



**Altech Chemicals**  
Limited

# QUARTERLY REPORT

June 2019

## A\$18 million share placement anchored by German Institutions

- New German investors anchor A\$18 million share placement
- Placement well supported by existing significant shareholders
- Stage 2 engineering and construction of HPA plant in Johor, Malaysia to proceed

## CRU upgrades its base case 4N+ HPA demand forecast

- CRU high purity alumina (HPA) market outlook report received
- 30% CAGR unconstrained demand growth forecast (2018-2028)
- Known supply will be unlikely to support forecast demand growth
- Future LED market will require higher quality HPA, rather than low-cost supply
- Based on CRU's 4N+ HPA price forecast, Altech's project NPV increases by 32% to US\$669m
- Project EBITDA increases from US\$76m to US\$100m pa. applying CRU 4N+ HPA price forecast

## HPA Plant Stage 1 Construction update

- Stage 1 Construction progressing as planned
- Workshop steel frame erection nearing completion
- Retaining wall construction 75% complete
- OSD Tank excavation and construction work underway

## Launch of European Project Equity Strategy

- Agreement to acquire 29% of German (Frankfurt) listed public company
- German public company name will change to Altech Advanced Materials AG
- Sale of a non-exclusive right to acquire up to 49% of Altech's HPA project for US\$100m
- Access to larger pool of European institutional investors
- Enhanced project valuation and less dilutionary for current Altech shareholders
- Aligns with European investors' desire for battery materials exposure

## Youbisheng - Approval of Altech Board Nominees and Change of Company Name

- Altech nominees appointed to Youbisheng Green Paper AG (YAG) Management Board
- Mr Iggy Tan and Mr Uwe Ahrens appointed to three member board
- Change of company name to Altech Advanced Materials AG approved by shareholders
- Capital increase of up to 63,103,080 Euro's approved
- Widening of Supervisory Board to five members

## A\$18 million share placement anchored by German Institutions

The Company announced during the quarter the successful completion of an A\$18 million (before costs) share placement ("placement"). The share placement was anchored by two German institutional investors, Deutsche Balaton and Delphi that were not shareholders of the Company; each agreed to subscribe to A\$5.425 million of new Altech shares. In addition, existing Altech shareholders, SMS Investments of Germany and the Melewar group of Malaysia, agreed to subscribe to A\$2.0 million of shares each (subject to shareholder approval). SMS group is still committed to contribute A\$13 million of additional equity at project financial close. A number of professional and sophisticated investors also supported the placement.

Proceeds from the placement will be applied towards the commencement of Stage 2 engineering and construction of the Company's high purity alumina (HPA) plant in Johor, Malaysia, and for administration and working capital purposes. Petra Capital was the lead broker for the placement.

In Johor, Stage 2 engineering and construction works will include: third party and supplier engineering; advancing various civil loads in the plant; and advancing current Stage 1 activities. Altech is continuing with its strategy of running the construction of the HPA plant in parallel with project financial close, thereby ensuring that project momentum is maintained. The placement shares were issued at a price of \$0.1085 per share, which represents a 16.5% discount to the price of the Company's shares as traded on the ASX at the close of trade on 11 April 2019 (prior to the pre-placement trading halt).

Key participants in the share placement were:

Deutsche Balaton AG:	A\$ 5.425 million
Delphi Unternehmensberatung AG:	A\$ 5.425 million
Melewar Group:	A\$ 2.00 million
SMS Investments:	A\$ 2.00 million
<b>Total for key participants</b>	<b>A\$ 14.85 million</b>

The Placement Shares were issued in two tranches:

- 143 million shares (~A\$15.5) were issued on 26 April 2019, under the Company's share placement capacity pursuant to ASX Listing Rules 7.1. and 7.1A. The placement of shares to Melewar and SMS Investments was subject to shareholder approval. A General Meeting of shareholders was held on 6 June 2019, and these placements were approved. The A\$2m from SMS Investments was received on 14 June 2019 and the shares have been issued, and the funds from Melewar have been delayed, but are expected soon.

