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## JUNE 2018 QUARTERLY ACTIVITY REPORT

### HIGHLIGHTS

- ✓ RC drilling program concluded at Cadoux Kaolin Project – 75 holes completed for 1,613m
- ✓ Results of the drilling confirmed Cadoux kaolin's suitability as feedstock for HPA
- ✓ FYI continues high-level metallurgical variability test work and trade-off studies of the Cadoux kaolin HPA flowsheet
- ✓ CSA Global revising the Cadoux resource model
- ✓ Orelogy appointed as Cadoux mining study manager
- ✓ Conventional and well understood process flowsheet to be utilised for on-site production
- ✓ Environmental study progressing
- ✓ Preliminary hydrological study completed
- ✓ CRU HPA marketing study completed
- ✓ PFS on track for completion this quarter
- ✓ Strong financial position as FYI advances PFS

High Purity Alumina (HPA) developer, FYI Resources Limited (ASX: FYI) (the "Company" or "FYI"), is pleased to release its June 2018 quarterly activity report and Appendix 5B.

FYI is developing a non-traditional HPA (99.99% and 99.999% Al<sub>2</sub>O<sub>3</sub>) processing route from kaolin feedstock from the 100% owned Cadoux kaolin project (EL70/4673). The Company is developing an HPA process flowsheet with the goal of delivering a commercial high-quality alumina product at lowest quartile production costs and deliver this into rapidly expanding tech products and battery related markets.

### **Cadoux drilling**

FYI completed a reverse circulation (RC) drilling program at Cadoux in May that was designed to provide additional project information to the Company's HPA strategy in terms of resource definition and metallurgical process design and testwork.

The drilling program comprised:

- 75 drill holes totalling 1,613 metres; including
- 46 infill holes over of the existing Mineral Resource on a 50m x 50m drill spacing;
- 20 fence holes were drilled outside of the existing resource to test beyond the current resource boundary;
- Six holes were twinned to correlate the results of the previous phase of aircore drilling; and
- Three holes were drilled over the remainder of the Mineral Resource at 100m x 100m.

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The program provided FYI with the following information:

- Increased understanding of the Cadoux kaolin resource;
- Generation of further data to be incorporated into a revised resource model;
- Support the current geological model in terms of grade and variation of the deposit as a feedstock;
- Provide further kaolin feedstock for continued metallurgical test work and process studies;
- To test the extent of the kaolin resource;
- Increased data for the mining and site based operational studies.

The drilling program generated 640 x 2m composite samples that were submitted to Intertek laboratories in Perth for standard kaolin suite analysis. The results of the test work were reported in the Company's ASX releases (25 June and 9 July 2018).

The Company also carried out a number of associated tests during the drilling program to support the Company's prefeasibility study (**PFS**) which included in-situ moisture of the kaolin to determine specific gravity (mass) of the deposit, environmental base line studies, soil characterisation tests for rehabilitation and infrastructure site works (such as the tailings dam) and down-hole geophysics for moisture and resource geometry.

The drilling program and associated analysis confirms the quality and characteristics of the Cadoux kaolin as suitable feedstock for HPA refining.

### **Prefeasibility Studies**

#### **Metallurgical process design**

The metallurgical studies under the metallurgical manager, Independent Metallurgical Operations (IMO), continued during the quarter.

Additional variability samples were trialled through the leach flowsheet by IMO to determine the impact on recovery and grade of a matrix of outcomes to determine optimal operating ranges.

The following metallurgical matrix studies included:

- High and low-grade samples
- Impurities present in the ore such as sodium, magnesium, iron and potassium
- Leach optimisation of the Cadoux kaolin - reporting excellent overall alumina recoveries;
- Test the spatial variability of the resource

- Completion of the variability leach testwork;
- Improved understanding and control of the leaching process and the impact of feed grades on the final leach recoveries;
- Kaolin product testing to assess the potential of producing additional different products; and
- Completion of the precipitation series testworks.



***FYI produced HPA (99.99% Al<sub>2</sub>O<sub>3</sub>)***

IMO is also finalising a supplementary stage of testwork following the completion of the scoping study testwork program to develop and trial a robust recirculating stream flowsheet through 'Locked Cycle' testing to improve the refining process efficiencies and economics.

#### **Project study engineering advancements**

During the quarter the Company's engineering manager, GR Engineering Services (GRES), continued their Cadoux project review and assistance with supporting the ongoing metallurgical testwork.

The preliminary work on the process design criteria for the Cadoux project was advanced and is now awaiting final results from IMO's variability testwork.

#### **Preliminary mining study**

As the various study phases have progressed and project certainty increases, in developing the broader economic parameters for the PFS, FYI appointed Orelogy Consulting Pty Ltd as the Company's mining study manager to undertake several key preliminary mining reviews of the Cadoux site-based operations.

Orelogy will review the early stage mining site based on operational aspects of the Cadoux project and provide an overview of the project's mining requirements, scheduling, stockpiles, waste dumps, tailings storage facilities, and the associated logistics, capital requirements, key challenges and risks and other various operational aspects deemed important to the Company's decision-making process.

