

15 December 2017

TRITON DELIVERS ROBUST ANCUABE DEFINITIVE FEASIBILITY STUDY AND DECLARES MAIDEN ORE RESERVE

HIGH MARGIN, HIGH PURITY, LONG LIFE PROJECT POSITIONS TRITON TO CAPITALISE ON THE TRANSFORMATION IN THE ELECTRIC VEHICLE, BATTERY STORAGE AND EXPANDABLE GRAPHITE SECTORS

- Maiden Ancuabe JORC Compliant Ore Reserve of 24.9Mt at 6.2% TGC supports the evaluation period¹ of 27 years.
- Definitive Feasibility Study based on annual production of approximately 60,000 Tonnes Per Annum (tpa) of graphite concentrate over the evaluation period² of 27 years. The DFS mine plan is based the Ore Reserve and less than 5% of the production is sourced from Inferred Mineral Resources that is mined to access the Ore Reserve.
- High margin project with average annual EBITDA over the evaluation period of US\$43.6M (including ramp up) based on a basket price of US\$1,435/t and average evaluation period operating costs excluding royalty of US\$634/t (FCA Port of Pemba).
- Unleveraged pre-tax NPV³ of US\$298M, unleveraged pre-tax internal rate of return 36.8% and near-term payback period of 3.8 years – ability to optimize through appropriate financing strategy.
- Located in a proven graphite region with existing transport infrastructure and supportive local and national governments.
- Triton Board has approved commencement of detailed engineering and early works subject to Mozambique Government approvals. Progression to construction is subject to completion of appropriate financing strategy.
- Triton now focused on optimisation, permitting processes, EPC engagement, financing and securing binding offtake agreements.
- Production planned to commence in second half 2019 subject to financing and board approvals.

Triton Minerals Limited (ASX: TON) (Triton or the **Company**) is pleased to announce its maiden Ore Reserve and the results of Definitive Feasibility Study (**DFS**) for the Ancuabe Graphite Project (**Ancuabe** or the **Project**) located in the Cabo Delgado province, Mozambique. The DFS confirms that Ancuabe is a high quality, long life, high margin graphite project.

The results of the DFS for a 60,000 tpa graphite concentrate processing facility places Triton in a very strong position moving forward. The Company is aiming to commence early works project construction in the first half of 2018, subject to Mozambique Government approvals, and delivering high-grade graphite concentrate mid-2019 to the growing lithium-ion battery and expandable graphite markets.

¹ The evaluation period is based on mining and processing the Ore Reserve and up to a maximum of 5% of the annual production will be sourced from Inferred Mineral Resources which will be mined in order to access the Ore Reserve.

² See footnote 1.

³ Calculated using a discount rate of 10%.



Summary of DFS Outcomes

Table 1: DFS outcomes summary

Evaluation period ¹	27 years
Annual production	Approximately 60,000 tpa graphite concentrate
Pre-production capital cost ^{2 3 5}	US\$99.4M including contingency of US\$9.3M
Graphite concentrate basket price ⁴	US\$1,435/t graphite concentrate (FCA Pemba)
EBITDA	US\$1,178M
Operating cost excluding royalty ⁵	US\$634/t graphite concentrate (FCA Pemba)
Unleveraged pre-tax NPV ⁶	US\$298M
Unleveraged pre-tax IRR	36.8%
Payback period ⁶	3.8 years from first production
Project free cash flow	US\$1,032M pre-tax
	US\$753M post-tax

Notes to Table 1:

1. See footnote 1.

2. The capital cost estimate is based on prices and market conditions current at Quarter 4 2017.

3. Capital costs over the evaluation period associated with grid power connection and tailings storage facility and wall lifts will be approximately US\$8.5 million and US\$30.2 million respectively. Sustaining capital expenditure over the evaluation period is \$9.2 million.

4. See 'DFS Summary' Section 12.

5. Exchange rates for cost inputs were based on National Australia Bank (**NAB**) average forecast forward exchange rates for the 24month period from 1 July 2017 to 30 June 2019 published in September 2017 (See 'DFS Summary' Section 13).

6. 10% discount rate applied.

The Ancuabe Graphite Project DFS displays robust economics highlighted by average annual revenue of US\$82.6 million and EBITDA margins averaging 53% over the 27 year evaluation period⁴, based on annual production of approximately 60,000 tpa of graphite concentrate.

The DFS was undertaken by independent experts with substantial experience in the graphite sector and resources projects in East Africa. The DFS was led by supervising engineer Lycopodium Minerals Pty Limited (Lycopodium), with the resources and mining studies undertaken by CSA Global Pty Limited (CSA), metallurgy by Independent Metallurgical Operations Pty Ltd (IMO), and water and tailings studies by Knight Piésold Pty Limited (Knight Piésold).

Ore Reserve

The Ancuabe Graphite Project is concentrated on developing two graphite mineral deposits T12 and T16. Triton has completed a Feasibility Study (termed Definitive Feasibility Study (**DFS**) in Triton documents) for the Ancuabe Graphite Project to produce approximately 60,000 tpa of graphite concentrates. The DFS has been used as the basis from which to estimate Ore Reserves for the project. The Ore Reserve for the Ancuabe T12 and T16 Deposits comprises 24.9 Mt at 6.2% TGC, for 1.5 Mt of contained graphite, reported in accordance with the JORC Code 2012⁵.

⁴ See footnote 1.

⁵ Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).



The Ore Reserve estimate for the Ancuabe Graphite Project is summarised in Table 2.

Reserve Category	Tonnes (Mt)	Grade (TGC%)	Contained Graphite ('000 tonnes)
Proved	-	-	-
Probable	24.9	6.2%	1,544
Ore Reserves total	24.9	6.2%	1,544

Table 2: Ancuabe Graphite Project - Ore Reserve estimate

The key information supporting the Ore Reserve is set out below. A summary of the key DFS information including material information for the Ore Reserve is included in the body of this release. Additional details of the material assumptions are set out in Appendices 1,2 and 3 (JORC Table 1).

The Probable Ore Reserve was estimated from the Mineral Resource after consideration of the level of confidence in the Mineral Resource and taking into account material and relevant modifying factors.

The Probable Ore Reserve estimate is based on Mineral Resources classified as Indicated. No Inferred Mineral Resources have been included in the Ore Reserve.

ASX Listing Rule 5.9.1

Pursuant to ASX Listing Rule 5.9.1, and in addition to the information contained in the body of this release and in Appendix X of this release the Company provides the following summary.

- The Ore Reserves are based on key modifying factors that include analysis, designs, schedules and cost estimates of a Definitive Feasibility Study that describes development of the project to produce up to 60,000 t per year of graphite concentrate for approximately 27 years.
 - Metallurgical testwork has been completed by reputable and experienced specialists which is described in this document and supports the related modifying factors applied to the Ore Reserve estimate
 - The mining process has been based on Indicated Mineral Resources reported in accordance with JORC, detailed mine designs, specifications from a thorough geotechnical study and mining equipment determined from experienced engineers and mining contractors.
 - The processing plant has been developed by experienced process design engineers and is presented in a detailed design to support recovery, throughput and production estimates.
 - The infrastructure requirements have been defined by specialist engineers.
 - The detailed designs discussed above, have been used as the basis for capital and operating cost estimates derived from first principles estimates and vendor quotes.
- The Ore Reserve estimate comprises Indicated Mineral Resources only. The DFS contains some Inferred Mineral Resources which are mined incidentally with the Indicated material. The Inferred material comprises less than 5% of the total DFS throughput and is not material to the viability of the project.
- The mining method selected for the Ancuabe project is open pit mining applying conventional techniques that are commonly practiced in this style of deposit and region. A mining recovery factor of 95% and dilution factor of 10% have been applied in the Ore Reserve Estimate.
- The processing flowsheet is based on metallurgical testwork undertaken with samples from the T12 and T16 deposits by weathering extent (oxide/transition and fresh). The proposed process plant facilities for the Ancuabe Graphite Project in the DFS comprise processes and equipment that are based on detailed process engineering and findings that are aligned with similar operations.



- The basis for quality parameters applied to the Ore Reserve are metallurgical testwork and research into the desirability of the Ancuabe product in the current and emerging markets for graphite products
- The status of approvals, tenements and licenses are as follows:
 - The Ancuabe Project is located within granted Exploration licenses. Submissions for the Exploration License modifications and Mining Concession were lodged in November 2017 with the Mozambique Government and there is no reason to consider this process to be at risk.
 - The environmental and social permitting process is well underway and The Environmental Social and Health Impact Assessment (ESHIA) is scheduled to be submitted in December 2017.
 - The DUAT land tenure process is underway with the Mozambique Government in accordance with legislation.
 - Construction and operation permit processes have commenced and will continue in accordance with Mozambique legislation during 2018.

Next Steps

Over the next six months Triton will now focus on finalising offtake agreements, financing arrangements, local approvals and early works engineering and procurement to enable a final investment decision in the first half of 2018.

The DFS project execution strategy is in the process of revision from an Engineering, Procurement and Construction Management (**EPCM**) model to a Project Management Contractor (**PMC**) model, representing Triton and managing a potential Chinese Engineering, Procurement and Construction (**EPC**) contractor. Front-End Engineering and Design (**FEED**) including procurement definition will be undertaken by the PMC, and is targeted to commence in February 2018. The PMC will also identify long lead items and then place the required orders.

Early works at site are anticipated (subject to Mozambique Government approvals) to commence in May 2018 and will mainly be focused on establishing the construction camp, raw water dam construction and plant site preparations. Commencement of construction is targeted in August 2018 (subject to Final Investment Decision (**FID**), Mozambique Government approvals and financing) and estimated to take approximately 10 Months.

Key upcoming targeted project milestones include:

Quarter 1 2018

- Conversion of offtake MOU to binding offtake agreements
- Appointment of Tailings, Water and Roads (**TWR**) consultant for the raw water dam and tailings dam detailed design and construction supervision
- Appointment of PMC FEED engineering for process plant and infrastructure
- Appointment of Camp Contractor
- Appointment of Mining Contractor
- Appointment of Financial Advisor for financing of project
- Completion of major permitting processes Mining Concession and ESHIA

Quarter 2 2018

- Placement of long lead time orders
- Appointment of EPC contractor and term sheet for EPC financing
- Site mobilisation for early works
- FID by Triton Board



Commenting on the DFS, Triton's Managing Director, Peter Canterbury said

"It is a tremendous outcome to deliver these results just 12 months after launching Triton's revised corporate strategy. The DFS supports our belief that Ancuabe is a high-quality asset capable of producing a high margin product into the premium end of the graphite market.

"Ancuabe has market leading large/jumbo flake size distribution combined with high purity levels across all flake sizes making it suitable for both the lithium ion battery market and expandable graphite, where demand is being driven by flame retardant building materials. Our project will be based on simple mechanical flotation methods, avoiding the environmentally challenging acid purification treatments currently being used in China, which is the world's largest producer of natural flake graphite."

DFS Summary

1. Scope of Work

The Definitive Feasibility Study completed at Triton's Ancuabe Graphite Project could not have been delivered without the assistance of a group of highly experienced and independent highly-credentialed consultants and contracts, including:

- Process & Plant Infrastructure Lycopodium and ADP Group
- Tailings Storage Facility, Water Storage Facility and site geotechnical investigations Knight Piésold
- Geology and Resources CSA Global
- Mining and Mine Design CSA Global
- Metallurgical Testwork IMO, ALS Metallurgy
- Project Drilling Major Drilling
- Assays Intertek and Bureau Veritas
- ESHIA EOH Coastal & Environmental Services Limited (EOH-CES)

The scope of work was based on the outcomes of the Scoping Study, with updates following technical investigations including:

- Significantly increased mineral resources following third phase drilling programme
- Reduced flotation residence time requirements following parameterisation and variability testwork
- Increased power station capacity due to increased degree of engineering
- Water dam relocation following geotechnical investigations
- Requirement to line the Tailings Storage Facility (**TSF**) due to the properties of the tailings

2. Project Background

The Ancuabe Graphite Project is located in the Cabo Delgado province in north eastern Mozambique. Triton, through its wholly owned subsidiary Triton United (domiciled in the United Arab Emirates) has an 80% interest in Grafex Limitada (domiciled in Mozambique), the registered license holder of three discrete graphite exploration projects comprising eight Exploration Licenses (Licenses), of which six have been formally granted by the Mozambique Government and two (5934L and 6357L) are in application.







The project area is accessible by road from Pemba and Montepuez along a tarred highway, approximately 73km west of Pemba, with an additional 20km of unsealed road to site. The project is predominantly located on Exploration Licence 5336L, which is held by Grafex Limitada. Grafex is in the process of updating its tenement areas and has a Mining Concession application in progress with the Mozambique National Institute of Mines (INAMI).

In May 2016, Triton completed a maiden JORC 2012 Inferred Mineral Resource at the Ancuabe T12 deposit in north eastern Mozambique. Since this time, three updates have been reported: T12 updates and maiden T16 (ASX 10 April 2017), T12 and T16 update (ASX 30 November 2017) and T12 and T16 update (ASX 14 December 2017). This announcement reports the results for the DFS.

The Company believes the exceptional flake size and concentrate levels from metallurgical testwork, combined with the proximity to port, road and power infrastructure, and location within a proven graphite producing region, provides Triton with a competitive advantage in terms of logistics, and sound basis to secure premium sales prices in a highly competitive market.

3. Mineral Resource Estimate

The Mineral Resource estimate, prepared by a Competent Person, which forms the basis for the DFS mining study was reported to the ASX on 30 November 2017⁶. It is reported in accordance with the 2012 JORC Code and is presented in Table 3.

⁶ See ASX announcement 30 November 2017. The Company confirms that it is not aware of any new information or data that materially affects the information included in this market announcement and all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. www.tritonminerals.com | ASX: TON ABN: 99 126 042 215



Deposit	Classification	Tonnes (Mt)	TGC%	Contained Graphite ('000s t)
T12	Indicated	13.7	5.8	800
T16	Indicated	13.5	8	1,070
T12 + T16	Indicated Total	27.2	6.9	1,870
T12	Informed	10.6	5	530
T16	Interred	6.6	8.1	530
T12 + T16	Inferred Total	17.2	6.2	1,060
T12 + T16	Indicated + Inferred	44.4	6.6	2,930

Table 3: Indicated + Inferred Mineral Resource estimates for Ancuabe, 30 November 2017

Note: The Mineral Resources reported above were estimated within constraining wireframe solids defined above a nominal 3% TGC cut-off at T12 and a nominal 4% cut-off at T16. The Mineral Resources are reported from all blocks within these wireframe solids. Differences may occur due to rounding.

An updated Mineral Resource estimate, which demonstrates increased confidence in geological and grade continuity at Ancuabe, was reported to the ASX on 14 December 2017⁷, in accordance with the 2012 JORC Code and is presented in Table 4 below.

Deposit	Classification	Tonnes (Mt)	TGC%	Contained Graphite ('000s t)
T12	Indicated	15.4	5.8	900
T16	Indicated	15.7	7.9	1,250
T12 + T16	Indicated Total	31.1	6.9	2,150
T12	Informed	9.9	5.0	500
T16	Interred	5.1	7.9	400
T12 + T16	Inferred Total	15.0	6.0	890
T12 + T16	Indicated + Inferred	46.1	6.6	3,040

Table 4: Indicated + Inferred Mineral Resource estimates for Ancuabe, 13 December 2017

Note: The Mineral Resources reported above were estimated within constraining wireframe solids defined above a nominal 3% TGC cut-off at T12 and a nominal 4% cut-off at T16. The Mineral Resources are reported from all blocks within these wireframe solids. Differences may occur due to rounding.

4. Metallurgical Testwork

Samples from the 2015 drilling campaign were shipped to IMO Metallurgy (Perth), adding to the database of samples tested for the T12 and T16 deposits at the Ancuabe Graphite Project (reported in ASX releases 17 May 2016, 19 December 2016 and 23 February 2017).

The metallurgical investigations were undertaken as follows:

- ALS Metallurgy comminution parameters
- IMO flotation parameterisation, variability and graphite expandable product testwork
- Fremantle Metallurgy settling, rheology and filtration testwork •

ALS Metallurgy and Townend Minerology have undertaken XRD and petrographic investigations for all flotation samples and various other samples across the two deposits. ALS Metallurgy also undertook the comminution testwork for the DFS, which was used directly to size the crushing and primary milling circuit.

⁷ See ASX announcement 14 December 2017. The Company confirms that it is not aware of any new information or data that materially affects the information included in this market announcement and all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. www.tritonminerals.com | ASX: TON ABN: 99 126 042 215 7



The testwork to define flotation parameters was undertaken with four composites which were prepared from a selection of diamond drill core (**DD**) intervals to represent the two zones within T12 and T16 mineral resources: oxide/transition and fresh. Testwork with these four composites confirmed a coarser grind size was achievable for the primary grind (increased from P_{95} 710 µm to 1,000 µm), change from soda ash to lime, and continuation with specialty flotation reagent. A simplified financial evaluation was completed to confirm operating cost impact for the options investigated. It was possible to reduce flotation residence times for scale up due to the consistently low gangue mineral content in the ore. The stages of cleaning and attritioning were confirmed.

On completion of the flotation optimisation testwork, an extended variability testwork programme was undertaken, whereby the number of flotation tests was increased to 26 for T12 and 21 for T16 for a total of 47 flotation tests for T12+T16, from a previous total of 13 flotation tests for T12+T16.

The consistent flotation performance in terms of recovery was incorporated into the geological model. In addition, flotation product quality was consistent for the resources, as shown in the figures below.

The settling and filtration testwork results were utilised to confirm the size of the equipment required for the DFS. These testwork results were also applied to confirm the removal of the concentrate thickener, and increase in the filter size.

Tailings properties were investigated, for each of the composites prepared for the flotation parameterisation testwork. Of the samples tested, three (3) were reported as potentially acid forming (**PAF**), and the fourth as PAF-low capacity. An investigation was then undertaken to determine the most technical and cost-effective option to manage the tailings, which resulted in the TSF being lined with a low permeability membrane.

Additional technical investigations were undertaken to confirm the geotechnical properties for the mine, TSF, Water Dam, and plant areas. The geotechnical investigation comprised 19 DD boreholes, 84 machine excavated test pits and in situ and laboratory testing. The purpose of the investigation was to assess the suitability of the ground conditions for the proposed structures. The sites investigated were confirmed as suitable for their proposed usage.













5. Mining

Separate optimisations were run for the T12 and T16 deposits, and two optimisations were carried out for T16 to determine the effect of constraining the pit limits to the tenement boundary on the north of the deposit. Both deposits show flat cash curves indicating that the optimisation is Mineral Resource constrained, indicating that the deposits may continue at depth and possibly along strike. Optimal shells have been chosen at approximately Revenue Factor (**RF**) of 1. Table 5 summarises the optimisation results for both deposits.

		T	12		T	16	
ltem	Unit	Stage 1	Final	Stage 1	Stage 2	Final Pit	Unconstrain ed
Shell	No.	8	35	2	11	36	36
Revenue Factor		0.44	0.98	0.32	0.5	1.0	1.0
Total Mined	Mt	13.37	55.94	4.53	46.86	58.76	66.57
Strip ratio	t:t	1.5	3.0	1.2	2.9	3.5	3.7
ROM Feed	kt	5,455	13,854	2,104	12,053	12,963	14,033
ROM Feed Grade	% TGC	5.99	5.33	8.02	7.28	7.23	7.23
TGC Produced	kt	2,976	6,708	1,556	8,135	8,697	9,413
Operating Costs	US\$M	181.4	499.9	76.3	468.8	520.8	569.5

Table 5: Optimisation results summary

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		Tî	12		T:	16	
ltem	Unit	Stage 1	Final	Stage 1	Stage 2	Final Pit	Unconstrain ed
Revenue	US\$M	446.9	1007.5	233.7	1221.9	1,306.2	1,413.7
Cash Flow	US\$M	265.5	507.6	157.5	753.1	785.4	844.2
Worst DCF	US\$M	202.8	293.3	137.9	447.7	450.5	465.2
Best DCF	US\$M	205.2	315	138.3	466.1	476.9	496.0
Ideal DCF	US\$M	203.8	302.0	138.0	455.0	461.0	477.6
Operating Cash Cost	US\$/t TGC	61	74	49	58	60	61
Mine Life	years	4.7	12.0	1.8	10.5	11.3	12.2
Shell Depth	m	165	230	85	200	205	205

Final pit designs correlate well with optimisation results, however the T16 final design contains 15% less ROM feed than the optimisation shell as a more practical to the tenement boundary constraint was adopted in the pit design.

555 000 16 West Tenement Boundary T12 Waste Dump Diversion Skyway and Drain T12 Pit T16 **ROM** Stockpiles T16 Pit Diversion Drain 16 East Maintenance Waste Dug and Go-Line T12 Waste Dump **Processing Plant**

Depending on the availability of suitable waste materials at T16 additional materials for the Tailings Storage Facility wall and Water Storage Facility wall construction may also be sourced from within the proposed containment areas. Prior to completion of mining operations at T16, pre-strip mining will commence at T12.

It is planned that conventional drill and blast, load and haul, open pit mining will be used to extract the mineralised material. ROM feed will be defined by grade control procedures in the pit, and delivered by truck to the ROM pad located centrally between the T12 and T16 deposits. Waste will need to be classified for its Potential to be Acid Forming (**PAF**) and be dumped in managed waste dumps adjacent to the open pits. It is planned that mining will be carried out by an experienced earthmoving contractor.

Based on the results of the Scoping Study, a Request for Quotation (**RFQ**) was issued to four earthmoving contractors. Evaluation of the submissions indicated that Tayanna was the preferred contractor. Mine operations and mining cost estimates have been based on the Tayanna submission.

Earthmoving contract works will include clear and grub, topsoil stripping, drill and blast, excavate, load and haul (ELH) of ore and waste, crusher feed and ore stockpile rehandling, and waste dump management and rehabilitation. Tayanna advised that, in their experience in the area, ripping was not viable for the saprolites. The main mining fleet proposed by Tayanna is by two Volvo EC750 75 t tracked excavators, twelve Volvo A40 40 t articulated dump trucks, three Atlas Copco ROC D7 drill rigs and one Caterpillar 986H wheeled front end loader (FEL) for crusher feed. A suitable fleet of ancillary equipment to support the mining fleet is included in their submission.

Site establishment will include workshops and tooling; tyre oil and wash bays; light and heavy vehicle parking

Figure 4: Mine site layout



areas; drill and blast requirements; buildings for offices, crib facilities, ablution and training; paving and fencing; and stationery, lighting and IT.

6. Process Plant and Infrastructure (PP&I)

The Ancuabe Graphite Project process plant throughput will range from 0.9 to 1.1 Mtpa, to produce approximately 60,000 tpa graphite concentrate (variation based on grade).

The flowsheet is based on metallurgical testwork undertaken with samples from the T12 and T16 deposits by weathering extent (oxide/transition and fresh). The proposed process plant facilities for the Ancuabe Graphite Project in the DFS comprise:

- Run of mine (ROM) pad
- Tertiary crushing circuit
- Rod mill feed bin and grinding circuit
- Rougher flotation
- Three stages of attritioning and five stages of cleaner flotation
- Concentrate filtration
- Concentrate drying, classification and bagging three products
- Tailings thickening and storage
- Reagents

Figure 5: Process plant flowsheet



Crushing

The mined ore bearing rock will be crushed into a fine material in a tertiary crushing circuit so that the graphite can be removed. Oversize material will be recirculated through the crushers until the required size is reached. The size reduction will be from approximately 600mm to 20mm through the tertiary crushing circuit.



Primary Grinding

The crushed ore is conveyed to the crushed ore bin and fed into the mill feed conveyor. Ore is fed into the rod mill with water, which operates in closed circuit. The screen undersize P_{95} 710-1000 μ m is pumped to the flotation circuit and the screen oversize is recycled back to the rod mill via conveyors.

Rougher flotation

Flotation is the process of bubbling air through the milled sand and water slurry so that the graphite, which is lighter than the sand, can be separated off. This is done by adding reagents to the flotation feed (milled "sand") and mechanically agitating the slurry mixture to produce rougher concentrate (graphite containing product) and rougher tailings (waste). The rougher concentrate is pumped to an attrition mill where the waste attached to the graphite is "knocked off" the edges of the graphite, before being pumped to the Cleaners.

Cleaner flotation

There are five stages of cleaning in the Cleaner circuit where the rougher concentrate is further refined and tailings removed. There are three stages of attritioning on the Rougher, Cleaner 1 and Cleaner 2 concentrates prior to next stage flotation.

Filtration and drying

The final concentrate is then filtered, dried and classified into 3 products before being transferred to a bulk graphite holding bins. The three size fractions include: +300 μ m, -300+180 μ m, and -180 μ m.

The final concentrate, once classified, is then packaged into bags on site and stored temporarily, for transport from site by trucks. Full bags will be handled using a forklift and pallets. Bagged concentrate products will be stored undercover and loaded either onto trucks or into containers for shipment from site to the Port of Pemba. The minimum shipment will be one container and maximum of approximately 250 containers.

Tailings

Tailings are the sand material that is left after the graphite has been separated from it. The tailings will be transferred to a tailings thickener where flocculent is added to the tailings thickener feed. The tailings are then pumped to the lined tailings storage facility (**TSF**) which will comprise two cells for the evaluation period. Prior to the development of the second cell, it is likely that the T16 pit will be backfilled with tailings. The tailings are discharged using sub-aerial deposition from multiple spigots located around the embankment crest, much like an agricultural irrigation and sprinkler system. Seepage is managed with bores located strategically downstream of the TSF to recover and recycle water.

Tailings thickener overflow water will gravitate to the process water pond for recycling. Additional water is recovered from the surface of the TSF via a tailings return water system, which is then also returned to the process water pond for recycling. The intention is to maximise water recovery and reuse throughput the project. Water treatment is required on the TSF decant to manage the mobilisation of salts which will form due to the PAF nature of the tailings.

7. Infrastructure

The project infrastructure includes the following facilities:

- Mine services area
- Fuel storage
- Power station
- Water and air systems
- Water storage facility
- Laboratory
- Buildings: workshop, warehouse, offices, crib and ablution facilities
- Camp



Mine services area

The mine services area will include the following facilities, provided by the Mining Contractor: offices, workshop, warehouse, truck wash. The fuel storage facility will also be located in this area.

Fuel storage

The fuel storage facility will be based on a modular, containerised system, which can be expanded as the project construction progresses. Up to ten (10) 67 kL self-bunded containers will be coupled with piping. The facility will ultimately be located at the mine services area.

Power supply

Power will be initially supplied to the project from a 1 MW photovoltaic (**PV**) and 8 MW diesel power station. A grid connection will be established within the first five years of operation to provide power to the project. The connection to grid power is dependent upon completion of debottlenecking projects upstream of the proposed connection.

Water storage facility

Since the Scoping Study site geotechnical investigations resulted in the requirement to relocate the raw water dam from the Mogido river system to the Muaguide river system. The storage facility will have a capacity of up to 1.6 Mm³. Raw water will be pumped to the process plant facility.

Water and Air systems

The following water systems will be available from the process plant:

- Raw water to the water treatment plant, gland water, process makeup, to the mine services area, Camp and fire system water.
- Treated water potable water to the Camp, safety showers, process plant and mine services area buildings.
- Process water to the process and reagents preparation areas.

Air systems for the process plant support the operation of the instruments, maintenance equipment and flotation cells.

Laboratory

The laboratory supply and operation is key process operations and QA/QC contract for the project. The laboratory will have the capacity to process mine grade control, process plant control and product QA/QC samples. In addition, the metallurgical testwork area will provide process control inputs and support ongoing resource development.

Buildings

The process plant buildings include the following: ablutions, changeroom, meal room, offices including control room, work shop and warehouse. The workshop and warehouse areas will be fenced.

Camp

Consistent with the approach to maximise local community involvement and opportunity, all national personnel will be located with the communities. Only fly in fly out (**FIFO**) personnel, visitors and shutdown visitors will be housed within the Camp. A ramp down period has been allowed within the Camp to ensure that national personnel are provided with support to relocate within the local communities.

The Medical facility will also be located at the Camp, as during construction the Camp will be the locus through which personnel will be directed to the various work sites.



The site Gatehouse and Training facility is located adjacent to the Camp, and the Camp contractor will manage site access and onboarding.



Figure 6: Project site plan

8. Environmental and Social Permitting Requirements

The Ancuabe Graphite Project environmental permitting process is well underway by EOH-CES, with completion of the Environmental Pre-feasibility Scoping Study (EPDA) and Public Participation Process (PPP) stages. The Environmental Social and Health Impact Assessment (ESHIA) is scheduled to be submitted in December 2017.

The ESHIA has been undertaken to the International Finance Corporation (**IFC**) Performance Standards (**PS**). These standards are also environmental and social safeguards applied by the Multilateral Investment Guarantee Agency (**MIGA**). The IFC is a member of the World Bank Group, and one of the largest development institutions that focuses exclusively on the private sector in developing countries (IFC, 2012).

All specialist studies to support the ESHIA are complete, and the Environmental Management Plan and Mine Closure Plans have also been completed.

Minimal physical displacement is expected, as the majority of the site is absent of inhabitants and dwellings. Community consultation processes are in progress for the resettlement plan, with the first process completed in November 2017.

The Community Social Responsibility Strategy has been developed, and key projects are incorporated in the project implementation plans. Thus, one of the over-riding principles of Triton's CSR strategy is that it will help its Project Affected Communities (**PACs**) to help themselves. The key PACs include: Silva Macua, Nankhumi, Natocua, Muaguide, and Nacussa.



This means conducting business ethically and respectfully with transparency towards the environment and communities, ensuring their well-being and safety as the Ancuabe Graphite project is developed and moves into operations.

9. Implementation

The DFS is based on a standard EPCM model, which is currently transitioning to a PMC-EPC model, with early works commencing in first half 2018. These early works include:

- Engineering: Raw water dam and TSF, and roads, as well as FEED, and long lead order placement.
- Site works: establishing the Camp, and progressing construction for the raw water dam prior to next wet season, TSF and bulk earthworks for the MSA and PP&I areas.

In parallel with the FFED engineering phase will be the application for the master construction permit, and associated permits. A preferred consultant has been identified and discussions have commenced. The Direito do Uso e Aproveitamento da Terra (**DUAT**) land tenure process is underway with the Mozambique Government in accordance with legislation.

It is anticipated that site concrete works will commence in Quarter 4 2018, site structural and mechanical works will commence in early 2019, leading quickly into electrical and instrumentation construction for commissioning in Quarter 3 2019.

The following key contracts will be established for the operations phase:

- Camp
- Mining
- Process plant & infrastructure (PP&I)
- Laboratory
- Personnel transport
- Transport and logistics for operational requirements and product shipment

The Camp and Mining contracts will be established during the Construction phase and continue into operations. This approach is anticipated to maximise the time to recruit and train local personnel who will then transfer to operations.

The PP&I contract is proposed to include operational readiness as well as commissioning support to again ensure time to recruit and train local personnel who will then transfer to operations.

A key focus for Triton will be the inclusion of the local communities in the development and operation of the Ancuabe Graphite project. The early involvement of personnel, and the opportunities to transfer to the operations phase, aim to continue the philosophy within Triton that requires community involvement through all project phases.

10. Capital Cost

The capital cost estimate, that has yet to be optimised, was compiled by consulting engineers Lycopodium with input from Knight Piésold on water infrastructure, tailings storage facility and roads and Triton on Project specific elements of mining and owner's costs. The capital cost estimate is expressed in US dollars, prepared with a capital cost accuracy of +/- 15% and is based on prices and market conditions at Quarter 4 2017. Exchange rates for capital cost inputs were based on the National Australia Bank (**NAB**) average forecast forward exchange rates for the 24-month period (September 2017) from 1 July 2017 to 30 June 2019. The estimate excludes escalations and taxes and duties.



