

## ASX ANNOUNCEMENT

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#### Pton Minerals Ltd **POSITIVE EXPLORATION DRILLING RESULTS CONTINUE** TON 99 126 042 215 **HIGHLIGHTS** treet address: Limited initial drilling program completed at T12 **Ground Floor** Significant graphite mineralization confirmed by drilling from surface to vertical depths of 105m 256 Stirling Highway Graphite intersections >5%TGC intersected in every Claremont Western Australia 6010 hole completed at T12 Prospect Postal address:

- Mineralisation **dominated** by jumbo flake graphite  $(>300\mu)$ , with 43% of the graphite flakes recovered being greater than 500µ
- Only the western margins of a 4km long target drill tested
- T16 graphite discovery located 4km east of T12

**ANCUABE – T12** 

Triton Minerals Limited (ASX: TON, Triton or Company) is pleased to announce the initial drilling results for the Ancuabe Graphite Project which is located in the Cabo Delgado Province, Mozambique.

Triton Minerals Managing Director Brad Boyle said:

"The first interim results from Triton's initial exploration program at the Ancuabe T12 prospect have confirmed that the extensive graphite that is exposed at surface also extends to depth with mineralisation developed over true widths of 100m. Triton is pleased to learn that every hole drilled to date has intersected intervals of very large flake graphite at grades that are as expected for this style of deposit.

Only a small percentage of the targeted area has so far been drill-tested, and while Triton considers these initial results to be encouraging, the full potential of the project is yet to be realised.

Metallurgical test work carried out by Triton earlier this year has indicated that Ancuabe graphite is of the very highest quality with respect to flake size and purity through simple limited stage flotation. Triton considers that the high prices that high purity jumbo flake can attract and the confirmation of in situ grades that are typical for this style of deposit are positive indicators towards a future viable graphite project.

Triton considers the proximity of Ancuabe T12 to established infrastructure such as hydro-electric grid power and a relatively short-haul by mostly sealed public roads to the port of Pemba is extremely advantageous with respect to advancing rapidly to production should exploration results support a mining operation".

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Projects:	Mozambique
Balama North	Graphite-Vanadium
Ancuabe	Graphite
Balama South	Graphite



## **INTRODUCTION**

Triton is pleased to announce the completion of the initial drilling program at the T12 prospect at the Ancuabe Graphite Project. These drilling results from the results from the T12 prospect at the Ancuabe Graphite Project are considered to be encouraging and of material importance. Ancuabe T12 has been tested by a total of 11 diamond and 18 reverse circulation (RC) drillholes (Figures 1 & 2). Assay results have been received for eight of these drillholes are detailed below and assay results for the remaining holes will be reported as they become available.

Ancuabe is distinguished by the dominance of jumbo (> $300\mu$ ) and super jumbo (>850m) flake graphite that forms the main mineral constituent of a gneissic host rock. Given the dominance of high-value flake sizes the minimum targeted average grade of this style of deposit range is 5%TGC. Due to the high prices that jumbo and super-jumbo flake graphite can attract, Triton's target grades and tonnages for the initial program of exploratory drilling were set at 5%TGC over downhole (mineable) widths of not less than 3m ie., a grade x tonnage (GT) criteria of 15.

Preliminary metallurgical test work completed by Triton, based on graphite outcrop samples, returned encouraging recovered flake size results with 72% > $300\mu$ . Trial concentrate production achieved an average grade of 98.2%TGC at 97% recovery through a simple four stage flotation process.

Ancuabe T12 is located 9km east north east of the Graphite Kropfmühl (GK) graphite operation that is currently undergoing refurbishment in preparation for recommencement of graphite production. Whilst in operation with the previous owners - Kenmare Resources Plc the mine was world-renowned as a preferred source of large-flake high-value graphite.

Triton has a formal strategic alliance with GK to explore and identify the graphite potential of the Ancuabe region. In early November 2015 both GK and Triton management completed a day long site visit at Ancuabe. The visit involved an extensive review of the current exploration and development activities being completed by both companies at Ancuabe and to facilitate a further strengthening and understanding of the current and future alliance between the companies.





# DRILLING RESULTS

Drilling results received to date are considered to be encouraging for the initial exploratory program designed to test the T12 geophysical anomaly. Results have been received for eight holes in the 29 hole program which tested a 700m long section located at the western edge of a 4km long anomaly (Figure 1). A representative from independent resource consultants Jorvick Resources Pty Ltd (Perth) has completed a site visit to Ancuabe to ensure that all sampling, logging and QAQC procedures have been conducted to industry standards and to independently verify the surface expressions of graphite mineralisation.

