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ASX Announcement

21<sup>st</sup> September 2017

## Ardmore Phosphate Rock Project

### Further Testwork Shows Premium 35% P<sub>2</sub>O<sub>5</sub> Grade Phosphate Rock Concentrate with Ultra-Low Cadmium



**CAPTION:** High-grade phosphate rock diamond drill core from mini-composite at Ardmore.

#### Highlights

- ▶ Almost 1 tonne bulk sample currently being processed for feasibility level testwork
- ▶ Interim mini-composite testwork completed to provide inputs to scoping study being completed in parallel to larger feasibility study
- ▶ Mini-composite results align with previous grab sample testwork in that a premium 35% P<sub>2</sub>O<sub>5</sub> grade phosphate rock concentrate can be produced from crushing, attritioning, and desliming
- ▶ Results indicated Ardmore phosphate rock to be ultra-low in cadmium, a major advantage over most exporters
- ▶ Major (>300 drill hole) RC drilling program almost complete with further resource estimate update to follow

## Summary

Centrex Metals Limited (“Centrex”) has completed further, successful beneficiation testwork on a 33kg mini-composite sample derived from the first PQ diamond drill hole of its recently completed metallurgical drilling program at its Ardmore Phosphate Rock Project (“Ardmore”) in North West Queensland. The drilling program produced a larger (approximately 1 tonne) bulk composite for feasibility level testwork that is currently underway at Bureau Veritas laboratories in Adelaide. The feasibility study is due for completion in mid-2018. In the interim, in order to provide indicative financials for the project in 2017 ahead of the completion of the feasibility study, a scoping study is also being undertaken in parallel. The mini-composite sample was submitted ahead of the bulk-composite sample to provide interim testwork results to support the scoping study.

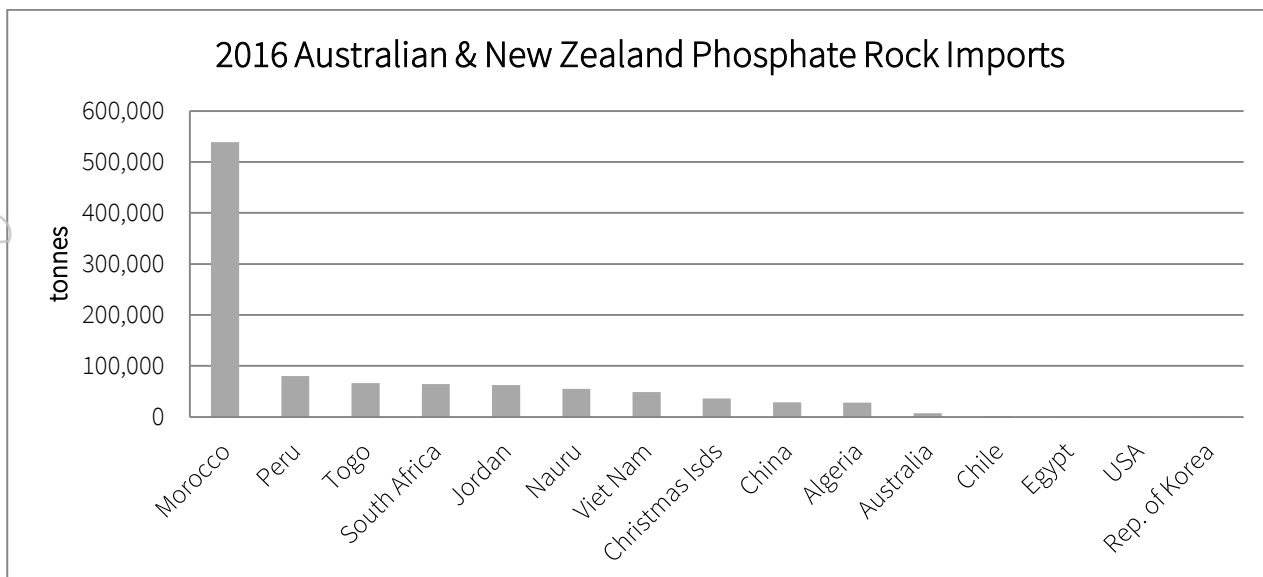
The PQ diamond drill hole program by Centrex twinned historical RAB drill holes completed in the 1970s in order to provide a representative bulk composite of the ore body based on the historical drill hole grades and geology logs. The first PQ drill hole of the program (DD007A) twinned a historical RAB hole that approximates the ore body average grade. The sedimentary phosphorite ore seam was sampled from DD007A (0.75m to 5.39m down hole) and this was used to provide the material for the mini-composite.

