

THE FUTURE OF FERTILIZER

DFS Capital Markets Day Presentation 17 March 2016

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## **Senior management**

#### Significant experience in realising major infrastructure and resource projects





#### **Chris Fraser - Managing Director & CEO**

- Over 20 years' finance experience in the mining industry with a focus on financing and strategic developments and founder of the York Potash Project.
- During his finance career he worked for KPMG. Rothschild and Citigroup, where he was Head of Metals and Mining Investment Banking for Australia in 2006 and Managing Director in 2008.
- Lead adviser on US\$2.5bn initial development capital financing for Fortescue Metals Group Ltd.



#### J.T. Starzecki - Sales & Marketing Director

- 20 years' experience in sales and business development.
- Has designed and implemented the market development strategy for polyhalite and the supporting global agronomy programme.
- Joined Sirius in 2009 and is the Company's longest serving employee.



#### Nick King - General Counsel

- Over 15 years' experience with leading law firms and in-house for blue chip corporates.
- Extensive international public and private fund raising, M&A and commercial expertise at all stages of the capital structure.
- Previous roles include being General Counsel of an ASX listed energy company and Regional Counsel for Diageo's Australian, Japanese and African Emerging Markets businesses.



#### Gareth Edmunds – External Affairs Director

- Over 10 years' experience in the development sector.
- Experience focussed on corporate, strategic and crisis communications as well as in reputation management, public affairs and media relations.
- Has led the External Affairs team since 2010, prior to the launch of the York Potash Project.



#### Tristan Pottas - Investor Relations Manager

- · Over 10 years' experience in the mining industry in Latin America, Australia and the United Kingdom
- Managed the exploration drilling campaign to define the polyhalite resource.
- Joined Sirius in 2011 as Project Geologist.



#### Thomas Staley - CFO

- Over 10 years' experience in financing and developing resources, energy and infrastructure projects.
- Financing experience across various sources of debt capital (project finance, corporate debt, high yield, export credit) and equity in multiple jurisdictions.
- Previously responsible for the corporate governance and financial oversight of numerous project



#### **Graham Clarke - Operations Director**

- Over 30 years' operational experience in the potash mining industry.
- Managing Director at Cleveland Potash Ltd for seven years.
- Pioneered the exploration and development of CPL's polyhalite, making it the first mine in the world to commercially extract this valuable material.



#### Jackie Flynn - Deputy CFO

- 12 years' operational experience in FTSE 100 companies.
- Has been responsible for a global programme of multi-discipline projects, supporting cost reduction and procurement initiatives.
- Previously held senior project roles in procurement, global supply chain and manufacturing



#### Allan Gamble - Project Director

#### **Project Team**

- Over 30 years' experience in the delivery of major projects, the last ten years of which have been spent managing major mining and infrastructure projects.
- Executed project management roles in EPCM design and construction, construction and project management roles for EPC construction contractors.
- Acted as the Owner's project manager for mega project developments.

Experienced engineering team with over 170 years experience in the delivery of major mining and infrastructure projects

**Eddie Smith** Area Manager, Shafts and Tunnels

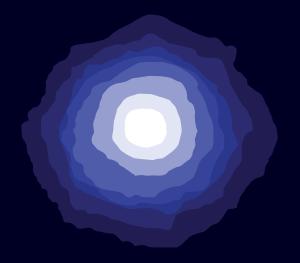
**Terry Quaife Engineering** Manager

Sid Bradv **Operations** Engineer

Peter Morrison Contracts

William Woods Development Manager

James Barrie Area Manager, Manager Harbour



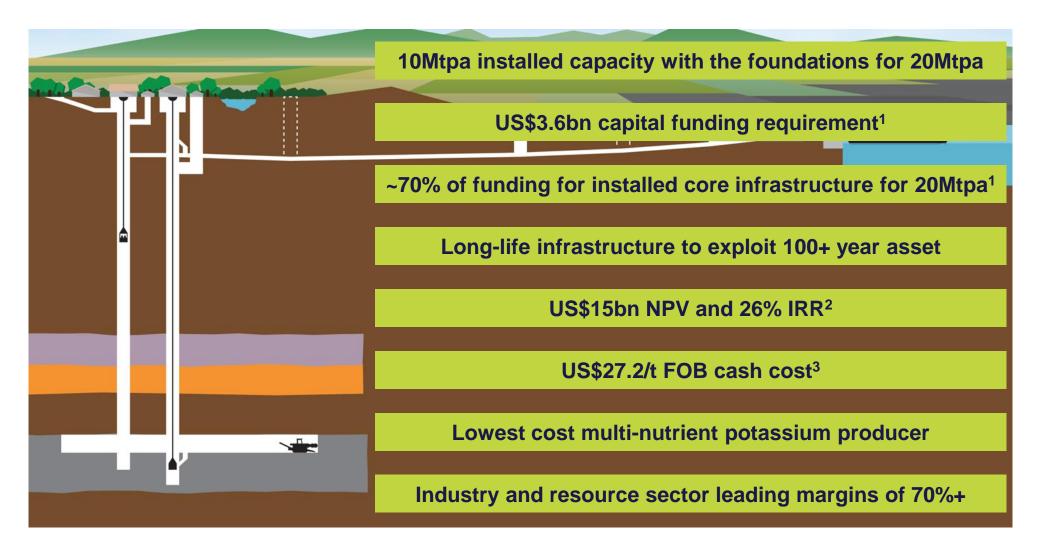
# Highlights

(Chris Fraser – Managing Director & CEO)

## **Project highlights**

Project specification enhanced, confirmed and fully costed





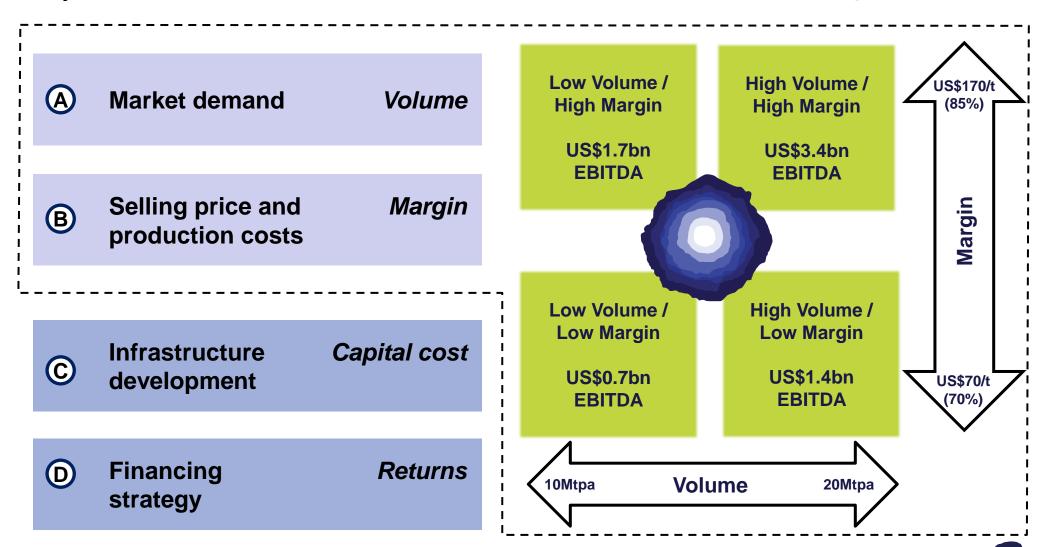
## **Building blocks of value**

Robust proposition and value throughout the cycle



#### **Key drivers**

### Sirius operational volume and margin matrix



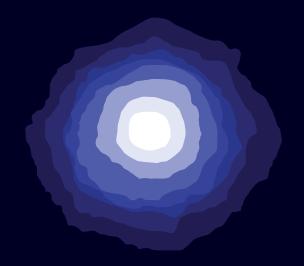
## World class scale and margins





	IRON ORE Hammersley Iron	COAL Cerrejon Mine	POLY4 Sirius Minerals <sup>3</sup>	MOP Allan Mine	PHOSPHATE ROCK Khouribga
Location	Australia	Colombia	United Kingdom	Canada	Morocco
Asset Life	~90 years	100+ years	100+ years	30+ years	100+ years
Distance to port	>300km	150km	37km	>1,000km	>200km
Production	133Mtpa	34Mtpa	20Mtpa	3Mtpa	15Mtpa
Revenue p.a	~US\$22bn	~US\$2.3bn	~US\$3.0bn	~US\$0.8bn	~US\$1.7bn
Cash margin <sup>1</sup>	63-70%	66-70% <sup>2</sup>	70-85%	47-67%	75-78%
Direct investment opportunity	× No	× No	✓ Yes	× No	× No

## A world class asset positioned for favourable macro-economic trends



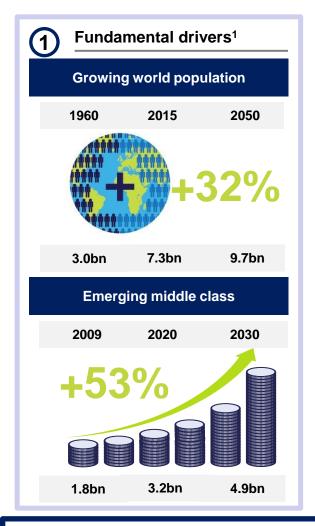
# Sales & Marketing

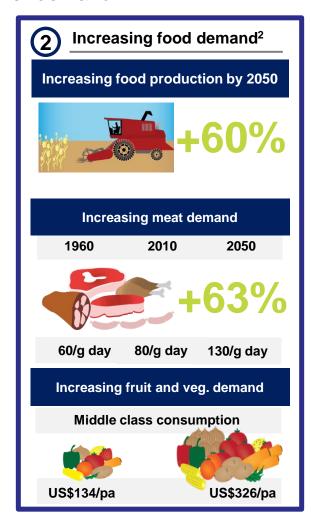
(J.T. Starzecki – Sales & Marketing Director)

