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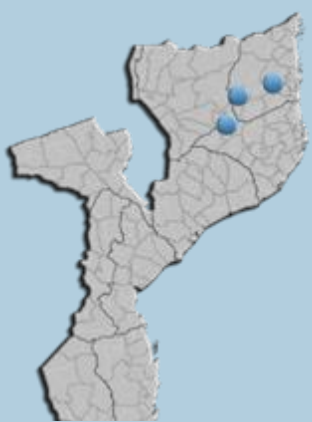

19 December 2016

METALLURGICAL TESTWORK CONFIRMS POTENTIAL OF ANCUABE AS PREMIUM FLAKE GRAPHITE SOURCE

Highlights

- **Metallurgical tests confirm coarse, high-purity graphite flake at Ancuabe**
- **Approximately 25 to 40% of flakes coarser than 300 micron (Jumbo Flakes)**
- **Attractive flake size distribution and purity for high value spherical and expandable graphite markets and lithium-ion batteries**
- **Excellent overall concentrate grades of between 97.2 and 98.4% Total Carbon (TC), with Individual size fractions ranging up to 99.6% TC**

Triton Minerals (ASX: TON) ('TON' or the 'Company') is pleased to announce that it has received excellent results from 5 metallurgical samples recently submitted to IMO Project Services in Perth Western Australia. The samples were selected from diamond drill (DD) cores from the 2015 exploration drilling at the T12 Deposit.

Triton's Managing Director Peter Canterbury said, *"These latest results re-affirm the previous test work that the T12 Deposit at Ancuabe contains graphite with highly desirable flake size distribution and purity. The results indicate that Ancuabe graphite may be suitable for global markets including high value spherical and expandable graphite applications. Furthermore, there is scope to optimise further through coarser initial grind and preservation of large to jumbo flakes. What is also pleasing is that the petrographic study demonstrated that the graphitic gneisses are medium to coarse grained and that the gangue minerals are predominantly quartz and feldspar which suggest the potential for low cost extraction and so attractive to the Lithium Ion Battery makers".*

"These results combined with the recently announced Exploration Target of 25-40 million tonnes outside the T12 deposit demonstrate the potential of Ancuabe to be a significant global source of high purity coarse flake graphite. We are extremely encouraged by the recent drilling and will update the market on the assay results and metallurgical testing which is expected to be released progressively over the coming quarter. The Company is very focused on utilising previous work undertaken by the Company to fast track the development studies for Ancuabe to enable an early investment decision on the project."*

These results confirm and add to previous metallurgical test work undertaken by Triton on a single composite quarter core sample from drill hole IVD001 in April 2016 (Triton, 2016a) which yielded coarse high-purity concentrates, with approximately 85% of the liberated flakes >150 micron and more than 50% of the liberated flakes >300 micron. The final overall concentrate grade was 98.6% Total Carbon (TC).

*Note: Please note that the potential quantity and grade is conceptual in nature, that there has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource.

The current batch of 5 composite core samples (Figure 6) was selected from a group of 7 samples collected during a site visit by CSA Global representatives during August 2016 (see Figure 1 and Table 1 for collar locations; Figure 2 for location of samples in hole IVD007). The purpose of testing these samples was to confirm that the various graphitic layers (or mineralisation domains) were amenable to processing by standard flotation methods, and also to assess the effect of weathering on graphite product quality.

Petrographic and metallurgical test results

Triton commissioned thin-section petrographic studies and preliminary flotation test work of five graphitic intersections from drill holes IVD007, IVD010 and IVD011. Please see Appendix 1 for the JORC Table 1 disclosure for these samples.

The petrographic study by Townend Mineralogy demonstrated that the graphitic gneisses are medium to coarse grained and that the gangue minerals are predominantly quartz and feldspar, with minor amounts of mica, amphibole, pyroxene, calcite and sulphide minerals. The gangue minerals are generally discrete and, apart from mica are not significantly intergrown with graphite, which has important implications for graphite liberation characteristics. The graphite flakes are often more than 1 mm in length (refer to Figures 3 to 5 for examples of T12 graphite in thin section).

It is cautioned that petrography indicates the in situ size of graphite flakes, which may not reflect the final size after crushing, milling, re-grind and flotation stages of an extractive metallurgical process such as typically used for flake graphite production.

The flotation test work, based on a standard graphite process flowsheet developed by Independent Metallurgical Operations' (IMO) Perth Laboratory, demonstrated that a range of high purity graphite flakes can be extracted (Tables 2 to 4, and Figure 7). The process flowsheet included rougher flotation, followed by several regrind and cleaner flotation stages.

