



**Altech Chemicals**  
Limited

# QUARTERLY REPORT

December 2015

## HIGHLIGHTS

- **Altech signs mandate with German KfW IPEX-Bank for project financing**
  - Exclusive project finance mandate with German KfW IPEX-Bank
  - Mandate for senior debt, including German Export Credit Agency (ECA) insured debt
  - Approx. US\$40m of ECA cover project debt
  - Balance of approx. \$15m senior debt
- **Appointment of HPA sales & marketing manager (China)**
  - Mr Martin Ma appointed to develop the HPA business in China
- **Altech receives Letter of Interest (LOI) for German export credit cover**
  - LOI received from Euler Hermes for German ECA cover
  - Around 55% of plant and equipment sourced from Germany & additional 10% from Europe
  - Debt supported by ECA cover is typically at attractive conditions, including long tenure and low interest rates
- **Optimisation of kaolin beneficiation plant location**
  - Kaolin beneficiation plant to be located at the Company's HPA plant site in Johor, Malaysia
  - Detailed design and optimisation work continues



### **Altech signs mandate with German KfW IPEX-Bank for project financing**

The exclusive mandate with KfW IPEX-Bank (KfW) confirms the advisory services for the provision of senior debt project financing for Altech's proposed high purity alumina (HPA) project. A letter of interest (LOI) was previously submitted highlighting the bank's support for the project.

KfW is a leading German export and project finance specialist with significant experience in the debt financing of mining and chemical projects worldwide. KfW has experience working in the Asia-Pacific region on projects similar to Altech's HPA project.

"The execution of this mandate with KfW for senior debt funding, including its support in pursuing German ECA cover, is a significant step in our project financing efforts.

"The possibility of accessing low interest rate, long-term project financing that may be available under German ECA cover is compelling and the detailed due diligence process associated with final grant of the cover will be a strong endorsement of the Company's HPA project", said managing director Iggy Tan.

**Typical HCI-based processing plant that  
Altech would use in Malaysia**





## **Altech receives Letter of Interest (LOI) for German export credit cover**

Following its preliminary evaluation of Altech's HPA project, Euler Hermes Aktiengesellschaft (Hermes) submitted a Letter of Interest (LOI) confirming in principle support under the export credit insurance guarantee scheme of the Federal Republic of Germany (ECA cover). The LOI is based on information provided by Altech in an earlier presentation at Hermes' head office in Hamburg, Germany; and is subject to further in-depth due diligence.

Altech estimated that approximately US\$40m of project capital expenditure (from total project capital expenditure of ~US\$77m) could qualify for ECA cover and additional senior debt in the region of US\$15m, for total project debt financing of around US\$55m. ECA was identified as applicable to Altech's HPA project because the majority of the plant and equipment will be sourced from Germany and other European Union manufacturers. Furthermore, German company M+W Group is Altech's appointed engineering, procurement and construction (EPC) contractor for the project.

"Obtaining this LOI from Hermes in such a short period of time has been a complete team effort involving our Perth-based management, German-based financing consultants, KfW IPEX-Bank and our general EPC contractor M+W Group.

"Feedback from our financing consultants is that only selected projects pass the very important initial assessment by Hermes and that cover is awarded to the vast majority of the projects that succeed at the initial evaluation.

"ECA cover and subsequent senior debt project financing is still subject to detailed due diligence and there is no guarantee that ECA cover or final debt funding for the project will eventuate, however the Hermes LOI is a significant milestone," said Iggy Tan.

### **About Euler Hermes and Export Credit Agency (ECA) Cover**

Euler Hermes Aktiengesellschaft is the appointed export credit agency (ECA) that administers the ECA scheme for the German government. ECA is an instrument for the promotion German exports. It provides a cover to bank lenders to insure against the risk of an export loan.

**Members of Altech, M+W Group, KfW and advisors in Hamburg for Hermes meeting**



## Optimisation of kaolin beneficiation plant location

As a result of the detailed design and optimisation work currently underway, the location of the kaolin beneficiation plant is now proposed to be at the HPA plant site in Johor, Malaysia. The kaolin beneficiation process, which provides feedstock for the HPA plant, was initially located at Meckering, Western Australia. Locating the kaolin beneficiation plant on-site with the HPA plant in Johor reduces the plant capital costs due to the elimination of the dryer, bagging unit and supporting infrastructure previously proposed for Meckering. The advantages of locating the plant in Malaysia are lower operating costs due to much lower power and gas charges, lower labour costs and various maintenance and operating synergies.

