



# Strategic Investment Opportunity

## ARDMORE PHOSPHATE PROJECT

May 2020



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ASX:CXM

# Project Location



## Ardmore Phosphate project

- 10 year mine life in Reserves<sup>1, 5</sup>
- High grade product
- Located on granted mining lease<sup>2</sup>

Note: References are in appendix

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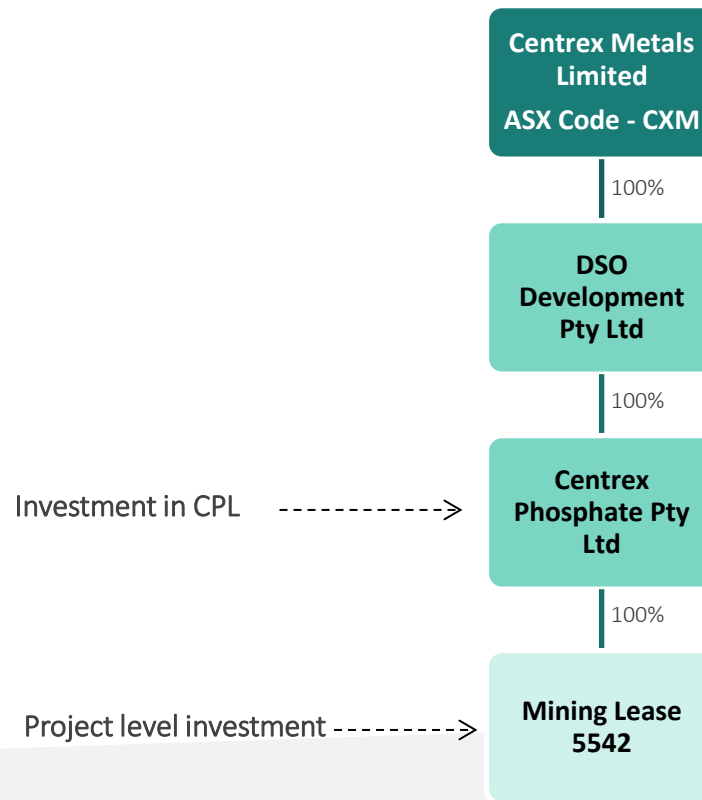
# Ardmore Phosphate Rock Project

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



# Strategic Investment Opportunity

- Centrex Metals (**Centrex**) owns the high-grade low-impurity Ardmore Phosphate Project (**Ardmore**)
- Centrex is currently seeking Strategic Partners to join in the funding and development of Ardmore
- Investment may be available either in the Ardmore holding company, Centrex Phosphate Pty Ltd, or directly in the Project
- Centrex may discuss a proportionate share of offtake as part of the Strategic Investment
- Size and structure of the investment will determine the Investor's rights



# 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 JORC ore Reserves only
- 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** low impurity phosphate rock product proposed which is in high demand regionally
- Unique **ultra-low cadmium** content provides capability to be used by local manufacturers without the need for blending

## Phosphate market

- Positive price and demand outlook correlates well with world population growth
- Global shift away from purchasing 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 regionally implies potential for **increasing product premiums**

## Risk profile

- **Simple open cut operation**, low cost, low strip ratio mining located on granted Mining Lease
- Chemical-free simple on site processing based on using recently-installed processing plant
- Resource well known, DFS<sup>1,5</sup> has derisked development and execution risk – **majority of infrastructure already in place** (eg road, rail network to Townsville port)

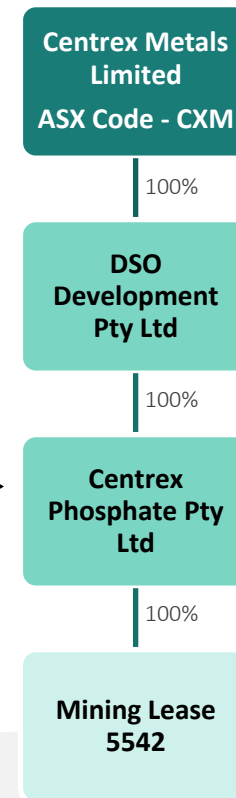
# Holding Company Investment

- The Investor can be issued shares in holding company Centrex Phosphate Pty Ltd (CPL) at an agreed price
- Centrex Phosphate is a private company 100% owned through DSO Developments Pty Ltd by Centrex Metals Limited
- Depending on the size of the investment the Investor may be granted CPL board representation to support their investment

## Advantages

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>▪ Privacy of ownership</li> <li>▪ Investment is easily protected</li> <li>▪ May require further investment</li> <li>▪ Potential gain from Centrex's other phosphate exploration portfolio</li> </ul> | <ul style="list-style-type: none"> <li>▪ Proportional offtake may be guaranteed if an agreement is entered into at the time of investment</li> <li>▪ May be able to influence the development program for Ardmore</li> <li>▪ Simple investment structure</li> </ul> |
|---|---|