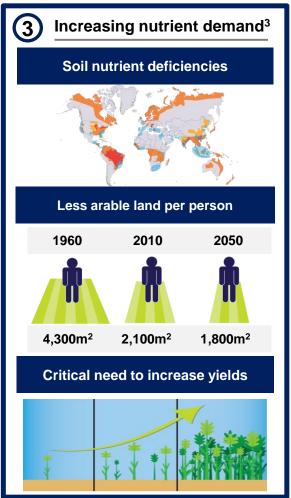
## Market demand

#### Macro drivers that stimulate fertilizer demand









The world needs large scale, sustainable multi-nutrient solutions to meet the food security challenge

## The attractions of polyhalite



A single source of bulk nutrients as foundation for more balanced fertilization

#### Polyhalite nutrient composition<sup>1</sup>

**Polyhalite** 

Nitrogen		Phosphorus		
(N)		(P)		
Potassium		Sulphur		
(14% K <sub>2</sub> O)		(19% S)		
Magnesium		Calcium		
(6% MgO)		(17% CaO)		
Boron	Zinc	Manganese	Molybdenum	
Selenium	Iron	Copper	Strontium	



#### 'POLY4' characteristics<sup>2</sup>

- Supply of four of the six macro-nutrients
- Straight or as part of a fertilizer blend
- Nutrients are readily available
- No negative effect on soil conductivity
- Essentially chloride-free
- Does not change soil pH
- Valuable micro-nutrients

Volume and price determined by: Substitution, Market Growth, and Performance

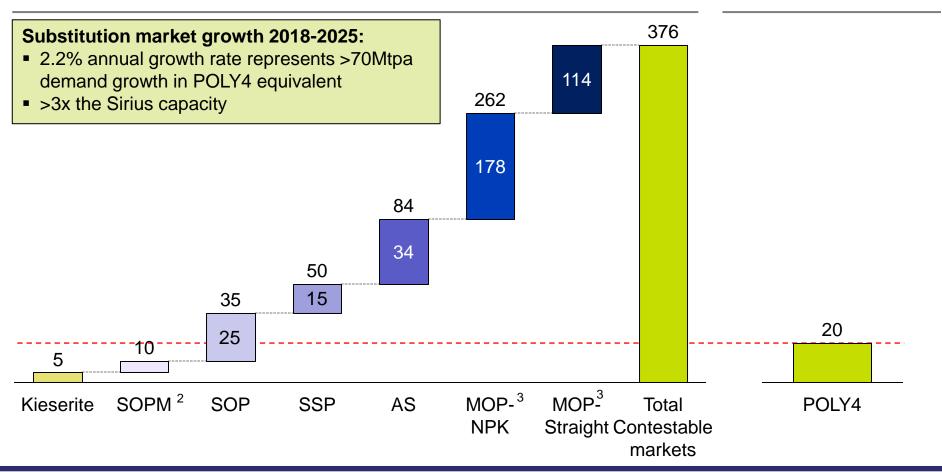
## **POLY4** multiple substitution opportunities





Primary substitute product demand POLY4 in 2018<sup>1</sup> (Mtpa of POLY4 equivalent)

Sirius Capacity<sup>4</sup> (Mtpa)



Multi-nutrient substitution market opportunity represents over 10 times Sirius core infrastructure capacity

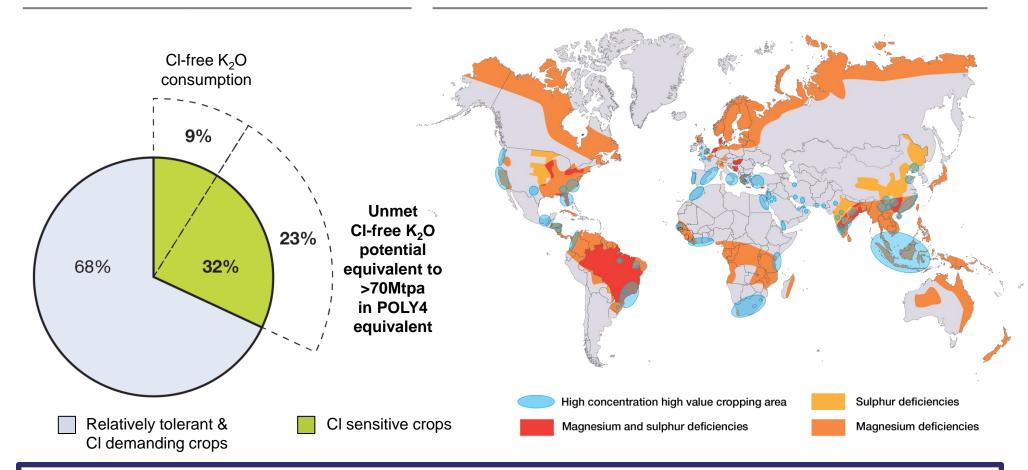
## **Further demand opportunities**

Increasing demand for key attributes of POLY4



Chloride free growth potential<sup>1</sup>

#### Sulphur and magnesium soil deficiencies<sup>2</sup>

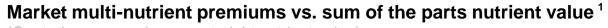


Unmet CI-free potassium demand and sulphur deficiency alone account for respectively 70Mtpa and 60Mtpa of POLY4 demand potential

## Multi-nutrient products command a premium



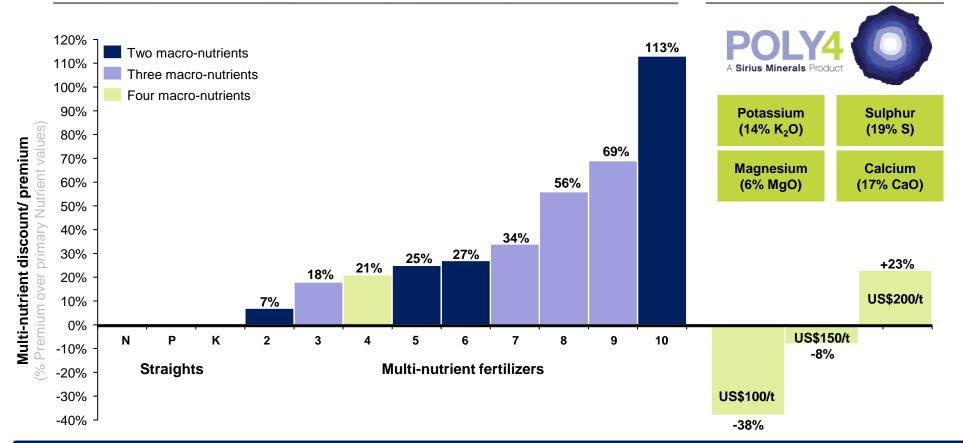
Farmers and blenders value efficiency gains and nutrient synergies



(Quoted average prices vs. straight nutrient value)

#### POLY4<sup>11</sup>

Implied Value (No CI-free)



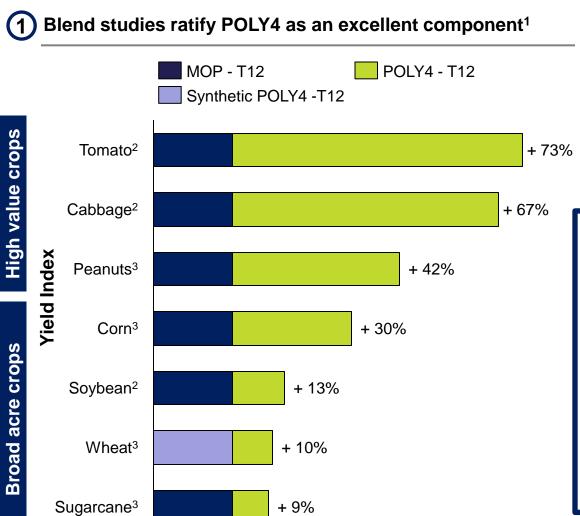
## 60%+ average premium for substitute multi-nutrients equivalent to 80Mtpa of POLY4 demand potential

Notes: 1) Multi-nutrient premium based upon the difference between quoted prices by CRU (Annual 2015), IPI (Average Q1-Q3), K+S (Quote provided by trader Sep, 2015) and regional single nutrient value (Excl. CaO), N (Urea), P (Phosphoric Acid 100%  $P_2O_5$ ),  $K_2O$  (MOP), S (Sulphur), MgO (Kieserite (GR, CH) 2). TSP premium based upon regional prices (BR) over implied nutrient value P. 3) NPK T:15 premium based upon regional prices (Baltic, EU,CH) over implied nutrient value N, P and  $K_2O$ . 4) NPK-S T:15 premium based upon regional price (CH) over nutrient content implied value N. 6) AS based upon regional prices (US, BR) over nutrient content N and S value. 7) SOPM US premium (US IPI TRIO) over nutrient content implied value  $K_2O$ , S, MgO (No CI-free Value). 8) SOPM EU premium (K+S Patentkali CPT quote) over nutrient content implied value P and S.10) SOP granular regional prices (US, EU) over  $K_2O + S$  value (No CI-free Value). 11) POLY4 pricing scenarios (4) over  $K_2O + S + MgO$  value (EU, US, CH, BR) (No CI-free Value). 64% weighted average premium representing POLY4 primary substitute products in scope. Source: CRU: Sirius Minerals.

