11 October 2016

MAIDEN ORE RESERVE AT ALTECH'S MECKERING KAOLIN DEPOSIT

Highlights

- Maiden Ore Reserve of **1.2Mt @ 30% Al_2O_3** (JORC 2012) at Altech's Meckering Kaolin Deposit (M70/1334)
- Ore Reserve and mine design will provide immediate kaolin feedstock for initial 30 years mine-life
- Mineral Resources (JORC 2012) estimation of **12.7Mt @ 29.5% Al_2O_3**
- The Resource supports the proposed HPA plant for over 250 years

Altech Chemicals Limited (Altech/the Company) (ASX: ATC) is pleased to announce the estimation of a maiden Ore Reserve based on the production of high purity alumina (HPA) using feedstock from its 100%-owned Meckering Kaolin Deposit (M70/1334), Western Australia (Meckering). The Ore Reserve was derived from a Mineral Resources estimation at Meckering, which was delineated for the purpose of HPA production.

A maiden **Ore Reserve** is estimated at **1.2 million tonnes @ 30% Al_2O_3** (alumina) in the minus 300 micron (µm) kaolin fraction with a cut-off grade of 25% Al_2O_3. The Ore Reserve at Meckering is more than sufficient to support the proposed HPA processing operation (ore delivery rate of 41,000tpa) for the initial stage 1 mine-life of 30 years.

A **Mineral Resource** estimated **12.7 million tonnes @ 29.5% Al_2O_3** (alumina) in the minus 300 micron (µm) kaolin fraction with a cut-off grade of 25% Al_2O_3. The Mineral Resources estimation at Meckering is potentially sufficient to support its proposed HPA production for over 250 years.

The Mineral Resources estimate is inclusive of the above Ore Reserve estimate and based on data from the Company's April 2016 drilling program and subsequent test work results.

Table 1. Maiden Ore Reserve & Mineral Resources Summary

	Category	Quantity (Mt)	Yield % of minus 300µm	Minus 300µm Al_2O_3 (%)
Ore Reserve	Proved	0.45	69	30.1
	Probable	0.77	71	30.0
	TOTAL	**1.22**	**70**	**30.0**
Mineral Resources (including Ore Reserve)	Measured	1.5		30.0
	Indicated	3.3		30.0
	Inferred	7.9		29.1
	TOTAL	**12.7**		**29.5**

Altech managing director Mr Iggy Tan commented, "*The Company is pleased to present both the maiden Ore Reserve and Mineral Resources estimation.*

"The Ore Reserve statement is a significant milestone that confirms an initial stage 1 30 year mine-life at Meckering, providing over 1.2Mt of high-quality, alumina-rich kaolin feedstock to supply the proposed HPA plant.

"The Mineral Resource estimate is sufficient to supply the proposed HPA operation for over 250 years which will also allow further capacity expansions in the future.

"*The next step of the process to bring Meckering into production is the submission of the mining proposal and mine closure plan as part of the approvals required for the commencement of construction in early 2017",* he concluded.

ORE RESERVE STATEMENT (JORC 2012)

Material Assumptions

Material assumptions and outcomes were detailed in the Company's bankable feasibility study (BFS) which was first released in June 2015 and updated in March 2016.

The key assumptions are:

- A Meckering mining operation with kaolin ore shipped to Malaysia at a rate of 41,000 tpa for processing and production of 4,000 tpa of HPA product
- HPA processing, underpinned by batch testing, involves leaching the -300µm fraction of the mined kaolin ore

The Company's BFS indicated that:

- The kaolin resource can easily meet the processing feed requirements for the production targets of the proposed HPA operation.
- HPA product price of US$23,000 per tonne.
- The 30-year HPA project is profitable, with an estimated NPV of US$357.5 million at a discount rate of 9%, a payback period of 3.7 years and an IRR of 33.3%.
- Project capital expenditure of US$78.7 million and operating costs of US$9,070 per tonne.
- NPV calculations are before interest and tax.
- The cost of the proposed Meckering mining operation accounts for about 2% of the total HPA production cost.

Ore Reserve Classification

The Ore Reserve was prepared in accordance with the JORC Code 2012 by Orelogy Consulting Pty Ltd (Orelogy), a highly-experienced independent mine planning consultancy group based in Perth, Western Australia. Orelogy was first appointed by the Company in 2014 and has since been working closely with the Company to progress the Meckering mine development and approvals proceedings.

The BFS pit designs were updated based on the Mineral Resource provided (released as part of this announcement) and the proposed Malaysian HPA processing plant feed requirements. Proved Ore Reserves are based on Measured resource materials and Probable Ore Reserves are based on Indicated resource materials, constraint by the pit designs.

The Meckering Kaolin Deposit Ore Reserve estimate is summarised in Tables 2 and 3, with the estimation process summarised in Appendix 1 (Section 4 of JORC Table 1 for the estimation and reporting of Ore Reserves).

Table 2. Summary of Ore Reserve

(@ 25% Al_2O_3 cut-off [2] in material <300µm[1])

Reserve Category	Quantity (Mt)	Al_2O_3 (%)	-300µm Yield (%)	Waste (Mt)	Stripping Ratio
Proved	0.454	30.1	69	0.813	0.66
Probable	0.770	30.0	71		
Total	**1.224**	**30.0**	**70**		

1.Malaysian HPA beneficiation process screens ore @ -300µm to remove oversize quartz; alumina grade is alumina % in -300 µm fraction
2. Cut-off 25% Al_2O_3 selected to target a design beneficiated feed grade of >27% Al_2O_3

Table 3. Ore Reserve Estimate

Stage	PROVED ORE						PROBABLE ORE						PROVED & PROBABLE ORE						Mine Waste (kt)	Strip Ratio
	kt	Al_2O_3 %	Fe_2O_3 %	TiO_2 %	K_2O %	Yield %	kt	Al_2O_3 %	Fe_2O_3 %	TiO_2 %	K_2O %	Yield %	kt	Al_2O_3 %	Fe_2O_3 %	TiO_2 %	K_2O %	Yield %		
1	82.0	29.7	0.9	0.6	0.3	71	58.5	29.1	1.0	0.6	0.3	72	140.5	29.4	0.9	0.6	0.3	71	147.8	1.05
2	4.4	31.2	0.9	0.6	0.4	73	127.1	29.5	0.9	0.6	0.3	72	131.5	29.5	0.9	0.6	0.3	72	71.6	0.54
3	47.1	30.3	0.9	0.6	0.4	71	94.2	30.4	0.8	0.5	0.3	73	141.3	30.3	0.8	0.5	0.4	72	75.0	0.53
4	34.9	30.2	0.9	0.6	0.4	71	97.9	30.6	0.8	0.5	0.4	73	132.8	30.5	0.8	0.5	0.4	72	77.5	0.58
5	12.5	29.2	0.8	0.6	0.4	69	120.0	30.6	0.8	0.5	0.4	72	132.5	30.4	0.8	0.5	0.4	71	82.1	0.62
6	0.7	29.7	0.8	0.6	0.5	70	138.0	30.2	0.8	0.5	0.4	71	138.7	30.2	0.8	0.5	0.4	71	83.0	0.60
7	45.8	29.4	0.8	0.6	0.4	69	88.7	29.2	0.9	0.6	0.5	68	134.5	29.3	0.9	0.6	0.4	68	127.2	0.95
8	106.4	30.6	1.0	0.6	0.5	68	31.1	29.7	1.0	0.6	0.5	67	137.4	30.4	1.0	0.6	0.5	68	95.3	0.69
9	120.7	30.3	1.0	0.6	0.6	67	14.9	29.8	1.0	0.6	1.1	63	135.6	30.2	1.0	0.6	0.6	67	53.8	0.40
Total	**454.4**	**30.1**	0.9	0.6	0.5	69	**770.4**	**30.0**	0.9	0.6	0.4	71	**1,224.9**	**30.0**	0.9	0.6	0.4	70	**813.3**	**0.66**

Confidence in Modifying Factors

Analysis of the sensitivity of the Project NPV to changes in key assumptions or estimates used in the financial model (base case) shows that the NPV is most sensitive to a movement in the HPA selling price and/or a movement in the USD/AUD exchange rate. The Company believes that these parameters were estimated conservatively. The NPV is not as sensitive to changes in capital or operating costs.

An Integrated Risk Assessment has been undertaken including qualitative and quantitative analysis of the risks and uncertainties associated with the project's development. The assessment did not identify any risks that threaten the viability of the project.

Mining Method

A conventional open pit mine method was selected as the basis for the Company's BFS, suitable due to the near surface presence of the kaolin ore. No blasting is required due to the high weathered nature of the kaolin mineralisation. At Meckering, ore is hauled to the Run of Mine (RoM) stockpile and overburden is backfilled into the pit to minimise the footprint of the proposed operation. This method was tested and proven effective by trial mining activities carried out historically on the Meckering deposit.

The proposed pit at Altech's Meckering site was designed in nine (9) stages with overall wall angles and backfill rill angles of 35˚; these were geotechnically validated. The mine designs allow for practical minimum mining widths, ramp designs and adequate space for backfilling. The initial overburden material will be dumped into the existing pit and used for the construction of a pond for the discharge and evaporation of pit water. An ore loss of 10% was allowed to avoid contamination (dilution) of ore with overburden and sheeting materials.

Due to the relatively small quantities of ore extracted, and to maintain adequate efficiencies, mining will be undertaken once every three (3) years in two-month campaigns; a two-month campaign is sufficient to excavate and stockpile three (3) years' kaolin supply on the RoM stockpile pad.

Mining Method and Assumptions

The Company's HPA process involves beneficiating the Meckering RoM kaolin followed by calcination; acid leaching to produce aluminium chloride; crystallisation of aluminium chloride; two (2) stages of purification; roasting for acid recovery; and final calcination for the production of a finished HPA product.

HCl processing, underpinned by laboratory and batch testing, was demonstrated to be ideal for producing HPA, primarily due to the absence of sodium ions in the Company's kaolin feedstock. It is therefore very suited to the kaolin material of the Meckering deposit, which contains low levels of impurities and high alumina content. The metallurgical recovery was estimated at 34.5%.