Investment in Holding Company ----->



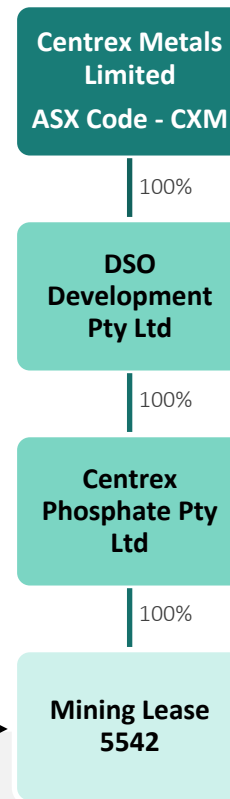
# Project Level Investment

- The Investor and Centrex Phosphate Pty Ltd form an unincorporated Joint Venture (JV)
- Ownership of the JV up to 50% could be negotiated dependent upon the size of the investment
- The Investor would be secured via shared ownership on title of Mining Lease 5542 etc
- The Ardmore project would be controlled by a JV Committee where the Investor would be represented. Relationship and management is documented via a formal JV Agreement

## Advantages

- Offtake may be possible on basis of share of ownership
- Direct ability to share in development decisions for Ardmore
- Requirement for further investment to develop Ardmore
- No exposure to other assets and changes to the Centrex business model

Project level investment ----->





# Supporting Information

*Centrex Metals Ltd - Corporate*



# Board of Directors and Secretary



## Mr Graham Chrisp

**Executive Chairman (Appointed 1/12/2019, Non-Executive Director since 21/1/2010) B.Tech (CE)**

Mr Chrisp has a degree in Civil Engineering and has substantial experience in numerous aspects of successful business operations, including design and construction of roads and other earthworks, mineral exploration, project management and property development. Having previously been an owner and operator of earth moving equipment for mining and civil applications, Mr Chrisp has practical experience with modest scale earthmoving and mining operations, including several of his own developments. He was a founding director of Centrex Metals Limited (having previously served as its Managing Director) and Lincoln Minerals Ltd and has numerous private interests.

Mr Chrisp is a member of the Company's Remuneration and Audit Committees.



## Dr John Santich

**Company Secretary (Appointed 31/3/20)**

Dr Santich is a lawyer and engineer with decades of experience in mining, geoscience and corporate law. He has been a director and secretary of listed exploration, mining and technology companies and is a principal of a specialist resources and technology legal firm. Dr Santich had an academic career in Australia, France and the USA, working in several capacities in engineering and law, including researcher and lecturer. In Australia as a lawyer he has worked with government and the private sector, establishing and directing a number of listed exploration, mining and technology companies



## Mr Peter Cox

**Non-Executive Director (Appointed 28/01/20)  
FCA (retired)**

Mr Cox is a retired Chartered Accountant who has been involved in a broad cross-section of public accounting and has had roles both as a Director and Secretary of a number of Listed Companies over the last 30 years, principally in the mineral resource sector. He retains several private company positions.

Peter is Chairman of the Audit and Risk committee and the Remuneration Committee.



## Dr A. John Parker

**Non-Executive Director (Appointed 19/12/2020)**

Dr Parker is a geologist and geophysicist with extensive knowledge of economic geology, mineral deposits and mineralizing systems. He was formerly Chief Geologist with the SA Geological Survey but has spent the last 27 years in mineral exploration. He is a former Fulbright Post-Doctoral Fellow, was Managing Director of Lincoln Minerals Limited from 2007-2017 inclusive and is Director of Geosurveys Australia Pty Ltd.

Dr Parker is a member of the Australian Institute of Geoscientists, Australian Institute of Company Directors and the Company's Audit and Risk Committee.

# Senior Management Team



**Mr Gérard Bosch**

**Manager Approvals & Stakeholder Relations**

*BSc(Geo)(Hons), FAusIMM*

Mr Bosch is a geologist with over 37 years working in Australian mineral exploration, discovery and development. He has held previous positions in BP Minerals, North Flinders Mines, Normandy Mining, Australian Zircon and Eyre Iron. Mr Bosch has particular experience in the pre-development phase of mining operations, including statutory approvals and land access, and has broad experience in the management of exploration.



**Mr Andrew Graham**

**Lead Technical Consultant**

*BAppSc(App Geo) MEconGeol(CODES) DiplMgmt CertIV TAE MAusIMM MIQ*

Andrew has 30 years of technical, operational and managerial experience in the resources sector with both private and public companies in Australia and overseas. Andrew has founded multiple companies in the mining, mineral processing, consulting and technology sectors.

Andrew has built a global network of investors, innovators and technical specialists. He has been involved in raising 100's of millions of investment capital, building large teams of specialists and developing numerous projects from greenfields exploration to operating mines.



**Mr Alastair Watts**

**General Manager, Exploration**

*BSc(Geo), DipBs (Front Line Management), MAusIMM*

Mr Watts is a Geologist with over 25 years experience in exploration, mining and project development. He has extensive gold, iron ore and phosphate mining experience as well as a successful history of mineral discovery and development. The technical expertise gained at the Phosphate Hill mine provided significant exposure to the fertiliser market to complement Centrex's development of the Ardmore Phosphate Rock Project. A broad technical knowledge of exploration has been gained from base metal and gold projects in the Lachlan Fold Belt of New South Wales, the eastern goldfields of Western Australia, the Drummond Basin in north Queensland and nickel laterite deposits in Indonesia. He has held previous positions in both major resources houses, and mid-tier and junior operators. His roles have spanned mining, quality control and project management.

