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#### Scoping Study Parameters – Cautionary Statement

The Scoping Study results, production target and forecast financial information referred to in this Presentation are based on low accuracy level technical and economic assessments that are insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage. Of the Mineral Resources scheduled for extraction in the Scoping Study's production plan, approximately 95% are Indicated Mineral Resources and 5% are Inferred Mineral Resources. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or the eventual conversion to Ore Reserves or that the production target itself will be realised. The consideration of all JORC modifying factors is sufficiently progressed. Hydrogeological studies and process studies support material operating assumptions. Engineering studies support capital and operating cost estimates and are based on standard extraction and processing techniques. Discussions with third party infrastructure providers are underway. Environmental baseline studies and Native Title negotiations are progressing and no social, environmental, legal or regulatory impediments to development have been identified. The Company has concluded it has a reasonable basis for providing the forward-looking statements included in this Presentation and believes it has a reasonable basis to expect it will be able to fund the development of the Project upon successful delivery of key development milestones. The detailed reasons for these conclusions, and material assumptions on which the forecast financial information is based, are disclosed in the Company's ASX Release entitled Mackay Project Resource Update and Path to Production released on 15 December 2015.

#### JORC Code (2012) Compliance Statement

The information in this presentation that relates to Mackay SOP Project is extracted from the ASX Release entitled Positive Scoping Study for the Mackay SOP Project released on 23 August 2016. The information in this presentation that relates to exploration results and Mineral Resources is extracted from the ASX Release entitled Mackay Project Resource Update and Path to Production released on 15 December 2015. The Company's ASX Releases are available at www.asx.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the abovementioned ASX Releases, and that all material assumptions and technical parameters underpinning the estimates in the abovementioned ASX Releases continue to apply and have not materially modified from the abovementioned ASX Releases.

# **Agrimin highlights**



- Developing a globally significant Sulphate of Potash (SOP) operation on the world's largest undeveloped SOP-bearing salt lake
- Long-life operation to be underpinned by a low-risk jurisdiction and first quartile cost position
- Leveraged to increasing demand for high value crops and the structural change in food production practices
- Targeting production of a specialty fertilizer for which global demand is outpacing supply
- > Well funded with A\$9.5 million in cash





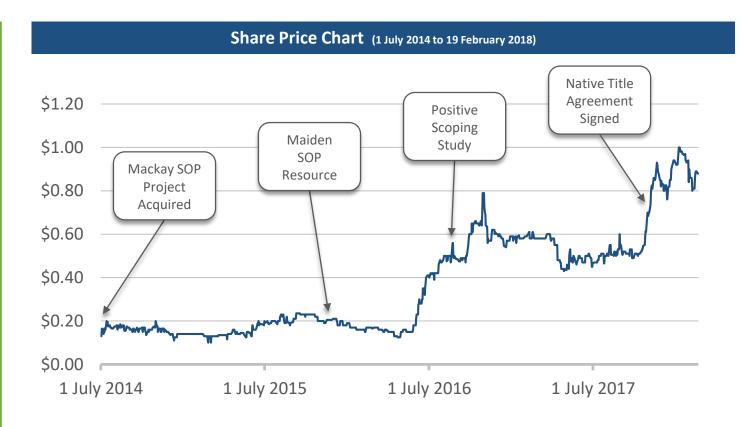
## **Corporate snapshot**



Capital Structure (19 February 2018)	
ASX Code	AMN
Shares	156.2m
Share Rights & Options	8.5m
Share Price	A\$0.88
Market Capitalisation	A\$137.5m

В	alance Sheet (31 December 2017)
Cash	A\$9.5m
Debt	A\$0.0m

Top Shareholders (19 February 2018)							
Hillboi Nominees	13.4%						
AustralianSuper	10.9%						
Walloon Securities	6.5%						
Paragon Funds Management	4.7%						
Eye Management	4.1%						
Board & Management	10.0%						



Broker Coverage <sup>1</sup>	Recommendation	Price Target
Petra Capital	Buy	A\$1.26/share
Euroz Securities	Buy	A\$1.30/share
Argonaut Capital	Buy	Spec.

<sup>.</sup> Broker reports are available at: www.agrimin.com.au/category/broker-reports-media.

## Key people



#### **Board of Directors**

#### Mark Savich | Chief Executive Officer

Financial analyst (CFA) with 14 years of experience in the resources industry based in Western Australia. Experienced in project evaluation and the financing of resource projects.

#### **Brad Sampson** | Non-Executive Chairperson

Mining Engineer with 30 years of management and board experience in the international resources industry. Has led the financing and development of a major greenfields resource project.