## **POLY4** outperforms traditional products

SIRIUS MINERALS PLC

NPK blend tested against MOP on a wide range of broad acre and high value crops



## Sirius Minerals' crop study programme

#### Scale and scope:

- 18 greenhouse trials on 12 different crops
- 91 field trials for 23 different crops in 10 countries

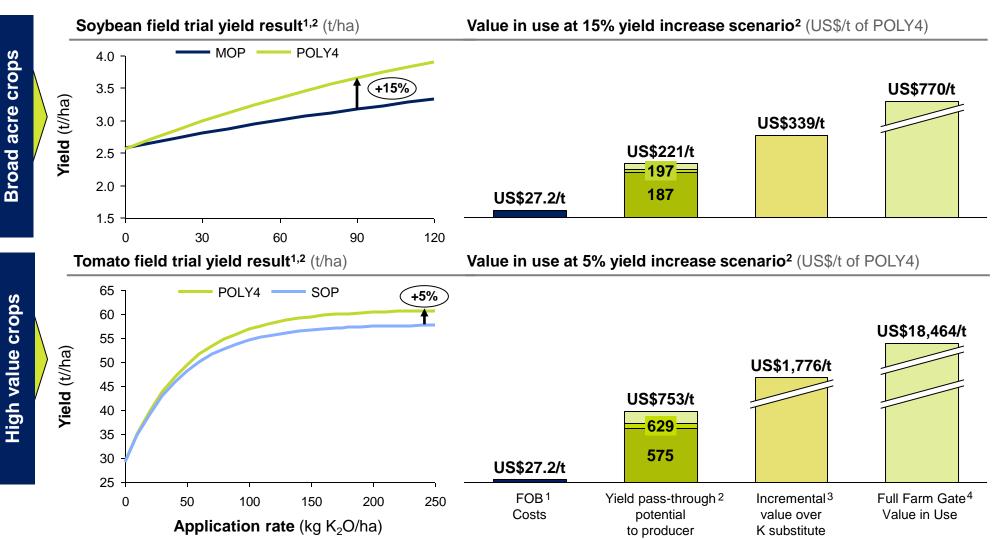
## Market opportunity

- Chloride sensitive crops, often classified as high value crops (e.g. fruit and vegetables), current K<sub>2</sub>O consumption represents 101Mtpa POLY4 opportunity<sup>4</sup>
- Corn, soybean, wheat and sugarcane alone (broad acre crops) represents a 219Mtpa POLY4 opportunity<sup>5</sup>

## POLY4 value in use



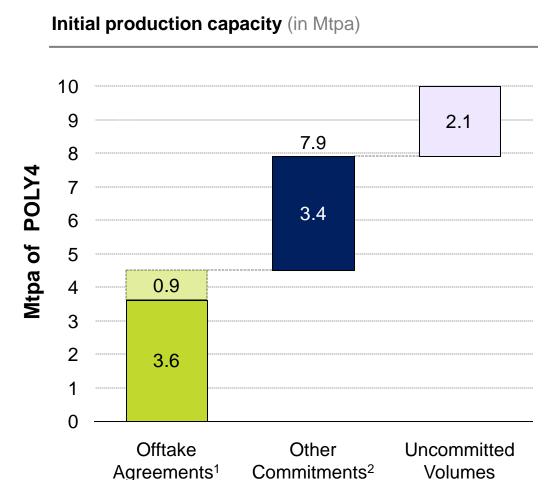
Significant value capture opportunities using POLY4 throughout the value chain



## Proven and growing market demand



3.6Mtpa of take-or-pay offtake agreements with multiple further opportunities

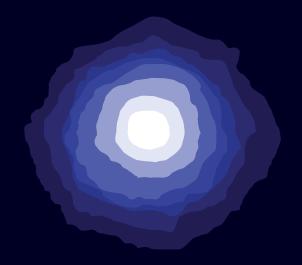


#### **Key findings**

- Long-term offtake agreements (5-10 years) in place in North America, China, Central & South America
- Other commitments signed in Europe, South America, China & South-East Asia<sup>2</sup>
- Commercial discussions are progressing well:
  - Working to satisfy conditions in existing offtake agreements
  - Majority of pricing mechanisms are linked to underlying nutrient value and product benchmarks (MOP, SOP, sulphur, magnesium, etc.)

POLY4 FOB (real 2016 basis)	US\$/t
Current offtake agreements <sup>3</sup>	140-150
First 10 years of production <sup>4</sup>	166
DFS equivalent LoM <sup>4</sup>	186

## Global demand for POLY4 validated by customer agreements to date



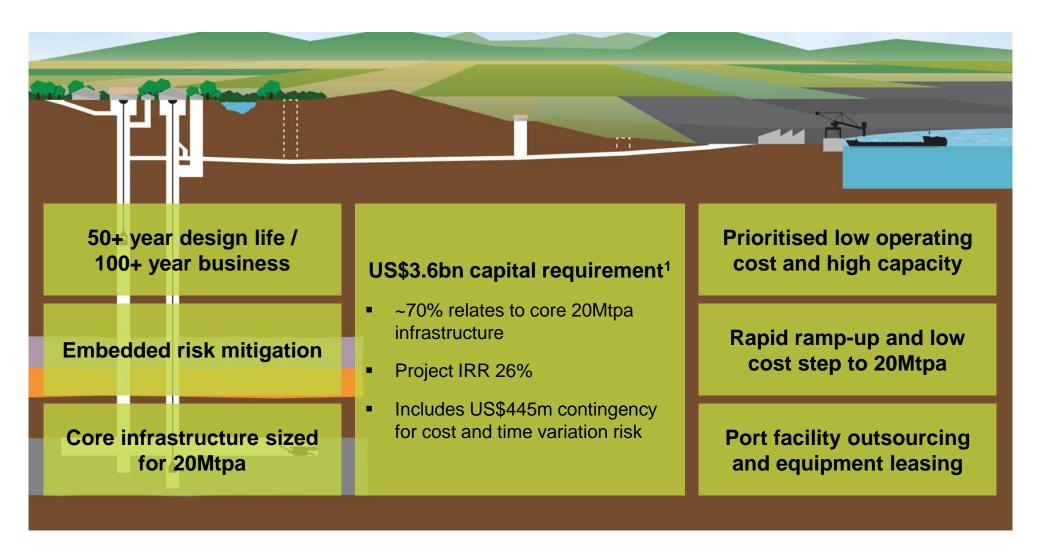
# DFS key features

(Chris Fraser – Managing Director & CEO)

## **DFS** key features

Project specification enhanced, confirmed and fully costed

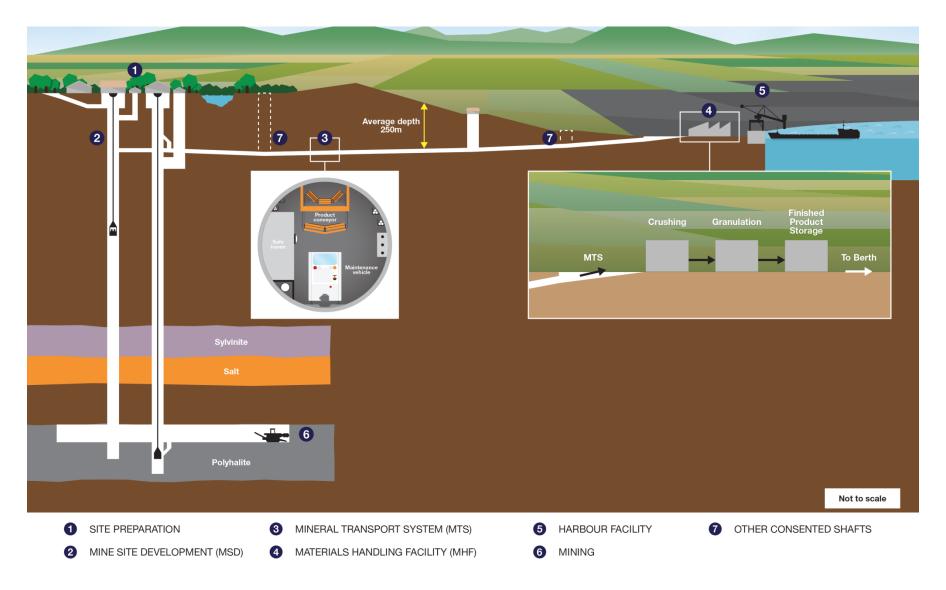




## **Development plan**

SIRIUS MINERALS PLC

Mining infrastructure designed to maximise throughput and long term opportunity

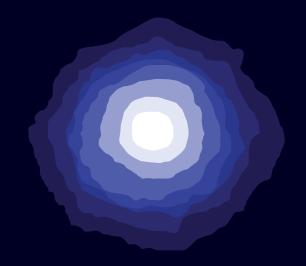


## **DFS** delivery team



International experts were assembled to work alongside the project owner's team

Key studies	Study responsibility	
Project leadership and report compilation	SIRIUS (INTERPRES PLC)	BECHTEL
Resource, reserve and mining	<b>▽ srk</b> consulting	JOYGLOBAL
Mine shafts	WorleyParsons resources & energy	
Mineral transport system	ARUP	
Processing	HOME	
Infrastructure and utilities	HOME	ARUP
Harbour facilities	Royal HaskoningDHV Enhancing Society Together	
Site preparation	ARUP	