Key metallurgical highlights include:

- Head grades of between 3.5 and 9.0 % TGC (between 3.65 and 9.1 % TC)
- ~60 to 77 % of graphite flakes >150 micron
- ~25 to 40 % of graphite flakes >300 micron
- Overall concentrate grades between 97.2 and 98.4 % TC
- Recoveries greater than 92% for four of the five composites tested
- No discernible difference in graphite purity from oxidised, transitional or fresh weathering domains

It is noted that the process testing has not been optimised and that there is scope for coarser initial grind and preservation of large flakes. Flotation tests were all carried out under open circuit conditions with the above recoveries excluding graphite from intermediate tailings streams. Recoveries are expected to improve with recycling of said intermediate tailings streams during locked cycle testing.

Analytical methods

The flake graphite concentrates were analysed for Loss on Ignition (LOI) and TC by Nagrom, Kelmscott, Western Australia. Loss on Ignition ('LOI1000') is the percentage weight loss that occurs when a dry graphite sample is heated in air at 1000°C until constant weight and is considered a proxy for Carbon content in high-purity graphite concentrates. TC is measured to verify the LOI results; this method combusts the sample at 1400°C in an oxygen stream which converts all carbon to CO_2 which is then measured in an infrared absorption cell. LOI is expected to give higher values than either TC or TGC methods when analysing rock samples, as weight loss may reflect the decomposition of carbonate minerals (e.g. calcite) and hydrous silicate minerals (e.g. mica) in addition to CO_2 from graphite.

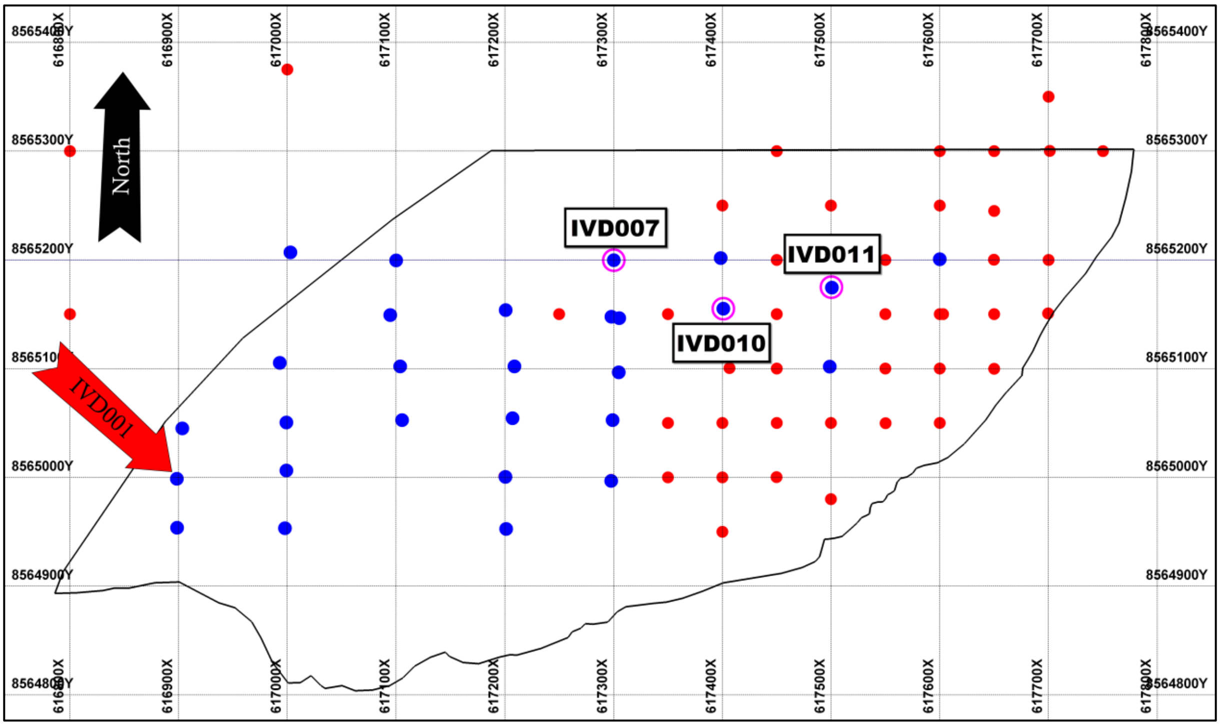

Figure 1: Location of drill collars at T12. Extent of the Mineral Resource announced in May 2012 shown by the black polygon. Blue collars = RC and DD drilled 2015. Red collars = RC and DD drilled 2016 (hand-held GPS coordinates). Metallurgical samples from holes IVD007, IVD010 and IVD011 tested in November / December 2016. IVD001 tested in April 2016. Map grid 100 x 100 m