#### Alec Pismiris | Non-Executive Director / Company Secretary

Finance professional with 30 years experience in the resources industry and has participated in the acquisition and financing of numerous resource projects. Has served as a director and company secretary for many ASX listed companies.

#### **Key Corporate Personnel**

#### **Rhys Bradley** | Chief Commercial Officer

Chartered Accountant with 11 years of experience in the resources industry based in Perth and London. Experienced in capital markets, financial modelling and marketing.

## **Key Technical Personnel**

#### Tom Lyons | General Manager

Geologist with experience in a range of commodities including industrial minerals, metals and bulks. Significant experience working throughout a number of diverse jurisdictions, including throughout Western Australia.

#### Michael Hartley | Project Manager / Principal Hydrogeologist

Hydrogeologist with 17 years experience in hydrogeological assessments of resources projects around the globe. Recently Chief Hydrogeologist and Senior Project Manager for ICL Group's SOP Project in Ethiopia.

#### Laurie Mann | Study Manager

Process Engineer with over 40 years of experience in project development, execution and operation. This includes registered manager for the Shark Bay Solar Salt Operation and most recently as project manager responsible for the feasibility study and commissioning of the Deflector Gold Mine in Western Australia.

#### **Gerry Bradley** | Sustainability Manager

Ecologist with 18 years experience associated with the resources industry both in Australia and overseas. Broad base of experience from project development through to operations, care and maintenance and closure. Recently responsible for coordination of environmental studies for Vimy Resources and BC Iron.

#### **Don Larmour** | Consulting Process Engineer

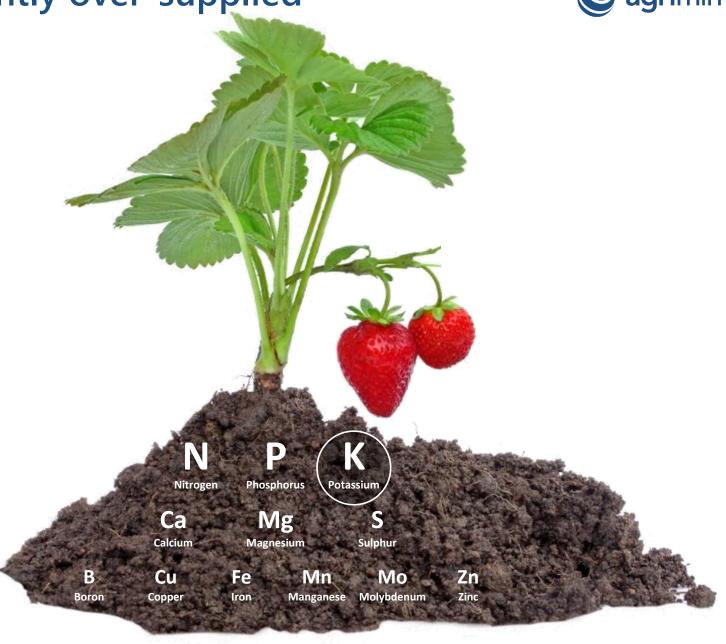
Chemical Engineer based in Saskatchewan with over 35 years of in-depth potash experience. Has expertise in potash processing, from crushing to flotation, crystallization, drying, compaction, pan granulation and product transport. His experience ranges from operations to design and engineering.

