



# AGM Presentation

*Focused on the supply of premium quality primary products to the fertiliser markets to meet the growing plant based food demands in the Asia-Pacific region*

November 2019



[WWW.CENTREXMETALS.COM.AU](http://WWW.CENTREXMETALS.COM.AU)  
ASX:CXM

# Forward Looking Statements

This presentation has been prepared by Centrex Metals Limited and is not intended to be and does not constitute an offer to sell, or a solicitation of an offer to buy or sell, Centrex Metals' securities.

This presentation does not constitute a recommendation to invest in Centrex Metals assets, is not investment, accounting, financial, legal, tax or other advice and does not take into consideration the investment objectives, financial situation or particular needs of any recipient of the presentation (Recipient). Before making an investment decision, Recipients should (a) conduct their own independent investigations and analysis of Centrex Metals and the information set out in the presentation, (b) rely entirely on such investigations and analysis and not on this presentation in relation to their assessment of Centrex Metals and (c) form their own opinion as to whether or not to invest in Centrex Metals.

The presentation contains information on Centrex Metals and its activities which are current as at the date of this presentation. The information in this presentation is general in nature and does not propose to be complete nor does it purport to contain all of the information that

a prospective investor may require in evaluating a possible investment in Centrex Metals or that would be required in a prospectus or a product disclosure statement prepared in accordance with the Corporations Act. To the maximum extent permitted by law, none of Centrex Metals and its related bodies corporate, and each of those parties officers, employees, agents, advisers and associations (each a Relevant Person) is, or may be taken to be, under any obligation to correct, update or revise the presentation.

Any forward looking statements (including forecasts) included in this presentation are not representations as to future matters and should not be relied upon by Recipients. The statements are based on a large number of assumptions about future events and are subject to significant uncertainties and contingencies, many of which are outside the control of Centrex Metals. No representation is made that any forecast or future event will be achieved. Actual results may vary significantly from the forecasts.

Each Recipient should make its own enquiries and investigations regarding the assumptions,

uncertainties and contingencies which may affect Centrex Metals' assets.

To the maximum extent permitted by law, each Relevant Person makes no representation or warrant (express or implied) as to the currency, accuracy, reasonableness or completeness of the information, statements and opinions expressed in this presentation (information). To the maximum extent permitted by law, all liability in respect of the information is expressly excluded, including without limitation any liability arising from fault or negligence, for any direct, indirect or consequential loss or damage arising from the use of the information or otherwise. No responsibility is accepted by any Relevant Person, for any of the information, any omission from this presentation or for any action taken by the Recipient or any other person on the basis of the information.

# Company Overview



## Flagship Ardmore Phosphate project

- 10 year mine life in Reserves<sup>1, 6</sup>
- High grade product
- Located on granted mining lease<sup>2</sup>

## Head Office

- Tightly held capital structure with no debt
- Realised value via sale of iron ore projects – A\$10 million contingent royalty<sup>4</sup>
- Seeking to unlock value from other projects including large-scale potassium nitrate project

Note: Footnotes are in appendix

# Ardmore Phosphate Rock Project

*A uniquely positioned, low risk project set to deliver premium quality product to the fertiliser market, to meet growing demand on the farm*



# Ardmore Investment Highlights

## Project economics<sup>1</sup>

- Optimised DFS for Ardmore Project indicated ungeared pre-tax **NPV<sub>10</sub> of A\$ 269m** and **IRR of 63%**
- Project Capex **A\$69m** providing initial payback of **1.8 years**
- 10 year mine life in Reserves
- Further upside through regional exploration, conversion of Resources to Reserves and other strategic regional opportunities

## Regional advantage

- Major sea **freight advantage** over existing suppliers to the important Asia-Pacific markets
- Almost half the traded phosphate rock market is to Ardmore's target customers in the Asia-Pacific region

## Premium quality product

- **Premium grade** phosphate rock product
- Unique **ultra-low cadmium** content provides capability to be used by local manufacturers without the need for blending

## Phosphate market

- Phosphate fertilizer market currently subdued due to seasonal factors, however medium-term rock price forecast is broadly in line with Ardmore Definitive Feasibility Study (DFS)<sup>1,6</sup> price assumptions<sup>10</sup>
- Global shift away from disputed and high cadmium Moroccan exports from Western Sahara region
- China forecast to move to net importer in the near term
- Limited high grade phosphate rock capacity globally

## Risk profile

- **Simple open cut operation**, low cost, low strip ratio mining located on granted mining lease
- Simple on site processing using traditional and well understood techniques
- Resource well known, DFS<sup>1,6</sup> has derisked development and execution risk – **majority of infrastructure in place**