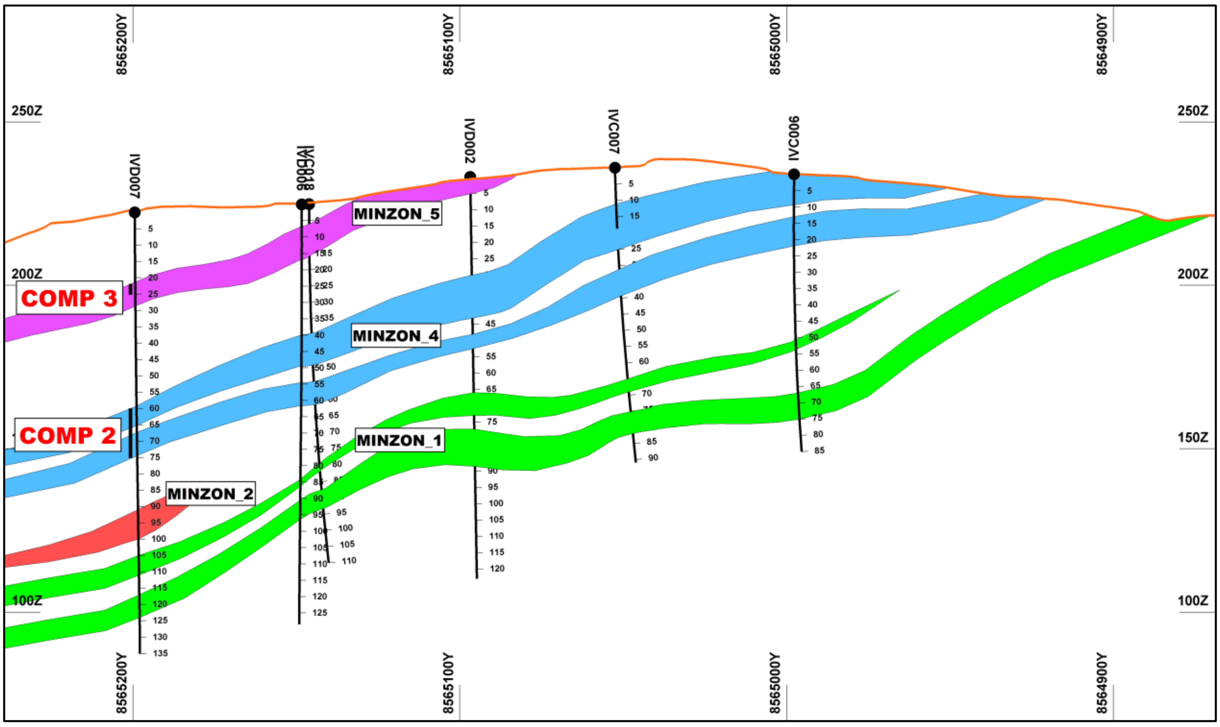

Figure 2: Cross section showing mineralisation zones as reported in May 2016 (Triton, 2016a) and positions of composites 2 and 3 in IVD007. Section line 617300 looking east. No vertical exaggeration

Table 1: Metallurgical sample drill collar coordinates (WGS94 UTM Zone 37S)

Hole ID	X	Y	Z	Final Depth	Type
IVD001	616898.8	8564999	233.3	120.7	DD
IVD007	617300.7	8565199	222.3	135.1	DD
IVD010	617400.9	8565155	220.9	119.94	DD
IVD011	617500.7	8565175	216.2	111.09	DD

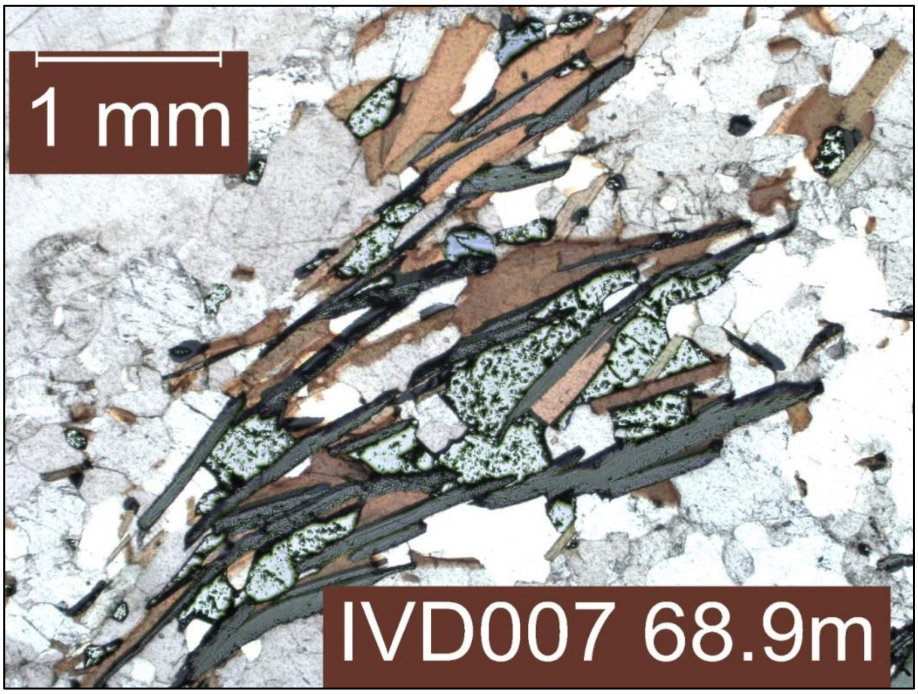

Figure 3: Photomicrograph of graphite (greenish grey) and biotite mica (brown) in a thin section from Composite 2