Traditionally, whenever the Company has conducted a share placement it has offered all shareholders the opportunity to acquire shares at the same price as the placement shares, via the operation of a Share Purchase Plan (SPP). Unfortunately, the Australian Securities and Investment Commission (ASIC) Class Order via which the Company is able to offer an SPP prohibits shareholders' participation in an SPP more than once per twelve month period. Because the Company last conducted an SPP in July 2018, it was unable to offer a SPP to shareholders at the time of the placement.

The Company was extremely pleased with the support that it received for the share placement and is delighted to welcome German strategic investors Deutsche Balaton and Delphi which will have a combined 13.6% shareholding in the Company once the placement is fully complete.



HPA Plant Construction



## CRU upgrades its base case 4N+ HPA demand forecast

In its updated HPA market outlook report, CRU noted that the unconstrained demand forecast for 4N+ (99.99% or greater) HPA, the market segment that Altech's plant is designed to supply, is significantly stronger than CRU had forecast in its previous market report completed in 2018. The previous 4N+ HPA demand was estimated at 92,900 tonnes p.a. by 2025. In its current market report, CRU has estimated 4N+ HPA could in theory grow at 30% p.a. from 19,000 tonnes p.a. (2018) to 272,000 tonnes p.a. (2028), but that this growth will be constrained by limited supply availability and a spike in prices that would likely result from a forecast large-scale deficit of 4N+ HPA.

CRU estimates that demand for HPA in powder form used in lithium-ion battery separators could reach 187,000 tonnes p.a. by 2028 if sufficient supply were available – noting that Altech's planned 4,500 tonne p.a. production is only a small part of this. Meanwhile, demand for HPA in the pellet/bead form used in light emitting diodes (LEDs) is forecast to reach 85,000 tonnes p.a. by 2028, and is expected to exhibit greater price inelasticity, since synthetic sapphire is by far the most widespread substrate material used in the solid-state lighting industry.

In explaining its 4N+ HPA market growth forecast, CRU stated that:

- The demand for ceramic coated separators (CCS) in lithium-ion battery (LIB) applications is genuine and will rapidly proliferate, as more energy-dense batteries arrive to serve the surging electric vehicle (EV) market;
- Manufacturing trends in LED production – which itself has an excellent growth trend – have recently moved in favour of larger sapphire wafers, which will have profound (positive) consequences for the 4N+ HPA market – the push for defect-free 6" and 8" wafers will drive demand for higher purity feedstock; and
- CRU commented positively on Altech's plan to produce HPA in either pellet or powder form, stating that Altech "should be able to adapt its product mix to meet developments in the market, allowing it to maximise its ability to place all of its output once it begins operating, and to target the industry offering the highest purchase prices".

## HPA – Consistent Quality is Key

In the quality commentary, CRU reported that historically the major suppliers of 4N+ HPA have been Sumitomo and Nippon Light Metals in Japan, Baikowski in France and the US, and Sasol in the US and Germany. In recent years, Chinese production has increased markedly, but product quality is variable and much is below that of the established producers: typically at the 99.9-99.99% level and so falling into the "cost-conscious" 3N-4N market (smaller LED wafers and sub-optimal LIB separators).

The report cites anecdotal evidence from numerous market participants that separator manufacturers are actively seeking high quality HPA for their coatings, although much lower cost HPA (i.e. 3N) is also supplied into the CCS market. CRU's analyst team accept the rationale that increased HPA purity has a number of positive effects – greater potential life cycle of the lithium-ion battery cell, and a reduced chance to build up dendrites that compromise the safety of the cell (which is of special concern to EVs). In LIB CCS applications, sodium (Na) and iron (Fe) are particularly concerning to consumers, since the former interferes with the uptake of lithium ions, and the latter is magnetic and contributes to the build-up of dendrites.



