



**GOLDPHYRE**  
RESOURCES LIMITED

# **THE LAKE WELLS POTASH PROJECT**

*Australian potash for Australian farmers*

*“Currently 100% of Australia’s potash  
is imported. The development of a local source of potash  
would be a significant win for Australian farmers”*



## DISCLAIMER & FORWARD LOOKING STATEMENTS



This presentation has been prepared by Goldphyre Resources Ltd (“GPH”). It contains background information about GPH current at the date of this presentation. The Directors of the Company are not aware of any information that alters the accuracy of this information since its original publication. The presentation is in summary form and does not purport to be all inclusive or complete. All information presented here is available through the Australian Securities Exchange, where all of the Company’s previous announcements can be found. Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this presentation. This presentation is for information purposes only. Neither this presentation nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of GPH shares in any jurisdiction. This presentation may not be distributed in any jurisdiction except in accordance with the legal requirements applicable in such jurisdiction. Recipients should inform themselves of the restrictions that apply in their own jurisdiction. A failure to do so may result in a violation of securities laws in such jurisdiction. This presentation does not constitute investment advice and has been prepared without taking into account the recipient’s investment objectives, financial circumstances or particular needs and the opinions and recommendations in this presentation are not intended to represent recommendations of particular investments to particular people. Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments. To the fullest extent permitted by law, GPH, its officers, employees, agents and advisers do not make any representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of any information, statements, opinions, estimates, forecasts or other representations contained in this presentation. No responsibility for any errors or omissions from this presentation arising out of negligence or otherwise is accepted. This presentation may include forward looking statements. Forward looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of GPH. Actual values, results or events may be materially different to those expressed or implied in this presentation.



# UNIQUE INVESTMENT PROPOSITION



## Australian Potash for Australian Farmers

- WA brine hosted Sulphate of Potash (SOP) project
- Aiming to feed the domestic demand for SOP which is currently 100% imported
- Superior mining jurisdiction in the eastern goldfields of WA
- Simple, tried and tested brine extraction method used all over Australia
- Excellent infrastructure already in place
- Emphasis on achieving strong economic returns rather than focusing on big resources and big production profiles
- Ground floor investment opportunity with GPH capitalised at only \$14m
- Project primed for maiden JORC Resource Q2 2016



# CORPORATE OVERVIEW



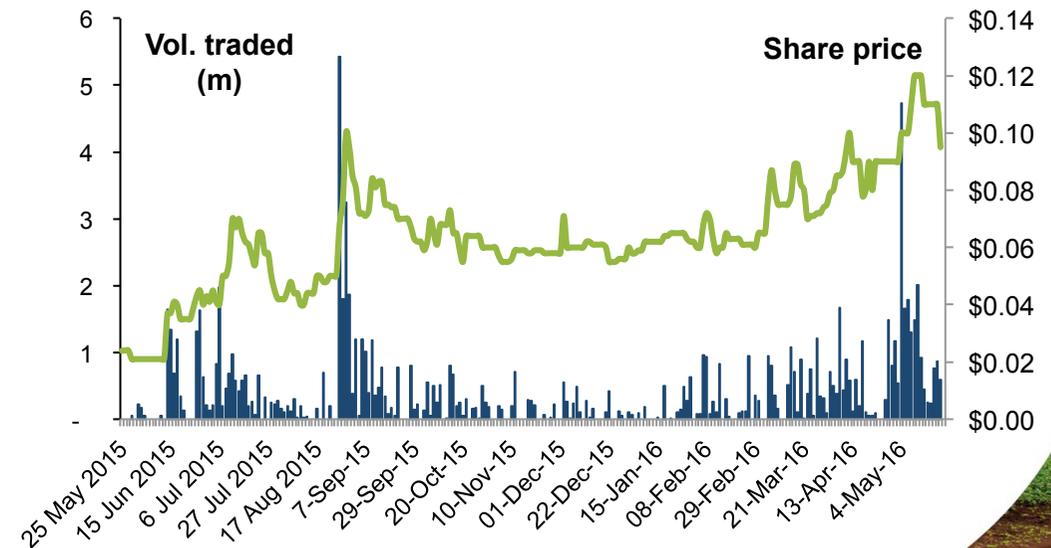
## Financial information

Share price 23 May	\$0.095
Number of shares	145.9m
Options	92.4m
<b>Market Capitalisation</b>	<b>\$13.8m</b>
Cash 31 March	\$1.1m
Enterprise value	\$12.7m