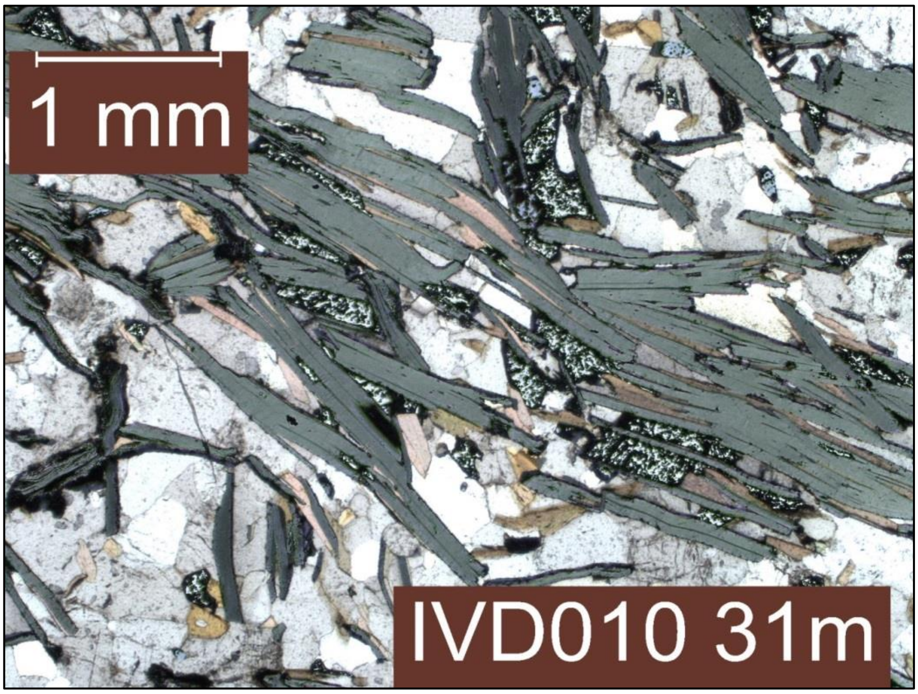

Figure 4: Photomicrograph of graphite (greenish grey) and biotite mica (brown) in a thin section from Composite 5

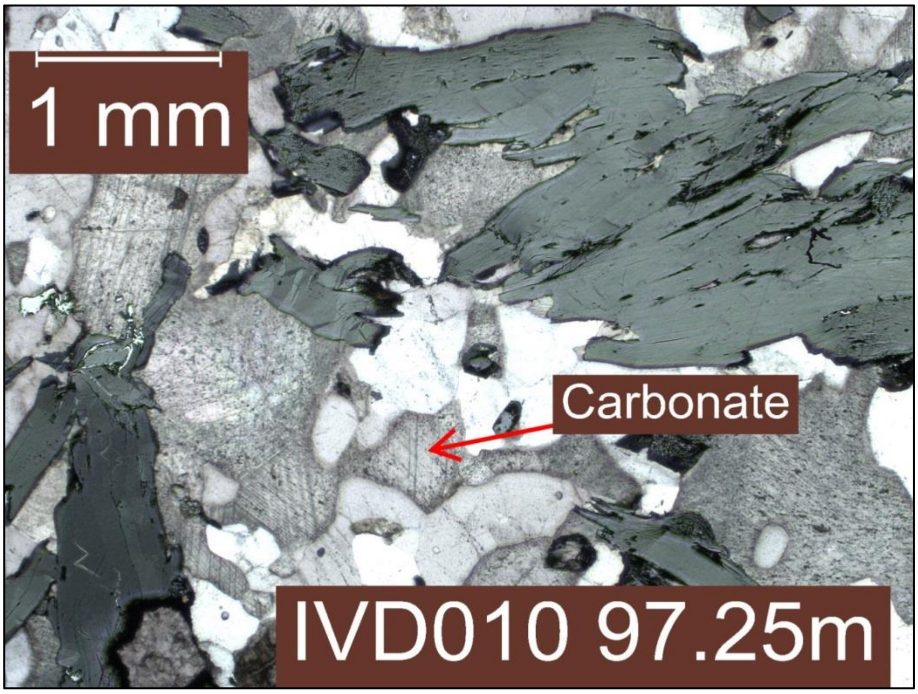

Figure 5: Photomicrograph of graphite (greenish grey), quartz and carbonate in a thin section from Composite 6

