have a bearing of 120° (UTM grid northeast).	
	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.	The current data spacing and distribution is insufficient for the purpose of estimating a mineral resources for Nicanda Hill prospect. On completion of the current drill program and the receipt of all necessary data, the Company will undertake an estimation of the resource for the Nicanda Hill prospect.	
	Whether sample compositing has been applied.	Samples have been composited to a maximum of two metres for RC samples. Most diamond core samples are taken as approximately 2m lengths of quarter core, with few samples of upto 3m in length of core for zones of low graphite. Diamond core sample breaks corresponding to geological boundaries.	
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 deposit is drilled towards the south east (magnetic grid) at approximately -60° to intersect the mineralised zones approximately orthogonal to the interpreted dip and strike of the geological units. Several characteristic geological units have been delineated in several drill holes giving a higher degree of confidence in the attitude and orientation of the graphite mineralisation. Near continuous sampling of all geological units bearing graphite is routinely undertaken.	
	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.	Local increased graphite abundances are observed proximal to small-scale folding and thin tonalite veins. The orientation of these folds and veins is generally parallel to the attitude of the graphitic schist and mineralisation. Thus, the current drilling is not expected to produce any biased samples.	
Sample security	The measures taken to ensure sample security.	Chain of custody is managed by Triton. Samples are stored at a secure yard on the project prior to shipping to SGS in South Africa. Any visible signs of tampering of the samples are reported by the lab. A chain of custody has been maintained for the shipment of the samples to South Africa.	
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	A QAQC review of the sampling data from the drill holes at Cobra Plains was carried out by Optiro as part of the resource estimate for the Cobra Plains deposit. This deposit is located to the southeast of Nicanda Hill. The Cobra Plains database was considered by Optiro to be of sufficient quality to carry out that resource estimation. No reviews or audits of sampling techniques were undertaken by Optiro or any other external consultant. The QAQC samples inserted with the reported RC chip samples returned values within the expected value ranges. On this basis, the reported drill assay results are considered representative and suitable for assessing the graphite grades of the intersected graphite mineralisation.	



16 September 2014

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 Cobra Plains Deposit and the Nicanda Hill Prospect are located wholly within Exploration Licences EL5365 and EL596 respectively within the Cabo Delgado Province of Mozambique. Both licences are held by Grafex Limitada (Grafex), a Mozambican registered company. Triton Minerals entered into a Joint Venture (JV) agreement in December 201 with Grafex to earn up to an 80% interest in Grafex's portfolio of graphite projects. In late 2013 Triton increased their holdir in the projects to 60% by taking a direct equity interest in Grafex. EL5365 is valid until 29/10/2017 and EL5966 is valid until 19/06/2018.
	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 statutory approvals have been acquired to conduct exploration and Triton Minerals has established a good working relationship with local stakeholders
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No previous systematic exploration has been undertaken at the Cobra Plains or the Nicanda Hill Prospects of the Balama North Project. The Company has acquired the data from an airborne electromagnetic survey that covers Licences 5966 ar 5365. This data has been reprocessed and interpreted with some results included in this release. Small scale exploratory pits dug for ruby and/or graphite exploration have been identified Data or reports disclosing the results of this work have not been located.
Geology	Deposit type, geological setting and style of mineralisation.	The Cobra Plains graphite deposit is hosted within Neoproterozoic rocks of the Xixano Complex in north-easterr Mozambique. The Xixano complex is composed dominantly mafic to intermediate orthogneiss with intercalations of paragneiss, meta-arkose, quartzite, tremolite-rich marble and graphitic schist. Graphite mineralisation is hosted within fine grained graphitic schists underlain and overlain by felsic gnei: rock types. Mineralisation occurs as series of multiple stacke tabular northeast-southwest striking lodes moderately dippir to the northwest. Graphite mineralisation outcrops at surfac and has been intersection at down hole depths of up to 428.55m below surface. Graphitic mineralisation is interpret to be continuous between the Cobra Plains and the Nicanda Hill Prospects of the Balama North Deposit, based on the interpretation of the airborne electromagnetic survey data an drill results. Occurrences of vanadium mineralisation noted i the samples is thought to be associated with quartz muscovit <u>+</u> roscoelite schists.
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: <ul> <li>easting and northing of the drill hole collar</li> <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> </ul></li></ul>	Refer to Appendix 4 below

## JORC Table 1 - Section 2 Reporting Of Exploration Results



16 September 2014

Criteria	JORC Code explanation	Commentary
Data aggregation methods	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 top cut applied Minimum composite width = 6m Maximum internal dilution = 2m Weighted average grades calculated using the Surpac High Grade reporting function using the above parameters
	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.	The significant weighted average graphite carbon (GrC) intersections reported were calculated as core-length weighted assay intercepts. The intersection calculations were made applying a maximum internal dilution of 2m for material below the GrC cutoff grade and a minimum composite width of 2m. Significant intercepts are reported at cutoff grade of 10% GrC.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	V2O5 is calculated from V% using a factor of 1.786
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 (e.g. 'down hole length, true width not known').	The graphite schists and tonalite gneiss units dip moderately northwest based on outcrop exposures and measured structure in the oriented diamond drill holes. All GNBC drill holes are inclined -60° to the southeast to intersect the mineralised zones approximately orthogonal to the interpreted dip and strike of the geological boundaries. The reported intersections are considered to be near to true intercept widths.
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 previous Company announcements.
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.	Assays for all drill holes except GBNC0003 and the upper part of GBNC005 are outstanding.
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.	Selected core samples from all diamond drill holes are measured for bulk densities. This, and additional data from future drill holes will be used to estimate average densities for rock types. Multi element assaying was conducted on selected zones in the diamond drill holes TMBD0005 and TMBD006. Geotechnical logging is routinely carried out on all diamond drillholes for recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of the database. Regional scale mapping has been carried out in the area to identify outcrop of graphitic material. This mapping is ongoing.
Further work	The nature and scale of planned further work (e.g. 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	Further drill testing using reverse circulation and diamond drilling is underway on the Nicanda Hill prospect to determine the grade continuity and width of the graphitic units. Exploration activities resumed in April 2014.