The head grade of the mini-composite is expected to be close to the plant feed grade when using selective mining practices, common for this type of deposit. The mini-composite was crushed to -2mm and attritioned for 5 minutes at 60% solids. The head grade and deslimed concentrate grade after attritioning (-38µm removed) results were as follows;

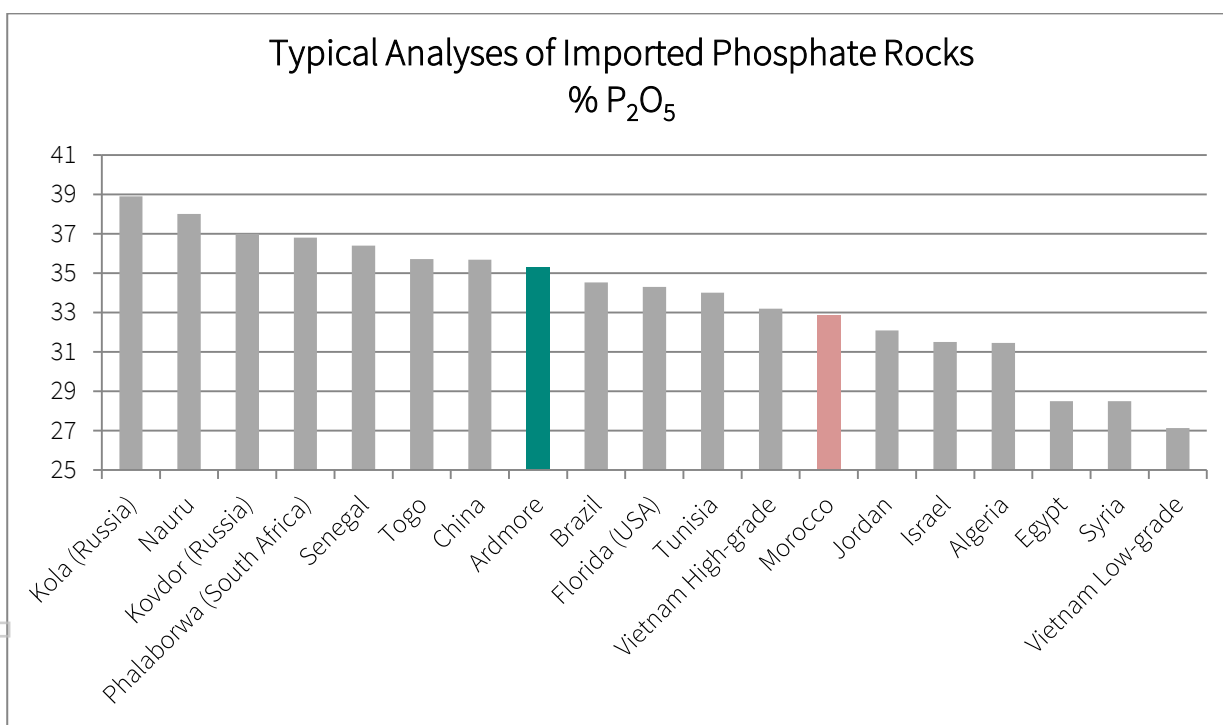
Sample	P <sub>2</sub> O <sub>5</sub> (%)	CaO (%)	Al <sub>2</sub> O <sub>3</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	MgO (%)	SiO <sub>2</sub> (%)	F (%)	Cd (ppm)	MER Ratio
Head Grade	31.7	44.1	2.7	2.5	0.4	12.0	3.4	1.4	0.18
<b>Concentrate Grade</b>	<b>35.3</b>	<b>49.4</b>	<b>0.8</b>	<b>1.8</b>	<b>0.2</b>	<b>6.6</b>	<b>3.7</b>	<b>1.1</b>	<b>0.08</b>
Recoveries (%)	81.3	81.4	21.8	53.2	39.7	39.9	80.3	79.1	