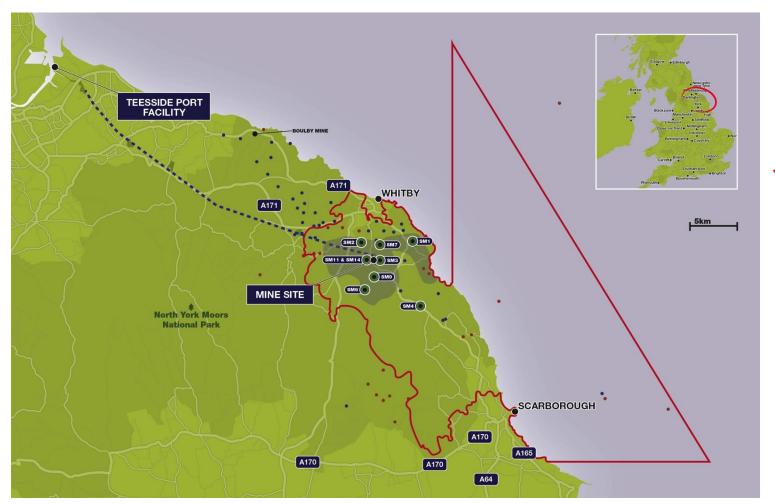
# Mine Site Development & Mining

(Graham Clarke - Operations Director)

## World's largest & highest grade polyhalite reserve

SIRIUS (INTERALS PLC)

Located in UK and only 36.7km from deep-water port



- Historical boreholes not drilled to depth of polyhalite resource
- Historical boreholes drilled through polyhalite
- General area of interest
- York Potash borehole
- Mineral Transport System
- Resource area

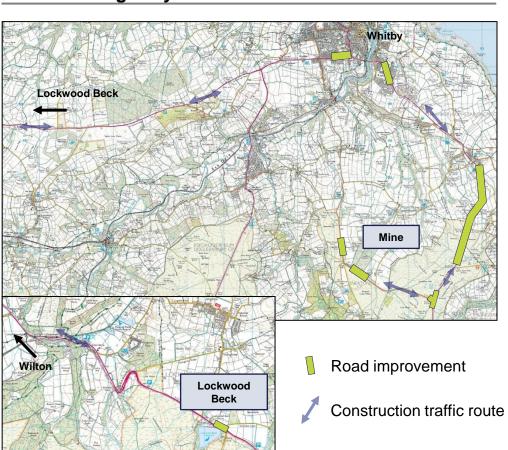
Polyhalite JORC Reserve of 250 million tonnes and Resource of 2.66 billion tonnes

## Early works and site preparation

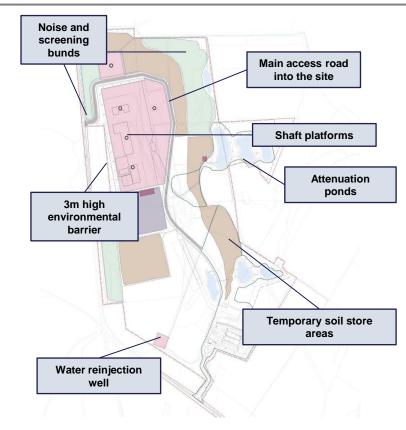


Certain highway works commencing soon to facilitate start of project

#### Scheme of highway works



#### **Doves Nest Farm**

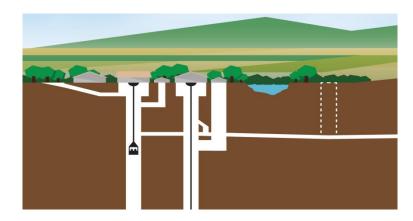


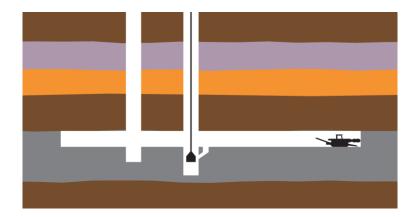
Highways works and site preparation schemes required before shaft sinking and tunnelling can commence

## Mine site development (1)

Long life infrastructure to secure long term production







#### **Scope of Work**

- Production and service shafts (6.75m diameter) to polyhalite seam (~1,500m depth)
- Shafts located in the centre of the thickest and highest grade area of reserve
- 13.4Mtpa installed hoisting capacity
- Pit bottom development roadways to facilitate mining operations (not shown on diagram)
- Additional structures included in scope:
  - TBM shaft and -360m development to facilitate interface with the MTS
  - Ventilation shaft
  - Service drift to -45m

100 year design life underpins long-life shaft system

## Mine site development (2)

#### Shaft sinking is a well understood process

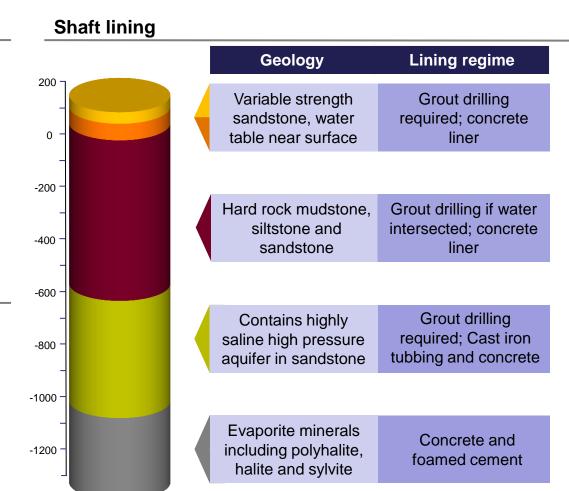


#### **Construction process**

- Construction will be a 24/7 activity
- Average sinking rate of 1m/d across total shaft
- Shafts will be sunk using conventional drill and blast method
- The area immediately around the shafts will be grouted to prevent inrushes of water
- Many shafts have been sunk to a greater depth around the world

#### Similar geology to existing Boulby shafts

- Two 1,200m deep shafts were sunk through similar stratigraphy at Boulby during 1970s, just 18km north west of Doves Nest and is still in operation
- Project lining regime design similar to that of Boulby but superior as it will utilize significantly higher strength concrete and later proven techniques (e.g. foam concrete)



Approach to lining and schedule estimate appropriately mitigates potential risks

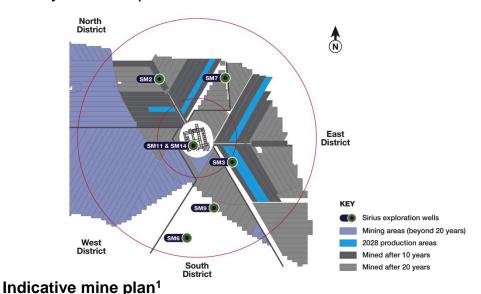
## **Mining**

#### Flexible mining method to enable maximum extraction

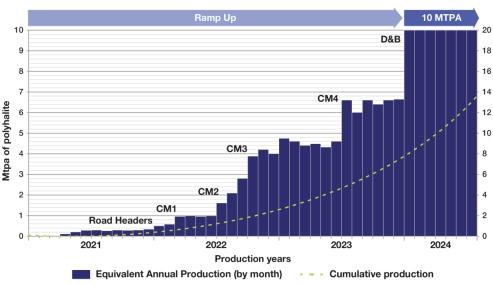


#### Mine development

- All mining including pit bottom development will be inseam
- Average Reserve seam thickness of 25 metres
- Every tonne of product mined is a tonne of saleable material
- 20 year mine plan within 3km radius of mine head<sup>1</sup>

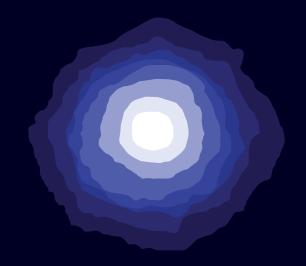


#### Ramp up schedule<sup>2</sup>



- Four continuous miners to be deployed with batch and/or continuous haulage
- Room and pillar methodology (6.4Mtpa) with drill and blast panel (3.6Mtpa)
- Initial mining plan 10Mtpa with scalable upside as required

## Simple, conventional mining process drives low cost operations



# Transportation, Processing and Implementation

(Allan Gamble - Project Director)

## Mineral transport system

A high capacity conveyor system in a 36.7km tunnel

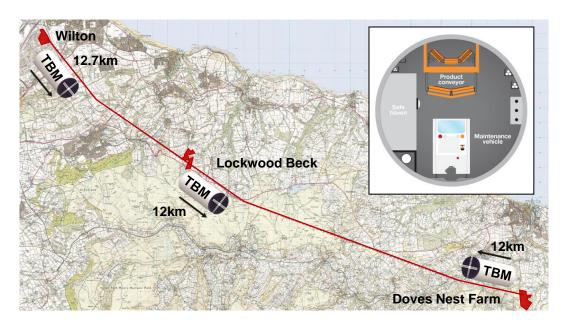
# SIRIUS (MINERALS PLC)

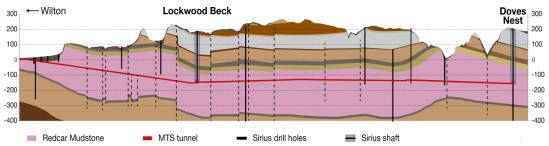
#### Scope of work

- 4.3m diameter tunnel at an average depth of 250m below surface
- Intermediate shaft at Lockwood Beck and portal at Wilton to facilitate construction (option for two additional ventilation shafts)
- Two conventional conveyors with drives located at Doves Nest Farm, Lockwood Beck and Wilton
- Conveyer system capable of 20Mtpa throughput