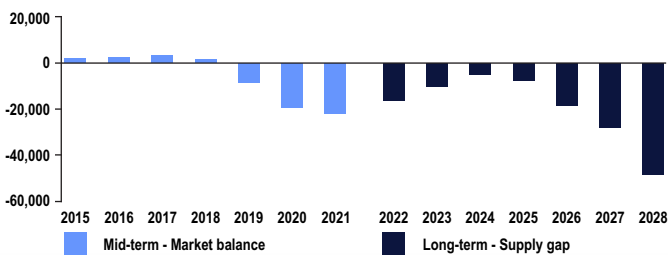
HPA Plant Workshop

## Significant HPA Supply Shortfall

In estimating the future 4N+ HPA demand and supply balance, CRU took into account all projects approaching or at pre-feasibility stage, as well as announcements from existing producers. CRU noted the expected capacities put forth by these companies and filtered them through its standardised Project Gateway Methodology to arrive at reasonable assumptions for the ultimate volumes supplied to the market by these new entrants, as well as the timing of such supply.

Even after constraining the modelled HPA demand profile to reflect a forced move towards 99.9% alumina in the LIB CCS market (for all but the most demanding EVs), the report concluded an impending significant market deficit, where supply – even in a very optimistic scenario – could not keep pace with the level of 4N+ HPA demand. The results of the constrained analysis show a large apparent 4N+ HPA short term deficit (blue bars in Figure 1) that is briefly alleviated by Altech and a number of announced HPA hopefuls in the 2022–24 period, before the supply gap begins to increase again in 2025f (green bars in Figure 1), reaching ~50,000 tonnes p.a. of shortfall by the end of the forecast period.

Figure 1.0 - CRU base case market balance and supply gap for 4N+ HPA, 2015–2028, tonnes



## Impact of CRU forecasts on Final Investment Decision Study

In the market outlook report, CRU provided a long term price forecast from 2022-2028 which exceeded Altech's figures used in its Financial Investment Decision Study (FIDS) model. CRU's prices begin to rise from 2020 due to the expected market deficit, further supported by rising production costs.

Taking the new average forecast price, Altech calculates that the revenue of the project increases from US\$ 120 million to US\$ 144 million per annum. The discounted cash flow or net present value (NPV) of the project increases by 32% from US\$ 505 million to US\$ 669 million. The EBITDA the project generates at its full production rate increases by 31%, from US\$ 76 million to US\$ 100 million per annum.

Table 1.0 - Impact of CRU Forecast Price on original FIDS model

FIDS incorporating CRU forecast		Original FIDS	
HPA Production	4,500 tonnes	4,500	Tonnes
Exchange Rate	0.75 USD/A\$	0.75	USD/A\$
Project Capex (US\$)	\$297.6 million	\$297.6	million
Corporate Costs (US\$)	\$7.7 million	\$7.7	million
NPV (US\$)	\$668.6 million	\$505.6	million
Discount Rate	7.5%	7.5%	
Revenue p.a. (US\$)	\$144.3 million	\$120.3	million
Costs p.a. (US\$)	\$44.6 million	\$44.6	million
EBITDA p.a. (US\$)	\$99.7 million	\$75.7	million
Cost of production* (US\$)	\$8.56 per kg	\$8.56	per kg
Margin %	73%	68%	

\* excludes selling costs



HPA Plant Site Construction



## HPA Plant Stage 1 Construction update

During the quarter the Company provided an update on Stage 1 construction activities currently underway at its high purity alumina (HPA) plant site in Johor, Malaysia.

The erection of structural steel for the maintenance workshop building has progressed considerably since the Opstaan Yster (stand up of iron) ceremony held on site at the beginning of May 2019. The building frame erection and roof structure placement is nearing completion, and the construction team shall shortly commence with roof and wall cladding activities. Retaining wall construction is proceeding along both the western and eastern site boundaries and is currently estimated as 75% complete. The internal site retaining wall, which is required for site terracing immediately behind the Administration building is also progressing in accordance with the Stage 1 construction schedule.

Finally, excavation of the on-site detention (OSD) storm water tanks have commenced along the southern boundary of the plant site, with construction of the first of four underground tanks now underway, which involves blinding, lining and reinforcement ahead of the pouring of concrete. The four OSD tanks will have a total volume of 2000m<sup>3</sup>, and will serve as intermediate storage for all site storm water in accordance with the Malaysian planning regulations and stormwater management practices.

