



**Altech Chemicals**  
Limited

# QUARTERLY REPORT

December 2016

## HIGHLIGHTS

### **Altech opens Malaysian subsidiary office at Johor HPA site**

- Altech opens Malaysian subsidiary office in Johor
- Office situated close to site of proposed HPA plant
- Malaysian-based project co-ordinator appointed
- Applications for various permits and approvals commenced

### **Soil survey commences at Johor HPA site**

- Altech commences soil survey drilling at Johor HPA site
- Requirement as part of detailed civil design and engineering
- EPC contractor M+W Group co-ordinating work

### **Robust outlook for global HPA demand confirmed**

- Global HPA demand increased by 19.5% in 2015
- Annual HPA demand forecast of 86,831tpa by 2024 (estimate for 2016: 25,315tpa)
- Altech's strategy of focusing on 4N HPA endorsed
- HPA use in lithium-ion batteries offers blue sky demand
- Current reported HPA price in Japan is ~US\$30,000/t
- Threat of substitutes for HPA remains low

### **Lease signing ceremony secures HPA site**

- Lease signing ceremony secures HPA site at Johor
- 30-year lease agreement, with 30-year renewal option
- Johor is the ideal location for HPA production and distribution

### **Altech making solid progress with HPA project**

- HPA project due diligence program nearing completion
- No fatal flaws identified
- Detailed design progressing as planned
- Permitting for Malaysian HPA plant construction commenced

### **Altech submits mining proposal for Meckering**

- Meckering mining proposal and mine closure plan submitted to DMP
- Proposed mining activity is a simple quarry-style operation, no drill and blast required
- Two-month mining campaign once every 3 years
- Year-round kaolin container loading operation at Meckering site
- Containers shipped to HPA plant in Johor via port of Fremantle, Western Australia

## Altech opens Malaysian subsidiary office at Johor HPA site

During the quarter the Company opened an office for its wholly-owned Malaysian subsidiary company Altech Chemicals Sdn Bhd in Johor, Malaysia. The office is conveniently located approximately 300 metres from the site of Altech's proposed HPA plant in the Tanjung Langsat Industrial Complex, Johor, Malaysia. Altech also appointed a Malaysian-based project co-ordinator who, together with engineers from M+W Group (Altech's engineering, procurement and construction (EPC) contractor), will be based in the new office building during construction of the HPA plant.

Altech managing director Mr Iggy Tan commented, "The opening of the Company's Malaysian office is another positive step in advancing development of Altech's HPA project. Having an office so close to the site of the proposed HPA plant is ideal. Also, the appointment of a site-based project co-ordinator enables the various applications for permits and approvals to be efficiently progressed", he concluded.

Figure 1. Altech staff at the Malaysian office opening



### Tanjung Langsat Industrial Complex

The Tanjung Langsat Industrial Complex is located about 40km to the south-east of Johor Bahru, Johor, Malaysia. The chemical and industrial-zoned park hosts a range of multinational production groups from petrochemical, oil and gas, resource-based, ferrous and non-ferrous metal, biofuel and oleochemicals. Major companies include major Spanish steel manufacturer Acerinox Group; Titan Petrochemicals; Kiswire; Dairen Chemicals; Dialog and Lion Eco Chemical.

Figure 2. Altech's Malaysian office is located ~300m from its HPA plant site



## Soil survey commences at Johor HPA site

During the quarter the Company completed soil survey drilling at the site of its proposed HPA plant in the Tanjung Langsat Industrial Complex, Johor, Malaysia. Site topography, soil stability and soil analysis are required to finalise the HPA plant civil design and engineering.

The Singapore office of M+W Group, Altech's EPC contractor, co-ordinated the drilling, soil studies, civil design and engineering work, which included a full analysis of the soil profile and a determination of the piling and civil requirements.

Malaysian permitting consultancy group WKL & Associates (WKL) was also appointed by the Company during the quarter to prepare the required development order and construction permit applications. WKL will assist the Company with the various utility applications for electricity, natural gas and water supply to the plant.