Figure 6: Examples of quarter core samples submitted for metallurgical testing

Table 2: Metallurgical sample descriptions

Sample Label	Sample type	Weathering	Mineralisation domain	Composite ID	Weight
(Drill ID and depths)					(kg)
IVD007 59.9-74.47m	¼ HQ core	Fresh	MINZON_4	Comp 2	25.01
IVD007 21.35-24m	¼ HQ core	Transitional	MINZON_5	Comp 3	7.27
IVD011 5-8m	¼ PQ core	Oxidised	MINZON_5	Comp 4	4.24
IVD010 19.95-31.25m	¼ HQ core	Transitional	MINZON_4	Comp 5	31.87
IVD010 91-105m	¼ HQ core	Fresh	MINZON_1	Comp 6	23.22

Table 3: Head sample assays. Major elements by XRF

Sample_ID	TC	TGC	LOI 1000°C	Sulphide S	SiO_2	Fe_2O_3	Al_2O_3	K_2O	Na_2O	CaO	MgO	TiO_2
	%	%	%	%	%	%	%	%	%	%	%	%
Comp 2	3.7	3.5	6.5	2.5	58.5	7.24	12.4	2.17	2.43	7.99	2.23	0.7
Comp 3	7.8	7.8	10.27	2	68.6	4.77	9.25	2.07	1.48	1.35	0.96	0.4
Comp 4	9.1	9	12.55	0.2	67.5	4.08	9.6	2.01	1.81	1.48	0.28	0.6
Comp 5	7.2	7.1	9.65	2.7	61.6	7.02	12	2.5	2.18	2.67	1.62	0.7
Comp 6	6	6	8.69	2.3	63.7	6.04	11.7	2.36	2.23	2.38	1.81	0.6