Estimate pricing was derived from market pricing solicited specifically for the study (the majority of the pricing), historical database pricing (less than 6 months old), estimated pricing and factored from costs (for plant piping only).

The capital cost estimate, summarised in the table below, comprises, the cost of the processing plant, which includes all infrastructure related to processing the ROM graphite mineralisation and disposing of the tailings, the cost of mine support infrastructure, including explosives, in pit power and pumping, the cost for the mobilisation of the mining contractor an indirect project costs, such as engineering costs, freight and contingency. The capital costs do not make provision for mine closure, associated environmental and social responsibility closure costs.

Area	Total	Proportion
Mining	US\$4.7M	5%
Treatment plant	US\$32.2M	32%
Reagents & plant services	US\$7.2M	7%
Infrastructure	US\$22.1M	22%
Direct costs	US\$66.3M	67%
Construction distributable	US\$9.0M	9%
Management costs	US\$7.4M	7%
Owners costs	US\$7.4M	7%
Contingency	US\$9.3M	9%
Indirect costs	US\$33.1M	33%
Total	US\$99.4M	100%

Table 6: Capital cost estimate summary

Capital costs over the evaluation period associated with grid power connection and tailings storage wall lifts will be approximately US\$8.5 million US\$30.2 million respectively. Sustaining capital expenditure over the evaluation period is US\$9.2 million and represents costs to maintain the capital assets to perform to the project design criteria over the evaluation period.

11. Operating Costs

The Ancuabe Project operating cost has been compiled by Lycopodium, CSA Global and Triton. Costs are prepared to a +/- 15% accuracy and based on the following sources

- Budget quotations received from suppliers.
- Lycopodium's database of prices for consumables.
- Benchmarking within Mozambique and with other similar operations.
- Reagent consumptions based on laboratory testwork results.
- Modelling by Orway Mineral Consultants (**OMC**) for crushing and grinding energy and consumables, using ore characteristics measured during the testwork.
- First principle estimates based on typical operating data.

The cost estimates are presented in US dollars and are primarily based on estimates during the Quarter 4 2017. Exchange rates were based on average forecast forward exchange rates for the 24-month period from 1 July 2017 to 30 June 2019. Operating costs, summarised in the table below, comprise the cost of mining ore and waste, the cost of ore processing, general and administration costs, personnel, camp costs and the cost of



preparing and bagging the ore and haulage to Pemba.

Table 7: Operating cost summary

Area	US\$ M pa ¹	US\$ /product	Proportion
Mining costs	12.6	218	34%
Personnel and G&A	9.0	156	25%
Power and Diesel	7.0	122	19%
Reagents & Consumables	4.7	82	13%
Product Logistics	3.1	54	9%
Total (FCA Pemba)	36.4	632	100%

Notes to Table 7:

1. Represents costs for the project evaluation period.

12. Marketing

Natural Flake Graphite Pricing

Natural graphite and its derivatives are sold on a peer to peer basis between the producer and customer or through an intermediary with no established benchmark or reference price such as S&P Global Platts or the London Metal Exchange (LME). This lack of pricing transparency presents challenges for valuation purposes and Triton draws on the expertise of well-established companies experienced in the price forecasting of novel materials.

For the purposes of project valuation and product pricing Triton Minerals used the resources of Metal Bulletin, a London-based Industrial Minerals market consulting and information company. Pricing from Metal Bulletin indicated geographical variation in pricing dependent on end-markets namely Europe and North America with the most competitive pricing attributed to Chinese domestically produced graphite product, the most intensely competitive graphite supply chain in the world.

Price Drivers: Sizing and Purity

When pricing natural flake graphite it is important to note that pricing is driven by purity and flake size. As different flake sizes lend themselves to different applications pricing differs across all size ranges. The general trend is the larger and coarser the flake size the higher the price as confirmed with independent sources:

Graphite flake size distribution is one of the more debated project factors, however, a number of facts about flake size are known; firstly, the larger the flake (in a given deposit) the higher the purity of the graphite product is likely to be and secondly, the larger the flake size the higher the price (source Metal Bulletin 2017).

Each specific flake size is assigned its own price. In order to determine the value of a specific concentrate each sized fraction is valued on its proportion to calculate the basket price – a useful tool for comparative valuation purposes.

Basket Price Calculation

Triton's price calculations follow the Metal Bulletin position that graphite pricing is a function of flake size and purity. As each graphite deposit and corresponding graphite concentrate is unique, the price achievable for each deposit is unique to that deposit. The uniqueness of each deposit eliminates a singular reference basket price, as in the case of most other mineral commodities, however those deposits such as Ancuabe which exhibit a combination of high purity flake and a coarser size bias will command a premium in the market and preferentially attract price and volume advantages.

Unique pricing for each of the major end-markets of China, Europe and North America is taken into account in the basket price calculation by assuming an even spread across all geographical end-markets. Under an active



marketing plan Triton Minerals will apportion product to the most lucrative markets in terms of application and geographical region, presenting upside to the conservative approach taken in the DFS basket price calculation.

In summary the pricing used in the Ancuabe Project financial analysis is driven by the following assumptions:

- A favourable flake size distribution due to a disproportionally larger flake sizes.
- A price premium associated with higher purity graphite concentrates.
- Value proposition to downstream spheronisers and anode material producers in using a superior feedstock leading to higher spheronising yields.

This basket price calculation serves two purposes, firstly to calculate the overall profitability of the Ancuabe Project and secondly as a benchmarking tool across competing projects.

The key factors of Triton Minerals' basket price calculation manifest in the chart below as follows:

- 1. Basket price forecasts are based on graphite price forecasts provided by Metal Bulletin, 2017.
- 2. Prices are generally higher for larger flake sizes.
- 3. Less price differentiation exists at finer flake sizes.
- 4. Higher graphite demand forecast to drive the basket price until 2027.
- 5. Triton Management assume a long-term basket price of US\$1,435 per tonne.

Figure 7: Ancuabe basket price forecast



The DFS basket pricing assumptions are based on independent forecasts on both demand and supply factors. Should the forecast growth in the targeted end markets exceed the assumptions adopted by Metal Bulletin future realised prices may exceed the forecast.



13. Financial Modelling and Evaluation

The key financial inputs and assumptions used in the financial modelling are summarised in the table below.

Parameter	Assumption
Graphite concentrate basket price (FCA Pemba)	US\$1,435/t
Mining royalty ¹	3%
Corporate income tax ²	32%
Capital allowances ³	Ranging from 20% to 100%
Accumulated losses ⁴	Nil
Foreign exchange ⁵	24 Month Forecasts
Power cost – Diesel	US\$0.20/kWh
Power cost – Grid	US\$0.12/kWh
Power cost – PV	US\$0.17/kWh
Diesel price	US\$0.67/litre

Notes to 8:

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1. A mining royalty is applied based on the value of extracted and processed graphite.

2. The Mozambican corporate tax rate is 32% and tax payments have been modelled based on the Mozambique 'Mining Law 28/2014: Specific Rules on Taxation and Tax Benefits of the Mining Activity' (Law 28/2014).

3. Capital Allowances for exploration investment in the Ancuabe region, pre-production capital costs and other capital investment during the evaluation period have been modelled based on allowances available under Law 28/2014.

4. The Mozambique fiscal regime permits carry forward of accumulated losses. For the purposes of the model, accumulated losses of Grafex Limitada and exploration investment in the Balama region have not been carried forward against taxable Project profits.

5. Exchange rates for cost inputs were based on average forecast forward exchange rates for the 24-month period from 1 July 2017 to 30 June 2019. Capital costs are predominantly denominated in US\$ (approximately 82%) and current spot rates for other basket currencies remain in line with these forecasts and have no impact on capital cost estimates. Operating costs are denominated in US\$.

The financial analysis was undertaken assuming a constant graphite concentrate price over the evaluation period. The Project model operating outcomes are shown below.

Table 9: Financial model physicals summary

Evaluation period ⁸	27 years
Ore Reserve tonnes ⁹	24.9 Mt
Total tonnes processed	26.0 Mt
Total tonnes moved	114.2 Mt
Evaluation period TGC grade	4.9 to 7.0% (average 6.2%)
Annual production	Up to 60,000 tpa graphite concentrate
Product size distribution (range)	
+500 micron	5-15%
-500+300 micron	20-30%
-300+180 micron	17.5-25%
-180+150 micron	5-10%

⁸ See footnote 1.

⁹ See footnote 1.

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-150+75 micron	15-27.5%
-75 micron	10-22.5%

The Project model financial outcomes are shown below.

Table 10: Financial model and evaluation outcomes summary

Evaluation period ¹⁰	27 years
Basket price	US\$1,435/t graphite concentrate FCA Pemba
Average operating cost (excluding royalty) ¹	US\$634/t graphite concentrate FCA Pemba
Project revenue	US\$2,229 M
Project EBITDA	US\$1,178 M
Average Project EBITDA margin	53%
Unleveraged pre-tax free cash flows	US\$1,032 M
Unleveraged pre-tax NPV ²	US\$298 M
Payback period ²	3.8 years from first production

Notes to Table 10:

Excluding mining royalty. 1.

At discount rate of 10%. 2.

Financial sensitivities

Sensitivity analysis was completed on a number of model inputs to identify the impact of movements in key model variables on the Project NPV, IRR and the Project payback period. Changes in the graphite concentrate price is identified as the major financial sensitivity (upside and downside). Movements in Project NPV are shown in Figure 8.



Figure 8: Financial sensitivity analysis



The Project sensitivities to +/- 10% movements in concentrate price, operating costs (including mining royalty) and pre-production capital costs is shown below.

Parameter	Low	High
Base NPV US\$ M	208	208
Market Price (-/+ 10%) US\$ M	151	264
Operating Costs (+/- 10%) US\$ M	180	236
Capital Costs (+/- 10%) US\$ M	196	220

Funding Options

To achieve the range of outcomes indicated in the DFS, funding in the order of US\$99.4 M will likely be required for capital works, owners' costs and contingency. It is anticipated that the finance will be sourced through a combination of equity and debt instruments from existing shareholders, new equity investment and debt providers from Australia and overseas.

The Company has sufficient cash on hand at the date of this announcement to undertake the first stage of early works.

The Triton Board believes that there is a reasonable basis to assume that funding will be available to complete all early works and finance the pre-production activities necessary to commence production on the following basis:

- Triton's Board and executive team have a strong financing track record in developing resources projects,
- The Company has a proven ability to attract new capital,
- The Company is confident that it will continue to increase the Mineral Resource Estimate beyond what is currently the basis of the Study. Additionally, the Study outcome excludes optimisation of capital and operating costs,
- Triton's majority shareholder has been strongly supportive of the Company's strategy since initial investment in September 2016 and continues to support the rapid development of the Ancuabe Graphite Project,
- The proportion of equity funding modelled from the total funding requirement is comparable compared to recent capital raisings for ASX companies at a similar stage of development,
- The Company has 137.4M options which are exercisable between AUD\$0.10c and AUD\$0.11 (to acquire one fully paid ordinary share) in 30 June 2018 (50M options at AUD\$0.10c) and 30 November 2018 (87.4M options at AUD\$0.11) and if exercised would raise AUD\$14.6M in cash. These funds would be applied to early works and construction, and
- The Company is in preliminary discussions with several potential debt and equity providers.

14. Project Schedule

The project development schedule indicates that the Project could be commissioned in Quarter 3 2019 provided that funding and relevant project approvals can be secured by the end of first half 2018. Partial funding would facilitate an earlier commitment to long lead items, commencement of detailed engineering and early works. These works will commence in Quarter 1 2018 with site mobilisation planned for Quarter 2 2018. A summary schedule is shown in the figure below (**Q Quarter**).



Activity	2017 2018			2019						
Ancuabe Graphite project	hite project Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4			Q4	Q1	Q2	Q3	Q4		
Drilling										
Technical investigations										
Definitive feasibility study										
Environmental permitting										
Mining concessions permitting										
DUAT process										
Construction permitting										
Early works engineering										
Early works site construction										
Financial investment decision										
Site construction										
Commissioning										

15. Risk Assessment

Risk Management is an important part of the construction and operating strategy, and is used to avoid losses, anticipate problems, and achieve gains or advantages. In a project setting, sound risk management leads to better design, reduced risk exposure, greater safety, and reductions in schedule delays and budget overruns.

A master project risk register was prepared during the feasibility study and project risks identified during the study were recorded along with mitigation strategies. Key Triton, CSA, EOH-CES, Lycopodium, Knight Piésold and ECG Engineering personnel representing their respective discipline or area of expertise entered their preliminary risks into the discipline risk register.

A facilitated risk workshop was then held, with all key discipline personnel in attendance, where the preliminary register was reviewed, the risks rated, mitigating actions agreed, and action responsibilities assigned. Ratings were assigning as 'High', 'Medium', or 'Low' to both the probability of each event occurring and the consequence of the event. The rating was assessed on the initial perception of risk as it stood at the completion of the DFS, and the likely rating after the mitigating actions have been implemented.

The risk register shall be updated throughout the engineering, procurement and construction phases of the Project to reflect the scope of work being pursued at any particular time and how this scope is likely to impact the various stages of development, to the operational stage. Project risks were categorized across the following discipline areas, geology, mining, metallurgy and process plant, site water, tailings storage facility, power, infrastructure, permitting, environmental and social responsibility, human resources, financial and economic.



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- 4. Triton Minerals Limited Ancuabe graphite resource increase by 87%. ASX announcement, 10 April 2017.
- 5. Triton Minerals Limited Major Mineral Resource upgrade at Ancuabe Graphite Project. ASX announcement, 30 November 2017.
- 6. Triton Minerals Limited Additional Mineral Resource upgrade at Ancuabe Graphite Project. ASX announcement, 14 December 2017.

For further information visit <u>www.tritonminerals.com</u> or please contact:

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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.



Competent Persons' Statements

Mineral Resource Estimates

The information in this announcement that relates to in situ Mineral Resources for Ancuabe T12 and T16 is based on and fairly represents information compiled by Mr. Grant Louw under the direction and supervision of Dr Andrew Scogings, who are both full-time employees of CSA Global Pty Ltd. Dr Scogings takes overall responsibility for the report. Dr Scogings is a Member of both the Australian Institute of Geoscientists (**MAIG**) and Australasian Institute of Mining and Metallurgy (**MAusIMM**) 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.

Metallurgy – Testwork

The information in this document that relates to completion of metallurgical test-work for a DFS level assessment is based on information compiled and reviewed by Mr Peter Adamini. Mr Adamini is a Member of the Australasian Institute of Mining and Metallurgy (**MAusIMM**) and a full-time employee of Independent Metallurgical Operations. Mr Adamini consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

Metallurgy – Process Design

The information in this document that relates to interpretation of metallurgical testwork and process plant design basis for a DFS level assessment is based on information compiled or reviewed by Ms Lisa Park who is a Fellow of the Australasian Institute of Mining and Metallurgy (**FAusIMM**). Ms Lisa Park is a full-time employee of Triton Minerals Limited, and consents to the inclusion in this document of the matters based on her information in the form and context in which it appears.

Ore Reserve

This report on Ore Reserves for the Ancuabe T12 and T16 Deposits is based on information compiled by Mr Daniel Grosso under the direction and supervision of Mr Karl van Olden, who is a full time employee of CSA Global Pty Ltd. Mr van Olden takes overall responsibility for the Ore Reserve estimate. Mr van Olden is a Fellow of Australasian Institute of Mining and Metallurgy (**FAusIMM**), 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). Mr van Olden consents to the inclusion of such information in this announcement in the form and context in which it appears.

Engineering

The information in this document that relates to the process plant and infrastructure design for a DFS level assessment is based on information compiled or reviewed by Mr David Gordon who is a Fellow of the Australasian Institute of Mining and Metallurgy (**FAusIMM**). Mr Gordon consents to the inclusion in this document of the matters based on his information in the form and context in which it appears. Mr Gordon is a full-time employee of Lycopodium and provided the capital and operating cost estimates in the DFS for the process plant and associated infrastructure.



Forward Looking Statements and Disclaimers

This release may include forward-looking statements. These forward-looking statements are not historical facts but rather are based on Triton Minerals Limited's current expectations, estimates and assumptions about the industry in which Triton Minerals Limited operates, and beliefs and assumptions regarding Triton Minerals Limited 's future performance. Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates", "potential" and similar expressions are intended to identify forward-looking statements. Forward-looking statements are only predictions and not guaranteed, and they are subject to known and unknown risks, uncertainties and assumptions, some of which are outside the control of Triton Minerals Limited. Actual values, results or events may be materially different to those expressed or implied in this release. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements. Any forward-looking statements in this release speak only at the date of issue of this release. Subject to any continuing obligations under applicable law and the ASX Listing Rules, Triton Minerals Limited does not undertake any obligation to update or revise any information or any of the forward-looking statements in this release or any changes in events, conditions or circumstances on which any such forward looking statement is based.

Actual values, results, interpretations or events may be materially different to those expressed or implied in this announcement. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements in the announcement as they speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and ASX Listing Rules, Triton Minerals Limited does not undertake any obligation to update or revise any information or any of the forward-looking statements in this announcement or any changes in events, conditions or circumstances on which any such forward-looking statements is based.

This announcement has been prepared by Triton Minerals Limited. This document contains background information about Triton Minerals Limited current at the date of this announcement. The announcement is in summary form and does not purport to be all-inclusive or complete.

Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this announcement.

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Material Assumptions

Material assumptions used in the estimation of the production target and associated financial information are set out in the following table.

Criteria	Commentary						
Study status	The production target and	financial information in thi	s release are based on a				
	Definitive Feasibility Study. The DFS Study referred to in this announcement is						
	based on an AACE Class 3 estimate level technical and economic assessments, to						
	+/- 15% accuracy.						
Mining factors or	Mining will be by conventional open pit methods, and for the DFS 75t excavators						
assumptions	and 40t trucks were proposed for graphite mineralisation and waste movement.						
	5 metre benches were allowed in the mineralized zone in order to minimize all						
	loss and dilution.						
	A 95% graphite mining rec	overy and 10% dilution hav	ve been used. These are				
	considered appropriate aft	er assessing the favorable	geometry of the mineral				
	resource. Pit inventories to	tal 13.8 Mt at 5.3 %TGC RO	M Feed and 45 Mt waste				
	at a strip ratio of 3.3 for the	T12 pit and 10.6 Mt at 7.8	%TGC and 44.7 Mt waste				
	at a strip ratio of 4.2 for the	T16 pit.					
	Based on geotechnical inv	vestigations, maxmimum i	nter-ramp angles of 38				
	degrees in saprolitic rock, a	nd 54 degrees in fresh rock	were utilised.				
	Mining operations were	based on contract minir	ng with allowances for				
	workshops, laydown areas,	washdown bays and fuel su	pply.				
	Mining will commence at T1	6 followed by T12The produ	iction generated from the				
	Indicated portion of the And	uabe Resource makes up a s	subset of the total project				
	considered in the Feasibilit	y Study. The Indicated port	ion of the Resource used				
	in the Ore Reserve version	accounts for 95% of proce	essed ore over the life of				
	mine. The 5% Inferred mate	erial does not materially im	pact the overall financial				
	viability of the Ancuabe Pr	oject. This provides a mine	life of approximately 27				
	years.						
Metallurgical	Flotation recovery has bee	n defined for each deposit	based on the variability				
factors or	testwork results, across	the weathering zones a	nd deposits. Following				
assumptions	metallurgical testwork of e	xisting and new flowsheet a	applications for graphite,				
	the Company has adopted a process flowsheet very similar to that used						
	successfully in a previous graphite mining operation in Africa. Further attritioning						
	optimisation of this flowsheet in order to preserve natural flake sizes has been						
	proven in test work by the Company. The combined use of the proven flowsheet						
	application and the optimised attritioning regime have resulted in flake size						
	retention into concentrate	amongst the best in the indu	ustry.				
	Material	T12	T16				
	Oxide and Transitional	91.6%	91.3%				
	Fresh	90.7%	93.0%				
Further was suited							
Environmental	An Environmental Impact	Assessment has been pr	epared by independent				
	environmental consultants	Coastal Environmental Serv	rices, based out of South				
	Africa. All specialist studies	have been completed.					
Infrastructure	A review of the available	intrastructure was undert	taken in the Study. The				
	infrastructure required to s	support the mine and proce	ess plant includes; Onsite				
	power generation with futu	ire conversion to grid powe	r; raw water supply from				
	a catchment dam; two cell t	ailings facility; buildings incl	uding offices, workshops,				
	warehouse, laboratory, cri	b room and ablutions, an	d small accommodation				
Constal Const	camp.						
Capital Costs	Capital estimates have be	en developed using a cor	mbination of enquiry to				



Criteria	Commentary						
Criteria	 Commentary suppliers, benchmark projective a base date of Q42017 Capital costs were prepared the operation of the mine a The cost of the processing the tailings. The cost of mine suppower and pumping The cost for the mole contractor. Indirect project cost contingency. The initial capital costs do menois the closure. Closure environment Closure social respoortion of the suppower these ongoing TSF model. Mine closure, which costs presented are real costs The Operating Costs have processing and operational Q42017, are presented in L by Triton, Lycopodium, and The cost of processing including the cost of supply. The cost of processing including the cost of supply. 	ects and consultant database 7, are presented in United St d by Lycopodium, CSA Glob nd process plant: essing plant, which includes g the ROM graphite mineral oport infrastructure, including bilisation of the mining contended s, such as engineering costs not make provision for the for pment. tal costs. f development is captured within the essential costs. f development is captured within the essential costs of escant been defined as the costs activities. The costs present Inited States Dollars. Operators CSA Global and comprise: he graphite mineralisation and ng the cost of man power, contended and the graphite mineralisation and the graphite mineralisation and t	ses. The costs presented tates Dollars. al, and Knight Piésold for s all infrastructure lisation and disposing of ng explosives, in pit tractor and process plant freight and bllowing: within the financial evaluation period. The lation. t of all ongoing mining, nted have a base date of ting costs were prepared and waste material from consumables and bulk on to saleable products, onsumables and bulk				
	 supply. The cost of shared services for the support of the operation, including the cost of on- site labour, infrastructure, camp costs and bulk supply. The cost of transporting the graphite concentrate to the point of sale. Social responsibility and environmental costs. 						
	Operating costs have been determined through database costs, quotes and estimations based on similar operations. The costs presented are real costs and are exclusive of escalation.						
Revenue factors	Revenue is a function of characteristics of the expe Perth. Price forecasts have discussion with end users a	graphite prices. The Comp ected final product through been assumed from an exar nd market forecasts.	any has established the n test work programs in nination of other studies,				
	Product Size Fraction	Product Split for Basket Price					
	+500 micron	10%					
	-500+300 micron	25%					



Criteria	Commentary									
	-300+180 micron		23%							
	-180+150 micron		20%							
	-150 micron		23%							
	Basket price		100%							
	The Consensus Forecast is derived from discussions with industry and use							sers		
	analysts and traders related to the latest supply and demand forecasts									
	considering the notential future growth of the battery and expandable products									
	market in the medium term									
	Risks associated with these assumptions are that the product split is not achieved									
	and/or that the price assur	and/or that the price accumptions are not mat by the provailing graphite market								
	The Company has based	n these	assumnt	ions on	nuh	licly	avai	lahle	ma	arkot
	forecasts by expert indust	try analys	ts and h	as takon		ncor	vativ		citio	n on
	both sets of assumptions	try analys		as taken		inser	vativ	e po	51110	
	Exchange Pates used for th	ho Study	ac follow	c ·						
		DE Study o		5.						
	• US\$1.00 - AUD\$1.3	22								
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	• US\$1.00 = £1.27									
	 US\$1.00 = CAD\$1.3 	32								
	Government Royalties of 3	3% were a	pplied.							
Schedul	Drilling and Technical inve	estigation	s were c	omplete	d in C	13 20	17 to	sup	port	the
e and	DFS. Technical environme	ental inve	stigation	is were c	ompl	leted	in Q	4 20	17, v	vith
Timefra	completion of the submis	ssions pro	cess in C	Q1 2018.						
me	The project developme	nt sched	ule indi	cates th	nat t	he F	roje	ct co	buld	be
	constructed by Q3 2019 provided that funding and relevant project approvals									
	can be secured by the ϵ	can be secured by the end of Q1 2018. Partial funding would facilitate an								
	earlier commitment to long lead items. detailed engineering and early works.								itate	an
	earlier commitment to lo	ong lead it	ems, det	ailed en	ginee	ering	and	tacii early	itate wor	an ks.
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Criteria	Commentary
	undertake the first stage of early works.
	The Triton Board believes that there is a reasonable basis to assume that funding
	will be available to complete all early works and finance the pre-production
	activities necessary to commence production on the following basis:
	 Triton's Board and executive team have a strong financing track record
	in developing resources projects;
	 The Company has a proven ability to attract new capital.
	 The Company is confident that it will continue to increase the Mineral
	Resource Estimate beyond what is currently the basis of the Study.
	Additionally, the Study outcome excludes optimisation of capital and
	operating costs;
	• Triton's majority shareholder has been strongly supportive of the
	Company's strategy since initial investment in September 2016 and
	continues to support the rapid development of the Ancuabe Graphite
	Project;
	The proportion of equity funding modelled from the total funding
	requirement is comparable compared to recent capital raisings for ASX
	companies at a similar stage of development
	• The Company has 137.4M options which are exercisable between
	AUD\$0.10c and AUD\$0.11 (to acquire one fully paid ordinary share) in
	30 June 2018 (50M options at AUD\$0.10c) and 30 November 2018
	(87 4M options at AUD\$0.11) and if exercised would raise AUD\$14 6M
	in cash. These funds would be applied to early works and construction
	Further the Company is in preliminary discussions with several potential
	debt and equity providers
Economic	A discount rate of 10% has been used for financial modelling. This number was
	selected as a generic cost of capital and considered a prudent and suitable
	discount rate for project funding and economic forecasts in Africa. The model has
	been run as an evaluation period model and includes sustaining capital, but
	excludes closure costs.
	The DFS outcome was tested for key financial inputs including: Basket Price,
	Capital and Operating Costs. All these inputs were tested for variations of +/-
	10%.
Social	The Company has embarked on several exercises in relation to the local
	communities in the area.
	General acceptance of the project is good. No material risks have been identified
	in this regard.
Other	There are several other material risks to the Ancuabe Graphite Project including
	ricks of all international mining projects
Classification	Classification of the Mineral Resource estimates considered the level of
	geological understanding of the deposit, quality of samples, density data and drill
	hole spacing.
	The Mineral Resource was classified as Indicated and Inferred according to the
	principles contained in the JORC Code 2012 edition.
	Material that has been classified as Indicated was considered by the Competent
	Person to be sufficiently informed by adequately detailed and reliable geological
	and sampling data to assume geological and grade continuity between data
	points.
	Material that has been classified as Inferred was considered by the Competent



Criteria	Commentary							
	Person to be sufficiently informed by geological and sampling data to imply							
	geological and grade continuity between data points.							
	The Competent Person considers that metallurgical testwork to date indicates							
	that flake graphite concentrate quality, and potentially favourable logistics to							
	Pemba Port, support the classification of the T12 and T16 deposits as Industrial							
	Mineral Resources in terms of Clause 49.							
Audit or reviews	The mining component of the DFS was internally reviewed by CSA Global. A							
	capital cost review was undertaken by CPC Engineering. No material issues were							
	identified by the reviewers. All DFS inputs were prepared by Competent Persons							
	identified in this announcement.							



Appendix 1 – JORC Table 1

Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	On November 30, 2017 Triton announced upgraded Mineral Resources for the Ancuabe Graphite Project. The Mineral Resource were estimated by Dr Andrew Scogings and Mr Grant Louw of CSA Global in accordance with JORC 2012 Guidelines. Table 12 and Table 13 show these Mineral Resource estimates. These estimates and their associated block models have been used for the mining engineering work for the Project.
	Table 12. Mineral Resource estimate for Ancuabe Target T12 as at 29 November 2017

Classification	Weathering State	Million Tonnes	TGC %	Contained Graphite ('000s)
Indicated	Oxide	1.1	6.2	70
	Transitional	1.3	6.0	80
	Fresh	11.3	5.8	650
	Indicated Total	13.7	5.8	800
Inferred	Oxide	0.4	4.8	20
	Transitional	0.5	4.8	30
	Fresh	9.7	5.0	480
	Inferred Total	10.6	5.0	530
Total Indicated	and Inferred	24.3	5.5	1,330

Note: The Mineral Resource was estimated within constraining wireframe solids defined above a nominal 3% TGC cut-off. The Mineral Resource is reported from all blocks within these wireframe solids. Differences may occur due to rounding.

Table 13. Mineral Resource estimate for Ancuabe Target T16 as at 29 November 2017

Classification	Weathering State	Million Tonnes	TGC %	Contained Graphite ('000s)
Indicated	Oxide	0.8	8.1	70
	Transitional	0.9	7.8	70
	Fresh	11.8	8.0	940
	Indicated Total	13.5	8.0	1,070
Inferred	Oxide	0.4	8.0	30
	Transitional	0.3	8.2	20
	Fresh	5.9	8.1	480
	Inferred Total	6.6	8.1	530
Total Indicated	and Inferred	20.0	8.0	1,600

Note: The Mineral Resource was estimated within constraining wireframe solids defined above a nominal 4% TGC cut-off. The Mineral Resource is reported from all blocks within these wireframe solids. Differences may occur due to rounding.

The information in this report that relates to in situ Mineral Resources for Ancuabe is based on information compiled Mr Grant Louw, under the direct supervision of Dr Andrew Scogings, who are both full-time employees of CSA Global Pty Ltd. Dr Scogings, takes overall responsibility for the report. 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



Critoria	Commentary
Cintena	oonmentary
	and Ore Reserves' (JORC Code 2012 Edition). Dr Scogings consents to the inclusion of such information in this report in the form and context in which it appears.
	The Ancuabe Mineral Resource estimate is classified based on wireframes reflecting the confidence in the interpreted mineralisation continuity, structural and weathering profile controls, data quality and quantity, and sufficient metallurgical data to provide sufficient confidence for recovery.
	CSA Global objectively considers the Mineral Resource has reasonable prospects for eventual economic extraction.
Site visits	 A site visit was undertaken by CSA Global's Senior Mining Engineer, Daniel Grosso who reported to the Competent Person, Karl van Olden in May 2017. The site visit comprised of an inspection of the T12 and T16 deposits, observing deposit outcrops and
	drill sites; drill core from the drilling program; location of the proposed Water Storage Facility (WSF); location of the proposed Tailings Storage Facility (TSF) comprising of Cells 1 and 2; locations of the proposed ROM pad and Process Plant; location of the proposed permanent camp; the access road route into site; and the transport route from the Port of Pemba to the site. All sites were inspected on foot by Daniel Grosso.
	• The site visit confirmed the status of the project area and location as reported in the various studies and estimates that support this Ore Reserve Statement for the Ancuabe project.
Study status	 Feasibility Study (FS) has been completed by Triton Minerals Ltd for the Ancuabe Project in December 2017.
	 The study proposed an operation processing 805 ktpa of ore to produce less than 60 ktpa of 95% graphite concentrate for 14 years followed by 1,058 ktpa of ore to produce less than 60 ktpa of 95% graphite concentrate for 13 years, for a total mine life of 27 years. The FS addressed key technical and economic parameters relating to the Ancuabe Project to an appropriate level of confidence.
	 The FS found that the project is physically and economically viable with a strong Internal Rate of Return and a Pay-Back of less than four years. This Ore Reserve estimate considers the Indicated only portion of the Ancuabe Project, applying all of the Modifying Factors, parameters and considerations of the FS to produce a mine life of approximately 27 years at the same production rates and with the same product specifications as the FS.
Cut-off	Cut-off grade
parameters	The revenue generated from a graphite operation is primarily driven by the flake size distribution of the product. The flake proportion over a series of size categories determines the basket price of the product. The carbon grade (TGC) is not directly related to flake size.
	Project economics from the total project have been considered at the end of the full project iteration to confirm that the cut-off/quality criteria support economic operations for the Acnuabe graphite project.
wining factors or	Mining Approach
assumptions	Processing rates and stripping ratio have driven mine production. Annual mining rates varying between 4.1 and 4.5 Mt for the first 11 years, then dropping to approximately 2.8 Mt for the final years of T16. A consistent mining rate of 4.5 Mtpa is required for the T12 pit.
	Equipment selection has been provided by the current preferred mining contractor. This includes 75 tonne excavators loading 40 tonne articulated dump trucks and all necessary



Criteria Commentary

ancillary equipment. A front-end loader will be used on the ROM pad. Operations include drill and blast activities for the majority of the material to be mined.