The estimated lower operating costs for the Malaysian kaolin beneficiation process will more than offset the additional freight associated with transporting raw kaolin from Meckering to Malaysia. The revised Meckering operation (post mining) will consist of the simple loading of raw kaolin material directly into sea containers for shipment to Malaysia.



Altech's managing director Mr Iggy Tan said, "identifying the benefits of locating the kaolin beneficiation plant in Malaysia is a credit to the detailed design and optimisation team.

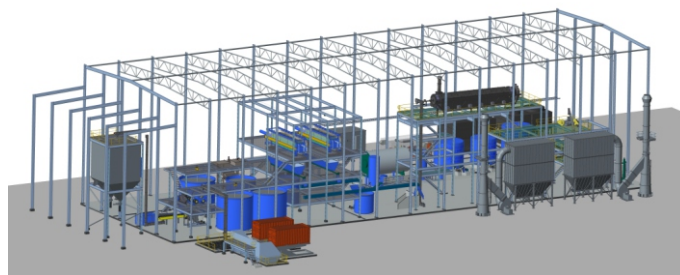
"The impacts on project NPV will be minimal, however the simplification of the beneficiation flow sheet and the synergies of having all of the major project infrastructure at one site and within one jurisdiction, Malaysia, will deliver both operating and project financing advantages.

"Detailed design and optimisation work is ongoing and will continue into the first quarter of 2016, in parallel with our project financing and associated activities."

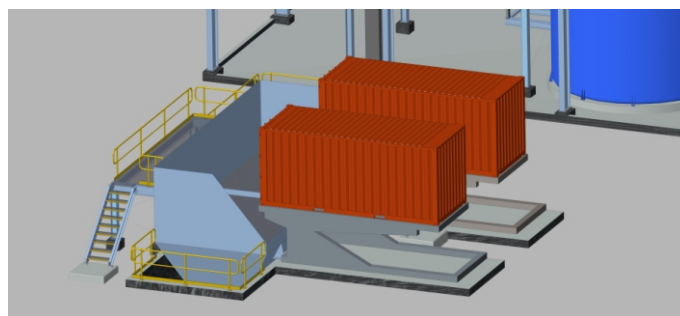
### Permitting for proposed Meckering kaolin project

The grant of the mining lease (ML) at Meckering (M70/1334) remains pending and is before the mining warden. The warden heard the Company's submission in December 2015 and is scheduled to hear the freehold landowner submission in February 2016; concurrently the Company continues to discuss access compensation with the freehold landowner pursuant to the Compensation Agreement announced to the ASX on 14 February 2011.

### Plant design incorporating kaolin beneficiation plant in Malaysia



Design of sea container unloading system







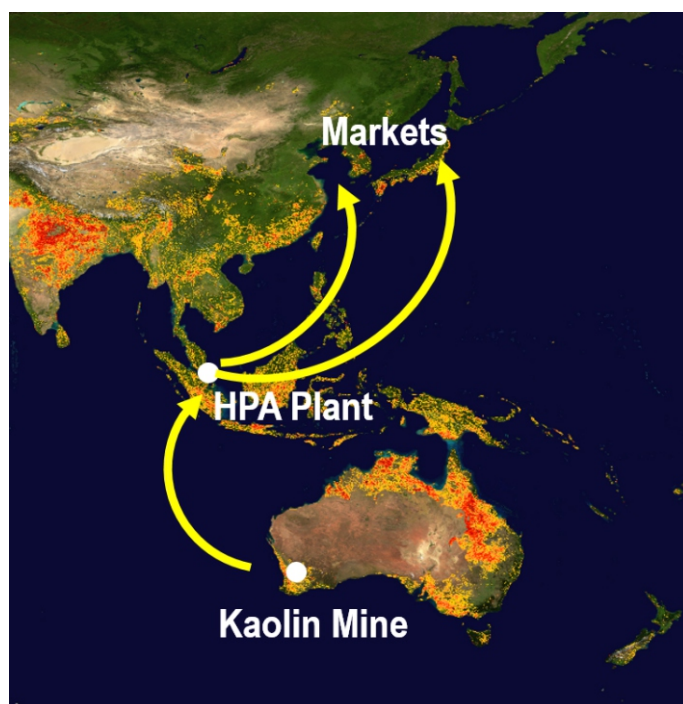
### **Altech appoints HPA sales & marketing manager (China)**

