



5 October 2017

## TRES ESTRADAS PILOT PLANT CONFIRMS EXCELLENT RECOVERIES AND CONCENTRATE GRADES FOR INDUSTRIAL SCALE

### Highlights:

- The multi-month pilot plant program conducted by Eriez Flotation Division (Pennsylvania, USA) returned excellent recoveries and concentrate grades for both fresh and oxidized carbonatites from the Três Estradas deposit.
- Pilot scale flotation plant test work on the oxide mineralization produced a concentrate grading 35% P<sub>2</sub>O<sub>5</sub> yielding a total circuit recovery of 87%.
- Pilot scale plant test work on the fresh carbonatite pilot flotation plant circuit produced a concentrate grading 32% P<sub>2</sub>O<sub>5</sub> yielding a total circuit recovery of 80%.
- The pilot plant results confirm the previous bench-scale column flotation tests and provide data for the design of the commercial scale column flotation circuit for the operation.
- Completion of Pilot Plant Program is a key step in Aguia's BFS which is progressing well.
- Results confirm Três Estradas has similar metallurgical performance to Vale's Cajati mine in Brazil and Yara's Siilinjärvi mine in Finland.
- Results demonstrate excellent beneficiation results can be achieved using well-established processes and may positively impact the operation's cost profile.

**SYDNEY, AUSTRALIA**, October 5, 2017 - Brazilian fertilizer developer Aguia Resources Limited (ASX: AGR, TSXV: AGRL) ("Aguia" or "Company") is pleased to report that the Company has completed extensive pilot plant testing of its oxidized and fresh carbonatite phosphate ores from the Três Estradas Project, in Southern Brazil.

The pilot plant program was conducted at the Eriez Flotation Division ("EFD"), a world leader in advanced flotation technology and a wholly owned subsidiary of Eriez Manufacturing Co. EFD provides advanced testing and engineering services, in addition to sparging and flotation equipment for the mining and mineral processing industries. EFD has extensive experience in column flotation, and is a leading supplier of column flotation equipment, services and expertise to the Brazilian phosphate and iron ore industries. Worldwide, EFD has supplied more than 1,000 unit operations for flotation equipment, including more than 100 for phosphate applications in the United States, Brazil, Canada,

China, and South Africa.

Eriez was provided with 1,010 kg of oxidized ore and 1,500 kg of fresh carbonatite ore from Três Estradas to determine phosphate recovery and final concentrate grades in a pilot-scale column flotation circuit. The entire pilot plant program was independently supervised by Millcreek Mining Group (Salt Lake City, USA).

### **Saprolite**

The objective of the program was to test the performance of the oxidized ore (saprolite) in a pilot-scale circuit using a rougher-cleaner flotation circuit, followed by magnetic separation. Continuous operation of a fully automated, two-stage column flotation circuit yielded P<sub>2</sub>O<sub>5</sub> recoveries ranging from 85% to 90%, with a concentrate grading approximately 33% P<sub>2</sub>O<sub>5</sub>. Subsequent magnetic separation was performed to reduce the MER (minor element ratio) of the final product which decreased from 0.2 to 0.06, and improved the final concentrate grade from about 33% to 35% P<sub>2</sub>O<sub>5</sub>. The P<sub>2</sub>O<sub>5</sub> recovery of the magnetic separation was higher than 99% and the overall recovery of the circuit was higher than 88%, before adjustment for production plant scaling.

### **Metacarbonatite**

The objective of the program was to test the performance of the fresh carbonatite ore in a pilot-scale rougher-cleaner-cleaner-scavenger flotation circuit, followed by magnetic separation. Continuous operation of a fully automated, four-stage column flotation circuit yielded P<sub>2</sub>O<sub>5</sub> recoveries ranging from 71% to 80%, with concentrates grading about 31% P<sub>2</sub>O<sub>5</sub>, before adjustment for production plant scaling. Further magnetic separation was performed to reduce the MER from 0.21 to 0.14 and improve final concentrate grade to up to 33% P<sub>2</sub>O<sub>5</sub>. The P<sub>2</sub>O<sub>5</sub> recovery of the magnetic separation was higher than 99%.

After this extensive pilot-scale program, recoveries and grades were forecasted accounting for scaling from pilot plant to industrial scale production. An overall process recovery of 87% producing concentrate grading 35% P<sub>2</sub>O<sub>5</sub> is forecasted for the processing of the oxidized (saprolite) ore, and a process recovery of 80% with a concentrate grading 32% P<sub>2</sub>O<sub>5</sub> is forecasted for the fresh carbonatite. These results improve on the previous bench-scale flotation tests performed at Eriez and announced on June 6, 2016, and now demonstrate that Três Estradas has a metallurgical performance very similar to other operating carbonatite mines in the world such as Vale's Cajati mine in Brazil and Yara's Siilinjärvi mine in Finland.