A construction update video can be found at <https://youtu.be/SAmFST3ooko>



HPA Plant Construction

## Launch of European Project Equity Strategy

In mid-July 2019, Altech announced that it initiated a European equity strategy whereby investors will be provided a means to acquire a shareholding in up to a 49% direct interest in the Company's high purity alumina (HPA) project via subscribing to shares in a German domiciled public company that is listed on the Frankfurt Stock Exchange.

Altech was recently approached with the concept on an unsolicited basis and following consultation with German advisors, potential investors and various others has decided to pursue the opportunity on the basis of a valuation (sale price) of US\$100 million for a 49% direct HPA project interest.

Advantages of the concept for shareholders are that it provides an enhanced overall project and Company valuation; it will be significantly less dilutionary compared to a capital raising of this magnitude by Altech at its current share price; and it should positively impact project financial close.



Site Investor Visit - HPA Plant



Iggy Tan (Altech), Rolf Birkert (Deutsche Balaton), Uwe Ahrens (Altech)

## Launch of European Project Equity Strategy (cont.)

### Transaction Details

#### A. Altech to acquire 29% of Frankfurt listed Youbisheng Green Paper AG

Altech executed an agreement to acquire 29% of Youbisheng Green Paper AG (YAG), a German domiciled public company listed on the Frankfurt Stock Exchange (FRA: YB1A). The total consideration is €2,729,000, payable by Altech as a combination of cash and shares.

The acquisition of YAG is conditional on the satisfaction of various conditions precedent, which include: YAG's name being changed to Altech Advanced Materials AG; the appointment of various Altech nominees to YAG's supervisory and management boards; YAG's shareholders approving an increase in its issued share capital to enable it to initially raise up to €70 million in new equity; the completion of legal due diligence to the satisfaction of Altech; the receipt of any necessary regulatory approvals; and final approval of the acquisition by the Altech board. The agreement also provides that Altech may sell-back the 29% interest in YAG (if it is acquired) by 30 June 2020 if YAG does not raise more than a minimum of €20 million in new equity.

#### B. Sale to YAG of a right to acquire up to 49% of Altech's HPA project for US\$100 million

Altech executed a subscription, sell-back and sell-back put option deed with YAG that affords YAG the non-exclusive right to acquire up to a 49% direct interest in Altech's HPA project for US\$100 million. YAG will pay Altech a non-refundable fee of €500,000 in cash for the right. The right must be exercised on or before the earlier of project financial close or 1 January 2021.

Under the terms of the deed:

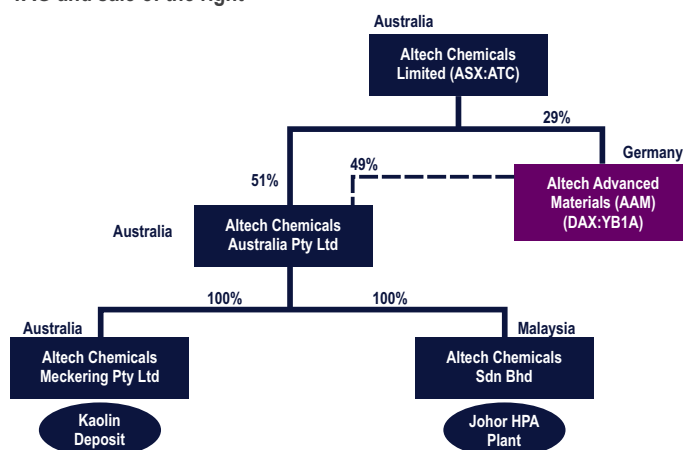
- YAG has the right to acquire a minimum 10% direct HPA project interest (for a pro-rata amount of US\$20.4 million) up to a maximum of 49% direct HPA project interest for US\$100 million, by subscribing to shares in Altech's wholly-owned subsidiary Altech Chemicals Australia Pty Ltd (see Figure 1 below);
- At the end of year 6 after project financial close, YAG must sell-back to Altech all of the HPA project interest that it acquired for a price that would deliver YAG a return of 15%

p.a. on its initial acquisition cost (the sell-back);

- Altech has the option to trigger a YAG sell-back at any time prior to the 6th anniversary of project financial close at a purchase price for YAG's interest that would deliver the same annual return (15%); and
- YAG may cancel its sell-back obligation at any time by paying a cancellation fee to Altech thereby retaining its HPA project interest.