Cut-off Grade

A cut-off grade of 25% Al_2O_3 was selected to provide the HPA processing plant in Malaysia with the optimum feed grade.

Estimation Methodology

The Ore Reserve estimate is the outcome of the March 2016 Bankable Feasibility Study with geological, geotechnical, mining, metallurgical, processing, engineering, marketing and financial considerations, including test work, followed by updated pit designs based on the Mineral Resource. The estimated NPV demonstrates that the HPA project is economical and robust; an Integrated Risk Assessment did not identify any risks that threaten the viability of the project.

Material Modifying Factors – Mining Lease

The Company's engagement with relevant stakeholders includes securing key landowner agreements; several meetings have been held with the Shire of Cunderdin council. Altech's mining tenement (M70/1334) was also granted on 19 May 2016.

Material Modifying Factors – Environmental

The proposed Meckering operation has been referred to the Western Australian state government for environmental approval. Baseline environmental surveys have been completed and investigations to date have not identified any environmental issues or potentially adverse impacts that would compromise approval of the project. The proposed campaign mining is considered a low-level extraction activity without the requirement for mine waste rock or process tailings storage facilities. Hence the permitting process is anticipated to be simple and straightforward.

The Company has received approval from the Department of Environment, Johor, Malaysia (DOE) of its Preliminary Site Assessment (colloquially referred to as a "PAT") for the proposed Malaysian HPA plant. In general, the approval of the PAT confirms that the proposed location of the HPA plant and its proposed activity are compatible with gazetted structure and local plans, surrounding land use, provision of set-backs or buffer zones and waste disposal requirements. The DOE also advised that an Environment Impact Assessment (EIA) will not be required for the HPA plant.

Solid residue from the proposed HPA plant will predominantly be in the form of neutralised benign silica residue that will be made available to local brickworks or cement plants. Any residue from the plant will be neutralised and treated on-site and disposed of via local waste vendors. All process water from the plant will be treated on-site to established environmental standards.

The next approval stage for the HPA facility is the required approval and registration of air pollution control system, chimneys and fuel burning equipment. The HPA plant has been designed to meet international environmental standards as well as the standards of the Malaysian Environmental Quality Act 1974.

Material Modifying Factors – Infrastructure

The township of Meckering has good public road access and connections to the port of Fremantle. The Company's mining lease M70/1334 provides adequate space for the proposed operation including the RoM stockpile, container loading shed and evaporation pond. Power will be provided through a diesel generator and potable water will be trucked to site. The major service town of Northam is located about 30km from the mining lease.

The Tanjung Langsat Industrial Complex, Johor, Malaysia was selected as the location for the Company's proposed HPA plant. The Company has secured a ~4 hectare site in a section of the Tanjung Langsat Industrial Complex reserved for chemical facilities as the location for its HPA plant. Hydrochloric acid, power, water and natural gas are readily available, as is skilled local labour force.

MINERAL RESOURCES STATEMENT (JORC 2012)

Mineral Resources are reported inclusive of Ore Reserves and include all exploration and drilling information including subsequent data from test work. Previous work examining the economic potential of kaolin as a commercial clay product provided significant qualitative and geological information for the estimate. The estimate was undertaken by Geos Mining, independent geological consultants, in accordance with the JORC Code 2012 and follows the Company's BFS (June 2015, updated March 2016), which investigated the proposed HPA project's viability.

Table 4. Resources Estimate
(at 25% cut-off Al_2O_3 in material less than 300 micron)

Category	Volume (m^3)	Tonnes	Avg. density (t/m^3)	-300 micron Al_2O_3 (%)	-300 micron yield (%)	- 300 micron yield (t)	-300 micron Fe_2O_3 (%)	-300 micron TiO_2 (%)
Measured	900,000	**1,500,000**	1.58	30.0	69	1,000,000	1.01	0.62
Indicated	2,100,000	**3,300,000**	1.57	30.0	69	2,300,000	0.97	0.61
Inferred	5,000,000	**7,900,000**	1.57	29.1	1.0	3,900,000	69	0.63
Inferred low confidence	*1,400,000*	*2,300,000*	*1.58*	*28.7*	*68*	*1,500,000*	*1.11*	*0.63*
TOTAL	**8,000,000**	**12,700,000**	**1.58**	**29.5**	**69**	**8,700,000**	**1.02**	**0.62**

All grades are of the minus 300 fraction. Figures may not sum exactly due to rounding.

Geology

The Company's granted mining lease (M70/1334) lies in the south western part of the Yilgarn Craton, in an area with thick deeply weathered regolith profiles. The Meckering Kaolin Deposit is located in the southern part of the granulite facies metamorphic belt of rocks termed the Western Gneiss Terrane. This belt extends north-northwest across the Perth sheet area for over 120km and varies in width from 15 to 65km.

Geological mapping and drilling have enabled a regolith profile to be recognised comprising a thin soil cover over a pisolitic limonitic laterite. The laterite, which is usually two to six metres thick, is usually underlain by a mottled zone up to four metres thick, which may be replaced by a thin silcrete or siliceous horizon. A narrow band of weathered bedrock occasionally occurs either above or below the silcrete horizon or mottled zone. The mottled zone is then underlain by the kaolin pallid zone, which typically passes into weathered bedrock or banded sandy clay. At the proposed mine site the base of the mottled zone is less than 10m from the surface and the kaolin pallid zone (clay zone and the saprolite) is extensively developed, exceeding 40m in thickness in some places.

Drilling and Collar Surveys

All holes were reverse circulation (RC) air core. All collar co-ordinates drilled in 2016 were recorded in GDA94 Zone 50. Historical drilling locations were converted into this co-ordinate system. 2016 drill collar surveys were by RTK (Real Time Kinetic), where collars were not surveyed using this method (MK100-MK319) the RL of collars was derived from a digital terrain model (DEM). The DEM is accurate in z dimension for the classified resources. This elevation model agrees with the RTK surveyed collars elevations.

Downhole Survey

Conventionally, no down-hole surveys were conducted during drilling. All drilling was undertaken at -90 degrees (vertical) and assumed representative of true thickness. The combined effects of the shallow drilling depth (<60m) and soft drill substrate are assumed to have minimised down-hole deviation of the drill string. Any deviation from vertical is likely to be minor and not significant to the economic potential of the project.

Field Logging

During 2016 logging was conducted on RC drill chip and spoils, drill holes were geologically logged on a metre interval basis.

Sample Recovery

No measurement of sample recovery was made as the drilling process disturbs the sample in the process. As a result minor contamination (smearing down-hole) and minor error/s may be introduced into quantitative analysis. However, weights of the samples collected indicate sufficient representative material was collected for analysis.

Sample Collection

Reverse circulation (RC) air core drilling by the Company in April 2016 was used to obtain 1m down-hole interval samples. If the sample was white, off white or pale cream it was retained in full. The sample was bagged in plastic bags, assigned a unique sample number and grouped into batches for despatch. A total of 669 samples were collected from Altech's 2016 drilling.

Sample Processing & Analysis

All chemical analysis was undertaken using a Panalytical XRF (fusion) with lithium borate flux, except for B, U, Th where analyses were done by peroxide fusion and ICP. Loss on Ignition was analysed at 1000C° in a LECO furnace.

The minus 300 micron fractions were obtained by wet screening.

Nagrom Laboratories undertook all sample analysis and preparation for the Company's 2016 drilling at the Meckering Kaolin Deposit. Sue Border of Geos Mining visited the ISO90001 accredited facilities on 3 August 2016. Nagrom's facilities were found to be of a high standard and checks on wet screen sample preparation were observed to be clean, with no visible clay balls or obvious clays in the retained oversize fractions.

Field Standards and Duplicates

Samples from the existing pit were submitted for analysis (for reference material analysis), and were found to be comparable with previous bulk sample results from the same pit. Duplicates were taken at the drill rig at the rate of one every twenty samples. Sixteen (16) duplicates were weighed and analysed for moisture content, and one (1) for chemical analysis; results were satisfactory.

Drill sample reliability was checked by comparison with historic bulk sample pits and data was closely comparable.

One (1) 2016 hole was twinned with a historic hole. Twin holes compared very well on geological logging, visually estimated brightness and measured ISO brightness. The only direct bases for comparison were the 45 micron yield and the 45 micron fraction brightness, and sample intervals differed, but results were comparable.

Laboratory Quality Control

Examination of laboratory standards and duplicates indicate there is no cause for concern with any of the laboratory procedures or analytical accuracy. Laboratory duplicate samples were included in the sample stream to check the relative precision of the test work. At the request of Altech, XRF analysis was performed on both minus 300 and minus 500 fraction sizes. The main mineral occurring in the 300 to 500 micron fraction in this environment was quartz, and visual inspection of stored samples at Nagrom confirmed this to be the case. Therefore, these analyses were effectively duplicates, and taking into account the removed quartz, there is a consistent correlation between the duplicate pairs.

Bulk Density Data

Three holes were surveyed using Gamma and Density probes for the purposes of determining in-situ density. Downhole densities were derived from the average between Long-Spaced density and Short-Spaced density from down-hole point reads, and corrected for moisture. The average dry density was 1.58g/cm^3.

Data Handling & Storage

Geos Mining compiled newly acquired drilling and assay data into an exploration database prior to the resource estimation. Altech's project data was stored in a custom-designed Microsoft SQL Server 2008 R2 database.

Field observations were logged into purposed Excel spreadsheets, while laboratory assay reports were supplied as direct laboratory exports. All data uploaded to the project database occurred via software data importers to minimise data handling errors and perform routine validation.

