

# ASX Announcement



11 May 2016

## COMPANY DETAILS

**ABN:** 62 147 346 334

### **PRINCIPAL REGISTERED OFFICE**

Potash West NL  
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Belmont WA 6104

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### **ASX CODE**

PWN

### **FRANKFURT CODE**

A1JH27

### **OTC PINK CODE**

PWNNY

### **CORPORATE INFORMATION**

(11 May 2016)  
234 M Ordinary shares  
36M Partly paid shares  
17M Listed options  
3M Unlisted options

### **BOARD OF DIRECTORS**

**Adrian Griffin**  
(Non-Executive Chairman)  
**Patrick McManus**  
(Managing Director)  
**Chew Wai Chuen**  
(Non-Executive Director)  
**Natalia Streltsova**  
(Non-Executive Director)

## **PRESENTATION TO INVESTORS 11 MAY 2015**

Potash West is attending RIU Resources Round-up Conference in Sydney on 11<sup>th</sup> and 12<sup>th</sup> May, where I will address current activities. Attached are the presentation slides.

I would be happy to take any queries from shareholders or interested parties.

Potash West NL:  
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Managing Director  
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### **About Potash West**

*Potash West (ASX:PWN) is an exploration company focused on developing large greensand deposits in West Australia's Perth Basin. The Company aims to define a substantial resource base and investigate how best to recover phosphate, potash and other minerals from the Dandaragan Trough. The project is well situated in relation to infrastructure, with close access to rail, power and gas. A successful commercial outcome will allow the Company to become a major contributor to the potash and phosphate markets at a time of heightened regional demand.*

*The Company has a major land holding over one of the world's largest known glauconite deposits, with exploration licenses and applications covering an area of over 2,600km<sup>2</sup>. Previous exploration indicates glauconite sediments are widespread for more than 150km along strike and 30km in width. Current JORC compliant Indicated Mineral Resources stand at 250Mt at 2.9% P<sub>2</sub>O<sub>5</sub> of phosphate mineralisation and 175Mt at 4.2% K<sub>2</sub>O, amenable to processing by the K-Max process. A pre-feasibility is in progress for stage 1, production of phosphate fertilisers.*

*The company has 55% of a potash exploration project in the South Harz region of Thuringia, in Central Germany. The region has been a potash producing area for over 100 years.*



**WORLD CLASS  
FERTILISER PRODUCTS  
FROM WORLD CLASS ASSETS**

RIU Sydney Resources Round-up

May 2016

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***Certain statements contained in this presentation, including information as to the future financial or operating performance of Potash West NL (“Potash West” or “the Company”) and its projects, are forward-looking statements. Such forward-looking statements are necessarily based upon a number of estimates and assumptions that, whilst considered reasonable by Potash West, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements; and may include, among other things, statements regarding targets, estimates and assumptions in respect of potash and phosphate production and prices, operating costs and results, capital expenditures, ore reserves and mineral resources and anticipated grades and recovery rates, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions.***

***Potash West disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise. The words “believe”, “expect”, “anticipate”, “indicate”, “contemplate”, “target”, “plan”, “intends”, “continue”, “budget”, “estimate”, “may”, “will”, “schedule” and other similar expressions identify forward-looking statements. All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements. Investors are cautioned that forward looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.***

***Many known and unknown factors could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements. Such factors include, but are not limited to: competition; mineral prices; ability to meet additional funding requirements; exploration, development and operating risks; uninsurable risks; uncertainties inherent in ore reserve and resource estimates; dependence on third party smelting facilities; factors associated with foreign operations and related regulatory risks; environmental regulation and liability; currency risks; effects of inflation on results of operations; factors relating to title to properties; native title and aboriginal heritage issues; dependence on key personnel; and share price volatility and also include unanticipated and unusual events, many of which are beyond the Company’s ability to control or predict.***



***Information in the presentation that relates to the Mineral Resource estimate for Dinner Hill is fully described in the ASX release of 11 October 2012. Information relating to the Dinner Hill Extended Exploration Target was released to the ASX on 07 May 2013. Information relating to the phosphate Mineral Resource estimate for Dinner Hill was released to the ASX on 23 September 2013. The Company is not aware of any new information or data that materially affects the information included in this presentation. All material assumptions and technical parameters underpinning the Mineral Resource estimates and Exploration Target in this presentation continue to apply and have not materially changed.***

***The K-Max Scoping Study referred to in this presentation was fully described in the ASX release of 10 January 2013 and the Phosphate Scoping Study was released on 19 September 2013 and updated 30 September 2015. Both are based on low-level technical and economic assessments, and are insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised. All material assumptions and technical parameters used in the Scoping Studies, and included in this presentation, continue to apply and have not materially changed. Potash West has concluded that it has a reasonable basis for including the forward looking statements provided in this presentation.***

## **Competent Persons statements**

***The information in this report that relates to the estimation of Exploration Targets and Mineral Resources is based on and fairly represents information and supporting documentation prepared by J.J.G. Doepel, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Doepel, Principal Geologist of the independent consultancy Continental Resource Management Pty Ltd, has sufficient experience relevant to the style of mineralisation and type of deposit under consideration. He is qualified as a Competent Person as defined in the 2012 edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. This report is issued with Mr Doepel’s consent as to the form and context in which the Mineral Resource appears***

***The information in this report that relates to reporting of Exploration Results based on and fairly represents information and supporting documentation prepared by Lindsay Cahill, who is a member of the Australian Institute of Geoscience. Mr Cahill is a consultant to the mineral industry and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration. He is qualified 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 Cahill consents to the inclusion in this report of the matters based on information in the form and context in which it appears.***

***The metallurgical information in this report is based on and fairly represents information and supporting documentation compiled by Gary Johnson, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Johnson has sufficient experience relevant 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”. Mr. Johnson is a Non-executive Director of Potash West and Managing Director of Strategic Metallurgy Pty Ltd. This report is issued with Mr. Johnson’s consent as to the form and context in which the results appear.***

Photo’s courtesy of IPI: [www.ipipotash.org](http://www.ipipotash.org):  
International Potash Institute (IPI) , Horgen, Switzerland



# Agenda

- **Company Snapshot**
- **Fertiliser Overview**
- **Dandaragan Trough Project, Western Australia**
- **South Harz Project, Germany**
- **Value Proposition**



# CORPORATE SNAPSHOT

<b>ASX CODE</b>	<b>PWN</b>
<b>SHARE PRICE – 31 March 2016</b>	<b>AU\$0.03</b>
<b>MARKET CAP. (at 3c)</b>	<b>AU \$7M</b>
<b>SHARES ON ISSUE <sup>(1)</sup></b>	<b>234 M</b>
<b>12 MONTH RANGE</b>	<b>3c – 6c</b>
<b>TOP 20 SHAREHOLDERS</b>	<b>52%</b>
<b>MGMT AND DIRECTORS</b>	<b>11%</b>

(1) Plus 36M partly paid, 18 M listed options and 5M unlisted options

## BOARD

### **Adrian Griffin – Chairman**

- Mine production and corporate management. Founding director of Washington Resources, Ferrum Crescent and Northern Minerals, MD Lithium Australia

### **Patrick McManus– Managing Director**

- Industrial minerals specialist, project development and minerals marketing. Rio Tinto, RGC and Cable Sands. Founding Director and ex MD Corvette Resources

### **Chew Wai Chuen – Non-executive Director**

- Financial advisor for high net worth individuals.

### **Natalia Streltsova - Non-executive Director**

- Technical and Business Development.