“Goldphyre’s shareholder register is built around long-term investors who understand we are focussed on **stakeholder return**”

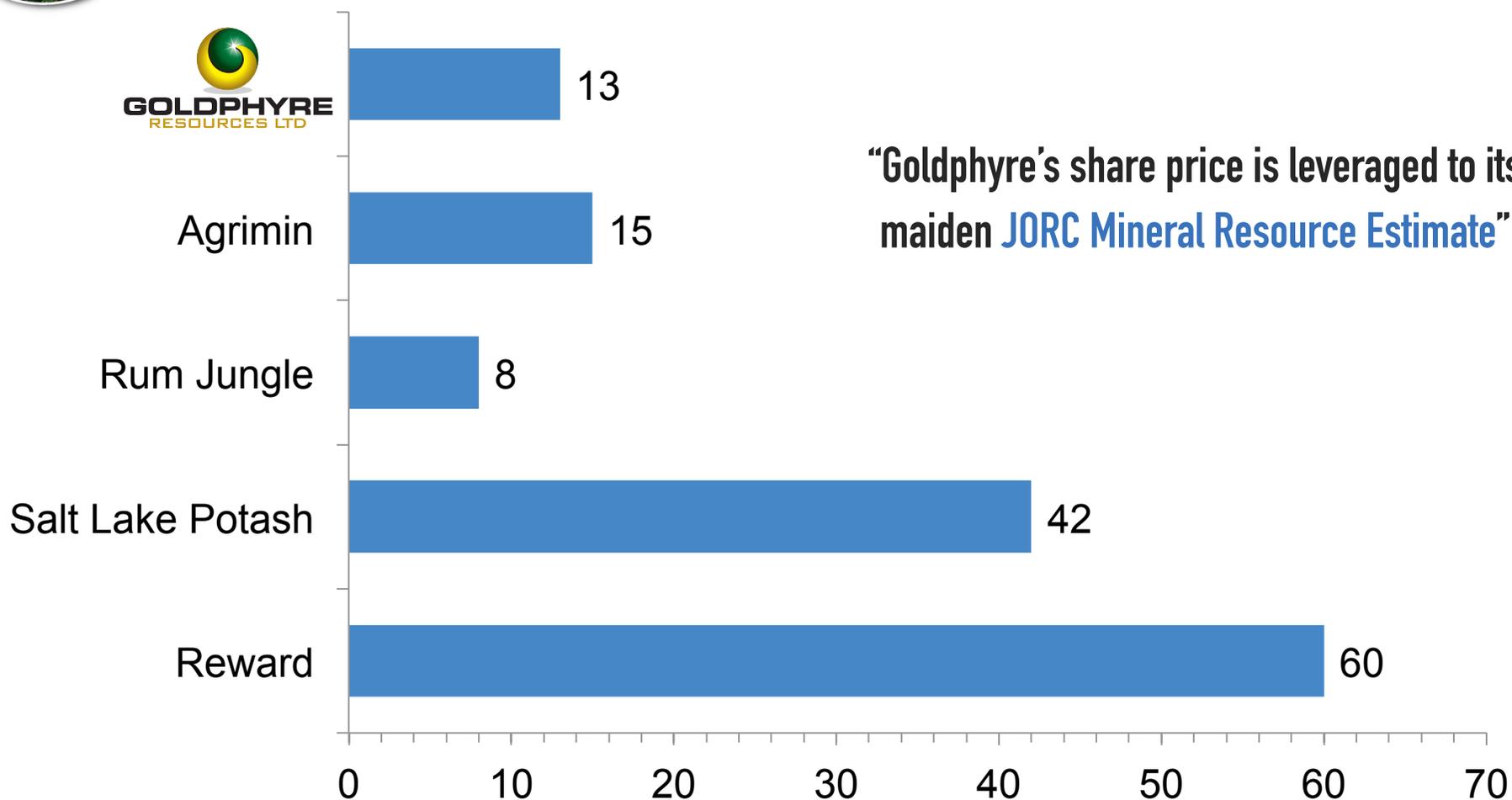
## Shareholders

Yandal Investments Pty Ltd (Mark Creasy)	19.9%
Board & management	8.6%
Top 20	54.7%





# EMERGING POTASH **PLAYER**



“Goldphyre’s share price is leveraged to its maiden **JORC Mineral Resource Estimate**”



# EXPLORATION TARGET\*



“Goldphyre is on target to release its Maiden JORC compliant Mineral Resource Estimate in June 2016”

An estimate of how much SOP is contained within the Lake Wells Potash Project

79Mt – 123Mt  
Of in-situ SOP, at a grade range of  
11,400 mg/l – 13,900 mg/L

An estimate of how much SOP is **recoverable from** the Lake Wells Potash Project

6Mt – 37Mt  
Of recoverable SOP, at a grade range of  
8,900 mg/l – 13,900 mg/L

\*The potential quantity and grade of the Exploration Target is conceptual in nature. There has not yet been sufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.



# WHAT IS POTASH?



- Potash is a fertiliser that provides plants with the essential, non-substitutable macro-nutrient, potassium which all plants need to grow
- Potassium is the 'quality element' in plant growth, improving appearance, feel, texture and yield\*
- Potassium is mined from the soil through plant growth, and **POTASH** replaces that potassium

## Sulphate of Potash ('SOP') is the Premium Potash type

- SOP provides chloride free potassium, many soils can't tolerate additional chlorine
- SOP is premium priced over other potash types
- SOP is produced in several ways, with the cheapest cost of production being brine evaporation