Note: Footnotes are in appendix



## Ardmore Project



Aerial view of Start-Up Plant construction

- One of the few undeveloped high-grade phosphate deposits in the world
- Shallow open-cut, low-cost strip mining without the need for blasting
- No expensive flotation plant required
- Premium phosphate rock concentrate with simple crushing and deslime circuit
- Existing roads, rail, and port
- Significantly lower capital intensity than other projects proposed around the world
- Major freight cost advantage to Australia, New Zealand, Indonesia and Eastern India
- Start-up 70tph modular Start-Up plant erected on site<sup>9</sup>

# Optimised Definitive Feasibility Results<sup>1</sup>

## Attractive economics

Annual production	800,000 wet tonnes
Mine Life	10 years
<b>Pre-production capital</b>	<b>A\$ 69 m</b>
NPV <sub>10</sub> (pre tax unlevered)	A\$ 269 m
IRR	63%
Payback	Less than 2 years
AUD:USD	0.72
<b>Life of mine average sales price (real CFR)</b>	<b>US\$ 154/t</b>
Average operating costs (real CFR)	US\$ 99/t (ex royalties)

- Low capex as utilising existing and under utilised logistics chain
- Based on grade adjusted CRU India 71-75 BPL (33.4% P<sub>2</sub>O<sub>5</sub>) benchmark forecast
- Below the 10 year historical real average benchmark even without grade adjustment for higher grade Ardmore rock

Note: Footnotes are in appendix

# Optimised DFS Results<sup>1</sup>

## Capital Costs estimate (real 2018)

	Result
<b>Overall estimate accuracy</b>	<b>+/- 15%</b>
<b>Pre-production capital costs</b>	
<b>Area</b>	<b>A\$ million</b>
Mining	3.9
Process plant	16.0
Mine site infrastructure	11.9
Road haulage	2.2
Rail siding	7.6
General (camp, borefield etc.)	6.2
<b>Sub-total directs</b>	<b>47.8</b>
EPCM	6.0
Other in-directs	5.8
Owners	1.6
<b>Sub-total in-directs</b>	<b>13.4</b>
Growth & contingency – 12%	7.5
<b>Total pre-production capital</b>	<b>68.7</b>

## Life of mine average CFR operating costs (real 2018)

	Result
<b>Overall estimate accuracy</b>	<b>+/- 15%</b>
<b>Average LOM operating costs / DMT of concentrate – Real 2018 \$</b>	
<b>Area</b>	<b>US\$/DMT</b>
Mining	10
Processing	10
Road haulage & siding	9
Rail & port	45
Sea Freight	20
Owners	5
<b>Total CFR</b>	<b>99</b>
<b>Royalties</b>	<b>6</b>

Note: Footnotes are in appendix



## Start-Up Mine

- Start-up 70tph modular Start-Up plant erected on site<sup>9</sup>
- Start-up Mine planned to produce up to 30,000t of premium concentrate
- Total of 10,000t of trial shipments executed with long term target customers<sup>3,8</sup>
- Trial shipments to support negotiation of long term offtake contracts that will in turn underpin full project financing
- Plant designed to be upgradeable for full-scale 800,000tpa operations