**Mr Norman Dinevski**

**Finance & Commercial Manager**

Mr Dinevski is a Chartered Accountant with over 20 years' experience in the mining and resources sector. He has extensive experience managing the commercial, marketing and logistics aspects of both precious and base metal products, and providing leadership to the accounting, finance and commercial functions with previous roles held at Terramin Australia, Oxiana Ltd, Xstrata Zinc Plc, Newmont Australia Ltd. and Normandy Mining.

# Supporting Information

*Centrex Metals Ltd - Corporate*



# Ardmore Phosphate Project

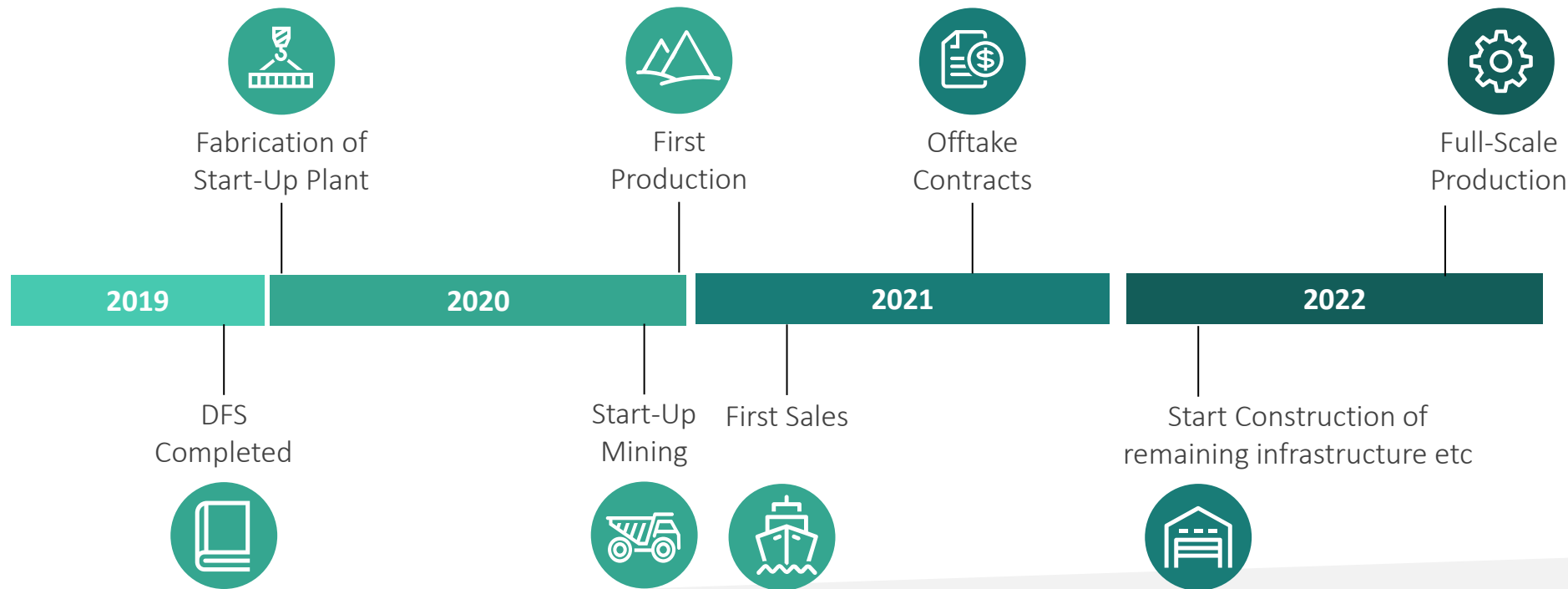


Aerial view of Start-Up Plant construction

- One of the few undeveloped high-grade low-cadmium 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 solutions
- Significantly lower capital intensity than other projects proposed around the world
- Major freight cost advantage to Australia, New Zealand, Indonesia and Eastern India
- **70tph modular Start-Up plant already erected on site<sup>8</sup>**

Note: References are in appendix

# Value Milestones – Progress To Production





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

## Attractive economics projected

Annual production	800,000 wet tonnes
Current mine life	10 years
<b>Pre-production capital estimate</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 the proposed higher grade Ardmore rock

Note: The DFS was compiled and managed by independent firm GR Engineering. Contributors to the DFS are detailed in the appendix.

Note: References 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 direct</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>

Note: References are in appendix.