**"A brine SOP project can capture the lowest cost of production of this essential premium priced fertiliser"**

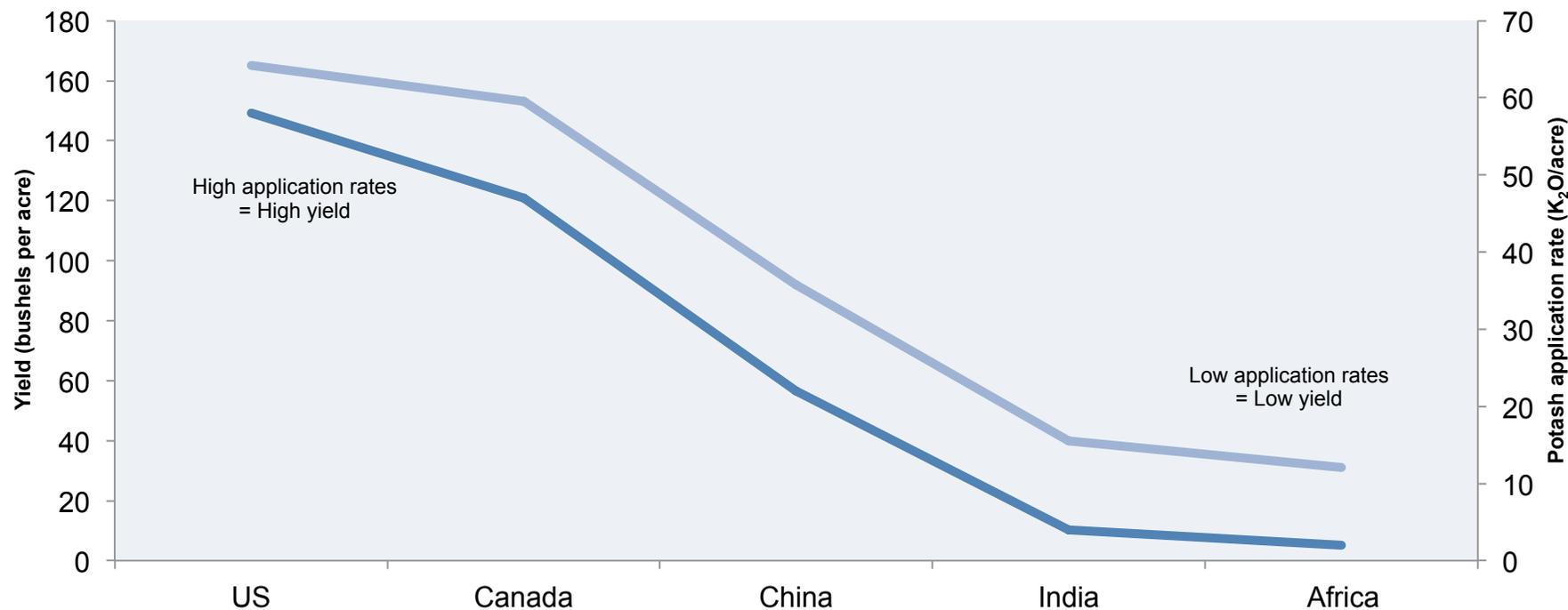
\* International Potash Institute