#### **Tunnel construction**

- Three tunnel boring machines covering circa 12km each
- Pre cast concrete segmental lining selected to minimize construction risk and optimize tunnel space proofing
- Average progress rate of 20m/d below historical benchmarks





Conventional approach to tunnelling through a continuous geological strata

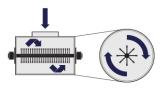
## **Materials handling facility**

10Mtpa production capacity with expansion footprint for 20Mtpa



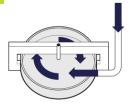
Process Scope

- 1 Tunnel portal
- 2 Crushing & milling

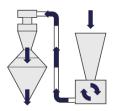


The ore is crushed and coarse product screened off. Crushed ore is milled and taken by conveyor to the air classifier

4 Granulating

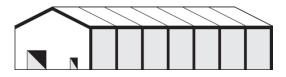


Milled ore is converted into pellets, dried and screened again. Oversized and undersized pellets are returned to the mill with the remainder sent via conveyor for storage 3 Air classification

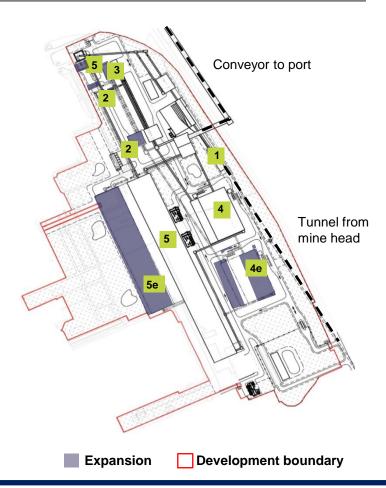


Oversized material is recirculated through the mill and undersized material sent to the granulation area

5 Storage



The storage buildings will be able to hold a stockpile of ~440,000 tonnes<sup>1</sup>



Simple process to deliver nutrients in a widely available form

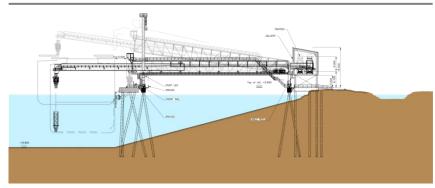
Notes: 1) Storage capacity based on expansion case.

## **Greenfield port facilities**

#### Port facility expected to be outsourced



#### Port loading facility



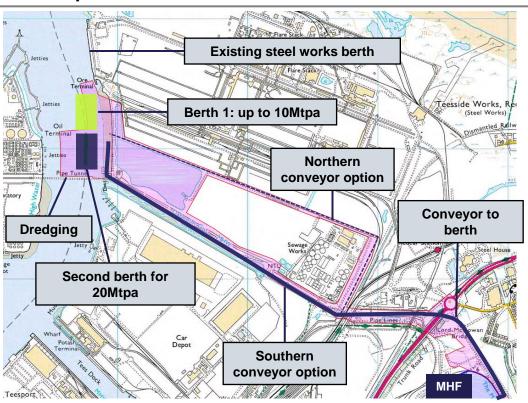
#### Construction

- Dredging requirements and environmental mitigations built into the design
- Approvals expected mid 2016
- Berth located in close proximity to open water
- Port not an critical path allowing for optionality to be further investigated

#### Shipping

- Berths capable of handling 85,000 DWT vessels
- Wide-span ship loader capable of loading ships at 5,000tph
- Single berth capable of handling up to 10Mtpa with a second berth increasing the capacity up to 20Mtpa

#### Port map



#### Overland conveyor transportation

- Product from the MHF transported to the harbour facility on a covered conveyor system
- DFS assumes southern route which consists of an elevated single stretch conventional conveyor
- Optionality with northern route and use of existing port facilities

## **Construction implementation risk**

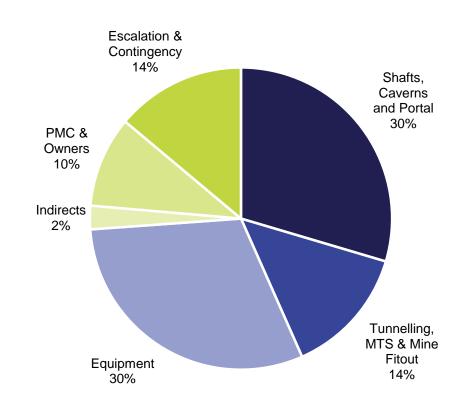
#### Critical risks have been addressed through design and strategy



## 1 Conservative estimates used in DFS compilation<sup>1</sup>

- Shafts and tunnel estimates validated by competitive tender process run in parallel
- Potential to lock-in a significant portion of the capital into lump-sum contracts
  - Detailed geotech programme and Front End Engineering and Design (FEED) required
- All equipment is catalogue items no specialist technology or bespoke designs
- US\$445m of contingency (including escalation)
- ~US\$200m of growth allowances included within the estimate
- Cost saving opportunities identified:
  - Current status of tender process
  - Competitive dynamic around equipment supply
  - Optimisation of construction methodology to reduce schedule and risk

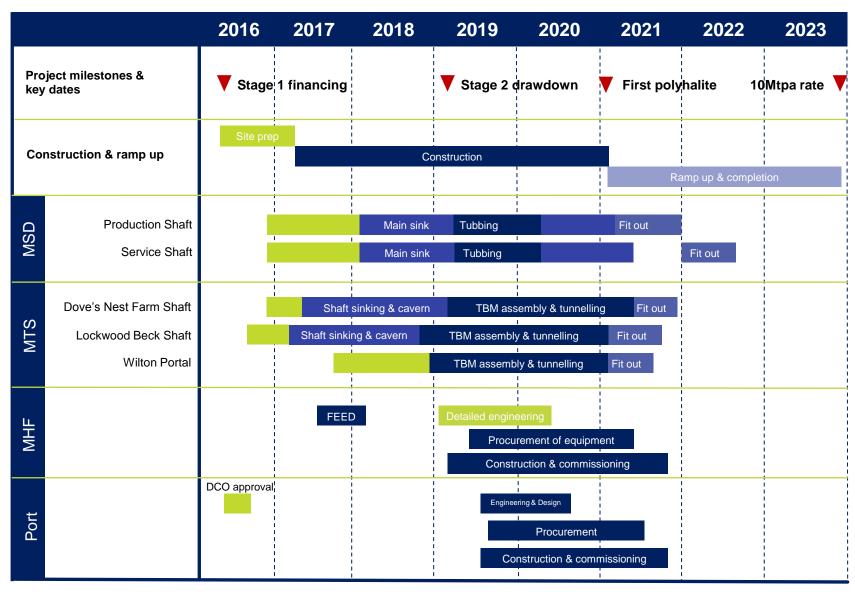
## 2 Capital funding breakdown<sup>1</sup>



## **Project schedule**

#### First polyhalite three years after start of main sink



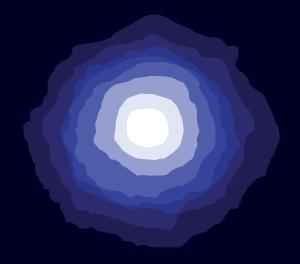


## **Expansion phases**



Modular expansion at MHF and port to support increased underground activity

Installed Capacity	Scope	Capital <sup>1</sup> (US\$m)	Planning Approval
13Mtpa	<ul> <li>Mining: Incremental mining equipment for increased volumes</li> <li>Materials handling facility: Incremental granulation lines for granular production volumes</li> <li>Port: Installation of the second berth</li> </ul>	367 <sup>3,4</sup>	Granted <sup>5</sup>
20Mtpa	<ul> <li>Mining: Incremental mining equipment for increased volumes</li> <li>Mining: Extension of TBM shaft from the 360m level down to the Mine and fit out for incremental haulage capacity and ventilation</li> <li>Materials handling facility: Incremental granulation lines for granular production volumes and additional storage capacity at MHF</li> <li>Port: Installation of the second ship loader</li> </ul>	1,175 <sup>3,4</sup>	Additional approvals required prior to expansion



# Project Economics

(Chris Fraser – Managing Director & CEO)

## High margin business due to low cost basis

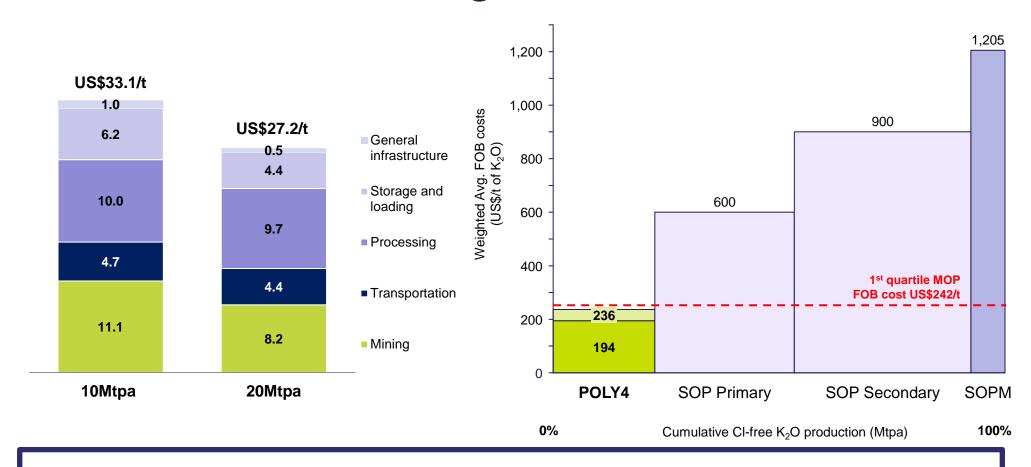


Project designed infrastructure results in a very low cost basis

1 Operating cost by area – US\$/t of POLY4<sup>1,2</sup>

(2)