Subsequent to quarter end, Altech appointed Mr Martin Ma as the Company's sales and marketing manager (China) for the proposed HPA operation. Mr Ma's appointment follows the Company's appointment of

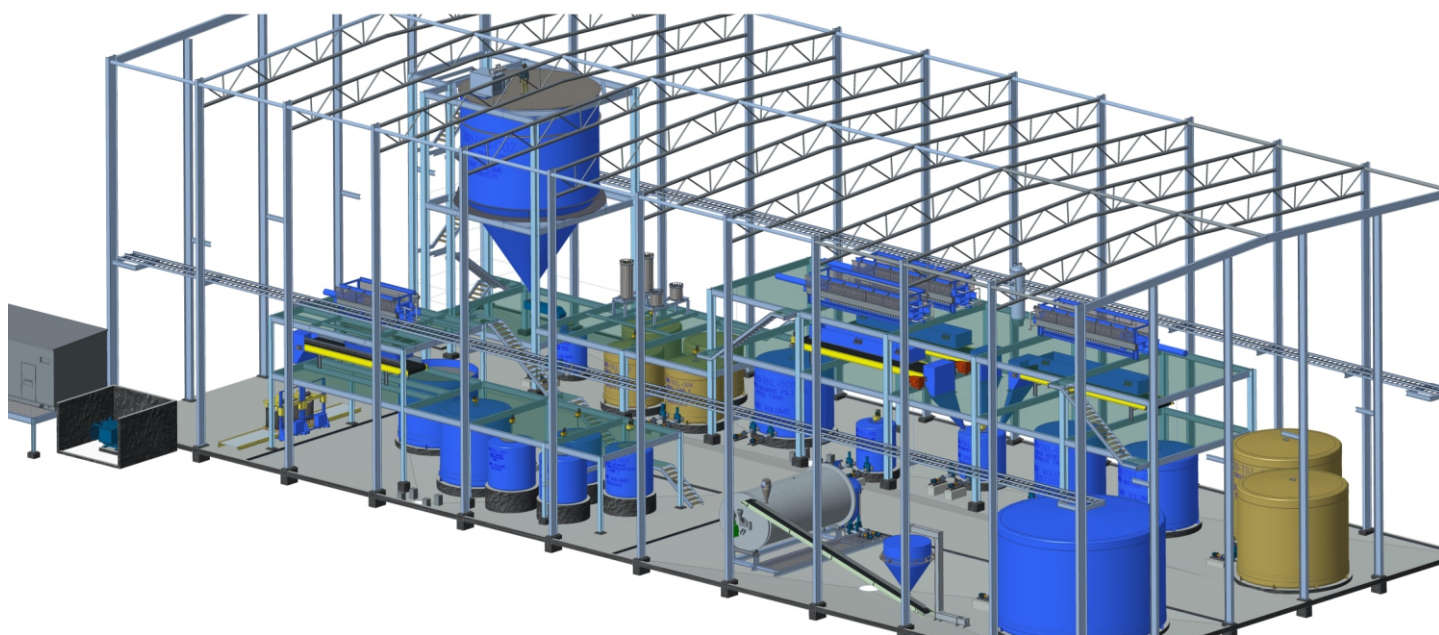
Mitsubishi Corporation as the exclusive seller and distributor of Altech's HPA product to the Japanese market (ASX 24 September 2015).

Mr Ma is highly experienced in sales management of high purity materials to Chinese industries. His expertise is in the lithium battery and electrical vehicle industries, which are fast-growing markets for HPA. Mr Ma is a chemistry engineering graduate from the Henan University Chemistry Institute in China.

"Mr Ma's appointment is another key step in the sales and marketing strategy for the Asia Pacific region. His role will involve the development of our HPA business in China and the establishment of off-take agreements. Altech continues to build a strong and experienced management team in preparation for its emergence as a significant producer of HPA" Iggy Tan said.