# HOW USEFUL IS POTASH?



## Corn Potash Application Rates & Yield



The effect of increasing potash application rates on crop yield is compelling

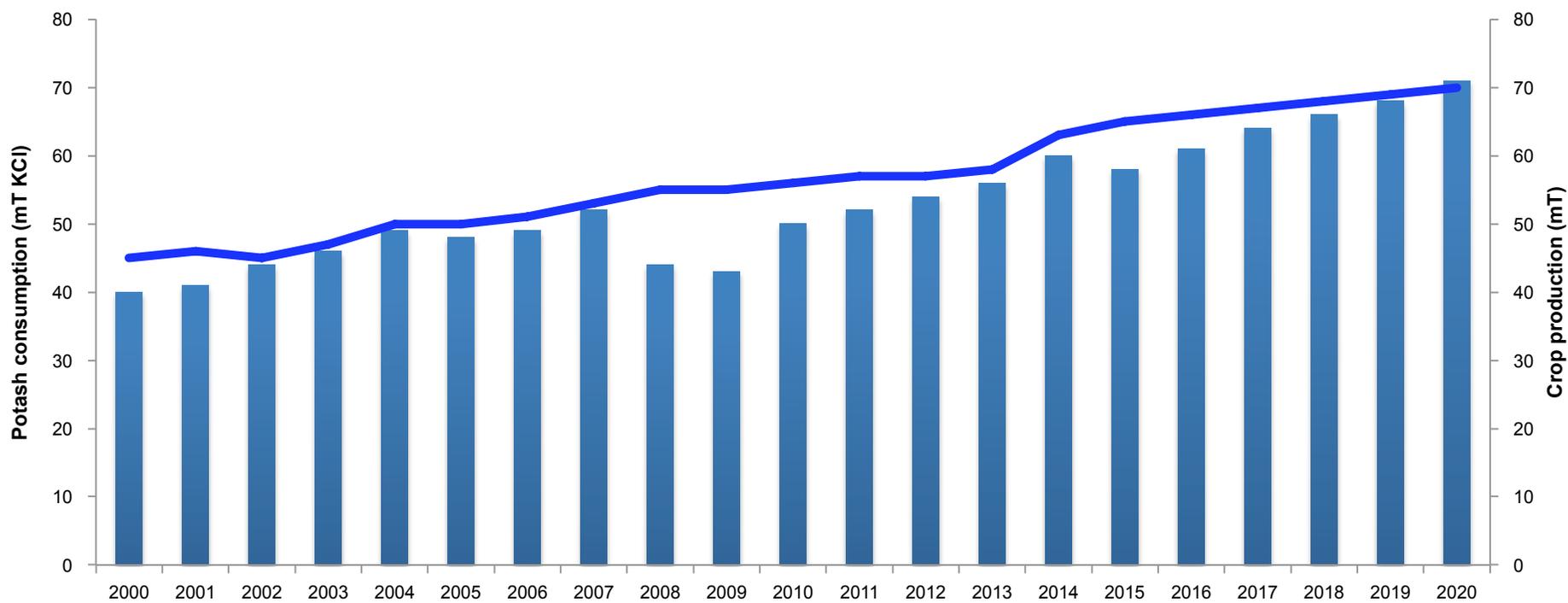
PotashCorp, Goldman Sachs Basic  
Materials Conference May 2016