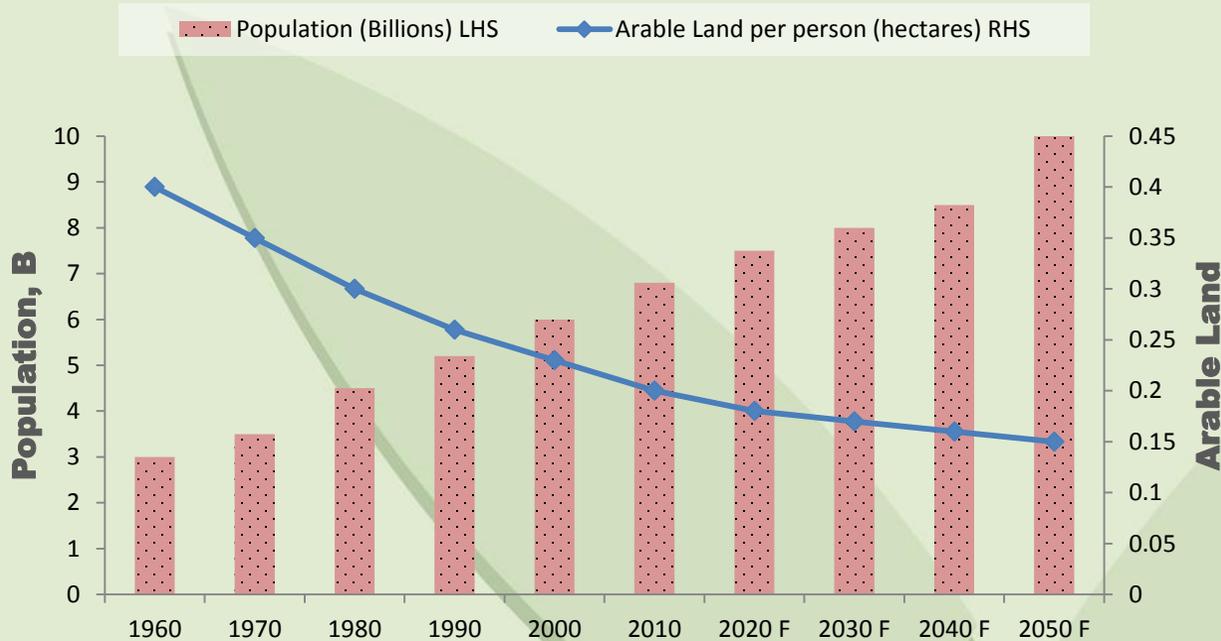


# INVESTMENT CASE

- ❑ **Creating value from a strategically located phosphate and potash fertiliser deposit in Western Australia, by growing a unique global fertiliser business:**
- ❑ **Building a fertiliser project on one of the world's largest glauconite deposits, 150 km from Perth, close to markets in WA and SE Asia.**
  - ❑ **Low capex, low risk route to cashflow, through phosphate project.**
  - ❑ **Followed by high value potash project, operating in parallel.**
  - ❑ **Scale large enough to attract JV partners in fertiliser industry**
- ❑ **A brown-fields potash project in Germany**
  - ❑ **Significant near-term exploration potential**



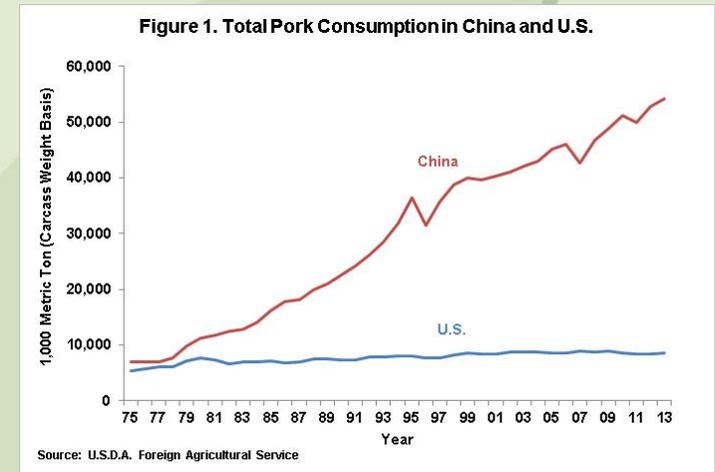
# OUTLOOK FOR FERTILISERS



## Food demand forecast to double by 2050

- Population growth
- Arable land
- Dietary changes

## Leads to increased pressure on agriculture



**“The challenge is clear. With nearly 1 billion people already suffering from hunger and malnutrition in some of the fastest growing areas of the world, the challenge of doubling food production by 2050 will become more difficult as key resources become increasingly scarce and a changing climate creates unforeseen obstacles.**

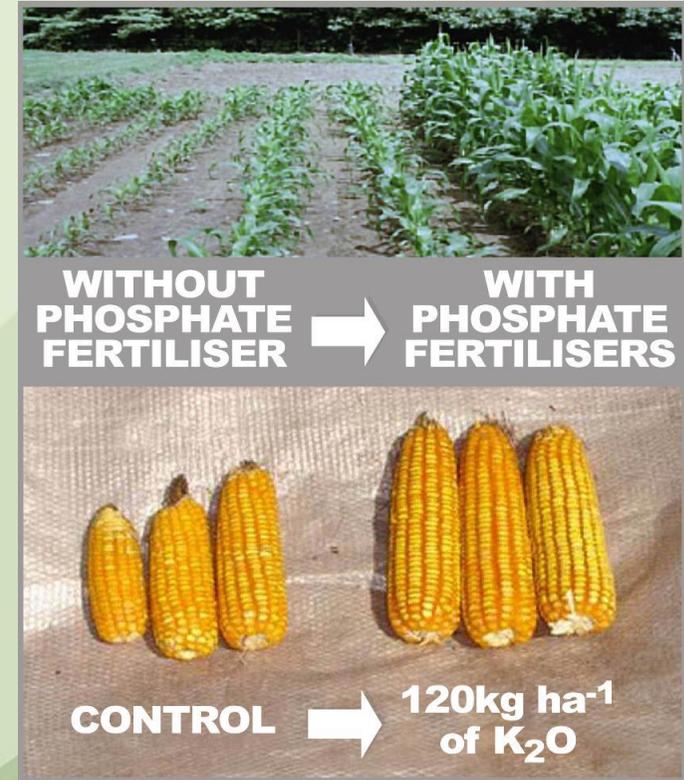
**Undoubtedly, the world is going to have to produce more. But it cannot do so at the expense of the land or environment. We must produce more with less.”**

**(Hugh Grant, Forbes October 2011)**



# FERTILISER BUSINESS

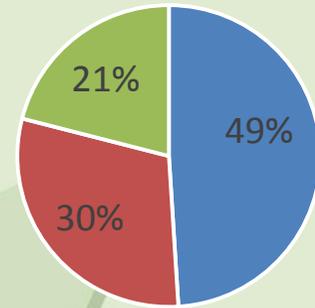
- ❑ **3 Fertiliser bulk commodities,**
  - ❑ **N, Nitrogen, promotes green growth**
  - ❑ **P, Phosphorous, promotes plants yield potential**
  - ❑ **K, Potassium, enables plants to take up nutrients from soil and air**
- ❑ **3 Minors, Ca, S and Mg**
- ❑ **Most soils deficient in NPK**
- ❑ **Not interchangeable**
  - ❑ **Different crops = different ratios, eg**
    - ❑ **Bananas 3,000 kg of potash per ha. per year**
    - ❑ **Wheat 500kg per ha. per year**