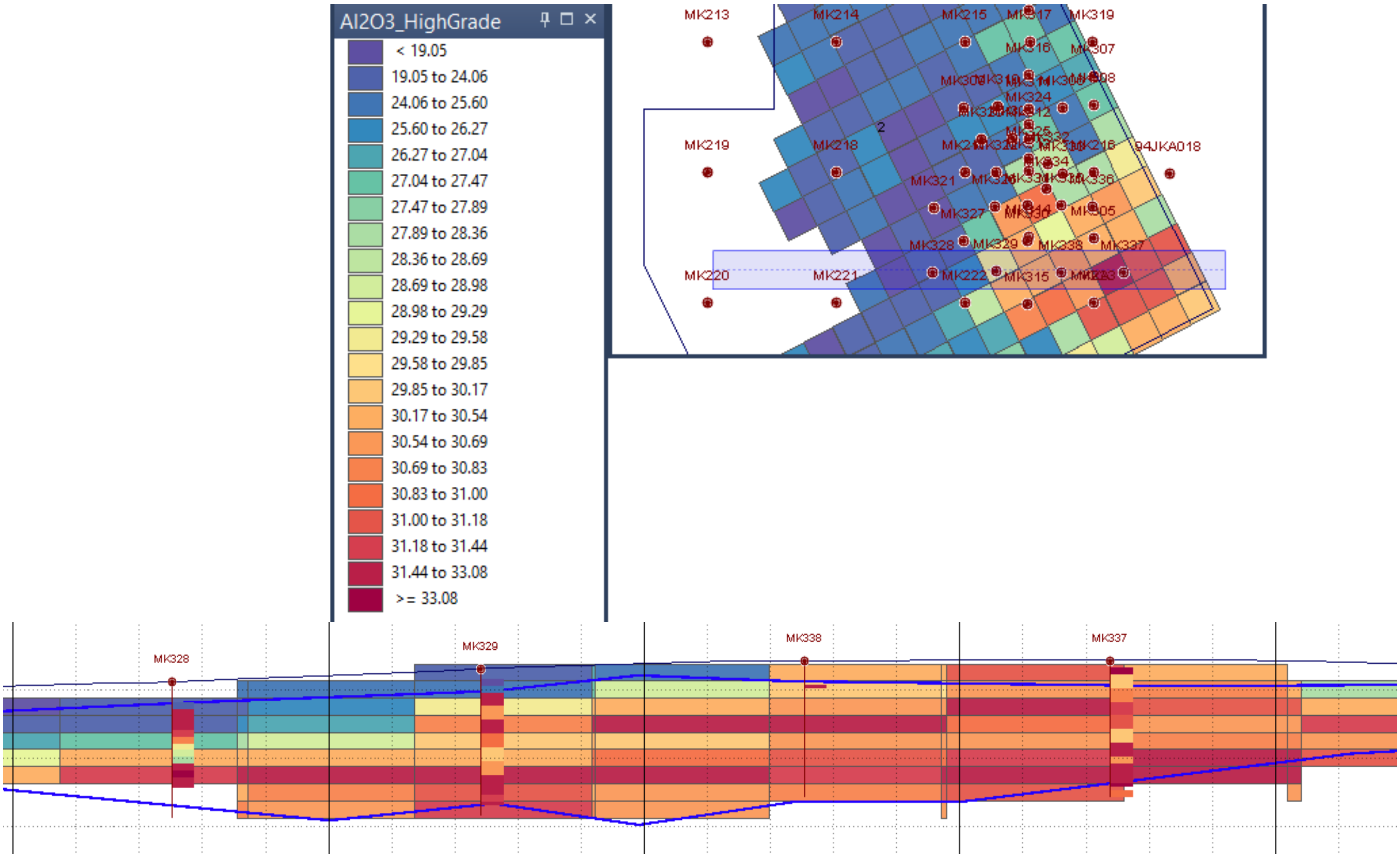
Resource Estimation Procedures

Resource estimation was undertaken using Micromine 2014 software. A 50 by 50 by 5m block model was created in Micromine. Block dimensions were considered suited to the potential bench height in the Z dimension and appropriate to the drill spacing as holes range in separation from 200m to 23m. The parameters considered to have significant economic impact in the production of high purity alumina were interpolated into the block mode by ordinary kriging using variogram models. These were Al_2O_3, K_2O, and Fe_2O_3 for the minus 300 micron assays and minus 300 micron Yield. Three (3) passes were made to populate sufficient blocks to the bounds of potential mine planning. Search neighbourhoods were expanded from 150 to 300 and finally 500m in X and Y (Radius), Z was kept constant at 3m to sufficiently reflect the lateritic nature of the deposit, and still incorporate appropriate composites.

Table 5. Search neighbourhood parameters

Search Neighbourhood Parameters			
PASS	X	Y	Z
1	150	150	3
2	300	300	3
3	500	500	3

Figure 1. EW Cross section with down hole -0.3m Al2O3 and block model with wireframe constraint.



A wireframe was used in the estimate to constrain the final block model to within the outline of logged white kaolin. An additional constraint of -2% K_2O was also applied during reporting that eliminated less weathered blocks not amenable to beneficiation, and that are likely to be harder and pose problems in mining.

After consideration of the mining method and likely pit wall slope only blocks 40m within the mining lease M70/1334 are reported as Mineral Resources.

The resource model was validated on a cross-sectional basis, superimposing composites, raw assays and block values in the same view. This allowed reconciliation of block grades with proximal samples and identification of any anomalies.

Note that for this resource, estimates of the elemental oxide content of the 300 micron size fraction in blocks is not to be confused with an estimate of elemental oxide of in situ un-sized material. To account for the material in the oversize fraction the yield of the 300 micron fraction must be used to adjust back to the as mined concentrations, if required. The estimated yield averages 68% and ranges from 44%-84%.

Resource Classification

The classification of Mineral Resources was made where adequate quantitative chemical data from the 2016 drilling was available to estimate the attributes of individual blocks or sufficient historical drilling existed to demonstrate geological continuity of the resources to extrapolate from the 2016 chemical assays. The logic of classification was based on variography, estimation pass and the number of distinct drill holes used to estimate each block. Categories were assigned to all blocks within the mining lease and resource shell within the silhouette of projected block outlines selected by the criteria in the table below. Resources exclude blocks 40m inside the mining lease bounds or those outside of the wireframe domain or blocks with over 2% K_2O.

Table 6. Classification Criteria

Resource Classification Criteria		
Estimation Pass	**Drill holes used in block estimate**	**Classification**
1	>9	Measured
1	>3	Indicated
1,2	>2	Inferred 1
1,2 & 3	>2	Inferred 2

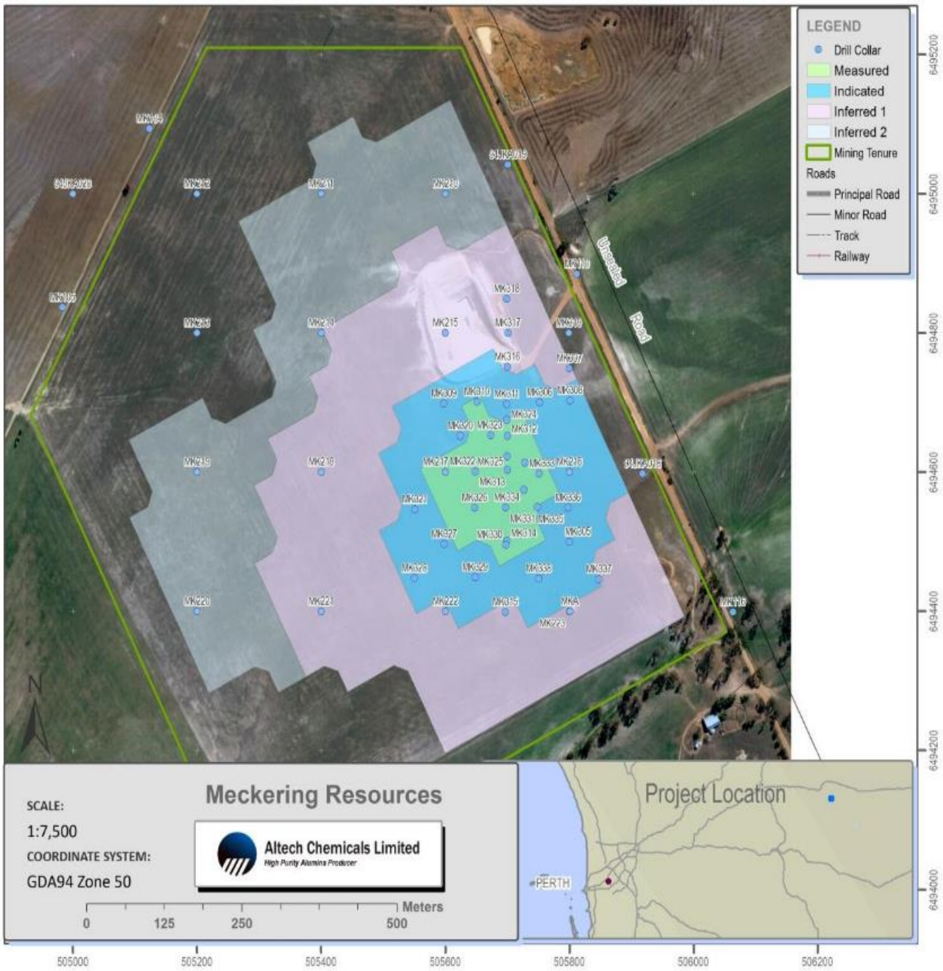
Cut-off Grade

The cut-off of 25% Al_2O_3 in minus 300 micron material is considered economically reasonable, based on the financial forecasts in the BFS. The preliminary financial forecasts are positive, and all aspects of production and marketing of the product HPA have been assessed and found viable.

Mining and Processing Factors

Resources have been restricted to within the area expected to be minable by the planned open pit mining method. Due to the planned processing of wet screening at minus 300 micron to upgrade the feedstock to the HPA plant, the yield and chemistry of the minus 300 micron fraction has been quoted for the resource.

Figure 2. Mineral Resources Category Plan



Environmental

The environmental impact statement has been reviewed and there are no known environmental impediments to the development of the project.

Metallurgical

The results of the metallurgical test work indicate there is a viable method for the beneficiation of high purity alumina from the material contained in the Resources.