FOB CI-free potassium cost basis – US\$/t K<sub>2</sub>O equivalent<sup>3</sup>



## Lowest cost multi-nutrient potassium producer

## **Capital funding requirement**

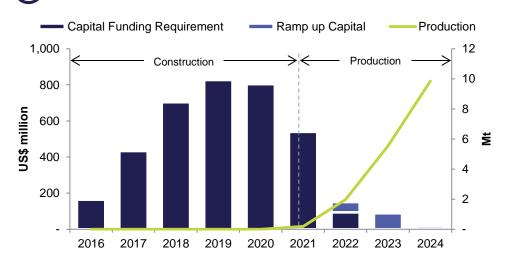


#### DFS estimate defines the foundation for production of up to 20Mtpa

## 1 Key milestones

- Site preparation and clearing of planning conditions: 22 months
- Main shaft: 36 months from start of main sink to first product
- MTS: tunnel break-through ~26 months from completion of launch caverns and portals
- Ramp up to 10Mtpa over 3 year period from first product

## (2) Capex and production volumes<sup>1,2,3</sup>



## (3) Capital funding requirement – US\$m<sup>1,2,3</sup>

Area	US\$m
Mine site development	1,219
Mineral transport system	1,106
Materials handling facility and port	237
Other infrastructure and facilities	125
Project management (incl. Owner's costs)	344
Escalation and contingency	445
Working capital	88
DFS capital funding requirement	3,565
Additional ramp-up capital	176
Incremental capital to 13Mtpa	367
Incremental capital to 20Mtpa	1,175

Notes:1) Capital funding requirements are shown as nominal. 95:5 split of granulated and coarse POLY4 production capacity. Costs based on DFS estimated accuracy -10% to +10%. Capital costs excludes amounts for mining equipment, port and MHF facilities which are assumed to be leased. Expansion capex based on Company estimates with reference to the DFS. 2) Working capital and capital funding requirement only are shown as nominal. 3) The capital funding requirement reflects an estimated cash flow distribution applied to CAPEX prepared by the PMSC, based on typical expenditure curves for similar projects and reflects the DFS deterministic schedule.

# **Project economics**

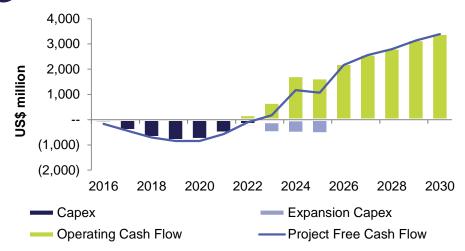
### Market opportunity will drive production to 20Mtpa



# 1 Production, EBITDA and value progression<sup>1,2</sup>

Year	2016 <sup>3</sup>	2022	20244	2027
POLY4 (Mtpa)	-	2	13	20
EBITDA (US\$m)	-	201	1,835	3,084
NPV (US\$m)	15,081	29,920	37,115	44,323

# 2 Annual Cash Flow Profile (US\$m)<sup>1,2,4</sup>



# 3 NPV (after-tax) sensitivity US\$m<sup>1,2,3</sup>

РО	LY4 price	-20%	-10%	Base	+10%	+20%
	-20%	11,558	13,659	15,754	17,824	19,906
×	-10%	11,221	13,322	15,418	17,487	19,552
CAPEX	Base	10,883	12,985	15,081	17,151	19,215
ပ	+10%	10,520	12,622	14,718	16,788	18,853
	+20%	10,156	12,259	14,355	16,426	18,491

# 4) IRR (after-tax) sensitivity<sup>1,2,3</sup>

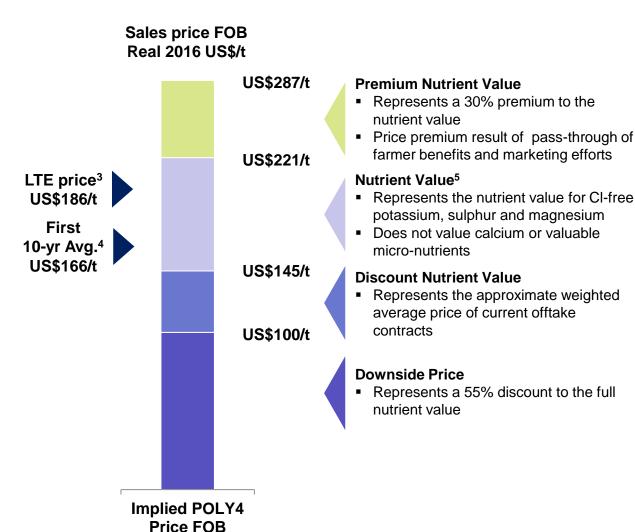
POI	LY4 price	-20%	-10%	Base	+10%	+20%
	-20%	25%	27%	29%	30%	31%
×	-10%	24%	25%	27%	28%	30%
CAPEX	Base	23%	24%	26%	27%	28%
ပ	+10%	21%	23%	24%	26%	27%
	+20%	20%	22%	23%	25%	26%

# Project and equity return price sensitivity

### Robust economics across a range of price and volume scenarios



	Project se	ensitivity
20Mtpa LoM	NPV¹ US\$bn	IRR² %
Premium Nutrient Value	25.6	35%
Nutrient Value	18.3	30%
Discount Nutrient Value	9.8	23%
Downside Price	4.7	17%
10Mtpa LoM	NPV¹ US\$bn	IRR² %
remium Iutrient Value	12.7	29%
lutrient Value	8.7	25%
Discount Nutrient Value	4.1	18%
ownside rice	1.4	13%

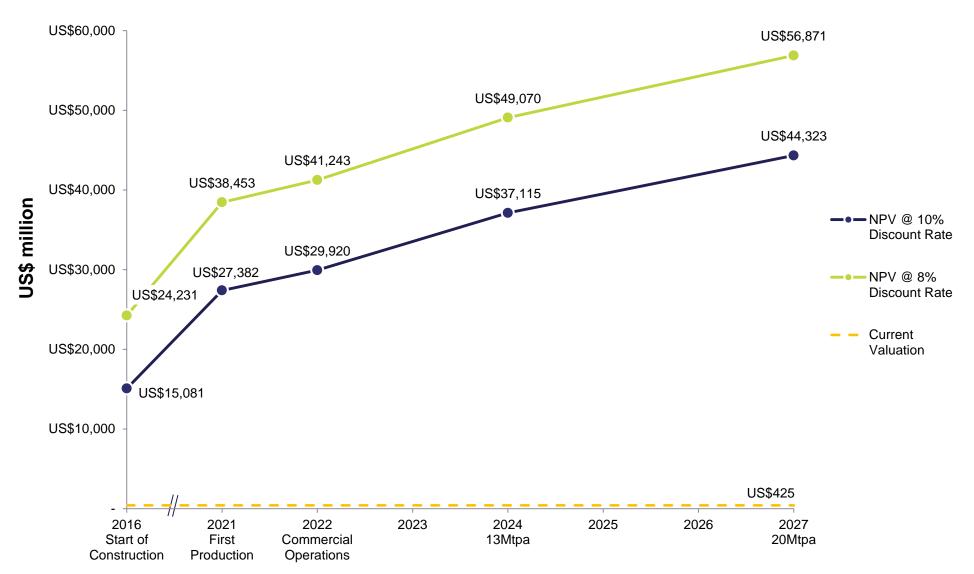


Notes: 1) NPV (After-tax) at commencement of schedule activities (Apr-16). 2)Project IRRs are after-tax and calculated with the following assumptions: prices and costs shown as nominal (inflated at 2% not including Bechtel capex estimates which are escalated as per Bechtel estimates). discount rate 10% nominal; 50 year mine life; 80:20 split of granulated and coarse product; Capital costs based on DFS which are within +10% / -10% accuracy (capital costs excludes amounts which are leased for mining equivalent, port and MHF). Expansion capex based on DFS estimates but conceptual in nature. 3) Long term equivalent price represents LoM. 4) First 10-year weighted average. 4) Prices represent average based on steady state regional sales profile and are held flat across the life of mine and are based on a 80:20 split of granulated and coarse product. 5) Full nutrient value FOB netback 2on a real 2016 basis derived from implied nutrient values using CRU regional fertilizer price forecasts and the expected geographic sales profile.

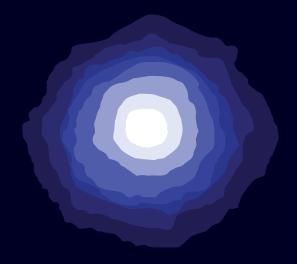
# Strong value appreciation through ramp up

# SIRIUS (INTERALS PLC)

### Significantly undervalued in the current market



Notes: 1) Commercial operations is after completion of the Initial Development, dated start of 2022. Project NPVs are after-tax and calculated with the following assumptions: production of 20Mtpa, prices and costs are all inflated at 2%; discount rate 10% nominal. 50 year mine life. 80:20 split of granulated and coarse production. Capital costs based on DFS estimated accuracy -10% to +10%. Capital costs excludes mining equipment, port and MHF facilities which are assumed to be leased. Expansion capex based on DFS estimates but conceptual in nature. Revenues are based on the expected netback FOB sales price related to a) contracted volumes and b) uncontracted volumes which are derived from implied nutrient values using CRU regional fertilizer price forecasts and the expected geographic sales profile and price development.