HPA plant design (Malaysia)





### Altech finalises kaolin mining rights agreement with Dana for up to \$3m cash plus royalty

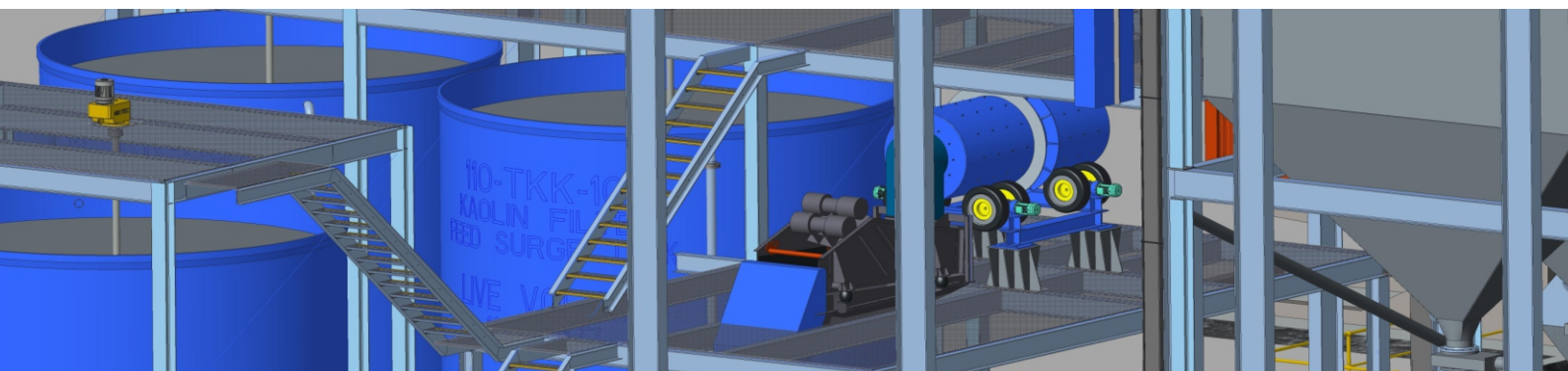
Altech finalised a kaolin mining rights agreement with Dana Shipping and Trading S.A. (Dana) during the quarter. The agreement grants Dana the exclusive right to mine up to 10Mt of kaolin from the Company's Meckering kaolin deposit (Meckering Deposit) (refer to ASX announcement 30 October 2015 for details). Under the terms of the agreement, Dana will pay Altech \$1m cash for the right to mine 10Mt of kaolin (First Transaction) upon either the grant of mining lease (ML) M70/1334 or the grant of any alternate ML that provides mining access to kaolin within an area of the exploration licence (EL) containing the Meckering Deposit. Subject to the completion of the First Transaction, Altech has granted Dana an option to increase its kaolin mining right to 30Mt by paying \$2m cash to the Company. Also, under the agreement Altech will receive a 2% gross sales royalty on all bulk kaolin sales. The grant of the mining rights to Dana will not constrain the Company's HPA project; under the agreement terms, Altech's right to mine kaolin for its HPA project takes priority over the rights granted to Dana.

Altech managing director Iggy Tan commented, "Altech remains focused on finalising the detailed design and securing funding for the construction of our HPA project.