Radioactive Elements

Based on Uranium and Thorium ICP assays conducted on twenty (20) samples from four (4) holes within Measured and Indicated Resource areas, material would not be classed as radioactive material under IAEA safety standards that Western Australia uses to classify radioactive material. (International Atomic Energy Agency, 2012).

- End -

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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 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 expected to grow at an annual rate 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 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 (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 Q1-2017

Competent Persons Statement – Meckering Kaolin Deposit

The Competent Person for the Ore Reserve statement is Mr Carel Moormann who is employed by Orelogy Consulting Pty Ltd as a Principal Consultant. Orelogy Consulting Pty Ltd is an independent mine planning consultancy based in Perth, Western Australia. Orelogy was requested by Altech Chemicals Ltd to prepare a reserve estimate for the Meckering kaolin deposit to provide feedstock for High Purity Alumina production. Mr Moormann is a Fellow of the Australasian Institute of Mining and Metallurgy and a Competent Person as defined by the 2012 JORC Code. Mr Moorman has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 JORC Code. Mr Carel Moorman consents to the inclusion in this release of the matters based on his information in the form and context in white it appears.

Competent Persons Statement – Meckering Kaolin Deposit

The information in this release that relates to Exploration Results and Mineral Resources are based on information compiled by Sue Border, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy and Fellow of the Australian Institute of Geoscientists. Sue Border has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the exploration activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mrs Border consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

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.

APPENDICES

APPENDIX 1 – JORC Table 1, Section 4

Estimation and Reporting of Ore Reserves		
Criteria	**Explanation**	**Commentary**
Mineral Resource estimate for conversion to Ore Reserves	*Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.*	The Mineral Resource Estimate used as a basis for the conversion to the Ore Reserve was provided on 15th Aug 2016 with Ms Sue Border, Principal Advisor of GM Minerals Consulting Pty Ltd (Geos Mining), as the Competent Person. At a cut-off grade of 25% Al_2O_3, this resource includes 12.7Mt of Measured, Indicated and Inferred materials with an average grade of 29.5% Al_2O_3.
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Mineral Resources are reported inclusive of the Ore Reserves.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	The Competent Person (Mr Carel Moormann) has visited the proposed mining site of the project in August 2016. The following observations were made: • The mining area is located just south of Meckering WA and accessible from Perth by well-maintained bitumen (125km) and gravel (5km approximately) roads. • The population density in the region is low and Northam is the nearest sizable regional centre (pop. 6500) located 30km to the West of the mining area. • The mining area is located on private, freehold, cleared, farmland currently used for growing crops. • There are no buildings or structures within the mining area. • Differences in elevation are moderate without steep slopes. Hence no difficulties are expected in developing site access or site establishment. • A small open pit resulting from (Kaolin) mining activities in the past exists within the mining area boundary. The depth of the pit is estimated at 18m with 5m of water in the bottom part. • The angles of the historic pit walls vary between 40˚ and 45˚ without any evidence of crest instability, dispersion or water erosion. • There are no power or water access points within the mining area, but there is a power line immediately to the north of the mining area and there is a water standpipe, fed from the Goldfields water supply scheme, within approximately 3km of the site. • The deposit is a result of intense weathering of granite rock formations. RC drilling samples visually demonstrate a fairly uniform kaolin deposit below approximately 6m of topsoil and overburden characterised by higher quartz levels. • The proposed mining methodology will not require drilling and blasting activities due to the weathered nature of the materials.
Study status	*The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.*	A Bankable Feasibility Study (BFS) for the High Purity Alumina (HPA) project was the basis for the conversion of Resources to Reserves. The study was compiled by Altech in March 2016. Since that time, and following the release of the new August 2016 resource, pit designs have been updated also. The updated design is slightly deeper but with a lower stripping ratio. These pit design changes will have a minimum effect on the NPV. The Al_2O_3 grade of the ore from the updated pit designs has increased from 19% to 30% while the feed prep yield has improved from 50% to approximately 68%. These improvements will have a positive effect on the NPV. Since the release of the BFS debt financing details have become available also and they, together with tax effects were included in an updated NPV estimate which demonstrates, even when the better grade and feed prep yield are ignored, that the project is profitable.
	The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	The BFS was underpinned by a mine plan. The mine plan produces kaolin material for shipping to the processing plant in Malaysia. The Al_2O_3 grade and the shipping rate of the kaolin produced by the mine are in line with the feed requirements of the plant. The mine planning activities included final and interim stage pit designs, mining and shipping scheduling, and mining cost estimations. Modifying factors considered during the mine planning process included slope design criteria, mining dilution and ore loss. The activities and findings of all other disciplines were summarised in the BFS document, and detail derivation of other modifying factors such as processing recoveries, costs, revenue factors, etc. Overall the results of the BFS demonstrate that the HPA project is technically achievable and economically viable.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	Only Measured and Indicated resource materials were considered as potential ore materials. A cut-off grade greater than 25% Al_2O_3 was applied to enable the processing plant to achieve its production targets. No other quality parameters were applied during the reserve determination.
Mining factors or assumptions	*The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).*	A preliminary detailed mine design was produced as part of the March 2016 BFS. This study indicated that: • The kaolin resource can easily meet the processing feed requirements for the production targets of the project and the kaolin presents near surface and is easily accessible. • The 30 year project is profitable, with a NPV of US$357.5 million at a discount rate of 9%, a payback period of 3.7 years and an IRR of 33.3%.

		• The cost of the Meckering mining operation accounts for only 2% of the total HPA production cost. This demonstrated that the project is not sensitive to variations in the mine plan and hence no pit optimisation was undertaken. Because the NPV is not sensitive to the mine plan, the mine design update following August 2016 resource update is unlikely to have material adverse effects on the NPV.
	The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.	A conventional open pit mine method was chosen as the basis of the BFS due to the near surface presentation of the kaolin mineralisation. Overburden is backfilled into the pit to minimise the foot print of the operation. The initial overburden material will be dumped into the existing pit workings mined by previous tenement owners and excess material will be used to construct an evaporation pond for disposal of mine water Due to the relatively small quantities extracted, and to maintain adequate efficiencies, mining will be undertaken in 2 to 3 month periods, which is sufficient to excavate and stockpile three (3) years kaolin supply on the Run of Mine (RoM) stockpile pad. Mine design criteria developed include: minimum mining width, ramp width and gradient, pit exit location and slope design parameters.
	The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.	A geotechnical assessment of the existing pit was provided by Terra Firma Australia Pty Ltd. The wall angles of the existing pit vary between 40˚ and 45˚ with no signs of crest instability, excessive deterioration, dispersion or surface water erosion. On the basis of these observations the design overall pit slope angle was set at 35˚. The final pit and backfill designs were validated for stability by Terra Firma. No further grade control drilling programs are planned. The ore – overburden boundary is defined by the ore solid (wireframe) provided with the resource model. Delineation of this boundary during mining operations will utilise survey control. Visual checks will then be undertaken by the equipment operators as the visual differentiation between kaolin ore and waste is clear. This will ensure that any ore material that is not perfectly bright white will be directed to the overburden dump. A RoM dumping strategy can be adopted to blend materials and avoid severe grade variations. Every kaolin container load shipped will be sampled and the results will be available before the container arrives at the process plant. This will enable further blending and plant adjustments at the site in Malaysia.
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	The Mineral Resource Estimate used as a basis for the conversion to the Ore Reserve was provided on 15th Aug 2016. A cut-off grade of 25% Al_2O_3 has been applied and only Measured and Indicated materials are eligible to be categorised as ore.
	The mining dilution factors used.	Mining dilution will need to be avoided as this may affect the performance of the processing plant. Hence is has been set at 0%. This can be achieved through survey control and visual checks when excavating.
	The mining recovery factors used.	Mining recovery has been set at 90% reflecting the need to provide clean ore to the processing plant. The ore loss is accepted at ore - waste boundaries in order to eliminate dilution. Ore loss will also occur at bench floors due to the requirement to remove road sheeting materials.
	Any minimum mining widths used.	Pit designs and interim cutbacks have been designed to suit a 65t excavator and 37t payload articulated dump trucks. The parameters used were: • A minimum mining width of 20m. • One way ramp width of 8m. • Ramp gradient 12.5%.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	No inferred Mineral Resources have been included in the Reserves or the associated production schedule.
	The infrastructure requirements of the selected mining methods.	It is planned to carry out mining on a contract basis to produce three (3) years of plant supply using 2 to 3 month mining campaigns. Because of the short duration of the mining activities only minimum facilities will be mobilised to site (and demobilised upon completion). These facilities allow for elementary maintenance, fuel and oil storage and transportable lunchroom, office and ablutions. The facilities for the subsequent container loading activities are permanent and consist of a loading shed with office space, a lunch room and ablutions. Ore will be screened with a trommel and a telescopic conveying unit will load the screened material into a shipping container. Potable water is trucked in and stored in a suitable tank on site. Power will be provided by a small diesel generator.
Metallurgical factors or assumptions	*The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.*	The metallurgical process involves beneficiation of RoM kaolin from Meckering and is followed by processing, involving calcination; acid leaching to produce aluminium chloride; crystallisation of aluminium chloride; two stages of purification; roasting for acid recovery; and final calcination for the production of a finished product HPA. HCl processing was demonstrated to be ideal for producing HPA, primarily due to the absence of sodium ions in an aluminous clay feedstock. It is therefore very suited to the aluminous clay of the Meckering deposit, which contains low levels of impurities and high alumina content.
	Whether the metallurgical process is well-tested technology or novel in nature.	The production of alumina or aluminium oxide from kaolin (or 'aluminous clay') is not a new concept. Industry spent many years perfecting chlorination (or acid processing) technologies for the

