AUSTRALIAN BAUXITE LIMITED

ALCORE Limited

AlF_3 for Aluminium smelters and lithium ion batteries

ASX: ABX

ASX ANNOUNCEMENT

24 August 2020

CSIRO Senior Principal Research Leader Promoted to Alcore CEO

Australian Bauxite Limited (ASX: ABX) is pleased to advise that Dr Mark Cooksey has been promoted to CEO of ABx's technology subsidiary ALCORE Limited (**Alcore**). Dr Cooksey was first appointed General Manager of Alcore (ASX: 24 January 2020) and in recognition of his valuable contribution and leadership has assumed responsibility as Alcore CEO. The appointment is effective through to February 2021 and aligns with an extension of his leave from CSIRO. He will lead Alcore's development and commercialisation of a new process for aluminium fluoride (AlF_3) production.

Dr Cooksey brings to Alcore an impressive history in research, development and commercialisation of new processes in the minerals and metals industry. He commenced his career as a Research Engineer in aluminium smelting with Comalco (now Rio Tinto Alcan) in 1997 and became a Senior Research Engineer in 2000.

Mark joined CSIRO in 2004 as a Senior Research Engineer and become a Senior Principal Research Leader in 2016.

Dr Cooksey holds a PhD (Chemical & Materials Engineering), Bachelor of Engineering (Materials – First Class Honours) and Bachelor of Science (Information Technology and Applied Mathematics). He has worked closely with aluminium and other metal industries, and his significant experience in commercialising new technologies and processes will enable Alcore to transition into the next phase of development.

Welcoming Dr Cooksey, Ian Levy, ABx's CEO, commented:

"In the last six months Mark has been instrumental in accelerating Alcore's technical and commercial development. Alcore is now beginning to scale-up the technology to larger scale production and needs the highly skilled and experienced leadership that Mark can provide. This is an important step in the delivery of value from the Alcore initiative to all shareholders."

Dr Mark Cooksey
CEO Alcore Limited

More about Alcore Limited

AlF_3 is an essential component of the electrolyte in aluminium smelters, and currently most AlF_3 used in Australian smelters is imported from China. High purity AlF_3 is part of the next generation of batteries, including lithium ion batteries.

Alcore is an 89%-owned subsidiary of Australian Bauxite Limited ("ABx") that has the global exclusive rights to the aluminium-related portion of CORE Technology (Patent Application).

Alcore has committed to the best strategy for the first commercial plant called 'Refine & Recycle', whereby by-products from aluminium smelters will be converted into AlF_3 which can be sold back to the smelters as an essential electrolyte for smelting.

This 'Refine & Recycle' strategy has the lowest technical and commercial risk. It also has the fastest growth potential worldwide. Plants can be replicated adjacent to aluminium smelters throughout the western world to:

1. Reducing their dependence on imported AlF_3.
2. Reduce costs
3. Minimise waste by recycling by-products

Alcore can refine two smelter by-product waste materials to produce AlF_3, one with high aluminium (~85% Al) and the second with high fluorine (~55% F).

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This announcement has been approved for release by the Board of Australian Bauxite Limited.

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About Australian Bauxite Limited

ASX Code ABX **Web: www.australianbauxite.com.au**

Australian Bauxite Limited (ABx) has its first bauxite mine in Tasmania & controls the Eastern Australian Bauxite Province. ABx's 11 bauxite tenements in Queensland, New South Wales & Tasmania totalling 662 km^2 are all 100% owned, unencumbered & free of third-party royalties. ABx's bauxite is gibbsite trihydrate (THA) bauxite that can be processed into alumina at low temperature.

ABx has committed a large proportion of its expenditure into Research and Development to find ways to capitalise on the main strengths of its bauxite type which is very clean, free of all deleterious elements and partitioned into layers, nodules, particles and grains of different qualities that can be separated into different product streams using physical, chemical and geophysical methods.

ABx has declared large Mineral Resources in northern NSW, southern NSW, Binjour in central QLD & in northern Tasmania. ABx's first mine commenced at Bald Hill near Campbell Town, Tasmania in December 2014 – the first new Australian bauxite mine for more than 35 years.

ABx aspires to identify large bauxite resources in the Eastern Australian Bauxite Province and has created significant bauxite development projects in 3 states, Queensland, New South Wales and Tasmania. Its bauxite deposits are favourably located for direct shipping of bauxite to both local and export customers.

ABx endorses best practices on agricultural land, strives to leave land and environment better than we find it.

We only operate where welcomed.