Operational and production inputs

Whittle optimization software has been used to generate a series of economic shells to represent mining outlines within the deposits. Input data including the financial, mining and processing inputs is shown in Table 14.

Whittle In				
Input	Unit	T12 Value	T16 Value	
Financial				
Currency	US\$	US\$	US\$	
Discount Rate	%	10%	10%	
Graphite	Basket Price/t	US\$	US\$	
Graphile	conc	1,427.00	1,427.00	
Total Royalties	%	3%	3%	
Concentrate Grade	%	95%	95%	
Mining				
Dilution	%	10%	10%	
Mining Recovery	%	95%	95%	
	US\$/t	Bench by bench rates		
Mining costs		estimated by preferred		
		mining contractor		
Fuel cost	L/bcm	1.39	1.39	
Fuel rate	US\$/L	0.69	0.69	
Drill and Blast	US\$/bcm	1.10	1.10	
Reference Elevation	mRL	290	170	
Processing				
Production Rate	Mtpa	0.9	1.15	
Process Cost Oxide and	USD/t ore	26.18	29.77	
Transitional				
Processing Cost Fresh	USD/t ore	26.08	28.06	
Processing Recovery	%	91.3%	91.6%	
Oxide and Trans				
Processing Recovery	%	93%	90.7%	
Fresh				

Table 14 Whittle Input Parameters

Mining Dilution and Recovery

Both the T12 and T16 deposits are generally planar, shallow dipping deposit with clearly defined contacts. Mining dilution and recovery is based on typical values for this style of deposit and mining method. Mining recovery of 95% of tonnes has been applied, with a dilution component of 5% (at zero grade).

Minimum mining dimensions

Additional mine design parameters include:

Minimum mining width of 20 m



Criteria Commentary

- Minimum cutback width of 30 m
- Single lane for final 3 benches (15 m vertical)
- Switchback radius of 5 m
- Switchbacks are flat and allow room for dewatering staging tanks and storage
- Final pit designs maintain the ramp in the footwall
 Geotechnical Parameters

Open House Management Solutions (Pty) Ltd (OHMS) have undertaken geotechnical investigations and stability assessment of pit slopes for the Ancuabe Project. Eight geotechnical diamond drill holes were drilled in 2017 in a direction designed to intersect the mineralised zone orthogonally. The OHMS report represents the geotechnical investigation and stability assessment of pit slopes for the Ancuabe Project. The following parameters were recommended and have been utilised in the pit and stage designs (see Figure 9 and Figure 10):

- Overall slope angle maximum 48°
- Inter-ramp angle saprolitic rock maximum 38°
- Inter-ramp angle fresh rock maximum 54°
- Bench face angles in saprolitic material 60°
- Bench face angles in fresh rock 80°
- Catchment berms minimum 6m



Figure 10 T12 Pit design for Ore Reserve Estimate



Commentary



Figure 11 T16 Pit design for Ore Reserve Estimate

Metallurgical factors or assumptions

Criteria

Metallurgy testwork

Drill programs for the Ancuabe project consisted of 84 drill holes which were completed in 2016 and 2017.

Communition testwork was conducted by ALS Metallurgy (ALS). Independent Metallurgical Operations Pty Ltd (IMO) in Perth defined the flotation plant. Fremantle Metallurgy undertook thickening testwork on concentrate, tailings, and also pressure filtration tests on the flotation concentrate obtained from the IMO flotation testwork. Previous testwork was completed within the Scoping Study issues by Battery Limits for Triton Minerals on 21 April 2017.

ALS Laboratories in Perth carried out comminution testwork on samples of diamond core from holes selected by Triton.

Triton, in conjunction with CSA Global, selected drill core intervals from a number of holes to represent the two main weathering states from both the T12 and T16 deposits.

Product Characterisation

Consideration for deleterious elements were completed on a general level suitable for a Probable Reserve. Further consideration on a more specific level will be completed as product specifications are refined.

Based on latest attrition grinding, flotation recleaning strategies (including consideration for potential deleterious elements) the estimated product flake size and grade distribution was estimated. This distribution defines the product basket produced by the Ancuabe Project. This is the product specification that has been used to generate the basket price for revenue calculations in the Ore Reserve estimation.

Process Design

Overall the testwork program demonstrated that the ore is amenable to the production of high grade graphite concentrates, at coarse flake sizes, using relatively simple flotation processes. These processes are an established process of recovery for graphite, used successfully in industry. As a result of the testwork program the basis of the proposed process flowsheet is as follows:


Criteria	Commentary
	• Multi stage crushing with dry screening will be used to prepare the ROM ore feed for milling.
	 A VSD driven rod mill, operating in closed circuit, fed with F80 of 12 mm, was selected for milling. The mill will have a trommel with 10 mm x 10 mm apertures, followed by a vibrating screen to screen at either 710 µm or 1000 µm.
	• A simple flotation lay out will be used, consisting of a conditioning tank, a bank of five rougher cells.
	• No concentrate thickener will be used. Cleaner 5 concentrate will be sent to storage tanks and then fed to a pressure filter, equipped with air blow and squeeze functions to produce the lowest water content practically possible. The cake will be washed with raw water.
	• A rotary drum dryer, with the filter cake in direct contact with hot gas, will be used for product drying. Flash drying or fluid bed drying have not been negated, but the preference was for a drum dryer.
	Rotex screens will be used for the product classification.
	• Lime will be used as bulk pH adjustor if the water becomes more acidic.
	 Tailings to be thickened for water recovery with tailings discharged to a tailings storage facility. The plant has been designed with the following general philosophy:
	The design approach adopted for the process plant is cognisant of the fact that two different ore types (T16 followed T12) will be processed over the life of the mine. The design envelope adopted for this study is sufficient to accommodate the properties of both ore types and caters for minor process fluctuations.
	Capability to process oxide, transitional and fresh ore types
	Use of mineral industry proven methods and equipment
	The plant is designed to operate on a 24-hour basis
	The plant is designed to operate for a 28 year minimum life
Environmental	Triton has prepared and submitted an Environmental and Social Impact Assessment (ESIA) process in Mozambique. The Ministério de terra, Ambiente e Desenvolvimento Rural (MITADER), through the National Directorate of the Environment (DINAB) and Provincial Directorate of Land, Environment and Rural Development (DPTADER) is the authority responsible for reviewing and approving the environmental assessment.
	• An application form was submitted to MITADER on 27 June 2017 and a categorisation letter was issued on 14 July 2017.
	• The Environmental Pre-Feasibility Study (EPDA) was submitted to the authorities on 5 October 2017 and a letter of acceptance for the EPDA was received on the 5 December 2017.
	 The ESIA recommendations have been synthesized into an Environmental Management Programme (EMPr).
	 In addition, Triton has elected to undertake this ESIA to the International Finance Corporation (IFC) Performance Standards (PS). These standards are also environmental and social safeguards applied by the Multilateral Investment Guarantee Agency (MIGA). The IFC is a member of the World Bank Group, and one of the largest development institutions that focuses exclusively on the private sector in developing countries.
	• The appropriate environmental considerations of the project are included in the project planning.



Criteria	Commentary
	• A portion of the waste rock identified within the project has been identified as potentially acid forming. Further rock-mass characterisation is required to determine appropriate disposal techniques to be applied to the project. A sensitivity analysis for increased waste disposal costs has been conducted and the Project remains economically viable if further actions are required to address the increased disposal requirements of potentially acid forming waste rock.
Infrastructure	Infrastructure, Power, Water and Logistics
	The Ancuabe FS addresses the requirements for all site based infrastructure, power, water and logistics to establish, build and operate the project. The planning of these requirements in the FS comprised design, budget estimates from suppliers and detailed cost estimates to a FS level of confidence. The appropriate costs of infrastructure and logistics for the establishment and support of the proposed operation are included in the cost estimates for the project.
Costs	Capital cost estimate
	The capital cost estimate used in the FS has been compiled based on the design, supply, fabrication, construction and commissioning of a new graphite plant in Mozambique and includes mining equipment, supporting infrastructure and indirect costs. The estimate for the process plant facility is based on the process design, process design criteria and equipment list, and process flowsheets.
	Capital estimates have been developed using a combination of enquiry and or quotes from suppliers and EPC contractors, benchmark projects and consultant databases. The capital costs do not make provision for mine closure and environmental costs, and social responsibility costs. The costs are presented as real costs and are exclusive of escalation.
	The capital cost estimates presented in this document are considered to have an overall accuracy of $\pm 15\%$. The estimates were made in the fourth quarter (Q4) of 2017 and are presented in US dollars.
	Operating cost estimate
	The operating costs are defined as the cost of all ongoing mining, processing and operational activities and were developed using a combination of enquiry and or quotes from suppliers, benchmark projects and consultant databases. The operating costs are real, exclusive of escalation and do not make provision for social responsibility costs.
	The operating cost estimate is based on an annual throughput of 0.8 Mtpa for 14 years and 1.05 Mtpa for the remainder of the mine life, operating schedule of 24 hours per day, seven days per week. The operating cost estimate is presented on an annualised basis and there has been no allowance for initial ramp-up periods or contingencies applied. The operating cost estimate has been prepared to an accuracy of $\pm 15\%$.
Revenue factors	Graphite does not trade on a designated metal exchange, nor does it have a benchmark index. Prices are negotiated directly between buyers and sellers.
	Given the graphite industry has historically been dominated by private companies, access to reliable graphite pricing data is difficult to obtain. There are also numerous products across a number of grades and flake sizes and prices differ depending on these characteristics.



Criteria Commentary

The pricing used in the Ancuabe Project financial analysis is driven by the following assumptions:

- A favourable flake size distribution due to a disproportionally larger flake sizes
- A price premium associated with higher purity graphite concentrates
- Value proposition to downstream spheronisers and anode material producers in using a superior feedstock leading to higher spheronising yields

Basket price calculations are used for project assessment, analysis and benchmarking across multiple projects. Below is the Ancuabe basket price calculation including all Basket Price Observations:

- 1. Basket price forecasts are based on graphite price forecasts provided by Metal Bulletin, 2017.
- 2. Prices are generally higher for larger flake sizes.
- 3. Less price differentiation exists at finer flake sizes.
- 4. Higher graphite demand forecast to drive the basket price until 2027.
- 5. From 2030 Triton Management assume long term basket price of US\$1,427 per tonne.



Ancuabe Basket Price Forecast: 2019-2043

Product performance testing

Ancuabe T12 concentrates were submitted to a German laboratory for testing of suitability for use in various markets. It was concluded that:

- High oxidation peaks indicate that the graphite is suitable for use in high temperature applications
- Very low ash levels resulted in both alkaline and acid purification achieving 99.5% Fixed Carbon
- XRD analysis was conducted to measure the d002 value (interlayer spacing) and qualitative identification of the main gangue mineral phases still present. This study indicated a high degree of graphitization for the Ancuabe graphite, calculated to be between 97% and 99%
- Scanning electron microscopy (SEM) studies showed that the flakes are generally very clean with little or no gangue overgrowth visible (Figure 11)
- Expansion rates were comparable with or better than commercially produced expandable graphite for use in foils and flame retardants



Commentary

Criteria



Figure 12 Ancuabe +80 mesh concentrate from composite 6, showing detail of large rounded flakes with clean surfaces (IVD010 91 to 105 m) Page 22 of 35

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T12 MRE Report R406.2017 Final.docx



Figure 13 Ancuabe +50 mesh concentrate converted to expandable graphite and exfoliated to >320 mL/g



Criteria	Commentary
Market	Offtake agreements
assessment	Triton recently announced three non-binding Memoranda of Understanding (MOU); refer to Triton 2017m). The first MOU with Sinoma Overseas Development Company "provides a framework for negotiations for offtake for up to 50% of the graphite concentrate production from the Ancuabe Graphite Project, EPC services for construction of the Ancuabe Graphite Project graphite concentrate plant, debt financing arrangements for construction of the Ancuabe Graphite Project level investment."
	The second was "an offtake MOU with Qingdao Tianshengda Graphite Co., Ltd for up to 15,000 tonnes per annum of graphite concentrate for an initial term of five years, across all flake sizes", from the Ancuabe Graphite Project.
	The third non-binding MOU was "with Haida Graphite in relation to sales agency services in China for product testwork, development and sales, technical collaboration for value adding to the Company's graphite and offtake up to 25% of the Ancuabe Graphite Project graphite concentrate production, over various flake size distributions and purity."
	CSA Global is of the opinion that available process testwork indicates that likely product quality is considered favourable for eventual economic extraction. In addition, the proximity of T12 to the GK Ancuabe Mine (currently back in production) and potentially favourable logistics to Pemba Port support the classification of the T12 deposit as an Industrial Mineral Resource in terms of Clause 49.
	Market
	Triton engaged Metal Bulletin Research (Metal Bulletin), a specialist international publisher and information provider for the global steel, non-ferrous and industrial minerals markets, to prepare an independent report on the graphite market.
	Flake size analysis and market
	Graphite from each flake size category has different markets and applications and these are addressed in the following sections.
	 Commercially, the most common flake graphite sizes, which are measured in US mesh sizes, are: Jumbo flake: +32 mesh, +48 mesh Large flake: +80 mesh Medium flake: +100 mesh Small flake / Fines: -100 mesh Larger mesh sizes are sometimes required for more specialised applications, while flake graphite fines (-100 mesh and smaller) are a by-product of all deposits which have less commercial value.
	Flake graphite is mainly sold in private contracts between the buyer and seller that are negotiated on a regular basis where prices are set.
	Testing of the Ancuabe graphite product indicates that Triton Minerals is well positioned to benefit from the growing graphite demand in the emerging lithium-ion battery sector in vehicle and energy storage applications in addition to traditional applications.
	Natural Flake Graphite Demand

Demand for natural flake graphite is in a state of flux where mature applications are being rapidly displaced by emerging applications attributable to technology developments.



Commentary Criteria

The chart below demonstrates this in that refractories are forecast to remain flat for the long term while battery applications and expandable graphite offer the most growth prospects.



Source: Roskill 2017

Market Segments

The chart below is useful in capturing the key applications from where graphite demand is derived and where future opportunities are for Triton Minerals as a prospective natural flake graphite producer.





Marketing Model

The Triton Minerals business model involves producing 3 product groups based on sized fractions to give coverage across all targeted applications and engaging supply chain participants appropriate to the product type.

For example, lower sized fraction material is ideally suited to the refractory and recarburiser applications and can be sold through direct sales channels. More complex applications such as expandable graphite and lithium-ion batteries require a more specialised approached through channels trusted by end-users and manufacturers. In this example global trading houses present the best channels to market. Several have already shown an



Commentary Criteria interest in Triton Minerals product portfolio and will be supplied greater volume samples in the next pilot plant production run. Graphite Marketing Approach Summary 1. Triton Minerals recognises the growing potential of emerging applications such as expandable graphite and anode materials for lithium-ion batteries. 2. Triton Minerals will adopt an approach where existing large volume applications such as refractories and recarburisers are targeted through calculated production processes while simultaneously allowing for product offtake into high potential emerging markets. 3. Product marketing will be a combination of direct to end-users and through global trading companies with access to the complex supply chains of emerging applications. Industry standards indicate that negotiated pricing is driven by purity and flake size with an 4. emphasis on consistency of quality in supply. Automation dictates that production is consistent therefore there is no scope for product variation 5. to successfully secure and maintain global end-users and manufacturers. **Graphite Sales Progress** Triton Minerals has been extremely active in the graphite market, engaging supply chain participants from those applications outlined in this document such as Lithium-ion battery products, refractories, recarburisers and expandable graphite. Of the parties engaged several have formalised their interest in the form of Memorandums of Understanding as listed below .: Tianshengda Graphite 1. 2. Haida Graphite 3. Sinoma 4. Hensen Graphite Market Suitability Sizing and Purity versus Price 1.1 When pricing natural flake graphite it is important to note that pricing is driven by purity and flake size. As different flake sizes lend themselves to different applications pricing differs across all size ranges. The general trend is the larger and coarser the flake size the higher the price as confirmed with independent sources: 1.2 Graphite flake size distribution is one of the more debated project factors; however a number of facts about flake size are true; firstly, the larger the flake (in a given deposit) the higher the purity of the graphite product is likely to be and secondly, the larger the flake size the higher the price. 1.3 (Metal Bulletin 2017). Each specific flake size is assigned its own price. In order to determine the value of a specific concentrate each sized fraction is valued on its proportion to calculate the basket price - a useful tool for comparative valuation purposes. Below is the price forecast provided by Metal Bulletin where the relationship between flake size and price is clearly visible.



Commentary

Criteria

	Grade					FOB Qingdao					
	Mesh Size	Carbon	H2 2019	2020	2021	2022	2023	2024	2025	2020-2025 average	2025-2030 average
Super Jumbo	Below 48 Mesh	96%	2,091	2,049	2,131	2,088	2,151	2,065	2,106	2,098	2,287
Jumbo Flake	48 Mesh	94-97%	1,789	1,842	1,911	2,001	2,081	2,170	2,235	2,040	2,264
Large flake	48-80 Mesh	94-97%	1,369	1,409	1,370	1,527	1,371	1,649	1,372	1,554	1,373
Medium flake	80-100 Mesh	94-97%	661	684	697	725	743	767	805	737	884
Small Flake	100-200 Mesh	94-97%	698	696	689	687	685	684	695	689	831
Fine Flake	Over 200 Mesh	80-85%	397	383	375	354	345	330	318	351	431

	Grade			CIF Europe							
	Mesh Size	Carbon	2019	2020	2021	2022	2023	2024	2025	2020-2025 average	2025-2030 average
Super Jumbo	Below 48 Mesh	96%	2,244	2,199	2,287	2,241	2,308	2,216	2,260	2,252	2,455
Jumbo Flake	48 Mesh	94-97%	1,954	2,012	2,088	2,186	2,273	2,370	2,441	2,228	2,474
Large flake	48-80 Mesh	94-97%	1,374	1,588	1,375	1,722	1,376	1,858	1,377	1,752	1,378
Medium flake	80-100 Mesh	94-97%	826	855	872	907	929	959	986	918	1,101
Small Flake	100-200 Mesh	94-97%	833	832	825	825	823	823	827	826	995
Fine Flake	Over 200 Mesh	80-85%	556	531	502	469	443	423	409	463	566

	Grade			CIF USA East Coast							
	Mesh Size	Carbon	2019	2020	2021	2022	2023	2024	2025	2020-2025 average	2025-2030 average
Super Jumbo	Below 48 Mesh	96%	2,315	2,269	2,360	2,312	2,382	2,287	2,332	2,324	2,533
Jumbo Flake	48 Mesh	94-97%	2,031	2,092	2,170	2,272	2,363	2,464	2,538	2,316	2,571
Large flake	48-80 Mesh	94-97%	1,379	1,667	1,380	1,807	1,381	1,951	1,382	1,839	1,383
Medium flake	80-100 Mesh	94-97%	903	934	953	991	1,016	1,049	1,077	1,003	1,204
Small Flake	100-200 Mesh	94-97%	873	873	866	868	868	869	874	870	1,047
Fine Flake	Over 200 Mesh	80-85%	642	628	601	588	568	544	532	577	702

Source: Metal Bulletin 2017

Ancuabe Basket Price

Triton's price calculations are based on the assumption that graphite pricing is a function of flake size and purity.

Graphite does not trade on a designated metal exchange, nor does it have a benchmark index. Prices are negotiated directly between buyers and sellers. Given the graphite industry has historically been dominated by private companies, access to reliable graphite pricing data is difficult to obtain. There are also numerous products across a number of grades and flake sizes and prices differ depending on these characteristics.

Pricing applied for the FS was determined from a range of sources. Graphite sector analyst forecasts were the basis of pricing in conjunction with indicative prices sourced from ongoing discussions with potential customers and offtake partners. The price for the flake size categories was then compared to a peer group to determine if they were within a reasonable range.

The weighted average price per tonne of Ancuabe product for the Base Case in the FS is determined to be US\$1,435 per tonne of 95% concentrate on an FCA Pemba basis.

Economic

Financial Model

During the FS, a financial model was built for the purpose of analysing the cashflows that would be generated by the Ancuabe project. The model was used to evaluate the cashflow effects of the mining schedule and process plant design, as well as the relative sensitivities of major cashflow components.

The FS financial model has now been used to evaluate the Ore Reserve component of the project.

The production generated from the Indicated portion of the Ancuabe Resource makes up a subset of the total project considered in the FS. The Indicated portion of the Resource used in the Ore Reserve version accounts for 95% or processed ore over the life of mine. The



Criteria	Commentary
	5% Inferred material does not materially impact the overall financial viability of the Ancuabe Project.
	The payback period, after consideration of tax is less than 4 years and the Internal Rate of Return (IRR) is greater than 20% which meets the company's investment hurdle.
	The project has been tested in a sensitivity analysis where the value has been assessed while changing key parameters such as basket price, mill feed grade, capital cost and operating cost.
Social	The project area is approximately 80 km by road west of Pemba and is located within the Ancuabe District in the Cabo Delgado Province of Mozambique. The nearest main town to the project area is the town of Ancuabe, which is still 20 km away. There are several villages located outside the project boundary, with the nearest being 10km away.
	Four villages are considered to be directly affected:
	 Silva Macua (also known as Sunate); Nankhumi; Natocua; and Muaguide
	These villages occur inside the corridor of impact and will be affected by economic trade and commerce, and related demographic and livelihood changes. They will also be affected directly from the physical activities of the project itself, and some will be economically displaced as a result of the project's land take.
	None of the directly affected settlements are located inside the mine licence area, and there will be no physical resettlement. However, villagers utilise the study area for natural resource harvesting and to a lesser extent cultivating farmlands (referred to locally as machambas). Most of the machambas occur within the most south western point of the haul road (where the haul road joins the main road: R243), although some machambas are located within the proposed dam site. Most of these machambas are cropped with cassava, maize, beans, peas and sesame. Some mango and cashew trees (mostly sapling, non-producing trees) and secondary structures (i.e. not physical living houses) were recorded on the machambas.
	The Public Participation Process (PPP) involves consultation with the wider public, to facilitate the dissemination of information about the project and identify Interested and Affected Parties (I&APs).
	The proponent is required to undertake the PPP throughout the ESIA process. This includes advertising meetings and affording I&APs the opportunity to participate in public meetings and must be conducted in the presence of the authorities. The PPP is undertaken based on any directives given by the relevant authority and the results of the process are summarised in a final public participation report. The process includes at least two series of public consultation meetings with the first one being undertaken for the presentation of the draft EPDA and the second one for the presentation of the draft ESIA.
	Disclosure of the EPDA to the authorities and affected communities was undertaken on the 8th and 10th of August 2017 and disclosure of this draft ESHIA will be undertaken on the 15th and 19th of January 2018.
	The details of the meetings held to date are included in the Public Participation Report.



Criteria	Commentary
Other	 The company is conducting advanced discussions with potential buyers of the product regarding offtake agreements and potential investment in the company.
Classification	• The Ore Reserve estimate considers only Indicated Resources and does not include any quantity of Inferred or unclassified material. Thus, the Ore Reserve estimate comprises only Probable Ore Reserves.
	No Measured Resources have been estimated for the Acnuabe project.
	 The mine plan used in the Ore Reserve estimate includes approximately 5% of Inferred material that is mined during the process of accessing the Indicated ore. This Inferred Resource is not considered material to the value of the project and is not included in the estimation of the Probable Ore Reserves.
Audits or	The Ore Reserve estimate has been subject to internal review within CSA Global. It has not vet
reviews	been subject to independent third-party review.
Discussion of relative accuracy/ confidence	• The estimates in this study relating to mining, processing and cost performance are underpinned by a comprehensive FS which has a confidence range of +/- 15%
	 A key parameter of the estimate is the value of the basket price received for the product. This is based on reliable metallurgical testwork to determine the proportions of each flake size category in the product. The estimated price received for the combined product is based on a credible estimate of the expected price as of the project base date. As with all commodities, the actual price received will depend on market conditions and contractual arrangements at the time of sale. A sensitivity analysis was completed in the financial model for basket price reductions of 20% and the project value remains positive at this point. The estimate is based on a detailed block model of the Resource and a detailed mine design. The
	Ore Reserve is based on a spatially supported and explicit mining schedule.



Appendix 2 – JORC Table 1

Section 1 to 3 - T12

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	 The drill results are from Reverse Circulation Percussion (RCP) and Diamond (DD) core drilling carried out during 2015, from October through December 2016 and from May through August 2017. Diamond drill holes are interspersed within the RC drill grid to provide qualitative information on structure and physical properties of the mineralization. Diamond core (PQ and HQ3) was cut into quarter core onsite using a diamond impregnated blade on a core saw. Quarter core samples were generally 1 metre in length. RC samples were collected on the rig. The sampling method used in 2016 differed to that used in 2017 due to different rig types. In 2016 two 1 m samples from the drill cyclone were collected into plastic bags. One of each set of two 1m samples was passed through a riffler splitter to reduce the sample size to 1 -2kg. In 2017 sampling was again at 1m intervals with the chips being collected via an external (to the drill rig) cyclone into a single plastic bag. The 1m bag chips were then split by means of a riffler splitter to samples sizes 0.5 - 2kg.
	were drilled with a PQ core size collar to approximately 30 m depth and HQ3 (61.1 mm diameter) core size to the end of hole.
Drill sample recovery	 The condition and a qualitative estimate of 2016 RC sample recovery was determined through visual inspection of the 1m sample bags and recorded at the time of sampling. The sampling method used in the 2017 RC drilling resulted in a +-30kg sample which was then split by means of a riffler splitter to 0.5–2 kg sample size. A hard copy and digital copy of the sampling log is maintained for data verification. Generally, drill core recovery was above 95% below the base of oxidation. Core recovery was 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 were checked against the depth given on the core blocks and rod counts were routinely carried out by the drillers and checked by the rig geologists. RC samples were visually checked for recovery, moisture and contamination. Water entrainment into the sample was minimized using additional high-pressure air supply down hole. Wet samples were recorded as these generally have lower sample recovery.
Logging	 All drill holes were logged in full. Geological logging was completed on all holes for the full mineral assemblage that can be identified in hand specimen, in addition to texture, structure and visual estimates of graphite flake content and size.
	 Geotechnical logging was carried out on all diamond drill holes for recovery, RQD and number of defects (per interval). Two of the DD holes (IVD032 and IVD036) were drilled at minus 60° and were orientated and Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material 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 CSA Global's Perth office for compilation and validation. Logging of RCP and DD holes includes recording lithology, mineralogy, mineralisation, weathering, colour and other features of the samples. RCP Chip trays and DD core trays were photographed. Geological descriptions of the mineral volume abundances and assemblages are semi-quantitative.
Sub-sampling	• Diamond core (PQ and HQ3) was cut into quarter core onsite using a diamond impregnated blade on
techniques and	a core saw. Quarter core samples generally 1 metre or less in core length are submitted to the lab
sample preparation	 labelled with a single sample name. Samples are generally defined according to geological unit and graphite content boundaries. Barren samples were sampled 1 to 2m either side of a graphitic horizon while limited barren zones, less than 5m in length were combined into single composite samples. RCP samples in the 2016 drilling programme were collected on the rig via a rig mounted cyclone. The cyclone splitter resulted in two samples collected in plastic bags and typically 2 – 3kg in weight. The
	 samples were not split at the cyclone, but were passed through a single stage riffler splitter to reduce the sample size to about 1kg. The second sample bag from each set of two samples was retained for record purposes. The majority of samples are dry. RCP samples in the 2017 drilling programme were collected as single 1m chip samples via a stand-



alone cyclone. The sample size was about 30kg and this was then reduced through a riffler splitter to
0.5–2 kg. The sampling procedure used in Boreholes IVC045 to 061 was not properly controlled with
resultant spillage during riffler splitting. Check sampling was conducted on these boreholes by means
of re splitting the original 1m samples using a procedure that did not involve spillage and found no
significant bias in the original samples.

- The sample preparation of the diamond core samples involved oven drying (105°C), coarse crushing of the diamond core sample down to 2mm, splitting by rotary cone splitter and pulverizing to a grind size of 85% passing 75 micron. In the 2017 drilling programme the sample crushing step was to 10mm for the early stage and split through a riffler splitter; i.e. IVD055 to IVD071. From IVD071 to IVD105 and GT1 to GT8 the crushing size was reduced to 2mm and split through a rotary cone splitter. The sample preparation for RC samples was identical, without the coarse crush stage. In the 2017 drilling programme the RC samples from IVC045 to 061 were frequently less than one kg in size and in these cases the samples were not split but the whole sample pulverized.
- Field QC procedures involve the use of certified reference material (CRM) analytical standards, along with both certified silicate blanks and blanks comprised of locally-sourced gneiss aggregate.
- CRMs, duplicates and blanks were inserted at a rate of 1 in 20 for both DD and RC sample streams.
- CRM samples GGC01 (24.97% TGC), GGC05 (8.60% TGC), GGC006 (7.68% TGC); GGC009 (2.41% TGC) and GGC010 (4.79% TGC) were obtained from Geostats Pty Ltd.