## 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>



# Start-Up Mine

- Start-up mine planned to produce up to 30,000 tonnes of premium concentrate\*
- **Modular Start-Up plant already erected on site (70tph, easily expandable for full scale production)<sup>9</sup>**
- Total of 10,000t of trial shipment offtakes executed with long term target customers<sup>3</sup>
- Long term offtake contracts proposed
- Plant designed to be upgradeable for full-scale 800,000tpa operations



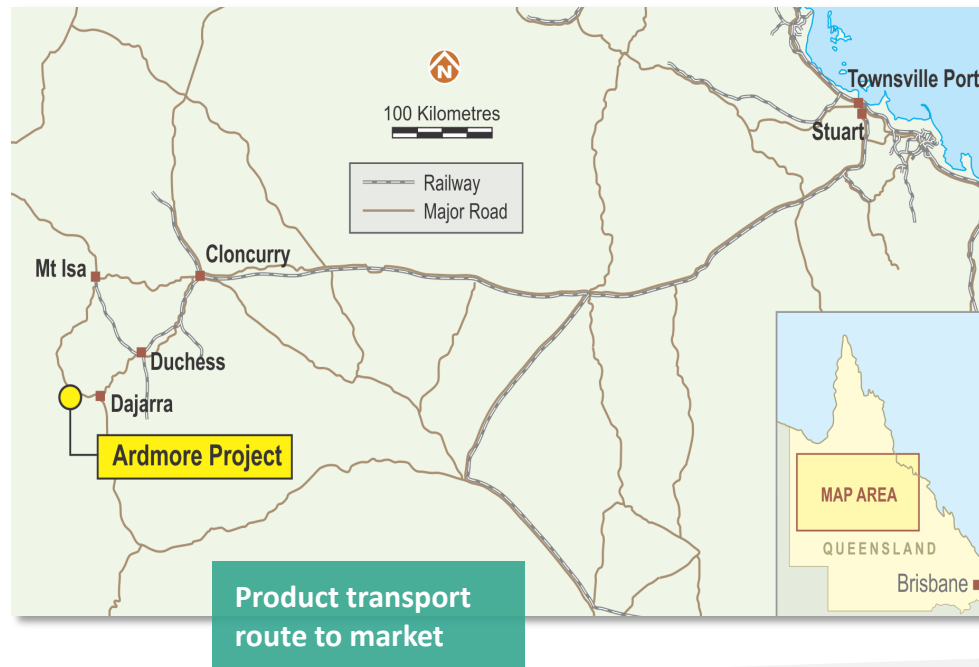
**Modular process  
plant already  
erected on site**

\*The Company continues to review its near-term funding options, with the plan for the start-up phase of the project to be fully funded prior to commissioning the Start-Up Plant and commencing mining and processing operations.

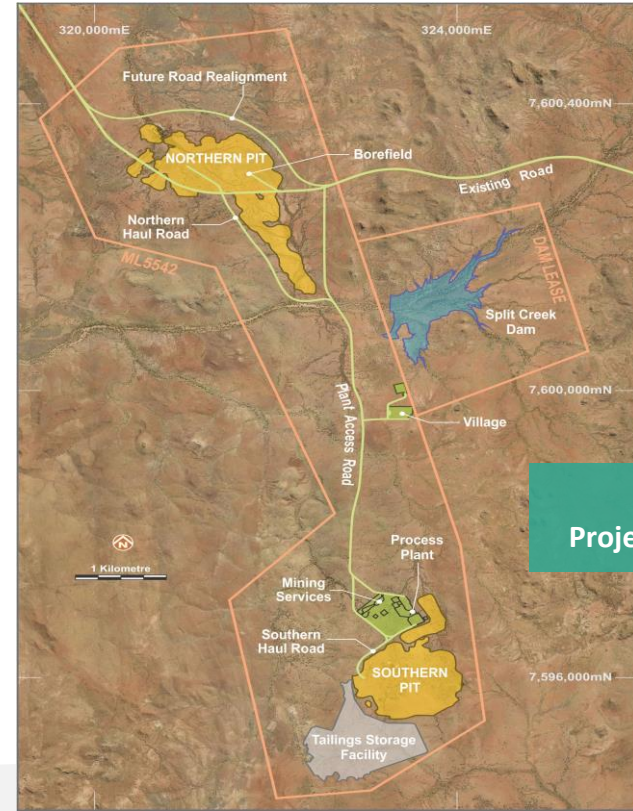
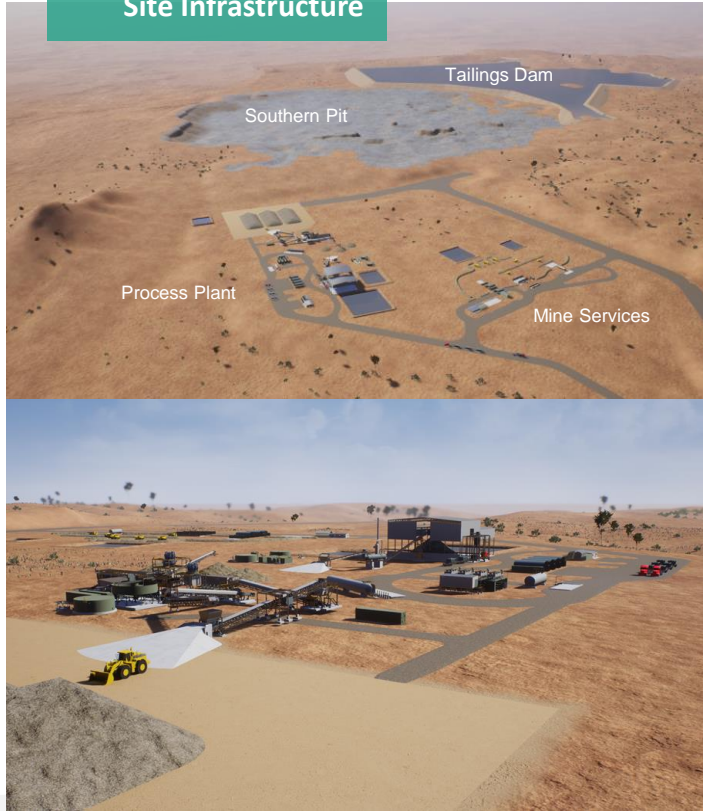
Note: References are in appendix