	2016		2017	
	Recovery	P <sub>2</sub> O <sub>5</sub> Grading	Recovery	P <sub>2</sub> O <sub>5</sub> Grading
Oxide	80%	31%	87%	35%
Fresh Carbonatite	84	30.2%	80%	32%

Table 1: Comparison of metallurgical results from bench scale tests conducted in 2016 versus pilot plant results conducted in 2017

The completion of the pilot plant program marks a key milestone in the preparation of the Bankable Feasibility Study (BFS) for Três Estradas. It allows the engineering team to define the parameters for operation on an industrial production scale, design the flotation circuit and appropriately scale the equipment. These important conclusions on recoveries also illustrate the tailings that will be produced to finalize the size of the tailings dam and refines the water requirements and equipment needs.

### **Management Commentary**

Technical Director Dr Fernando Tallarico commented, "We are very pleased with the result of this extensive pilot plant processing program. We were able to reproduce the recoveries on a larger scale, and actually ended up producing higher grade concentrates. The resulting data set will provide our engineering team with very accurate information to support the design of the processing facilities as we move further in the development of our Bankable Feasibility Study of Três Estradas."

Managing Director Justin Reid added, "The metallurgical component of our processing flowsheet is one of the key drivers to value. These results exceeded our expectations and puts the project in a great position to drive operational costs lower while producing an excellent final commercial concentrate grading 35%. We will be reporting on other key project development milestones as we move towards finalization of the BFS. We are very satisfied with the progress we are making at Três Estradas."

### **Qualified Person**

The scientific and technical information contained in this news release pertaining to the Tres Estradas project has been reviewed and approved by the following Qualified Person under NI 43-101, Mr. Rainer Stephenson, (Senior Process Engineer for the Millcreek Mining Group, and a QP Member of the Mining and Metallurgical Society of America (MMSA)) who consents to the inclusion of his name in this release and who is independent of Aguia.

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### **About Aguia:**

*Agua Resources Limited, ("Agua") is an ASX and TSXV listed company whose primary focus is on the exploration and development of phosphate projects in Brazil. Agua has an established and highly experienced in-country team based in Belo Horizonte, Brazil with corporate offices in Sydney, Australia. Agua's key projects are located in Rio Grande do Sul, a prime farming area which is 100% dependent on phosphate imports. The Rio Grande phosphate deposits exhibit high quality and low cost production characteristics, and are ideally located with proximity to road, rail, and port infrastructure. Agua's experienced management team has a proven track record of advancing high quality mining assets to production in Brazil.*

The information in this announcement that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dr Fernando Tallarico, who is a member of the Association of Professional Geoscientists of Ontario. Dr Tallarico is a full-time employee of the company. Dr Tallarico has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Tallarico consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### **Cautionary Statement on Forward Looking Information**

*This press release contains "forward-looking information" within the meaning of applicable Canadian and Australian securities legislation. Forward-looking information includes, without limitation, statements regarding the results of the pilot plant program, the metallurgical results, production targets, the anticipated timetable, permitting,*

forecast financial information, and ability to finance the project, and the prospectivity and potential of the Tres Estradas project.

Generally, forward-looking information can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved". The material factors and assumptions underlying the forward-looking information of the Mineral Resource Statement results have been outlined above and will be detailed in the associated technical report.

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including risks inherent in the mining industry and risks described in the public disclosure of the Company which is available under the profile of the Company on SEDAR at [www.sedar.com](http://www.sedar.com), on the ASX website at [www.asx.com.au](http://www.asx.com.au) and on the Company's website at [www.aguiarresources.com.au](http://www.aguiarresources.com.au). These risks should be considered carefully.

Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. Persons reading this news release are cautioned that such statements are only predictions and there can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information. The Company disclaims any intent or obligation to update or revise any forward looking statements whether as a result of new information, estimates, options, future events, results or otherwise and does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

NEITHER THE AUSTRALIAN STOCK EXCHANGE, TSX VENTURE EXCHANGE NOR THEIR REGULATION SERVICES PROVIDER (AS THAT TERM IS DEFINED IN THE POLICIES OF THE TSX VENTURE EXCHANGE) ACCEPTS RESPONSIBILITY FOR THE ADEQUACY OR ACCURACY OF THIS RELEASE.