	 Field duplicates were taken on 1m composites for RC, using a riffle splitter. Field duplicates DD in 2016 comprised duplicate crushed splits (rejects) inserted into numbered sample bags at the analytical laboratory (BV Rustenburg) with one borehole, IVD045, having duplicate quarter core. In the 2017 drilling programme quarter core duplicate samples were inserted as field duplicates. Duplicates for external (umpire) laboratory analyses were, in 2016, selected from laboratory pulps to represent about 5% of the original analytical results. In 2017 external laboratory samples were selected from both pulps and crushed splits/rejects. Sample numbers were chosen by a CSA Global representative but the extraction of the samples from store and delivery to the external laboratory was done by the laboratory concerned. The drill sample sizes are considered to be appropriate to correctly represent mineralisation at the
	VTEM/FLEM targets based on the style of mineralisation, the thickness and consistency of the intersections, the campling methodology and anticipated graphite percent value ranges.
O with a family time	The sections, the sampling methodology and anticipated graphite percent value ranges.
Quality of analytical	Ine analyses were by industry standard methods for total carbon (IC), total graphitic carbon (IGC) by inferend englyses and sulphus anglusis
data and laboratory	The CPM black and duplicate regults are within accentable limits, and indicate that the field and
tests	The CKM, blank and duplicate results are within acceptable limits, and indicate that the field and laboratory cample proparation was under control
	Evidential laboration access on pulp and crushed splits/rejects indicated that the 2016 applyros are
	• External laboratory assays on pulp and crushed spirits/rejects indicated that the 2010 analyses are within accordable limits. The external laboratory results for the 2017 programme indicated that the
	early sample preparation with crushing to 10mm instead of 2mm did increase the degree of assay
	variability but that the results were still within accentable limits. The results for 2017 samples as
	received to date after the change to 2mm crushing are within accentable limits
	The field RC check samples for IVC045 to 061 assay results are deemed to be within accentable limits
	 The OC sample assay results indicate that the field and laboratory sample preparation was under
	control and that analyses for TGC and Sulphur are acceptable.
	• The analyses were imported into geological software and compared with visual graphite estimates and
	logged geology. There was good correlation between logged geology, visually estimated grades and analysed TGC.
	• Visual grade estimates of in situ flake graphite content are not quantitative. The visual estimate ranges are: Low (< 5% flake graphite); Medium (5 to 10% flake graphite) and High (> 10% flake graphite).
Verification of	• Mr Rob Barnett, an Associate of CSA Global, was onsite during the full 2016 drilling programme and
sampling and	inspected and monitored logging, sampling and density measurement procedures as well as
analyses	mentoring the project geologists. In 2017 he visually verified geological observations of some of the
,	reported RC and Diamond drill holes at Targets T12 and T16. He was on site for two weeks at the start
	of the drill programme and later for one week follow-up and provided mentoring to the geologists.
	Geological logging of all drill chips and core was undertaken by trained geological staff on site.
	 Sample information is recorded at the time of sampling in electronic and hard copy.



Location of data	• Collar locations for all holes at T12 and T16 were initially positioned with a hand-held GPS.
points	• The dip and azimuth of most of the holes was measured by the drill company using a Reflex downhole
	survey tool. Holes shorter than about 50 m were not surveyed in 2016 as it was deemed these would
	not deviate materially.
	• The 2016 drill collars were surveyed in February 2017 by a registered surveyor from local company TOPOTEC using differential GPS methods. The 2017 drill collars were surveyed in August 2017 by Topotec.
Data spacing and	• The nominal drill hole spacing at T12 is 50 m on north-south drill lines spaced 50 m apart in the eastern
distribution	part of the deposit (east of line 617,150 m E). The nominal drill hole spacing to the west of line 617,150
	m E is 50 m on north-south lines spaced 100 m apart.
	• Based on the geology at Ancuabe, which is a gneissic terrane, a drill spacing of between 50 m and
	100 m is considered sufficient for classification of Inferred and / or Indicated Mineral Resources in
	Samples have been collected at 1 m lengths of quarter care, with barran care being campled 2m either
	• Samples have been conjected at 1 m lengths of quarter core, with barren core being sampled 2m entrer side of graphite intersections. Parron core was not campled other than the 2m camples either side of
	graphite intersections. Diamond core cample breaks corresponded to geological boundaries wherever
	nossible
Orientation of data	The holes were generally drilled vertically. The interpreted dip of the geological units has been
in relation to	estimated to be 10° to 25° to the north and northwest. The geological units appear to ninch and swell
	and he affected by gentle folding and possibly some faults
geological structure	The drilling inclination was considered to be appropriate for the style of geology including the effects
	of lateral pinching and swelling and localised folding
Sample security	 Chain of custody is managed by Triton. Samples are stored at a secure yard on the project prior to shipping to South Africa for preparation and analysis.
Audits or reviews	• The logging and analytical data was imported into Micromine software and validated for overlapping intervals, depths below final hole depth and for comparison of analyses with visually-logged graphite content and geology.
	 Mr R Barnett, an Associate of CSA Global, visited the assay laboratories in South Africa (BV and Intertek) to audit sample preparation (BV and Intertek) and analytical (BV South Africa only) procedures. The Competent Person (Dr Scogings of CSA Global) has had a working relationship with Intertek Perth (analytical laboratory 2017) and has confidence in that company's assay procedures.
	• The audits and reviews indicated that laboratory procedures were satisfactory and fit for purpose, and that the analyses reported to date were acceptable.



Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	 The Ancuabe T12 and T16 targets are 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. Tenement modifications, which include a rationalisation of the area associated with the tenements and tenement applications, and the Mining Concession application, are now in process with Instituto Nacional de Minas (INAMI). 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	• No previous systematic graphite exploration is known to have been undertaken prior to Triton's interest in the area.
Geology	 The Ancuabe tenements are underlain mainly by rocks of the Proterozoic 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.
Drill hole	The coordinates for the reported holes are tabulated in the accompanying report.
Information	
Data aggregation	• The samples have been aggregated using a length weighted average method.
methods	 No lower cut-off grades were applied, as the limits of graphitic mineralisation are interpreted to be related to lithological boundaries as logged. Future extraction may follow lithological contacts, not assayed cut-offs. Based on previous experience with flake graphite projects, it is considered likely that a lower cut-off grade of 2 to 3% TGC may define the boundary between mineralised and low grade or non-mineralised rocks.
Relationship between mineralisation widths and intercept lengths	 The intercept widths are apparent (down-hole) and do not represent true width. This is because the holes reported are vertical, and the mineralisation is estimated to dip at about 20 degrees to the northwest. However, the reporting of apparent widths is not considered likely to have a material effect on the project, given the thickness and relatively shallow dip of the mineralised layers.
Diagrams	Refer to figures within the main body of this report.
Balanced reporting	 All exploration results for the reported mineralised intervals are tabulated in the accompanying report. Minor graphite intercepts in waste, or low grade rocks between the main mineralised intervals are not tabulated; however they are illustrated in cross sections in the main body of the report.
Other substantive exploration data	 Selected core samples from all DD drill holes were measured for bulk densities. For weathered core the selected core pieces were air dried, cut by diamond saw to a cylindrical shape and measured by digital caliper (diameter and length) to calculate volume. The cut core pieces were then weighed to allow density to be calculated. For fresh core an Archimedes scale was used for density calculation. Regional scale mapping has been carried out in the area to identify outcrop of graphitic material. A helicopter-borne 400m line-spaced versatile time-domain electromagnetic (VTEM) survey that was carried out by Geotech Ltd over the Ancuabe Project in November 2014. The VTEM survey revealed several EM targets, of which T2, T3, T4, T10 and T12 were drilled in 2015 and confirmed to host graphite mineralisation of varying thickness and grade; of these T12 was the most promising target drilled in 2015. Magnetic data were also acquired along with the VTEM survey and the project area was divided into three distinct domains by Resource Potential Pty Ltd, based on the magnetic response patterns. The interpretations below were reported by Resource Potentials: Domains 1 and 3 exhibit strong and highly folded magnetic responses, indicating a metamorphosed probably mixed sediment and volcanic domain, whereas Domain 2 has much lower magnetic amplitudes, suggesting a more sediment rich protolith. Domain 2 is host to the most promising graphite targets, including T12. A ground-based Fixed Loop Electromagnetic survey (FLEM) was completed over T12 during the 2017 drill programme. The FLEM conductor plates were modelled on the EM decay data acquired for each FLEM survey area; this involved creating conductor source bodies as thin and rectangular plates with specific dimensions, orientation, conductance and location in 3D space. The modelled plates were



	divided into several categories based on their modelled conductance, where for >2,000 Siemen (S) are very strong, 1,000 S – 1,999 S are strong and 500 S – 999 S are moderate. The main mineralised part of T12 is characterised by the presence of Very Strong and Strong conductors, which were used to
	underpin the resource modelling process
Further work	 The latest 2017 drill data will be incorporated into the geological model for purposes of reporting updated Mineral Resource estimates for T12 and T16 later in 2017.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	• Data used in the Mineral Resource estimate is sourced from an MS Access database export. Relevant
	tables from the primary Datashed relational geological database, and imported into as csv files into
	Datamine Studio 3 software.
	• Validation of the data imported comprises checks for overlapping intervals, missing survey data,
	missing analytical data, missing lithological data, and missing collars.
Site visits	• A representative (Mr R Barnett) of the Competent Person (CP) visited the project for two days in April
	2016, a week during August 2016, was on site during the 2016 drilling program He was on site for two
	weeks at the start of the 2017 drill programme and later for one week follow-up and provided
	mentoring to the geologists.
	The CP's representative was able to examine the mineralisation occurrence and associated geological
	features. The geological data was deemed fit for use in the Mineral Resource estimate.
Geological	• The geology and mineral distribution of the system appears to be reasonably consistent though
interpretation	affected by folding, with thicker zones of mineralised material in the eastern half of the deposit
	thinning to the west. Any structural influences are not expected to significantly after the volume of
	A factual unit comprising amphibalitic graics has been recognized in the drill leaving. The surface of
	 A footwall unit comprising amphibolitic greiss has been recognised in the unit logging. The surface of this layer has been modelled to provide a basis for understanding the geometry of the overlying.
	granhite mineralisation bosting gneissic units
	 A garnetiferous quartzo-feldsnathic marker layer has been identified within mineralisation zone 2
	especially in the eastern part of the deposit: this has been used to correlate between holes.
	 An amphibolitic unit ranging up to about 30 m apparent thickness was intersected in holes drilled
	between lines 617000E and 617250E and coincides with an area of less well-developed graphite
	mineralisation.
	• Drill hole intercept logging, core photographs, analytical results, the footwall sequence and geological
	mapping have formed the basis for the mineralisation domain interpretation. Assumptions have been
	made on the depth and strike extents of the mineralisation based on the drilling, mapping and FLEM
	conductor plate models. Approximately 30% of the modelled mineralisation zones can be considered
	to be extrapolated.
	• The extents of the modelled zones are constrained by the information obtained from the drill logging,
	field mapping and FLEM conductor plate models. The extents of the modelled mineralised zones are
	constrained to the north east and west by interpreted faults, and to the south and east by topography.
	Alternative interpretations are unlikely to have a significant influence on the global Mineral Resource
	estimate.
	• An overburden layer with an average thickness of 2 m has been modelled based on drill logging and is
	depleted from the model.
	Graphite mineralised gheiss lenses have been interpreted based on a nominal lower IGC cut-off grade
	or 5%, with seven individual mineralisation lenses being modelied.
	community of geology and grade can be identified and traced between unit holes by VISUAI and geochemical characteristics
	 Confidence in the grade and geological continuity is reflected in the Mineral Resource classification
Dimensions	The interpreted mineralization zones (>2% TGC) comprise eight individual longes. Approximately 70%
Dimensions	• The interpreted initiation zones (>3/0 roc) comprise eight individual lenses. Approximately 70%
	of about 2 m up to a maximum of about 15 m in true thickness. The mineralisation roughly strikes
	towards 070°, dipping on average 20° towards 340° – although the lenses appear to be affected by



Criteria	Commentary
	gentle folding.
	 The strike extent is roughly 1,100 m and across strike width is roughly 500 m.
	• The mineralisation outcrops in the south and east and is interpreted up to a maximum depth of
	190 m below surface in the north. The combined thickness of the mineralisation zones is greate
	m to ≈40 m) in the eastern half of the deposit thinning to the west (≈5 m to ≈20 m).
Estimation and	Ordinary Kriging (OK) was the selected interpolation method, with Inverse distance we
modelling	to the power of two (IDS) used as a check estimate.
techniques	 Grade estimation was carried out at the parent cell scale, with sub-blocks assigned pa block grades. Grade estimation was carried out at the parent cell scale, with sub-blocks
-	assigned parent block grades.
	Grade estimation was carried out using hard boundaries between each of the eight
	interpreted mineralisation lens using the mineralisation zone code. A soft boundary wit
	search ellipse orientation. The orientation change was required due to a change in the
	geometry for roughly the eastern one third of these zones due to folding.
	Estimation was not separated by weathering state since the grade population distributi
	 and grades for the different weathering states are very similar. Statistical analysis to check grade population distributions using histograms, probabilit
	and summary statistics and the co-efficient of variation, was completed on each lens for
	estimated element. These checks showed two of the minor mineralisation zones have
	grades requiring top cutting. Subbur is not reported but has been estimated into the model, as subbide minerals have
	the potential to generate acid mine drainage, and affect the metallurgical processes fo
	recovering the graphite. The available metallurgical testing indicates that the sulphide
	minerals do not present any issues in recovering the graphite. Due to the lack of availa
	the sulphur grade estimate for these zones has been completed with soft boundaries in
	oxide and transition weathering zones. The sulphur grade estimate has been complete
	hard boundaries between weathering domain zones. The waste sulphur estimate is
	appears, based on the statistical analysis, to be significantly lower sulphur associated
	waste rocks than mineralisation zones. The sulphur estimate is not considered to be
	sufficiently accurate to allow reporting of the results, rather it is included in the model a
	 A volume block model was constructed in Datamine constrained by the topography
	mineralisation zones, weathering surfaces, overburden surface and model limiting
	wireframes.
	 Analysis of the drill spacing shows that the nominal average drill section spacing is 50 drill holes nominally 50 m apart on each section over a majority of the modelled area
	 Based on the sample spacing, a parent block size of 25 m E by 25 m N by 5 m RL or
	nominally half the average section spacing was selected for the model. Sub-cells down
	2.5 m E by 2.5 m N by 2.5 m RL were used to honour the geometric shapes of the more
	 The search ellipse orientations were defined based on the overall geometry of each
	mineralisation zone, with the seven eastern most zones having a change in ellipse
	orientation for roughly the eastern one third of there plan view extent due to a geometr
	change caused by folding. The search ellipse was doubled for the second search volu and then increased 20-fold for the third search volume to ensure all blocks found suffic
	samples to be estimated. The search ellipse dimensions are designed to ensure that the
	majority of blocks were estimated in the first search volume. The final dimensions were
	selected based on a kriging heighbourhood analysis (KNA), the hear isotropic major at semi-major axis search dimensions are 95 m and 90 m respectively.
	 Based on the results of the KNA, a minimum of 18 and a maximum of 36 samples were
	to estimate each parent block for all zones. These numbers were reduced for the seco
	and third search volumes. A maximum number of 6 samples per drill hole were allowed discretisation, again based on the KNA, was 5 5 by 5 N by 5 7 and no actant based
	searching was utilised.
	Model validation was carried out visually, graphically and statistically to ensure that the
	model grade reasonably represents the drill hole data. Cross sections, long sections a
	pian views were initially examined visually to ensure that the model IGC grades honou local composite drill hole grade trends. These visual checks confirm the model reflects
	trends of grades in the drill holes.
	Statistical comparison of the mean drill hole grades with the block model grade shows
	reasonably similar mean grades. The OK check estimate shows similar grades to the I



Criteria	Commentary
	 and drill grades were then plotted on histograms and probability plots to compare the grade population distributions. This showed reasonably similar distributions with the expected smoothing effect from the estimation taken into account. Swath or trend plots were generated to compare drill hole and block model with TGC% grades compared at 50 m E, 25 m N and 10 m RL intervals. The trend plots generally demonstrate reasonable spatial correlation between the model estimate and drill hole grades after consideration of drill coverage, volume variance effects and expected smoothing. No reconciliation data is available as no mining has taken place.
Moisture	 Tonnages have been estimated on a dry, in situ, basis. No moisture values could be reviewed as these have not been captured.
Cut-off parameters	 Visual analysis of the drill analytical results demonstrated that the lower cut-off interpretation of 3% TGC corresponds to natural break in the grade population distribution. Analysis of the drill core photography compared with the analytical grade results indicate that graphite mineralisation zones become visually recognisable at roughly 3% TGC.
Mining factors or	Based on the results from previous scoping studies it has been assumed that these deposits
assumptions	will be amenable to open cut mining methods and are economic to exploit to the depths
	 It is noted that a leading graphite producer has refurbished the nearby Ancuabe mine and brought it into production during 2017. The geology of the Ancuabe mine is believed to be similar to that at the T12 and T16 deposits. No assumptions regarding minimum mining widths and dilution have been made.
Matallunaiant	No mining has yet taken place at T12.
	 Petrographic studies demonstrated that the Ancuabe 112 mineralisation is generally coarse- grained and consists mainly of guartz, feldspar and graphite, with mica and sometimes
actors or	amphibole, pyroxene, garnet or carbonate gangue minerals.
assumptions	• The gangue minerals e.g. sulphides, mica, quartz and feldspar are generally discrete and not significantly intergrown with graphite, which has important positive implications for graphite liberation characteristics.
	 Triton previously reported flotation testwork by Independent Metallurgical Operations (IMO) based on seven graphite gneiss intersections from five drill holes (Triton, 2016d, 2017j). Seventeen additional drill composites were submitted to IMO for flotation tests during 2017. This testwork confirmed the coarse graphite flakes of high purity could be liberated, with roughly 50% to 85% of the liberated flakes larger than 150 µm, at overall concentrate grades between approximately 95% and 98% Total Carbon (TC) at recoveries of around 90% The metallurgical variability test work demonstrated that the T12 graphite gneiss mineralisation is amenable to the production of high-grade graphite concentrates, at coarse flake sizes and using relatively simple flotation processes.
Environmental	 No assumptions regarding waste and process residue disposal options have been made. It is assumed that such disposal will not process to significant burdle to exploit tion of the
factors or assumptions	deposit and that any disposal and potential environmental impacts would be correctly
Bulk density	managed as required under the regulatory permitting conditions. Density measurements have been taken on drill samples from all different lithological types
Durk densky	 Density measurements have been taken on unit samples from all different intrological types, using water displacement for fresh, non-porous samples and the calliper method for porous samples. The mean density measured and applied to the model for the mineralised samples in the fresh rock zone was 2.69 t/m3, for the transitional zone it was 2.42 t/m3, and for the oxide zone it was 2.15 t/m3. For the waste rock the mean measured density values of 2.02 t/m3 for the overburden material, 2.77 t/m3 for fresh rock, 2.46 t/m3 for transitional material and 2.36 t/m3 for oxide material have been applied.
Classification	Classification of the Mineral Resource estimates was carried out taking into account the level
	 of geological understanding of the deposit, sample quality, density data and drill hole spacing. The Mineral Resource estimate has been classified in accordance with the JORC Code, using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table. Overall the mineralisation trends are reasonably consistent over the drill sections. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	Internal audits were completed by CSA Global, which verified the technical inputs,
	 methodology, parameters and results of the estimate. No external audits have been undertaken.
Discussion of	 The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the
relative accuracy/	Mineral Resource as per the guidelines of the 2012 JORC Code.
confidence	• The Mineral Resource statement relates to global estimates of in situ tonnes and grade.







Appendix 3 – JORC Table 1

Section 1 to 3 - T16

JORC (2012) Table 1. Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	 The drill results are from Reverse Circulation (RC) and Diamond (DD) drilling carried out from October through December 2016 and from May through August 2017. Diamond drill holes are interspersed within the RC drill grid to provide qualitative information on structure and physical properties of the mineralization. Diamond core (PQ and HQ3) was cut into quarter core onsite using a diamond impregnated blade on a core saw. Quarter core samples were generally 1 metre in length. RC samples were collected on the rig. The sampling method used in 2016 differed to that used in 2017 due to different rig types. In 2016 two 1 m samples from the drill cyclone were collected into plastic bags. One of each set of two 1m samples was passed through a riffler splitter to reduce the sample size to 1 -2kg. In 2017 sampling was again at 1m intervals with the chips being collected via an external (to the drill rig) cyclone into a single plastic bag. The 1m bag chips were then split by means of a riffler splitter to samples sizes of 0.5–2 kg
Drilling techniques	• The RC drill rigs used in 2016 and 2017 had a 5.5 inch diameter hammer. The diamond drill holes were drilled with a PQ core size collar to approximately 30 m depth and HQ3 (61.1 mm diameter) core size to the end of hole.
Drill sample recovery	 The condition and a qualitative estimate of 2016 RC sample recovery was determined through visual inspection of the 1m sample bags and recorded at the time of sampling. The sampling method used in the 2017 RC drilling resulted in a +-30kg sample which was then split by means of a riffler splitter to between 0.5 and 2kg sample size. A hard copy and digital copy of the sampling log is maintained for data verification. Generally, drill core recovery was above 95% below the base of oxidation. Core recovery was 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 were checked against the depth given on the core blocks and rod counts were routinely carried out by the drillers and checked by the rig geologists. RC samples were visually checked for recovery, moisture and contamination. Water entrainment into the sample was minimized using additional high-pressure air supply down hole. Wet samples were recorded as these generally have lower sample recovery.
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 drill holes for recovery, rock quality designation (RQD) and number of defects (per interval). The mineralogy, textures and structures were recorded by the geologist into a digital data file at the drill site, which were regularly submitted to CSA Global's Perth office for compilation and validation. Logging of RC and Diamond drill holes includes recording lithology, mineralogy, mineralisation, weathering, colour and other features of the samples. RC Chip trays and DD core trays were photographed. Geological descriptions of the mineral volume abundances and assemblages are semi-quantitative. All drill holes were 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. Quarter core samples generally 1 m or less in core length are submitted to the lab labelled with a single sample name. Samples are generally defined according to geological unit and graphite content boundaries. Barren samples were sampled 1–2 m either side of a graphitic horizon while limited barren zones, less than 5 m in length were combined into single composite samples. RC samples in the 2016 drilling programme were collected on the rig via a rig mounted cyclone. The cyclone splitter resulted in two samples collected in plastic bags and typically 2 – 3kg in weight. The samples were not split at the cyclone, but were passed through a single stage riffler splitter to reduce



the second se	
Criteria	Commentary
	 the sample size to about 1kg. The second sample bag from each set of two samples was retained for record purposes. The majority of samples are dry. RC samples in the 2017 drilling programme were collected as single 1m chip samples via a standalone cyclone. The sampling procedure used in Boreholes IVC045 to 061 was not properly controlled with resultant spillage during riffler splitting. Check sampling was conducted on these boreholes by means of re splitting the original 1m samples using a procedure that did not involve spillage. The sample preparation of the diamond core samples involved oven drying (105°C), coarse crushing of the diamond core sample down to 2mm, splitting by rotary cone splitter and pulverizing to a grind size of 85% passing 75 micron. In the 2017 drilling programme the sample crushing step was to 10mm for the early stage and split through a riffler splitter; i.e. IVD055 to IVD071. From IVD071 to IVD105 and GT1 to GT8 the crushing size was reduced to 2mm and split through a rotary cone splitter. The sample preparation for RC samples was identical, without the coarse crush stage. In the 2017 drilling programme the RC samples from IVC045 to 061 were frequently less than one kg in size and in these cases the samples involve the use of certified reference material assay standards, along with both certified silicate blanks and blanks comprised of locally-sourced gneiss aggregate. Certified Reference Materials (CRMs, or standards), duplicates and blanks were inserted at a rate of 1 in 20 for both D and RC sample streams. CRMs GGC01 (24.97% TGC), GGC05 (8.60% TGC), GGC006 (7.68% TGC); GGC009 (2.41% TGC) and GGC010 (4.79% TGC) were obtained from Geostats Pty Ltd. Field duplicates were taken on 1m composites for RC, using a riffle splitter. Field duplicates DD in 2016 comprised duplicate crushed splits (rejects) inserted into numbered sample bags at the analytical laboratory (BV Rustenburg) with one borehole, IVD045, having duplicate quarter core.
	VTEM/FLEM targets based on the style of mineralisation, the thickness and consistency of the
Quality of analytical	The analyses were by inductry standard methods for total sarbon (TC) total graphitic sarbon (TCC) by
data and laboratory	• The analyses were by industry standard methods for total carbon (TC), total graphitic carbon (TGC) by infrared analyser and sulphur analysis.
tests	 The CRM, blank and duplicate results are within acceptable limits. and indicate that the field and laboratory sample preparation was under control. External laboratory assays on pulp and srushed splits/rejects indicated that the 2016 analyses are
	 Execution above the yasays on pup and clusted spins/rejects indicated that the 2010 analyses are within acceptable limits. The external laboratory results for the 2017 programme indicated that the early sample preparation with crushing to 10mm instead of 2mm did increase the degree of assay variability but that the results were still within acceptable limits. The results for 2017 samples, as received to date, after the change to 2mm crushing are within acceptable limits. The field RC check samples for IVC045 to 061 assay results are deemed to be within acceptable limits. The QC sample assay results indicate that the field and laboratory sample preparation was under control and that analyses for TGC and Sulphur are acceptable.
	 The analyses were imported into geological software and compared with visual graphite estimates and logged geology. There was good correlation between logged geology, visually estimated grades and analysed TGC. Visual grade estimates of in situ flake graphite content are not quantitative. The visual estimate ranges are: Low (< 5% flake graphite): Medium (5 to 10% flake graphite) and High (> 10% flake graphite)
Verification of sampling and analyses	 Mr Rob Barnett, an Associate of CSA Global, was onsite during the full 2016 drilling programme and inspected and monitored logging, sampling and density measurement procedures as well as mentoring the project geologists. In 2017 he visually verified geological observations of some of the reported RC and Diamond drill holes at Targets T12 and T16. He was on site for two weeks at the start



Criteria	Commentary
	 of the drill programme and later for one week follow-up and provided mentoring to the geologists. The geological logging of all drill chips and core was undertaken by trained geological staff on site. Sample information is recorded at the time of sampling in electronic and hard copy.
Location of data points	 Collar locations for all holes at T12 and T16 were initially positioned with a hand-held GPS. The dip and azimuth of most of the holes was measured by the drill company using a Reflex downhole survey tool. Holes shorter than about 50 m were not surveyed in 2016 as it was deemed these would not deviate materially. The 2016 drill collars were surveyed in February 2017 by a registered surveyor from local company TOPOTEC using differential GPS methods. The 2017 drill collars were surveyed in August 2017 by Topotec.
Data spacing and distribution	 The nominal drill hole spacing at T16 is 50m on drill lines spaced 50 m apart. Based on the geology at Ancuabe, which is a gneissic terrane, a drill spacing of between 50 m and 100m is considered sufficient for classification of Inferred and / or Indicated Mineral Resources in terms of geological confidence. Samples have been collected at 1 metre for RC samples. Most diamond core samples are taken as approximately 1m lengths of quarter core, with barren core being sampled 2 m either side of graphite intersections. Barren core was not sampled other than the 2 m samples either side of graphite intersections. Diamond core sample breaks corresponded to geological boundaries wherever possible.
Orientation of data in relation to geological structure	 The holes were generally drilled vertically. The interpreted dip of the geological units has been estimated to be 10° to 25° to the northwest. The geological units appear to pinch and swell and be affected by gentle folding and possibly some faults. The drilling inclination was considered to be appropriate for the style of geology, including the effects of lateral pinching and swelling and localised folding
Sample security	• Chain of custody is managed by Triton. Samples are stored at a secure yard on the project prior to shipping to South Africa for preparation and analysis.
Audits or reviews	 The logging and assay data was imported into Micromine software and validated for overlapping intervals, depths below final hole depth and for comparison of analyses with visually-logged graphite content and geology. Mr R Barnett, an Associate of CSA Global, visited the assay laboratories in South Africa (BV and Intertek) to audit sample preparation (BV and Intertek) and analytical (BV South Africa only) procedures. The Competent Person (Dr Scogings of CSA) has had a working relationship with Intertek Perth (assay laboratory 2017) and has confidence in that company's assay procedures. The audits and reviews indicated that laboratory procedures were satisfactory and fit for purpose, and that the analyses reported to date were acceptable.

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	 The Ancuabe T12 and T16 targets are 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. Tenement modifications, which include a rationalisation of the area associated with the tenements and tenement applications, and the Mining Concession application, are now in process with Instituto Nacional de Minas (INAMI). 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	• No previous systematic graphite exploration is known to have been undertaken prior to Triton's interest in the area.
Geology	• The Ancuabe tenements are underlain mainly by rocks of the Proterozoic 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.



Criteria	Commentary
	 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.
Drill hole Information	• The coordinates for the reported holes are tabulated in the accompanying report.
Data aggregation methods	 The samples have been aggregated using a length weighted average method. No lower cut-off grades were applied, as the limits of graphitic mineralisation are interpreted to be related to lithological boundaries as logged. Future extraction may follow lithological contacts, not assayed cut-offs. Based on previous experience with flake graphite projects, it is considered likely that a lower cut-off grade of 2 to 3% TGC may define the boundary between mineralised and low grade or non-mineralised rocks.
Relationship between mineralisation widths and intercept lengths	• The intercept widths are apparent (down-hole) and do not represent true width. This is because the holes reported are vertical, and the mineralisation is estimated to dip at about 20 degrees to the NW. However, the reporting of apparent widths is not considered likely to have a material effect on the project, given the thickness and relatively shallow dip of the mineralised layers.
Diagrams	Refer to figures within the main body of this report.
Balanced reporting	 All exploration results for the reported mineralised intervals are tabulated in the accompanying report. Minor graphite intercepts in waste, or low grade rocks between the main mineralised intervals are not tabulated; however they are illustrated in cross sections in the main body of the report.
Other substantive exploration data	 Selected core samples from all DD drillholes were measured for bulk densities. For weathered core the selected core pieces were air dried, cut by diamond saw to a cylindrical shape and measured by digital caliper (diameter and length) to calculate volume. The cut core pieces were then weighed to allow density to be calculated. For fresh core an Archimedes scale was used for density calculation. Regional scale mapping has been carried out in the area to identify outcrop of graphitic material. A helicopter-borne 400m line-spaced versatile time-domain electromagnetic (VTEM) survey that was carried out by Geotech Ltd over the Ancuabe Project in November 2014. The VTEM survey revealed a number of EM targets, of which T2, T3, T4, T10 and T12 were drilled in 2015 and confirmed to host graphite mineralisation of varying thickness and grade; of these T12 was the most promising target drilled in 2015. Magnetic data were also acquired along with the VTEM survey and the project area was divided into three distinct domains by Resource Potential Pty Ltd, based on the magnetic response patterns. The interpretations below were reported by Resource Potentials: Domains 1 and 3 exhibit strong and highly folded magnetic responses, indicating a metamorphosed probably mixed sediment and volcanic domain, whereas Domain 2 has much lower magnetic amplitudes, suggesting a more sediment rich protolith. Domain 2 is host to the most promising graphite targets, including T12.
Further work	• The latest 2017 drill data will be incorporated into the geological model for purposes of reporting updated Mineral Resource estimates for T12 and T16 later in 2017.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	 Data used in the Mineral Resource estimate is sourced from an MS Access database export from the primary Datashed database, which is a fully relational geological database. Relevant tables from the MS Access database are exported to MS Excel format and converted to csv format for import into Datamine Studio 3 software. Validation of the data imported comprises checks for overlapping intervals, missing survey data, missing analytical data, missing lithological data, and missing collars.
Site visits	 A representative (Mr R Barnett) of the Competent Person (CP) visited the project for two days in April 2016, a week during August 2016, was on site during the 2016 drilling program He was on site for two weeks at the start of the 2017 drill programme and later for one week follow-up and provided mentoring to the geologists. The CP's representative was able to examine the mineralisation occurrence and associated geological features. The geological data was deemed fit for use in the Mineral Resource estimate.