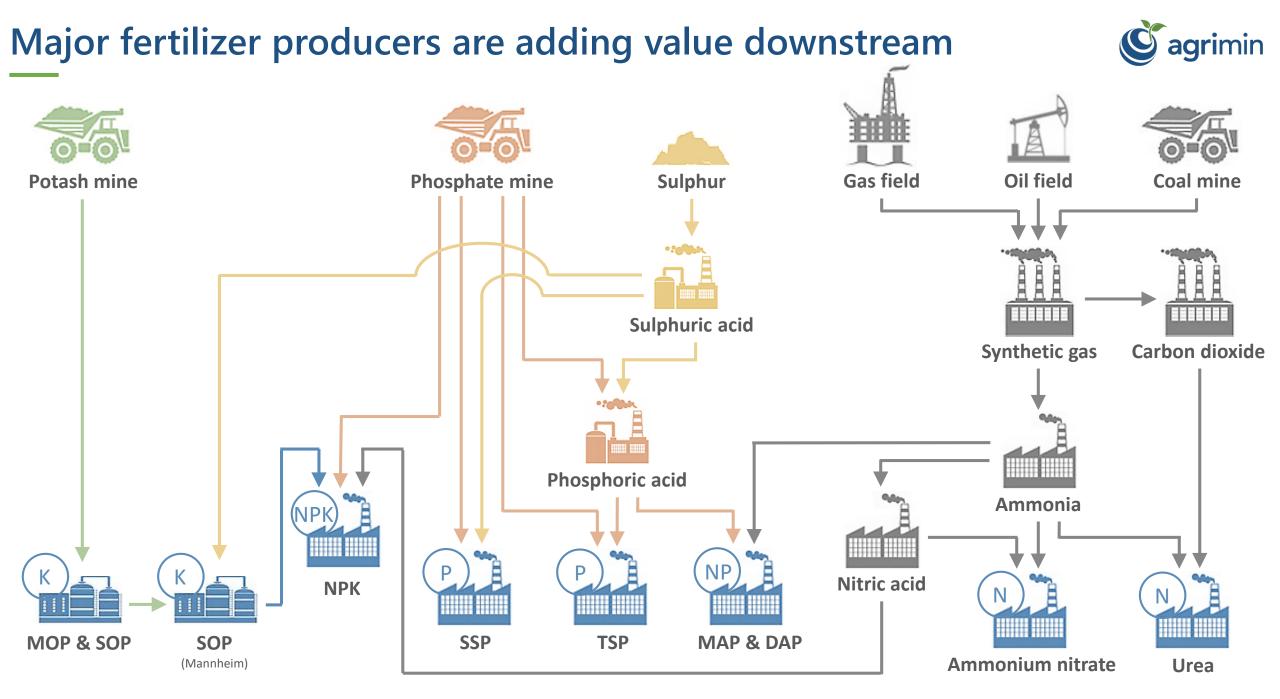


Commodity fertilizers are currently over-supplied

**agrimin** 

- Commodity fertilizers provide three macronutrients that every crop needs:
  - Nitrogen (N) the most important for healthy plant growth, such as leaf size, colour and yield
  - Phosphorus (P) vital for photosynthesis and enhances stem durability
  - Potassium (K) essential to increase a plants resistance to crop disease
- Main commodity fertilizers are currently over-supplied (i.e. urea, MAP, DAP, MOP)
- Global fertilizer producers are seeking to improve margins through value-added products that suit changing food production practices





## SOP is chloride-free potash & a high value product



- > 90% of all potash production is MOP (muriate of potash) which contains 46% chloride
- > SOP (sulphate of potash) is chloride-free and vital for high value crops, such as fruits and vegetables
- > SOP improves the nutritional value, taste, appearance and shelf life of crops

**Global Potash Production (70Mtpa)** 

# MOP (Muriate of Potash) SOP (Sulphate of Potash) NOP (Nitrate of Potash)

**SOPM** 

(Sulphate of Potash Magnesia)



Source: Bunnings Warehouse

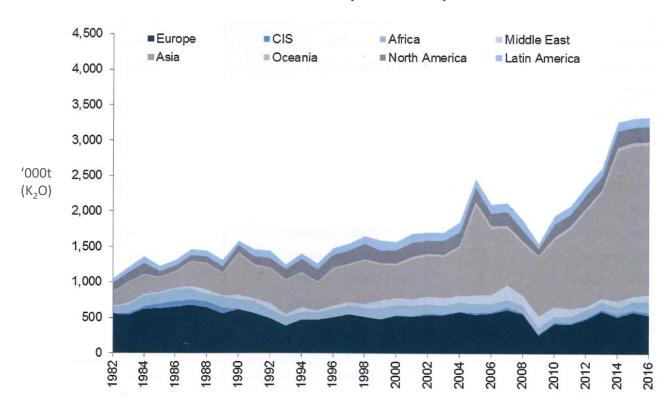
Source: Fertecon Limited

## SOP demand is growing rapidly



- Demographic shift from rural to urbanised populations is increasing the consumption of fruits and vegetables
- Agricultural pollution, water scarcity and technological advancements are causing a structural change in food production practices
- These major global changes have seen SOP demand more than double since 2009 from 3Mtpa to 7Mtpa
- In 2016, SOP demand reached a record of 7Mtpa mainly due to increasing use in China for application on fruits and vegetables

## **SOP Demand (Deliveries)**



Source: Fertecon, Petra Capital

K<sub>2</sub>O tonnes can be converted to SOP using a conversion factor of 2 (i.e. SOP contains approx. 50% K<sub>2</sub>O

# SOP supply is already unable to keep up with demand

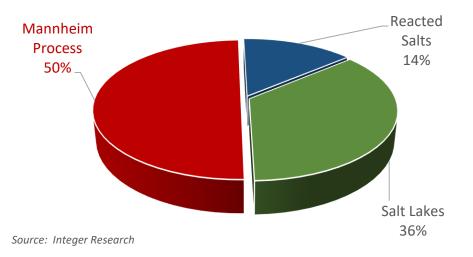


 Current supply shortage of SOP is caused by Mannheim producers being unable to dispose of hydrochloric acid