# Financing Strategy (Thomas Staley – CFO)

# Financing strategy (1)

### Alignment of risk with appropriate capital

SIRIUS (MINERALS PLC)

- Two stage financing strategy designed to:
  - Match project risks and rewards
  - Align capital to fund appropriate activities
  - Deliver lowest average cost of funds
- Stage 1 funding to be a mix of equity and structured project debt
  - Initial financing to fully fund excavations of all shafts and caverns and to remove variable subsurface risks
- Stage 2 financing (Senior Debt) to be committed once key milestones achieved:
  - Majority of remaining capital under either lump sum EPC or committed contracts
  - Offtake levels to support required debt capacity
- Debt sizing analysis suggests Stage 2 debt capacity up to US\$3bn possible
- Additional capacity could be used for:
  - Refinance of Stage 1 debt
  - Capitalisation of interest
  - Additional liquidity funding reserves

### **Stage 1 Capital**

Site preparation and geotech

Production and services shafts

MTS shafts and caverns

### **Stage 2 Capital**

MTS tunnel

Mine fit-out

MHF crushing and granulation plant

### **Equity**

b

**US\$1.63** 

pu

**US\$1.93** 

Ordinary equity or cornerstone investors 25%+ return

### **Structured Debt**

15-18% return

### Senior Debt

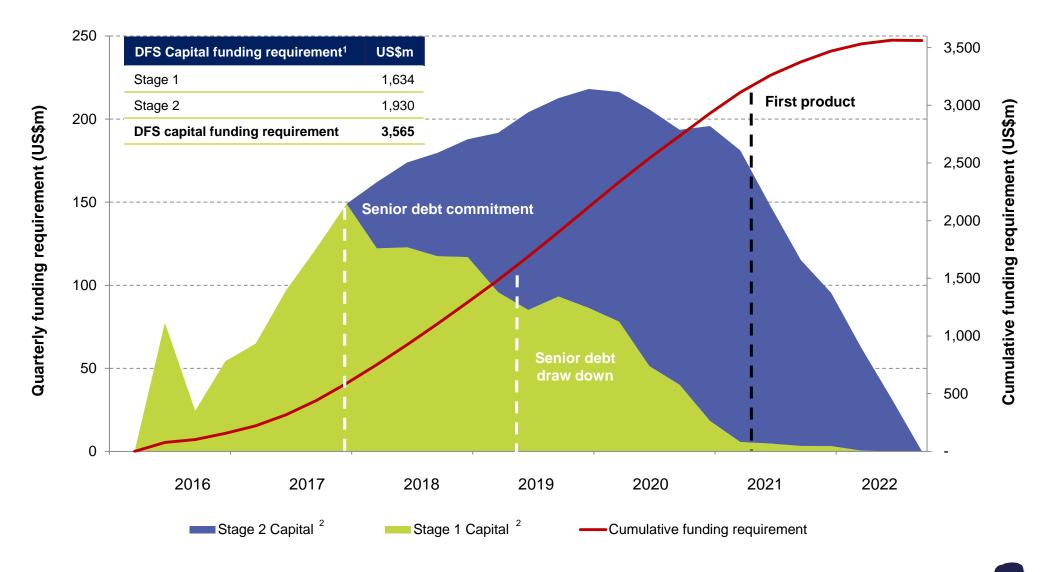
6-10% project finance bank debt and / or corporate bonds

Potential for IUK/ ECA support

# Financing strategy (2)







# Stage 1 financing

### Alignment of risk with appropriate capital



### Structured debt

### Indicative terms

- 10 to 15% coupon (PIK)
- Warrants to provide incremental upside
- 8 year term (2 year non-call period)
- Initial funding to be a mix of equity and structured project debt
- First lien prior to Stage 2 Senior Debt subordinated to second lien upon Stage 2 commitment

- Structured debt used to access debt capacity earlier in the Project schedule
- Likely to be sourced from large global private debt funds
- Company to secure commitments for structured debt that will be conditional on the equity being raised
- Equity funding to be secured following structured debt commitments

### **Equity**

- Project equity process to be run in parallel to structured debt process
- Approaching various pools of equity: strategic partners, financial cornerstone, traditional institutions and alternative asset managers
- Investments may be at the project level or at the parent level
- Company focused on balancing returns to both existing and new capital providers

### **Equity return considerations**

- Potential equity returns through the construction period investment are significant
- Return potential driven by:
  - Steady state EBITDA range of US\$1bn to US\$3bn
  - NPV once in operations in excess of US\$30bn

# Stage 2 financing

### Senior secured project debt underpins base case financing plan



### Senior debt assumptions - project finance

- Financing plan assumes 14 year US\$2.3bn amortising project finance facility to fund project to completion
- Conditions for draw down expected to include:
  - All permits and licenses in place
  - Offtake agreements in place in order to satisfy debt sizing requirements
  - Outsourced infrastructure and lease facilities committed
  - Balance of construction performed on a substantially lump sum basis

### Debt capital markets alternative

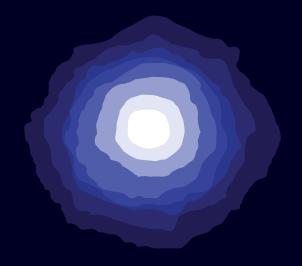
- Strong credit metrics in operations would support a corporate bond
- US\$2.3bn repaid in under 4 years under full cash sweep
- Similar structure, terms and conditions
- Potential to increase debt capacity to ~US\$3bn
- Subject to market conditions at the time of execution

### Senior debt profile (10Mtpa, US\$2.3bn)<sup>1,2</sup>

Key metrics	
Loan repayment period	8 years
Gearing	58%
Avg. DSCR <sup>3</sup>	3.05
Avg. LLCR <sup>3</sup>	4.03
Min. ICR <sup>4</sup>	1.3
Debt / EBITDA at steady state	<2x

### Indicative credit profile (10Mtpa, constant US\$2.3bn)<sup>1,2</sup>

Year	2022	2024	2026	2028	2030
EBITDA (US\$bn)	0.2	1.4	1.4	1.5	1.9
ICR <sup>5,6</sup>	1.3	8.9	8.9	9.8	15.7
Debt / Capital <sup>5,7</sup>	58%	56%	39%	29%	21%
Debt / EBITDA <sup>5,8</sup>	11.3	1.7	1.6	1.5	1.2



# Next steps and Investment Proposition

(Chris Fraser – Managing Director & CEO)

# **Next steps**



Commencement of construction is dependent on financing for Stage 1 being secured

Work currently underway clearing conditions and also some early roadworks

Tender process for shaft and tunnel nearing selection of preferred tenderers

Opportunities being identified to reduce schedule and further improve returns

Ongoing work with customers to secure additional offtakes and channels to market

Detailed diligence process commencing with structured debt and cornerstone equity

# The investment proposition





2011 - 2012

Resource definition and mineral rights

2012 - 2015

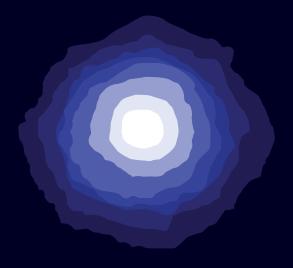
Development and approvals

2016 - 2020

Construction

**2021** →

Production



Appendix

# **DFS** scope

### Defines the foundation of a global multi-nutrient fertilizer business





### Study manager (estimate and risk assessment)

### Mining and resource



- Mine plan to extract 10Mtpa and 20Mtpa
- Continuous mining teams producing 1.6Mtpa
- Drill and blast panels producing 3.6Mtpa
- 4 x CM + 1 D&B produces 10Mtpa with modular upside
- Mine life in excess of 100 years based on reserves and resources

### **Mine Site Development (MSD)**



**WorleyParsons** 

resources & energy

- Two deep shafts down to the polyhalite resource
- Installed hauling capacity of 13.4Mtpa
- Third shaft down to the 360m level to facilitate tunnelling activities and provide long term ventilation option
- 100 year design life

### Site preparation



- Execution of transportation infrastructure modifications
- Preparatory earthworks at Doves Nest Farm and Lockwood Beck in advance of shaft sinking activities
- Preferred contractor identified with some initial highways works due to commence soon

### **Mineral Transport System (MTS)**



- 36.7km concrete segment lined tunnel
- Intermediate shaft and cavern located at Lockwood Beck to facilitate tunnel excavation (with options for two additional ventilation shafts)
- Throughput capacity of 20Mtpa
- 50 year design life

### **Materials Handling Facility (MHF)**



- 9.5Mtpa granulation capacity
- 0.5Mtpa coarse product capacity
- Facility infrastructure to accommodate expansion to 20Mtpa
- Storage facility to facilitate sales and marketing logistics

#### **Port**



- Overland conveyor from the MHF to the harbour
- Single berth and loading system facilitates 10Mtpa exports
- Second berth and loader expands export capacity to 20Mtpa

# **Development phases**





Development phase	DFS	Shaft optimization	Full capacity
Installed Capacity (Mtpa)	10	13	20
Capital Funding Requirement (US\$m) <sup>4</sup>	3,565	367	1,175
Capital Intensity (US\$/t) <sup>3</sup>	356	122	168
NPV – Start of Construction (US\$bn)	6.7	9.6	15.1
NPV – First Production (US\$bn)	14.1	18.7	27.4
Project IRR	20.7%	23.2%	25.7%