Criteria	Commentary
Geological interpretation	 The geology and mineral distribution of the system appears to be reasonably consistent though affected by folding. Any structural influences are not expected to significantly alter the volume of mineralised material interpreted. A footwall unit consisting of amphibolite-bearing gneiss has been recognised in the drill logging. Pink feldspar-bearing pegmatitic sheets are noted in the lower parts of the graphitic package and in the upper parts of the footwall rocks in places. Drill hole intercept logging, core photographs, assay results, the hanging and footwall sequence and reconnaissance geological mapping have formed the basis for the mineralisation domain interpretation. Assumptions have been made on the depth and strike extents of the mineralisation based on drilling and mapping information. Approximately 20% of the modelled mineralisation zones can be considered to be extrapolated The extents of the modelled zones are constrained by the information obtained from the drill logging field mapping and FLEM conductor plate models. The extents of the modelled mineralised to the east by topography. Alternative interpretations are unlikely to have a significant influence on the global Mineral Resource estimate. An overburden layer with an average thickness of 2 m has been modelled based on drill logging and is depleted from the model. Graphite mineralised gneiss lenses have been interpreted based on a nominal lower TGC cutoff grade of 4%, with 4 individual mineralisation lenses being modelled. Continuity of geology and grade can be identified and traced between drill holes by visual and geochemical characteristics. The effect of any potential structural or other influences have not yet been modelled as more data is required. Confidence in the grade and geological continuity interpretation.
Dimensions	 The interpreted mineralisation zones (>4% TGC) consist of 4 individual lenses that range in thickness up to about 30 m. In the centre and north of the T16 deposit the upper zone (mineralisation zone 1) is interpreted to be laterally more extensive northwards than the lower zone (mineralisation zone 2), while in the south of the deposit the upper zone (mineralisation zone 3) is interpreted to be about double the thickness of the lower zone (mineralisation zone 4) The mineralisation roughly strikes towards 065°, dipping on average 25° towards 325° although probably affected by folding. The plan view strike extent of the two northern mineralisation zones is roughly 800 m and across strike width is roughly 450 m. The plan view strike extent of the two southern mineralisation zones is roughly 200 m. The mineralisation outcrops in the south and east. The combined thickness of the mineralisation zones is greatest in the eastern half (~25 m to 40 m) of the deposit, thinning to the south west (~20 m).



Estimation and	٠	Ordinary Kriging (OK) was the selected interpolation method, with Inverse distance weighting to the power of two (IDS) used as a check estimate
techniques	•	Grade estimation was carried out at the parent cell scale, with sub-blocks assigned parent
-	•	Grade estimation was carried out using hard boundaries between each of the 4 interpreted
		mineralisation zones. The two northern mineralisation zones have a change in their broad geometry at roughly 621025 m E, and a soft boundary estimate within each of these zones, accommodating a change in search ellipse orientation, was completed east and west of this easting line.
	•	Estimation was not separated by weathering state since the grade population distributions and grades for the different weathering states are very similar.
	•	Statistical analysis to check grade population distributions using histograms, probability plots and summary statistics and the co-efficient of variation (CoV), was completed on each lens for the estimated element. The checks showed low CoV and that there were no significant outlier grades in the interpreted cut-off grade lenses requiring grade top cutting.
	•	Suprior is not reported but has been estimated into the model, as supride minerals have the potential to generate acid mine drainage, and affect the metallurgical processes for recovering the graphite. The available metallurgical testing indicates that the sulphide minerals do not present any issues in recovering the graphite. Due to the lack of available analytical results for samples in the oxide and transition zones for some lenses the sulphur grade estimate for these lenses has been completed with soft boundaries in the oxide and transition weathering zones. The grade estimate has been completed with hard boundaries between weathering domains and for all fresh mineralisation zones. The waste sulphur estimate is estimated with a hard boundary between it and the interpreted mineralisation zones as there appears, based on the statistical analysis, to be significantly lower sulphur associated with waste rocks than mineralisation zones. The sulphur estimate is not considered to be sufficiently accurate to allow reporting of the results, rather it is included in the model for indicative purposes only and
		is primarily of use in the fresh zones.
	•	A volume block model was constructed in Datamine constrained by the topography, mineralisation zones, weathering surfaces, overburden surface and model limiting wireframes.
	•	Analysis of the drill spacing shows that the nominal average drill section spacing is 50 m with drill holes nominally 50 m apart on each section over a majority of the modelled area. The greatest drill density is in the central eastern more shallow part of the deposit.
	•	Based on the sample spacing, a parent block size of 25 m E by 25 m N by 5 m RL or nominally half the average section spacing was selected for the model. Sub-cells down to 2.5 m E by 2.5 m N by 2.5 m RL were used to honour the geometric shapes of the modelled mineralisation.
	•	The search ellipse orientations were defined based on the overall geometry of each mineralisation zone. A change in orientation of the search ellipse east and west of 621025 easting for two northern zones was required due to the change in geometry of these mineralisation zones. The search ellipse was doubled for the second search volume and then increased 20-fold for the third search volume to ensure all blocks found sufficient samples to be estimated. The search ellipse dimensions are designed to ensure that most blocks were estimated in the first search volume. The final dimensions were selected based on a kriging neighbourhood analysis (KNA), with the isotropic major and semi-major axis search dimension of 95 m being nominally 80% of the variogram ranges.
	•	Based on the results of the KNA, a minimum of 15 and a maximum of 25 samples were used to estimate each parent block for the all zones. These numbers were reduced for the second and third search volumes. A maximum number of 5 samples per drill hole were allowed. Cell discretisation, again based on the KNA, was 5 E by 5 N by 4 Z and no octant based searching was utilised.
	•	Model validation was carried out visually, graphically and statistically to ensure that the block model grade trends reasonably represent the drill hole sample trends. Cross sections, long sections and plan views were initially examined visually to ensure that the model TGC grades honour the local composite drill hole grade trends. These visual checks confirm the model reflects the trends of grades in the drill holes.
	•	Statistical comparison of the mean drill hole grades with the block model grade shows reasonably similar mean grades. The OK check estimate shows similar grades to the IDS model, adding confidence that the grade estimate has performed well. The model grades and drill grades were then plotted on histograms and probability plots to compare the grade population distributions. This showed reasonably similar distributions with the expected smoothing effect from the estimation taken into account.
	•	Swath or trend plots were generated to compare drill hole and block model with TGC% grades compared at 50 m E, 50 m N and 10 m RL intervals. The trend plots generally demonstrate reasonable spatial correlation between the model estimate and drill hole grades after consideration of drill coverage, volume variance effects and expected smoothing.
	•	INO RECONCILIATION DATA IS AVAILABLE AS NO MINING HAS TAKEN DIACE.



Criteria	Commentary
Moisture	 Tonnages have been estimated on a dry, <i>in situ</i>, basis. No moisture values could be reviewed as these have not been captured.
Cut-off parameters	 Visual analysis of the drill analytical results demonstrated that the nominal lower cut-off interpretation grade of 4% TGC corresponds to natural break in the grade population distribution. In most cases the nominal lower cut for interpretation is not required as mineralisation zone boundaries are naturally defined by a distinct grade differential between low TGC grade waste and TCC grade bigher than the 4% compared suit.
Mining factors or assumptions	 Based on the results from previous scoping studies it has been assumed that these deposits will be amenable to open cut mining methods and are economic to exploit to the depths currently modelled using the cut-off grade applied. It is noted that a leading graphite producer has refurbished the nearby Ancuabe mine and brought it into production during 2017. The geology of the Ancuabe mine is believed to be similar to that at the T12 and T16 deposits. No assumptions regarding minimum mining widths and dilution have been made.
<i>Metallurgical factors or assumptions</i>	 No mining has yet taken place at 116. Petrographic studies demonstrated that the Ancuabe T16 mineralisation is generally coarse- grained and consists mainly of quartz, feldspar and graphite, with mica and sometimes amphibole, pyroxene, garnet or carbonate gangue minerals. The gangue minerals e.g. sulphides, mica, quartz and feldspar are generally discrete and not significantly intergrown with graphite, which has important positive implications for graphite liberation characteristics. Triton previously reported flotation testwork by Independent Metallurgical Operations (IMO) based on four graphite gneiss intersections from two drill holes. Seventeen additional drill composites were submitted to IMO for flotation tests during 2017 (see main body of report for sample details). This testwork confirmed the coarse graphite flakes of high purity could be liberated, with roughly 60% to 75% of the liberated flakes larger than 150 µm, at overall concentrate grades between approximately 96% and 98% Total Carbon (TC) at recoveries of around 90%. The metallurgical variability test work demonstrated that the T16 graphite gneiss mineralisation
Environmental	 is amenable to the production of high-grade graphite concentrates, at coarse flake sizes and using relatively simple flotation processes. No assumptions regarding waste and process residue disposal options have been made. It is
factors or assumptions	assumed that such disposal will not present a significant hurdle to exploitation of the deposit and that any disposal and potential environmental impacts would be correctly managed as required under the regulatory permitting conditions.
Bulk density	 Density measurements have been taken on drill samples from all different lithological types, using water displacement for fresh, non-porous samples and the calliper method for porous samples. The mean density measured and applied to the model for the mineralised samples in the fresh rock zone was 2.64 t/m³, for the transitional zone it was 2.44 t/m³, and for the oxide zone it was 2.15 t/m³. For the waste rock the mean measured density values of 2.05 t/m³ for the overburden material, 2.74 t/m³ for fresh rock, 2.65 t/m³ for transitional material and 2.37 t/m³ for oxide material have been applied.
Classification	 Classification of the Mineral Resource estimates was carried out taking into account the level of geological understanding of the deposit, quality of samples, density data and drill hole spacing. The Mineral Resource estimate has been classified in accordance with the JORC Code, using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table. The Mineral Resource estimate has been classified only from within tenement 5336. Overall the mineralisation trends are reasonably consistent over the drill sections. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	 Internal audits were completed by CSA Global, which verified the technical inputs, methodology, parameters and results of the estimate. No external audits have been undertaken.
Discussion of relative accuracy/ confidence	 The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the JORC Code. The Mineral Resource statement relates to global estimates of <i>in situ</i> tonnes and grade.



MEMORANDUM

То:	Peter Canterbury
10.	i eter cunterbury

Cc: Lisa Park

Date: 15th December 2017

From: Karl van Olden (FAusIMM)

CSA Global Report №: R456.2017

Re: Ancuabe Graphite Project – Ore Reserve Estimate -Summary Technical Report - DRAFT CSA Global Pty Ltd Level 2, 3 Ord Street West Perth, WA 6005 AUSTRALIA

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ORE RESERVES

Triton Minerals Ltd ("Triton") is developing the Ancuabe Graphite Project ("Project"), located approximately 25 km west of Pemba in northern Mozambique. The Project is concentrated on developing two graphite mineral deposits T12 and T16.

Triton has completed a Feasibility Study (termed Definitive Feasibility Study (DFS) in Triton documents) for the Ancuabe Graphite Project to produce approximately 60 ktpa of graphite concentrates. The DFS has been used as the basis from which to estimate Ore Reserves for the project. The Ore Reserve for the Ancuabe T12 and T16 Deposits comprises 24.9 Mt @ 6.2% TGC, for 1.5 Mt of contained graphite, reported in accordance with the JORC Code 2012¹.

The Ore Reserve estimate for the Ancuabe Graphite Project is summarised in Table 1.

Reserve Category	Tonnes (Mt)	Grade (TGC%)	Contained Graphite (Kt)	
Proved	-	-	-	
Probable	24.9	6.2%	1,544	
Ore Reserves total	24.9	6.2%	1,544	

Table 1 Ancuabe Graphite Project – Ore Reserve estimate

¹ Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).





MINERAL RESOURCES

On November 30, 2017 Triton announced upgraded Mineral Resources for the Ancuabe Graphite Project. The Mineral Resource were estimated by Dr Andrew Scogings and Mr Grant Louw of CSA Global in accordance with JORC 2012 Guidelines. Table 2 and Table 3 show these Mineral Resource estimates. These estimates and their associated block models have been used for the mining engineering work for the Project.

Classification	Weathering State	Million Tonnes	TGC %	Contained Graphite ('000s)
Indicated	Oxide	1.1	6.2	70
	Transitional	1.3	6.0	80
	Fresh	11.3	5.8	650
	Indicated Total	13.7	5.8	800
Inferred	Oxide	0.4	4.8	20
	Transitional	0.5	4.8	30
	Fresh	9.7	5.0	480
	Inferred Total	10.6	5.0	530
Total Indicated a	nd Inferred	24.3	5.5	1,330

Table 2. Mineral Resource estimate for Ancuabe Target T12 as at 29 November 2017

Note: The Mineral Resource was estimated within constraining wireframe solids defined above a nominal 3% TGC cut-off. The Mineral Resource is reported from all blocks within these wireframe solids. Differences may occur due to rounding.

Classification	Weathering State	Million Tonnes	TGC %	Contained Graphite ('000s)
Indicated	Oxide	0.8	8.1	70
	Transitional	0.9	7.8	70
	Fresh	11.8	8.0	940
	Indicated Total	13.5	8.0	1,070
Inferred	Oxide	0.4	8.0	30
	Transitional	0.3	8.2	20
	Fresh	5.9	8.1	480
	Inferred Total	6.6	8.1	530
Total Indicated a	nd Inferred	20.0	8.0	1,600

 Table 3. Mineral Resource estimate for Ancuabe Target T16 as at 29 November 2017

Note: The Mineral Resource was estimated within constraining wireframe solids defined above a nominal 4% TGC cut-off. The Mineral Resource is reported from all blocks within these wireframe solids. Differences may occur due to rounding.

COMPETENT PERSONS' STATEMENTS

This report on *Ore Reserves* for the Ancuabe T12 and T16 Deposits is based on information compiled by Mr Daniel Grosso under the direction and supervision of Mr Karl van Olden, who is a full time employee of CSA Global Pty Ltd. Mr van Olden takes overall responsibility for the Ore Reserve estimate. Mr van Olden is a Fellow of 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). Mr van



Olden consents to the inclusion of such information in this announcement in the form and context in which it appears.

ASX LISTING RULE 5.8.1 SUMMARY

Pursuant to ASX Listing Rule 5.9.1, and in addition to the information contained in the body of this release and in Appendix X of this release the Company provides the following summary.

- The Ore Reserves are based on key modifying factors that include analysis, designs, schedules and cost estimates of a Definitive Feasibility Study that describes development of the project to produce up to 60,000 t per year of graphite concentrate for approximately 27 years.
 - Metallurgical testwork has been completed by reputable and experienced specialists which is described in this document and supports the related modifying factors applied to the Ore Reserve estimate
 - The mining process has been based on Indicated Mineral Resources reported in accordance with JORC, detailed mine designs, specifications from a thorough geotechnical study and mining equipment determined from experienced engineers and mining contractors.
 - The processing plant has been developed by experienced process design engineers and is presented in a detailed design to support recovery, throughput and production estimates.
 - The infrastructure requirements have been defined by specialist engineers.
 - The detailed designs discussed above, have been used as the basis for capital and operating cost estimates derived from first principles estimates and vendor quotes.
- The Ore Reserve estimate comprises Indicated Mineral Resources only. The DFS contains some Inferred Mineral Resources which are mined incidentally with the Indicated material. The Inferred material comprises less than 5% of the total DFS throughput and is not material to the viability of the project.
- The mining method selected for the Ancuabe project is open pit mining applying conventional techniques that are commonly practiced in this style of deposit and region. A mining recovery factor of 95% and dilution factor of 10% have been applied in the Ore Reserve Estimate.
- The processing flowsheet is based on metallurgical testwork undertaken with samples from the T12 and T16 deposits by weathering extent (oxide/transition and fresh). The proposed process plant facilities for the Ancuabe Graphite Project in the DFS comprise processes and equipment that are based on detailed process engineering and findings that are aligned with similar operations.
- The basis for quality parameters applied to the Ore Reserve are metallurgical testwork and research into the desirability of the Ancuabe product in the current and emerging markets for graphite products.
- The status of approvals, tenements and licenses are as follows:
 - The Ancuabe project is located within granted Exploration licenses. Submissions for Mining Concessions have been lodged with the Mozambique Government and there is no reason to consider this process to be at risk.



 The environmental and social permitting process is well underway and The Environmental Social and Health Impact Assessment (ESHIA) is scheduled to be submitted in December 2017.

FEASIBILITY STUDY

The DFS forms the basis of the Ore Reserve estimate and is summarised in the sections below:

Geotechnical and Hydrology

Open House Management Solutions (Pty) Ltd ("OHMS") have undertaken geotechnical investigations and stability assessment of pit slopes for the Ancuabe Project, based on eight geotechnical diamond holes drilled in 2017 and designed to intersect the mineral zone orthogonally. Their conclusions and recommendations include:

- The following overall and inter-ramp angles are recommended:
 - Overall slope angle maximum 48°
 - Inter-ramp angle saprolitic rock maximum 38°
 - Inter-ramp angle fresh rock maximum 54°
 - Bench face angles in saprolitic material 60°
 - Bench face angles in fresh rock 80°
 - Catchment berms minimum 6m
- It is recommended to construct stacks of 4 to 5 benches separated by a geotechnical berm of at least 10 m.
- Various kinematic failure modes were investigated and the analysis suggests that planar failures in the fresh rock slopes of the south-east facing slope, are mechanically the highest possible failure mechanism. The percentage likelihood of joint sets associated with planar failure is up to 100% for slopes dip in directions 60° - 80°. Overall and Interramp slope angles of 54° in fresh rock will have an acceptably low failure rate. Bench face angles of 80° are exposed to planar, wedge and toppling failure. Local bench failure can be controlled by maintenance of acceptable catchment berms of at least 6.1 m.
- Modelling indicates that circular failure in the saprolitic material and toppling failure in the benches of fresh rock are the most likely failure mechanisms. The likelihood of failure occurring is however remote given the high Factor of Safety and low Probability of Failure. As the probability of kinematic failure is high, steeper slope angles must not be considered.
- The exposure due to natural seismicity will be low.
- The quantification of critical input parameters and level of detail considered in the design is sufficient for bankable purposes.

Exigo Sustainability (Pty) Ltd ("Exigo") have conducted a hydrogeological specialist investigation for the Project. Findings and recommendations relevant to the mining operation include:

- The average groundwater pH is neutral to alkaline at 8.75 and the Total Dissolved Solids ("TDS") is 1130 mg/l in groundwater and 447 mg/l in surface waters.
- The maximum horizontal extent of the dewatering zone of influence ("ZOI") is approximately 940 m at T12 and 1,330 m at T16.
- The net dewatering volume for the pit is predicated to be approximately 1,200 m³/day at the base of the pit.



• Sulphate seepage from the waste dumps is expected to migrate towards the pits due to the induced hydraulic gradient.

Potential impacts by mining operations were identified to include:

- Creation of a dewatering zone of influence, depleting the water levels in the vicinity of the pits.
- Pollution and contamination of surface and ground water by blasting, from sanitation facilities, seepage from overburden dumps and acid mine drainage.
- Hydrocarbon spills.
- Post-closure pit flooding.

Exigo identified the following mitigation measures:

- Monitoring of the potential dewatering ZOI.
- Establishment of storm water control systems.
- Best practice camp management and house-keeping principles.
- Backfilling of pits to reduce oxidation and minimise the lowering of pH and metal leaching.
- Updating the ground water model prior to closure to revise the extent of impacts of the ZOI.
- Rehabilitation of waste dumps to limit recharge and minimise potential leaching to ground water.

Knight Piesold Consultants considered surface water drainage and the quality for ground water in the final pit voids. They recommend a diversion channel to the east of the T16 open pit to direct water to a sediment control structure. They also concluded that there will be some leachable and acid generating material in the pit walls and an assessment of the final pit water levels should be conducted. If the groundwater level will recover to a level above the fresh and transitional material in the pit walls then the long term (post closure) risk of acid generation in the pits will be controlled.

Optimisation

Whittle [™] optimisation software has been used to generate a series of economic pit shells for each deposit using the Mineral Resource block model and agreed input parameters. (see Table 4).

Input	Unit	Value	Source
Financial			
Currency	\$	US\$	TON
Discount rate	%	10%	TON
Graphite	Basket Price/t concentrate	\$1,427	TON
Total royalties	%	3%	TON
Concentrate grade	%	95%	TON
Mining			
Dilution	%	10%	CSA Global
Recovery	%	95%	CSA Global
Fixed Mining Costs	US\$/t	Included in General and Administration	
Mining Cost Base	US\$/bcm	T12: 4.09, T16:4.18	Mining Tender Submission ("MTS")
Mining Cost Adjustment Factor	US\$/bcm/5m depth	T12: Individual bench costs range from \$4.09 to US\$6.40, averaging 0.072/bcm/5m	

Table 4. Optimisation Input Parameters



Input	Unit	Value	Source	
		T16: Range from		
		4.18/bcm to 5.67/bcm,		
Reference elevation	mRL	T12: 240rl. T16: 190rl	CSA Global from MTS	
Fuel Cost	US\$/I	0.67	TON	
Fuel Usage	l/bcm	1.39	CSA Global from MTS	
Drill and Blast	,			
Oxide	US\$/bcm	1.10	MTS	
Trans	US\$/bcm	1.10	MTS	
Fresh	US\$/bcm	1.10	MTS	
Rehabilitation of waste dump	\$/t of waste	\$0.09	MTS	
Overall slope angles	degrees	30.0°	OHMS	
Transported		30.0°	OHMS	
Oxide		42.0 ⁰	OHMS	
Transitional		49.6 ⁰	OHMS	
Fresh				
Minimum Mining Width	m	20.0	CSA Global	
Minimum Cut-back Width	m	20.0	CSA Global	
Processing		I		
Production rate	Mt/a	T12: 1.15, T16: 0.9	TON	
Oxide & Trans recovery	%	T12: 91.6, T16: 91.3	TON	
Fresh recovery	%	T12: 90.7, T16:93.0	TON	
Graphite Production	kt/a	50 to 60	TON	
Processing cost				
Oxide and Trans	US\$/t ore	T12: 9.27, T16: 11.41	TON	
Fresh	US\$/t ore	T12: 9.17, T16: 9.70	TON	
Crusher Feed	US\$/t ore	0.70	MTS	
Ore Differential (Mining)	US\$/t ore	T12: 0.24, T16: 0.08	CSA Global from MTS	
General and Administration	US\$/t ore	T12: 11.22, T16: 11.55	TON	
Sustaining Capital	US\$/t ore	T12: 0.73, T16: 0.75	TON	
Transport	US\$/t ore	T12: 3.52, T16: 4.78	TON	
Grade Control	US\$/t ore	0.50	CSA Global	
Total Processing				
Oxide and Trans	US\$/t ore	T12: 26.18, T16: 29.77		
Fresh	US\$/t ore	T12: 26.08, T16: 28.06		

Separate optimisations were run for the T12 and T16 deposits, and two optimisations were carried out for T16 to determine the effect of constraining the pit limits to the tenement boundary on the north of the deposit.



Both deposits show flat cash curves indicating that the optimisation is Mineral Resource constrained, indicating that the deposits may continue at depth and possibly along strike. Optimal shells have been chosen at approximately Revenue Factor ("RF") of 1. Table 5 summarises the optimisation results for both deposits.

		T12		T16				
Item	Unit	Stage	Final	Stage	Stage	Final	Unconstrained	
		1		1	2	Pit		
Shell	No.	8	35	2	11	36	36	
Revenue Factor		0.44	0.98	0.32	0.5	1.0	1.0	
Total Mined	Mt	13.37	55.94	4.53	46.86	58.76	66.57	
Strip ratio	t:t	1.5	3.0	1.2	2.9	3.5	3.7	
ROM Feed	kt	5,455	13,854	2,104	12,053	12,963	14,033	
ROM Feed Grade	% TGC	5.99	5.33	8.02	7.28	7.23	7.23	
TGC Produced	kt	2,976	6,708	1,556	8,135	8,697	9,413	
Operating Costs	US\$M	181.4	499.9	76.3	468.8	520.8	569.5	
Revenue	US\$M	446.9	1007.5	233.7	1221.9	1,306.2	1,413.7	
Cash Flow	US\$M	265.5	507.6	157.5	753.1	785.4	844.2	
Worst DCF	US\$M	202.8	293.3	137.9	447.7	450.5	465.2	
Best DCF	US\$M	205.2	315	138.3	466.1	476.9	496.0	
Ideal DCF	US\$M	203.8	302.0	138.0	455.0	461.0	477.6	
Operating Cash	US\$/t	61	74	49	58	60	61	
Cost	TGC							
Mine Life	years	4.7	12.0	1.8	10.5	11.3	12.2	
Shell Depth	m	165	230	85	200	205	205	

Table 5. Optimisation Results Summary

The current location of the tenement boundary reduces the Ideal Discounted Cash Flow ("DCF") by US\$16.6M and the available ROM Feed by approximately 1 Mt.

Mine Design

Detail pit designs have been prepared based on the results of the optimisations and incorporating appropriate wall angles, geotechnical berms, minimum mining widths and access ramps suitable for the selected equipment. A starter pit and two cut-backs to final pit limits have been designed for T16 and a single cut-back takes the T12 starter pit to final limits. The pit designs are shown in Figure 1 and Figure 2.





Figure 1. T12 Pit Design, showing final and starter pits





Figure 2. T16 Pit Design, showing final, Stage 1 and Stage 2 pits



Pit inventories and final pit depths are given in Table 6.

Table 6. Final Pit Inventories

	Material	Units	T12	T16
ROM Feed (incl mine recovery and dilution)	Oxide/Transition	kt	2,482	1,661
		%TGC	5.5	7.2
	Fresh	kt	11,345	9,000
		% TGC	5.3	8.0
	Total	kt	13,827	10,662
		% TGC	5.3	7.8
Waste		Kt	45,000	44,728
Total Mined		kt	58,828	55,390
Pit Depth		m	175	190
Strip Ratio	W:O	t:t	3.3	4.2
Inferred Mineral Resources (incl in Waste)		Kt	3,555	728
		%TGC	4.6	8.4

Final pit designs correlate well with optimisation results, however the T16 final design contains 15% less ROM feed than the optimisation shell as a more practical to the tenement boundary constraint was adopted in the pit design.

Preliminary waste rock characterisation studies undertaken by Knight Piesold Consultants indicate that 50% of the 60 samples tested were considered to be potentially acid forming ("PAF"), indicating that waste dump design will need to incorporate PAF management systems. At this time, the geological block model does not contain adequate data to allow for the detail planning required for lined and compacted PAF containment cells within the waste dump.

Relatively simple waste dump design, including 20 degree final slopes suitable for rehabilitation, cater for the total waste from the two deposits, Table 7 and Figure 3. No consideration has been given to backfilling mined out pits as it is proposed to use the mined out T16 pit for tailings storage.

Deposit	Waste Dump	Capacity (kLCM)	Area (Ha)
T12	South	28,109	152
T16	West	16,035	109
	East	4,555	25
	T16 Total	20,590	134

Table 7. Waste Dump Capacities

In recognition of the PAF issue, the location of the waste dumps has sufficient additional room for the footprint to extend to allow for additional internal room for PAF cells and the possible rehandling of oxide wastes needed for lining the cells. It is important that the additional work suggested by Knight Piesold is carried out and a suitable geological block model built to allow detail waste dump design and scheduling to be undertaken prior to the commencement of mining.

Surface haul road between the pits, waste dumps and ROM ("Run of Mine") Pad have been designed and require 1.29 km for T16 and 2.25 km for T12.





Figure 3. Mine Site Layout

Production Scheduling

The following production schedule, Table 8, has been estimated using MineSched[™] software to produce a maximum of 60 ktpa graphite concentrates per year. The higher grade T16 deposit is completely mined prior to operations commencing at T12. Project Life is approximately 27 years, producing a total of 1,492 kt of graphite concentrates.

Period				Minir	ng			Process	sing	Stoc Bala	kpile ance			
	ROM Tonnage		Waste	Total	Vol	SR	Inferred (incl in Waste)		Feed		Conc. En		End of Period	
	kt	%	kt	kt	000	W:0	kt	%	kt	%	kt	kt	%	
		TGC			bcm	t:t		TGC		TGC			TGC	
2019	728	7.5	3,798	4,526	1,954	5.2	116	8.1	657	7.5	47.5	71	7.4	
2020	857	7.4	3,682	4,538	1,831	4.3	86	7.3	805	7.3	57.2	123	7.6	
2021	713	7.2	3,813	4,526	1,769	5.3	44	7.2	803	7.3	56.9	33	7.3	
2022	952	7.0	3,574	4,526	1,683	3.8	16	7.0	803	7.1	55.2	182	7.1	
2023	792	7.1	3,369	4,161	1,606	4.3	7	7.6	803	7.1	56.0	171	7.1	
2024	835	7.0	3,338	4,172	1,567	4.0	12	7.5	805	7.1	55.6	200	7.0	
2025	664	6.8	3,497	4,161	1,535	5.3	14	7.4	803	6.9	54.0	61	6.8	
2026	850	7.1	3,311	4,161	1,530	3.9	22	7.6	803	7.1	55.6	108	7.0	
2027	710	7.2	3,451	4,161	1,528	4.9	34	7.7	803	7.2	56.4	15	6.8	
2028	880	7.5	3,292	4,172	1,535	3.7	26	7.8	805	7.4	58.7	90	7.4	
2029	767	7.5	3,394	4,161	1,529	4.4	30	7.5	803	7.5	58.7	54	7.3	
2030	802	7.6	2,118	2,920	1,077	2.6	29	7.6	803	7.6	59.8	53	7.5	
2031	801	7.5	2,080	2,881	1,063	2.6	106	7.6	803	7.5	58.8	51	7.4	
2032	819	7.5	1,869	2,688	1,026	2.3	189	7.7	805	7.5	58.8	65	7.5	
2033	1,019	5.7	3,507	4,526	1,973	3.4	139	4.2	1,059	5.9	59.7	25	5.6	
2034	1,121	5.5	3,405	4,526	1,867	3.0	221	4.1	1,059	5.5	55.7	88	5.5	
2035	1,055	5.5	3,471	4,526	1,773	3.3	221	4.2	1,059	5.5	55.8	85	5.6	
2036	1,127	5.5	3,411	4,538	1,741	3.0	213	4.3	1,061	5.5	55.7	150	5.5	
2037	1,013	5.5	3,513	4,526	1,713	3.5	161	4.0	1,059	5.5	55.5	105	5.5	

Table 8. Production Schedule
Period	Mining					Processing			Stoc Bala	kpile ance			
	ROM Tonnage		Waste	Total	Vol	SR	Inferre in Wa	d (incl aste)	Fee	d	Conc.	En Pei	d of riod
2038	1,112	5.4	3,414	4,526	1,682	3.1	186	4.0	1,059	5.4	54.9	158	5.5
2039	963	5.1	3,563	4,526	1,664	3.7	285	3.8	1,059	5.2	52.1	63	5.2
2040	1,090	5.2	3,448	4,538	1,654	3.2	218	3.8	1,061	5.2	52.9	91	5.2
2041	1,146	5.3	3,380	4,526	1,649	2.9	279	4.0	1,059	5.3	53.8	179	5.3
2042	1,075	5.1	3,451	4,526	1,649	3.2	342	4.1	1,059	5.1	51.6	195	5.1
2043	1,018	5.2	3,482	4,500	1,640	3.4	490	4.5	1,059	5.2	52.6	155	5.2
2044	1,092	5.2	3,446	4,538	1,655	3.2	535	4.5	1,061	5.2	52.3	185	5.2
2045	894	4.8	3,244	4,138	1,506	3.6	261	4.4	1,059	4.9	49.5	20	4.9
2046		0.0				0.0		0.0	20	4.9	0.9	0	
Total	24,894	6.2	89,323	114,217	43,399	4.6	4,283	4.8	24,894	6.2	1,492		

Mining Operations

It is planned that conventional drill and blast, load and haul, open pit mining will be used to extract the mineralised material. ROM feed will be defined by grade control procedures in the pit, and delivered by truck to the ROM pad located centrally between the T12 and T16 deposits. Waste will need to be PAF classified and be dumped in managed waste dumps adjacent to the open pits. It is planned that mining will be carried out by an experienced earthmoving contractor.