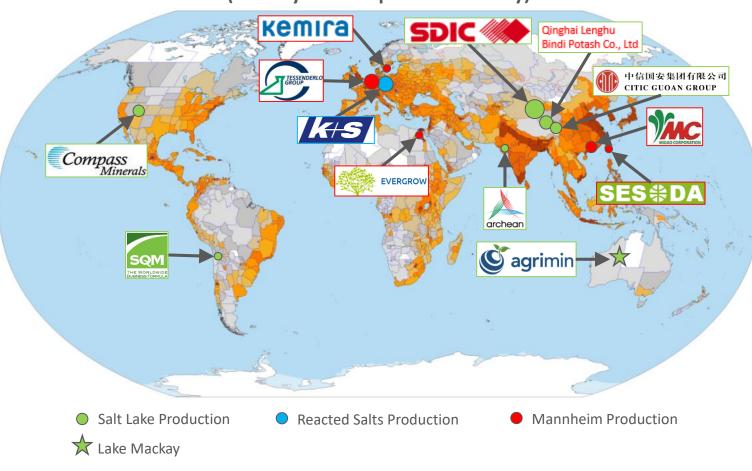
#### **Mannheim Process:**

MOP + Sulphuric Acid = SOP + Hydrochloric Acid

## **Global SOP Production Sources (7Mtpa)**



Installed SOP Capacity of Major Producers (Overlayed on Population Density)

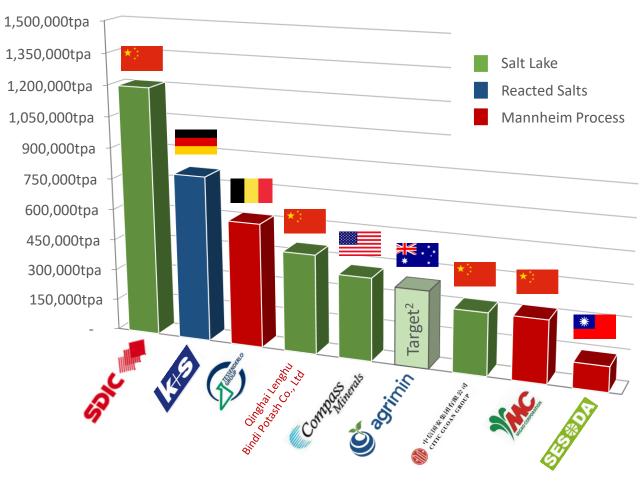


## Lake Mackay is set to be the next major SOP salt lake



- There are five major salt lakes with installed SOP capacity, three of which started in the last 10 years:
  - CITIC Guoan Group at Xitai Jinair salt lake (2012)
  - Bindi Potash at Kunteyi salt lake (2012)
  - SDIC Luobupo at Lop Nur salt lake (2008)
  - SQM at Salar de Atacama (1997)
  - Compass Minerals at Great Salt Lake (1967)
- The trend towards new SOP production from salt lakes will continue
- Agrimin is set to become a globally significant SOP producer proximal to the world's most densely populated countries

#### **Current SOP Production Rates of Major Producers**<sup>1</sup>



- 1. Graph compiled from information sourced from company reports and research undertaken by Agrimin.
- 2. Refer to the ASX Release dated 23 August 2016 for full Scoping Study details. All material assumptions underpinning the production target and forecast financial information derived from the production target continue to apply and have not materially changed.

# Lake Mackay is comparable to current SOP operations



	Mackay, Australia	Luobupo, China	Great Salt Lake, USA
Extraction Method	Trenching of Near Surface Brines	Trenching of Near Surface Brines	Pumping of Near Surface Brines
Potassium Concentration	3,603 mg/L	10,413 mg/L	4,600 mg/L
Lake Surface Area	3,500 km²	5,500 km²	4,400 km <sup>2</sup>
Net Evaporation	3,400 mm/year	3,500 mm/year	1,300 mm/year
Harvesting Method	Wet Harvest	Wet Harvest	Dry Harvest
Process Flowsheet	Flotation & Crystallisation	Proprietary	Flotation & Crystallisation
Distance to Port	590 km road & 1,410 km rail	3,220 km rail	1,165 km rail