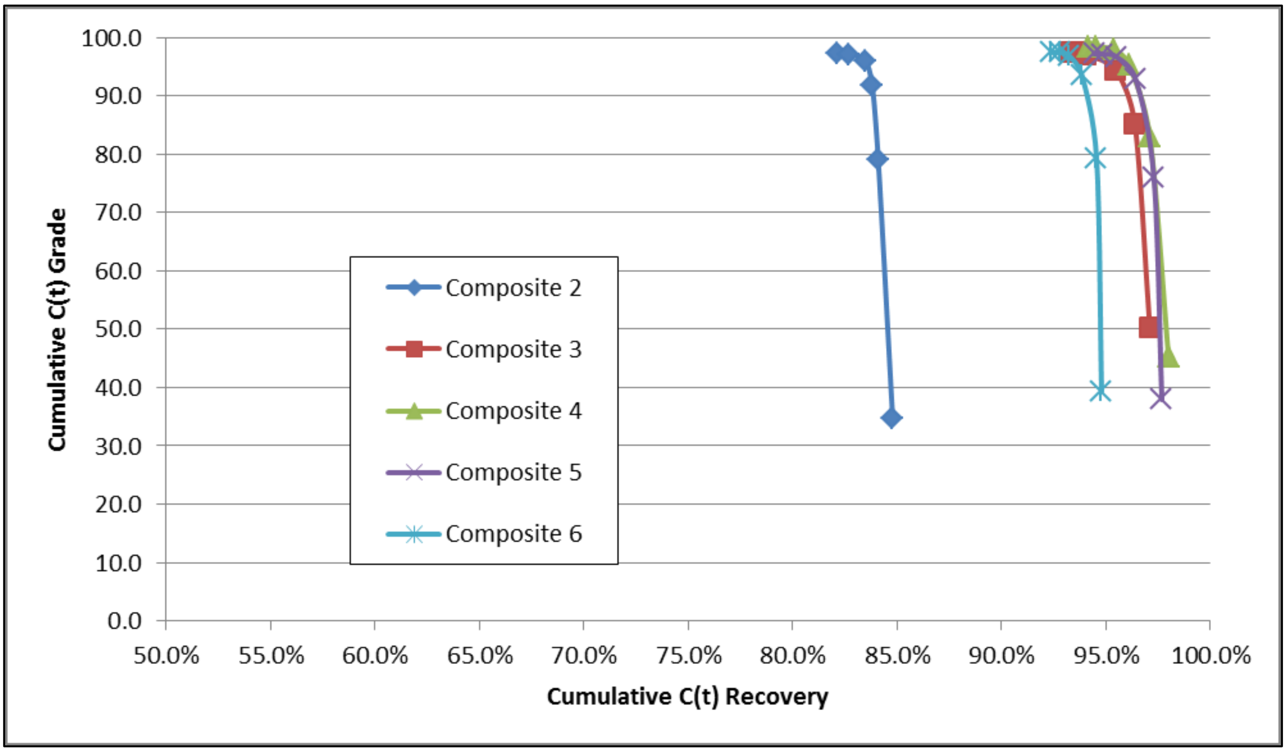

Figure 7: Recovery versus grade for the 5 composites

Table 4: Graphite flake size distribution and purity

Composite 2					
Screen	Mass	Mass	Cum. Mass	TC	LOI1000
µm	g	%	%	%	%
500	2.4	3.6	3.6	97.0	98.4
300	14.2	21.1	24.6	98.3	99.0
180	17.4	25.8	50.4	98.3	99.3
150	6.9	10.2	60.7	97.5	98.9
106	8.2	12.2	72.8	97.8	98.8
75	4.6	6.8	79.7	97.5	98.9
-75	13.7	20.3	100.0	94.7	96.4
Calc Head	67.4	100.0		97.3	98.5

Composite 3					
Screen	Mass	Mass	Cum. Mass	TC	LOI1000
µm	g	%	%	%	%
500	8.5	5.8	5.8	97.2	98.5
300	40.7	27.9	33.7	97.1	98.7
180	40.5	27.7	61.4	98.1	98.7
150	14.6	10.0	71.4	98.1	98.6
106	16.0	11.0	82.3	98.5	98.5
75	8.1	5.5	87.9	98.3	98.2
-75	17.7	12.1	100.0	95.1	96.6
Calc Head	146.1	100.0		97.5	98.4

Composite 4					
Screen	Mass	Mass	Cum. Mass	TC	LOI1000
µm	g	%	%	%	%
500	5.5	3.6	3.6	99.6	99.1
300	33.4	22.0	25.6	98.5	99.2
180	41.7	27.4	53.0	99.2	99.6
150	16.3	10.7	63.8	97.0	99.2
106	19.2	12.6	76.4	97.4	99.1
75	10.0	6.6	83.0	98.4	99.2
-75	25.9	17.0	100.0	97.1	98.4
Calc Head	152.0	100.0		98.2	99.2

Composite 5					
Screen	Mass	Mass	Cum. Mass	TC	LOI1000
µm	g	%	%	%	%
500	11.3	8.3	8.3	96.5	98.3
300	43.4	32.0	40.4	98.0	98.5
180	37.1	27.4	67.7	97.3	98.4
150	12.2	9.0	76.8	97.0	98.2
106	10.0	7.4	84.1	97.7	98.1
75	4.9	3.6	87.7	97.2	98.0
-75	16.6	12.3	100.0	95.1	96.6
Calc Head	135.5	100.0		97.2	98.1

Composite 6					
Screen	Mass	Mass	Cum. Mass	TC	LOI1000
µm	g	%	%	%	%
500	3.8	3.2	3.2	97.4	98.0
300	28.4	23.9	27.1	98.4	98.5
180	36.4	30.6	57.7	97.4	98.5
150	16.4	13.8	71.5	97.8	98.4
106	9.6	8.1	79.6	97.4	98.1
75	4.7	4.0	83.6	97.8	98.2
-75	19.5	16.4	100.0	96.3	96.4
Calc Head	118.8	100.0		97.5	98.1

Competent Persons' Statements

The information in this announcement that relates to exploration results for Ancuabe T12 is based on information compiled by Dr Andrew Scogings, who is a full-time employee of CSA Global Pty Ltd and consultant to Triton. Dr Scogings is a Member of both the Australian Institute of Geoscientists and Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code 2012) Dr Scogings consents to the inclusion of such information in this announcement in the form and context in which it appears.

The information in this release that relates to metallurgical test work is based on information compiled and / or reviewed by Mr Peter Adamini who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Adamini is a full-time employee of Independent Metallurgical Operations. Mr Adamini consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Bibliography

1. Triton Minerals Ltd (2016a). Maiden Inferred Mineral Resource Estimate for the Ancuabe Project. ASX announcement, 17 May 2016. Triton Minerals, Perth, Australia.
2. Triton Minerals Ltd (2016b). Drilling expands Ancuabe graphite picture. ASX announcement, 8 December 2016. Triton Minerals, Perth, Australia.
3. Triton Minerals Ltd (2016c). Significant resource growth potential identified at Ancuabe. ASX announcement, 16 December 2016. Triton Minerals, Perth, Australia.