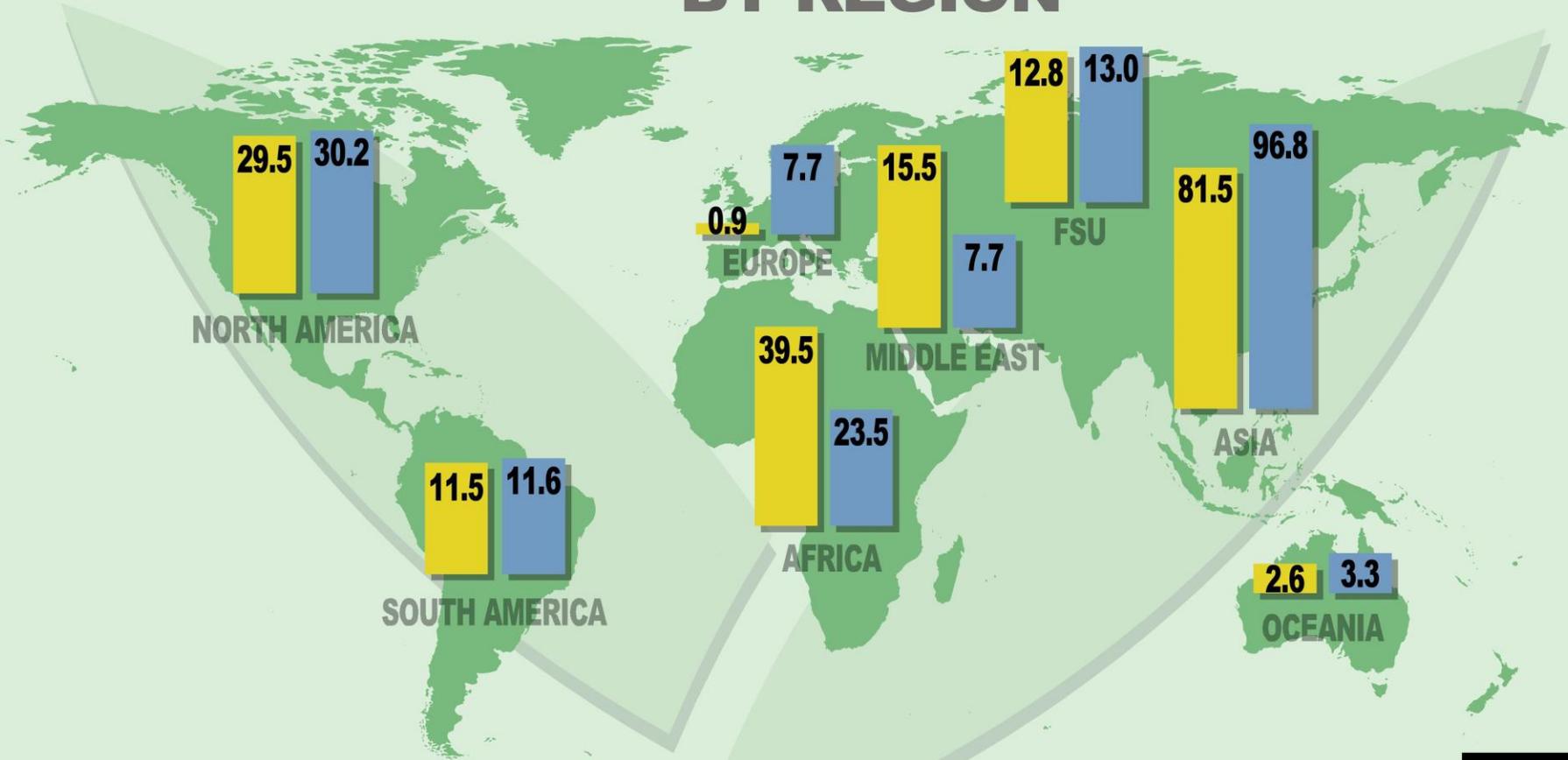
# FERTILISER BUSINESS

- ❑ **Forecast value of US\$172B in 2015,**
  - ❑ **Nitrogen (109 Mtpa, N): from air, gas and coal**
    - ❑ Urea
    - ❑ Ammonia Nitrate
  - ❑ **Phosphates (41Mtpa, P): mined from rock phosphate deposits**
    - ❑ Superphosphate
    - ❑ Phosphoric Acid
    - ❑ MAPs & DAPs
  - ❑ **Potash (28Mtpa, K, 55Mtpa MOP/SOP)**
    - ❑ Salt lake brines
    - ❑ Ancient buried seabeds

■ N ■ P ■ K

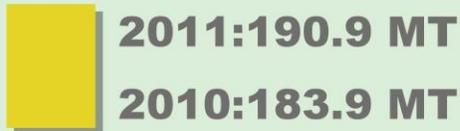


# PHOSPHATE ROCK PRODUCTION AND DEMAND BY REGION



**WORLD PHOSPHATE ROCK PRODUCTION**

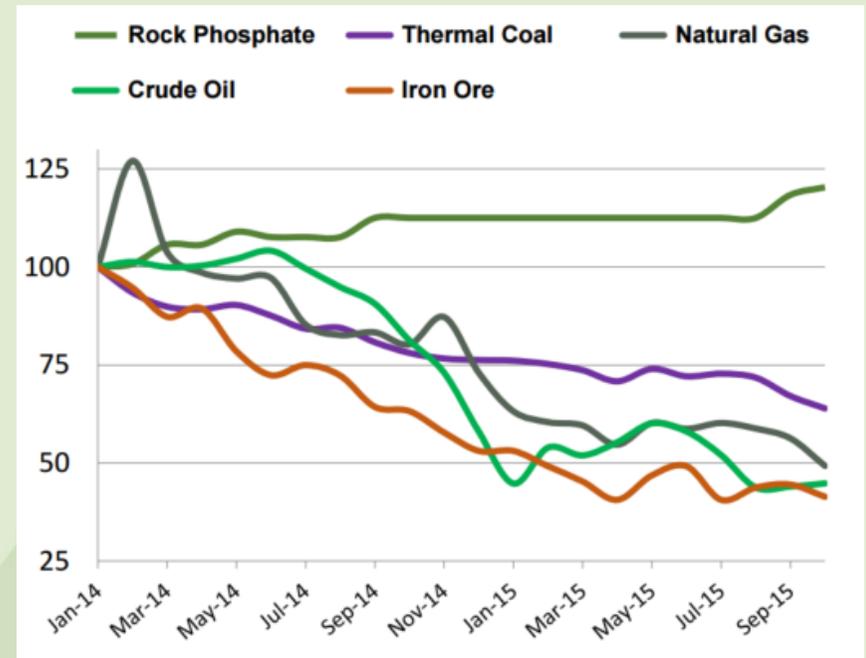
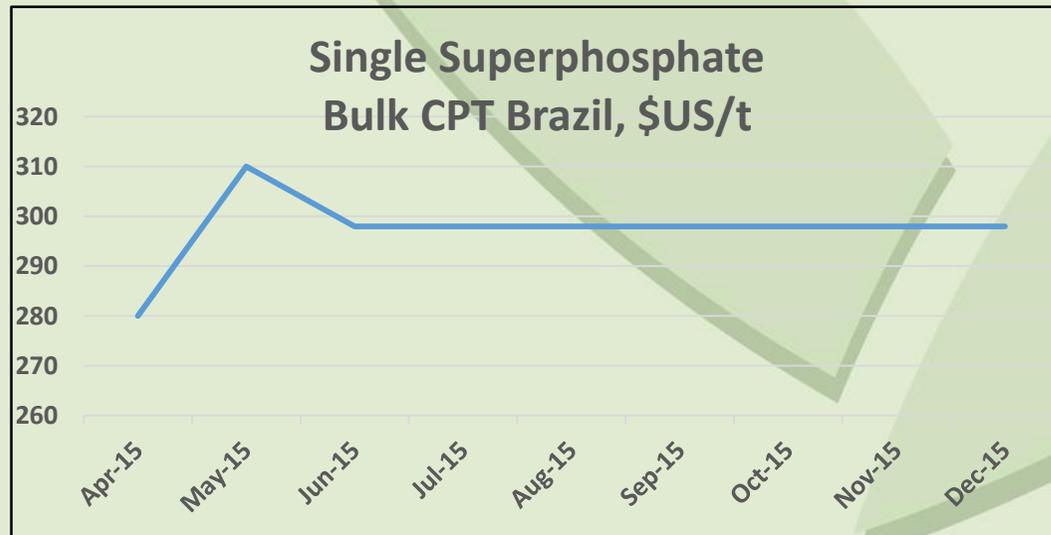
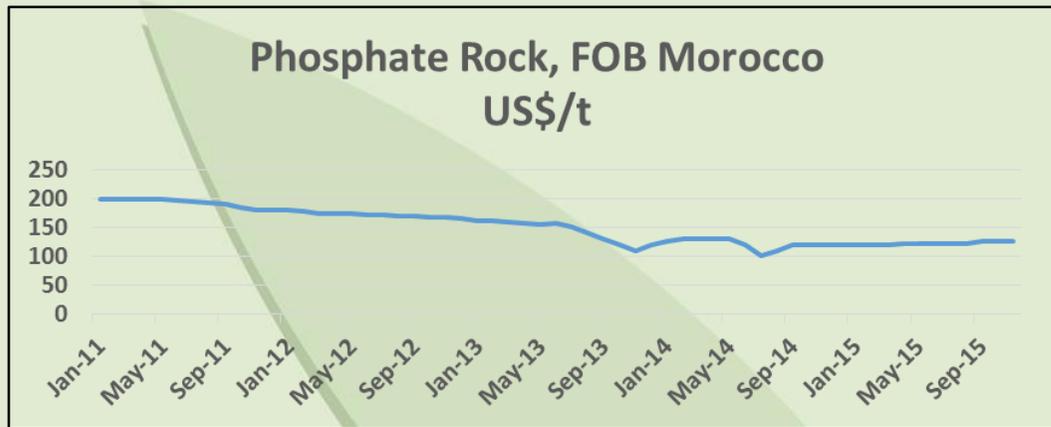
**WORLD PHOSPHATE ROCK SALES**