The study will be concluded in the current quarter and will investigate:

- Site layout options
- On site processing
- Water management
- Material movement reviews based on continuous versus campaign mining

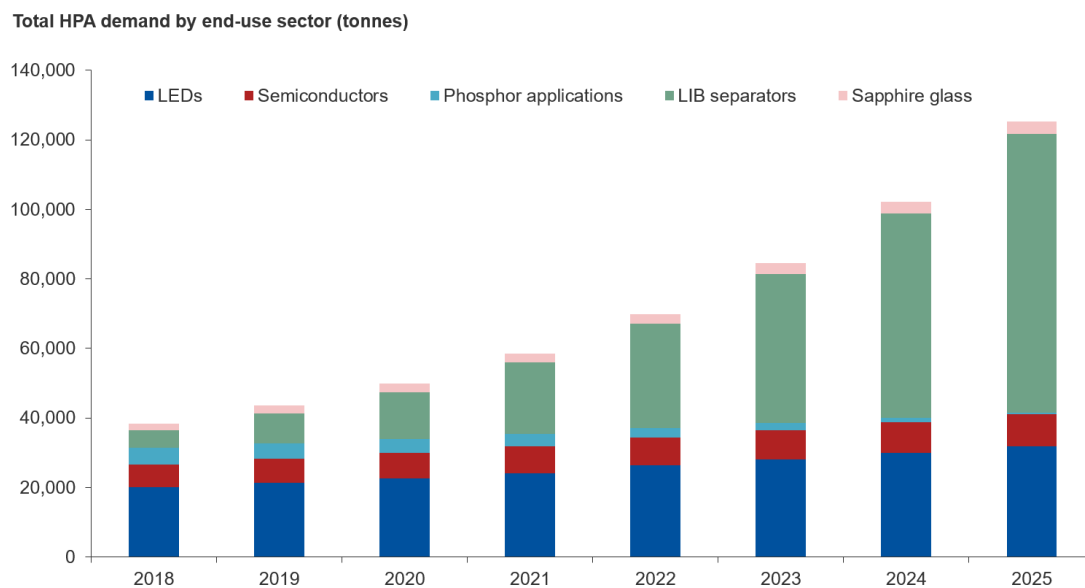


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### CRU marketing report

FYI mandated commodity research group, Commodity Research Unit (CRU), to undertake a detailed HPA industry report to support the Company's view on the HPA market.

CRU's commodity research and industry intelligence provided useful insights and understanding into HPA in terms of supply, demand and pricing of an emerging and growing market.



Source: CRU Tech Metals (HPA) Presentation – Perth, June 2018

CRU has focused on the HPA industry and identified it as being “one of the lesser known winners of the EV [electrical vehicle] story”. CRU have forecast the growth in HPA to an expected 257% between 2017 – 2025, primarily driven from Lithium Ion Battery (LIB) and alternative battery technologies.

### Current quarter activities

FYI will continue with the work undertaken to date by the various PFS managers. Most aspects of the PFS are at, or near, completion.

The current quarter's activities will include:

- Finalise the high-level metallurgical variability test work and trade-off studies;
- Increase the engineering study component (awaiting final completion of the metallurgical phases);
- High level mining and site operation study;
- Revised Cadoux resource model by CSA Global;
- Environmental base line studies to continue.



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**Further information:**

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**About FYI Resources Limited**

FYI is positioning itself to be a significant producer of high purity alumina (4N & 5N or HPA) in a rapidly developing LED, electric vehicle, smartphone and television screen as well as other associated high-tech product markets.

The foundation of the HPA strategy is the superior quality aluminous clay (kaolin) deposit at Cadoux and the exceptional positive metallurgical response that the feedstock has to the Company's moderate temperature, atmospheric pressure and straightforward HCl flowsheet. The strategy's superior quality feedstock attributes combine with an engineered lower cost production resulting in world class HPA project potential.

**Interest in Mineral Tenements at 30 June 2018**

Tenement	Location	Interest at the beginning of the quarter	Interest at the end of the quarter
E70/4673	Western Australia	100%	100%
E70/5145	Western Australia	100% (under application)	100% (under application)
WMM SPLs (6)	Thailand	100% (under application)	100% (under application)
ESM SPLs (6)	Thailand	100% (under application)	100% (under application)

**Competent person statements*****Metallurgy***

The information in this announcement that relates to metallurgy and metallurgical test work is based on information reviewed and compiled by Mr Daryl Evans, a Competent Person who is a Fellow of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Evans is an employee of Independent Metallurgical Operations Pty Ltd, and is a contractor to FYI. Mr Evans has sufficient experience that is relevant to this style of processing and type of deposit under consideration, and to the activity that he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code). All metallurgical exploration results reported have previously been released to ASX and are available to be viewed on the Company website [www.fyiresources.com.au](http://www.fyiresources.com.au).

The Company confirms it is not aware of any new information that materially affects the information included in the original announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original announcements. Mr Evans consents to the inclusion of the information in the form and context in which it appears.

**31 July 2018****Resource**

The information in this release that relates to the Cadoux Mineral Resource is based upon information from the Company's announcement dated 8 May and 26 July 2017 and is available to view on the Company's website at [www.fyiresources.com.au](http://www.fyiresources.com.au). The information that relates to Mineral Resources is based on information compiled by Mr Andrew Kohler, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy. Mr Kohler is an employee of Strategic Resource Management, and consultant to the Company. The Mineral Resource estimate complies with recommendations in the Australian Code for Reporting of Mineral Resources and Ore Reserves (2012) by the Joint Ore Reserves Committee (JORC). Mr Kohler consents to the inclusion of the report in the form and context in which it appears. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Andrew Kohler. Mr Kohler has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity that he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves. The exploration results comply with recommendations in the Australian Code for Reporting of Mineral Resources and Ore Reserves (2012) by the Joint Ore Reserves Committee (JORC). Mr Kohler consents to the inclusion of the report in the form and context in which it appears.