Altech managing director Iggy Tan commented "It is rewarding to be able to announce the commencement of preliminary work at the Tanjung Langsat HPA site, and the appointment of Altech's first Malaysian employee: a site-based project co-ordinator. These events signify the beginning of Altech's presence on the ground in Malaysia", he concluded.

## Lease signing ceremony secures HPA plant site

The Company announced its participation in an official lease signing ceremony hosted by Johor Corporation in Johor, Malaysia on 23 November 2016.

At the ceremony president and chief executive officer of Johor Corporation YB Dato Kamaruzzaman Abu Kassim formally presented Altech managing director Mr Iggy Tan with the lease documents for the site within the Tanjung Langsat Industrial Complex. A 30-year lease agreement, which includes a 30-year renewal option, was executed with TPM Technopark Sdn Bhd, a wholly-owned subsidiary of Johor Corporation.

Altech's HPA plant site was selected for its proximity to hydrochloric acid, lime and limestone plants, all required plant consumables. Reticulated natural gas and high voltage power is also readily available to the site, as is access to processing water. The nearby port of Tanjung Pelepas will distribute Altech's final HPA product; it is the 17th largest port in the world, shipping more than seven million containers annually.

Altech managing director Mr Iggy Tan said, "*Johor is currently the preferred destination for business investment in Malaysia. Cost of business in Johor is estimated at 30% less than in Kuala Lumpur and 60% less than in Singapore.*"

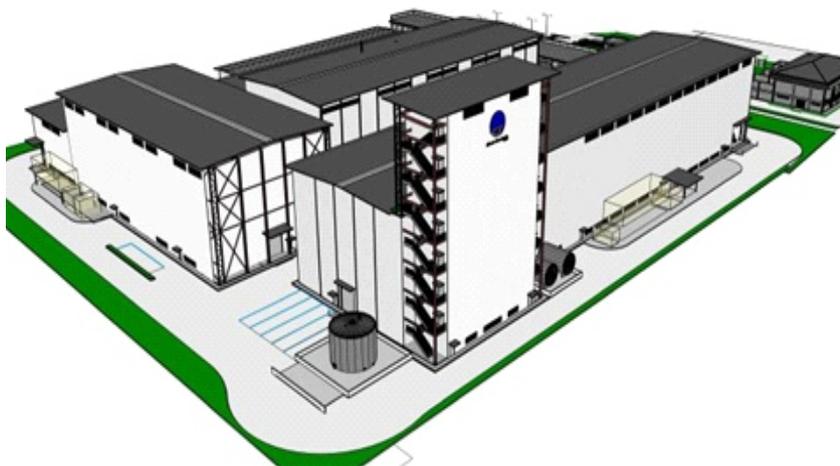
*"With three ports; low cost and established power, gas, road, telecommunications and other business infrastructure and its proximity to Singapore, Johor is the ideal site for Altech's downstream high value-add HPA processing plant.*"

*"We firmly believe that the benefits of locating our HPA plant in Johor will enable Altech to position itself in the lowest quartile of the world's HPA producers. This is important when you are competing in a global market", he concluded.*

Figure 3. Johor Corporation lease signing ceremony



Figure 4. Proposed Malaysian HPA plant detailed design



## Altech making solid progress with HPA project

During the quarter the Company provided an update on its HPA project.

### Debt Financing

Since January 2016 Altech has been working exclusively with German government-owned KfW IPEX-Bank on project finance structuring. The Company is targeting US\$70m of project debt; the majority of which is aimed to be subject to German export credit cover (ECA); and the remaining to be on normal commercial loan terms.

Due diligence consultants were appointed by Altech and KfW IPEX-Bank to undertake a definitive technical, market, and legal review of the project, with an independent "expert opinion" to conclude the review. The Company received indicative loan terms and conditions from KfW IPEX-Bank for the US\$70m facility, confirming the bank's intention to provide the entire project debt amount. The facility terms and conditions are being discussed, are not binding on either party and remain subject to approval.

### Due diligence program

The due diligence team completed site visits to Meckering, Fremantle and Perth, Western Australia and to Johor, Malaysia in early August 2016. Due diligence work included detailed and extensive reviews of the Company's Bankable Feasibility Study (BFS) and supporting project data. None of the due diligence consultants' reports have yet identified any major flaws in the project.