Source: IFA and Potash Corp



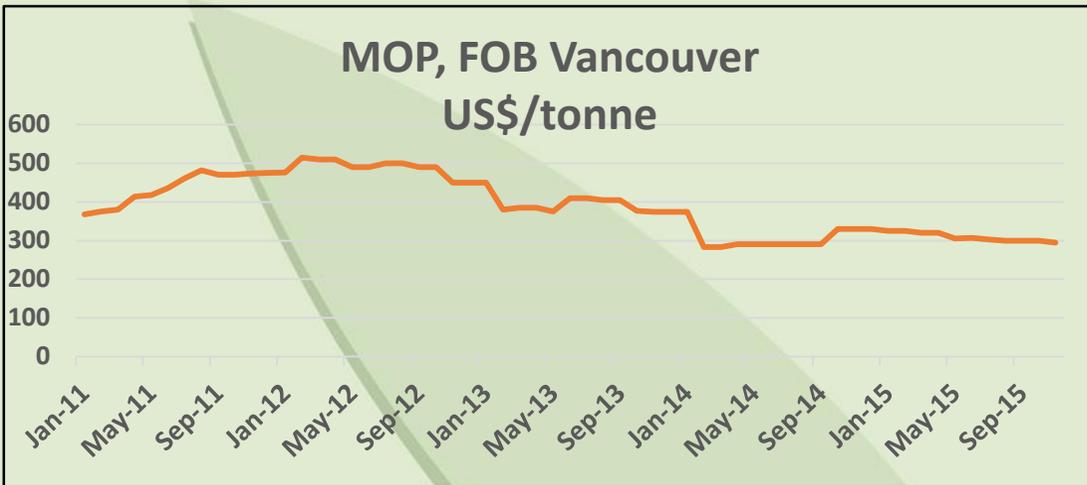
# PHOSPHATE PRODUCT PRICING



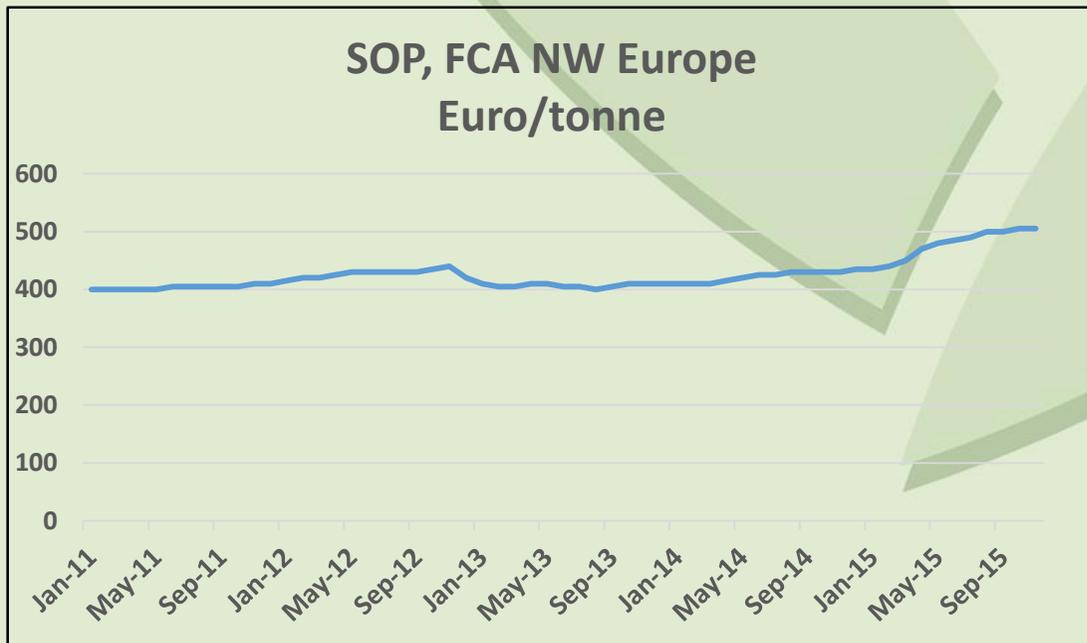
Source: CRU, Avenira



# POTASH PRODUCT PRICING



❑ **MOP, potassium chloride, affected by oversupply**

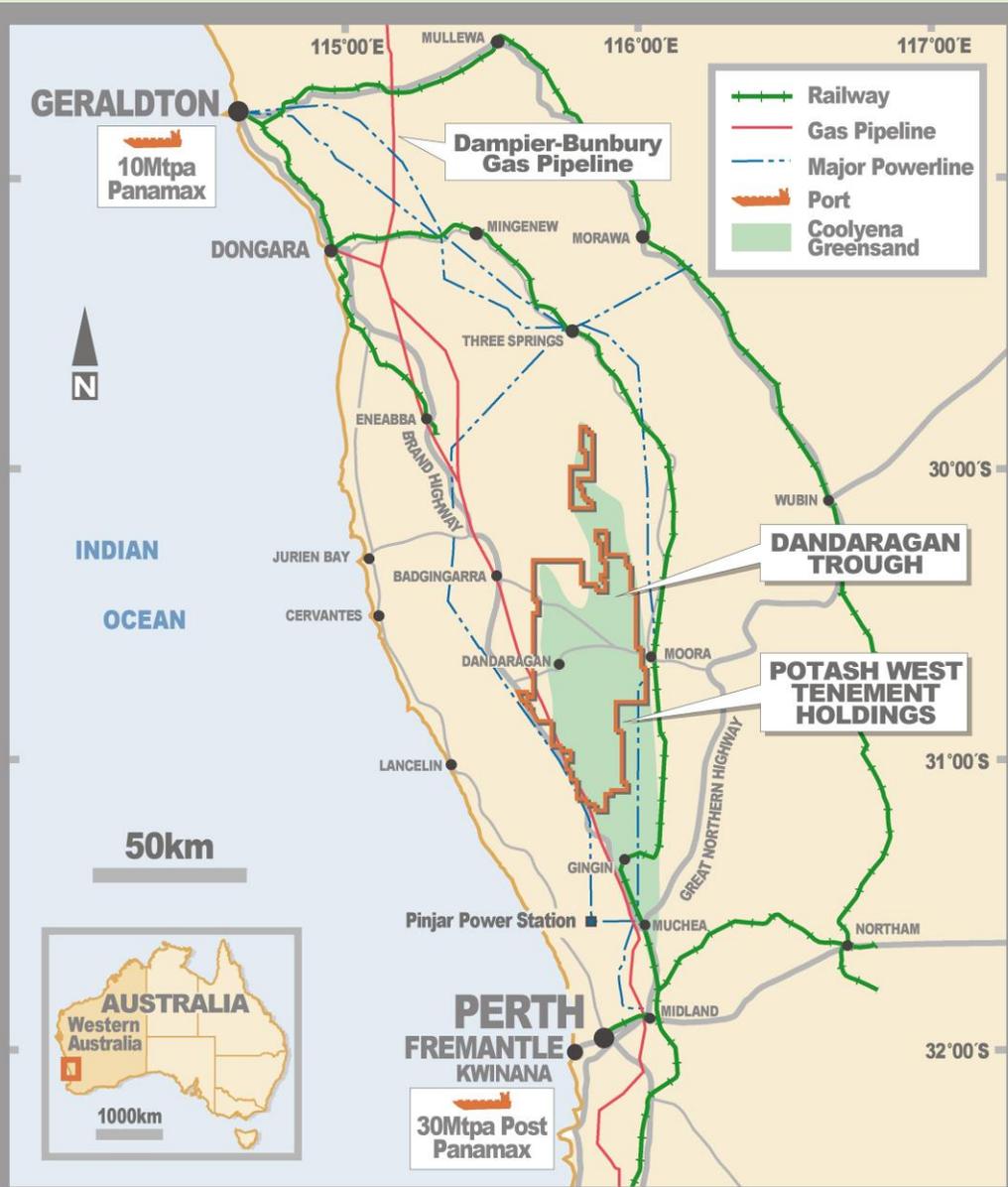


❑ **SOP, potassium sulphate remaining strong**

Source: CRU



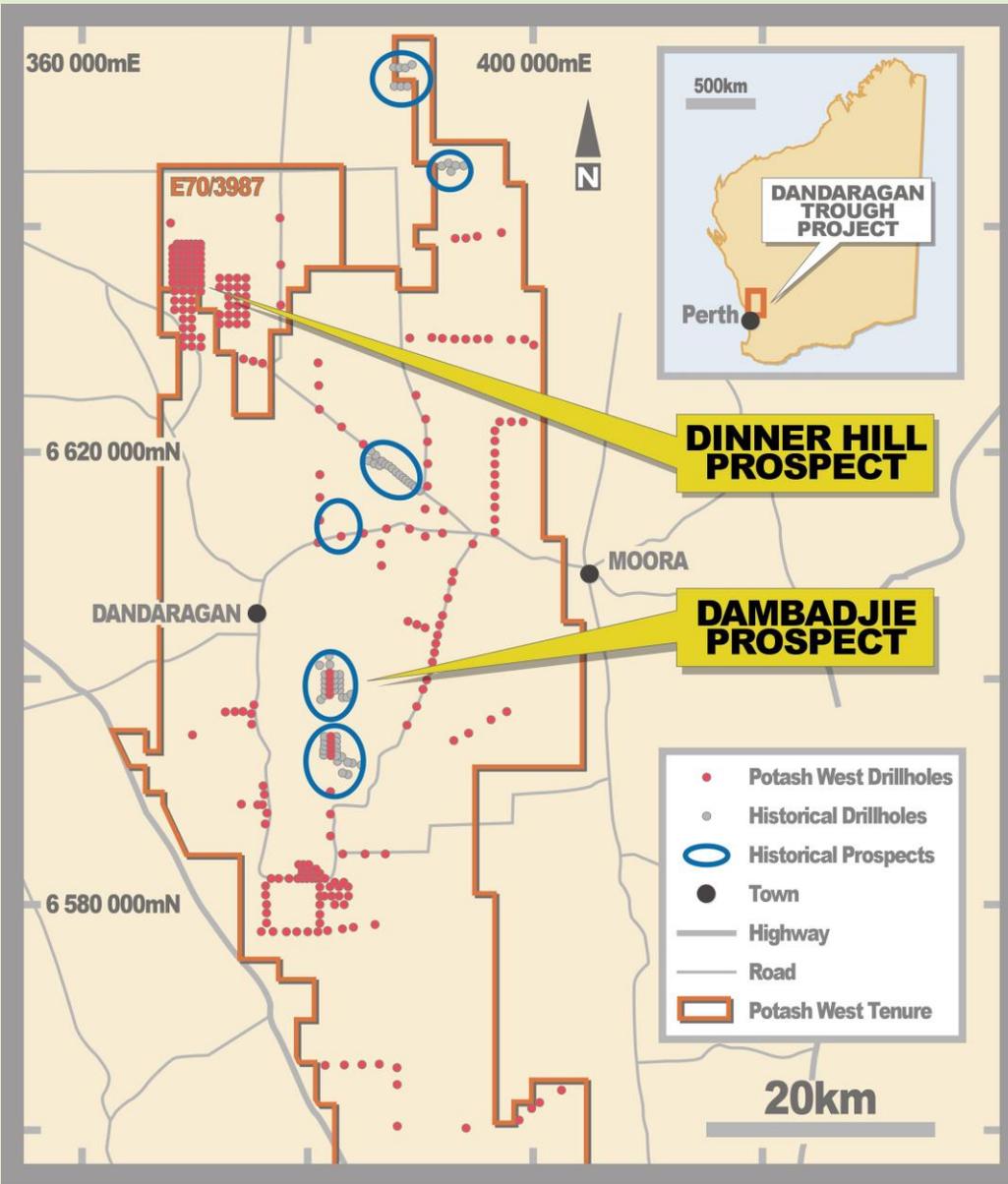