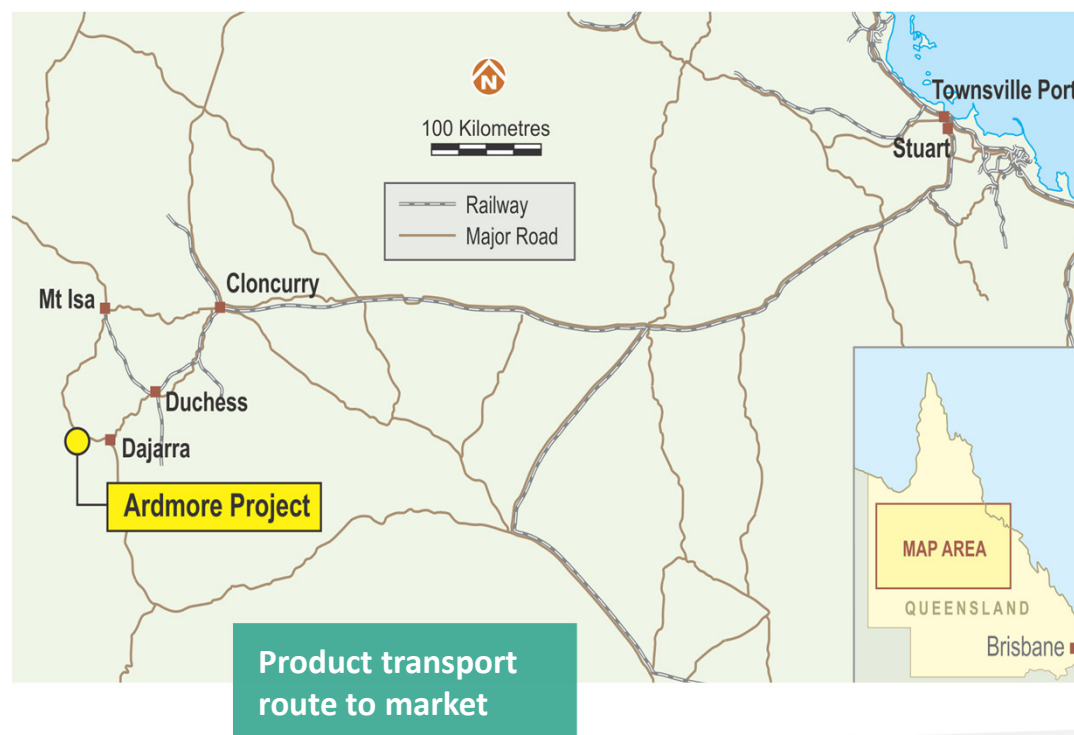
**Start-Up Plant  
erected on site**

\* The Company continues to review its near and long term funding options so as to ensure the start-up phase of the project is fully funded prior to commissioning the Start-Up Plant and commencing mining and processing operations

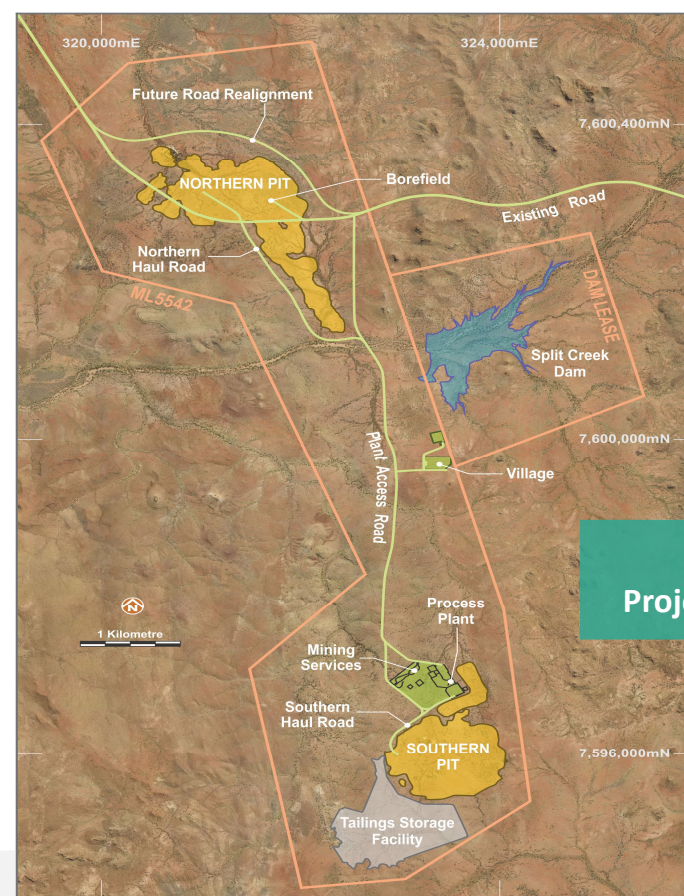
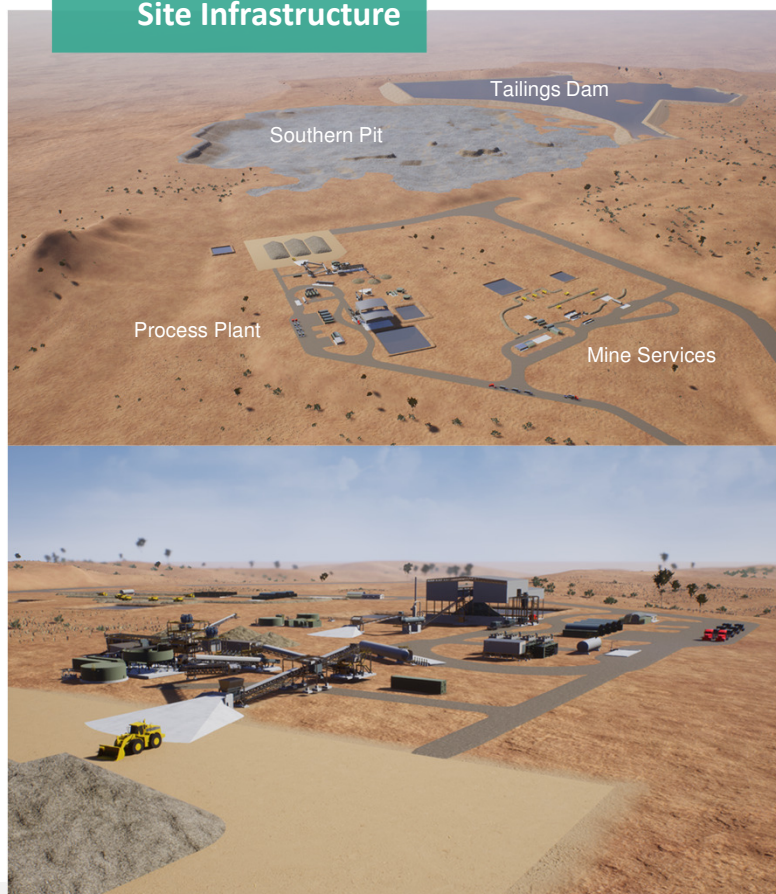
Note: Footnotes are in appendix