Every hole reported has intersected graphite mineralisation with 18 intersections exceeding the GT criteria of 15. The weighted average of these intersections is 6.5m at 6.1%TGC (GT=39.7). Large flake graphite has been logged in every hole drilled to date (Figure 4).

Currently, up to seven stacked higher grade graphite zones have been identified within a broader mineralised zone that is continuous over a true width of 100m. Additional hanging wall graphite horizons have been identified in mapping to the north and are yet to be drill tested.

Drillhole IVC005 intersected graphite mineralisation over the entire length of the hole ie. from surface to the end of hole (EOH) at 105m. This broad zone, which averaged 4%TGC, contains seven separate higher grade zones with individual grades of up to 9.5%TGC over 8m downhole (Figure 3).



Hole_ID	Easting	Northing	Elevation	Total	Azimuth	Dip	From	То	Interval	Average
				Depth			(m)	(m)	(m)	Grade
				-						TGC%
IVC001	616902	8565044	233	145	0	-90	20.0	22.0	2.0	5.7
And							31.0	34.0	3.0	5.5
IVC002	616992	8565105	227	100	0	-90	38.0	41.0	3.0	5.5
And							55.0	57.0	2.0	7.5
IVC003	617105	8565051	233	75	0	-90	25.0	31.0	6.0	6.5
And							36.0	41.0	5.0	5.4
IVC004	617498	8565100	228	100	0	-90	7.0	20.0	13.0	5.6
And							27.0	47.0	20.0	4.6
includes							36.0	41.0	5.0	5.4
And							70.0	79.0	9.0	3.6
And							81.0	90.0	9.0	5.1
IVC005	617499	8565194	218	120	0	-90	0.0	105.0	105.0	4.0*
includes							2.0	7.0	5.0	7.4
And							13.0	17.0	4.0	6.2
And							22.0	37.0	15.0	5.9
includes							31.0	36.0	5.0	8.6
And							43.0	51.0	8.0	9.5
And							64.0	66.0	2.0	6.7
And							85.0	97.0	12.0	6.1
And							97.0	109.0	12.0	2.4
IVC008	617200	8565150	230	119	0	-90	45.0	56.0	11.0	6.2
includes							47.0	51.0	4.0	8.7
IVD001	616898	8564999	236	121	0	-90	23.1	28.3	5.2	4.5
And							36.3	42.9	6.5	5.2
IVD002	617303	8565096	235	123	0	-90	49.0	54.0	5.0	5.8
And							76.0	82.0	6.0	5.4

 Table 1: Significant Intersection form Ancuabe T12 Prospect (3%TGC cut off, maximum 3m internal dilution)

 \* Average of entire drillhole IVC005 0-105m includes internal dilution at <3%TGC</td>



Figure 2: Ancuabe T12 Drillhole Location Plan





Figure 3: Ancuabe cross section 617500E

# **GEOMETRY**

The geometry of the mineralisation has been interpreted from existing logging, mapping and assay data. Graphite mineralisation thins and becomes shallower towards the western margins of the anomaly. Based on observations and assay results received, graphite mineralisation thickens and increases in grade towards the north east. The mineralised envelope, which dips at approximately 20 degrees towards the north, is exposed at surface over a horizontal width of 275m. There is no overburden. Extensive jumbo flake graphite exposures have been mapped north of the drilling area and are in addition to the 275m horizontal widths defined.

# **IMPLICATIONS**

The geometry of the mineralised system is ideally suits a low strip ratio open pit mining scenario. The substantial horizontal widths, the limits of which have yet to be tested, in conjunction with the shallow dipping geometry may also prove favourable for a very low cost strip mining scenario based on a very large tonnage (bulk) mining operation using a lower grade cut off, thus maximising the recovery of jumbo flake.

To date only 700m of a total target strike length of 4km has been drill tested so there is significant potential to increase the limits of the identified graphite mineralisation zone.





Figure 4: Drill core sample from T12 showing large flake graphite (IVD006, 49m)

# **T16 GRAPHITE DISCOVERY**

Graphite mineralisation has been discovered at the T16 target which is located 4km due east from T12. Large flake graphite, similar to that found at T12, is exposed continuously over a horizontal width of 100m over strike length of approximately 800m. T16 is located on the T16-T17 target horizon that is separate from the T12 – T15 trend (Figure 1). The implications of this discovery are:

- Confirmation that an additional large flake graphite trend exists to the east of the T12-T15 trend,
- Additional potential to define economic concentrations of large flake high-value graphite, and
- Potential satellite source of graphitic material for a proposed centralised processing plant.