		extraction of alumina from alumina bearing clays. However, due to the limited demand for HPA in the 1980's, HCl processing technology was not commercialised. Since 2012, the Company has undertaken test work to confirm and refine the application of HCl processing of kaolin sourced from its Meckering deposit for the production of HPA. Laboratory scale test work was initially conducted with larger scale batch processing commencing in 2014. The Company's design philosophy is to minimise the technology risk by utilising proven off-the-shelf processes and equipment.
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	Metallurgical testwork included the bulk wet processing of representative samples of future run-of-mine (ROM) kaolin from Meckering to optimise and confirm the beneficiation flow sheet. Beneficiated kaolin was then subjected to HCl processing described above. Significantly, the batch processing results confirmed that the HCl "kaolin to HPA direct route" was suitable for the kaolin sourced from the Company's Meckering deposit. There were no metallurgical domains applied in the reserve estimate. The metallurgical recovery was estimated at 34.5%.
	Any assumptions or allowances made for deleterious elements.	During the reserve estimation no allowances were made for deleterious elements as the metallurgical testwork had not identified any.
	The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole	No further testwork was carried out beyond the batch testing outlined above.
	For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet specifications?	The ore reserve has been based on testwork generating an HPA end product defined by an Al_2O_3 grade of 99.99% or better.
Environmental	*The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	The proposed Meckering operation has been referred to the Western Australian state government for environmental approval. Baseline environmental surveys have been completed and investigations to date have not identified any environmental issues or potentially adverse impacts that would compromise approval of the development. The proposed campaign mining operations are considered a low-level extraction activity without the requirement for mine waste rock or process tailings storage facilities. Hence the permitting process is anticipated to be simple and straightforward. The Company has received approval from the Department of Environment, Johor, Malaysia (DOE) of its Preliminary Site Assessment (colloquially referred to as a "PAT") for the HPA plant. In general, the approval of the PAT confirms that the proposed location of the HPA plant and its proposed activity are compatible with gazetted structure and local plans, surrounding land use, provision of set-backs or buffer zones and waste disposal requirements. The DOE also advised that an Environment Impact Assessment (EIA) will not be required for the HPA plant. Solid residue from the plant will predominantly be in the form of neutralised benign silica residue that will be made available to local brickworks or cement plants. Any acidic residue from the plant will be neutralised and treated on-site and disposed of via local waste vendors. All process water from the plant will be treated on-site to established environmental standards. The next approval stage for the HPA facility is the required approval and registration of air pollution control system, chimneys and fuel burning equipment. The HPA plant has been designed to meet international environmental standards as well as the standards of the Malaysian Environmental Quality Act 1974.
Infrastructure	*The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	The Meckering Operation has good public road access and connections to the port of Fremantle. The mining lease provides adequate space for the RoM stockpile, the container loading shed and the evaporation pond. Power will be provided through a diesel generator and potable water will be trucked to site. The nearby town of Northam can service the operation with labour and other supporting facilities. The Tanjung Langsat Industrial Complex, Johor, Malaysia has been selected as the location for the proposed HPA plant; which includes the Tanjung Langsat Port and is also located near to international airports (Johor Bahru and Singapore). The Company has secured a ~4 hectare site in a section of the Tanjung Langsat Industrial Complex reserved for chemical facilities as the location for its HPA plant. Hydrochloric acid, power, water and natural gas are readily available, as is skilled local labour force.
Costs	*The derivation of, or assumptions made, regarding projected capital costs in the study.* *The methodology used to estimate operating costs.*	Costs have been estimated in March 2016 Australian dollars. Items that are not priced in Australian dollars have been converted to Australian dollars at prevailing exchange rates, and visa versa to estimate USD capita costs. A USD:AUD exchange rate of 0.70 has been assumed for capital cost estimation. Capital expenditure for major equipment, electrical, piping, earthworks, structural and civil works, equipment installation and concrete are based on vendor pricing and material take-offs (MTO's). The capital costs for minor items have been determined by reference to the database of equipment costs developed by Simulus Group. Allowances have been applied as factored percentages for insulation and ducting, temporary facilities, freight and vendor representatives and site commissioning. Insurance costs are based on actual quotations, as is the costs of land acquisition in Malaysia and Australia. The capital cost estimate includes allowances for contingency, working capital and insurances during construction. The capital cost estimates for plant and equipment are estimated with an accuracy of +/-15%. Operating costs for the HPA plant and the Meckering mine site container loading operation have

		been estimated by Simulus Group. Other operating cost are based on actual quotations from service providers for mining, transport and shipping, IT support, insurances, and for consumables such as HCl, power, water, gas, reagents etc. from published pricing. Labour rates are based on recent market survey data and overhead costs are estimated based on experience.
	Allowances made for the content of deleterious elements.	As part of the resource determination, K_2O levels were constraint below 2%, ensuring that only fully weathered materials amenable to beneficiation were included. The reported Fe_2O_3 and TiO_2 levels in the resource model were not considered deleterious. No additional allowances were made during the reserve estimation.
	The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.	A conservative long-term selling price of US$23.00 (A$25.56) per kg of finished product HPA, FOB Malaysia has been assumed for the project. This price estimate is based on established HPA supplier pricing and the anticipated product quality produced from the Malaysian facility.
	Derivation of transportation charges.	Transport and shipping costs are based on actual quotations.
	The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	Treatment and refining is undertaken “in house”. The basis of the costs of these activities is outlined above. No penalties have been considered, but final product not meeting (99.99% Al_2O_3) specification is likely to receive a lower price.
	The allowances made for royalties payable, both Government and private.	A 5% WA government royalty allowance was applied.
Revenue factors	*The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.*	The head grade is derived from the resource model. There is no allowance for dilution as this is highly undesirable; instead a higher ore loss of 10% is accepted to ensure that only clean kaolin is shipped to the plant in Malaysia. Ore loss and plant recovery are factored into the amount of HPA produced with the derivation of product price and (transportation and treatment) cost details provided above. HPA is priced and sold in US dollars. A USD:AUD exchange rate of 0.80 has been adopted in the Project financial model to convert US$ denominated items, such as the selling price of HPA, to A$'s over the 30 year life of the Project.
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	A conservative long-term selling price of US$23.00 (A$25.56) per kg of finished product HPA, FOB Malaysia has been assumed for the project. This price estimate is based on established HPA supplier pricing and their product quality.
Market assessment	*The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.*	High purity alumina (HPA) is experiencing increasing demand due to its significance in the production of today's high-performance electronics. HPA is an essential and high-value material used by the aerospace, defence, medical and electronic industries for applications such as light emitting diode (LED) lighting, semiconductor wafers, smartphones and lithium-ion (Li-ion) batteries. Around 20,000tpa of HPA is currently produced worldwide, but this is expected to increase to approximately 50,000tpa within five years. The key driver of HPA growth is artificial sapphire crystal (99.99% pure aluminium oxide). Altech's targets to produce 4,000tpa of HPA.
	A customer and competitor analysis along with the identification of likely market windows for the product.	There are a limited number of HPA producers currently; the largest 8 producers supply 50% of global HPA market. The December 2014 Breakaway Research report estimated that the current industry average cost of HPA production is in the range of US$14,000 to US$17,500 per tonne of HPA. Altech's total cost of production is estimated at US$9,070 per tonne of finished product HPA. Altech anticipates that this will firmly position its production cost in the bottom quartile of the production cost curve for all HPA producers. Altech has signed a 10 year off take contract with Mitsubishi Corporation's Australian subsidiary, Mitsubishi Australia Ltd, for its proposed high purity alumina (HPA) product. The agreement involves the sales and distribution of Altech's final HPA product to the global market. (ASX announcement 27/04/2016).
	Price and volume forecasts and the basis for these forecasts.	Independent assessment by Technavio has determined that the outlook for HPA demand is strong and the threat to demand from substitute and/or rival products is low. Consequently, it is expected that the bargaining power of HPA suppliers will remain strong despite the forecast of a moderate threat from new entrants to the supply side of the HPA market, of which Altech will be one. A conservative long-term selling price of US$23,000 per tonne of finished product HPA, FOB Malaysia has been assumed for the project. This price estimate is based on established HPA supplier pricing and their product quality.
Economic	*The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*	Cash flow modelling of the Project is based on: Initial and sustain capital expenditure, a FOB sales prices for a 99.99% Al_2O_3 product, HPA production levels of 4,000tpa after an initial ramp up, and total operating costs for mining, shipping, processing and corporate activities. With a discount rate of 9%, the BFS financial model shows a net present value of US$357.5 million, before debt servicing and tax. The payback period is 3.7 years and the pre-tax internal rate of return is 33.3%. The financial model used constant dollars and has not factored in any inflationary impact on revenue or costs. The source and the confidence of the inputs are detailed above.