Results of the mini-composite testwork align with previous testwork by Centrex on trench grab samples in that a premium grade 35% P<sub>2</sub>O<sub>5</sub> (76 BPL) concentrate was produced. As expected given the grab samples were at surface and heavily weathered, the contaminant grades of the mini-composite were lower and closer to the ore body averages.

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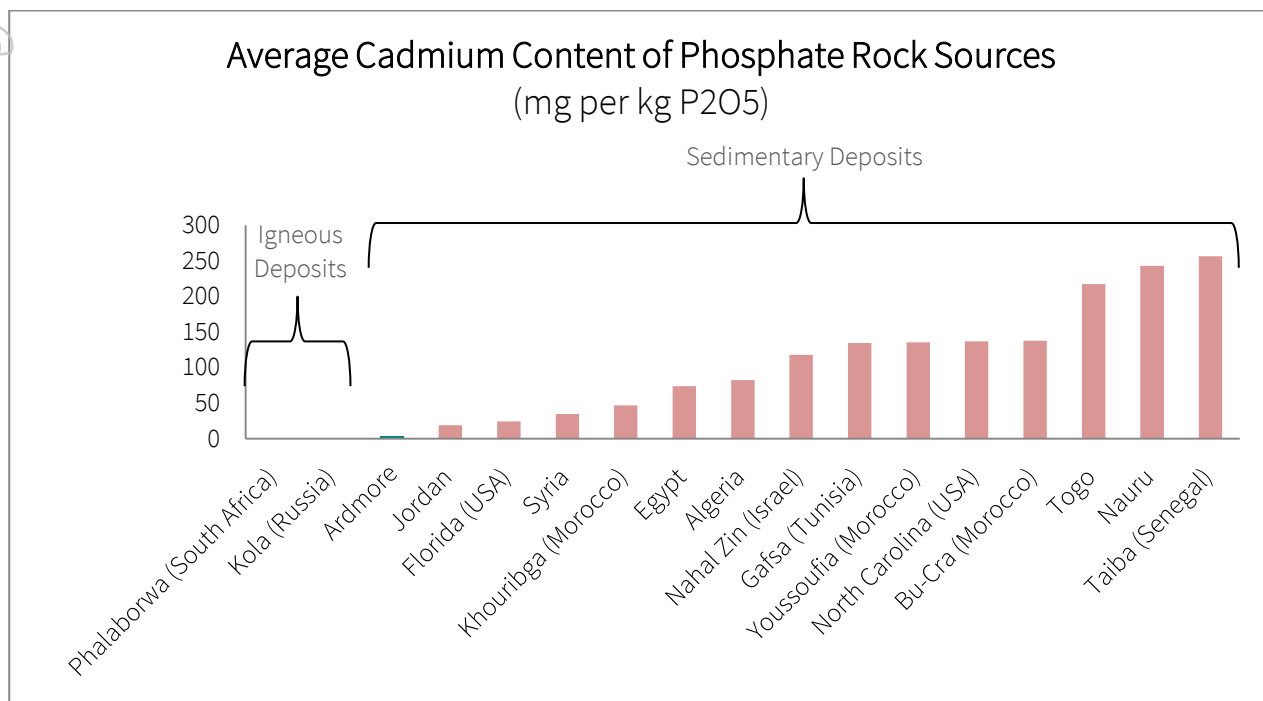
**FIGURE:** 2016 Australian and New Zealand phosphate rock imports by country of origin from UN Comtrade Database.



