

ASX Release
23 June 2016

HIGHFIELD RESOURCES COMPLETES POSITIVE SOP PROJECT SCOPING STUDY TO ENHANCE MARGINS FROM THE FLAGSHIP MUGA POTASH MINE

Highlights

- Scoping Study completed for a complementary, staged 500,000 tonnes per annum Sulphate of Potash (“SOP”) operation that demonstrates the potential to convert around 40% of the Muriate of Potash (“MOP”) (430,000 tonnes per annum) produced annually from the Muga Potash Mine into SOP
- Total capex for the operation estimated at US\$147m (inclusive of a 20% contingency) with pre-production capex estimated at less than US\$100m for the first phase of 250,000 tonnes per annum
- Operating costs estimated at US\$370 per tonne FOB Spanish Atlantic Port that assumes an MOP input price of US\$287 per tonne preserving the Muga Mine’s robust financial metrics
- Technologically proven Mannheim process selected to take advantage of captive MOP supply close to the proposed site, low cost sulphuric acid, available on-port site options, low-cost natural gas and nearby limestone for hydrochloric acid (HCl) by-product treatment
- Business case modelled on realistic long term SOP premium to MOP of US\$250 per tonne, materially below the current 1Q16 US market SOP premium of over US\$400 per tonne as reported on a delivered basis
- Strategically located to sell product into high-priced US markets where there would be a significant cost advantage to customers over the current dominant supplier
- Non-binding MOUs already signed for port sites, sulphuric acid supply, limestone, direct HCl sales and calcium chloride by-product offtake
- Commencing construction of the Muga Potash Mine remains the clear focus of the organisation

Spanish potash developer, Highfield Resources (ASX: HFR) (“Highfield” or “the Company”), is pleased to announce it has completed a Study (the “Study”) for a staged 500,000 tonnes per annum Sulphate of Potash (“SOP”) operation using the technically proven Mannheim process to convert 430,000 tonnes per annum of MOP from the Muga Potash Mine into SOP.

Highfield Managing Director, Anthony Hall commented:

“The study we have completed presents highly compelling metrics for an SOP project that benefits significantly from the controlled supply of MOP from our Muga Potash Mine once in production. Importantly it is complementary to the Muga Potash Mine and is a mechanism to extract substantial additional margin on a portion of our MOP production.”

The project will have low capex for an SOP operation and competitive opex delivered into major SOP markets. More importantly, there is minimal technical risk given the use of the proven Mannheim furnace technology.

Importantly, in our analysis we have been careful to ensure that the Muga Potash Mine does not subsidise the SOP project to support its metrics. Based on our current analysis, the Muga Potash Mine will receive a higher than budgeted sales price for its MOP production through sales to the SOP project.”

Highfield Resources Ltd.

ACN 153 918 257
ASX: HFR

Issued Capital

310.8 million shares
51.5 million performance shares
53.3 million options

Registered Office

C/- HLB Mann Judd
169 Fullarton Road
Dulwich, SA 5065
Australia

T. +61 8 8133 5098
F. +61 8 8431 3502

Head Office

Avenida Carlos III, 13 -
1°B, 31002
Pamplona,
Spain

T. +34 948 050 577
F. +34 948 050 578

Directors

Derek Carter
Pauline Carr
Richard Crookes
Jim Dietz
Anthony Hall
Owen Hegarty
Pedro Rodriguez

Company Secretary

Donald Stephens

Project Overview

As the approvals process nears completion for Highfield's Muga Potash Mine in Spain, the Company has commenced evaluating downstream options to enhance margins and diversify its product offering. The Study considers the option of converting around 40% of the MOP from the Muga Potash Mine to SOP noting the Company has an additional four MOP projects that appear to exhibit similar characteristics to the Muga Potash Mine.

SOP is a low-chloride fertiliser that has typically enjoyed a premium price relative to MOP. SOP has a lower K_2O content (c. 50% vs. 60% for MOP), but it also has significant sulphur content. It is used for higher value chlorine intolerant crops such as soft fruits, vegetables, turf, and tobacco.

The Company reviewed and conducted trade-off analysis on a number of potential technologies to produce SOP from MOP including ion exchange and crystallisation technologies. Due to its low technical risk, capital cost, and well understood operating cost profile, the Company selected the Mannheim process as its preferred processing route.

The Study highlighted the key drivers of the favourable economics of Mannheim SOP production include:

- A captive source of MOP within close proximity to the Mannheim furnace by land;
- Low-cost sulphuric acid within close proximity to the project;
- Proximity to export ports and end customers;
- Available on-dock port land with available gas and steam; and
- Proximity to consumers of hydrochloric acid and alternate limestone related options to convert it into a high margin derivative product.

The Study has been reviewed by an independent expert with experience commissioning and running a Mannheim SOP plant.

Mannheim Process Overview

The Mannheim process combines sulphuric acid and MOP with heat to produce SOP. By-products include chlorine gas (Cl_2), which is absorbed by water in cooling towers to produce hydrochloric acid.