## Altech making solid progress with HPA project (continued)

### Detailed Design

In parallel with project financing activities, Altech's EPC contractor M+W Group commenced the detailed design and engineering work for the HPA plant in August 2016. To date, in the region of 60% of the required engineering and data packages have been completed for the entire HPA plant. Around half of the packages have been covered by returned binding quotations from suppliers.

### Meckering Development

In preparation for campaign mining at the Meckering kaolin deposit, Altech announced the delineation of a maiden Ore Reserve of 1.2 million tonnes @ 30% Al<sub>2</sub>O<sub>3</sub> (alumina) in the minus 300 micron (µm) kaolin fraction with a cut-off grade of 25% Al<sub>2</sub>O<sub>3</sub> (refer Table 1 below).

The Meckering Ore Reserve is sufficient to support the feedstock requirements of the proposed HPA plant for an initial stage 1 mine-life of 30 years<sup>1</sup>.

### Johor Development

In Malaysia, Altech and M+W Group appointed local permitting consultants WKL to submit the required development order and construction permit applications. Supply contracts for key plant consumables are also being arranged by the Company.

Altech managing director Mr Iggy Tan said, "We have been very busy progressing the detailed design with M+W Group in preparation for tendering and receiving binding quotations from suppliers for the plant".

Table 1. Maiden Ore Reserve & Mineral Resource Summary

	Category	Quantity (Mt)	Yield % minus 300	Minus 300 Al <sub>2</sub> O <sub>3</sub> (%)
Ore Reserve	Proved	0.45	69	30.1
	Probable	0.77	71	30.0
	<b>TOTAL</b>	<b>1.22</b>	<b>70</b>	<b>30.0</b>
Mineral Resources (including Ore Reserve)	Measured	1.5		30.0
	Indicated	3.3		30.0
	Inferred	7.9		29.1
	<b>TOTAL</b>	<b>12.7</b>		<b>29.5</b>

<sup>1</sup> Refer ASX announcement 16 March 2016 "Altech Improves Financials of its HPA Project with BFS update". Altech confirms that all material assumptions underpinning the financial information derived from the production target continue to apply and have not materially changed.

Figure 5. Detailed design 3D HPA plant layout



## Altech submits mining proposal for Meckering

The Company submitted a mining proposal (MP) and mine closure plan (MCP) to the Department of Mines and Petroleum (DMP) on 1 December 2016.

At Meckering, Altech is planning to mine approximately 140kt of kaolin ore in two-month mine campaigns every three years. The resultant kaolin ore will be stockpiled on site, then containerised into standard shipping containers at the rate of about 45ktpa and shipped to Johor, Malaysia via the port of Fremantle, Western Australia.

The relatively low annual tonnage of feedstock required for the HPA plant means that the Meckering mining will be a simple quarry-style campaign operation with no blasting required. The mine plan, pit design and associated Ore Reserve for the proposed Meckering mine confirms a 30-year mine life at Meckering, providing over 1.2Mt of high-quality, alumina-rich kaolin feedstock to supply the proposed HPA plant.

Altech managing director Mr Iggy Tan said, "The submission of the mining proposal and supporting mine closure plan marks another important step in the development of the HPA project".

### Transport route

The Company's Meckering mining lease M70/1334 is located about 150km east of the port of Fremantle and 8km south-east of the town of Meckering, Western Australia. The tenement is accessible via a number of well-maintained gazetted public roads providing direct truck access to the Great Eastern Highway. Haulage of the ~45ktpa of kaolin ore from the Meckering site to the Malaysian HPA plant will be undertaken by Altech's all-inclusive freight partner, Seatram.

## Robust outlook for global HPA demand confirmed

An update on the outlook for global high purity alumina (HPA) demand was announced by the Company during the quarter. The market information was sourced from the report 'High Purity Alumina Market: Global Industry Analysis and Forecast 2016-2024' by Persistence Market Research (Persistence), which was commissioned as part of the Company's project debt funding due diligence program.

Altech managing director Mr Iggy Tan said, "The report confirms the robust outlook for global HPA demand. Importantly, the report confirms the low-cost/high efficiency of Altech's acid leach process as well as the continued strong bargaining power of HPA producers", he concluded.