**FIGURE:** Typical analyses of imported phosphate rocks derived from “Handbook on Fertiliser Technology 2010”, The Fertiliser Association of India.

Cadmium in the Ardmore concentrate to date has been at ultra-low levels of around 1ppm or 1mg/kg. Cadmium is a highly toxic heavy metal and is a concern in a large number of phosphate rock sources. A build-up of cadmium in soils can cause severe health concerns as it can be taken up and concentrated in crops. The European Union is considering lowering their allowable import limit for cadmium from 60mg/kg to 20mg/kg, at which level a large number of the current phosphate rock exporters would fail to meet, as well as a number of producers within the

EU itself. Similar concerns are shared around the world on the effects of using high cadmium phosphate rock in fertiliser production. Ardmore, based on current assay results, could be an alternative ultra-low cadmium product for the Australian, New Zealand and Asian markets. Ardmore also has a significant advantage in freight costs to these markets over the dominant exporter Morocco.



**FIGURE:** Comparison of Ardmore cadmium content to other sources derived from Oosterhuis et al 2000, “A possible EU wide charge on cadmium in phosphate fertilisers” (final report to the European Commission).

### Current Activities

Centrex has almost completed a major (>300 drill hole) reverse circulation (“RC”) drilling program over Ardmore in order to infill the deposit and reach the required resources levels for a mining feasibility study. The drill program has also been used for additional exploration on the mining lease. A resource update for the project is expected in the coming months once all assays have been received.

A maiden Inferred Mineral Resource for the project was previously announced by Centrex, based on historical drilling, at 12 million tonne Inferred Resource at 28.7% P<sub>2</sub>O<sub>5</sub> using a 19% P<sub>2</sub>O<sub>5</sub> cut-off grade. Drill hole assays used in the estimate were taken almost entirely at regular 0.5m intervals down hole, and so include sample intervals that cross both the hangingwall and footwall contacts resulting in diluted grades for these samples. Selective mining, as commonly practiced in similar sedimentary phosphorite operations, will likely result in a higher delivered feed grade to the process plant. For full details of the Inferred Mineral Resource refer announcement 6th July 2017;

<http://www.asx.com.au/asxpdf/20170706/pdf/43kqp6drj432tb.pdf>

The results were reported under JORC 2012 and Centrex is not aware of any new information or data that materially affects the information contained within the release. All material assumptions and technical

parameters underpinning the estimates in the announcement continue to apply and have not materially changed.

The bulk composite for the feasibility level testwork is currently being processed at Bureau Veritas in Adelaide. The program to produce a bulk sample of product concentrate is expected to be completed in November 2017. The concentrate produced will be used to meet customer requests for samples to undertake fertiliser conversion testwork. Centrex will also complete independent fertiliser conversion testwork on the concentrate as well as product material handling testwork.

Centrex appointed GR Engineering Services Limited to the project earlier this month to complete both scoping and feasibility level engineering design studies for the project.

Initial mining studies for the deposit have been completed based on the existing Inferred Mineral Resource. These studies will be updated once a further resource estimate is completed based on the current RC drilling program.