The deed is subject to the completion of Altech's acquisition of the 29% interest in YAG (i.e. all conditions precedent being satisfied).

Figure 1.1 - Altech corporate structure following the 29% acquisition of YAG and sale of the right



Altech has previously stated that it is prepared to sell up to 49% of its HPA project to a joint venture partner as part of its project financing strategy. The Company continues to exchange project information via its data room and progress discussions with a number of potential partners.

Altech also continues to work with Macquarie Bank towards finalising a project mezzanine debt facility. This proposal to offer up to a 49% project equity interest via a Frankfurt listed public company does not stop the joint venture partner initiative or the work with Macquarie Bank, it may complement these initiatives, or it could be an alternative depending on the various outcomes.



## Background

In Germany and throughout Europe generally there is heightened awareness and corresponding investment interest in the battery materials and green energy sectors (LEDs for example). There is an ever-increasing focus on the transition from vehicles powered by internal combustion engines to those powered by lithium-ion batteries and the corresponding investment opportunities that this transition presents.

Germany and France have led the way and unveiled details of a strategy to support the creation of a major battery industry in Europe. In addition, the stringent 2020 EU CO<sub>2</sub> emission standards (95g per kilometre) are paving the way for the rapid displacement of internal combustion engine vehicles with electric vehicles (EVs). To meet the new standards, European automotive manufacturers have announced plans for new EV models releases – both fully electric and/or hybrids. A range of companies have recently committed to constructing or expanding battery cell plants in the EU – by 2023/2024 the expected effective capacity is 147GWh. Global battery capacity is likely to be greater than 800GWh in 2023.

Europe has correctly identified risks along the EV supply chain and has outlined the need for regional integration of the battery/EV production process. The current reliance on Asian suppliers has been identified as a concern. Importantly, the EU has a co-ordinated strategy – offering incentives to buyers, setting strict CO<sub>2</sub> emission standards, revealing new grants and subsidies for battery companies to secure production facilities and raw materials within Europe. Volkswagen has stated that it would like to see all of its EV manufacturing supply chain steps established in Europe.

Altech's HPA project continues to attract significant interest in Germany and Europe due to the US\$190m of committed senior debt funding from German government-owned KfW IPEX-Bank; the support of Euler Hermes – the German government export credit agency; the award of the contract for construction of the HPA plant to SMS group of Dusseldorf, Germany; and the Company's already significant German shareholder base (approximately 20%) comprising Deutsche Balaton, Delphi, SMS Investments and various other German and European retail shareholders.

Altech's view that supply shortfalls of battery grade 4N+ HPA (used in lithium-ion battery separators) is likely in the medium term has been recently supported with the release of CRU's HPA market outlook report (refer ASX announcement of 3 July 2019). Altech's proposed investment in Frankfurt-listed YAG and the sale to YAG of the right to acquire up to a 49% interest in the Company's HPA project is an important first step in a longer-term strategy for the Company to increase its exposure to European investors and to service the growing European EV/battery market with 4N HPA.

## Altech Nominees Appointed to YAG Board

The shareholders of Frankfurt listed Youbisheng Green Paper AG (YAG) have now approved the appointment of Altech's nominees, Mr Iggy Tan and Mr Uwe Ahrens to its Management Board. The third member of the Management Board is Mr Hansjorg Plaggemars.

YAG shareholders have also approved the change of company name to Altech Advanced Materials AG; a capital increase for the company of up to 63,102,080 Euro; and an increase in the size of the company's supervisory board to five members.

Each of the above actions are conditions precedent to the Company's agreement to acquire 29% of YAG. The agreements are the basis of Altech's European equity strategy, whereby investors will be provided a means to acquire a shareholding in up to a 49% direct interest in the Company's (HPA) project via subscribing to shares in Frankfurt Stock Exchange listed YAG (now approved by shareholders to be re-named Altech Advanced Materials A G)(refer to ASX announcement of 18 July 2019 for details).