# DANDARAGAN PROJECT LOCATION



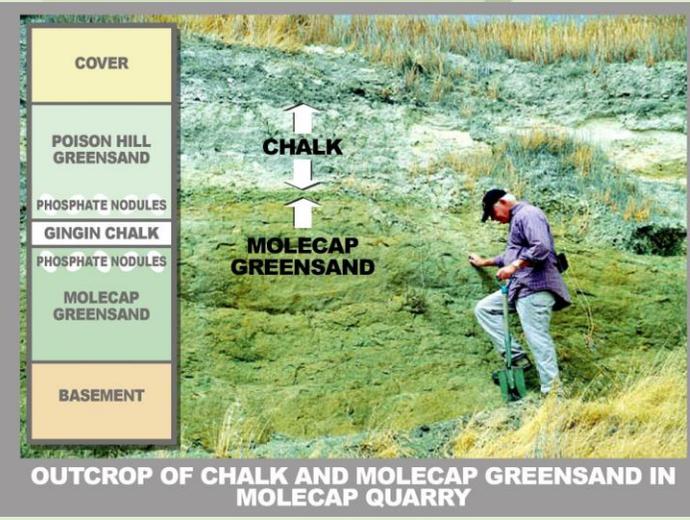
- ❑ +2,600 km<sup>2</sup> of prospective area
- ❑ ~150km of strike
- ❑ ~+20km width
- ❑ Many intersections +40m
- ❑ Great infrastructure
  - ❑ Rail
  - ❑ Power
  - ❑ Gas
  - ❑ Water
- ❑ Close to local markets, WA and SE Asia
- ❑ Similar mining activity already in region
- ❑ Close to export ports