# POTASH DEMAND



## Global crop production and potash consumption



More people **means** more food production **means** more potash consumption

PotashCorp, Goldman Sachs Basic  
Materials Conference May 2016

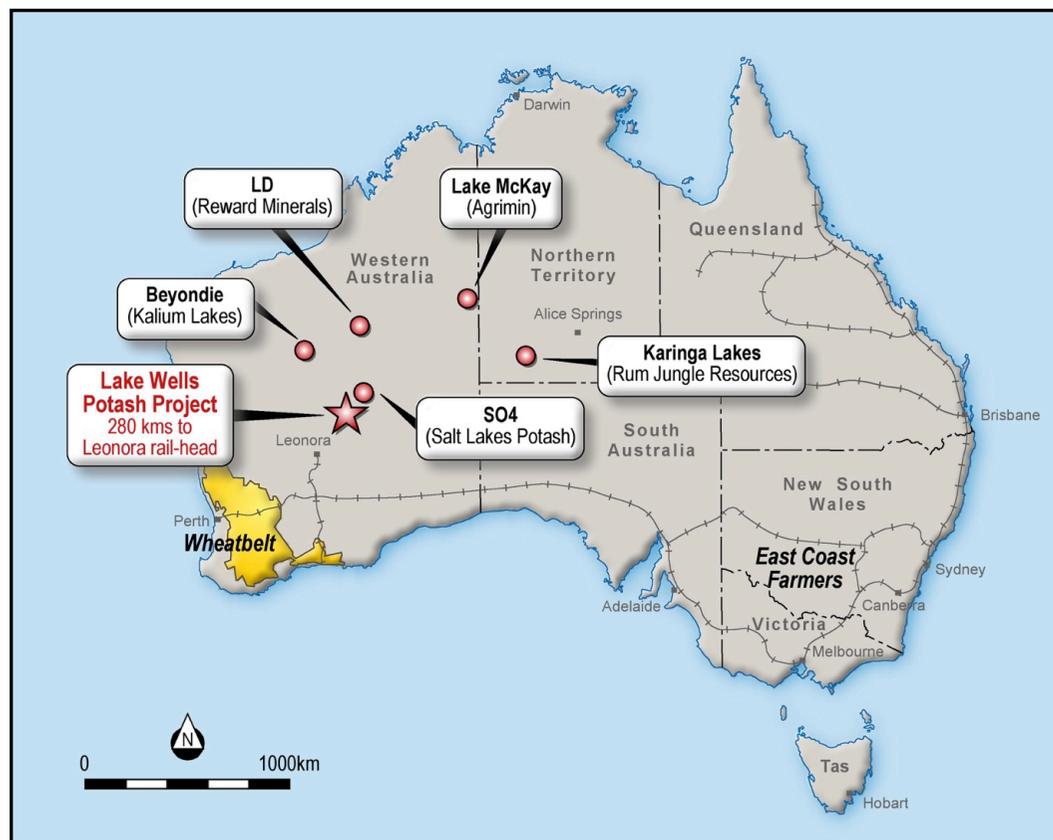


# THE LAKE WELLS POTASH PROJECT



Location, location, location

“The Lake Wells Potash Project is **ideally located** to the potential end users of this essential macro-nutrient, **Australian Farmers**”





# REGIONAL INFRASTRUCTURE



Lake Wells road 85km



Great Central Road 90km



Laverton-Leonora Road 125km



Bulk projects need quality infrastructure and good access

“Using existing infrastructure enables us to target faster **development**”