# 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 container unloading system or existing bulk shiploader

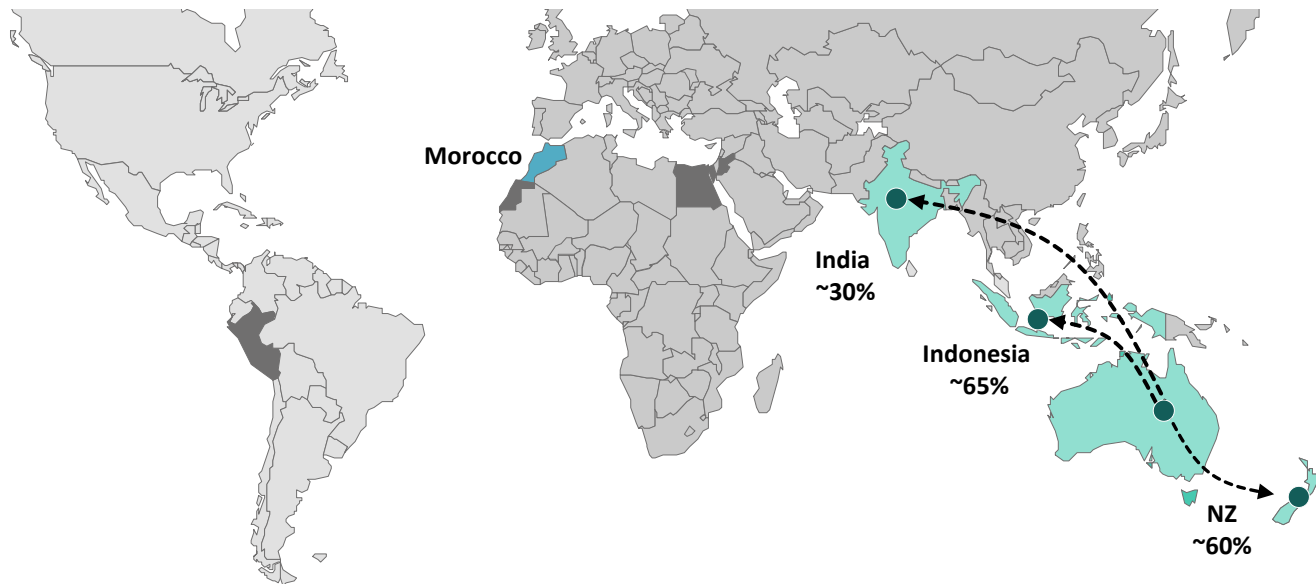


## Process Plant & Mine Site Infrastructure



## 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

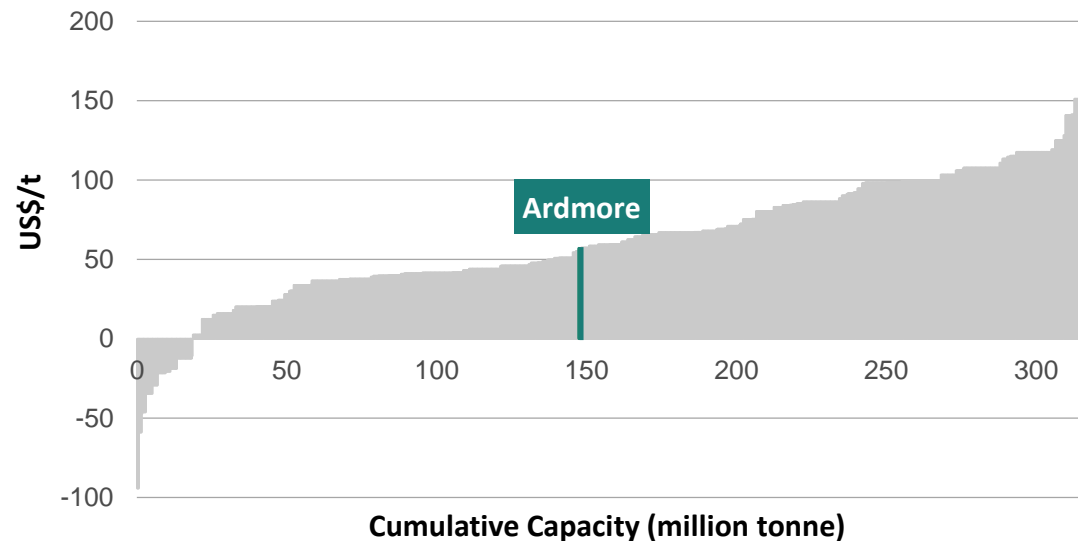
## Asia Pacific Target Markets

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

Previously-projected business costs at capacity in 2023



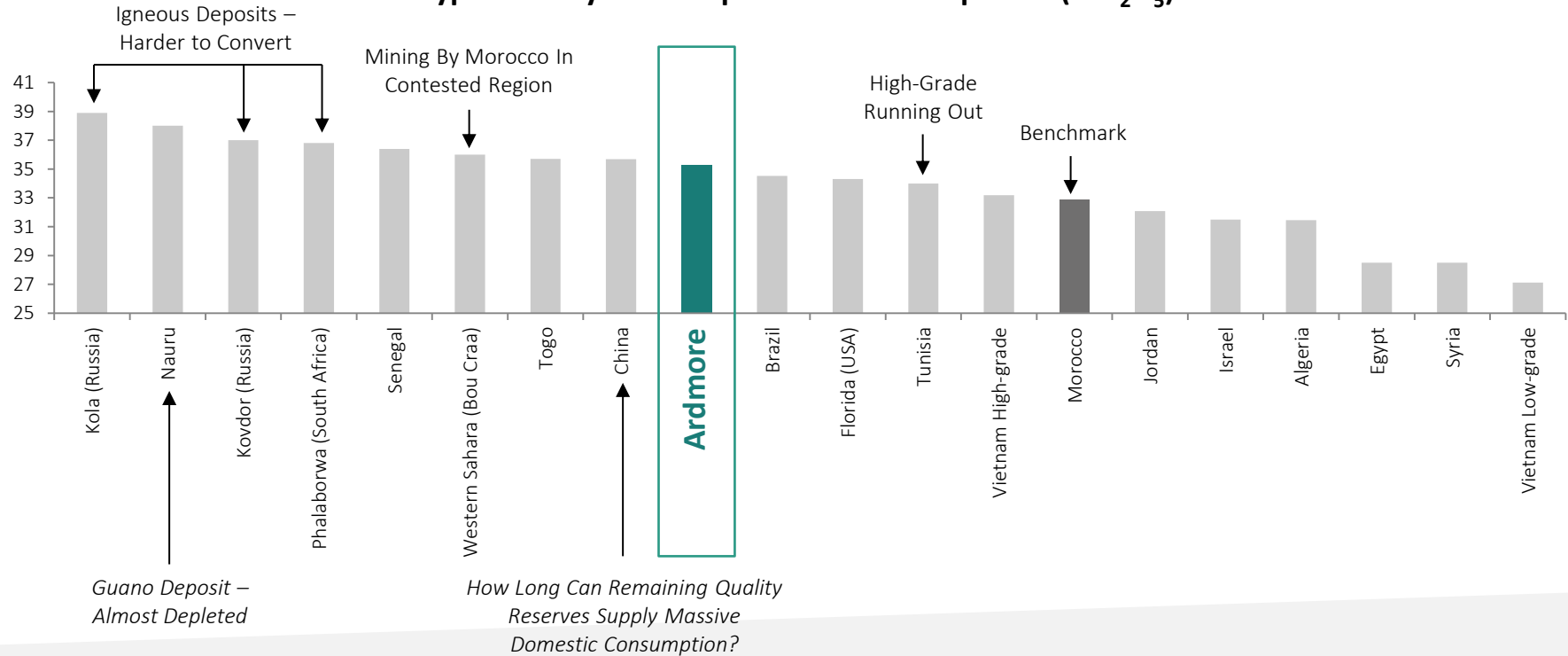
- The CRU Business Operating Cost curve reflects the sum of site and realization costs
- Costs are adjusted for quality and logistics costs to target market v supply from Morocco as major global producer
- Ardmore benefits from premium grade rock and location advantage
- Ardmore is forecast to be placed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

- The traded phosphate rock market is 30 million tonnes of which 12 million are to Ardmore's target customers in the Asia-Pacific
- Annual demand to target customers may 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 proposed to be above the top end of this range
- Ardmore concentrate has low cadmium levels and toxic cadmium is a major issue for consumers and the industry.
- Ardmore concentrate has low carbonate levels, reducing sulphuric acid consumption and processing costs for target customers
- Australia & New Zealand SSP\* production is 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

(\* Single Super Phosphate)