# EXPLORATION

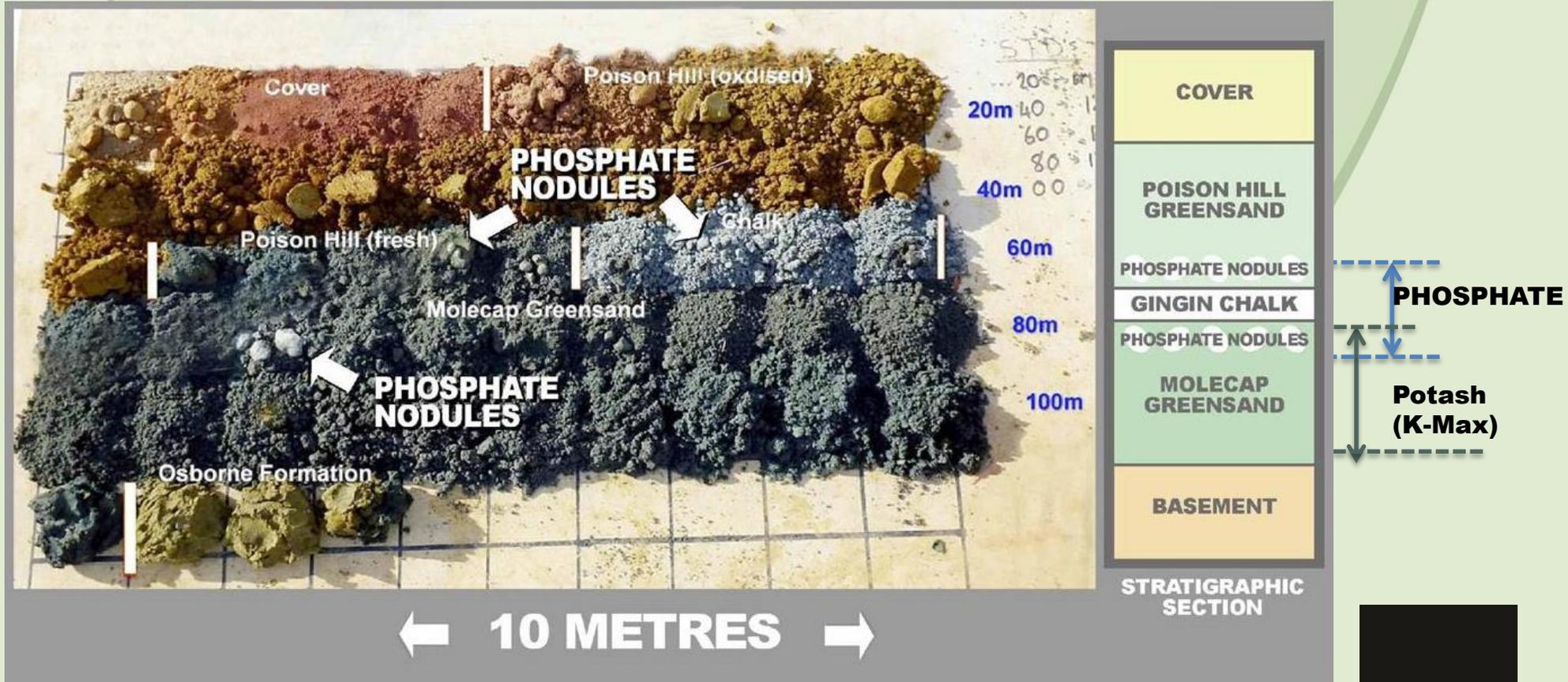


- Focus on Northern area, 432 holes drilled, 1182m on Dinner Hill.
- Numerous intersections of high grades close to the surface.
- Dinner Hill, first resource, phosphate closer to surface.
- Indicated Resource - 250Mt @ 2.9%  $P_2O_5$ , within 20km<sup>2</sup> of prospective area 60km<sup>2</sup>



# DAMBADJIE PROSPECT

## DRILL SAMPLES



# PHOSPHATE FLOWSHEET

GREENSANDS ORE

BULLDOZER MINING, 4,000 Ktpa @  
PUMPING 4 to 5% P<sub>2</sub>O<sub>5</sub>

**PRIMARY UPGRADE  
PLANT**

SCREENING, SIZING, MAGNETIC  
SEPARATION

clays mags fine coarse

**GLAUCONITE  
TO STOCKPILE**

**QUARTZ TAILS  
BACK TO PIT**

400 Ktpa @  
12 to 16% P<sub>2</sub>O<sub>5</sub>

2,000 Ktpa @  
3 to 4% P<sub>2</sub>O<sub>5</sub>

**PHOSPHATE PLANT**  
GRINDING, FLOTATION

250 Ktpa @  
30% P<sub>2</sub>O<sub>5</sub>

**ACIDULATION PLANT**  
BLENDING WITH SULPHURIC ACID

400 Ktpa @  
18% P<sub>2</sub>O<sub>5</sub>

**SINGLE SUPERPHOSPHATE**



# PHOSPHATE PLANT STUDY PARAMETERS

- ❑ **Mining Rate 4 Mtpa**
- ❑ **One product: 400,000 tpa Single superphosphate**
- ❑ **Capex and Opex estimates +/-35%**
- ❑ **100,000 tpa consumed locally, balance exported into SE Asia**
- ❑ **Project works, despite low feed grade, because:**
  - ❑ **Unconsolidated sand ore, very low cost mining**
  - ❑ **Ability to upgrade to ~ 6% P<sub>2</sub>O<sub>5</sub>, with screening**
  - ❑ **High quality infrastructure in place, <200 km from ports**
  - ❑ **Access to sulphuric acid at low on-site cost**
  - ❑ **Low capital requirements**
  - ❑ **Low technical risk**



# SCOPING STUDY RESULTS - PHOSPHATE

<b>THROUGHPUT</b>	<b>4 mtpa</b>
<b>NPV<sub>8</sub> AU\$M <sup>(1)</sup></b>	<b>378</b>
<b>CAPITAL COSTS, AU\$M</b>	<b>205</b>
<b>OPEX, AU\$/tonne of PRODUCT</b>	<b>190</b>
<b>REVENUE , AU\$/tonne of PRODUCT</b>	<b>320</b>
<b>IRR% <sup>(1)</sup></b>	<b>20</b>
<b>MINE LIFE (Expandable)</b>	<b>+60 YEARS</b>
<b>EBITDA <sup>(1)</sup>, AU\$M pa</b>	<b>52</b>