## Três Estradas Phosphate Project JORC Table 1

### SECTION 1: SAMPLING TECHNIQUES AND DATA

<p>Sampling Techniques</p>	<p>Soil samples were collected every 25 meters along lines spaced 100 meters apart, for a total of 52 soil samples. All soil samples targeted the B Horizon soil profile.</p> <p>77 rock samples were collected from within the DNPM 810.090/91 area. One historical trench exists on the tenement, Agua sampled three vertical channels; in each channel, two samples were collected.</p> <p>Drilling comprised: 139 core boreholes (20,509.50 meters), 136 auger boreholes (770 meters), and 244 reverse circulation boreholes (7,800 meters).</p> <p>Auger - Drilling was completed up to a depth of 15 meters within the saprolite unit.</p>
	<p>Auger - Borehole collars were surveyed, according to the local UTM coordinate system (SAD 69, Zone 21S), using a handheld GPS receiver before drilling started. No downhole surveys were performed. N.B. Auger data was not used for resource estimation purposes.</p> <p>Reverse Circulation Drilling - All borehole collars were surveyed according to the local UTM coordinate system (SAD 69, Zone 21S), using a differential GPS receiver before drilling started and once drilling had been completed. No downhole surveys were performed.</p>
	<p>Core Drilling - All borehole collars were surveyed according to the local UTM coordinate system (SAD 69, Zone 21S), using a differential GPS receiver before drilling started and once drilling had been completed. Beginning in the second drilling program, downhole surveys were completed using a Maxibore down-hole survey tool, collecting orientation readings at 3-meter intervals.</p>
	<p>Auger - One metre samples collected, 2 kilograms of material collected for each field sample. Samples were taken at 1-meter intervals. These samples were analyzed for phosphorus, calcium and aluminium content with a portable x-ray fluorescence (XRF) analyzer. If any sample yielded greater than 1.31 % phosphorus (3% P<sub>2</sub>O<sub>5</sub>), all samples from that auger borehole were shipped to the laboratory for assaying.</p> <p>Reverse Circulation Drilling - Every meter drilled produced two aliquots with a minimum weight of 500 grams and a maximum of 2 kilograms.</p>
	<p>Core Drilling - The majority of sample intervals range between 0.5 and 1.5 meters, averaging 1.0 meter and honour geological contacts. Samples consisted of half core and were collected from core cut lengthwise using a diamond saw. Three readings per meter were performed with a portable XRF device.</p>
	<p>Samples from the first and second exploration program were sent to the ALS laboratory in Vespasiano, Brazil for preparation. Prepared samples were sent to Lima, Peru or Vancouver, Canada for assaying. Samples from the third, fourth and fifth exploration programs were prepared and analyzed at SGS Geosol laboratories in Vespasiano, Brazil</p>

Drilling Techniques	Auger - tipper scarifier motorized augers were used to drill the auger boreholes.
	Reverse Circulation – Drilling utilized a face sampling Hard Formation Bit with Tungsten buttons and a diameter of 5 ½ inches. No downhole surveys were completed.
	Core Drilling - Drilling utilized HQ equipment for weathered material and NQ for fresh rock. Down hole surveys were not performed on 19 core boreholes completed during the first drilling program and for several of the shorter core boreholes. Downhole surveys were performed on 3-meter intervals using a Maxibore down-hole tool on all boreholes completed during the second, third, and fourth drilling program. A total of 96 core holes have down-hole surveys. No core orientation has been carried.
Drill Sample Recovery	Auger - Auger recovery was not monitored.
	Reverse Circulation Drilling – recovery was monitored by sample weight. The minimum recovery was 85 percent.
	Core Drilling - Recovery by sample and by drill run was recorded. Core recovery exceeded 90 percent in 90 percent of all core borehole samples.
	Reverse Circulation Drilling – Logging included description of lithology and weathering.
	Core Drilling - Detailed geological logs on appropriate logging form were completed. All cores have been photographed dry before sampling.
Logging	There is no detectable relationship between sample recovery and grade in all samples collected (auger, reverse circulation and core).
	There is no detectable relationship between sample recovery and grade in all samples collected (auger, reverse circulation and core).
	All of the relevant intersections were logged.
Sub-Sampling Techniques and Sample Preparation	Core was sawn in half, with one half sent for assaying and one half being retained for reference. Friable core was split down the centerline, using a spatula or similar tool, with half being retained and half sent for assaying.
	Auger - One metre auger samples were placed on a plastic sheet, large pieces were broken down manually. The sample was then homogenized by shaking the sheet with a rolling motion.
	Reverse Circulation Drilling - Dry and moist samples were split using a riffle splitter; wet samples were dried prior to homogenization and sampling.
	All samples were dried, crushed, and milled to 75 percent passing 80 mesh.
	The sample preparation techniques meet industry standards and are considered appropriate for the mineralization being investigated.
	Industry standard procedures are employed, including ensuring non-core samples are adequately homogenized before. Archive samples are collected.
	No field duplicate samples or second half sampling was done. The target mineralization is quite homogeneous.
Auger, reverse circulation and core sample sizes are adequate for the target mineralization sampled.	