### Demand likely to increase with growing applications

Persistence reported global HPA consumption increased by 19.5% from 17,832t in 2014 to 21,309t in 2015. Strong HPA demand growth is expected with the global market forecast to increase from 25,315t in 2016 to 86,831t by 2024, a market size increase of 343% and a 16.7% compound annual growth rate (CAGR).

Figure 6. Global High Purity Alumina Market Snapshot



### 4N HPA demand to dominate

Demand for 4N HPA (99.99%  $Al_2O_3$ ), Altech's selected market segment, is forecast to continue to dominate the market and account for 72% of overall HPA demand in 2024 (2016: 74.2%). The report accepts that Altech's planned production capacity of 4,000tpa will help Altech establish itself as a leading player in the global HPA market.

### Product Lifecycle – it's still early days for HPA

Although HPA has been commercially produced for over three decades, production volume growth has been significantly low. However, demand for HPA has increased rapidly over the last few years primarily due to the proliferation of LEDs for lighting and other electronics applications. The global HPA industry is currently considered to be positioned about the mid-point of the "growth" phase of its life-cycle, with substantially more growth to come, according to the report.

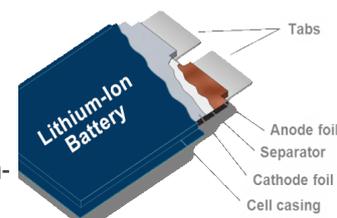


### LED sector to outshine all others

The sustained increase in LED demand is being driven by the global transition to LED lighting. This will underpin 4N HPA demand growth, according to Persistence. The LED sector is estimated to account for 57.3% of global HPA consumption in 2016, growing to 61% by 2024.

### Lithium-ion battery sector: blue-sky growth

Lithium-ion battery production is expected to witness robust growth during the forecast period; driven by increasing demand for renewable energy storage, electric vehicles and consumer electronics. Lithium-ion battery separator manufacturers utilise HPA as a separator coating material. HPA-coated separators withstand higher temperatures, thus increasing battery safety.



The expected robust growth in lithium-ion battery production, coupled with the growing adoption of HPA-coated separators, will provide an opportunity for rapid HPA demand growth during the 2016-24 period.

### HPA Pricing

Persistence expects 4N HPA prices to consolidate over the period based on the assumption that new HPA producers will likely adopt the same low-cost acid-leach process as Altech. The report anticipates HPA prices to stabilise at ~US\$28/kg, particularly sapphire grade 4N HPA. Altech's long-term average 4N HPA price of US\$23/kg is considered conservative especially when compared to Japan's reported 4N HPA price at ~US\$30/kg.

"...once (Altech) achieves 4,000tpa (they) can aim an estimated market share of 10% in 2019." (Persistence)

## Robust outlook for global HPA demand confirmed (continued)

### Alternative (Higher Cost) Processes for HPA Production

HPA is conventionally produced using processes such as the aluminum alkoxide process; modified-Bayer process; choline hydrolysis process, among others.

These HPA process methods utilise higher-priced feedstock materials such as aluminum metal (~US\$2,500-US\$3,500/t). Due to the extensive processing required to obtain HPA from aluminum, these methods are both cost and energy intensive.

Altech's positioning as a low-cost HPA producer via the adoption of acid leach processing of kaolin clay is noted in the report. A combination of lower feedstock and overall operating costs, with the higher level of overall efficiency of the process delivers a cost of production well below the competing HPA processes.

### APAC region to dominate global HPA consumption

Persistence recognised Altech's strategic advantage being located in the Asia Pacific region, sighting better customer engagement, which is expected to help the Company establish a footprint in the ever-growing HPA market within the region.