**(1) Ungearred, pre-tax**



# POTASH PROJECT

- ❑ **Stage 2 for Dinner Hill, timing flexible**
- ❑ **Using new technology, K-Max**
- ❑ **Suite of products,** sulphate of potash (SOP), high Mg SOP, Alum, Phosphoric Acid.
- ❑ **Capex \$600 M, IRR 30%, EBITDA \$260 M**
- ❑ **Revenue Mix:**
  - ❑ Phosphate 40%, 150K tpa phosphoric acid
  - ❑ Potash 30% 300K tpa SOP & KMS
  - ❑ Alum 25% 750K tpa

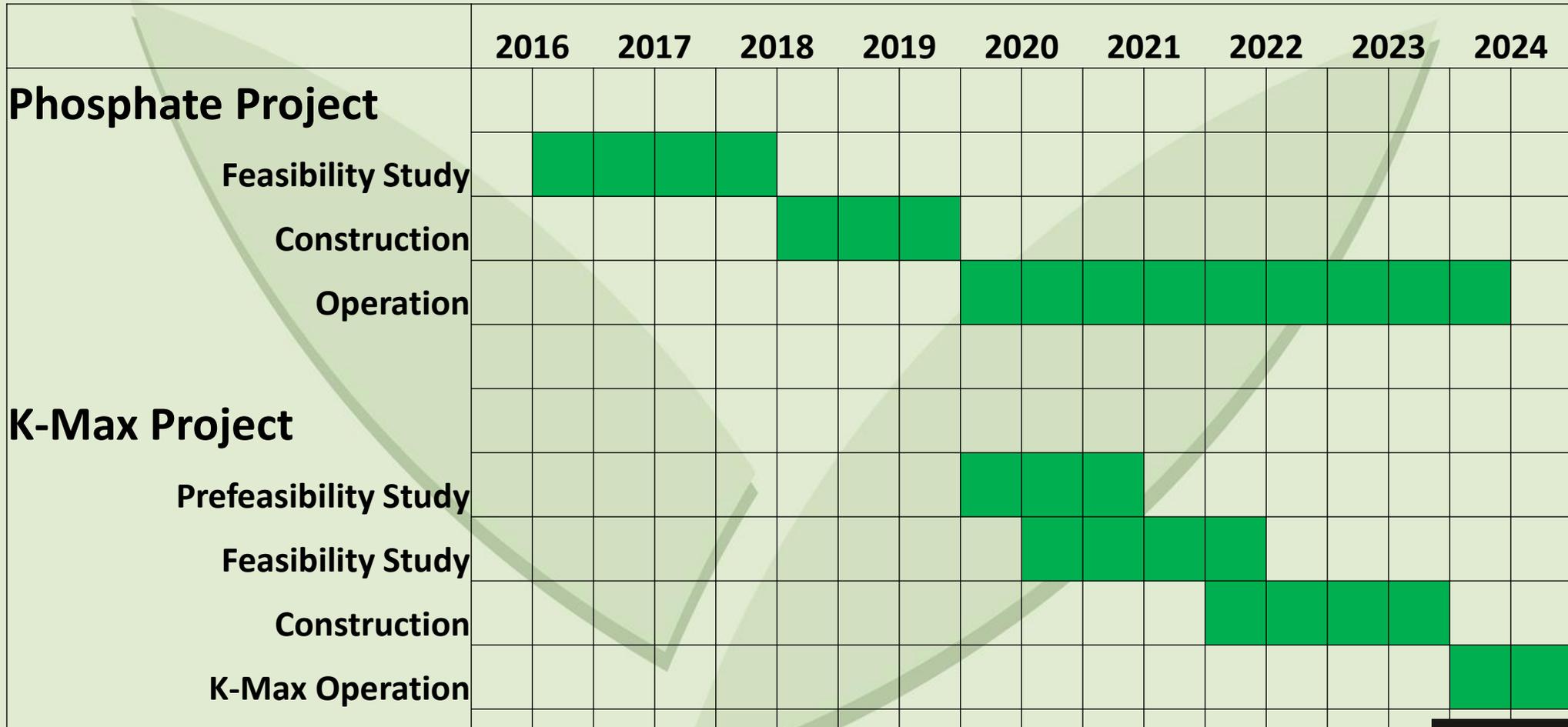


# TECHNOLOGY

- ❑ **K-Max IP 100% owned**
  - ❑ **Potash from Glaucosite deposits, world-wide opportunities.**
- ❑ **Significant ownership of Lepidico, owner of Li technology**
- ❑ **LEP being sold to Platypus Minerals (ASX:PLP)**
- ❑ **Value ~\$2m (at current mkt price)**



# Dinner Hill Development Timelines



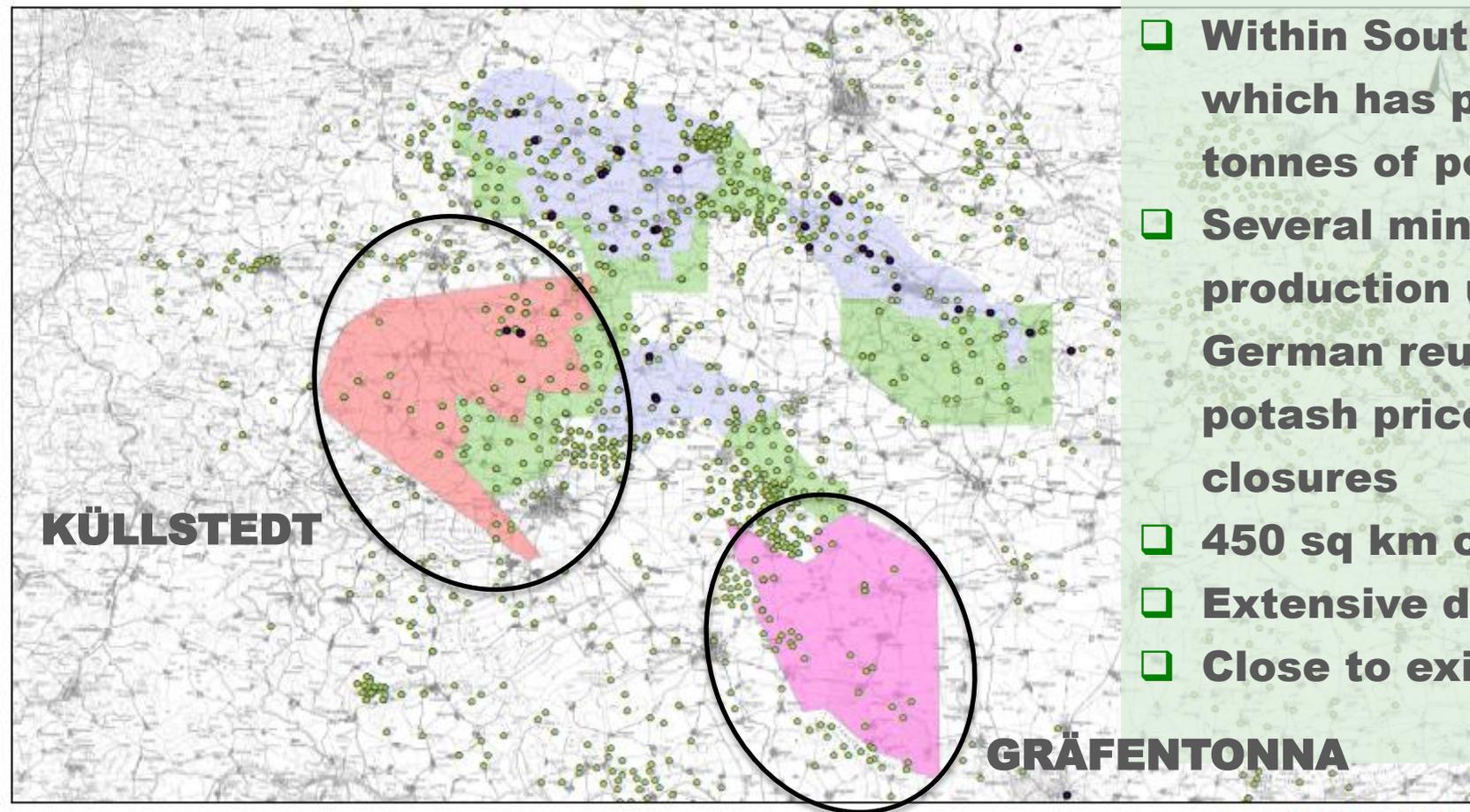
# EAST EXPLORATION



- ❑ PWN owns 55% of a Company with 2 Exploration Licences in Central Germany
- ❑ Counterparty, private interests
- ❑ Close to existing producers
- ❑ 450 sq km, extensive previous drilling
- ❑ Working with Ercosplan, world renowned potash consultants, who have worked in this region for many years