Based on the results of the Scoping Study, a Request for Quotation ("RFQ") was issued to four earthmoving contractors. Evaluation of the submissions indicated that Tayanna was the preferred contractor. Mine operations and mining cost estimates have been based on the Tayanna submission.

Earthmoving contract works will include clear and grub, topsoil stripping, drill and blast, excavate, load and haul ("ELH") of ore and waste, crusher feed and ore stockpile rehandling, and waste dump management and rehabilitation. Tayanna advised that, in their experience in the area, ripping was not viable for the saprolites.

The main mining fleet proposed by Tayanna is by two Volvo EC750 75 t tracked excavators, twelve Volvo A40 40 t articulated dump trucks, three Atlas Copco ROC D7 drill rigs and one Caterpillar 986H wheeled front end loader ("FEL") for crusher feed. A suitable fleet of ancillary equipment to support the mining fleet is included in their submission.

Site establishment will include workshops and tooling; tyre oil and wash bays; light and heavy vehicle parking areas; drill and blast requirements; buildings for offices, crib facilities, ablution and training; paving and fencing; and stationery, lighting and IT.



Process Plant and Infrastructure

The Ancuabe Graphite Project process plant throughput will range from 0.9 to 1.1 Mtpa, to produce up to 60,000 tpa graphite concentrate (variation based on grade).

The flowsheet (Figure 4) is based on metallurgical testwork undertaken with samples from the T12 and T16 deposits by weathering extent (oxide/transition and fresh). The proposed process plant facilities for the Ancuabe Graphite Project in the DFS comprise:

- Run of mine (ROM) pad
- Tertiary crushing circuit
- Rod mill feed bin and grinding circuit
- Rougher flotation
- Three stages of attritioning and five stages of cleaner flotation
- Concentrate filtration
- Concentrate drying, classification and bagging three products
- Tailings thickening and storage
- Reagents

Figure 4: Process plant flowsheet



Crushing

The mined ore bearing rock will be crushed into a fine material in a tertiary crushing circuit so that the graphite can be removed. Oversize material will be recirculated through the crushers until the



required size is reached. The size reduction will be from approximately 600mm to 20mm through the tertiary crushing circuit.

Primary Grinding

The crushed ore is conveyed to the crushed ore bin and fed into the mill feed conveyor. Ore is fed into the rod mill with water, which operates in closed circuit. The screen undersize P_{95} 710-1000 μ m is pumped to the flotation circuit and the screen oversize is recycled back to the rod mill via conveyors.

Rougher flotation

Flotation is the process of bubbling air through the milled sand and water slurry so that the graphite, which is lighter than the sand, can be separated off. This is done by adding reagents to the flotation feed (milled "sand") and mechanically agitating the slurry mixture to produce rougher concentrate (graphite containing product) and rougher tailings (waste). The rougher concentrate is pumped to an attrition mill where the waste attached to the graphite is "knocked off" the edges of the graphite, before being pumped to the Cleaners.

Cleaner flotation

There are five stages of cleaning in the Cleaner circuit where the rougher concentrate is further refined and tailings removed. There are three stages of attritioning on the Rougher, Cleaner 1 and Cleaner 2 concentrates prior to next stage flotation.

Filtration and drying

The final concentrate is then filtered, dried and classified into 3 products before being transferred to a bulk graphite holding bins. The three size fractions include: +300 μ m, -300+180 μ m, and -180 μ m.

The final concentrate, once classified, is then packaged into bags on site and stored temporarily, for transport from site by trucks. Full bags will be handled using a forklift and pallets. Bagged concentrate products will be stored undercover and loaded either onto trucks or into containers for shipment from site to the Port of Pemba. The minimum shipment will be one container and maximum of approximately 250 containers.

Tailings

Tailings are the sand material that is left after the graphite has been separated from it. The tailings will be transferred to a tailings thickener where flocculent is added to the tailings thickener feed. The tailings are then pumped to the lined tailings storage facility (TSF) which will comprise two cells for the evaluation period. Prior to the development of the second cell, it is likely that the T16 pit will be backfilled with tailings. The tailings are discharged using sub-aerial deposition from multiple spigots located around the embankment crest, much like an agricultural irrigation and sprinkler system. Seepage is managed with bores located strategically downstream of the TSF to recover and recycle water.

Tailings thickener overflow water will gravitate to the process water pond for recycling. Additional water is recovered from the surface of the TSF via a tailings return water system, which is then also



returned to the process water pond for recycling. The intention is to maximise water recovery and reuse throughput the project. Water treatment is required on the TSF decant to manage the mobilisation of salts which will form due to the PAF nature of the tailings.

Infrastructure

The project infrastructure includes the following facilities:

- Mine services area
- Fuel storage
- Power station
- Water and air systems
- Water storage facility
- Laboratory
- Buildings: workshop, warehouse, offices, crib and ablution facilities
- Camp

Mine services area

The mine services area will include the following facilities, provided by the Mining Contractor: offices, workshop, warehouse, truck wash. The fuel storage facility will also be located in this area.

Fuel storage

The fuel storage facility will be based on a modular, containerised system, which can be expanded as the project construction progresses. Up to ten (10) 67 kL self-bunded containers will be coupled with piping. The facility will ultimately be located at the mine services area.

Power supply

Power will be initially supplied to the project from a 1 MW photovoltaic (PV) and 8 MW diesel power station. A grid connection will be established within the first five years of operation to provide power to the project. The connection to grid power is dependent upon completion of debottlenecking projects upstream of the proposed connection.

Water storage facility

Since the Scoping Study site geotechnical investigations resulted in the requirement to relocate the raw water dam from the Mogido river system to the Muaguide river system. The storage facility will have a capacity of up to 1.6 Mm³. Raw water will be pumped to the process plant facility.

Water and Air systems

The following water systems will be available from the process plant:

• Raw water – to the water treatment plant, gland water, process makeup, to the mine services area, Camp and fire system water.



- Treated water potable water to the Camp, safety showers, process plant and mine services area buildings
- Process water to the process and reagents preparation areas

Air systems for the process plant support the operation of the instruments, maintenance equipment and flotation cells.

Laboratory

The laboratory supply and operation is key process operations and QA/QC contract for the project. The laboratory will have the capacity to process mine grade control, process plant control and product QA/QC samples. In addition, the metallurgical testwork area will provide process control inputs and support ongoing resource development.

Buildings

The process plant buildings include the following: ablutions, changeroom, meal room, offices including control room, work shop and warehouse. The workshop and warehouse areas will be fenced.

Camp

Consistent with the approach to maximise local community involvement and opportunity, all national personnel will be located with the communities. Only fly in fly out (FIFO) personnel, visitors and shutdown visitors will be housed within the Camp. A ramp down period has been allowed within the Camp to ensure that national personnel are provided with support to relocate within the local communities.

The Medical facility will also be located at the Camp, as during construction the Camp will be the locus through which personnel will be directed to the various work sites.

The site Gatehouse and Training facility is located adjacent to the Camp, and the Camp contractor will manage site access and onboarding.





Figure 5: Project site plan

Environmental and Social Permitting Requirements

The Ancuabe Graphite Project environmental permitting process is well underway, with completion of the Environmental Pre-feasibility Scoping Study (EPDA) and Public Participation Process (PPP) stages. The Environmental Social and Health Impact Assessment (ESHIA) is scheduled to be submitted in December 2017.

The ESHIA has been undertaken to the International Finance Corporation (IFC) Performance Standards (PS). These standards are also environmental and social safeguards applied by the Multilateral Investment Guarantee Agency (MIGA). The IFC is a member of the World Bank Group, and one of the largest development institutions that focuses exclusively on the private sector in developing countries (IFC, 2012).

All specialist studies to support the ESHIA are complete, and the Environmental Management Plan and Mine Closure Plans have also been completed.

Minimal physical displacement is expected, as the majority of the site is absent of inhabitants and dwellings. Community consultation processes are in progress for the resettlement plan, with the first process completed in November 2017.

The Community Social Responsibility Strategy has been developed, and key projects are incorporated in the project implementation plans. Thus, one of the over-riding principles of Triton's CSR strategy is that it will help its Project Affected Communities (PAC's) to help themselves. The key PACs include: Silva Macua, Nankhumi, Natocua, Muaguide, and Nacussa.



Adherence to this strategy means conducting business ethically and respectfully with transparency towards the environment and communities, ensuring their well-being and safety as the Ancuabe Graphite project is developed and moves into operations.

Implementation

The DFS is based on a standard EPCM model, which is currently transitioning to a PMC-EPC model, with early works commencing in H1 2018. These early works include:

- Engineering: Raw water dam and TSF, and roads, as well as FEED, and long lead order placement.
- Site works: establishing the Camp, and progressing construction for the raw water dam prior to next wet season, TSF and bulk earthworks for the MSA and PP&I areas.

In parallel with the FFED engineering phase will be the application for the master construction permit, and associated permits. A preferred consultant has been identified and discussions have commenced.

It is anticipated that site concrete works will commence in Q4 2018, site structural and mechanical works will commence in early 2019, leading quickly into electrical and instrumentation construction for commissioning in Q3 2019.

The following key contracts will be established for the operations phase:

- Camp
- Mining
- Process plant & infrastructure (PP&I)
- Laboratory
- Personnel transport
- Transport and logistics for operational requirements and product shipment

The Camp and Mining contracts will be established during the Construction phase and continue into operations. This approach is anticipated to maximise the time to recruit and train local personnel who will then transfer to operations.

The PP&I contract is proposed to include operational readiness as well as commissioning support to again ensure time to recruit and train local personnel who will then transfer to operations.

A key focus for Triton will be the inclusion of the local communities in the development and operation of the Ancuabe Graphite project. The early involvement of personnel, and the opportunities to transfer to the operations phase, aim to continue the philosophy within Triton that requires community involvement through all project phases.

Capital Cost

The capital cost estimate, that has yet to be optimised, was compiled by consulting engineers Lycopodium with input from Knight Piésold on water infrastructure, tailings storage facility and roads and Triton on Project specific elements of mining and owner's costs. The capital cost estimate is expressed in US dollars, prepared with a capital cost accuracy of +/- 15% and is based on prices and

Table 9. Canital cost estimate summary



market conditions at Q42017. Exchange rates for capital cost inputs were based on average forecast forward exchange rates for the 24-month period from 1 July 2017 to 30 June 2019. The estimate excludes escalations and taxes and duties.

Estimate pricing was derived from market pricing solicited specifically for the study (the majority of the pricing), historical database pricing (less than 6 months old), estimated pricing and factored from costs (for plant piping only).

The capital cost estimate, summarised in Table 9, comprises, the cost of the processing plant, which includes all infrastructure related to processing the ROM graphite mineralisation and disposing of the tailings, the cost of mine support infrastructure, including explosives, in pit power and pumping, the cost for the mobilisation of the mining contractor an indirect project costs, such as engineering costs, freight and contingency. The capital costs do not make provision for mine closure, associated environmental and social responsibility closure costs.

Area	Total	Proportion
Mining	US\$4.7M	5%
Treatment plant	US\$32.2M	32%
Reagents & plant services	US\$7.2M	7%
Infrastructure	US\$22.1M	22%
Direct costs	US\$66.3M	67%
Construction distributable	US\$9.0M	9%
Management costs	US\$7.4M	7%
Owners costs	US\$7.4M	7%
Contingency	US\$9.3M	9%
Indirect costs	US\$33.1M	33%
Total	US\$99.4M	100%

Capital costs over the evaluation period associated with grid power connection and tailings storage wall lifts will be approximately US\$8.5 million US\$30.2 million respectively. Sustaining capital expenditure over the evaluation period is \$9.2 million and represents costs to maintain the capital assets to perform to the project design criteria over the evaluation period.

Operating Costs

The Ancuabe Project operating cost has been compiled by Lycopodium, CSA Global and Triton. Costs are prepared to a +/- 15% accuracy and based on the following sources

- Budget quotations received from suppliers.
- Lycopodium's database of prices for consumables.
- Benchmarking within Mozambique and with other similar operations.
- Reagent consumptions based on laboratory testwork results.
- Modelling by Orway Mineral Consultants (OMC) for crushing and grinding energy and consumables, using ore characteristics measured during the testwork.
- First principle estimates based on typical operating data.

The cost estimates are presented in US dollars and are primarily based on estimates during the Q42017. Exchange rates were based on average forecast forward exchange rates for the 24-month



Proportion

US\$ /product

period from 1 July 2017 to 30 June 2019. Operating costs, summarised in Table 10, comprise the cost of mining ore and waste, the cost of ore processing, general and administration costs, personnel, camp costs and the cost of preparing and bagging the ore and haulage to Pemba

Table 10: Operating cost summary				
Area	US\$ M pa			
Mining costs	12.6			
Personnel and G&A	9.0			

Total (FCA Pemba)	115\$36.4 M	632	100%
Product Logistics	3.1	54	9%
Reagents & Consumables	4.7	82	13%
Power and Diesel	7.0	122	19%
Personnel and G&A	9.0	156	25%
Mining costs	12.6	218	34%

Notes to Table 10:

1. Represents costs for the project evaluation period.

Marketing

Natural Flake Graphite Pricing

Natural graphite and its derivatives are sold on a peer to peer basis between the producer and customer or through an intermediary with no established benchmark or reference price such as PLATTS or the London Metal Exchange (LME). This lack of pricing transparency presents challenges for valuation purposes and Triton draws on the expertise of well-established companies experienced in the price forecasting of novel materials.

For the purposes of project valuation and product pricing Triton Minerals used the resources of Metal Bulletin, a London –based Industrial Minerals market consulting and information company. Pricing from Metal Bulletin indicated geographical variation in pricing dependent on end-markets namely Europe and North America with the most competitive pricing attributed to Chinese domestically produced graphite product, the most intensely competitive graphite supply chain in the world.

Price Drivers: Sizing and Purity

When pricing natural flake graphite it is important to note that pricing is driven by purity and flake size. As different flake sizes lend themselves to different applications pricing differs across all size ranges. The general trend is the larger and coarser the flake size the higher the price as confirmed with independent sources:

Graphite flake size distribution is one of the more debated project factors, however, a number of facts about flake size are known; firstly, the larger the flake (in a given deposit) the higher the purity of the graphite product is likely to be and secondly, the larger the flake size the higher the price (source Metal Bulletin 2017).

Each specific flake size is assigned its own price. In order to determine the value of a specific concentrate each sized fraction is valued on its proportion to calculate the basket price – a useful tool for comparative valuation purposes.

Basket Price Calculation

Triton's price calculations follow the Metal Bulletin position that graphite pricing is a function of flake size and purity. As each graphite deposit and corresponding graphite concentrate is unique, the price achievable for each deposit is unique to that deposit. The uniqueness of each deposit eliminates a



singular reference basket price, as in the case of most other mineral commodities, however those deposits such as Ancuabe which exhibit a combination of high purity flake and a coarser size bias will command a premium in the market and preferentially attract price and volume advantages.

Unique pricing for each of the major end-markets of China, Europe and North America is taken into account in the basket price calculation by assuming an even spread across all geographical end-markets. Under an active marketing plan Triton Minerals will apportion product to the most lucrative markets in terms of application and geographical region, presenting upside to the conservative approach taken in the DFS basket price calculation.

In summary the pricing used in the Ancuabe Project financial analysis is driven by the following assumptions:

- A favourable flake size distribution due to a disproportionally larger flake sizes
- A price premium associated with higher purity graphite concentrates
- Value proposition to downstream spheronisers and anode material producers in using a superior feedstock leading to higher spheronising yields

This basket price calculation serves two purposes, firstly to calculate the overall profitability of the Ancuabe Project and secondly as a benchmarking tool across competing projects.

The key factors of Triton Minerals' basket price calculation manifest in Figure 6 as follows:

- 1. Basket price forecasts are based on graphite price forecasts provided by Metal Bulletin, 2017.
- 2. Prices are generally higher for larger flake sizes.
- 3. Less price differentiation exists at finer flake sizes.
- 4. Higher graphite demand forecast to drive the basket price until 2027.
- 5. Triton Management assume a long-term basket price of US\$1,435 per tonne.





Figure 6: Ancuabe basket price forecast



Financial Modelling and Evaluation

The key financial inputs and assumptions used in the financial modelling are summarised in Table 11.

Table 11: Financial model and evaluation inputs summary

Parameter	Assumption
Graphite concentrate basket price (FCA Pemba)	US\$1,435/t
Mining royalty ¹	3%
Corporate income tax ^{2,}	32%
Capital allowances ³	Ranging from 20% to 100%
Accumulated losses ⁴	Nil
Foreign exchange⁵	24 Month Forecasts
Power cost – Diesel	US\$0.20/kWh
Power cost – Grid	US\$0.12/kWh
Power cost – Photovoltaic (PV)	US\$0.17/kWh
Diesel price	US\$0.67/litre

Notes to Table 11:

1. A mining royalty is applied based on the value of extracted and processed graphite.

2. The Mozambican corporate tax rate is 32% and tax payments have been modelled based on the Mozambique 'Mining Law 28/2014: Specific Rules on Taxation and Tax Benefits of the Mining Activity' (Law 28/2014).

- 3. Capital Allowances for exploration investment in the Ancuabe region, pre-production capital costs and other capital investment during the evaluation period have been modelled based on allowances available under Law 28/2014.
- 4. The Mozambique fiscal regime permits carry forward of accumulated losses. For the purposes of the model, accumulated losses of Grafex Limitada and exploration investment in the Balama region have not been carried forward against taxable Project profits.
- Exchange rates for cost inputs were based on average forecast forward exchange rates for the 24-month period from 1 July 2017 to 30 June 2019. Capital costs are predominantly denominated in US\$ (approximately 82%) and current spot rates for other basket currencies remain in line with these forecasts and have no impact on capital cost estimates. Operating costs are denominated in US\$.

The financial analysis was undertaken assuming a constant graphite concentrate price over the evaluation period. The Project model operating outcomes are shown below.

Evaluation period ²	27 years
Total tonnes processed	26.0 Mt
Total tonnes moved	114.2 Mt
Evaluation period TGC grade	4.9 to 7.0% (average 6.2%)
Annual production	Up to 60,000 tpa graphite concentrate
Product size distribution (range)	
+500 micron	5-15%
-500+300 micron	20-30%
-300+180 micron	17.5-25%
-180+150 micron	5-10%
-150+75 micron	15-27.5%
-75 micron	10-22.5%

Table 12: Financial model physicals summary

The Project model financial outcomes are shown below.

² See footnote 1.



Table 13: Financial model and evaluation outcomes summary

Evaluation period ¹³	27 years
Basket price	US\$1,435/t graphite concentrate FCA Pemba
Average operating cost (excluding royalty) ¹	US\$634/t graphite concentrate FCA Pemba
Project revenue	US\$2,229 M
Project EBITDA	US\$1,178 M
Average Project EBITDA margin	53%
Pre-Tax Net Cash Flows	US\$1,032 M
Pre-Tax NPV ²	US\$298 M
Payback period from first production ²	3.8 years

Notes to Table 13:

1. Excluding mining royalty.

2. At discount rate of 10%.

Financial sensitivities

Sensitivity analysis was completed on a number of model inputs to identify the impact of movements in key model variables on the Project NPV, IRR and the Project payback period. Changes in the graphite concentrate price is identified as the major financial sensitivity (upside and downside). Movements in Project NPV are shown in Figure 7.



Figure 7: Financial sensitivity analysis

The Project sensitivities to +/- 10% movements in concentrate price, operating costs (including mining royalty) and pre-production capital costs is shown below.

³ See footnote 1.



Table 14: Project sensitivity analysis

Parameter	Low	High
Base NPV US\$ M	208	208
Market Price (-/+ 10%) US\$ M	151	264
Operating Costs (+/- 10%) US\$ M	180	236
Capital Costs (+/- 10%) US\$ M	196	220

Funding Options

The Company believes reasonable grounds exist to assume that funding for the Project will be available. Management is assessing the range of debt and equity arrangements available to Triton and has commenced discussions with providers of finance. A final decision on financing is anticipated in the first half of 2018.

Project Schedule

The project development schedule indicates that the Project could be commissioned in Q3 2019 provided that funding and relevant project approvals can be secured by the end of H1 2018. Partial funding would facilitate an earlier commitment to long lead items, commencement of detailed engineering and early works. These works will commence in Q1 2018 with site mobilisation planned for Q2 2018

Risk Assessment

Risk Management is an important part of the construction and operating strategy, and is used to avoid losses, anticipate problems, and achieve gains or advantages. In a project setting, sound risk management leads to better design, reduced risk exposure, greater safety, and reductions in schedule delays and budget overruns.

A master project risk register was prepared during the feasibility study and project risks identified during the study were recorded along with mitigation strategies. Key Triton, CSA, EOH Coastal & Environmental Services Limited (EOH), Lycopodium, Knight Piésold and ECG Engineering personnel representing their respective discipline or area of expertise entered their preliminary risks into the discipline risk register.

A facilitated risk workshop was then held, with all key discipline personnel in attendance, where the preliminary register was reviewed, the risks rated, mitigating actions agreed, and action responsibilities assigned. Ratings were assigning as 'High', 'Medium', or 'Low' to both the probability of each event occurring and the consequence of the event. The rating was assessed on the initial perception of risk as it stood at the completion of the DFS, and the likely rating after the mitigating actions have been implemented.

The risk register shall be updated throughout the engineering, procurement and construction phases of the Project to reflect the scope of work being pursued at any particular time and how this scope is likely to impact the various stages of development, to the operational stage. Project risks were categorized across the following discipline areas, geology, mining, metallurgy and process plant, site water, tailings storage facility, power, infrastructure, permitting, environmental and social responsibility, human resources, financial and economic.



Appendix 1 – JORC Table 1

Section 4 Estimation and Reporting of Ore Reserves

Commentary



Criteria

Mineral Resource estimate for conversion to Ore Reserves

On November 30, 2017 Triton announced upgraded Mineral Resources for the Ancuabe Graphite Project. The Mineral Resource were estimated by Dr Andrew Scogings and Mr Grant Louw of CSA Global in accordance with JORC 2012 Guidelines. Table 15 and Table 16 show these Mineral Resource estimates. These estimates and their associated block models have been used for the mining engineering work for the Project.

Table 15. Mineral Resource estimate for Ancuabe Target T12 as at 29 November 20)17
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Classification	Weathering State	Million Tonnes	TGC %	Contained Graphite ('000s)
Indicated	Oxide	1.1	6.2	70
	Transitional	1.3	6.0	80
	Fresh	11.3	5.8	650
	Indicated Total	13.7	5.8	800
Inferred	Oxide	0.4	4.8	20
	Transitional	0.5	4.8	30
	Fresh	9.7	5.0	480
	Inferred Total	10.6	5.0	530
Total Indicated and Inferred		24.3	5.5	1,330

Note: The Mineral Resource was estimated within constraining wireframe solids defined above a nominal 3% TGC cut-off. The Mineral Resource is reported from all blocks within these wireframe solids. Differences may occur due to rounding.

Table 16. Mineral Resource estimate for Ancuabe	e Target T16 as at 29 November 2017
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Classification	Weathering State	Million Tonnes	TGC %	Contained Graphite ('000s)
Indicated	Oxide	0.8	8.1	70
	Transitional	0.9	7.8	70
	Fresh	11.8	8.0	940
	Indicated Total	13.5	8.0	1,070
Inferred	Oxide	0.4	8.0	30
	Transitional	0.3	8.2	20
	Fresh	5.9	8.1	480
	Inferred Total	6.6	8.1	530
Total Indicated and Inferred		20.0	8.0	1,600

Note: The Mineral Resource was estimated within constraining wireframe solids defined above a nominal 4% TGC cut-off. The Mineral Resource is reported from all blocks within these wireframe solids. Differences may occur due to rounding.

The information in this report that relates to in situ Mineral Resources for Ancuabe is based on information compiled Mr Grant Louw, under the direct supervision of Dr Andrew Scogings, who are both full-time employees of CSA Global Pty Ltd. Dr Scogings, takes overall responsibility for the report. 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 Edition). Dr Scogings consents to the inclusion of such information in this report in the form and context in which it appears.

The Ancuabe Mineral Resource estimate is classified based on wireframes reflecting the confidence in the interpreted mineralisation continuity, structural and weathering profile controls, data quality and quantity, and sufficient metallurgical data to provide sufficient confidence for recovery.

CSA Global objectively considers the Mineral Resource has reasonable prospects for eventual economic extraction.

Site visits

• A site visit was undertaken by CSA Global's Senior Mining Engineer, Daniel Grosso who reported to the Competent Person, Karl van Olden in May 2017.

TRITON MINERALS ANCUABE – ORE RESERVE ESTIMATE



Criteria	Commentar	у								
	 The site core from Tailings location Pemba t The site that sup 	 The site visit comprised of an inspection of the T12 and T16 deposits, observing deposit outcrops and drill sites; drill core from the drilling program; location of the proposed Water Storage Facility (WSF); location of the proposed Tailings Storage Facility (TSF) comprising of Cells 1 and 2; locations of the proposed ROM pad and Process Plant; location of the proposed permanent camp; the access road route into site; and the transport route from the Port of Pemba to the site. All sites were inspected on foot by Daniel Grosso. The site visit confirmed the status of the project area and location as reported in the various studies and estimates that support this Ore Reserve Statement for the Ancuabe project. 								
Study status	 Feasibility Study (FS) has been completed by Triton Minerals Ltd for the Ancuabe Project in December 2017. The study proposed an operation processing 805 ktpa of ore to produce less than 60 ktpa of 95% graphite concentrate for 14 years followed by 1,058 ktpa of ore to produce less than 60 ktpa of 95% graphite concentrate for 13 years, for a total mine life of 27 years. The FS addressed key technical and economic parameters relating to the Ancuabe Project to an appropriate level of confidence. The FS found that the project is physically and economically viable with a strong Internal Rate of Return and a Pay-Back of less than four years. This Ore Reserve estimate considers the Indicated only portion of the Ancuabe Project, applying all of the Modifying Factors, parameters and considerations of the FS to produce a mine life of approximately 27 years at the same production rates and with the same product specifications as the FS. 									
Cut-off parameters	Cut-off grade The revenue generated from a graphite operation is primarily driven by the flake size distribution of the product. The flake proportion over a series of size categories determines the basket price of the product. The carbon grade (TGC) is not directly related to flake size. Project economics from the total project have been considered at the end of the full project iteration to confirm that the cut-off/quality criteria support economic operations for the Acnuabe graphite project.									
Mining factors or assumptions	Mining Approach									
	Processing rates and stripping ratio have driven mine production. Annual mining rates varying between 4.1 and 4.5 Mt for the first 11 years, then dropping to approximately 2.8 Mt for the final years of T16. A consistent mining rate of 4.5 Mtpa is required for the T12 pit. Equipment selection has been provided by the current preferred mining contractor. This includes 75 tonne excavators loading 40 tonne articulated dump trucks and all necessary ancillary equipment. A front-end loader will be used on the									
	Operational and production inputs									
	Whittle optimization software has been used to generate a series of economic shells to represent mining outlines within the deposits. Input data including the financial, mining and processing inputs is shown in Table 17. Table 17 Whittle Input Parameters									
		Whittle In	put Parameters							
		Input	Unit	T12 Value	T16 Value					
			Financial							
		Currency	\$	US\$	US\$					
		Discount Rate	%	10%	10%					
		Graphite	Basket Price/t conc	\$ 1,427.00	\$ 1,427.00					
		Total Royalties	%	3%	3%					
		Concentrate Grade	Concentrate Grade % 95% 95%							

Criteria



Commentar	У			
		Mining		
	Dilution	%	10%	10%
	Mining Recovery	%	95%	95%
	Mining costs	US\$/t	Bench by bench by preferred n	n rates estimated nining contractor
	Fuel cost	L/bcm	1.39	1.39
	Fuel rate	\$/L	0.69	0.69
	Drill and Blast	\$/bcm	1.10	1.10
	Reference Elevation	mRL	290	170
		Processing		
	Production Rate	Mtpa	0.9	1.15
	Process Cost Oxide and Transitional	USD/t ore	26.18	29.77
	Processing Cost Fresh	USD/t ore	26.08	28.06
	Processing Recovery Oxide and Trans	%	91.3%	91.6%
	Processing Recovery Fresh	%	93%	90.7%

Mining Dilution and Recovery

Both the T12 and T16 deposits are generally planar, shallow dipping deposit with clearly defined contacts. Mining dilution and recovery is based on typical values for this style of deposit and mining method. Mining recovery of 95% of tonnes has been applied, with a dilution component of 5% (at zero grade).

Minimum mining dimensions

Additional mine design parameters include:

- Minimum mining width of 20 m
- Minimum cutback width of 30 m
- Single lane for final 3 benches (15 m vertical)
- Switchback radius of 5 m
- Switchbacks are flat and allow room for dewatering staging tanks and storage
- Final pit designs maintain the ramp in the footwall

Geotechnical Parameters

Open House Management Solutions (Pty) Ltd (OHMS) have undertaken geotechnical investigations and stability assessment of pit slopes for the Ancuabe Project. Eight geotechnical diamond drill holes were drilled in 2017 in a direction designed to intersect the mineralised zone orthogonally. The OHMS report represents the geotechnical investigation and stability assessment of pit slopes for the Ancuabe Project. The following parameters were recommended and have been utilised in the pit and stage designs (see Figure 8 and Figure 9):

- Overall slope angle maximum 48°
- Inter-ramp angle saprolitic rock maximum 38°
- Inter-ramp angle fresh rock maximum 54°
- Bench face angles in saprolitic material 60°
- Bench face angles in fresh rock 80°







Criteria Commentary

Consideration for deleterious elements were completed on a general level suitable for a Probable Reserve. Further consideration on a more specific level will be completed as product specifications are refined.

Based on latest attrition grinding, flotation recleaning strategies (including consideration for potential deleterious elements) the estimated product flake size and grade distribution was estimated. This distribution defines the product basket produced by the Ancuabe Project. This is the product specification that has been used to generate the basket price for revenue calculations in the Ore Reserve estimation.

Process Design

Overall the testwork program demonstrated that the ore is amenable to the production of high grade graphite concentrates, at coarse flake sizes, using relatively simple flotation processes. These processes are an established process of recovery for graphite, used successfully in industry. As a result of the testwork program the basis of the proposed process flowsheet is as follows:

- Multi stage crushing with dry screening will be used to prepare the ROM ore feed for milling.
- A VSD driven rod mill, operating in closed circuit, fed with F80 of 12 mm, was selected for milling. The mill will have a trommel with 10 mm x 10 mm apertures, followed by a vibrating screen to screen at either 710 μm or 1000 μm.
- A simple flotation lay out will be used, consisting of a conditioning tank, a bank of five rougher cells.
- No concentrate thickener will be used. Cleaner 5 concentrate will be sent to storage tanks and then fed to a pressure filter, equipped with air blow and squeeze functions to produce the lowest water content practically possible. The cake will be washed with raw water.
- A rotary drum dryer, with the filter cake in direct contact with hot gas, will be used for product drying. Flash drying or fluid bed drying have not been negated, but the preference was for a drum dryer.
- Rotex screens will be used for the product classification.
- Lime will be used as bulk pH adjustor if the water becomes more acidic.
- Tailings to be thickened for water recovery with tailings discharged to a tailings storage facility.

The plant has been designed with the following general philosophy:

The design approach adopted for the process plant is cognisant of the fact that two different ore types (T16 followed T12) will be processed over the life of the mine. The design envelope adopted for this study is sufficient to accommodate the properties of both ore types and caters for minor process fluctuations.