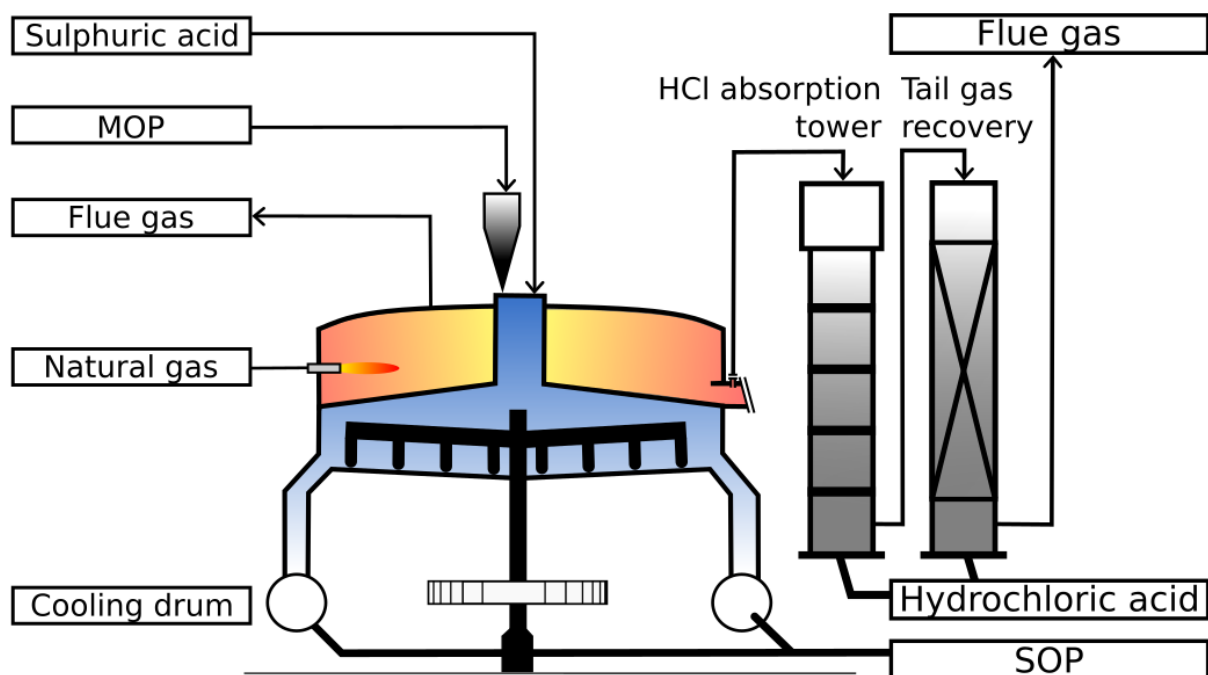


Figure 1: Diagrammatic representation of the Mannheim Process

The design of Mannheim capacity is modular and each furnace typically produces 10,000 tonnes of SOP per annum. Scaling production up is simple and cost effective and furnaces can be combined, in some cases more than 50 in a single facility, to produce larger quantities of SOP.

Next-generation furnaces being installed by Chinese contractors in recent years deploy full automation with programmable logic control (PLC) or distributed control systems (DCS) reducing overall costs, in particular labour costs.

Financial Metrics

Capital Cost Estimates

For the Mannheim equipment cost estimates, ten quotes were obtained and five supplier visits conducted including to four operating Mannheim furnaces. Costs for the Mannheim equipment are estimated at US\$2.0m per 20ktpa twin-furnace unit.

The Study capital estimate has been developed assuming an initial 250ktpa production, ramping up to 500ktpa.

Capital cost, including site preparation and civil construction for buildings, utilities and storage tanks for 500ktpa SOP production is US\$123 million. Including a 20% contingency, the capital cost increases to US\$147 million.

Operating Cost Estimates

Weighted average utility requirements and operating and maintenance burdens were established for the various vendors and were used to establish the estimated operating expenditure (opex) budget.

The Company obtained supplier quotes for sulphuric acid procurement and transport to each of the proposed project sites. In addition, a non-binding MOU has been signed for the supply of sulphuric acid.

Other site costs are defined in the signed MOUs for two of the potential sites.

Including domestic transport, total costs excluding MOP are estimated at US\$89/t SOP. Adding 20% contingency and sustaining capital drives an all in sustaining cash cost (AISC) of US\$370 per tonne of SOP produced, assuming MOP is purchased from the Muga Mine at US\$287 per tonne FOB (spot price less 7.5% discount)

Sulphate of Potash Market Overview

Half of global production is from ion exchange processing of underground ore and from salt lakes in China, the US and Chile. The remaining production is from the addition of sulphuric acid to MOP in Mannheim furnaces, including c. 0.6Mtpa in Europe and c. 2Mtpa in China. Currently the global market size is around 5.5m tonnes per annum. China accounts for around 50% of this market. The non-China demand for SOP is estimated at c. 2.55Mt in 2016 by industry consultants Integer, with c. 1Mt, 0.5Mt, 0.25Mt and 0.25Mt from Europe, North America, Africa and Latin America, respectively.