Trench sampling is currently underway to determine graphite grade distribution (Figures 5 & 6).





Figure 5: Trench sampling at T16



Figure 6: T16 graphite exposed – large flake up to 0.5cm visible from several metres distance



## **ANCUABE GRAPHITE POTENTIAL**

In addition to the traditional graphite applications, Triton is targeting TMG graphite at the highest growth segments of the graphite market:

- Emerging technology applications: battery specification graphite feedstock for anode materials which are a main component of lithium ion batteries; and
- Products critical to the electronics industry, amongst others, that are based on the unique properties of intumescent flake graphite ie., "expandable flake"



Figure 7: TMG targeted markets

### **EMERGING TECHNOLOGY APPLICATIONS**

#### Suitability of Ancuabe Graphite for Battery Applications

In metallurgical test work carried out by Mintek (Johannesburg) on the Ancuabe graphite samples, a minimum recovered grade of 98%TGC was targeted and achieved through simple flotation methods.

According to Technology Metals Research (TMR), 2014 "the cost difference in purifying a 95%TGC concentrate to >99.9%TGC, versus taking a 98%TGC concentrate to >99.9%TGC (as required for anode material) can vary be as much as \$2,000-\$3,000/tonne of concentrate, using thermal processes." These costs are in addition to the costs of mining and flotation concentration. The alternative to thermal purification for those parties involves the use of highly undesirable acid-based chemical processes.

As previously reported, Ancuabe graphite material has achieved encouraging results in metallurgical test work (Table 2) and feature the predominance of jumbo to super jumbo flake sizes.



Two comprehensive test programs have been conducted by Mintek (Johannesburg):

- Ancuabe Standard: initial mineralogical and flotation tests grade 97.8%TGC through fourstage flotation
- Ancuabe Battery-Specification: trial concentrate production cycle with the target grade of >98%TGC through four-stage flotation

A grade of **98.2%TGC** was achieved in a trial concentrate production cycle through a simple four stage flotation process.

# **EXPANDED GRAPHITE PRODUCTS**

As previously announced by Triton, expanded graphite, which is produced from chemical and thermal processing of graphite concentrate, is used to produce flexible graphite sheets and foils which are subsequently used for manufacturing high-performance gasket material for high-temperature use, packaging and other sealing materials in critical applications of high pressure environments.

Triton has demonstrated through YXGC that Ancuabe graphite has proven it is ideally suited for extensive range of expanded graphite products. YXGC has managed to obtain expansion rates of 1,000, which were achieved from unprocessed graphite ore material. Higher expansion rates of over 1,500 are expected from purified graphite concentrate.

China currently produced up to 16,000 different types of the expanded graphite products. Expanded graphite, which sells for up to US\$3,500 per tonne, is an extremely valuable and highly sought after material and is another critical component in battery market. Company research has found that, subject to the quality and thickness, the expanded graphite foil can sell for up to US\$50,000 per tonne.

## **TARGETING PREMIUM GRAPHITE PRICES**

Graphite sales prices are directly proportional to flake size. Larger flake sizes, particularly >150 $\mu$ , attract higher prices with >300 $\mu$  and >500 $\mu$  in the top pricing brackets.

Thus a key objective of the recent metallurgical test work was to preserve a high proportion of  $>150\mu$  graphite flake so as to achieve the highest basket price possible. In the trial concentrate production cycle to produce battery specification concentrate, 89.2% of the recovered flake size exceeded 150 $\mu$  with 72.9% of the recovered flake exceeding  $>300\mu$ .

Ancuabe "standard" achieved 91.5% of the recovered flake size exceeding  $150\mu$  and 72.6% of the recovered flake exceeding  $>300\mu$ .

In both flotation tests, which required only four stages, over 42% of the recovered flake exceeded >500µ.

Ancuabe flake size distributions are shown in Table 2 below.





Table 2 : Ancuabe flake size distribution

Based on these results, the majority of Ancuabe graphite is placed in the top pricing bracket.

## PROJECT DEVELOPMENT

Triton completed an internal conceptual economic modelling of the Ancuabe graphite and applying the Stormcrow projected 2016 basket price and using an average graphite grade of 6%TGC, the results indicate a robust financial outcome, with the potential for exceptional growth should pricing predictions be met. As a result, the project development preparations at Ancuabe have already commenced.

Triton's Ancuabe Graphite Project is ideally located with respect to established infrastructure including existing high capacity hydro-electric grid power, water supply, sealed public road access and close proximity to port facilities at Pemba (Figure 8).