## Logistics – Utilising Existing Latent Capacity

- Various established options to deliver phosphate concentrate to the port of Townsville
- Product trucked using triple road trains on existing roads to an upgraded rail siding at Duchess
- Product railed on the existing Mount Isa rail line to the Port of Townsville
- Container or bulk storage options available
- Ship loading using either existing rotainer cranes or existing bulk shiploader



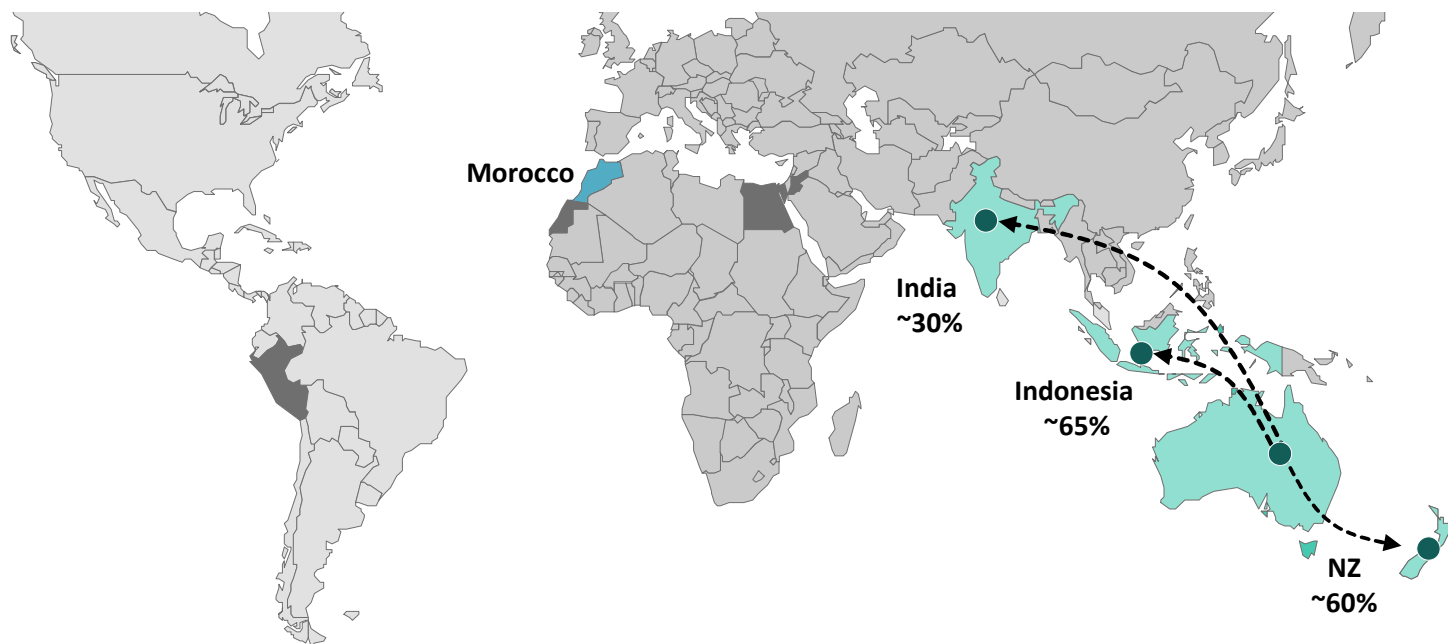
## Process Plant & Mine Site Infrastructure