# Lowest cost multi-nutrient potassium producer



Resource and infrastructure results in a sustainable competitive advantage

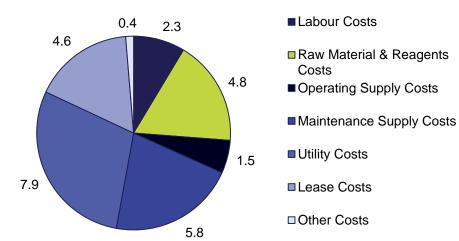
# (1) Operating cost assumptions

- Ramp up to 10Mtpa rate over a three year period from first product
  - 2021 0.2Mt, 2022 2.0Mt, 2023 –
     5.5Mt
  - Cash flow positive 17 months from first product
- Fixed cost 16% at 10Mtpa and 9% at 20Mtpa
- Port related infrastructure assumed to be provided by third party (BOO) and mining equipment assumed to be leased
- 10Mtpa US\$7.7/t included in operation cost as capital and lease charge (20Mtpa – US\$4.6/t)
- Sustaining capital expenditure<sup>1</sup>:
  - 10Mtpa circa US\$20m per annum LoM
  - 20Mtpa circa US\$30m per annum LoM

## (2) Operating cost by area – US\$/t of POLY42

Area	10Mtpa	20Mtpa
Mining	11.1	8.2
Transportation	4.7	4.4
Processing	10.0	9.7
Storage and loading	6.2	4.4
General infrastructure	1.0	0.5
Total	33.1	27.2

# 3 Operating cost breakdown – 20Mtpa<sup>2</sup>



# **High margin business**

Mining infrastructure designed to generate high EBITDA margins



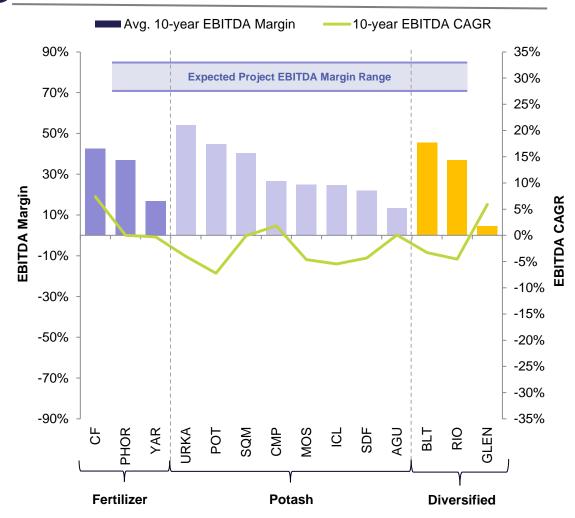
# (1) Robust business model

- Operational value driven by high volume, high margin production, generating significant EBITDA per annum
- SXX EBITDA margins (70-85%) strongly outperform other resource and fertilizer leaders (Avg. 31%)
- High margin and growth potential supports higher multiples

# (3) Long term Peer Multiples (EV/EBITDA)<sup>2</sup>

	K+S	PCS	URKA	СМР	Avg.
Current	5.1x	7.8x	5.8x	8.6x	6.8x
2 year	6.1x	8.4x	7.7x	9.6x	8.0x
4 year	6.1x	8.1x	8.7x	9.8x	8.2x
Long- term average	7.4x	8.7x	8.8x	8.8x	8.4x

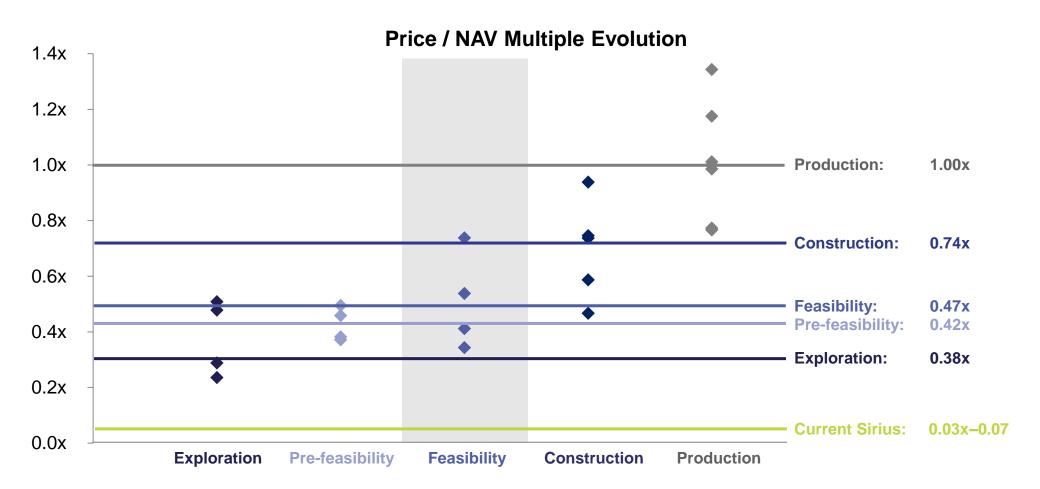
# 2 EBITDA Margin & CAGR<sup>1</sup>



# **Evolution of value through life cycle**

SIRIUS MINERALS PLC

Precedents indicate significant value creation as projects are de-risked



Sirius Minerals is significantly undervalued against benchmark developments

### **Sirius Board**

### Significant experience in realising major infrastructure and resource projects





Russell Scrimshaw Chairman

- Former Executive Director and Deputy CEO of Fortescue Metals Group Ltd and member of the Board 2003-2011.
- Former Chairman of ASX-listed Cleveland Mining Company, Non-Exec Director of Genome One Pty Ltd, Non-Exec Director of the Garvan Institute, Executive Chairman of Torrus Capital Pty Ltd.
- Held senior executive positions within the Commonwealth Bank of Australia, Optus Communications Pty Ltd, Alcatel, IBM and Amdahl USA.



Keith Clarke CBE Non-Executive Director

- Previously held CEO roles with WS Atkins plc, the UK's largest design and engineering consultancy 1997-2010, Skanska UK and Kvaerner Construction Group.
- Adviser to both Infrastructure UK and the Government of Qatar.



Stephen Pycroft Non-Executive Director

- Executive Chairman of Mace, a leading international consultancy and construction company.
- Experience includes delivering some of the UK's most iconic projects, most notably The Shard, the London Eye and the 2012 London Olympic and Paralympic village.



Lord Hutton of Furness Non-Executive Director

- A distinguished member of the Government for 13 years, including 11 years as a Minister and four years serving on the Cabinet.
- Was a legal adviser to the Confederation of Business Industry in the late 1970s



Jane Lodge Non-Executive Director

- 35 year career in audit at Deloitte where she advised multinational businesses in construction, manufacturing, property and house building sectors
- Jane has served as a non-executive director on a number of publicly listed companies, including construction based companies, and she brings with her a wealth of experience, particularly in relation to financial governance and audit oversight.



Noel Harwerth Non-Executive Director

- Formerly COO and Chief Tax Officer of Citibank International with extensive international banking expertise.
- Has sat on a number of boards in the mining and finance industries.

# **Sirius Minerals Plc capital structure**



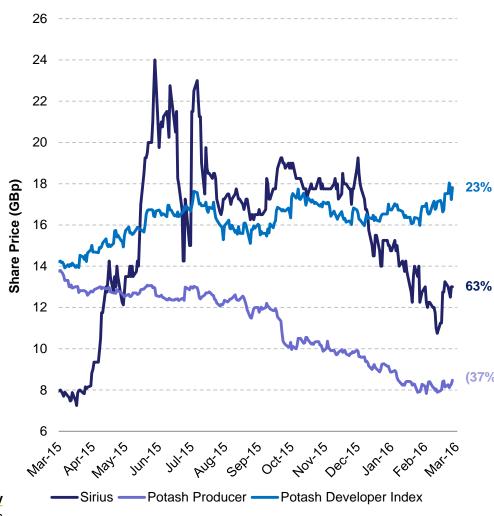
AIM	SXX
OTCQX	SRUXY
Market Cap	£298.3M (13.00p)
Ordinary shares	2,295M
12 month price range	7.25p – 24.00p
Avg daily volume (12M)	~ 10M shares
Free float	~ 87%
Equity / Invested to date	~ US\$0.2 billion

### **Directors' Beneficial Interests (as at 1 March 2016)**

	No. of Shares	% Capital
Chris Fraser	122,914,028	5.36%
Russell Scrimshaw	40,966,837	1.79%
Stephen Pycroft	26,057,870	1.14%
Keith Clarke	624,999	0.03%
Jane Lodge	100,000	0.00%
Lord Hutton	28,571	0.00%
Noel Harwerth	19,857	0.00%
Total Director Holdings	190,712,162	8.5%
Total Shares on Issue	2,294,744,698	

### Options on Issue (as at 1 March 2016)

	No. of Options	Strike	Expiry
Directors	25,400,000	30.0p - 45.0p	Various
Various Mgmt and Consultants	42,516,234	10.0p - 45.0p	Various
Total Options on Issue	67,916,234	10.0p - 45.0p	Various



Notes: Source: Bloomberg. Potash Index includes Arab Potash, Intrepid Potash, ICL, K+S, Potash Corp, Uralkali and Mosaic. Developer Index includes Allana Potash, Elemental Minerals, Encanto Potash, IC Potash, Karnalyte, Prospect Global, Verde Potash, Western Potash and Danakali. Indices weighted by market capitalisation.