Next Steps

Importantly moving the Muga Potash Mine into construction and then production remains the clear focus on the organisation, however, in view of the sustainable competitive advantage of the project from captive MOP, low-cost sulphuric acid, available port land, low-cost gas, nearby limestone, and access to end markets, Highfield will continue via the below steps:

1. Commence a process to finalise the port site
2. Complete trade-off study for HCl options, including potential for multiple end uses
3. Evaluate engineering contractors with a view to commencing a Definitive Feasibility Study and engineering design
4. Commence preparatory work for environmental and development approval applications
5. Complete bankable financial study as engineering and environmental studies complete
6. Commence off-take discussions

For more information:

Company	Investor Relations Executives
Anthony Hall Managing Director Ph: + 34 617 872 100	Simon Hinsley APAC Investor Relations Ph: +61 401 809 653
Hayden Locke Head of Corporate Development Ph: +34 609 811 257	Nuala Gallagher / Simon Hudson UK Investor Relations Ph: +44 207 920 3150

About Highfield Resources

Highfield Resources is an ASX-listed potash company with five 100%-owned projects located in Spain.

Highfield's Muga, Vipasca, Pintano, Izaga and Sierra del Perdón potash projects are located in the Ebro potash producing basin in Northern Spain, covering a project area of more than 550km². The Sierra del Perdón project includes two former operating potash mines.

The Company completed a Definitive Feasibility Study for its flagship Muga Project in March 2015, which was optimised in November 2015 to enhance operational efficiencies, sales and marketing activities and the life of mine. Highfield is awaiting a positive environmental declaration and mining concession which will enable it commence construction of the Mine.

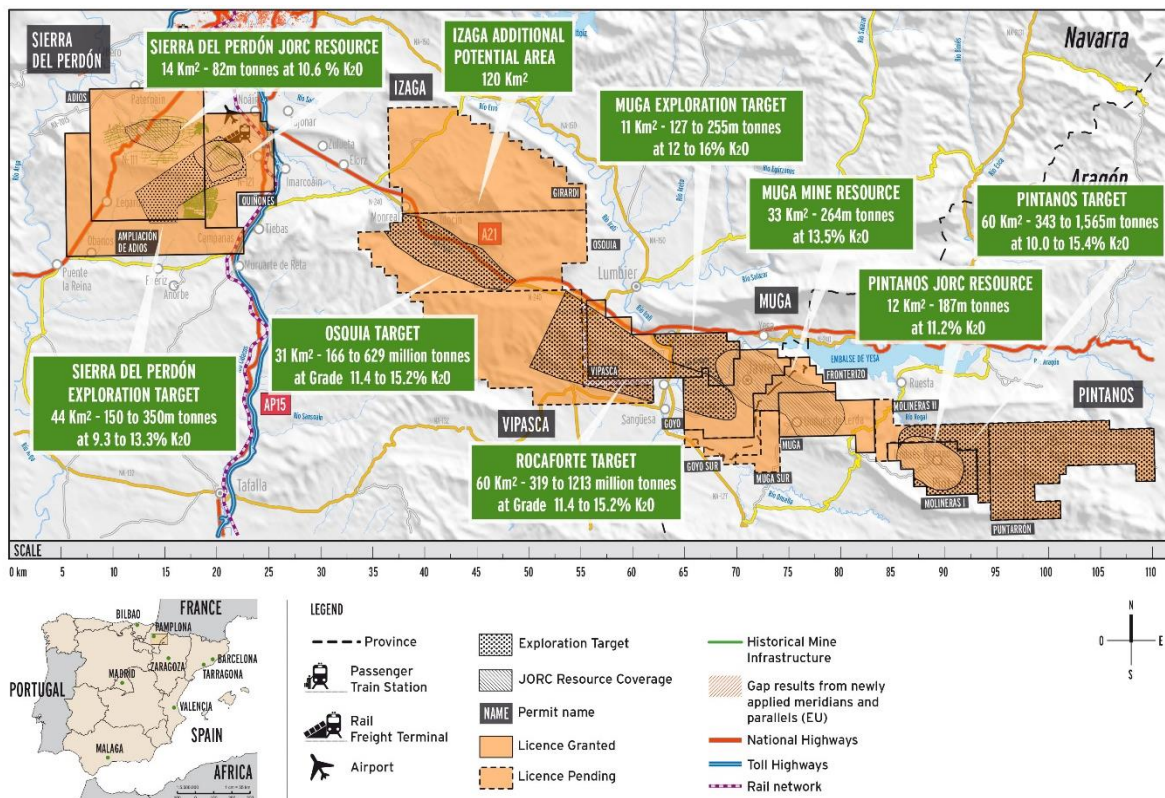


Figure 2: Location of Highfield's Muga, Vipasca, Pintano, Izaga and Sierra del Perdón Projects in Northern Spain