- Capability to process oxide, transitional and fresh ore types
- Use of mineral industry proven methods and equipment
- The plant is designed to operate on a 24-hour basis
- The plant is designed to operate for a 28 year minimum life

Environmental

Triton has prepared and submitted an Environmental and Social Impact Assessment (ESIA) process in Mozambique. The Ministério de terra, Ambiente e Desenvolvimento Rural (MITADER), through the National Directorate of the Environment (DINAB) and Provincial Directorate of Land, Environment and Rural Development (DPTADER) is the authority responsible for reviewing and approving the environmental assessment.

 An application form was submitted to MITADER on 27 June 2017 and a categorisation letter was issued on 14 July 2017.

TRITON MINERALS ANCUABE – ORE RESERVE ESTIMATE



Criteria	Commentary
	• The Environmental Pre-Feasibility Study (EPDA) was submitted to the authorities on 5 October 2017 and a letter of acceptance for the EPDA was received on the 5 December 2017.
	• The ESIA recommendations have been synthesized into an Environmental Management Programme (EMPr).
	 In addition, Triton has elected to undertake this ESIA to the International Finance Corporation (IFC) Performance Standards (PS). These standards are also environmental and social safeguards applied by the Multilateral Investment Guarantee Agency (MIGA). The IFC is a member of the World Bank Group, and one of the largest development institutions that focuses exclusively on the private sector in developing countries.
	• The appropriate environmental considerations of the project are included in the project planning.
	 A portion of the waste rock identified within the project has been identified as potentially acid forming. Further rock-mass characterisation is required to determine appropriate disposal techniques to be applied to the project. A sensitivity analysis for increased waste disposal costs has been conducted and the Project remains economically viable if further actions are required to address the increased disposal requirements of potentially acid forming waste rock.
Infrastructure	Infrastructure, Power, Water and Logistics
	The Ancuabe FS addresses the requirements for all site based infrastructure, power, water and logistics to establish, build and operate the project. The planning of these requirements in the FS comprised design, budget estimates from suppliers and detailed cost estimates to a FS level of confidence. The appropriate costs of infrastructure and logistics for the establishment and support of the proposed operation are included in the cost estimates for the project.
Costs	Capital cost estimate
	The capital cost estimate used in the FS has been compiled based on the design, supply, fabrication, construction and commissioning of a new graphite plant in Mozambique and includes mining equipment, supporting infrastructure and indirect costs. The estimate for the process plant facility is based on the process design, process design criteria and equipment list, and process flowsheets.
	Capital estimates have been developed using a combination of enquiry and or quotes from suppliers and EPC contractors, benchmark projects and consultant databases. The capital costs do not make provision for mine closure and environmental costs, and social responsibility costs. The costs are presented as real costs and are exclusive of escalation.
	The capital cost estimates presented in this document are considered to have an overall accuracy of \pm 15%. The estimates were made in the fourth quarter (Q4) of 2017 and are presented in US dollars.
	Operating cost estimate
	The operating costs are defined as the cost of all ongoing mining, processing and operational activities and were developed using a combination of enquiry and or quotes from suppliers, benchmark projects and consultant databases. The operating costs are real, exclusive of escalation and do not make provision for social responsibility costs.
	The operating cost estimate is based on an annual throughput of 0.8 Mtpa for 14 years and 1.05 Mtpa for the remainder of the mine life, operating schedule of 24 hours per day, seven days per week. The operating cost estimate is presented on an annualised basis and there has been no allowance for initial ramp-up periods or contingencies applied. The operating cost estimate has been prepared to an accuracy of ±15%.
Revenue factors	Graphite does not trade on a designated metal exchange, nor does it have a benchmark index. Prices are negotiated directly between buyers and sellers.



Criteria Commentary

Given the graphite industry has historically been dominated by private companies, access to reliable graphite pricing data is difficult to obtain. There are also numerous products across a number of grades and flake sizes and prices differ depending on these characteristics.

The pricing used in the Ancuabe Project financial analysis is driven by the following assumptions:

- A favourable flake size distribution due to a disproportionally larger flake sizes
- A price premium associated with higher purity graphite concentrates
- Value proposition to downstream spheronisers and anode material producers in using a superior feedstock leading to higher spheronising yields

Basket price calculations are used for project assessment, analysis and benchmarking across multiple projects. Below is the Ancuabe basket price calculation including all Basket Price Observations:

- Basket price forecasts are based on graphite price forecasts provided by Metal Bulletin, 2017. 1.
- 2. Prices are generally higher for larger flake sizes.
- 3. Less price differentiation exists at finer flake sizes.
- Higher graphite demand forecast to drive the basket price until 2027. 4.
- 5. From 2030 Triton Management assume long term basket price of US\$1,427 per tonne.



Ancuabe Basket Price Forecast: 2019-2043

Product performance testing

Ancuabe T12 concentrates were submitted to a German laboratory for testing of suitability for use in various markets.It was concluded that:

- High oxidation peaks indicate that the graphite is suitable for use in high temperature applications
- Very low ash levels resulted in both alkaline and acid purification achieving 99.5% Fixed Carbon
- XRD analysis was conducted to measure the d002 value (interlayer spacing) and qualitative identification of the main gangue mineral phases still present. This study indicated a high degree of graphitization for the Ancuabe graphite, calculated to be between 97% and 99%
- Scanning electron microscopy (SEM) studies showed that the flakes are generally very clean with little or no gangue overgrowth visible (Figure 10)

TRITON MINERALS ANCUABE – ORE RESERVE ESTIMATE



Criteria Commentary



Figure 10 Ancuabe +80 mesh concentrate from composite 6, showing detail of large rounded flakes with clean surfaces (IVD010 91 to 105 m) Page 22 of 35

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Figure 11 Ancuabe +50 mesh concentrate converted to expandable graphite and exfoliated to >320 mL/g $\,$



Criteria Commentary

assessment

Market Offtake agreements

Triton recently announced three non-binding Memoranda of Understanding (MOU); refer to Triton 2017m). The first MOU with Sinoma Overseas Development Company "provides a framework for negotiations for offtake for up to 50% of the graphite concentrate production from the Ancuabe Graphite Project, EPC services for construction of the Ancuabe Graphite Project graphite concentrate plant, debt financing arrangements for construction of the Ancuabe Graphite Project and project level investment."

The second was "an offtake MOU with Qingdao Tianshengda Graphite Co., Ltd for up to 15,000 tonnes per annum of graphite concentrate for an initial term of five years, across all flake sizes", from the Ancuabe Graphite Project.

The third non-binding MOU was "with Haida Graphite in relation to sales agency services in China for product testwork, development and sales, technical collaboration for value adding to the Company's graphite and offtake up to 25% of the Ancuabe Graphite Project graphite concentrate production, over various flake size distributions and purity."

CSA Global is of the opinion that available process testwork indicates that likely product quality is considered favourable for eventual economic extraction. In addition, the proximity of T12 to the GK Ancuabe Mine (currently back in production) and potentially favourable logistics to Pemba Port support the classification of the T12 deposit as an Industrial Mineral Resource in terms of Clause 49.

Market

Triton engaged Metal Bulletin Research (Metal Bulletin), a specialist international publisher and information provider for the global steel, non-ferrous and industrial minerals markets, to prepare an independent report on the graphite market.

Flake size analysis and market

Graphite from each flake size category has different markets and applications and these are addressed in the following sections.

Commercially, the most common flake graphite sizes, which are measured in US mesh sizes, are:

- Jumbo flake: +32 mesh, +48 mesh
- Large flake: +80 mesh
- Medium flake: +100 mesh
- Small flake / Fines: -100 mesh

Larger mesh sizes are sometimes required for more specialised applications, while flake graphite fines (-100 mesh and smaller) are a by-product of all deposits which have less commercial value.

Flake graphite is mainly sold in private contracts between the buyer and seller that are negotiated on a regular basis where prices are set.

Testing of the Ancuabe graphite product indicates that Triton Minerals is well positioned to benefit from the growing graphite demand in the emerging lithium-ion battery sector in vehicle and energy storage applications in addition to traditional applications.

Natural Flake Graphite Demand

Demand for natural flake graphite is in a state of flux where mature applications are being rapidly displaced by emerging applications attributable to technology developments.

The chart below demonstrates this in that refractories are forecast to remain flat for the long term while battery applications and expandable graphite offer the most growth prospects.



Criteria Commentary



Market Segments

The chart below is useful in capturing the key applications from where graphite demand is derived and where future opportunities are for Triton Minerals as a prospective natural flake graphite producer.



Forecast graphite demand by end-use, 2017 and 2027

Marketing Model

The Triton Minerals business model involves producing 3 product groups based on sized fractions to give coverage across all targeted applications and engaging supply chain participants appropriate to the product type.

For example, lower sized fraction material is ideally suited to the refractory and recarburiser applications and can be sold through direct sales channels. More complex applications such as expandable graphite and lithium-ion batteries require a more specialised approached through channels trusted by end-users and manufacturers. In this example global trading houses present the best channels to market. Several have already shown an interest in Triton Minerals product portfolio and will be supplied greater volume samples in the next pilot plant production run.

Graphite Marketing Approach Summary

Triton Minerals recognises the growing potential of emerging applications such as expandable graphite and 1. anode materials for lithium-ion batteries.



Criteria	Commentary
	 Triton Minerals will adopt an approach where existing large volume applications such as refractories and recarburisers are targeted through calculated production processes while simultaneously allowing for product offtake into high potential emerging markets. Product marketing will be a combination of direct to end-users and through global trading companies with access to the complex supply chains of emerging applications. Industry standards indicate that negotiated pricing is driven by purity and flake size with an emphasis on consistency of quality in supply. Automation dictates that production is consistent therefore there is no scope for product variation to successfully secure and maintain global end-users and manufacturers.
	Graphite Sales Progress
	Triton Minerals has been extremely active in the graphite market, engaging supply chain participants from those applications outlined in this document such as Lithium-ion battery products, refractories, recarburisers and expandable graphite.
	Of the parties engaged several have formalised their interest in the form of Memorandums of Understanding as listed below.: 1. Tianshengda Graphite 2. Haida Graphite 3. Sinoma 4. Hensen Graphite Market Suitability
	Sizing and Purity versus Price
	1.1 When pricing natural flake graphite it is important to note that pricing is driven by purity and flake size. As different flake sizes lend themselves to different applications pricing differs across all size ranges. The general trend is the larger and coarser the flake size the higher the price as confirmed with independent sources:
	1.2 Graphite flake size distribution is one of the more debated project factors; however a number of facts about flake size are true; firstly, the larger the flake (in a given deposit) the higher the purity of the graphite product is likely to be and secondly, the larger the flake size the higher the price.
	1.3 (Metal Bulletin 2017).
	Each specific flake size is assigned its own price. In order to determine the value of a specific concentrate each sized fraction is valued on its proportion to calculate the basket price – a useful tool for comparative valuation purposes.
	Below is the price forecast provided by Metal Bulletin where the relationship between flake size and price is clearly visible.



Criteria

Commentary

	Grade	9					FOB C	lingdao			
	Mesh Size	Carbon	H2 2019	2020	2021	2022	2023	2024	2025	2020-2025 average	2025-
Super Jumbo	Below 48 Mesh	96%	2,091	2,049	2,131	2,088	2,151	2,065	2,106	2,098	
Jumbo Flake	48 Mesh	94-97%	1,789	1,842	1,911	2,001	2,081	2,170	2,235	2,040	
Large flake	48-80 Mesh	94-97%	1,369	1,409	1,370	1,527	1,371	1,649	1,372	1,554	
Medium flake	80-100 Mesh	94-97%	661	684	697	725	743	767	805	737	
Small Flake	100-200 Mesh	94-97%	698	696	689	687	685	684	695	689	
Fine Flake	Over 200 Mesh	80-85%	397	383	375	354	345	330	318	351	

Grade			CIF Europe								
	Mesh Size	Carbon	2019	2020	2021	2022	2023	2024	2025	2020-2025 average	2025-2030 average
Super Jumbo	Below 48 Mesh	96%	2,244	2,199	2,287	2,241	2,308	2,216	2,260	2,252	2,455
Jumbo Flake	48 Mesh	94-97%	1,954	2,012	2,088	2,186	2,273	2,370	2,441	2,228	2,474
Large flake	48-80 Mesh	94-97%	1,374	1,588	1,375	1,722	1,376	1,858	1,377	1,752	1,378
Medium flake	80-100 Mesh	94-97%	826	855	872	907	929	959	986	918	1,101
Small Flake	100-200 Mesh	94-97%	833	832	825	825	823	823	827	826	995
Fine Flake	Over 200 Mesh	80-85%	556	531	502	469	443	423	409	463	566

Grade					C	F USA Ea	st Coast				
	Mesh Size	Carbon	2019	2020	2021	2022	2023	2024	2025	2020-2025 average	2025-2030 average
Super Jumbo	Below 48 Mesh	96%	2,315	2,269	2,360	2,312	2,382	2,287	2,332	2,324	2,533
Jumbo Flake	48 Mesh	94-97%	2,031	2,092	2,170	2,272	2,363	2,464	2,538	2,316	2,571
Large flake	48-80 Mesh	94-97%	1,379	1,667	1,380	1,807	1,381	1,951	1,382	1,839	1,383
Medium flake	80-100 Mesh	94-97%	903	934	953	991	1,016	1,049	1,077	1,003	1,204
Small Flake	100-200 Mesh	94-97%	873	873	866	868	868	869	874	870	1,047
Fine Flake	Over 200 Mesh	80-85%	642	628	601	588	568	544	532	577	702

Source: Metal Bulletin 2017

Ancuabe Basket Price

Triton's price calculations are based on the assumption that graphite pricing is a function of flake size and purity.

Graphite does not trade on a designated metal exchange, nor does it have a benchmark index. Prices are negotiated directly between buyers and sellers. Given the graphite industry has historically been dominated by private companies, access to reliable graphite pricing data is difficult to obtain. There are also numerous products across a number of grades and flake sizes and prices differ depending on these characteristics.

Pricing applied for the FS was determined from a range of sources. Graphite sector analyst forecasts were the basis of pricing in conjunction with indicative prices sourced from ongoing discussions with potential customers and offtake partners. The price for the flake size categories was then compared to a peer group to determine if they were within a reasonable range.

The weighted average price per tonne of Ancuabe product for the Base Case in the FS is determined to be US\$1,435 per tonne of 95% concentrate on an FOB Pemba basis.

Economic Financial Model

During the FS, a financial model was built for the purpose of analysing the cashflows that would be generated by the Ancuabe project. The model was used to evaluate the cashflow effects of the mining schedule and process plant design, as well as the relative sensitivities of major cashflow components.

The FS financial model has now been used to evaluate the Ore Reserve component of the project.

The production generated from the Indicated portion of the Ancuabe Resource makes up a subset of the total project considered in the FS. The Indicated portion of the Resource used in the Ore Reserve version accounts for 95% or processed



ore over the life of mine. The 5% Inferred material does not materially impact the overall financial viability of the Ancuabe Project.
The payback period, after consideration of tax is less than 4 years and the Internal Rate of Return (IRR) is greater than 20% which meets the company's investment hurdle.
The project has been tested in a sensitivity analysis where the value has been assessed while changing key parameters such as basket price, mill feed grade, capital cost and operating cost.
 The project area is approximately 80 km by road west of Pemba and is located within the Ancuabe District in the Cabo Delgado Province of Mozambique. The nearest main town to the project area is the town of Ancuabe, which is still 20 km away. There are several villages located outside the project boundary, with the nearest being 10km away. Four villages are considered to be directly affected: Silva Macua (also known as Sunate); Nankhumi; Natocua; and Muaguide.
These villages occur inside the corridor of impact and will be affected by economic trade and commerce, and related demographic and livelihood changes. They will also be affected directly from the physical activities of the project itself, and some will be economically displaced as a result of the project's land take.
None of the directly affected settlements are located inside the mine licence area, and there will be no physical resettlement. However, villagers utilise the study area for natural resource harvesting and to a lesser extent cultivating farmlands (referred to locally as machambas). Most of the machambas occur within the most south western point of the naul road (where the haul road joins the main road: R243), although some machambas are located within the proposed dam site. Most of these machambas are cropped with cassava, maize, beans, peas and sesame. Some mango and cashew trees (mostly sapling, non-producing trees) and secondary structures (i.e. not physical living houses) were recorded on the machambas.
The Public Participation Process (PPP) involves consultation with the wider public, to facilitate the dissemination of information about the project and identify Interested and Affected Parties (I&APs).
The proponent is required to undertake the PPP throughout the ESIA process. This includes advertising meetings and affording I&APs the opportunity to participate in public meetings and must be conducted in the presence of the authorities. The PPP is undertaken based on any directives given by the relevant authority and the results of the process are summarised in a final public participation report. The process includes at least two series of public consultation meetings with the first one being undertaken for the presentation of the draft EPDA and the second one for the presentation of the draft ESIA.
Disclosure of the EPDA to the authorities and affected communities was undertaken on the 8th and 10th of August 2017 and disclosure of this draft ESHIA will be undertaken on the 15th and 19th of January 2018.
The details of the meetings held to date are included in the Public Participation Report.
• The company is conducting advanced discussions with potential buyers of the product regarding offtake agreements and potential investment in the company.
 The Ore Reserve estimate considers only Indicated Resources and does not include any quantity of Inferred or unclassified material. Thus, the Ore Reserve estimate comprises only Probable Ore Reserves. No Measured Resources have been estimated for the Acrusabe project.
ar fy fsi feaf fida Nefehoten fii tatsvo cat



Criteria	Commentary
	 The mine plan used in the Ore Reserve estimate includes approximately 5% of Inferred material that is mined during the process of accessing the Indicated ore. This Inferred Resource is not considered material to the value of the project and is not included in the estimation of the Probable Ore Reserves. The result appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• The Ore Reserve estimate has been subject to internal review within CSA Global. It has not yet been subject to independent third-party review.
Discussion of relative accuracy/	• The estimates in this study relating to mining, processing and cost performance are underpinned by a comprehensive FS which has a confidence range of +/- 15%
confidence	• A key parameter of the estimate is the value of the basket price received for the product. This is based on reliable metallurgical testwork to determine the proportions of each flake size category in the product. The estimated price received for the combined product is based on a credible estimate of the expected price as of the project base date. As with all commodities, the actual price received will depend on market conditions and contractual arrangements at the time of sale. A sensitivity analysis was completed in the financial model for basket price reductions of 20% and the project value remains positive at this point.
	• The estimate is based on a detailed block model of the Resource and a detailed mine design. The Ore Reserve is based on a spatially supported and explicit mining schedule.



Appendix 2 – JORC Table 1

Section 1 to 3 - T12



Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	 The drill results are from Reverse Circulation Percussion (RCP) and Diamond (DD) core drilling carried out during 2015, from October through December 2016 and from May through August 2017.
Drilling Anglering	 Diamond drill holes are interspersed within the RC drill grid to provide qualitative information on structure and physical properties of the mineralization. Diamond core (PQ and HQ3) was cut into quarter core onsite using a diamond impregnated blade on a core saw. Quarter core samples were generally 1 metre in length. RC samples were collected on the rig. The sampling method used in 2016 differed to that used in 2017 due to different rig types. In 2016 two 1 m samples from the drill cyclone were collected into plastic bags. One of each set of two 1m samples was passed through a riffler splitter to reduce the sample size to 1 -2kg. In 2017 sampling was again at 1m intervals with the chips being collected via an external (to the drill rig) cyclone into a single plastic bag. The 1m bag chips were then split by means of a riffler splitter to samples sizes 0.5 - 2kg.
Drilling techniques	 The RC drill rigs used in 2016 and 2017 had a 5.5 inch diameter hammer. The diamond drill holes were drilled with a PQ core size collar to approximately 30 m depth and HQ3 (61.1 mm diameter) core size to the end of hole.
Drill sample recovery	 The condition and a qualitative estimate of 2016 RC sample recovery was determined through visual inspection of the 1m sample bags and recorded at the time of sampling. The sampling method used in the 2017 RC drilling resulted in a +-30kg sample which was then split by means of a riffler splitter to 0.5–2 kg sample size. A hard copy and digital copy of the sampling log is maintained for data verification.
	 Generally, drill core recovery was above 95% below the base of oxidation. Core recovery was 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 were checked against the depth given on the core blocks and rod counts were routinely carried out by the drillers and checked by the rig geologists. RC samples were visually checked for recovery, moisture and contamination. Water entrainment into the sample was minimized using additional high-pressure air supply down hole. Wet samples were recorded as these generally have lower sample recovery.
Logging	All drill holes were logged in full
	 Geological logging was completed on all holes for the full mineral assemblage that can be identified in hand specimen, in addition to texture, structure and visual estimates of graphite flake content and size.
	 Geotechnical logging was carried out on all diamond drill holes for recovery, RQD and number of defects (per interval). Two of the DD holes (IVD032 and IVD036) were drilled at minus 60° and were orientated and Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material 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 CSA Global's Perth office for compilation and validation. Logging of RCR and DD holes includes recording lithelagy.
	 Compliation and validation. Logging of KCP and DD holes includes recording inhology, mineralogy, mineralisation, weathering, colour and other features of the samples. RCP Chip trays and DD core trays were photographed. Geological descriptions of the mineral volume abundances and assemblages are semi-quantitative.
Sub-sampling	Diamond core (PQ and HQ3) was cut into quarter core onsite using a diamond impregnated
techniques and	blade on a core saw. Quarter core samples generally 1 metre or less in core length are
preparation	submitted to the lab labelled with a single sample name. Samples are generally defined
, . ,	according to geological unit and graphite content boundaries. Barren samples were sampled
	were combined into single composite samples
	 RCP samples in the 2016 drilling programme were collected on the rig via a rig mounted
	cyclone. The cyclone splitter resulted in two samples collected in plastic bags and typically 2 – 3kg in weight. The samples were not split at the cyclone, but were passed through a single stage riffler splitter to reduce the sample size to about 1kg. The second sample bag from



	 each set of two samples was retained for record purposes. The majority of samples are dry. RCP samples in the 2017 drilling programme were collected as single 1m chip samples via a stand-alone cyclone. The sample size was about 30kg and this was then reduced through a riffler splitter to 0.5–2 kg. The sampling procedure used in Boreholes IVC045 to 061 was not properly controlled with resultant spillage during riffler splitting. Check sampling was conducted on these boreholes by means of re splitting the original 1m samples using a procedure that did not involve spillage and found no significant bias in the original samples. The sample preparation of the diamond core samples involved oven drying (105°C), coarse crushing of the diamond core sample down to 2mm, splitting by rotary cone splitter and pulverizing to a grind size of 85% passing 75 micron. In the 2017 drilling programme the sample crushing step was to 10mm for the early stage and split through a riffler splitter; i.e. IVD055 to IVD071. From IVD071 to IVD105 and GT1 to GT8 the crushing size was reduced to 2mm and split through a rotary cone splitter. The sample preparation for RC samples was identical, without the coarse crush stage. In the 2017 drilling programme the RC samples from IVC045 to 061 were frequently less than one kg in size and in these cases the samples were not split but the whole sample pulverized. Field QC procedures involve the use of certified reference material (CRM) analytical standards, along with both certified silicate blanks and blanks comprised of locally-sourced gneiss aggregate. CRMs, duplicates and blanks were inserted at a rate of 1 in 20 for both DD and RC sample DD in 2016 comprised duplicate rushed splits (rejects) inserted into numbered sample bags at the analytical laboratory (BV Rustenburg) with one borehole, IVD045, having duplicate DD in 2016 comprised duplicate rushed splits (rejects) in 2016, selected from laboratory pulps to represent about 5% of the original analytical result
Quality of analytical data and laboratory tests	 The analyses were by industry standard methods for total carbon (TC), total graphitic carbon (TGC) by infrared analyser and sulphur analysis. The CRM, blank and duplicate results are within acceptable limits. and indicate that the field and laboratory sample preparation was under control.
	 External laboratory assays on pulp and crushed splits/rejects indicated that the 2016 analyses are within acceptable limits. The external laboratory results for the 2017 programme indicated that the early sample preparation with crushing to 10mm instead of 2mm did increase the degree of assay variability but that the results were still within acceptable limits. The results for 2017 samples, as received to date, after the change to 2mm crushing are within acceptable limits. The field RC check samples for IVC045 to 061 assay results are deemed to be within acceptable limits. The QC sample assay results indicate that the field and laboratory sample preparation was under control and that analyses for TGC and Sulphur are acceptable. The analyses were imported into geological software and compared with visual graphite estimates and logged geology. There was good correlation between logged geology, visually estimated grades and analysed TGC.



	 Visual grade estimates of in situ flake graphite content are not quantitative. The visual estimate ranges are: Low (< 5% flake graphite); Medium (5 to 10% flake graphite) and High (> 10% flake graphite).
Verification of sampling and analyses	 Mr Rob Barnett, an Associate of CSA Global, was onsite during the full 2016 drilling programme and inspected and monitored logging, sampling and density measurement procedures as well as mentoring the project geologists. In 2017 he visually verified geological observations of some of the reported RC and Diamond drill holes at Targets T12 and T16. He was on site for two weeks at the start of the drill programme and later for one week follow-up and provided mentoring to the geologists. Geological logging of all drill chips and core was undertaken by trained geological staff on site. Sample information is recorded at the time of sampling in electronic and hard copy.
Location of data points	 Collar locations for all holes at T12 and T16 were initially positioned with a hand-held GPS. The dip and azimuth of most of the holes was measured by the drill company using a Reflex downhole survey tool. Holes shorter than about 50 m were not surveyed in 2016 as it was deemed these would not deviate materially. The 2016 drill collars were surveyed in February 2017 by a registered surveyor from local company TOPOTEC using differential GPS methods. The 2017 drill collars were surveyed in August 2017 by Topotec.
Data spacing and distribution	 The nominal drill hole spacing at T12 is 50 m on north-south drill lines spaced 50 m apart in the eastern part of the deposit (east of line 617,150 m E). The nominal drill hole spacing to the west of line 617,150 m E is 50 m on north-south lines spaced 100 m apart. Based on the geology at Ancuabe, which is a gneissic terrane, a drill spacing of between 50 m and 100 m is considered sufficient for classification of Inferred and / or Indicated Mineral Resources in terms of geological confidence. Samples have been collected at 1 m lengths of quarter core, with barren core being sampled 2m either side of graphite intersections. Barren core was not sampled other than the 2m samples either side of graphite intersections. Diamond core sample breaks corresponded to geological boundaries wherever possible.
Orientation of data in relation to geological structure	 The holes were generally drilled vertically. The interpreted dip of the geological units has been estimated to be 10° to 25° to the north and northwest. The geological units appear to pinch and swell and be affected by gentle folding and possibly some faults. The drilling inclination was considered to be appropriate for the style of geology, including the effects of lateral pinching and swelling and localised folding
Sample security	• Chain of custody is managed by Triton. Samples are stored at a secure yard on the project prior to shipping to South Africa for preparation and analysis.
Audits or reviews	 The logging and analytical data was imported into Micromine software and validated for overlapping intervals, depths below final hole depth and for comparison of analyses with visually-logged graphite content and geology. Mr R Barnett, an Associate of CSA Global, visited the assay laboratories in South Africa (BV and Intertek) to audit sample preparation (BV and Intertek) and analytical (BV South Africa only) procedures. The Competent Person (Dr Scogings of CSA Global) has had a working relationship with Intertek Perth (analytical laboratory 2017) and has confidence in that company's assay procedures. The audits and reviews indicated that laboratory procedures were satisfactory and fit for purpose, and that the analyses reported to date were acceptable.



Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	 The Ancuabe T12 and T16 targets are 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. Tenement modifications, which include a rationalisation of the area associated with the tenements and tenement applications, and the Mining Concession application, are now in process with Instituto Nacional de Minas (INAMI). All statutory approvals have been acquired to conduct exploration and Triton Minerals has established a good working relationship with local stakeholders.
by other parties	Triton's interest in the area.
Geology	 The Ancuabe tenements are underlain mainly by rocks of the Proterozoic 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.
Drill hole	 The coordinates for the reported holes are tabulated in the accompanying report.
Data aggregation methods	 The samples have been aggregated using a length weighted average method. No lower cut-off grades were applied, as the limits of graphitic mineralisation are interpreted to be related to lithological boundaries as logged. Future extraction may follow lithological contacts, not assayed cut-offs. Based on previous experience with flake graphite projects, it is considered likely that a lower cut-off grade of 2 to 3% TGC may define the boundary between mineralised and low grade or non-mineralised rocks.
Relationship between mineralisation widths and intercept lengths	• The intercept widths are apparent (down-hole) and do not represent true width. This is because the holes reported are vertical, and the mineralisation is estimated to dip at about 20 degrees to the northwest. However, the reporting of apparent widths is not considered likely to have a material effect on the project, given the thickness and relatively shallow dip of the mineralised layers.
Diagrams	Refer to figures within the main body of this report.
Balanced reporting	 All exploration results for the reported mineralised intervals are tabulated in the accompanying report. Minor graphite intercepts in waste, or low grade rocks between the main mineralised intervals are not tabulated; however they are illustrated in cross sections in the main body of the report.
Other substantive exploration data	 Selected core samples from all DD drill holes were measured for bulk densities. For weathered core the selected core pieces were air dried, cut by diamond saw to a cylindrical shape and measured by digital caliper (diameter and length) to calculate volume. The cut core pieces were then weighed to allow density to be calculated. For fresh core an Archimedes scale was used for density calculation. Regional scale mapping has been carried out in the area to identify outcrop of graphitic material. A helicopter-borne 400m line-spaced versatile time-domain electromagnetic (VTEM) survey that was carried out by Geotech Ltd over the Ancuabe Project in November 2014. The VTEM survey revealed several EM targets, of which T2, T3, T4, T10 and T12 were drilled in 2015 and confirmed to host graphite mineralisation of varying thickness and grade; of these T12 was the most promising target drilled in 2015. Magnetic data were also acquired along with the VTEM survey and the project area was divided into three distinct domains by Resource Potential Pty Ltd, based on the magnetic response patterns. The interpretations below were reported by Resource Potentials: Domains 1 and 3 exhibit strong and highly folded magnetic responses, indicating a metamorphosed probably mixed sediment and volcanic domain, whereas Domain 2 has much lower magnetic amplitudes, suggesting a more sediment rich protolith. Domain 2 is host to the most promising graphite targets, including T12.