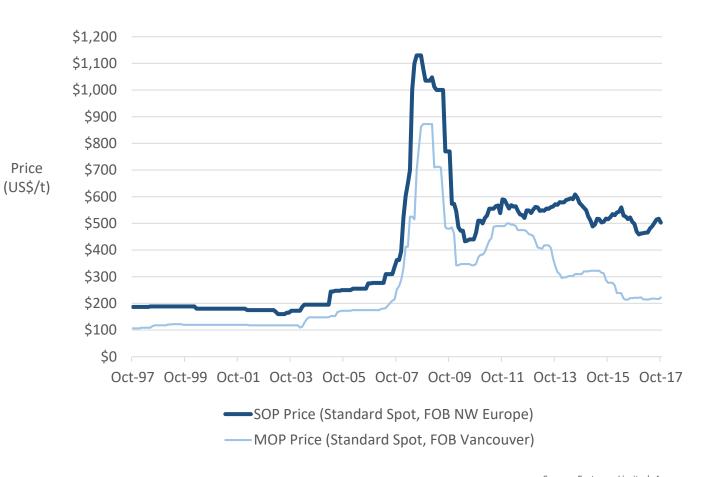
## SOP prices are incentivising new production

Price



- Prices for standard SOP products are currently US\$500/t
- Since 2000, SOP demand growth has been 5.0% per year, compared to MOP demand growth of 2.3%
- **Robust outlook for SOP prices** is supported by:
  - Increasing consumption of high value crops
  - **Changing food production practices**
  - **Constrained supply from the Mannheim Process**

#### Potash Prices for Last 20 Years



Source: Fertecon Limited, Argus



# A globally significant project in the making



- Project is 100% owned by Agrimin and located 500km east of Alice Springs
- > Targeting a **production rate of 370,000tpa of SOP**<sup>1</sup> commencing in 2021 and operating for 20 years
- Native Title Agreement signed for the proposed full-scale development of the project
- Pre-Feasibility Study (PFS) is being finalised with results expected to be announced in Q2-2018
- Long-term field work commenced in mid-2017 to fast track a Definitive Feasibility Study (DFS)

## **Project Location**



<sup>1.</sup> Refer to the ASX Release on 23 August 2016 for full Scoping Study details. All material assumptions underpinning the production target and forecast financial information derived from the production target still apply and have not materially changed.

## Key attributes support large-scale & low-cost production



- Saline groundwater (brine) within Lake Mackay contains
   high-grade Potassium and Sulphate in solution
- Mineral Resources of 23.2Mt of SOP¹ (drainable brine) have been defined and remain open
- Lake Mackay has the three technical attributes that allow for large-scale and low-cost SOP production:
  - Shallow and contiguous brine resources suitable for sustainable extraction
  - Large on-lake area suitable for unlined evaporation ponds
  - **3. Brine chemistry** suitable for conventional processing techniques

**Shallow Brine Resources Across the Entire Deposit** 



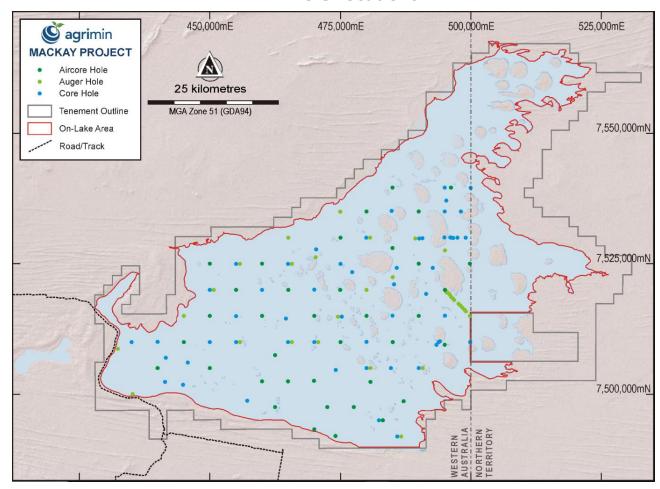
<sup>1.</sup> Refer to the ASX Release on 15 December 2015 for full Mineral Resources details. Mineral Resources comprise Indicated Mineral Resources of 4.3 million tonnes and Inferred Mineral Resources of 19.1 million tonnes. Errors due to rounding.

## Shallow resources have excellent potential to grow



- 98 drill holes on a 5km grid provide a strong geological understanding of the deposit
- Mineral Resources are defined within a single geological unit over an area of 2,201km<sup>2</sup>
- Shallow Mineral Resources commence at only 0.4m beneath the ground surface and are amenable to extraction via trenches across the entire deposit
- Mineral Resources have been drilled to an average depth of 25m and remain open at depth

#### **Drill Hole Locations**



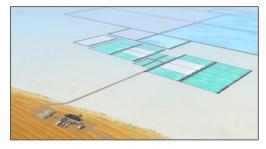
## Low-risk development plan for a long-life operation