## Ardmore Project Layout



# Freight Advantage



Top 5 Exporters to target markets  
(95% of exports)

Target regional markets, >10  
million tonnes and growing

---> Ardmore estimated sea freight  
saving to target customers v  
Morocco

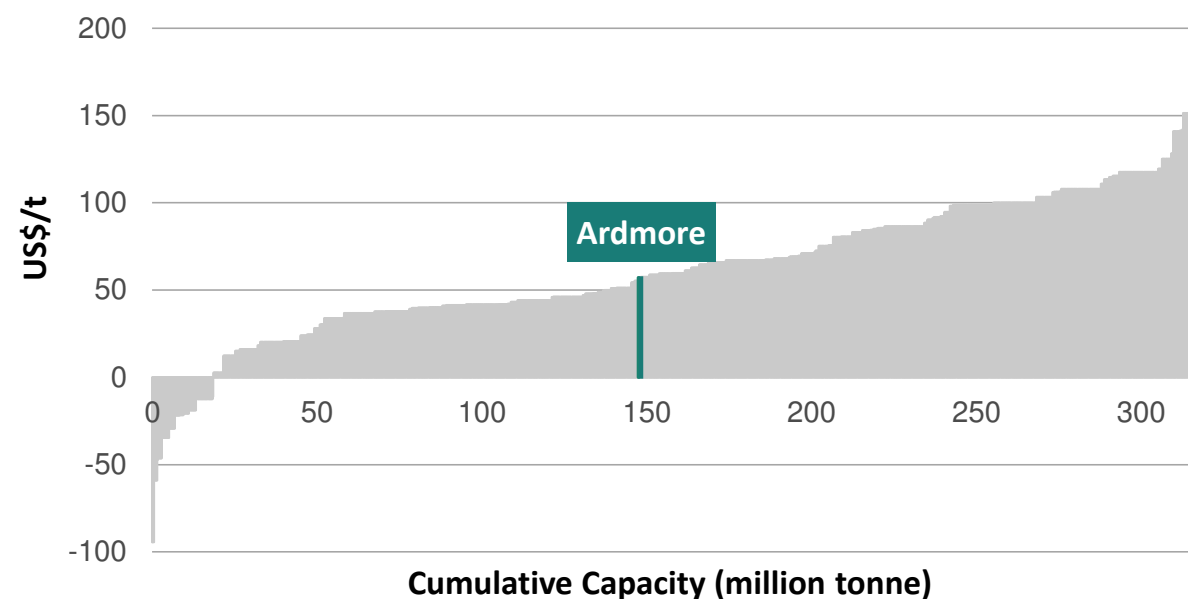
## Asia Pacific Target Markets

Country	2017 ('000 t)
<b>India</b>	<b>7,855</b>
USA	2,571
<b>Indonesia</b>	<b>2,390</b>
Brazil	1,935
Canada	940
<b>New Zealand</b>	<b>546</b>
Malaysia	410
Pakistan	405
Australia	431
South Korea	298
Japan	260
China	122
Taiwan	118
Others	9,889
<b>Total</b>	<b>28,011</b>

# Globally Competitive

## Global phosphate rock production business costs

Business costs at capacity in 2023



- The CRU Business Operating Cost curve reflects the sum of site and realization costs
- Costs are adjusted for quality and logistics costs to target market v supply from Morocco as major global producer
- Ardmore benefits from premium grade rock and location advantage
- Ardmore is forecast to be placed in the second quartile of the operating cost curve when compared to forecast global production