## SECTION 1: SAMPLING TECHNIQUES AND DATA

<p>Quality of Assay Data and Laboratory tests</p>	<p>For the first two drilling programs, sample preparation was completed at ALS Vespasiano's laboratory in Brazil using standard crushing and pulverization techniques. Sample analysis was carried out by ALS Peru S.A. in Lima or ALS Minerals in North Vancouver, Canada.</p> <p>The prepared pulps were fused with lithium metaborate and analyzed by XRF spectroscopy for major oxide elements (P<sub>2</sub>O<sub>5</sub>, Al<sub>2</sub>O<sub>3</sub>, CaO, Fe<sub>2</sub>O<sub>3</sub>, K<sub>2</sub>O, MgO, MnO<sub>2</sub>, SiO<sub>2</sub>, and TiO<sub>2</sub> (Method code XRF12pt/XRF24).</p> <p>Samples were also analyzed for a suite of 31 elements using an aqua regia digestion and inductively coupled plasma - mass spectrometry (Method code ME-MS81).</p> <p>For the third, fourth and fifth drilling programs sample preparation and analysis was completed at SGS Geosol laboratory in Vespasiano, Brazil using standard crushing and pulverization techniques.</p> <p>The prepared pulps were fused with lithium metaborate and analyzed by XRF spectroscopy for major oxide elements (P<sub>2</sub>O<sub>5</sub>, Al<sub>2</sub>O<sub>3</sub>, CaO, Fe<sub>2</sub>O<sub>3</sub>, K<sub>2</sub>O, MgO, MnO, SiO<sub>2</sub>, and TiO<sub>2</sub>, - Method code XRF79C). They were also analysed for loss on ignition for calcination (method code PHY01E). During the fifth drilling campaign, Nb<sub>2</sub>O<sub>5</sub> was added to the suite of oxides being determined.</p> <p>Umpire testing was performed at ALS Chemex laboratory in Lima, Peru, where samples were analyzed for a suite of nine elements.</p> <p>During March 2017, the CP added a confirmation testing program pulling 85 samples from past and current drilling programs. Both core and RC sample rejects were selected to represent each drilling program as well as being spatially representative of the deposit. Confirmation samples were analyzed at Bureau Veritas Mineral Labs in Vancouver using XRF with lithium metaborate fusion (method XF740).</p> <p>The preparation and analytical procedures are appropriate for the type of mineralization sampled and are reliable to deliver the total content of the analyzed compounds.</p> <p><i>Not applicable.</i></p>
<p>Quality of Assay Data and Laboratory Tests</p>	<p>During the first and second drilling programs, control samples were inserted approximately every 12 samples; analyses of replicate pulp assays of mineralized rock were also completed. In addition, umpire laboratory testing was performed on approximately 5% of the samples.</p> <p>At ALS Minerals, North Vancouver, Canada, second pulp splits were analyzed for a suite of 31 elements, including rare earth and trace elements, by inductively coupled plasma mass spectroscopy (Method code ME-MS81).</p> <p>Ten blank samples were sent for preparation to ALS laboratory in Vespasiano, Brazil and for analysis to ALS Minerals in Lima, Peru.</p> <p>Aguia used two certified phosphate reference materials (standards) sourced from Geostats Pty Ltd. (Geostats) in Perth, Australia.</p> <p>Umpire check assays were conducted by SGS Geosol in Belo Horizonte, MG, Brazil using XRF spectroscopy (Method codes XRF79C and PHY01E). Additionally, Aguia relied on the analytical quality control measured implemented by the ISO accredited laboratory used.</p> <p>During the third and fourth drilling programs, Aguia used two certified standard reference materials (standards), supplied by the Instituto de Tecnologia Austust Kekulé (ITAK). ITAK 911 is a high grade standard, while ITAK 910 is a mid-grade standard. The standards were prepared by ITAK for Aguia from mineralized material sourced from Aguia's Três Estradas project. The standards were certified using a standard round-robin testing protocol. The control samples are considered appropriate to the grade and style of mineralization being tested.</p>

	<p>In addition, fine and coarse blank samples were prepared from barren quartz veins.</p> <p>One company supplied control samples and a pulp duplicate was included in each batch of 48 samples. One batch of 48 samples was sent monthly for umpire laboratory testing. Umpire testing was performed at ALS Chemex laboratory in Lima, Peru, where samples were analyzed for a suite of elements (method code XRF12pt/XRF24).</p> <p>In addition, Aguia relied on the analytical quality control measured implemented by the ISO accredited laboratories used for analysis.</p>
Verification of Sampling and Assaying	<p>During a site visit on March 17 to 19, 2016, Millcreek personnel performed a detail audit of 13 core holes, reviewing measurements and descriptions of original logs to the core. During a second site visit on March 8 and 9, 2017, Millcreek performed a second detailed audit of 11 core holes from the recent delineation drilling program.</p>
	<p>No twin boreholes were completed.</p>
	<p>All core was logged by Aguia geologists; data was entered digitally into a comprehensive database program. Electronic data was verified by Millcreek.</p> <p>Assay data were not adjusted.</p>
Location of Data Points	<p>All borehole collars were surveyed according to the local UTM coordinate system (South American Datum 1969 – SAD69, Zone 21S), using differential GPS equipment before drilling started, and once drilling had been completed.</p>
	<p>UTM system (Zone 21S), South American Datum 1969.</p>
	<p>A topographic survey of the project area was completed using differential GPS technology.</p> <p>The survey comprised 35.35 line kilometers, consisting of survey lines spaced 25 meters apart, and control lines spaced 100 meters apart</p> <p>The topographic survey generated contour lines at 1-meter intervals in the meta-carbonatite area. Contour lines at 5-meter intervals were obtained for the remaining area using shuttle radar topography mission (SRTM) and orthorectified Geoeye images with 0.5 meter resolution.</p>
Data Spacing and Distribution	<p>On the north tenement (DNPM#810.090/1991), reverse circulation drilling was completed on sections spaced 50 meters apart and core drilling has an approximate spacing of 50 X 75 meters. On the south tenement (DNPM#810.325/2012), reverse circulation drilling has a spacing of 200 X 50 meters, such that there are two to three holes on the outer bounds of each section. Core holes on the south tenement have an approximate spacing of 150 X 75 meters. There is no drilling on DNPM#810.998/2011.</p>
	<p>The boreholes are spaced sufficiently close to interpret the boundaries of the phosphate mineralization with a confidence sufficient to establish continuity and support classification for Measured, Indicated and Inferred categories.</p>
	<p>Assay data was composited to one meter length prior to resource estimation.</p>
Orientation of Data in Relation to Geologic Structure	<p>The sampling patterns used did not introduce an apparent sampling bias.</p>
	<p>The sampling patterns used did not introduce an apparent sampling bias.</p>
Sample Security	<p>Chain of custody of all sample material was maintained by Aguia. Samples were stored in a secured facility in Lavras do Sul until dispatch to the preparation laboratory by commercial carrier.</p>
Audits or Reviews	<p>Millcreek audited the project in early 2016 and again in August 2017 and concluded that exploration work completed by Aguia used procedures consistent with generally accepted industry best practices. The audit found no issues with the project data.</p>