	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	Analysis of the sensitivity of the Project NPV to changes in key assumptions or estimates used in the financial model (base case) shows that the NPV is most sensitive to a movement in the USD/AUD exchange rate and / or a movement in the HPA selling price (which is denominated in US dollars). The NPV is not as sensitive to changes in capital or operating costs.
Social	*The status of agreements with key stakeholders and matters leading to social licence to operate.*	There are no indications that there are any matters that will impact on a social licence to operate the project. For the Meckering operation, Altech has secured key landowner's agreements, the Cunderdin Shire Council has been informed and the Mining Lease application has been granted. The operation is in a sparsely populated area, the mining and container loading will only take place during daylight hours, the scale of the operation is small, traffic density increase is minimal and at the closure of the Project's mining operations the Project area will be returned back to its original state of agricultural land use. The Johor operation is located in Tanjung Langsat Industrial Park, a heavy industrial area. The existing industries include petrochemicals, chemicals, steel mill processing, steel fabrication, wood processing, industrial gas and transportation services. The major portion of the land use within a 1km radius of the proposed site is allocated to medium to heavy industrial activities. The nearest sensitive receptor identified is a residential area, Kota Masai located 2.0km west of the Project site.
Other *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves.*	*Any identified material naturally occurring risks.*	An Integrated Risk Assessment has been undertaken on the Project that included qualitative and quantitative analysis of the risks and uncertainties associated with the Projects' development. This culminated in the development of a comprehensive risk register, which included mitigation actions. The following risk categories were assessed: • Market/Industry (sales levels, competition, price) • Financial (debt & equity funding) • Operational (meet product specs; plant utilization, throughput & recovery; feed grade, electricity supply, safety, corruption) After allowing for risk mitigation strategies, there are no remaining residual risks that threaten the viability of the project. No material naturally occurring risks were identified.
	The status of material legal agreements and marketing arrangements.	The vast majority of finished product HPA sales will be in accordance with standard terms and conditions of the Company's 10 year off take sales agreements with Mitsubishi. Under the sales agreements, Mitsubishi will be committed to purchase a minimum fixed quantity of HPA each quarter for a term of 10 years, subject to the HPA meeting predetermined quality specifications. Pricing will be determined on a quarterly basis with reference to amongst other things, local market prices, and import and export prices. (ASX announcement 27/04/2016).
	The status of government agreements and approvals critical to the viability of the project, such as mineral tenement status and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third part on which extraction of the reserve is contingent.	The Meckering Mining Lease application has been granted. The DMP's required mining proposal (MP) and mine closure plan (MCP) for the proposed quarry/loading facility at Meckering, are being fine-tuned and upon completion will be submitted to the DMP. After submission of the two documents, and following agreement by the DMP, Altech will be able to commence site clearing, site establishment, construction and campaign mining. The Company has received approval from the Department of Environment, Johor (DOE) of its Preliminary Site Assessment confirming that the proposed location of the HPA plant at Tanjung Langsat and its proposed activity are compatible with gazetted structure and local plans, surrounding land use, provision of set-backs or buffer zones and waste disposal requirements. The DOE also advised that an Environment Impact Assessment (EIA) will not be required for the HPA plant. The next stage in the environmental approvals process is the approval and registration of air pollution control system, chimneys and fuel burning equipment, each required under various Malaysian environmental quality regulations. The Malaysian environmental approval process is relatively straightforward and the Company will continue to work with its local environment consultant to satisfy these requirements.
	The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	All Proved ore reserves were determined from Measured resources and all Probable reserves from Indicated resource materials. Because of the nature of the deposit (consistency, homogeneity, low variability) this is reasonable. Approximately 37% of the reserves are Proved and 63% are Probable.
Classification	*The results of any audits or reviews of Ore Reserve estimates.*	The Ore Reserve estimate has been reviewed internally by Orelogy. No external reviews or audits have been undertaken on the Ore Reserve estimate. The BFS is being reviewed externally.
Audits or reviews	*Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.*	The Ore Reserve estimate is the outcome of the March 2016 Bankable Feasibility Study with geological, geotechnical, mining, metallurgical, processing, engineering, marketing and financial considerations followed by updated pit designs based on the new, August 2016, resource together with an updated NPV estimate to allow for the cost of finance and tax considerations. This updated NPV demonstrates that the project is economical and robust. Sensitivity analysis undertaken during the BFS shows that the project is most sensitive to a movement in the USD/AUD exchange rate and / or a movement in the HPA selling price (which is denominated in US dollars). The NPV is not as sensitive to changes in capital or operating costs. The robustness of the project and the low sensitivity to cost changes provide confidence in the ore reserve estimate. However, despite a sales and distribution agreement with Mitsubishi Australia Ltd, there is no guarantee that the HPA price assumption, while reasonable, will be achieved.
Discussion of relative accuracy/ confidence	*The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and*	The resource, and hence the associated reserve, relate to global estimates.

	economic evaluation. Documentation should include assumptions made and the procedures used.	
	Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	Analysis of the sensitivity of the Project NPV to changes in key factors used in the financial model (Base Case) shows that the NPV is most sensitive to a movement in the USD/AUD exchange rate and / or a movement in the HPA selling price. It is unrealistic to predict these factors with any certainty for each period for a project with a 30 year time span. An Integrated Risk Assessment has been undertaken including qualitative and quantitative analysis of the risks and uncertainties associated with the Projects' development. The assessment did not identify any risks that threaten the viability of the project. There are no undisclosed known areas of uncertainty.
	It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	To date, there has been no commercial production with Altech's HPA manufacturing process, so no comparison to production or reconciliation data can be made.

APPENDIX 2 – JORC Table 1 (Mineral Resources)

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Reverse circulation air core (RC) drilling was used to obtain 1 m down hole interval samples • If the sample was white, off white or pale cream it was retained in full o The sample was bagged in plastic bags, assigned a unique sample number and grouped into batches for despatch. • A total of 1546 samples were collated in the database; this includes samples surrounding the Mining Lease. • A total of 669 1m samples were collected from the 2016 drilling.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	• Several periods of drilling o CRA Exploration Pty Ltd (CRAE) – 1990s, Minerals Corporation Ltd subsidiary, Swan River kaolin (SRK) - 2003 to 2010, Altech 2016 o 49 vertical RC drill holes within M70/1334 o Standard wireline drilling techniques used.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Drill recoveries not recorded • Drill samples have been disturbed by the drilling process o drill hole samples may include some minor contamination o Quantitative analysis may inherit some minor error • Full sample intervals collected for analysis • Any sample bias / inherent sample error is expected to be minimal
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* • *The total length and percentage of the relevant intersections logged.*	• Logging was conducted on RC drill chip and spoils • All drill holes were geologically logged on a meter interval basis o The colour and brightness especially noted o 2016 campaign used Munsell chart comparison for logging colour and brightness
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• If the sample of the RC drill spoils was white, off white or pale cream it was retained in full for forwarding to the laboratory • Sample sizes are considered appropriate to the grain size of the material being sampled • No subsampling was conducted at drill site.

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<td>Quality of assay data and laboratory tests</td>
<td>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.
• For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.
• Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</td>
<td>• 2016 samples tested at Nagrom, Perth, for minus 500 and minus300 micron yield, and XRF chemistry, plus some additional testing.
• Nagrom internal checks and field duplicate analyses all satisfactory; only one field duplicate chemically analysed.
• Pre 2016 - yield (minus 45 %, a measure of ultimate kaolin product yield), conductivity, brightness and particle sizing have been tested at the laboratories of CRA, Skardon River Kaolin Pty Ltd and Swan River Kaolin.
• The quoted brightness is the raw brightness of the minus 45 micron fraction without any brightness enhancement.
• Limited chemical and other analyses at external laboratories were conducted on the historic drilling.
• SRK's internal laboratory quality control and procedures, including instrument calibrations are considered appropriate for the style and type of deposit.
• The main techniques used were blunging, wet screening, conductivity measurements on fresh clay slurry (using a standard conductivity meter), fine particle sizing using a sedigraph, and brightness measurements using a Technidyne.
• Drilling by Swan was not tested for XRD and XRF.
• A few of the CRAE drill samples were tested by XRD and XRF, but results are lost, but Honours thesis (Freer, 2004), is best historic source of chemistry and mineralogy – sample profiles from two holes MK221 and MK256 tested by XRF and XRD.
• Brightness measurements were made on a dried pressed pellet (15 kg pressure) of fine kaolin; brightness measurements were conducted according to procedures which are in line with kaolin industry ISO standards.
• Check analyses of historic brightness and yields were mainly analyses of product samples analysed by potential customers.
o Significant other historic testwork, including process testing, brightness enhancement, moisture content, jaw crushing tests etc on drill samples, together with pilot plant tests on bulk samples. This confirmed good kaolin product quality suitable for paper filler and other markets, potential plant design, etc.
o Altech has also carried out tests on a bulk sample which confirms the process and suitability of a minus 500 screened product to economically produce high purity alumina.</td>
</tr>
<tr>
<td>Verification of sampling and assaying</td>
<td>• The verification of significant intersections by either independent or alternative company personnel.
• The use of twinned holes.
• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.
• Discuss any adjustment to assay data.</td>
<td>• A comparison of bulk sample A (dug by excavator) with the same depths in the adjacent drill hole gave:
<table>
<tr><th>Particle Size</th><th>Bulk sample A</th><th>Hole 223, 3-6m</th></tr>
<tr><td>-45 micron</td><td>51.7%</td><td>52.5%</td></tr>
<tr><td>-5 micron</td><td>13.8%</td><td>15.6%</td></tr>
<tr><td>-1 micron</td><td>8.9%</td><td>7.4%</td></tr>
<tr><td>Brightness</td><td>87.3%</td><td>87.1%</td></tr>
</table>
o Hence no reason to presume any significant error in the data.
o Level of variation is typical of the kaolin version of the nugget effect.
• Twin hole drilled in 2016 and compared satisfactorily with older drilling.
• SRK measured brightness initially on -5 micron kaolin, later at -45 micron kaolin. CRAE brightness measurements are thought to have been done on the -10 micron fraction.
• The brightness of a powder increases as the grain size decreases, hence measured brightness from the CRAE and early SRK programmes were corrected to the expected brightness if measured on the -45 micron fraction
o Brightness correction for data measured at -5 micron is -1.9%; same correction used for 94JKA series holes (CRAE drilling)
o Considered conservative
o Uncertainty in whether CRAE holes were measured at -10 micron or -45 micron; assumed -10 micron as the worst case
o However if the CRAE measurements were on -45 micron fraction, correcting these values has underestimated the brightness of these samples.
o Brightness only used to interpolate chemical analyses so any errors not important for use in HPA.
• Moisture was recorded for the majority of samples
o Due to sample handling/transport issues the moisture results are considered potentially in error for the historic holes, but 2016 moisture results considered to represent in situ moisture.</td>
</tr>
<tr>
<td>Location of data points</td>
<td>• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.
• Specification of the grid system used.
• Quality and adequacy of topographic control.</td>
<td>• Hand held GPS used to locate drill hole positions
• Hole positions later surveyed</td>
</tr>
<tr>
<td>Data spacing and distribution</td>
<td>• Data spacing for reporting of Exploration Results.
• Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</td>
<td>• Drill holes are from 30 to 200m apart.
• The drill spacing is considered sufficient for this style and type of kaolin deposit.
• The drill is considered sufficient for this level of mineral resource estimation procedure and classifications applied.
• No field compositing of samples was undertaken
• For the 2016 drilling selected intervals, logged with similar colour and brightness, of up to 4m were composited in the laboratory under instruction from the competent persons</td>
</tr>
</table>