# KÜLLSTEDT AND GRÄFENTONNA LICENCES



- ❑ Within South Harz region, which has produced 100m tonnes of potash
- ❑ Several mines in production up till 1990s, German reunification. Low potash prices caused closures
- ❑ 450 sq km of holding
- ❑ Extensive drilling
- ❑ Close to existing mines

## Legend

- Potash Shaft
- Boreholes with confirmed Permian Evaporite
- Existing Mining Areas
- Mining License Areas
- Exploration License Application Area of Gräfentonna
- Exploration License Application Area of Küllstedt

Map of the South Harz Region with Existing Mining Properties and Exploration License Application Areas

ERCOSPLAN



# NEXT STEPS FOR EAST EXPLORATION

- ❑ **Preferred route forward, for both PWN and the minority shareholders of EE, is to vend into a dedicated company which can be focussed on developing this opportunity.**
- ❑ **Agreement reached with Davenport Resources for the project to be vended in, subject to an IPO and other conditions.**
- ❑ **Transaction moving forward, expected completion Q2-Q3 2016.**
- ❑ **PWN Shareholders to have priority entitlement at IPO.**
- ❑ **PWN will own approximately 29% of company, valued at \$14M, at IPO. With additional performance shares on milestones.**



# Corporate Structure

**Potash West NL**

100%

100%

100%

## **East Exploration Holdings**

- 55% of East Exploration Pty Ltd
- To be vended into Davenport (priority offer for PWN shareholders)
- ASX listing Q2-Q3 2016

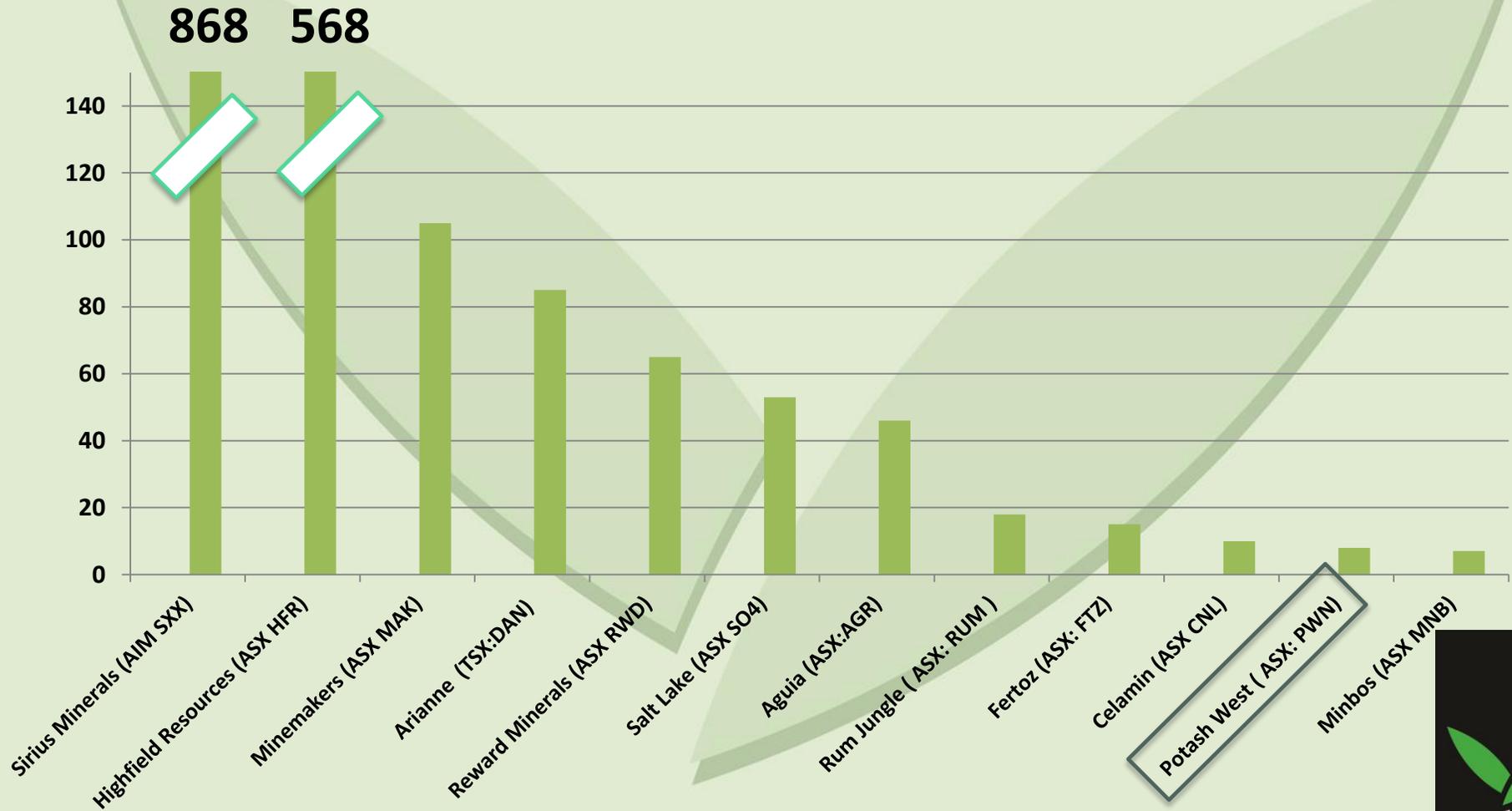
## **Dinner Hill Mining Company Pty Ltd**

- Potash, Phosphate and by-products rights in EL 3987, Western Australia
- Licence to use K-Max technology at Dinner Hill

## **K-Max Technology Pty Ltd**

- 100% ownership of K-Max Process IP and know-how
- Part owner of Lepidico (Li technology)

# MARKET CAP. OF FERTILISER EXPLORERS AND DEVELOPERS



As at May 2016



# INVESTMENT HIGHLIGHTS

- ❑ **Exposure to the growing fertiliser business**
  - ❑ **Regions are major importers**
- ❑ **Dandaragan Trough**
  - ❑ **Strategic location**
  - ❑ **Low risk start up with phosphate project**
  - ❑ **Blue sky potash production with K-Max process**
  - ❑ **Control of one of the world's largest known glauconite/greensands deposits**
- ❑ **German Potash, exploration upside**
  - ❑ **Long production history**
  - ❑ **Extensive database available, quality partners**
- ❑ **Valuable IP created, opportunities**
  - ❑ **Apply K-Max technology to other deposits**
  - ❑ **Exploit lithium technology**



# QUESTIONS?

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**Managing Director**

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