Trench extraction of78.5Mtpa of groundwatergrading 0.7% SOP



 Evaporation ponds start at 34km² and expand to 59km² over 20 years



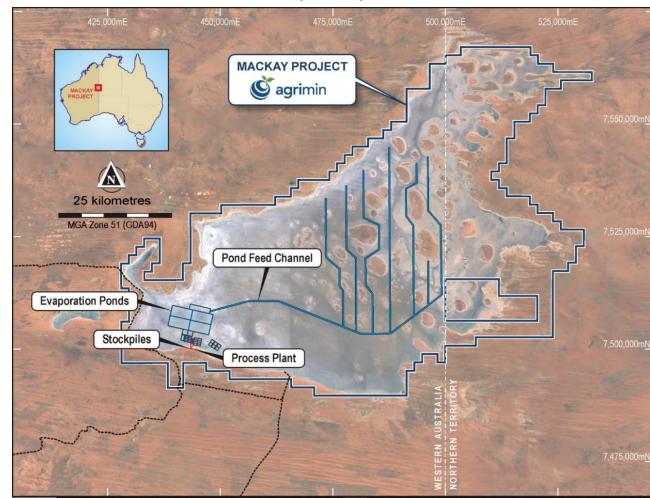
Harvesting of 2.5Mtpaof potash salts grading17.8% SOP



Production of 370ktpa of SOP



**Project Layout** 



## On-lake geotechnics support large-scale unlined ponds



- > Full-scale ponds will cover less than 2% of Lake Mackay at the end of the operation's proposed 20 year life
- $\triangleright$  Remoulded permeability values of 9.7 x 10<sup>-9</sup> to 4.6 x 10<sup>-11</sup> m/s indicate suitable on-lake setting for unlined ponds with very low leakage
- > Subsurface vertical permeability design value of 8 x 10<sup>-10</sup> m/s in the proposed pond area of 59km<sup>2</sup> (34km<sup>2</sup> at start-up)
- Low-cost cut-to-fill construction method can be used for pond walls

#### **Location of Solar Evaporation Ponds**



#### **Aerial View of Proposed Area for Solar Evaporation Ponds**



## High quality SOP samples produced during testwork

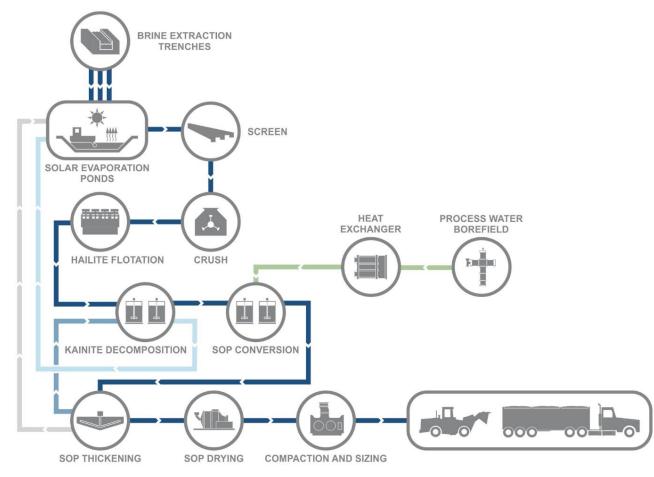


- Process testwork has produced commercial grade SOP samples (>52% K₂O) that exceed industry benchmark grades
- PFS process testwork successfully validates the use of conventional SOP production techniques

## **SOP Samples Packaged for Distribution**



## **Simplified Process Flow Diagram**

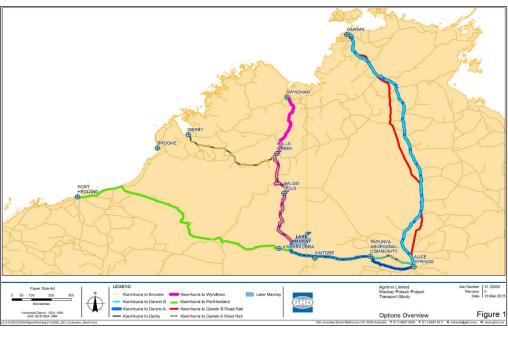


## Transport infrastructure in place



- Road: Project is connected to Alice Springs via well-maintained sealed and unsealed roads which are used to transport fuel and supplies to mining operations and communities
- Rail: Alice Springs is connected to shipping terminals via the Adelaide-to-Darwin railway. Bulk trains currently run between various mines and ports
- Port: Ports in Northern Territory and South Australia with bulk loading berths provide optionality