The Leonora rail head is 280km from the Lake Wells Potash Project



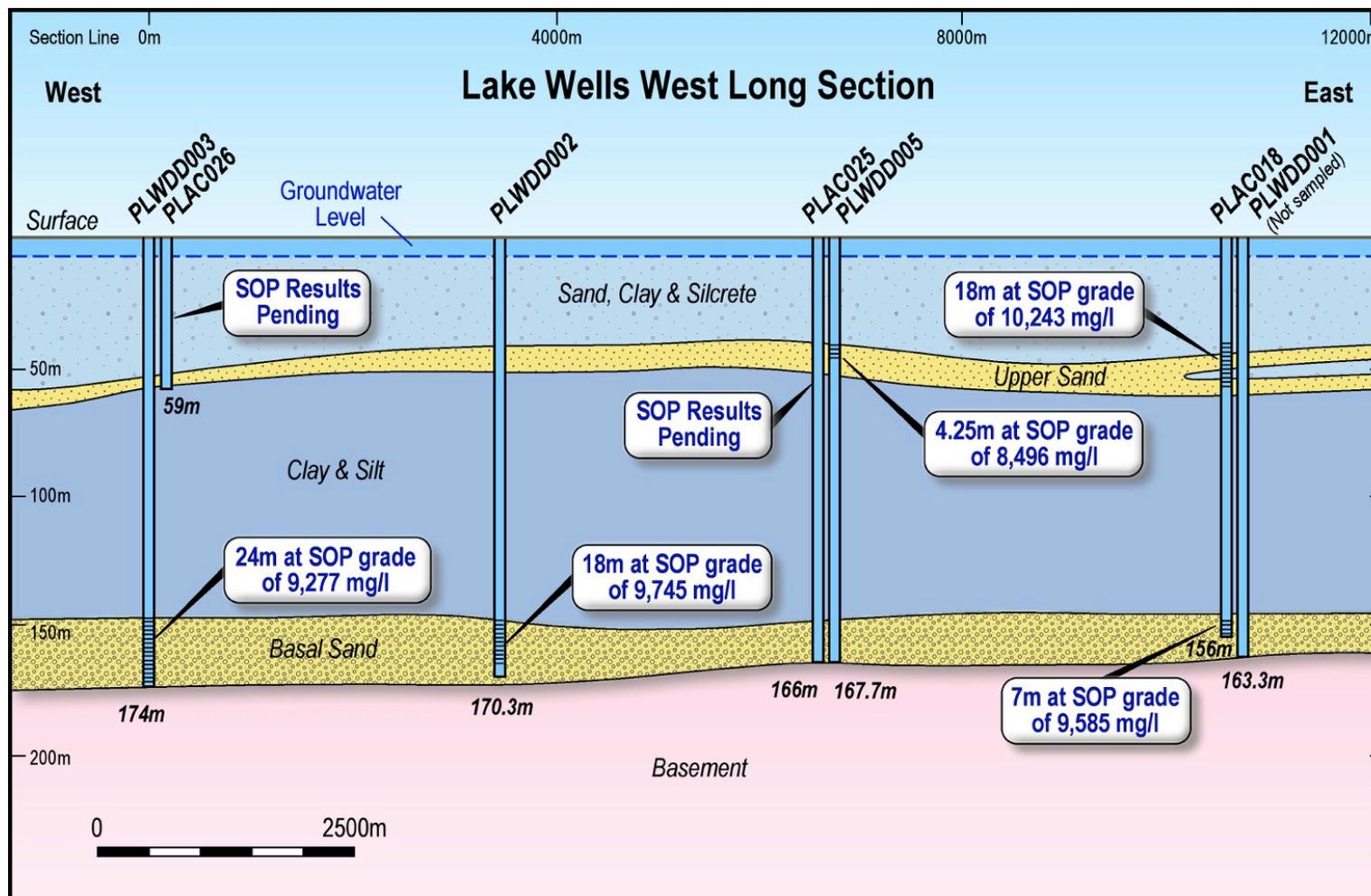


# RESOURCE DRILLING





# THE LAKE WELLS POTASH PROJECT



High grades and wide intersections from March – May 2016 **resource drilling**



# THE LAKE WELLS POTASH PROJECT



Hole ID	Sample interval		Sample SOP grade	
	Basal sands	Upper sands	Basal sands	Upper sands
PLAC019	18m	12m	9,046 mg/l	5,921 mg/l
PLAC020	12m	18m	8,363 mg/l	6,571 mg/l
PLWDD002	18m	-	9,745 mg/l	-
PLWDD003	24m	-	9,277 mg/l	-
PLAC018	7m	18m	9,585 mg/l	10,243 mg/l
PLWDD005	-	4.25m	-	8,496 mg/l

Upper sands and basal sands intersected in March – May 2016 **resource drilling**



# SOP ECONOMICS



SOP can be produced in several ways

Most  
expensive

Least  
expensive

Manheim process

Reacted salts

Hard-rock mining

Brine evaporation

Average cost of production

**A\$275/tonne**

Farm-gate price of SOP in Western Australia

**A\$1,100/tonne**

**“A domestic SOP brine operation can provide Australian farmers with certainty of supply and reduced exchange rate risks”**

- 100% of all potash used in Australia is imported
- There will be substitution to SOP if it is priced right

Source: Industry presentations, Company websites, public announcements



# SOP PRODUCTION



SOP held in brine is produced through evaporation



## 1. Pumping

The palaeochannel bore-field pumps brine into evaporation ponds



## 2. Evaporating

Brines pass through evaporation ponds, dropping out salts along the way



## 3. Harvesting

Salts are harvested and transported to plant for conversion

## 4. Conversion

Schoenite is converted, or crystallised, into SOP



## 5. Processing

SOP is washed, dried, screened and chipped ready for distribution to end user



**“Using existing road infrastructure, Goldphyre will test the feasibility of distributing its SOP product through a centrally located, wheatbelt location”**



# BRIEF HISTORY RAPID PROGRESS



Going forward ....

**MARCH 2016**  
Exploration Target\* of 6Mt – 37Mt (specific yield)