The Environmental, Social, and Health Impact Assessment (ESHIA) for Ancuabe process is well advanced and proceeding smoothly. There are no villages or cultivated land within the area designated as potential mining operations.

The land use application known as the Direito do Uso e Aproveitamento da Terra (DUAT) is well advanced and proceeding smoothly.

Subject to defining a JORC compliant resource and obtained the relevant regulatory approvals, Triton does not anticipate any impediments to the rapid advancement of the Ancuabe project into graphite production.





Figure 8: Basic infrastructure element plan

# **CONCLUSIONS**

Drilling results received from T12 to date indicate a significant graphite mineralised system that is characterised by large to jumbo flake graphite. There is significant exploration upside with only 700m of a 4km the targeted strike length currently drill tested. There is further potential for additional high quality graphite mineralisation by the identification of the T16 graphite discovery.

Ancuabe has the potential for a bulk mining scenario which would make it possible for a long-term assured source of flake graphite concentrate, having the most highly desired and valued qualities of flake size, purity and consistency.

As with the recent results of Nicanda West, Triton believes that the positive initial drilling results together with the consistency of the high-purity large-flake graphite recovered during flotation test work is a further decisive milestone in the development of Triton's Mozambique projects and adds an important additional dimension to the diverse MG product range.

Regards

Brad Boyle CEO & Managing Director Triton Minerals Ltd



#### Holder of the world's largest known combined graphite-vanadium resource

Triton plans to establish Triton Mozambique graphite, produced from its Mozambique graphite projects (TMG) as the global graphite-industry benchmark by aiming to offer the world's lowest cost and most diversified graphite product range, together with the longevity of a reliable supply of high quality flake graphite.

Triton is also actively pursuing vertical integration opportunities to be involved in all aspects of the graphite supply chain, which Triton believes will add significant value to the Company and its shareholders in the long term.

#### For further information, please contact:

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

The information in this report that relates to Exploration Results on the Ancuabe 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 an 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.

#### **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

## JORC Table 1 - Section 1 Sampling Techniques 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 Ancuabe T12 prospect is located on the AncuabeProject. 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 100m. Diamond drill holes are interspersed within the planned drill grid to provide qualitative information on structure and physical properties of the mineralization. Holes were drilled mostly vertical with one diamond hole inclined at -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 is pulverised (total prep) by the lab to produce a sub sample for assaying. In addition, select RC samples is 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 drillhole 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 200m. 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.			
		The condition and a qualitative estimate of DC comple recovery			
Shin Sumple recovery	Method of recording and assessing core and chip sample recoveries and results assessed	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.			



Criteria	JORC Code explanation	Commentary			
	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 showed no statistically significant bias associated with the RC drill technique. Extensive diamond drilling is carried out as part of this program to confirm the QAQC parameters of the sample material. Similar statistical assessments of the sample result bias is 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	If core, whether cut or sawn and whether quarter, half or all core taken.	Diamond core (HQ3) is 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 is submitted to the lab labelled with a single sample name. Each approximately 2m sample is crushed and a 300g split is taken. For pulverisation. Samples are generally defined according to geological unit boundaries. A batch of duplicate samples to sampled quartered core is 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 is used to determine the appropriate sample methodology for future drill holes.			
	If 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 is 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.			



Criteria	JORC Code explanation	Commentary			
	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 ( $105^{\circ}C$ ), 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 sample 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 1m 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 fo these analyses are considered appropriate for the reported assay grades. In addition, selected drill samples is 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.			
	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. Sample preparation checks for fineness is 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.			
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Mr Simon Plunkett, a consultant to the Company, 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 by trained geological staff on site.			
	The use of twinned holes.	One RC hole was twinned to investigate sample bias related to the RC drill and sampling methods.			
	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 Intertek/Genalysis in electronic form and compiled into the Company's digital database. Secured electronic print files have been provided to the Company for verification purposes.			