*"Moreover, another noteworthy fact is that two of the leading three HPA producers that offer higher priced and better quality products for concerned applications, do not have their production facilities in Asia Pacific region".* (Persistence)

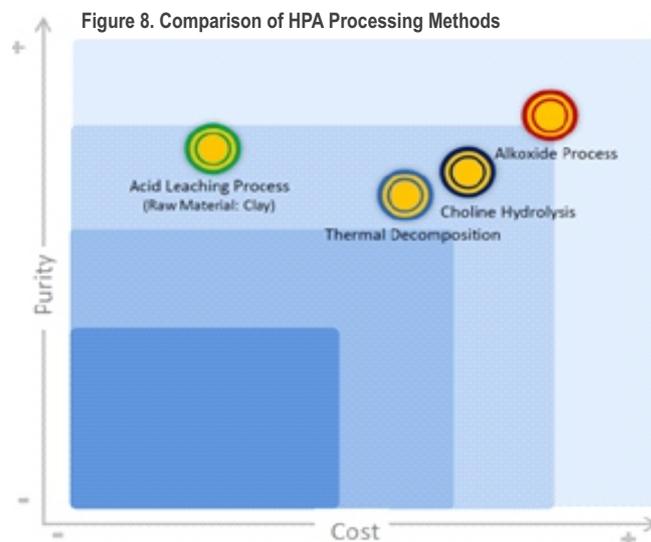
### Mitsubishi tie-up likely to create value for Altech

The Company's 10 year off-take agreement with Mitsubishi is a strategic advantage, according to Persistence:

*"The off-taker is backed by Mitsubishi Corporation, which also increases its financial credibility. The engagement is projected to translate into a good initial market footprint for Altech... it will also minimise expenditure on product marketing, which is an added advantage to the producer."* (Persistence)



Figure 7. HPA plant building design



### Feedstock security to shield the project from potential risk

The report explained that Altech's single-step process uses a relatively lower cost feedstock, kaolin (or aluminous clay), to produce HPA via acid leaching; avoiding the use of high-cost feedstock such as aluminum. Persistence also noted that Altech has positioned itself as a mining and chemicals company i.e. it is vertically integrated in terms of raw material production and final HPA production. Persistence concludes that this vertical integration is likely to result in consistency and security in raw material supply. Also, because Altech utilises kaolin feedstock for HPA production the Company is insulated from aluminum price fluctuations.



### Threat of Substitutes is Low

Persistence reported that the impact from potential 'threat of substitutes' within the HPA market is relatively low. No suitable alternative is available for use in applications requiring HPA.

Persistence analyses also found that the bargaining power of HPA suppliers will remain high, with relatively few HPA producers globally. The bargaining power of HPA buyers on the other hand was assessed by Persistence as moderate-to-low, primarily due to the large number of businesses consuming HPA versus the relatively low number of HPA producers.

Use of HPA is imperative, especially for the production of sapphire ingots. Also, use of HPA for lithium-ion battery separator coatings as against conventionally-used coating materials has been found to impart superior performance characteristics to the end product.

## Corporate

During the quarter the Company presented at the TeckKnow Invest Conference in Melbourne; an interview with Altech managing director Mr Iggy Tan was also conducted and is available on the Company's website. The Company subsequently participated in the ASX Spotlight Series events in Hong Kong on 25 October 2016 followed by Singapore on 27 October 2016.

The Company also presented at the Low Emission & Technology Minerals Conference held in Perth on 15 November 2016.

Finally, live television coverage of Altech via Sky News' segment "Your Money Your Call" aired on 14 December 2016. The live recommendation is available for viewing on the Company's website: [www.altechchemicals.com](http://www.altechchemicals.com).

Figure 9. SkyNews Money live recommendation of the Company



## Annual General Meeting

Pursuant to ASX listing rule 3.13.2 the Company advised the outcome of voting on the resolutions at the Annual General Meeting (AGM), which was held on 11 November 2016. All resolutions were passed by the required majority on a show of hands (refer ASX announcement for details).