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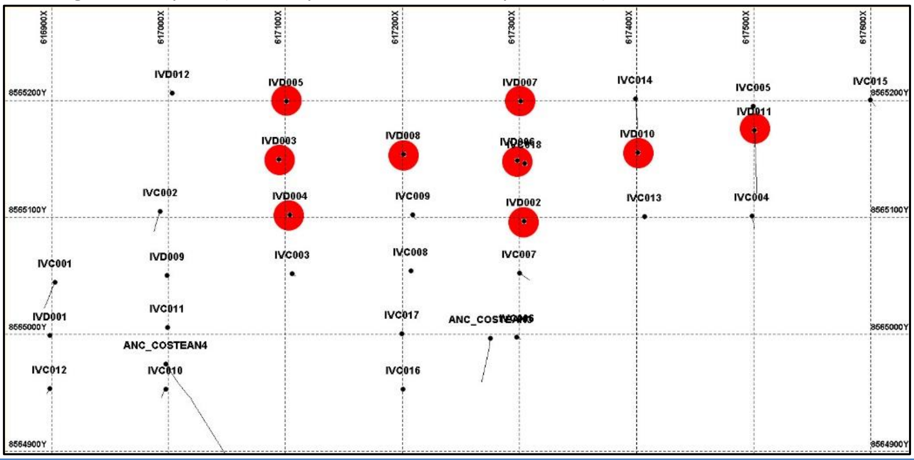
The Company cannot and does not give any assurance that the results, performance, or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements.

APPENDIX 1: JORC (2012) Table 1.

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	• The metallurgical samples are from diamond drill (DD) core, using composited quarter cores that had been cut during the 2015 programme.
Drilling techniques	• DD holes are drilled with a PQ core size collar and HQ3 (61.1 mm diameter) to the end of hole. • Reverse Circulation (RC) holes were drilled with a 5.5 inch diameter hammer; however RC samples are not considered optimal for metallurgical tests as the percussion method is likely to destroy graphite flakes. This is an important factor for flake graphite, as being an Industrial Mineral it is required to be reported in terms of product specification, which includes flake size distribution.
Drill sample recovery	• Generally, drill core recovery was above 95% below the base of oxidation. Core recovery is measured and compared directly with drill depths to determine sample recoveries. • Diamond core was 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.
Logging	• Geological logging was 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 was 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 were recorded by the geologist into a digital data file at the drill site, which were regularly submitted to the Perth office for compilation and validation. Logging includes lithology, mineralogy, mineralisation, weathering, colour and other features of the samples. DD core trays were photographed. Geological descriptions of the mineral volume abundances and assemblages are semi-quantitative. • All drillholes are logged in full.
Sub-sampling techniques and sample preparation	• Diamond core (PQ and HQ3) was cut into quarter core onsite using a diamond impregnated blade on a core saw. Samples were generally over one metre intervals and where possible defined by geological boundaries. • The drill sample sizes are considered to be appropriate to correctly represent mineralisation at T12 based on the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and graphite percent value ranges.
Quality of assay data and laboratory tests	• The analytical techniques used to analyse all individual drill core samples for Graphitic Carbon, Total Sulphur, and Total Carbon was by combustion infrared detection instrument. Detection limits for these analyses are considered appropriate for the reported assay grades. • The Total Carbon and LOI (1000°C) values reported for the composites by the IMO metallurgical laboratory were considered to be reasonably similar to the weighted TGC values of the original individual drill assays. • The flake graphite concentrates were analysed for LOI and TC, as well as major elements by Nagrom, Kelmscott, Western Australia. • Loss on Ignition ('LOI1000') is the percentage weight loss that occurs when a dry graphite sample is heated in air at 1000°C until constant weight in a LECO TGA701 TGA instrument to determine LOI1000 values. • Analyses for total carbon ('TC') were performed using a Labfit CS2000 carbon and sulphur analyser. The sample is weighed and placed in crucibles on the sample changer carousel, after which the sample is combusted at 1400°C in an oxygen stream. This process converts all carbon in the sample to carbon dioxide which is then measured in an infrared absorption cell. • X Ray Fluorescence ('XRF') analyses were done on pulverised sample that are fused with a flux to produce a glass disk. Disks are analysed using a Panalytical Axios XRF spectrometer. For samples with over 10% graphite, a dilution procedure is required to fuse the sample disk. Lower limits of quantification are 0.1% absolute for the reported elements. For samples with less than