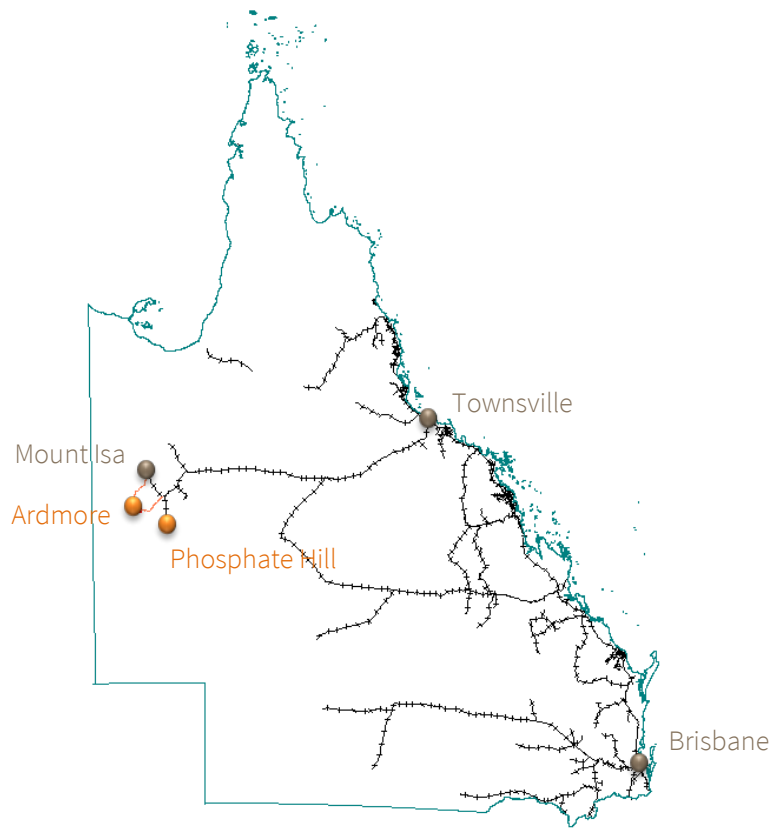
Baseline hydrology and hydrogeology studies are currently in progress.

Extensive evaluations of the various existing logistics options are continuing, with pricing indications from contractors being finalised for each option, including rail haulage in bulk wagons and in containers. All shiploading options will be bulk via bulk shiploaders or rotainer facilities.

### Project Description

The Ardmore Phosphate Rock Project ("Ardmore") is located 128 km south of the City of Mount Isa in North West Queensland. The deposit was drilled out in the 1970s at the same time as the discovery of the larger Duchess deposit, which is currently mined to provide feed to the adjacent Phosphate Hill ammonium phosphate fertiliser plant. A Mining Lease for Ardmore was granted in 1975 and it was been held under common ownership with the Duchess Mine until Centrex purchased it, with the Mining Lease transferred to Centrex in June 2017.

Centrex plans to develop a phosphate rock export operation at Ardmore to supply the nearby Asian and Australasian markets. With the bulk of the export market coming from North Africa and the Middle East, Ardmore will have a large freight advantage to these markets. Ardmore's already high phosphate grade means processing costs will be lower than the majority of producers that require significant beneficiation to reach export grade levels. Mining at Ardmore will also be relatively cheap as it is flat lying, shallow, and should not require blasting. Centrex plans to truck product from Ardmore 90 km to the Mount Isa-Townsville rail line and export from Townsville through existing port facilities.



**FIGURE:** Ardmore location map.

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Appendix – Technical Information

TABLE: DD007A location (handheld GPS).

BHID	X Easting (MGA94 Zone 54)	Y Northing (MGA94 Zone 54)	Azimuth	Dip
DD007A	323360	7595715	0	-90 degrees