The Company has been advised by Macquarie Bank (Macquarie) that it has now received the high purity alumina (HPA) Market Outlook Report prepared by CRU Consulting (CRU) and that Macquarie and they propose to advance the mezzanine debt due diligence process - the initiation of a detailed legal due diligence of the Company and its HPA project.

Detailed information on the findings of CRU's HPA Market Outlook Report are contained in the ASX Announcement released by the Company on 3 July 2019.



Iggy Tan (Altech) and Hansjorg Plaggemars (Youbisheng)



**Altech Chemicals**  
Limited

# QUARTERLY REPORT

June 2019

## Company Snapshot

Altech Chemicals Limited (ASX:ATC) (FRA:A3Y)  
ABN 45 125 301 206

### FINANCIAL INFORMATION

(as at 30 June 2019)

Share Price:	\$0.10
Shares:	722.12m
Options:	Nil
Performance Rights*:	28.7m
Market Cap:	\$72m
Cash:	\$8.3m

### DIRECTORS

Luke Atkins	Non-executive Chairman
Iggy Tan	Managing Director
Peter Bailey	Non-executive Director
Dan Tenardi	Non-executive Director
Tunku Yaacob Khya	Non-executive Director
Uwe Ahrens	Alternate Director

### COMPANY SECRETARY/CFO

Shane Volk

### HEAD OFFICE

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\*subject to vesting conditions



## Schedule of Tenements

As per ASX Listing Rule 5.3.3, the Company held the following tenements (exploration and mining leases) as at 30 June 2019:

Tenement ID	Registered Holder	Location	Project	Grant Date	Interest end of quarter
E70/4718-I	Canning Coal Pty Ltd	WA Australia	Kerrigan	01/12/2015	100%
M70/1334	Altech Meckering Pty Ltd	WA Australia	Meckering	19/05/2016	100%

### ABOUT ALTECH CHEMICALS LTD (ASX:ATC) (FRA:A3Y)

Altech Chemicals Limited (Altech/the Company) is aiming to become one of the world's leading suppliers of 99.99% (4N) high purity alumina (HPA). HPA is a high-value, high margin and highly demanded product as it is the critical ingredient required for the production of synthetic sapphire. Synthetic sapphire is used in the manufacture of substrates for LED lights, semiconductor wafers used in the electronics industry, and scratch-resistant sapphire glass used for wristwatch faces, optical windows and smartphone components. There is no substitute for HPA in the manufacture of synthetic sapphire. Global HPA demand is approximately 25,315tpa (2016) and demand is growing at a compound annual growth rate (CAGR) of 16.7% (2016-2024), primarily driven by the growth in worldwide adoption of LEDs. As an energy efficient, longer lasting and lower operating cost form of lighting, LED lighting is replacing the traditional incandescent bulbs. Current HPA producers use expensive and highly processed feedstock materials such as aluminium metal to produce HPA. Altech has completed a Final Investment Decision Study (FIDS) for the construction and operation of a 4,500tpa HPA plant at the Tanjung Langsat Industrial Complex, Johor, Malaysia. The plant will produce HPA directly from kaolin clay, which will be sourced from the Company's 100%-owned kaolin deposit at Meckering, Western Australia. Altech's production process will employ conventional "off-the-shelf" plant and equipment to extract HPA using a hydrochloric (HCl) acid-based process. Production costs are anticipated to be considerably lower than established HPA producers. The Company is currently in the process of finalising project financing and has announced the execution of agreements with its appointed EPC contractor SMS group, for the commencement of construction of its HPA plant in Johor, Malaysia.

### Forward-looking Statements

This report contains forward-looking statements which are identified by words such as 'anticipates', 'forecasts', 'may', 'will', 'could', 'believes', 'estimates', 'targets', 'expects', 'plan' or 'intends' and other similar words that involve risks and uncertainties. Indications of, and guidelines or outlook on, future earnings, distributions or financial position or performance and targets, estimates and assumptions in respect of production, prices, operating costs, results, capital expenditures, reserves and resources are also forward-looking statements. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions and estimates regarding future events and actions that, while considered reasonable as at the date of this report and are expected to take place, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the directors and management. We cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this report will actually occur and readers are cautioned not to place undue reliance on these forward-looking statements. These forward-looking statements are subject to various risk factors that could cause actual events or results to differ materially from the events or results estimated, expressed or anticipated in these statements.