•	A ground-based Fixed Loop Electromagnetic survey (FLEM) was completed over T12 during the 2017 drill programme. The FLEM conductor plates were modelled on the EM decay data acquired for each FLEM survey area; this involved creating conductor source bodies as thin and rectangular plates with specific dimensions, orientation, conductance and location in 3D space. The modelled plates were divided into several categories based on their modelled conductance, where for >2,000 Siemen (S) are very strong, 1,000 S – 1,999 S are strong and 500 S – 999 S are moderate. The main mineralised part of T12 is characterised by the presence of Very Strong and Strong conductors, which were used to underpin the resource modelling process
Further work •	The latest 2017 drill data will be incorporated into the geological model for purposes of reporting updated Mineral Resource estimates for T12 and T16 later in 2017.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	• Data used in the Mineral Resource estimate is sourced from an MS Access database export.
	Relevant tables from the primary Datashed relational geological database, and imported into
	as csv files into Datamine Studio 3 software.
	Validation of the data imported comprises checks for overlapping intervals, missing survey
	data, missing analytical data, missing lithological data, and missing collars.
Site visits	• A representative (Mr R Barnett) of the Competent Person (CP) visited the project for two
	days in April 2016, a week during August 2016, was on site during the 2016 drilling program
	He was on site for two weeks at the start of the 2017 drill programme and later for one week
	follow-up and provided mentoring to the geologists.
	• The CP's representative was able to examine the mineralisation occurrence and associated
	geological features. The geological data was deemed fit for use in the Mineral Resource
	estimate.
Geological	• The geology and mineral distribution of the system appears to be reasonably consistent
interpretation	though affected by folding, with thicker zones of mineralised material in the eastern half of
	the deposit thinning to the west. Any structural influences are not expected to significantly
	alter the volume of mineralised material interpreted.
	• A footwall unit comprising amphibolitic gneiss has been recognised in the drill logging. The
	surface of this layer has been modelled to provide a basis for understanding the geometry
	of the overlying graphite mineralisation hosting gneissic units.
	• A garnetiferous quartzo-feldspathic marker layer has been identified within mineralisation
	zone 2, especially in the eastern part of the deposit; this has been used to correlate between
	holes.
	• An amphibolitic unit ranging up to about 30 m apparent thickness was intersected in holes
	drilled between lines 617000E and 617250E and coincides with an area of less well-
	developed graphite mineralisation.
	Drill hole intercept logging, core photographs, analytical results, the footwall sequence and
	geological mapping have formed the basis for the mineralisation domain interpretation.
	Assumptions have been made on the depth and strike extents of the mineralisation based
	on the drilling, mapping and FLEM conductor plate models. Approximately 30% of the
	modelled mineralisation zones can be considered to be extrapolated.
	• The extents of the modelled zones are constrained by the information obtained from the
	drill logging, field mapping and FLEM conductor plate models. The extents of the modelled
	mineralised zones are constrained to the north east and west by interpreted faults, and to
	the south and east by topography.
	Alternative interpretations are unlikely to have a significant influence on the global Mineral
	Resource estimate.
	• An overburden layer with an average thickness of 2 m has been modelled based on drill
	logging and is depleted from the model.



Criteria	Commentary
	Graphite mineralised gneiss lenses have been interpreted based on a nominal lower TGC cut-
	off grade of 3%, with seven individual mineralisation lenses being modelled.
	Continuity of geology and grade can be identified and traced between drill holes by visual
	and geochemical characteristics.
	• Confidence in the grade and geological continuity is reflected in the Mineral Resource
	classification.
Dimensions	• The interpreted mineralisation zones (>3% TGC) comprise eight individual lenses.
	Approximately 70% of the mineralisation is contained in two major lenses (Zones 1 and 2).
	that range between a minimum of about 2 m up to a maximum of about 15 m in true
	thickness. The mineralisation roughly strikes towards 070°, dipping on average 20° towards
	340° – although the lenses appear to be affected by gentle folding.
	• The strike extent is roughly 1,100 m and across strike width is roughly 500 m.
	• The mineralisation outcrops in the south and east and is interpreted up to a maximum depth
	of about 190 m below surface in the north. The combined thickness of the mineralisation
	zones is greatest (\approx 25 m to \approx 40 m) in the eastern half of the deposit thinning to the west (\approx 5
	m to ≈20 m).
Estimation and	Ordinary Kriging (OK) was the selected interpolation method, with Inverse distance
modelling	weighting to the power of two (IDS) used as a check estimate.
techniques	Grade estimation was carried out at the parent cell scale, with sub-blocks assigned parent
	block grades. Grade estimation was carried out at the parent cell scale, with sub-blocks
	 Grade estimation was carried out using bard boundaries between each of the eight
	interpreted mineralisation lens using the mineralisation zone code. A soft boundary within
	each of the seven eastern most mineralisation zones was used to accommodate a change
	in search ellipse orientation. The orientation change was required due to a change in the
	broad geometry for roughly the eastern one third of these zones due to folding.
	 Estimation was not separated by weathering state since the grade population distributions and grades for the different weathering states are year similar.
	 Statistical analysis to check grade nonulation distributions using histograms, probability
	plots and summary statistics and the co-efficient of variation, was completed on each lens
	for the estimated element. These checks showed two of the minor mineralisation zones
	have outlier grades requiring top cutting .
	• Sulphur is not reported but has been estimated into the model, as sulphide minerals have
	the potential to generate acid mine drainage, and affect the metallurgical processes for
	minerals do not present any issues in recovering the graphite. Due to the lack of available
	analytical results for samples in the oxide and transition zones for some mineralisation
	zones the sulphur grade estimate for these zones has been completed with soft boundaries
	in the oxide and transition weathering zones. The sulphur grade estimate has been
	completed with hard boundaries between weathering domain zones. The waste sulphur
	estimate is estimated with a hard boundary between it and the interpreted mineralisation
	associated with waste rocks than mineralisation zones. The sulphur estimate is not
	considered to be sufficiently accurate to allow reporting of the results, rather it is included
	in the model at this stage for indicative purposes only and is primarily of use in the fresh
	zones.
	 A volume block model was constructed in Datamine constrained by the topography, mineralisation zones, weathering surfaces, overburden surface and model limiting
	wireframes.
	 Analysis of the drill spacing shows that the nominal average drill section spacing is 50 m
	with drill holes nominally 50 m apart on each section over a majority of the modelled area.
	• Based on the sample spacing, a parent block size of 25 m E by 25 m N by 5 m RL or
	nominally half the average section spacing was selected for the model. Sub-cells down to
	2.5 m E by 2.5 m N by 2.5 m KL were used to honour the geometric shapes of the modelled mineralisation
	 The search ellipse orientations were defined based on the overall geometry of each
	mineralisation zone, with the seven eastern most zones having a change in ellipse
	orientation for roughly the eastern one third of there plan view extent due to a geometric


Criteria	Commentary
Criteria	 Commentary change caused by folding. The search ellipse was doubled for the second search volume and then increased 20-fold for the third search volume to ensure all blocks found sufficient samples to be estimated. The search ellipse dimensions are designed to ensure that the majority of blocks were estimated in the first search volume. The final dimensions were selected based on a kriging neighbourhood analysis (KNA), the near isotropic major and semi-major axis search dimensions are 95 m and 90 m respectively. Based on the results of the KNA, a minimum of 18 and a maximum of 36 samples were used to estimate each parent block for all zones. These numbers were reduced for the second and third search volumes. A maximum number of 6 samples per drill hole were allowed. Cell discretisation, again based on the KNA, was 5 E by 5 N by 5 Z and no octant based searching was utilised. Model validation was carried out visually, graphically and statistically to ensure that the block model grade reasonably represents the drill hole data. Cross sections, long sections and plan views were initially examined visually to ensure that the model TGC grades honour the local composite drill hole grade trends. These visual checks confirm the model reflects the trends of grades in the drill hole grades with the block model grade shows reasonably similar mean grades. The OK check estimate shows similar grades to the IDS model, adding confidence that the grade estimate has performed well. The model grades and drill grades were then plotted on histograms and probability plots to compare the grade population distributions. This showed reasonably similar distributions with the expected smoothing effect from the estimation taken into account. Swath or trend plots were generated to compare drill hole and block model with TGC% grades compared at 50 m E, 25 m N and 10 m RL intervals. The trend plots generally demonstrate reasonable spatial correlation between the model estimate and drill hole grades
	grades after consideration of drill coverage, volume variance effects and expected
	smoothing.
Maiatura	No reconciliation data is available as no mining has taken place.
woisture	 I onnages have been estimated on a dry, in situ, basis. No moisture values could be reviewed as these have not been contured.
Cut off neversetors	No moisture values could be reviewed as these have not been captured.
Cut-ojj purameters	 Visual analysis of the drift analytical results demonstrated that the lower cut-off interpretation of 3% TGC corresponds to natural break in the grade population distribution. Analysis of the drift core photography compared with the analytical grade results indicate that graphite mineralisation zones become visually recognisable at roughly 3% TGC.
Mining factors or	Based on the results from previous scoping studies it has been assumed that these deposits
assumptions	will be amenable to open cut mining methods and are economic to exploit to the depths
	currently modelled using the cut-off grade applied.
	 It is noted that a leading graphite producer has refurblished the hearby Ancuabe mine and brought it into production during 2017. The geology of the Ancuabe mine is believed to be similar to that at the T12 and T16 deposits.
	No assumptions regarding minimum mining widths and dilution have been made.
Motellungiant	No mining has yet taken place at 112.
factors or assumptions	 Petrographic studies demonstrated that the Ancuabe 112 mineralisation is generally coarse-grained and consists mainly of quartz, feldspar and graphite, with mica and sometimes amphibole, pyroxene, garnet or carbonate gangue minerals. The gangue minerals e.g. sulphides, mica, quartz and feldspar are generally discrete and not significantly intergrown with graphite, which has important positive implications for graphite liberation characteristics. Triton previously reported flotation testwork by Independent Metallurgical Operations (IMO) based on seven graphite gneiss intersections from five drill holes (Triton, 2016d, 2017j). Seventeen additional drill composites were submitted to IMO for flotation tests during 2017. This testwork confirmed the coarse graphite flakes of high purity could be liberated, with roughly 50% to 85% of the liberated flakes larger than 150 µm, at overall concentrate grades between approximately 95% and 98% Total Carbon (TC) at recoveries of around 90% The metallurgical variability test work demonstrated that the T12 graphite gneiss mineralisation is amenable to the production of bigh-grade graphite concentrates at a seven server of bigh-grade graphite gneiss
	coarse flake sizes and using relatively simple flotation processes.



Criteria	Commentary
Environmental factors or assumptions	 No assumptions regarding waste and process residue disposal options have been made. It is assumed that such disposal will not present a significant hurdle to exploitation of the deposit and that any disposal and potential environmental impacts would be correctly managed as required under the regulatory permitting conditions.
Bulk density	 Density measurements have been taken on drill samples from all different lithological types, using water displacement for fresh, non-porous samples and the calliper method for porous samples. The mean density measured and applied to the model for the mineralised samples in the fresh rock zone was 2.69 t/m3, for the transitional zone it was 2.42 t/m3, and for the oxide zone it was 2.15 t/m3. For the waste rock the mean measured density values of 2.02 t/m3 for the overburden material, 2.77 t/m3 for fresh rock, 2.46 t/m3 for transitional material and 2.36 t/m3 for oxide material have been applied.
Classification	 Classification of the Mineral Resource estimates was carried out taking into account the level of geological understanding of the deposit, sample quality, density data and drill hole spacing. The Mineral Resource estimate has been classified in accordance with the JORC Code, using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table. Overall the mineralisation trends are reasonably consistent over the drill sections. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	 Internal audits were completed by CSA Global, which verified the technical inputs, methodology, parameters and results of the estimate. No external audits have been undertaken.
Discussion of relative accuracy/ confidence	 The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. The Mineral Resource statement relates to global estimates of in situ tonnes and grade.



Appendix 3 – JORC Table 1

Section 1 to 3 - T16



Criteria	Commentary
Sampling techniques	 The drill results are from Reverse Circulation (RC) and Diamond (DD) drilling carried out from October through December 2016 and from May through August 2017. Diamond drill holes are interspersed within the RC drill grid to provide qualitative information on structure and physical properties of the mineralization. Diamond core (PQ and HQ3) was cut into quarter core onsite using a diamond impregnated blade on a core saw. Quarter core samples were generally 1 metre in length. RC samples were collected on the rig. The sampling method used in 2016 differed to that used in 2017 due to different rig types. In 2016 two 1 m samples from the drill cyclone were collected into plastic bags. One of each set of two 1m samples was passed through a riffler splitter to reduce the sample size to 1 -2kg. In 2017 sampling was again at 1m intervals with the chips being collected via an external (to the drill rig) cyclone into a single plastic bag. The 1m bag chips were then split by means of a riffler splitter to samples sizes of 0.5–2 kg
Drilling techniques	• The RC drill rigs used in 2016 and 2017 had a 5.5 inch diameter hammer. The diamond drill holes were drilled with a PQ core size collar to approximately 30 m depth and HQ3 (61.1 mm diameter) core size to the end of hole.
Drill sample recovery	 The condition and a qualitative estimate of 2016 RC sample recovery was determined through visual inspection of the 1m sample bags and recorded at the time of sampling. The sampling method used in the 2017 RC drilling resulted in a +-30kg sample which was then split by means of a riffler splitter to between 0.5 and 2kg sample size. A hard copy and digital copy of the sampling log is maintained for data verification. Generally, drill core recovery was above 95% below the base of oxidation. Core recovery was 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 were checked against the depth given on the core blocks and rod counts were routinely carried out by the drillers and checked by the rig geologists. RC samples were visually checked for recovery, moisture and contamination. Water entrainment into the sample was minimized using additional high-pressure air supply down hole. Wet samples were recorded as these generally have lower sample recovery.
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 drill holes for recovery, rock quality designation (RQD) and number of defects (per interval). The mineralogy, textures and structures were recorded by the geologist into a digital data file at the drill site, which were regularly submitted to CSA Global's Perth office for compilation and validation. Logging of RC and Diamond drill holes includes recording lithology, mineralogy, mineralisation, weathering, colour and other features of the samples. RC Chip trays and DD core trays were photographed. Geological descriptions of the mineral volume abundances and assemblages are semi-quantitative. All drill holes were 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. Quarter core samples generally 1 m or less in core length are submitted to the lab labelled with a single sample name. Samples are generally defined according to geological unit and graphite content boundaries. Barren samples were sampled 1–2 m either side of a graphitic horizon while limited barren zones, less than 5 m in length were combined into single composite samples. RC samples in the 2016 drilling programme were collected on the rig via a rig mounted

JORC (2012) Table 1. Section 1 Sampling Techniques and Data



Criteria	Commentary
	 cyclone: The cyclone spiriter resulted in two samples collected in plastic bags and typically 2 – 3kg in weight. The samples were not split at the cyclone, but were passed through a single stage riffler splitter to reduce the sample size to about 1kg. The second sample bag from each set of two samples was retained for record purposes. The majority of samples via a standalone cyclone. The sampling procedure used in Boreholes IVC045 to 061 was not properly controlled with resultant spillage during riffler splitting. Check sampling was conducted on these boreholes by means of re splitting the original 1m samples using a procedure that did not involve spillage. The sample preparation of the diamond core samples involved oven drying (105°C), coarse crushing of the diamond core sample down to 2mm, splitting by rotary cone splitter and pulverizing to a grind size of 85% passing 75 micron. In the 2017 drilling programme the sample crushing step was to 10mm for the early stage and split through a riffler splitter, i.e. IVD055 to IVD071. From IVD071 to IVD105 and GT1 to GT8 the crushing size was reduced to 2mm and split through a rotary cone splitter. The sample preparation for RC samples was identical, without the coarse crush stage. In the 2017 drilling programme the RC samples from IVC045 to 061 were frequently less than one kg in size and in these cases the samples were not split but the whole sample pulverized. Field QC procedures involve the use of certified reference material assay standards, along with both certified silicate blanks and blanks comprised of locally-sourced gneiss aggregate. Certified Reference Materials (CRMs, or standards), duplicates and blanks were inserted at a rate of 1 in 20 for both DD and RC sample streams. CRMs GGC01 (24.97% TGC), GGC05 (8.60% TGC), GGC006 (7.68% TGC); GGC009 (2.41% TGC) and GGC10 and GGC10 for Both DD and RC sample streams. CRMs GGC01 (24.97% TGC), GGC05 (8.60% TGC), GGC006 (7.68% TGC); Asing duplicate quarter core. I
Quality of analytical data	 The analyses were by industry standard methods for total carbon (TC), total graphitic carbon (TGC) by infrared analyser and sulphur analysis.
and laboratory tests	• The CRM, blank and duplicate results are within acceptable limits. and indicate that the field and laboratory sample preparation was under control.
	• External laboratory assays on pulp and crushed splits/rejects indicated that the 2016 analyses are within acceptable limits. The external laboratory results for the 2017 programme indicated that the early sample preparation with crushing to 10mm instead of 2mm did increase the degree of assay variability but that the results were still within acceptable limits. The results for 2017 samples, as received to date, after the change to 2mm crushing are within acceptable limits.
	 The field RC check samples for IVC045 to 061 assay results are deemed to be within acceptable limits. The QC sample assay results indicate that the field and laboratory sample preparation was



Criteria	Commentary
	 under control and that analyses for TGC and Sulphur are acceptable. The analyses were imported into geological software and compared with visual graphite estimates and logged geology. There was good correlation between logged geology, visually estimated grades and analysed TGC. Visual grade estimates of in situ flake graphite content are not quantitative. The visual estimate ranges are: Low (< 5% flake graphite); Medium (5 to 10% flake graphite) and High (> 10% flake graphite).
Verification of sampling and analyses	 Mr Rob Barnett, an Associate of CSA Global, was onsite during the full 2016 drilling programme and inspected and monitored logging, sampling and density measurement procedures as well as mentoring the project geologists. In 2017 he visually verified geological observations of some of the reported RC and Diamond drill holes at Targets T12 and T16. He was on site for two weeks at the start of the drill programme and later for one week follow-up and provided mentoring to the geologists. The geological logging of all drill chips and core was undertaken by trained geological staff on site. Sample information is recorded at the time of sampling in electronic and hard copy.
Location of data points	 Collar locations for all holes at T12 and T16 were initially positioned with a hand-held GPS. The dip and azimuth of most of the holes was measured by the drill company using a Reflex downhole survey tool. Holes shorter than about 50 m were not surveyed in 2016 as it was deemed these would not deviate materially. The 2016 drill collars were surveyed in February 2017 by a registered surveyor from local company TOPOTEC using differential GPS methods. The 2017 drill collars were surveyed in August 2017 by Topotec.
Data spacing and distribution	 The nominal drill hole spacing at T16 is 50m on drill lines spaced 50 m apart. Based on the geology at Ancuabe, which is a gneissic terrane, a drill spacing of between 50 m and 100m is considered sufficient for classification of Inferred and / or Indicated Mineral Resources in terms of geological confidence. Samples have been collected at 1 metre for RC samples. Most diamond core samples are taken as approximately 1m lengths of quarter core, with barren core being sampled 2 m either side of graphite intersections. Barren core was not sampled other than the 2 m samples either side of graphite intersections. Diamond core sample breaks corresponded to geological boundaries wherever possible.
Orientation of data in relation to geological structure	 The holes were generally drilled vertically. The interpreted dip of the geological units has been estimated to be 10° to 25° to the northwest. The geological units appear to pinch and swell and be affected by gentle folding and possibly some faults. The drilling inclination was considered to be appropriate for the style of geology, including the effects of lateral pinching and swelling and localised folding
Sample security Audits or reviews	 Chain of custody is managed by Triton. Samples are stored at a secure yard on the project prior to shipping to South Africa for preparation and analysis. The logging and assay data was imported into Micromine software and validated for overlapping intervals, depths below final hole depth and for comparison of analyses with visually-logged graphite content and geology. Mr R Barnett, an Associate of CSA Global, visited the assay laboratories in South Africa (BV and Intertek) to audit sample preparation (BV and Intertek) and analytical (BV South Africa only) procedures. The Competent Person (Dr Scogings of CSA) has had a working relationship with Intertek Perth (assay laboratory 2017) and has confidence in that company's assay procedures. The audits and reviews indicated that laboratory procedures were satisfactory and fit for purpose, and that the analyses reported to date were acceptable.



Section 2 Reporting of Exploration Results

Initeral tenement and land tenure • The Ancube T12 and T16 targets are within Exploration Livence 5336 within the Cabo Delgado Province of Mozambique. The licence is held by Grafex Limitada (Grafex), a Status Status • Mozambican registered company. Triton Minerals entered into a Joint Venture (W) agreement in December 2012 with Grafex tearn 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. • Tenement modifications, which include a rationalisation of the area associated with the temements and tenement applications, and the Mining Concession application, are now in process with Instituto Nacional de Minas (INAMI). Justatutory approvals have been acquired to conduct exploration and Triton Minerals has established a good working relationship with local stakeholders. Exploration dome by other partic. • No previous systematic graphite exploration is known to have been undertaken prior to Tritor's interest in the area. Geology • The Ancube tenements are underlain mainly borteks of the Proterozoic Meluco Complex to the north that comprise granitic to tonalitic geniss and, to the south, by rocks of the Lalamo Complex that comprise mainly biolitig gneiss. Orifi hole • The coordinates for the reported holes are tabulated in the accompanying report. Information • The samples have been aggregated using a length weighted average method. Drill hole • The coordinates for the reported holes are tabulated in the accompanying report. Information	Criteria	Commentary
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Criteria	Commentary
	divided into three distinct domains by Resource Potential Pty Ltd, based on the magnetic response patterns. The interpretations below were reported by Resource Potentials: Domains 1 and 3 exhibit strong and highly folded magnetic responses, indicating a metamorphosed probably mixed sediment and volcanic domain, whereas Domain 2 has much lower magnetic amplitudes, suggesting a more sediment rich protolith. Domain 2 is host to the most promising graphite targets, including T12.
Further work	 The latest 2017 drill data will be incorporated into the geological model for purposes of reporting updated Mineral Resource estimates for T12 and T16 later in 2017.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	 Data used in the Mineral Resource estimate is sourced from an MS Access database export from the primary Datashed database, which is a fully relational geological database. Relevant tables from the MS Access database are exported to MS Excel format and converted to csv format for import into Datamine Studio 3 software. Validation of the data imported comprises checks for overlapping intervals, missing survey data, missing analytical data, missing lithological data, and missing collars.
Site visits	 A representative (Mr R Barnett) of the Competent Person (CP) visited the project for two days in April 2016, a week during August 2016, was on site during the 2016 drilling program He was on site for two weeks at the start of the 2017 drill programme and later for one week follow-up and provided mentoring to the geologists. The CP's representative was able to examine the mineralisation occurrence and associated geological features. The geological data was deemed fit for use in the Mineral Resource estimate.
Geological interpretation	 The geology and mineral distribution of the system appears to be reasonably consistent though affected by folding. Any structural influences are not expected to significantly alter the volume of mineralised material interpreted. A footwall unit consisting of amphibolite-bearing gneiss has been recognised in the drill logging. Pink feldspar-bearing pegmatitic sheets are noted in the lower parts of the graphitic package and in the upper parts of the footwall rocks in places. Drill hole intercept logging, core photographs, assay results, the hanging and footwall sequence and reconnaissance geological mapping have formed the basis for the mineralisation domain interpretation. Assumptions have been made on the depth and strike extents of the mineralisation zones can be considered to be extrapolated The extents of the modelled zones are constrained by the information obtained from the drill logging field mapping and FLEM conductor plate models. The extents of the modelled mineralisation to the east by topography. Alternative interpretations are unlikely to have a significant influence on the global Mineral Resource estimate. An overburden layer with an average thickness of 2 m has been modelled based on drill logging and is depleted from the modell. Graphite mineralised gneiss lenses have been interpreted based on a nominal lower TGC cutoff grade of 4%, with 4 individual mineralisation lenses being modelled. Continuity of geology and grade can be identified and traced between drill holes by visual and geochemical characteristics. The effect of any potential structural or other influences have not yet been modelled as more data is required. Confidence in the grade and geological continuity is reflected in the Mineral Resource classification.
Dimensions	 The interpreted mineralisation zones (>4% TGC) consist of 4 individual lenses that range in thickness up to about 30 m. In the centre and north of the T16 deposit the upper zone (mineralisation zone 1) is interpreted to be laterally more extensive northwards than the lower zone (mineralisation zone 2), while in the south of the deposit the upper zone (mineralisation zone 3) is interpreted to be about double the thickness of the lower zone (mineralisation zone 4) The mineralisation roughly strikes towards 065°, dipping on average 25° towards 325° although probably affected by folding. The plan view strike extent of the two northern mineralisation zones is roughly 800 m and across strike width is roughly 450 m. The plan view



Circeria	commentary
	strike extent of the two southern mineralisation zones is roughly 240 m and across strike width is roughly 200 m. The mineralisation outcrops in the south and east. The combined thickness of the mineralisation zones is greatest in the eastern half (~25 m to 40 m) of the deposit, thinning to the south west (~20 m).



Estimation and modelling techniques	 Ordinary Kriging (OK) was the selected interpolation method, with Inverse distance weighting to the power of two (IDS) used as a check estimate. Grade estimation was carried out at the parent cell scale, with sub-blocks assigned parent block grades.
	• Grade estimation was carried out using hard boundaries between each of the 4 interpreted mineralisation zones. The two northern mineralisation zones have a change in their broad geometry at roughly 621025 m E, and a soft boundary estimate within each of these zones, accommodating a change in search ellipse orientation, was completed east and west of this easting line.
	 Estimation was not separated by weathering state since the grade population distributions and grades for the different weathering states are very similar. Statistical analysis to check grade population distributions using histograms, probability plots and summary statistics and the co-efficient of variation (CoV), was completed on each lens for the estimated element. The checks showed low CoV and that there were no significant outlier grades in the interpreted cut-off grade lenses requiring grade top cutting.
	 Sulphur is not reported but has been estimated into the model, as sulphide minerals have the potential to generate acid mine drainage, and affect the metallurgical processes for recovering the graphite. The available metallurgical testing indicates that the sulphide minerals do not present any issues in recovering the graphite. Due to the lack of available analytical results for samples in the oxide and transition zones for some lenses the sulphur grade estimate for these lenses has been completed with soft boundaries in the oxide and transition weathering zones. The grade estimate has been completed with hard boundaries between weathering domains and for all fresh mineralisation zones. The waste sulphur estimate is estimated with a hard boundary between it and the interpreted mineralisation zones ar there appears besed on the statistical analysis, to be simplificantly lower sulphur
	 2018's as there appears, based on the statistical analysis, to be significantly lower subproduct associated with waste rocks than mineralisation zones. The sulphur estimate is not considered to be sufficiently accurate to allow reporting of the results, rather it is included in the model for indicative purposes only and is primarily of use in the fresh zones. A volume block model was constructed in Datamine constrained by the topography, mineralisation zones, weathering surfaces, overburden surface and model limiting wireframes.
	• Analysis of the drill spacing shows that the nominal average drill section spacing is 50 m with drill holes nominally 50 m apart on each section over a majority of the modelled area. The greatest drill density is in the central eastern more shallow part of the deposit.
	 Based on the sample spacing, a parent block size of 25 m E by 25 m N by 5 m RL or nominally half the average section spacing was selected for the model. Sub-cells down to 2.5 m E by 2.5 m N by 2.5 m RL were used to honour the geometric shapes of the modelled mineralisation.
	The search ellipse orientations were defined based on the overall geometry of each mineralisation zone. A change in orientation of the search ellipse east and west of 621025 easting for two northern zones was required due to the change in geometry of these mineralisation zones. The search ellipse was doubled for the second search volume and then increased 20-fold for the third search volume to ensure all blocks found sufficient samples to be estimated. The search ellipse dimensions are designed to ensure that most blocks were estimated in the first search volume. The final dimensions were selected based on a kriging neighbourhood analysis (KNA), with the isotropic major and semi-major axis search dimension of 95 m being nominally 80% of the variogram ranges.
	 Based on the results of the KNA, a minimum of 15 and a maximum of 25 samples were used to estimate each parent block for the all zones. These numbers were reduced for the second and third search volumes. A maximum number of 5 samples per drill hole were allowed. Cell discretisation, again based on the KNA, was 5 E by 5 N by 4 Z and no octant based searching was utilised.
	• Model validation was carried out visually, graphically and statistically to ensure that the block model grade trends reasonably represent the drill hole sample trends. Cross sections, long sections and plan views were initially examined visually to ensure that the model TGC grades honour the local composite drill hole grade trends. These visual checks confirm the model reflects the trends of grades in the drill holes.
	 Statistical comparison of the mean drill hole grades with the block model grade shows reasonably similar mean grades. The OK check estimate shows similar grades to the IDS model, adding confidence that the grade estimate has performed well. The model grades and drill grades were then plotted on histograms and probability plots to compare the grade population distributions. This showed reasonably similar distributions with the expected



Criteria	Commentary
	 smoothing effect from the estimation taken into account. Swath or trend plots were generated to compare drill hole and block model with TGC% grades compared at 50 m E, 50 m N and 10 m RL intervals. The trend plots generally demonstrate reasonable spatial correlation between the model estimate and drill hole grades after consideration of drill coverage, volume variance effects and expected smoothing. No reconciliation data is available as no mining has taken place.
Moisture	 Tonnages have been estimated on a dry, <i>in situ</i>, basis. No moisture values could be reviewed as these have not been captured.
Cut-off parameters	 Visual analysis of the drill analytical results demonstrated that the nominal lower cut-off interpretation grade of 4% TGC corresponds to natural break in the grade population distribution. In most cases the nominal lower cut for interpretation is not required as mineralisation zone boundaries are naturally defined by a distinct grade differential between low TGC grade waste and TGC grades higher than the 4% nominal cut.
Mining factors or assumptions	 Based on the results from previous scoping studies it has been assumed that these deposits will be amenable to open cut mining methods and are economic to exploit to the depths currently modelled using the cut-off grade applied. It is noted that a leading graphite producer has refurbished the nearby Ancuabe mine and brought it into production during 2017. The geology of the Ancuabe mine is believed to be similar to that at the T12 and T16 deposits. No assumptions regarding minimum mining widths and dilution have been made. No mining has yet taken place at T16
Metallurgical factors or assumptions	 No mining has yet taken place at 110. Petrographic studies demonstrated that the Ancuabe T16 mineralisation is generally coarse- grained and consists mainly of quartz, feldspar and graphite, with mica and sometimes amphibole, pyroxene, garnet or carbonate gangue minerals. The gangue minerals e.g. sulphides, mica, quartz and feldspar are generally discrete and not significantly intergrown with graphite, which has important positive implications for graphite
	 liberation characteristics. Triton previously reported flotation testwork by Independent Metallurgical Operations (IMO) based on four graphite gneiss intersections from two drill holes. Seventeen additional drill composites were submitted to IMO for flotation tests during 2017 (see main body of report for sample details). This testwork confirmed the coarse graphite flakes of high purity could be liberated, with roughly 60% to 75% of the liberated flakes larger than 150 µm, at overall concentrate grades between approximately 96% and 98% Total Carbon (TC) at recoveries of around 90%. The metallurgical variability test work demonstrated that the T16 graphite gneiss mineralisation is amenable to the production of high-grade graphite concentrates, at coarse flake sizes and using relatively simple flotation processes.
Environmental factors or assumptions	 No assumptions regarding waste and process residue disposal options have been made. It is assumed that such disposal will not present a significant hurdle to exploitation of the deposit and that any disposal and potential environmental impacts would be correctly managed as required under the regulatory permitting conditions.
Bulk density	 Density measurements have been taken on drill samples from all different lithological types, using water displacement for fresh, non-porous samples and the calliper method for porous samples. The mean density measured and applied to the model for the mineralised samples in the fresh rock zone was 2.64 t/m³, for the transitional zone it was 2.44 t/m³, and for the oxide zone it was 2.15 t/m³. For the waste rock the mean measured density values of 2.05 t/m³ for the overburden material, 2.74 t/m³ for fresh rock, 2.65 t/m³ for transitional material and 2.37 t/m³ for oxide material have been applied.
Classification	 Classification of the Mineral Resource estimates was carried out taking into account the level of geological understanding of the deposit, quality of samples, density data and drill hole spacing. The Mineral Resource estimate has been classified in accordance with the JORC Code, using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table. The Mineral Resource estimate has been classified only from within tenement 5336. Overall the mineralisation trends are reasonably consistent over the drill sections.



Criteria	Commentary
	• The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	 Internal audits were completed by CSA Global, which verified the technical inputs, methodology, parameters and results of the estimate. No external audits have been undertaken.
Discussion of relative accuracy/ confidence	 The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the JORC Code. The Mineral Resource statement relates to global estimates of <i>in situ</i> tonnes and grade.