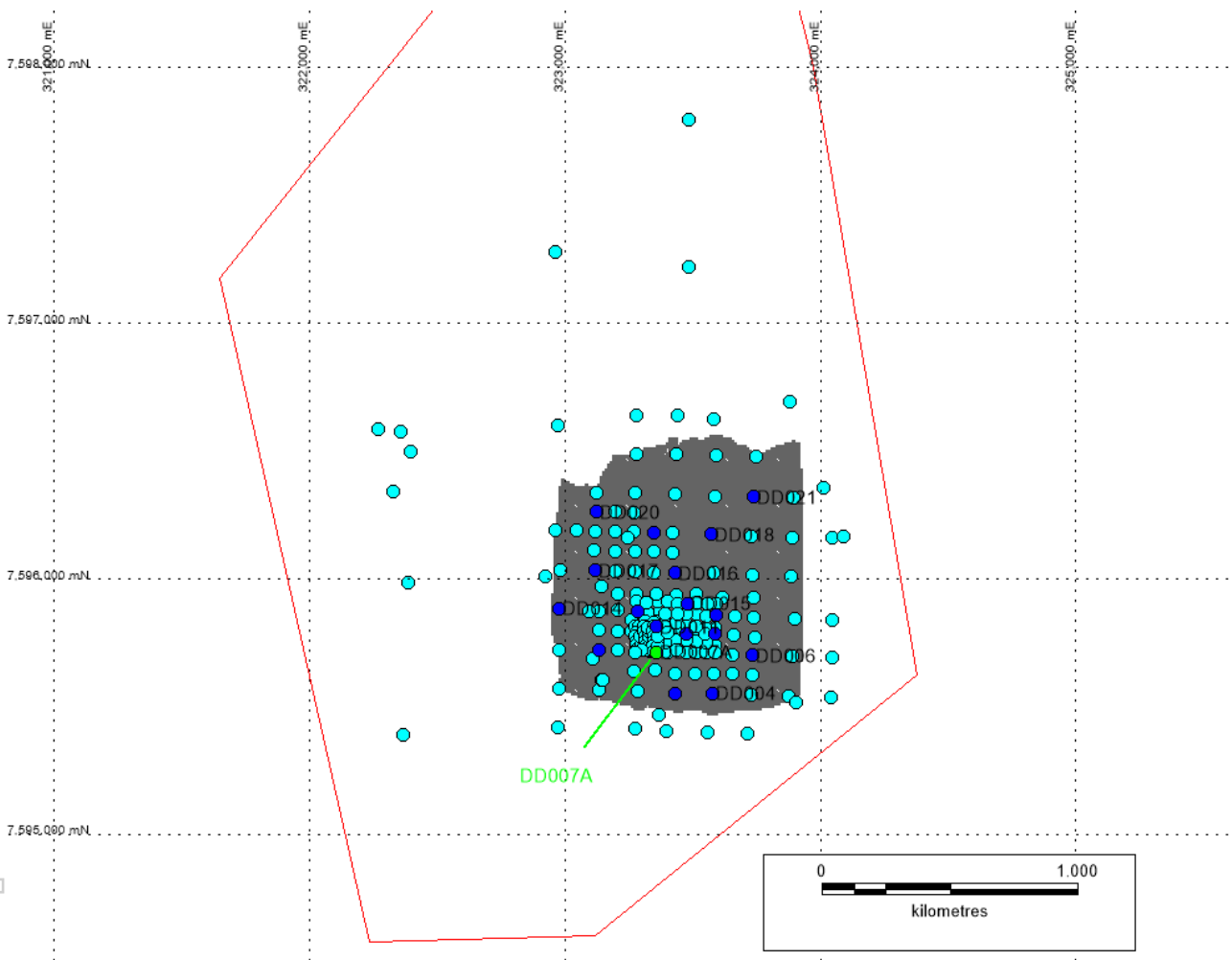


FIGURE: Plan view of DD007A collar location from which mini-composite was taken (green), shown against other PQ diamond drill holes recently completed in the Southern Zone (dark blue), historical RAB holes (light blue), current resource model area (grey), and mining lease boundary (red).

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## Competent Persons Statement

The information in this report relating to Exploration Results is based on information compiled by Mr Ben Hammond who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Ben Hammond is the CEO of Centrex Metals Limited. Mr Hammond has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Hammond consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## Ardmore Phosphate Rock Project JORC Table 1 Report

### SECTION 1: Sampling techniques and data.

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling.</li> <li>Sample representivity.</li> <li>Determination of mineralisation.</li> </ul>	<p>The mini-composite was derived from core taken from PQ diamond drill hole DD007A.</p> <p>Core recovery was close to 100%. The hole was geologically logged and the hangingwall and footwall marked. Further marks were made 15cm below and above the hangingwall and footwall respectively as indicative selective mining marks based on mining practices at similar operations. The entire down hole interval between these marks were sampled.</p> <p>DD007A was a twin of historical hole AMRB0126. This hole was chosen to be twinned for the mini-composite as its ore interval assay (&gt;19% including contact dilution) average for P<sub>2</sub>O<sub>5</sub>, Al<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub> and SiO<sub>2</sub> was close to the resource model average for the deposit.</p> <p>The mini-composite was only meant to provide indicative results for the ore body and is not considered to be representative of the entire deposit.</p>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type.</li> </ul>	Drilling was PQ diamond core.
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing sample recoveries.</li> </ul>	Core recoveries were excellent and close to 100% based on visual observations.