The mezzanine debt referred to in this report and previous ASX announcements: is indicative in nature; is non-binding; and contains the general terms of a proposed transaction. Any future binding commitment will be subject to and is contingent upon all internal approvals of the financial institution, as well as the completion of due diligence (including but not limited to legal, HPA market and technical due diligence) and the completion of legally binding documentation. There is no certainty that a mezzanine project debt facility will be approved or that any transaction/s will be concluded based on what was presented in the term sheet. The Company makes no representations or warranties whatsoever as to the outcome of the mezzanine debt process and/or the success of any future equity raising that may be undertaken to secure the balance of project funds required for the draw-down of senior project debt.



## Appendix 5B

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

**Name of entity**

ALTECH CHEMICALS LTD

**ABN**

45 125 301 206

**Quarter ended ("current quarter")**

JUNE 2019

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (12 months) \$A'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(1)	(42)
(b) development	(2,560)	(5,682)
(c) production	-	-
(d) staff costs	(617)	(1,626)
(e) administration and corporate costs	(284)	(1,627)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	23	103
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Research and development refund	74	74
1.8 Deposits Paid	-	(4)
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(3,365)</b>	<b>(8,804)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	(18)	(574)
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) HPA Plant (Stage 1 & 2 Construction payments)	(5,764)	(14,865)

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (12 months) \$A'000</b>
2.2 Proceeds from the disposal of:		
(a) property, plant and equipment	-	-
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other non-current assets	-	-
2.3 Cash flows from loans to other entities	-	-
2.4 Dividends received (see note 3)	-	-
2.5 Other (provide details if material)	-	-
<b>2.6 Net cash from / (used in) investing activities</b>	<b>(5,782)</b>	<b>(15,439)</b>

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of shares	16,197	37,411
3.2 Proceeds from issue of convertible notes	-	-
3.3 Proceeds from exercise of share options	-	-
3.4 Transaction costs related to issues of shares, convertible notes or options	(648)	(2,001)
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings (KfW IPEX-Bank Facility Fees)	(259)	(3,161)
3.8 Dividends paid	-	-
3.9 Other (provide details if material)	-	-
<b>3.10 Net cash from / (used in) financing activities</b>	<b>15,290</b>	<b>32,249</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	2,124	261
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(3,365)	(8,804)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(5,782)	(15,439)
4.4 Net cash from / (used in) financing activities (item 3.10 above)	15,290	32,249
4.5 Effect of movement in exchange rates on cash held		
<b>4.6 Cash and cash equivalents at end of period</b>	<b>8,267</b>	<b>8,267</b>



<b>5. Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1 Bank balances	8,267	2,124
5.2 Call deposits		
5.3 Bank overdrafts		
5.4 Other (provide details)		
<b>5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>8,267</b>	<b>2,124</b>

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

**Current quarter  
\$A'000**

391

Director remuneration (including superannuation contributions)

**7. Payments to related entities of the entity and their associates**

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

**Current quarter  
\$A'000**

## Mining exploration entity and oil and gas exploration entity quarterly report

<b>8. Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
8.1 Loan facilities		
8.2 Credit standby arrangements		
8.3 Other (please specify)		
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

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<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation	-
9.2 Development	(600)
9.3 Production	-
9.4 Staff costs	(350)
9.5 Administration and corporate costs	(400)
9.6 Other (Facility Fee – KfW IPEX-Bank)	(700)
9.7 HPA plant Construction payments	(4,000)
<b>9.7 Total estimated cash outflows</b>	<b>(6,050)</b>

<b>10. Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	<b>Tenement reference and location</b>	<b>Nature of interest</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter</b>
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced				
10.2 Interests in mining tenements and petroleum tenements acquired or increased				



**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.



Sign here: .....  
(Director/Company secretary)

30 July 2019  
Date: .....

SHANE VOLK  
Print name: .....

**Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.