## **Map of Transport Corridors**



#### **Gary Junction Road at WA-NT Border**



Adelaide-to-Darwin Railway



**Port of Darwin** 



## Scoping study indicates a compelling investment case



- Scoping Study (August 2016) confirmed globally significant
   scale and compelling economics
- Targeted SOP production of 370,000tpa over a 20 year life
- Development capex of US\$259 million, includes US\$105 million of indirects and contingency
- Total FOB cash cost of US\$256/t, provides an excellent operating margin at current prices of US\$500/t
- A well-credentialed team is currently completing the PFS







### **Scoping Study Material Assumptions and Outcomes**

Parameter	Value
Operating Life	20 years
Annual Brine Extraction Rate	66.5GL
Potassium Concentration	3,600mg/L
Potassium Recovery	69.3%
SOP Production Rate	370,000tpa
Average Total Cash Cost	US\$256/t FOB
Average All-In Sustaining Cash Cost (Exc. Royalties)	US\$277/t FOB
Development Capital Cost (Inc. Contingency of US\$52m)	US\$259m

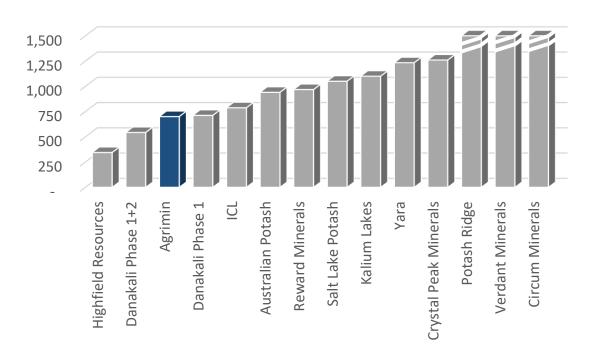
- 1. Development capital cost includes working capital, EPCM, owner's costs and 25% contingency applied to all items.
- 2. Average total cash cost is on a free-on-board (FOB) basis, including mine gate costs, transportation and ship loading.
- 3. Average total cash cost is based on drying, compacting and glazing all SOP production.
- 4. Average all-in sustaining cash cost does not include royalties as no income projections have been disclosed.
- 5. Potassium recovery is the estimated overall recovery rate achieved through the ponds and process plant.
- 6. USD/AUD exchange rate of 0.75 has been used to convert Australian dollar amounts to US dollars.
- 7. Potassium content can be converted to SOP using a conversion factor of 2.23 (i.e. SOP contains 44.87% Potassium).
- 8. Cost estimates have a ±35% level of accuracy.
- 9. Information that relates to the Scoping Study has been extracted from the Company's ASX Release entitled Positive Scoping Study for the Mackay SOP Project released on 23 August 2016.

## Forecasted to have industry low capex & opex



Industry low capital intensity of US\$700/t, making the Project an attractive development proposition

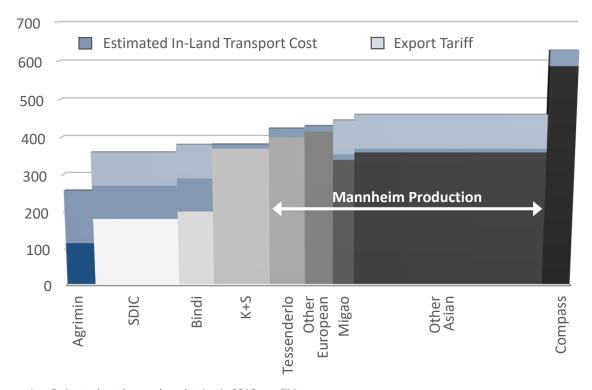
## Capital Intensity for SOP Development Projects (US\$/t)



- 1. Graph compiled from capital cost information sourced from company scoping and feasibility studies.
- 2. Included 25% contingency to the capital costs reported in the LD Scoping Study of April 2015 and Wells Scoping Study of August 2016 to normalise metrics.
- 3. USD/AUD exchange rate of 0.75 has been used to convert Australian dollar amounts to US dollars.

Bottom quartile cost, providing an opportunity to displace high-cost production from the Mannheim Process

## SOP Seaborne Cost Curve (US\$/t FOB)



- Estimated total annual production in 2016 was 7Mtpa.
- Graph compiled from information sourced from company reports and research undertaken by Agrimin.