Criteria	JORC Code explanation	Commentary		
	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 IVD and IVC holes were surveyed with a differential GPS. Collar RL's were derived from LIDAR topographic data. The dip of all RC 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 quality are coded as 'Priority 2' and are e excluded from the drill location calculations.		
	Specification of the grid system used.	The grid system for the Ancuabe Project area is World Geodetic System (1984 Spheroid and Datum; Zone 37 South).		
	Quality and adequacy of topographic control.	Topographic surface for drill section is based on LIDAR data obtained in 2015.		
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The nominal drillhole spacing 50 m on drill lines spaced 100m apart. The drill lines have a bearing of 180° (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 sufficient for the purpose of estimating a mineral resources for Ancuabe 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 Ancuabe 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 1m lengths of quarter core, with few samples of up to 2m 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 mostly drilled vertically 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 thin pegmatite veins. The orientation of these 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 Intertek (Perth). 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 Australia.		
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 was carried out by Maxwells as part of their routine QAQC procedures. This deposit is located to the west of Nicanda Hill. The database is considered by Triton to be of sufficient quality to carry out that resource estimation at the appropriate time. A review of sampling techniques was undertaken by Jorvick Resources Ltd – an independent resource consulting firm. 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.		



Criteria

JORC Code explanation

Commentary

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 Ancuabe T12 Prospect is located wholly within Exploratio Licence EL5336 within the Cabo Delgado Province of Mozambique. The licence is held by Grafex Limitada (Grafex), a Mozambican registered company. Triton Minerals entered into a Joint Venture (JV) agreement in December 2012 with Grafex to earn up to an 80% interest in Grafex's portfolio of graphite projects. In 2015 Triton increased their holding in the projects to 80% by taking a direct equity interest in Grafex. 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 Ancuabe Prospect of the Balama North Project. The Company has acquired the data from an airborne electromagnetic survey that covers Licences 5966 and 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 Ancuabe graphite deposit is hosted within Neoproterozoic rocks of the Xixano Complex in north-eastern Mozambique. The Xixano complex is composed dominantly of 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 gneiss rock types. Mineralisation occurs as series of multiple stacked tabular northeast-southwest striking lodes moderately dipping to the northwest. Graphite mineralisation outcrops at surfaces and has been intersection at down hole depths of up to 105m below surface. Occurrences of vanadium mineralisation noted in the samples is thought to be associated with quartz muscovite <u>+</u> roscoelite schists.			
<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			
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 Lower cut off 3%TGC Minimum composite width = 1m Maximum internal dilution = 2m			

# JORC Table 1 - Section 2 Reporting Of Exploration Results



Criteria	JORC Code explanation	Commentary			
	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 (TGC) 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 TGC cutoff grade and a minimum composite width of 1m. Significant intercepts are reported at cutoff grade of 3% TGC.			
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable			
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 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 Figures in the body of the text.			
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 several drill holes are pending.			
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 is used to estimate average densities for rock types. 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 planned on the Ancuabe prospect to determine the grade continuity and width of the graphitic units.			



# Appendix 2

Ancuabe T12 Drilling

HOLE-ID	LOCATIONX	LOCATIONY	LOCATIONZ	LENGTH	TYPE	AZIMUTH	DIP
IVC001	616902	8565044	233	145.0	RC	0	-90
IVC002	616992	8565105	227	100.0	RC	0	-90
IVC003	617105	8565051	233	75.0	RC	0	-90
IVC004	617498	8565100	228	100.0	RC	0	-90
IVC005	617499	8565194	218	120.0	RC	0	-90
IVC006	617297	8564997	237	85.0	RC	0	-90
IVC007	617299	8565052	239	91.0	RC	0	-90
IVC008	617207	8565054	234	100.0	RC	0	-90
IVC009	617208	8565102	230	110.0	RC	0	-90
IVC010	616997	8564953	230	79.0	RC	0	-90
IVC011	616999	8565005	235	75.0	RC	0	-90
IVC012	616899	8564953	234	74.0	RC	0	-90
IVC013	617406	8565100	232	82.0	RC	0	-90
IVC014	617400	8565200	219	125.0	RC	0	-90
IVC015	617600	8565200	216	100.0	RC	0	-90
IVC016	617200	8564950	227	75.0	RC	0	-90
IVC017	617200	8565000	227	81.0	RC	0	-90
IVC018	617300	8565150	227	110.0	RC	0	-90
IVD001	616898	8564999	236	120.7	DD	0	-90
IVD002	617303	8565096	235	123.0	DD	0	-90
IVD003	617095	8565149	230	130.1	DD	0	-90
IVD004	617102	8565102	232	89.4	DD	0	-90
IVD005	617100	8565200	227	135.1	DD	0	-90
IVD006	617297	8565148	228	128.6	DD	0	-90
IVD007	617300	8565199	226	135.1	DD	0	-90
IVD008	617200	8565150	230	118.6	DD	0	-90
IVD009	617000	8565050	233	95.9	DD	0	-90
IVD010	617400	8565150	227	100.0	DD	0	-90
IVD011	617500	8565175	221	110.0	DD	180	-60