# Ardmore Comparison – Concentrate Grade

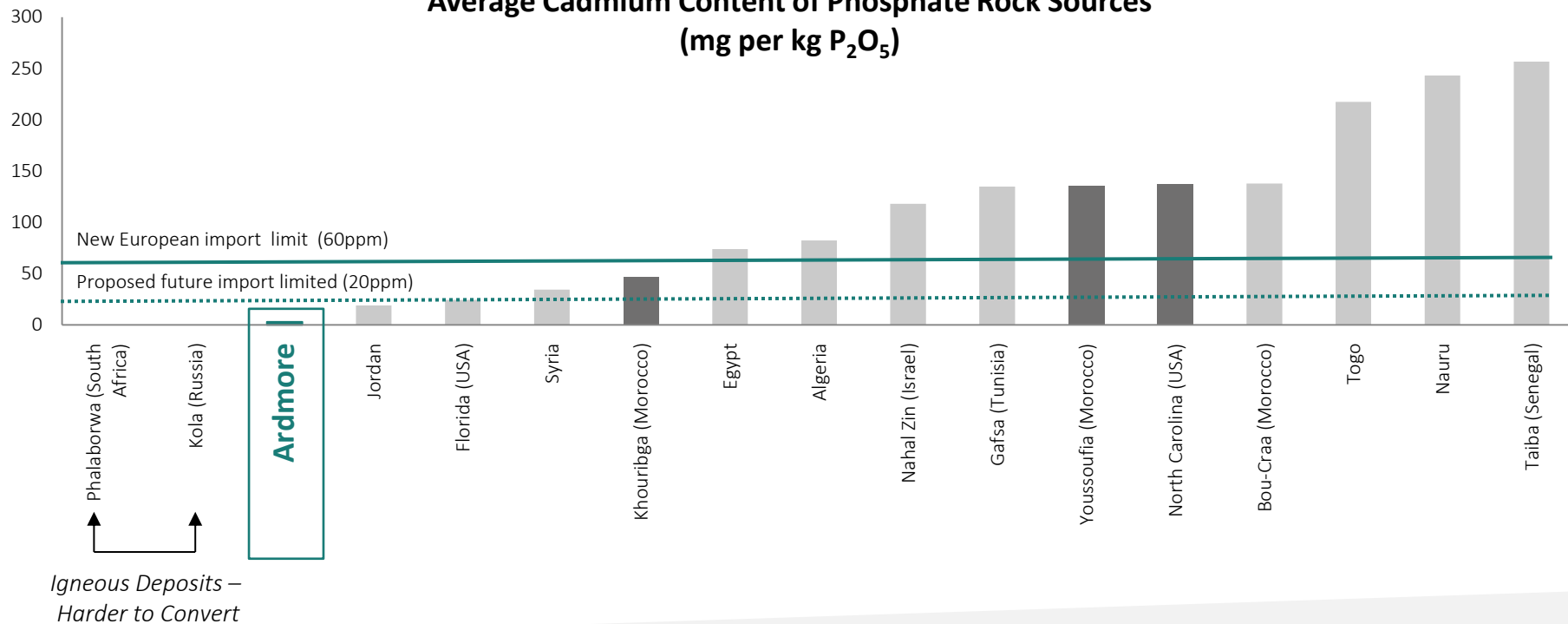
## Typical Analyses of Imported Rock Phosphates (% $P_2O_5$ )



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

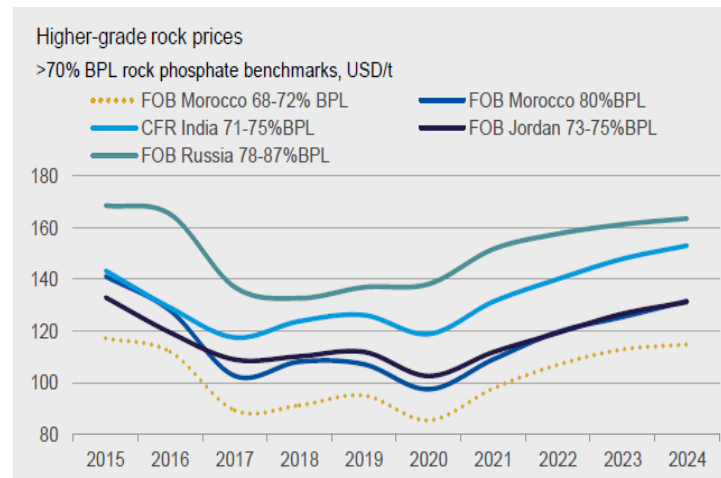


# Forecast CFR Pricing for Ardmore

- 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%  $P_2O_5$ )
- Quality premium for higher grade products forecast to increase given limited supply capacity
- Forecast price rises conservative compared to historical pricing
- Significant upside for Ardmore when prices return to historical levels
- Further upside for Ardmore if the broader industry accepts European cadmium restrictions

## Historical & Forecast Phosphate Rock Pricing

(Real USD 2018)



Medium-term lower-grade Phosphate Rock price outlook (source CRU November 2019)