## SECTION 2: REPORTING OF EXPLORATION RESULTS

<p>Mineral Tenement and Land Tenure Status</p>	<p>Permit 810.090/91, irrevocable right to 100% under an exercised option agreement with Companhia Brasileira do Cobre (CBC).</p> <p>On July 1, 2011, CBC and Agua Metais Ltda., a subsidiary of Agua in Brazil, executed an option agreement providing the irrevocable purchase option of these mineral rights by Agua Metais (or its affiliate or subsidiaries). On May 30, 2012 Agua Metais exercised the purchase option concerning these mineral rights by means of its affiliate Agua Fertilizantes S/A (Agua Fertilizantes). On July 10, 2012, CBC and Agua Fertilizantes executed an irrevocable agreement providing the assignment of these mineral rights to Agua Fertilizantes. On July 20, 2012 CBC filed a request before the DNPM applying for the transfer of these mineral rights to Agua Fertilizantes.</p> <p>The 2nd two year term expired on August 16, 2012, with the Final Exploration Report now under review by the Government, approval of which will allow the Company a further year (from the date of approval) to submit an Economic Exploitation Plan.</p> <p>Permit 810.325/12, irrevocable right to 100% under an exercised option agreement with Companhia Brasileira de Cobre.</p> <p>Granted April 29, 2013, initial 3 year term expiry April 29, 2016. Titleholder has presented a Partial Exploration Report and has submitted a request for renewal of the exploration for another three years.</p>
<p>Exploration Done by Other Parties</p>	<p>Phosphate rich rocks at Três Estradas were discovered during a gold exploration program under a joint venture agreement between Companhia Brasileira do Cobre and Santa Elina in 2007/2008. Exploration activities comprised an integrated geochemical/geological/geophysical and drilling program. The gold results were disappointing, causing Santa Elina to withdraw from the joint venture; however, P2O5 values in excess of 6% were noted in assays of soils and drill core.</p>
<p>Geology</p>	<p>The Três Estradas phosphate project is a carbonatite complex containing apatite as the phosphate bearing mineral in both meta-carbonatite and meta-amphibolite. The carbonatite fold complex strikes northeast and dips steeply to sub-vertical to the southwest. Rocks in the area have been affected by Neo-Proterozoic shearing and metamorphism. The carbonatite and its host rocks are part of the Santa Maria Chico Granulite Complex, within the Taquarembó Domain of the Achaean to Proterozoic Sulrio-grandense Shield.</p>
<p>Drill Hole Information</p>	<p>Mineral resources are informed from 134 core boreholes (10,801.45 meters) and 244 reverse circulation boreholes (3,304 meters), completed in 2011, 2012, 2014, 2015, 2016, and 2017.</p> <p>Information from auger boreholes was not considered for resource estimation.</p> <p>Boreholes generally were completed on sections 50 meters apart. Borehole spacing along section in the north tenement (DNPM#810.090/1991) is typically 50 meters and in the south tenement (DNPM#810.325/2012) is typically 80 meters.</p> <p>The complete dataset was used in the estimate. The large dataset precludes listing of individual results as would be the case for limited data when reporting Exploration Results.</p>
<p>Data Aggregation Methods</p>	<p>No exploration data were altered.</p> <p>Sample intervals were length weighted.</p> <p>Not applicable.</p> <p>Not applicable.</p>
<p>Relationship Between</p>	<p>Reverse circulation drilling was designed to intercept the flat lying upper oxide mineralization and was occasionally terminated once fresh rock was intercepted at depth.</p>