**FEBRUARY 2016**  
Seismic surveys double the length of the palaeochannel

**DECEMBER 2015**  
Project area tripled in deal with Mark Creasy controlled entity

**AUGUST 2015**  
High grade potash drill assays from surface to + 135m

**APRIL 2015**  
High-grade potash brine sample assays reported to market

Final resource drilling assays

Q2 Maiden JORC Resource estimate

Q2/Q3 Test bore pumping trials

Q2/Q3 Bench scale evaporation trials

Q3/Q4 JORC Resource upgrade

Q4 Test field evaporation ponds

Q1 2017 JORC Measured Resource



# EXPERIENCED INCENTIVISED



## The Board

Matt Shackleton, **Executive Chairman**

BComm., MBA, FCA

Over 20 years experience in corporate & resource company management

Brenton Siggs, **Non-executive Director**

BAppSc., MAIG

Over 25 years experience in mineral exploration and development

Dean Goodwin, **Non-executive Director**

BAppSc., MAIG

Over 25 years experience in mineral exploration, development, and management

John Ribbons, **Company Secretary**

## Management

Matt Shackleton, **Executive Chairman**

Brenton Siggs, **Exploration Manager**

Carsten Kraut, **Principal Hydrogeologist**

Lisa Chandler, **Environmental Advisor**

## Consultants

AQ2, Hydrogeological consultants

Peritas Group, Engineering consultants

**“We are continually building on our competencies through working with the best people we can find”**



# COMPELLING OPPORTUNITY



## Ideally positioned for Rapid Project Growth and Development

- Strong grades and scale in a highly conducive environment for evaporation
- Moving quickly towards de-risked JORC Resource Estimates
- Drilling recently finished with results pending
- Well funded for next program of works: test pumping Q3 2016
- Strong and supportive shareholder base
- Tried and tested abstraction process: not reinventing the wheel
- Significant infrastructure already in place
- Emphasis on achieving strong economic returns rather than focusing on big resources and big production profiles