# Marketing

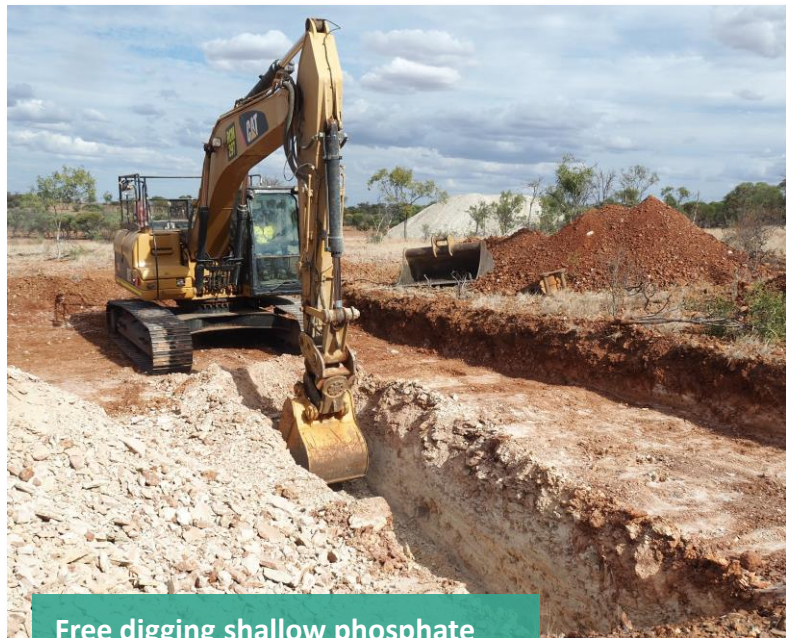
- Positive results from two 400 tonne paid run of mine shipments of Ardmore tested by two regional SSP producers with a longer term view to buying premium grade concentrate<sup>7</sup>
- Centrex signed a non-binding MOU with Indian major Gujarat State Fertilizers & Chemical Limited for 40% of the offtake<sup>6</sup> from the Ardmore Phosphate Project (now lapsed)
- Australia's largest phosphate rock importer Incitec Pivot holds a right of first refusal over 20% of available annual production
- Two 5,000 tonne shipment contracts signed with major manufacturers in the local region with a view to long term offtake commitment<sup>3</sup>
- Further potential contracts continuing in discussion

Note: References are in appendix



Ardmore run of mine ore SSP trial at manufacturer in the local region<sup>7</sup>

# 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>4</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>1,5</sup> 6	Probable	7.3	30.2%
	Proven	2.8	30.3%
	<b>Total</b>	<b>10.1</b>	<b>30.2%</b>

- Low risk, low 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

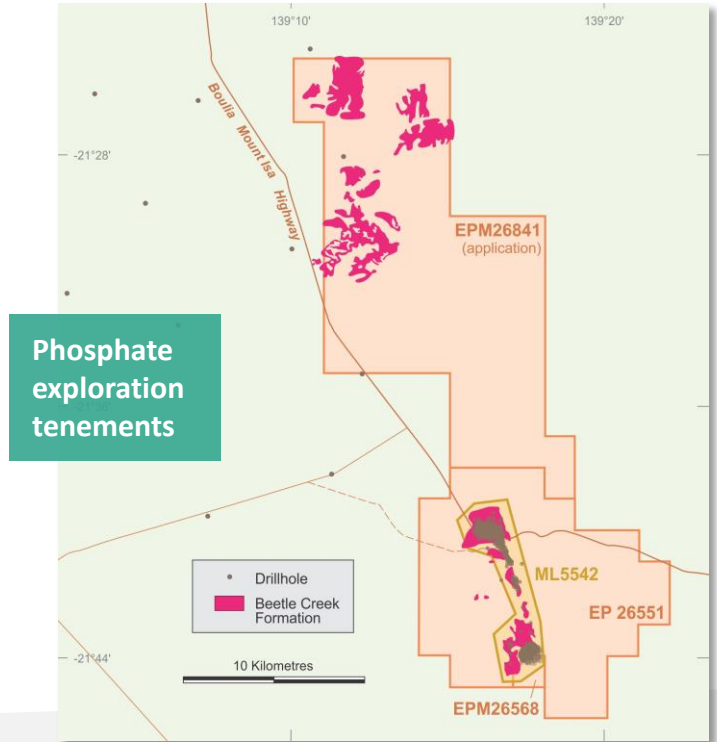
The results were reported under JORC 2012 and Centrex is not aware of any new information or data that materially affects the information contained within the release.

All material assumptions and technical parameters underpinning the estimates in the presentation continue to apply and have not materially changed.

Note: References are in appendix

# Growth

- Scope to increase mine life via conversion of Resources to Reserves
- Centrex is developing a pipeline of phosphate exploration projects in the Georgina Basin around its Ardmore Phosphate Rock mining project
- Not all phosphates are as good as the Ardmore deposit, and Centrex is targeting high-grade coarse (pelletal) phosphate similar to Ardmore
- Pelletal ores can be easily processed with minimal phosphate losses
- Prospective areas directly north of Ardmore have already been secured with initial on ground exploration commenced and drilling planned
- Centrex will further build its phosphate exploration portfolio regionally in the Georgina Basin to leverage development of Ardmore



# Thank you

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# Appendix

## 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 (1 June 2018) – Updated Mineral Resource Estimate Complete
5. ASX Release (8 October 2018) – Ardmore Feasibility Study Results & Ore Reserves
6. ASX Release (25 May 2018) – Mining & Crushing Commences for First Paid Customer Trial
7. ASX Release (16 October 2018) – First Contract Signed for 5,000t Concentrate Shipment
8. ASX Release (12 September 2019) – Ardmore Project Update
9. ASX Release (7 November 2019) – Company Update