Mineralization Widths and Intercept Lengths	Core drilling was designed to intersect the full width of the target apatite mineralization at a high angle.
	Reverse circulation drilling was typically oriented perpendicular to the sub-horizontal oxide layer and therefore downhole lengths generally approximated true widths.
	Core drilling was performed at an acute angle to the steeply vertically dipping carbonatite bodies, hence downhole widths were greater than true widths. For boreholes drilled with a dip of 60 degrees, true mineralization widths were generally in the order of 40 to 60 percent of downhole intersection lengths.
	Down hole lengths were reported. Relationships between true lengths and true thickness are shown in cross sections within the report.
Diagrams	Borehole collar map and representative sections included in Appendix B
Balanced Reporting	All relevant drilling information was incorporated in the preparation of the mineral resource estimate.
Other Substantive Exploration Data	Agua made use of an airborne magnetic geophysical survey completed by CPRM to aid in exploration targeting.
Further Work	Sufficient exploration work has been completed on Três Estradas for a Feasibility Study that will support advancement of the project towards development. The recent drilling in 2017 has also included drilling for comminution testing, bulk sampling, geotechnical, groundwater characterization. No further drilling is planned at this time.

### SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES

Database Integrity	<p>The database was provided to Millcreek in a digital format.</p> <p>Millcreek conducted a series of routine verifications to ensure the reliability of the electronic data provided by Agua.</p> <p>Rare and minor input errors were detected in the Agua database. These errors are considered immaterial.</p>												
Site Visits	<p>A site visit was undertaken by Mr. Steven B. Kerr and Mr. Alister D. Horn on March 16 to 18, 2016. A second site visit was undertaken by Steven B. Kerr on March 8 and 9, 2017. Both gentlemen are principal consultants with Millcreek Mining Group and are appropriate independent Competent Persons for the purpose of JORC.</p> <p>Millcreek was given full access to the project site, relevant data and Agua's field offices in Lavras do Sul. Millcreek was afforded full access to Agua personnel and had in-depth conversations and meetings relating to past exploration work, procedures followed in data acquisition and future goals in project development.</p>												
Geologic Interpretation	<p>Following our audit, Millcreek has determined Agua's geological and mineralization model used for the mineral resource estimation is adequate to support geological modelling and evaluation and classification of mineral resources pursuant to the JORC 2012 Code.</p> <p>Agua used a lithological-assay based approach to define the boundaries of the phosphate (apatite) mineralization and the following criteria: Minimum average grade of composite interval (hanging wall to footwall contact) is 3.0% P2O5 for saprolite and fresh rock.</p> <p>Three weathering zones (saprolite, weathered, and fresh rock) defined by two weathering surfaces have been modelled according to core logging data.</p> <p>Maximum length of internal dilution within a mineralized interval is 4.0 meters. There are eight intervals (1.7% of internal dilution intervals) that are longer than 4 meters.</p>												
Dimensions	<p>The minimum and maximum extents of the mineral resource are given below:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Minimum*</th> <th>Maximum*</th> </tr> </thead> <tbody> <tr> <td>Easting</td> <td>766,350</td> <td>769,110</td> </tr> <tr> <td>Northing</td> <td>6,575,650</td> <td>6,576,820</td> </tr> <tr> <td>Elevation</td> <td>-100</td> <td>400</td> </tr> </tbody> </table> <p style="text-align: center;">*SAD 69 Zone 21S</p>		Minimum*	Maximum*	Easting	766,350	769,110	Northing	6,575,650	6,576,820	Elevation	-100	400
	Minimum*	Maximum*											
Easting	766,350	769,110											
Northing	6,575,650	6,576,820											
Elevation	-100	400											