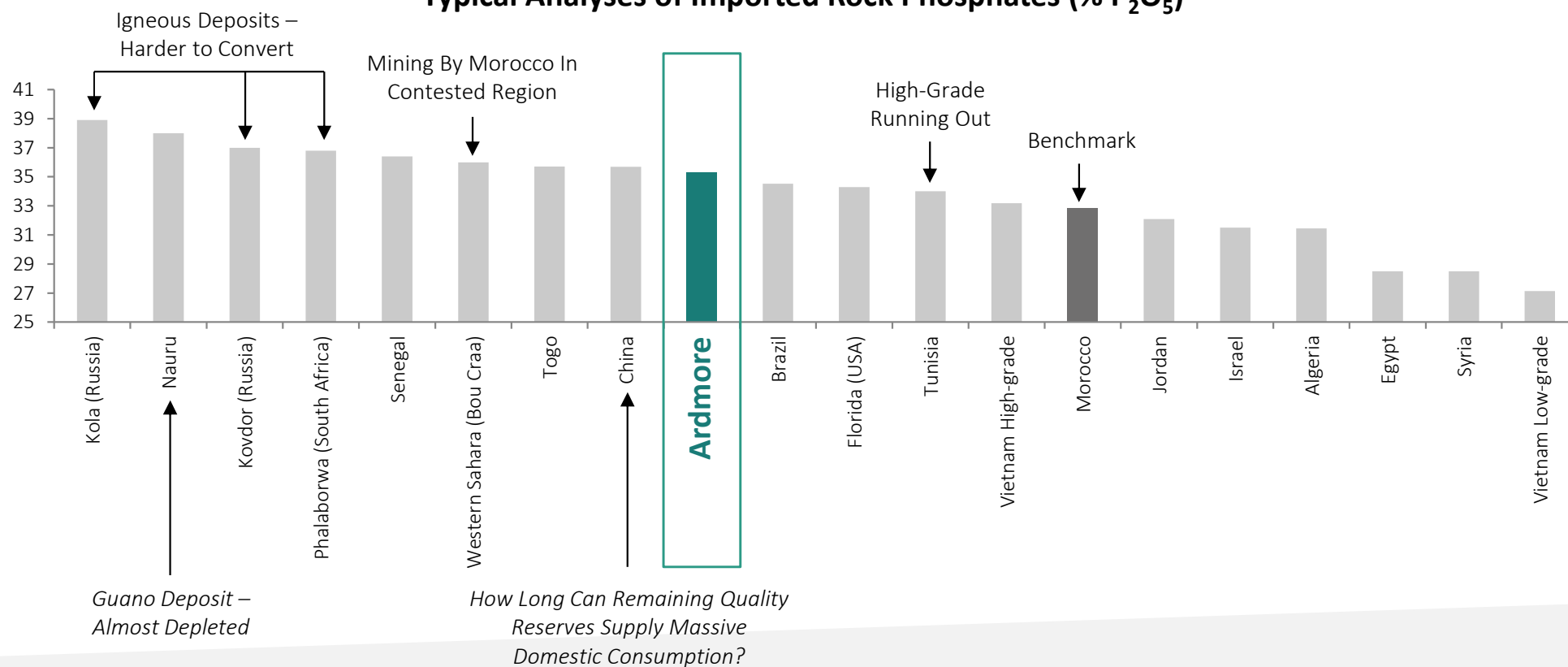
## Ardmore Target Markets

- The traded phosphate rock market is 28 million tonnes of which 12 million tonnes are to Ardmore's target customers in the Asia-Pacific
- Annual demand to target customers is forecast to grow by 5 to 7 million tonnes over the next 5 years
- Traded phosphate rock benchmarks range from 27%-34%  $P_2O_5$  and Ardmore concentrate is above the top end of this range
- Toxic cadmium is a major issue for the industry and Ardmore concentrate has almost none
- Ardmore concentrate has low carbonate levels thereby reducing sulphuric acid consumption and processing costs for target customers
- Australia & New Zealand SSP production reliant on 1 million tonnes of imports, mainly from North Africa
- Unique Ardmore product capable of producing SSP in Australia & New Zealand without the need for blending
- Ardmore has a significant sea freight advantage over the current major phosphate rock suppliers to the Asia-Pacific region
- Proximity to target markets critical with shipping costs expected to rise with regulatory changes towards low sulphur bunker fuel