	• *Whether sample compositing has been applied.*	• Bulk sampling (48 tonnes) was conducted from a test pit, and two smaller bulk samples (a few tonnes) were taken from other locations.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The deposit is considered to be largely unaffected by any intersecting structures.
Sample security	• *The measures taken to ensure sample security.*	• March 2016 drilling campaign samples were collected and delivered to laboratory by site geologist and accompanying staff. • No reason to suspect any problems with sample security in previous drilling; salting is not an issue with kaolin.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No known formal audits or reviews of sampling. • Sample data checks were undertaken during data entry into a database and further on querying during later modelling.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Altech Meckering Pty Ltd holds granted (19/05/2016) Mining Lease M70/1334 covering the kaolin deposit – hosting the Meckering Kaolin Deposit. Grant is for 21 years. • Licence covering 86 Ha. • Adjacent to the small town of Meckering, WA. • Situated 30 km east of the major service town of Northam, WA • Mining lease well positioned with respect to infrastructure such as Western Power's SWIS transmission line and the Goldfields water pipeline within CUNDERDIN SHIRE. • Native title has been extinguished, the area is freehold land • No historical sites, wilderness or national park, conservation zone or environmental issue other than dryland salinity and drought are indicated.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• CRA Exploration Pty Ltd (CRAE) – 1990's, Minerals Corporation Ltd subsidiary, Swan River kaolin (SRK) - 2003 to 2010; previously explored and evaluated the Meckering area for kaolinite and kaolin products.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The kaolinite is a residual weathering product of granite and granitic-gneiss of the Western Gneiss Terrane. • Kaolin forms part of an unusually thick and well developed weathering profile. • Kaolin is found under overburden of laterite and mottled clays, with overburden thickness ranging from 5 to over 8m. • High grade kaolin ranges from 5 to 35m thick. • Minerals identified by XRD analysis of two cores include: quartz, kaolinite, smectite, micas (muscovite + biotite), chlorite, orthoclase, goethite and magnetite. Quartz is present throughout the profile.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  o *easting and northing of the drill hole collar*
	  o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  o *dip and azimuth of the hole*
	  o *down hole length and interception depth*
	  o *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report,*
		• 49 vertical reverse circulation drill holes within the ML, data also available for additional drilling outside the lease.
		• Holes are from 30 to 200m apart.
		• Drill hole collar information is tabulated in Appendix 2
		• Recorded drill hole intersections are tabulated in Appendix 3

	the Competent Person should clearly explain why this is the case.	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Not relevant as no exploration results being reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Mineralisation is sub horizontal weathering profile, tested by vertical drilling.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Drillhole location map attached.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• No results being reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Substantial bulk sampling and testwork as noted above.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• The next phase of work planned is mine development, including preparation of stockpile areas and waste stripping.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	**JORC Code explanation**	**Commentary**
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Data checks made with original SRK lab sheets and with available CRA data. • Nagrom data transferred digitally into database • Sample data audits and reviews were undertaken during data entry into a database and further on querying during later modelling
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Competent person Sue Border has visited site on many occasions and supervised SRK drilling. Llyle Sawyer supervised the 2016 drilling and contributed to data compilation and resource modelling.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• Kaolin in this region is related to lateritic weathering of predominantly granitic source rocks, with kaolin developed in the pallid zone below a laterite and usually overlying weathered granites. Areas which from geomorphology, geology, presence of laterite and topography are prospective for high quality kaolin resources are widespread within the project area. • Drill hole data and bulk sample data to date all confirm the type model for the deposit. • Around the defined Meckering deposit are areas prospective for extensions and repetitions of the kaolin resource.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Mineral Resource extends to the boundaries of the Mining Lease; see map for area, but trimmed to 40m from the boundary to allow for anticipated mining constraints. • The resource has been trimmed to 40m below surface, and generally commences 5 to 8m below surface. • Occasional minor lenses of low brightness clay within the resource outline, otherwise resource is a continuous sheet, 5 to 35 m thick.

<table>
<tr>
<td>Estimation and modelling techniques</td>
<td>
The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.
The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.
The assumptions made regarding recovery of by-products.
Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).
In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
Any assumptions behind modelling of selective mining units.
Any assumptions about correlation between variables.
Description of how the geological interpretation was used to control the resource estimates.
Discussion of basis for using or not using grade cutting or capping.
The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.
</td>
<td>
Interpolation limited by boundary of logged kaolin of the 49 drillholes within M70/1334.
Variography on Al_2O_3,Fe_2O_3, K_2O,TiO_2 and 500 micron yield confirms confidence in search neighbour hoods used in interpolation. Where extrapolation from chemical data occurs the continuity of mineralisation has been confirmed from sufficient quality of logged kaolin.
Micromine used with 50 by 50m by 5m block model, interpolation by ordinary kriging. The block size is representative of potential mining units. Three passes of interpolation populated all blocks.

<table>
<tr><th colspan="4">Search neighbourhood parameters (in m of radius)</th></tr>
<tr><th>Pass</th><th>x</th><th>y</th><th>z</th></tr>
<tr><td>1</td><td>150</td><td>150</td><td>3</td></tr>
<tr><td>2</td><td>300</td><td>300</td><td>3</td></tr>
<tr><td>3</td><td>500</td><td>500</td><td>3</td></tr>
</table>

Block size relative to drill hole spacing is adequate with drill hole spacing ranging from 23-200m separation.
Can include: 1m of intervening marginal grade
The Resource model is consistent with previous estimates.
Deleterious elements Fe_2O_3,TiO_2,K_2O were modelled and excluded from Resources if concentrations were considered deleterious.
The bock model was validated on a sectional basis, checking raw and composited assay results against estimated block values.
</td>
</tr>
<tr>
<td>Moisture</td>
<td>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</td>
<td>
Ore moisture ranged between 2% and 17% with average moisture of around 13% for 2016 drilling. Samples were bagged immediately after drilling and these moisture values represent natural in-ground moisture levels.
Resource tonnage estimated on a dry basis.
</td>
</tr>
<tr>
<td>Cut-off parameters</td>
<td>The basis of the adopted cut-off grade(s) or quality parameters applied.</td>
<td>Quality parameters applied to Resource consisted of an Interpreted wireframe based on brightness and maximum drill depths of around 40m. In addition only blocks with K_2O < 2% and Al_2O_3 cut-off above 25% are reported. No other exclusion of blocks based on Fe_2O_3 or TiO_2 was required. The excluded blocks form distinct units that can be avoided or removed as overburden during mining. Therefore reported blocks are considered to be of sufficient quality and grade. As average Al_2O_3 is largely insensitive to the cut-off applied, 25% is considered reasonable.</td>
</tr>
<tr>
<td>Mining factors or assumptions</td>
<td>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</td>
<td>
No mining or processing factors have been applied to the Resources
Series of small open cuts are planned, see section 4 for details.
Mined material will be screened in Malaysia before further processing; screening is planned to be at minus 500 micron. Grades referred to in this announcement all relate to the chemistry of the minus 500 micron fraction.
</td>
</tr>
<tr>
<td>Metallurgical factors or assumptions</td>
<td>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</td>
<td>
Altech testwork and feasibility studies show good economic potential for use to produce high purity alumina, as described in Altech's public statements.
This resource is also suitable for use both as filler clay for the paper industry, and as high quality ceramic clay.
Laboratory and pilot plant testwork shows simple sizing can produce a sized product with low abrasion and defined brightness from this resource.
Tests also indicate that the resource may be suitable for delamination and other processing techniques to produce a range of other products, including paper coating grades.
Kaolin taken from a major test-pit was batch processed and produced kaolin to a range of specifications, with a focus on High Brightness Filler (HBF) grade.
SRK undertook considerable market analysis, with HBF samples ranging from 1kg to 400kg in size being sent globally to potential customers in the paper, ceramics and industrial fillers markets for assessment.
Parameters of the final product will vary depending on customer requirements and processing undertaken. For example, finer sized fractions have higher brightness
Potential kaolin product yield will decrease unless both a coarser and a finer
</td>
</tr>
</table>

		product can be sold.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• The environment impact assessment indicates that there are no significant environmental impediments to the economic extraction of the Resource (Altech Chemicals Limited, 2015).
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Dry bulk density calculated using downhole geophysics on 5 holes to get in situ wet density, and lab measured moistures from 2016 drilling. • Average of short spaced density and long spaced density used. • Average calculated dry density is close to the figure assumed in previous resource estimates (1.6 assumed previously, 1.57 estimated via geophysics).
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Variography used to confirm overall continuity. • The estimation pass combined with the number of drill holes used in the block estimate was the basis of Resource classification. • Test pit confirmed drilling results and geological interpretation. • Consistency between the different drill programs and test pits adds to confidence. • The data has been validated to a high level and is considered to be reliable for modelling • The result and classification are appropriate to this style of deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No formal audits conducted.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• A high level of confidence is given to the global resource tonnage within the deposit within ML70/1334. • Local variations have been observed within the depth of overburden and variability of kaolinitic weathering, this may impact on reconciliation of the modelled resource to the final mined resource. • Minus 500 micron yield and chemistry are more reliable within the area of the 2016 drilling, but extrapolation over the whole inferred resource is considered reasonable given the overall chemical and geological consistency of the deposit.