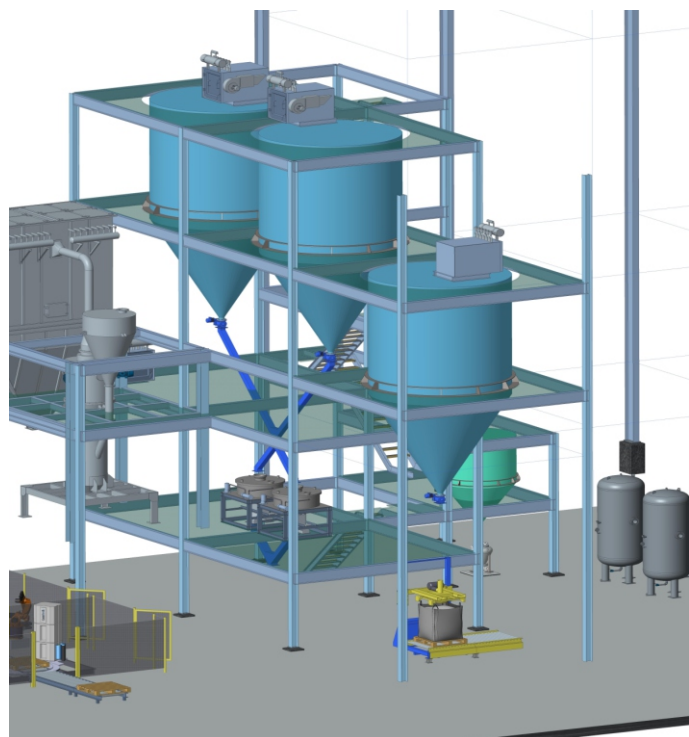
"As our HPA project requires only 4Mt of kaolin for a 100 year life, securing additional value for our shareholders from the kaolin resources at Meckering via this mining rights agreement with Dana is a great outcome. If Dana exercises the option to increase its mining rights to 30Mt, Altech will benefit from a total cash injection of \$3 million, without dilution to current shareholders."

### Kerrigan kaolin project granted

Altech's Kerrigan kaolin project, consisting of one exploration licence (EL) E70/4718 (Kerrigan project), was granted during the quarter. The Kerrigan project contains an Inferred Kaolin Mineral Resource of 85Mt at 85.1% brightness (JORC 2004) (refer to ASX announcement 24 August 2011 for details). The Kerrigan project is located approximately 20km south of the Western Australian wheatbelt town of Hyden and 335km south-east of Perth. Situated on freehold agricultural land, the tenement covers an area of approximately 480km<sup>2</sup>. The project is proximal to the Hyden to Lake Grace railway line, which connects to the port city of Albany; there are also established sealed roads from Hyden to Perth and the ports of Albany, Albany, Bunbury, Esperance and Fremantle.







## Corporate

During the quarter the Company issued 537,832 fully paid ordinary shares on the conversion of listed options (ex. \$0.10, 15-12-2015); 17,203,394 fully paid ordinary shares at \$0.059 per share; and 55,600 fully paid ordinary shares on the exercise of performance rights. At the date of this report the Company has 152,615,782 fully paid ordinary shares on issue.

### Release of company video

During the quarter the Company launched a corporate video 'Meeting a sapphire future', which summarises the various applications of high purity alumina (HPA) and the Company's proposed HPA project. The video is available on Altech's website.

### Interview with Finance News Network

Altech managing director Iggy Tan was interviewed by Finance Network News on 10 October 2015. The interview discusses the importance of artificial sapphire in the LED and electronic industries. The interview is available on Altech's website.

## Schedule of Tenements

As per ASX Listing Rule 5.3.3, Altech Chemicals Limited held the following tenements (exploration and mining leases) as at 31 December 2015:

Tenement ID	Registered Holder	Location	Project	Grant Date	Interest start of quarter	Interest end of quarter
E70/3923	Altech Meckering Pty Ltd	WA Australia	Meckering	30/11/10	100%	100%
EPM18375	Altech Chemicals Ltd	Qld Australia	Constance Range	27/04/12	100%	100%
E70/4341	Australian Mineral Sands	WA Australia	Beenup	16/01/13	100%	100%
E70/4643	Australian Mineral Sands	WA Australia	SW Titanium	25/03/15	100%	100%
E70/4713	Altech Chemicals Ltd	WA Australia	Southdown	9/06/15	100%	100%
E70/4718	Canning Coal Pty Ltd	WA Australia	Kerrigan	01/12/15	100%	100%
M70/1334	Altech Chemicals Ltd	WA Australia	Meckering		100%	100%
E70/4706	Yilgarn Iron Pty Ltd	WA Australia	Green Range		100%	0%
E70/4707	Canning Coal Pty Ltd	WA Australia	Green Range		100%	0%
E70/4708	Canning Coal Pty Ltd	WA Australia	Meckering		100%	0%
E70/4716	Altech Meckering Pty Ltd	WA Australia	Meckering		100%	0%
E70/4717	Altech Meckering Pty Ltd	WA Australia	Meckering		100%	0%
E70/4737	Yilgarn Iron Pty Ltd	WA Australia	Kerrigan		100%	0%
E70/4785	Canning Coal Pty Ltd	WA Australia	Meckering		0%	100%
E70/4786	Canning Coal Pty Ltd	WA Australia	Meckering		0%	100%
E70/4784	Altech Meckering Pty Ltd	WA Australia	Meckering		0%	100%
E70/4781	Canning Coal Pty Ltd	WA Australia	Green Range		0%	100%
E70/4782	Yilgarn Iron Pty Ltd	WA Australia	Green Range		0%	100%