# Ardmore Comparison – Concentrate Grade

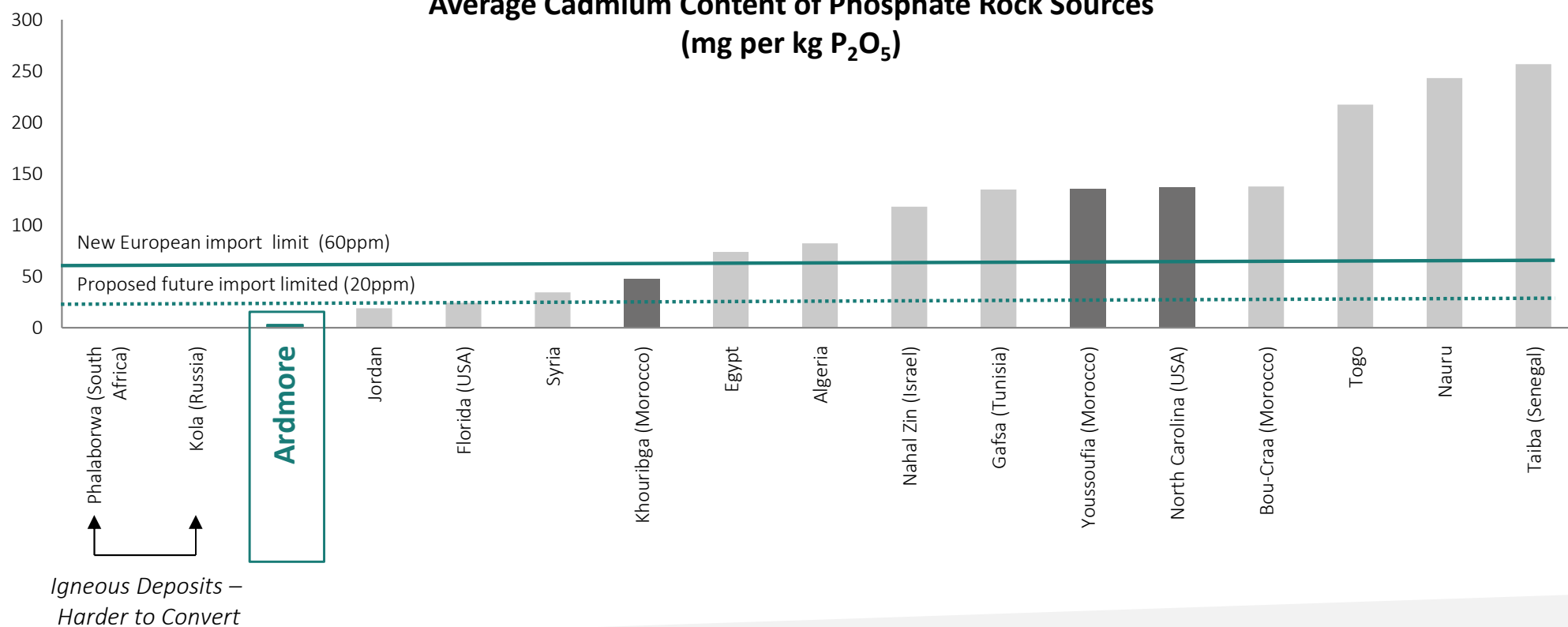
Typical Analyses of Imported Rock Phosphates (%  $P_2O_5$ )



Source: derived from FAI 2010

# Ardmore Comparison – Cadmium Content

**Average Cadmium Content of Phosphate Rock Sources  
(mg per kg  $P_2O_5$ )**



Source: derived from Oosterhuis et al 2000

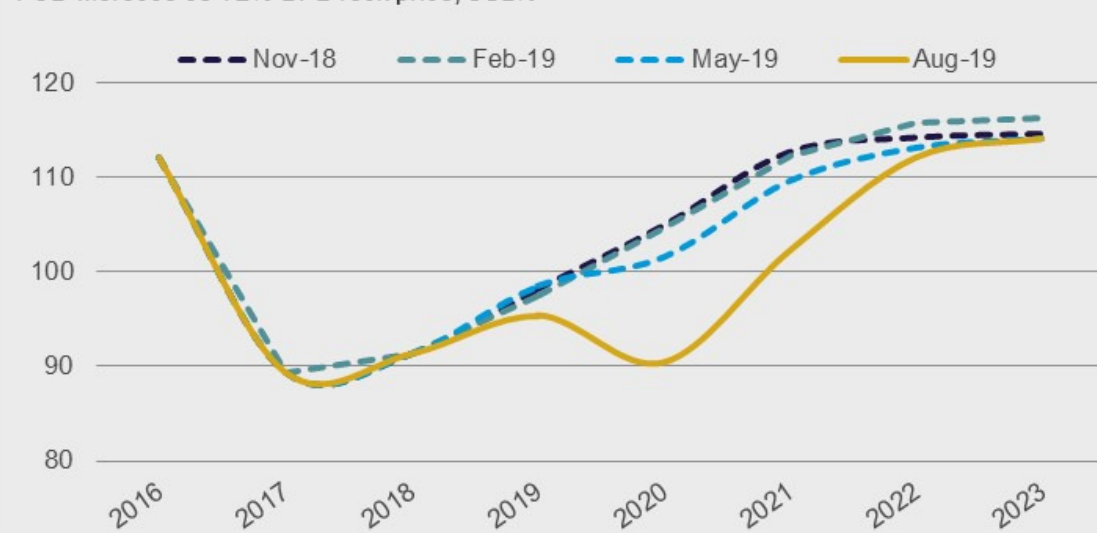
## Forecast CFR Pricing for Ardmore

- Phosphate fertilizer market currently subdued but medium-term rock price forecast is broadly in line with Ardmore Definitive Feasibility Study (DFS) price assumptions<sup>10</sup>
- Ardmore to target pricing referenced to the India CFR 71-75% benchmark (32-34%  $P_2O_5$ )
- Conservative linear adjustment for premium Ardmore phosphate grade (34-35%  $P_2O_5$ )
- Significant upside for Ardmore when prices return to normalized levels