	<ul style="list-style-type: none"> <li>Measures taken to maximise sample recovery.</li> </ul>	
Logging	<ul style="list-style-type: none"> <li>Geological and geotechnical logging.</li> <li>Whether logging is qualitative or quantitative.</li> <li>Total length and percentage of the relevant intersections logged.</li> </ul>	<p>Qualitative logging was undertaken including lithology, colour, weathering and hardness down to 10cm scale.</p> <p>Quantitative RQD logging was completed.</p>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>Nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control.</li> <li>Sample representivity.</li> <li>Sample sizes.</li> </ul>	<p>Samples were initially placed into heavy duty plastic bags with cable ties. The samples were placed in sealed buckets and sent by road to Bureau Veritas in Adelaide.</p> <p>The mini-composite interval was sub-sampled into indurated and friable components and dried in an oven overnight. The components were crushed individually to -20mm, homegenised, and weighed. A 33kg composite was formed combining the two components in proportion to average 15% indurated in line with the ore body average based on a geomet model derived from drill hole logging.</p> <p>A 2kg sub-sample of the mini-composite was taken for head assays and 16kg kept in reserve. 15kg of the composite was crushed to -2mm. A 0.5kg sub-sample was taken for the 5 minute attrition test.</p> <p>DD007A was a twin of historical hole AMRB0126. This hole was chosen to be twinned for the mini-composite as its ore interval assay (&gt;19% including contact dilution) average for P2O5, Al2O3, Fe2O3 and SiO2 was close to the resource model average for the deposit.</p> <p>The mini-composite was only meant to provide indicative results for the ore body and is not considered to be representative of the entire deposit.</p>

<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> <li>• <i>Nature of quality control procedures.</i></li> </ul>	<p>Major element assays undertaken at Bureau Veritas in Adelaide by XRF. Centrex had completed numerous CRM and duplicate assay analyses in its previous grab sample testwork program showing XRF to be appropriate to the deposit style.</p>
<p><i>Verification of sampling and assaying</i></p>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage protocols.</i></li> <li>• <i>Any adjustment to assay data.</i></li> </ul>	<p>The mini-composite was derived from PQ diamond drill hole DD007A which was a twin of historical RAB hole AMRB126. The twin holes showed strong correlation in lithology and chemistry.</p> <p>DD007A was logged by both Centrex and contract geologists, both with significant phosphate experience in similar operations.</p>
<p><i>Location of data points</i></p>	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<p>Drill hole collar easting and northing locations were determined by handheld GPS using MGA94 Zone 54 grid system. Relative levels were not recorded given the known inaccuracy of handheld GPS. A recent LIDAR survey was flown for the site and drill hole collar RLs will be adjusted to the survey however it is not significant to the results being reported.</p>
<p><i>Data spacing and distribution</i></p>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<p>DD007A was a twin of historical hole AMRB0126. This hole was chosen to be twinned for the mini-composite as its ore interval assay (&gt;19% including contact dilution) average for P2O5, Al2O3, Fe2O3 and SiO2 was close to the resource model average for the deposit.</p> <p>The mini-composite was only meant to provide indicative results for the ore body and is not considered to be representative of the entire deposit.</p> <p>The mini-composite interval was sub-sampled into indurated and friable components and dried in an oven overnight. The components were crushed individually to -20mm, homegenised, and weighed. A 33kg composite was formed combining the two components in proportion to average 15% indurated in line with the ore body average</p>

		based a geomet model compiled from drill hole logging.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling.</li> </ul>	DD007A was drilled vertically in the shallow to flat dipping phosphorite seam.
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	Samples were first placed in plastic bags that were sealed in plastic buckets for transport to Bureau Veritas Adelaide.
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	There has been no detailed audit or reviews by Centrex of the sampling techniques and data.