## Altech Chemicals Limited

### Company Snapshot

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

#### FINANCIAL INFORMATION (as at 31 December 2015)

Share Price:	\$0.11
Shares:	150m
Unlisted Options:	6.1m
Performance Rights*:	17.2m
Market Cap:	\$16.5m
Cash:	\$1.0m

#### DIRECTORS:

LUKE ATKINS LLB

Chairman

IGGY TAN B.Sc MBA GAICD

Managing Director

PETER BAILEY B.Sc(Hons) Elect.Eng MIEE C.Eng

Non-executive Director

DAN TENARDI

Non-executive Director

PRINCE YA'ACOB

BIN TUNKU TAN SRI ABDULLAH

Non-executive Director

UWE AHRENS

Alternate Director

SHANE VOLK

BBus (ACC) GradDip (ACG) CSA

Company Secretary & CFO

#### ADDRESS:

Suite 8, 295 Rokeby Road,  
Subiaco, Western Australia, 6008  
T: +61 8 6168 1555  
F: +61 8 6168 1551

#### MEDIA CONTACT

Tony Dawe

Professional Public Relations

tony.dawe@ppr.com.au

T: +61 8 9388 0944

\* 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 99.99% (4N) high purity alumina (HPA) ( $Al_2O_3$ ).

HPA is a high-value, high margin and highly demanded product because it is the critical ingredient required for the production of sapphire substrates which are used in the manufacture of LED lights, for the manufacture of alumina semiconductor wafers that are widely used in the electronics industry and for the manufacture of scratch resistant artificial glass used for scratch resistant watch faces, camera lenses and by various smartphone manufacturers. There is no substitute for HPA in the manufacture of sapphire substrates, sapphire semiconductor wafers or scratchproof sapphire glass.

Global HPA demand is approximately 19,040tpa (2014) and demand is growing at an annual rate of 28%, primarily driven by the growth in LED's as this energy efficient, longer lasting and lower operating cost lighting that replaces traditional incandescent bulbs. HPA demand is expected to at least double over the coming decade.

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 manufacturing plant at Tanjung Langsat, 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 acid (HCl) leaching 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 Q3-2016.

Altech is focused on manufacturing 4N HPA to supply the growing global demand for this vital ingredient for the LED industry and the next generation of high-performance technologies.

#### 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.

#### Competent Persons Statement – Kerrigan Project

The information in this report that relates to Mineral Resources for the Company's Kerrigan project is based on information compiled by Ms Sue Border, who is a Fellow of the AusIMM and of AIG and is a consultant to the Company. Ms Border has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that she is undertaking to qualify as a Competent Person as defined in the 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". The information contained in this report is extracted from the ASX announcement entitled "AMMG INCREASES GLOBAL KAOLIN RESOURCES TO 150 MILLION TONNES, WESTERN AUSTRALIA" dated 24 August 2011 and is available to view on the Company website [www.altechchemicals.com](http://www.altechchemicals.com). Ms Border has reviewed this statement and can confirm the resource figures are current, and approves the inclusion in his public report in the form and context in which they appear.



# 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, 01/05/2013

Name of entity

ALTECH CHEMICALS LIMITED

ABN

45 125 301 206

Quarter ended ("current quarter")