# DERISKING LAKE WELLS



	Q1 2016	Q2 2016	Q4 2016	Q1 2017
Exploration target	<ul style="list-style-type: none"> <li>• Incorporate LWE data into exploration target data area</li> <li>• COMPLETE</li> </ul>	<ul style="list-style-type: none"> <li>• n/a</li> </ul>	<ul style="list-style-type: none"> <li>• n/a</li> </ul>	<ul style="list-style-type: none"> <li>• n/a</li> </ul>
Inferred resource	<ul style="list-style-type: none"> <li>• Collect core for porosity and specific yield analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Brine sampling across horizons, geophysics</li> <li>• PUBLISH Resource</li> </ul>	<ul style="list-style-type: none"> <li>• n/a</li> </ul>	<ul style="list-style-type: none"> <li>• n/a</li> </ul>
Indicated resource	<ul style="list-style-type: none"> <li>• Porosity/Specific yield</li> <li>• More brine chemistry</li> <li>• Installation of piezometers</li> </ul>	<ul style="list-style-type: none"> <li>• Test bore drilling</li> <li>• Downhole geophysics</li> <li>• Numerical modelling</li> </ul>	<ul style="list-style-type: none"> <li>• Water abstraction environmental analysis</li> <li>• PUBLISH Resource</li> </ul>	<ul style="list-style-type: none"> <li>• n/a</li> </ul>
Measured resource	<ul style="list-style-type: none"> <li>• n/a</li> </ul>	<ul style="list-style-type: none"> <li>• Numerical modelling</li> <li>• Inter-bore continuity test-work</li> </ul>	<ul style="list-style-type: none"> <li>• Final aquifer test-work including permeability, specific yield, water chemistry variability</li> </ul>	<ul style="list-style-type: none"> <li>• PUBLISH Resource</li> </ul>



# DERISKING LAKE WELLS



	Exploration target	Inferred resource	Indicated resource	Measured resource	
Desktop studies	✓	n/a	n/a	n/a	
Auger sampling	✓	✓	✓	n/a	
Core drilling	n/a	✓	✓	✓	
Exploration drilling	✓	✓	✓	✓	
Geophysics	✓	✓	✓	✓	
Test bores	n/a	n/a	✓	✓	
Modelling	✓	n/a	✓	✓	
Environmental	n/a	n/a	✓	✓	
Reporting	✓	✓	✓	✓	
Not started	●	●	●	●	Complete



# THE LAKE WELLS POTASH PROJECT



**Thankyou**

**Please come and visit Goldphyre Resources  
at booth # 17**

**[www.goldphyre.com.au](http://www.goldphyre.com.au)**



# COMPETENT PERSONS STATEMENTS



The Hydrogeological information in this report has been prepared by AQ2 with direction and review by Jeffery Lennox Jolly. Mr Jolly is a principal hydrogeologist with AQ2 and has over 30 years of international experience. He is a member of the AusIMM and the International Association of Hydrogeologists. My Jolly has experience in the assessment and development of palaeochannel groundwater resources, including the development of water supplies in hypersaline palaeochannels in Western Australia. His experience and expertise is such that he qualifies as a Competent Person as defined in the 2012 edition of the “Australian Code for Reporting of Exploration Results, Mineral Resources and Ore reserves”.

Jeff Jolly consents to the inclusion in this report on the matters based on his information in the form and context in which it appears.

The information in this report that relates to Exploration results, Mineral Resources or Ore Reserves is based on information compiled by Brenton Siggs who is a member of the Australasian Institute of Geoscientists. Brenton Siggs is contracted to the Company through Reefus Geology Services and is a Non-Executive Director (Exploration Manager) of Goldphyre Resources Limited. Brenton Siggs has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity currently 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 Siggs is a shareholder and director of Goldphyre WA Pty Ltd, a company that holds ordinary shares and options in the capital of Goldphyre Resources Limited (Goldphyre Resources Limited, Annual Report 2015).

Brenton Siggs consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.