Figure 10. Proposed Meckering kaolin loading facility

## Schedule of Tenements

As per ASX Listing Rule 5.3.3, the Company held the following tenements (exploration and mining leases) as at 31 December 2016:

Tenement ID	Registered Holder	Location	Project	Grant Date	Interest start of quarter	Interest end of quarter
E70/4718	Canning Coal Pty Ltd	WA Australia	Kerrigan	01/12/2015	100%	100%
M70/1334	Altech Meckering Pty Ltd	WA Australia	Meckering	19/05/2016	100%	100%
E70/4852	Altech Meckering Pty Ltd	WA Australia	Meckering		100%	0%
E70/4856	Canning Coal Pty Ltd	WA Australia	Meckering		100%	0%
E70/4857	Altech Meckering Pty Ltd	WA Australia	Meckering		100%	0%
E70/4341	Australian Mineral Sands Pty Ltd	WA Australia	SW Titanium	16/01/2013	100%	0%
E70/4643	Australian Mineral Sands Pty Ltd	WA Australia	SW Titanium	25/03/2015	100%	100%



**Altech Chemicals**  
Limited

# QUARTERLY REPORT

December 2016

## Company Snapshot

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

### FINANCIAL INFORMATION

(as at 31 December 2016)

Share Price:	\$0.135
Shares:	266m
Options:	3.6m
Performance Rights:*	20.7m
Market Cap:	\$35.9m
Cash:	\$4.7m

### 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

### ABOUT ALTECH CHEMICALS (ASX: ATC)

Altech Chemicals Limited (Altech/the Company) is aiming to become one of the world's leading suppliers of high purity alumina (HPA) ( $Al_2O_3$ ). 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 lenses 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 expected to grow 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 an expensive and highly processed feedstock material such as aluminium metal to produce HPA. Altech has completed a Bankable Feasibility Study (BFS) for the construction and operation of a 4,000tpa HPA plant at the Tanjung Langsat Industrial Complex, Johor, Malaysia. The plant will produce HPA directly from alumina-rich 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 securing project financing with the aim of commencing project development in Q3-2017.

### COMPETENT PERSONS STATEMENTS – MECKERING KAOLIN DEPOSIT

The information in this announcement that relates to Mineral Resources and Ore Reserves is extracted from the report entitled "Maiden Ore Reserve at Altech's Meckering Kaolin Deposit" released on 11 October 2016; the report is available to view on the Company's website [www.altechchemicals.com](http://www.altechchemicals.com). 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, in the case of estimates of Mineral Resources and Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. 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 market announcement.

### FORWARD-LOOKING STATEMENTS

This announcement 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 announcement 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 our 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 announcement 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.

## 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 LIMITED

**ABN**

45 125 301 206

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

DECEMBER 2016

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers		
1.2 Payments for		
(a) exploration & evaluation	(65)	(65)
(b) development	(4,111)	(5,159)
(c) production	-	-
(d) staff costs	(443)	(842)
(e) administration and corporate costs	(335)	(668)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	54	61
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	-
1.8 Other (provide details if material)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(4,900)</b>	<b>(6,673)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	(584)	(602)
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other non-current assets	-	-

Appendix 5B

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

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (6 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>(584)</b>	<b>(602)</b>

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of shares	-	11,005
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	-	(599)
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other (provide details if material)	-	-
<b>3.10 Net cash from / (used in) financing activities</b>	<b>-</b>	<b>10,406</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	<b>10,215</b>	<b>1,600</b>
4.2 Net cash from / (used in) operating activities (item 1.9 above)		
4.3 Net cash from / (used in) investing activities (item 2.6 above)		
4.4 Net cash from / (used in) financing activities (item 3.10 above)		
4.5 Effect of movement in exchange rates on cash held	-	-
<b>4.6 Cash and cash equivalents at end of period</b>	<b>4,731</b>	<b>4,731</b>

5. <b>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	Current quarter \$A'000	Previous quarter \$A'000
5.1 Bank balances	4,731	10,212
5.2 Call deposits	-	-
5.3 Bank overdrafts	-	-
5.4 Other (provide details) (Security Deposit)	-	3
<b>5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>4,731</b>	<b>10,215</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

**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
152
-

Director Remuneration & Rent of office premises

## 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	3,400
9.3 Production	-
9.4 Staff costs	400
9.5 Administration and corporate costs	350
9.6 R&D refund received	(465)
<b>9.7 Total estimated cash outflows</b>	<b>3,685</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	E70/4852	EL Application	100%	0%
	E70/4856	EL Application	100%	0%
	E70/4857	EL Application	100%	0%
	E70/4341	Granted EL	100%	0%
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)

Date: 31 JANUARY 2017  
.....

Print name: SHANE VOLK  
.....

**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.