<p>Estimation and Modelling Techniques</p>	<p>Five estimation domains were modelled, defined by rock type and weathering: Two in carbonatite, one in amphibolite, and two in the saprolite rock. Aguia used Geovia's GEMS software to model geology and estimate grades into a 3D block model, constrained by mineralization wireframes.</p> <p>Aguia composited all assay intervals to a length of 1.0 meter. Following top-cut analysis, 9.0% P<sub>2</sub>O<sub>5</sub> was selected as the high grade limit. When grade estimation for P<sub>2</sub>O<sub>5</sub> reaches this limit, the size of the search ellipsoids are reduced to half of its original size.</p> <p>Variography was undertaken on 1-meter composites for P<sub>2</sub>O<sub>5</sub>, CaO, Fe<sub>2</sub>O<sub>3</sub> and MgO in the meta-carbonatite and amphibolite domains. See report for table of results. Millcreek considers that Aguia's calculation parameters, orientation, and fitted variogram models are appropriate and reasonable given the available data and geological interpretation.</p> <p>P<sub>2</sub>O<sub>5</sub>, CaO, Fe<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub> and MgO were estimated into the block model using ordinary kriging within the mineralized domains. For all elements, three estimation passes were used with progressively relaxed search ellipsoids and data requirements. The estimation ellipse ranges and orientations are based on the variogram model for P<sub>2</sub>O<sub>5</sub> in the meta-carbonatite. This was followed by a second stage of manual smoothing while comparing model variables to eliminate erratic estimation effects (striped or spotted dog effects).</p> <p>The block size of 12m (along strike) by 6m (perpendicular to strike) by 10m (vertical) used is appropriate for the density of data and the search radii used to interpolate grade into the model.</p> <p>Millcreek's audit of the methodology and parameters considered by Aguia found that there is minimal sensitivity to changes in estimation parameters.</p> <p>Millcreek performed a visual validation of the block model by comparing block and borehole grades on a section by section basis. The resultant block estimates appear to be reasonable given the informing composite grades and estimation parameters. Millcreek also performed a series of swath plots to compare kriging estimation to ID2 and nearest neighbor searches and reasonable conformance.</p>																														
<p>Moisture</p>	<p>All tonnage estimates in the model have been presented on a dry basis.</p>																														
<p>Cut-Off Parameters</p>	<p>The mineral resources are reported within a conceptual pit shell at a cut-off grade of 3.00% of P<sub>2</sub>O<sub>5</sub> which takes into account extraction scenarios and processing recovery.</p>																														
<p>Mining Factors and Assumptions</p>	<p>The following assumptions were considered for Conceptual Open Pit Optimization to assist with the preparation of the mineral resource statement:</p> <table border="1" data-bbox="475 1270 1372 1795"> <thead> <tr> <th>Parameters</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Mining Recovery/Mining Dilution</td> <td>100 / 0</td> </tr> <tr> <td>Process Recovery P<sub>2</sub>O<sub>5</sub> Saprolite</td> <td>87%</td> </tr> <tr> <td>Process Recovery P<sub>2</sub>O<sub>5</sub> Fresh</td> <td>80%</td> </tr> <tr> <td>Concentrate Grade Saprolite</td> <td>35.0%</td> </tr> <tr> <td>Process Recovery Saprolite</td> <td>32.0%</td> </tr> <tr> <td>Overall Pit Slope Angle Saprolite/Fresh Rock</td> <td>34/51 &amp; 55 Degrees</td> </tr> <tr> <td>Mining Cost (US\$/tonne Mined)</td> <td>1.32</td> </tr> <tr> <td>Process Cost (US\$/tonne ROM)</td> <td>4.06</td> </tr> <tr> <td>G&amp;A (US\$/tonne of ROM)</td> <td>0.79</td> </tr> <tr> <td>Selling Price (US\$/tonne of concentrate at 30.2% P<sub>2</sub>O<sub>5</sub>)</td> <td>\$215</td> </tr> <tr> <td>Royalties - Gross</td> <td>2%</td> </tr> <tr> <td>CFEM Tax - Gross</td> <td>2%</td> </tr> <tr> <td>Marketing Costs - Gross</td> <td>2%</td> </tr> <tr> <td>Exchange Rate (US\$ to R\$)</td> <td>3.2</td> </tr> </tbody> </table>	Parameters	Value	Mining Recovery/Mining Dilution	100 / 0	Process Recovery P <sub>2</sub> O <sub>5</sub> Saprolite	87%	Process Recovery P <sub>2</sub> O <sub>5</sub> Fresh	80%	Concentrate Grade Saprolite	35.0%	Process Recovery Saprolite	32.0%	Overall Pit Slope Angle Saprolite/Fresh Rock	34/51 & 55 Degrees	Mining Cost (US\$/tonne Mined)	1.32	Process Cost (US\$/tonne ROM)	4.06	G&A (US\$/tonne of ROM)	0.79	Selling Price (US\$/tonne of concentrate at 30.2% P <sub>2</sub> O <sub>5</sub> )	\$215	Royalties - Gross	2%	CFEM Tax - Gross	2%	Marketing Costs - Gross	2%	Exchange Rate (US\$ to R\$)	3.2
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<p>Metallurgical Factors and Assumptions</p>	<p>Initial bench-scale metallurgical test work for Três Estradas has been updated at a pilot plant scale. Following an extensive drilling campaign, a sampling program was devised that was representative of the entire deposit, as well as of its ore types.</p> <p>Samples of different mineralization types were subjected to test work included grinding, multi-stage column flotation and magnetic separation. Two main mineralization types tested were oxide (sapolite) and fresh carbonatite. The use of column flotation, as proposed in initial testing, was confirmed by the pilot plant scale testing as yielding more effective recovery of phosphate.</p> <p>Column flotation of phosphate is well-established process for recovery, and has been practised in Brazil as well as in other regions. Magnetic separation is a proven method for improvement of recovery and / or grades, and in this case also reduced the minor element ratio (MER) significantly in each mineralization type.</p> <p>Column flotation test work on the oxide/sapolite material demonstrated that use of a rougher-cleaner column flotation, with magnetic separation, is capable of providing a concentrate grade of 35% P<sub>2</sub>O<sub>5</sub> with a total P<sub>2</sub>O<sub>5</sub> recovery of 87%, at an industrial scale application.</p> <p>Column flotation test work on the fresh-rock carbonatite material demonstrated that use of a rougher-cleaner-cleaner-scavenger column flotation circuit, with magnetic separation, is capable of providing a concentrate grade of 35% P<sub>2</sub>O<sub>5</sub> with a P<sub>2</sub>O<sub>5</sub> recovery of 87%, at an industrial scale application.</p>
<p>Environmental Factors and Assumptions</p>	<p>An internal Environmental Assessment study was carried out by WALM Engenharia e Tecnologia Ambiental Ltda (qualified local Brazilian consultants) to assess various aspects of environment issues which are likely to impact a proposed mining project at the Três Estradas project.</p> <p>Millcreek has not studied environmental aspects of the project at the current project stage. Millcreek does not anticipate any significant environmental issues as this project advances towards development.</p>
<p>Bulk Density</p>	<p>Specific gravity was measured by Aguia on uncoated core samples using a standard weight in water/weight in air methodology. The specific gravity database contains 4,216 measurements. Specific gravity was modeled as a variable to the block model. Measurements were performed on core samples air-dried between extraction and measurement.</p>