31 December 2015

### Consolidated statement of cash flows

Cash flows related to operating activities		Current quarter \$A'000	Year to date (3 months) \$A'000
1.1	Receipts from product sales and related debtors	-	-
1.2	Payments for (a) exploration & evaluation	(2)	(23)
	(b) development	(437)	(895)
	(c) production	-	-
	(d) administration	(426)	(700)
1.3	Dividends received	-	-
1.4	Interest and other items of a similar nature received	8	11
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Other – Research & Development tax incentive	851	851
	<b>Net Operating Cash Flows</b>	<b>(6)</b>	<b>(756)</b>
<b>Cash flows related to investing activities</b>			
1.8	Payment for purchases of: (a) prospects	-	-
	(b) equity investments	-	-
	(c) other fixed assets	-	(3)
1.9	Proceeds from sale of: (a) prospects	-	-
	(b) equity investments	-	-
	(c) other fixed assets	-	-
1.10	Loans to other entities	-	-
1.11	Loans repaid by other entities	-	-
1.12	Other (provide details if material)	-	-
	<b>Net investing cash flows</b>	<b>-</b>	<b>(3)</b>
1.13	Total operating and investing cash flows (carried forward)	<b>(6)</b>	<b>(759)</b>

+ See chapter 19 for defined terms.



**Appendix 5B****Mining exploration entity and oil and gas exploration entity quarterly report**

1.13	Total operating and investing cash flows (brought forward)	(6)	(759)
	<b>Cash flows related to financing activities</b>		
1.14	Proceeds from issues of shares, options, etc.	653	1,183
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Other (provide details if material)	-	-
	<b>Net financing cash flows</b>	<b>653</b>	<b>1,183</b>
	<b>Net increase (decrease) in cash held</b>	<b>647</b>	<b>424</b>
1.20	Cash at beginning of quarter/year to date	352	575
1.21	Exchange rate adjustments to item 1.20		
1.22	<b>Cash at end of quarter</b>	<b>999</b>	<b>999</b>

**Payments to directors of the entity, associates of the directors, related entities of the entity and associates of the related entities**

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	153
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

Director remuneration

**Non-cash financing and investing activities**

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

--

+ See chapter 19 for defined terms.



**Appendix 5B**

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

---

- 2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

--

### Financing facilities available

*Add notes as necessary for an understanding of the position.*

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities		
3.2 Credit standby arrangements		

### Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	10
4.2 Development	360
4.3 Production	-
4.4 Administration	350
<b>Total</b>	<b>720</b>

### Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.

	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	996	996
5.2 Deposits at call	-	-
5.3 Bank overdraft	-	-
5.4 Other – Security Deposit (Exploration Tenement)	3	3
<b>Total: cash at end of quarter (item 1.22)</b>	<b>999</b>	<b>999</b>

---

+ See chapter 19 for defined terms.



## Changes in interests in mining tenements and petroleum tenements

	Tenement reference and location	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements and petroleum tenements relinquished, reduced or lapsed			
6.2	Interests in mining tenements and petroleum tenements acquired or increased	E70/4718 (Kerrigan)	100% (application)	100% (Granted)

## Issued and quoted securities at end of current quarter

Description includes rate of interest and any redemption or conversion rights together with prices and dates.

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1 <b>Preference securities</b> (description)				
7.2 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3 <b>+Ordinary securities</b>	150,665,782	150,665,782		
7.4 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs	17,796,326	17,796,326	17,203,394 at \$0.059 per share 537,332 at \$0.10 per share 55,600 at nil per share (vesting of employee performance rights)	Fully paid Fully paid Fully paid
7.5 <b>+Convertible debt securities</b> (description)				

+ See chapter 19 for defined terms.

7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7	<b>Options</b> (description and conversion factor)	2,500,000	-	<u>Exercise price</u> \$0.10	<u>Expiry date</u> 30-June-2016
		1,000,000	-	\$0.20	18-Dec-2017
		1,000,000	-	\$0.25	18-Dec-2017
		1,000,000	-	\$0.30	18-Dec-2017
		600,000	-	\$0.20	31-Jan-2017
	<b>Performance Rights</b> (employees & directors)	20,950,000	-	nil	
7.8	Issued during quarter	Nil			
7.9	Exercised during quarter	537,332	537,332	\$0.10	15-12-2015
7.10	Expired during quarter	3,490,403	3,490,403	\$0.10	15-12-2015
7.11	<b>Debentures</b> (totals only)				
7.12	<b>Unsecured notes</b> (totals only)				

## Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 5).
- 2 This statement does ~~/does not~~\* (delete one) give a true and fair view of the matters disclosed.



29 January 2016

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

Shane Volk

Print name: .....

+ See chapter 19 for defined terms.



## 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 wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements and petroleum tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement or petroleum tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 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.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Financial Reporting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

== == == == ==