### Ardmore Phosphate Rock Project JORC Table 1 Report

#### SECTION 2: Reporting of Exploration Results.

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements.</li> <li>The security of the tenure held at the time of reporting.</li> </ul>	<p>The project is held on Mining Lease ML5542 held by Centrex Phosphate Pty Ltd, a 100% subsidiary of Centrex Metals Limited. An application to renew the Ardmore Mining Lease (ML 5542) has been submitted for a further 21 years term. Southern Cross Fertilisers Pty Ltd holds a 3% revenue royalty on production.</p> <p>Compensation agreements for exploration and mining with all relevant landowners over the Mining Lease are in place.</p>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Exploration by other parties.</li> </ul>	Broken Hill South Limited and Queensland Phosphate Limited (Mines Exploration Pty Ltd) completed 6 main trench excavations in the 1970s using a D9 Dozer to depths up to 10m that are still partly open. Detailed face mapping and sampling was completed at the same time including an honors thesis. Over 300 historical drill holes were completed across the deposit. Wireframes of ore types completed by Centrex were based on historical drill hole logging data that was qualitative.
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<p>The Ardmore phosphate deposit was discovered in September 1966 and is located within the 'Ardmore Outlier' of the Georgina Basin.</p> <p>The Cambrian aged sedimentary phosphate deposit consists predominantly of pelletal phosphorites with small bands of colophane mudstone. The small (approx. 100-200 micron) sized pellets of carbonate-fluorapatite probably formed in a shallow shelf environment.</p>

		<p>Within the Ardmore Outlier the single phosphate bed occurs within the Simpson Creek Phosphorite Member (SCPM) of the Beetle Creek Formation.</p> <p>The SCPM is essentially flat lying with a gentle to moderate dip (&lt;20 degrees) to the east and occurs spatially within two main separate areas: the Northern Zone and the Southern Zone.</p> <p>The SCPM has an approximate average thickness of 5 m in the Southern Zone and is located from surface to greater than 15 m depth.</p> <p>The Northern Zone has an approximate average thickness of 3 m and is deeper than the Southern Zone, with depths starting from near-surface in the west before dipping away to the east and extending to depths greater than 20 m.</p>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• <i>A summary of all information material to the understanding of the exploration results.</i></li> </ul>	<p>Exploration Results presented in this announcement are indicative only and for sighter metallurgical testwork based on trench face sampling only.</p> <p>The location of DD007A is provided in the appendix.</p>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• <i>Weighting averaging techniques and grade cuts.</i></li> <li>• <i>Aggregation procedure.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<p>Assays from the attritoner results were compiled via weighted averages based on recorded mass fractions.</p>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>Geometry of the mineralisation with respect to the drill hole angle.</i></li> </ul>	<p>DD007A was completed vertical to the shallow to flat dipping phosphorite.</p>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<p>See figures included in this announcement.</p>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>Representative reporting of both low and high grades and/or widths.</i></li> </ul>	<p>The reporting of results is considered to be balanced and all relevant results have been reported.</p> <p>A 10 minute attritoner trial was completed that showed insignificant change to the 5 minute attritoner results and hence was not included.</p>

<i>Other substantive exploration data</i>	<ul style="list-style-type: none"><li><i>Other exploration data.</i></li></ul>	No other exploration data is available at this time.
<i>Further work</i>	<ul style="list-style-type: none"><li><i>The nature and scale of planned further work.</i></li></ul>	A close to 1 tonne bulk sample is currently being processed for feasibility level testwork. A major RC program is nearing completion for a resource update. Engineering for the project has commenced.

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