Classification	<p>Pass 1: Blocks estimated in the first pass using half the distance of variogram range and based on composites from a minimum of three boreholes;  Pass 2: Blocks estimated in the first two passes within the full range of the variogram and based on composites from a minimum of two boreholes; and  Pass 3: All remaining blocks within the wireframe limits in an unconfined search not classified in the first two estimation passes.</p> <p>The resource classification involved a two stage process.</p> <p>Stage 1: Relevant mathematical parameters were saved in the block model and the blocks. These variables are:</p> <ol style="list-style-type: none"> <li>i. Interpolation pass (<i>pass</i>)</li> <li>ii. Distance of the closest sample from the block center (<i>mindist</i>)</li> <li>iii. Average distance of samples used in estimating any block (<i>avdist</i>)</li> <li>iv. Number of drill holes used for estimating any block (<i>nndh</i>)</li> <li>v. The kriging variance of grade estimation (<i>kvar</i>)</li> </ol> <p>Stage 2: The above variables were used as supporting mathematical variables for finalization of the resource classification process. At this stage the resource blocks were coded manually for achieving the following:</p> <ol style="list-style-type: none"> <li>i. Most of measured category blocks were supported by three or more holes and nearly 20 composites</li> <li>ii. Measured category blocks have at least one drill hole within half of the variogram range (major axis)</li> <li>iii. Most of indicated category blocks were supported by at least two drill holes and nearly 15 composites</li> <li>iv. Measured category blocks have at least one drill hole within half of the variogram range (major axis)</li> <li>v. Remaining blocks with a P2O5 grade estimation were coded as an inferred Resources.</li> </ol> <p>The two stage process of classifying resources follows a 'best practices' approach allowing the CP to make sure that unreasonable conditions of: <i>i</i>) measured blocks and inferred category blocks occurring side-by-side, <i>ii</i>) the measured and indicated blocks are not dominated by blocks with low sample support i.e., one drill hole or less than 10 composites<sup>1</sup>. The two stage approach is time consuming process of smoothing the mixed Measured, Indicated and Inferred category blocks. However, this process eliminates the stripe or, spotted dog effect. As a result of the two stage process, the following was achieved:</p> <ol style="list-style-type: none"> <li>i. 70 % of Measured blocks are supported by 3 or more drill holes</li> <li>ii. 95% of Indicated blocks are supported by two or more holes and &gt; 70% of Indicated blocks are supported by 3 or more holes</li> </ol>
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<sup>1</sup> Compared to the block height of 10 m, the composites are of 1 m length.

	<ul style="list-style-type: none"> <li>iii. &gt; 90 % of Measured blocks are supported by 10 or more drill holes composites</li> <li>iv. Similar sample support exists for indicated resources</li> <li>v. Most of the inferred category blocks are supported by 10 or more composite samples</li> </ul>
Audits and Reviews	<p>Millcreek has conducted a detailed audit of block model prepared by Aguia and of the resources estimated from the model. Millcreek transferred the block model to Maptek Vulcan® to complete visual and statistical evaluation of the model. The robustness of the Aguia block model was also tested by varying certain estimation parameters and comparing estimates to each of the five mineralized domains. Final classification of resources was completed by Millcreek following a manual smoothing supported by output variables generated from the model. Pit optimization used for determining the Mineral Resource Estimate presented in Table 2.1 were completed by Millcreek using MineSight® software. Millcreek concludes that the block model is unbiased, robust and generally insensitive to the parameters evaluated by Millcreek.</p>
Discussion of Relative Accuracy/ Confidence	<p>Millcreek is satisfied that the geological modelling adequately represents the current geological information and knowledge. The location of the samples and the assay data are sufficiently reliable to support resource evaluation.</p> <p>Mineral resources were classified as Measured, Indicated or Inferred.</p> <p>The Mineral Resource Estimate identifies 33% of the resource as Measured and 44% of the resource as Indicated. Inferred Resources account for 23% of the resource estimate. The latest drilling project in June 2017, has successfully delineated resources previously classified as inferred and encountering thicker intercepts at depth of meta-carbonatite and amphibolite.</p>

#### **SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES**

There are no Ore Reserves to report at this time

#### **SECTION 5: ESTIMATION AND REPORTING OF DIAMONDS AND OTHER GEMSTONES**

Not Applicable