### Historical & Forecast Phosphate Rock Pricing\*

Falling downstream prices weigh on rock prices

FOB Morocco 68-72% BPL rock price, USD/t



\* Source: CRU August 2019

# Marketing

- Positive results from two 400 tonne paid run of mine shipments of Ardmore tested by two regional SSP producers with a longer term view to buying premium grade concentrate<sup>7</sup>
- Australia's largest phosphate rock importer Incitec Pivot hold a 20% right of first refusal over available annual production
- 2 x 5,000 tonne shipment contract signed with major manufacturers in the local region with a view to long term offtake commitment<sup>3,8</sup>

Ardmore run of mine ore SSP trial at manufacturer in the local region<sup>8</sup>



Note: Footnotes are in appendix

# Resources and Reserves



Free digging shallow phosphate rock at Ardmore - 2018

	Category	Million Tonne	P <sub>2</sub> O <sub>5</sub> %
Mineral Resources <sup>5</sup>	Measured	3.3	29.8%
	Indicated	11.1	27.4%
	Inferred	1.7	26.8%
	<b>Total</b>	<b>16.2</b>	<b>27.8%</b>
Ore Reserves <sup>1, 6</sup>	Probable	7.3	30.2%
	Proven	2.8	30.3%
	<b>Total</b>	<b>10.1</b>	<b>30.2%</b>

- Low risk and cost, free-dig open cut strip mining
- 1 million dry tonnes per annum processing rate to produce 800,000 wet tonnes of premium grade concentrate

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 presentation continue to apply and have not materially changed.

Note: Footnotes are in appendix

## Summary



Progressing a **high-grade** Queensland phosphate rock project on granted mining lease with **established infrastructure**



Start-up mine deferred pending completion of funding solution<sup>10</sup>



Simple open cut mine with **10 year** mine life producing **800,000t per annum**



Constraining costs to preserve shareholder value



Derisked via optimised DFS and attractive project economics, pre-tax **NPV<sub>10</sub> of A\$ 269 million** and **IRR of 63%**



Looking to unlock from Oxley and Goulburn



Potential to increase mine life via conversion of Resources to Reserves and near mine exploration



# Thank you

CENTREX METALS  
Level 6, 44 Waymouth Street  
Adelaide, South Australia

T +61 8 8213 3100  
F +61 8 8231 4014

[WWW.CENTREXMETALS.COM.AU](http://WWW.CENTREXMETALS.COM.AU)



# Competent Person Statement

The information in this report relating to Mineral Resources is based on and accurately reflects information compiled by Mr Jeremy Clark of RPM, who is a consultant and adviser to Centrex Metals Limited. Mr Clark is a Member of the Australian Institute of Geoscientists and has sufficient experience 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 as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Mr Clark consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to Ore Reserves is based on information compiled by Ben Brown, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Ben Brown is employed by Optima Consulting and Contracting Pty Ltd, an external independent consultancy. Ben Brown 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 ‘Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Ben Brown consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## References

1. ASX Release (28 February 2019) – DFS Optimisation Delivers Significant Increase in Project Pre-Tax NPV to \$269 million
2. ASX Release (10 December 2018) – Centrex Secures Major Environmental Approval
3. ASX Release (14 May 2019) – Sales Contract Executed with Leading Fertiliser Producer
4. ASX Release (22 March 2018) – Centrex Sells Iron Ore Assets to Local Steel Maker
5. ASX Release (1 June 2018) – Updated Mineral Resource Estimate Complete
6. ASX Release (8 October 2018) – Ardmore Feasibility Study Results & Ore Reserves
7. ASX Release (25 May 2018) – Mining & Crushing Commences for First Paid Customer Trial
8. ASX Release (16 October 2018) – First Contract Signed for 5,000t Concentrate Shipment
9. ASX Release (12 September 2019) – Ardmore Project Update
10. ASX Release (7 November 2019) – Company Update