APPENDIX 3 – Drill Hole Location Table (Mineral Resources)

Drill Hole	Easting (m)	Northing (m)	Elevation (m)	Inclination (°)	Azimuth (°)	Total Depth (m)
94JKA018	505918	6494598	293	-90	0	60
94JKA019	505701	6495042	288	-90	0	37
MK210	505600	6495000	284	-90	0	22
MK211	505400	6495000	281	-90	0	15
MK212	505200	6495000	278	-90	0	19
MK214	505400	6494800	279	-90	0	21
MK215	505600	6494800	283	-90	0	39
MK216	505800	6494600	290	-90	0	45
MK217	505600	6494600	284	-90	0	45
MK218	505400	6494600	280	-90	0	27
MK219	505200	6494600	275	-90	0	14
MK220	505200	6494400	275	-90	0	40
MK221	505400	6494400	278	-90	0	25
MK222	505600	6494400	285	-90	0	45
MK223	505800	6494400	286	-90	0	45
MK305	505800	6494500	286.86	-90	0	37
MK306	505752	6494700	285.69	-90	0	37
MK307	505800	6494749	285.69	-90	0	36
MK308	505801	6494703	285.6	-90	0	36
MK309	505598	6494699	287.78	-90	0	36
MK310	505651	6494701	285.55	-90	0	54
MK311	505699	6494698	288.32	-90	0	36
MK312	505700	6494652	284.38	-90	0	36
MK313	505700	6494603	285.43	-90	0	36
MK314	505699	6494501	286.86	-90	0	36
MK315	505697	6494399	288.7	-90	0	66
MK316	505700	6494751	285.71	-90	0	36
MK317	505701	6494800	286.29	-90	0	37
MK318	505699	6494849	287.59	-90	0	36
MK319	505799	6494800	289.53	-90	0	36
MK320	505624.56	6494652.00	284.08	-90	0	40.00
MK321	505551.13	6494546.50	282.03	-90	0	40.00
MK322	505648.15	6494600.63	284.85	-90	0	40.00
MK323	505673.48	6494653.25	284.96	-90	0	40.00
MK324	505699.27	6494675.02	285.33	-90	0	40.00
MK325	505699.72	6494622.75	285.97	-90	0	40.00
MK326	505647.17	6494548.89	285.13	-90	0	40.00
MK327	505598.33	6494496.38	283.72	-90	0	40.00
MK328	505550.28	6494447.42	282.33	-90	0	40.00
MK329	505648.34	6494449.00	286.18	-90	0	43.00
MK330	505697.84	6494495.50	287.19	-90	0	40.00
MK331	505697.31	6494549.50	286.78	-90	0	40.00
MK332	505728.16	6494613.50	286.94	-90	0	40.00
MK333	505750.94	6494598.00	287.86	-90	0	40.00
MK334	505726.63	6494574.50	287.44	-90	0	40.00
MK335	505748.81	6494550.00	288.21	-90	0	40.00
MK336	505797.84	6494549.00	289.78	-90	0	40.00
MK337	505847.72	6494446.00	288.52	-90	0	40.00
MK338	505750.78	6494447.00	288.37	-90	0	40.00

APPENDIX 4 – Drill Hole Recorded Intersection Table

Drill Hole	Depth From	Depth To	Intersected Unit	Intersect (m)
94JKA018	0	2	LT	2
94JKA018	2	6	MC	4
94JKA018	6	7	KL	1
94JKA018	7	32	LT	25
94JKA018	32	44	KL	12
94JKA018	44	60	TS	16
94JKA019	0	2	LT	2
94JKA019	2	7	MC	5
94JKA019	7	25	KL	18
94JKA019	25	28	TS	3
94JKA019	28	36	KL	8
94JKA019	36	37	GR	1
MK210	0	1	SO	1
MK210	1	2	LT	1
MK210	2	5	CY	3
MK210	5	6	GR/SC?	1
MK210	6	21	KL	15
MK210	21	22	CY	1
MK211	0	1	LT	1
MK211	1	2	GR	1
MK211	2	3	SC	1
MK211	3	4	GR	1
MK211	4	14	KL	10
MK211	14	15	GR	1
MK212	0	1	LT	1
MK212	1	2	SS	1
MK212	2	3	GR/SC?	1
MK212	3	15	KL	12
MK212	15	18	CY	3
MK214	0	2	LT	2
MK214	2	6	MC	4
MK214	6	19	KL	13
MK214	19	20	MC	1
MK214	20	21	GR	1
MK215	0	1	SO	1
MK215	1	3	LT	2
MK215	3	4	CY	1
MK215	4	6	GRKL	2
MK215	6	8	MC	2
MK215	8	36	KL	28
MK215	36	38	MC	2
MK215	38	39	GR	1
MK216	0	2	LT	2
MK216	2	3	MC	1
MK216	3	4	LT	1
MK216	4	5	CY	1
MK216	5	43	KL	38
MK216	43	45	CY	2
MK217	0	1	SO	1
MK217	1	2	CY	1
MK217	2	5	LT	3
MK217	5	7	MC	2
MK217	7	43	KL	36
MK217	43	44	MC	1
MK217	44	45	GR	1
MK218	0	1	LT	1

MK218	1	2	CY	1
MK218	2	4	GR?	2
MK218	4	6	MC	2
MK218	6	13	KL	7
MK218	13	18	CY	5
MK219	0	1	SO	1
MK219	1	7	CY	6
MK219	7	9	KL	2
MK219	9	13	GR	4
MK220	0	1	SO	1
MK220	1	6	MC	5
MK220	6	7	KL	1
MK220	7	8	MC	1
MK220	8	12	KL	4
MK220	12	13	MC	1
MK220	13	19	KL	6
MK220	19	23	MC	4
MK220	23	24	KL	1
MK220	24	25	MC	1
MK220	25	26	KL	1
MK220	26	29	MC	3
MK220	29	30	CY	1
MK221	0	1	SO	1
MK221	1	4	LT	3
MK221	4	8	SC?	4
MK221	8	11	KL	3
MK221	11	12	MC	1
MK221	12	15	KL	3
MK221	15	17	MC	2
MK221	17	24	KL	7
MK221	24	25		1
MK222	0	2	SO	2
MK222	2	3	LT	1
MK222	3	8	CY	5
MK222	8	27	KL	19
MK222	27	30	MC	3
MK222	30	43	KL	13
MK222	43	45	MC	2
MK223	0	2	LT	2
MK223	2	3	SC	1
MK223	3	43	KL	40
MK223	43	45	MC	2
MK305	0	6	LT	6
MK305	6	7	MC	1
MK305	7	35	KL	28
MK305	35	36	GR	1
MK306	0	5	LT	5
MK306	5	10	SC	5
MK306	14	36	KL	22
MK307	0	6	LT	6
MK307	6	36	KL	30
MK308	0	6	LT	6
MK308	6	9	SC	3
MK308	9	36	KL	27
MK309	0	8	LT	8
MK309	8	14	SC	6
MK309	14	36	KL	22
MK310	0	7	LT	2

MK310	7	9	SC	2
MK310	9	41	KL	36
MK310	41	53	KL/GR	12
MK310	53	54	GR	1
MK311	0	6	SO	16
MK311	6	8	MC	2
MK311	8	36	KL	28
MK312	0	7	LT	7
MK312	7	9	SC	2
MK312	16	21	KL	5
MK312	21	36	KL/GR	15
MK313	0	5	LT	5
MK313	5	6	SC	1
MK313	6	11	MC	1
MK313	11	36	KL	27
MK314	0	5	LT	5
MK314	5	36	KL	31
MK315	0	2	SO	2
MK315	2	3	MC	1
MK315	3	41	KL	37
MK315	41	60	KL/GR	19
MK315	60	65	SC	5
MK315	65	66	GR	1
MK316	0	4	LT	4
MK316	4	9	SC	5
MK316	9	36	KL	27
MK317	0	4	LT	4
MK317	4	8	SC	4
MK317	8	27	KL	19
MK317	27	36	KL/GR	9
MK318	0	3	LT	3
MK318	3	8	SC	5
MK318	8	24	KL	16
MK318	24	25	KL/GR	1
MK318	25	36	KL	11
MK319	0	3	LT	3
MK319	3	9	SC	6
MK319	9	36	KL	27
MK320	0	5	LT	5
MK320	5	9	KL/GR	4
MK320	9	38	KL	29
MK320	38	40	KL/GR	2
MK321	0	3	SO	3
MK321	3	7	SC	4
MK321	7	39	KL	32
MK321	39	40	KL/GR	1
MK322	0	4	SO	4
MK322	4	8	LT	4
MK322	8	14	KL/GR	6
MK322	14	16	SC	2
MK322	16	38	KL	22
MK322	38	40	KL/GR	2
MK323	0	3	SO	3
MK323	3	8	LT	5
MK323	8	37	KL	29
MK323	37	40	KL/GR	3
MK324	0	6	LT	6
MK324	6	39	KL	33

MK324	39	40	KL/GR	1
MK325	0	0.5	SO	0.5
MK325	0.5	4	LT	3.5
MK325	4	9	SC	5
MK325	9	11	KL/GR	2
MK325	11	34	KL	23
MK325	34	40	KL/GR	6
MK326	0	0.5	SO	0.5
MK326	0.5	4	LT	3.5
MK326	4	7	KL/GR	3
MK326	7	39	KL	32
MK326	39	40	KL/GR	1
MK327	0	1	LT	1
MK327	1	5	SC	4
MK327	5	7	KL/GR	2
MK327	7	40	KL	33
MK328	0	1	SO	1
MK328	1	6	LT	5
MK328	6	40	KL	34
MK329	0	2	SO	2
MK329	2	6	LT	4
MK329	6	43	KL	37
MK330	0	4	LT	4
MK330	4	6	SC	2
MK330	6	40	KL	34
MK331	0	4	LT	4
MK331	4	6	SC	2
MK331	6	40	KL	34
MK332	0	4	LT	4
MK332	4	5	SC	1
MK332	5	40	KL	35
MK333	0	4	LT	4
MK333	4	9	KL/GR	5
MK333	9	40	KL	31
MK334	0	4	LT	4
MK334	4	7	SC	3
MK334	7	40	KL	33
MK335	0	3	LT	3
MK335	3	7	SC	4
MK335	7	40	KL	33
MK336	0	3	LT	3
MK336	3	7	SC	4
MK336	7	40	KL	33
MK337	0	2	LT	2
MK337	2	40	KL	38
MK338	0	1	SO	1
MK338	1	3	KL/GR	2
MK338	3	40	KL	37