About ALCORE Limited:

Australian Bauxite Limited (ABx)'s 89%-owned technology subsidiary ALCORE Limited was created to fund and manage the Alcore Project involving the construction of an Alcore Production Plant to produce Aluminium Fluoride (AlF_3) and valuable co-products using patent pending new Australian technology. Alcore intends to convert low grade bauxite worth $50 per tonne into a suite of valuable products worth more than $800 per tonne. Alcore's testwork commenced on 1 July 2019 at Alcore's high-technology Research Centre in Berkeley Vale, Central Coast NSW and is currently focussed on producing AlF_3 test samples for pre-qualified aluminium smelter customers. It's processes can also produce Corethane, which is pure hydrocarbon powder to provide thermal and electrical power with low CO_2 emissions when used as a gas-substitute or as a diesel substitute for fuel security purposes and is ideally suited for use as a sulphur-free bunker fuel. Corethane is also useable as a chemical reductant instead of imported coke and coals.

AlF_3 is a vital ingredient in aluminium smelters and is currently 100% imported. Alcore will be the first Australian producer of this strategically important mineral product and will provide security of supply to the large aluminium smelting industry in Australia. Alcore will make AlF_3 from smelter waste materials and thereby maximise the recycling by Australian aluminium smelters.

Directors of ABx

Paul Lennon	Chairman
Ian Levy	CEO & MD
Ken Boundy	Director
Henry Kinstlinger	Company Secretary

Officers

Leon Hawker	Chief Operating Officer
Jacob Rebek	Chief Geologist
Paul Glover	Marketing, Exploration & Relationships
Nathan Towns	Operations Manager
Dr Mark Cooksey	CEO Alcore Limited

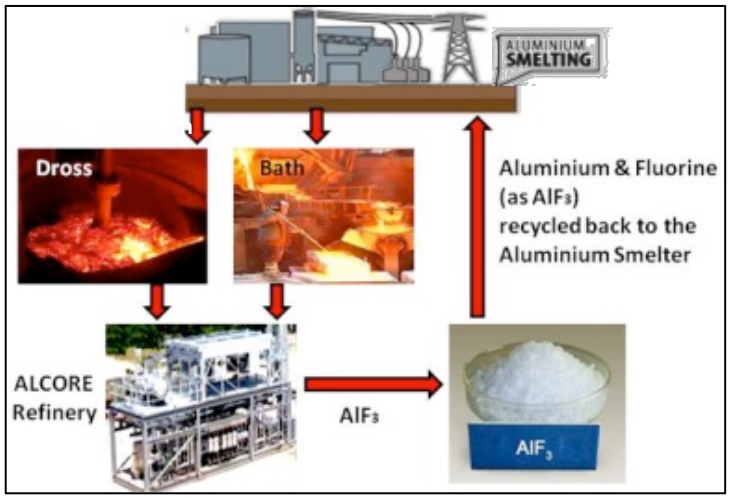

Figure 1

Summary of the ALCORE 'Refine & Recycle' strategy

This process has the strong potential to be the simplest and lowest cost method to make AlF_3. It provides an economically attractive way to utilise the aluminium-rich and fluoride-rich by-products from many aluminium smelters.

Figure 2

The $2.5 million ALCORE Laboratory built inside the ALCORE Research Centre

The Core Lab is a climate-controlled laboratory constructed inside the ALCORE Research Centre for the refining of bauxite and its components to produce test samples of AlF_3 and co-products. It will become a research centre for testing its technology on many ores.

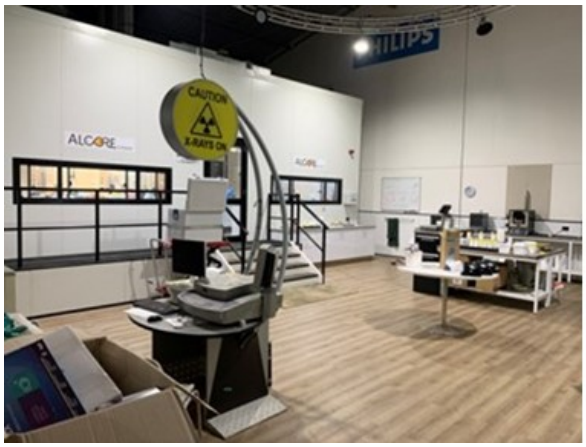

Figure 3: Preparation & Analytical Lab, XRF & furnaces

Figure 4: ALCORE test lab, fume cabinets with hi-tech scrubbers, showers, microscopes & Drager air monitor (wall)

Figure 5: Exterior support systems

a) Air purification and atmosphere control

b) Liquids processing & neutralisation plant

c) Duplicated secure LPG gas supply

d) Gas-fired Standby-Backup Generator