Criteria	Commentary
	10% graphite, XRF disks can be fused without dilution. Lower limits of quantification are 0.01% absolute for the reported elements. • The LOI, TC and XRF methods used by Nagrom are considered appropriate for analysing the purity of flake graphite concentrates. • The crushing, flotation and regrind process used by IMO is considered to be an appropriate industry standard method for liberation of graphite flakes.
Verification of sampling and assaying	• CSA Global representatives have visually verified the geology of the reported DD holes at T12. The verification process was based on inspection and correlation of DD cores on site during August 2016, and by inspection of DD core photographs at several stages during 2016. • Drill cores from holes IVD002, 003, 004, 006, 007, 008, 010 and 011 were laid out at the core yard in August 2016 for correlation purposes, and to help with selection of representative metallurgical samples (see map below for collar positions). 
Location of data points	• Collar locations for all holes were surveyed with a differential GPS. • The dip and azimuth of all DD holes was measured by the drill company using a Reflex singleshot downhole survey tool. Readings were taken at the completion of the hole at an interval spacing of 30m on the diamond holes, and at the collar and end of hole on the RC holes. Stated accuracy of the tool is +-10%. • Topographic surface for drill section is based on LIDAR data obtained in 2015.
Data spacing and distribution	• The nominal drillhole spacing for the 2015 drill programme for RC and DD at T12 was 50m on drill lines spaced 100 m apart. The drill lines have a bearing of 180 degrees (north-south).
Orientation of data in relation to geological structure	• Most holes were drilled vertically. One hole IVD011 was drilled inclined at 60 degrees to the south. • The interpreted dip of the geological units has been estimated to be 10° to 30° to the northwest, with strike roughly ENE. The geological units appear to pinch and swell and be affected by gentle folding and possibly some faults.
Sample security	• Chain of custody is managed by Triton. The metallurgical samples were shipped directly to Triton's Perth office and personally delivered to the IMO laboratory in Welshpool by a Triton employee.
Audits or reviews	• The logging and assay data was validated during the process of Mineral Resource estimation, as reported by Triton on 17th May 2016 (Triton, 2016a). CSA Global representatives visited site several times during 2016 and verified selected drill collar positions, geological outcrops and inspected drill core.

Section 2 Reporting of Exploration Results

<table>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td>Mineral tenement and land tenure status</td><td>The Ancuabe T12 project is within Exploration Licence 5336 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 2014 Triton increased their holding in the projects to 80% by taking a direct equity interest in Grafex.
All statutory approvals have been acquired to conduct exploration and Triton Minerals has established a good working relationship with local stakeholders.</td></tr>
<tr><td>Exploration done by other parties</td><td>No previous systematic graphite exploration is known to have been undertaken prior to Triton's interest in the area.</td></tr>
<tr><td>Geology</td><td>The Ancuabe tenements are underlain mainly by rocks of the Proterozic Meluco Complex to the north that comprise granitic to tonalitic gneiss and, to the south, by rocks of the Lalamo Complex that comprise mainly biotite gneiss.
The eastern portions of 6357L are underlain by Cretaceous sediments belonging to the Pemba Formation.
The Meluco Complex consists of orthogneisses mainly of granitic to granodioritic composition, with tonalitic rocks as a subordinate component.
The interpreted dip of the geological units is on average 20° towards 340° with the strike roughly 70°. The geological units at the T12 deposit appear to be affected by gentle folding and are limited in extent by faulting. 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.</td></tr>
<tr><td>Drill hole Information</td><td>Drill data was previously reported for T12 when Triton announced a Mineral Resource estimate on 17th May 2016. Triton also announced assays for RC and DD samples during 2015.</td></tr>
<tr><td>Data aggregation methods</td><td>The metallurgical samples were composited across intervals interpreted to be geological units ('MINZONS'). All waste intervals of less than two metres downhole width were included in the composites.
<table>
<tr><th>Sample Label</th><th>Sample type</th><th>Weight</th><th>Mineralisation domain</th></tr>
<tr><td>(Drill ID and depths)</td><td></td><td>(kg)</td><td></td></tr>
<tr><td>IVD007 59.9-74.47m</td><td>¼ HQ core</td><td>25.01</td><td>MINZON_4</td></tr>
<tr><td>IVD007 21.35-24m</td><td>¼ HQ core</td><td>7.27</td><td>MINZON_5</td></tr>
<tr><td>IVD011 5-8m</td><td>¼ PQ core</td><td>4.24</td><td>MINZON_5</td></tr>
<tr><td>IVD010 19.95-31.25m</td><td>¼ HQ core</td><td>31.87</td><td>MINZON_4</td></tr>
<tr><td>IVD010 91-105m</td><td>¼ HQ core</td><td>23.22</td><td>MINZON_1</td></tr>
</table></td></tr>
<tr><td>Relationship between mineralisation widths and intercept lengths</td><td>The intercept widths are downhole (apparent) and do not represent true width. This is not considered to have any material effect on the outcomes of the metallurgical tests.</td></tr>
<tr><td>Diagrams</td><td>Refer to map of T12 within the main body of this report.</td></tr>
<tr><td>Other substantive exploration data</td><td>Selected core samples from all DD drillholes are measured for bulk densities. 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, texture, shape, roughness and fill material is stored in the structure table of the database.</td></tr>
<tr><td>Further work</td><td>Further drilling was conducted over T12 during October – December 2016.
The 2016 drill samples are in the process of being prepared for assay.
Two ¼ core composites have been selected from the 2016 drilling and will be shipped to Triton's Perth office. It is anticipated that these samples will be tested metallurgically to assess any variability east of the three holes already tested.</td></tr>
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