## Project delivery schedule targets SOP production in 2021



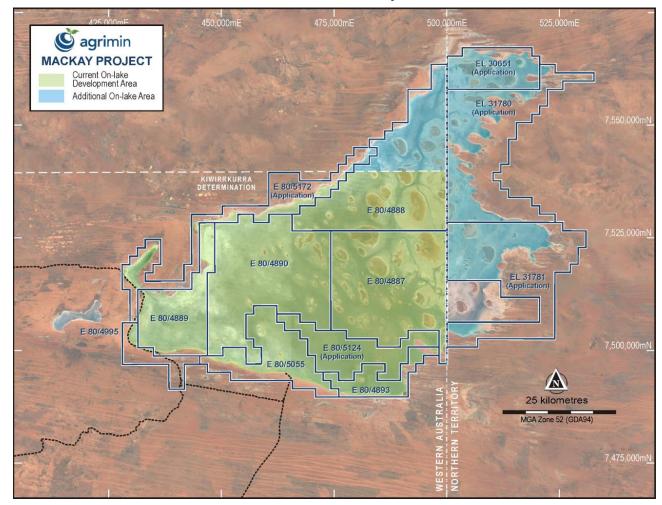
	2018			2019			2020			2021				
Activity	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Pre-Feasibility Study														
Environmental Assessment														
Definitive Feasibility Study														
Regulatory Approvals														
Financing														
Trench & Pond Earthworks														
Plant Construction														
SOP Production														

## Exploration upside from lateral and depth extensions



- Current Mineral Resources are hosted by a single contiguous deposit covering an area of 2,201km<sup>2</sup>
- The Company controls a contiguous on-lake area of 3,383km² and the northern and eastern parts of Lake Mackay have never been drilled
- The deepest hole drilled to date is 30m and potential deeper aquifer units at Lake Mackay have never been drilled
- Planned development area is solely contained within an on-lake area of 2,384km², being the area cleared under the Native Title Agreement

## **Tenement Map**



## Creating sustainable economic development



- Agrimin's proposed A\$346 million fertilizer operation at Lake Mackay is the only advanced industrial development in this very remote part of the Australia
- The Mackay SOP Project will create substantial economic and public benefits for Australia's central desert communities, and will stimulate further economic development
- The Mackay SOP Project will create more than 170 jobs and will create a significant new export business with potential revenues of A\$270 million per year over a 20 year life
- Australia is entirely reliant on imports for potash fertilizer and the Mackay SOP Project has the strategic benefit of replacing imported potash for local farmers



## **Summary**



- Agrimin is **developing a globally significant SOP project** in one of the **best mining jurisdictions in the world**
- Robust outlook for SOP prices is supported by:
  - > Urbanised populations rotating to healthier diets
  - Structural change to food production practices for high value crops
  - Over 50% of supply reliant on the high-cost Mannheim Process
- Trend towards new large-scale SOP supply coming from salt lakes will continue
- Lake Mackay hosts a very large, shallow and contiguous deposit which can underpin large-scale SOP production and a first quartile cost position
- Agrimin is well funded with A\$9.5 million in cash to rapidly advance feasibility studies and project approvals





## Appendix 1. Mineral Resources Statement (JORC Code 2012)



#### Mineral Resources – December 2015 (*Total Porosity*)

Category	Zone	Depth (m)	Volume (M m³)	Average Total Porosity	SOP Grade (kg/m³)	Contained SOP (Mt)
Indicated	Upper	0.4 - 2.7	4,036	45.0%	8.41	15.0
Inferred	Upper	0.4 - 6.0	7,047	45.0%	8.25	26.0
Inferred	Lower	6.0 – 24.7	33,004	45.0%	8.23	122.0
Total	Upper & Lower	0.4 – 24.7	44,088	45.0%	8.25	164.0

## Mineral Resources – December 2015 (Specific Yield)

Category	Zone	Depth (m)	Volume (M m³)	Average Specific Yield	SOP Grade (kg/m³)	Contained SOP (Mt)
Indicated	Upper	0.4 - 2.7	4,036	12.5%	8.41	4.3
Inferred	Upper	0.4 - 6.0	7,047	9.4%	8.25	5.5
Total	Upper	0.4 - 6.0	11,083	10.5%	8.31	9.7
Inferred	Lower	6.0 – 24.7	33,004	5.0%	8.23	13.6
Total	Upper & Lower	0.4 – 24.7	44,088	6.0%	8.25	23.2

- 1. Average depth of drilling was 24.7m, however the estimation extends to 30.0m where drilling reached that depth.
- 2. Water table averages 0.4m below surface.
- 3. Potassium content can be converted to SOP using a conversion factor of 2.23 (i.e. SOP contains 44.87% Potassium).
- 4. Mineral Resources to a 2.7m depth are 89% Indicated Mineral Resources and 11% Inferred Mineral Resources.
- 5. Mineral Resources below a depth of 2.7m are all Inferred Mineral Resources.
- 6. Errors are due to rounding.
- 7. Information that relates to Mineral Resources has been extracted from the Company's ASX Release entitled Mackay Project Resource Update and Path to Production released on 15 December 2015.